2022/23

LAB-WARE

CARL ROTH®



You can contact us directly

Or get in touch with your local distributor!

Your local distributor:

Phone
+49 (0) 721/5606 - 0

Fax
+49 (0) 721/5606 - 149

Roth-E-Mail
info@carlroth.com

Internet
www.carlroth.com



Carl Roth GmbH + Co. KG
Schoemperlenstraße 3-5 · 76185 Karlsruhe · Germany

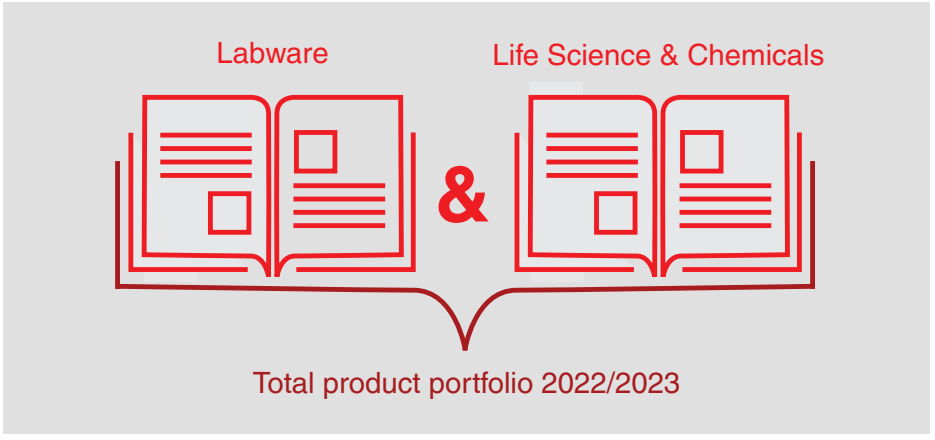
Future, sustainability and **innovation** at the heart of **CARL ROTH.**



Managing Director
André Houdelet

A challenging year lies behind us as we look forward into the new business year 2022 with drive and optimism. The pandemic has challenged us all; we must be ready to adapt to the situation at any moment and to react immediately to any new developments, so that we can serve you as quickly and reliably as ever. The satisfaction of our customers and staff is always our top priority. This is why we continually optimise our range, designing it to suit you.

This year, we will continue to offer you catalogues in both digital and physical formats, as well as special offers. We have divided our catalogue into two sections to help you find the products you need even more quickly and easily: Life Sciences/Chemicals and laboratory equipment. You can choose from an extensive range of laboratory equipment.



As always, you will find a wide variety of existing and new products to make your everyday work easier. If you require suitable life sciences products or chemicals, simply take a look at our corresponding catalogue.

What‘s more, our online shop is always available and well-stocked; here, you can purchase your products efficiently and easily. Our ordering processes are designed with you in mind. It offers a wealth of information, documents, images and videos on many of our products. In addition, we are more than happy to provide you with individual support and are here to help whenever you need us.

We would like to take this opportunity to thank you for your loyalty and ever-successful cooperation. We look forward to remaining your reliable partner in the laboratory equipment and chemicals sector this year.

Kind regards,
André Houdelet

Your partner for high-quality performance

With 5 plus points to your advantage:

Quality

All products in the ROTH product range are subjected to strict in-house checks. This enables us to ensure you receive consistently high product quality.

Logistics

Direct dispatch! Delivery fast, simple and reliable!

Special rates & Discount

Fair and calculable, i. e. a quantity discount of 5 % from 6 packs and 10 % from 24 packs of same items will be granted. Please check with us for special rates on bulk amounts or standing orders.

Customer advice

Customer proximity and competence, i. e. we are here to advise you before and after buying.

Returned & Take-Back Goods

You can take advantage of our 10-day exchange and take-back guarantee. Just send the goods to us in their original packaging together with a copy of the invoice or delivery note and your modified order. We are unfortunately unable to pay the costs for postage and packing. We request you to get in touch with us for any legitimate complaints which require goods to be returned. We shall then authorize our forwarding agent immediately to pick up the goods in question. In the event of goods being returned independently and without prior notice, postage and packing costs can only be refunded for the same amount as agreed upon with our forwarding agent. Further information on returning goods can be found in the terms of sale and delivery at the back of this catalogue.

Discover the **CARL ROTH** webshop.

Comprehensive product information, recommendations, images, videos, certificates of analysis, special offers and the most up-to-date prices are available at www.carlroth.com.

Have you tried our subscription service yet?

www.carlroth.com



A private enterprise with tradition

Best service for 143 years

1879

CARL ROTH is established as a “material goods, colonial goods and dyes merchant and chemists” in Karlsruhe.

1891

CARL ROTH is appointed as an “official purveyor to the Grand Duke of Baden“.

1899

ROTH publishes its first sales and mailorder catalogue.

1907

CARL ROTH operates the first delivery van in Karlsruhe.

1928

The laboratory chemicals department opens.



Quality, Environment, Safety

We take responsibility

Our QM system celebrated its 25th birthday in 2020. Over this time, we have continuously adapted our QM system to the growing market demands in order to meet quality requirements and to continue to deliver a high standard of quality.



CERTIFICATE

The Certification Body
of TÜV SÜD Management Service GmbH
certifies that

Carl Roth GmbH + Co. KG
Schoemperlenstraße 1-5, 76185 Karlsruhe
Germany
An der Mole 5, 76187 Karlsruhe
Germany

has established and applies
a Quality and Environmental Management System
for the following scope of application:

Development, production and distribution of labware and chemicals.

Performance of audits (Order No. 70001407)
has furnished proof that the requirements under:

ISO 9001:2015
ISO 14001:2015

are fulfilled.

The certificate is valid from 2019-07-06 until 2022-07-05.
Certificate Registration No.: 12 100/104 20247 TMS.

Product Compliance Management
Munich, 2019-06-27

The guiding principle for an environmentally conscious corporate management has always been a fundamental part of our business conduct. In addition to fulfilling our statutory environmental commitments, therefore, we always strive to define environmental protection targets and to optimise our operating procedures taking into account environmental aspects.

Our certified environmental management system helps us to systematically pursue this aim.

By participating in the *Responsible Care*® programme of the chemical industry, we have undertaken a commitment to meet the goals set by the programme.

These goals are to promote sustainability, to show product responsibility, to ensure safety, to improve health protection in the workplace and to better protect the environment.

Innovative use of combined heat and power technology when printing this product reduced CO_2 emissions by up to 52% in comparison to conventional methods in Germany.

minus 52% CO_2

SOLVAGREEN® - Green Solvents
Our brand for alternative solvents

Green Solvents serve as an alternative for environmentally hazardous and harmful reagents, and thus contribute to risk minimisation.

1945

The highly efficient manufacturing and bottling department enters service.

1958

ROTH unveils its proprietary high-pressure laboratory autoclaves at the ACHEMA Fair.

1971

ROTH is awarded a patent on its Mercurisorb-ROTH® high-speed mercury absorber.

1989

The „Association of Independent Businesses“ presents its award to ROTH in recognition of its environmentally friendly business practices.

1990

CARL ROTH publishes its first general product catalogue for its Labware, Life Science and Chemicals product lines.

Plastics – Technical data / Key to symbols

What about the packaging material?

We are making our contribution to the environment:

- By trying to use as little packaging material as possible. Unfortunately we cannot do without packaging completely as it has the important function of not only protecting the product, but also man and environment from any harm.

- By using environmentally friendly and recyclable packaging material as far as possible. As early as the beginning of the 80s, we stopped using polystyrene inserts for packing solvents, acids and alkaline aolution. We now use special boxes for hazardous goods made of 100 % recyclable corrugated cardboard. Paper is used as stuffing material.

Please also help by putting the **packaging in the recycling container after use**. Our boxes are labelled with the recy-symbol; they can be easily stored when cut open and pressed together without taking up much space, prior to being put out for recycling.

Our **plastic containers made of polyethylene (PE)** can also be turned in for recycling after they have been completely emptied and cleaned of all harmful substances.

The same applies to **tin flasks and canisters** once emptied and pollutent-free.

Sterilizing plastics – Autoclaving

Recommended autoclave cycle:
20 minutes at 121 °C, 1 bar

1. Clean autoclave goods thoroughly prior to sterilizing.
2. Rinse off used detergent with distilled water.
3. Unscrew caps to enable pressure compensation.
4. Only autoclave containers with stop-cock when empty, screw off stop-cocks.

   Following plastics can be autoclaved repeatedly: ETFE, PFA, PTFE, FEP, E-CTFE, PMP/TPX®, PP, SI, PVDF; PES, PSU

Note:
Polycarbonate PC and Polysulfone PSU are also autoclavable, however this reduces the mechanical stability. This can result in material failure particularly when under high mechanical strain, e.g. during centrifuging.

Please contact us should you have any further questions regarding packaging.



1993

Construction of a modern high-bay warehouse.

1995

First certification of the quality management system to DIN EN ISO 9001.

2005

The chemicals department moves into modern premises on the Karlsruhe-Rheinhafen industrial estate.

2013

An extension with an automated small parts warehouse is added to the Chemicals and Life Science building, enlarging its area to approx. 8,000 m². CARL ROTH now stocks over 21,000 products in its warehouse.



Abbreviations / temperature resistance of plastics

DIN-Abbrev.	Description	Application temperature (°C)		
		from	to	
ABS	acrylonitrile butadiene styrene	-40	+85	(+100)
EPDM	ethylene propylene diene monomer rubber	-45	+150	
ETFE	ethylene tetrafluoroethylene copolymer	-100	+150	(+180)
FEP	fluorinated ethylene propylene	-100	+205	
FKM	fluorocarbon rubber	-20	+200	
HDPE	high-density polyethylene	-40	+80	(+120)
LDPE	low-density polyethylene	-40	+75	(+90)
MF	melamine	-60	+80	(+120)
NR	natural rubber	-40	+80	
PA	polyamide (PA6)	0	+80	
PBT	polybutylene terephthalate	-45	+140	(+150)
PC	polycarbonate	-40	+115	
PE	polyethylene	-40	+80	(+90)
PES	polyethersulfone	-100	+150	
PET	polyethylene terephthalate	0	+60	
PETG	polyethylene terephthalate modified with glycol	0	+65	
PFA	perfluoroalkoxy alkane	-200	+260	
PMMA	polymethyl methacrylate	-40	+85	(+90)
PMP (TPX®)	polymethylpentene	0	+150	(+180)
POM	polyoxymethylene	-40	+90	
PP	polypropylene	-10	+110	(+140)
PS	polystyrene	-20	+70	(+80)
PSU	polysulfone	-50	+150	(+180)
PTFE	polytetrafluoroethylene	-200	+260	
PU	polyurethane	-30	+60	(+70)
PVC	polyvinyl chloride	-20	+80	
PVDF	polyvinylidene fluoride	-40	+105	
SAN	styrene acrylonitrile	-20	+85	(+95)
SI	silicone rubber	-50	+180	
TPE	thermoplastic elastomer	-50	+121	

Temperature in ( ) short-term

All data in this table are approximate data and refer exclusively to raw plastic products; they can therefore only be regarded as indicative recommendations. As the temperature resistance may vary with different conditions of manufacturing or chemical influences, suitability tests by the user are highly recommanded.

No legal claims can be derived from this information; nor do we accept any liability for it.

Key to symbols

NEW / + — News and programme extensions

A 121 °C — Autoclavable products. Please also note any additional instructions when autoclaving.

Temperature resistance:
Safe to freeze (approx. -10/-20 °C)

Suitable for low temperatures (approx. -70/-80 °C)

Suitable for liquid nitrogen (gaseous phase / -196 °C)

See catalogue text for detailed information.

ready-to-use — Ready-to-use products and reagents

S — Sterile products

All products identified as being particularly temperaturesensitive are shipped **in special ice boxes with freezer packs or in dry ice.**

ROTH for Future — Products, with optimised manufacturing process in terms of sustainability.

2014
Succsesfull participation in the ECOfit programme sponsored by the state of Baden-Württemberg.

2014
Participation in the Responsible Care® programme.

2015
Relaunch of the new ROTH Online Shop.

2016
Certification of the corporate environmental management system according to ISO 14001 for the sustainable environmental protection.

2019
140th anniversary of CARL ROTH.

2020
Opening of the third plant with new logistics centre and automatic small parts warehouse and approx. 7,000 m² of additional storage space.

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DURAN
WHEATON
KIMBLE

Excellence in your hands



DURAN Group is DWK Life Sciences

Since the 1st June 2017, the companies DURAN Group, WHEATON Industries and KIMBLE Chase united under the new company name DWK Life Sciences. DWK Life Sciences is now a leading international manufacturer of premium laboratory products, packaging and storage solutions for a broad range of scientific and technical applications. The offer of DWK Life Sciences covers more than **25,000 laboratory products, which are manufactured at 12 locations** and marketed under the renowned brands **DURAN®, WHEATON®** and **KIMBLE®**. The leading global and field-tested range of laboratory products is supplemented by an innovative research and Life Science portfolio

The material of glass

General properties

In comparison with other materials such as stainless steel or plastic, glass offers near-universal chemical resistance to water, saline solutions, acids, alkalis and other organic solvents. It is only affected by hydrofluoric acid and at increased temperatures by strong alkalis and concentrated phosphoric acids.
Glass is dimensionally stable and safe even at high temperatures and does not release harmful substances when heated. Glass also exhibits high transparency.
In the laboratory, various types of glass are used depending on application. These are chiefly soda-lime glass (AR®-glass) as well as various types of borosilicate glass.

Soda-lime glass has less chemical and thermal load capacity than borosilicate glass. Due to its high thermal expansion, soda-lime glass has a low thermal shock resistance and can incur stresses and crack when heated or cooled. Soda-lime glass is well suited to applications involving temporary chemical contact at room temperature as well as to disposable articles.

Borosilicate glass is to a large extent chemically inert and suitable for use up to very high temperatures. The various types of borosilicate glass mainly differ from one another in terms of their linear coefficient of expansion and hence their resistance to changes in temperature. The most commonly used types of borosilicate glass are borosilicate glass 3.3 (DURAN®, SIMAX), borosilicate glass 4.9 (Fiolax®) and borosilicate glass 5.1.

The following factors are critical to the quality of laboratory glassware:

- The glassware and glass type
- The shape obtained during the production process
- Even distribution of wall thickness in all areas of the article (particularly in critical areas such as in the neck/shoulder area and at the transitions to the base). This ensures:
  - better mechanical stability
  - higher thermal shock resistance
  - freedom from stresses, which can cause the vessel to burst when heated

These quality characteristics not only increase safety for employees in the laboratory, but also extend the useful life of the laboratory glassware and protect valuable substances.

Comparison of DURAN® and soda-lime glass

Chemical properties:

	DURAN®	Soda-lime glass
Chemical composition	81 % SiO_2 13 % B_2O_3 4 % Na_2O/K_2O 2 % Al_2O_3 No added heavy metals	69 % SiO_2 1 % B_2O_3 3 % K_2O 4 % Al_2O_3 13 % Na_2O 2 % BaO 5 % CaO 3 % MgO
Hydrolytic resistance to DIN ISO 719	Class 1	Class 3
Acid resistance to DIN 12116	Class 1	Class 1
Alkali resistance to ISO 695	Class 2	Class 2

Physical properties:

Transformation temperature [°C]	525	
Coefficient of expansion α (20 to 300 °C) [10^{-6} K^{-1}]	3,3	9,1

Usage instructions:

Max. allowable usage temperatures	500 °C	ca. 100 °C
Maximum negative temperature	-70 °C	ca. 0 °C
Maximum temperature difference ΔT	100 K	30 K
Use in the microwave	Suitable	Unsuitable
Pressure and vacuum operation	Only products indicated as such are suitable for use under pressure/vacuum due to their geometry and wall thickness (e.g. suction bottles, dessicators, DURAN® pressure plus bottles)	Unsuitable
Cleaning in dishwashers	Suitable	Unsuitable

The thermal shock resistance of glass is dependent on the shape, wall thickness, surface characteristics and finish of the glassware used.

Rapid changes in temperature cause high temporary stress in the glass, meaning that rapid cooling processes are very dangerous, since in this case a thin outer layer of the glass is placed under tensile stress over the still hot inner core. Glass is much more susceptible to tensile stress than to compressive stress.

DURAN® is much more resistant to rapid changes in temperature than soda-lime glass due to its lower thermal expansion.

Laboratory glass

The special features of DURAN®

Very high chemical resistance, nearly inert behaviour, a high usage temperature, minimal thermal expansion and the resultant high resistance to thermal shock are its most significant properties. Excellent physical and chemical performance makes DURAN® the ideal material for use in the laboratory and for the manufacture of chemical apparatus used in large-scale industrial plants. It is also widely used on an industrial scale in all other application areas in which extreme heat resistance, thermal shock resistance, mechanical strength and exceptional chemical resistance are required. The properties of DURAN® meet the specifications of DIN ISO 3585. Compared to other types of borosilicate 3.3. glass, DURAN® is noted for its highly constant and technically reproducible quality.

Chemical properties

DURAN® glass is more chemically resistant that all other known materials. DURAN® borosilicate glass is highly resistant to water, acids, saline solutions, organic substances and halogens, such as chlorine or bromine. It also has good resistance to alkaline solutions.
Only hydrofluoric acid, concentrated phosphoric acid and strong alkalis break down the glass surface (glass corrosion) at temperatures >100 °C. Their near-inert behaviour means that there are no interactions (e.g. ion exchange) between the medium and glass and it is thus possible to practically rule out any influence on the experiments.

Physical Properties:

Temperature stability under heating

The maximum permissible operating temperature for DURAN® is 500 °C. As it has a very low coefficient of linear expansion (α = 3.3 x 10^{-6} K^{-1}), a feature of DURAN® is its high thermal shock resistance up to ΔT = 100 K. This is also dependent on the wall thickness and the geometry of the products.

Temperature stability under freezing

DURAN® can be cooled down to the maximum possible negative temperature and is thus suitable for use with liquid nitrogen (approx. -196 °C). When doing so, bear in mind the product geometry and the properties of any additional components used (e.g. screw caps). In general, DURAN® products are recommended for use down to -70 °C.
When cooling down and thawing, care must be taken to ensure that the temperature difference does not exceed 100 K. In practice, therefore, it is recommended that they be cooled and heated gradually.
When freezing substances such as DURAN® bottles, the container should only be filled to max. 3/4 full and frozen at an angle of 45 ° (in order to enlarge the surface area).

Use in the microwave

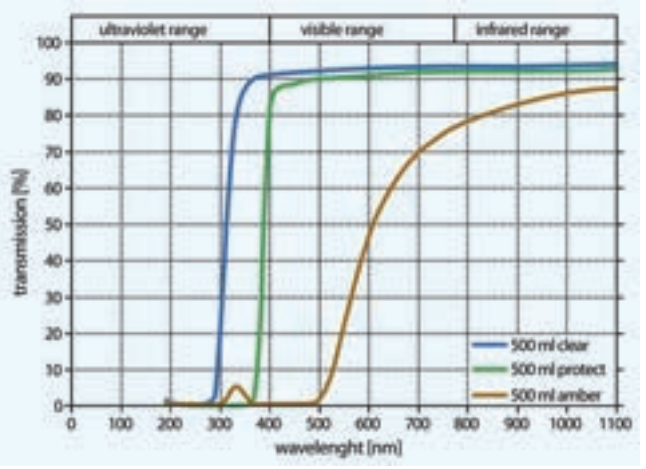
DURAN® laboratory glassware is suitable for use in microwaves. This also applies to plastic coated DURAN® products.

Conformity with standards and guidelines

DURAN® is a neutral glass with high hydrolytic resistance and therefore belongs to glass type 1 according to the European Pharmacopoeia (EP, Section 3.2.1), the Japanese Pharmacopoeia (JP, Section 7.01), the United States Pharmacopeia (USP, Section: 660) and the National Formulary. In addition to being in conformity with the DIN ISO 3585 international standard, in which the properties of borosilicate glass 3.3 are defined, many items of DURAN® laboratory glassware meet the standards for glass laboratory equipment.

Optical properties

In the spectral range from approx. 310 to 2200 nm the absorption of DURAN® clear glass is negligibly low. In photochemical processes the light transmission of DURAN® in the ultraviolet range is of particular importance. The transmissivity in the UV range indicates the ease with which photochemical reactions, such as chlorinations and sulfochlorinations, can be carried out. The chlorine molecule absorbs in the range from 280 to 400 nm and thus serves as a carrier of the radiation energy.



Amber colouring of DURAN® laboratory glassware

The amber colouring allows the storage of light-sensitive substances in DURAN® products. In the wavelength band between 300 and 500 nm, light transmission compared to DURAN® clear glass is <10 %. Accordingly, the amber DURAN® glass meets USP/EP/JP guidelines. Since the amber diffusion ink is applied to the outside of the clear glass article by means of spray coating, the proven DURAN® properties inside the bottle remain unaffected; there is no contact or interaction between contents and amber coating.
The coating is then stove enamelled, and therefore is resistant to chemicals and cleaning in a dishwasher.

Safety instructions

DURAN® glassware is safe to use. The guidelines applicable for the use of special glass in laboratories in the country in question should always be observed. The following points should, however, always be observed:

- Before using DURAN® laboratory glassware, it should be checked to ensure that it is suitable for the intended purpose and that it will function properly.
- Faulty laboratory glassware can present a hazard (e. g. risk of cuts, burns, infection) which should not be underestimated. If appropriate repairs to any item cannot be carried out or cannot be justified on grounds of cost, it must be disposed of in the proper manner (as household waste or, depending on possible contamination, in accordance with the applicable guidelines; never as waste glass).
- Glassware should only be subjected to sudden changes in temperature taking into account a thermal shock resistance of ΔT=100K. This applies in particular to thick-walled glassware, such as suction bottles or dessicators.
- Make sure that apparatus stands firmly and is not subjected to stress by using appropriate support material.

Glass beakers

Beaker DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Graduated, with a spout (Art. No. C108.1 and C109.1 not graduated). According to DIN 12331, ISO 3819 (Art. No. C122.1 not according to DIN). With retrace code.



A 121 °C DURAN WHEATON KIMBLE

Low form

Vol. (ml)	Ø ext. (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
5	22	30	DIN 12331, ISO 3819	**C108.1**	10 unit(s)	63,75
10	26	35	DIN 12331, ISO 3819	**C109.1**	10 unit(s)	72,40
25	34	50	DIN 12331, ISO 3819	**C110.1**	10 unit(s)	62,10
50	42	60	DIN 12331, ISO 3819	**C111.1**	10 unit(s)	59,20
100	50	70	DIN 12331, ISO 3819	**C112.1**	10 unit(s)	58,60
150	60	80	DIN 12331, ISO 3819	**C113.1**	10 unit(s)	62,10
250	70	95	DIN 12331, ISO 3819	**C114.1**	10 unit(s)	64,10
400	80	110	DIN 12331, ISO 3819	**C115.1**	10 unit(s)	76,70
600	90	125	DIN 12331, ISO 3819	**C116.1**	10 unit(s)	95,40
800	100	135	DIN 12331, ISO 3819	**C117.1**	10 unit(s)	131,50
1,000	105	145	DIN 12331, ISO 3819	**C118.1**	1 unit(s)	15,95
2,000	132	185	DIN 12331, ISO 3819	**C119.1**	1 unit(s)	27,50
3,000	152	210	DIN 12331, ISO 3819	**C120.1**	1 unit(s)	48,95
5,000	170	270	DIN 12331, ISO 3819	**C121.1**	1 unit(s)	83,20
10,000	217	350	not in acc. with DIN	**C122.1**	1 unit(s)	235,00

High form

Vol. (ml)	Ø ext. (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
50	38	70	DIN 12331, ISO 3819	**C123.1**	10 unit(s)	59,60
100	48	80	DIN 12331, ISO 3819	**C124.1**	10 unit(s)	60,45
150	54	95	DIN 12331, ISO 3819	**C125.1**	10 unit(s)	64,30
250	60	120	DIN 12331, ISO 3819	**C126.1**	10 unit(s)	67,80
400	70	130	DIN 12331, ISO 3819	**C127.1**	10 unit(s)	80,60
600	80	150	DIN 12331, ISO 3819	**C128.1**	10 unit(s)	99,10
800	90	175	DIN 12331, ISO 3819	**C129.1**	10 unit(s)	140,50
1,000	95	180	DIN 12331, ISO 3819	**C130.1**	1 unit(s)	16,20
2,000	120	240	DIN 12331, ISO 3819	**C131.1**	1 unit(s)	28,95
3,000	135	280	DIN 12331, ISO 3819	**C132.1**	1 unit(s)	60,80

Beaker DURAN® Super Duty

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

- Proven DURAN® properties
- Glass type I, Neutral glass according to USP, EP and JP
- High mechanical stability
- Reinforced, stable rim
- Regular wall-thickness
- Autoclavable, sterilisable
- With retrace code
- Easily readable scale
- Fired-on highly durable labelling



A 121 °C DURAN WHEATON KIMBLE

Notes for use:
To avoid thermal stresses in the glass, uniform and slow heating of Super Duty products is recommended. When working at very high temperatures, or if rapid temperature changes are expected, standard DURAN® beakers and Erlenmeyer flasks should be used, as these have excellent thermal shock resistance. However, their mechanical sturdiness is limited compared with the Super Duty range.

Glass beakers

Low form

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
150	60	80	**PC33.1**	10 unit(s)	73,75
250	70	95	**PC34.1**	10 unit(s)	73,75
400	80	110	**PC35.1**	10 unit(s)	97,15
600	90	125	**PC36.1**	10 unit(s)	113,50
1,000	105	145	**PC37.1**	10 unit(s)	181,00
2,000	132	185	**PC38.1**	10 unit(s)	317,00
5,000	170	270	**PC39.1**	1 unit(s)	176,00

High form

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
150	54	95	**CHL2.1**	10 unit(s)	76,10
250	60	120	**CHL3.1**	10 unit(s)	77,15
600	80	150	**CHL4.1**	10 unit(s)	117,55

Beaker ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes. Graduated, with spout (Art. No. X685.1, X686.1, X687.1, and X700.1 not graduated). According to DIN 12331, ISO 3819 (Art. No. ACK7.1 not according to DIN).



A 121 °C

Low form

Vol. (ml)	Ø ext. (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
5	22	30	DIN 12331, ISO 3819	**X685.1**	10 unit(s)	37,60
10	26	35	DIN 12331, ISO 3819	**X686.1**	10 unit(s)	40,55
25	34	50	DIN 12331, ISO 3819	**X687.1**	10 unit(s)	40,35
50	42	60	DIN 12331, ISO 3819	**X688.1**	10 unit(s)	34,00
100	50	70	DIN 12331, ISO 3819	**X689.1**	10 unit(s)	28,90
150	60	80	DIN 12331, ISO 3819	**X690.1**	10 unit(s)	31,90
250	70	95	DIN 12331, ISO 3819	**X691.1**	10 unit(s)	36,85
400	80	110	DIN 12331, ISO 3819	**X692.1**	10 unit(s)	39,55
600	90	125	DIN 12331, ISO 3819	**X693.1**	10 unit(s)	54,20
800	100	135	DIN 12331, ISO 3819	**X694.1**	10 unit(s)	65,00
1,000	105	145	DIN 12331, ISO 3819	**X695.1**	10 unit(s)	69,35
2,000	130	185	DIN 12331, ISO 3819	**X696.2**	1 unit(s)	13,10
3,000	150	210	DIN 12331, ISO 3819	**X697.1**	1 unit(s)	51,85
5,000	170	270	DIN 12331, ISO 3819	**X698.1**	1 unit(s)	66,15
10,000	217	350	not in acc. with DIN	**ACK7.1**	1 unit(s)	143,25

High form

Vol. (ml)	Ø ext. (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
25	30	55	DIN 12331, ISO 3819	**X700.1**	10 unit(s)	40,35
50	38	70	DIN 12331, ISO 3819	**X701.1**	10 unit(s)	29,90
100	48	80	DIN 12331, ISO 3819	**X702.1**	10 unit(s)	31,35
150	54	95	DIN 12331, ISO 3819	**X703.1**	10 unit(s)	35,40
250	60	120	DIN 12331, ISO 3819	**X704.1**	10 unit(s)	37,45
400	70	130	DIN 12331, ISO 3819	**X705.1**	10 unit(s)	43,20
600	80	150	DIN 12331, ISO 3819	**X706.1**	10 unit(s)	45,05
800	90	175	DIN 12331, ISO 3819	**X707.1**	10 unit(s)	69,35
1,000	95	180	DIN 12331, ISO 3819	**X708.1**	10 unit(s)	77,25
2,000	120	240	DIN 12331, ISO 3819	**X709.2**	1 unit(s)	13,75
3,000	135	280	DIN 12331, ISO 3819	**X710.2**	1 unit(s)	47,65

Beakers



A 121 °C DURAN WHEATON KIMBLE

Beaker without spout

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Tall variant with easy-to-read graduations and large labelling surface for easy product identification. Graduation markings are kiln-fired onto the glass for maximum durability. Ideal for heating applications thanks to even wall thickness distribution. With retrace code.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	38	70	**CCK5.1**	10 unit(s)	59,60
100	48	80	**CCK6.1**	10 unit(s)	60,45
150	54	95	**CCK7.1**	10 unit(s)	64,30
250	60	120	**CCK8.1**	10 unit(s)	67,75
400	70	130	**CCK9.1**	10 unit(s)	80,60
600	80	150	**CCL0.1**	10 unit(s)	99,10
1,000	95	180	**CCL1.1**	10 unit(s)	159,00



A 121 °C

Beaker ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.

Short, graduated, with spout and handle.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	70	95	**NT29.1**	6 unit(s)	45,60
400	80	110	**NT30.1**	6 unit(s)	47,45
600	90	125	**NT31.1**	6 unit(s)	49,90
1,000	105	145	**NT32.1**	2 unit(s)	23,45



A 121 °C

Beaker ROTILABO®

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

With spout. Chemically inert. Temperature stable from -200 to +260 °C. Low gas permeability. Anti-adhesive.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	13	18	**T643.1**	1 unit(s)	12,00
5	20	26	**T645.1**	1 unit(s)	13,80
10	24	33	**T646.1**	1 unit(s)	15,05
25	32	47	**T647.1**	1 unit(s)	19,50
50	43	60	**1183.1**	1 unit(s)	22,75
100	54	68	**1184.1**	1 unit(s)	26,05
150	59	69	**T648.1**	1 unit(s)	34,20
250	66	97	**1185.1**	1 unit(s)	40,65
400	80	106	**T649.1**	1 unit(s)	64,00
500	80	125	**T650.1**	1 unit(s)	65,65
600	90	125	**T651.1**	1 unit(s)	90,05
1,000	100	155	**1187.1**	1 unit(s)	126,05
2,000	120	210	**T652.1**	1 unit(s)	230,05
5,000	170	280	**T653.1**	1 unit(s)	427,85



A 121 °C

Beaker ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Suitable for foodstuffs.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
75	50	50	**YX59.1**	1 unit(s)	7,65
125	60	60	**YX60.1**	1 unit(s)	8,45
150	65	65	**YX61.1**	1 unit(s)	9,10
250	75	100	**YX58.1**	1 unit(s)	7,00

Beakers



121 °C

Beaker ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

With crimped edge and contact base for magnet and heater stirrers. Good chemical and temperature resistance.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	50	60	**HT90.1**	1 unit(s)	83,65
250	65	85	**HT91.1**	1 unit(s)	87,20
500	80	110	**HT92.1**	1 unit(s)	117,30
1,000	100	130	**HT93.1**	1 unit(s)	140,90
2,000	120	180	**HT94.1**	1 unit(s)	202,10
3,000	150	180	**HT95.1**	1 unit(s)	238,65
5,000	180	210	**HT96.1**	1 unit(s)	320,35



121 °C

Beaker ROTILABO®

ROTH SELECTION. Material: Porcelain, glazed. Autoclavable: Yes.

With spout. Max. Temperature stability up to +1,000 °C.

Low form

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
275	70	85	**XX35.1**	1 unit(s)	19,80
400	80	99	**XX36.1**	1 unit(s)	23,60
620	90	116	**XX37.1**	1 unit(s)	28,60
860	100	129	**XX38.1**	1 unit(s)	36,85
950	123	100	**XX39.1**	1 unit(s)	47,60

High form

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
170	52	90	**XX40.1**	1 unit(s)	17,00
225	57	106	**XX41.1**	1 unit(s)	18,50
450	70	143	**XX42.1**	1 unit(s)	23,25
1,100	101	157	**XX43.1**	1 unit(s)	36,55



121 °C

Silicone covers DURAN®

DWK Life Sciences. Material: Silicone. Autoclavable: Yes.

For covering and closing vessels with different shapes. Thanks to its outstanding elasticity, the DURAN® silicone cover can be used for covering various vessel diameters and shapes. The wide overlapping edge of the silicone cover engages well with the vessel wall.

- Protects against dust entering or the medium spraying out
- Samples can be marked easily using different colours and an additional labelling field on the tab
- Easy to clean, dishwasher-safe and reusable, therefore environmentally friendly and economical

Version	Colour	Art. No.	Pack Qty.	€
for Ø 43-61 mm	pink	**KNH4.1**	1 unit(s)	2,75
for Ø 43-61 mm	cyan	**KNH7.1**	1 unit(s)	2,75
for Ø 43-61 mm	green	**KNK0.1**	1 unit(s)	2,75
for Ø 64-76 mm	pink	**KNH5.1**	1 unit(s)	3,40
for Ø 64-76 mm	cyan	**KNH8.1**	1 unit(s)	3,40
for Ø 64-76 mm	green	**KNK1.1**	1 unit(s)	3,40
for Ø 84-116 mm	pink	**KNH6.1**	1 unit(s)	4,05
for Ø 84-116 mm	cyan	**KNH9.1**	1 unit(s)	4,05
for Ø 84-116 mm	green	**KNK2.1**	1 unit(s)	4,05

Set

Three sizes for Ø 43-61 mm, Ø 64-76 mm and Ø 84-116 mm.

Colour	Art. No.	Pack Qty.	€
cyan	**KNH2.1**	1 set	8,75
pink	**KNH1.1**	1 set	8,75
green	**KNH3.1**	1 set	8,75

Measuring beakers



Griffin beakers

Vitlab. Material: PP, transparent. Autoclavable: Limited.

With spout and blue scale. Cleaning at max. 60 °C recommended to protect the printing. Suitable for foodstuffs.

Vol. (ml)	Graduations (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	2	30	36	**2870.1**	1 unit(s)	2,50
25	5	38	50	**2871.1**	1 unit(s)	2,50
50	10	47	60	**2872.1**	1 unit(s)	2,60
100	10	55	70	**2873.1**	1 unit(s)	2,70
150	20	66	80	**2874.1**	1 unit(s)	3,05
250	25	77	95	**2875.1**	1 unit(s)	3,40
400	50	87	112	**2876.1**	1 unit(s)	4,25
500	50	94	118	**HX26.1**	1 unit(s)	4,55
600	50	100	127	**2877.1**	1 unit(s)	4,60
1,000	100	120	147	**2879.1**	1 unit(s)	6,70
2,000	200	149	187	**P804.1**	1 unit(s)	11,35
3,000	250	170	212	**P805.1**	1 unit(s)	22,25
5,000	500	203	247	**P806.1**	1 unit(s)	29,10

Griffin beakers assortment

Vitlab. Material: PP.

10 pieces (one beaker each from 10 to 1000 ml).

Version	Art. No.	Pack Qty.	€
Griffin beakers assortment	**2880.1**	1 set	29,60



A 121 °C

Griffin beakers

Vitlab. Material: PFA, transparent. Autoclavable: Yes.

With raised scale. Highly resistant to chemicals. Temperature-stable from -200 to +250 °C.

Vol. (ml)	Graduations (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	5	32	50	**A862.1**	1 unit(s)	26,75
50	10	39	59	**A863.1**	1 unit(s)	33,80
100	20	50	72	**A864.1**	1 unit(s)	47,20
250	50	67	96	**A865.1**	1 unit(s)	80,05
500	100	88	122	**A866.1**	1 unit(s)	124,15
1,000	100	105	143	**A867.1**	1 unit(s)	212,85



Griffin beakers

Vitlab. Material: PMP, transparent. Autoclavable: Limited.

With spout and printed red scale. Cleaning at max. 60 °C, recommended to protect the printing. Good chemical resistance.

Vol. (ml)	Graduations (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	2	30	36	**2890.1**	1 unit(s)	2,80
25	5	38	50	**2891.1**	1 unit(s)	3,05
50	10	47	60	**2892.1**	1 unit(s)	3,35
100	10	55	70	**2893.1**	1 unit(s)	3,70
150	20	66	80	**2894.1**	1 unit(s)	4,65
250	25	77	95	**2895.1**	1 unit(s)	4,95
400	50	87	112	**2896.1**	1 unit(s)	6,75
500	50	94	118	**HX27.1**	1 unit(s)	7,45
600	50	100	127	**2897.1**	1 unit(s)	8,40
1,000	100	120	147	**2899.1**	1 unit(s)	11,65
2,000	200	149	187	**P807.1**	1 unit(s)	19,00
3,000	250	170	212	**P808.1**	1 unit(s)	33,40
5,000	500	203	247	**P809.1**	1 unit(s)	45,00

Griffin beakers assortment

Vitlab. Material: PMP.

10 pieces (one beaker each from 10 to 1000 ml).

Version	Art. No.	Pack Qty.	€
Griffin beakers assortment	**2900.1**	1 set	49,15



Griffin beakers

BRAND. Material: ETFE, transparent. Autoclavable: Limited.

With spout and printed black scale. Cleaning at max. 60 °C recommended to protect the printing. Very good chemical resistance. Temperature-stable from -100 to +150 °C.

Vol. (ml)	Graduations (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	5	32	50	**2881.1**	1 unit(s)	15,25
50	10	39	59	**2882.1**	1 unit(s)	16,30
100	20	50	72	**2883.1**	1 unit(s)	22,60
250	50	67	96	**2884.1**	1 unit(s)	38,30
400	50	77	109	**2885.1**	1 unit(s)	53,20
500	100	88	122	**HX28.1**	1 unit(s)	62,20
600	100	91	125	**2886.1**	1 unit(s)	71,95
1,000	100	105	143	**2887.1**	1 unit(s)	102,40

Measuring beakers



121 °C

Griffin beakers

Vitlab. Material: PP, transparent. Autoclavable: Yes.

With spout and embossed scale. Temperature-stable from 0 to +125 °C. Suitable for foodstuffs.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	5	38	50	**CKK4.1**	1 unit(s)	2,35
50	10	47	60	**CKK5.1**	1 unit(s)	2,65
100	10	55	70	**CKK6.1**	1 unit(s)	2,70
150	20	66	80	**CKK7.1**	1 unit(s)	3,05
250	25	77	95	**CKK8.1**	1 unit(s)	3,30
400	50	87	111.5	**CKK9.1**	1 unit(s)	4,10
500	50	94	117.5	**CKL0.1**	1 unit(s)	4,60
600	50	100	126.5	**CKL1.1**	1 unit(s)	4,85
1,000	100	120	147	**CKL2.1**	1 unit(s)	6,40
2,000	200	149	187	**CKL3.1**	1 unit(s)	11,10
3,000	250	170	212	**CKL4.1**	1 unit(s)	22,05
5,000	500	203	247	**CKL5.1**	1 unit(s)	29,05



Measuring beakers ROTILABO®

ROTH SELECTION. Material: PP, Transparent. Autoclavable: Limited.

With smooth surface and raised, red embossed scale. Cleaning at max. 60 °C recommended to protect the printing. Suitable for foodstuffs.

Vol. (ml)	Gradua-tions (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	2	40	70	**YA29.1**	1 unit(s)	2,60
100	2	50	80	**YA30.1**	1 unit(s)	2,90
250	5	70	120	**YA31.1**	1 unit(s)	4,10
500	10	91	133	**0757.1**	1 unit(s)	4,90
1,000	10	116	170	**0758.1**	1 unit(s)	6,65
2,000	20	150	215	**0768.1**	1 unit(s)	11,70
3,000	50	170	242	**0779.1**	1 unit(s)	15,35
5,000	100	210	270	**0780.1**	1 unit(s)	22,05



121 °C

Measuring beakers

Vitlab. Material: PP, Highly transparent. Autoclavable: Yes.

With embossed scale and sturdy handle with good grip. Temperature-stable from 0 to +125 °C. Suitable for foodstuffs.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	2	40	70	**CKL6.1**	1 unit(s)	2,65
100	2	50	80	**CKL7.1**	1 unit(s)	2,85
250	5	70	120	**CKL8.1**	1 unit(s)	4,55
500	10	91	133	**CKL9.1**	1 unit(s)	4,85
1,000	20	116	170	**CKN0.1**	1 unit(s)	6,75
2,000	50	150	215	**CKN1.1**	1 unit(s)	12,45
3,000	50	170	242	**CKN2.1**	1 unit(s)	16,85
5,000	100	210	270	**CKN3.1**	1 unit(s)	23,80



Measuring beakers

ROTH SELECTION. Material: PP, Highly transparent. Autoclavable: Limited.

With black scale printed on two sides. Stackable due to open handle. Cleaning at max. 60 °C recommended to protect the printing.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	5	75	115	**XY21.1**	1 unit(s)	4,25
500	10	100	140	**P800.1**	1 unit(s)	5,00
1,000	10	125	167	**P801.1**	1 unit(s)	6,75
2,000	20	148	212	**P802.1**	1 unit(s)	12,40
3,000	50	170	242	**P803.1**	1 unit(s)	16,80

Measuring beakers



Measuring beakers

Vitlab. Material: PP, transparent.

With clearly legible scale printed on both sides and stable handle. Stackable. To preserve the imprint, cleaning at temperatures not exceeding 60 °C is recommended. Suitable for foodstuffs.

Vol. (ml)	Colour	Gradu-ations (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
500	blue	10	100	140	**APH6.1**	1 unit(s)	5,00
500	yellow	10	100	140	**APH7.1**	1 unit(s)	5,00
500	red	10	100	140	**APH8.1**	1 unit(s)	5,00
500	green	10	100	140	**APH9.1**	1 unit(s)	5,00



Measuring beakers

Vitlab. Material: SAN, transparent.

With embossed scale and sturdy handle with good grip. Temperature-stable between -40 and +70 °C. Suitable for foodstuffs.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	5	70	120	**CKN4.1**	1 unit(s)	5,30
500	10	91	133	**CKN5.1**	1 unit(s)	7,30
1,000	10	116	170	**CKN6.1**	1 unit(s)	8,85
2,000	20	150	215	**CKN7.1**	1 unit(s)	14,65
3,000	50	170	242	**CKN8.1**	1 unit(s)	18,75



A 121 °C

Measuring jugs

Hünersdorff. Material: PP, transparent. Autoclavable: Yes.

With injected, transparent measuring scale and additional blue stamped scale. Closed handle. Temperature-stable between -20 and +100 °C.

Delivery without lid, please order separately.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1,000	10	117	165	**EKE7.1**	1 unit(s)	6,35
2,000	20	151	206	**EKE8.1**	1 unit(s)	12,20

Accessories lid for measuring jugs

Hünersdorff. Material: PP.

Designation	Art. No.	Pack Qty.	€
Lid for 1000-ml jug EKE7.1	**EKE9.1**	1 unit(s)	3,45
Lid for 2000-ml jug EKE8.1	**EKH0.1**	1 unit(s)	4,25



A 121 °C

Measuring beakers ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10, polished. Autoclavable: Yes.

Graduated inside. With open handle, stackable. Suitable for foodstuffs.

Vol. (ml)	Graduations (ml)	Height (mm)	Art. No.	Pack Qty.	€
100	50	50	**YY00.1**	1 unit(s)	5,90
250	50	70	**YY01.1**	1 unit(s)	7,00
500	100	110	**YY02.1**	1 unit(s)	13,35
1,000	500	135	**YY03.1**	1 unit(s)	17,15
2,000	500	195	**YY04.1**	1 unit(s)	30,80

Measuring beakers



121 °C

Measuring beakers ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
Cylindrical. Graduated inside and outside.

Vol. (ml)	Graduations (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
700	100	100	100	**9472.1**	1 unit(s)	33,85
1,300	100	120	120	**9473.1**	1 unit(s)	41,70
2,100	200	140	140	**9475.1**	1 unit(s)	54,85
3,200	200	160	160	**9476.1**	1 unit(s)	71,85
4,000	500	180	180	**9478.1**	1 unit(s)	88,85
5,000	1,000	200	200	**9479.1**	1 unit(s)	104,20



121 °C

Measuring beakers ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
Inside graduated. Suitable for foodstuffs.

Vol. (ml)	Graduations (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
30	10	50	25	**LT24.1**	5 unit(s)	21,50
50	10	53	45	**LT25.1**	5 unit(s)	26,90



121 °C

Measuring beakers 51

Haldenwanger. Material: Porcelain, glazed (outside surface non-glazed). Autoclavable: Yes.
Graduated. Temperature stable up to +400 °C.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	80	100	**XL85.1**	1 unit(s)	121,50
500	95	125	**XL86.1**	1 unit(s)	145,15
1,000	110	165	**XL87.1**	1 unit(s)	198,90
2,000	140	193	**XL88.1**	1 unit(s)	289,20

121 °C

Erlenmeyer flasks disposable

Simport. Material: PP, transparent. Autoclavable: Yes.
Graduated from 0 to 170 ml. Specially shaped edge enables drip-free pouring. Can also be used for cultivating drosophila.

Delivery without snap-on lid, please order separately.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
55	55	105	**AYP4.1**	500 unit(s)	233,30

Erlenmeyer flasks

Erlenmeyer flasks ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes. Graduated.



A 121 °C

Wide neck

According to DIN ISO 24450 (Art. No. X734.1, X739.1 and X742.2 as a supplement to DIN).

Vol. (ml)	Ø Outer flask (mm)	Ø Outer neck (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
25	42	32	70	in addition	**X734.1**	10 unit(s)	160,20
50	51	34	85	DIN EN ISO 24450	**X735.1**	10 unit(s)	173,10
100	64	34	105	DIN EN ISO 24450	**X736.1**	10 unit(s)	38,30
200	79	50	131	DIN EN ISO 24450	**X737.1**	10 unit(s)	41,45
250	85	50	135	DIN EN ISO 24450	**X738.1**	10 unit(s)	41,45
300	87	50	156	in addition	**X739.1**	10 unit(s)	54,85
500	105	50	170	DIN EN ISO 24450	**X740.1**	10 unit(s)	57,20
1,000	131	50	215	DIN EN ISO 24450	**X741.1**	10 unit(s)	74,35
2,000	153	72	280	in addition	**X742.2**	6 unit(s)	81,40

Narrow neck

Vol. (ml)	Ø Outer flask (mm)	Ø Outer neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	42	22	70	**X745.1**	10 unit(s)	156,15
50	51	22	85	**X746.1**	10 unit(s)	149,30
100	64	22	105	**X747.1**	10 unit(s)	178,45
200	79	34	131	**X748.1**	10 unit(s)	43,45
250	85	34	140	**X749.1**	10 unit(s)	41,45
300	87	34	156	**X750.1**	10 unit(s)	54,85
500	105	34	175	**X751.1**	10 unit(s)	60,60
1,000	131	42	220	**X752.1**	10 unit(s)	94,55
2,000	166	50	280	**X753.2**	6 unit(s)	72,55
3,000	187	50	310	**X754.1**	1 unit(s)	54,20
5,000	220	50	365	**X755.1**	1 unit(s)	84,25

Erlenmeyer flasks DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes. With retrace code.



A 121 °C

DURAN
WHEATON
KIMBLE

Wide neck

According to DIN ISO 24450 (Art. No. C144.1, C152.2, AAA3.1, AAA4.1 and AAA5.1 not according to DIN). Flasks up to 2000 ml, graduated.

Vol. (ml)	Ø Outer flask (mm)	Ø Outer neck (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
25	42	31	70	not in acc. with DIN	**C144.1**	10 unit(s)	67,95
50	51	34	85	DIN EN ISO 24450	**C145.1**	10 unit(s)	67,60
100	64	34	105	DIN EN ISO 24450	**C146.1**	10 unit(s)	68,35
200	79	50	131	DIN EN ISO 24450	**C147.1**	10 unit(s)	73,00
250	85	50	140	DIN EN ISO 24450	**C148.1**	10 unit(s)	77,40
300	87	50	156	DIN EN ISO 24450	**C149.1**	10 unit(s)	88,15
500	105	50	175	DIN EN ISO 24450	**C150.1**	10 unit(s)	103,25
1,000	131	50	220	DIN EN ISO 24450	**C151.2**	1 unit(s)	16,70
2,000	153	72	276	not in acc. with DIN	**C152.2**	1 unit(s)	30,50
3,000	190	106	285	not in acc. with DIN	**AAA3.1**	1 unit(s)	99,20

Erlenmeyer flasks

Vol. (ml)	Ø Outer flask (mm)	Ø Outer neck (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
5,000	220	108	322	not in acc. with DIN	**AAA4.1**	1 unit(s)	130,25
10,000	285	147	420	not in acc. with DIN	**AAA5.1**	1 unit(s)	263,00

Narrow neck
Graduated. According to ISO 1773 (Art. No. PY97.1, C136.1, C138.1 and XT08.1 not according to DIN).

Vol. (ml)	Ø Outer flask (mm)	Ø Outer neck (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
25	42	22	75	DIN ISO 1773	**C133.1**	10 unit(s)	67,75
50	51	22	90	DIN ISO 1773	**C134.1**	10 unit(s)	67,95
100	64	22	105	DIN ISO 1773	**C135.1**	10 unit(s)	66,60
125	67	28	112	not in acc. with DIN	**PY97.1**	10 unit(s)	64,90
150	74	28	118	DIN ISO 1773	**XT07.1**	10 unit(s)	66,25
200	79	34	131	not in acc. with DIN	**C136.1**	10 unit(s)	67,95
250	85	34	145	DIN ISO 1773	**C137.1**	10 unit(s)	68,60
300	87	34	156	not in acc. with DIN	**C138.1**	10 unit(s)	79,10
500	105	34	180	DIN ISO 1773	**C139.1**	10 unit(s)	89,70
800	120	42	200	not in acc. with DIN	**XT08.1**	10 unit(s)	113,50
1,000	131	42	220	DIN ISO 1773	**C140.2**	1 unit(s)	15,85
2,000	166	50	280	DIN ISO 1773	**C141.2**	1 unit(s)	28,95
3,000	187	52	310	DIN ISO 1773	**C142.2**	1 unit(s)	53,55
5,000	220	52	365	DIN ISO 1773	**C143.1**	1 unit(s)	80,15

Erlenmeyer flasks DURAN® Super Duty

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

- Proven DURAN® properties
- Glass type I, neutral glass according to USP, EP and JP
- High mechanical stability
- Reinforced, stable rim
- Regular wall thickness
- Autoclavable, sterilisable
- With retrace code
- Easily readable scale
- Fired-on highly durable labelling



A 121 °C

DURAN WHEATON KIMBLE

Notes for use:
To avoid thermal stresses in the glass, uniform and slow heating of Super Duty products is recommended. When working at very high temperatures, or if rapid temperature changes are expected, standard DURAN® beakers and Erlenmeyer flasks should be used, as these have excellent thermal shock resistance. However, their mechanical sturdiness is limited compared with the Super Duty range.

Narrow neck

Vol. (ml)	Ø Outer flask (mm)	Ø Outer neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	42	22	75	**PC40.1**	10 unit(s)	123,30
50	51	22	90	**PC41.1**	10 unit(s)	125,05
100	64	22	105	**PC42.1**	10 unit(s)	115,00
250	85	34	145	**PC43.1**	10 unit(s)	99,70
500	105	34	180	**PC44.1**	10 unit(s)	119,40
1,000	131	42	220	**PC45.1**	10 unit(s)	189,00
2,000	166	50	280	**PC46.1**	10 unit(s)	349,00
5,000	220	52	365	**PC47.1**	1 unit(s)	167,00

Wide neck

Vol. (ml)	Ø Outer flask (mm)	Ø Outer neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	64	34	105	**PC48.1**	10 unit(s)	90,80
250	85	50	140	**PC49.1**	10 unit(s)	99,70
500	105	50	175	**PC50.1**	10 unit(s)	119,40
1,000	131	50	220	**PC51.1**	10 unit(s)	189,00

Erlenmeyer flasks



A 121 °C

Erlenmeyer flasks ROTILABO® with ground glass joint

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.

Vol. (ml)	Ø Outer flask (mm)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
25	42	70	14/23	**Y643.1**	10 unit(s)	170,95
25	42	70	19/26	**NT33.1**	10 unit(s)	163,40
50	51	85	14/23	**Y644.1**	10 unit(s)	237,60
50	51	85	29/32	**X769.1**	10 unit(s)	195,65
100	51	105	19/26	**X770.1**	10 unit(s)	265,55
100	64	105	29/32	**X771.1**	10 unit(s)	221,45
200	79	130	29/32	**NT34.1**	10 unit(s)	270,90
250	85	140	14/23	**NT35.1**	10 unit(s)	270,90
250	85	135	29/32	**X773.1**	10 unit(s)	351,55
250	85	135	45/40	**X774.1**	10 unit(s)	399,90
500	105	170	29/32	**X776.1**	10 unit(s)	364,45
500	105	175	45/40	**NT36.1**	10 unit(s)	339,70
1,000	131	215	29/32	**X778.1**	10 unit(s)	404,20
1,000	131	215	45/40	**X779.1**	10 unit(s)	454,75
2,000	166	275	29/32	**Y684.1**	6 unit(s)	304,25
2,000	166	275	45/50	**NT37.1**	6 unit(s)	324,65



A 121 °C

Iodine determination flasks

Lenz. Material: DURAN® glass. Autoclavable: Yes.
With ground glass joint.

Delivery incl. hollow glass stopper.

Vol. (ml)	Ø Outer flask (mm)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
100	64	105	29/32	**E535.1**	1 unit(s)	19,80
250	85	139	29/32	**E536.1**	1 unit(s)	23,15
300	87	150	29/32	**EPY7.1**	1 unit(s)	26,80
500	105	165	29/32	**E537.1**	1 unit(s)	32,15
1,000	131	223	29/32	**EPY8.1**	1 unit(s)	43,55



A 121 °C

Iodine determination flasks with neck

Lenz. Material: DURAN® glass. Autoclavable: Yes.
With division.

Delivery incl. taper stopper.

Vol. (ml)	Ø Outer flask (mm)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
100	60	135	29/32	**TK12.1**	1 unit(s)	93,45
250	81	170	29/32	**TK13.1**	1 unit(s)	97,30
500	101	205	29/32	**TK14.1**	1 unit(s)	105,25



A 121 °C

Erlenmeyer flasks with ground glass joint

Lenz. Material: DURAN® glass. Autoclavable: Yes.
Graduated.

Vol. (ml)	Ø Outer flask (mm)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
10	30	60	14/23	**KX15.1**	10 unit(s)	95,70
25	42	70	14/23	**KT59.1**	10 unit(s)	111,80
25	42	70	19/26	**KT98.1**	10 unit(s)	117,20
50	51	85	14/23	**KT60.1**	10 unit(s)	112,90
50	51	85	19/26	**KT99.1**	10 unit(s)	120,40
50	51	85	24/29	**KX17.1**	10 unit(s)	117,20
50	51	85	29/32	**KT62.1**	10 unit(s)	117,20
100	64	105	14/23	**KT97.1**	10 unit(s)	123,65
100	64	105	19/26	**KT61.1**	10 unit(s)	123,65
100	64	100	24/29	**KX18.1**	10 unit(s)	134,40
100	64	105	29/32	**KT63.1**	10 unit(s)	106,45
250	85	145	19/26	**KX16.1**	10 unit(s)	235,45
250	85	140	24/29	**KX19.1**	10 unit(s)	231,15
250	85	139	29/32	**KT64.1**	10 unit(s)	123,65
250	85	128	45/40	**KT68.1**	10 unit(s)	224,70
300	87	150	29/32	**KX00.1**	10 unit(s)	134,40
500	105	170	29/32	**KT65.1**	10 unit(s)	149,45
500	105	165	45/40	**KX01.1**	10 unit(s)	274,15
1,000	131	223	29/32	**KT66.1**	10 unit(s)	235,45
1,000	131	208	45/40	**KT69.1**	1 unit(s)	41,95
2,000	166	284	29/32	**KT67.1**	1 unit(s)	63,35
5,000	220	360	45/40	**KX20.1**	1 unit(s)	235,45

Erlenmeyer flasks



121 °C

Erlenmeyer flasks ROTILABO® with screw closure

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes. With GL thread and graduation.

Delivery incl. screw closure made of PP.

Vol. (ml)	Ø Outer flask (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	64	100	GL 25	**NY86.1**	1 unit(s)	28,65
250	85	140	GL 32	**NY87.1**	1 unit(s)	22,10
500	105	175	GL 32	**NY88.1**	1 unit(s)	26,50
1,000	131	215	GL 32	**NY89.1**	1 unit(s)	29,35



121 °C

Erlenmeyer flasks with screw closure

Lenz. Material: DURAN® glass. Autoclavable: Yes.

Graduated.
Note: Do not autoclave with closed cap.

Delivery incl. screw closure made of PBT with PTFE-coated seal.

Vol. (ml)	Ø Outer flask (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	64	109	GL 25	**E531.1**	1 unit(s)	37,65
250	85	149	GL 32	**E532.1**	1 unit(s)	38,60
500	105	180	GL 32	**E533.1**	1 unit(s)	40,75
1,000	131	225	GL 32	**E534.1**	1 unit(s)	60,10

121 °C

Erlenmeyer flasks made of fluoroplastics

Saint-Gobain. Material: PFA, highly transparent. Autoclavable: Yes.

Graduated. Microwave-safe.

- Temperature stable from -196 to +250 °C
- Inert to virtually all chemicals, including hydrofluoric and nitric acid
- High purity, low metal ion content, ideal for use in trace analysis and for the storage of highly pure substances
- No memory effect
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning

Vol. (ml)	Ø Outer neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	18	97	**YY57.1**	1 unit(s)	85,20
200	23	123	**YY58.1**	1 unit(s)	149,50
300	23	130	**YY59.1**	1 unit(s)	190,30

121 °C

Erlenmeyer flasks made of fluoroplastics

Bohlender. Material: PTFE. Autoclavable: Yes.

Thick-walled, with standard ground joint. Highly pure, chemically inert. Hydrophobic, anti-adhesive surface. Temperature stable from -200 to +250 °C.

Vol. (ml)	Ø Outer flask (mm)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	54	86	19/26	**NP91.1**	1 unit(s)	164,50
100	63	128	19/26	**NP92.1**	1 unit(s)	247,25
250	85	144	29/32	**NP93.1**	1 unit(s)	370,90
500	107	190	29/32	**NP94.1**	1 unit(s)	679,40

Measuring cylinders



A 121 °C

Measuring cylinders class A blue graduations

Isolab. Material: Borosilicate glass 3.3. Autoclavable: Yes.

High form. With hexagonal base. Certified conformity, with retrace code. Calibrated to IN. Acc. to DIN ISO 4788.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	0.1	±0,05	13	115	**Y303.1**	2 unit(s)	16,40
10	0.2	±0,10	16	135	**Y304.1**	2 unit(s)	16,40
25	0.5	±0,25	21	160	**Y305.1**	2 unit(s)	17,85
50	1.0	±0,50	26	195	**Y306.1**	2 unit(s)	20,20
100	1.0	±0,50	31	240	**Y307.1**	2 unit(s)	22,70
250	2.0	±1,00	41	320	**Y308.1**	2 unit(s)	38,50
500	5.0	±2,50	53	380	**Y309.1**	2 unit(s)	51,35
1,000	10.0	±5,00	65	465	**Y310.1**	2 unit(s)	80,40
2,000	20.0	±10,00	84	500	**Y311.1**	1 unit(s)	77,40



A 121 °C

Measuring cylinders class A brown graduations

Hirschmann. Material: DURAN® glass. Autoclavable: Yes.

High form. Acc. to DIN ISO 4788. Certified conformity, with retrace code. Calibrated to IN. With hexagonal base and spout.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	0.1	±0,05	13	115	**AN01.1**	2 unit(s)	27,80
10	0.2	±0,10	14	140	**AN02.1**	2 unit(s)	26,40
25	0.5	±0,25	21	170	**AN03.1**	2 unit(s)	26,40
50	1.0	±0,50	25	200	**AN04.1**	2 unit(s)	26,30
100	1.0	±0,50	29	260	**AN05.1**	2 unit(s)	29,95
250	2.0	±1,00	39	335	**AN06.1**	2 unit(s)	52,90
500	5.0	±2,50	53	390	**AN07.1**	2 unit(s)	92,00
1,000	10.0	±5,00	65	470	**AN08.1**	1 unit(s)	68,85
2,000	20.0	±10,00	85	500	**AN09.1**	1 unit(s)	120,05



A 121 °C

Measuring cylinders class A blue graduations

Hirschmann. Material: DURAN® glass. Autoclavable: Yes.

High form. Acc. to DIN ISO 4788. Certified conformity, with retrace code. Calibrated to IN. With hexagonal base and spout.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	0.1	±0,05	13	115	**Y568.1**	2 unit(s)	27,80
10	0.2	±0,10	14	140	**Y569.1**	2 unit(s)	26,40
25	0.5	±0,25	21	170	**Y570.1**	2 unit(s)	26,40
50	1.0	±0,50	25	200	**Y571.1**	2 unit(s)	28,70
100	1.0	±0,50	29	260	**Y572.1**	2 unit(s)	29,95
250	2.0	±1,00	39	335	**Y573.1**	2 unit(s)	52,90
500	5.0	±2,50	53	390	**Y574.1**	2 unit(s)	92,00
1,000	10.0	±5,00	65	470	**Y575.2**	1 unit(s)	68,85
2,000	20.0	±10,00	85	500	**Y576.1**	1 unit(s)	120,05



A 121 °C

Measuring cylinders class A blue graduations

Hirschmann. Material: DURAN® glass. Autoclavable: Yes.

High form. With **Schellbach stripe** for enhanced legibility and more exact meniscus configuration. Acc. to DIN ISO 4788. Certified conformity, with retrace code. Calibrated to IN. With hexagonal base and ring graduations.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Height (mm)	Art. No.	Pack Qty.	€
5	0.1	±0,05	115	**CNX1.1**	2 unit(s)	33,80
10	0.2	±0,10	140	**CNX2.1**	2 unit(s)	31,90
25	0.5	±0,25	170	**CNX3.1**	2 unit(s)	33,30
50	1.0	±0,50	200	**CNX4.1**	2 unit(s)	34,60
100	1.0	±0,50	260	**CNX5.1**	2 unit(s)	43,75
250	2.0	±1,00	335	**CNX6.1**	2 unit(s)	68,55
500	5.0	±2,50	390	**CNX7.1**	2 unit(s)	115,90
1,000	10.0	±5,00	470	**CNX8.1**	1 unit(s)	77,30
2,000	20.0	±10,00	500	**CNX9.1**	1 unit(s)	147,85

Measuring cylinders



A 121 °C

DURAN WHEATON KIMBLE

Measuring cylinders DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Acc. to DIN ISO 4788. **High form.** With hexagonal base and spout. Standardised wall thickness over the complete measurement range prevents wedge error. Calibrated to IN. Temperature stable up to 250 °C without change in volume.

Class A
With blue graduations. Conformity certified, with mark of conformity.

Delivery incl. batch certificate.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	0.1	±0,05	13	112	**AKA2.1**	2 unit(s)	24,20
10	0.2	±0,10	14	137	**AKA3.1**	2 unit(s)	23,80
25	0.5	±0,25	21	167	**AKA4.1**	2 unit(s)	25,30
50	1.0	±0,50	25	196	**AKA5.1**	2 unit(s)	27,00
100	1.0	±0,50	29	256	**AKA6.1**	2 unit(s)	28,70
250	2.0	±1,00	39	331	**AKA7.1**	2 unit(s)	56,00
500	5.0	±2,50	53	360	**AKA8.1**	2 unit(s)	93,90
1,000	10.0	±5,00	65	460	**AKA9.1**	1 unit(s)	72,45
2,000	20.0	±10,00	85	500	**AKC0.1**	1 unit(s)	126,20

Class B
With white graduations.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	0.1	±0,10	13	112	**AKC1.1**	2 unit(s)	23,30
10	0.2	±0,20	14	137	**AKC2.1**	2 unit(s)	24,75
25	0.5	±0,50	21	167	**AKC3.1**	2 unit(s)	25,85
50	1.0	±1,00	25	196	**AKC4.1**	2 unit(s)	26,65
100	1.0	±1,00	29	256	**AKC5.1**	2 unit(s)	30,60
250	2.0	±2,00	39	331	**AKC6.1**	2 unit(s)	41,90
500	5.0	±5,00	53	360	**AKC7.1**	2 unit(s)	66,50
1,000	10.0	±10,00	65	460	**AKC8.1**	1 unit(s)	63,60
2,000	20.0	±20,00	85	500	**AKC9.1**	1 unit(s)	105,90



A 121 °C

Measuring cylinders class A blue graduations

Hirschmann. Material: DURAN® glass, Hexagonal base and protective PP rim. Autoclavable: Yes.

High form. With spout and ring markings to show the main points. Acc. to DIN ISO 4788. Certified conformity, with retrace code. Calibrated to IN. Autoclavable (without hexagonal base).

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	0.2	±0,10	14	140	**CX74.1**	2 unit(s)	21,95
25	0.5	±0,25	21	170	**CX75.1**	2 unit(s)	22,35
50	1.0	±0,50	25	200	**CX76.1**	2 unit(s)	26,30
100	1.0	±0,50	29	260	**CX77.1**	2 unit(s)	29,00
250	2.0	±1,00	39	335	**CX78.1**	2 unit(s)	50,75
500	5.0	±2,50	53	390	**CX79.1**	2 unit(s)	81,55
1,000	10.0	±5,00	65	470	**CX80.1**	1 unit(s)	64,85



A 121 °C

Measuring cylinders class B blue graduations

Hirschmann. Material: DURAN® glass. Autoclavable: Yes.

High form. Acc. to DIN ISO 4788. Calibrated to IN.
With hexagonal base and spout.

Vol. (ml)	Graduations (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	0.1	13	115	**C173.2**	2 unit(s)	23,35
10	0.2	14	140	**C174.2**	2 unit(s)	21,95
25	0.5	21	170	**C175.2**	2 unit(s)	22,95
50	1.0	25	200	**C176.2**	2 unit(s)	23,35
100	1.0	29	260	**C177.2**	2 unit(s)	25,85
250	2.0	39	335	**C178.2**	2 unit(s)	46,35
500	5.0	53	390	**C179.2**	2 unit(s)	74,85
1,000	10.0	65	470	**C180.1**	1 unit(s)	59,25
2,000	20.0	85	500	**C181.1**	1 unit(s)	104,55

Measuring cylinders



A 121 °C

Measuring cylinders class B brown graduations

Hirschmann. Material: DURAN® glass. Autoclavable: Yes.

High form. Acc. to DIN ISO 4788. Calibrated to IN.
With hexagonal base and spout.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	0.1	13	115	**AN10.1**	2 unit(s)	23,35
10	0.2	14	140	**AN11.1**	2 unit(s)	21,95
25	0.5	21	170	**AN12.1**	2 unit(s)	22,95
50	1.0	25	200	**AN13.1**	2 unit(s)	23,35
100	1.0	29	260	**AN14.1**	2 unit(s)	25,25
250	2.0	39	335	**AN15.1**	2 unit(s)	46,35
500	5.0	53	390	**AN16.1**	2 unit(s)	74,85
1,000	10.0	65	470	**AN17.1**	1 unit(s)	59,25
2,000	20.0	85	500	**AN18.1**	1 unit(s)	104,55



Measuring cylinders class B blue graduations

Hirschmann. Material: DURAN® glass, Hexagonal base and protective PP rim. Autoclavable: Limited.

High form. With spout and line graduation. Acc. to DIN ISO 4788. Calibrated to IN. Autoclavable (without hexagonal base).

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	0.2	14	140	**CX81.1**	2 unit(s)	17,05
25	0.5	21	270	**CX82.1**	2 unit(s)	19,05
50	1.0	25	200	**CX83.1**	2 unit(s)	20,35
100	1.0	29	260	**CX84.1**	2 unit(s)	24,70
250	2.0	39	335	**CX85.1**	2 unit(s)	40,25
500	5.0	53	390	**CX86.1**	2 unit(s)	64,15
1,000	10.0	65	470	**CX87.1**	1 unit(s)	54,95



NEW / +

A 121 °C

Measuring cylinders class B, blue graduations

Hirschmann. Material: Borosilicate glass 3.3. Autoclavable: Yes.

Low form. With a hexagonal base, line graduation and spout, blue graduations. Acc. to DIN ISO 4788.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	1.0	21	100	**1K0C.1**	2 unit(s)	27,25
25	1.0	25	125	**1K0E.1**	2 unit(s)	23,95
50	2.0	29	150	**1K0H.1**	2 unit(s)	25,45
100	2.0	39	170	**1K0K.1**	2 unit(s)	28,80
250	5.0	54	220	**1K0L.1**	2 unit(s)	49,35
500	10.0	65	255	**1K0N.1**	2 unit(s)	83,50
1,000	20.0	85	295	**1K0P.1**	1 unit(s)	69,65
2,000	50.0	105	345	**1K0T.1**	1 unit(s)	115,40



A 121 °C

Measuring cylinders class B, brown graduations

Hirschmann. Material: Borosilicate glass 3.3. Autoclavable: Yes.

Low form. With a hexagonal base, line graduation and spout, brown graduations. Acc. to DIN ISO 4788.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	1.0	21	100	**K255.2**	2 unit(s)	24,00
25	1.0	25	125	**K256.2**	2 unit(s)	24,00
50	2.0	29	150	**K257.2**	2 unit(s)	24,30
100	2.0	39	170	**K258.2**	2 unit(s)	30,50
250	5.0	54	220	**K259.2**	2 unit(s)	55,65
500	10.0	65	255	**K260.2**	2 unit(s)	74,05
1,000	20.0	85	295	**K261.1**	1 unit(s)	59,75
2,000	50.0	105	345	**K262.1**	1 unit(s)	102,85

Measuring cylinders



121 °C

DURAN WHEATON KIMBLE

Measuring cylinders DURAN® Super Duty class B

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Low form, with line graduations and hexagonal base. Autoclavable.

- Proven DURAN® properties
- Glass type I, Neutral glass according to USP, EP and JP
- High mechanical stability
- Higher impact resistance through reinforced, stable rim
- Regular wall-thickness
- Autoclavable, sterilisable
- Easily readable scale
- Fired-on highly durable labelling

Vol. (ml)	Gradu-ations (ml)	Tole-rance (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	2	1	39	168	**HKL1.1**	2 unit(s)	96,45
250	5	2	54	205	**HKL2.1**	2 unit(s)	124,25
500	10	5	66	253	**HKL3.1**	2 unit(s)	156,00
1,000	20	10	85	290	**HKL4.1**	2 unit(s)	231,00



Nessler cylinder

Marienfeld. Material: Soda-lime glass.

With spout. Filling volume is adjusted to IN, with white ring mark.

High form

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	21	265	**TX39.1**	1 unit(s)	17,20
100	26	320	**TX40.1**	1 unit(s)	21,00

Low form

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	26	175	**TX37.1**	1 unit(s)	20,45
100	32	200	**TX38.1**	1 unit(s)	20,75



121 °C

Measuring cylinders ROTILABO® low form

ROTH SELECTION. Material: PP, transparent. Autoclavable: Yes.

With embossed scale and a round base.

Vol. (ml)	Gradua-tions (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	0.25	16	88	**K846.1**	1 unit(s)	4,15
25	1.0	22	107	**K847.1**	1 unit(s)	4,60
50	2.5	29	143	**K848.1**	1 unit(s)	5,05
100	5.0	34	178	**K849.1**	1 unit(s)	5,85
250	10.0	44.5	264	**K850.1**	1 unit(s)	10,15
500	10.0	55.5	305	**K851.1**	1 unit(s)	12,05
1,000	25.0	70	332	**K852.1**	1 unit(s)	15,50
2,000	50.0	92	370	**K853.1**	1 unit(s)	21,40



Measuring cylinders ROTILABO® high form

ROTH SELECTION. Material: PP, transparent.

With embossed scale and a hexagonal base. Ring markings to show the main points. Calibrated to IN. Class B tolerance according to DIN 12681/ ISO 6706. Exposure to temperatures up to 80 °C will not cause tolerance limits to be permanently exceeded.

Vol. (ml)	Gradu-ations (ml)	Tole-rance (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	0.2	±0,20	15	145	**8357.1**	1 unit(s)	3,50
25	0.5	±0,50	22	170	**8359.1**	1 unit(s)	4,25
50	1.0	±1,00	27	200	**1666.1**	1 unit(s)	4,50
100	1.0	±1,00	33	250	**1667.1**	1 unit(s)	5,55
250	2.0	±2,00	44	315	**8362.1**	1 unit(s)	8,45
500	5.0	±5,00	58	360	**1668.1**	1 unit(s)	11,10
1,000	10.0	±10,00	68	440	**1669.1**	1 unit(s)	14,95
2,000	20.0	±20,00	97	482	**8363.1**	1 unit(s)	34,30

Measuring cylinders



A 121 °C

Measuring cylinders class A

Vitlab. Material: PMP, Transparent. Autoclavable: Yes.

According to DIN 12681/ISO 6706. **Conformity certified.** With hexagonal base, embossed scale and ring markings to show the main points.

Delivery incl. batch certificate.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	0.5	±0,25	22	170	**P148.1**	2 unit(s)	19,60
50	1.0	±0,50	27	200	**P149.1**	2 unit(s)	20,70
100	1.0	±0,50	33	250	**P150.1**	2 unit(s)	27,75
250	2.0	±1,00	44	315	**P151.1**	2 unit(s)	43,40
500	5.0	±2,50	58	360	**P152.1**	1 unit(s)	28,60
1,000	10.0	±5,00	69	440	**P153.1**	1 unit(s)	47,30
2,000	20.0	±10,00	97	482	**P154.1**	1 unit(s)	78,45



A 121 °C ❄❄❄

Measuring cylinders

Saint-Gobain. Material: PFA, Highly transparent. Autoclavable: Yes.

With easy-to-read graduations and wide base.

- Temperature resistant in the range -196 to +250 °C
- Inert to virtually all chemicals, including hydrofluoric and nitric acid
- High purity, low metal ion content, ideal for use in trace analysis and for the storage of highly pure substances
- No memory effect
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning

Vol. (ml)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	20.0	216.7	**YY73.1**	1 unit(s)	470,85
100	25.7	231.8	**YY74.1**	1 unit(s)	554,70
200	33.6	281.8	**YY75.1**	1 unit(s)	664,35



A 121 °C

Measuring cylinders with handle

Bel-Art Products. Material: PP. Autoclavable: Yes.

With hexagonal base and handle (hand opening 89 x 29 mm). For safe, effortless pouring. Double scale for IN and EX, correctness ±5 %.

Vol. (ml)	Graduations (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1,000	10	64	439	**YC27.1**	1 unit(s)	47,30
2,000	20	89	490	**YC28.1**	1 unit(s)	83,35



Mixing cylinders class A

Hirschmann. Material: DURAN® glass.

Acc. to DIN ISO 4788. Certificate of conformity with batch identification. Blue graduations. Calibrated to IN. With hexagonal base. With standard ground glass joint.

Delivery incl. PE stoppers.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
10	0.2	±0,10	10/19	160	**Y585.1**	2 unit(s)	54,95
25	0.5	±0,25	14/23	193	**Y586.1**	2 unit(s)	58,10
50	1.0	±0,50	19/26	226	**Y587.1**	2 unit(s)	64,85
100	1.0	±0,50	24/29	290	**Y588.1**	2 unit(s)	68,70
250	2.0	±1,00	29/32	367	**Y589.1**	2 unit(s)	104,50
500	5.0	±2,50	34/35	425	**Y590.1**	2 unit(s)	148,70
1,000	10.0	±5,00	45/40	510	**Y591.2**	1 unit(s)	129,90
2,000	20.0	±10,00	45/40	540	**Y592.1**	1 unit(s)	217,15



Mixing cylinders class B

Hirschmann. Material: DURAN® glass.

With ground glass joint and line graduation. Acc. to DIN ISO 4788. Blue graduations. Calibrated to IN. With hexagonal base.

Delivery incl. PE stoppers.

Mixing cylinders

Vol. (ml)	Graduations (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
10	0.2	10/19	160	**Y577.1**	2 unit(s)	47,30
25	0.5	14/23	193	**Y578.1**	2 unit(s)	47,30
50	1.0	19/26	226	**Y579.1**	2 unit(s)	53,15
100	1.0	24/29	290	**Y580.1**	2 unit(s)	56,50
250	2.0	29/32	367	**Y581.1**	2 unit(s)	84,75
500	5.0	34/35	425	**Y582.1**	2 unit(s)	132,95
1,000	10.0	45/40	510	**Y583.2**	1 unit(s)	102,45
2,000	20.0	45/40	540	**Y584.1**	1 unit(s)	189,20



A 121 °C

DURAN WHEATON KIMBLE

Mixing cylinders DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Acc. to DIN EN ISO 4788. Standardised wall thickness over the complete measurement range prevents wedge error. With hexagonal base, standard taper and line graduations. Calibrated to IN. Temperature stable up to 250 °C without change in volume.

Delivery incl. PE stoppers.

Class A

With blue graduations. Conformity certified, with mark of conformity and enclosed batch certificate.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
10	0.2	±0,10	10/19	156	**AKE0.1**	2 unit(s)	52,20
25	0.5	±0,25	14/23	190	**AKE1.1**	2 unit(s)	55,40
50	1.0	±0,50	19/26	222	**AKE2.1**	2 unit(s)	62,55
100	1.0	±0,50	24/29	287	**AKE3.1**	2 unit(s)	69,90
250	2.0	±1,00	29/32	363	**AKE4.1**	2 unit(s)	101,55
500	5.0	±2,50	34/35	398	**AKE5.1**	2 unit(s)	142,70
1,000	10.0	±5,00	45/40	500	**AKE6.1**	1 unit(s)	126,85
2,000	20.0	±10,00	45/40	540	**AKE7.1**	1 unit(s)	224,00

Class B

With white graduations.

Vol. (ml)	Graduations (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
10	0.2	±0,20	10/19	156	**AKE8.1**	2 unit(s)	46,90
25	0.5	±0,50	14/23	190	**AKE9.1**	2 unit(s)	48,20
50	1.0	±1,00	19/26	222	**AKH0.1**	2 unit(s)	54,45
100	1.0	±1,00	24/29	287	**AKH1.1**	2 unit(s)	57,40
250	2.0	±2,00	29/32	363	**AKH2.1**	2 unit(s)	86,45
500	5.0	±5,00	34/35	398	**AKH3.1**	2 unit(s)	137,60
1,000	10.0	±10,00	45/40	500	**AKH4.1**	1 unit(s)	100,25
2,000	20.0	±20,00	45/40	540	**AKH5.1**	1 unit(s)	197,00



Volumetric flasks class A

Hirschmann. Material: DURAN® glass.

Certificate of conformity with batch identification. Calibrated to IN. Acc to DIN EN ISO 1042.

Delivery incl. PE stoppers.

Clear glass

Blue graduations.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
5	±0,025	7/16	**Y231.1**	2 unit(s)	33,10
5	±0,040	10/19	**Y232.1**	2 unit(s)	33,10
10	±0,025	7/16	**C162.1**	2 unit(s)	32,25
10	±0,040	10/19	**Y233.1**	2 unit(s)	33,10
20	±0,040	10/19	**C163.1**	2 unit(s)	32,25
25	±0,040	10/19	**C164.1**	2 unit(s)	32,25
25	±0,060	12/21	**Y234.1**	2 unit(s)	33,10
50	±0,060	12/21	**C165.1**	2 unit(s)	35,60
50	±0,080	14/23	**Y235.1**	2 unit(s)	34,70
100	±0,100	12/21	**C166.1**	2 unit(s)	37,10
100	±0,100	14/23	**Y236.1**	2 unit(s)	35,70
200	±0,150	14/23	**C167.1**	2 unit(s)	46,75
250	±0,150	14/23	**C168.1**	2 unit(s)	50,55
500	±0,250	19/26	**C169.1**	2 unit(s)	58,95
1,000	±0,400	24/29	**C170.1**	2 unit(s)	94,85
1,000	±0,600	29/32	**Y237.1**	2 unit(s)	113,80
2,000	±0,600	29/32	**C171.1**	2 unit(s)	141,70
5,000	±1,200	34/35	**C172.1**	1 unit(s)	164,50

Trapezoidal shape

Clear glass, blue graduated.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
1	±0,025	7/16	**Y239.2**	2 unit(s)	43,95
2	±0,025	7/16	**Y240.2**	2 unit(s)	43,95
5	±0,040	10/19	**Y241.1**	2 unit(s)	44,60
10	±0,040	10/19	**Y242.1**	2 unit(s)	44,60
20	±0,040	10/19	**Y243.1**	2 unit(s)	44,60
25	±0,040	10/19	**Y244.1**	2 unit(s)	44,60
50	±0,060	12/21	**Y245.1**	2 unit(s)	44,60

Brown glass

Ring marking and graduation in white ceramic colour. Order No. L453.2 not acc. to DIN.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
5	±0,04	10/19	**L450.2**	2 unit(s)	62,25
10	±0,04	10/19	**L452.2**	2 unit(s)	62,25
20	±0,04	10/19	**L453.2**	2 unit(s)	62,25
25	±0,04	10/19	**L454.2**	2 unit(s)	62,25
50	±0,06	12/21	**L455.2**	2 unit(s)	64,85
50	±0,08	14/23	**L456.2**	2 unit(s)	64,85
100	±0,10	12/21	**L457.2**	2 unit(s)	64,85
100	±0,10	14/23	**L458.2**	2 unit(s)	68,70
200	±0,15	14/23	**L459.2**	2 unit(s)	78,65
250	±0,15	14/23	**L460.2**	2 unit(s)	83,85
500	±0,25	19/26	**L461.2**	2 unit(s)	110,35
1,000	±0,40	24/29	**L462.1**	1 unit(s)	82,00
2,000	±0,60	29/32	**L463.1**	1 unit(s)	123,75

Volumetric flasks



Volumetric flasks class A

Isolab. Material: Borosilicate glass 3.3.

Certificate of conformity with batch identification. Calibrated to IN. Acc. to DIN EN ISO 1042.

Delivery incl. HDPE stopper.

Clear glass

Blue graduations.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
5	±0,025	10/19	**Y274.1**	2 unit(s)	14,80
10	±0,025	7/16	**Y275.1**	2 unit(s)	16,05
10	±0,025	10/19	**Y276.1**	2 unit(s)	16,05
20	±0,040	10/19	**Y277.1**	2 unit(s)	16,40
25	±0,040	10/19	**Y278.1**	2 unit(s)	17,65
50	±0,060	12/21	**Y279.1**	2 unit(s)	18,65
50	±0,060	14/23	**Y280.1**	2 unit(s)	20,10
100	±0,100	12/21	**Y281.1**	2 unit(s)	20,10
100	±0,100	14/23	**Y282.1**	2 unit(s)	21,25
200	±0,150	14/23	**Y283.1**	2 unit(s)	27,15
250	±0,150	14/23	**Y284.1**	2 unit(s)	27,55
500	±0,250	19/26	**Y285.1**	2 unit(s)	35,35
1,000	±0,400	24/29	**Y286.1**	2 unit(s)	56,25
2,000	±0,600	29/32	**Y287.1**	2 unit(s)	93,80
5,000	±1,200	34/35	**Y288.1**	1 unit(s)	116,10

Brown glass

White graduated.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
5	±0,025	10/19	**Y290.1**	2 unit(s)	21,00
10	±0,025	10/19	**Y292.1**	2 unit(s)	21,10
20	±0,040	10/19	**Y293.1**	2 unit(s)	23,50
25	±0,040	10/19	**Y294.1**	2 unit(s)	24,20
50	±0,060	12/21	**Y295.1**	2 unit(s)	28,45
50	±0,060	14/23	**Y296.1**	2 unit(s)	28,45
100	±0,100	12/21	**Y297.1**	2 unit(s)	33,20
100	±0,100	14/23	**Y298.1**	2 unit(s)	34,20
200	±0,150	14/23	**Y299.1**	2 unit(s)	51,95
250	±0,150	14/23	**Y300.1**	2 unit(s)	56,25
500	±0,250	19/26	**Y301.1**	2 unit(s)	75,65
1,000	±0,400	24/29	**Y302.1**	2 unit(s)	109,90



NEW / +

Volumetric flasks BLAUBRAND® class A

BRAND. Material: Borosilicate glass 3.3.

Conformity-certified with batch number and an enclosed batch certificate per packaging unit. Calibrated to IN. Acc. to DIN EN ISO 1042.

Delivery incl. plastic stop.

Clear glass, PP stop

Blue graduations.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
5	0,04	10/19	**1KX5.1**	2 unit(s)	37,95
10	0,025	7/16	**1KX6.1**	2 unit(s)	37,95
10	0,04	10/19	**1KX7.1**	2 unit(s)	37,95
20	0,04	10/19	**1KX8.1**	2 unit(s)	39,15
20	0,06	12/21	**1KX9.1**	2 unit(s)	39,70
25	0,04	10/19	**1KXA.1**	2 unit(s)	39,15
25	0,06	12/21	**1KXC.1**	2 unit(s)	43,25
50	0,06	12/21	**1KXE.1**	2 unit(s)	41,70
50	0,1	14/23	**1KXH.1**	2 unit(s)	43,25
100	0,1	12/21	**1KXK.1**	2 unit(s)	46,25
100	0,1	14/23	**1KXL.1**	2 unit(s)	46,25
150	0,15	14/23	**1KXN.1**	2 unit(s)	58,50
200	0,15	14/23	**1KXP.1**	2 unit(s)	52,90
250	0,15	14/23	**1KXT.1**	2 unit(s)	55,45
500	0,25	19/26	**1KXX.1**	2 unit(s)	66,05
1,000	0,4	24/29	**1KXY.1**	1 unit(s)	58,50
1,000	0,6	29/32	**1KY0.1**	1 unit(s)	64,30
2,000	0,6	29/32	**1KY1.1**	1 unit(s)	80,00

Clear glass, HPDE stop

Blue graduations.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
5,000	1,2	34/35	**1KY2.1**	1 unit(s)	181,70
10,000	2,0	45/40	**1KY3.1**	1 unit(s)	358,00

Brown glass, PP stop

White graduations.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
5	0,04	10/19	**1KY4.1**	2 unit(s)	81,75
10	0,04	10/19	**1KY5.1**	2 unit(s)	81,75
20	0,04	10/19	**1KY6.1**	2 unit(s)	81,75
20	0,04	12/21	**1KY7.1**	2 unit(s)	89,20
25	0,04	10/19	**1KY8.1**	2 unit(s)	81,75
25	0,06	12/21	**1KY9.1**	2 unit(s)	89,20
50	0,1	12/21	**1KYA.1**	2 unit(s)	85,40
50	0,1	14/23	**1KYC.1**	2 unit(s)	89,20
100	0,1	14/23	**1KYE.1**	2 unit(s)	87,05
200	0,15	14/23	**1KYH.1**	2 unit(s)	107,40
250	0,15	14/23	**1KYK.1**	2 unit(s)	120,75
500	0,25	19/26	**1KYL.1**	2 unit(s)	150,10
1,000	0,4	24/29	**1KYN.1**	1 unit(s)	115,80

Volumetric flasks



DURAN WHEATON KIMBLE

Volumetric flasks DURAN®

DWK Life Sciences. Material: DURAN® glass, clear.

Calibrated to IN. Acc. to DIN 12 600. Temperature stable up to 250 °C without change in volume.

Delivery incl. PE stopper, temperature-stable from -40 to +80 °C.

Class A,with batch certificate
With blue graduations and white ring marking. Conformity certified, with mark of conformity and enclosed **batch certificate**.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
1	±0,025	7/16	65	**AHL8.1**	2 unit(s)	68,65
2	±0,025	7/16	70	**AHL9.1**	2 unit(s)	68,65
5	±0,040	10/19	70	**AHN0.1**	2 unit(s)	38,15
10	±0,040	10/19	90	**AHN1.1**	2 unit(s)	38,50
20	±0,040	10/19	110	**AHN2.1**	2 unit(s)	39,65
25	±0,040	10/19	110	**AHN3.1**	2 unit(s)	39,65
50	±0,060	12/21	140	**AHN4.1**	2 unit(s)	43,40
100	±0,100	12/21	170	**AHN5.1**	2 unit(s)	48,20
100	±0,100	14/23	170	**AHN6.1**	2 unit(s)	48,60
200	±0,150	14/23	210	**AHN7.1**	2 unit(s)	55,40
250	±0,150	14/23	220	**AHN8.1**	2 unit(s)	57,25
500	±0,250	19/26	260	**AHN9.1**	2 unit(s)	67,65
1,000	±0,400	24/29	300	**AHP0.2**	2 unit(s)	119,65
1,000	±0,600	29/32	300	**AHP1.2**	2 unit(s)	129,50
2,000	±0,600	29/32	370	**AHP2.2**	2 unit(s)	162,00
5,000	±1,200	34/35	475	**AHP3.1**	1 unit(s)	165,00

Class A, with individual certificate
With blue graduations and white ring marking. Conformity certified, with mark of conformity and enclosed **individual certificate**.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
1	±0,025	7/16	65	**AHP4.1**	2 unit(s)	133,75
2	±0,025	7/16	70	**AHP5.1**	2 unit(s)	133,75
5	±0,040	10/19	70	**AHP6.1**	2 unit(s)	93,90
10	±0,040	10/19	90	**AHP7.1**	2 unit(s)	95,35
20	±0,040	10/19	110	**AHP8.1**	2 unit(s)	95,35
25	±0,040	10/19	110	**AHP9.1**	2 unit(s)	95,35
50	±0,060	12/21	140	**AHT0.1**	2 unit(s)	99,35
100	±0,100	12/21	170	**AHT1.1**	2 unit(s)	104,40
100	±0,100	14/23	170	**AHT2.1**	2 unit(s)	105,65
200	±0,150	14/23	210	**AHT3.1**	2 unit(s)	111,60
250	±0,150	14/23	220	**AHT4.1**	2 unit(s)	112,85
500	±0,250	19/26	260	**AHT5.1**	2 unit(s)	133,75
1,000	±0,400	24/29	300	**AHT6.2**	2 unit(s)	176,00
1,000	±0,600	29/32	300	**AHT7.2**	2 unit(s)	187,00
2,000	±0,600	29/32	370	**AHT8.2**	2 unit(s)	216,00
5,000	±1,200	34/35	475	**AHT9.1**	1 unit(s)	191,00

Class B
With white labelling and white ring marking.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
5	±0,08	10/19	70	**AHX0.1**	2 unit(s)	32,30
10	±0,08	10/19	90	**AHX1.1**	2 unit(s)	32,90
20	±0,08	10/19	110	**AHX2.1**	2 unit(s)	34,30
25	±0,08	10/19	110	**AHX3.1**	2 unit(s)	34,30
50	±0,12	12/21	140	**AHX4.1**	2 unit(s)	39,30
100	±0,20	14/23	170	**AHX5.1**	2 unit(s)	43,80
200	±0,30	14/23	210	**AHX6.1**	2 unit(s)	48,70
250	±0,30	14/23	220	**AHX7.1**	2 unit(s)	51,20
500	±0,50	19/26	260	**AHX8.1**	2 unit(s)	62,10
1,000	±0,80	24/29	300	**AHX9.2**	2 unit(s)	104,00
2,000	±1,20	29/32	370	**AHY0.2**	2 unit(s)	145,10
5,000	±2,40	34/35	475	**AHY1.1**	1 unit(s)	154,00



DURAN WHEATON KIMBLE

Volumetric flasks DURAN® class A, USP<31>

DWK Life Sciences. Material: DURAN® glass, clear.

With blue graduations and white ring marking. Calibrated to IN. Acc. to DIN 12 600. USP<31> compliant, conformity certification and USP individual certificate enclosed. Temperature-stable up to +250 °C without change in volume.

Delivery incl. PE stopper, temperature-stable from -40 to +80 °C.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
5	±0,02	10/19	70	**AHY2.1**	2 unit(s)	99,35
10	±0,02	10/19	90	**AHY3.1**	2 unit(s)	99,35
25	±0,03	10/19	110	**AHY4.1**	2 unit(s)	100,20
50	±0,05	12/21	140	**AHY5.1**	2 unit(s)	104,00
100	±0,08	14/23	170	**AHY6.1**	2 unit(s)	110,35
200	±0,10	14/23	210	**AHY7.1**	2 unit(s)	117,05
250	±0,12	14/23	220	**AHY8.1**	2 unit(s)	119,65
500	±0,15	19/26	260	**AHY9.1**	2 unit(s)	129,50
1,000	±0,30	24/26	300	**AKA0.2**	2 unit(s)	183,00
2,000	±0,50	29/32	370	**AKA1.2**	2 unit(s)	229,00

Volumetric flasks



Volumetric flasks with glass stopper, class A

Hirschmann. Material: DURAN® glass.

Certificate of conformity with batch identification. Calibrated to IN. With standard ground glass joint. Acc. to DIN EN ISO 1042.

Delivery incl. hollow glass stoppers.class

Clear glass

Blue graduations.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
5	±0,025	7/16	70	**CNY0.1**	2 unit(s)	45,65
5	±0,040	10/19	70	**CNY1.1**	2 unit(s)	44,85
10	±0,025	7/16	90	**CNY2.1**	2 unit(s)	44,85
10	±0,040	10/19	90	**CNY3.1**	2 unit(s)	44,85
20	±0,040	10/19	110	**CNY4.1**	2 unit(s)	44,85
20	±0,060	12/21	105	**CNY5.1**	2 unit(s)	51,40
25	±0,040	10/19	110	**CNY6.1**	2 unit(s)	44,85
25	±0,060	12/21	110	**CNY7.1**	2 unit(s)	44,05
50	±0,060	12/21	140	**CNY8.1**	2 unit(s)	43,75
50	±0,080	14/23	140	**CNY9.1**	2 unit(s)	45,55
100	±0,100	12/21	170	**CPA0.1**	2 unit(s)	45,65
100	±0,100	14/23	170	**CPA1.1**	2 unit(s)	43,75
200	±0,150	14/23	210	**CPA2.1**	2 unit(s)	59,75
250	±0,150	14/23	220	**CPA3.1**	2 unit(s)	63,05
500	±0,250	19/26	260	**CPA4.1**	2 unit(s)	76,90
1,000	±0,600	19/32	300	**CPA5.1**	1 unit(s)	70,55
1,000	±0,400	24/29	300	**CPA6.1**	1 unit(s)	60,80
2,000	±0,600	29/32	370	**CPA7.1**	1 unit(s)	86,25
5,000	±1,200	34/35	470	**CPA8.1**	1 unit(s)	191,35
10,000	±2,000	45/40	570	**CPA9.1**	1 unit(s)	362,30

Trapezoidal shape

Clear glass, blue graduated.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
1	±0,025	7/16	60	**CPC0.1**	2 unit(s)	54,65
2	±0,025	7/16	70	**CPC1.1**	2 unit(s)	54,65
5	±0,025	7/16	70	**CPC2.1**	2 unit(s)	54,65
5	±0,040	10/19	70	**CPC3.1**	2 unit(s)	54,65
10	±0,025	7/16	90	**CPC4.1**	2 unit(s)	54,65
10	±0,040	10/19	90	**CPC5.1**	2 unit(s)	54,65
20	±0,040	10/19	110	**CPC6.1**	2 unit(s)	54,65
25	±0,040	10/19	110	**CPC7.1**	2 unit(s)	54,65
50	±0,060	12/21	140	**CPC8.1**	2 unit(s)	54,65

Brown glass

White graduated.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
5	±0,025	7/16	70	**CPC9.1**	2 unit(s)	93,75
5	±0,040	10/19	70	**CPE0.1**	2 unit(s)	79,80
10	±0,025	7/16	90	**CPE1.1**	2 unit(s)	93,75
10	±0,040	10/19	90	**CPE2.1**	2 unit(s)	79,80
20	±0,040	10/19	110	**CPE3.1**	2 unit(s)	79,80
20	±0,040	12/21	110	**CPE4.1**	2 unit(s)	79,80
25	±0,040	10/19	110	**CPE5.1**	2 unit(s)	79,80
25	±0,060	12/21	110	**CPE6.1**	2 unit(s)	79,80
50	±0,060	12/21	140	**CPE7.1**	2 unit(s)	80,25
50	±0,080	14/23	140	**CPE8.1**	2 unit(s)	80,30
100	±0,100	12/21	170	**CPE9.1**	2 unit(s)	81,55
100	±0,100	14/23	170	**CPH0.1**	2 unit(s)	80,05
200	±0,150	14/23	210	**CPH1.1**	2 unit(s)	92,10
250	±0,150	14/23	220	**CPH2.1**	2 unit(s)	101,25
500	±0,250	19/26	260	**CPH3.1**	2 unit(s)	130,10
1,000	±0,400	24/26	300	**CPH4.1**	1 unit(s)	91,95
2,000	±0,600	29/32	370	**CPH5.1**	1 unit(s)	142,20



A 121 °C

Volumetric flasks with screw cap, class A

Vitlab. Material: PFA. Autoclavable: Yes.

With ring marking individually calibrated to “IN”. Tolerance class A acc. to DIN EN ISO 1042. Exposure to temperatures up to 121 °C (autoclaving) will not cause tolerance limits to be permanently exceeded.

Transparent

High temperature and chemical resistance. Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning. High purity, ideal for use in trace analysis and for storage of reference solutions. No memory effect.

Vol. (ml)	Tolerance (ml)	Thread	Height (mm)	Art. No.	Pack Qty.	€
10	±0,04	GL 18	90	**XY51.1**	1 unit(s)	145,40
25	±0,04	GL 18	115	**XY52.1**	1 unit(s)	149,00
50	±0,06	GL 18	150	**XY53.1**	1 unit(s)	152,50
100	±0,10	GL 18	180	**XY54.1**	1 unit(s)	191,35
250	±0,15	GL 25	235	**XY55.1**	1 unit(s)	236,50
500	±0,25	GL 25	270	**XY56.1**	1 unit(s)	274,15

Volumetric flasks



121 °C

Volumetric flasks class A

Vitlab. Material: PMP. Autoclavable: Yes.

With ring marking individually calibrated to “IN”. Tolerance class A according to DIN EN ISO 1042. With imprinted lot number and batch certificate. Cleaning at max. 60 °C recommended to protect the printing. Exposure to temperatures up to 121 °C (autoclaving) will not cause tolerance limits to be permanently exceeded.

Delivery incl. standard ground joint made of PP.

Transparent

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
10	±0,04	10/19	90	**XY30.1**	1 unit(s)	12,05
25	±0,04	10/19	115	**XY31.1**	1 unit(s)	12,20
50	±0,06	12/21	150	**XY32.1**	1 unit(s)	16,20
100	±0,10	14/23	180	**XY33.1**	1 unit(s)	18,30
250	±0,15	19/26	235	**XY34.1**	1 unit(s)	22,80
500	±0,25	19/26	270	**XY35.1**	1 unit(s)	23,65
1,000	±0,40	24/29	310	**XY36.1**	1 unit(s)	31,75

Opaque

UV-absorbent for storage of light-sensitive substances.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
10	±0,04	10/19	90	**XY37.1**	1 unit(s)	21,70
25	±0,04	10/19	115	**XY38.1**	1 unit(s)	23,05
50	±0,06	12/21	150	**XY39.1**	1 unit(s)	25,40
100	±0,10	14/23	180	**XY40.1**	1 unit(s)	27,10
250	±0,15	19/26	235	**XY41.1**	1 unit(s)	32,70
500	±0,25	19/26	270	**XY42.1**	1 unit(s)	38,40
1,000	±0,40	24/29	310	**XY43.1**	1 unit(s)	78,45



Volumetric flasks class B

Vitlab.

With ring marking individually calibrated to “IN”. Tolerances in compliance with DIN EN ISO 1042. Temperatures up to 60 °C will not cause tolerance limits to be permanently exceeded.

Delivery incl. standard ground joint made of PP.

Crystal clear

Material: PMP. Autoclavable: Yes.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
25	±0,08	10/19	115	**8374.1**	1 unit(s)	10,25
50	±0,12	12/21	150	**8375.1**	1 unit(s)	13,25
100	±0,20	14/23	180	**8377.1**	1 unit(s)	15,00
250	±0,30	19/26	235	**8378.1**	1 unit(s)	19,10
500	±0,50	19/26	270	**8380.1**	1 unit(s)	20,00
1,000	±0,80	24/29	310	**8381.1**	1 unit(s)	26,65

Transparent

Material: PP.

Vol. (ml)	Tolerance (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
25	±0,08	10/19	115	**8364.1**	1 unit(s)	9,15
50	±0,12	12/21	150	**8365.1**	1 unit(s)	11,75
100	±0,20	14/23	180	**8366.1**	1 unit(s)	12,55
250	±0,30	19/26	235	**8368.1**	1 unit(s)	15,45
500	±0,50	19/26	270	**8370.1**	1 unit(s)	16,30
1,000	±0,80	24/29	310	**8372.1**	1 unit(s)	22,00



121 °C

Volumetric flasks ROTILABO® with scaled neck

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.

With heavy duty rim. Brown graduated.

Vol. (ml)	Neck volume (ml)	Height (mm)	Gradua-tions (ml)	Art. No.	Pack Qty.	€
50	+ 5	155	0.2	**ACA7.1**	1 unit(s)	30,70
100	+ 10	205	0.2	**ACA8.1**	1 unit(s)	32,75
200	+ 20	245	0.2	**ACA9.1**	1 unit(s)	44,55
250	+ 25	280	0.5	**ACC0.1**	1 unit(s)	57,80
500	+ 50	320	1.0	**ACC1.1**	1 unit(s)	56,50
1,000	+ 100	400	1.0	**ACC2.1**	1 unit(s)	79,25

Volumetric flasks



Volumetric flasks acc. to Kohlrausch class A

Winzer. Material: Borosilicate glass 3.3.

For sugar examinations acc. to Kohlrausch. With ring marking, accuracy within official test tolerance.

Vol. (ml)	Art. No.	Pack Qty.	€
100	**AAN3.1**	1 unit(s)	36,85
200	**AAN4.1**	1 unit(s)	45,35



Pycnometer acc. to Gay-Lussac

Marienfeld. Material: Borosilicate glass 3.3.

For determining the density of non-volatile, low-viscosity liquids. Pear-shaped. With recessed glass stopper, edge Ø at top 9 mm, at bottom 7 mm. Calibrated at 20 °C. Total volume is engraved on the pycnometer, three decimal places, tolerance ± 0.001 ml.

Vol. (ml)	Art. No.	Pack Qty.	€
1	**P224.1**	1 unit(s)	43,55
2	**P225.1**	1 unit(s)	43,55
5	**P226.1**	1 unit(s)	44,10
10	**P227.1**	1 unit(s)	45,70
25	**P228.1**	1 unit(s)	47,20
50	**P229.1**	1 unit(s)	52,70
100	**P230.1**	1 unit(s)	64,40



Pycnometer ROTILABO® acc. to Reischauer

ROTH SELECTION. Material: Borosilicate glass 3.3.

With graduation in the neck. Acc. to DIN ISO 3507.

Vol. (ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
25	10/13	105	**TP46.1**	1 unit(s)	69,70
50	10/13	115	**TP47.1**	1 unit(s)	73,95



Pycnometer acc. to Gay-Lussac with thermometer

Lenz. Material: Borosilicate glass 3.3.

Calibrated to IN. With thermometer and side capillaries with conical ground joint NS 7/16. Thermometer with blue Toluene filling, measuring range 10-35 °C, graduation 0.2 °C. Volume data in cm^3 (3 decimal places).

Delivery incl. individual certificate.

Vol. (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
10	10/19	**EXP7.1**	1 unit(s)	223,60
25	10/19	**EXP8.1**	1 unit(s)	224,70
50	10/19	**EXP9.1**	1 unit(s)	231,15
100	10/19	**EXY0.1**	1 unit(s)	235,45



Pycnometer ROTILABO®

Winzer. Material: Borosilicate glass 3.3.

For bituminous masses and minerals. With ring marking. Non-calibrated.

Vol. (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
500	45/40	**AAN8.1**	1 unit(s)	122,55
1,000	60/46	**AAN9.1**	1 unit(s)	155,20
2,000	60/46	**AAP0.1**	1 unit(s)	193,50



A 121 °C

Fermentation saccharometer acc. to Einhorn

Hecht. Material: Soda-lime glass. Autoclavable: Yes.

For determining the sugar content in liquids. With indelibly branded white graduations (0.2-5 ml).

Delivery incl. measuring glass with ring marking at 10 ml.

Vol. (ml)	Art. No.	Pack Qty.	€
5	**CKY9.1**	1 unit(s)	22,90

Measuring vessels



DURAN WHEATON KIMBLE

BOD bottles

DWK Life Sciences. Material: Borosilicate glass acc. to USP type I.

With labelling area. For determination of the biochemical oxygen requirement. The extension at the bottle neck holds water displaced by stoppers or electrodes and thus protects against air entering the bottle. Neck inside Ø 16.5 mm.

Delivery incl. stoppers.

Non-coated

Vol. (ml)	Ø (mm)	Height (mm)	Stopper type	Art. No.	Pack Qty.	€
60	43	115	Pennyhead	**EXT8.1**	1 unit(s)	37,65
60	43	115	Robotic	**EXT9.1**	1 unit(s)	37,30
300	69	165	Pennyhead	**EXX0.1**	1 unit(s)	21,85
300	69	165	Robotic	**EXX1.1**	1 unit(s)	21,85

With black PVC coating

Light protection up to 800 nm, prevents potential oxygen production due to algae. With additional sealing cap made of LDPE.

Vol. (ml)	Ø (mm)	Height (mm)	Stopper type	Art. No.	Pack Qty.	€
300	73	167	Robotic	**EXX2.1**	1 unit(s)	35,70

Accessories stoppers for BOD bottles

DWK Life Sciences. Material: PE with foam insert.

Prevents the evaporation of the water in the bottle neck extension so that air cannot enter the bottle during incubation.

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
40	35	**EXX5.1**	50 unit(s)	86,30

Accessories stopper safety clip for BOD bottles

DWK Life Sciences. Material: Rubber.

Version	Art. No.	Pack Qty.	€
Stopper safety clip for BOD bottles	**EXX6.1**	25 unit(s)	37,65



DURAN WHEATON KIMBLE

Racks for BOD bottles

DWK Life Sciences. Material: Steel, epoxide-coated.

For storage or transportation of 60 ml or 300 ml BOD bottles. Stackable. Dimensions: L 330 x W 254 x H 178 mm, height up to top level 143 mm.

No. of slots	Art. No.	Pack Qty.	€
12	**EXX4.1**	1 unit(s)	104,65
20	**EXX3.1**	1 unit(s)	127,15



Oxygen bottles

Winzer. Material: Borosilicate glass.

For the determination of water dissolved oxygen. With rounded PE stoppers at the bottom and labelling space. Total volume in engraved on the cone, two decimal places, tolerance ±0.01 ml.

Volume (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
100 to 150	14/23	**AAP3.1**	1 unit(s)	25,20
100 to 150	29/22	**AAP4.1**	1 unit(s)	28,90
250 to 300	19/26	**AAP5.1**	1 unit(s)	26,50



Oxygen bottles acc. to Winkler

Marienfeld. Material: Glass, clear.

With recessed stopper and labelling space. Total volume engraved on the cone, two decimal places, tolerance ±0.1 ml.

Volume (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
100 to 150	14/23	**HH78.1**	1 unit(s)	39,80
250 to 300	19/26	**HH79.1**	1 unit(s)	47,30



DURAN WHEATON KIMBLE

Sedimentation cone acc. to Imhoff

DWK Life Sciences. Material: DURAN® glass.

Graduated. Acc. to DIN 12672 part 1. Ø top 120 mm.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1,000	120	465	**K618.1**	1 unit(s)	113,70



Sedimentation cone acc. to Imhoff with stop cock

Lenz. Material: Borosilicate glass 3.3.

Acc. to DIN 2672. Graduation up to 100 ml. Ring marking at 1000 ml. Stop cock with ground glass joint. Dimensions: H (with stop cock) 510 mm, H (without stop cock) 465 mm, Ø top 120 mm. Ø spout outside: 10 mm, inside 6.5 mm.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1,000	120	510	**AK68.1**	1 unit(s)	235,45



Sedimentation cone ROTILABO® acc. to Imhoff

ROTH SELECTION. Material: SAN, crystal clear.

With raised scale and screw connection for emptying.
Graduation:

- 0-2 ml = 0.1 ml
- 2-10 ml = 0.5 ml
- 10-40 ml = 1.0 ml
- 40-100 ml = 2.0 ml
- 100-1000 ml = 50.0 ml

Vol. (ml)	Art. No.	Pack Qty.	€
1,000	**9144.1**	1 unit(s)	34,35



Frame for sedimentation cones

Kartell. Material: PMMA.

No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	300	150	290	**9147.1**	1 unit(s)	101,30



Frame for sedimentation cones

ROTH SELECTION.

Made of epoxide-coated wire.

No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
3	45	17	41	**YA75.1**	1 unit(s)	112,90
4	58	17	41	**YA76.1**	1 unit(s)	127,95

Glass bottles

Settling bottle DURAN® with tap

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

For storage and dispensing of aqueous media and aggressive liquids. Design according to DIN EN ISO 4796-3. With retrace code.



A 121 °C

DURAN WHEATON KIMBLE

With ground glass joint

Delivery incl. NS tap and stopper.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Standard ground glass joint	Bottom tube NS	Art. No.	Pack Qty.	€
500	86	164	24/29	19/26	**CCN4.1**	1 unit(s)	160,00
1,000	107	200	29/32	19/26	**CCN5.1**	1 unit(s)	167,00
2,000	134	249	29/32	19/26	**CCN6.1**	1 unit(s)	219,00
10,000	228	398	60/46	29/32	**CCN8.1**	1 unit(s)	441,00
20,000	289	492	60/46	29/32	**CCN9.1**	1 unit(s)	704,00

With GL 45 thread

Delivery incl. screw closure, silicone seal, drainage tap and PTFE shaft.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
1,000	101	225	GL 45	**CCP0.1**	1 unit(s)	166,00
2,000	136	260	GL 45	**CCP1.1**	1 unit(s)	203,00
5,000	182	330	GL 45	**CCP2.1**	1 unit(s)	294,00
10,000	230	410	GL 45	**CCP3.1**	1 unit(s)	466,00

Settling bottle

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

With beaded edge and glass connection for hoses with an inside Ø of 10 mm.



A 121 °C

DURAN WHEATON KIMBLE

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
250	73	131	18.8	**PK81.1**	1 unit(s)	47,65
500	89	162	24	**PK82.1**	1 unit(s)	57,45
1,000	111	200	29.2	**PK83.1**	1 unit(s)	71,10

Glass bottles



Wide mouth jars Twist-off

ROTH SELECTION. Material: Glass from hydrolytic class 3, clear.

For sampling, packaging and storing solids, pastes or non-aggressive liquids. Wide mouth opening makes filling and cleaning easy.

Delivery without screw cap, please order separately.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
210	69.5	74.5	53	TO 66	**AYC0.1**	12 unit(s)	22,75
380	75.5	112	53	TO 66	**AYC1.1**	12 unit(s)	41,55

Accessories screw caps for Twist-Off wide-necked bottles

ROTH SELECTION. Material: Metal with rubber seal.

Suitable for Twist-Off wide-necked bottles Art. No. AYC0.1 and AYC1.1. Good sealing properties.

Thread	Art. No.	Pack Qty.	€
TO 66	**AYC2.1**	12 unit(s)	15,30



Wide mouth jars

ROTH SELECTION. Material: Glass from hydrolytic class 3.

For sampling, packaging and storing solids, pastes or non-aggressive liquids.
Wide mouth opening makes filling and cleaning easy. Round thread according to DIN 168.

Delivery incl. anti-spill PP closure with LDPE seal.

Clear glass

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
30	36	68	GL 32	**KAY3.2**	126 unit(s)	165,55
50	44	75	GL 32	**KCY6.1**	85 unit(s)	100,90
125	54	98	GL 40	**AYC3.1**	80 unit(s)	143,70
250	70	113	GL 55	**AYC4.1**	48 unit(s)	133,45
500	84	154	GL 55	**AYC5.1**	20 unit(s)	88,90
1,000	103.5	180.5	GL 68	**AYC6.1**	18 unit(s)	127,60

Brown glass

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
30	36	68	GL 32	**KAY4.1**	126 unit(s)	165,55
50	44	75	GL 32	**KCY7.1**	85 unit(s)	115,20
125	54	98	GL 40	**AYC7.1**	84 unit(s)	178,45
250	70	113	GL 55	**AYC8.2**	30 unit(s)	88,90
500	84	154	GL 55	**AYC9.1**	20 unit(s)	88,90
1,000	103.5	180.5	GL 68	**AYE0.1**	12 unit(s)	107,90



DURAN WHEATON KIMBLE

Wide mouth jars

DWK Life Sciences. Material: Soda-lime glass acc. to USP Type III, caps made of PP with seals made of PTFE-coated PE foam.

Straight walls enable a complete removal of the contents, ideal for soil samples and larger solids.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
60	55	48	53-400	**ETN7.1**	24 unit(s)	91,00
125	60	68	58-400	**ETN8.1**	24 unit(s)	92,80
250	73	88	70-400	**ETN9.1**	12 unit(s)	63,70
500	91	95	89-400	**ETP0.1**	12 unit(s)	96,55
1,000	95	170	89-400	**ETP1.1**	12 unit(s)	104,55

Glass bottles



DURAN WHEATON KIMBLE

Wide mouth bottle standard

DWK Life Sciences. Material: Soda-lime glass, caps made of PP with seals made of PTFE-coated PE foam.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
125	52	86	48-400	**ETK7.1**	24 unit(s)	72,15
250	63	112	58-400	**ETK8.1**	24 unit(s)	106,70
500	79	135	63-400	**ETK9.1**	24 unit(s)	121,05
2,000	122	215	83-400	**ETL0.1**	6 unit(s)	61,15
4,000	157	258	89-400	**ETL1.1**	4 unit(s)	54,65



DURAN WHEATON KIMBLE

Wide mouth bottle

DWK Life Sciences. Material: Soda-lime glass acc. to USP Type III, caps made of PP with seals made of PTFE-coated PE foam.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
30	34	70	33-400	**ETL6.1**	48 unit(s)	105,70
60	42	85	38-400	**ETL7.1**	48 unit(s)	119,10
125	51	104	48-400	**ETL8.1**	24 unit(s)	97,10
250	62	129	58-400	**ETL9.1**	24 unit(s)	101,45
500	76	147	70-400	**ETN0.1**	24 unit(s)	113,05



DURAN WHEATON KIMBLE

Wide mouth bottle brown glass

DWK Life Sciences. Material: Soda-lime glass acc. to USP Type III, caps made of PP with seals made of PTFE-coated PE foam.

For storing light-sensitive substances.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
30	37	65	28-400	**ETN1.1**	24 unit(s)	45,35
60	44	75	33-400	**ETN2.1**	24 unit(s)	51,75
125	54	95	38-400	**ETN3.1**	24 unit(s)	62,25
250	66	119	45-400	**ETN4.1**	24 unit(s)	78,95
500	80	146	53-400	**ETN5.1**	12 unit(s)	54,80
1,000	99	178	53-400	**ETN6.1**	12 unit(s)	67,90

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Glass bottles

Narrow mouth bottle DURAN® with ground glass joint

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
According to DIN EN ISO 4796-2. With NS glass stopper, solid glass (NS 10 to 24) or semi-hollow (in NS 29 or larger). With retrace code.



A 121 °C

DURAN WHEATON KIMBLE

Clear glass

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	42	80	14/15	**Y622.1**	1 unit(s)	31,15
100	52	96	14/15	**Y623.1**	1 unit(s)	31,15
250	70	130	19/26	**Y624.1**	1 unit(s)	34,35
500	86	164	24/29	**Y625.1**	1 unit(s)	44,35
1,000	107	200	29/32	**Y626.1**	1 unit(s)	50,20
2,000	134	248	29/32	**Y835.1**	1 unit(s)	72,75
5,000	182	323	45/40	**CCT2.1**	1 unit(s)	228,00
10,000	227	398	60/46	**CCT3.1**	1 unit(s)	379,00
20,000	288	492	60/46	**CCT4.1**	1 unit(s)	713,00

Brown glass

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	42	80	14/15	**Y627.1**	1 unit(s)	48,80
100	52	96	14/15	**Y628.1**	1 unit(s)	49,75
250	70	130	19/26	**Y629.1**	1 unit(s)	66,10
500	86	164	24/29	**Y630.1**	1 unit(s)	77,50
1,000	107	200	29/32	**Y631.1**	1 unit(s)	93,05
2,000	134	248	29/32	**Y836.1**	1 unit(s)	154,00
5,000	182	323	45/40	**CCT6.1**	1 unit(s)	334,00
10,000	227	398	60/46	**CCT7.1**	1 unit(s)	551,00
20,000	288	492	60/46	**CCT8.1**	1 unit(s)	1.025,00

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Glass bottles

Narrow mouth bottle with ground glass joint

DWK Life Sciences. Material: Soda-lime glass.

According to DIN EN ISO 4796-2. With NS glass stopper, solid glass (NS 14 to 24) or semi-hollow (in NS 29 or larger).



DURAN WHEATON KIMBLE

Clear glass

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
100	52	96	14/15	**H055.1**	10 unit(s)	104,95
250	72	130	19/26	**H056.1**	10 unit(s)	126,65
500	89	165	24/29	**H057.1**	10 unit(s)	159,00
1,000	110	200	29/32	**H058.1**	1 unit(s)	20,00

Brown glass

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	42	80	14/15	**H060.1**	10 unit(s)	152,00
100	52	96	14/15	**H061.1**	10 unit(s)	155,00
250	72	130	19/26	**CCX3.1**	10 unit(s)	167,00
500	89	165	24/29	**H063.1**	10 unit(s)	207,00
1,000	110	200	29/32	**H064.1**	1 unit(s)	24,30

Wide mouth bottle with ground glass joint

DWK Life Sciences. Material: Soda-lime glass.

With NS glass stopper, solid glass (NS 24) or semi-hollow (in NS 29 or larger). According to DIN EN ISO 4796-2.



DURAN WHEATON KIMBLE

Clear glass

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	44	79	24/20	**H044.1**	10 unit(s)	130,85
100	52	97	29/22	**H045.1**	10 unit(s)	142,10
250	71	129	34/24	**H046.1**	1 unit(s)	22,65
500	86	164	45/40	**H047.1**	1 unit(s)	27,35
1,000	107	200	60/46	**H048.1**	1 unit(s)	34,90

Brown glass

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
100	52	97	29/22	**H050.1**	10 unit(s)	185,00
250	71	129	34/24	**H051.1**	1 unit(s)	27,95
500	86	164	45/27	**H052.1**	1 unit(s)	32,45
1,000	107	200	60/46	**H053.1**	1 unit(s)	43,20

Glass bottles

Wide mouth bottle DURAN® with ground glass joint

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
According to DIN EN ISO 4796-2. With NS glass stopper, solid glass (NS 24) or semi-hollow (in NS 29 or larger). With retrace code.



A 121 °C DURAN WHEATON KIMBLE

Clear glass

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	44	79	24/20	**Y612.1**	1 unit(s)	36,75
100	52	97	29/22	**Y613.1**	1 unit(s)	38,85
250	70	133	34/35	**Y614.1**	1 unit(s)	52,10
500	86	163	45/40	**Y615.1**	1 unit(s)	64,10
1,000	107	201	60/46	**Y616.1**	1 unit(s)	86,05
2,000	133	247	60/46	**Y833.1**	1 unit(s)	102,55
5,000	182	358	85/55	**CCP4.1**	1 unit(s)	286,00
10,000	229	443	85/55	**CCP5.1**	1 unit(s)	468,00
20,000	290	570	85/55	**CCP6.1**	1 unit(s)	793,00

Brown glass

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	44	79	24/20	**Y617.1**	1 unit(s)	64,80
100	52	97	29/22	**Y618.1**	1 unit(s)	56,70
250	70	133	34/35	**Y619.1**	1 unit(s)	91,75
500	86	163	45/40	**Y620.1**	1 unit(s)	108,30
1,000	107	201	60/46	**Y621.1**	1 unit(s)	140,20
2,000	133	247	60/46	**Y834.1**	1 unit(s)	205,00
5,000	182	358	85/55	**CCP7.1**	1 unit(s)	424,00
10,000	229	443	85/55	**CCP8.1**	1 unit(s)	630,00
20,000	290	570	85/55	**CCP9.1**	1 unit(s)	1.167,00

Acid cap bottle

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
With standard taper stopper and additional ground glass cap, providing a tight seal and protection against acid vapours.



A 121 °C DURAN WHEATON KIMBLE

Clear glass

Vol. (ml)	Ø (mm)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
100	55	145	19/17	**CCL6.1**	1 unit(s)	87,65
250	75	180	19/17	**CCL7.1**	1 unit(s)	106,35
500	82	220	24/20	**CCL8.1**	1 unit(s)	119,35

Brown glass

Vol. (ml)	Ø (mm)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
100	55	145	19/17	**CCN0.1**	1 unit(s)	106,45
250	75	180	19/17	**CCN1.1**	1 unit(s)	135,50
500	82	220	24/20	**CCN2.1**	1 unit(s)	155,00
1,000	109	260	29/32	**CCN3.1**	1 unit(s)	210,00

Glass bottles

Narrow mouth bottle square

DWK Life Sciences. Material: Soda-lime glass.
Temperature stability up to +100 °C.



DURAN WHEATON KIMBLE

Delivery without screw cap, please order separately.

Clear glass

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	49	49	119	32, high form	**EEK8.1**	10 unit(s)	46,40
250	64	64	155	32, high form	**EEK9.1**	10 unit(s)	79,15
500	77	77	186	32, high form	**EEL0.1**	10 unit(s)	87,80
1,000	97	97	223	45, high form	**EEL1.1**	10 unit(s)	132,60

Brown glass

Delivery incl. pouring ring and dust cap.

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	49	49	119	32, high form	**EEL2.1**	10 unit(s)	46,40
250	64	64	155	32, high form	**EEL3.1**	10 unit(s)	79,15
500	77	77	186	32, high form	**EEL4.1**	10 unit(s)	87,80
1,000	97	97	223	45, high form	**EEL5.1**	10 unit(s)	132,60

Accessories tamper evident screw caps for narrow neck bottles, square

DWK Life Sciences. Material: PP.
Colour: blue.

DURAN WHEATON KIMBLE

Thread	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
32, high form	45	32	**EEL6.1**	10 unit(s)	16,65
45, high form	60	35	**EEL7.1**	10 unit(s)	17,40

Accessories safety screw caps for narrow neck bottles square

DWK Life Sciences. Material: PP.
Colour: red. The safety valve opens above a pressure of 0.1 bar.

DURAN WHEATON KIMBLE

Thread	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
32, high form	45	32	**EEL8.1**	10 unit(s)	46,50
45, high form	60	35	**EEL9.1**	10 unit(s)	53,00

Accessories pouring rings for narrow neck bottles square

DWK Life Sciences.

DURAN WHEATON KIMBLE

Thread	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
32, high form	45	32	**EEN0.1**	10 unit(s)	6,50
45, high form	60	35	**EEN1.1**	10 unit(s)	7,95

Glass bottles

Wide mouth bottle square

Material: Soda-lime glass.
Temperature stability up to +100 °C.



Delivery without screw cap, please order separately.

Clear glass

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
50	48	48	70	32, short form	**EEN2.1**	10 unit(s)	23,85
100	49	49	111	32, short form	**EEN3.1**	10 unit(s)	30,45
250	64	64	146	45, short form	**EEN4.1**	10 unit(s)	56,50
500	76	76	173	54, short form	**EEN5.1**	10 unit(s)	69,25
1,000	97	97	213	60, short form	**EEN6.1**	10 unit(s)	102,25

Brown glass

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	49	49	111	32, short form	**EEN7.1**	10 unit(s)	29,15
250	64	64	146	45, short form	**EEN8.1**	10 unit(s)	53,30
500	76	76	173	54, short form	**EEN9.1**	10 unit(s)	55,10
1,000	97	97	213	54, short form	**EEP0.1**	10 unit(s)	62,05

Accessories tamper-evident screw caps for wide mouth bottle, square

DWK Life Sciences. Material: PP.
Colour: blue.

Thread	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
32, short form	44	23	**EEP1.1**	10 unit(s)	12,65
45, short form	58	27	**EEP2.1**	10 unit(s)	16,65
54, short form	69	29	**EEP3.1**	10 unit(s)	20,05
60, short form	78	29	**EEP4.1**	10 unit(s)	19,70

Screw top bottle ROTILABO® clear glass

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.
Acc. to 4796-1. Graduated, with DIN thread.



A 121 °C

Delivery incl. screw cap and PP pouring ring.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
50	46	91	GL 32	**ANP4.1**	10 unit(s)	68,00
100	56	105	GL 45	**X712.1**	10 unit(s)	52,20
250	70	143	GL 45	**X713.1**	10 unit(s)	60,90
500	86	182	GL 45	**X714.1**	10 unit(s)	69,15
1,000	101	230	GL 45	**X715.1**	10 unit(s)	110,60
2,000	136	265	GL 45	**X716.1**	10 unit(s)	216,10
5,000	186	355	GL 45	**Y682.1**	1 unit(s)	123,05
10,000	234	435	GL 45	**Y683.1**	1 unit(s)	258,00
20,000	299	505	GL 45	**TK83.1**	1 unit(s)	341,85

Glass bottles

Narrow mouth bottle ROTILABO®

ROTH SELECTION. Material: Glass from hydrolytic class 3, brown.
Acc. to DIN 12111.



Delivery incl. tamper-evident screw caps made from PP with sealing lip.

Vol. (ml)	Height (mm)	Thread	Version	Art. No.	Pack Qty.	€
250	160	32 mm	square	**0328.1**	6 unit(s)	35,50
500	180	32 mm	square	**0329.1**	4 unit(s)	26,05
1,000	230	45 mm	square	**0330.1**	2 unit(s)	20,90
2,500	270	45 mm	round	**A849.1**	1 unit(s)	14,35

Screw top bottle ROTILABO® brown glass

ROTH SELECTION. Material: Borosilicate glass 3.3, outside coloured brown. Autoclavable: Yes.
Acc. to 4796-1. Graduated, with DIN thread.



A 121 °C

Delivery incl. screw cap and PP pouring ring.

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
50	46	91	GL 32	**ANP3.1**	10 unit(s)	179,55
100	56	100	GL 45	**NY57.1**	10 unit(s)	181,70
250	70	138	GL 45	**NY58.1**	10 unit(s)	198,90
500	86	176	GL 45	**NY59.1**	10 unit(s)	318,20
1,000	101	225	GL 45	**NY60.1**	10 unit(s)	369,80
2,000	136	260	GL 45	**NY61.1**	10 unit(s)	471,95
5,000	186	330	GL 45	**NY62.1**	1 unit(s)	261,25
10,000	234	410	GL 45	**NY63.1**	1 unit(s)	402,05
20,000	299	505	GL 45	**NY64.1**	1 unit(s)	543,95

Screw top bottle DURAN® square

DWK Life Sciences. Material: DURAN® glass, transparent. Pouring ring and PP screw cap. Autoclavable: Yes.
With retrace code. Space-saving alternative to the round screw top bottles. Saves up to 44% per bottle on the shelf, in the fridge and in the autoclave. Stable and slip-resistant thanks to the knobbly base. Pouring ring and screw cap, temperature stable from -40 to +140 °C.



A 121 °C DURAN WHEATON KIMBLE

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	50	50	109	GL 32	**P770.1**	10 unit(s)	85,80
250	64	64	143	GL 45	**P771.1**	10 unit(s)	96,25
500	78	78	181	GL 45	**P772.1**	10 unit(s)	120,45
1,000	94	94	222	GL 45	**P773.1**	10 unit(s)	172,00

Glass bottles

Wide mouth bottle ROTILABO® GL 80

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes. Graduated.
Note: Autoclave only with lock screwed off completely.



A 121 °C

Delivery incl. screw cap and PP pouring ring.

Clear glass

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
500	94	94	141	63	GL 80	**APK8.1**	10 unit(s)	141,00
1,000	105	105	187	63	GL 80	**APK9.1**	10 unit(s)	164,50
2,000	115	115	260	63	GL 80	**APL0.1**	1 unit(s)	28,30
5,000	160	160	357	63	GL 80	**APL1.1**	1 unit(s)	157,40

Brown glass

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
500	94	94	141	63	GL 80	**APL2.1**	10 unit(s)	442,90
1,000	105	105	187	63	GL 80	**APL3.1**	10 unit(s)	510,65
2,000	115	115	260	63	GL 80	**APL4.1**	1 unit(s)	83,90
5,000	160	160	357	63	GL 80	**APL5.1**	1 unit(s)	338,65

Screw top bottle DURAN® brown glass

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Amber coloured with unaltered DURAN® characteristics inside the bottle as only the exterior is coated. Long useful life and brown colouring has good chemical resistance. Light protection: Absorption in short wave range up to 500 nm.

- With DIN GL thread and pitch
- Bottles up to 25 ml, with a specially shaped glass edge, so no pouring ring is required
- Bottles from 100 to 2000 ml: Ring-shaped reinforcement in the bottles' shoulder, shows the bottles' nominal content
- With printed retrace code (batch code)
- Acc. to ISO 4796-1



A 121 °C

DURAN WHEATON KIMBLE

With pouring ring and PP screw cap

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
10	36	50	GL 25	**AAC1.1**	10 unit(s)	250,00
25	36	74	GL 25	**A366.1**	10 unit(s)	240,00
50	46	91	GL 32	**A367.1**	10 unit(s)	245,00
100	56	105	GL 45	**A368.1**	10 unit(s)	276,00
150	62	110	GL 45	**PC85.1**	10 unit(s)	325,00
250	70	143	GL 45	**A369.1**	1 unit(s)	38,55
500	86	181	GL 45	**A370.1**	1 unit(s)	49,00
750	95	203	GL 45	**PC86.1**	10 unit(s)	530,00
1,000	101	230	GL 45	**A371.1**	1 unit(s)	60,20
2,000	136	265	GL 45	**A372.1**	1 unit(s)	94,45
3,500	160	295	GL 45	**PC87.1**	1 unit(s)	199,00
5,000	182	335	GL 45	**A373.1**	1 unit(s)	274,00
10,000	227	415	GL 45	**A374.1**	1 unit(s)	445,00

Without pouring ring and screw cap

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
20,000	288	510	GL 45	**A375.1**	1 unit(s)	782,00

Glass bottles

Screw top bottle DURAN® clear glass

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

- With DIN GL thread and pitch
- Bottles up to 25 ml, with a specially shaped glass edge, so no pouring ring is required
- Bottles from 100 to 2000 ml: Ring-shaped reinforcement in the bottles' shoulder, shows the bottles' nominal content
- With printed retrace code (batch code)
- Acc. to ISO 4796-1



121 °C

DURAN WHEATON KIMBLE

With pouring ring and PP screw cap

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
10	36	50	GL 25	**AAA9.1**	10 unit(s)	109,00
25	36	74	GL 25	**A356.1**	10 unit(s)	88,50
50	46	91	GL 32	**A357.1**	10 unit(s)	92,80
100	56	105	GL 45	**A358.1**	10 unit(s)	82,40
150	62	110	GL 45	**PC79.1**	10 unit(s)	87,65
250	70	143	GL 45	**A359.1**	10 unit(s)	90,20
500	86	181	GL 45	**A360.1**	10 unit(s)	113,00
750	95	203	GL 45	**PC80.1**	10 unit(s)	141,95
1,000	101	230	GL 45	**A361.1**	10 unit(s)	160,00
2,000	136	265	GL 45	**A362.1**	1 unit(s)	37,70
3,500	160	295	GL 45	**PC81.1**	1 unit(s)	118,75
5,000	182	335	GL 45	**A363.1**	1 unit(s)	171,00
10,000	227	415	GL 45	**A364.1**	1 unit(s)	318,00
20,000	288	510	GL 45	**A365.1**	1 unit(s)	683,00

Without pouring ring and screw cap

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
10	36	50	GL 25	**AAC0.1**	10 unit(s)	84,50
25	36	70	GL 25	**T424.1**	10 unit(s)	64,35
50	46	87	GL 32	**T425.1**	10 unit(s)	64,25
100	56	100	GL 45	**T426.1**	10 unit(s)	51,60
150	62	110	GL 45	**PC82.1**	10 unit(s)	58,75
250	70	138	GL 45	**T427.1**	10 unit(s)	61,75
500	86	176	GL 45	**T428.1**	10 unit(s)	84,25
750	95	203	GL 45	**PC83.1**	10 unit(s)	113,35
1,000	101	225	GL 45	**T429.1**	10 unit(s)	134,05
2,000	136	260	GL 45	**T430.1**	1 unit(s)	34,30
3,500	160	295	GL 45	**PC84.1**	1 unit(s)	116,70
5,000	182	330	GL 45	**T431.1**	1 unit(s)	165,00
10,000	227	410	GL 45	**T432.1**	1 unit(s)	311,00
15,000	268	445	GL 45	**T433.1**	1 unit(s)	380,00
20,000	288	505	GL 45	**T434.1**	1 unit(s)	651,00

Glass bottles

Screw top bottle DURAN® Protect

DWK Life Sciences. Material: DURAN® glass, PU-coated.
Autoclavable: Yes.

Acc. to 4796-1. The plastic casing protects against mechanical damage (scratch protection), minimises loss of fluid in the event of glass breakage (leak and splash protection), prevents scattering of glass shards and provides light protection up to a wavelength of 380 nm. With retrace code.
Temperature stability -30 to +135 °C. Microwave safe.



A 121 °C

DURAN WHEATON KIMBLE

Note:
Do not expose DURAN® Protect bottles to naked flames or direct heat. Avoid continuous thermal exposure for longer than 30 min. DURAN® Protect bottles can be cleaned in industrial dishwashers (average resistance: 30 cycles at max. 95 °C). Autoclavable at 121 °C and 1.1 bar for 20 minutes (average resistance: 30 cycles).

Clear glass

Delivery incl. PP pouring ring and screw cap.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	56	100	GL 45	**1076.1**	10 unit(s)	224,00
150	62	110	GL 45	**PC88.1**	10 unit(s)	228,00
250	70	138	GL 45	**A378.1**	10 unit(s)	241,00
500	86	176	GL 45	**1077.1**	1 unit(s)	27,25
750	95	203	GL 45	**PC89.1**	10 unit(s)	328,00
1,000	101	225	GL 45	**1078.1**	1 unit(s)	38,80
2,000	136	260	GL 45	**A379.1**	1 unit(s)	73,00
3,500	160	295	GL 45	**PC90.1**	1 unit(s)	268,00
5,000	182	330	GL 45	**A380.1**	1 unit(s)	370,00

Clear glass

Delivery without pouring ring or screw cap, please order separately.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
10	36	50	GL 25	**AAA6.1**	10 unit(s)	227,00
25	36	70	GL 25	**AAA7.1**	10 unit(s)	204,00
50	46	87	GL 32	**AAA8.1**	10 unit(s)	205,00
10,000	227	410	GL 45	**AKN0.1**	1 unit(s)	564,00
15,000	268	445	GL 45	**AKN1.1**	1 unit(s)	934,00
20,000	288	505	GL 45	**AKN2.1**	1 unit(s)	1.230,00

Brown glass

DURAN® characteristics inside the bottle remain unaltered as only the exterior is coated. Light protection up to 500 nm.

Delivery without pouring ring or screw cap, please order separately.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
25	36	70	GL 25	**AKK5.1**	10 unit(s)	391,00
50	46	87	GL 32	**AKK6.1**	10 unit(s)	393,00
100	56	100	GL 45	**AKK7.1**	10 unit(s)	393,00
250	70	138	GL 45	**AKK8.1**	10 unit(s)	509,00
500	86	176	GL 45	**AKK9.1**	10 unit(s)	635,00
1,000	101	225	GL 45	**AKL0.1**	10 unit(s)	815,00
2,000	136	260	GL 45	**AKL1.1**	10 unit(s)	1.269,00
5,000	182	330	GL 45	**AKL2.1**	1 unit(s)	470,00

Glass bottles



121 °C

DURAN WHEATON KIMBLE

Screw top bottle DURAN® pressure plus

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Vacuum and pressure-resistant in the range from -1 to +1.5 bar (in the case of pressure relief, the max. service temperature is 140 °C and the thermal shock resistance is 30 K). With graduation and labelling field, burned-in and thus permanent print image. With Retrace Code.

Delivery without pouring ring or screw cap, please order separately.

Clear glass

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	56	100	GL 45	**EXK1.1**	1 unit(s)	11,55
250	70	138	GL 45	**CK34.1**	1 unit(s)	12,90
500	86	176	GL 45	**CK35.1**	1 unit(s)	17,30
1,000	101	225	GL 45	**H995.1**	1 unit(s)	20,50

Brown glass

DURAN® characteristics inside the bottle remain unaltered as only the exterior is coated. Light protection up to 500 nm.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	56	100	GL 45	**EXK2.1**	1 unit(s)	31,00
250	70	138	GL 45	**CK36.1**	1 unit(s)	43,70
500	86	176	GL 45	**CK37.1**	1 unit(s)	54,60
1,000	101	225	GL 45	**CK38.1**	1 unit(s)	66,00



121 °C

DURAN WHEATON KIMBLE

Screw top bottle DURAN® pressure plus Protect

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Vacuum- and pressure-resistant in the range of -1 to +1.5 bar (in the case of pressure relief, the max. service temperature is 140 °C and the thermal shock resistance is 30 K).
With graduation and labelling field, burned-in and thus permanent print image. The plastic casing protects against mechanical damage (scratch protection), minimises loss of fluid in the event of glass breakage (leak and splash protection), prevents scattering of glass shards and provides light protection up to a wavelength of 380 nm. With Retrace Code.

Note:
Do not expose DURAN® pressure plus Protect bottles to naked flames or direct heat. Avoid continuous thermal exposure for longer than 30 min. DURAN® pressure plus Protect bottles can be cleaned in industrial dishwashers (average resistance: 30 cycles at max. 95 °C). Autoclavable at 121 °C and 1.1 bar for 20 minutes (average resistance: 30 cycles).

Delivery without pouring ring or screw cap, please order separately.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	56	100	GL 45	**EXK3.1**	1 unit(s)	20,25
250	70	138	GL 45	**CCX5.1**	1 unit(s)	24,75
500	86	176	GL 45	**CCX6.1**	1 unit(s)	31,45
1,000	101	225	GL 45	**CCX7.1**	1 unit(s)	40,40

Glass bottles



121 °C DURAN WHEATON KIMBLE

Screw top bottles DURAN® Premium

DWK Life Sciences. Material: DURAN® glass, transparent. Autoclavable: Yes.

Acc. to 4796-1. Pouring ring and screw cap without colour additives and colour pigments. Temperature stability -196 to +260 °C. Especially suited to demanding sterilisation processes like, for example, hot air or dry sterilisation and depyrogenisation, thanks to the guaranteed temperature change resistance of 160 K.
Corresponds to USP/FDA standards. Scaling accurate up to ±5%. Additional reverse scale allows you to read off the current fill level and the amount removed. With retrace code. Autoclavable.

Delivery incl. pouring ring and screw cap made from TPCh260 with PTFE-coated silicone seal.

Delivery incl. batch certificate

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	56	100	GL 45	**HL99.2**	10 unit(s)	244,00
250	70	138	GL 45	**HT00.2**	10 unit(s)	252,00
500	86	176	GL 45	**HT01.2**	10 unit(s)	284,00
1,000	101	225	GL 45	**HT02.2**	10 unit(s)	339,00

Delivery without batch certificate

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
100	56	100	GL 45	**HL99.1**	1 unit(s)	25,40
250	70	138	GL 45	**HT00.1**	1 unit(s)	27,30
500	86	176	GL 45	**HT01.1**	1 unit(s)	29,90
1,000	101	225	GL 45	**HT02.1**	1 unit(s)	35,25



121 °C DURAN WHEATON KIMBLE

Screw top bottle DURAN® PURE

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Made from DURAN® (borosilicate glass type I), with a HDPE dust cap. With DIN-GL thread, pitch (accuracy ±5%) and printed retrace code (batch code). Acc. to DIN ISO 3585, USP <660>, Ph. Eur. 3.2.1 and JP 7.01 Method 1.
Autoclavable, hot air and plasma sterilisable(H_2O_2).

Delivery incl. batch certificate.
Delivery without screw cap and pouring ring, please order separately.

Clear glass

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
25	36	70	GL 25	**HNK3.1**	10 unit(s)	109,45
100	56	100	GL 45	**HNK4.1**	10 unit(s)	99,65
250	70	138	GL 45	**HNK5.1**	10 unit(s)	112,10
500	86	176	GL 45	**HNK6.1**	10 unit(s)	135,75
1,000	101	225	GL 45	**HNK7.1**	10 unit(s)	195,00
2,000	136	260	GL 45	**HNK8.1**	10 unit(s)	449,00
5,000	182	330	GL 45	**HNK9.1**	1 unit(s)	189,00
10,000	227	410	GL 45	**HNL0.1**	1 unit(s)	334,00
20,000	288	505	GL 45	**HNL1.1**	1 unit(s)	704,00

Brown glass

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
25	36	70	GL 25	**HNL2.1**	10 unit(s)	277,00
100	56	100	GL 45	**HNL3.1**	10 unit(s)	323,00
250	70	138	GL 45	**HNL4.1**	10 unit(s)	459,00
500	86	176	GL 45	**HNL5.1**	10 unit(s)	566,00
1,000	101	225	GL 45	**HNL6.1**	10 unit(s)	716,00
2,000	136	260	GL 45	**HNL7.1**	10 unit(s)	1.080,00
5,000	182	330	GL 45	**HNL8.1**	1 unit(s)	309,00
10,000	227	410	GL 45	**HNL9.1**	1 unit(s)	452,00
20,000	288	505	GL 45	**HNN0.1**	1 unit(s)	823,00

Glass bottles





Screw top bottle DURAN® YOUTILITY

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

- Specially shaped recessed grips for easier and safer handling
- Slim bottle shape allows more space-saving use
- Scale indicating total volume
- Predefined labelling space
- Ergonomically shaped screw cap with leak-proof sealing system for optimal handling, even by users with small or gloved hands
- Optimised thread (compatible with DIN GL 45 closures) for faster bottle opening and closing
- With retrace code

Delivery incl. optimised screw cap and PP pouring ring.

Clear glass

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
125	55	124	GL 45	**AEY2.1**	4 unit(s)	36,60
250	66	158	GL 45	**AEY3.1**	4 unit(s)	39,45
500	78	193	GL 45	**AEY4.1**	4 unit(s)	48,40
1,000	93	253	GL 45	**AEY5.1**	4 unit(s)	68,65

Brown glass

for storing light-sensitive substances. Meets the requirements of USP <660> and Eur. Ph. 3.2.1. with regard to light protection. DURAN® characteristic inside the bottle remain unaltered as only the exterior is coated; long useful life and brown colouring has good chemical resistance. Light protection: Absorption in short wave range up to 500 nm.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
125	55	124	GL 45	**CCT9.1**	4 unit(s)	113,95
250	66	158	GL 45	**CCX0.1**	4 unit(s)	157,00
500	78	193	GL 45	**CCX1.1**	4 unit(s)	205,00
1,000	93	253	GL 45	**CCX2.1**	4 unit(s)	251,00

Labels DURAN® YOUTILITY can be printed on

DWK Life Sciences. Material: Polyester.

High adhesive strength, easy to remove again. Can be printed on with office printers or photocopiers and can be written on with most laboratory pens. High resistance to disinfectants and solvents. Suitable for use in refrigerators, freezers, autoclaves, incubators and water baths. Web-app for individual design, available at: www.duranlabels.com. Dimensions: 36 x 70 mm. Temperature stability -40 to +150 °C. Delivered in resealable packaging on DIN A4 sheets (five sheets of 20 labels).

Version	Pack.	Art. No.	Pack Qty.	€
DURAN® YOUTILITY labels for printing on	5 x 20 pieces	**KCT0.1**	1 pack(s)	22,45



Hybridisation vial

DWK Life Sciences. Material: Borosilicate glass acc. to USP type I.

Wall thickness 3.2 mm. Suitable for use in most common hybridisation ovens. With flat bottom. Caps made of white PBT (35 mm) or PP (70 mm) with seals made of PTFE-coated silicone.

Not a medical device / Not an IVD product

Non-coated

Temperature stability up to +135 °C.

Ø Internal (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
35	75	45 mm	**ETH4.1**	1 unit(s)	82,60
35	100	45 mm	**ETH5.1**	1 unit(s)	89,90
35	150	45 mm	**ETH6.1**	1 unit(s)	92,75
35	300	45 mm	**ETH7.1**	1 unit(s)	97,75
70	300	70-400	**ETH8.1**	1 unit(s)	124,35

PVC-coated

Temperature stability up to +121 °C.

Ø Internal (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
35	75	45 mm	**ETH9.1**	1 unit(s)	108,55
35	100	45 mm	**ETK0.1**	1 unit(s)	114,55
35	150	45 mm	**ETK1.1**	1 unit(s)	116,45
35	300	45 mm	**ETK2.1**	1 unit(s)	122,90
70	300	70-400	**ETK3.1**	1 unit(s)	166,65

Glass bottles

Wide mouth bottle DURAN® GLS 80

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

With labelling space, graduations and retrace code. Large inside neck Ø (65 mm) makes it safe to fill and remove powders, paste-like media, granulate and liquids. Microwave safe.



A 121 °C | DURAN WHEATON KIMBLE

Delivery incl. screw cap and PP pouring ring.

Clear glass

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
250	95	109	65	GLS 80	**XT02.1**	10 unit(s)	130,15
500	101	152	65	GLS 80	**ET99.1**	10 unit(s)	174,00
1,000	101	222	65	GLS 80	**EX00.1**	10 unit(s)	227,00
2,000	136	252	65	GLS 80	**EX01.1**	1 unit(s)	44,35
3,500	160	275	65	GLS 80	**PY89.1**	1 unit(s)	131,90
5,000	182	314	65	GLS 80	**EX02.1**	1 unit(s)	183,00
10,000	227	389	65	GLS 80	**EX03.1**	1 unit(s)	336,00
20,000	288	484	65	GLS 80	**EX04.1**	1 unit(s)	733,00

Brown glass

For storing light-sensitive media. DURAN® characteristics inside the bottle remain unaltered as only the exterior is coated; long useful life and brown colouring has good chemical resistance.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
250	95	109	65	GLS 80	**XT03.1**	1 unit(s)	53,15
500	101	152	65	GLS 80	**HT11.1**	1 unit(s)	56,90
1,000	101	222	65	GLS 80	**HT12.1**	1 unit(s)	69,30
2,000	136	252	65	GLS 80	**HT13.1**	1 unit(s)	99,65
3,500	160	275	65	GLS 80	**PY91.1**	1 unit(s)	217,00
5,000	182	314	65	GLS 80	**HT14.1**	1 unit(s)	312,00
10,000	227	389	65	GLS 80	**HT15.1**	1 unit(s)	486,00
20,000	288	484	65	GLS 80	**HT16.1**	1 unit(s)	791,00

Wide mouth bottle DURAN® GLS 80 Protect

DWK Life Sciences. Material: DURAN® glass, PU-coated, clear. Autoclavable: Yes.

With labelling space, graduations and retrace code. Large inside neck Ø (65 mm) makes it safe to fill and remove powders, paste-like media, granulate and liquids.
The plastic casing protects against mechanical damage (scratch protection), minimises loss of fluid in the event of glass breakage (leak and splash protection) and prevents scattering of glass shards. Light protection up to a wavelength of 380 nm.
Temperature stability -35 to +135 °C. Microwave safe.

Note: Do not expose DURAN® Protect bottles to naked flames or direct heat. Avoid continuous thermal exposure for longer than 30 min.

A 121 °C | DURAN WHEATON KIMBLE

Delivery incl. screw cap and PP pouring ring.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
250	95	105	65	GLS 80	**XT04.1**	10 unit(s)	275,00
500	101	152	65	GLS 80	**LC00.1**	10 unit(s)	323,00
1,000	101	222	65	GLS 80	**KY97.1**	10 unit(s)	424,00
2,000	136	252	65	GLS 80	**KY98.1**	10 unit(s)	703,00
3,500	160	275	65	GLS 80	**PY90.1**	1 unit(s)	296,00
5,000	182	314	65	GLS 80	**KY99.1**	1 unit(s)	351,00

Glass bottles

Wide mouth screw top bottle DURAN® PURE GLS 80®

DWK Life Sciences. Material: DURAN® glass (borosilicate glass 3.3, type I). Autoclavable: Yes.

High-quality wide mouth screw top bottle with GLS 80 thread. Developed for the needs of the pharmaceutical and biotech industry. The 80-mm-wide external diameter of the bottle neck opening allows easy filling and emptying of bottles. DWK Life Sciences provides analysis certificates with every delivery, guarantees 100% traceability and change control management. DURAN® PURE bottles are available with the documentation required by the regulatory authorities and fulfil the requirements of international pharmacopoeias.

- Closed with dust cap to avoid contamination
- With labelling area, graduations and retrace code



NEW / +

A 121 °C

DURAN WHEATON KIMBLE

Applications:

- Suitable for the production of pharmaceutical and biotech products, and for the storage and transport of active substances, intermediate products, excipients and media
- Intended for use with DURAN® PURE GLS 80® quick rel. screw-cap closure

Delivery incl. batch certificate. **Delivery without** screw cap and pouring ring, please order separately.

Clear glass

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
500	101	148	GLS 80	**1HN0.1**	10 unit(s)	231,00
1,000	101	218	GLS 80	**1HN1.1**	10 unit(s)	305,00
2,000	136	248	GLS 80	**1HN2.1**	10 unit(s)	641,00
5,000	182	310	GLS 80	**1HN3.1**	1 unit(s)	244,00
10,000	227	385	GLS 80	**1HN4.1**	1 unit(s)	417,00
20,000	288	480	GLS 80	**1HN5.1**	1 unit(s)	899,00

Brown glass

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
500	101	148	GLS 80	**1HLL.1**	10 unit(s)	763,00
1,000	101	218	GLS 80	**1HLN.1**	10 unit(s)	920,00
2,000	136	248	GLS 80	**1HLP.1**	10 unit(s)	1.418,00
5,000	182	310	GLS 80	**1HLT.1**	1 unit(s)	422,00
10,000	227	385	GLS 80	**1HLX.1**	1 unit(s)	594,00
20,000	288	480	GLS 80	**1HLY.1**	1 unit(s)	969,00

Wide mouth bottle DURAN® GLS 80 with baffles

DWK Life Sciences. Material: DURAN® glass, Clear. Autoclavable: Yes.

Graduated, with three vertical baffles on the inside walls. The baffles increase the vertical circulation and produce a much more efficient and homogeneous mix. With retrace code.



A 121 °C

DURAN WHEATON KIMBLE

Delivery incl. screw cap and PP pouring ring.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
250	95	105	GLS 80	**EXK4.1**	1 unit(s)	27,70
500	101	152	GLS 80	**EXK5.1**	1 unit(s)	36,80
1,000	101	222	GLS 80	**EXK6.1**	1 unit(s)	48,15

Glass bottles

Wide mouth bottle GLS 80 double-wall

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Integrated glass shell enables temperature regulation of the bottle contents by pumping warm or cold tempering liquid through the shell.

- Temperature stability -40 to +120 °C or -45 to +180 °C when using the fast-screw cap GLS 80 (Art. No. PC52.1)
- Suitable for use with magnetic vane stir bars or the DURAN® GLS 80 magnetic stirrer reactor cap
- Compatible with GLS 80 connection systems for adding and/or removing liquids
- Easy-to-read scale on the inner vessel



A 121 °C

DURAN WHEATON KIMBLE

Delivery incl. pouring ring and GLS 80 PP screw cap, as well as two PBT screw caps with PTFE hose connectors (GL 18, for hose with inside Ø of 10 mm).

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
500	110	170	GLS 80	**ETP2.1**	1 unit(s)	479,00
1,000	110	270	GLS 80	**ETP3.1**	1 unit(s)	600,00

Screw top bottle DURAN® GL 45 with high-temperature closures

DWK Life Sciences. Material: DURAN® glass (Borosilicate glass 3.3, corresponds to USP/EP Type I). Autoclavable: Yes.

Exceptional thermal behaviour and high chemical resistance. With easy-to-read volume scale and labelling field made from durable white enamel. With retrace code. Autoclavable at 121 or 134 °C, hot air sterilisable to 180 °C.



A 121 °C

DURAN WHEATON KIMBLE

Delivery incl. red, high-temperature screw cap (glass-fibre strengthened PBT with PTFE-coated silicone seal) and ETFE pouring ring.

Vol. (ml)	Ø ext. (mm)	Total height (mm)	Thread	Art. No.	Pack Qty.	€
100	56	105	GL 45	**KCN6.1**	10 unit(s)	146,85
250	70	143	GL 45	**KCN7.1**	10 unit(s)	158,00
500	86	181	GL 45	**KCN8.1**	10 unit(s)	181,00
1,000	101	230	GL 45	**KCN9.1**	10 unit(s)	231,00
2,000	136	265	GL 45	**KCP0.1**	10 unit(s)	443,00
5,000	182	335	GL 45	**KCP1.1**	1 unit(s)	184,00
10,000	227	415	GL 45	**KCP2.1**	1 unit(s)	319,00

Glass bottles

HPLC reservoir bottle DURAN® GL 45

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Outstanding chemical resistance, extremely low profile of extractable inorganic ions; free from organic extractable substances.
Safe and practical alternative to media bottles with a flat bottom. The central cavity in the base of the bottle enables mobile phases and solvents to be dispensed without having to tilt the bottle. The side opening on the base of the bottle prevents the bottle from floating during degassing in an ultrasonic bath and enables water to drain away after cleaning. With retrace code. Autoclavable at 121 °C or 134 °C.



A 121 °C

DURAN WHEATON KIMBLE

Delivery without cap, please order separately.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
1,000	110	295	GL 45	**KCP3.1**	1 unit(s)	227,00
2,000	145	309	GL 45	**KCP4.1**	1 unit(s)	279,00
5,000	190	386	GL 45	**KCP5.1**	1 unit(s)	463,00
10,000	235	481	GL 45	**KCP6.1**	1 unit(s)	1.486,00

Multi-neck HPLC bottle DURAN® GL 45

DWK Life Sciences. Material: DURAN® glass (borosilicate glass 3.3), screw caps made of PP, blue. Autoclavable: Yes.

Ideal for storage and dispensing of mobile phases and solvents suitable for high performance liquid chromatography (HPLC).

- Practical - side neck allows filling of bottles without removing the main connection. The Hydra multi-neck bottle can take up to five HPLC caps, which increases safety when working and reduces the risk of cross-contamination and air intake
- Safe - closed bottles reduce the risk of escape and spillage of volatile organic compounds (VOC)
- Compatible - GL 45 thread appropriate for standard HPLC-connection caps
- Produced from the material of choice for HPLC solvent bottles: Borosilicate glass 3.3 has a very low profile of extractable inorganic ions
- DURAN® is a borosilicate glass type 3.3 according to the specification in international standard ISO 3585, which is classified according to ASTM-E438-1992 as „borosilicate glass type I, class A with low expansion“
- With Retrace Code and certificate for tracing the production batch
- Long-lasting scaling through permanently fired-on print image
- Autoclavable at 121 °C or 134 °C



NEW / +

A 121 °C

DURAN WHEATON KIMBLE

Applications:

- Reservoirs for mobile phases for HPLC
- HPLC flushing bottle
- Supply of reagents to systems and analysers that work with liquids

Delivery incl. screw caps made of PP.

Round with a GL 45 side neck

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Version	Art. No.	Pack Qty.	€
2,000	136	265.5	GL 45	One side neck	**1HK1.1**	1 unit(s)	93,50

Square with four GL 45 side necks

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Thread	Version	Art. No.	Pack Qty.	€
1,000	94	94	222.5	GL 45	Four side necks	**1HK0.1**	1 unit(s)	330,00

Screw caps and olives



A 121 °C

DURAN WHEATON KIMBLE

Screw caps

DWK Life Sciences. Material: PP. Autoclavable: Yes.

Features a lip seal. Temperature stable from -40 to +140 °C. Autoclavable up to 140 °C steam.

Thread	Colour	Art. No.	Pack Qty.	€
GL 25	blue	**E752.1**	10 unit(s)	17,05
GL 32	blue	**E753.1**	10 unit(s)	16,65
GL 45	yellow	**CK22.1**	10 unit(s)	19,95
GL 45	grey	**CK23.1**	10 unit(s)	19,95
GL 45	green	**CK24.1**	10 unit(s)	19,95
GL 45	blue	**E754.1**	10 unit(s)	19,95
GLS 80	blue	**KY95.1**	10 unit(s)	32,50



A 121 °C

DURAN WHEATON KIMBLE

Pouring rings

DWK Life Sciences. Material: PP. Autoclavable: Yes.

Temperature stable from -40 to +140 °C. Autoclavable up to 140 °C steam.

Thread	Colour	Art. No.	Pack Qty.	€
GL 32	blue	**K752.1**	10 unit(s)	5,90
GL 45	yellow	**CK25.1**	10 unit(s)	6,80
GL 45	grey	**CK26.1**	10 unit(s)	6,80
GL 45	green	**CK27.1**	10 unit(s)	6,80
GL 45	blue	**K753.1**	10 unit(s)	7,20
GLS 80	blue	**KY96.1**	10 unit(s)	20,70



A 121 °C

DURAN WHEATON KIMBLE

Screw caps

DWK Life Sciences. Material: PBT, with PTFE-coated silicone seal. Autoclavable: Yes.

Temperature stable from -45 to +180 °C, can be hot air sterilised up to +180 °C.

Thread	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
GL 14	20	17	**TX90.1**	10 unit(s)	23,85
GL 18	23	20	**TX91.1**	10 unit(s)	27,65
GL 25	33	23	**TX92.1**	10 unit(s)	34,20
GL 32	42	26	**TX93.1**	10 unit(s)	51,80
GL 45	54	28	**TX94.1**	10 unit(s)	80,45



A 121 °C

DURAN WHEATON KIMBLE

Pouring rings

DWK Life Sciences. Material: ETFE. Autoclavable: Yes.

Temperature stable from -100 to +180 °C.

Thread	Art. No.	Pack Qty.	€
GL 32	**N542.1**	10 unit(s)	16,00
GL 45	**N543.1**	10 unit(s)	16,75

Screw caps and olives



A 121 °C

Screw caps

Lenz. Material: PBT, with PTFE coated seal. Autoclavable: Yes.
Temperature stable from -45 to +150 °C.

Thread	Colour	Art. No.	Pack Qty.	€
GL 14	red	**E695.1**	10 unit(s)	30,00
GL 18	red	**E696.1**	10 unit(s)	36,45
GL 25	red	**E692.1**	10 unit(s)	43,55
GL 32	red	**E693.1**	10 unit(s)	66,15
GL 45	red	**E694.1**	10 unit(s)	98,80



A 121 °C

DURAN WHEATON KIMBLE

Screw caps DURAN® Premium

DWK Life Sciences. Material: TPCh260, with PTFE-coated silicone seal. Autoclavable: Yes.
With no colour additives. Temperature stable from -196 to +200 °C, high chemical resistance.
For laboratory bottles with DIN standard thread. Characteristics ideal for application in pharmaceutical industry, for storing aggressive media as well as for demanding sterilisation procedures. FDA and USP-compliant. Autoclavable, hot-air and dry-sterilisable and capable of depyrogenation. With retrace code.

Thread	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
GL 25	32	22	**PY85.1**	5 unit(s)	36,75
GL 45	51	26	**CK79.1**	5 unit(s)	73,10

DURAN WHEATON KIMBLE

Pouring rings DURAN® Premium

DWK Life Sciences. Material: TPCh260.

Thread	Art. No.	Pack Qty.	€
GL 45	**CK80.1**	5 unit(s)	17,75



A 121 °C

Screw caps

Bohlender. Material: PPS, with PTFE-coated silicone seal. Autoclavable: Yes.
Temperature stable from -20 to +230 °C.

Thread	Art. No.	Pack Qty.	€
GL 14	**NT01.1**	10 unit(s)	29,80
GL 18	**NT02.1**	10 unit(s)	26,90
GL 25	**NT03.1**	10 unit(s)	44,75
GL 32	**NT04.1**	10 unit(s)	45,70
S 40	**NT05.1**	5 unit(s)	34,90
GL 45	**NT06.1**	5 unit(s)	41,70



A 121 °C

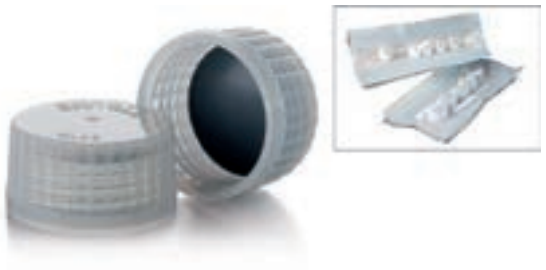
DURAN WHEATON KIMBLE

Tamper-evident caps

DWK Life Sciences. Material: PP. Autoclavable: Yes.
For laboratory bottles with GL 45 DIN thread. Autoclavable up to +140 °C steam.

Version	Thread	Art. No.	Pack Qty.	€
with lip seal, red tamper-evident ring	GL 45	**AH99.1**	10 unit(s)	21,50
with PTFE coated silicone seal, yellow tamper-evident ring	GL 45	**KE51.1**	10 unit(s)	65,80

Screw caps and olives





121 °C ❄❄❄ DURAN WHEATON KIMBLE

Screw caps DURAN® PURE Premium

DWK Life Sciences. Material: TPCh260 (similar to PFA). Autoclavable: Yes.

With no colour additives. Manufactured in ISO Class 7 clean rooms. Temperature stable from -196 to +260 °C, high chemical resistance. For laboratory bottles with DIN standard thread. Characteristics ideal for application in pharmaceutical industry, for storing aggressive media as well as for demanding sterilisation procedures. FDA and USP-compliant. Autoclavable and hot-sterilisable. With retrace code, batch certificates available.

Standard packaging

Thread	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
GL 25	32	22	**HNN1.1**	5 unit(s)	38,85
GL 45	51	26	**HNN2.1**	5 unit(s)	75,05

STERICLIN® sterile barrier system packaging

Caps are sealed in packs of 5 and can be sterilised directly in the STERICLIN® packaging. No pre-cleaning necessary. Can be stored for up to 6 months after sterilising. Can be sterilised by STEAM, EO and FORM sterilisation; the corresponding indicators are imprinted on the STERICLIN® packaging. Recommended sterilisation process: Steam sterilisation with pre-vacuum, from 121 °C for 20 minutes up to 134 °C for 20 minutes.

Thread	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
GL 25	32	22	**XT05.1**	20 unit(s)	174,00
GL 45	51	26	**XT06.1**	20 unit(s)	352,00

NEW / + 121 °C ❄ DURAN WHEATON KIMBLE

Quick rel. screw-cap DURAN® PURE GLS 80®

DWK Life Sciences. Material: PSU, with PTFE-coated silicone seal. Autoclavable: Yes.

High-quality quick release screw-cap closure made of PSU in thread size GLS 80. Colour: white. Autoclavable and compatible with other common sterilisation methods. Temperature stable from -45 to +180 °C. DWK Life Sciences provides analysis certificates with every delivery and guarantees 100% traceability and change control management. This DURAN® PURE GLS 80® quick release screw-cap closure is available with the documentation required by the regulatory authorities and fulfils the requirements of international pharmacopoeias.

Applications:

- High-quality cap developed for the needs of the pharmaceutical and biotech industry
- Intended for use with DURAN® PURE GLS 80® wide mouth screw top bottles

Delivery incl. batch certificate.

Thread	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
GLS 80	88	40	**1HK5.1**	5 unit(s)	161,00

121 °C ❄ DURAN WHEATON KIMBLE

Pouring rings GLS 80

DWK Life Sciences. Material: PTFE. Autoclavable: Yes.

Thread	Height (mm)	Art. No.	Pack Qty.	€
GLS 80	6.85	**PC53.1**	5 unit(s)	91,20

Screw caps and olives



121 °C ❄❄❄ DURAN WHEATON KIMBLE

Screw caps DURAN® PURE

DWK Life Sciences. Material: PFA. Autoclavable: Yes.

Without colour additives and pigments. Features a lip seal. For laboratory bottles with GL 45 thread. Retrace code and batch certificate available.

- Temperature resistance: -196 to +260 °C
- Can be autoclaved and dry-heat sterilised (at 260 °C)
- High chemical resistance
- Comply with FDA 21 CFR V, section 177.1550, and USP class VI

Thread	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
GL 45	52	27.5	**EEE3.1**	5 unit(s)	92,95



121 °C ❄ DURAN WHEATON KIMBLE

Quick-release screw-caps GLS 80

DWK Life Sciences. Autoclavable: Yes.

Made of polyarylsulfone plastic. Significantly improved chemical, thermal and mechanical properties compared with PP caps; temperature stable from -45 to +180 °C. Seal PTFE-coated on both sides. Thread permits opening and closing with only a three-quarter turn.

Thread	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
GLS 80	86	40	**PC52.1**	5 unit(s)	154,00



121 °C

Screw closures GLS 80

Bohlender. Material: PP, with sealing insert made of PTFE. Autoclavable: Yes.

High chemical resistance since medium only comes into contact with PTFE. Temperature stable from -20 to +140 °C.

Thread	Art. No.	Pack Qty.	€
GLS 80	**NY56.1**	1 unit(s)	49,00



121 °C DURAN WHEATON KIMBLE

Ventilation screw caps DURAN® with ePTFE membrane

DWK Life Sciences. Material: PP with welded-in PTFE membrane. Autoclavable: Yes.

The membrane, made of expanded PTFE with a pore size of 0.2 µm enables a sterile gas exchange and prevents aqueous liquids with high surface tension from passing through it.
During the autoclaving process, the caps can be securely screwed on to the laboratory glass bottles.
Autoclavable at 121 °C (20 minutes) or 134 °C (3 minutes).

Applications:

- Pressure equalisation during steam sterilisation/autoclaving of media or buffer solutions in bottles up to a volume of 5 litres
- Sterile gas exchange for aerobic micro-organism, shaken and suspended cell cultures
- Short-term storage of sterilised media
- Storage of gas-forming substances

Version	Thread	Colour	Art. No.	Pack Qty.	€
1 hole	GL 25	blue	**KCL9.1**	5 unit(s)	34,20
1 hole	GL 32	blue	**KCN0.1**	5 unit(s)	34,75
3 holes	GL 45	blue	**CK81.1**	5 unit(s)	29,60
3 holes	GL 45	turquoise	**KCN2.1**	4 unit(s)	27,55
3 holes	GL 56	white	**KCN3.1**	4 unit(s)	38,85
3 holes	GLS 80	blue	**KCN4.1**	2 unit(s)	23,70

Screw caps and olives



NEW / +

A 121 °C

Screw caps with hole

Material: PBT. Autoclavable: Yes.

With GL thread, for connecting connectors, pipes or stopcocks. Autoclavable, temperature stable from -45 to +180 °C.

Delivery without seal, please order separately.

Thread	Ø Hole (mm)	Art. No.	Pack Qty.	€
GL 14	9.5	**L993.2**	10 unit(s)	17,90
GL 18	11	**EL61.1**	1 unit(s)	4,10
GL 25	15	**LL40.2**	10 unit(s)	24,10
GL 32	20	**H396.2**	10 unit(s)	28,00
GL 45	34	**L994.2**	10 unit(s)	80,45



A 121 °C

Seals

Bohlender. Material: Silicone (Elastomer) with PTF coating. Autoclavable: Yes.

Suitable for screw caps, Art. No. NT01.1 ff or screw caps with hole Art. No. NT07.1 ff.
Temperature stable from -60 to +230 °C.

Thread	Ø ext. (mm)	Thickness (mm)	Art. No.	Pack Qty.	€
GL 14	13	3.3	**NT13.1**	25 unit(s)	15,35
GL 18	16.8	3.3	**NT14.1**	25 unit(s)	22,95
GL 25	23.5	3.3	**NT15.1**	25 unit(s)	47,85
GL 32	30.2	3.3	**NT16.1**	5 unit(s)	14,10
S 40	38	3.3	**NT17.1**	5 unit(s)	12,60
GL 45	43.2	3.3	**NT18.1**	5 unit(s)	16,40



A 121 °C

Seals with hole

Material: Silicone rubber with cured-on PTFE cuff. Autoclavable: Yes.
For screw caps with a hole and GL thread.

Thread	Ø Hole (mm)	Art. No.	Pack Qty.	€
GL 14	6	**AK96.1**	1 unit(s)	5,70
GL 18	6	**AK97.1**	1 unit(s)	6,60
GL 18	8	**AK98.1**	1 unit(s)	6,35
GL 18	10	**AK99.1**	1 unit(s)	6,35
GL 25	8	**LL92.1**	2 unit(s)	14,80
GL 25	10	**LL93.1**	2 unit(s)	14,80
GL 25	12	**LL94.1**	2 unit(s)	14,80
GL 32	12	**H397.1**	1 unit(s)	10,40
GL 32	10	**LL95.1**	2 unit(s)	21,50
GL 32	14	**LL96.1**	2 unit(s)	21,50
GL 32	16	**LL97.1**	2 unit(s)	20,10
GL 32	18	**LL98.1**	2 unit(s)	20,50
GL 45	26	**LL99.1**	1 unit(s)	19,85
GL 45	32	**LN00.1**	1 unit(s)	18,70



A 121 °C

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Seals

DWK Life Sciences. Material: Silicone rubber. Autoclavable: Yes.
Can be pierced with the cannula. For screw caps with a hole and GL thread.

Thread	Ø ext. (mm)	Thickness (mm)	Art. No.	Pack Qty.	€
GL 14	12	2	**LL48.1**	20 unit(s)	19,70
GL 18	16	2	**LL49.1**	20 unit(s)	21,40
GL 25	22	2	**LL50.1**	10 unit(s)	14,65
GL 32	29	2	**LL51.1**	10 unit(s)	15,50
GL 45	42	3	**LL52.1**	5 unit(s)	22,10

Screw caps and olives



121 °C

DURAN WHEATON KIMBLE

Septa DURAN® GL 45 with PTFE coating

DWK Life Sciences. Material: Silicone rubber with PTFE coating. Autoclavable: Yes.

For use with GL 45 screw caps with hole (Art. No. L994.1). Easy to pierce, reliable resealing. Temperature-stable from -50 to +180 °C. Autoclavable at 121 °C for 15 minutes or sterilisable up to 180 °C in dry heat.

Version	For screw-cap closures	Art. No.	Pack Qty.	€
GL 45 septa	GL 45	**KCP9.1**	10 unit(s)	72,00



121 °C

Screw caps with hole

Bohlender. Material: PPS. Autoclavable: Yes.

Temperature stable from -20 to +230 °C.

Delivery without seal, please order separately.

Thread	Ø Hole (mm)	Art. No.	Pack Qty.	€
GL 14	9.2	**NT07.1**	10 unit(s)	16,45
GL 18	11	**NT08.1**	10 unit(s)	19,50
GL 25	15	**NT09.1**	10 unit(s)	31,20
GL 32	20	**NT10.1**	10 unit(s)	43,40
S 40	28	**NT11.1**	10 unit(s)	91,70
GL 45	34	**NT12.1**	10 unit(s)	38,75



121 °C

DURAN WHEATON KIMBLE

Bottle stopper DURAN®

DWK Life Sciences. Material: Butyl rubber. Autoclavable: Yes.

Made of bromobutyl rubber. Can be used with all DURAN® laboratory glass bottles with a GL 45 thread. Can additionally be secured with a screw cap with hole (recommended only for non-pressurised applications). Low permeability for air, gases and moisture.
Top side has seven numbered semi-circular depressions to be pierced with tubes, good self-sealing characteristics when pierced repeatedly. Temperature stable from -50 to +121 °C.

Applications:

- Storage of oxygen-sensitive materials
- Applications which require gas flushing or samples to be decanted using a syringe
- Cultures with anaerobic micro-organisms (the use of pressure-resistant bottles is recommended)
- Storage of anaerobic culture media (the use of brown glass bottles is recommended)
- Investigation of aerobic methane oxidation (MOx)

Version	Thread	Art. No.	Pack Qty.	€
DURAN® bottle stopper	GL 25	**KNK4.1**	10 unit(s)	21,60
DURAN® bottle stopper	GL 45	**KCN5.1**	10 unit(s)	31,65



NEW/+

121 °C

Connectors

Material: PP with silicone rubber seal. Autoclavable: Yes.

For screw caps with a hole and GL thread. Autoclavable, temperature stable from -40 to +140 °C.

Version	Thread	Ø ext. (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
curved	GL 18	10.8	6.8	**LL45.1**	2 unit(s)	15,40
straight	GL 18	10.8	6.8	**EL60.1**	1 unit(s)	8,50
straight	GL 14	8.6	5.0	**L992.2**	10 unit(s)	16,20
	GL 14	8.6	4.0	**LL46.2**	10 unit(s)	17,25

Screw caps and olives



NEW / +

A 121 °C

DURAN WHEATON KIMBLE

Connectors with screw cap

DWK Life Sciences. Material: PTFE, Seal made of silicone rubber and screw cap made of PBT. Autoclavable: Yes.

With GL thread. Temperature stable between -45 and +180 °C.

Version	Thread	Ø ext. (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
curved	GL 14	9.0	5.0	**LK74.2**	10 unit(s)	100,25
curved	GL 18	10.5	7.5	**LK75.1**	2 unit(s)	24,75
straight	GL 14	9.0	5.0	**LK72.2**	10 unit(s)	73,00
straight	GL 18	10.5	7.5	**LK73.2**	10 unit(s)	84,35
straight	GL 25	13.0	10.0	**LN34.1**	2 unit(s)	31,05



A 121 °C ❄❄❄

Connectors with screw cap

Bohlender. Autoclavable: Yes.

Near-universal chemical resistance since medium only comes into contact with PFA or PTFE. Temperature stable from -20 to +230 °C.

Connectors made of PFA
Material: PFA with FPM-O-ring and screw cap made of PPS.

Version	Thread	Ø ext. (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
curved	GL 14	8.7	6.0	**NY34.1**	2 unit(s)	18,05
curved	GL 18	10.4	7.0	**NY36.1**	2 unit(s)	28,40
straight	GL 14	8.7	6.0	**NY33.1**	2 unit(s)	14,45
straight	GL 18	10.4	7.0	**NY35.1**	2 unit(s)	28,65

Connectors made of PTFE
Material: PTFE with FPM-O-ring and screw cap made of PPS.

Version	Thread	Ø ext. (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
straight	GL 25	16.0	10.0	**NY37.1**	2 unit(s)	33,80
straight	GL 32	21.0	16.0	**NY38.1**	2 unit(s)	67,20



A 121 °C ❄❄❄

Pressure equalisation sets

Bohlender. Material: PPS (screw cap) with **PTFE/silicone** seal and replaceable filter-membrane made of **PTFE**. Autoclavable: Yes.

For pressure equalisation after the removal or addition of liquid samples from sealed containers or for the storage of out-gassing media. Pressure is equalised from a differential pressure of 0.1 bar. High chemical resistance, the medium only comes into contact with PTFE. Filter-membrane pore size 2.5 µm. Temperature stable from -200 to +250 °C.

Thread	Ø Membrane (mm)	Art. No.	Pack Qty.	€
GL 14	12	**NX61.1**	1 unit(s)	10,50
GL 18	16	**NX62.1**	1 unit(s)	11,50
GL 25	23	**NX63.1**	1 unit(s)	15,05
GL 32	29	**NX64.1**	1 unit(s)	34,65
GL 45	45	**NX65.1**	1 unit(s)	48,75



❄❄❄

Dispensers GL 45

Bohlender. Material: PTFE with screw cap made of PPS.

Free rotating dispenser with stopcock and vent for controlled and safe pouring of aggressive or highly pure liquids. Surfaces are chemically inert, hydrophobic, anti-adhesive and therefore easy to clean. Temperature stable from -20 to +230 °C.

Delivery incl. slip cap made of PTFE to close the outlet.

Thread	Ø Outlet (mm)	Art. No.	Pack Qty.	€
GL 45	4	**NT22.1**	1 unit(s)	163,40

Thread adapter for dispensers with GL 45 thread

ROTH SELECTION.

Suitable for	Materialspecification	Art. No.	Pack Qty.	€
Containers with S 38-430 thread (e.g. AE00.3, HN44.3, HN60.3, HN54.1)	PTFE	**KY68.1**	1 unit(s)	74,00
Containers with GL 40 thread	Fluorinated rubber	**P321.1**	1 unit(s)	26,25

Bottles multi-dispensers



121 °C DURAN WHEATON KIMBLE

Multiple distributor for bottles GL 45 with connectors

DWK Life Sciences. Material: PP. Autoclavable: Yes.

Features two continuous connectors, angled at the top to prevent kinking of tubes. Withstands temperatures up to +140 °C, dishwasher safe.

- Safe transfer of liquid media within closed systems
- The core rotates freely and allows a container to be replaced without twisting the fixed tubes
- Ideal for use with soft elastic tubes with ID 6-9 mm (Viton®, Tygon®, Silicone), e.g. when using peristaltic pumps
- Pressure equalisation filter attachment available as an option

For hoses with inner Ø (mm)	Thread	Art. No.	Pack Qty.	€
6-9	GL 45	**PY86.1**	2 unit(s)	62,80

Accessories pressure equalisation filter attachment

DWK Life Sciences.

Suitable for multiple distributor for GL 45 bottles with connectors.

Art. No.	Pack Qty.	€
PY87.1	2 unit(s)	56,95



121 °C

Multiple distributor for bottles GL 45 with connectors

Bohlender. Material: PP. Autoclavable: Yes.

With curved connectors at the top and straight connectors at the bottom. Temperature stability -20 to +110 °C.

Number of connections	For hoses with inner Ø (mm)	Thread	Art. No.	Pack Qty.	€
2	7-11	GL 45	**NP98.1**	1 unit(s)	47,45
3	6-9	GL 45	**NP99.1**	1 unit(s)	60,70



121 °C DURAN WHEATON KIMBLE

Multiple distributor for bottles DURAN® GL 45 with stainless steel connectors

DWK Life Sciences. Autoclavable: Yes.

Screw cap made of PBT with silicone seal (platinum coated, USP <88> Class VI) and connections and centre part made of stainless steel (type 316L or 1.4404 / S31603).
Sturdy hose connection system for laboratory bottles with a GL 45 thread for the transfer of liquids in closed or sterilised systems. Connections for flexible hoses with inner Ø 8 mm. Freely rotating centre part enables bottles to be replaced without twisting the hoses. Temperature stability up to +180 °C. With retrace code.

Version	For hoses with inner Ø (mm)	Thread	Art. No.	Pack Qty.	€
With 1 stainless steel connector	8	GL 45	**KCL5.1**	1 unit(s)	259,00
With 2 stainless steel connectors	8	GL 45	**KCL6.1**	1 unit(s)	256,00
With 3 stainless steel connectors	8	GL 45	**KCL7.1**	1 unit(s)	256,00



121 °C DURAN WHEATON KIMBLE

Screw coupling

DWK Life Sciences. Material: PBT. Autoclavable: Yes.

With GL threads and silicone seal, flexible and freely rotatable. Autoclavable, temperature stable from -45 to +180 °C.

Thread	Art. No.	Pack Qty.	€
GL 14	**LL41.1**	1 unit(s)	22,95
GL 18	**LL42.1**	1 unit(s)	25,40
GL 25	**LL43.1**	1 unit(s)	30,45
GL 32	**LL44.1**	1 unit(s)	36,15
GL 45	**PY98.1**	1 unit(s)	51,75

Bottles multi-dispensers



A 121 °C

DURAN WHEATON KIMBLE

Multiple distributor for bottles GL 25 with connectors

DWK Life Sciences. Material: PBT, PTFE insert with stainless steel connectors. Autoclavable: Yes.

With 2, 3 or 4 connections, suitable for hose inner Ø 3.2 mm. For GL 25 glass threaded bottles (10 ml or 25 ml).
Suitable for medium preparation for small bioreactors, for cell cultures with perfusion circuit, for fed-batch-bioreactors and for oxygenation/ ventilation of very small sample volume.
Temperature stable up to 180 °C.

Delivery without GL 25 laboratory glass bottle, please order separately.

Number of connections	For hoses with inner Ø (mm)	Thread	Art. No.	Pack Qty.	€
2	3,2	GL 25	**EXK7.1**	1 unit(s)	56,95
3	3,2	GL 25	**EXK8.1**	1 unit(s)	59,20
4	3,2	GL 25	**EXK9.1**	1 unit(s)	61,15



A 121 °C

DURAN WHEATON KIMBLE

HPLC bottle with multiple distributor

DWK Life Sciences. Material: DURAN® glass, cap made of PP, sealing inserts made of silicone. Autoclavable: Yes.

Vacuum and pressure resistant. With retrace code. Suitable for the safe transfer of liquids, e.g. for loading HPLC machines. The sealing insert is freely rotatable and prevents hoses from twisting when changing the bottle.

Delivery incl. HPLC screw cap (GL 45, four metric M8 threaded necks) with hose connection set (each set includes 4 silicone sealing inserts for hose of Ø 1.6 mm and Ø 3.2 mm, 4 silicone closure seals and 4 screw caps with hole). Pressure equalisation set; please order separately, if required.

Version	Art. No.	Pack Qty.	€
HPLC bottle 500 ml	**KY94.1**	2 unit(s)	120,50
HPLC bottle 1000 ml	**KY93.1**	2 unit(s)	126,80



A 121 °C

Multiple distributor for bottles GL 45

Autoclavable: Yes.

GL 45 screw cap with 2 or 3 GL 14 threaded necks. Suitable for the transfer of liquids, e.g. for loading a HPLC machine with solvents or for use in titration systems. Also usable as a Woulff bottle. Hoses with an outer Ø of between 1.6 and 6.0 mm can be attached to the multiple distributor for bottles by means of a GL 14 laboratory screw joints. The sealing insert is freely rotatable and prevents hoses from twisting when changing the bottle.

Delivery without bottles, laboratory screw joints and pressure equalisation set; please order separately.

Insert and screw cap made of PP

Material: PP. Good chemical resistance, temperature stable from -40 to +140 °C.

Number of connections	Thread	Art. No.	Pack Qty.	€
2	GL 45	**HX84.1**	2 unit(s)	59,50
3	GL 45	**HX85.1**	2 unit(s)	63,60

Insert made of PFA

Material: PFA Screw cap made of polyphenylene sulphide. Universally applicable, chemically inert and temperature stable from -20 to +230 °C.

Number of connections	Thread	Art. No.	Pack Qty.	€
2	GL 45	**K094.1**	1 unit(s)	110,90

Insert made of PTFE

Material: PTFE Screw cap made of polyphenylene sulphide. Universally applicable, chemically inert and temperature stable from -20 to +230 °C.

Number of connections	Thread	Art. No.	Pack Qty.	€
3	GL 45	**K095.1**	1 unit(s)	153,65

A 121 °C

DURAN WHEATON KIMBLE

Laboratory screw joints GL 14

DWK Life Sciences. Material: PP, Inserts made of PTFE with silicone ring. Autoclavable: Yes.

Each consists of 2 GL 14 threaded caps and 2 inserts for varying hose diameters.

For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
1.6	GL 14	**HX86.1**	2 unit(s)	34,80
3.0	GL 14	**HX87.1**	2 unit(s)	34,80
3.2	GL 14	**HX88.1**	2 unit(s)	34,80
6.0	GL 14	**HX89.1**	2 unit(s)	34,80

Bottles multi-dispensers



121 °C

Multiple distributor for bottles GLS 80

Autoclavable: Yes.

GLS 80 screw cap with four GL 18 threaded necks. Suitable for the transfer of liquids, e.g. for loading HPLC machines with solvents or for use in titration systems. Also usable as a Woulff bottle. Hoses with an outer Ø of between 3.2 and 12.0 mm can be attached to the multiple distributor for bottles by means of GL 18 laboratory screw joints.

Delivery without bottles, laboratory screw joints and pressure equalisation set; please order separately.

Insert and screw cap made of PP
Material: PP. Temperature stability -40 to +140 °C.

Number of connections	Thread	Art. No.	Pack Qty.	€
4	GLS 80	**KE52.1**	1 unit(s)	75,25

Insert made of PTFE
Material: PTFE PP screw caps. Temperature stability 0 to +110 °C.

Number of connections	Thread	Art. No.	Pack Qty.	€
4	GLS 80	**NY20.1**	1 unit(s)	123,45



121 °C

DURAN WHEATON KIMBLE

Laboratory screw joints GL 18

DWK Life Sciences. Material: PP, Inserts made of PTFE with silicone ring. Autoclavable: Yes.

Each consists of 2 GL 18 threaded caps and 2 inserts for varying hose diameters.

For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
3.2	GL 18	**KE53.1**	2 unit(s)	42,90
6.0	GL 18	**KE54.1**	2 unit(s)	42,90
8.0	GL 18	**KE55.1**	2 unit(s)	43,60
10.0	GL 18	**KE56.1**	2 unit(s)	43,60
12.0	GL 18	**KE57.1**	2 unit(s)	42,90



NEW / +

121 °C

HPLC screw cap b.safe GL 45

Bohlender. Material: PPS, PTFE, PFA. Autoclavable: Yes.

Screw cap for GL 45 bottle thread made of PPS with freely rotating distributor body made of PTFE, selectable with two, three or four connections. Connections with UNF ¼″ 28G inner thread for connecting PFA-fittings for hoses (external diameter 3.2 mm), PFA dummy stoppers for the closure of unnecessary connections or a venting valve with change indicator. Temperature resistance: -20 to +200 °C.

- For removing solvents for HPLC
- Freely rotating distributor bodies, prevents the hoses twisting when replacing the bottle
- Using the fittings, hoses can be introduced up to the base of the bottle; conical nipple clamps the hose and seals reliably at the connection
- The venting valve is specially adapted to the flow rates in HPLC; integrated non-return valve prevents the evaporation of solvents and lets ambient air flow into the bottle in the event of a vacuum. The upstream membrane made of porous PTFE effectively keeps out dirt particles and other contaminations from outside
- Venting valve with change indicator after activation at the press of a button and with labelling area

With two connections

Delivery incl. 1 x fitting (PFA) and 1 x venting valve with change-indicator.

Number of connections	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
2	3.2	UNF ¼″ G28	**1HPC.1**	1 unit(s)	68,45

With three connections

Delivery incl. 2 x fittings (PFA), 1 x dummy stopper (PFA) and 1 x venting valve with change indicator.

Number of connections	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
3	3.2	UNF ¼″ G28	**1HPA.1**	1 unit(s)	77,25

With four connections

Delivery incl. 3 x fittings (PFA), 2 x dummy stoppers (PFA) and 1 x venting valve with change indicator.

Number of connections	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
4	3.2	UNF ¼″ G28	**1HP9.1**	1 unit(s)	80,25



NEW / +

A 121 °C

HPLC screw caps starter box b.safe GL 45

Bohlender. Material: PPS, PTFE, PFA. Autoclavable: Yes.

Initial equipment box for HPLC with four HPLC b.safe screw caps made of PPS each, with freely rotating distributor heads made of PTFE, for GL 45 bottle thread. Selectable with two, three or four connections. The items supplied also include PFA fittings for easy connection of transfer hoses (external diameter 3.2 mm), dummy stoppers made of PFA for the closure of unnecessary connections and venting valves with change indicator. Every starter box allows undisturbed HPLC eluent removal from up to four supply bottles with GL 45.
Temperature resistance: -20 to +200 °C.

Starter box 1

Contents:

- 3 x HPLC GL 45 b.safe screw caps with two connections each (UNF ¼″ 28G)
- 1 x HPLC GL 45 b.safe screw caps with three connections (UNF ¼″ 28G)
- 4 x venting valve with change indicator
- 5 x PFA fittings (yellow) for external hose Ø 3.2 mm
- 1 x PFA dummy stopper (white)

Number of connections	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
2/3	3.2	UNF ¼″ G28	**1HPP.1**	1 unit(s)	223,60

Starter box 2

Contents:

- 4 x HPLC GL 45 b.safe screw caps with three connections each (UNF ¼″ 28G)
- 4 x venting valve with change indicator
- 8 x PFA fittings (yellow) for external hose Ø 3.2 mm
- 4 x PFA dummy stoppers (white)

Number of connections	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
3	3.2	UNF ¼″ G28	**1HPX.1**	1 unit(s)	250,50

Starter box 3

Contents:

- 4 x HPLC GL 45 b.safe screw cap with four connections each (UNF ¼″ 28G)
- 4 x venting valve with change indicator
- 12 x PFA fittings (yellow) for external hose Ø 3.2 mm
- 8 x PFA dummy stoppers (white)

Number of connections	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
4	3.2	UNF ¼″ G28	**1HPT.1**	1 unit(s)	267,70



NEW / +

HPLC flushing bottle distributor b.safe

Bohlender. Material: PPS, PP, PFA.

GL 45 flushing bottle distributor made of PPS, GLS 80 flushing bottle distributor made of PP. Each with freely rotating distributor head made of PP with four side connections (GL 45) appropriate for HPLC GL 45 b.safe screw caps. Distributor heads are additionally provided with three central capillary openings each (UNF ¼″ 28G). Temperature resistance: 0 to +110 °C.

Application:
Flushing the HPLC system without contamination or loss of solvents. For this, a distributor head is placed on a flushing bottle, the HPLC b.safe screw caps are removed from the eluent bottles and these are installed on the connections of the flushing bottle distributor. Passage at the distributor neck is sufficiently measured so that the capillary hoses installed on the HPLC screw cap along with filter can be introduced into the flushing bottle. With the GL 45 flushing bottle distributor, the use of intake filters that are as small as possible (max. Ø 14 mm) makes introducing the capillaries through the bottle neck easier. Should a connection of the flushing bottle distributor not be used, this can be closed with a GL 45 screw cap. The escape of solvent vapours that are hazardous to health or a contamination of the flushing solution with ambient air is prevented by the HPLC b.safe screw caps with venting valve. In addition, the flushing bottle distributor can also be used directly for rear flask and needle seat flushing. For this, connect the desired capillaries and a venting valve to the central capillary connections using fittings.

Delivery incl. 3 x PFA dummy stoppers (white).

Version	Number of connections	Thread	Art. No.	Pack Qty.	€
Four flushing head connections (GL 45)	3 (UNF ¼″ 28G)	GL 45	**1HPY.1**	1 unit(s)	193,50
Four flushing head connections (GL 45)	3 (UNF ¼″ 28G)	GLS 80	**1HT0.1**	1 unit(s)	227,90



NEW/+

A 121 °C

HPLC screw cap b.safe Waste Cap GL 45

Bohlender. Material: PPS, PTFE, PFA. Autoclavable: Yes.

Screw cap made of PPS for GL 45 threads with freely rotating distributor element made of PTFE. Available with 3, 2 or 4 capillary connections with UNF ¼″ 28G internal thread for connecting PFA fittings for Ø capillary hoses (external Ø 1.6 mm (green)/2.2 mm (purple)/3.2 mm (yellow)). With PFA dummy stopper (white) to seal capillary connections that are not needed. Depending on the version, with 1 x hose connector (NPT ⅛″ thread) for hose internal Ø 5.5-8 mm. 1 x connection (GL 14 thread) to screw in a b.safe exhaust air filter. Temperature resistance: -20 to +200 °C.

- For safe disposal of waste solvents without leaks of harmful solvent vapours
- Freely rotating distributor bodies, prevents the hoses twisting when replacing the collecting bottle
- Using the fittings, hoses can be easily introduced into the collecting container; conical nipple clamps the hose and reliably seals at the connection
- Large quantities of fluid can optionally be disposed of by connecting hoses with internal Ø 5.5-8 mm, via the hose connectors
- Suitable exhaust air filter available as an option; its activated carbon filling binds harmful solvent vapours

Type A: 3 x capillary connection (UNF ¼″ 28G), 1 x exhaust air filter connection (GL 14)

Delivery incl. PFA fittings: 3 x 1.6 mm, 3 x 2.2 mm, 3 x 3.2, 2 x PFA dummy stopper. **Delivery without** exhaust air filter, please order separately.

Version	Number of connec-tions	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
Without hose-connector	3	1.6 mm/ 2.2 mm/ 3.2	UNF ¼″ G28	**1HT3.1**	1 unit(s)	76,45

Type B: 2 x capillary connection (UNF ¼″ 28G), 1 x hose connector (NPT ⅛″), 1 x exhaust air filter connection (GL 14)

Delivery incl. PFA fittings: 2 x 1.6 mm, 2 x 2.2 mm, 2 x 3.2 mm, 1 x hose connector (NPT ⅛″) 2 x PFA dummy stopper. **Delivery without** exhaust air filter, please order separately.

Version	Number of connec-tions	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
With hose connector (Ø 5.5-8 mm)	2	1.6 mm/ 2.2 mm/ 3.2	UNF ¼″ G28	**1HT4.1**	1 unit(s)	67,40

Type C: 4 x capillary connection (UNF ¼″ 28G), 1 x hose connector (NPT ⅛″), 1 x exhaust air filter connection (GL 14)

Delivery incl. PFA fittings: 4 x 1.6 mm, 4 x 2.2 mm, 4 x 3.2 mm, 1 x hose connector (NPT ⅛″), 3 x PFA dummy stopper. **Delivery without** exhaust air filter, please order separately.

Version	Number of connec-tions	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
With hose connector (Ø 5.5-8 mm)	4	1.6 mm/ 2.2 mm/ 3.2	UNF ¼″ G28	**1HT5.1**	1 unit(s)	101,95



NEW/+

Accessories for b.safe Waste Cap HPLC screw cap b.safe exhaust air filter

Bohlender. Material: PP, PE and activated carbon.

Filter housing made of PP with connection (GL 14 thread) suitable for b.safe Waste Cap HPLC screw caps. Lid with integrated splash-proof ventilation openings and change indicator with labelling area for monitoring service life. The activated carbon filling is protected with two filter membranes made of porous PE. The exhaust air can circulate unobstructed around the activated carbon at the same time, so that the solvent components are reliably absorbed by the activated carbon and only filtered exhaust air escapes into the surrounding area via the ventilation openings. Temperature resistance: 0 to +110 °C.

Small
Service life three months, for up to five litres of capacity

Version	Thread	Art. No.	Pack Qty.	€
Small	GL 14	**1HX5.1**	2 unit(s)	89,75

Medium
Service life six months, for up to 5-10 litres of capacity

Version	Thread	Art. No.	Pack Qty.	€
Medium	GL 14	**1HX6.1**	2 unit(s)	149,75

Large
Service life six months, for more than 10 litres of capacity

Version	Thread	Art. No.	Pack Qty.	€
Large	GL 14	**1HX7.1**	2 unit(s)	193,50



NEW / +

A 121 °C

Accessories for b.safe HPLC screw caps b.safe venting valve

Bohlender. Material: PP, PTFE. Autoclavable: Yes.

Valve housing made of PP with threaded connection (UNF ¼″ 28G) suitable for b.safe HPLC screw caps. Lid with ventilation opening and Luer-Lock fitting, integrated non-return valve with upstream membrane made of porous PTFE (1 µm). Includes attachable change indicator.

Application:
The b.safe venting valve is specially adapted to the volume flow in HPLC. The integrated non-return valve prevents evaporation of solvents and allows ambient air to flow into the bottle if there is a vacuum. The upstream membrane made of porous PTFE keeps out dirt particles and other contaminations from outside. The clip-on change indicator enables six-month monitoring of service life: Activate the change indicator by pressing the button and replace the valve when the display is completely red.

Version	Thread	Art. No.	Pack Qty.	€
Suitable for b.safe HPLC screw caps	UNF ¼″ G28	**1HT1.1**	2 unit(s)	40,40



NEW / +

A 121 °C

Accessories for b.safe Waste Cap HPLC screw cap b.safe corrugated hose coupling

Bohlender. Material: PP, FEP. Autoclavable: Yes.

Three-piece coupling comprising coupling, locknut made of PP and clamping ring made of FEP. Corrugated hose coupling to connect hard-walled corrugated hoses to the b.safe Waste Cap HPLC screw cap via the NPT ⅛″ threaded connection. Locknut with ergonomic gripping surfaces, additional recessed grips with SW10 at the coupling. Temperature stable: 0 to +110 °C.
Select the b.safe corrugated hose coupling suitable for the hoses of your HPLC. Corrugated hoses with 6.5 mm internal Ø, for example, are included with devices from Agilent Technologies; corrugated hoses with 8.5 mm internal Ø, for example, with devices from Thermo Scientific.

For hoses with outer Ø (mm)	Art. No.	Pack Qty.	€
6,5	**1HXA.1**	1 unit(s)	44,55
8,5	**1HXC.1**	1 unit(s)	44,55

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Bottles multi-dispensers

HPLC cap GL 45

Bohlender. Material: PTFE, Screw cap made of PPS, stopcocks (optional) with cock plug made of FEP.

Connections with UNF ¼″ 28G internal thread on top and bottom for attaching connecting hoses. Freely rotatable distributor element, cap can be screwed on and off without twisting the hoses. Excellent chemical resistance, Temperature stability -50 to +200 °C.



Delivery without connecting hoses, please order separately.

Connections without stopcocks

Number of connections	For hoses with outer Ø (mm)	For hoses with inner Ø (mm)	Thread	Art. No.	Pack Qty.	€
2	1.6	0,8	GL 45	**NX21.1**	1 unit(s)	64,75
2	3.2	1,6	GL 45	**NX25.1**	1 unit(s)	62,10
4	1.6	0,8	GL 45	**NX22.1**	1 unit(s)	74,20
4	3.2	1,6	GL 45	**NX26.1**	1 unit(s)	75,80

Connections with stopcocks

Number of connections	For hoses with outer Ø (mm)	For hoses with inner Ø (mm)	Thread	Art. No.	Pack Qty.	€
2	1.6	0,8	GL 45	**NX23.1**	1 unit(s)	129,55
2	3.2	1,6	GL 45	**NX27.1**	1 unit(s)	85,05
3	1.6	0,8	GL 45	**NX24.1**	1 unit(s)	150,45
3	3.2	1,6	GL 45	**NX28.1**	1 unit(s)	162,35

HPLC connecting hose

Bohlender. Material: PTFE, Banjo screw made of PP, thrust washers made of PA.

Flanged hoses with preassembled black banjo screws, UNF ¼″ 28G, and thrust washers. Ready to use straight from the box, no need for time-consuming assembly in the lab. Temperature stable from -50 to +120 °C, pressure resistant up to 30 bar.



Inner x outer Ø 0.8 x 1.6 mm (1/32″ x 1/16″)

Ø Internal (mm)	Ø ext. (mm)	Total length (mm)	Art. No.	Pack Qty.	€
0.8	1.6	100	**NX29.1**	1 unit(s)	17,70
0.8	1.6	250	**NX30.1**	1 unit(s)	18,35
0.8	1.6	500	**NX31.1**	1 unit(s)	19,60
0.8	1.6	750	**NX32.1**	1 unit(s)	23,10
0.8	1.6	1,000	**NX33.1**	1 unit(s)	20,70

Inner x outer Ø 1.6 x 3.2 mm (1/16″ x 1/8″)

Ø Internal (mm)	Ø ext. (mm)	Total length (mm)	Art. No.	Pack Qty.	€
1.6	3.2	100	**NX34.1**	1 unit(s)	15,60
1.6	3.2	250	**NX35.1**	1 unit(s)	16,30
1.6	3.2	500	**NX36.1**	1 unit(s)	17,35
1.6	3.2	750	**NX37.1**	1 unit(s)	19,10
1.6	3.2	1,000	**NX38.1**	1 unit(s)	19,60

Bottles multi-dispensers

HPLC screw

Bohlender.



Dummy screws

Material: PTFE. With UNF ¼″ 28G external thread. For sealing unused HPLC distributor cap connections. Temperature stable from -200 to +260 °C.

For hoses with outer Ø (mm)	For hoses with inner Ø (mm)	Colour	Art. No.	Pack Qty.	€
1.6	0.8	white	**NX39.1**	10 unit(s)	62,25
3.2	1.6	white	**NX40.1**	10 unit(s)	62,25

Banjo screws made of PP

Material: PP with thrust washers made of PA. With UNF ¼″ 28G external thread. Temperature stable from -10 to +100 °C.

For hoses with outer Ø (mm)	For hoses with inner Ø (mm)	Colour	Art. No.	Pack Qty.	€
1.6	0.8	black	**NX43.1**	10 unit(s)	34,15
1.6	0.8	white	**NX44.1**	10 unit(s)	15,95
1.6	0.8	red	**NX45.1**	10 unit(s)	15,95
3.2	1.6	black	**NX46.1**	10 unit(s)	15,95
3.2	1.6	white	**NX47.1**	10 unit(s)	15,95
3.2	1.6	red	**NX48.1**	10 unit(s)	15,95

Banjo screws made of PTFE

Material: PTFE with thrust washers made of PA. With UNF ¼″ 28G external thread. Temperature stable from -200 to +260 °C.

For hoses with outer Ø (mm)	For hoses with inner Ø (mm)	Colour	Art. No.	Pack Qty.	€
1.6	0.8	white	**NX41.1**	10 unit(s)	70,70
3.2	1.6	white	**NX42.1**	10 unit(s)	69,85

HPLC screw coupling

Bohlender. Material: PTFE.

With UNF ¼″ 28G internal thread. For connecting or extending HPLC connecting hoses.



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Version	Number of connections	For hoses with outer Ø (mm)	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
straight	2	1.6	0.8	**NX49.1**	1 unit(s)	10,70
straight	2	3.2	1.6	**NX50.1**	1 unit(s)	10,70
T-shape	3	1.6	0.8	**NX51.1**	1 unit(s)	36,05
T-shape	3	3.2	1.6	**NX52.1**	1 unit(s)	40,00
X-shape	4	1.6	0.8	**NX53.1**	1 unit(s)	50,75
X-shape	4	3.2	1.6	**NX54.1**	1 unit(s)	48,00



Laboratory screw joint HT (high-temperature)

Bohlender. Material: PPS, FKM, PTFE.

Screw cap (PPS, black) with interior comprising clamping ring (PPS), sealing wedge and sealing plate (both made of PTFE) and additional O-ring (FKM) for screwed connections for hose outer Ø smaller than 3 mm (without coming into contact with flow medium).
High chemical resistance since medium only comes into contact with PTFE. Temperature stable -50 °C up to +250 °C.
Pressure stable up to max. 10 bar, suitable for use in a vacuum.

Application

For connecting apparatus and fittings with GL thread to hard-walled hoses made of glass, plastic or metal. For fixing in place probes, thermometers, immersion tubes and cable feeds that have been inserted in reaction vials.

Delivery incl. screw cap, clamping ring, sealing wedge and sealing plate, as well as additional O-ring for laboratory screw joints for hose outer Ø smaller than 3 mm.

Thread GL 14

For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
0.8	GL 14	**KKN3.1**	1 unit(s)	49,00
1.0	GL 14	**KKN4.1**	1 unit(s)	45,55
1.6	GL 14	**KKN5.1**	1 unit(s)	30,50
2.0	GL 14	**KKN6.1**	1 unit(s)	30,60
3.0	GL 14	**KKN7.1**	1 unit(s)	24,90
3.2	GL 14	**KKN8.1**	1 unit(s)	22,60
4.0	GL 14	**KKN9.1**	1 unit(s)	25,50
5.0	GL 14	**KKP0.1**	1 unit(s)	39,30
6.0	GL 14	**KKP1.1**	1 unit(s)	24,60
6.35	GL 14	**KKP2.1**	1 unit(s)	37,40
8.0	GL 14	**KKP3.1**	1 unit(s)	36,80

Thread GL 18

For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
1.6	GL 18	**KKP4.1**	1 unit(s)	54,30
2.0	GL 18	**KKP5.1**	1 unit(s)	41,55
3.0	GL 18	**KKP6.1**	1 unit(s)	27,00
3.2	GL 18	**KKP7.1**	1 unit(s)	30,60
4.0	GL 18	**KKP8.1**	1 unit(s)	29,60
6.0	GL 18	**KKP9.1**	1 unit(s)	22,65
6.35	GL 18	**KKT0.1**	1 unit(s)	82,10
8.0	GL 18	**KKT1.1**	1 unit(s)	25,70
9.52	GL 18	**KKT2.1**	1 unit(s)	64,15
10.0	GL 18	**KKT3.1**	1 unit(s)	26,90

Thread GL 25

For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
1.6	GL 25	**KKT4.1**	1 unit(s)	53,45
2.0	GL 25	**KKT5.1**	1 unit(s)	52,10
3.0	GL 25	**KKT6.1**	1 unit(s)	63,30
3.2	GL 25	**KKT7.1**	1 unit(s)	65,00
4.0	GL 25	**KKT8.1**	1 unit(s)	42,85
6.0	GL 25	**KKT9.1**	1 unit(s)	37,85
6.35	GL 25	**KKX0.1**	1 unit(s)	65,55
8.0	GL 25	**KKX1.1**	1 unit(s)	35,50
9.52	GL 25	**KKX2.1**	1 unit(s)	67,75
10.0	GL 25	**KKX3.1**	1 unit(s)	39,90



Connecting piece GL

Bohlender. Material: PTFE.

With GL thread. Unlimited chemical resistance since medium only comes into contact with PTFE. Temperature stable from -200 °C to +250 °C. Pressure stable up to max. 10 bar, suitable for use in a vacuum.

Application

For the distribution of liquids or gases. As a reducer for connecting various tube and hose outer Ø.

Delivery without laboratory screw joints. Please order separately.

Straight

Two connections with GL thread

Thread	Ø Hole (mm)	Total length (mm)	Width across flats	Art. No.	Pack Qty.	€
GL 14	6.5	50	Hexagon, 15 mm	**KKX4.1**	1 unit(s)	32,45
GL 18	10.5	50	Hexagon, 19 mm	**KKX5.1**	1 unit(s)	31,10

T-shape

Three connections with GL thread

Thread	Ø Hole (mm)	Height (mm)	Total length (mm)	Width across flats	Art. No.	Pack Qty.	€
GL 14	6.5	37	54	Hexagon, 20 mm	**KKX6.1**	1 unit(s)	45,15
GL 18	10.5	39	56	Hexagon, 20 mm	**KKX7.1**	1 unit(s)	52,60

Bottles multi-dispensers



HPLC intake filter

Bohlender. Material: PTFE.

Filter cartridge holder with UNF ¼″ 28G internal thread with replaceable filter cartridge made of porous PTFE. Protects HPLC-systems, pumps, seals, pistons and membranes against contamination by particles or crystallising residues. Filter-Ø 14 mm. Filter length 25 mm.

Delivery without connecting hose (Art. No. NX29.1 ff or . NX34.1 ff); please order separately.

For hoses with inner Ø (mm)	Pore size (µm)	Art. No.	Pack Qty.	€
0,8 mm (1/32″)	2	**NX55.1**	1 unit(s)	102,85
0,8 mm (1/32″)	10	**NX57.1**	1 unit(s)	73,65
1,6 mm (1/16″)	2	**NX56.1**	1 unit(s)	111,05
1,6 mm (1/16″)	10	**NX58.1**	1 unit(s)	78,50



Multiple distributor for bottles

Bohlender. Material: PE Screw cap, Distributor body made of PTFE.

Excellent chemical resistance, temperature stable from -50 °C to +80 °C.

Application

For drawing and filling aggressive or pure liquids and for inserting hoses, tubes and probes into carboys or vacuum bottles by the manufacturer Nalgene® with thread types 53 B or 83 B.

Delivery without HT laboratory screw joints with GL thread, please order separately.

Suitable for Nalgene® 53 B thread

Number of connections	Thread	Art. No.	Pack Qty.	€
2	GL 14	**KKL2.1**	1 unit(s)	72,35

Suitable for Nalgene® 83 B thread

Number of connections	Thread	Art. No.	Pack Qty.	€
3 / 1	GL 18 / GL 25	**KKL3.1**	1 unit(s)	110,65



Multiple distributor for barrels

Bohlender. Screw cap made of PTFE glass fibre..

Suitable for barrels and bins with internal thread. Movable distributor body with GL connecting necks made of PTFE. Very high chemical resistance since medium only comes into contact with PTFE. Temperature-stable from -20 °C to +200 °C.
Pressure-stable up to max. 1 bar, suitable for use in a vacuum.

Application

For drawing and filling aggressive or pure liquids and for inserting hoses, tubes and probes into barrels.

Delivery without HT laboratory screw joints with GL thread, please order separately.

For barrel inner thread R2″/G2″/BSP 2″

Number of connections	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
3	8	GL 14	**KKL4.1**	1 unit(s)	294,55
4	10	GL 18	**KKL5.1**	1 unit(s)	382,70
2 / 1	2x10 / 1x14	GL 18 / GL 25	**KKL6.1**	1 unit(s)	358,00

For Mauser 2" barrel inner thread

Number of connections	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
4	10	GL 18	**KKL7.1**	1 unit(s)	349,40
2 / 1	2x10 / 1x14	GL 18 / GL 25	**KKL8.1**	1 unit(s)	361,20

For Tri-Sure 2" barrel inner thread

Number of connections	For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
3	8	GL 14	**KKL9.1**	1 unit(s)	296,70
4	10	GL 18	**KKN0.1**	1 unit(s)	356,90
2 / 1	2x10 / 1x14	GL 18 / GL 25	**KKN1.1**	1 unit(s)	367,65

Barrel aeration

Bohlender. Material: PTFE Basic body suitable for R¾″ internal thread, with GL32 cap thread, with PTFE/silicone gasket and replaceable filter membrane (pore size 2.5 µm) made of PTFE, screw cap made of PPS.

High chemical resistance, the medium only comes into contact with PTFE. Membrane outer Ø 29, membrane thickness approx. 0.2 mm. Temperature stability from -20 °C to +230 °C, autoclavable.
Pressure compensation from 0.1 bar differential pressure.

Maximum flow rate:
· At 0.5 bar differential pressure: 80 l/h
· At 1.0 bar differential pressure: 320 l/h

Application

For pressure compensation during liquid removal or when filling containers. The integrated filter membrane prevents contamination of the medium with dust or dirt particles.

Version	Art. No.	Pack Qty.	€
Barrel aeration	**KKN2.1**	1 unit(s)	69,85

Stirrer reactors



A 121 °C

DURAN WHEATON KIMBLE

Stirrer reactor sets

DWK Life Sciences. Material: PP, PTFE, PEEK, Stainless steel, DURAN® glass. Autoclavable: Yes.

Significantly better mixing compared to standard magnetic stir bars. Suitable for mixing solutions, dissolving solids and fermentation processes. Driven by a magnetic stirrer. An additional media bottle or a sterile pressure equaliser can be connected using the DURAN® connector system.

- Materials used: PP/PTFE/PEEK/stainless steel/DURAN® glass
- Parts in direct contact with media are FDA-compliant
- Speed range up to 500 rpm
- System is fully autoclavable
- Temperature-stable up to +140 °C

Thread GL 45

- 2 GL 14 connections
- Variable stirrer shaft, fits 500 ml and 1000 ml DURAN® GL 45 threaded bottles
- Compatible with the DURAN® connector system
- Connection of hoses with Ø 1.6 to 6.0 mm possible

Delivery incl. 500-ml or 1000-ml DURAN® threaded bottle GL 45, 2-port GL 45 screw joint PP with magnetic folding stirrer and 2 x GL 14-screw cap (PBT, red). Matching laboratory screw connections HX86.1-HX89.1, please order separately.

Version	Thread	Art. No.	Pack Qty.	€
Stirrer reactor set 1000 ml	GL 45	**PK86.1**	1 unit(s)	341,00
Stirrer reactor set 500 ml	GL 45	**PK85.1**	1 unit(s)	330,00

Thread GLS 80

- 4 connections: 2 x GL 18, 2 x GL 14
- Variable stirrer shaft, fits 1000 ml and 2000 ml DURAN® GLS 80 wide-neck threaded bottles
- Interchangeable stirrer element (anchor stirrer is standard, impeller stirrer is optional)
- Compatible with the DURAN® connector system
- Connection of hoses with Ø 1.6 to 12.0 mm possible

Delivery incl. 1000 ml or 2000 ml DURAN ®GLS 80 wide-neck threaded bottle, GLS 80 4-port screw joint made of PP with magnetic anchor stirrer and GL 14 screw joint (PP, blue), 2 x GL 14 and 2 x GL 18 screw cap (PBT, red). Matching laboratory screw connections HX86.1-HX89.1 and KE53.1-KE57.1, please order separately.

Version	Thread	Art. No.	Pack Qty.	€
Stirrer reactor set 1000 ml	GLS 80	**PK87.1**	1 unit(s)	350,00
Stirrer reactor set 2000 ml	GLS 80	**PK88.1**	1 unit(s)	360,00

A 121 °C

DURAN WHEATON KIMBLE

Laboratory screw joints GL 14

DWK Life Sciences. Material: PP, Inserts made of PTFE with silicone ring. Autoclavable: Yes.

Each consists of 2 GL 14 threaded caps and 2 inserts for varying hose diameters.

For hoses with outer Ø (mm)	Thread	Art. No.	Pack Qty.	€
1.6	GL 14	**HX86.1**	2 unit(s)	34,80
3.0	GL 14	**HX87.1**	2 unit(s)	34,80
3.2	GL 14	**HX88.1**	2 unit(s)	34,80
6.0	GL 14	**HX89.1**	2 unit(s)	34,80



A 121 °C

Triple neck culture bottles

Bohlender. Material: Borosilicate glass 3.3, Screw cap made of PP/glass fibre (centre neck) and PPS (side necks). With height-adjustable stirrer insert made of PTFE and stainless steel. Autoclavable: Yes.

For gentle mixing of cell cultures. High chemical resistance, fully autoclavable. Hoses, probes or sensor probes can be inserted into the side necks. The drive is produced using commercially available magnetic stirrers (max. speed 1,000 rpm) centre neck thread GL 45, inside-Ø 30 mm.

Usable volume (ml)	Thread	Side neck thread	Art. No.	Pack Qty.	€
50	GL 45	GL 14	**NY29.1**	1 unit(s)	217,15
125	GL 45	GL 18	**NY30.1**	1 unit(s)	240,80

Desiccators

Desiccator ROTILABO® glass

ROTH SELECTION. Material: Borosilicate glass 3.3.
Suitable for simple applications and a slight vacuum.



Delivery incl. glass desiccator stopcock, plastic cap with hole (9 mm) and perforated plate made of porcelain.

Type	Nominal volume (l)	Outer flange Ø (mm)	Ø Lower (mm)	Total height (mm)	Art. No.	Pack Qty.	€
DN 100	0.6	151	90	169	**NX07.1**	1 unit(s)	179,55
DN 150	1.5	210	140	201	**NX08.1**	1 unit(s)	234,35
DN 200	4.0	269	190	269	**NX09.1**	1 unit(s)	248,35
DN 250	8.0	329	240	320	**NX10.1**	1 unit(s)	351,55
DN 300	12.5	392	290	341	**NX11.1**	1 unit(s)	484,85

Desiccator base DURAN®

DWK Life Sciences. Material: DURAN® glass.
With flat flange. Thanks to precise machining, parts such as lids, bases, stopcocks and caps can be interchanged as many times as necessary on DURAN® desiccators of the same type and size. With its combination of various individual parts, the DURAN® system can be varied as necessary for each individual application.
DURAN® desiccators are used in numerous fields, for example the drying or dry preservation of substances, as a growing room for plants, bacteria, cell cultures, as a handling room under vacuum, for storing sensitive substrates, components, high-purity metals, in semiconductor development or production, in material and environmental research, in chip technology, etc.
Designed for use under the maximum possible technical vacuum (0 mbar).



DURAN WHEATON KIMBLE

(1) Without connection

Type	Nominal volume (l)	Outer flange Ø (mm)	Inner flange Ø (mm)	Usable height (mm)	Total height (mm)	Art. No.	Pack Qty.	€
DN 100	0.7	153 ±2	118.5	58	112	**H356.1**	1 unit(s)	79,70
DN 150	2.4	215 ±2	172	81	154	**H357.1**	1 unit(s)	86,10
DN 200	5.8	270 ±2	224	115	202	**H358.1**	1 unit(s)	142,55
DN 250	10.5	320 ±2	274	120	235	**H359.1**	1 unit(s)	266,00
DN 300	18.5	380 ±2	332	150	283	**H360.1**	1 unit(s)	419,00

(2) Novus with NS 24/29 tube

Type	Nominal volume (l)	Outer flange Ø (mm)	Inner flange Ø (mm)	Usable height (mm)	Total height (mm)	Art. No.	Pack Qty.	€
DN 100	0.7	153 ±2	118.5	58	112	**H361.1**	1 unit(s)	146,00
DN 150	2.4	215 ±2	172	81	154	**H362.1**	1 unit(s)	148,70
DN 200	5.8	270 ±2	224	115	202	**H363.1**	1 unit(s)	215,00
DN 250	10.5	320 ±2	274	120	235	**H364.1**	1 unit(s)	394,00
DN 300	18.5	380 ±2	332	150	283	**H365.1**	1 unit(s)	584,00

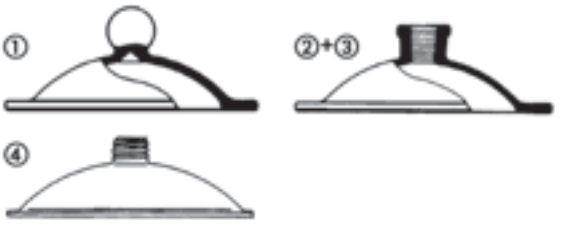
(3) Mobilex with GL 32 thread

Type	Nominal volume (l)	Outer flange Ø (mm)	Inner flange Ø (mm)	Usable height (mm)	Total height (mm)	Art. No.	Pack Qty.	€
DN 150	2.4	215 ±2	172	81	154	**H366.1**	1 unit(s)	139,35
DN 200	5.8	270 ±2	224	115	200	**H367.1**	1 unit(s)	192,00
DN 250	10.5	320 ±2	274	120	250	**H368.1**	1 unit(s)	329,00
DN 300	18.5	380 ±2	332	150	300	**H369.1**	1 unit(s)	498,00

Desiccators

Desiccator lid DURAN®

DWK Life Sciences. Material: DURAN® glass.
With flat flange.



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(1) With knob

Type	Outer flange Ø (mm)	Inner flange Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DN 100	153 ±2	118.5	75	**H371.1**	1 unit(s)	81,65
DN 150	215 ±2	172	98	**H372.1**	1 unit(s)	105,10
DN 200	270 ±2	224	107	**H373.1**	1 unit(s)	103,85
DN 250	320 ±2	274	122	**H374.1**	1 unit(s)	110,25
DN 300	380 ±2	332	150	**H375.1**	1 unit(s)	146,00

(2) Novus with NS 24/29 tube

Type	Outer flange Ø (mm)	Inner flange Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DN 100	153 ±2	118.5	62	**H376.1**	1 unit(s)	95,50
DN 150	215 ±2	172	85	**H377.1**	1 unit(s)	107,65
DN 200	270 ±2	224	94	**H378.1**	1 unit(s)	115,25
DN 250	320 ±2	274	109	**H379.1**	1 unit(s)	142,10
DN 300	380 ±2	332	137	**H380.1**	1 unit(s)	203,00

(3) Mobilex with GL 32 screw thread

Type	Outer flange Ø (mm)	Inner flange Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DN 150	215 ±2	172	85	**H386.1**	1 unit(s)	100,70
DN 200	270 ±2	224	94	**H387.1**	1 unit(s)	101,30
DN 250	320 ±2	274	109	**H388.1**	1 unit(s)	107,65
DN 300	380 ±2	332	137	**H389.1**	1 unit(s)	146,00

(4) Wertex with special NS 24/29 tube

Type	Outer flange Ø (mm)	Inner flange Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DN 150	215 ±2	172	85	**H382.1**	1 unit(s)	121,15
DN 250	320 ±2	274	109	**H384.1**	1 unit(s)	159,00



DURAN WHEATON KIMBLE

Desiccator plate DURAN®

DWK Life Sciences.

Made of porcelain according to DIN 12911 or metal according to DIN EN 10142. Suitable for DURAN® desiccators with corresponding nominal diameters (DN).

Type (1)
Material: Porcelain. Hole Ø 5 mm.

Type	Ø Insert (mm)	Art. No.	Pack Qty.	€
DN 100	90	**H403.1**	1 unit(s)	35,50
DN 150	140	**H404.1**	1 unit(s)	55,25
DN 200	185	**H405.1**	1 unit(s)	107,65
DN 250	235	**H406.1**	1 unit(s)	148,70
DN 300	280	**H407.1**	1 unit(s)	203,00

Type (2)
Material: Metal galvanised. Hole Ø 3 mm.

Type	Ø Insert (mm)	Art. No.	Pack Qty.	€
DN 100	90	**H408.1**	1 unit(s)	10,25
DN 150	140	**H409.1**	1 unit(s)	19,30
DN 200	185	**H410.1**	1 unit(s)	25,55
DN 250	235	**H411.1**	1 unit(s)	32,95
DN 300	280	**H412.1**	1 unit(s)	42,10



Accessories valve stopcocks for Novus desiccators

Lenz. Material: DURAN® glass, with PTFE spindle.

Pic.	Version	Height (mm)	Standard ground glass joint	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
(1)	for side tube	108	24/29	8	**H399.1**	1 unit(s)	41,95
(2)	for lid tube	124	24/29	8	**H400.1**	1 unit(s)	48,30



DURAN WHEATON KIMBLE

Accessories for Mobilex desiccators

DWK Life Sciences.

Spindle stopcock
Material: DURAN® glass PTFE spindle.

Version	Art. No.	Pack Qty.	€
Length 160, Ø 8 mm olive	**H401.1**	1 unit(s)	37,35

Screw cap GL 32
Material: PBT red, with PTFE coated seal. Optional. For closing the threaded connections in the lid and lower section of a Mobilex desiccator.

Version	Art. No.	Pack Qty.	€
PBT with PTFE seal	**H398.1**	1 unit(s)	5,85



DURAN WHEATON KIMBLE

Accessories sealing plug for Wertex desiccators

DWK Life Sciences.

Ø ext. (mm)	Total height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
70	76	24/29	**H402.1**	1 unit(s)	56,50

Desiccator grease white

Carl ROTH.

Suitable for applications under normal pressure or low vacuum.

Version	Art. No.	Pack Qty.	€
medium viscosity	**1477.1**	1 kg	25,70

Desiccators

Desiccator set DURAN® without porcelain plate

DWK Life Sciences. Material: DURAN® glass.

Designed for use up to the maximum technically possible vacuum (0 mbar).



DURAN WHEATON KIMBLE

Delivery without porcelain plate, please order separately.

(1) With knob in lid, without connection

For drying moist products and storage of moisture-sensitive substances.

Type	Nominal volume (l)	Outer flange Ø (mm)	Inner flange Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DN 100	0.7	153 ±2	118.5	187	**AHK8.1**	1 unit(s)	158,00
DN 150	2.4	215 ±2	172	252	**AHK9.1**	1 unit(s)	186,00
DN 200	5.8	270 ±2	222	209	**AHL0.1**	1 unit(s)	228,00
DN 250	10.5	320 ±2	272	357	**AHL1.1**	1 unit(s)	347,00
DN 300	18.5	380 ±2	332	433	**AHL2.1**	1 unit(s)	533,00

(2) NOVUS with tube and stopcock in the lid

To accelerate the drying process or to degas samples, a vacuum can be applied to the tap.

Type	Nominal volume (l)	Outer flange Ø (mm)	Inner flange Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DN 100	0.7	153 ±2	118.5	174	**AHL3.1**	1 unit(s)	240,00
DN 150	2.4	215 ±2	172	239	**AHL4.1**	1 unit(s)	254,00
DN 200	5.8	270 ±2	222	296	**AHL5.1**	1 unit(s)	305,00
DN 250	10.5	320 ±2	272	344	**AHL6.1**	1 unit(s)	452,00
DN 300	18.5	380 ±2	332	420	**AHL7.1**	1 unit(s)	647,00

Desiccator set DURAN® with porcelain plate

DWK Life Sciences. Material: DURAN® glass.

Designed for use up to the maximum technically possible vacuum (0 mbar). For drying moist products and storage of moisture-sensitive substances. To accelerate the drying process or to degas samples, vacuum can be applied via the tap.



DURAN WHEATON KIMBLE

Delivery incl. base, lid with stopcock and porcelain plate.

(1) NOVUS with tube (NS 24/29) and stopcock in the lid

Type	Nominal volume (l)	Outer flange Ø (mm)	Inner flange Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DN 150	2.4	215 ±2	172	239	**ETP4.1**	1 unit(s)	293,00
DN 200	5.8	270 ±2	222	296	**ETP5.1**	1 unit(s)	394,00
DN 250	10.5	320 ±2	272	344	**ETP6.1**	1 unit(s)	565,00
DN 300	18.5	380 ±2	332	420	**ETP7.1**	1 unit(s)	819,00

(2) MOBILEX with GL 32 thread and stopcock in the lid

Type	Nominal volume (l)	Outer flange Ø (mm)	Inner flange Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DN 150	2.4	215 ±2	172	239	**ETP8.1**	1 unit(s)	273,00
DN 200	5.8	270 ±2	222	296	**ETP9.1**	1 unit(s)	385,00
DN 250	10.5	320 ±2	272	344	**ETT0.1**	1 unit(s)	546,00
DN 300	18.5	380 ±2	332	420	**ETT1.1**	1 unit(s)	755,00



Desiccator Polycarbonate

Nalgene. Material: PC, transparent.

For normal pressure and vacuum applications up to max. 10 mbar. Holds a vacuum of 0.95 bar (95 kPa) for 24 hours. Resistant to implosion during proper use. No greasing needed. Connections for hoses with internal Ø from 6.35 to 9.53 mm in lid and base. Suitable for room-temperature applications only.

Delivery incl. silicone O-ring, vacuum tap made of PP (removable) and 2 TPE plugs for sealing hose connections while not in use. Please order desiccator plate separately.

Ø ext. (mm)	Ø Internal (mm)	Usable height (mm)	Total height (mm)	Art. No.	Pack Qty.	€
280	251	195	329	**PK30.1**	1 unit(s)	127,85

Accessories desiccator plate for polycarbonate desiccator

Nalgene. Material: Ceramic-metal compound.

Resistant to temperature shocks, corrosion and breakage during proper use in the desiccator. Colour: Light green.

Ø (mm)	Art. No.	Pack Qty.	€
230	**PK31.1**	1 unit(s)	84,20



Desiccator ROTILABO® plastic

ROTH SELECTION. Material: PP, PC lid.

Suitable for use with water jet pumps.

Delivery incl. rubber seal made of neoprene, desiccator plate, insert for desiccants and vacuum tap.

Nominal volume (l)	Ø Internal (mm)	Usable height (mm)	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
2.15	150	135	190	520	**1008.1**	1 unit(s)	80,25
4.35	200	175	230	825	**1827.1**	1 unit(s)	119,00
9.20	250	225	300	1250	**1009.1**	1 unit(s)	146,65



Vacuum bells

Nalgene.

Low-pressure chambers for degassing or drying samples. Resistant to implosion during proper use. For use without vacuum grease.

Delivery incl. base plate with seal and hose adapter for hoses with a 6.4 mm internal Ø.

Crystal clear bell
Material: PC transparent, plate made of white PP.

Nominal volume (l)	Ø Lower (mm)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
4.7	191	170	237	**ATL5.1**	1 unit(s)	157,65

Brown-transparent bell
Material: Polyetherimide brown-transparent, plate made of white PP.

Nominal volume (l)	Ø Lower (mm)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
8.3	330	222	254	**ATL6.1**	1 unit(s)	332,20
18.9	330	305	305	**ATL7.1**	1 unit(s)	535,35

ACCESSORIES & SPARE PARTS in the ROTH webshop



Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Desiccators



Desiccator Mini

Bohlender. Material: PC, transparent.

For drying and safe storage of moisture-sensitive products. Available with one, two or three connected chambers.

- Ideal for small items, easy to use and transportable
- One-touch revolving door with all-round seal
- Rugged and lightweight design, shatterproof
- Transparent, visible all round, glare-free
- Stackable

Technical specifications:

Art. No.	NT23.1	NT24.1	NT25.1	NT26.1	NT27.1	NT28.1
Type	1 Basic	2 Basic	3 Basic	1 Premium	2 Premium	3 Premium
Number of chambers	1	2	3	1	2	3
Usable volume	6,2 l	2 x 6,2 l	3 x 6,2 l	6,2 l	2 x 6,2 l	3 x 6,2 l
Inner width	212 mm					
Inner depth	180 mm					
Inner height	162 mm					
Temperature stability from	-35 °C					
Temperature stability up to	+70 °C					
Total all-over load	3 kg					
Weight	0.9 kg	1.8 kg	2.7 kg	0.9 kg	1.8 kg	2.7 kg

(1) Basic

Type	Outer width (mm)	Outer depth (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
1 Basic	221	214	183	**NT23.1**	1 unit(s)	167,70
2 Basic	221	214	362	**NT24.1**	1 unit(s)	351,55
3 Basic	221	214	540	**NT25.1**	1 unit(s)	533,20

(2) Premium

Delivery incl. two shelves and digital thermal hygrometer with min./ max. function for monitoring current temperature and humidity values.

Type	Outer width (mm)	Outer depth (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
1 Premium	221	214	183	**NT26.1**	1 unit(s)	172,00
2 Premium	221	214	362	**NT27.1**	1 unit(s)	336,50
3 Premium	221	214	540	**NT28.1**	1 unit(s)	475,15



Desiccator Star

Bohlender. Material: PMMA, Aluminium.

Panels made of transparent PMMA, frame made of reinforced aluminium. All-round rubber door seal with magnetic strip. For drying and safe storage of moisture-sensitive products (e.g. reference solutions, retained samples, metallographic samples, tobacco leaves, DNA samples, etc.). Integrated digital thermal hygrometer with min./ max. function for monitoring current temperature and moisture levels.

Technical specifications:

Art. No.	CT04.1	NX18.1
Type	Star	Star Horizontal
Total volume	45 l	
Usable volume	40 l	42 l
Inner width	260 mm	480 mm
Inner depth	330 mm	
Inner height	480 mm	260 mm
Temperature stability from	-20 °C	
Temperature stability up to	+70 °C	
Max. number of shelves	26 unit(s)	13 unit(s)
Max. all-over load per shelf	10 kg	1.5 kg
Total all-over load	30 kg	
Weight	7 kg	

Delivery incl. four (or two with Star Horizontal desiccator) adjustable intermediate shelves made of PMMA and 1 bottom pan for desiccants.

Type	Outer width (mm)	Outer depth (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
Star	310	375	525	**CT04.1**	1 unit(s)	966,45
Star Horizontal	525	375	340	**NX18.1**	1 unit(s)	1.285,70



Dry box ROTILABO®

ROTH SELECTION. Material: PMMA, transparent.

With lockable door and drawer for filling with dry beads or molecular sieves. Wall thickness 4 mm, polished edges.

Outer width (mm)	Outer depth (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
175	230	175	**6121.1**	1 unit(s)	335,40
305	410	175	**6123.1**	1 unit(s)	422,50

Desiccators



Desiccator Star Vitrum

Bohlender. Material: Aluminium, Borosilicate glass 3.3.

Panels made of type 3.3 borosilicate glass, frame made of reinforced aluminium. All-round rubber door seal with magnetic strip. For drying and safe storage of moisture-sensitive products (e.g. reference solutions, retained samples, metallographic samples, tobacco leaves, DNA samples, etc.). Ideal for storing hot materials (max. 300 °C), excellent resistance to chemicals. Integrated digital thermal hygrometer with min./max. function for monitoring current temperature and moisture levels.

Technical specifications:

Art. No.	**NX19.1**
Type	Star Vitrum
Total volume	45 l
Usable volume	42 l
Inner width	260 mm
Inner depth	330 mm
Inner height	480 mm
Temperature stability from	-20 °C
Temperature stability up to	+150 °C
Max. number of shelves	26 unit(s)
Max. all-over load per shelf	10 kg
Total all-over load	30 kg
Weight	14 kg

Delivery incl. four adjustable intermediate shelves made of stainless steel and one bottom pan for desiccants.

Type	Outer width (mm)	Outer depth (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
Star Vitrum	310	375	525	**NX19.1**	1 unit(s)	1.487,80



Inert gas desiccator Super Star

Bohlender. Material: PMMA, Aluminium.

Panels made of transparent PMMA, frame made of reinforced aluminium. All-round rubber door seal with magnetic strip and barrel lock. Nitrogen or noble gases can be introduced through two gassing connections with quick couplings and self-closing valves. This allows the safe storage of air- and moisture-sensitive substances as well as highly reactive or toxic chemicals in an inert gas atmosphere. Large integrated digital thermal hygrometer with min./max. function for monitoring temperature and moisture levels. Additional space requirement for couplings: 150 mm per side.

Technical specifications:

Art. No.	**NX20.1**
Type	Super Star
Total volume	45 l
Usable volume	42 l
Inner width	260 mm
Inner depth	330 mm
Inner height	480 mm
Temperature stability from	-20 °C
Temperature stability up to	+70 °C
Max. number of shelves	26 unit(s)
Max. all-over load per shelf	10 kg
Total all-over load	30 kg
Weight	7.1 kg

Delivery incl. four adjustable intermediate shelves made of PMMA, bottom pan for desiccants and hoses with quick couplings for gassing.

Type	Outer width (mm)	Outer depth (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
Super Star	310	375	525	**NX20.1**	1 unit(s)	1.288,95

Desiccators



Desiccator Auto Star

Bohlender. Material: PMMA, Aluminium.

Panels made of transparent PMMA, frame made of reinforced aluminium. All-round rubber door seal with magnetic strip. For long-term storage of moisture-sensitive substances, reference samples, electronic components, photographic equipment, paper, cultural goods, etc.
The automatic drying guarantees a consistently low humidity and compensates for the frequent opening of the door. In the event of a power failure, the humidity level inside the desiccator does not increase for several hours, thereby giving valuable samples extra protection.
No need for manual regeneration of the silica gel, no need for frequent checks, the space for desiccant dish can also be used. Digital thermal hygrometer with min./max. function for monitoring actual temperature and moisture levels.
Additional space requirement for drying unit: 60 mm to the rear.

Technical specifications:

Art. No.	NP95.1
Type	Auto Star
Total volume	45 l
Usable volume	42 l
Inner width	260 mm
Inner depth	330 mm
Inner height	480 mm
Temperature stability from	-20 °C
Temperature stability up to	+70 °C
Max. number of shelves	26 unit(s)
Max. all-over load per shelf	10 kg
Total all-over load	30 kg
Weight	7.3 kg
Mains connection	230 V, 50 Hz

Delivery incl. four adjustable shelves made of PMMA, drying unit and thermal hygrometer.

Type	Outer width (mm)	Outer depth (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
Auto Star	310	375	525	**NP95.1**	1 unit(s)	1.878,05



Vacuum desiccator

Bohlender. Material: PMMA, transparent.

Wall thickness 25 mm. With all-round silicone door seal and four or five safety hinge locks. For contamination-free storage of air-, moisture- and heat-sensitive products as well as for gentle drying of easily degradable and reactive substances. Display on analogue vacuum meter shows 0.1 to 0.001 MPa = 1000 to 10 mbar. Needle valves with connections for internal hose Ø 9 mm. Additional space requirement for valves and vacuum meter 150 mm.

Technical specifications:

Art. No.	YT39.1	YT40.1
Type	17.5 l	24.5 l
Usable volume	17.5 l	24.5 l
Inner width	260 mm	
Inner depth	260 mm	
Inner height	260 mm	360 mm
Temperature stability from	-20 °C	
Temperature stability up to	+70 °C	
Max. all-over load per shelf	9 kg	
Total all-over load	30 kg	40 kg
Weight	15 kg	18 kg

Delivery incl. two (or three with type 2) intermediate shelves made of PMMA, analogue vacuum meter and needle valves.

Pic.	Type	Outer width (mm)	Outer depth (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
(1)	17.5 l	300	300	340	**YT39.1**	1 unit(s)	5.097,65
(2)	24.5 l	300	300	440	**YT40.1**	1 unit(s)	5.701,80

Ampoules



DURAN WHEATON KIMBLE

Ampoules pre-scored

DWK Life Sciences. Material: Borosilicate glass.

With tear-off cap for easy opening. Neck lockable by removing or flaming the tip.

Clear glass
With low-extractable components, compliant with USP type I and ASTM E 438 type I, class A.

Vol. (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
1	67	10.5	**ETE6.1**	144 unit(s)	69,40
2	75	12	**ETE7.1**	144 unit(s)	69,40
5	84	16.5	**ETE8.1**	144 unit(s)	107,40
10	107	19	**ETE9.1**	144 unit(s)	146,60
20	130	22.5	**ETH0.1**	144 unit(s)	213,95

Brown glass
Meets the requirements of USP type I for storing light-sensitive substances.

Vol. (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
1	67	10.5	**ETH1.1**	144 unit(s)	77,95
2	75	12	**ETH2.1**	144 unit(s)	77,95
3	84	16.5	**ETH3.1**	144 unit(s)	156,95



DURAN WHEATON KIMBLE

Ampoule opener

DWK Life Sciences. Material: PE.

Disposable ampoule opener for ampoules with volumes 1 to 2 ml. Protects against glass splinters and prevents cross-contamination. Inside Ø 9.7 x H 25.2 mm.

Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
25.2	9.7	**EPN8.1**	144 unit(s)	32,55



DURAN WHEATON KIMBLE

Ampoules Cryule® pre-scored

DWK Life Sciences. Material: Borosilicate glass.

With low-extractable components, compliant with USP type I and ASTM E 438 type I, class A. With tear-off cap for easy opening. Suitable for sample storage in the gas phase of liquid nitrogen. Neck lockable by removing or flaming the tip.

Vol. (ml)	Height (mm)	Ø (mm)	Ø Outer neck (mm)	Art. No.	Pack Qty.	€
1.2	58	11.8	5	**ETE4.1**	144 unit(s)	131,60
2.0	70	11.5	5	**ETE5.1**	144 unit(s)	149,50



Ampoule opener

ROTH SELECTION.

Opens ampoules from 1 to 10 ml easily and safely. Single-handed opening of up to three ampoules at the same time.

Delivery incl. one ampoule box and four inserts for opening 1 ml, 2 ml, 5 ml and 10 ml ampoules.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
95	76	83	**CXT2.1**	1 unit(s)	62,15

Sample vials/autosample vials

Test tubes

Greiner Bio-One. Material: PS transparent, screw caps made of white **HDPE**.

Liquid-tight, with conical bottom. Centrifugable up to 3,500 x g. Temperature-stable from -20 °C to 60 °C. For universal use in laboratories for non-humane and non-medical samples.



Not a medical device / Not an IVD product

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Sterility	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
23	30	24	90	Non-sterile	3,500	**HYL2.1**	400 unit(s)	119,10
23	30	24	90	**Sterile**	3,500	**HYL3.1**	400 unit(s)	172,00

Sample vials ROTILABO®

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.

Screw top vials with flat base.



Delivery without caps, please order caps separately.

Version	Vol. (ml)	Nominal volume (ml)	Ø (mm)	Ø Inner neck (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
Brown glass	5	8	17	9.5	61	ND 15	**XC38.1**	100 unit(s)	39,80
Clear glass	5	8	17	9.5	61	ND 15	**XC37.1**	100 unit(s)	37,10
Brown glass	10	12	19	9.5	66	ND 15	**XC40.1**	100 unit(s)	40,75
Clear glass	10	12	19	9.5	66	ND 15	**XC39.1**	100 unit(s)	38,20
Clear glass	15	16	21	11.5	71	ND 18	**XC41.1**	100 unit(s)	43,55
Clear glass	20	20	23	13.5	86	ND 20	**XC42.1**	100 unit(s)	48,40

Accessories for sample vials ROTILABO®

ROTH SELECTION. Material: PP.

Screw caps with sealing pad, closed. Suitable for sample vials Art. No. XC37.1 ff with corresponding thread.



Version	Septum material	Thread	Art. No.	Pack Qty.	€
Black lid	Natural rubber orange red / TEF transparent	ND 15	**XC43.1**	100 unit(s)	29,60
Black lid	Butyl red / PTFE grey	ND 15	**XC44.1**	100 unit(s)	31,75
Black lid	Butyl red / PTFE grey	ND 18	**XC45.1**	100 unit(s)	43,00
Lid, white	Butyl red / PTFE grey	ND 20	**XC46.1**	100 unit(s)	43,55

Sample vials/autosample vials



S

Sample vials

Nalgene. Material: PET Copolymer, HDPE screw cap. **Sterile**.

Type 2035. For sampling and storage of reagents and buffer solutions. **Leak-proof**.

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
5	22.5	46	20-415	**ATK0.1**	100 unit(s)	238,65
10	24	57	20-415	**ATK1.1**	100 unit(s)	242,95
20	30	65	20-415	**ATK2.1**	100 unit(s)	262,30



Test tubes ROTILABO®

ROTH SELECTION.

With flat bottom (Art. No. H992.1 with conical bottom) and tight-fitting lids. The conical recess in the lid allows penetration with a syringe, whereby the needle is centred automatically. Easy to open and/or close. For storing samples or for using autosamplers. Sample vials 2 ml suitable for autosamplers such as Perkin Elmer ISS-100 and ISS-200.

Clear glass
Material: Borosilicate glass lid made of PE.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	8	40	**H300.1**	200 unit(s)	44,70
2	12	32	**H303.1**	100 unit(s)	36,15
4	15	45	**H306.1**	100 unit(s)	39,35

Brown glass
Material: Borosilicate glass lid made of PE.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	8	40	**H301.1**	200 unit(s)	63,70
2	12	32	**H304.1**	100 unit(s)	42,90
4	15	45	**H307.1**	100 unit(s)	43,75

Plastic
Material: PP lid made of PE.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.7	8	40	**H992.1**	100 unit(s)	36,15
1	8	40	**H302.1**	200 unit(s)	61,20
2	12	32	**H305.1**	100 unit(s)	39,40
4	15	45	**H308.1**	100 unit(s)	42,00



Sample vials ROTILABO® 0.1 ml with thread

ROTH SELECTION. Material: PP.

With thread and integrated micro-insert. Flat base.

Delivery without lid and septum, please order separately.

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
0.1	12	32	8 mm	**C518.1**	200 unit(s)	63,95



Sample vials ROTILABO® 2 ml with thread

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.

With flat bottom and thread. For automatic samplers. Wall thickness 0.9 mm.

Delivery without lid and septum, please order separately.

Version	Vol. (ml)	Nominal volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Brown glass	1.5	2	11.5	32	**E160.1**	200 unit(s)	60,80
Clear glass	1.5	2	11.5	32	**E159.1**	200 unit(s)	52,15



Accessories for ROTILABO® sample vials 0.1 and 2 ml

ROTH SELECTION.

For Rotilabo® sample vials (Art. No. E159.1, E160.1 and C518.1).

Version	Art. No.	Pack Qty.	€
Septa PTFE, Ø 8 mm	**E163.1**	1,000 unit(s)	56,30
Screw caps with hole	**E161.1**	200 unit(s)	16,15
Screw caps without hole	**E162.1**	200 unit(s)	18,30
Septum silicone rubber/PTFE coated, single use	**E164.1**	200 unit(s)	41,40
Septum Silicone white/PTFE red, pierceable several times	**E165.1**	200 unit(s)	45,50

Sample vials/autosample vials



Micro-inserts ROTILABO® 100 µl

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I. For sample vials 2.0 ml (Art. No. E159.1, E160.1 and C514.1).

Version	Vol. (µl)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
with plastic spring	100	5	30	**C516.1**	100 unit(s)	71,80



Sample vials ROTILABO® 4 ml with thread

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I. With flat bottom and thread. For automatic samplers. Wall thickness 0.95 mm.

Delivery without lid and septum, please order separately.

Version	Vol. (ml)	Ø (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
Brown glass	4	14.75	8.5	45	**E153.1**	200 unit(s)	66,60
Clear glass	4	14.75	8.5	45	**E152.1**	200 unit(s)	56,60



Sample vials ROTILABO® with beaded rim

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I. With beaded rim and flat bottom.

Delivery without aluminium caps and septum, please order separately.

Vol. (ml)	Ø (mm)	Ø Outer neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	12	11	32	**C514.1**	200 unit(s)	55,95
4	15	13	45	**H511.1**	200 unit(s)	60,40
6	22	20	38	**H512.1**	200 unit(s)	112,30
10	23	20	46	**H513.1**	200 unit(s)	123,05
20	23	20	75	**H514.1**	200 unit(s)	131,35



Crimp caps ROTILABO® with septum

ROTH SELECTION. Material: Aluminium.
For ROTILABO® sample vials (Art. No. C514.1 to H514.1).

Suitable for	Septum material	Art. No.	Pack Qty.	€
Ø neck outside 11 mm	Silicone/PTFE	**C515.1**	200 unit(s)	82,05
Ø neck outside 11 mm	Silicone rubber/PTFE	**H522.1**	200 unit(s)	41,15
Ø neck outside 13 mm	Silicone rubber/PTFE	**H518.1**	200 unit(s)	94,80
Ø neck outside 13 mm	Silicone/PTFE	**H519.1**	200 unit(s)	113,35
Ø neck outside 20 mm	Butyl/PTFE	**H520.1**	200 unit(s)	253,70
Ø neck outside 20 mm	Silicone/PTFE	**H521.1**	200 unit(s)	153,25

Sample vials/autosample vials

Sample vials ROTILABO® with thread ND8

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.
Flat base. CleanPack, vials are packed in a clean room under class 10 000 conditions. Standard autosampler vials for GC and HPLC.



Delivery without micro-inserts, screw caps and septa, please order separately.

Screw top vials ND8

Version	Vol. (ml)	Ø (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
Clear glass, conical bottom	1.1	11.6	5.2	32	**KE28.1**	100 unit(s)	69,35
Brown glass	1.5	11.6	5.2	32	**KE29.1**	100 unit(s)	18,85
Clear glass	1.5	11.6	5.2	32	**KE26.1**	100 unit(s)	17,20
Brown glass, with labelling space	1.5	11.6	5.2	32	**KE30.1**	100 unit(s)	19,90
Clear glass, with labelling space	1.5	11.6	5.2	32	**KE27.1**	100 unit(s)	18,85

Micro-inserts ROTILABO® ND8

ROTH SELECTION. Material: Borosilicate glass, clear.
For screw top vials ND8.

Version	Vol. (ml)	Nominal volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
With metal spring	0.11	0.05	4	27.5	**KE33.1**	100 unit(s)	38,20
15 mm conical tip	0.15	0.1	5	31	**KE31.1**	100 unit(s)	38,20
With plastic spring	0.15	0.1	5	29	**KE32.1**	100 unit(s)	74,20

Screw caps ROTILABO® ND8 closed

ROTH SELECTION. Material: PP, black.
Without borehole. For screw top vials ND8.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	1.3	55	**TY73.1**	100 unit(s)	24,20
Natural rubber orange red / TEF transparent	1.3	60	**TY72.1**	100 unit(s)	22,25
Silicone white / PTFE red, UltraClean	1.3	45	**NL96.1**	100 unit(s)	37,55

Screw caps ROTILABO® ND8 with borehole

ROTH SELECTION. Material: PP, black.
For screw top vials ND8.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	1.3	55	5.5	**KE38.1**	100 unit(s)	22,60
Natural rubber orange red / TEF transparent	1.3	60	5.5	**KE37.1**	100 unit(s)	21,00
PTFE red / silicone white / PTFE red	1.0	45	5.5	**KE34.1**	100 unit(s)	48,40
Silicone cream / PTFE red, UltraClean	1.5	55	5.5	**KE36.1**	100 unit(s)	37,10
Silicone white / PTFE red, UltraClean	1.3	45	5.5	**KE35.1**	100 unit(s)	37,10
Silicone white / PTFE red, slotted	1.3	45	5.5	**NL97.1**	100 unit(s)	54,30

Screw caps ROTILABO® ND8

ROTH SELECTION. Material: PP, black.
For screw top vials ND8.

Delivery without septum, please order separately.

Version	Art. No.	Pack Qty.	€
With borehole Ø 5.5 mm	**KE40.1**	100 unit(s)	7,75
Without borehole	**KE39.1**	100 unit(s)	8,40

Sample vials/autosample vials

Septa ROTILABO® for ND8 Ø 8 mm

ROTH SELECTION.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
PTFE	0.25	53	**KE41.1**	1,000 unit(s)	41,40
Butyl red/PTFE grey	1.3	55	**KE43.1**	1,000 unit(s)	117,20
Natural rubber orange red / TEF transparent	1.3	60	**KE42.1**	1,000 unit(s)	96,25
Silicone white/PFTE red	1.3	45	**KE44.1**	1,000 unit(s)	250,50
Silicone white / PTFE blue, slotted	0.9	55	**KE45.1**	1,000 unit(s)	557,95

Sample vials ROTILABO® with short thread ND9

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.
Wide opening for easy filling. Flat base. CleanPack, vials are packed in a clean room under class 10 000 conditions. Standard autosampler vials for GC and HPLC.



Delivery without micro-inserts and screw caps, please order separately.

Version	Vol. (ml)	Ø (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
Clear glass, with integrated micro insert	0.2	11.6	6.2	32	**LC04.1**	100 unit(s)	134,40
Clear glass, with solid conical base	1.1	11.6	6.2	32	**LC05.1**	100 unit(s)	95,70
Clear glass	1.5	11.6	6.2	32	**LC02.1**	100 unit(s)	17,95
Brown glass, with labelling space	1.5	11.6	6.2	32	**LC06.1**	100 unit(s)	21,30
Brown PP, with graduations	1.5	11.6	6.2	32	**NL99.1**	100 unit(s)	27,95
Clear glass, with labelling space	1.5	11.6	6.2	32	**LC03.1**	100 unit(s)	19,35
Transparent PP, with graduations	1.5	11.6	6.2	32	**NL98.1**	100 unit(s)	26,80

Micro-inserts ROTILABO® ND9/ND10/ND11

ROTH SELECTION. Material: Borosilicate glass, clear.
For short-thread screw top vials ND9, ND10 and ND11.

Version	Vol. (ml)	Nominal volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
15 mm conical tip	0.25	0.1	6	31	**LC07.1**	100 unit(s)	31,75
With plastic spring	0.25	0.1	5.7	29	**LC08.1**	100 unit(s)	84,95
Flat base	0.35	0.2	6	31	**LC09.1**	100 unit(s)	26,35

Screw caps ROTILABO® ND9 closed

ROTH SELECTION. Material: PP, blue.
For ND9 short threaded vials.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
PTFE virginal	0.2	53	**TY74.1**	100 unit(s)	23,55
Silicone white / PTFE red, UltraClean	1.0	55	**TY75.1**	100 unit(s)	42,50

Sample vials/autosample vials

Screw caps ROTILABO® ND9 with borehole

ROTH SELECTION. Material: PP, blue.

For ND9 short threaded vials. Also suitable for robot gripper arms.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
PTFE (shore D)	0.2	53	6	**LC12.1**	100 unit(s)	19,35
Natural rubber orange red / TEF transparent	1.0	60	6	**LC13.1**	100 unit(s)	23,15
PTFE red / silicone white / PTFE red	1.0	45	6	**LC10.1**	100 unit(s)	44,65
Silicone white / PTFE blue, slotted	1.0	55	6	**LC14.1**	100 unit(s)	53,65
Silicone white / PTFE red, UltraClean	1.0	55	6	**LC11.1**	100 unit(s)	37,55

Screw-cap closures ROTILABO® ND9 with borehole UltraBond

ROTH SELECTION. Material: PP, blue.

For ND9 short threaded vials. Cap and septum form a unit, the septum cannot be pressed into the flask by thick or blunt needles.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Silicone beige / PTFE white, slotted	1.3	45	6	**LC15.1**	100 unit(s)	64,00

Screw caps ROTILABO® ND9 for the LC/GC-MS

ROTH SELECTION.

Inert, non-bleed single-component cap, LC/GC-MS certified.
Transparent, with thinned penetration area, penetrable like a septum.
For ND9 short threaded vials.

Version	Art. No.	Pack Qty.	€
with thinned penetration area	**NN00.1**	100 unit(s)	44,00

Screw-cap closures ROTILABO® ND9 magnetic with borehole

ROTH SELECTION. Material: PP.

Blue colour, with magnetic cap attached, golden colour. For ND9 short threaded vials.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Silicone white / PTFE red, UltraClean	1.0	55	6	**PT62.1**	100 unit(s)	63,45

Sample vials/autosample vials

Sample vials ROTILABO® with short thread ND9 silanised

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I, silanised.

The surface of the vials is deactivated by silanisation. This minimises the adsorption of polar compounds (proteins, amines, phenols etc.) by the glass and prevents the loss of valuable specimens.
Wide opening for easy filling. Flat base. CleanPack, vials are packed in a clean room under class 10 000 conditions. Suitable for automatic samplers.

Delivery without micro-inserts and screw caps, please order separately.

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Clear glass, with solid conical base	1.1	11.6	32	**XC48.1**	100 unit(s)	136,55
Clear glass	1.5	11.6	32	**XC47.1**	100 unit(s)	58,05
Brown glass, with labelling space	1.5	11.6	32	**XC49.1**	100 unit(s)	59,15

Micro-inserts ROTILABO® ND9/ND10/ND11 silanised

ROTH SELECTION. Material: Borosilicate glass, silanised, clear.

The surface of the vials is deactivated by silanisation. This minimises the adsorption of polar compounds (proteins, amines, phenols etc.) by the glass and prevents the loss of valuable specimens.
For ND9 short-thread screw top vials, ND10 screw top vials, and ND11 rolled edge vials snap ring vials.

Version	Vol. (ml)	Nominal volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Conical 15 mm tip	0.25	0.1	6	31	**XC50.1**	100 unit(s)	75,15
With plastic spring	0.25	0.1	5.7	29	**XC51.1**	100 unit(s)	112,90

Sample vials with short thread ND9 Vial kit, HPLC-certified

ROTH SELECTION. Material: Borosilicate glass, PP.

HPLC and GC-certified, tested for blank values and impurities.
Kits each with 100 short-thread screw top vials ND9 made of borosilicate glass from hydrolytic class I with UltraClean screw caps made of PP.



Version	Vol. (ml)	Ø (mm)	Height (mm)	Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Brown glass, with labelling space	1.5	11.6	32	Silicone white/ PTFE red	1.0	55	6	**XC65.1**	1 set	64,50
Clear glass, with labelling space	1.5	11.6	32	Silicone white/ PTFE red	1.0	55	6	**XC64.1**	1 set	64,50

Sample vials/autosample vials

Sample vials ROTILABO® with thread ND10

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.

Wide opening for easy filling. Flat base. CleanPack, vials are packed in a clean room under class 10 000 conditions. Standard autosampler vials for GC and HPLC.



Delivery without micro-inserts and screw caps, please order separately.

Version	Vol. (ml)	Ø (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
Clear glass	1.5	11.6	8.8	32	**LC16.1**	100 unit(s)	19,15
Brown glass, with labelling space	1.5	11.6	8.8	32	**LC17.1**	100 unit(s)	22,25
Clear glass, with labelling space	1.5	11.6	8.8	32	**NN01.1**	100 unit(s)	21,30

Screw caps ROTILABO® ND10

ROTH SELECTION. Material: PP, black.

Without borehole. For screw top vials ND10.

Delivery incl. septum, mounted.

Version	Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Without borehole	Natural rubber orange red / TEF transparent	1.3	60	**TY76.1**	100 unit(s)	31,75

Screw caps ROTILABO® ND10 with borehole

ROTH SELECTION. Material: PP, black.

For screw top vials ND10.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Natural rubber orange red / TEF transparent	1.3	60	7	**LC20.1**	100 unit(s)	26,80
PTFE red / silicone white / PTFE red	1.0	45	7	**NN37.1**	100 unit(s)	53,65
Silicone white / PTFE beige	1.5	45	7	**LC19.1**	100 unit(s)	43,55
Silicone white / PTFE blue, slotted	1.5	55	7	**LC21.1**	100 unit(s)	61,30
Silicone white / PTFE red, UltraClean	1.3	45	7	**LC18.1**	100 unit(s)	42,50

Sample vials/autosample vials

Sample vials ROTILABO® with beaded rim ND11

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.

With heavy duty rim**.** Wide opening for easy filling. Flat base. Clean-Pack, vials are packed in a clean room under class 10 000 conditions. Standard autosampler vials for GC and HPLC.



Delivery without micro-inserts and caps, please order separately.

Version	Vol. (ml)	Ø (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
Clear glass	1.5	11.6	8.3	32	**LC22.1**	100 unit(s)	16,05
Brown glass, with labelling space	1.5	11.6	8.3	32	**LC24.1**	100 unit(s)	18,85
Clear glass, with labelling space	1.5	11.6	8.3	32	**LC23.1**	100 unit(s)	17,20
Clear glass	2.5	11.6	8.3	41	**TY77.1**	100 unit(s)	26,35

Crimp caps ROTILABO® ND11 with borehole

ROTH SELECTION. Material: Aluminium, clear coated.

For ND11 rolled edge vials.



Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	1.3	55	5.5	**LC30.1**	100 unit(s)	23,15
Natural rubber orange red / butyl red / TEF transparent	1.0	45	5.5	**LC28.1**	100 unit(s)	15,30
Natural rubber orange red / TEF transparent, Agilent quality	1.0	60	5.5	**LC29.1**	100 unit(s)	15,05
PTFE red / silicone white / PTFE red	1.0	45	5.5	**LC26.1**	100 unit(s)	46,05
Silicone white / PTFE blue, slotted	1.5	55	5.5	**NN02.1**	100 unit(s)	72,60
Silicone white / PTFE red, UltraClean	1.3	45	5.5	**LC27.1**	100 unit(s)	37,10

Crimp caps ROTILABO® ND11 with borehole, phthalate-free

ROTH SELECTION. Material: Aluminium, clear coated.

Free of phthalates, halogens, elastomers, plasticisers, silicone, butyl rubber, PTFE, FEP, TEF. Recommended for GC/LC-MS, for the storage of standards and analysis of halogenated compounds, VOC's, plastics, phthalates, polymerisation catalysts and silicones. For ND11 rolled edge vials.



Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Art. No.	Pack Qty.	€
Aluminium (with O-ring seal)	0.06	**NN03.1**	100 unit(s)	46,25

Sample vials/autosample vials

Sample vials ROTILABO® with snap-on ring ND11

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.

Wide opening for easy filling. Flat base. CleanPack, vials are packed in a clean room under class 10 000 conditions. Standard autosampler vials for GC and HPLC.



Delivery without micro-inserts and caps, please order separately.

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
TPX, with integrated glass micro insert	0.2	11.6	32	**TY82.1**	100 unit(s)	84,95
Clear glass	1.5	11.6	32	**TY79.1**	100 unit(s)	17,95
Brown glass, with labelling space	1.5	11.6	32	**TY81.1**	100 unit(s)	21,30
Clear glass, with labelling space	1.5	11.6	32	**TY80.1**	100 unit(s)	19,35

Snap ring caps ROTILABO® ND11 hard version

ROTH SELECTION. Material: PE, transparent.

With borehole. For ND11 snap ring vials. Hard version for optimal leak tightness. No crimping tool is required.



Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Natural rubber orange red / TEF transparent	1.0	60	**TY84.1**	100 unit(s)	22,60
RedRubber / PTFE beige, AGILENT quality	1.0	45	**TY83.1**	100 unit(s)	24,20

Snap ring caps ROTILABO® ND11 soft version

ROTH SELECTION. Material: PE, blue.

With borehole. For ND11 snap ring vials. Soft version for easier push-on or removal. No crimping tool is required.



Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Natural rubber orange red / TEF transparent	1.0	60	**TY86.1**	100 unit(s)	24,20
RedRubber / PTFE beige, AGILENT quality	1.0	45	**TY85.1**	100 unit(s)	26,35

Push-on caps ROTILABO® ND11

ROTH SELECTION. Material: PE.

Blue colour, for pushing on. For ND11 crimp top and snap ring vials. No crimping tool is required. Closed, with thinned puncture area instead of a septum. For non-critical analyses.

Version	Art. No.	Pack Qty.	€
Push-on	**TY78.1**	100 unit(s)	10,65

Sample vials/autosample vials

Sample vials ROTILABO® with thread ND13

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.
Flat base. CleanPack, vials are packed in a clean room under class 10 000 conditions. For automatic samplers.



Delivery without micro-inserts, screw caps and septa, please order separately.

Version	Vol. (ml)	Ø (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
Brown glass	4	14.7	8.5	45	**LC33.1**	100 unit(s)	23,55
Clear glass	4	14.7	8.5	45	**LC31.1**	100 unit(s)	22,50
Brown glass, with labelling space	4	14.7	8.5	45	**LC34.1**	100 unit(s)	25,30
Clear glass, with labelling space	4	14.7	8.5	45	**LC32.1**	100 unit(s)	24,20

Micro-inserts ROTILABO® ND13

ROTH SELECTION. Material: Borosilicate glass, clear.
For screw top vials ND13.

Version	Vol. (ml)	Nominal volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Conical 15 mm tip, with metal spring	0.4	0.3	6	40	**LC35.1**	100 unit(s)	53,25

Screw caps ROTILABO® ND13 closed

ROTH SELECTION. Material: PP, black.
Without borehole. For screw top vials ND13.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	1.3	55	**TY89.1**	100 unit(s)	31,75
Natural rubber orange red / TEF transparent	1.3	60	**TY88.1**	100 unit(s)	28,95
Silicone cream / PTFE red	1.5	55	**NN04.1**	100 unit(s)	46,80

Screw caps ROTILABO® ND13 with borehole

ROTH SELECTION. Material: PP, black.
For screw top vials ND13.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Butyl red/PTFE grey	1.3	55	8.5	**LC39.1**	100 unit(s)	31,20
Natural rubber orange red/TEF transparent	1.3	60	8.5	**LC38.1**	100 unit(s)	27,95
PTFE red/silicone white/PTFE red	1.0	45	8.5	**LC36.1**	100 unit(s)	61,30
Silicone cream/PTFE red	1.5	55	8.5	**LC37.1**	100 unit(s)	48,40

Screw caps ROTILABO® ND13

ROTH SELECTION. Material: PP, black.
For screw top vials ND13.

Delivery without septum, please order separately.

Version	Art. No.	Pack Qty.	€
With borehole Ø 8.5 mm	**LC41.1**	100 unit(s)	11,85
Without borehole	**LC40.1**	100 unit(s)	13,45

Sample vials/autosample vials

Septa ROTILABO® for ND13 Ø 12 mm

ROTH SELECTION.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
PTFE (shore D)	0.25	53	**LC42.1**	1,000 unit(s)	52,15
Butyl red/PTFE grey	1.3	55	**LC44.1**	1,000 unit(s)	170,95
Natural rubber orange red / TEF transparent	1.3	60	**LC43.1**	1,000 unit(s)	127,95
Silicone blue transparent/PTFE white	1.3	45	**LC45.1**	1,000 unit(s)	335,40
Silicone cream/PTFE red	1.5	55	**LC46.1**	1,000 unit(s)	335,40

Sample vials ROTILABO® with fine thread ND18

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.
CleanPack, vials are packed in a clean room under class 10 000 conditions. For automatic samplers.



Delivery without screw caps and septa, please order separately.

Version	Vol. (ml)	Ø (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
Brown glass	10	22.5	11.5	46	**LC48.1**	100 unit(s)	64,00
Clear glass	10	22.5	11.5	46	**LC47.1**	100 unit(s)	40,75
Brown glass	20	22.5	11.5	75.5	**LC50.1**	100 unit(s)	69,35
Clear glass	20	22.5	11.5	75.5	**LC49.1**	100 unit(s)	46,05

Screw-cap closures ROTILABO® ND18 magnetic closed

ROTH SELECTION. Material: Metal, magnetic, silver.
Without borehole.
For fine threaded bottles ND18 (Art. No. LC47.1-LC50.1).

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	1.6	55	**TY90.1**	100 unit(s)	48,95

Screw caps ROTILABO® ND18 magnetic with borehole

ROTH SELECTION. Material: Steel, magnetic, silver.
For fine screw thread vials ND18 (Art. No. LC47.1 to LC50.1).

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	1.6	55	8	**LC53.1**	100 unit(s)	54,30
Silicone transparent blue / PTFE white, UltraClean	1.3	45	8	**LC51.1**	100 unit(s)	89,25
Silicone white / PTFE blue, UltraClean	1.5	55	8	**LC52.1**	100 unit(s)	107,00
Silicone white / PTFE red, slotted	1.5	55	8	**NN06.1**	100 unit(s)	104,85

Sample vials/autosample vials

Sample vials ROTILABO® with thread ND18

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.
Round base. CleanPack, vials are packed in a clean room under class 10 000 conditions. For automatic samplers.



Delivery without screw caps and septa, please order separately.

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Clear glass	20	23	75.5	**LY52.1**	100 unit(s)	49,35

Screw caps ROTILABO® ND18 with septum

ROTH SELECTION. Material: PP, black.
Suitable for screw thread vials Art. No. LY52.1 only.



Delivery incl. septum, mounted.

Version	Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
With borehole Ø 12.5 mm	Butyl red / PTFE grey	1.6	55	**TY92.1**	100 unit(s)	46,05

Screw caps ROTILABO® ND18

ROTH SELECTION. Material: PP, black.
Suitable only for thread screw vials Art. No. LY52.1.



Delivery without septum, please order separately.

Version	Art. No.	Pack Qty.	€
Without borehole	**LC54.1**	100 unit(s)	17,20

Septa ROTILABO® for ND18 Ø 16 mm

ROTH SELECTION.



Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Butyl red/PTFE grey	1.3	55	**LC56.1**	1,000 unit(s)	238,65
Silicone blue transparent/PTFE white	1.7	45	**LC58.1**	1,000 unit(s)	532,15

Sample vials/autosample vials

Headspace vials ROTILABO® with beaded rim ND20

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.

Made of hydrolytic class 1 borosilicate glass. Wall thickness 1.2 mm. CleanPack, vials are packed in a clean room under class 10 000 conditions. For automatic samplers.



Delivery without crimp caps, please order separately.

Rounded bottom

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Clear glass, bevelled headspace edge	5	22	38.2	**LC60.1**	100 unit(s)	36,45
Brown glass, DIN rolled edge	10	22.5	46	**NN07.1**	100 unit(s)	42,50
Clear glass, DIN rolled edge	10	22.5	46	**LC62.1**	100 unit(s)	38,20
Brown glass, DIN rolled edge, long neck	20	22.5	75.5	**NN09.1**	100 unit(s)	43,55
Clear glass, bevelled headspace edge	20	23	75.5	**LC61.1**	100 unit(s)	39,25
Clear glass, DIN rolled edge, long neck	20	22.5	75.5	**LC63.1**	100 unit(s)	39,25
Clear glass with labelling area, bevelled headspace edge	20	23	75.5	**NN08.1**	100 unit(s)	42,50

Flat Headspace bottom

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DIN rolled edge	5	20	38	**LC64.1**	100 unit(s)	36,45
DIN rolled edge	10	54.5	20	**NN10.1**	100 unit(s)	37,10
DIN rolled edge, long neck	10	22.5	46	**LC65.1**	100 unit(s)	38,20
DIN rolled edge, long neck	20	22.5	75.5	**LC66.1**	100 unit(s)	39,25
DIN rolled edge	50	31	101	**LC67.1**	100 unit(s)	77,95
DIN rolled edge, not suitable for overpressure	100	51.6	94.5	**LC68.1**	88 unit(s)	74,20

Crimp caps ROTILABO® ND20 with borehole

ROTH SELECTION. Material: Aluminium.

For rolled-edge headspace vials ND20.

Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Butyl / PTFE	3.0	50	10	**LC70.1**	100 unit(s)	40,35
Butyl / PTFE, partially coated	3.0	50	10	**LC71.1**	100 unit(s)	56,45
Dark grey butyl rubber	3.0	50	10	**LC69.1**	100 unit(s)	24,95
Silicone transparent blue / PTFE white, UltraClean	3.0	45	10	**LC72.1**	100 unit(s)	74,20
Silicone white / PTFE beige, AGILENT HT quality	3.25	45	10	**LC73.1**	100 unit(s)	75,25

Crimp caps ROTILABO® ND20 Headspace with borehole

ROTH SELECTION. Material: Aluminium.

For rolled-edge Headspace vials ND20. With break lines that open at 3.0 ±0.5 bar to release overpressure.



Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Butyl/PTFE	3.0	50	8	**LC74.1**	100 unit(s)	41,40
Butyl / PTFE, partially coated	3.0	50	8	**LC75.1**	100 unit(s)	57,95
Silicone transparent blue/PTFE white, UltraClean	3.0	45	8	**LC76.1**	100 unit(s)	75,25
Silicone white/PTFE beige, AGILENT HT quality	3.25	45	8	**LC77.1**	100 unit(s)	77,95

Sample vials/autosample vials

Crimp caps ROTILABO® ND20 centre tear-off

ROTH SELECTION. Material: Aluminium.
For rolled-edge Headspace vials ND20.



Delivery incl. septum, mounted.

Centre tear-off crimp caps

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Butyl dark grey	3.0	55	**NN11.1**	100 unit(s)	25,80

Crimp caps ROTILABO® ND20 complete tear-off

ROTH SELECTION. Material: Aluminium.
For rolled-edge headspace vials ND20.



Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Dark grey butyl rubber	3.0	55	**NN13.1**	100 unit(s)	26,35
Silicone transparent blue / PTFE white, UltraClean	3.0	45	**NN14.1**	100 unit(s)	75,15

Crimp caps ROTILABO® ND20 magnetic with bore-hole

ROTH SELECTION. Material: Aluminium, magnetic, golden colour.
For rolled-edge Headspace vials ND 20.



Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Butyl / PTFE	3.0	50	5	**LC78.1**	100 unit(s)	45,15
Butyl / PTFE	3.0	50	8	**LC79.1**	100 unit(s)	45,15
Silicone transparent blue / PTFE white, UltraClean	3.0	45	5	**LC80.1**	100 unit(s)	77,95
Silicone transparent blue / PTFE white, UltraClean	3.0	45	8	**LC81.1**	100 unit(s)	77,95

Hollow stoppers ROTILABO® ND20

ROTH SELECTION. Material: Butyl, grey.

Suitable for	Art. No.	Pack Qty.	€
Rolled-edge headspace vials ND20	**TY94.1**	100 unit(s)	15,70

Sample vials/autosample vials

Sample vials ROTILABO® with thread ND24 (EPA)

ROTH SELECTION. Material: Borosilicate glass from hydrolytic class I.

CleanPack, vials are packed in a clean room under class 10 000 conditions. For automatic samplers.



Delivery without screw caps and septa, please order separately.

Version	Vol. (ml)	Ø (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
Brown glass	20	27.5	17.5	57	**LC89.1**	100 unit(s)	93,00
Clear glass	20	27.5	17.5	57	**LC88.1**	100 unit(s)	52,70
Brown glass	30	27.5	17.5	72.5	**LC91.1**	100 unit(s)	99,45
Clear glass	30	27.5	17.5	72.5	**LC90.1**	100 unit(s)	54,30
Brown glass	40	27.5	17.5	95	**LC93.1**	100 unit(s)	106,45
Clear glass	40	27.5	17.5	95	**LC92.1**	100 unit(s)	56,45
Brown glass	60	27.5	17.5	140	**LC95.1**	100 unit(s)	112,90
Clear glass	60	27.5	17.5	140	**LC94.1**	100 unit(s)	95,70

Screw caps ROTILABO® ND24 closed

ROTH SELECTION. Material: PP, white.

Without borehole. For screw top vials ND24.



Delivery incl. septum, mounted.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	2.5	55	**LE02.1**	100 unit(s)	60,75
Natural silicone / PTFE beige, EPA quality	3.2	45	**LE03.1**	100 unit(s)	84,95

Screw-cap closures ROTILABO® ND24 UltraBond

ROTH SELECTION. Material: PP, white.

For screw top vials ND24. Cap and septum form a unit, the septum cannot be pressed into the flask by thick or blunt needles.

Delivery incl. septum, mounted.

Version	Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
With borehole Ø 15 mm	Natural silicone / PTFE beige, EPA quality	3.2	45	**LE05.1**	100 unit(s)	84,95
Without borehole	Natural silicone / PTFE beige, EPA quality	3.2	45	**LE04.1**	100 unit(s)	84,95

Screw caps ROTILABO® ND24

ROTH SELECTION. Material: PP, white.

For screw top vials ND24.

Delivery without septum, please order separately.

Version	Art. No.	Pack Qty.	€
With borehole Ø 15 mm	**LC97.1**	100 unit(s)	16,45
Without borehole	**LC96.1**	100 unit(s)	17,20

Septa ROTILABO® for ND24 Ø 22 mm

ROTH SELECTION.

Septum material	Thickness (mm)	Hardness (°)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	1.6	55	**LC98.1**	1,000 unit(s)	335,40
Butyl red / PTFE grey	2.5	55	**LC99.1**	1,000 unit(s)	353,70
Natural silicone / PTFE beige (EPA quality)	3.2	45	**LE00.1**	1,000 unit(s)	568,70
Silicone white / PTFE blue, cross slit	1.5	55	**LE01.1**	1,000 unit(s)	934,20

Crimping tools for autosample vials



Opening pliers ROTILABO®

ROTH SELECTION.

For removing crimped aluminium caps of 8, 11, 13 or 20 mm. Coloured handle.

Suitable for	Colour	Art. No.	Pack Qty.	€
Crimp caps ND 8	white	**C776.1**	1 unit(s)	78,25
Crimp caps ND 11	red	**C777.1**	1 unit(s)	78,25
Crimp caps ND 13	green	**C778.1**	1 unit(s)	78,25
Crimp caps ND 20	blue	**C779.1**	1 unit(s)	78,25



Crimping pliers ROTILABO®

ROTH SELECTION. Material: Steel tempered, with special, chemical-resistant paint.

For sealing and opening standard aluminium crimp caps with ND 8, 11, 13 or 20 mm.

- Special surface coating for excellent grip
- Effortless working thanks to resetting spring
- Adjusting screws in crimping head and handle for optimal sealing and reproducible crimping results

(1) Closing pliers

Suitable for	Art. No.	Pack Qty.	€
Crimp caps ND 8	**C780.1**	1 unit(s)	251,55
Crimp caps ND 11	**C781.1**	1 unit(s)	251,55
Crimp caps ND 13	**5001.1**	1 unit(s)	251,55
Crimp caps ND 20	**C782.1**	1 unit(s)	251,55

(2) Opening pliers

Allow controlled opening of crimped sample vials without risk of breaking the glass.

Suitable for	Art. No.	Pack Qty.	€
Crimp caps ND 8	**ATN3.1**	1 unit(s)	251,55
Crimp caps ND 11	**ATN4.1**	1 unit(s)	251,55
Crimp caps ND 13	**ATN5.1**	1 unit(s)	251,55
Crimp caps ND 20	**ATN6.1**	1 unit(s)	251,55



A 121 °C

Crimping pliers Clean-room

ROTH SELECTION. Material: Stainless steel. Autoclavable: Yes.

Made entirely of stainless steel, corrosion and heat resistant. The tool is tolerant to repeated sterilisation for cleanroom use. Free of lubricant and uncoated; no particles are released during use and therefore no increase in particle density occurs in the cleanroom. Crimping pressure and height are adjustable for optimal crimping results, even when using different types of vial.

Closing pliers

Suitable for	Art. No.	Pack Qty.	€
Crimp caps ND 11	**XC66.1**	1 unit(s)	966,45
Crimp caps ND 13	**XC67.1**	1 unit(s)	912,70
Crimp caps ND 20	**XC68.1**	1 unit(s)	912,70

Opening pliers

Suitable for	Art. No.	Pack Qty.	€
Crimp caps ND 11	**XC69.1**	1 unit(s)	912,70
Crimp caps ND 13	**XC70.1**	1 unit(s)	912,70
Crimp caps ND 20	**XC71.1**	1 unit(s)	912,70



Cordless crimping tools ND11 and ND20

Macherey-Nagel.

Mobile, electronic crimping tools for 11 mm and 20 mm aluminium crimp caps (not suitable for magnetic or bimetal crimp caps).

- Even and reproducible crimping results
- Control unit for adjusting the crimping pressure
- Long-life lithium batteries

Delivery incl. charger and socket set.

Closing pliers

Suitable for	Art. No.	Pack Qty.	€
Crimp caps ND 11	**APC4.1**	1 unit(s)	998,00
Crimp caps ND 20	**APC5.1**	1 unit(s)	998,00

Opening pliers

Suitable for	Art. No.	Pack Qty.	€
Crimp caps ND 11	**APC6.1**	1 unit(s)	998,00
Crimp caps ND 20	**APC7.1**	1 unit(s)	998,00

Crimping tools for autosample vials



High-performance crimping tool ND11 and ND20

Macherey-Nagel.

For safe and reproducible crimping and decapping of crimp caps on sample vials and autosampler vials.

- Very high motor power, also suitable for magnetic and bimetal crimp caps
- Interchangeable crimping and decapping heads
- Digital LED display
- Memory function for various crimping settings
- Optional tripod for comfortable and safe handling

Delivery incl. 12 V connector and cable. Please order crimping and decapping heads separately.

Version	Art. No.	Pack Qty.	€
High-performance crimping tool	**APE8.1**	1 unit(s)	1.540,00

Accessories

Macherey-Nagel.

Suitable for APE8.1 high-performance crimping tool.

Closing heads

Suitable for	Art. No.	Pack Qty.	€
Crimp caps ND 11	**APE9.1**	1 unit(s)	435,00
Crimp caps ND 20	**APH0.1**	1 unit(s)	435,00

Opening heads

Suitable for	Art. No.	Pack Qty.	€
Crimp caps ND 11	**APH1.1**	1 unit(s)	435,00
Crimp caps ND 20	**APH2.1**	1 unit(s)	435,00

Stand

Suitable for	Art. No.	Pack Qty.	€
High-performance crimping tool	**APH3.1**	1 unit(s)	279,00



Glass vials with rolled rim

Hecht. Material: Soda-lime glass, clear.

Delivery incl. snap-on lid made of LDPE.

Tall

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
3	19	30	**CLA8.1**	200 unit(s)	49,00
5	19	40	**CLA9.1**	200 unit(s)	53,05
10	22	45	**CLC0.1**	200 unit(s)	62,25
25	30	50	**CLC1.1**	200 unit(s)	78,85
30	28	75	**CLC2.1**	200 unit(s)	104,35
40	30	80	**CLC3.1**	200 unit(s)	95,70
50	30	100	**CLC4.1**	200 unit(s)	125,10
100	34	145	**CLC5.1**	100 unit(s)	117,30

Short

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	11.5	36	**CLA0.1**	690 unit(s)	133,35
5	24	24	**CLA1.1**	154 unit(s)	49,85
8	24	34	**CLA2.1**	154 unit(s)	51,95
10	24	41	**CLA3.1**	154 unit(s)	47,25
15	26	48	**CLA4.1**	130 unit(s)	44,75
20	26	60	**CLA5.1**	130 unit(s)	48,65
30	28	72	**CLA6.1**	108 unit(s)	46,70
60	32	106	**CLA7.1**	84 unit(s)	67,90



Glass vials with rolled rim brown glass

Hecht. Material: Soda-lime glass, brown.

Delivery incl. snap-on lid made of LDPE.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
3	19	30	**ENK0.1**	200 unit(s)	70,85
5	19	40	**ENK1.1**	200 unit(s)	70,85
10	22	45	**ENK2.1**	200 unit(s)	79,35
25	30	50	**ENK3.1**	200 unit(s)	111,10
30	28	75	**ENK4.1**	200 unit(s)	120,70
40	30	80	**ENK5.1**	200 unit(s)	153,15
50	30	100	**ENK6.1**	200 unit(s)	164,50
100	34	145	**ENK7.1**	100 unit(s)	140,75

Welted glasses



Glass vials with rolled rim ROTILABO® ND18/ND22

ROTH SELECTION. Material: Soda-lime glass from hydrolytic class III, clear.

For storing powders and solids.

Delivery without lid, please order separately.

Vol. (ml)	Version	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	ND18	20	13.1	40	**LC82.1**	100 unit(s)	17,95
10	ND18	22	13.1	50	**LC83.1**	100 unit(s)	19,90
15	ND22	26	18.2	48	**LC84.1**	100 unit(s)	30,10
25	ND22	26	18.2	65	**LC85.1**	100 unit(s)	31,20

Accessories snap-on lid

ROTH SELECTION. Material: PE, transparent.

Suitable for	Art. No.	Pack Qty.	€
Glass vials with rolled rim ND18	**LC86.1**	100 unit(s)	5,95
Glass vials with rolled rim ND22	**LC87.1**	100 unit(s)	7,50



Glass vials with rolled rim

ROTH SELECTION. Material: Soda-lime glass, clear.

Delivery incl. snap-on lid made of PE, tight-sealing.

Vol. (ml)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	19	13	40	**X654.1**	200 unit(s)	64,05
10	22	17	45	**X655.1**	200 unit(s)	68,50
15	24	17	52	**X656.1**	200 unit(s)	77,70
20	25	17	70	**X657.1**	200 unit(s)	81,95
20	27	17	55	**X658.1**	200 unit(s)	84,60
25	29	22	50	**X659.1**	200 unit(s)	87,70
30	28	17	75	**X660.1**	200 unit(s)	111,80
35	28	22	65	**X661.1**	200 unit(s)	112,90
40	29	22	80	**X662.1**	200 unit(s)	113,95
50	29	22	100	**X663.1**	200 unit(s)	122,55



NMR tube ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3, clear.

With lenticular-shaped based. For applications involving high throughput.

Technical specifications:

Art. No.	HX58.1
Version	NMR tubes ROTILABO®
Length	178 ±0,5 mm
Ø ext.	4,95 ±0,05 mm
Ø Internal	4,15 ±0,05 mm
Straightness	±0,07 mm
Wall thickness	0,38 mm
MHz	100-300

Delivery without cealing caps, please order separately.

Version	Art. No.	Pack Qty.	€
NMR tubes ROTILABO®	**HX58.1**	50 unit(s)	105,40

Screw caps for NMR tubes

ROTH SELECTION.

Designation	Art. No.	Pack Qty.	€
Screw caps for NMR tubes, material: EVA	**HX59.1**	1,000 unit(s)	127,60



NMR tube ROTILABO® brown

ROTH SELECTION. Material: Borosilicate glass 3.3.

Coloured brown with resilient silver diffusion colour. Specially designed for light-sensitive samples. With lenticular base, fire polished rim.

Technical specifications:

Art. No.	ATP0.1
Version	NMR tubes ROTILABO®, brown
Length	178 ±0,5 mm
Ø ext.	4,97 +0,02/-0,05 mm
Ø Internal	4,15 ±0,05 mm
Straightness	±0,07 mm
Wall thickness	0,38 mm
MHz	100-300

Delivery incl. sealing cap made of EVA.

Version	Art. No.	Pack Qty.	€
NMR tubes ROTILABO®, brown	**ATP0.1**	1 unit(s)	58,20

NMR vials



DURAN WHEATON KIMBLE

NMR tubes

DWK Life Sciences.

Tubes do not contain any paramagnetic substances. Excellent straightness, uniform wall thickness, good diameter regularity. With retrace code.

Technical specifications:

Art. No.	EP54.1	KNK9.1	KNL0.1	EP55.1
Version	Economic	Economic 5.1	Professional	Scientific
Length	178 mm			
Ø ext.	4,95 ±0,05 mm	4,94 ± 0,04 mm	4,97 ± 0,025 mm	4,97 ±0,013 mm
Ø Internal	4,20 ±0,05 mm	4,20 ± 0,04 mm	4,20 ± 0,025 mm	4,20 ±0,025 mm
Straightness	±0,07 mm		±0,03 mm	0,013 mm
MHz	300	100	400	500

Delivery incl. sealing caps.

Economic

Material: Borosilicate glass 3.3. For single use in fully automated sample changers or for high throughput.

Version	Art. No.	Pack Qty.	€
Economic	**EP54.1**	250 unit(s)	657,00

Scientific

Material: Borosilicate glass 3.3. For multiple use. Tubes can be cleaned and sterilised. Optimum substance utilisation in highest resolution range.

Version	Art. No.	Pack Qty.	€
Scientific	**EP55.1**	5 unit(s)	90,45

Economic 5.1

Material: Borosilicate glass 5.1. For economical use with high throughput in the low-frequency range.

Version	Art. No.	Pack Qty.	€
Economic 5.1	**KNK9.1**	100 unit(s)	200,00

Professional

Material: Borosilicate glass 3.3. For use in industry and research in the medium and high-resolution range.

Version	Art. No.	Pack Qty.	€
Professional	**KNL0.1**	250 unit(s)	2.447,00



A 121 °C

Stirring bars ROTILABO®

ROTH SELECTION. Autoclavable: Yes.

For stirring different specimens.

Made of flexible PTFE

Material: PTFE flexible. With spade-shaped ends.

Total length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	8	**EX96.1**	1 unit(s)	7,65
200	8	**EX97.1**	1 unit(s)	8,65
250	8	**EX98.1**	1 unit(s)	9,85
300	8	**EX99.1**	1 unit(s)	11,50

Made of PTFE with stainless steel core

Material: PTFE with stainless steel core. Bendable acc. to use. Bend remains permanently. Round ends.

Total length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	6	**EY00.1**	1 unit(s)	10,75
200	6	**EY01.1**	1 unit(s)	11,80
250	6	**EY02.1**	1 unit(s)	12,50
300	6	**EY03.1**	1 unit(s)	16,05
350	6	**EY04.1**	1 unit(s)	18,30
400	6	**EY05.1**	1 unit(s)	20,25



Stirring bars

Kartell. Material: PVC, rigid.

Total length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
250	7.15	**TT38.1**	10 unit(s)	30,40
300	7.15	**TT39.1**	10 unit(s)	30,40
350	7.15	**TT40.1**	10 unit(s)	34,30

Stirring staff and wipers



Stirring spatulas

ROTH SELECTION. Material: PP.
For stirring different specimens. Rod Ø 6 mm.

Total length (mm)	Art. No.	Pack Qty.	€
244	**TT16.1**	10 unit(s)	12,85



Stirring bars ROTILABO® glass

ROTH SELECTION. Material: Borosilicate glass.
Both ends fused. Few inclusions.

Total length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	6	**P210.1**	10 unit(s)	9,50
200	6	**P211.1**	10 unit(s)	11,05
250	7	**P212.1**	10 unit(s)	15,80
250	8	**P213.1**	10 unit(s)	18,45
300	8	**P214.1**	10 unit(s)	19,90

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Wiper ROTILABO® rubber

ROTH SELECTION. Material: Natural rubber.
Suitable for glass rods Ø 5-6 mm.

Rod-shaped

Total length (mm)	Colour	Art. No.	Pack Qty.	€
38	grey	**9548.1**	10 unit(s)	13,40
38	red	**9550.1**	10 unit(s)	13,40

Spade-shaped

Thickness approx. 2 mm.

Total length (mm)	Upper width (mm)	Lower width (mm)	Colour	Art. No.	Pack Qty.	€
32	25	36	grey	**9552.1**	10 unit(s)	13,40
32	25	36	red	**9553.1**	10 unit(s)	13,40



Wiper ROTILABO® silicone

ROTH SELECTION. Material: Silicone, Handle made of stainless steel.
For removing or wiping sticky substances and paste-like media. Temperature-resistant up to +260 °C. Suitable for foodstuffs.

Total length (mm)	Width (mm)	Colour	Art. No.	Pack Qty.	€
200	25	white	**HY10.1**	1 unit(s)	18,80
260	48	white	**KEY0.1**	1 unit(s)	17,75
320	72	white	**KEY1.1**	1 unit(s)	19,35
200	26	black	**KEY2.1**	1 unit(s)	16,15
260	50	black	**KEY3.1**	1 unit(s)	17,75
320	68	black	**KEY4.1**	1 unit(s)	19,35

Analytical and scintillation vessels



NEW / +

Sample vessels for analysis systems

Ratiolab. Material: PS, clear.

For use in automatic analysers.

Not a medical device / Not an IVD product

Vol. (ml)	Material	Suitable for	Art. No.	Pack Qty.	€
0.5	PS	Gemsaec G1	**1E92.1**	1,000 unit(s)	23,05
2	PS	Technicon T1	**1E94.1**	1,000 unit(s)	18,25
3	PS	Hitachi H1	**1E95.1**	1,000 unit(s)	22,85
3.5	PS	Technicon T2	**1E93.1**	1,000 unit(s)	26,75



Sample vessels for cell counters

Simport. Material: PS.

Optically clear, with parallel sides. For use in analyser systems.

Delivery incl. snap-on lid made from PE.

Not a medical device / Not an IVD product

Vol. (ml)	Material	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	PS	35	56	**AYX2.1**	1,000 unit(s)	213,95



Scintillation vials

Kartell. Material: HDPE, PP screw caps.

Compatible with all conventional liquid scintillation counters. The screw cap of the 20 ml tubes seals with as little as a quarter turn.

In vitro diagnostic medical device according to IVDD

Vol. (ml)	Material	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
4	HDPE	14	54	**HEE8.1**	2,000 unit(s)	151,50
20	HDPE	27	61	**HEE9.1**	1,000 unit(s)	160,95



Scintillation vials

Simport.

All-purpose vials for liquid and gamma scintillation counters or for sample storage. Cylindrical shape allows easy filling and residue-free drainage. **Leak-proof.**

Not a medical device / Not an IVD product

Volume 20 ml
Material: PP transparent, cap made of HDPE. Opening or inner Ø 22 mm. Screw cap is sealed and leak-proof after only 1/4 turn.

Version	Vol. (ml)	Material	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	20	PP	27	61	**AYX3.1**	500 unit(s)	123,65

Volume 6.5 ml
Type 2 vials made from HDPE with PP caps or type 3 vials made from transparent PP with HDPE caps. Opening or inner Ø 12 mm. Special push-on cap for quick closing, can be opened again with a quarter turn.

Version	Vol. (ml)	Material	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	6.5	HDPE	16	57	**AYX4.1**	1,000 unit(s)	127,95
3	6.5	PP	16	57	**AYX5.1**	1,000 unit(s)	101,60



Scintillation vials

ROTH SELECTION. Material: HDPE.

For use in automatic analysers.
5 ml vial with transparent screw cap, suitable for putting into 20 ml carrier vial.
20 ml vial with white sealable screw cap.

Not a medical device / Not an IVD product

Vol. (ml)	Material	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	HDPE	14	53	**5404.1**	2,000 unit(s)	151,35
20	HDPE	27	60	**HEN0.1**	1,000 unit(s)	146,35



DURAN WHEATON KIMBLE

Scintillation vials 6 ml

DWK Life Sciences. Material: HDPE, caps made from PP.

Caps seal with as little as a quarter turn. Hook-in vessels can be attached via the cap extension in 20 ml scintillation vials with thread 22-400.

Delivery incl. caps, included.

Not a medical device / Not an IVD product

Version	Vol. (ml)	Material	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Standard	6	HDPE	17	57	**EPA7.1**	1,000 unit(s)	539,65
Insertable	6	HDPE	17	57	**EPA8.1**	1,000 unit(s)	539,65



A 121 °C

DURAN WHEATON KIMBLE

Scintillation vials Omni-Vial®

DWK Life Sciences. Material: PP. Autoclavable: Yes.

Suitable for liquid, beta and gamma-scintillation counters, for RIA or for sample storage.

Delivery incl. caps.

Not a medical device / Not an IVD product

Vol. (ml)	Material	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
4	PP	13	57	**EXY7.1**	1,000 unit(s)	311,75



DURAN WHEATON KIMBLE

Scintillation vials Sampule®

DWK Life Sciences.

Type 1 vials made from borosilicate glass (acc. to USP type I and ASTM E 438 type I, class A) with urea caps and seal made from aluminium-coated cellulose cardboard.
Type 2 vials made from HDPE with PP caps.

Delivery incl. caps.

Not a medical device / Not an IVD product

Version	Vol. (ml)	Material	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	6	Borosilicate glass	17	58	**EXY8.1**	1,000 unit(s)	610,60

Analytical and scintillation vessels



DURAN WHEATON KIMBLE

Scintillation vials 20 ml

DWK Life Sciences.

Made of borosilicate glass (acc. to USP type I and ASTM E 438 type I, class A), HDPE or PET. Caps made of PP with seals made of PE foam or aluminium-coated cellulose cardboard, assembled.

Not a medical device / Not an IVD product

Caps made from PP with aluminium seal
Suitable for solvents, hydrocarbons, oils, ketones and alcohols.

Vol. (ml)	Material	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	Borosili-cate glass	28	61	**EXY4.1**	500 unit(s)	327,90
20	HDPE	27	61	**EXY5.1**	500 unit(s)	233,30
20	PET	27	61	**EXY6.1**	500 unit(s)	281,65

Caps made from PP with PE foam seal
Suitable for aqueous, acid, alkaline or alcoholic solutions.

Vol. (ml)	Material	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	Borosili-cate glass	28	61	**EXY1.1**	500 unit(s)	322,50
20	HDPE	27	61	**EXY2.1**	500 unit(s)	233,30
20	PET	27	61	**EXY3.1**	500 unit(s)	281,65



Test tubes ROTILABO®

ROTH SELECTION. Material: Soda-lime glass.
With flat bottom and fused rim.

Delivery incl. Lupolen stoppers.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
2.5	10	50	0,6	**0425.1**	496 unit(s)	111,30



Test tubes acc. to Durham

Marienfeld. Material: Soda-lime glass.
With round bottom and straight edge. For detecting gas production in micro-organisms.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
0.5	6	35	0,7	**TX27.1**	250 unit(s)	42,70
0.5	7	25	0,7	**TX28.1**	250 unit(s)	62,90
0.75	6	50	0,7	**TX29.1**	350 unit(s)	42,70



Test tubes

Kartell. Material: PE, natural colours.
With attached press-in lids.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	9	32	**5862.1**	100 unit(s)	32,10
2.5	14	32	**5863.1**	100 unit(s)	36,25
5	15	50	**5866.1**	100 unit(s)	46,75
7	22	32	**5867.1**	100 unit(s)	49,65
8	17	58	**TT12.1**	100 unit(s)	51,75
20	25	75	**TT13.1**	100 unit(s)	56,45
25	31	53	**TT14.1**	50 unit(s)	46,70
35	31	75	**TT15.1**	50 unit(s)	49,35

Test vials





121 °C

Test tubes

Boettger. Material: PP, transparent. Autoclavable: Yes.

Delivery without screw caps, please order separately.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
40	30	85	**PT32.1**	500 unit(s)	69,25
60	30	126	**PT33.1**	300 unit(s)	56,40
120	44	115	**PT34.1**	250 unit(s)	61,80

121 °C

Accessories screw caps

Boettger. Material: PP. Autoclavable: Yes.

Not a medical device / Not an IVD product

Version	Suitable for	Art. No.	Pack Qty.	€
Standard	PT29.1, PT30.1, PT32.1 and PT33.1	**PT35.1**	500 unit(s)	40,50
With stand for tube-Ø 16 mm	PT29.1, PT30.1, PT32.1 and PT33.1	**PT36.1**	300 unit(s)	28,20
With stand for tube-Ø 25 mm	PT31.1 and PT34.1	**PT38.1**	250 unit(s)	29,25
With attachment Ø inside 16 mm	PT29.1, PT30.1, PT32.1 and PT33.1	**PT37.1**	300 unit(s)	36,55

DURAN WHEATON KIMBLE

Culture vials with screw cap

DWK Life Sciences.

With DIN thread.

Delivery incl. screw caps.

Not a medical device / Not an IVD product

Soda-lime glass

Material: Soda-lime glass screw cap made of PP with white rubber seal. Autoclavable: Limited. Note: Can cause glass corrosion when autoclaved several times. Heat resistant up to approx. 100 °C.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
6	12	100	GL 14	**K251.1**	100 unit(s)	54,00
12	16	100	GL 18	**K252.1**	100 unit(s)	57,80
20	16	160	GL 18	**K253.1**	100 unit(s)	71,40
30	18	180	GL 18	**K254.1**	100 unit(s)	83,25

DURAN® glass

Material: DURAN® glass screw caps made of PBT with PTFE-coated seals. Autoclavable: Yes. Hot air sterilization to max. 180 °C.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
6	12	100	GL 14	**K248.1**	50 unit(s)	216,00
9	13	100	GL 14	**PY94.1**	50 unit(s)	215,00
20	16	160	GL 18	**K249.1**	50 unit(s)	279,00
20	16	150	GL 18	**PY95.1**	50 unit(s)	215,00
30	18	180	GL 18	**K250.1**	50 unit(s)	308,00
34	20	150	GL 18	**PY96.1**	50 unit(s)	318,00

Test vials

Test tubes made of fluoroplastic

Vitlab.

Highly transparent. Optionally with screw cap GL 25, available with or without stopper.

Not a medical device / Not an IVD product

With screw cap made of PFA

Material: PFA. Autoclavable: Yes.

Version	Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
Without ring marking	15	22	110	GL 25	**YA28.1**	1 unit(s)	67,40
With ring marking at 10 ml	15	22	110	GL 25	**YA27.1**	1 unit(s)	80,85

With stopper made of PE

Material: PFA, PE.

Version	Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
With ring marking at 10 ml	12	16	110	**YA25.1**	1 unit(s)	55,55

Without stopper

Material: PFA. Autoclavable: Yes.

Version	Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
Without ring marking	12	16	110	**YA26.1**	1 unit(s)	42,25

Test tubes made of fluoroplastic

Saint-Gobain. Material: PFA, Highly transparent. Autoclavable: Yes.

- Temperature-stable from -196 to +250 °C
- Inert to virtually all chemicals, including hydrofluoric and nitric acid
- High purity, low metal ion content, ideal for use in trace analysis and for the storage of highly pure substances
- No memory effect
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning



A 121 °C ❄❄❄

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	10	8	132	**YY79.1**	1 unit(s)	73,70
15	16	14	162	**YY81.1**	1 unit(s)	102,80
20	16	14	175	**YY82.1**	1 unit(s)	103,15
25	19	16	185	**YY83.1**	1 unit(s)	126,35
50	22	19	235	**YY84.1**	1 unit(s)	162,35
60	22	19	245	**YY85.1**	1 unit(s)	168,80

Test vials



121 °C

Test tubes with tamper-evident seal

Camlab. Material: PP. Autoclavable: Yes.

Temperature-stable from -90 to +121 °C. Cap dimensions: Ø 24 mm, height 2 mm.

- Leak-proof tamper-evident seal
- Free-standing, conical base for optimal sample recovery
- Frosted label field
- Graduated in 1 ml increments

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Lid colour	Art. No.	Pack Qty.	€
5	16	57	pink	**X327.1**	250 unit(s)	100,35
5	16	57	blue	**X328.1**	250 unit(s)	100,35
5	16	57	white	**X329.1**	250 unit(s)	100,35
10	15	94	pink	**X330.1**	250 unit(s)	100,35
10	15	94	blue	**X331.1**	250 unit(s)	100,35
10	15	94	white	**X332.1**	250 unit(s)	100,35



DURAN WHEATON KIMBLE

Culture vials with screw cap

DWK Life Sciences. Material: Borosilicate glass acc. to USP type I and ASTM E 438 type I class B; seals made of black phenol resin with seals made of PTFE-coated rubber.

With round bottom, suitable for use in shakers and tilt/roller mixers.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
11	16	100	15-415	**ETK4.1**	144 unit(s)	318,20
14	16	125	15-415	**ETK5.1**	144 unit(s)	324,65
27	20	150	18-415	**ETK6.1**	144 unit(s)	651,45



121 °C

Test tube ROTILABO®

ROTH SELECTION. Autoclavable: Yes.

Good temperature stability.

Not a medical device / Not an IVD product

With beaded rim, thick-walled
Material: Borosilicate glass 3.3.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
4	10	75	0,8-1,0	**HA87.1**	100 unit(s)	36,75
5	10	100	0,8-1,0	**HA88.1**	100 unit(s)	39,40
8	12	100	0,8-1,0	**HA90.1**	100 unit(s)	38,00
16	14	130	0,8-1,0	**HA91.1**	100 unit(s)	48,25
17	16	130	1,0-1,2	**HA92.1**	100 unit(s)	52,65
21	16	160	1,0-1,2	**HA93.1**	100 unit(s)	60,65
32	18	180	1,0-1,2	**HA94.1**	100 unit(s)	74,85
34	20	150	1,0-1,2	**HA95.1**	100 unit(s)	69,25
40	20	180	1,0-1,2	**HA96.1**	100 unit(s)	77,05
55	25	150	1,0-1,2	**HA97.1**	50 unit(s)	42,65
70	25	200	1,0-1,2	**HA98.1**	50 unit(s)	58,35
100	30	200	1,0-1,4	**HA99.1**	50 unit(s)	69,25

With beaded rim, thin-walled
Material: Borosilicate glass 5.1.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
2	8	70	0,4-0,5	**HC00.1**	100 unit(s)	28,30
4	10	75	0,4-0,5	**HC01.1**	100 unit(s)	28,30
6	10	100	0,4-0,5	**HC02.1**	100 unit(s)	28,30
6.5	12	75	0,4-0,5	**HC03.1**	100 unit(s)	28,30
9	12	100	0,4-0,5	**HC04.1**	100 unit(s)	28,30
16	14	130	0,4-0,5	**HC05.1**	100 unit(s)	35,25
20	16	130	0,5-0,6	**HC06.1**	100 unit(s)	35,25
25	16	160	0,5-0,6	**HC07.1**	100 unit(s)	32,75
35	18	180	0,5-0,6	**HC08.1**	100 unit(s)	39,85
45	20	180	0,5-0,6	**HC10.1**	100 unit(s)	45,55
60	25	150	0,6-0,7	**HC11.1**	50 unit(s)	29,95
80	25	200	0,6-0,7	**HC12.1**	50 unit(s)	36,75
110	30	200	0,7-0,8	**HC13.1**	50 unit(s)	69,25

Test tubes

With straight edge, thin-walled
Material: Borosilicate glass 3.3.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
4	10	75	0,8-1,0	**HA73.1**	100 unit(s)	35,25
5	10	100	0,8-1,0	**HA74.1**	100 unit(s)	39,40
6	12	75	0,8-1,0	**HA75.1**	100 unit(s)	36,75
8	12	100	0,8-1,0	**HA76.1**	100 unit(s)	38,90
16	14	130	1,0-1,2	**HA77.1**	100 unit(s)	49,95
17	16	130	1,0-1,2	**HA78.1**	100 unit(s)	52,65
21	16	160	1,0-1,2	**HA79.1**	100 unit(s)	60,65
32	18	180	1,0-1,2	**HA80.1**	100 unit(s)	74,85
34	20	150	1,0-1,2	**HA81.1**	100 unit(s)	76,45
40	20	180	1,0-1,2	**HA82.1**	100 unit(s)	77,05
55	25	150	1,0-1,2	**HA83.1**	50 unit(s)	42,65
70	25	200	1,0-1,2	**HA84.1**	50 unit(s)	58,35
100	30	200	1,0-1,4	**HA85.1**	50 unit(s)	69,25



Test tube

Marienfeld. Material: Soda-lime glass.
With round bottom and straight edge.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
4	10	75	0.6	**TX18.1**	1,000 unit(s)	94,10
6	12	75	0.6	**TX19.1**	500 unit(s)	37,65
9	12	100	0.6	**TX20.1**	500 unit(s)	55,90
14	16	100	0.8	**TX21.1**	310 unit(s)	45,70
20	16	130	0.8	**TX22.1**	100 unit(s)	20,35
23	16	150	0.8	**TX23.2**	100 unit(s)	20,55
25	16	160	0.8	**TX24.2**	100 unit(s)	21,90
35	18	180	1.0	**TX25.1**	100 unit(s)	37,10
75	25	200	1.2	**TX26.1**	63 unit(s)	54,30



Test tube ROTILABO®

ROTH SELECTION. Material: Soda-lime glass.
With round bottom and smooth rim, slightly narrowed at the top.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
20	16	160	0,6	**0486.2**	250 unit(s)	36,10



A 121 °C

DURAN WHEATON KIMBLE

Test tube DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Thick-walled, therefore particularly resistant to mechanical loads. Good temperature stability.

Not a medical device / Not an IVD product

With beaded rim

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
2	8	70	0,8-1,0	**C196.1**	100 unit(s)	47,65
4	10	75	0,8-1,0	**C197.1**	100 unit(s)	51,50
5	10	100	0,8-1,0	**C198.1**	100 unit(s)	54,00
6	12	75	0,8-1,0	**C199.1**	100 unit(s)	56,50
8	12	100	0,8-1,0	**C205.1**	100 unit(s)	60,30
9	13	100	0,8-1,0	**PY92.1**	100 unit(s)	70,80
16	14	130	0,8-1,0	**C206.1**	100 unit(s)	77,80
17	16	130	1,0-1,2	**C207.1**	100 unit(s)	91,15
21	16	160	1,0-1,2	**C208.1**	100 unit(s)	89,85
32	18	180	1,0-1,2	**C209.1**	100 unit(s)	107,00
34	20	150	1,0-1,2	**C210.1**	100 unit(s)	112,10
40	20	180	1,0-1,2	**C211.1**	100 unit(s)	118,50
55	25	150	1,0-1,2	**C212.1**	50 unit(s)	85,45
70	25	200	1,0-1,2	**C213.1**	50 unit(s)	88,60
100	30	200	1,0-1,4	**C214.1**	50 unit(s)	139,40

With straight edge

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
2	8	70	0,8-1,0	**C182.1**	100 unit(s)	46,25
4	10	75	0,8-1,0	**C183.1**	100 unit(s)	51,50
5	10	100	0,8-1,0	**C184.1**	100 unit(s)	54,00
6	12	75	0,8-1,0	**C185.1**	100 unit(s)	54,50
8	12	100	0,8-1,0	**C186.1**	100 unit(s)	60,30
9	13	100	0,8-1,0	**PY93.1**	100 unit(s)	70,80
16	14	130	0,8-1,0	**C187.1**	100 unit(s)	77,80
17	16	130	1,0-1,2	**C188.1**	100 unit(s)	88,50
21	16	160	1,0-1,2	**C189.1**	100 unit(s)	89,85
32	18	180	1,0-1,2	**C190.1**	100 unit(s)	106,60
34	20	150	1,0-1,2	**C191.1**	100 unit(s)	112,10
40	20	180	1,0-1,2	**C192.1**	100 unit(s)	124,80
55	25	150	1,0-1,2	**C193.1**	50 unit(s)	81,70
70	25	200	1,0-1,2	**C194.1**	50 unit(s)	88,60
100	30	200	1,0-1,4	**C195.1**	50 unit(s)	139,40

Test tubes



121 °C

DURAN WHEATON KIMBLE

Test tube Fiolax®

DWK Life Sciences. Material: Borosilicate glass 4.9. Autoclavable: Yes.

With beaded rim. Thin-walled and relatively resistant to sudden temperature changes and localised heating.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
2	8	70	0,4-0,5	**K223.1**	100 unit(s)	25,55
4	10	75	0,4-0,5	**K224.1**	100 unit(s)	26,35
6	10	100	0,4-0,5	**K225.1**	100 unit(s)	26,35
6.5	12	75	0,4-0,5	**K226.1**	100 unit(s)	27,95
9	12	100	0,4-0,5	**K227.1**	100 unit(s)	29,20
16	14	130	0,4-0,5	**K228.1**	100 unit(s)	36,30
20	16	130	0,5-0,6	**K229.1**	100 unit(s)	42,05
25	16	160	0,4-0,5	**K230.1**	100 unit(s)	41,20
35	18	180	0,4-0,5	**K231.1**	100 unit(s)	50,20
39	20	150	0,4-0,5	**K232.1**	100 unit(s)	57,15
45	20	180	0,4-0,5	**K233.1**	100 unit(s)	57,75
60	25	150	0,6-0,7	**K234.1**	50 unit(s)	42,95
80	25	200	0,6-0,7	**K235.1**	50 unit(s)	48,65
110	30	200	0,7-0,8	**K236.1**	50 unit(s)	95,55

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NEW / +

DURAN WHEATON KIMBLE

Test tube with flat bottom

DWK Life Sciences. Material: Soda-lime glass.

Colourless, without rim. For use as reaction vials for chemical reactions and for storing small amounts of liquids.

Not a medical device / Not an IVD product

Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
11	43	0,7-0,8	**1H3A.1**	200 unit(s)	62,55
15	65	0,7-0,8	**1H3H.1**	300 unit(s)	117,75
16	40	0,7-0,8	**1H39.1**	200 unit(s)	65,20
16	50	0,9-1,0	**1H3C.1**	100 unit(s)	30,50
19	50	0,7-0,8	**1H3E.1**	100 unit(s)	36,55
19	70	0,7-0,8	**1H3K.1**	100 unit(s)	43,20
24	100	0,9-1,0	**1H3L.1**	50 unit(s)	26,40
30	100	1,1-1,2	**1H3N.1**	81 unit(s)	70,20



121 °C

Test tube with ground glass stopper

BRAND. Material: Borosilicate glass 3.3, stopper made of PP. Autoclavable: Yes.

With standard ground sleeve and PP stopper. White graduated.

Not a medical device / Not an IVD product

Vol. (ml)	Gradu-ations (ml)	Ø ext. (mm)	Height (mm)	Wall thick-ness (mm)	Stan-dard	Art. No.	Pack Qty.	€
10	0.1	15	165	1,2	12/21	**Y752.1**	1 unit(s)	13,85
20	0.2	17	200	1,2	14/23	**Y753.1**	1 unit(s)	17,10
25	0.2	17	220	1,2	14/23	**Y754.1**	1 unit(s)	19,60
30	0.5	19	220	1,2	14/23	**Y755.1**	1 unit(s)	21,30



121 °C

Test tube with ground glass stopper

Bohemia. Material: Borosilicate glass 3.3. Autoclavable: Yes.

With ground glass sleeve, ground glass stopper and white labelling space.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thick-ness (mm)	Stan-dard ground glass joint	Art. No.	Pack Qty.	€
10	16	150	1.8	12/21	**NY90.1**	1 unit(s)	31,05
20	18	180	1.8	14/23	**NY91.1**	1 unit(s)	31,05
30	22	150	1.8	19/26	**NY92.1**	1 unit(s)	31,05
50	22	200	1.8	19/26	**NY93.1**	1 unit(s)	31,05
100	34	200	2.0	29/32	**NY94.1**	1 unit(s)	39,45



Test tubes

Kartell. Material: PS.

In vitro diagnostic medical device according to IVDD

Version	Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thick-ness (mm)	Art. No.	Pack Qty.	€
Round base	1	11.5	55	1	**K940.1**	1,000 unit(s)	27,85
Round base	2	11	70	1	**K939.1**	1,000 unit(s)	30,65
Round base	4	12	75	1	**K937.1**	1,000 unit(s)	35,75
Conical	10	16	105	1	**K935.1**	1,000 unit(s)	66,15
Round base	10	16	100	1	**K936.2**	500 unit(s)	31,35
Round base	15	16	150	1	**K938.2**	850 unit(s)	106,25



Test tubes with rim

Kartell.

In vitro diagnostic medical device according to IVDD

Version	Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
Conical, material: PS	10	16	100	**TT74.1**	2,000 unit(s)	155,30
Cylindrical material: PP	10	16	100	**TT73.1**	2,000 unit(s)	123,65



Test tube clips ROTILABO®

ROTH SELECTION. Material: Wood.

Length 180 mm.

Version	Art. No.	Pack Qty.	€
For test tubes Ø 12-20 mm	**0645.1**	12 unit(s)	12,10



Test tube holder ROTILABO® with finger grip

ROTH SELECTION. Material: Steel nickel-plated.

Length 130 mm.

Version	Art. No.	Pack Qty.	€
For test tubes up to Ø 30 mm	**X114.1**	1 unit(s)	6,35

Stoppers

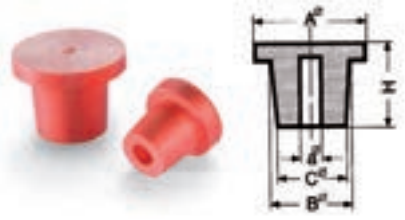


Plugs ROTILABO® natural cork

ROTH SELECTION. Material: Cork.

Made of natural cork. Conical shape. Lightweight and robust, easy to drill through

Ø Lower (mm)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
3	6	16	**PL40.1**	25 unit(s)	7,00
5	8	16	**PL41.1**	25 unit(s)	7,00
6	9	17	**PL42.1**	25 unit(s)	7,00
9	12	20	**PL43.1**	25 unit(s)	5,85
10	13	22	**PL44.1**	25 unit(s)	5,85
12	15	22	**PL45.1**	25 unit(s)	5,85
13	16	22	**PP70.1**	25 unit(s)	6,25
14	17	22	**PL46.1**	25 unit(s)	6,40
16	19	23	**PL47.1**	25 unit(s)	6,90
17	20	26	**PL48.1**	25 unit(s)	8,15
18	22	26	**PL49.1**	25 unit(s)	9,35
20	24	27	**PL50.1**	10 unit(s)	6,90
22	26	27	**PL51.1**	10 unit(s)	7,50
24	28	27	**PL52.1**	10 unit(s)	8,10
26	30	27	**PL53.1**	10 unit(s)	10,50
28	32	27	**PL54.1**	10 unit(s)	11,20
32	36	27	**PL55.1**	10 unit(s)	14,00



A 121 °C ❄

Plugs ROTILABO® semi-hollow

ROTH SELECTION. Material: Natural rubber. Autoclavable: Yes.

Colour red. Elastic. Compliant with DIN 12871. Hardness Shore A. Borehole not continuous. Temperature-stable from -35 to +70 °C.

Ø Lower (mm)	Ø Upper (mm)	Ø ext. (mm)	Ø Hole (mm)	Height (mm)	Art. No.	Pack Qty.	€
12	14	19	6	18	**TL43.1**	10 unit(s)	8,05
14	16	21	8	19	**TL44.1**	10 unit(s)	8,60
17	19	27	10	20	**TL45.1**	10 unit(s)	8,95



A 121 °C ❄

Plugs ROTILABO®

ROTH SELECTION. Material: Natural rubber. Autoclavable: Yes.

Colour red. Elastic. Compliant with DIN 12871. Hardness: 40 Shore A. Silicone free. Temperature-stable from -35 to +70 °C.

Ø Lower (mm)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
3.5	6.5	15	**TL09.1**	100 unit(s)	14,90
5	9	20	**TL10.1**	100 unit(s)	18,10
8	12	20	**TL11.1**	100 unit(s)	24,15
10.5	14.5	20	**TL12.1**	25 unit(s)	8,45
12.5	16.5	20	**TL13.1**	25 unit(s)	9,65
14	18	20	**TL14.1**	25 unit(s)	10,00
17	22	25	**TL15.1**	25 unit(s)	16,65
18	24	30	**TL16.1**	25 unit(s)	21,70
21	27	30	**TL17.1**	25 unit(s)	25,20
23	29	30	**TL18.1**	25 unit(s)	32,15
26	32	30	**TL19.1**	25 unit(s)	38,85
29	35	30	**TL20.1**	25 unit(s)	43,90
31	38	35	**TL21.1**	25 unit(s)	58,80
36	44	40	**TL22.1**	25 unit(s)	70,10
41	49	40	**TL23.1**	25 unit(s)	92,40
47	55	40	**TL24.1**	5 unit(s)	27,25
50.5	59.5	45	**TL25.1**	5 unit(s)	34,15
56	65	45	**TL26.1**	5 unit(s)	40,65
60	70	50	**TL27.1**	5 unit(s)	50,20
64.5	73.5	55	**TL28.1**	5 unit(s)	56,80
71	83	60	**TL29.1**	1 unit(s)	16,10
79	92	65	**TL30.1**	1 unit(s)	22,40
87	100	65	**TL31.1**	1 unit(s)	25,75
94	107	65	**TL32.1**	1 unit(s)	28,20

Stoppers



A 121 °C

Plugs ROTILABO®

ROTH SELECTION. Material: Natural rubber. Autoclavable: Yes.

Elastic. Temperature-stable from -35 to +70 °C (+120 °C with moist heat).
Hardness: 40 Shore A. Silicone free. In acc. with DIN 12871.

Ø Lower (mm)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
3.5	6.5	15	**C367.2**	100 unit(s)	12,15
5	9	20	**C368.2**	100 unit(s)	14,85
8	12	20	**C377.2**	100 unit(s)	18,50
10.5	14.5	20	**C378.2**	25 unit(s)	6,05
14	18	20	**0395.2**	25 unit(s)	8,35
17	22	25	**C379.2**	25 unit(s)	14,20
18	24	30	**C380.2**	25 unit(s)	16,45
21	27	30	**C381.2**	25 unit(s)	21,45
26	32	30	**C382.2**	25 unit(s)	33,15
29	35	30	**C383.2**	25 unit(s)	39,90
31	38	35	**C384.1**	25 unit(s)	46,75
36	44	40	**C385.1**	25 unit(s)	58,50
41	49	40	**C386.1**	25 unit(s)	71,15
47	55	40	**EK04.1**	5 unit(s)	22,45
56	65	45	**Y843.1**	1 unit(s)	8,30
64.5	73.5	55	**Y844.1**	1 unit(s)	11,25
71	83	60	**TK97.1**	1 unit(s)	12,20
79	92	65	**TK98.1**	1 unit(s)	17,40
87	100	65	**TK99.1**	1 unit(s)	19,95
94	107	65	**TL00.1**	1 unit(s)	22,55



A 121 °C

Plugs ROTILABO® with 2 boreholes

ROTH SELECTION. Material: Natural rubber, elastic. Autoclavable: Yes.

With two boreholes. Compliant with DIN 12871. Hardness: 40 Shore A. Silicone free. Colour grey. Temperature-stable from -35 to +70 °C.

Ø Lower (mm)	Ø Upper (mm)	Ø Hole (mm)	Height (mm)	Art. No.	Pack Qty.	€
14	18	3	20	**TL01.1**	25 unit(s)	8,40
17	22	4	25	**TL02.1**	25 unit(s)	13,25
18	24	4	30	**TL03.1**	25 unit(s)	15,25
21	27	5	30	**TL04.1**	10 unit(s)	9,35
23	29	5	30	**TL05.1**	10 unit(s)	11,85
26	32	6	30	**TL06.1**	10 unit(s)	14,00
29	35	6	30	**TL07.1**	10 unit(s)	16,35
31	38	7	35	**TL08.1**	10 unit(s)	20,25



Plugs with turn-up lip

Saint-Gobain. Material: Rubber.

For tight sealing of glass, plastic or metallic vessels with or without beaded rim or glass ground joint.
Firm fit to prevent unintentional opening. The rubber stoppers can be penetrated for sampling and also remain water-tight even after several perforations.
Temperature-stable from -20 to +100 °C.

Version	Ø Lower (mm)	Ø Upper (mm)	Suitable for	Art. No.	Pack Qty.	€
7,1	4.5	7.5	NS 5/13	**EC92.1**	100 unit(s)	60,75
10,2	9.8	10.7	NS 10/19	**EC93.1**	50 unit(s)	46,45
12,7	12.3	13.3	NS 12/21	**EC94.1**	50 unit(s)	58,75
14,9	14.2	15.5	NS 14/23	**EC95.1**	20 unit(s)	32,15
15,9	14.5	16.5	NS 14/23	**EC96.1**	20 unit(s)	73,70
19,4	15.8	17.8	NS 19/26	**EC97.1**	20 unit(s)	41,05
23,7	21.2	24.4	NS 24/29	**EC98.1**	10 unit(s)	57,10
30,7	28.0	31.4	NS 29/32	**EC99.1**	5 unit(s)	51,15

Stoppers



121 °C

Plugs ROTILABO® With borehole

ROTH SELECTION. Material: Natural rubber, elastic. Autoclavable: Yes.

With borehole. Hardness: 40 Shore A. Silicone free. Colour grey. Temperature stability -35 to +70 °C.

Ø Lower (mm)	Ø Upper (mm)	Ø Hole (mm)	Height (mm)	Art. No.	Pack Qty.	€
10.5	14.5	3	20	**Y846.1**	25 unit(s)	6,60
12.5	16.5	3	20	**Y847.1**	25 unit(s)	7,85
14	18	3	20	**Y848.1**	25 unit(s)	8,95
17	22	4	25	**Y849.1**	25 unit(s)	14,85
18	24	4	30	**Y850.1**	25 unit(s)	15,90
21	27	5	30	**Y851.1**	10 unit(s)	10,35
23	29	5	30	**Y852.1**	10 unit(s)	13,65
26	32	6	30	**Y853.1**	10 unit(s)	15,30
29	35	6	30	**Y854.1**	10 unit(s)	17,60
31	38	7	35	**Y855.1**	10 unit(s)	22,75



121 °C

Plugs ROTILABO® semi-hollow

ROTH SELECTION. Material: Silicone rubber. Autoclavable: Yes.

Compliant with DIN 12871. Hardness: 50 Shore A. Bioinert. Resistant to ageing, ozone and repeated sterilisation. Borehole not continuous. Temperature-stable from -60 to +180 °C (+250 °C for a short time).

Ø Lower (mm)	Ø Upper (mm)	Ø ext. (mm)	Ø Hole (mm)	Height (mm)	Art. No.	Pack Qty.	€
12	14	19	6	18	**TL46.1**	10 unit(s)	13,75
14	16	21	8	19	**TL47.1**	10 unit(s)	14,95
17	19	27	10	20	**TL48.1**	10 unit(s)	15,90



121 °C

Plugs ROTILABO®

ROTH SELECTION. Material: Silicone rubber. Autoclavable: Yes.

Compliant with DIN 12871. Hardness: 50 Shore A. Bioinert. Resistant to ageing, ozone and repeated sterilisations. Temperature-stable from -60 to +180 °C (+250 °C for a short time).

Ø Lower (mm)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
3.5	6.5	15	**C388.1**	250 unit(s)	57,85
5	9	20	**C389.1**	250 unit(s)	68,95
8	12	20	**C390.1**	100 unit(s)	31,75
10.5	14.5	20	**C391.1**	100 unit(s)	42,20
14	18	20	**0396.1**	50 unit(s)	27,75
17	22	25	**C392.1**	50 unit(s)	47,75
18	24	30	**C393.1**	50 unit(s)	63,70
21	27	30	**C394.1**	25 unit(s)	41,60
26	32	30	**C395.1**	25 unit(s)	64,65
29	35	30	**C396.1**	5 unit(s)	20,40
31	38	35	**C397.1**	5 unit(s)	24,40
36	44	40	**C398.1**	5 unit(s)	32,45
41	49	40	**TL33.1**	5 unit(s)	40,40
47	55	40	**TL34.1**	5 unit(s)	50,80
50.5	59.5	45	**TL35.1**	1 unit(s)	14,25
56	65	45	**TL36.1**	1 unit(s)	18,65
60	70	50	**TL37.1**	1 unit(s)	26,75
64.5	75.5	55	**TL38.1**	1 unit(s)	31,00
71	83	60	**TL39.1**	1 unit(s)	37,10
79	92	65	**TL40.1**	1 unit(s)	51,05
87	100	65	**TL41.1**	1 unit(s)	68,55
94	107	65	**TL42.1**	1 unit(s)	91,35



A 121 °C

Plugs ROTILABO®

ROTH SELECTION. Material: Silicone rubber. Autoclavable: Yes.

With borehole. Compliant with DIN 12871. Hardness: 50 Shore A. Bioinert. Resistant to ageing, ozone and repeated sterilisations. Temperature-stable from -60 to +180 °C (+250 °C for a short time).

Ø Lower (mm)	Ø Upper (mm)	Ø Hole (mm)	Height (mm)	Art. No.	Pack Qty.	€
10.5	14.5	3	20	**TL49.1**	25 unit(s)	11,65
12.5	16.5	3	20	**TL50.1**	25 unit(s)	12,15
14	18	3	20	**TL51.1**	25 unit(s)	14,25
17	22	4	25	**TL52.1**	25 unit(s)	22,95
18	24	4	30	**TL53.1**	25 unit(s)	28,90
21	27	5	30	**TL54.1**	10 unit(s)	17,10
23	29	5	30	**TL55.1**	10 unit(s)	22,45
26	32	6	30	**TL56.1**	10 unit(s)	25,85
29	35	6	30	**TL57.1**	10 unit(s)	31,85
31	38	7	35	**TL58.1**	10 unit(s)	39,70



Plugs ROTILABO® with lamella

ROTH SELECTION. Material: LDPE.

Temperature resistant in the range -50 to +80 °C.

For tubes with inside Ø 9-11 mm (outside Ø approx. 12 mm)

Colour	Art. No.	Pack Qty.	€
red	**E025.1**	1,000 unit(s)	17,45
blue	**E027.1**	1,000 unit(s)	17,45
green	**E026.1**	1,000 unit(s)	17,45
yellow	**E024.1**	1,000 unit(s)	17,45
natural	**E023.1**	1,000 unit(s)	17,00

For tubes with inside Ø 13-14 mm (outside Ø approx. 16 mm)

Colour	Art. No.	Pack Qty.	€
red	**E030.1**	1,000 unit(s)	22,05
blue	**E032.1**	1,000 unit(s)	22,05
green	**E031.1**	1,000 unit(s)	22,05
yellow	**E029.1**	1,000 unit(s)	22,05
natural	**E028.1**	1,000 unit(s)	22,05



A 121 °C

Plugs with turn-up lip

Saint-Gobain. Material: Silicone. Autoclavable: Yes.

For tight sealing of glass, plastic or metallic vessels with or without beaded rim or glass ground joint.
Firm fit to prevent unintentional opening. The silicone stoppers can be penetrated for sampling and also remain water-tight even after several perforations.
Temperature-stable from -60 to +220 °C.

Version	Ø Lower (mm)	Ø Upper (mm)	Suitable for	Art. No.	Pack Qty.	€
7,1	4.5	7.5	NS 5/13	**EE00.1**	100 unit(s)	82,90
10,2	9.8	10.7	NS 10/19	**EE01.1**	50 unit(s)	52,70
12,7	12.3	13.3	NS 12/21	**EE02.1**	50 unit(s)	76,50
14,9	14.2	15.5	NS 14/23	**EE03.1**	20 unit(s)	45,15
15,9	14.5	16.5	NS 14/23	**EE04.1**	20 unit(s)	41,75
19,4	15.8	17.8	NS 19/26	**EE05.1**	20 unit(s)	79,30
23,7	21.2	24.4	NS 24/29	**EE06.1**	10 unit(s)	53,25
30,7	28.0	31.4	NS 29/32	**EE07.1**	5 unit(s)	44,35

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Centrifuge tubes and bottles

Centrifuge glasses thick-walled

Marienfeld.
With straight rim, no graduations.



Not a medical device / Not an IVD product

With round bottom
Material: Borosilicate glass 3.3. Autoclavable: Yes.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
12	16	100	1,2	**CKA3.1**	100 unit(s)	60,20
50	34	100	2,8	**CKA4.1**	10 unit(s)	66,65

With conical bottom, 30° angle
Material: Soda-lime glass.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
10	17	98	1,2	**CKA2.1**	100 unit(s)	62,90

Centrifuge glasses 15 ml

Marienfeld. Material: Soda-lime glass.
Long conical version. With or without graduations (white, 0.1 ml resolution).



Not a medical device / Not an IVD product

With straight rim, without graduations

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
15	17	113	1	**CHY6.1**	100 unit(s)	51,30

With straight rim, with graduations

Vol. (ml)	Ø ext. (mm)	Graduation range (ml)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
15	17	1-15	113	1	**CHY7.1**	100 unit(s)	203,20

With beaded rim, without graduations

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
15	17	113	1	**CHY8.1**	100 unit(s)	51,30

With beaded rim, with graduations

Vol. (ml)	Ø ext. (mm)	Graduation range (ml)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
15	17	1-10	113	1	**CHY9.1**	100 unit(s)	203,20
15	17	1-15	113	1	**CKA0.1**	100 unit(s)	203,20

Centrifuge tubes and bottles

Centrifuge glasses with screw cap

Hecht. Material: Soda-lime glass, PP screw cap. Autoclavable: Yes.
With DIN 14 thread.



A 121 °C

Not a medical device / Not an IVD product

With round bottom

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
15	17	98	3,000	**CLC7.1**	100 unit(s)	75,90

With conical bottom

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
15	17	112	3,000	**CLC6.1**	100 unit(s)	92,10

Centrifuge glasses DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Can be centrifuged up to a max. relative centrifugal acceleration RZB = 4000 in fixed angle rotor. Suitable for specimens with max. density 1.2 g/ml.



A 121 °C DURAN WHEATON KIMBLE

Not a medical device / Not an IVD product

With round bottom

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
6	12	100	1 ± 0,04	**C101.1**	50 unit(s)	233,00
12	16	100	1,2 ± 0,05	**C102.1**	50 unit(s)	239,00
25	24	100	1,8 ± 0,1	**C103.1**	10 unit(s)	69,40
50	34	100	2,8 ± 0,2	**C104.1**	10 unit(s)	126,80
80	40	115	3,2 ± 0,3	**C105.1**	10 unit(s)	161,00
80	44	100	3,2 ± 0,3	**C106.1**	10 unit(s)	161,00
250	56	147	3,5 ± 0,3	**C107.1**	10 unit(s)	280,00

With conical bottom

Vol. (ml)	Ø ext. (mm)	Height (mm)	Version	Art. No.	Pack Qty.	€
12	16	100	30° angle	**K211.1**	50 unit(s)	254,00
25	24	100	60° angle	**K212.1**	10 unit(s)	89,35
50	34	100	60° angle	**K222.1**	10 unit(s)	142,20

Centrifuge tubes and bottles

Centrifuge tubes

Kartell. Material: PP, transparent. Autoclavable: Yes.



NEW / +

A 121 °C

In vitro diagnostic medical device according to IVDD

With round bottom

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
7	12	100	3,500	**K941.1**	100 unit(s)	54,80
16	17	100	3,500	**K943.2**	500 unit(s)	143,30
30	24	95	3,500	**K944.2**	50 unit(s)	79,60
50	30	100	3,500	**K945.1**	25 unit(s)	47,75
70	35	100	3,500	**K946.1**	20 unit(s)	49,45
110	40	120	3,500	**K947.1**	25 unit(s)	58,00

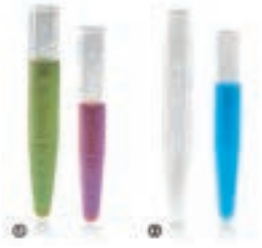
With conical bottom

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
13	16	108	3,500	**K948.2**	500 unit(s)	126,75
16	17	120	3,500	**K949.2**	500 unit(s)	136,30

Centrifuge tubes

Kartell. Autoclavable: Yes.

Conical shape. With graduations, 0.2 ml increments (10 ml tube additionally up to 1 ml with 0.1 ml increments).



A 121 °C

In vitro diagnostic medical device according to IVDD

Made of PMP

Material: PMP transparent. Temperature resistant up to +150 °C.

Vol. (ml)	Ø ext. (mm)	Graduation (ml)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
10	16	0.2	107	3,000	**TT17.1**	50 unit(s)	46,50
15	18	0.2	118	3,000	**TT18.1**	50 unit(s)	50,85

Made of PP

Material: PP transparent. Temperature resistant up to +120 °C.

Vol. (ml)	Ø ext. (mm)	Graduation (ml)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
10	16	0.2	107	3,000	**TT19.1**	100 unit(s)	43,60
15	18	0.2	118	3,000	**TT20.1**	100 unit(s)	64,20

Centrifuge tubes and bottles

Centrifuge tubes with round bottom

Nalgene. Material: PP. Autoclavable: Yes.
Centrifugable to 50,000 x g when at least 80% full.



A 121 °C

Not a medical device / Not an IVD product

Type 3110
Material: (copolymer), transparent.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Version	Art. No.	Pack Qty.	€
12	16	103	50,000	without border	**APN1.1**	10 unit(s)	36,70
15	16	114	50,000	without border	**APN2.1**	10 unit(s)	38,45
16	18	99	50,000	without border	**APN3.1**	10 unit(s)	39,10
38	25	89	50,000	without border	**APN4.1**	10 unit(s)	41,45
50	29	103	50,000	without border	**APN5.1**	10 unit(s)	43,15
50	28.5	104	50,000	with rim	**APN6.1**	10 unit(s)	54,30
100	32	164	50,000	with rim	**APN7.1**	10 unit(s)	92,50

Accessories stoppers for nalgene centrifuge tubes™

A 121 °C

Nalgene. Material: PP. Autoclavable: Yes.
Suitable of centrifuge tube types 3103, 3105, 3110 and 3117 with corresponding diameters.
Note: Only leak-tight to a limited degree during high speed centrifugation.

Suitable for	Art. No.	Pack Qty.	€
Ø outside 16 mm	**APP5.1**	20 unit(s)	39,80
Ø outside 18 mm	**APP6.1**	20 unit(s)	48,85
Ø outside 25/26 mm	**APP7.1**	20 unit(s)	50,90
Ø outside 28.5/29 mm	**APP8.1**	20 unit(s)	52,55
Ø outside 32 mm	**APP9.1**	20 unit(s)	55,10

Centrifuge tubes 15 ml

Simport.
Conical, with graduations at 0.25, 0.5, 1.0, 2.5, 5, 10, 12 and 15 ml.
Metal-free (< 100 ppm Sb, As, Ba, Cd, Cr, Pb).



Delivery without plugs.

Not a medical device / Not an IVD product

Made of visually transparent PS
Material: PS clear. Can be centrifuged up to 1200 x g. Temperature stable from 0 to 90 °C.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
15	17	120	1,200	**AYX6.1**	1,000 unit(s)	134,40

Made of transparent PP
Material: PP transparent. Autoclavable: Yes. Centrifugable up to 3000 x g. Autoclavable.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
15	17	120	3,000	**AYX7.1**	1,000 unit(s)	127,95

Centrifuge tubes and bottles

Accessories plugs for 15 ml centrifuge tubes

Simport. Material: PE.

Suitable for centrifuge tubes Order No. AYX6.1 and AYX7.1.
Temperature-stable from 0 to 80 °C.

Colour	Art. No.	Pack Qty.	€
red	**AYY1.1**	1,000 unit(s)	57,55
blue	**AYX8.1**	1,000 unit(s)	57,55
green	**AYX9.1**	1,000 unit(s)	57,55
white	**AYY2.1**	1,000 unit(s)	57,55
yellow	**AYY3.1**	1,000 unit(s)	57,55
colourless	**AYY0.1**	1,000 unit(s)	57,55

Centrifuge tubes ROTILABO®

ROTH SELECTION. Material: PP highly transparent, cap made of PE.

With printed black graduations and white labelling area. Supplied with lid fitted. Certified nuclease-, endotoxin- and metal-free (<1 ppm), not cytotoxic. Temperature stable from -80 to +122 °C.



Not a medical device / Not an IVD product

Without rim

Can be centrifuged in fixed angle rotor up to 17,000 x g (15 ml tube) or 20,000 x g (50 ml tube).

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
15	Non-sterile	17	120	17,000	Bag	10 x 50	**N458.1**	500 unit(s)	151,05
15	**Sterile**	17	120	17,000	Bag	10 x 50	**N459.1**	500 unit(s)	165,55
15	Non-sterile	17	120	17,000	Rack	20 x 25	**N460.1**	500 unit(s)	179,55
15	**Sterile**	17	120	17,000	Rack	20 x 25	**N461.1**	500 unit(s)	202,10
50	Non-sterile	29	115	20,000	Bag	10 x 50	**N462.1**	500 unit(s)	179,55
50	**Sterile**	29	115	20,000	Bag	10 x 50	**N463.1**	500 unit(s)	194,60
50	Non-sterile	29	115	20,000	Rack	20 x 25	**N464.1**	500 unit(s)	213,95
50	**Sterile**	29	115	20,000	Rack	20 x 25	**N465.1**	500 unit(s)	225,75

With rim

Centrifugable in fixed angle rotor up to 10,000 x g.

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
50	Non-sterile	29	117	10,000	Bag	10 x 50	**X063.1**	500 unit(s)	208,55
50	**Sterile**	29	117	10,000	Bag	10 x 50	**X064.1**	500 unit(s)	236,50

Centrifuge tubes and bottles

Centrifuge tubes

Ratiolab. Material: PP, cap made of HDPE.
Temperature stable from -80 to 120 °C.



Not a medical device / Not an IVD product

Conical, without rim
With red screw cap, printed graduations and labelling field. Free of RNase, DNase, endotoxin, pyrogen and ATP.

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
15	Non-sterile	17	120	17,000	Bag	30 x 25	**1E4L.1**	750 unit(s)	161,35
15	**Sterile**	17	120	17,000	Bag	30 x 25	**1E4N.1**	750 unit(s)	191,65
50	Non-sterile	30	115	20,000	Bag	12 x 25	**1E4P.1**	300 unit(s)	77,05
50	**Sterile**	30	115	20,000	Bag	12 x 25	**1E4T.1**	300 unit(s)	89,45

Conical, with rim
With red screw cap, printed graduations and labelling field. Free of RNase, DNase, endotoxin, pyrogen and ATP.

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
50	Non-sterile	30	115	7,000	Bag	10 x 25	**1E4X.1**	250 unit(s)	71,10
50	**Sterile**	30	115	7,000	Bag	10 x 25	**1E4Y.1**	250 unit(s)	83,00

Round base, without rim
With plugs.

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
12	Non-sterile	18	98	30,000	Bag	1 x 100	**1E50.1**	100 unit(s)	68,60

Centrifuge tubes ROTILABO® made of fluoroplastic

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.



A 121 °C ❄❄❄

Delivery incl. screw cap.

Not a medical device / Not an IVD product

With round bottom

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Centrifugability in g (max.)	Outer lid Ø (mm)	Art. No.	Pack Qty.	€
8	12	100	1,0	20,000	22	**LT74.1**	1 unit(s)	29,10
17	18	100	1,5	20,000	24	**LT75.1**	1 unit(s)	32,80
50	25	140	2,0	20,000	31	**LT76.1**	1 unit(s)	54,20

With conical bottom

Vol. (ml)	Ø ext. (mm)	Height (mm)	Wall thickness (mm)	Centrifugability in g (max.)	Outer lid Ø (mm)	Art. No.	Pack Qty.	€
13	16	100	1,5	20,000	22	**LT77.1**	1 unit(s)	31,90
18	18	120	1,5	20,000	24	**LT78.1**	1 unit(s)	37,45
45	25	150	2,0	20,000	31	**LT79.1**	1 unit(s)	56,60

Centrifuge tubes and bottles

Centrifuge tubes Metal Free

Labcon. Material: PP highly pure, cap made of PE. **Sterile**.

With white labelling area. Supplied with lid fitted.
Heavy metal content <1 ppb, suitable for sample preparation and storage for trace analysis, ICP-MS and other applications which require an extremely low metal content.
Nuclease- and endotoxin-free, non-cytotoxic. Temperature stable from -80 to +122 °C.



S ❄❄

Not a medical device / Not an IVD product

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
15	**Sterile**	17	120	12,500	Bag	10 x 50	**XX96.1**	500 unit(s)	186,00
15	**Sterile**	17	120	12,500	Rack	20 x 25	**XX97.1**	500 unit(s)	217,15
50	**Sterile**	29	115	12,500	Bag	10 x 50	**XX98.1**	500 unit(s)	217,15
50	**Sterile**	29	115	12,500	Rack	20 x 25	**XX99.1**	500 unit(s)	253,70

Centrifuge tubes

Kartell. Material: PP.

With raised graduations. **Sterile** (γ sterilised) with red cap or non-sterile with blue cap.



In vitro diagnostic medical device according to IVDD

With rim

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Art. No.	Pack Qty.	€
50	Non-sterile	29	115	3,000	Bag	**AN80.1**	100 unit(s)	39,75
50	**Sterile**	29	115	3,000	Bag	**AN81.1**	100 unit(s)	42,30

Without rim

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Art. No.	Pack Qty.	€
15	Non-sterile	17	120	3,000	Bag	**AN76.1**	150 unit(s)	41,80
15	**Sterile**	17	120	3,000	Bag	**AN77.1**	150 unit(s)	46,70
50	Non-sterile	29	115	3,000	Bag	**AN78.1**	100 unit(s)	34,30
50	**Sterile**	29	115	3,000	Bag	**AN79.1**	100 unit(s)	37,95

Centrifuge tubes Flip cap

Cole-Parmer. Material: PP, Cap made of HDPE. **Sterile**.

- Screw/snap-on lid enables single-handed opening and also complete removal
- RNase-/DNase-free, pyrogen-free
- With white labelling area
- Accuracy of graduations: ±2%
- Additional engraved graduations in cone: 0.1 to 1 ml for 15 ml tube, 0.5 to 3 ml for 50 ml tube
- Temperature stable from -80 to +120 °C



S ❄❄

Not a medical device / Not an IVD product

Vol. (ml)	Sterility	Ø ext. (mm)	Graduation range (ml)	Height (mm)	Centrifuga-bility in g (max.)	Outer lid Ø (mm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
15	**Sterile**	17	1-15	124	9,400	24	Bag	20 x 25	**EKY1.1**	500 unit(s)	218,00
50	**Sterile**	29	5-50	118	9,400	36	Bag	20 x 25	**EKY2.1**	500 unit(s)	289,00

Centrifuge tubes and bottles

Centrifuge tubes 50 ml

Simport. Material: PS, visually transparent, with screw cap made of HDPE.

Graduated from 2.5 to 50 ml. Temperature stable from 0 to 90 °C.
Sterile tubes also suitable for storage of biological samples.
Non-sterile tubes: Yellow cap. Sterile tubes: Green cap.



Not a medical device / Not an IVD product

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
50	Non-sterile	29	118	1,000	Bag	1 x 500	**AYY4.1**	500 unit(s)	165,55
50	**Sterile**	29	118	1,000	Rack	20 x 25	**AYY5.1**	500 unit(s)	278,45

Centrifuge tubes CELLSTAR®

Greiner Bio-One. Material: PP, HDPE screw cap (blue). **Sterile**.

Conical bottom, blue graduations and white labelling area.
DNase-/RNase- and human DNA-free, non-pyrogenic and non-cytotoxic.
Good thermal, mechanical and chemical stability. Temperature stable from -50 to +100 °C.

Max. centrifugability:

- 15 ml tube: 4000 x g in swing-out rotor, 15,000 x g in fixed angle rotor
- 50 ml tube: 3200 x g in swing-out rotor, 9000 x g in fixed angle rotor
- 50 ml tube with rim: 2800 x g in swing-out rotor, 11,500 x g in fixed angle rotor



S

Not a medical device / Not an IVD product

Transparent, without rim

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
15	**Sterile**	17	120	4,000	Rack	10 x 50	**XH97.1**	500 unit(s)	124,70
15	**Sterile**	17	120	4,000	Bag	20 x 50	**XH97.2**	1,000 unit(s)	201,05
50	**Sterile**	29	115	3,200	Bag	25 x 20	**XH98.1**	500 unit(s)	112,15
50	**Sterile**	29	115	3,200	Rack	12 x 25	**XH98.2**	300 unit(s)	97,15

Transparent, with rim

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
50	**Sterile**	29	115	2,800	Bag	18 x 25	**XH99.1**	450 unit(s)	131,20
50	**Sterile**	29	115	2,800	Rack	12 x 25	**XH99.2**	300 unit(s)	102,00

Light Protection Tubes, brown, without rim

For light-sensitive substances and reactions.

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Packaging type	Pack.	Art. No.	Pack Qty.	€
15	**Sterile**	17	120	4,000	Bag	1 x 100	**KL46.1**	100 unit(s)	55,00
15	**Sterile**	17	120	4,000	Rack	1 x 50	**KL46.2**	50 unit(s)	32,50
50	**Sterile**	29	115	3,200	Bag	1 x 20	**KL47.1**	20 unit(s)	16,65
50	**Sterile**	29	115	3,200	Rack	1 x 25	**KL47.2**	25 unit(s)	21,70

Centrifuge tubes and bottles

Centrifuge tubes Oak Ridge

Nalgene. Autoclavable: Yes.

Suitable for **high-speed centrifugation** up to 50,000 x g.

Note:
Tubes must be at least 80% full during centrifuging; FEP tubes must be 100% full.
When centrifuging at over 10,000 x g, screw caps with seals must be used.
Always fully unscrew the cover during autoclaving.



A 121 °C

Not a medical device / Not an IVD product

Type 3119
Material: PP (copolymer), translucent, with screw cap made of PP.

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
10	10	16.0	81.4	50,000	**PH36.1**	10 unit(s)	61,65
28	28	25.4	101.9	50,000	**PH37.1**	10 unit(s)	68,40
30	30	25.5	94.3	50,000	**PH38.1**	10 unit(s)	68,40
42	50	28.8	106.7	50,000	**PH39.1**	10 unit(s)	86,45

Type 3118
Material: PC transparent, with screw cap made of PP.

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
10	10	16.1	81.7	50,000	**PH26.1**	10 unit(s)	77,85
28	28	25.4	101.8	50,000	**PH27.1**	10 unit(s)	82,75
30	30	25.7	94.5	50,000	**PH28.1**	10 unit(s)	82,75
43	50	28.8	107.0	50,000	**PH29.1**	10 unit(s)	95,60
81	85	38.2	105.7	50,000	**PH30.1**	10 unit(s)	109,25

Type 3115
Material: PSF transparent, with screw cap made of PP.

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
30	30	25.7	94.5	50,000	**ATC6.1**	10 unit(s)	99,65
50	43	29.0	107.7	50,000	**ATC7.1**	10 unit(s)	120,60

Type 3114
Material: FEP with screw cap made of ETFE. Resistant to acids, bases and solvents. Ideal for chloroform and phenol extractions.

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
10	10	16.0	81.5	50,000	**PH40.1**	2 unit(s)	67,60
30	30	25.7	93.7	50,000	**PH41.1**	2 unit(s)	103,90
46	50	28.8	107.7	50,000	**PH42.1**	2 unit(s)	136,90

Accessories leak-tight closures

Nalgene. Material: PP, with silicone seal. Autoclavable: Yes.

Leak-tight closures ensure leak-free use of Oak Ridge centrifuge tubes.
Recommended from 10,000 x g or higher.

A 121 °C

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Suitable for	Art. No.	Pack Qty.	€
Oak Ridge tubes Art. No. PH27.1, PH28.1, PH37.1, PH38.1, PH98.1 and PK02.1	**PH43.1**	2 unit(s)	28,40
Oak Ridge tubes Art. No. PH29.1, PH39.1, PH99.1 and PK03.1	**PH44.1**	2 unit(s)	31,95

Centrifuge tubes and bottles

Centrifuge tubes Oak Ridge with leak-tight closure

Nalgene. Autoclavable: Yes.
Suitable for **high-speed centrifugation** up to 50,000 x g.

Note:
Tubes must be at least 80% full during centrifuging.
Always fully unscrew the cover during autoclaving.



A 121 °C

Not a medical device / Not an IVD product

Type 3139
Material: PP Copolymer, translucent, with screw cap made of PP.

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
16	16	17.9	106.6	50,000	**PK01.1**	10 unit(s)	112,85
30	30	25.5	101.4	50,000	**PK02.1**	10 unit(s)	144,75
42	50	28.8	114.1	50,000	**PK03.1**	10 unit(s)	169,85

Type 3138
Material: PC transparent, with screw cap made of PP.

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
10	10	16.1	82.3	50,000	**PH96.1**	10 unit(s)	101,50
16	16	18.2	106.9	50,000	**PH97.1**	10 unit(s)	123,40
30	30	25.7	101.6	50,000	**PH98.1**	10 unit(s)	158,70
42	50	28.8	115.0	50,000	**PH99.1**	10 unit(s)	170,95

Type 3137
Material: PSF transparent, with screw cap made of PP.

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
42	50	29.0	115.3	50,000	**ATC5.1**	10 unit(s)	215,00

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Personal, expert advice and many advantages for you

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Centrifuge tubes and bottles

Centrifuge bottles

Nalgene. Autoclavable: Yes.

Note:
Bottles must be at least 80% full during centrifuging; PPCO bottle, Art. No. PH81.1 must be filled to max 75%. FEP bottles must be 100% full.
Always fully unscrew the cover during autoclaving.



A 121 °C

Not a medical device / Not an IVD product

Type 3120
Material: PP Copolymer, translucent, with screw cap made of PP.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
250	61.8	127.7	13,200	**PH79.1**	4 unit(s)	49,35
500	73.8	169.8	4,800	**PH80.1**	4 unit(s)	59,45
500	69.5	170.2	4,800	**PH81.1**	4 unit(s)	57,55
1,000	97.5	184.5	7,100	**PH82.1**	4 unit(s)	105,35
1,000	97.7	179.0	7,100	**PH83.1**	4 unit(s)	108,85

Type 3122
Material: PC transparent, with screw cap made of PP.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
250	61.8	127.6	27,500	**PH84.1**	4 unit(s)	64,70
500	69.5	169.6	13,700	**PH85.1**	4 unit(s)	103,35
1,000	97.6	188.4	7,100	**PH86.1**	4 unit(s)	135,20

Type 3127
Material: FEP with screw cap made of ETFE.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
250	60.0	128.8	4,000	**PH88.1**	1 unit(s)	146,55

Accessories Leak-tight closures

Nalgene. Material: PP, with silicone gaskets.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
Centrifuge bottles Art. No. PH89.1 and PH91.1	**PH93.1**	2 unit(s)	40,25
Centrifuge bottles Art. No. PH82.1, PH83.1, PH86.1, PH90.1 and PH92.1	**PH94.1**	2 unit(s)	55,10

Suitable for	Art. No.	Pack Qty.	€
Centrifuge bottles Art. No. PH79.1, PH84.1, PH88.1, PH89.1 and PH91.1	**PH95.1**	6 unit(s)	96,45

Centrifuge tubes and bottles

Centrifuge bottles with leak-tight closure

Nalgene. Autoclavable: Yes.

Note:
Bottles must be at least 80% full during centrifuging.
Always fully unscrew the cover during autoclaving.



A 121 °C

Not a medical device / Not an IVD product

Type 3140
Material: PC transparent, with screw cap made of PP.

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
250	250	61.5	135.1	27,500	**PH89.1**	4 unit(s)	109,15
450	500	69.5	160.0	13,700	**PH90.1**	4 unit(s)	134,30

Type 3141
Material: PP Copolymer, translucent, with screw cap made of PP.

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
250	250	60.7	133.4	27,500	**PH91.1**	4 unit(s)	98,30
450	500	69.5	160.0	13,700	**PH92.1**	4 unit(s)	130,75

Cytology funnel CytoSep™

Simport.

Disposable sample chambers for producing thin-layer preparations by means of centrifugation. For sample volumes up to 0.5 ml. Cells are applied directly to a slide. Cell application range approx. Ø 6 mm (area approx. 28 mm²). With white filter cards to absorb excess liquid.

- Suitable for the examination of blood, spinal chord fluid, saliva, urine and gastric fluids
- Disposable material, therefore no time-consuming cleaning necessary
- Prevents cross-contamination and contamination through pathogenic samples



Compatible with the Thermo Cytospin™ 3 and 4, Tharmac Cellspin® cyto centrifuges as well as the Hettich Cyto system.

Delivery incl. press-in plug for sealing the funnel. Please order slides and metal clips separately.

In vitro diagnostic medical device according to IVDD

Version	Packaging type	Pack.	Art. No.	Pack Qty.	€
Cytology funnel	Box	1 box of 50	**HNY3.1**	50 unit(s)	96,25
Cytology funnel	Box	10 boxes of 50	**HNY3.2**	500 unit(s)	697,70

Accessories metal clips for cytology funnel CytoSep™

A 121 °C

Simport. Autoclavable: Yes.

For fixing the microscope slide at the cytology funnel.

In vitro diagnostic medical device according to IVDD

Version	Art. No.	Pack Qty.	€
metal clips	**HNY4.1**	6 unit(s)	184,90

Safety vessels

Safety barrel

Rötzmeier. Material: Stainless steel 1.4301, 10 l vessels made from 1.4404, seals made of PTFE. With removable flame arrestor made of stainless steel 1.4571 and 1.4301.

For safe storage or filling of flammable liquids. Safety barrels with volumes 25 and 50 litres stackable.



With microdispenser, overpressure valve (opening pressure approx. 0.3 bar) and separate aeration.

Type	Vol. (l)	Ø (mm)	Height (mm)	Wall thickness (mm)	Weight (kg)	Art. No.	Pack Qty.	€
10D2	10	260	340	0,8	2,253	**1E0N.1**	1 unit(s)	308,55

With microdispenser, overpressure valve (opening pressure approx. 0.3 bar), separate aeration and fill level indicator.
Filling level display made of PFA.

Type	Vol. (l)	Ø (mm)	Height (mm)	Wall thickness (mm)	Weight (kg)	Art. No.	Pack Qty.	€
10DI	10	260	340	0,8	2,450	**1E0X.1**	1 unit(s)	535,35

With screw cap and overpressure valve
Opening pressure approx. 0.3 bar.

Type	Vol. (l)	Ø (mm)	Height (mm)	Wall thickness (mm)	Weight (kg)	Art. No.	Pack Qty.	€
10K	10	260	330	0,8	2.20	**HPN6.1**	1 unit(s)	295,65
25K	25	315	540	1,2	6.40	**HPN7.1**	1 unit(s)	385,95
50K	50	365	600	1,5	12.10	**HPN8.1**	1 unit(s)	482,70
100K	100	395	950	1,5	21	**1E0H.1**	1 unit(s)	1.558,75
200K	200	550	1,060	1,5	30	**1E0L.1**	1 unit(s)	2.418,75

Transport containers with UN-X approval
Type-approved acc. to GGVSEB, air, ADR, RID, IMDG code and ICAO-TI. With screw cap (moving shaft secures against loss) and venting screw for manual air feed.

Type	Vol. (l)	Ø (mm)	Height (mm)	Wall thickness (mm)	UN approval	Weight (kg)	Art. No.	Pack Qty.	€
10TZ	10	260	330	0,8	1A1/X2/400	2.25	**HPN9.1**	1 unit(s)	349,40
25TZ	25	300	530	1,2	1A1/X1,6/400	6.40	**HPP0.1**	1 unit(s)	424,65

With self-closing tap
With ventilating screw cap and overpressure valve (opening pressure approx. 0.3 bar).

Type	Vol. (l)	Ø (mm)	Height (mm)	Wall thickness (mm)	Weight (kg)	Art. No.	Pack Qty.	€
10Z	10	260	330	0,8	2.48	**HPP1.1**	1 unit(s)	532,15
25Z	25	315	540	1,2	6.54	**HPP2.1**	1 unit(s)	643,95
50Z	50	365	600	1,5	12.20	**HPP3.1**	1 unit(s)	729,95
100Z	100	395	950	1,5	21	**1E0E.1**	1 unit(s)	1.773,75
200Z	200	550	1,060	1,5	30	**1E0K.1**	1 unit(s)	2.687,50

With self-closing stop cock and filling level display
Filling level display made of PFA. With ventilating screw cap and overpressure valve (opening pressure approx. 0.3 bar).

Type	Vol. (l)	Ø (mm)	Height (mm)	Wall thickness (mm)	Weight (kg)	Art. No.	Pack Qty.	€
10ZI	10	260	330	0,8	2.78	**HPP4.1**	1 unit(s)	768,65
25ZI	25	315	540	1,2	7.45	**HPP5.1**	1 unit(s)	901,95
50ZI	50	365	600	1,5	12.90	**HPP6.1**	1 unit(s)	983,65
100ZI	100	395	950	1,5	21,5	**1E0P.1**	1 unit(s)	2.042,50
200ZI	200	550	1,060	1,5	30,5	**1E0T.1**	1 unit(s)	2.956,25

Accessories plug-in funnel for safety barrels

Rötzmeier. Material: Stainless steel 1.4571.

Straight. Wall thickness 0.6 mm. Weight 350 g.
Suitable for: type 10D, 10DI, 10K, 25K, 50K, 10Z, 25Z, 50Z, 10ZI, 25ZI, 50ZI, 10TZ, 25TZ.

Type	Ø Outer upper (mm)	Ø Outer outlet (mm)	Total height (mm)	Art. No.	Pack Qty.	€
TR3	120	34	120	**HPP7.1**	1 unit(s)	74,20

Safety vessels

Safety canisters

Rötzmeier. Material: Stainless steel 1.4571, all 20 litre canisters made of stainless steel 1.4301. Polished. Wall thickness 0.8 mm, seals made of PTFE.

For safe storage, filling and dosing of flammable liquids. With removable flame arrestor in the filler. Models with screw cap have a flexible shaft to secure the cap against loss.



With self-closing microdispenser for standing storage

For standing storage and convenient retrieval. With flame protection and overpressure valve. 20 litre canister (Art. No. 1CT2.1), also with venting screw for manual pressure compensation.

Type	Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
05KD	5	130	200	310	1650	**1CT0.1**	1 unit(s)	323,60
10KD	10	130	280	380	2500	**1CT1.1**	1 unit(s)	366,60
20KDL	20	175	345	470	3700	**1CT2.1**	1 unit(s)	464,40

With self-closing tap for storage lying down

For storage lying down. With flame protection and separate ventilation screw for manual pressure compensation.

Type	Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
05KZ	5	130	200	310	1650	**PC10.1**	1 unit(s)	364,45
10KZ	10	130	280	380	2500	**PC11.1**	1 unit(s)	405,30
20KZ	20	175	345	470	3700	**PC12.1**	1 unit(s)	499,90

With screw cap

For safe storage of solvents. With overpressure valve.

Type	Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
05KK	5	130	200	310	1650	**1CT3.1**	1 unit(s)	278,45
10KK	10	130	280	380	2500	**1CT4.1**	1 unit(s)	324,65
20KK	20	175	345	470	3700	**1CT5.1**	1 unit(s)	418,20

With screw cap and UN-X approval

Type-approved for the transport of liquid hazardous substances acc. to GGVSEB, GGVSee, ADR, RID and IMDG code.

20-litre canister (Art. No. PC09.1) also with venting screw for manual pressure relief.

Type	Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	UN approval	Weight (g)	Art. No.	Pack Qty.	€
05KT	5	130	200	310	3A1/X1.6/300	1650	**PC07.1**	1 unit(s)	282,75
10KT	10	130	280	380	3A1/X1.6/300	2500	**PC08.1**	1 unit(s)	328,95
20KTL	20	175	345	470	3A1/X2.0/300	3700	**PC09.1**	1 unit(s)	454,75

Accessories plug-in funnel for safety canister

Rötzmeier. Material: Stainless steel 1.4305 and 1.4404, unpolished.

Angled. Wall thickness 0.6 mm. Without flame protection. **Suitable for:** Type 05KD, 10KD, 20KDL, 05KK, 10KK, 20KK, 05KZ, 10KZ, 20KZ, 05KT, 10KT, 20KT, 20KTL.

Plug-in funnel

Weight 350 g.

Type	Ø Upper (mm)	Ø Outer outlet (mm)	Height (mm)	Total height (mm)	Art. No.	Pack Qty.	€
TR2	140	34	120	240	**PC13.1**	1 unit(s)	77,40

Plug-in funnel with overfill protection

With 1½″ thread, with PTFE seal. Weight 428 g.

Type	Ø Upper (mm)	Ø Outer outlet (mm)	Height (mm)	Total height (mm)	Art. No.	Pack Qty.	€
TR2V	140	28	120	240	**1E1X.1**	1 unit(s)	135,45

Safety vessels

Accessories for safety canisters and safety barrels

Rötzmeier.

Pouring spouts 1½″
Material: Stainless steel 1.4301 and 1.4305, seals made of PTFE. Rotatable. **Suitable for:** Type 05KD, 10KD, 20KDL, 05KK, 10KK, 20KK, 05KZ, 10KZ, 20KZ, 05KT, 10KT, 20KT, 20KTL, 10D, 10DI, 10K, 25K, 10Z, 25Z, 10ZI, 25ZI, 10TZ, 25TZ.

Type	Art. No.	Pack Qty.	€
A15	**YE02.1**	1 unit(s)	87,10

Microdispensers 1½″
Material: Stainless steel 1.4305, seals made of PTFE. **With aeration: YE01.1 (type D150) suitable for :** type 05KD, 10KD, 05KK, 10KK, 20KK, 05KT, 10KT, 20KT, 10K.
Without aeration: 1E1E.1 (type D151) suitable for: Type 10D, 10DI, 20KDL, 20KTL.

Type	Art. No.	Pack Qty.	€
D150	**YE01.1**	1 unit(s)	93,55
D151	**1E1E.1**	1 unit(s)	94,60

Screw cap 1½″ and 2″TPI
Material: Stainless steel 1.4305, seals made of PTFE. With overpressure valve.
YE04.1 (type K150) suitable for: Type 05KD, 10KD, 20KDL, 05KK, 10KK, 20KK, 05KZ, 10KZ, 20KZ, 10D, 10DI, 10K, 25K.
1E1H.1 (type K200) suitable for: Type 50K, 100K, 200K.

Type	Art. No.	Pack Qty.	€
K150, 1½″ thread	**YE04.1**	1 unit(s)	67,75
K200, 2″TPI thread	**1E1H.1**	1 unit(s)	78,50

Safety laboratory canister

Rötzmeier. Material: Stainless steel 1.4571, polished or unpolished.
Seals made of PTFE, handle made of powder-coated aluminium.

With removable flame arrestor in the filler. Models with screw cap have a flexible shaft to secure the cap against loss.



Polished, with microdispenser and overpressure valve

Type	Vol. (l)	Ø (mm)	Height (mm)	Wall thickness (mm)	Weight (g)	Art. No.	Pack Qty.	€
OHD	0.5	99	198	1,0	665	**1CN3.1**	1 unit(s)	222,55
01D2	1	111	235	0,6	700	**5791.1**	1 unit(s)	217,15
02D2	2	131	295	0,6	800	**0544.1**	1 unit(s)	235,45
05D2	5	165	400	0,6	1200	**0157.1**	1 unit(s)	263,40

Polished, with screw cap and overpressure valve

Type	Vol. (l)	Ø (mm)	Height (mm)	Wall thickness (mm)	Weight (g)	Art. No.	Pack Qty.	€
OHK	0.5	99	198	1,0	665	**1CN4.1**	1 unit(s)	186,00
01K	1	111	235	0,6	650	**1192.1**	1 unit(s)	177,40
02K	2	131	295	0,6	750	**1193.1**	1 unit(s)	194,60
05K	5	165	400	0,6	1150	**1194.1**	1 unit(s)	227,90

Non-polished, with screw cap and UN-X approval
Type-approved for the transport of liquid hazardous substances acc. to GGVSEB, GGVSee, ADR, RID and IMDG code.

Type	Vol. (l)	Ø (mm)	Height (mm)	Wall thickness (mm)	UN approval	Weight (g)	Art. No.	Pack Qty.	€
01T	1	111	235	0,6	1A1/X2.0/400	650	**PC01.1**	1 unit(s)	175,25
02T	2	131	305	0,6	1A1/X2.0/400	750	**PC02.1**	1 unit(s)	191,35
05T	5	165	400	0,6	1A1/X2.0/400	1150	**PC03.1**	1 unit(s)	224,70

Accessories for safety laboratory canisters

Rötzmeier.

Microdispensers 1¼″
Material: Stainless steel 1.4305, Seals made of PTFE. Self-closing. With overpressure valve. **Suitable for:** Type 0HD, 01D, 02D, 05D, 0HK, 01K, 02K, 05K, 01T, 02T, 05T, SP1, SP2, SP5, SP10.

Type	Art. No.	Pack Qty.	€
D125	**YE05.1**	1 unit(s)	82,80

Economical moistener with pump
Material: Stainless steel 1.4301. For economical soaking of cleaning cloths. Minimizes hazardous solvent vapours; liquid that is not required runs back into the can. Spring-mounted soaking tray. **PC05.1 (type P1) suitable for:** Type SP1, 01D, 01DU, 01K, 01KU, 01T. **PC06.1 (type P2) suitable for:** Type SP2, 02D, 02DU, 02K, 02KU, 02T. **1E16.1 (type P5) suitable for:** 05D, 05K, 05T.

Type	Art. No.	Pack Qty.	€
P1	**PC05.1**	1 unit(s)	141,90
P2	**PC06.1**	1 unit(s)	144,05
P5	**1E16.1**	1 unit(s)	141,90

Accessories funnel inserts for safety laboratory cans

Rötzmeier. Material: Stainless steel 1.4305 and 1.4404, unpolished.
Straight. Wall thickness 0.6 mm. Without flame protection. **Suitable for:** type 0HD, 01D, 02D, 05D, 0HK, 01K, 02K, 05K, 01T, 02T, 05T.

Plug-in funnel with overfill protection
With 1¼″ thread, with PTFE seal. Weight 362 g.

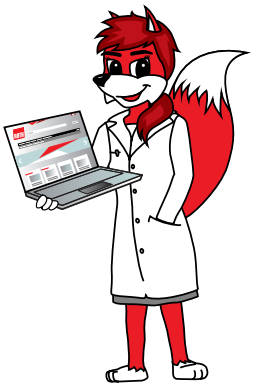
Type	Ø Upper (mm)	Ø Outer outlet (mm)	Height (mm)	Total height (mm)	Art. No.	Pack Qty.	€
TR1V	140	22	120	220	**1E1Y.1**	1 unit(s)	124,70

Plug-in funnel
Weight 300 g.

Type	Ø Upper (mm)	Ø Outer outlet (mm)	Height (mm)	Total height (mm)	Art. No.	Pack Qty.	€
TR1	140	22	120	220	**PC04.1**	1 unit(s)	69,90

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Safety vessels



Safety bottle

Material: Aluminium 99.5 %, with screw cap and self-closing pouring spout and venting valve made of plastic. Inside seal made of Viton®.
Suitable for benzine, turpentine oil and acid-free oils.

Vol. (ml)	Ø (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
400	60	225	130	**2984.1**	1 unit(s)	54,15
1,000	78	280	190	**2985.1**	1 unit(s)	61,55



Safety cleaning container

Rötzmeier. Material: Stainless steel 1.4571, unpolished.
Material thickness: 0.8 mm.

Soaking container

For controlled soaking of cloths and wipes with flammable solvents, e.g. for cleaning parts and tools. The soaking container keeps solvent use to a minimum. Highly stable container, flame protection in the soaking tray, spring-mounted soaking tray.

Type	Vol. (l)	Ø (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
TB4	4	260	130	1,4	**1E34.1**	1 unit(s)	224,70

Washing container

For safe cleaning of parts and tools with flammable liquids. Lid closes automatically in case of fire.

Type	Vol. (l)	Ø (mm)	Height (mm)	Weight (kg)	Art. No.	Pack Qty.	€
WB4	4	260	130	1,6	**1E35.1**	1 unit(s)	195,65

Accessories for safety cleaning containers

Rötzmeier. Material: Stainless steel 1.4571. Material thickness: 1 mm.

Washing basket

Suitable for: Safety washing containers type WB4.

Type	Ø (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
WK	190	10	200	**1E36.1**	1 unit(s)	61,30



Mixing barrel ROTILABO®

ROTH SELECTION. Material: LDPE natural colours, rubber seals.
With wide-neck thread opening Ø 120 mm and screw-on lid with integrated filler neck H 20 mm, internal Ø 38 mm. Side opening at the base with same dimensions. Either filler neck or base opening can be fitted with a screw cap or spigot as required.
External Ø incl. handle 370 mm. Weight 1800 g. Suitable for foodstuffs.

Delivery incl. screw cap and drain valve.

Vol. (l)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
30	370	120	520	**1089.1**	1 unit(s)	77,00



A 121 °C

Wide-neck barrel ROTILABO®

ROTH SELECTION. Material: Stainless steel 1.4541, cover seal made of silicone, clamping ring made of 1.4301 stainless steel.
Autoclavable: Yes.

Ground and brushed inside and out. Surfaces that come into contact with the product Ra ≤0.6 µm. Stackable. Impervious to fluids.

Vol. (l)	Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5	192	170	85	**A859.1**	1 unit(s)	330,05
3	192	170	156	**A860.1**	1 unit(s)	344,00
5	275	250	145	**0489.1**	1 unit(s)	385,95
10	275	250	280	**0490.1**	1 unit(s)	482,70
30	343	315	425	**0491.1**	1 unit(s)	690,15

Barrels

Wide-neck barrel ROTILABO® with UN approval

ROTH SELECTION. Material: HDPE, blue.

With UN X approval corresponding to German regulations pertaining to the transportation of hazardous goods by road and rail (GGVSE) for the conveying of solid materials with a density of at least 1.5 g/cm³. Suitable for foodstuffs.



Delivery incl. lid made of PE and galvanised clamping ring.

Version	Vol. (l)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
with handle	30	313	251	518	1H2/X61/S	**T970.1**	1 unit(s)	53,25
with handle	60	398	325	620	1H2/X88/S	**T971.1**	1 unit(s)	68,30
without handle	120	503	393	791	1H2/X200/S	**T972.1**	1 unit(s)	102,15
without handle	150	503	393	965	1H2/X255/S	**T973.1**	1 unit(s)	115,05

Wide-neck barrel

CurTec. Material: HDPE with rubber seal.

UN approval (X approval) for storage and transportation of solid materials and pastes. Suitable for foodstuffs and chemical and pharmaceutical products. Resistant to air, water and steam. Maximum filling temperature 70 °C. Sealable.



Without handles

Vol. (l)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
3.6	198	136	171	1H2/X12/S	**K280.1**	1 unit(s)	19,25
6	198	136	263	1H2/X20/S	**0788.1**	1 unit(s)	23,35
10	274	203	238	1H2/X22/S	**L958.1**	1 unit(s)	36,55
15	274	203	327	1H2/X22/S	**0789.1**	1 unit(s)	41,25
20	274	203	417	1H2/X27/S	**L959.1**	1 unit(s)	46,75
26	316	203	425	1H2/X33/S	**0790.1**	1 unit(s)	52,80

With handles

Vol. (l)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
42	410	282	418	1H2/X51/S	**CY90.1**	1 unit(s)	75,75
55	410	282	520	1H2/X66/S	**CY91.1**	1 unit(s)	81,15
68	410	282	634	1H2/X81/S	**5459.1**	1 unit(s)	86,20

Barrels

Containers Click Pack with UN approval



CurTec. Material: HDPE.

Container can be nested, white, smooth inside, with handles. Dark blue screw cap with rubber seal can be easily opened and closed with a quarter turn. For storing and dispatching solids and pastes.

- cGMP certification / ISO 15378 (primary packaging of pharmaceutical products)
- With UN approval (1H2) for solids
- Compliant with food regulations
- Resistant to steam
- Stackable
- With sealing eyelets on the screw cap and handles
- Maximum filling temperature is 70 °C
- Its contents must be cooled to 30 °C before the container can be closed and stacked

Delivery without screw cap and sealing button bordeaux red, please order separately.

Not a medical device / Not an IVD product

UN-Y approval

Vol. (l)	Ø ext. (mm)	Ø Internal (mm)	Total height (mm)	UN approval	Art. No.	Pack Qty.	€
10	318	288	210	1H2/X8/Y12/Z18/S	**1A62.1**	1 unit(s)	12,65
15	318	288	278	1H2/X14/Y21/Z30/S	**1A63.1**	1 unit(s)	14,00
20	318	288	361	1H2/X17,5/Y26/Z39/S	**1A64.1**	1 unit(s)	18,65

UN-X approval

Vol. (l)	Ø ext. (mm)	Ø Internal (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
15	333	295	297	1H2/X30/S	**1A65.1**	1 unit(s)	17,00
20	333	295	377	1H2/X30/S	**1A66.1**	1 unit(s)	21,55

Accessories lids for Click Pack containers with UN approval

CurTec. Material: HDPE seal: TPE.

Dark blue screw cap with white inner seal. The container can be opened and closed with a quarter turn. The lid is sealed when it passes the safety button. This is confirmed by a click. The container can be opened again by pressing the safety button and turning the container again.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
Click Pack container: Art. No. 1A62.1, 1A63.1, 1A64.1	**1AN2.1**	1 unit(s)	7,90
Click Pack container: Art. No. 1A65.1, 1A66.1	**1AN3.1**	1 unit(s)	11,80

Accessories seal button for Click Pack container with UN approval

CurTec. Material: PS.

For tamper-proof sealing of click pack containers with UN approval. Suitable for single use.

Not a medical device / Not an IVD product

Suitable for	Colour	Art. No.	Pack Qty.	€
Click Pack container: Art. No. 1A62.1, 1A63.1, 1A64.1, 1A65.1, 1A66.1	bordeaux red	**1EN3.1**	800 unit(s)	312,85

Nestable barrel with UN approval

CurTec. Material: HDPE, screw cap with an EPDM seal.

Nestable barrel, white with a blue screw cap closure. With black HDPE handles. Barrel with a large filling opening and small floorspace requirements. For storing and dispatching solids and pastes.

- cGMP-certified/ISO 15378 (primary packaging materials for pharmaceutical products)
- With UN approval (1H2) for solids
- Compliant with food regulations
- Resistant to steam
- With sealing eyelets on the screw cap closure and handles
- Stackable



Vol. (l)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
30	374	326	408	1H2/X40/Y40/Z40/S	**1A37.1**	1 unit(s)	50,80
40	374	326	570	1H2/X65/Y65/Z65/S	**1A38.1**	1 unit(s)	63,25
50	374	326	660	1H2/X65/Y65/Z65/S	**1A39.1**	1 unit(s)	72,95
60	374	326	770	1H2/X65/Y90/Z90/S	**1A3A.1**	1 unit(s)	81,30

Extremely wide-neck barrel

CurTec. Material: HDPE, screw cap closure with EPDM seal.

Barrels with extra large filling opening. With handles made of black HDPE. For storing and dispatching solids and pastes.

- cGMP certification / ISO 15378 (primary packaging of pharmaceutical products)
- With UN approval (1H2) for solids
- Compliant with food regulations
- Resistant to steam
- With sealing eyelets on the screw cap closure and handles
- Stackable



White with a red screw cap

Vol. (l)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
26	338	295	358	1H2/X38/S	**1A34.1**	1 unit(s)	82,65
34	338	295	449	1H2/X48/S	**1A35.1**	1 unit(s)	89,60

Brown with a beige screw cap

Vol. (l)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
55	410	354	495	1H2/X69/S	**1A36.1**	1 unit(s)	121,95

Canisters

ROTH SELECTION. Material: HDPE natural colours.

For storing, packaging and transporting. Suitable for foodstuffs.



Delivery incl. screw closure.

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Thread	Ø Inner neck (mm)	UN approval	Art. No.	Pack Qty.	€
2	109	145	181	DIN 45	34.5	3H1/Y1.9/150	**T391.1**	1 unit(s)	6,15
2.5	115	153	208	DIN 45	34.5	3H1/Y1.6/150	**T392.1**	1 unit(s)	7,55
3	115	153	240	DIN 45	34.5	3H1/Y1.6/150	**T393.1**	1 unit(s)	7,70
5	145	190	251	DIN 51	43.0	3H1/X1.9/250	**T394.1**	1 unit(s)	9,50
6	149	191	292	DIN 51	43.0	3H1/Y1.9/200	**T395.1**	1 unit(s)	10,40
8	190	230	270	DIN 45	34.5	without	**T396.1**	1 unit(s)	12,00
10	190	230	310	DIN 51	43.0	3H1/X1.9/250	**T397.1**	1 unit(s)	15,60
20	190	290	385	DIN 61	48.5	3H1/X1.9/250	**PY06.1**	1 unit(s)	27,15
30	293	358	432	DIN 61	48.5	3H1/X1.8/250	**HCC7.1**	1 unit(s)	43,40

Canisters

Canisters Uritainer™

Simport. Material: HDPE, lid made of PP.

Push-pull valve enables easy, comfortable and drop-free pouring.
Graduated, graduation 50 ml. External Ø wide neck opening 79 mm.
Purpose: For use as urine collection vessel.



In vitro diagnostic medical device according to IVDD

(1) With vertical and horizontal graduation

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Graduations (ml)	Art. No.	Pack Qty.	€
3	245	115	160	50	**HT07.1**	1 unit(s)	5,35
4	245	115	201	50	**HT08.1**	1 unit(s)	5,35

(2) With vertical graduation

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Graduations (ml)	Art. No.	Pack Qty.	€
2.5	133	133	232	50	**HT09.1**	1 unit(s)	5,35
3.5	133	133	295	50	**HT10.1**	1 unit(s)	5,35

Canisters ROTILABO®

ROTH SELECTION. Material: HDPE natural colour, UV stabilised.
With blue screw cap.



(1) Wide neck
Large opening enables simple filling, emptying and cleaning. With stopper for stop cock connection thread at bottom.
Canister Art. No. C944.1 and 0572.1 additionally with venting opening (Ø outside 18 mm, Ø inside 13 mm) with screw cap.

Delivery without outlet pipe, please order separately.

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
5	135	297	280	85	**C944.1**	1 unit(s)	27,80
10	140	302	397	85	**0572.1**	1 unit(s)	35,45
22	180	370	475	85	**EPK0.1**	1 unit(s)	40,05

(2) Narrow neck
Without stop cock connection option.

Delivery incl. outlet pipe, L 250 mm, Ø drain 20 mm.

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
10	160	290	331.5	25	**1590.1**	1 unit(s)	13,05

Accessories draincocks for canisters

ROTH SELECTION. Material: HDPE.

For wide-neck canisters C944.1, 0572.1 and EPK0.1. Inside Ø outlet pipe 10 mm, connection option for hoses with inside Ø 12 mm.



Version	Art. No.	Pack Qty.	€
angled	**HA38.1**	1 unit(s)	13,95
straight	**0573.1**	1 unit(s)	16,70

Canisters

Fuel canister made of metal

Hünersdorff. Material: Steel, powder-coated with inside paint, wall thickness 0.9 mm.

With safety seal, prevents unintentional opening of the canister. UN approval 3A1/Y/100/... for transporting hazardous goods such as petrol, diesel, E10.



Type Classic

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	UN approval	Weight (g)	Art. No.	Pack Qty.	€
5	120	230	310	3A1/Y/100	1850	**EPL8.1**	1 unit(s)	39,95
10	165	350	283	3A1/Y/100	3000	**EPL9.1**	1 unit(s)	48,25
20	165	343	469	3A1/Y/100	4280	**EPN0.1**	1 unit(s)	47,85

Type EXPLO-SAFE
With aluminium mesh filling to reduce the risk of explosion.

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	UN approval	Weight (g)	Art. No.	Pack Qty.	€
5	120	230	310	3A1/Y/100	1980	**EPN1.1**	1 unit(s)	63,30
10	165	350	283	3A1/Y/100	3260	**EPN2.1**	1 unit(s)	77,30
20	165	343	469	3A1/Y/100	4790	**EPN3.1**	1 unit(s)	90,90

Fuel canister

Hünersdorff. Material: HDPE black.

Heavy-duty, industry quality. With UN approval.



Delivery incl. outlet pipe and attached screw cap.

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	UN approval	Art. No.	Pack Qty.	€
3	100	215	205	29	3H1/ X1.0 Y1.0 Z1.0/250	**EY70.1**	1 unit(s)	11,10
5	147	265	247	29	3H1/Y1.0/250	**EY71.1**	1 unit(s)	10,60
10	164	333	324	29	3H1/Y1.2/200	**EY72.1**	1 unit(s)	13,75
20	178	365	435	29	3H1/Y/150	**EY73.1**	1 unit(s)	21,50

Canisters

Compact canister electrically conductive



Bürkle. Material: HDPE.

Antistatic, colour black. Electrically conductive compact canister with litre scale, specifically for use in explosion-proof areas. High electrical conductivity at a specific surface resistance of $>10^5$ ohm. Correct earthing can prevent the risk of ignition resulting from electrostatic charging. For filling and storing flammable and flammable liquids of explosion groups IIA, IIB and IIC. Particularly space-saving, ideal for use in confined space. Horizontal storage possible.
Note! When working with flammable liquids, the canister must be earthed! Use antistatic set (Art. No. 0213.1)!

Delivery without stop cock. For versions with threaded connections ¾″ please order the stop cock separately.
Delivery incl. sealing cap.

Total volume 5 l

Colour	Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Weight (g)	Version	Art. No.	Pack Qty.	€
black	5	65	335	335	720	With threaded connection ¾″	**KEY7.1**	1 unit(s)	59,65
black	5	65	335	335	700	Without threaded connection	**KEY8.1**	1 unit(s)	57,55

Total volume 10 l

Colour	Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Weight (g)	Version	Art. No.	Pack Qty.	€
black	10	125	335	335	820	With threaded connection ¾″	**KEY9.1**	1 unit(s)	76,80
black	10	125	335	335	840	Without threaded connection	**KHA0.1**	1 unit(s)	75,30

Compact canister



Bürkle. Material: PP, Transparent.

For storing and filling a range of liquids in small spaces. Suitable for foodstuffs. With litre scale.

Delivery without stop cocks and sealing cap for threaded connections, please order separately.

Total volume 5 l

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Weight (g)	Version	Art. No.	Pack Qty.	€
5	65	335	335	41	800	With threaded connection ¾″	**9267.1**	1 unit(s)	41,00
5	65	335	335	41	800	Without threaded connection	**T974.1**	1 unit(s)	38,35

Total volume 10 l

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Weight (g)	Version	Art. No.	Pack Qty.	€
10	125	335	335	41	870	With threaded connection ¾″	**KEY5.1**	1 unit(s)	49,45
10	125	335	335	41	850	Without threaded connection	**KEY6.1**	1 unit(s)	47,75

Canisters

Canisters Flat

Nalgene.

Ideal for storing and filling reagents, titration solutions and distilled water. Due to their flat design, the canisters fit into narrow shelves and refrigerators. Stacking height max. three canisters. With practical handle for easy and safe carrying.



Delivery incl. drain outlet and screw cap made of PP.

Type 2323
Material: HDPE.

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
8	368	305	165	63 mm	**E193.1**	1 unit(s)	158,30

Type 2324
Material: PP. Autoclavable: Yes.

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
8	368	305	165	63 mm	**E195.1**	1 unit(s)	208,55

Folding canisters ROTILABO®

ROTH SELECTION. Material: PE.

Stable design through resistant, flexible walls. Easy to carry with solid, integrated handle. Folds when empty, therefore economic and space-saving. Optimum residual emptying through smooth side walls and rounded container corners. Recyclable, since handle and container are made of the same material. Stop cock connection possible. Connection Ø 30 mm, with screw cap.



Delivery without tap, please order separately.

Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Version	Art. No.	Pack Qty.	€
10	230	230	230	1 handle	**N369.1**	1 unit(s)	7,75
20	280	280	280	2 handles	**N370.1**	1 unit(s)	9,10

Canisters

Nalgene.

Robust, space-saving design with graduation and handle made of non-corrosive stainless steel. Easy to fill and clean due to wide-neck opening. **Leak-proof**.



Type 2211, without stop cock connection
Material: HDPE.

Vol. (l)	Width (mm)	Length (mm)	Height (mm)	Thread	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
9	146	216	356	100 mm	90	**K646.1**	1 unit(s)	98,70
20	219	318	381	100 mm	90	**K647.1**	1 unit(s)	141,15

Type 2212, without stop cock connection
Material: PP. Autoclavable: Yes.

Vol. (l)	Width (mm)	Length (mm)	Height (mm)	Thread	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
9	146	216	356	100 mm	90	**K644.1**	1 unit(s)	135,75
20	219	318	381	100 mm	90	**K645.1**	1 unit(s)	189,20

Type 2213, without stop cock connection
Material: PC transparent. Autoclavable: Yes. Particularly suitable for making nutrient and culture media, if exposure to light or transparency is required.

Can also be used in cold storage rooms.

Vol. (l)	Width (mm)	Length (mm)	Height (mm)	Thread	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
9	146	216	356	100 mm	90	**K651.1**	1 unit(s)	199,95
20	219	318	381	100 mm	90	**K652.1**	1 unit(s)	287,05

Canisters

Type 2320, with stop cock connection
Material: HDPE.

Delivery incl. drain outlet made of PP.

Vol. (l)	Width (mm)	Length (mm)	Height (mm)	Thread	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
9	146	216	356	100 mm	90	**K648.1**	1 unit(s)	146,10
20	219	318	381	100 mm	90	**K649.1**	1 unit(s)	192,45

Type 2321, with stop cock connection
Material: PP. Autoclavable: Yes.

Delivery incl. drain outlet made of PP.

Vol. (l)	Width (mm)	Length (mm)	Height (mm)	Thread	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
9	146	216	356	100 mm	90	**E191.1**	1 unit(s)	172,00
20	219	318	381	100 mm	90	**E192.1**	1 unit(s)	218,25

Type 2322, with stop cock connection
Material: PC transparent. Autoclavable: Yes. Particularly suitable for making nutrient and culture media, if exposure to light or transparency is required.

Can also be used in cold storage rooms.

Delivery incl. drain outlet made of PP.

Vol. (l)	Width (mm)	Length (mm)	Height (mm)	Thread	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
9	146	216	356	100 mm	90	**K653.1**	1 unit(s)	225,75
20	219	318	381	100 mm	90	**K654.1**	1 unit(s)	273,05

Canisters fluorinated with drain outlet

Nalgene. Material: HDPE transparent, fluorinated, with stop cock made of ETFE and screw cap made of fluorinated PP.

Type DS 2327. For safe storage and dispensing of solvents or distilled water. Space-saving rectangular design.
The fluorinated outside and inside surfaces enhance the barrier properties and reduce solvent absorption and permeation. **Leak-proof**. With graduation and non-corrosive stainless steel handle. 20 l container, additionally with robust handles.



Vol. (l)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
9	146	216	343	100 mm	**E189.1**	1 unit(s)	234,35
20	219	318	381	100 mm	**E190.1**	1 unit(s)	273,05

Canisters

Canisters fluorinated



Nalgene. Material: HDPE fluorinated inside and outside, with screw cap made of fluorinated PP.

Type 2242. Good barrier properties, low solvent diffusion and penetration, ass well as high resistance to chemicals. Very robust, suitable for use under extreme loads when working with acids and aggressive solvents. Stable due to large footprint. Easy pouring through long spout and handle integrated in the canister bottom. graduated in litres and gallons. **Leak-proof**.

Vol. (l)	Graduations (l)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
10	2	229	229	368	53 B	**E187.1**	1 unit(s)	93,90
20	4	305	305	445	53 B	**E188.1**	1 unit(s)	137,25

Carboy



Kautex. Material: HDPE.

Natural colours. Available without a tap connector or with a tap connector and faucet.

With a tap connector

Delivery incl. stopcock.

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
5	167	330	50	S 65	**K980.1**	1 unit(s)	61,40
10	206	427	50	S 65	**5645.1**	1 unit(s)	66,25
25	278	580	50	S 65	**5646.1**	1 unit(s)	115,25
60	346	823	50	S 65	**5651.1**	1 unit(s)	176,30

Without a tap connector

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
5	167	330	50	S 65	**K981.1**	1 unit(s)	41,80
10	206	427	50	S 65	**K982.1**	1 unit(s)	44,95
25	278	580	50	S 65	**K983.1**	1 unit(s)	94,10
60	346	823	50	S 65	**K984.1**	1 unit(s)	149,20

Carboy fluorinated



Nalgene. Material: HDPE, fluorinated. Screw top made of PP.

Type 2097. 83 B thread, neck interior Ø of 64 mm. Especially suited to storing and transporting aggressive chemicals. The fluorinated interior and exterior surfaces reduce the diffusion and penetration of solvents and ensure long-term storage with low loss from evaporation. Especially resistant to rips and breaks as well as puncture damage. Suitable for most acids and aggressive organic solvents. **Leak-proof.**

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	249	289	64	83 B	**C476.1**	1 unit(s)	135,50
20	287	628	64	83 B	**C477.1**	1 unit(s)	193,50

Carboys

Carboy

Nalgene.

For storing chemicals, standard solutions, culture media, distilled water and liquids. Also suitable for storing large amounts of powder and other solids. Graduated in 1 gallon and 5 litre intervals. **Leak-proof**.



Type 2210

Material: LDPE screw top made of PP. 83B thread, neck inside Ø: 64 mm. Wide-handled design makes carrying and emptying easy.

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	249	389	64	83 B	**K633.1**	1 unit(s)	69,80
15	287	432	64	83 B	**K634.1**	1 unit(s)	103,25
20	287	528	64	83 B	**K635.1**	1 unit(s)	114,20
25	287	597	64	83 B	**K636.1**	1 unit(s)	122,50
50	376	673	64	83 B	**K637.1**	1 unit(s)	269,85

Type 2234

Material: LDPE screw top made of PP. 100 mm thread, neck inside Ø: 88 mm. Wide-handled design makes carrying and emptying easy.

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	249	338	88	100 mm	**K638.1**	1 unit(s)	65,55
20	287	483	88	100 mm	**K640.1**	1 unit(s)	124,65

Type 2235

Material: PP. Autoclavable: Yes. 100 mm thread, neck inside Ø: 88 mm. Wide-handled design makes carrying and emptying easy.

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	249	343	88	100 mm	**K642.1**	1 unit(s)	98,10
20	287	483	88	100 mm	**K643.1**	1 unit(s)	160,05

Type 2250

Material: PP. Autoclavable: Yes. 83B thread, neck inside Ø: 64 mm. Wide-handled design makes carrying and emptying easy.

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	249	289	64	83 B	**C478.1**	1 unit(s)	103,70
20	287	521	64	83 B	**C479.1**	1 unit(s)	176,30
50	376	673	64	83 B	**C480.1**	1 unit(s)	290,25

Type 2251

Material: PC transparent, screw-cap closure made of PP. Autoclavable: Yes. 83B thread, neck interior Ø of 64 mm. Especially suited to producing large quantities of culture media for cultures requiring light. Can also be used in cold storage rooms at temperatures below 0 °C.

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	249	389	64	83 B	**C469.1**	1 unit(s)	162,35
20	287	521	64	83 B	**C470.1**	1 unit(s)	230,05

Dual tubing connector assembly sets

Nalgene. Autoclavable: Yes.

Suitable for retrofitting Nalgene® vacuum flasks (PK40.1ff) or carboys with 53 mm or 83 mm screw caps. To do so, two holes (Ø 10 mm for PP13.1 or Ø 16 mm for PP14.1) must be made in the screw cap and the hose connectors fitted inside them. For hoses with inner Ø 6 or 13 mm. 53 mm screw caps can only be fitted with 6 mm hose connectors, 83 mm screw caps with 6 mm and/or 13 mm hose connectors.



A 121 °C

Delivery incl. connectors made of PP, nuts made of acetal, seals made of silicone and caps made of TPE. **Delivery excludes** screw cap.

Version	Art. No.	Pack Qty.	€
For hoses with inner Ø 13 mm	**PP14.1**	2 unit(s)	23,85
For hoses with inner Ø 6 mm	**PP13.1**	2 unit(s)	22,00

Carboys

Carboy with tap

Nalgene.

Graduated. Ideal for storing distilled water, reagents and culture media. **Leak-proof**. For increasing the stability and sealing, the drain tap thread is worked into a piece of the bottle rather than welded on.



Type 2318

Material: LDPE. Thread: 83 B (K655.1: 38-430).

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
4	152	328	28	38-430	**K655.1**	1 unit(s)	63,25
10	249	389	64	83 B	**K656.1**	1 unit(s)	106,00
20	287	521	64	83 B	**K657.1**	1 unit(s)	148,75
25	287	597	64	83 B	**K658.1**	1 unit(s)	176,30
50	376	673	64	83 B	**K659.1**	1 unit(s)	261,25

Type 2317

Material: PC transparent. Autoclavable: Yes. 83 B thread.

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	249	389	64	83 B	**K663.1**	1 unit(s)	226,85
20	287	521	64	83 B	**K664.1**	1 unit(s)	298,85

Type 2319

Material: PP. Autoclavable: Yes. 83 B thread.

Vol. (l)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	249	389	64	83 B	**K660.1**	1 unit(s)	163,40
20	287	521	64	83 B	**K661.1**	1 unit(s)	199,95
50	376	673	64	83 B	**K662.1**	1 unit(s)	352,60

Filler/venting cap

Nalgene. Material: PP. Autoclavable: Yes.

For liquid transfer of culture media, biological reagents and other aqueous solutions. Can be used with vacuum bottles and carboys with cap sizes of 53 B or 83 B.



A 121 °C

Delivery incl. TPE seals, 2 platinum coated silicone hoses for aspiration and dispensing, filler splash guard and 3 blind plugs.

Number of connections	For hoses with inner Ø (mm)	Thread	Height (mm)	Colour	Art. No.	Pack Qty.	€
3	6,3	53 B	68.6	white	**PK44.1**	1 unit(s)	42,20
3	6,3	83 B	98.0	white	**PK45.1**	1 unit(s)	48,85
3	12,7	83 B	98.0	white	**PK46.1**	1 unit(s)	53,80

Plastic bottles, LDPE

Narrow mouth bottle LaboPlast® Bio

Bürkle. Material: LDPE Green, transparent.

Made of renewable raw material and fully recyclable. With fully-sealing screw cap. Suitable for foodstuffs.



Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	26	47	9	14 mm	**HEN6.1**	10 unit(s)	13,10
20	32	58	9	14 mm	**HEN7.1**	10 unit(s)	15,10
50	40	86	13	18 mm	**HEN8.1**	10 unit(s)	19,75
100	45	106	13	18 mm	**HEN9.1**	10 unit(s)	20,90
250	60	140	18	25 mm	**HEP0.1**	10 unit(s)	29,20
500	75	173	18	25 mm	**HEP1.1**	5 unit(s)	23,80
1,000	95	213	21	28 mm	**HEP2.1**	5 unit(s)	34,90

Narrow mouth bottle

Kartell. Material: LDPE, transparent.

Acc. to DIN 168, ISO 13316. With screw cap and graduations.



Vol. (ml)	Graduations (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
50	10	38	92	GL 18	**A207.1**	6 unit(s)	10,05
100	20	48	108	GL 18	**A751.1**	6 unit(s)	11,75
250	25	60	150	GL 25	**A208.1**	4 unit(s)	12,15
500	100	75	182	GL 25	**A752.1**	4 unit(s)	13,85
1,000	100	95	224	GL 32	**A209.1**	4 unit(s)	21,10

Wide mouth bottle

Kartell. Material: LDPE, transparent.

With thread according to DIN 168. The wide mouth design makes them easy to fill with solids or liquids. With screw cap and graduations.



Vol. (ml)	Graduations (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
50	10	38	88	GL 32	**E217.1**	12 unit(s)	22,90
100	20	48	105	GL 32	**E218.1**	12 unit(s)	25,75
250	25	60	140	GL 45	**E219.1**	6 unit(s)	15,50
500	100	75	170	GL 45	**E220.1**	6 unit(s)	21,75
1,000	100	95	206	GL 63	**E221.1**	6 unit(s)	30,15
2,000	100	120	252	GL 63	**PE88.1**	5 unit(s)	29,85

Plastic bottles, LDPE

Wide mouth bottle

Nalgene. Material: LDPE, translucent. Screw-cap closure made of PP.

Type 2103. Universally suitable for laboratory use and taking samples. For storing chemicals and standards and for collecting and storing distilled water. The very low trace element content of LDPE makes these bottles ideal for trace element analysis. Wide neck opening for quick filling and removal of powders, paste-like substances and liquids.

- Flexible, high breaking strength
- Leak-proof



NEW / +

Delivery incl. screw-cap closure.

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
30	34	63	21	28 mm	**1L27.1**	12 unit(s)	12,45
60	39	86	21	28 mm	**1L28.1**	12 unit(s)	15,40
125	50	99	28	38 mm	**1L29.1**	12 unit(s)	20,45
250	61	131	33	43 mm	**1L2A.1**	12 unit(s)	26,20
500	73	168	44	53 mm	**1L2C.1**	12 unit(s)	42,25
1,000	91	199	53	63 mm	**1L2E.1**	6 unit(s)	28,35

Narrow mouth bottle

Nalgene. Material: LDPE, screw top made of PP.

Type 2003. Higher transparency, flexibility and impact strength than HDPE bottles. LDPE has a low trace element content and, therefore, is suitable for use in trace analysis after appropriate cleaning. **Leak-proof**.



Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
8	25	45	20 mm	**ATH1.1**	12 unit(s)	13,20
15	25	58	20 mm	**ATH2.1**	12 unit(s)	14,25
30	34	63	20 mm	**ATH3.1**	12 unit(s)	15,00
60	39	86	20 mm	**ATH4.1**	12 unit(s)	17,50
125	50	101	24 mm	**ATH5.1**	12 unit(s)	20,70
250	61	133	24 mm	**ATH6.1**	12 unit(s)	28,20
500	73	170	28 mm	**ATH7.1**	12 unit(s)	41,00
500	73	168	38-430	**ATH8.1**	12 unit(s)	61,25
1,000	91	199	38-430	**ATH9.1**	6 unit(s)	34,35

Wide mouth bottle brown

Kautex. Material: LDPE.

For protecting light-sensitive samples from UV rays. With screw cap.



Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	39	77	**T508.1**	10 unit(s)	18,50
100	48	93.5	**T509.1**	10 unit(s)	22,25
250	64	120	**T510.1**	10 unit(s)	27,85
500	77	154	**T511.1**	10 unit(s)	43,65
1,000	95	205	**T512.1**	4 unit(s)	29,05

Plastic bottles, LDPE

Narrow mouth bottle 301

Kautex. Material: LDPE.
Flexible, transparent and leak-proof. **Suitable for foodstuffs.**



Delivery incl. screw-cap closure. Drip and spray closures available as an option, please order separately.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
10	26	46.5	9.2	14 mm	**1E38.1**	100 unit(s)	70,25
20	31.5	56.5	9.2	14 mm	**1E39.1**	100 unit(s)	79,05
30	33.5	68.5	9.2	14 mm	**1E3A.1**	100 unit(s)	93,90
50	37.5	86	12.9	18 mm	**1E3C.1**	50 unit(s)	58,95
100	47	105	12.9	18 mm	**1E3E.1**	20 unit(s)	24,95
200	57.5	133	12.9	18 mm	**1E3H.1**	10 unit(s)	18,10
250	61.3	140	19	25 mm	**1E3K.1**	10 unit(s)	20,55
500	75	177	19	25 mm	**1E3L.1**	10 unit(s)	33,65
1,000	97.5	223.5	21.5	28 mm	**1E3N.1**	4 unit(s)	22,50
2,000	120	264	21.5	28 mm	**1E3P.1**	1 unit(s)	8,20
3,000	138	300	23.8	32 mm	**1E3T.1**	1 unit(s)	12,50
5,000	162	355	30.8	40 mm	**1E3X.1**	1 unit(s)	18,90

Accessories for narrow mouth bottle, 301 series

Kautex.



Drip closure

Material: LDPE. Transparent with tip. **Suitable for foodstuffs.**

Delivery without caps, please order separately.

Thread	Suitable for	Art. No.	Pack Qty.	€
14 mm	10, 20, 30 ml	**1E4C.1**	100 unit(s)	26,05
18 mm	50, 100, 200 ml	**1E4E.1**	100 unit(s)	34,90
25 mm	250, 500 ml	**1E4H.1**	100 unit(s)	48,30
28 mm	1000, 2000 ml	**1E4K.1**	100 unit(s)	48,30

Caps

With retaining strap, red. For drip closures. **Suitable for foodstuffs.**

Suitable for	Art. No.	Pack Qty.	€
Drip closures: 1E4C.1, 1E4E.1, 1E4H.1, 1E4K.1	**1E4A.1**	100 unit(s)	8,55

Spray closure

Material: LDPE. Transparent with tip. **Suitable for foodstuffs.**

Thread	Suitable for	Art. No.	Pack Qty.	€
18 mm	100 ml	**1E44.1**	10 unit(s)	14,95
18 mm	200 ml	**1E45.1**	10 unit(s)	14,95
25 mm	250 ml	**1E46.1**	10 unit(s)	16,75
25 mm	500 ml	**1E47.1**	10 unit(s)	16,75
28 mm	1000 ml	**1E48.1**	10 unit(s)	18,15
28 mm	2000 ml	**1E49.1**	10 unit(s)	18,15

Plastic bottles, LDPE

Narrow mouth bottle 310

Kautex. Material: HDPE.

Transparent, leak-proof. Space-saving narrow mouth bottle thanks to its square cross-section, with recessed label space.
For sampling, storage and transportation of liquids. **Suitable for foodstuffs.**



Delivery without screw-cap closure, please order separately.

Vol. (ml)	Width (mm)	Depth (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
100	45	45	108	17	32 mm	**1E52.1**	10 unit(s)	16,25
250	60	60	136	17	32 mm	**1E53.1**	10 unit(s)	22,20
500	74	74	170	17	32 mm	**1E54.1**	10 unit(s)	26,20
1,000	85	85	220	17	32 mm	**1E55.1**	4 unit(s)	15,80
2,500	122	122	272	28	45 mm	**1E56.1**	3 unit(s)	25,20

Accessories for narrow mouth bottle, 310 series

Kautex.



Tamper-evident cap
Material: PP red, with PE foam insert and tamper-evident band.

Thread	Suitable for	Art. No.	Pack Qty.	€
32 mm	100-1000 ml	**1E5E.1**	10 unit(s)	5,30

Tamper-evident cap
Material: PP blue, with conical seal and tamper-evident band. **Suitable for foodstuffs.**

Thread	Suitable for	Art. No.	Pack Qty.	€
32 mm	100-1000 ml	**1E59.1**	10 unit(s)	3,95
45 mm	2500 ml	**1E5A.1**	10 unit(s)	7,50

Tamper-evident cap
Material: PP white/blue, **push-turn system**, conical seal and tamper-evident band.

Thread	Suitable for	Art. No.	Pack Qty.	€
32 mm	100-1000 ml	**1E57.1**	10 unit(s)	10,55

Tamper-evident cap
Material: PP white/red, **push-turn system**, conical seal, tamper-evident band and degassing membrane.

Thread	Suitable for	Art. No.	Pack Qty.	€
32 mm	100-1000 ml	**1E5C.1**	10 unit(s)	58,75

Tamper-evident cap
Material: PP red, **degassing closure** with perforated PE insert and tamper-evident band.

Thread	Suitable for	Art. No.	Pack Qty.	€
32 mm	100-1000 ml	**1E58.1**	10 unit(s)	26,05

Plastic bottles, LDPE

Medium mouth bottle 307

Kautex. Material: HDPE PP screw-cap closure.

Transparent, leak-proof, with raised graduations. All-purpose bottle for universal laboratory and industrial applications. The size of the mouth opening ensures that the bottle can be easily filled with powders, granulates and paste-like media and is easy to clean.



Delivery incl. screw-cap closure.

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
100	46	99.5	19	25 mm	**1E84.1**	20 unit(s)	21,70
250	61	129.5	24	28 mm	**1E85.1**	10 unit(s)	16,10
500	77	161	30.8	40 mm	**1E86.1**	10 unit(s)	26,85
1,000	97	203	39.2	50 mm	**1E87.1**	4 unit(s)	16,60

Wide mouth bottle 303

Kautex. Material: LDPE.

Flexible, transparent, leak-proof. The wide opening enables easy filling and cleaning. For sampling, storage and transportation of liquids, paste-like media and granulates. **Suitable for foodstuffs.**



Delivery incl. screw-on lid.

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
50	39	76	23.8	32 mm	**1E7K.1**	50 unit(s)	73,30
100	48	93.5	23.8	32 mm	**1E7L.1**	20 unit(s)	35,65
200	59	114	30.8	40 mm	**1E7N.1**	10 unit(s)	22,80
250	64	120	30.8	40 mm	**1E7P.1**	10 unit(s)	23,95
300	67.5	128	30.8	40 mm	**1E7T.1**	10 unit(s)	27,40
500	77	154	39.2	50 mm	**1E7X.1**	10 unit(s)	38,70
750	88	173	39.2	50 mm	**1E7Y.1**	5 unit(s)	24,30
1,000	95	205	50	65 mm	**1E80.1**	4 unit(s)	24,95
1,500	108	226	50	65 mm	**1E81.1**	4 unit(s)	31,30
2,000	120	247	50	65 mm	**1E82.1**	1 unit(s)	9,10

Narrow mouth bottle

Nalgene. Material: HDPE, PP screw-cap closures.

Type 2002. For general laboratory use. Good chemical resistance to many acids and bases. **Leak-proof**.



Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
4	16	41	8	**PX58.1**	12 unit(s)	11,90
8	25	45	14	**PX59.1**	12 unit(s)	12,05
15	25	58	14	**PX60.1**	12 unit(s)	12,70
30	34	61	14	**PX61.1**	12 unit(s)	14,10
60	37	85	14	**PX62.1**	12 unit(s)	16,90
125	50	101	18	**PX63.1**	12 unit(s)	19,70
250	61	133	18	**PX64.1**	12 unit(s)	26,90
500	73	170	21	**PX65.1**	12 unit(s)	37,60
1,000	91	216	27	**PX66.1**	6 unit(s)	31,35

Plastic bottles, HDPE

Round bottle 321 „Variopack Dual“ COEX



Kautex. Material: HDPE with PA barrier layer (inner).
White, leak-proof. For sampling, storage and transportation of liquids.

- High-quality special packaging bottle with a polyamide barrier layer
- For highly volatile or strong smelling media with a high permeation rate
- **Not suitable for foodstuffs**

Delivery without screw-cap closure, please order separately.

Vol. (ml)	Ø ext. (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
250	62.5	131.3	42	50 mm	**1ELP.1**	252 unit(s)	591,25
500	69	186.5	42	50 mm	**1ELT.1**	152 unit(s)	487,00
1,000	88.5	234	42	50 mm	**1ELX.1**	80 unit(s)	461,20

Accessories tamper-evident cap for round neck bottle series 321

Kautex. Material: HDPE with PA/PE/PA insert.
White. **Not suitable for foodstuffs.**

Thread	Suitable for	Art. No.	Pack Qty.	€
50 mm	250/500/1000 ml	**1ELY.1**	100 unit(s)	114,10

Narrow mouth bottle ROTILABO® SafeGrip



ROTH SELECTION. Material: HDPE, tamper evident closure with PTFE seal.
Square. Thread GL 32.

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
50	40	40	79	18	**HH14.1**	10 unit(s)	30,30
100	46	46	108	18	**HH15.1**	10 unit(s)	34,25
250	60	60	136	18	**HH16.1**	10 unit(s)	40,85
500	75	75	169	18	**HH17.1**	10 unit(s)	43,20

Narrow mouth bottle brown



Nalgene. Material: HDPE.
Type 2004. For protecting light-sensitive samples from UV rays.
With screw cap. **Leak-proof.**

Vol. (ml)	Ø ext. (mm)	Total height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
4	16	41	8	**APK6.1**	12 unit(s)	20,50
8	25	45	14	**APK7.1**	12 unit(s)	20,45
15	25	58	14	**AN71.1**	12 unit(s)	21,55
30	34	61	14	**AK57.1**	12 unit(s)	27,65
60	37	85	14	**AK58.1**	12 unit(s)	29,00
125	50	101	18	**AK59.1**	12 unit(s)	35,40
250	61	133	18	**AK60.1**	12 unit(s)	47,55
500	73	170	21	**AK61.1**	12 unit(s)	66,40
1,000	91	216	27	**AK62.1**	6 unit(s)	59,30

Plastic bottles, HDPE

Narrow mouth bottle fluorinated

Nalgene. Material: HDPE, fluorinated, PP screw cap.

Type 2097. Particularly suited to storing aggressive chemicals. Fluorinated interior and exterior lower the diffusion and penetration of solvents and ensure long-term storage with low loss by evaporation. Especially resistant to rips and breaks as well as puncture damage. Suitable for most acids and organic solvents. **Leak-proof.**



Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
250	61	133	17	**C471.1**	12 unit(s)	51,25
500	73	171	21	**C472.1**	12 unit(s)	68,55
1,000	92	216	27	**C473.1**	6 unit(s)	61,55
2,000	122	246	27	**C474.1**	2 unit(s)	64,35
4,000	153	334	27	**C475.1**	1 unit(s)	45,60

Wide mouth bottle

Nalgene. Material: HDPE, screw top made of PP.

Durable all-purpose bottles, for universal use in the laboratory and during sampling. Wide mouth opening allows easy filling of dry matter and liquids. **Leak-proof**.



Type 2104, transparent

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
30	34	63	21	**PX93.1**	12 unit(s)	16,20
60	39	86	21	**PX94.1**	12 unit(s)	19,00
125	50	99	28	**PX95.1**	12 unit(s)	25,35
250	61	131	33	**PX96.1**	12 unit(s)	31,85
500	73	168	44	**PX97.1**	12 unit(s)	52,35
1,000	91	199	53	**PX98.1**	6 unit(s)	35,55

Type 2106, brown

Material: Screw top made of PP. For storing light-sensitive substances.

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
30	34	63	21	**ATE1.1**	12 unit(s)	35,80
60	39	86	21	**ATE2.1**	12 unit(s)	37,95
125	50	99	28	**ATE3.1**	12 unit(s)	42,20
250	61	131	33	**ATE4.1**	12 unit(s)	62,90
500	73	168	44	**ATE5.1**	12 unit(s)	76,70
1,000	91	199	53	**ATE6.1**	6 unit(s)	70,70

Wide mouth bottle sealable

Bürkle. Material: HDPE.

Stable wide mouth bottles with sealing eyelets on the screw cap and bottle. Impervious to fluids. Suitable for storing and shipping specimens. Specially designed for viscous media, powders, granulates and pastes. Sealing eyelets, please order separately.



Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
250	64	118	26.5	**PK54.1**	25 unit(s)	72,90
500	78	147	40	**PK55.1**	10 unit(s)	31,50
1,000	100	186	50	**PK56.1**	10 unit(s)	58,90
2,000	120	230	50	**PK57.1**	1 unit(s)	9,30

Plastic bottles, HDPE

Accessories protective seals

Bürkle. Material: PP.

For sealable wide mouth bottles. Colour red. Uniquely identifiable by a continuous 9-digit number. The ring lock is secured in the locking chamber by a metal insert made of stainless spring steel. With disposable pull mechanism for protection against manipulation. Dimensions: Length 260 mm, band Ø 2 mm.

Version	Art. No.	Pack Qty.	€
Protective seals	**PK58.1**	10 unit(s)	12,35

Wide mouth bottle

Corning. Material: HDPE.

For sampling, packing and storage of liquid, solid and pasty media. Heavy metal free acc. to EC/94/62. Temperature stability -80 to +110 °C. Leak-proof. Also available sterile (ionising radiation, SAL^{-3}) .



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Delivery incl. attached HDPE screw cap with PE seal.

Vol. (ml)	Sterility	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
50	Non-sterile	36	77	27	**CCY4.1**	600 unit(s)	592,35
100	Non-sterile	51	80	37	**CCY5.1**	335 unit(s)	308,55
100	**Sterile**	51	80	37	**CEA0.1**	335 unit(s)	365,50
250	Non-sterile	60	125	37	**CCY6.1**	145 unit(s)	144,35
250	**Sterile**	60	125	37	**CEA1.1**	145 unit(s)	170,95
500	Non-sterile	80	136	58	**CCY7.1**	140 unit(s)	167,70
500	**Sterile**	80	136	58	**CEA2.1**	140 unit(s)	226,85
1,000	Non-sterile	101	174	58	**CCY8.1**	68 unit(s)	118,30
1,000	**Sterile**	101	174	58	**CEA3.1**	68 unit(s)	145,65
2,000	Non-sterile	121	220	57	**CCY9.1**	25 unit(s)	135,85

Narrow mouth bottle ROTILABO® square

ROTH SELECTION. Material: HDPE.

Rectangular. For storing, packaging and sampling chemicals. With blue, tamper evident screw cap.



Vol. (ml)	Thread	Art. No.	Pack Qty.	€
100	GL 32	**5698.1**	10 unit(s)	15,50
250	GL 32	**5706.1**	10 unit(s)	18,45
500	GL 32	**5713.1**	10 unit(s)	16,70
1,000	GL 32	**5717.1**	10 unit(s)	23,50

Plastic bottles, HDPE

Narrow mouth bottle square

Bürkle. Material: HDPE, LDPE screw cap.
With labelling space. For packaging and storing liquids.



Vol. (ml)	Width (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
100	34	113	13.0	18 mm	**KA91.1**	10 unit(s)	10,40
250	44	160	17.5	25 mm	**KA92.1**	10 unit(s)	15,60
500	53	182	17.5	25 mm	**KA93.1**	10 unit(s)	18,40
1,000	64	230	17.5	25 mm	**KA94.1**	10 unit(s)	27,95

Narrow mouth bottle ROTILABO® for dispensing systems

ROTH SELECTION. Material: HDPE, screw-cap closure made of PP.
500 ml dispenser bottle suitable for soap and disinfectant dispenser plus, Art. No. TE53.1 and CTA8.1. 1000 ml dispenser bottle suitable for Art. No. TE54.1 and CTA9.1.



NEW/+

Delivery incl. screw-cap closure, colour: red.

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
500	71	57	165	20	DIN 25	**KA39.1**	6 unit(s)	9,55
1,000	87	71	210	20	DIN 25	**KA40.1**	6 unit(s)	11,90

Delivery without screw-cap closure, please order separately.

Not a medical device / Not an IVD product

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
250	55	47	135	20	DIN 25	**1LEA.1**	6 unit(s)	4,10
500	71	57	165	20	DIN 25	**1LEC.1**	6 unit(s)	6,80
1,000	87	71	210	20	DIN 25	**1LEE.1**	6 unit(s)	9,25

Accessories screw-cap closure for ROTILABO® narrow mouth bottle

NEW/+

ROTH SELECTION. Material: PP.

Not a medical device / Not an IVD product

Colour	Thread	Suitable for	Art. No.	Pack Qty.	€
red	DIN 25	250-1000 ml	**1LE9.1**	6 unit(s)	1,70
black	DIN 25	250-1000 ml	**1LE8.1**	6 unit(s)	1,70
white	DIN 25	250-1000 ml	**1LE7.1**	6 unit(s)	1,70

Plastic bottles, HDPE

Wide mouth bottle square

Kartell. Material: HDPE, with stopper and screw cap made from PP.
Graduated. **Sealable**.



Vol. (ml)	Graduations (ml)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
25	5	32	34	50	18	**K811.1**	10 unit(s)	9,05
50	10	37	39	70	24	**K812.1**	10 unit(s)	10,40
100	20	42	48	90	34	**K813.1**	10 unit(s)	13,65
250	50	57	60	110	34	**K814.1**	10 unit(s)	15,50
500	100	70	80	140	44	**K815.1**	1 unit(s)	2,70
1,000	100	80	103	175	58	**K816.1**	1 unit(s)	3,60
2,000	100	100	135	210	58	**K817.1**	1 unit(s)	5,50

Wide mouth bottle square

Nalgene. Material: HDPE, screw top made of PP.
Type 2007. Robust and strong-walled design. Easy to fill thanks to the wide mouth opening. Space-saving, rectangular shape. For storing and transporting liquids and solids. **Leak-proof**.



Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
125	64	38	102	28 mm	**C488.1**	12 unit(s)	31,75
250	76	48	114	38 mm	**C489.1**	12 unit(s)	47,25
500	94	58	140	48 mm	**C490.1**	12 unit(s)	73,95
1,000	125	71	180	53 mm	**C491.1**	6 unit(s)	82,20
2,000	152	81	239	63 mm	**C492.1**	4 unit(s)	90,45

Wide mouth bottle square

Nalgene. Material: HDPE, translucent. Screw-cap closure made of PP.
Type 2123. Space-saving square shape. With integrated handle. Suitable for collecting, storing and transporting dry chemicals and environmental samples. Temperature stable up to -100 °C.

- Wide neck for easy filling
- Not leak-proof



NEW / +

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Delivery incl. screw-cap closure.

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
4,000	140	140	279	89	100 mm	**1L2N.1**	1 unit(s)	27,95

Plastic bottles, HDPE

Wide mouth bottle square brown

Nalgene. Material: HDPE, screw top made of PP.

Type 2009. For protecting light-sensitive samples from UV rays. Robust and space-saving design. **Leak-proof.**



Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
125	64	38	102	28 mm	**C459.1**	12 unit(s)	48,50
250	76	48	114	38 mm	**C460.1**	12 unit(s)	66,20
500	94	58	140	48 mm	**C461.1**	12 unit(s)	93,75
1,000	125	71	180	53 mm	**C462.1**	6 unit(s)	103,15
2,000	152	81	239	63 mm	**C463.1**	4 unit(s)	104,55

Narrow neck bottle with flap closure

Bürkle. Material: HDPE, closure made of PP.

Round bottle with hinged closure, particularly suitable for liquids, emulsions, creams and oils.
Flap closure with hole Ø 3 mm.



Vol. (ml)	Height (mm)	Art. No.	Pack Qty.	€
100	115	**1CCL.1**	10 unit(s)	16,75
250	143	**1CCN.1**	10 unit(s)	21,05
500	182	**1CCP.1**	10 unit(s)	28,60
1,000	221	**1CCT.1**	5 unit(s)	19,65

Bottle for heavy-duty use

Nalgene. Material: HDPE, screw-cap closure made of PP, white.

Type 2125. Thick-walled bottle with very wide mouth for heavy-duty use. Suitable for storing and transporting liquids and solids.

- Robust and shock-resistant
- Leak-proof
- Not suitable for vacuum applications



NEW / +

Delivery incl. screw-cap closure.

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
1,000	93	226	39	53 B	**1L24.1**	1 unit(s)	13,65
2,000	119	260	39	53 B	**1L25.1**	1 unit(s)	18,05
4,000	155	338	65	83 B	**1L26.1**	1 unit(s)	42,00

Plastic bottles, PP

Vacuum bottle type 2126

Nalgene. Material: PP, TPE seal. Autoclavable: Yes.

Stable and thick-walled. **Leak-proof.** Suitable as vacuum trap or as storage bottle for analytical or dispensing apparatus. Vacuum tight up to 0.1 mbar, for up to 24 hours at 20 °C.



A 121 °C

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
1,000	93	226	53 B	**PK40.1**	1 unit(s)	37,05
2,000	119	260	53 B	**PK41.1**	1 unit(s)	43,55
4,000	155	338	83 B	**PK42.1**	1 unit(s)	72,05
5,000	156	414	83 B	**PK43.1**	1 unit(s)	106,20

Narrow mouth bottle

Nalgene. Material: PP. Autoclavable: Yes.

Type 2006. Suitable for general laboratory use. Good chemical resistance. **Leak-proof.**



A 121 °C

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
4	16	41	8	**PT86.1**	12 unit(s)	14,70
8	25	45	14	**PT87.1**	12 unit(s)	12,80
15	25	58	14	**PT88.1**	12 unit(s)	13,30
30	34	61	14	**PT89.1**	12 unit(s)	14,05
60	37	85	14	**PT90.1**	12 unit(s)	14,90
125	50	101	18	**PT91.1**	12 unit(s)	17,85
250	61	133	18	**PT92.1**	12 unit(s)	26,70
500	73	170	21	**PT93.1**	12 unit(s)	43,30
1,000	91	216	27	**PT94.1**	6 unit(s)	30,70

Plastic bottles, PP

Wide mouth bottles

Nalgene. Material: PP. Autoclavable: Yes.

Type 2105. Suitable for general laboratory use. Good chemical resistance. **Leak-proof**.



A 121 °C

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
30	34	63	21	**PY08.1**	12 unit(s)	16,60
60	39	86	21	**PY09.1**	12 unit(s)	19,95
125	50	99	28	**PY10.1**	12 unit(s)	29,30
250	61	131	33	**PY11.1**	12 unit(s)	37,50
500	73	168	44	**PY12.1**	12 unit(s)	61,10
1,000	91	199	53	**PY13.1**	6 unit(s)	37,10

Wide mouth bottle

Nalgene. Material: PP, translucent. Autoclavable: Yes.

Type 2121. Large volume general purpose bottle for a wide variety of laboratory and industrial applications. Suitable for autoclaving large volumes of liquid. Unscrew the cap and place it on the bottle before autoclaving.

- Good chemical resistance
- Not leak-proof



NEW / +

A 121 °C

Delivery incl. screw-cap closure.

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
2,000	120	244	89	100 mm	**1L2H.1**	1 unit(s)	19,55
4,000	153	288	89	100 mm	**1L2K.1**	1 unit(s)	26,15

Wide mouth bottle square

Nalgene. Material: PP, translucent. Autoclavable: Yes.

Type 2122. Space-saving square shape. With integrated handle. Suitable for storing and sterilising contaminated microscope slides and other small laboratory items, and for collecting, storing and transporting dry chemicals and environmental samples. Unscrew the cap and place it on the bottle before autoclaving.

- Wide neck for easy filling
- Not leak-proof



NEW / +

A 121 °C

Delivery incl. screw-cap closure.

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
4,000	140	140	279	89	100 mm	**1L2L.1**	1 unit(s)	29,95

Plastic bottles, PP

Wide mouth bottle with graduations

Kautex. Material: PP, natural colours. Autoclavable: Yes.
Ideal for paste-like media, granulates and products in hot-filling.



A 121 °C

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
100	48.5	94	24	**T486.1**	10 unit(s)	23,90
250	64.5	121	30	**T487.1**	10 unit(s)	30,95
500	77.5	155	39	**T488.1**	10 unit(s)	47,75
1,000	96.0	206	50	**T489.1**	4 unit(s)	30,35

Narrow mouth bottle GL 45

Vitlab. Material: PP, flexible, transparent. Autoclavable: Yes.
Chemically (formalin, ethanol) and radiation sterilisable (β rays, 25kGy), microwave safe. Art. No. PY05.1 with handle.

A 121 °C

Delivery incl. PP screw cap.

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
250	73	132	GL 45	**PY01.1**	1 unit(s)	4,85
500	87	172	GL 45	**PY02.1**	1 unit(s)	6,05
1,000	105	197	GL 45	**PY03.1**	1 unit(s)	10,20
2,000	131	241	GL 45	**PY04.1**	1 unit(s)	12,75
5,000	178	315	GL 45	**PY05.1**	1 unit(s)	22,25

Wide mouth bottle fluoroplastics

Vitlab. Material: PFA, Pure. Autoclavable: Yes.
With fully sealing screw cap. Suitable for trace analysis and long-term storage of highly pure oxidants, acids and bases as well as hydrocarbons, solvents and standards.

- Temperature stable in the range -200 to +250 °C
- Chemically resistant to nearly all chemicals
- Good transparency and shape stability
- Practically no displacement or cross-contamination as the surfaces are extremely hydrophobic, anti-adhesive and flat
- Long durability of low concentrated reference material in PFA vessels
- Easy to clean
- No memory effect



A 121 °C ❄❄❄

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
50	37	86	S 28	**9702.1**	1 unit(s)	85,75
100	45	120	S 28	**9703.1**	1 unit(s)	130,75
250	61	150	S 40	**9704.1**	1 unit(s)	149,80
500	76	179	S 40	**9705.1**	1 unit(s)	208,55
1,000	96	217	S 40	**9706.1**	1 unit(s)	289,20

Plastic bottles, PFA/PTFE

Wide mouth bottle fluoroplastics

Saint-Gobain. Material: PFA, highly transparent. Autoclavable: Yes.
Graduated, **anti-spill**. Microwave safe.

- Temperature resistant in the range -196 to +250 °C
- Inert to virtually all chemicals, including hydrofluoric and nitric acid
- High purity, low metal ion content, ideal for use in trace analysis and for the storage of highly pure substances
- No memory effect
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning

A 121 °C ❄❄❄

Vol. (ml)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
20	60.3	16.4	**YY67.1**	1 unit(s)	45,85
100	106.5	25.7	**YY68.1**	1 unit(s)	116,65
250	136.8	25.7	**YY69.1**	1 unit(s)	166,65
500	173.8	33.9	**YY70.1**	1 unit(s)	260,15
1,000	207.2	36.8	**YY71.1**	1 unit(s)	422,50

Narrow mouth bottle fluoroplastics

Saint-Gobain. Material: PFA, highly transparent. Autoclavable: Yes.
Graduated, **anti-spill**. Microwave-safe.

- Temperature-resistant in the range -196 to +250 °C
- Inert to virtually all chemicals, including hydrofluoric and nitric acid
- High purity, low metal ion content, ideal for use in trace analysis and for the storage of highly pure substances
- No memory effect
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning

A 121 °C ❄❄❄

Vol. (ml)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
100	100.8	16.7	**YY60.1**	1 unit(s)	81,45
250	133.7	16.5	**YY61.1**	1 unit(s)	133,05
500	165.1	17.0	**YY62.1**	1 unit(s)	168,80
1,000	202.4	25.3	**YY63.1**	1 unit(s)	299,95
2,000	235.0	33.0	**YY64.1**	1 unit(s)	858,95
3,000	269.9	36.6	**YY65.1**	1 unit(s)	906,25

Narrow mouth bottle ROTILABO® fluoroplastics

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.
With screw threading. Chemically inert. Temperature stable from -200 to +250 °C. Low gas permeability. Anti-adhesive.



A 121 °C ❄❄❄

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
1	16	27	10	**T633.1**	1 unit(s)	24,00
5	22	35	10	**T635.1**	1 unit(s)	28,95
10	26	50	12	**T636.1**	1 unit(s)	32,40
25	33	61	19	**T637.1**	1 unit(s)	43,40
50	43	76	25	**T638.1**	1 unit(s)	57,30
100	52	88	35	**T639.1**	1 unit(s)	76,50
150	60	90	35	**T640.1**	1 unit(s)	81,95
250	67	115	42	**1181.1**	1 unit(s)	97,20
500	80	150	52	**T641.1**	1 unit(s)	158,65
1,000	100	185	57	**1182.1**	1 unit(s)	224,70
2,000	120	240	60	**T642.1**	1 unit(s)	395,60

Plastic bottles, PFA/PTFE

Narrow mouth bottle square

Nalgene. Material: PC, screw-cap closure made of PP.
Autoclavable: Yes.

Type 2015. For storage of aqueous solutions and short-term storage of culture media. 2-litre size with integrated handles for easy handling.
Unscrew the screw-cap closure completely before autoclaving.
Repeated autoclaving will shorten the service life of the bottle.

- Transparent, graduated and leak-proof
- Temperature stable in the range -135 to +135 °C



NEW / +

A 121 °C

Delivery incl. screw-cap closure.

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
30	38	38	64	14	20 mm	**1L1E.1**	12 unit(s)	43,85
60	41	41	83	18	24 mm	**1L1H.1**	12 unit(s)	58,70
126	53	53	109	27	38-430	**1L1K.1**	6 unit(s)	30,35
250	61	61	146	27	38-430	**1L1L.1**	6 unit(s)	39,65
500	74	74	178	27	38-430	**1L1N.1**	4 unit(s)	42,30
1,000	92	92	218	27	38-430	**1L1P.1**	4 unit(s)	62,25
2,000	116	116	271	39	53 B	**1L1T.1**	1 unit(s)	30,40

Narrow mouth bottle

Nalgene. Material: PC, screw-cap closure made of PP.
Autoclavable: Yes.

Type 2205. For storage of aqueous solutions and short-term storage of culture media. 2 and 2.5 litre bottles can be used as vessels for layer, suspension and non-adhesive roller cultures. The 4 l and 8 l sizes have integrated eyelets for attaching a label.
Unscrew the screw-cap closure completely before autoclaving.
Repeated autoclaving will shorten the service life of the bottle.

- Transparent, shock-resistant and lightweight
- Temperature stable in the range -135 to +135 °C
- Leak-proof



NEW / +

A 121 °C

Delivery incl. screw-cap closure.

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
500	82	180	27	38-430	**1L1X.1**	4 unit(s)	39,30
1,000	99	221	27	38-430	**1L1Y.1**	4 unit(s)	54,75
2,000	121	249	27	38-430	**1L20.1**	1 unit(s)	25,85
2,500	121	295	27	38-430	**1L21.1**	1 unit(s)	33,60
4,000	121	333	27	38-430	**1L22.1**	1 unit(s)	61,35
8,000	193	409	39	53 B	**1L23.1**	1 unit(s)	94,75

UN bottles

Wide mouth bottle 310

Kautex. Material: HDPE.

White, with square cross-section, recessed label space and UN approval for solids. 50 ml wide mouth bottle without UN approval. For sampling, storage and transportation of solids.
Suitable for foodstuffs.



Delivery without screw-cap closure, please order separately.

Without UN approval

Vol. (ml)	Width (mm)	Depth (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	UN approval	Art. No.	Pack Qty.	€
50	36	36	88.5	21.4	28 mm	without	**1E5P.1**	10 unit(s)	14,65

With UN approval

Vol. (ml)	Width (mm)	Depth (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	UN approval	Art. No.	Pack Qty.	€
100	45	45	101	24	32 mm	3H1/X0.3/S	**1E5T.1**	10 unit(s)	16,30
250	59	59	129.5	35	45 mm	3H1/X0.8/S	**1E5X.1**	10 unit(s)	20,55
500	75	75	162	42.5	54 mm	3H1/X1.5/S	**1E5Y.1**	10 unit(s)	29,75
750	83	83	188	42.5	54 mm	3H1/X2.5/S	**1E60.1**	10 unit(s)	33,50
1,000	85	85	214	42.5	54 mm	3H1/X2.5/S	**1E61.1**	9 unit(s)	35,95
1,500	108	108	209	68.5	80 mm	3H1/X4/S	**1E62.1**	6 unit(s)	29,30
2,500	122	122	260	68.5	80 mm	3H1/X5/S	**1E63.1**	3 unit(s)	19,05
4,000	142	142	294	68.5	80 mm	3H1/X5.5/S	**1E64.1**	1 unit(s)	11,30

Accessories for wide mouth bottle 310 series with UN approval

Kautex.

Tamper-evident cap

Material: PP. Red, with PE foam insert and tamper-evident band.

Thread	Suitable for	Art. No.	Pack Qty.	€
28 mm	50 ml	**1E6C.1**	10 unit(s)	8,50
32 mm	100 ml	**1E6E.1**	10 unit(s)	9,20
45 mm	250 ml	**1E6H.1**	10 unit(s)	12,30
54 mm	500/750/1000 ml	**1E6K.1**	10 unit(s)	14,35
80 mm	1500/2500/4000 ml	**1E6L.1**	10 unit(s)	26,85

Tamper-evident cap

Material: PP. Blue, with conical seal and tamper-evident band. **Suitable for foodstuffs.**

Thread	Suitable for	Art. No.	Pack Qty.	€
28 mm	50 ml	**1E6N.1**	10 unit(s)	4,60
32 mm	100 ml	**1E6P.1**	10 unit(s)	9,20
45 mm	250 ml	**1E6T.1**	10 unit(s)	7,30
54 mm	500/750/1000 ml	**1E6X.1**	10 unit(s)	8,95
80 mm	1500/2500/4000 ml	**1E6Y.1**	10 unit(s)	18,60

Screw-cap closure

Material: PP. Black, with PE foam insert.

Thread	Suitable for	Art. No.	Pack Qty.	€
28 mm	50 ml	**1E66.1**	10 unit(s)	3,20
32 mm	100 ml	**1E67.1**	10 unit(s)	8,20
45 mm	250 ml	**1E68.1**	10 unit(s)	10,05
54 mm	500/750/1000 ml	**1E69.1**	10 unit(s)	12,90
80 mm	1500/2500/4000 ml	**1E6A.1**	10 unit(s)	25,45

Screwing aid

Material: HDPE. Suitable for thread Ø 32-80 mm.

Suitable for	Art. No.	Pack Qty.	€
Thread Ø 32, 45, 54, 80 mm	**1E65.1**	1 unit(s)	14,00

UN bottles

Wide mouth bottle ROTILABO®

ROTH SELECTION. Material: HDPE.

Natural colours, with square cross-section and recessed label space. Bottles from 100 ml with UN-X approval for solids. Wide mouth design makes filling easy. For sampling, storage and transportation of solids.



Delivery incl. tamper-evident PP screw top (red) with PE foam insert.

Without UN approval

Vol. (ml)	Width (mm)	Depth (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	UN approval	Art. No.	Pack Qty.	€
50	36	36	88.5	21.0	28 mm	without	**T474.1**	10 unit(s)	26,15

With UN approval

Vol. (ml)	Width (mm)	Depth (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	UN approval	Art. No.	Pack Qty.	€
100	45	45	101	24.0	32 mm	3H1/X0.3/S	**T475.1**	10 unit(s)	31,75
250	59	59	128	35.0	45 mm	3H1/X0.8/S	**T476.1**	10 unit(s)	37,65
500	75	75	161	42.5	54 mm	3H1/X1.5/S	**T477.1**	10 unit(s)	53,70
1,000	85	85	212	42.5	54 mm	3H1/X2.5/S	**T478.1**	9 unit(s)	57,75
1,500	111	111	209	68.5	80 mm	3H1/X4/S	**T479.1**	6 unit(s)	61,50
2,500	122	122	258	68.5	80 mm	3H1/X5/S	**T480.1**	3 unit(s)	35,60
4,000	142	142	294	68.5	80 mm	3H1/X5.5/S	**T481.1**	1 unit(s)	20,10

Wide mouth bottle ROTILABO®

ROTH SELECTION. Material: HDPE.

Natural colours, with square cross-section, recessed label space and UN approval for solids. 50 ml and 350 ml without UN approval. Wide mouth design makes filling easy. For sampling, storage and transportation of solids.



Delivery incl. PP screw-cap closure (black) with PE foam insert.

Without UN approval

Vol. (ml)	Width (mm)	Depth (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	UN approval	Art. No.	Pack Qty.	€
350	60	60	164	35.0	45 mm	without	**H336.1**	10 unit(s)	46,55

With UN approval

Vol. (ml)	Width (mm)	Depth (mm)	Height without closure (mm)	Ø Inner neck (mm)	Thread	UN approval	Art. No.	Pack Qty.	€
100	45	45	101	24.0	32 mm	3H1/X0.3/S	**H334.1**	30 unit(s)	80,50
250	59	59	128	35.0	45 mm	3H1/X0.8/S	**H335.1**	20 unit(s)	87,05
500	75	75	161	42.5	54 mm	3H1/X1.5/S	**H337.1**	10 unit(s)	52,70
750	85	85	185	42.5	54 mm	3H1/X2.5/S	**H338.1**	10 unit(s)	66,40
1,000	85	85	212	42.5	54 mm	3H1/X2.5/S	**H339.1**	9 unit(s)	62,35
1,500	111	111	209	68.5	80 mm	3H1/X4/S	**H340.1**	7 unit(s)	64,00
2,500	122	122	258	68.5	80 mm	3H1/X5/S	**H341.1**	3 unit(s)	35,00
4,000	142	142	294	68.5	80 mm	3H1/X5.5/S	**H342.1**	1 unit(s)	18,95

UN bottles

Narrow mouth bottle ROTILABO® with UN approval

ROTH SELECTION. Material: HDPE, tamper evident PE screw cap with a PTFE sealing ring.

Natural colours. Thread GL 45. For storing and transporting liquids.



Volume: 1000 ml, square

Vol. (ml)	Width (mm)	Depth (mm)	Height (mm)	Thread	UN approval	Art. No.	Pack Qty.	€
1,000	97	97	219	GL 45	3H1/X1.9/250	**T502.1**	6 unit(s)	20,80

Volume: 2500 ml, round, with handles on the side

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	UN approval	Art. No.	Pack Qty.	€
2,500	132	293	GL 45	1H1/X1.3 Y1.9/250	**T503.1**	2 unit(s)	7,35

Screw top bottle DURAN® stainless steel GL 45

DWK Life Sciences. Material: Stainless steel 1.4404. Autoclavable: Yes.

With smooth inner surface (acc. to IIIc DIN 17441) and rounded inside edges for complete drainage and easy cleaning. Temperature stability up to +500 °C.

- Shatterproof
- Light-impermeable
- Chemical resistant (except halogen-containing media



A 121 °C

DURAN WHEATON KIMBLE

(1) UN-approved transport bottle

For safe transport of dangerous and flammable liquids, for storing high-value materials like speciality chemicals, pharmaceutical or cosmetic products, as well as for storing light-sensitive materials.

The UN approval means no additional packaging is required. Approved for the conveyance of liquids with a relative density of up to 2.0 classified into UN packaging group I, II or III as hazardous goods.

Delivery incl. screw top made of stainless steel with PTFE seal.

Vol. (ml)	Thread	UN approval	Art. No.	Pack Qty.	€
1,500	GL 45	1A1/X2,0/1000	**AAC4.1**	1 unit(s)	666,00

(2) Non-UN-approved storage bottle

For the storage of aggressive media, high-purity fine chemicals, pharmaceuticals and cosmetic products as well as light-sensitive materials.

Delivery without cap, please order separately.

Vol. (ml)	Thread	UN approval	Art. No.	Pack Qty.	€
1,500	GL 45	without	**AAC5.1**	1 unit(s)	604,00

UN bottles

Narrow mouth bottle ROTILABO® aluminium

ROTH SELECTION. Material: Aluminium 99.5%, PP screw cap with aluminium internal seal.

With tamper-evident cap. For the storage and transportation of substances and retained samples. Bottles of 60 ml and larger with **UN approval 1B1/X/250.** Seamlessly finished, can be totally emptied. Neutral odour, impervious to light, rustproof and shatterproof.



Vol. (ml)	Ø (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
30	35	70	without	**XY65.1**	10 unit(s)	20,65
60	40	88	1B1/X/250	**P791.1**	10 unit(s)	22,85
120	57	97	1B1/X/250	**P792.1**	10 unit(s)	27,10
300	57	160	1B1/X/250	**P793.1**	10 unit(s)	39,15
600	74	192	1B1/X/250	**P794.1**	5 unit(s)	25,60
1,200	88	248	1B1/X/250	**P795.1**	5 unit(s)	28,95

Narrow mouth bottle aluminium with UN approval

Bürkle. Material: Aluminium 99.5%, screw cap with FKM seal.

Leak-proof. **UN approval 1B1/X/250**, suitable for transportation and storage of hazardous substances. Sealable, impervious to light.



Vol. (ml)	Ø (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
125	50	105	1B1/X/250	**XY66.1**	1 unit(s)	23,60
250	65	140	1B1/X/250	**XY67.1**	1 unit(s)	27,85
500	80	145	1B1/X/250	**XY68.1**	1 unit(s)	33,10
1,250	100	205	1B1/X/250	**XY69.1**	1 unit(s)	35,80

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Wash bottles



121 °C

Wash bottle ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.

Spray bottle consisting of flat-bottomed flask with sleeve NS 29/32 and spray bottle attachment.

Delivery without suction aid, please order separately.

Vol. (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
250	29/32	**ACK8.1**	1 unit(s)	68,80
500	29/32	**ACK9.1**	1 unit(s)	72,25
1,000	29/32	**ACL0.1**	1 unit(s)	90,95



Wash bottle ROTILABO® wide neck

ROTH SELECTION. Material: LDPE.

Comes with trilingual contents label and hazard identification symbol to GHS. Spray cap, colour-coded. Empties completely due to shiftable riser.

Note: The chemical resistance of the spray bottles is limited when aggressive filling media are used. The bottles should therefore be replaced regularly and not used for analytical or critical applications.

Version	Vol. (ml)	Art. No.	Pack Qty.	€
Acetone	250	**T398.1**	1 unit(s)	6,60
Acetone	500	**T399.1**	1 unit(s)	8,25
Ethanol	250	**T400.1**	1 unit(s)	6,60
Ethanol	500	**T401.1**	1 unit(s)	8,25
Methanol	250	**T404.1**	1 unit(s)	6,60
Methanol	500	**T405.1**	1 unit(s)	8,25
Isopropanol	250	**T402.1**	1 unit(s)	6,60
Isopropanol	500	**T403.1**	1 unit(s)	8,25
Distilled water	250	**T406.1**	1 unit(s)	6,60
Distilled water	500	**T407.1**	1 unit(s)	8,25



Wash bottle ROTILABO® with overpressure valve

ROTH SELECTION.

Material: LDPE (bottle types Acetone and MEK made of PP), screw cap and spray pipe made of PP.
Overpressure valve in the screw cap extensively prevents leakage, dripping or escape of the liquid from the spray pie, e.g. in the case of temperature fluctuations.
With permanent four-language content imprint (German, English, French, Spanish) and hazard warning acc. to GHS.

Note: The chemical resistance of the spray bottles is limited when aggressive filling media are used. The bottles should therefore be replaced regularly and not used for analytical or critical applications.

Volume 500 ml

Version	Vol. (ml)	Thread	Art. No.	Pack Qty.	€
Dist. water	500	GL 25	**HL52.1**	1 unit(s)	10,70
Acetone	500	GL 25	**HL51.1**	1 unit(s)	10,70
Ethanol	500	GL 25	**HL54.1**	1 unit(s)	10,70
Isopropanol	500	GL 25	**HL55.1**	1 unit(s)	10,70
Methyl ethyl ketone (MEK)	500	GL 25	**PY44.1**	1 unit(s)	10,70

Volume 1000 ml

Version	Vol. (ml)	Thread	Art. No.	Pack Qty.	€
Dist. water	1,000	GL 32	**HL58.1**	1 unit(s)	12,85
Acetone	1,000	GL 32	**HL57.1**	1 unit(s)	12,85
Ethanol	1,000	GL 32	**HL59.1**	1 unit(s)	12,85
Isopropanol	1,000	GL 32	**HL61.1**	1 unit(s)	12,85



Wash bottle ROTILABO®

ROTH SELECTION. Material: LDPE transparent.

Height data without riser.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	60	145	**5330.1**	1 unit(s)	5,35
500	75	180	**5331.1**	1 unit(s)	6,15
1,000	100	230	**5332.1**	1 unit(s)	8,10

Spray bottles set ROTILABO®

ROTH SELECTION.

Consisting of 3 wash bottles, volumes 250, 500 and 1000 ml.

Version	Art. No.	Pack Qty.	€
Spray bottle set ROTILABO®	**5333.1**	1 set	14,65

Wash bottles

Wash bottle

Vitlab. Material: LDPE, transparent, screw cap and spray tube with elongated tip made of PP.

Narrow neck

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
50	37	73	GL 18	**XY89.1**	1 unit(s)	5,25
100	43	95	GL 18	**XY90.1**	1 unit(s)	5,50
250	58	135	GL 25	**XY91.1**	1 unit(s)	6,05
500	74	180	GL 25	**XY93.1**	1 unit(s)	8,00
1,000	92	221	GL 32	**XY95.1**	1 unit(s)	9,35

Wide neck

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
250	58	146	GL 45	**XY92.1**	1 unit(s)	6,70
500	76	166	GL 45	**XY94.1**	1 unit(s)	8,45
1,000	91	226	GL 63	**XY96.1**	1 unit(s)	11,25

Screw closures

Vitlab. Autoclavable: Yes.
With integrated lip seal, leak-proof.



A 121 °C

Polypropylene

Material: PP.

Thread	Art. No.	Pack Qty.	€
GL 18	**YA32.1**	24 unit(s)	19,90
GL 25	**YA33.1**	12 unit(s)	10,00
GL 32	**YA34.1**	12 unit(s)	11,50
GL 40	**YA35.1**	12 unit(s)	22,95
GL 45	**YA36.1**	12 unit(s)	20,45
GL 52	**YA37.1**	12 unit(s)	23,25
GL 56	**YA38.1**	12 unit(s)	26,45
GL 63	**YA39.1**	12 unit(s)	22,75

Perfluoralkoxy

Material: PFA.

Thread	Art. No.	Pack Qty.	€
GL 18	**YA40.1**	1 unit(s)	7,15
GL 25	**YA41.1**	1 unit(s)	12,95
S 28	**YA42.1**	1 unit(s)	32,20
S 40	**YA43.1**	1 unit(s)	38,35

Wash bottles

Wash bottle ROTILABO®

ROTH SELECTION. Material: LDPE, screw cap and spray tube made of PP.

Precision jet and optimised medium backflow through fine tip of spray tube. Easy identification thanks to selection of differently coloured bottled. Height data without riser.



Volume 250 ml

Vol. (ml)	Colour	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
250	red	58	135	GL 25	**APK1.1**	1 unit(s)	7,55
250	green	58	135	GL 25	**APK2.1**	1 unit(s)	7,55
250	yellow	58	135	GL 25	**APK3.1**	1 unit(s)	7,55
250	blue	58	135	GL 25	**APK4.1**	1 unit(s)	7,55

Volume 500 ml

Vol. (ml)	Colour	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
500	red	75	180	GL 25	**6530.1**	1 unit(s)	8,00
500	green	75	180	GL 25	**6533.1**	1 unit(s)	8,00
500	yellow	75	180	GL 25	**6536.1**	1 unit(s)	8,00
500	blue	75	180	GL 25	**6539.1**	1 unit(s)	8,00

Spray bottles set ROTILABO®

ROTH SELECTION.

Consisting of 4 wash bottles volume 500 ml in red, green, yellow and blue.

Version	Art. No.	Pack Qty.	€
Spray bottle set ROTILABO®	**APK5.1**	1 set	29,10

Wash bottle ROTILABO®

ROTH SELECTION. Material: PE.

With integrated stable riser and removable sealing cap.



Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	90	60	140	**Y801.1**	1 unit(s)	5,50
500	96	65	178	**Y802.1**	1 unit(s)	6,60

Wash bottles



Wash bottle

Kartell. Material: PE.

With curved riser and removable spray nozzle.

Vol. (ml)	Ø (mm)	Art. No.	Pack Qty.	€
50	35	**Y767.1**	1 unit(s)	3,10
100	43	**Y768.1**	1 unit(s)	3,10
250	60	**Y769.1**	1 unit(s)	4,20
500	75	**Y770.1**	1 unit(s)	4,15
1,000	95	**Y771.1**	1 unit(s)	5,65



Wash bottle wide neck

Nalgene. Material: LDPE, screw cap made of PP.

With wide-neck opening for fast and easy filling. Bottle and riser are made from one piece, which allows the bottle to be emptied completely. With leak-proof cap.

Type 2402

Vol. (ml)	Colour	Thread	Art. No.	Pack Qty.	€
125	colourless	24 mm	**C464.1**	6 unit(s)	32,95
250	colourless	38 mm	**C465.1**	4 unit(s)	25,70
500	colourless	38 mm	**C466.1**	4 unit(s)	30,15
750	colourless	38 mm	**C467.1**	4 unit(s)	43,65
1,000	colourless	43 mm	**C468.1**	2 unit(s)	23,65

Type DS 2408

Vol. (ml)	Colour	Thread	Art. No.	Pack Qty.	€
250	red	38 mm	**K669.1**	1 unit(s)	16,45
500	red	38 mm	**K670.1**	1 unit(s)	26,45



Wash bottle

Nalgene. Material: LDPE transparent, screw cap and riser made of coloured PP.

Type 2422. With coloured caps for easy identification of the contents. **Leak-proof**, since cap and riser are made from one piece.

Vol. (ml)	Colour	Art. No.	Pack Qty.	€
500	yellow	**K665.1**	1 unit(s)	9,75
500	blue	**K666.1**	1 unit(s)	9,75
500	green	**K667.1**	1 unit(s)	9,75
500	red	**K668.1**	1 unit(s)	9,75



A 121 °C

Wash bottle made of fluoroplastic

Nalgene. Material: FEP, riser and screw cap made of ETFE. Autoclavable: Yes.

Type 2403. High chemical resistance. For contamination-free working with trace element analyses. **Leak-proof**, since riser holder and cap are made from one piece. Phthalat-free.

Vol. (ml)	Art. No.	Pack Qty.	€
125	**K671.1**	1 unit(s)	115,40
250	**K672.1**	1 unit(s)	177,40
500	**K673.1**	1 unit(s)	216,10
1,000	**K674.1**	1 unit(s)	280,60

Dropper bottles



DURAN WHEATON KIMBLE

Dropper bottle with pipette

DWK Life Sciences. Material: Soda-lime glass.

Complete with suction cups and replaceable ground glass joint pipette made of clear glass.

Clear glass

Vol. (ml)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	79	14/15	**T930.1**	10 unit(s)	110,70
100	105	14/15	**T931.1**	10 unit(s)	123,40

Brown glass

Vol. (ml)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	79	14/15	**T932.1**	10 unit(s)	115,85
100	105	14/15	**T933.1**	10 unit(s)	134,40



Dropper bottle with pipette

Marienfeld. Material: Glass.

Complete with clear-glass pipette, suction cups and ground glass stopper made of PP.

Clear glass

Vol. (ml)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	77	14/15	**TT98.1**	10 unit(s)	116,70
100	103	14/23	**TT99.1**	6 unit(s)	105,35
250	131	19/26	**TX00.1**	10 unit(s)	160,20

Brown glass

Vol. (ml)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
50	77	14/15	**TX01.1**	10 unit(s)	135,05
100	103	14/23	**TX02.1**	6 unit(s)	110,15
250	131	19/26	**TX03.1**	10 unit(s)	188,15



DURAN WHEATON KIMBLE

Dropper bottle with glass stopper

DWK Life Sciences. Material: Soda-lime glass.

Turning the plug seals the bottle tight.

Clear glass

Vol. (ml)	Height (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
50	95	45	**ETL2.1**	1 unit(s)	25,55
100	120	56	**ETL3.1**	1 unit(s)	28,40

Brown glass

Vol. (ml)	Height (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
50	95	45	**ETL4.1**	1 unit(s)	25,55
100	120	56	**ETL5.1**	1 unit(s)	28,40



Dropper bottle with pipette

Kartell. Material: PE, translucent.

Delivery incl. red screw cap, Dropper pipette and suction cup.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	35	96	**TT69.1**	10 unit(s)	33,35
100	43	115	**TT70.1**	10 unit(s)	38,55
250	60	140	**TT71.1**	10 unit(s)	42,80

Dropper bottles



Dropper bottle

Nalgene. Material: LDPE, cap made of PP, dropper tip made of LDPE.

Good chemical resistance. Ideal for small culture volumes. Precise single drop release. Droplet size approx. 40 µl (Aqua dest). **Leak-proof.**

Type 2752, transparent bottles, colour-coded lids
Lid colours: white, red, green, blue, yellow.

Vol. (ml)	Height (mm)	Art. No.	Pack Qty.	€
4	41	**PP10.1**	25 unit(s)	45,80
8	52	**PP11.1**	25 unit(s)	48,00
15	62	**PP12.1**	25 unit(s)	50,30

Type 2751, white bottles and lids
Suitable for UV-sensitive samples.

Vol. (ml)	Height (mm)	Art. No.	Pack Qty.	€
4	41	**HX22.1**	25 unit(s)	50,15
8	52	**HX23.1**	25 unit(s)	51,15
15	62	**HX24.1**	25 unit(s)	52,90



A 121 °C

Dropper bottle

Nalgene. Material: PP copolymer, dropper seal and cap made of PP. Autoclavable: Yes.

Model DS2420. For dispensing aqueous media. Also autoclavable when full with tip open. Tip sealing cap is combined with the screw cap and therefore cannot be lost.

Vol. (ml)	Art. No.	Pack Qty.	€
125	**ATL3.1**	6 unit(s)	55,55
250	**ATL4.1**	6 unit(s)	59,80

Dropper bottle

Kartell. Material: LDPE, transparent.

Delivery incl. dropper lids.

Vol. (ml)	Thread	Art. No.	Pack Qty.	€
50	GL 18	**6541.1**	6 unit(s)	11,60
100	GL 18	**6542.1**	6 unit(s)	13,55
250	GL 25	**6544.1**	4 unit(s)	14,10
500	GL 25	**6545.1**	4 unit(s)	15,75
1,000	GL 32	**6548.1**	4 unit(s)	22,35



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Dropper bottle ROTILABO® fluoroplastic

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Chemically inert. Temperature stability -200 to +260 °C.

Delivery incl. caps.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
25	33	80	25	**LT80.1**	1 unit(s)	65,20
50	43	100	25	**LT81.1**	1 unit(s)	74,25

Dropper bottles



Dosing bottle

Kartell. Material: PE, measuring cup made of PMP.

Adjustable measuring cup, graduated from 5 to 50 ml. Accuracy approx. 2%. Press on the bottle to fill the measuring cup. Surplus amounts flow back into the bottle automatically up to the measuring marker. Sealable filling tube.

Vol. (ml)	Art. No.	Pack Qty.	€
250	**6996.1**	1 unit(s)	14,10
500	**7009.1**	1 unit(s)	14,80
1,000	**7024.1**	1 unit(s)	17,85



Dropper bottle square

Bürkle. Material: HDPE, dropper closure made of LDPE, caps made of PVC.

With labelling space.

Vol. (ml)		Width (mm)	Height (mm)	Ø Inner neck (mm)		Art. No.	Pack Qty.	€
100	41	34	113	13.0	18 mm	**KA95.1**	10 unit(s)	10,80
250	51	44	160	17.5	25 mm	**KA96.1**	10 unit(s)	14,55
500	68	53	182	17.5	25 mm	**KA97.1**	10 unit(s)	17,50
1,000	90	64	230	17.5	25 mm	**KA98.1**	10 unit(s)	27,45



Spray bottle with atomiser

Rixius. Material: Glass brown, sprayer with cover cap and riser made of PE.

Spray volume approx. 0.05 ml per pump operation.

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
20	29	98	GL 18	**N145.1**	3 unit(s)	10,15



Spray bottle Turn'n'Spray

Bürkle. Material: LDPE, part in contact with media PP, PE, silicone and stainless steel.

Allows uninterrupted spraying from all positions, including overhead. Nozzle is continuously adjustable, nozzle Ø 0.6 mm. Spray quantity per stroke: 1.2 ml ±0.1 ml.

Vol. (ml)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
250	220	18	**PX90.1**	1 unit(s)	8,85
500	240	18	**PX91.1**	1 unit(s)	10,75
1,000	295	21	**PX92.1**	1 unit(s)	11,50



Spray bottle

Bürkle. Material: PE, pump atomiser made of PP, transparent.

With protective cap, prevents unintentional pressing of the pump and serves as a dust protection cap.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	28	85	**1C8X.1**	5 unit(s)	15,90
50	35	110	**EP66.1**	5 unit(s)	13,05
100	37	161	**EP67.1**	2 unit(s)	4,95
250	50	202	**EP68.1**	2 unit(s)	5,15



Spray bottle with pump atomiser

Vitlab. Material: PP.

With pistol pump level and adjustable spray jet.

Vol. (ml)	Art. No.	Pack Qty.	€
400	**0499.1**	1 unit(s)	11,80
850	**0500.1**	1 unit(s)	12,55

Spray bottles



Spray bottle

Bürkle. Material: LDPE, PP, Stainless steel.

Non-pressurised spray bottle in LDPE with trigger pump. Parts in contact with media made of PE, PP and stainless steel.
Nozzle continuously adjustable. Nozzle diameter 0.6 mm, spray quantity per stroke: 1.2 ml ±0.1 ml.

Vol. (ml)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
250	220	18	**1C8N.1**	1 unit(s)	6,35
500	240	18	**1C8P.1**	1 unit(s)	7,50
1,000	295	17.5	**1C8T.1**	1 unit(s)	7,90



Pressurised sprayer

Bürkle. Material: PP, PE, PA, FKM, Stainless steel.

With short spray nozzle. The hand pump is used to produce a pressure of up to 4 bar in the container. Then spraying can be effected by pressing the button.
Applications: Disinfection, cleaning, crop protection, thin-layer chromatography, technical and sanitary requirements.

- Materials in contact with the media: PP, PE, PA glass-fibre reinforced, V2A, FKM
- Nozzle Ø 0.6 mm, continuously adjustable
- Spray lance (length 30 cm) available as an option

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
1,500	142	315	45	**EP63.1**	1 unit(s)	45,30

Accessories for pressurised sprayer

Bürkle.

Designation	Art. No.	Pack Qty.	€
Spray lance, length 30 cm	**EP64.1**	1 unit(s)	28,55



Pressurised sprayer Turn'n'Spray

Bürkle. Material: HDPE, PP, FKM, Stainless steel.

With short spray nozzle. A pressure of max. 4 bar is generated in the container by operating the piston rod. Then you can spray the liquid by pressing the button.
The Turn'n'Spray pressurised spray's 360° spraying function also allows users to spray overhead. This means that it can spray in hard-to-reach areas without difficulty.
Applications: Disinfection, cleaning, crop protection, thin-layer chromatography, technical and sanitary requirements.

- Parts in contact with media: HDPE, PP, FKM, V4A
- With overhead spraying function
- Nozzle diameter 0.8 mm, continuously adjustable
- Liquid temperature: 0-30 °C
- Spray lance (length 30 cm) available as an option

Vol. (ml)	Ø ext. (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
1,500	140	305	45	**1AA4.1**	1 unit(s)	57,50



Pressurised sprayer Food

Bürkle. Material: PE, PP, Silicone, Stainless steel.

The container of the pressurised sprayer has a transparent viewing window, which makes reading the fill level easy. Rubber-clad standing ring ensures that the sprayer can be put down safely. The integrated safety valve prevents overpressure (max. 3 bar). Adjustable nozzle nut allows users to individually adjust the spray jet, ranging from a fine spray mist to a powerful jet.
Suitable for use in the food sector, for spraying a wide range of media (such as oils, grease and aromatic substances) and for atomising cleaning agents and disinfectants.

- Parts in contact with media: PE, PP, silicone, stainless steel
- **Suitable for use with foodstuffs**

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1,200	117	315	**1AA5.1**	1 unit(s)	48,40

Sample cans

Square boxes ROTILABO®

ROTH SELECTION. Material: HDPE, slip lid made of LDPE.

Rectangular, slightly tapered. Stackable. Food-safe, dishwasher-safe and microwave-safe. Temperature stability -20 to +70 °C.



Not a medical device / Not an IVD product

Flat form

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
500	103	103	64	**1597.1**	5 unit(s)	12,85
1,000	208	103	64	**1598.1**	5 unit(s)	21,10
2,000	208	208	64	**A274.1**	5 unit(s)	36,15

High form

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
1,000	103	103	127	**1599.1**	5 unit(s)	18,40
1,500	208	103	94	**A272.1**	5 unit(s)	27,10
2,000	255	103	94	**A273.1**	5 unit(s)	31,85
3,300	208	208	94	**A275.1**	5 unit(s)	38,70

Square boxes ROTILABO®

ROTH SELECTION. Material: PP translucent, snap-on lid made of LDPE, blue.

For storing granulates, powders and paste-like substances.
Temperature stability -40 to +85 °C.
Dishwasher-safe and microwave-safe. Suitable for foodstuffs.



Not a medical device / Not an IVD product

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
300	110	110	44	**HEK2.1**	10 unit(s)	21,45
450	150	100	50	**HEK3.1**	10 unit(s)	27,60
500	230	140	32	**HEK4.1**	10 unit(s)	44,70
800	180	120	65	**HEK6.1**	10 unit(s)	35,95
1,000	235	140	52	**HEK7.1**	10 unit(s)	54,05
1,500	230	150	65	**HEK8.1**	10 unit(s)	56,45
2,000	280	180	65	**HEK9.1**	5 unit(s)	42,95
2,500	250	158	92	**HEL0.1**	5 unit(s)	35,45
3,000	280	180	80	**HEL1.1**	5 unit(s)	52,05
4,000	280	180	115	**HEL2.1**	5 unit(s)	53,90

Sample cans

Square boxes ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
With lid. For storing solid and liquid substances. Suitable for foodstuffs.
7.5 litre container with two folding handles on the sides.



A 121 °C

Not a medical device / Not an IVD product

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
460	80	80	80	**9502.1**	1 unit(s)	42,30
2,500	140	140	140	**9506.1**	1 unit(s)	84,70
7,500	200	200	200	**9509.1**	1 unit(s)	148,80

Storage tins ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10.
Odour- and moisture-proof. Suitable for foodstuffs.



Not a medical device / Not an IVD product

With hinged lid

Lid made of acrylic glass with silicone seal, leakproof.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
700	125	95	**YX66.1**	1 unit(s)	22,40
1,000	125	125	**YX67.1**	1 unit(s)	25,25
1,250	125	155	**YX68.1**	1 unit(s)	28,50
1,700	125	195	**YX69.1**	1 unit(s)	32,95

With slip lid

Lid made of stainless steel with acrylic glass viewing window.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
500	80	110	**YX70.1**	1 unit(s)	12,35
800	90	125	**YX71.1**	1 unit(s)	14,25
2,000	125	170	**YX72.1**	1 unit(s)	23,65
4,500	175	210	**YX73.1**	1 unit(s)	24,75

Sample cans

Square boxes ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10, matt polished. Autoclavable: Yes.

Stackable. Suitable for foodstuffs.



A 121 °C ❄❄❄

Delivery without lid, please order separately.

Not a medical device / Not an IVD product

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
500	95	95	60	**YH09.1**	1 unit(s)	24,65
1,000	195	95	60	**YH10.1**	1 unit(s)	36,90
2,000	195	195	60	**YH11.1**	1 unit(s)	44,80

Accessories lids

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

A 121 °C

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
Deep-freeze boxes, Art. No. YH09.1	**YH12.1**	1 unit(s)	12,45
Deep-freeze boxes, Art. No. YH10.1	**YH13.1**	1 unit(s)	16,05
Deep-freeze boxes, Art. No. YH11.1	**YH14.1**	1 unit(s)	23,80

Wide-neck container

Kartell. Material: HDPE.

With press-in plugs and screw cap. Ideal for storing powders or granulated substances. Easy to fill and clean thanks to large wide-neck opening. Suitable for foodstuffs.



In vitro diagnostic medical device according to IVDD

Vol. (ml)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
70	50	36	60	**HT55.1**	100 unit(s)	112,30
120	69	36	71	**HT56.1**	100 unit(s)	121,95
250	56	50	94	**HT57.1**	50 unit(s)	57,70
500	86	70	107	**HT58.1**	50 unit(s)	75,05
1,000	111	85	128	**HT59.1**	20 unit(s)	39,65
2,000	111	87	235	**HT60.1**	10 unit(s)	29,15

Sample cans

Sample tub

Nalgene. Autoclavable: Yes.

Easy to fill and clean thanks to large wide-neck opening.
Free of undercuts.

- 125 ml to 1000 ml tubs can be stacked thanks to recess in the lid
- 125 ml and 250 ml sizes suitable for mixers with Mason thread



A 121 °C

Note: Do not use to transport liquids.

Not a medical device / Not an IVD product

Type 2116

Material: PC transparent, screw closure made of PP. Shockproof, non-toxic. Particularly suitable for storage in refrigerators and cold storage rooms.

Temperature stable from -135 to +130 °C.

Vol. (ml)	Ø ext. (mm)	Outer lid Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
15	32	38	46	**K682.1**	4 unit(s)	17,05
30	36	43	48	**K683.1**	4 unit(s)	21,00
60	48	53	48	**K684.1**	4 unit(s)	23,50
125	69	70	74	**K685.1**	4 unit(s)	39,20
250	66	70	119	**K686.1**	4 unit(s)	44,75
500	117	120	86	**K687.1**	4 unit(s)	69,30
1,000	117	120	142	**K688.1**	4 unit(s)	83,35

Type 2117

Material: PMP transparent, screw closure made of PP. Good chemical resistance. Particularly suitable as an archive container: Formaldehyde loss only approx. 2% per year.

Vol. (ml)	Ø ext. (mm)	Outer lid Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
60	48	53	48	**K693.1**	4 unit(s)	21,70
125	69	70	74	**K694.1**	4 unit(s)	36,70
250	66	70	119	**K695.1**	4 unit(s)	42,15
500	117	120	86	**K696.1**	4 unit(s)	68,00
1,000	117	120	145	**K697.1**	4 unit(s)	79,00

Type 2118

Material: PP translucent, screw closure made of PP. Good chemical resistance. Temperature stable from 0 to +130 °C.

Vol. (ml)	Ø ext. (mm)	Outer lid Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
15	32	38	46	**K698.1**	12 unit(s)	30,50
30	36	43	48	**K699.1**	12 unit(s)	31,65
60	48	53	48	**K700.1**	12 unit(s)	33,80
125	64	70	74	**K701.1**	12 unit(s)	51,90
250	66	70	119	**K702.1**	6 unit(s)	34,00
500	117	120	86	**K703.1**	6 unit(s)	47,25
1,000	117	120	145	**K704.1**	6 unit(s)	68,85

Sample cans

Wide-neck container ROTILABO®

ROTH SELECTION.

Suitable for packaging and storing liquids and solids. Easy to fill thanks to wide-neck opening. Suitable for foodstuffs. Height without cap.



Not a medical device / Not an IVD product

Clear PVC

Material: PVC clear, screw closure made of PP with PE foam insert.

Vol. (ml)	Ø Inner neck (mm)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	23	38	38	60.5	**H312.1**	25 unit(s)	23,60
100	31	46	46	71	**H313.1**	24 unit(s)	26,25
200	41	59.5	59.5	88.5	**H314.1**	14 unit(s)	23,50
300	41	67.5	67.5	95	**H315.1**	15 unit(s)	25,60
500	54	80.5	80.5	108	**H316.1**	10 unit(s)	26,25
750	69	91.5	91.5	120	**H317.1**	10 unit(s)	30,10
1,000	69	97.5	97.5	144	**H318.1**	8 unit(s)	26,95
2,000	69	122	122	187	**H319.1**	4 unit(s)	19,20

Brown PVC

Material: PVC brown-transparent, screw closure made of PP with PE foam insert.

Vol. (ml)	Ø Inner neck (mm)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	23	38	38	60.5	**H320.1**	25 unit(s)	25,95
100	31	46	46	71	**H321.1**	24 unit(s)	24,15
200	41	59.5	59.5	88.5	**H322.1**	14 unit(s)	28,60
300	41	67.5	67.5	95	**H323.1**	15 unit(s)	28,60
500	54	80.5	80.5	108	**H324.1**	10 unit(s)	29,05
750	69	91.5	91.5	120	**H325.1**	10 unit(s)	30,70
1,000	69	97.5	97.5	144	**H326.1**	8 unit(s)	31,40
2,000	69	122	122	187	**H327.1**	4 unit(s)	33,00

PETG

Material: PETG transparent, screw closure made of PP with PE foam insert.

Vol. (ml)	Ø Inner neck (mm)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	23	38	38	60.5	**H328.1**	25 unit(s)	29,05
100	31	46	46	71	**H329.1**	24 unit(s)	32,45
200	41	59.5	59.5	88.5	**H330.1**	14 unit(s)	33,15
500	54	80.5	80.5	108	**H331.1**	10 unit(s)	34,45
1,000	69	97.5	97.5	144	**H332.1**	8 unit(s)	36,15
2,000	69	122	122	187	**T408.1**	4 unit(s)	27,35

Sample cans

Sample tub ROTILABO® with screw closure

ROTH SELECTION. Material: HDPE.
Suitable for storing liquids or solids. Thick-walled.



Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	21	17	30	**K760.1**	10 unit(s)	23,15
10	21	17	52	**K761.1**	10 unit(s)	27,20
30	35	31	53	**K762.1**	10 unit(s)	33,70
60	35	31	92	**K763.1**	10 unit(s)	36,90
90	55	50	62	**K764.1**	5 unit(s)	24,05
180	55	50	108	**K765.1**	5 unit(s)	30,75

Sample tub with screw closure

Vitlab. Material: PP.
For sampling, transporting and storing samples. Suitable for foodstuffs.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
30	38	54	GL 40	**YA17.1**	10 unit(s)	66,90
60	38	90	GL 40	**YA18.1**	10 unit(s)	85,95
90	54	62	GL 56	**YA19.1**	10 unit(s)	104,85
180	54	112	GL 56	**YA20.1**	10 unit(s)	121,15

Wide-neck jar Packo

CurTec. Material: HDPE.
White jar, smooth inside, dark red screw-on lid and semi-transparent stopper. Screw-on lid can be easily opened and closed with a quarter turn. For storing and dispatching solids and pastes.

- cGMP-certified/ISO 15378 (primary packaging materials for pharmaceutical products)
- With UN approval (1H2) for solids
- Compliant with food regulations
- Resistant to steam
- With tamper-evident cap



Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Ø Internal (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
300	99	96.8	55.4	1H2/X0,4/Y0,6/Z0,9/S	**1A5K.1**	10 unit(s)	31,55
500	99	96.8	82.4	1H2/X0,7/Y1,0/Z1,5/S	**1A5L.1**	10 unit(s)	33,20
650	99	96.8	104.4	1H2/X0,9/Y1,3/Z1,9/S	**1A5N.1**	10 unit(s)	35,45
1,000	99	96.8	157.4	1H2/X1,3/Y2,0/Z3,0/S	**1A5P.1**	10 unit(s)	36,05
1,300	99	96.8	197.4	1H2/X1,8/Y2,0/Z3,0/S	**1A5T.1**	10 unit(s)	44,65

Sample cans

Sample tub ROTILABO®

ROTH SELECTION.

With tamper-evident cap. For powders, pastes, granulates and other bulk goods. Suitable for foodstuffs.



Not a medical device / Not an IVD product

With snap-on lid

Material: HDPE lid made of PE.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
30	35	54	**5553.1**	10 unit(s)	5,30
75	45	67	**5602.1**	10 unit(s)	6,50
150	64	67	**5623.1**	10 unit(s)	11,00
300	64	110	**5642.1**	10 unit(s)	13,10

With slip lid

Material: PP lid made of PE.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
750	108	96	**5657.1**	10 unit(s)	35,30
1,250	108	155	**5694.1**	5 unit(s)	23,55

Sample tub with snap-on lid

Nalgene. Material: LDPE, translucent.

With friction-fit, snap-on lid. Versatile use as a sample container, beaker for pH measurements, weighing container, etc. Temperature stability -100 to +80 °C



Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	23.6	24.9	**ATK3.1**	12 unit(s)	12,40
12	27.1	35.6	**ATK4.1**	12 unit(s)	12,90
18	27.1	52.6	**ATK5.1**	12 unit(s)	16,90
28	27.1	84.6	**ATK6.1**	12 unit(s)	21,30
50	37.3	70.9	**ATK7.1**	12 unit(s)	24,65
75	37.3	107.3	**ATK8.1**	12 unit(s)	33,35

Sample cans

A 121 °C ❄

Sample tub ROTILABO® with snap-on lid

ROTH SELECTION. Material: PP. Autoclavable: Yes.

With lid attached, can be attached vertically. Sterile (γ-sterilised) or non-sterile. With labelling area and graduation (except Art. No. EP22.1). 10 ml graduation. Leakproof. Temperature stability -20 to +121 °C. Autoclavable with open lid.

Not a medical device / Not an IVD product

Vol. (ml)	Sterility	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
45	Non-sterile	29	85	**EP22.1**	650 unit(s)	133,85
50	Non-sterile	31	78	**EP24.1**	650 unit(s)	141,95
50	**Sterile**	31	78	**EP25.1**	650 unit(s)	163,40
90	Non-sterile	43	80	**EP26.1**	350 unit(s)	107,20
90	**Sterile**	43	80	**EP27.1**	350 unit(s)	129,00
300	Non-sterile	75	88	**EP28.1**	240 unit(s)	165,55
300	**Sterile**	75	88	**EP29.1**	240 unit(s)	184,90



Sample tub with screw closure

Hünersdorff. Material: PP, Lid made of PE.

For storing solid samples. Temperature stability 0 to +100 °C. Free of undercuts, fully drainable.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	104	50	**XY70.1**	1 unit(s)	4,75
500	104	100	**XY71.1**	1 unit(s)	5,90
1,000	126	126	**XY72.1**	1 unit(s)	8,35



A 121 °C

Wide-neck jar

Bürkle. Material: PP. Autoclavable: Yes.

Well-designed packaging box with screw cap.
Free of undercuts, total emptying possible.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
12	25	31	**1CX4.1**	10 unit(s)	3,45
25	31	40	**1CX5.1**	10 unit(s)	5,40
60	41	56	**1CX6.1**	10 unit(s)	8,95
90	52	52	**1CX7.1**	10 unit(s)	10,50
125	52	67	**1CX8.1**	10 unit(s)	11,50
250	68	79	**1CX9.1**	10 unit(s)	18,85
625	90	113	**1CXA.1**	5 unit(s)	10,45
1,000	102	129	**1CXC.1**	5 unit(s)	24,85



❄❄

Sample tub SpecTainer™

Simport. Material: PP, highly transparent, screw cap made of PE.

Shatterproof, stackable and leakproof.
The tamper-evident cap guarantees the safety of the contents: The security tab breaks when unscrewing the cap, indicating that the container has been opened. Temperature stability -90 to +100 °C. Contains no plasticisers, release agents and latex.
Purpose: For use as urine beaker.

In vitro diagnostic medical device according to IVDD

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Lid colour	Art. No.	Pack Qty.	€
60	Non-sterile	48	62	yellow	**AYT6.1**	500 unit(s)	235,45
60	**Sterile**	48	62	tur-quoise	**AYT9.1**	500 unit(s)	267,70
90	Non-sterile	58	62	yellow	**AYT7.1**	400 unit(s)	299,95
90	**Sterile**	58	62	tur-quoise	**AYX0.1**	400 unit(s)	321,45
120	Non-sterile	58	78	yellow	**AYT8.1**	300 unit(s)	203,20
120	**Sterile**	58	78	tur-quoise	**AYX1.1**	300 unit(s)	332,20

Sample cans



Sample tub SecurTainer™ III

Simport. Material: PP transparent, screw cap made of PE.

Shatterproof, stackable and leakproof.
Purpose: For storage or transport of histological samples, urine, sputum and other liquids or solids. Temperature stability -90 to +100 °C**.**

In vitro diagnostic medical device according to IVDD

SecurTainer™

Vol. (ml)	Ø ext. (mm)	Outer lid Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	28	35	54	**HYE7.1**	500 unit(s)	134,40
40	43	48	54	**HYE8.1**	500 unit(s)	160,20
60	43	48	64	**HYE9.1**	500 unit(s)	166,65
90	52	56	63	**HYH0.1**	400 unit(s)	160,20
120	52	56	78	**HYH1.1**	300 unit(s)	160,20



Accessories lid inserts

ROTH SELECTION. Material: PP.

For colour-coded, easy identification of:

- Reaction vials (Art. No. CK47.1 ff, CK57.1 ff and ATC4.1)
- Slide boxes with tamper-evident cap (Art. No. KL89.1)
- Sample boxes (Art. No. AYT6.1 ff)

Ø ext. (mm)	Colour	Designation	Art. No.	Pack Qty.	€
11	blue	Lid inserts, blue	**CK72.1**	500 unit(s)	16,35
11	yellow	Lid inserts, yellow	**CK73.1**	500 unit(s)	16,35
11	red	Lid inserts, red	**CK74.1**	500 unit(s)	16,35
11	white	Lid inserts, white	**CK75.1**	500 unit(s)	16,35
11	green	Lid inserts, green	**CK76.1**	500 unit(s)	16,35
11	assorted colours	Lid inserts, assorted colours	**CK77.1**	500 unit(s)	16,35



S

Cryogenic boxes with screw closure

Nalgene. Material: PP, lid made of HDPE. **Sterile**.

Type 5005. For storing solid samples. For use in freezers and/or deep freezers. Pyrogen-free and non-cytotoxic.

In vitro diagnostic medical device according to IVDD

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
15	**Sterile**	33	47	**PP19.1**	75 unit(s)	131,80



S

Sample tub

Greiner Bio-One. Material: PS, transparent with white screw cap made of **HDPE**. **Sterile**.

Impervious to fluids. Temperature stability -20 to +60 °C. Suitable for universal use in the laboratory for non-human and non-medical samples.

Not a medical device / Not an IVD product

Vol. (ml)	Nominal volume (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	60	**Sterile**	40	60	**HYH7.1**	300 unit(s)	154,55

Sample cans



Sample tub

Greiner Bio-One. Material: PS transparent, screw cap made of metal.

Impervious to fluids. Temperature stability -20 to +60 °C. Suitable for universal use in the laboratory for non-human and non-medical samples.

Not a medical device / Not an IVD product

Vol. (ml)	Nominal volume (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
80	100	Non-sterile	45	77	**HYK0.1**	160 unit(s)	133,95
150	175	Non-sterile	49	107	**HYK1.1**	120 unit(s)	157,35
150	175	**Sterile**	49	107	**HYK2.1**	120 unit(s)	186,00
260	290	Non-sterile	58	121	**HYK3.1**	48 unit(s)	58,25



A 121 °C

DURAN WHEATON KIMBLE

Glass jar DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

High temperature and chemical resistance.

Delivery incl. lid.

Not a medical device / Not an IVD product

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
75	60	40	**CCL2.1**	1 unit(s)	46,45
175	80	50	**CCL3.1**	1 unit(s)	55,80
325	100	60	**CCL4.1**	1 unit(s)	70,20
1,000	150	80	**CCL5.1**	1 unit(s)	126,40



A 121 °C

Cryogenic boxes ROTILABO®

ROTH SELECTION. Material: Aluminium 99.5%, non-coated. Autoclavable: Yes.

With embedded rubber seal in the screw-on lid. Temperature stable up to -196 °C.

Not a medical device / Not an IVD product

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	3	14.5	23	**1083.1**	100 unit(s)	179,55
10	15	30	29	**1084.1**	100 unit(s)	229,00



A 121 °C

Sample tub ROTILABO® fluoroplastics

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Chemically inert. Temperature stability -200 to +260 °C. Thick-walled version, stackable.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
15	34	26	34	**LT85.1**	1 unit(s)	39,00
30	34	26	62	**LT86.1**	1 unit(s)	48,50
60	60	47	46	**LT87.1**	1 unit(s)	60,60
120	72	54	62	**LT88.1**	1 unit(s)	81,50
240	72	60	100	**LT89.1**	1 unit(s)	98,40
360	90	73	95	**LT90.1**	1 unit(s)	140,90
480	90	73	125	**LT91.1**	1 unit(s)	163,40
1,000	110	92	160	**LT92.1**	1 unit(s)	247,25
2,200	134	110.6	260	**LT93.1**	1 unit(s)	478,40

Sample cans



121 °C

Sample tub ROTILABO® fluoroplastics

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Chemically inert. Thick-walled type with conical base. Temperature stability -200 to +260 °C.

Delivery incl. screw closure.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	33	25	64	**LT82.1**	1 unit(s)	101,90
50	43	31	78	**LT83.1**	1 unit(s)	123,10



121 °C

Sample tub fluoroplastics

Saint-Gobain. Material: PFA, highly transparent. Autoclavable: Yes.

With labelling area and seal, leak-proof. Cryo- and microwave-safe.

- Temperature stability -196 to +250 °C
- Inert to virtually all chemicals, including hydrofluoric and nitric acid
- High purity, low metal ion content, ideal for use in trace analysis and for the storage of highly pure substances
- No memory effect
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
60	50.8	46.8	**YY50.1**	1 unit(s)	74,10
120	66	53.2	**YY51.1**	1 unit(s)	115,35
240	75.4	96	**YY52.1**	1 unit(s)	153,55
360	95	90.4	**YY53.1**	1 unit(s)	203,20
480	65.2	94.3	**YY54.1**	1 unit(s)	245,10
1,000	106.7	150	**YY55.1**	1 unit(s)	451,50

121 °C

Sample tub fluoroplastics

Vitlab. Material: PFA, highly transparent. Autoclavable: Yes.

With screw cap.

- For sampling, transportation and storage
- Chemically inert to nearly all chemicals
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning
- High purity, ideal for use in trace analysis and for storage of reference solutions
- No memory effect
- Temperature stability -200 to +250 °C

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
30	38	54	GL 40	**YA21.1**	1 unit(s)	53,75
60	38	90	GL 40	**YA22.1**	1 unit(s)	65,90
90	54	62	GL 56	**YA23.1**	1 unit(s)	70,75
180	54	112	GL 56	**YA24.1**	1 unit(s)	90,75

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Sample beakers



Sample tub with snap-on lid

Vitlab. Material: PP, transparent, snap-on lid made of LDPE.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	20	25	**YA12.1**	25 unit(s)	34,30
18	22	57	**YA14.1**	25 unit(s)	46,00
50	30	97	**YA15.1**	10 unit(s)	24,65
160	50	110	**YA16.1**	10 unit(s)	28,85



Sample beakers ROTILABO®

ROTH SELECTION. Material: PP.

With markings engraved on the side for 20, 40, 60, 80 and 100 ml. With self-adhesive paper lid.

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	72	50	**5195.1**	100 unit(s)	28,10



NEW / +

Sample beakers

Boettger. Material: PP, transparent.

Shatterproof. Graduated, 1 ml graduation (from 3 ml). Dimensions: Lower Ø 27 mm, height 42 mm. Physiologically safe, biologically inert, free from heavy metals.
Intended use: For use as medical beaker.

Delivery without snap-on lid, please order separately.

Medical device class I

Vol. (ml)	Ø ext. (mm)	Height (mm)	Gradu-ations (ml)	Colour	Art. No.	Pack Qty.	€
30	27	42	1	natural	**PT13.2**	3,750 unit(s)	64,45

Accessories snap-on lid for sample beaker

Boettger. Material: LDPE.

Medical device class I

Ø (mm)	Art. No.	Pack Qty.	€
39	**PT18.2**	3,750 unit(s)	83,65

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Sample beakers

Sample beakers ROTILABO®

ROTH SELECTION. Material: PP, Transparent. Autoclavable: Yes.

Graduated. Drip-free pouring via three pouring corners. Temperature stable from -20 to +121 °C.



A 121 °C

Vol. (ml)	Graduations (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	5	49	57	**HT84.1**	100 unit(s)	52,15
100	10	58	72	**HT85.1**	100 unit(s)	57,55
250	10	76	90	**HT86.1**	100 unit(s)	81,20
400	20	85	108	**HT87.1**	100 unit(s)	87,00
800	50	107	133	**HT88.1**	100 unit(s)	117,20
1,000	50	115	145	**HT89.1**	100 unit(s)	123,65

Sample beakers with screw closure

Ratiolab. Material: PP, transparent with red screw closure.

Also available in a sterile version; sterile beakers packaged individually in the bag.



Not a medical device / Not an IVD product

Without graduation, without labelling area

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
30	Non-sterile	43	46	**YP04.1**	1,000 unit(s)	157,65
30	**Sterile**	43	46	**YP08.2**	500 unit(s)	97,40
200	Non-sterile	64	81	**YP07.1**	200 unit(s)	93,60
200	**Sterile**	64	81	**YP11.1**	150 unit(s)	75,05

With graduation and labelling area

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Graduation (ml)	Art. No.	Pack Qty.	€
60	Non-sterile	43	65	10	**YP05.1**	600 unit(s)	93,80
60	**Sterile**	43	65	10	**YP09.1**	500 unit(s)	102,90
120	Non-sterile	56	72	25	**YP06.1**	500 unit(s)	79,75
120	**Sterile**	56	72	25	**YP10.1**	250 unit(s)	75,05

Sample beakers

Sample beakers with screw closure

Greiner Bio-One. Material: PP, transparent, screw cap made of HDPE.

Graduated with writing area, impervious to fluids and shatterproof. With the tamper-evident opening band: Beakers are supplied with a lid fitted, whereby the first time it is unscrewed, the opening ring becomes detached, thus ensuring the intactness or sterility (optional) of the beaker contents.
Temperature stability -50 to +100 °C. Suitable for universal use in the laboratory for non-human and non-medical samples.



Not a medical device / Not an IVD product

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	Non-sterile	61	71	**HYH8.1**	300 unit(s)	95,00
100	**Sterile**	61	71	**HYH9.1**	300 unit(s)	117,75

Sample beakers

Boettger.

Graduated, shatterproof. **Sterile** (fitted, individually packaged) or non-sterile (lid enclosed). Physiologically safe, biologically inert, free from heavy metals. With writing area and lid that is impervious to fluids.



With green screw-cap closure

Material: PP highly transparent, cap made of HDPE. Intended use: For use as urine beaker.

In vitro diagnostic medical device class A

Version	Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Graduations (ml)	Art. No.	Pack Qty.	€
Green lid	100	Non-sterile	64	70	20	**PT10.1**	500 unit(s)	88,50

With yellow screw-cap closure

Material: PP highly transparent, cap made of HDPE.

Not a medical device / Not an IVD product

Version	Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Graduations (ml)	Art. No.	Pack Qty.	€
Yellow lid	100	**Sterile**	64	70	20	**PT12.1**	150 unit(s)	67,40

With snap-on lid

Material: PP highly transparent, lid made of LDPE.

Not a medical device / Not an IVD product

Version	Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Graduations (ml)	Art. No.	Pack Qty.	€
Lid blue, flat	125	Non-sterile	67	69	25	**PT07.1**	500 unit(s)	66,65
Yellow lid, with spout	125	**Sterile**	67	69	25	**PT09.1**	150 unit(s)	99,20

With snap-on lid with spout

Material: PP highly transparent, lid made of LDPE. Intended use: For use as urine beaker.

In vitro diagnostic medical device class A

Version	Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Graduations (ml)	Art. No.	Pack Qty.	€
Red lid	125	Non-sterile	67	69	25	**PT08.1**	500 unit(s)	66,65

Sampling, shipping containers

Test tubes

Greiner Bio-One. Material: PS transparent, screw caps made of white **HDPE**.

Liquid-tight, with conical bottom. Centrifugable up to 3,500 x g. Temperature-stable from -20 °C to 60 °C. For universal use in laboratories for non-humane and non-medical samples.



Not a medical device / Not an IVD product

Vol. (ml)	Nominal volume (ml)	Ø ext. (mm)	Height (mm)	Sterility	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
23	30	24	90	Non-sterile	3,500	**HYL2.1**	400 unit(s)	119,10
23	30	24	90	**Sterile**	3,500	**HYL3.1**	400 unit(s)	172,00

Test tubes with spoon

Boettger.

With wide-mouth spoon for bean-sized samples. Physiologically safe, biologically inert, free from heavy metals. Delivery mounted.



With screw-cap closure, sterile

Material: PP transparent, cap made of HDPE, spoon made of HIPS. Overlapping screw-cap closure ensures optimal hygiene when opening, impervious to fluids.

Not a medical device / Not an IVD product

Version	Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
Round bottom	13	**Sterile**	16	100	**PT27.1**	100 unit(s)	21,30
Standing edge	15	**Sterile**	20	76	**PT26.1**	100 unit(s)	24,95
Standing edge	30	**Sterile**	25	107	**PT28.1**	100 unit(s)	32,95

With press-in plugs, non-sterile

Material: PS transparent, cap with sample spoon made of HDPE. Intended use: For use as stool sample tube.

In vitro diagnostic medical device class A

Version	Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
Flat base	16	Non-sterile	22	75	**PT22.1**	1,000 unit(s)	163,40

With screw-cap closure, non-sterile

Material: PP transparent, cap made of HDPE, spoon made of HIPS. Overlapping screw-cap closure ensures optimal hygiene when opening, impervious to fluids.

Intended use: For use as stool sample tube.

In vitro diagnostic medical device class A

Version	Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
Round bottom	13	Non-sterile	16	100	**PT24.1**	1,000 unit(s)	162,35
Standing Edge	15	Non-sterile	20	76	**PT23.1**	1,000 unit(s)	189,20
Standing edge	30	Non-sterile	25	107	**PT25.1**	500 unit(s)	123,10

Sampling, shipping containers

Sample vessels

Boettger. Material: PS transparent, cap made of HDPE.

Flat base. Physiologically safe, biologically inert, free from heavy metals.

Delivery incl. cap, fitted.

Sample tub with screw-cap closure, sterile

Not a medical device / Not an IVD product

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
24	**Sterile**	70	23	**PT21.1**	200 unit(s)	96,45

Sample tub with screw-cap closure, non-sterile

Intended use: For use as sputum vial.

In vitro diagnostic medical device class A

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
24	Non-sterile	70	23	**PT20.1**	200 unit(s)	75,15

Test tube with press-in plugs, non-sterile

Not a medical device / Not an IVD product

Vol. (ml)	Sterility	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
16	Non-sterile	22	62	**PT19.1**	1,000 unit(s)	172,00

Accessories transport containers for sputum vials

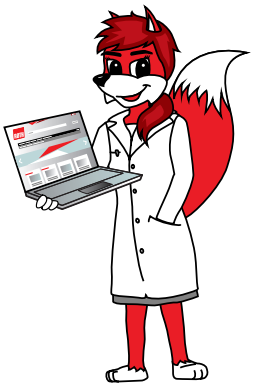
Boettger. Material: HDPE.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
Sputum vials, Art. No. PT20.1 and PT21.1	**PT39.1**	100 unit(s)	54,20

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Sampling, shipping containers



121 °C

Protective and transport tube

Boettger. Material: PP. Autoclavable: Yes.

With absorbent pad and printing. Secondary packaging for sample and stool tubes, optimum protection against external force application. Sample vessels and absorbent pads are easily removable, absorbent pad encloses the sample container and provides additional protection.

Delivery without screw closures, please order separately.

Not a medical device / Not an IVD product

For tubes PT22.1, PT23.1, PT26.1 and PT19.1
Suitable for tubes PT22.1 (with cap PT35.1 or PT36.1), tubes PT23.1 and PT26.1 (with cap PT35.1), tubes PT19.1 (with cap PT35.1, PT36.1 or PT37.1). Fits in standard letterboxes with a 35 mm slot.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
40	30	85	**PT29.1**	500 unit(s)	219,30

For tubes PT24.1 and PT27.1
Suitable for tubes PT24.1 and PT27.1 (with lid PT35.1, PT36.1 or PT37.1). Also suitable for Port-a-Cul™ tubes (with PT37.1 cap). Fit into standard letter boxes with 35 mm slot.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
60	30	126	**PT30.1**	300 unit(s)	156,85

For tubes PT25.1 and PT28.1
Suitable for tubes PT25.1 and PT28.1 (with lid PT38.1). Also suitable for transporting standard agar carriers (e.g. Uricult®).

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
120	44	115	**PT31.1**	250 unit(s)	182,75

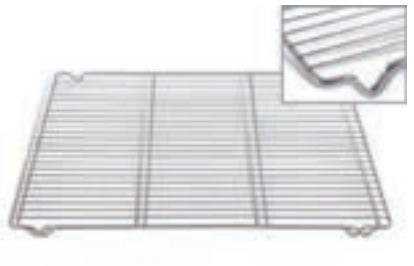
121 °C

Accessories screw caps

Boettger. Material: PP. Autoclavable: Yes.

Not a medical device / Not an IVD product

Version	Suitable for	Art. No.	Pack Qty.	€
Standard	PT29.1, PT30.1, PT32.1 and PT33.1	**PT35.1**	500 unit(s)	40,50
With stand for tube-Ø 16 mm	PT29.1, PT30.1, PT32.1 and PT33.1	**PT36.1**	300 unit(s)	28,20
With stand for tube-Ø 25 mm	PT31.1 and PT34.1	**PT38.1**	250 unit(s)	29,25
With attachment Ø inside 16 mm	PT29.1, PT30.1, PT32.1 and PT33.1	**PT37.1**	300 unit(s)	36,55



121 °C

Draining grids ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Extra heavy duty. Wire thickness 2.5 mm, framing wire 6 mm.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
440	310	20	**YX63.1**	1 unit(s)	31,70
470	310	22	**YX64.1**	1 unit(s)	33,95
590	390	26	**YX65.1**	1 unit(s)	42,70



Draining board

Kartell. Material: PS.

With 72 slot-in pegs (Ø 15 x L 95 mm) which can be inserted in any desired configuration. The peg slots are sealed at the back and therefore leakproof. With drainage channel and tube (L 300 mm, outer Ø 12 mm). For wall mounting.

Delivery incl. slot-in pegs and fixing hardware.

Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
450	110	630	**CT39.1**	1 unit(s)	113,45



Lab sink mat

ROTH SELECTION. Material: PVC.

To prevent glass breakage when cleaning laboratory glassware. Round profiles prevent splash-back from running water. The smooth surface of the profiles prevents the accumulation of dirt particles. The weight of the mat ensures that it remains secure even under flowing water. Additional advantage: Standard sized magnetic rods cannot easily slip into the drain. Profile width 8 mm. Web width 40 mm.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
750	450	15	**C374.1**	1 unit(s)	93,70

Draining boards

Draining racks ROTILABO®

ROTH SELECTION. Material: Metal, PE-coated.

For hanging or placing, with 20 mm high drip trays and plastic caps on the feet.



Version	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
12 rods / 11 arched pins	420	170	300	**N144.1**	1 unit(s)	79,00
24 rods / 20 arched pins	420	170	610	**N143.1**	1 unit(s)	108,10
51 rods	420	170	610	**0516.1**	1 unit(s)	107,75
60 rods / 5 arched pins	420	170	610	**N142.1**	1 unit(s)	89,55

Draining racks

Bürkle. Material: PVC, PP slot-in rods.

For use on table or bench, usable on both sides. Sturdy and shatter-proof. With removable collecting tray.



Delivery incl. slot-in rods and turning key.

Version	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Number of rods: 5 x 60 mm, 26 x 100 mm, 2 x 150 mm	400	400	**XY74.1**	1 unit(s)	219,30
Number of rods: 10 x 60 mm, 39 x 100 mm, 4 x 150 mm	500	500	**XY75.1**	1 unit(s)	252,65
Number of rods: 15 x 60 mm, 56 x 100 mm, 6 x 150 mm	600	600	**XY76.1**	1 unit(s)	283,80

Draining board

Bürkle. Material: PVC, PP slot-in rods.

With stable, slot-in rods of various lengths (60, 100 and 150 mm) which can be slotted in and locked in place as required. Water-repellent, hygienic, shatter-proof. With draining channel and hose. For wall mounting.



Delivery incl. wall-mounted set and turning key for slot-in rods.

Version	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Number of rods: 5 x 60 mm, 26 x 100 mm, 2 x 150 mm	400	400	**1841.1**	1 unit(s)	222,55
Number of rods: 10 x 60 mm, 39 x 100 mm, 4 x 150 mm	500	500	**K715.1**	1 unit(s)	262,30
Number of rods: 15 x 60 mm, 56 x 100 mm, 6 x 150 mm	600	600	**K716.1**	1 unit(s)	301,00

Bowls and tubs

Dish ROTILABO®

ROTH SELECTION. Material: PP.

With grooved base. Robust design. Colour: White. Suitable for foodstuffs.



Not a medical device / Not an IVD product

Vol. (l)	Upper length (mm)	Upper width (mm)	Lower length (mm)	Lower width (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	230	180	190	140	42	**1722.1**	1 unit(s)	7,40
1.5	310	250	250	190	65	**1724.1**	1 unit(s)	12,90
3.0	370	310	310	250	75	**0772.1**	1 unit(s)	17,90
10.0	520	420	410	310	120	**0778.1**	1 unit(s)	32,90
21.0	634	534	530	430	140	**0782.1**	1 unit(s)	49,85
39.0	846	648	720	520	160	**0799.1**	1 unit(s)	76,85

Range of dishes ROTILABO®

ROTH SELECTION. Material: PP.

Consists of six dishes, volumes: 0.5, 1.5, 3, 10, 21 and 39 l.

Not a medical device / Not an IVD product

Version	Art. No.	Pack Qty.	€
ROTILABO® range of laboratory dishes	**0938.1**	1 set	166,65

Dish ROTILABO®

ROTH SELECTION. Material: PVC, hard.

With grooved base. Colour: White.



Not a medical device / Not an IVD product

Upper length (mm)	Upper width (mm)	Lower length (mm)	Lower width (mm)	Height (mm)	Art. No.	Pack Qty.	€
245	195	200	150	45	**7032.1**	1 unit(s)	17,10
305	250	250	200	60	**7034.1**	1 unit(s)	21,45
385	325	320	260	70	**7035.1**	1 unit(s)	35,10
420	375	350	300	80	**7038.1**	1 unit(s)	46,85
505	405	430	330	90	**7041.1**	1 unit(s)	60,65
600	495	520	420	90	**7043.1**	1 unit(s)	82,60
635	515	540	420	180	**7047.1**	1 unit(s)	141,80
765	620	675	530	100	**7045.1**	1 unit(s)	129,45

Bowls and tubs

Dish ROTILABO®

ROTH SELECTION. Material: PVC, break-proof.
Temperature stable up to +70 °C.



Not a medical device / Not an IVD product

With grooved base
Suitable as development dishes or for staining electrophoresis gels, the raised grooves in the base stop the gels from sticking to the bottom of the dish.

Upper length (mm)	Upper width (mm)	Lower length (mm)	Lower width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
180	230	140	190	40	white	**C030.1**	1 unit(s)	11,95
180	230	140	190	40	red	**C037.1**	1 unit(s)	11,95
240	320	190	260	50	white	**C031.1**	1 unit(s)	16,65
240	320	190	260	50	red	**C038.1**	1 unit(s)	16,30
240	320	190	260	50	black	**C045.1**	1 unit(s)	16,65
320	370	260	320	50	white	**C032.1**	1 unit(s)	26,25
320	370	260	320	50	red	**C039.1**	1 unit(s)	26,25
320	370	260	320	50	black	**C046.1**	1 unit(s)	26,25
430	530	310	410	105	white	**C033.1**	1 unit(s)	57,15
430	530	310	410	105	red	**C040.1**	1 unit(s)	56,75
520	610	420	510	110	white	**C034.1**	1 unit(s)	98,10
520	610	420	510	110	red	**C041.1**	1 unit(s)	97,25
520	610	420	510	110	black	**C048.1**	1 unit(s)	97,25
630	730	510	610	110	white	**C035.1**	1 unit(s)	138,15
630	730	510	610	110	black	**C049.1**	1 unit(s)	138,15

Without grooved base

Upper length (mm)	Upper width (mm)	Lower length (mm)	Lower width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
150	200	110	160	30	white	**C050.1**	1 unit(s)	9,35
150	200	110	160	30	red	**C057.1**	1 unit(s)	9,30
150	200	110	160	30	black	**C064.1**	1 unit(s)	9,35
180	230	140	190	40	white	**C051.1**	1 unit(s)	12,15
180	230	140	190	40	red	**C058.1**	1 unit(s)	12,15
180	230	140	190	40	black	**C065.1**	1 unit(s)	12,15
240	320	190	260	50	white	**C052.1**	1 unit(s)	16,65
240	320	190	260	50	red	**C059.1**	1 unit(s)	16,65
240	320	190	260	50	black	**C066.1**	1 unit(s)	16,65
320	370	260	320	50	white	**C053.1**	1 unit(s)	26,40
320	370	260	320	50	red	**C060.1**	1 unit(s)	26,40
320	370	260	320	50	black	**C067.1**	1 unit(s)	26,40
430	530	310	410	105	white	**C054.1**	1 unit(s)	56,75
430	530	310	410	105	red	**C061.1**	1 unit(s)	56,75
430	530	310	410	105	black	**C068.1**	1 unit(s)	56,75
520	610	420	510	110	white	**C055.1**	1 unit(s)	97,25
520	610	420	510	110	red	**C062.1**	1 unit(s)	97,40
520	610	420	510	110	black	**C069.1**	1 unit(s)	97,25
630	730	510	610	110	white	**C056.1**	1 unit(s)	138,15
630	730	510	610	110	red	**C063.1**	1 unit(s)	151,20
630	730	510	610	110	black	**C070.1**	1 unit(s)	151,20

Bowls and tubs

Dish ROTILABO®

ROTH SELECTION. Material: MF.
Temperature stable from -40 to +110 °C.



Delivery without lid, please order separately. **Note**: There is no lid available for Art. No. 8455.1.

Not a medical device / Not an IVD product

Vol. (l)	Upper length (mm)	Upper width (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.7	190	150	40	**8449.1**	1 unit(s)	14,00
1	290	160	35	**8453.1**	1 unit(s)	18,35
1.9	290	160	60	**8454.1**	1 unit(s)	24,50
2.2	350	250	40	**8455.1**	1 unit(s)	35,85
6.0	340	245	100	**8457.1**	1 unit(s)	46,50

Accessories lid for laboratory dishes

ROTH SELECTION. Material: PS.
For ROTILABO® dishes made from melamine.



Not a medical device / Not an IVD product

Upper length (mm)	Upper width (mm)	Suitable for	Version	Art. No.	Pack Qty.	€
190	150	Dish, Art. No. 8449.1	Button cover	**P163.1**	1 unit(s)	16,15
290	160	Dishes, Art. No. 8453.1 and 8454.1	Button cover	**P164.1**	1 unit(s)	18,35
340	245	Dish, Art. No. 8457.1	Grip dish lid, stackable	**P165.1**	1 unit(s)	27,05

Dish ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10, polished.
Autoclavable: Yes.
Deep-drawn, with flat edge. Suitable for foodstuffs.



A 121 °C

Not a medical device / Not an IVD product

Pic.	Vol. (l)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
(1)	0.6	190	120	40	**YH70.1**	1 unit(s)	23,95
(1)	1.2	240	170	40	**YH71.1**	1 unit(s)	31,55
(1)	2.0	300	205	55	**YH72.1**	1 unit(s)	47,15
(2)	3.0	340	210	60	**YH73.1**	1 unit(s)	35,85

Bowls and tubs

Dish

Nalgene. Material: PP. Autoclavable: Yes.

Suitable for storing and sterilising instruments and small laboratory items. Heavy-duty design with reinforced edges for maximum stability.



A 121 °C

Not a medical device / Not an IVD product

Vol. (l)	Outer length (mm)	Outer width (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	264	161	66	**ATE7.1**	1 unit(s)	30,45
2.8	262	161	104	**ATE8.1**	1 unit(s)	37,00
3.1	325	264	66	**ATE9.1**	1 unit(s)	48,60
5	323	264	107	**ATH0.1**	1 unit(s)	53,70

Rinsing tray

Nalgene. Material: PP. Autoclavable: Yes.

Universally applicable tray for a variety of applications. Suitable for collecting, soaking and rinsing soiled laboratory items and for drying and sterilising instruments and small laboratory items.

- With integrated handles
- Robust and stackable



NEW / +

A 121 °C

Not a medical device / Not an IVD product

Vol. (l)	Outer length (mm)	Outer width (mm)	Height (mm)	Art. No.	Pack Qty.	€
9.5	361	311	143	**1L19.1**	1 unit(s)	45,55
20	543	435	130	**1L1A.1**	1 unit(s)	72,20

Dish ROTILABO® stainless steel

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Suitable for foodstuffs.



A 121 °C

Not a medical device / Not an IVD product

Upper length (mm)	Upper width (mm)	Lower length (mm)	Lower width (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
370	275	350	250	50	1150	**0375.1**	1 unit(s)	58,60
470	320	450	300	50	1450	**0376.1**	1 unit(s)	66,40
575	375	550	350	50	1750	**Y756.1**	1 unit(s)	85,40
670	430	650	400	50	2485	**YH48.1**	1 unit(s)	113,45

Bowls and tubs

Dish ROTILABO®

ROTH SELECTION. Material: Chrome-nickel steel 18/10.
Autoclavable: Yes.
Rectangular with two drop handles on the sides. Suitable for foodstuffs.



A 121 °C

Not a medical device / Not an IVD product

Outer length (mm)	Outer width (mm)	Height (mm)	Art. No.	Pack Qty.	€
365	270	75	**8103.1**	1 unit(s)	109,30
470	325	90	**8104.1**	1 unit(s)	177,40
520	325	90	**8105.1**	1 unit(s)	219,30
630	450	90	**8106.1**	1 unit(s)	341,85

Dish ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
Double-thickness walls 0.8 mm. Suitable for foodstuffs.



A 121 °C

Not a medical device / Not an IVD product

Outer length (mm)	Outer width (mm)	Height (mm)	Art. No.	Pack Qty.	€
210	145	20	**9492.1**	1 unit(s)	36,30
290	210	20	**9493.1**	1 unit(s)	28,40
580	210	20	**9494.1**	1 unit(s)	55,95
580	400	20	**9495.1**	1 unit(s)	89,90

Work support ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
Thickness: 1.1 mm. Easy to clean and disinfect. Suitable for foodstuffs.



A 121 °C

Not a medical device / Not an IVD product

Outer length (mm)	Outer width (mm)	Height (mm)	Art. No.	Pack Qty.	€
600	400	7	**YH28.1**	1 unit(s)	78,25

Bowls and tubs

Dish ROTILABO® with perforated sheet

ROTH SELECTION. Material: Stainless steel 18/8. Autoclavable: Yes.

Removable grate. Perforation inside micrometer 19 mm, Hole Ø 12 mm. Central hole Ø 19 mm.



A 121 °C

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
310	125	30	**X103.1**	1 unit(s)	117,70
320	200	27	**X104.1**	1 unit(s)	129,65
440	270	27	**X111.1**	1 unit(s)	174,15
560	200	27	**X105.1**	1 unit(s)	183,85

Dish ROTILABO® with perforated sheet

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

With angled walls and inserted perforated sheet on 7 mm pegs. Suitable for foodstuffs.



A 121 °C

Not a medical device / Not an IVD product

Upper length (mm)	Upper width (mm)	Lower length (mm)	Lower width (mm)	Height (mm)	Inner height (mm)	Weight (g)	Art. No.	Pack Qty.	€
500	350	435	285	60	50	1800	**0377.1**	1 unit(s)	111,00

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Bowls and tubs

Water bath dish ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10, matt polished.
Heavy-duty, with two side handles. Suitable for foodstuffs.



Delivery without lid, please order separately.

Not a medical device / Not an IVD product

Vol. (l)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	155	105	55	**YY42.1**	1 unit(s)	41,30
1.0	155	105	75	**YY43.1**	1 unit(s)	47,15
2.5	155	105	160	**YY44.1**	1 unit(s)	60,70
5.0	155	155	235	**YY45.1**	1 unit(s)	74,30
13.0	240	240	235	**YY46.1**	1 unit(s)	130,70

Accessories lid for water bath trays

ROTH SELECTION. Material: Stainless steel 18/10, matt polished.

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Suitable for	Art. No.	Pack Qty.	€
155	105	Water bath trays, Art. No. YY42.1, YY43.1 and YY44.1	**YY47.1**	1 unit(s)	20,30
155	155	Water bath tray, Art. No. YY45.1	**YY48.1**	1 unit(s)	22,10
240	240	Water bath tray, Art. No. YY46.1	**YY49.1**	1 unit(s)	27,00

Sterilisation tray

Nalgene. Material: PP. Autoclavable: Yes.

The flat design of the sterilisation tray allows pipettes and instruments to be fully immersed in the disinfectant solution. The plastic construction reduces damage and breakage of glass pipettes. The tray is stackable, lightweight and quiet to use.

- Suitable for sterilising pipettes, instruments and small laboratory items up to a max. length of 40 cm
- Resistant to aggressive disinfectant solutions
- The lid that can be fitted into the tray groove prevents the spillage of hazardous liquids
- Lid with recessed grip



NEW / +

A 121 °C

Delivery incl. lid.

Not a medical device / Not an IVD product

Outer length (mm)	Outer width (mm)	Height (mm)	Art. No.	Pack Qty.	€
460	150	67	**1L1C.1**	1 unit(s)	68,40

Instrument trays



Instrument dish

Hecht. Material: Soda-lime glass, lids made of stainless steel. Autoclavable: Limited.

Autoclavable and hot air sterilisable up to +180 °C.
Note: do not expose glass trays to abrupt changes of temperature. Trays must be heated and cooled slowly as soda-lime glass has limited thermal shock resistance. Do not sterilise with lid attached.

Not a medical device / Not an IVD product

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
120	60	40	**CYY9.1**	1 unit(s)	38,35
170	90	45	**EAA0.1**	1 unit(s)	42,00
200	100	50	**EAA1.1**	1 unit(s)	50,35
200	100	100	**EAA5.1**	1 unit(s)	61,50
220	150	55	**EAA2.1**	1 unit(s)	52,95
275	150	60	**EAA3.1**	1 unit(s)	62,05
350	220	70	**EAA4.1**	1 unit(s)	123,10



A 121 °C

Instrument dish ROTILABO® with lid

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Tray is moulded in one piece for easy cleaning and disinfection. Special lids with handle. Stackable.

Not a medical device / Not an IVD product

Outer length (mm)	Outer width (mm)	Outer height (mm)	Inner length (mm)	Inner width (mm)	Inner height (mm)	Art. No.	Pack Qty.	€
230	133	55	210	120	45	**C849.1**	1 unit(s)	56,10
315	215	65	295	195	55	**C850.1**	1 unit(s)	85,10



A 121 °C

Instrument dish

Contacto Bander. Material: Stainless steel 18/10. Autoclavable: Yes.

Not a medical device / Not an IVD product

With flat lid
Moulded, with rounded edges.

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
180	80	50	**YX92.1**	1 unit(s)	28,00
200	90	50	**YX93.1**	1 unit(s)	31,05
250	100	50	**YX94.1**	1 unit(s)	48,15
300	125	60	**YX95.1**	1 unit(s)	48,15

With knob lid

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
100	60	40	**YX87.1**	1 unit(s)	70,20
160	100	30	**YX88.1**	1 unit(s)	59,30
200	100	50	**YX89.1**	1 unit(s)	60,40
300	200	50	**YX90.1**	1 unit(s)	90,15
400	200	80	**YX91.1**	1 unit(s)	125,65



A 121 °C

Kidney dish

Kartell. Material: PP. Autoclavable: Yes.

Not a medical device / Not an IVD product

Vol. (ml)	Outer length (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
850	260	55	**TT75.1**	1 unit(s)	10,70

Instrument trays



A 121 °C

Kidney dish

Contacto Bander. Material: Stainless steel 18/10, high-gloss.
Autoclavable: Yes.

Not a medical device / Not an IVD product

Vol. (ml)	Outer length (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
250	170	40	**YT76.1**	1 unit(s)	11,75
350	205	40	**YT77.1**	1 unit(s)	14,30
500	250	40	**YT78.1**	1 unit(s)	14,95
750	275	45	**YT79.1**	1 unit(s)	16,70



Instrument tray ROTILABO®

ROTH SELECTION. Material: MF, polished.
Underside with stands.

Not a medical device / Not an IVD product

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
190	150	17	**P159.1**	2 unit(s)	23,60
240	180	17	**P160.1**	2 unit(s)	28,85
268	208	17	**P161.1**	2 unit(s)	33,20
355	240	17	**P162.1**	2 unit(s)	56,15
428	288	17	**0824.1**	2 unit(s)	91,35



Tray ROTILABO®

ROTH SELECTION. Material: PP, red.
With stacking notches. Good chemical resistance. Dishwasher-safe up to +80 °C. Food-safe.

Not a medical device / Not an IVD product

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
350	265	20	**YH74.1**	1 unit(s)	5,25
400	300	20	**YH75.1**	1 unit(s)	7,60
450	350	20	**YH76.1**	1 unit(s)	7,65



A 121 °C

Instrument tray ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10, high-gloss.
Autoclavable: Yes.

Not a medical device / Not an IVD product

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
220	170	10	**YH57.1**	1 unit(s)	20,45
260	200	20	**YH58.1**	1 unit(s)	26,80
310	240	20	**YH59.1**	1 unit(s)	30,60
340	260	20	**YH60.1**	1 unit(s)	34,30
365	280	20	**YH61.1**	1 unit(s)	37,40
420	320	20	**YH62.1**	1 unit(s)	45,45
470	365	20	**YH63.1**	1 unit(s)	51,90
520	400	20	**YH64.1**	1 unit(s)	65,45
600	470	24	**YH65.1**	1 unit(s)	106,20



A 121 °C

Instrument tray ROTILABO® round

ROTH SELECTION. Material: Stainless steel, high-gloss.
Autoclavable: Yes.
Suitable for foodstuffs.

Not a medical device / Not an IVD product

Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
300	20	**YH66.1**	1 unit(s)	10,40
350	20	**YH67.1**	1 unit(s)	14,50
400	22	**YH68.1**	1 unit(s)	18,90
500	22	**YH69.1**	1 unit(s)	28,60

Bowls, pots

Bowl ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Robust design with wide handling edge. Stackable. Suitable for foodstuffs.



A 121 °C

Not a medical device / Not an IVD product

Vol. (l)	Ø ext. (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
0.8	160	70	60	**H289.1**	1 unit(s)	3,40
1.7	200	80	80	**H290.1**	1 unit(s)	4,45
2.8	240	100	120	**H291.1**	1 unit(s)	6,30
4.5	280	120	220	**H292.1**	1 unit(s)	8,55
6.5	320	130	240	**H293.1**	1 unit(s)	11,85
10.0	360	150	360	**H294.1**	1 unit(s)	13,10
13.0	400	180	460	**H295.1**	1 unit(s)	18,85

Bowl ROTILABO®

ROTH SELECTION. Material: PP, white-transparent.

Stackable. Microwave-safe.



Not a medical device / Not an IVD product

Vol. (l)	Ø Upper (mm)	Ø Inner upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.0	188	160	80	**YE47.1**	1 unit(s)	5,30
2.5	234	200	110	**YE48.1**	1 unit(s)	9,35
4.5	272	240	130	**YE49.1**	1 unit(s)	11,05
6.0	322	280	145	**YE50.1**	1 unit(s)	13,25
9.0	355	320	160	**YE51.1**	1 unit(s)	17,35
13.0	394	360	180	**YE52.1**	1 unit(s)	23,35

Bowl stainless steel

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Heavy-duty with flanged edge and smooth base. Excellent durability, stability and grip. Stackable. Suitable for foodstuffs.



A 121 °C

Not a medical device / Not an IVD product

Vol. (l)	Ø Upper (mm)	Ø Inner upper (mm)	Ø Lower (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
1.5	208	180	120	82	300	**L939.1**	1 unit(s)	45,10
2.5	270	240	160	110	510	**L941.1**	1 unit(s)	53,60
5.6	310	280	180	125	660	**L942.1**	1 unit(s)	60,80
8.3	355	320	200	140	880	**L943.1**	1 unit(s)	75,95

Bowls, pots

Bowl ROTILABO® stainless steel

ROTH SELECTION. Material: Stainless steel 18/10, High-gloss. Autoclavable: Yes.

Bulbous. Extra heavy-duty. With flanged, non-slip rim. Suitable for foodstuffs.



A 121 °C

Not a medical device / Not an IVD product

Vol. (l)	Ø Upper (mm)	Ø Inner upper (mm)	Ø Lower (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.75	160	145	90	60	**YH49.1**	1 unit(s)	21,95
1	180	160	115	70	**YH50.1**	1 unit(s)	22,35
1.5	200	180	130	80	**YH51.1**	1 unit(s)	28,95
2.5	240	210	160	90	**YH52.1**	1 unit(s)	33,90
4	280	245	180	105	**YH53.1**	1 unit(s)	41,50
6	320	280	205	125	**YH54.1**	1 unit(s)	54,00
9	360	325	240	140	**YH55.1**	1 unit(s)	60,70
12	400	350	260	150	**YH56.1**	1 unit(s)	69,25
17	420	410	270	160	**YT62.1**	1 unit(s)	79,70

Bowl stainless steel

Contacto Bander. Material: Stainless steel 18/10, matt polished. Autoclavable: Yes.

Conical. Light-duty version with open, smooth rim. Suitable for foodstuffs.



A 121 °C

Not a medical device / Not an IVD product

(1) Flat form

Vol. (l)	Ø Upper (mm)	Ø Lower (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	140	95	55	**YH84.1**	1 unit(s)	9,65
1.0	165	115	75	**YH85.1**	1 unit(s)	11,15
3.0	240	160	95	**YH86.1**	1 unit(s)	18,60
6.0	290	195	130	**YH87.1**	1 unit(s)	31,10
8.0	320	210	140	**YH88.1**	1 unit(s)	33,80
11.0	380	285	130	**YH89.1**	1 unit(s)	50,85
14.0	400	285	155	**YH90.1**	1 unit(s)	54,75

(2) Deep form

Vol. (l)	Ø Upper (mm)	Ø Lower (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	120	75	70	**YH77.1**	1 unit(s)	9,50
1.0	150	95	80	**YH78.1**	1 unit(s)	12,95
3.0	220	140	125	**YH79.1**	1 unit(s)	21,00
5.0	265	180	130	**YH80.1**	1 unit(s)	26,70
8.0	310	200	165	**YH81.1**	1 unit(s)	36,05
11.0	355	215	180	**YH82.1**	1 unit(s)	49,35
14.0	370	215	200	**YH83.1**	1 unit(s)	50,85

Bowls, pots





121 °C

Pot stainless steel

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

With sandwich floor and cold handles. Suitable for use on hotplates and induction cooking plates. Not suitable for use with magnetic stirrers.

Delivery without lid, please order separately.

Not a medical device / Not an IVD product

Vol. (l)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
2.5	160	130	**EE93.1**	1 unit(s)	35,60
3.5	200	110	**EE94.1**	1 unit(s)	40,80
4	200	150	**EE95.1**	1 unit(s)	45,75
5	240	120	**EE96.1**	1 unit(s)	52,90
9	240	210	**EE97.1**	1 unit(s)	69,95

121 °C

Accessories lid for stainless steel pots

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Welded handles.

Not a medical device / Not an IVD product

Ø (mm)	Suitable for	Art. No.	Pack Qty.	€
160	Pot, Art. No. EE93.1	**EE98.1**	1 unit(s)	10,70
200	Pots, Art. No. EE94.1 and EE95.1	**EE99.1**	1 unit(s)	13,65
240	Pots, Art. No. EE96.1 and EE97.1	**EH00.1**	1 unit(s)	16,75

Pot aluminium

Bochem. Material: Aluminium.

For use as water or oil bath, can be used in conjunction with hotplates or magnetic stirrers. Max. usage temperature 280 °C.

Note: Do not fill the pots above the level of the handle mounting as liquid can escape from here.

Delivery incl. lid.

Not a medical device / Not an IVD product

Vol. (l)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5	160	100	**AEN7.1**	1 unit(s)	38,25
3.0	200	120	**AEN8.1**	1 unit(s)	42,75
5.2	240	140	**AEN9.1**	1 unit(s)	49,65



Buckets disposable

Bürkle. Material: PP.

For storage, packaging or transport of non-corrosive substances. With solid carrying handle and strong seal for product safety. Complete with lid, air-tight seal. Colour: White.

Not a medical device / Not an IVD product

Vol. (l)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	132	131	**1C86.1**	100 unit(s)	165,55
2	175	132	**1C87.1**	40 unit(s)	105,95
3	225	123	**1C88.1**	45 unit(s)	149,45
5	225	194	**1C89.1**	36 unit(s)	148,40
10	268	263	**1C8A.1**	25 unit(s)	141,20

Buckets



Buckets

Nalgene. Material: LDPE, handle made of nylon-coated wire.

Closes air-tight, therefore ideal for storing samples in formalin and other preservatives. Suitable for use as protection against haematogenous pathogens according to OSHA standard 29 CFR Part 1910.1030. Suitable for the safe handling of biohazardous substances.

Not a medical device / Not an IVD product

Vol. (l)	Ø Internal (mm)	Height without closure (mm)	Total height (mm)	Colour	Art. No.	Pack Qty.	€
7.6	240	254	267	white	**K573.1**	1 unit(s)	51,15
13.2	270	315	328	yellow	**K575.1**	1 unit(s)	69,50



Buckets

Vitlab. Material: HDPE, white.

With handle. Scaling in 1-litre increments. Suitable for foodstuffs.

Delivery without lid, please order separately.

Not a medical device / Not an IVD product

Vol. (l)	Ø Upper (mm)	Ø Lower (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	250	165	240	**K620.1**	1 unit(s)	18,40
10	290	210	300	**K622.1**	1 unit(s)	22,10

Accessories lid for bucket made of HDPE

Vitlab. Material: LDPE, transparent.

Closes air-tight. Suitable for foodstuffs.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
Art. No. K620.1	**K621.1**	1 unit(s)	5,55
Art. No. K622.1	**K623.1**	1 unit(s)	6,40



Buckets ROTILABO® with spout

ROTH SELECTION. Material: LDPE, handle made of metal.

With graduation, scaling in 1-litre increments.

Not a medical device / Not an IVD product

Vol. (l)	Ø Upper (mm)	Ø Lower (mm)	Height (mm)	Art. No.	Pack Qty.	€
9	280	203	250	**AC97.1**	1 unit(s)	12,85
12	300	227	280	**AC98.1**	1 unit(s)	14,85
17	340	249	310	**AC99.1**	1 unit(s)	22,40



Buckets ROTILABO® with spout

ROTH SELECTION. Material: HDPE, natural colours.

Tapered, can be stacked inside one another. With marked graduation on the inside in 500 ml increments. Suitable for foodstuffs.

Not a medical device / Not an IVD product

Vol. (l)	Ø Upper (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
10	290	280	570	**1608.1**	1 unit(s)	17,35
17	330	320	860	**1609.1**	1 unit(s)	21,15



Buckets ROTILABO® with spout

ROTH SELECTION. Material: PP.

With handle and scaling in 1-litre increments. Good chemical resistance. Suitable for foodstuffs.

Not a medical device / Not an IVD product

Vol. (l)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
12	310	330	**HX60.1**	1 unit(s)	36,80
15	310	370	**HX61.1**	1 unit(s)	40,50

Buckets



A 121 °C

Buckets disposable

Simport. Material: PP, white. Autoclavable: Yes.

For safe storage of liquids, solids, histological and pathological samples. The tamper-evident cap guarantees the safety of the contents: The security tab breaks when opening the snap-on lid, indicating that the container has been opened. Art. No. AYP9.1 and AYT0.1 also with carry handle.

In vitro diagnostic medical device according to IVDD

Vol. (l)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.3	111	45	**AYP6.1**	100 unit(s)	90,20
0.5	111	75	**AYP7.1**	100 unit(s)	100,55
1.0	111	140	**AYP8.1**	100 unit(s)	141,90
2.6	200	124	**AYP9.1**	25 unit(s)	92,45
5.7	225	195	**AYT0.1**	10 unit(s)	76,35



A 121 °C

Measuring beaker ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10, matt polished. Autoclavable: Yes.

Heavy duty, wall thickness 0.8 mm. Graduation in 1-litre increments. With handle and additional grip for simple pouring. Suitable for foodstuffs.

Delivery without lid, please order separately.

Not a medical device / Not an IVD product

Vol. (l)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	240	260	**YH43.1**	1 unit(s)	510,65
15	270	300	**YH44.1**	1 unit(s)	555,80
20	270	400	**YH45.1**	1 unit(s)	657,90

Accessories lid for ROTILABO® measuring beaker

ROTH SELECTION.

Not a medical device / Not an IVD product

Designation	Art. No.	Pack Qty.	€
Lid for measuring beaker 10 l	**YH46.1**	1 unit(s)	63,90
Lid for measuring beaker 15 and 20 l	**YH47.1**	1 unit(s)	75,70



Buckets ROTILABO® with lid

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Limited.

With lid and handle, curved base. Autoclavable without lid. Suitable for foodstuffs.

Delivery incl. lid.

Not a medical device / Not an IVD product

Vol. (l)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	130	170	**C856.1**	1 unit(s)	204,25
3	155	180	**C857.1**	1 unit(s)	236,50
5	175	240	**C859.1**	1 unit(s)	279,50
8	200	290	**C861.1**	1 unit(s)	317,15
10	220	300	**C862.1**	1 unit(s)	334,35



Buckets with lid

ROTH SELECTION. Material: Stainless steel 18/10, Sealing ring made of silicone. Autoclavable: Limited.

Lid with overpressure/underpressure compensating valve (can be triggered manually). With three fasteners. Suitable for foodstuffs. Autoclavable without lid.

Not a medical device / Not an IVD product

Vol. (l)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
6.5	240	160	**LT21.1**	1 unit(s)	121,05
10.5	240	250	**LT22.1**	1 unit(s)	132,05
15.5	300	230	**LT23.1**	1 unit(s)	182,75

Buckets



121 °C

Buckets

RSG. Material: Stainless steel Remanit 4301. Autoclavable: Yes.

Graduated, scaling in 1-litre increments. With smooth base. Handle width: 15 mm, edge width: 8 mm.

Delivery without lid, please order separately.

Not a medical device / Not an IVD product

Vol. (l)	Ø Upper (mm)	Ø Lower (mm)	Height (mm)	Art. No.	Pack Qty.	€
6	260	170	190	**KY05.1**	1 unit(s)	64,80
10	290	170	260	**KY06.1**	1 unit(s)	81,90
12	320	200	260	**KY07.1**	1 unit(s)	91,00
15	350	200	310	**KY08.1**	1 unit(s)	104,65

121 °C

Accessories lids for buckets made of stainless steel

RSG. Material: Stainless steel Remanit 4301. Autoclavable: Yes.

Not a medical device / Not an IVD product

Ø (mm)	Suitable for	Art. No.	Pack Qty.	€
260	art. No. KY05.1	**KY70.1**	1 unit(s)	48,15
290	art. No. KY06.1	**KY69.1**	1 unit(s)	50,70
325	art. No. KY07.1	**KY71.1**	1 unit(s)	62,25
345	art. No. KY08.1	**KY72.1**	1 unit(s)	65,35



Universal container

ROTH SELECTION. Material: Stainless steel 18/10.

Extra heavy duty. Material thickness 1.0 mm. Items EEX5.1 and EEX6.1 come with handle reinforcement plates.

Delivery incl. lid and three fasteners for added security.

Not a medical device / Not an IVD product

Vol. (l)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	265	395	**EEX2.1**	1 unit(s)	613,85
25	300	395	**EEX3.1**	1 unit(s)	710,60
30	300	465	**EEX4.1**	1 unit(s)	723,50
50	350	555	**EEX5.1**	1 unit(s)	842,80
75	400	620	**EEX6.1**	1 unit(s)	1.043,85

ROTH SELECTION



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Flat-bottom flasks

Flat bottom flasks ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes. With heavy duty rim.



A 121 °C

Narrow neck

Acc. to ISO 1773.

Vol. (ml)	Ø Outer neck (mm)	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	22	51	100	**NT71.1**	10 unit(s)	160,25
100	22	64	110	**NT72.1**	10 unit(s)	37,40
250	34	85	140	**NT73.1**	10 unit(s)	42,30
500	34	105	170	**NT74.1**	10 unit(s)	62,70
1,000	42	131	200	**NT75.1**	1 unit(s)	30,70
2,000	50	166	250	**NT76.1**	1 unit(s)	43,25
4,000	50	207	300	**NT77.1**	1 unit(s)	62,60
6,000	65	236	340	**NT78.1**	1 unit(s)	82,65
10,000	65	279	400	**NT79.1**	1 unit(s)	130,35

Wide neck

Vol. (ml)	Ø Outer neck (mm)	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	34	51	100	**NT54.1**	10 unit(s)	173,10
250	50	85	140	**NT55.1**	10 unit(s)	184,90
500	50	105	170	**NT56.1**	10 unit(s)	213,95
1,000	50	131	200	**NT57.1**	1 unit(s)	33,15
2,000	76	166	250	**NT58.1**	1 unit(s)	44,80

Flat bottom flasks ROTILABO® with ground glass joint

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes. Acc. to DIN 12348.



A 121 °C

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	29/32	85	140	**NT59.1**	10 unit(s)	316,05
250	45/40	85	140	**NT60.1**	10 unit(s)	352,60
500	29/32	105	170	**NT61.1**	10 unit(s)	347,25
500	45/40	105	170	**NT62.1**	10 unit(s)	419,25
1,000	29/32	131	200	**NT63.1**	1 unit(s)	56,45
1,000	45/40	131	200	**NT64.1**	1 unit(s)	54,30
2,000	29/32	166	250	**NT65.1**	1 unit(s)	69,30
2,000	45/40	166	250	**NT66.1**	1 unit(s)	70,70
4,000	45/40	207	300	**NT67.1**	1 unit(s)	89,10
6,000	60/46	236	340	**NT68.1**	1 unit(s)	122,85
10,000	60/46	279	400	**NT69.1**	1 unit(s)	201,05
20,000	60/46	345	490	**NT70.1**	1 unit(s)	270,90

Flat-bottom flasks

Flat bottom flasks

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes. Acc. to ISO 1773.



A 121 °C

DURAN WHEATON KIMBLE

Narrow neck

Vol. (ml)	Ø Outer neck (mm)	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	26	51	90	**K182.1**	10 unit(s)	113,10
100	26	64	105	**K183.1**	10 unit(s)	87,55
250	34	85	138	**K184.1**	10 unit(s)	101,60
500	34	105	163	**K185.1**	10 unit(s)	137,65
1,000	42	131	190	**K186.1**	1 unit(s)	20,35
2,000	42	166	250	**K187.1**	1 unit(s)	37,30
3,000	50	185	250	**K188.1**	1 unit(s)	71,90
4,000	50	207	275	**K189.1**	1 unit(s)	102,30
5,000	50	223	290	**K190.1**	1 unit(s)	115,70
6,000	65	237	315	**K191.1**	1 unit(s)	134,30
10,000	65	280	360	**K192.1**	1 unit(s)	247,00

Wide neck

Vol. (ml)	Ø Outer neck (mm)	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	34	51	90	**K193.1**	10 unit(s)	215,00
100	34	64	105	**K194.1**	10 unit(s)	87,55
250	50	85	138	**K195.1**	10 unit(s)	102,20
500	50	103	163	**K196.1**	10 unit(s)	138,70
1,000	50	131	190	**K197.1**	1 unit(s)	23,75
2,000	50	166	230	**K198.1**	1 unit(s)	37,95

Flat bottom flasks wth ground glass joint

Lenz. Material: DURAN® glass. Autoclavable: Yes. Compliant with DIN 12348.



A 121 °C

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	29/32	51	90	**Y653.1**	1 unit(s)	11,00
100	29/32	64	110	**Y654.1**	1 unit(s)	11,10
250	29/32	85	140	**Y655.1**	1 unit(s)	21,10
500	29/32	105	170	**Y656.1**	1 unit(s)	41,85
1,000	29/32	131	200	**Y657.1**	1 unit(s)	58,60
2,000	29/32	166	250	**Y658.1**	1 unit(s)	94,60

Standard ground joint flasks

Round bottom flasks

Lenz. Material: DURAN® glass. Autoclavable: Yes.
With ground glass joint.



A 121 °C

Clear glass

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	14/23	30	58	**HY49.1**	1 unit(s)	9,30
10	14/23	35	70	**HY50.1**	1 unit(s)	9,15
25	14/23	41	85	**E588.1**	1 unit(s)	9,80
25	19/26	41	85	**KY27.1**	1 unit(s)	10,35
50	14/23	51	90	**E589.1**	1 unit(s)	11,20
50	19/26	51	90	**KY28.1**	1 unit(s)	11,50
50	24/29	51	90	**KY32.1**	1 unit(s)	12,60
50	29/32	51	90	**E590.1**	1 unit(s)	10,75
100	14/23	64	105	**E591.1**	1 unit(s)	12,30
100	19/26	64	105	**KY29.1**	1 unit(s)	13,55
100	24/29	64	105	**KY33.1**	1 unit(s)	12,80
100	29/32	64	105	**E592.1**	1 unit(s)	10,25
250	14/23	85	140	**KY26.1**	1 unit(s)	25,80
250	19/26	85	140	**KY30.1**	1 unit(s)	26,35
250	24/29	85	140	**KY34.1**	1 unit(s)	21,40
250	29/32	85	145	**E593.1**	1 unit(s)	21,40
250	45/40	85	145	**E594.1**	1 unit(s)	60,75
500	19/26	105	168	**KY31.1**	1 unit(s)	39,80
500	24/29	105	165	**KY35.1**	1 unit(s)	26,90
500	29/32	105	175	**E595.1**	1 unit(s)	27,45
500	45/40	105	175	**E596.1**	1 unit(s)	76,90
1,000	24/29	131	195	**KY36.1**	1 unit(s)	37,55
1,000	29/32	131	200	**E597.1**	1 unit(s)	41,95
1,000	45/40	131	200	**E598.1**	1 unit(s)	63,35
2,000	24/29	166	260	**KY37.1**	1 unit(s)	71,95
2,000	29/32	166	260	**E599.1**	1 unit(s)	67,20
2,000	45/40	166	260	**E600.1**	1 unit(s)	74,10
3,000	29/32	185	265	**TE93.1**	1 unit(s)	181,70
3,000	45/40	185	265	**TE94.1**	1 unit(s)	192,45
4,000	29/32	207	290	**TE95.1**	1 unit(s)	188,15
4,000	45/40	207	315	**E601.1**	1 unit(s)	192,45
5,000	29/32	223	315	**TE96.1**	1 unit(s)	224,70
5,000	45/40	223	315	**TE97.1**	1 unit(s)	231,15
6,000	29/32	236	360	**ELA0.1**	1 unit(s)	263,40
6,000	45/40	236	360	**ELA1.1**	1 unit(s)	282,75
10,000	29/32	279	375	**ELA2.1**	1 unit(s)	471,95
10,000	45/40	279	375	**ELA3.1**	1 unit(s)	456,90
20,000	29/32	345	495	**ELA4.1**	1 unit(s)	740,70
20,000	45/40	345	495	**ELA5.1**	1 unit(s)	772,95

Brown glass

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	29/32	51	90	**ELA6.1**	1 unit(s)	51,50
100	29/32	64	115	**Y646.1**	1 unit(s)	46,25
250	29/32	85	145	**Y647.1**	1 unit(s)	73,65
500	29/32	105	175	**Y648.1**	1 unit(s)	74,75
1,000	29/32	131	210	**Y649.1**	1 unit(s)	89,15

Standard ground joint flasks

Round bottom flasks ROTILABO® with ground glass joint

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes. Acc. to ISO 4797.



A 121 °C

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	14/23	51	105	**ACH0.1**	10 unit(s)	182,75
50	19/26	51	105	**ACH1.1**	10 unit(s)	183,85
50	29/32	51	105	**ACH2.1**	10 unit(s)	189,20
100	14/23	64	115	**ACH3.1**	10 unit(s)	233,30
100	19/26	64	115	**ACH4.1**	10 unit(s)	233,30
100	29/32	64	115	**ACH5.1**	10 unit(s)	233,30
250	29/32	85	145	**ACH6.1**	10 unit(s)	293,50
250	45/40	85	145	**ACH7.1**	1 unit(s)	44,80
500	29/32	105	175	**ACH8.1**	10 unit(s)	320,35
500	45/40	105	175	**ACH9.1**	1 unit(s)	52,50
1,000	29/32	131	210	**ACK0.1**	1 unit(s)	62,70
1,000	45/40	131	210	**ACK1.1**	1 unit(s)	60,90
2,000	29/32	166	260	**ACK2.1**	1 unit(s)	69,30
2,000	45/40	166	260	**ACK3.1**	1 unit(s)	76,70
4,000	45/40	207	315	**ACK4.1**	1 unit(s)	89,25
6,000	60/46	236	355	**ACK5.1**	1 unit(s)	122,85
10,000	60/46	279	420	**ACK6.1**	1 unit(s)	189,20

Round bottom flasks ROTILABO® with beaded rim

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.



A 121 °C

Narrow neck

Vol. (ml)	Ø Outer flask (mm)	Ø Outer neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	51	22	105	**NT88.1**	10 unit(s)	152,65
100	64	22	115	**NT89.1**	10 unit(s)	199,95
250	85	34	147	**NT90.1**	10 unit(s)	170,95
500	105	34	175	**NT91.1**	10 unit(s)	203,20
1,000	131	42	210	**NT92.1**	1 unit(s)	32,80
2,000	166	50	260	**NT93.1**	1 unit(s)	41,15
4,000	207	50	315	**NT94.1**	1 unit(s)	58,70
6,000	236	65	355	**NT95.1**	1 unit(s)	80,95
10,000	279	65	420	**NT96.1**	1 unit(s)	124,85
20,000	345	80	500	**NT97.1**	1 unit(s)	218,25

Standard ground joint flasks

Wide neck

Vol. (ml)	Ø Outer flask (mm)	Ø Outer neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	51	34	105	**NT98.1**	10 unit(s)	175,25
100	64	34	115	**NT99.1**	10 unit(s)	207,50
250	85	50	145	**NX00.1**	10 unit(s)	174,15
500	105	50	175	**NX01.1**	10 unit(s)	189,20
1,000	131	50	210	**NX02.1**	1 unit(s)	32,10
2,000	166	76	260	**NX03.1**	1 unit(s)	38,75
4,000	207	76	315	**NX04.1**	1 unit(s)	57,70
6,000	236	89	355	**NX05.1**	1 unit(s)	82,65
10,000	279	89	420	**NX06.1**	1 unit(s)	123,50

Round bottom flasks

Vitlab. Material: PFA, Transparent. Autoclavable: Yes.

- High chemical resistance
- Temperature resistant in the range -200 to +260 °C
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning
- High purity, ideal for use in trace analysis and for storage of reference solutions
- No memory effect
- Also suitable for use in rotary evaporator as safety flask
- Autoclavable



A 121 °C ❄❄❄

Vol. (ml)	Standard ground glass joint	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	29/32	29/32	65	117	**XY62.1**	1 unit(s)	110,60
250	29/32	29/32	88	147	**XY63.1**	1 unit(s)	128,10
500	29/32	29/32	107	177	**XY64.1**	1 unit(s)	175,25

Kjeldahl flasks

Lenz. Material: DURAN® glass. Autoclavable: Yes.
With ground glass joint. Acc. to DIN 12360.



A 121 °C

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	14/23	51	200	**Y659.1**	1 unit(s)	55,90
50	19/26	51	200	**Y660.1**	1 unit(s)	53,75
100	14/23	60	200	**Y661.1**	1 unit(s)	55,40
100	19/26	60	200	**Y662.1**	1 unit(s)	53,65
250	29/32	81	270	**Y663.1**	1 unit(s)	74,10
500	29/32	101	300	**Y664.1**	1 unit(s)	77,95
750	29/32	115	340	**Y665.1**	1 unit(s)	89,25
1,000	29/32	126	350	**Y666.1**	1 unit(s)	104,30

Standard ground joint flasks

Pear-shaped flasks

Lenz. Material: DURAN® glass. Autoclavable: Yes.

A 121 °C

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	14/23	27	68	**TK67.1**	1 unit(s)	19,25
10	14/23	30	75	**E602.1**	1 unit(s)	12,55
25	14/23	40	90	**E603.1**	1 unit(s)	14,95
25	19/26	42	90	**TK68.1**	1 unit(s)	13,15
50	14/23	50	110	**E604.1**	1 unit(s)	17,10
50	19/26	51	100	**TK69.1**	1 unit(s)	15,80
50	29/32	51	100	**TK70.1**	1 unit(s)	19,90
100	14/23	62	125	**E605.1**	1 unit(s)	23,15
100	19/26	64	130	**TK71.1**	1 unit(s)	21,00
100	29/32	64	130	**TK72.1**	1 unit(s)	30,10
250	14/23	85	195	**TK73.1**	1 unit(s)	37,55
250	19/26	85	195	**TK74.1**	1 unit(s)	38,60
250	29/32	85	190	**TK75.1**	1 unit(s)	41,40

Two-necked, pear-shaped flasks

Lenz. Material: DURAN® glass. Autoclavable: Yes.
With angled side neck (angle 25°).



A 121 °C

Vol. (ml)	Centre neck with ground glass joints	Side neck with ground glass joints	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	14/23	14/23	40	90	**TH63.1**	1 unit(s)	31,10
25	19/26	14/23	40	90	**TH64.1**	1 unit(s)	55,40
50	14/23	14/23	50	100	**TH65.1**	1 unit(s)	32,25
50	19/26	14/23	50	100	**TH66.1**	1 unit(s)	59,15
100	14/23	14/23	64	130	**TH67.1**	1 unit(s)	35,50
100	19/26	14/23	64	130	**TH68.1**	1 unit(s)	72,60
250	14/23	14/23	85	195	**TH69.1**	1 unit(s)	98,90
250	19/26	14/23	85	195	**TH70.1**	1 unit(s)	105,35

Standard ground joint flasks

Double neck round bottom flasks side neck parallel

Lenz. Material: DURAN® glass. Autoclavable: Yes.
Centre neck MS 29/32, with parallel side neck.



A 121 °C

Vol. (ml)	Centre neck with ground glass joints	Side neck with ground glass joints	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	29/32	14/23	64	105	**ELA7.1**	1 unit(s)	33,25
250	29/32	14/23	85	140	**ELA8.1**	1 unit(s)	45,05
250	29/32	29/32	85	140	**ELA9.1**	1 unit(s)	53,65
500	29/32	14/23	105	163	**ELC0.1**	1 unit(s)	60,10
500	29/32	29/32	105	163	**ELC1.1**	1 unit(s)	67,75
1,000	29/32	14/23	131	200	**ELC2.1**	1 unit(s)	77,95
1,000	29/32	29/32	131	200	**ELC3.1**	1 unit(s)	80,10
2,000	29/32	14/23	166	240	**ELC4.1**	1 unit(s)	106,45
2,000	29/32	29/32	166	240	**ELC5.1**	1 unit(s)	115,05
4,000	29/32	29/32	207	290	**ELC6.1**	1 unit(s)	252,65

Double neck round bottom flasks ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.
With ground glass joints.



A 121 °C

Vol. (ml)	Centre neck with ground glass joints	Side neck with ground glass joints	Art. No.	Pack Qty.	€
250	29/32	14/23	**ACE4.1**	1 unit(s)	65,85
500	29/32	14/23	**ACE5.1**	1 unit(s)	53,20
1,000	29/32	14/23	**ACE6.1**	1 unit(s)	71,65
2,000	29/32	14/23	**ACE7.1**	1 unit(s)	84,05
4,000	45/40	14/23	**ACE8.1**	1 unit(s)	115,15
6,000	60/46	14/23	**ACE9.1**	1 unit(s)	167,70

Standard ground joint flasks

Double neck round bottom flasks

Lenz. Material: DURAN® glass. Autoclavable: Yes.
With angled side neck (angle 20°).

A 121 °C

Vol. (ml)	Centre neck with ground glass joints	Side neck with ground glass joints	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	14/23	14/23	41	85	**KY12.1**	1 unit(s)	26,70
50	14/23	14/23	51	90	**KY13.1**	1 unit(s)	27,45
100	14/23	14/23	64	105	**KY14.1**	1 unit(s)	28,95
100	24/29	14/23	64	105	**ELC7.1**	1 unit(s)	31,75
100	24/29	19/26	64	105	**KY24.1**	1 unit(s)	38,60
100	29/32	14/23	64	105	**E606.1**	1 unit(s)	31,75
100	29/32	19/26	64	105	**ELC8.1**	1 unit(s)	41,85
100	29/32	29/32	64	105	**ELC9.1**	1 unit(s)	45,70
250	14/23	14/23	85	140	**ELE0.1**	1 unit(s)	46,25
250	24/29	14/23	85	140	**ELE1.1**	1 unit(s)	45,05
250	24/29	19/26	85	140	**KY25.1**	1 unit(s)	53,25
250	29/32	14/23	85	140	**E607.1**	1 unit(s)	45,15
250	29/32	19/26	85	140	**ELE2.1**	1 unit(s)	54,30
250	29/32	29/32	85	140	**ELE3.1**	1 unit(s)	55,90
500	24/29	14/23	105	163	**ELE4.1**	1 unit(s)	50,00
500	24/29	19/26	105	163	**ELE5.1**	1 unit(s)	55,05
500	29/32	14/23	105	163	**E608.1**	1 unit(s)	51,85
500	29/32	19/26	105	163	**ELE6.1**	1 unit(s)	61,30
500	29/32	29/32	105	163	**ELE7.1**	1 unit(s)	65,05
1,000	24/29	19/26	131	200	**ELE8.1**	1 unit(s)	65,05
1,000	29/32	14/23	131	200	**E609.1**	1 unit(s)	63,35
1,000	29/32	19/26	131	200	**ELE9.1**	1 unit(s)	65,05
1,000	29/32	29/32	131	200	**ELH0.1**	1 unit(s)	77,30
2,000	29/32	14/23	166	240	**E610.1**	1 unit(s)	117,20
2,000	29/32	19/26	166	240	**ELH1.1**	1 unit(s)	117,20
2,000	29/32	29/32	166	240	**ELH2.1**	1 unit(s)	115,05
4,000	29/32	29/32	207	290	**ELH3.1**	1 unit(s)	235,45

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Standard ground joint flasks

Three-necked round-bottom flasks parallel side necks

Lenz. Material: DURAN® glass. Autoclavable: Yes.



A 121 °C

Vol. (ml)	Centre neck with ground glass joints	Side neck 1+2 with ground glass joints	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	24/29	19/26	64	105	**ELH4.1**	1 unit(s)	63,45
100	29/32	19/26	64	105	**ELH5.1**	1 unit(s)	65,50
100	29/32	14/23	64	105	**KY15.1**	1 unit(s)	42,50
100	29/32	29/32	64	105	**KY16.1**	1 unit(s)	85,50
250	24/29	19/26	85	105	**ELH6.1**	1 unit(s)	72,60
250	29/32	14/23	85	140	**E615.1**	1 unit(s)	63,45
250	29/32	19/26	85	140	**ELH7.1**	1 unit(s)	87,10
250	29/32	29/32	85	140	**KY17.1**	1 unit(s)	68,70
500	24/29	19/26	105	163	**ELH8.1**	1 unit(s)	91,95
500	29/32	14/23	105	163	**E616.1**	1 unit(s)	69,90
500	29/32	29/32	105	163	**E617.1**	1 unit(s)	82,80
500	29/32	19/26	105	163	**ELH9.1**	1 unit(s)	89,80
1,000	24/29	19/26	131	200	**ELK0.1**	1 unit(s)	94,60
1,000	29/32	14/23	131	200	**E618.1**	1 unit(s)	82,80
1,000	29/32	29/32	131	200	**E619.1**	1 unit(s)	91,40
1,000	29/32	19/26	131	200	**ELK1.1**	1 unit(s)	103,75
1,000	45/40	29/32	131	200	**ELK2.1**	1 unit(s)	117,20
2,000	24/29	19/26	166	240	**ELK3.1**	1 unit(s)	149,45
2,000	29/32	14/23	166	240	**E620.1**	1 unit(s)	122,55
2,000	29/32	29/32	166	240	**E621.1**	1 unit(s)	127,95
2,000	29/32	19/26	166	240	**ELK4.1**	1 unit(s)	149,45
2,000	45/40	29/32	166	240	**ELK5.1**	1 unit(s)	176,30
3,000	29/32	14/23	185	265	**ELK6.1**	1 unit(s)	259,10
3,000	29/32	29/32	185	265	**ELK7.1**	1 unit(s)	220,40
3,000	45/40	29/32	185	265	**ELK8.1**	1 unit(s)	294,55
4,000	29/32	14/23	207	290	**ELK9.1**	1 unit(s)	294,55
4,000	29/32	29/32	207	290	**ELL0.1**	1 unit(s)	306,40
4,000	45/40	29/32	207	290	**ELL1.1**	1 unit(s)	341,85
5,000	29/32	29/32	223	315	**ELL2.1**	1 unit(s)	377,35
5,000	45/40	29/32	223	315	**ELL3.1**	1 unit(s)	396,70
6,000	29/32	14/23	236	360	**ELL4.1**	1 unit(s)	371,95
6,000	29/32	29/32	236	360	**ELL5.1**	1 unit(s)	383,80
6,000	45/40	29/32	236	360	**ELL6.1**	1 unit(s)	428,95
10,000	29/32	29/32	279	375	**ELL7.1**	1 unit(s)	579,45
10,000	45/40	29/32	279	375	**ELL8.1**	1 unit(s)	661,15
20,000	45/40	29/32	345	495	**ELL9.1**	1 unit(s)	1.009,45

Standard ground joint flasks

Three-necked round-bottom flasks side necks, bevelled

Lenz. Material: DURAN® glass. Autoclavable: Yes.
With two angled side necks (angle 20°).



A 121 °C

Vol. (ml)	Centre neck with ground glass joints	Side neck 1+2 with ground glass joints	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	14/23	14/23	41	70	**ELN0.1**	1 unit(s)	63,35
50	14/23	14/23	51	90	**KY18.1**	1 unit(s)	53,65
100	14/23	14/23	64	105	**KY19.1**	1 unit(s)	56,45
100	24/29	14/23	64	105	**ELN1.1**	1 unit(s)	58,60
100	24/29	19/26	64	105	**ELN2.1**	1 unit(s)	63,45
100	29/32	14/23	64	105	**E611.1**	1 unit(s)	48,40
100	29/32	19/26	64	105	**ELN3.1**	1 unit(s)	69,90
100	29/32	29/32	64	105	**ELN4.1**	1 unit(s)	95,70
250	24/29	14/23	85	140	**ELN5.1**	1 unit(s)	75,15
250	24/29	19/26	85	140	**ELN6.1**	1 unit(s)	80,10
250	29/32	14/23	85	140	**E612.1**	1 unit(s)	61,30
250	29/32	19/26	85	140	**ELN7.1**	1 unit(s)	95,70
250	29/32	29/32	85	140	**KY20.1**	1 unit(s)	69,90
500	24/29	14/23	105	163	**ELN8.1**	1 unit(s)	83,35
500	24/29	19/26	105	163	**ELN9.1**	1 unit(s)	87,65
500	29/32	14/23	105	163	**E613.1**	1 unit(s)	67,75
500	29/32	19/26	105	163	**ELP0.1**	1 unit(s)	95,70
500	29/32	29/32	105	163	**KY21.1**	1 unit(s)	77,30
1,000	24/29	14/23	131	200	**ELP1.1**	1 unit(s)	99,45
1,000	24/29	19/26	131	200	**ELP2.1**	1 unit(s)	102,70
1,000	29/32	14/23	131	200	**E614.1**	1 unit(s)	78,50
1,000	29/32	19/26	131	200	**ELP3.1**	1 unit(s)	109,65
1,000	29/32	29/32	131	200	**KY22.1**	1 unit(s)	93,55
1,000	45/40	29/32	131	200	**ELP4.1**	1 unit(s)	127,95
2,000	24/29	19/26	166	240	**ELP5.1**	1 unit(s)	160,20
2,000	29/32	14/23	166	240	**ELP6.1**	1 unit(s)	155,90
2,000	29/32	19/26	166	240	**ELP7.1**	1 unit(s)	156,95
2,000	29/32	29/32	166	240	**KY23.1**	1 unit(s)	123,65
2,000	45/40	29/32	166	240	**ELP8.1**	1 unit(s)	160,20
3,000	29/32	14/23	185	265	**ELP9.1**	1 unit(s)	256,95
3,000	29/32	29/32	185	265	**ELT0.1**	1 unit(s)	278,45
3,000	45/40	29/32	185	265	**ELT1.1**	1 unit(s)	289,20
4,000	29/32	14/23	207	290	**ELT2.1**	1 unit(s)	295,65
4,000	29/32	29/32	207	290	**ELT3.1**	1 unit(s)	317,15
4,000	45/40	29/32	207	290	**ELT4.1**	1 unit(s)	317,15
5,000	29/32	29/32	223	315	**ELT5.1**	1 unit(s)	424,65
5,000	45/40	29/32	223	315	**ELT6.1**	1 unit(s)	401,00
6,000	29/32	14/23	236	360	**ELT7.1**	1 unit(s)	353,70
6,000	29/32	29/32	236	360	**ELT8.1**	1 unit(s)	448,30
6,000	45/40	29/32	236	360	**ELT9.1**	1 unit(s)	401,00
10,000	29/32	29/32	279	375	**ELX0.1**	1 unit(s)	633,20
10,000	45/40	29/32	279	375	**ELX1.1**	1 unit(s)	622,45
20,000	45/40	29/32	345	495	**ELX2.1**	1 unit(s)	1.062,10

Standard ground joint flasks

Round bottom flasks

Bohlender. Material: PFA, highly pure.

Chemically inert. Hydrophobic, anti-adhesive surfaces. Centre neck MS 29/32. Temperature-stable from -200 to +250 °C. Transparent and pore-free, partially suitable for vacuum (e.g. 30 mbar at 50 °C).



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Single neck flasks

Vol. (ml)	Standard ground glass joint	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	29/32	29/32	67	117	**NY39.1**	1 unit(s)	141,65
250	29/32	29/32	88	149	**NY40.1**	1 unit(s)	165,55
500	29/32	29/32	107	177	**NY41.1**	1 unit(s)	227,90

Double neck flasks

Vol. (ml)	Centre neck with ground glass joints	Side neck with ground glass joints	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	29/32	14/23	67	117	**NY42.1**	1 unit(s)	441,85
250	29/32	29/32	88	149	**NY43.1**	1 unit(s)	739,60
500	29/32	29/32	107	177	**NY44.1**	1 unit(s)	808,40

Triple neck flasks

Vol. (ml)	Centre neck with ground glass joints	Side neck 1+2 with ground glass joints	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	29/32	14/23	67	117	**NY45.1**	1 unit(s)	611,70
250	29/32	29/32	88	149	**NY46.1**	1 unit(s)	1.107,25
500	29/32	29/32	107	177	**NY47.1**	1 unit(s)	1.186,80

Sulphuration flasks

Bohemia. Material: Borosilicate glass 3.3. Autoclavable: Yes.

With three Side necks with ground glass joints.



A 121 °C ❄

Vol. (ml)	Centre neck with ground glass joints	Side neck 1+2 with ground glass joints	Side neck 3 with ground glass joints	Art. No.	Pack Qty.	€
500	45/40	14/23	14/23	**TK78.1**	1 unit(s)	100,10
1,500	71/51	29/32	14/23	**TK79.1**	1 unit(s)	158,70
2,500	71/51	29/32	14/23	**TK80.1**	1 unit(s)	168,80
4,000	71/51	29/32	14/23	**TK81.1**	1 unit(s)	205,35
6,000	71/51	29/32	14/23	**TK82.1**	1 unit(s)	224,70

Standard ground joint flasks

Four-necked round bottom flask

Lenz. Material: DURAN® glass. Autoclavable: Yes.



A 121 °C

(1) Parallel side necks

Vol. (ml)	Centre neck with ground glass joints	Side neck 1+2 with ground glass joints	Side neck 3 with ground glass joints	Ø Outer flask (mm)	Art. No.	Pack Qty.	€
500	29/32	29/32	29/32	105	**TH78.1**	1 unit(s)	134,40
1,000	29/32	29/32	29/32	131	**TH79.1**	1 unit(s)	149,45
1,000	45/40	29/32	29/32	131	**ELX3.1**	1 unit(s)	149,45
2,000	29/32	29/32	29/32	166	**TH80.1**	1 unit(s)	198,90
2,000	45/40	29/32	29/32	166	**ELX4.1**	1 unit(s)	203,20
3,000	29/32	29/32	29/32	185	**TH81.1**	1 unit(s)	299,95
3,000	45/40	29/32	29/32	185	**ELX5.1**	1 unit(s)	299,95
4,000	29/32	29/32	29/32	207	**ELX6.1**	1 unit(s)	299,95
4,000	45/40	29/32	29/32	207	**ELX7.1**	1 unit(s)	342,95
5,000	45/40	29/32	29/32	223	**TH82.1**	1 unit(s)	456,90
6,000	29/32	29/32	29/32	236	**ELX8.1**	1 unit(s)	448,30
6,000	45/40	29/32	29/32	236	**ELX9.1**	1 unit(s)	471,95
10,000	45/40	29/32	29/32	279	**ELY0.1**	1 unit(s)	751,45

(2) Side necks bevelled, angle 15°

Vol. (ml)	Centre neck with ground glass joints	Side neck 1+2 with ground glass joints	Side neck 3 with ground glass joints	Ø Outer flask (mm)	Art. No.	Pack Qty.	€
250	29/32	29/32	29/32	85	**TH76.1**	1 unit(s)	138,70
500	29/32	29/32	29/32	105	**TH77.1**	1 unit(s)	139,75

Receiving flask with PUR coating

Lenz. Material: DURAN® glass, with coating made of PUR. Autoclavable: Yes.

With spherical joint connection KS 35. Specifically for rotary evaporators. Highly transparent coating provides protection from scratches, impacts and light (absorption up to approx. 380 nm). In the event of glass breakage, the coating helps contain broken glass and leakage. Temperature stability -30 to +140 °C.



A 121 °C

Vol. (ml)	Spherical connection for ground glass joint	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	KS 35	64	100	**TH18.1**	1 unit(s)	123,65
250	KS 35	85	124	**TH19.1**	1 unit(s)	134,40
500	KS 35	105	150	**TH20.1**	1 unit(s)	145,15
1,000	KS 35	131	185	**TH21.1**	1 unit(s)	170,95
2,000	KS 35	166	240	**TH22.1**	1 unit(s)	224,70

Standard ground joint flasks

Receiving flask

Lenz. Material: DURAN® glass. Autoclavable: Yes.

With spherical joint connection KS 35. Specifically for rotary evaporators.



A 121 °C

Vol. (ml)	Spherical connection for ground glass joint	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	KS 35	85	140	**KY57.1**	1 unit(s)	44,65
500	KS 35	105	155	**KY58.1**	1 unit(s)	50,45
1,000	KS 35	131	200	**KY59.1**	1 unit(s)	63,45
2,000	KS 35	166	245	**KY65.1**	1 unit(s)	101,60

Powder flasks

Lenz. Material: DURAN® glass. Autoclavable: Yes.

With centred ground glass joint 29/32. For drying substances at the rotary evaporator.



A 121 °C

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	29/32	60	110	**TH71.1**	1 unit(s)	100,00
250	29/32	81	125	**TH72.1**	1 unit(s)	117,20
500	29/32	101	155	**TH73.1**	1 unit(s)	138,70
1,000	29/32	126	195	**TH74.1**	1 unit(s)	166,65
2,000	29/32	158	245	**TH75.1**	1 unit(s)	231,15

Evaporating flasks with PUR coating

Lenz. Material: DURAN® glass, with coating made of PUR. Autoclavable: Yes.

With ground glass joint, pear-shaped.
Highly transparent coating provides protection from scratches, impacts and light (absorption up to approx. 380 nm). In the event of glass breakage, the coating helps contain broken glass and leakage. Temperature-stable from -30 to +140 °C.



A 121 °C ❄

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	29/32	56	95	**TH11.1**	1 unit(s)	85,50
100	29/32	60	110	**TH12.1**	1 unit(s)	88,05
250	29/32	81	140	**TH13.1**	1 unit(s)	115,05
500	29/32	101	170	**TH14.1**	1 unit(s)	134,40
1,000	29/32	126	210	**TH15.1**	1 unit(s)	155,90
2,000	29/32	158	245	**TH16.1**	1 unit(s)	198,90
3,000	29/32	175	270	**TH17.1**	1 unit(s)	252,65

Standard ground joint flasks

Evaporating flasks

Lenz. Material: DURAN® glass. Autoclavable: Yes.
With ground glass joint, pear-shaped.



A 121 °C

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	14/23	25	55	**TH04.1**	1 unit(s)	21,40
10	14/23	33	65	**TH05.1**	1 unit(s)	22,60
25	14/23	40	75	**TH06.1**	1 unit(s)	23,55
50	14/23	50	88	**TH07.1**	1 unit(s)	25,70
50	29/32	56	95	**TH08.1**	1 unit(s)	23,15
100	29/32	60	110	**K263.1**	1 unit(s)	31,10
250	29/32	81	140	**K264.1**	1 unit(s)	43,90
500	29/32	101	170	**K265.1**	1 unit(s)	51,50
1,000	29/32	126	210	**K266.1**	1 unit(s)	74,75
2,000	29/32	158	245	**TH09.1**	1 unit(s)	91,40
3,000	29/32	175	270	**TH10.1**	1 unit(s)	160,20

Nitrogen round flask with valve cock

Lenz. Material: DURAN® glass, valve cock made of PTFE.
Valve bore 2.5 mm.



Vol. (ml)	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
25	14/23	**TH35.1**	1 unit(s)	80,65
50	14/23	**TH36.1**	1 unit(s)	80,65
50	29/32	**TH37.1**	1 unit(s)	106,35
100	14/23	**TH38.1**	1 unit(s)	85,90
100	29/32	**TH39.1**	1 unit(s)	88,05
250	14/23	**TH40.1**	1 unit(s)	102,15
250	29/32	**TH41.1**	1 unit(s)	103,75
500	29/32	**TH42.1**	1 unit(s)	106,45
1,000	29/32	**TH43.1**	1 unit(s)	132,25

Standard ground joint flasks



Nitrogen round flask with cock

Lenz. Material: DURAN® glass.

With ground glass joint. Stop cock MS 14.5, borehole 2.5 mm. Ø olive 9 mm.

Vol. (ml)	Standard ground glass joint sleeve	Height (mm)	Art. No.	Pack Qty.	€
25	14/23	85	**KY38.1**	1 unit(s)	61,20
50	14/23	90	**KY39.1**	1 unit(s)	61,85
50	29/32	90	**KY42.1**	1 unit(s)	63,45
100	14/23	105	**KY40.1**	1 unit(s)	64,40
100	29/32	105	**KY43.1**	1 unit(s)	66,55
250	14/23	140	**KY41.1**	1 unit(s)	83,35
250	29/32	137	**KY44.1**	1 unit(s)	83,35
500	29/32	160	**KY45.1**	1 unit(s)	89,15
1,000	29/32	192	**KY46.1**	1 unit(s)	112,90



Nitrogen round flask with stop cock, special sizes

Winzer. Material: Borosilicate glass 3.3.

With standard ground joint and stop cock 12.5, borehole 2.5 mm. Connector for hoses with 8 mm inside Ø.

Vol. (ml)	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
10	14/23	**AAP1.1**	1 unit(s)	61,95
2,000	29/32	**AAP2.1**	1 unit(s)	140,70



Nitrogen tube

Lenz. Material: DURAN® glass.

With stop cock MS 14.5, borehole 2.5 mm. Ø Olive 9 mm.

(2) With ground glass cone 14/23

Vol. (ml)	Standard ground glass joint core	Art. No.	Pack Qty.	€
10	14/23	**KY52.1**	1 unit(s)	81,70
25	14/23	**KY53.1**	1 unit(s)	81,70
50	14/23	**KY54.1**	1 unit(s)	82,80
100	14/23	**KY55.1**	1 unit(s)	84,95
250	14/23	**KY56.1**	1 unit(s)	95,70

(1) With ground glass sleeve 14/23

Vol. (ml)	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
10	14/23	**KY47.1**	1 unit(s)	64,50
25	14/23	**KY48.1**	1 unit(s)	66,65
50	14/23	**KY49.1**	1 unit(s)	67,75
100	14/23	**KY50.1**	1 unit(s)	69,90
250	14/23	**KY51.1**	1 unit(s)	77,40



Nitrogen template with valve cock

Lenz. Material: DURAN® glass, valve cock made of PTFE.

Valve bore 2.5 mm.

(1) With ground glass sleeve 14/23

Vol. (ml)	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
10	14/23	**TH25.1**	1 unit(s)	103,10
25	14/23	**TH26.1**	1 unit(s)	103,10
50	14/23	**TH27.1**	1 unit(s)	109,65
100	14/23	**TH28.1**	1 unit(s)	112,90
250	14/23	**TH29.1**	1 unit(s)	123,65

(2) With ground glass cone 14/23

Vol. (ml)	Standard ground glass joint core	Art. No.	Pack Qty.	€
10	14/23	**TH30.1**	1 unit(s)	117,20
25	14/23	**TH31.1**	1 unit(s)	117,20
50	14/23	**TH32.1**	1 unit(s)	123,65
100	14/23	**TH33.1**	1 unit(s)	127,95
250	14/23	**TH34.1**	1 unit(s)	134,40

Reversible frits

Reversible frit

Winzer. Material: Borosilicate glass 3.3.

With vacuum adapter, two taps (NS 14.5 with large glass plug, hole 2.5 mm) and hose connector, Ø 8 mm.



10 ml

Filter plate Ø 13 mm, core NS 14/23.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Standard ground glass joint cores	Art. No.	Pack Qty.	€
10	1 (100 – 160 µm)	13	14/23	**AAT0.1**	1 unit(s)	249,40
10	2 (40 – 100 µm)	13	14/23	**AAT1.1**	1 unit(s)	249,40
10	3 (16 – 40 µm)	13	14/23	**AAT2.1**	1 unit(s)	249,40
10	4 (10 – 16 µm)	13	14/23	**AAT3.1**	1 unit(s)	252,65

50 ml

Filter plate Ø 22 mm, core NS 29/32.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Standard ground glass joint cores	Art. No.	Pack Qty.	€
50	1 (100 – 160 µm)	22	29/32	**AAT4.1**	1 unit(s)	263,40
50	2 (40 – 100 µm)	22	29/32	**AAT5.1**	1 unit(s)	263,40
50	3 (16 – 40 µm)	22	29/32	**AAT6.1**	1 unit(s)	263,40
50	4 (10 – 16 µm)	22	29/32	**AAT7.1**	1 unit(s)	263,40

100 ml

Filter plate Ø 32 mm, core NS 29/32.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Standard ground glass joint cores	Art. No.	Pack Qty.	€
100	1 (100 – 160 µm)	32	29/32	**AAT8.1**	1 unit(s)	274,15
100	2 (40 – 100 µm)	32	29/32	**AAT9.1**	1 unit(s)	274,15
100	3 (16 – 40 µm)	32	29/32	**AAX0.1**	1 unit(s)	274,15
100	4 (10 – 16 µm)	32	29/32	**AAX1.1**	1 unit(s)	278,45

250 ml

Filter plate Ø 46 mm, core NS 29/32.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Standard ground glass joint cores	Art. No.	Pack Qty.	€
250	1 (100 – 160 µm)	46	29/32	**AAX2.1**	1 unit(s)	301,00
250	2 (40 – 100 µm)	46	29/32	**AAX3.1**	1 unit(s)	301,00
250	3 (16 – 40 µm)	46	29/32	**AAX4.1**	1 unit(s)	301,00
250	4 (10 – 16 µm)	46	29/32	**AAX5.1**	1 unit(s)	305,30

500 ml

Filter plate Ø 52 mm, core NS 29/32.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Standard ground glass joint cores	Art. No.	Pack Qty.	€
500	1 (100 – 160 µm)	52	29/32	**AAX6.1**	1 unit(s)	377,35
500	2 (40 – 100 µm)	52	29/32	**AAX7.1**	1 unit(s)	377,35
500	3 (16 – 40 µm)	52	29/32	**AAX8.1**	1 unit(s)	377,35
500	4 (10 – 16 µm)	52	29/32	**AAX9.1**	1 unit(s)	391,30

1000 ml

Filter plate Ø 75 mm, core NS 29/32.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Standard ground glass joint cores	Art. No.	Pack Qty.	€
1,000	1 (100 – 160 µm)	75	29/32	**AAY0.1**	1 unit(s)	444,00
1,000	2 (40 – 100 µm)	75	29/32	**AAY1.1**	1 unit(s)	444,00
1,000	3 (16 – 40 µm)	75	29/32	**AAY2.1**	1 unit(s)	444,00
1,000	4 (10 – 16 µm)	75	29/32	**AAY3.1**	1 unit(s)	448,30

Reversible frits

Cold trap

Lenz. Material: DURAN® glass.
Core and socket NS 29/32.



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Without condensate drain

Cooling capacity (l)	Standard ground glass joint core	Standard ground glass joint sleeve	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
0.2	29/32	29/32	70	270	**Y803.1**	1 unit(s)	392,40
0.5	29/32	29/32	85	320	**Y804.1**	1 unit(s)	564,40
1	29/32	29/32	100	400	**Y805.1**	1 unit(s)	998,70

With condensate drain

Cooling capacity (l)	Standard ground glass joint core	Standard ground glass joint sleeve	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
0.2	29/32	29/32	70	370	**Y806.1**	1 unit(s)	493,45
0.5	29/32	29/32	85	395	**Y807.1**	1 unit(s)	665,45
1	29/32	29/32	100	480	**Y808.1**	1 unit(s)	1.127,70

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Standard ground joint stoppers



121 °C

DURAN WHEATON KIMBLE

Stopper with standard taper clear glass

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Octagonal, with ground glass joint, acc. to DIN 12252.

Version	Standard ground glass joint	Art. No.	Pack Qty.	€
solid	14/23	**E652.1**	10 unit(s)	66,35
solid	19/26	**E653.1**	10 unit(s)	93,85
semi-hollow	29/32	**E654.1**	10 unit(s)	107,65
semi-hollow	45/40	**E655.1**	1 unit(s)	18,05



121 °C

DURAN WHEATON KIMBLE

Stopper with standard taper brown glass

DWK Life Sciences. Autoclavable: Yes.
With ground glass joint, acc. to DIN 12252, octagonal.

Version	Standard ground glass joint	Art. No.	Pack Qty.	€
SBW glass, solid	19/26	**LK29.1**	10 unit(s)	101,70
DURAN® glass, solid	24/29	**LK30.1**	10 unit(s)	139,30
DURAN® glass, semi-hollow	29/32	**LK32.1**	10 unit(s)	138,35
DURAN® glass, semi-hollow	45/40	**LK33.1**	1 unit(s)	25,25



121 °C

DURAN WHEATON KIMBLE

Stopper with standard taper hollow glass

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Hexagonal, with ground glass joint.

Standard ground glass joint	Art. No.	Pack Qty.	€
7/16	**X782.1**	10 unit(s)	30,85
10/19	**X783.1**	10 unit(s)	23,95
12/21	**X784.1**	10 unit(s)	21,45
14/23	**X785.1**	10 unit(s)	21,10
19/26	**X786.1**	10 unit(s)	27,25
24/29	**X787.1**	10 unit(s)	29,65
29/32	**X788.1**	10 unit(s)	39,50
34/35	**X789.1**	1 unit(s)	11,45
45/40	**X790.1**	1 unit(s)	15,60



DURAN WHEATON KIMBLE

Stopper with standard taper plastic

DWK Life Sciences. Material: PE.

Anatomically shaped for easier opening and closing, sealing ribs on taper ensure optimal and leak-proof sealing. With batch code on base of stopper. Temperature resistant from -40 to +80 °C.

Standard ground glass joint	Colour	Art. No.	Pack Qty.	€
7/16	blue	**AKH6.1**	10 unit(s)	11,70
10/19	green	**AKH7.1**	10 unit(s)	14,95
12/21	violet	**AKH8.1**	10 unit(s)	18,20
14/23	yellow	**AKH9.1**	10 unit(s)	12,60
19/26	blue	**AKK0.1**	10 unit(s)	14,55
24/29	green	**AKK1.1**	10 unit(s)	17,15
29/32	red	**AKK2.1**	10 unit(s)	20,70
34/35	orange	**AKK3.1**	1 unit(s)	4,40
45/40	brown	**AKK4.1**	1 unit(s)	5,00

Standard ground joint stoppers



Stopper with standard taper plastic

Lenz. Material: PE.

With ground glass joint, octagonal.

Standard ground glass joint	Art. No.	Pack Qty.	€
7/16	**LL77.1**	10 unit(s)	7,35
10/19	**LL78.1**	10 unit(s)	10,15
12/21	**LL79.1**	10 unit(s)	11,00
14/23	**LL80.1**	10 unit(s)	11,10
19/26	**LL81.1**	10 unit(s)	14,95
24/29	**LL82.1**	10 unit(s)	16,05
29/32	**LL83.1**	10 unit(s)	17,95
34/35	**LL84.1**	1 unit(s)	4,30
45/40	**LL85.1**	1 unit(s)	4,95



Stopper with standard taper ROTILABO® plastic

ROTH SELECTION. Material: PE.

Standard ground glass joint	Ø Lower (mm)	Colour	Art. No.	Pack Qty.	€
7/16	5.9	violet	**K864.1**	10 unit(s)	12,40
10/19	8.1	blue	**K865.1**	10 unit(s)	12,40
12/21	10.4	green	**K866.1**	10 unit(s)	13,05
14/23	12.2	brown	**K867.1**	10 unit(s)	13,05
19/26	16.4	yellow	**K868.1**	10 unit(s)	14,85
24/29	21.1	red	**K869.1**	10 unit(s)	18,55
29/32	25.8	black	**K870.1**	5 unit(s)	11,75
34/35	30.9	white	**K871.1**	5 unit(s)	15,55



A 121 °C ❄❄❄

Stopper with standard taper ROTILABO® made of fluoroplastic

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Usable without ground joint grease. Chemically inert, temperature-stable from -200 to +250 °C.

Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
10/19	31	**NX99.1**	1 unit(s)	12,90
14/23	34	**NY00.1**	1 unit(s)	14,55
19/26	38	**NY01.1**	1 unit(s)	17,50
24/29	44	**NY02.1**	1 unit(s)	22,15
29/32	47	**NY03.1**	1 unit(s)	25,70
34/35	51	**NY04.1**	1 unit(s)	30,50



Joint clamps for conical joints

ROTH SELECTION. Material: POM.

Highly chemical-resistant. Temperature-resistant up to +90 °C.

For standard ground glass joint	Colour	Art. No.	Pack Qty.	€
10/19	green	**1163.1**	12 unit(s)	48,40
12/21	violet	**1164.1**	12 unit(s)	50,55
14/23	yellow	**1165.1**	12 unit(s)	53,75
19/26	blue	**1166.1**	12 unit(s)	55,40
24/29	green	**1167.1**	12 unit(s)	58,05
29/32	red	**1168.1**	12 unit(s)	60,20
34/35	orange	**1169.1**	12 unit(s)	63,45
40/38	yellow	**1170.1**	12 unit(s)	72,05
45/40	brown	**1171.1**	12 unit(s)	73,10

Ground joint clamps



Joint clamps Safety Clip for conical joints

Lenz. Material: POM.

Can be varied in height, also for ground joint sleeves with grip band. Highly chemical-resistant. Colour: Blue. Heat resistant up to approx. +150 °C.

For standard ground glass joint	Art. No.	Pack Qty.	€
12/21	**EKA1.1**	10 unit(s)	32,50
14/23	**EKA2.1**	10 unit(s)	35,70
19/26	**EKA3.1**	10 unit(s)	38,20
24/29	**EKA4.1**	10 unit(s)	38,60
29/32	**EKA5.1**	10 unit(s)	38,60
34/35	**EKA6.1**	10 unit(s)	42,90
45/40	**EKA8.1**	10 unit(s)	46,80



A 121 °C ❄❄❄

Joint clamps ROTILABO® for conical joints

ROTH SELECTION. Material: Steel, PTFE coated. Autoclavable: Yes.

For conical joints. Chemically inert, temperature-stable from -200 to +250 °C.

For standard ground glass joint	Art. No.	Pack Qty.	€
14/23	**NX71.1**	1 unit(s)	7,50
19/26	**NX72.1**	1 unit(s)	8,00
24/29	**NX73.1**	1 unit(s)	8,25
29/32	**NX74.1**	1 unit(s)	8,55
34/35	**NX75.1**	1 unit(s)	10,60
45/40	**NX76.1**	1 unit(s)	11,85



A 121 °C

Joint clamps ROTILABO® for conical joints

ROTH SELECTION. Material: Chrome-nickel steel. Autoclavable: Yes.

For conical joints.

For standard ground glass joint	Art. No.	Pack Qty.	€
14/23	**CE96.1**	1 unit(s)	4,70
19/26	**CE97.1**	1 unit(s)	4,70
24/29	**CE98.1**	1 unit(s)	5,65
29/32	**CE99.1**	1 unit(s)	5,65
45/40	**CH00.1**	1 unit(s)	7,60



A 121 °C

Joint clamps for conical joints

ROTH SELECTION. Material: Steel, nickel-plated. Autoclavable: Yes.

Temperature-resistant up to 150 °C.

For standard ground glass joint	Art. No.	Pack Qty.	€
14/23	**8231.1**	4 unit(s)	37,10
19/26	**8232.1**	4 unit(s)	39,70
24/29	**8233.1**	4 unit(s)	41,40
29/32	**8234.1**	4 unit(s)	43,00

Ground joint clamps



Spring clips

Material: Steel, nickel-plated.

For bottles with standard ground glass joints and Winkler oxygen bottles.

For standard ground glass joint	Art. No.	Pack Qty.	€
14	**CEA6.1**	1 unit(s)	4,30
19	**CEA7.1**	1 unit(s)	4,55
24	**CEA8.1**	1 unit(s)	4,90
29	**CEA9.1**	1 unit(s)	5,40



A 121 °C

Joint clamps ROTILABO® for conical joints

ROTH SELECTION. Material: Chrome-nickel steel. Autoclavable: Yes.

Without setscrew

For standard ground glass joint	Art. No.	Pack Qty.	€
14/23	**CH01.1**	1 unit(s)	14,90
19/26	**CH02.1**	1 unit(s)	15,45
24/29	**CH03.1**	1 unit(s)	16,10
29/32	**CH04.1**	1 unit(s)	18,10
45/40	**CH05.1**	1 unit(s)	19,40

With setscrew

For standard ground glass joint	Art. No.	Pack Qty.	€
14/23	**CH06.1**	1 unit(s)	22,50
19/26	**CH07.1**	1 unit(s)	23,05
24/29	**CH08.1**	1 unit(s)	24,20
29/32	**CH09.1**	1 unit(s)	25,05
45/40	**CH10.1**	1 unit(s)	26,70



A 121 °C

Joint clamps ROTILABO® for conical joints

ROTH SELECTION. Material: Stainless steel. Autoclavable: Yes.

With setscrew. For securing conical ground joints.

For spherical ground glass joint	Art. No.	Pack Qty.	€
13/2	**E033.1**	1 unit(s)	13,85
19/9	**E034.1**	1 unit(s)	17,10
29/15	**E035.1**	1 unit(s)	18,10
35/25	**E036.1**	1 unit(s)	17,50
40/25	**E037.1**	1 unit(s)	27,90
65/45	**E038.1**	1 unit(s)	52,20



Coil spring ground-joint clamps for conical joints

Lenz.

For secure connection of tapered ground joints.

Fastening rings with hook

Material: Aluminium.

Delivery without spiral springs, please order separately.

For standard ground glass joint	Art. No.	Pack Qty.	€
12/21-14/23	**LE76.1**	10 unit(s)	64,50
19/26-24/29	**LE77.1**	10 unit(s)	65,60
29/32-34/35	**LE78.1**	10 unit(s)	66,65
45/40	**LE79.1**	10 unit(s)	68,30

Spiral springs

Material: Stainless steel.

Delivery without fastening rings, please order separately.

Suitable for	Length (mm)	Art. No.	Pack Qty.	€
Rings, Art. No. LE78.1	40	**LE82.1**	10 unit(s)	45,15
Rings, Art. No. LE79.1	60	**LE83.1**	10 unit(s)	57,00
Rings, Art. No. LE76.1	25	**LE80.1**	10 unit(s)	36,55
Rings, Art. No. LE77.1	35	**LE81.1**	10 unit(s)	36,55

Round bottom flask stands



A 121 °C

Flask stand

Bel-Art Products. Material: PP. Autoclavable: Yes.

Ideal for safe positioning of flasks and tubes of various shapes and sizes.

Suitable for	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
Flask 10 ml	36	73	**ETA7.1**	3 unit(s)	30,05
Flask 25 ml	45	74	**ETA8.1**	3 unit(s)	30,05
Flask 50 ml	55	75	**ETA9.1**	3 unit(s)	30,05
Flask 100 ml	64	88	**ETC0.1**	3 unit(s)	34,65
Flask 250 ml	89	110	**ETC1.1**	3 unit(s)	40,45
Flask 500 ml	110	132	**ETC2.1**	3 unit(s)	44,10

Set
Set comprising 3x 10 ml, 25 ml, 50 ml and 100 ml stands each.

Version	Art. No.	Pack Qty.	€
Flask stand set	**ETC3.1**	1 set	127,95



A 121 °C

Flask stand

Kartell. Material: PP. Autoclavable: Yes.

With 10-stage inside wall for flasks with a variety of diameters. Suitable for round bottom flasks up to 10 litres in size. Temperature-stable up to approx. +100 °C (briefly).

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
160	49	**TT11.1**	1 unit(s)	11,70



Cork rings ROTILABO®

ROTH SELECTION. Material: Agglomerated cork.

Suitable for	Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
Flask 10-100 ml	80	30	30	**H111.1**	5 unit(s)	11,85
Flask 250-500 ml	110	60	30	**H112.1**	5 unit(s)	15,25
Flask 500-1000 ml	140	90	30	**H113.1**	5 unit(s)	21,35
Flask 1000-6000 ml	170	120	30	**H114.1**	5 unit(s)	28,15
Flask 10 000 ml	210	160	30	**H115.1**	2 unit(s)	20,05
Flask 20 000 ml	240	180	30	**H116.1**	2 unit(s)	25,95

Set 1
Set comprising 3 rings each Art. No. H111.1, H112.1 and H113.1.

Suitable for	Art. No.	Pack Qty.	€
Flask 10-1000 ml	**0421.1**	1 set	28,25

Set 2
Set comprising 3 rings each Art. No. H114.1, H115.1 and H116.1.

Suitable for	Art. No.	Pack Qty.	€
Flask 1000-20 000 ml	**0422.1**	1 set	54,60



Mat set ROTILABO®

ROTH SELECTION. Material: Agglomerated cork.

Suitable for setting down hot flat-bottom flasks, beakers, etc. Assortment consists of 2 squares 30 x 30 cm and 4 squares 15 x 15 cm. Thickness 10 mm.

Version	Art. No.	Pack Qty.	€
Mat set	**1391.1**	1 set	40,60

Standard ground joint seals



A 121 °C ❄❄❄

Sleeves ROTILABO® for conical ground glass joints

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

For gas-, liquid- and vacuum-tight ground glass joints up to 0.1 mbar. Practically resistant to all chemicals, temperature-stable from -200 to +250 °C. Easy to remove. No grease necessary.

For standard ground glass joint	Art. No.	Pack Qty.	€
10/19	**E054.1**	10 unit(s)	38,15
12/21	**E055.1**	10 unit(s)	43,60
14/23	**0692.1**	10 unit(s)	18,65
19/26	**0693.1**	10 unit(s)	19,30
19/26	**0693.2**	100 unit(s)	147,90
24/29	**E056.1**	10 unit(s)	20,80
29/32	**0694.1**	10 unit(s)	20,40
34/35	**E057.1**	5 unit(s)	17,00
45/40	**0695.1**	5 unit(s)	21,85



A 121 °C ❄❄❄

Sealing sleeves ROTILABO® for conical ground glass joints

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

For gas,liquid and vacuum-tight ground glass joints. Sealing rings on the outside of the ground sleeves provide a ensure a high vacuum-tight seal (leak rate <1 x 10^{-1} mbar l s^{-1}) and prevent the ground glass joints from sticking. Easy to remove with thick rim, reusable. Practically resistant to all chemicals, temperature-stable from -200 to +250 °C. No grease necessary. Autoclavable.

For standard ground glass joint	Art. No.	Pack Qty.	€
10/19	**C246.1**	1 unit(s)	11,30
14/23	**1012.1**	1 unit(s)	12,50
19/26	**C248.1**	1 unit(s)	13,90
24/29	**C249.1**	1 unit(s)	16,00
29/32	**1013.1**	1 unit(s)	24,60
34/35	**C250.1**	1 unit(s)	26,90
45/40	**1014.1**	1 unit(s)	36,10



A 121 °C ❄❄❄

Sleeves ROTILABO® for spherical ground joints

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

For gas, liquid and vacuum-sealed spherical joint connections. With sealing grooves for high-vacuum sealing (leak rate: <1 x 10^{-2} mbar l s^{-1}). Easy to release and re-use. No grease necessary. Temperature-stable from -200 to +250 °C. High resistance to chemicals.

For spherical ground glass joint	Art. No.	Pack Qty.	€
13	**A219.1**	5 unit(s)	40,00
19	**A220.1**	5 unit(s)	36,35
29	**A221.1**	5 unit(s)	45,50
35	**A222.1**	5 unit(s)	61,10
40	**A223.1**	5 unit(s)	89,15



A 121 °C ❄❄❄

Seals ROTILABO® for conical ground glass joints

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Extremely thin, suitable for sealing gas, liquid and highly vacuum-tight ground glass joints (leak rate <1 x 10^{-6} Pa l s^{-1}).
Prevent the ground glass joints from sticking, no is grease necessary. Temperature-stable up to +250 °C. Delivery spread on cartridge to protect the seals.

For standard ground glass joint	Art. No.	Pack Qty.	€
12	**T221.1**	50 unit(s)	26,70
14	**E699.1**	50 unit(s)	29,00
19	**E700.1**	50 unit(s)	30,05
24	**E701.1**	50 unit(s)	31,10
29	**E702.1**	50 unit(s)	32,20
45	**T222.1**	50 unit(s)	42,90

Standard ground transition pieces



A 121 °C ❄❄❄

Bellows ROTILABO®

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Angle bend up to 120°. Prevents tensions between components in glass apparatus.

Standard ground glass joint	Art. No.	Pack Qty.	€
14/23	**7235.1**	1 unit(s)	71,60
19/26	**7236.1**	1 unit(s)	82,10
24/29	**7239.1**	1 unit(s)	93,65
29/32	**7240.1**	1 unit(s)	108,45



A 121 °C ❄❄❄

Reduction piece ROTILABO® made of fluoroplastic

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Usable without ground joint grease. Chemically inert, temperature-stable from -200 to +250 °C.

Standard ground glass joint sleeve	Standard ground glass joint core	Art. No.	Pack Qty.	€
14/23	19/26	**NX82.1**	1 unit(s)	21,15
14/23	24/29	**NX83.1**	1 unit(s)	24,50
19/26	24/29	**NX84.1**	1 unit(s)	26,05
19/26	29/32	**NX85.1**	1 unit(s)	32,80
19/26	34/35	**NX86.1**	1 unit(s)	37,50
24/29	29/32	**NX87.1**	1 unit(s)	32,80
24/29	34/35	**NX88.1**	1 unit(s)	37,50
24/29	45/40	**NX89.1**	1 unit(s)	43,35
29/32	34/35	**NX90.1**	1 unit(s)	37,50
29/32	45/40	**NX91.1**	1 unit(s)	43,35



A 121 °C

Tube connection stopper

Kartell. Material: PP, transparent. Autoclavable: Yes.

With 2 tubing connections Ø 8 mm.

Standard ground glass joint core	Art. No.	Pack Qty.	€
29/32	**TT21.1**	1 unit(s)	10,25



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Ground glass joint reduction set

Bohlender. Material: PTFE.

Highly pure, chemically inert. Consisting of 7 reductions: MS 14, MS 19, MS 24, MS 29, MS 34, MS 45, MS 60. Height of each 20 mm, suitable for standard ground joints acc. to DIN 12242.
Temperature-stable from -200 to +250 °C. Suitable for vacuum.

Version	Art. No.	Pack Qty.	€
Ground glass joint reduction set	**NY32.1**	1 unit(s)	99,40



Extension piece

Lenz. Material: DURAN® glass.

Standard ground glass joint sleeve	Standard ground glass joint core	Ø (mm)	Wall thickness (mm)	Length (mm)	Art. No.	Pack Qty.	€
14/23	14/23	17	1,8	120	**TK08.1**	1 unit(s)	14,20
14/23	29/32	26	2,0	130	**TK09.1**	1 unit(s)	16,05
19/26	19/26	22	1,8	125	**TK10.1**	1 unit(s)	14,75
29/32	29/32	33	2,0	150	**TK11.1**	1 unit(s)	17,95

Standard ground transition pieces



Transition piece

Lenz. Material: DURAN® glass.

Standard ground glass joint sleeve	Standard ground glass joint core	Art. No.	Pack Qty.	€
14/23	19/26	**K267.1**	1 unit(s)	13,45
14/23	24/29	**K268.1**	1 unit(s)	13,25
14/23	29/32	**K269.1**	1 unit(s)	13,55
19/26	14/23	**K270.1**	1 unit(s)	15,95
19/26	24/29	**K271.1**	1 unit(s)	15,20
19/26	29/32	**K272.1**	1 unit(s)	15,20
24/29	14/23	**K273.1**	1 unit(s)	20,75
24/29	19/26	**K274.1**	1 unit(s)	22,05
24/29	29/32	**K275.1**	1 unit(s)	16,15
29/32	14/23	**K276.1**	1 unit(s)	20,00
29/32	19/26	**K277.1**	1 unit(s)	20,45
29/32	24/29	**K278.1**	1 unit(s)	23,45
29/32	45/40	**KN64.1**	1 unit(s)	19,90
29/32	60/46	**TK15.1**	1 unit(s)	76,90
45/40	29/32	**KN65.1**	1 unit(s)	34,40
45/40	60/46	**TK16.1**	1 unit(s)	88,70
60/46	29/32	**TK17.1**	1 unit(s)	102,15
60/46	45/40	**TK18.1**	1 unit(s)	112,90



Transition piece NS-KS

Lenz. Material: DURAN® glass.

Ground joint socket to spherical socket

Standard ground glass joint sleeve	Spherical ball ground glass joint	Art. No.	Pack Qty.	€
29/32	29	**TH95.1**	1 unit(s)	52,70
29/32	35	**TH96.1**	1 unit(s)	59,15

Ground joint cone on spherical joint connection

Standard ground glass joint core	Spherical connection for ground glass joint	Art. No.	Pack Qty.	€
29/32	29	**TH93.1**	1 unit(s)	49,35
29/32	35	**TH94.1**	1 unit(s)	59,70



Transition piece with olive

Lenz. Material: DURAN® glass.
With standard ground cone and tubing olive Ø 10 mm.

Straight tubing olive

Standard ground glass joint core	Art. No.	Pack Qty.	€
14/23	**CA80.1**	1 unit(s)	12,30
19/26	**CA81.1**	1 unit(s)	13,25
24/29	**CA82.1**	1 unit(s)	14,55
29/32	**CA83.1**	1 unit(s)	15,30

Curved tubing olive (90°)

Standard ground glass joint core	Art. No.	Pack Qty.	€
14/23	**CA84.1**	1 unit(s)	12,90
19/26	**CA85.1**	1 unit(s)	14,95
24/29	**CA86.1**	1 unit(s)	16,15
29/32	**CA87.1**	1 unit(s)	16,15



Transition piece with olive

Material: DURAN® glass.
With tube and tubing olive Ø 10 mm.

Straight tubing olive

Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	**LK46.1**	1 unit(s)	18,25
19/26	**LK47.1**	1 unit(s)	19,90
24/29	**LK48.1**	1 unit(s)	22,60
29/32	**LK49.1**	1 unit(s)	22,60

Curved tubing olive (90°)

Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	**LK50.1**	1 unit(s)	18,30
19/26	**LK51.1**	1 unit(s)	19,90
24/29	**LK52.1**	1 unit(s)	22,60
29/32	**LK53.1**	1 unit(s)	22,60

Standard ground transition pieces



Transition piece with core and stop cock

Lenz. Material: DURAN® glass.

With standard ground core and stop cock with solid glass plug, borehole 2.5 mm. Tubing olive Ø 10 mm.

Straight tubing olive

Standard ground glass joint core	Art. No.	Pack Qty.	€
14/23	**CC24.1**	1 unit(s)	37,10
19/26	**CC25.1**	1 unit(s)	39,70
24/29	**CC26.1**	1 unit(s)	41,95
29/32	**CC27.1**	1 unit(s)	41,95

Curved tubing olive

Standard ground glass joint core	Art. No.	Pack Qty.	€
14/23	**CC28.1**	1 unit(s)	37,10
19/26	**CC29.1**	1 unit(s)	39,70
24/29	**CC30.1**	1 unit(s)	41,95
29/32	**CC31.1**	1 unit(s)	41,95



Transition piece with sleeve and stop cock

Lenz. Material: DURAN® glass.

With curved tubing olive. Stop cock MS 14.5 with solid glass plug, borehole 2.5 mm. Tubing olive Ø 10 mm.

Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	**LK54.1**	1 unit(s)	46,80
19/26	**LK55.1**	1 unit(s)	45,15
24/29	**LK56.1**	1 unit(s)	48,95
29/32	**LK57.1**	1 unit(s)	50,55



Adapter piece with cock

Lenz. Material: DURAN® glass.

With solid glass plugs and screw retaining devices for Art. No. EPE9.1 or rubber seal for Art. No. EPH0.1.

Standard ground glass joint sleeve	Standard ground glass joint core	Ø Hole (mm)	Art. No.	Pack Qty.	€
14/23	14/23	2.5	**EPE9.1**	1 unit(s)	83,75
29/32	29/32	8.0	**EPH0.1**	1 unit(s)	96,25



Ground swivel screw fitting

Bohlender. Material: PTFE, Screw cap made of PPS.

Enables the secure fixing of thermometers, measuring gauges, tubes or sleeves to prevent collisions in the test tube, e.g. when using a stirring shaft.

Temperature-stable from -20 to +230 °C.

Standard ground glass joint core	Thread	Ø Hole (mm)	Max. deflection angle (°)	Art. No.	Pack Qty.	€
19/26	GL 18	6	4	**NY48.1**	1 unit(s)	156,80
29/32	GL 25	6	8	**NY49.1**	1 unit(s)	117,50
29/32	GL 25	8	7	**NY50.1**	1 unit(s)	114,90
29/32	GL 25	10	6	**NY51.1**	1 unit(s)	114,40
29/32	GL 25	12	5	**NY52.1**	1 unit(s)	113,70

Standard ground components



Thermometer adapter

Lenz. Material: DURAN® glass, screw cap made of plastic, seal made of silicone with cured-on PTFE cuff.

Standard ground glass joint core	Thread	Ø Hole (mm)	Art. No.	Pack Qty.	€
14/23	GL 14	6	**AK92.1**	1 unit(s)	18,95
14/23	GL 18	8	**AK94.1**	1 unit(s)	20,40
19/26	GL 14	6	**TE98.1**	1 unit(s)	21,50
19/26	GL 18	8	**TH00.1**	1 unit(s)	23,15
24/29	GL 14	6	**TE99.1**	1 unit(s)	33,35
29/32	GL 14	6	**AK93.1**	1 unit(s)	22,25
29/32	GL 18	8	**AK95.1**	1 unit(s)	23,15
29/32	GL 25	10	**TH01.1**	1 unit(s)	45,70
29/32	GL 32	14	**TH02.1**	1 unit(s)	53,65



Spherical joint connection

Lenz. Material: DURAN® glass.

Spherical connection for ground glass joint	Length (mm)	Art. No.	Pack Qty.	€
13/2	100	**EKA9.1**	10 unit(s)	117,20
13/5	100	**EKC0.1**	10 unit(s)	83,75
19	120	**EKC1.1**	10 unit(s)	85,90
29	120	**EKC2.1**	10 unit(s)	100,55
35	120	**EKC3.1**	10 unit(s)	117,20
40	120	**EKC4.1**	1 unit(s)	20,90
41	120	**EKC5.1**	1 unit(s)	32,80
51	150	**EKC6.1**	1 unit(s)	50,45
65	170	**EKC7.1**	1 unit(s)	103,10



Spherical ground joints

Lenz. Material: DURAN® glass.

Spherical ball ground glass joint	Length (mm)	Art. No.	Pack Qty.	€
13/2	100	**EKC8.1**	10 unit(s)	117,20
13/5	100	**EKC9.1**	10 unit(s)	85,50
19	120	**EKE0.1**	10 unit(s)	88,70
29	120	**EKE1.1**	10 unit(s)	112,90
35	120	**EKE2.1**	10 unit(s)	123,65
40	120	**EKE3.1**	1 unit(s)	23,55
41	120	**EKE4.1**	1 unit(s)	34,95
51	150	**EKE5.1**	1 unit(s)	50,55
65	170	**EKE6.1**	1 unit(s)	81,20



Tubes with standard ground joint

Lenz. Material: DURAN® glass.

Cones

Acc. to DIN 12249 shape B.

Standard ground glass joint core	Ø (mm)	Wall thickness (mm)	Length (mm)	Art. No.	Pack Qty.	€
14/23	13	1,5	130	**TH83.1**	10 unit(s)	30,65
19/26	17	1,8	130	**TH84.1**	10 unit(s)	39,70
24/29	22	1,8	130	**TH85.1**	10 unit(s)	45,70
29/32	26	2,0	130	**TH86.1**	10 unit(s)	46,80
45/40	40	2,3	145	**TH87.1**	10 unit(s)	117,20

Sockets with ground glass joint

Acc. to DIN 12249 shape E.

Standard ground glass joint sleeve	Ø (mm)	Wall thickness (mm)	Length (mm)	Art. No.	Pack Qty.	€
14/23	17	1,8	130	**TH88.1**	10 unit(s)	33,90
19/26	22	1,8	130	**TH89.1**	10 unit(s)	35,50
24/29	28	2,0	130	**TH90.1**	10 unit(s)	47,30
29/32	33	2,0	130	**TH91.1**	10 unit(s)	49,45
45/40	50	2,5	145	**TH92.1**	10 unit(s)	134,40

Standard ground components





Threaded tubes

Lenz. Material: DURAN® glass.

Thread	Ø (mm)	Wall thickness (mm)	Length (mm)	Art. No.	Pack Qty.	€
GL 14	12	1,5	100	**TH97.1**	10 unit(s)	18,20
GL 18	16	1,8	100	**TH98.1**	10 unit(s)	27,45
GL 25	22	1,8	100	**TH99.1**	10 unit(s)	41,95
GL 32	28	2,0	140	**TK00.1**	10 unit(s)	64,40
GL 45	40	2,3	180	**TK01.1**	10 unit(s)	198,90



Glass tubes

Hecht. Material: Soda-lime glass.

Heat resistant up to approx. 100 °C.

Ø ext. (mm)	Wall thickness (mm)	Length (mm)	Art. No.	Pack Qty.	€
6	0,9	500	**CNK8.1**	12 unit(s)	8,00
8	0,9	500	**CNK9.1**	12 unit(s)	8,30
10	1,0	500	**CNL0.1**	12 unit(s)	9,05



A 121 °C

Cooling tube

Bohemia. Material: Borosilicate glass 3.3. Autoclavable: Yes.

With ground glass joint.

Standard ground glass joint core	Length (mm)	Art. No.	Pack Qty.	€
29/32	500	**TP48.1**	1 unit(s)	38,50
29/32	1,000	**TP49.1**	1 unit(s)	59,00

Immersion heater with bell

Lenz. Material: DURAN® glass.

To prevent boiling delay.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
4	180	**EPX0.1**	1 unit(s)	6,25



Gas inlet tubes/boiling capillaries

Lenz. Material: DURAN® glass.

With ground cone and thin duct (for removing from the burner).

(1) Straight tube

Installation length approx. 200 mm.

Standard ground glass joint core	Installed length (mm)	Art. No.	Pack Qty.	€
14/23	200	**Y343.1**	1 unit(s)	14,55
19/26	200	**EPT4.1**	1 unit(s)	21,40
24/29	200	**EPT5.1**	1 unit(s)	24,65
29/32	200	**EPT6.1**	1 unit(s)	23,65

(2) Straight tube, with valve stopcock and angled connector (90°)

Installation length approx. 150 mm. Connector Ø 8 mm.

Standard ground glass joint core	Installed length (mm)	Art. No.	Pack Qty.	€
14/23	150	**EPT7.1**	1 unit(s)	96,65

(3) Curved tube (90° angle)

Installation length approx. 250 mm. Connector Ø 10 mm.

Standard ground glass joint core	Installed length (mm)	Art. No.	Pack Qty.	€
14/23	250	**Y344.1**	1 unit(s)	17,00
19/26	250	**EPT8.1**	1 unit(s)	26,35
24/29	250	**EPT9.1**	1 unit(s)	39,80
29/32	250	**Y345.1**	1 unit(s)	28,50



Elbow

Lenz. Material: DURAN® glass.

With two NS cores, curved.

Curved 75°

Standard ground glass joint cores	Art. No.	Pack Qty.	€
14/23	**EPC6.1**	1 unit(s)	21,00
19/26	**EPC7.1**	1 unit(s)	28,95
24/29	**EPC8.1**	1 unit(s)	36,45
29/32	**EPC9.1**	1 unit(s)	41,40

Curved 90°

Standard ground glass joint cores	Art. No.	Pack Qty.	€
14/23	**EPE0.1**	1 unit(s)	26,90
19/26	**EPE1.1**	1 unit(s)	34,95
24/29	**EPE2.1**	1 unit(s)	33,90
29/32	**EPE3.1**	1 unit(s)	40,35



Double-neck attachment

Lenz. Material: DURAN® glass.

With parallel sleeves. With two NS sleeves and one NS cone.

Standard ground glass joint core	Standard ground glass joint sleeves	Art. No.	Pack Qty.	€
14/23	14/23	**Y676.1**	1 unit(s)	28,50
19/26	19/26	**LK66.1**	1 unit(s)	42,50
24/29	19/26	**EPC3.1**	1 unit(s)	41,40
24/29	24/29	**EPC4.1**	1 unit(s)	47,20
29/32	24/23	**EPC5.1**	1 unit(s)	42,50
29/32	29/32	**Y677.1**	1 unit(s)	39,25



Claisen attachment

Lenz. Material: DURAN® glass.

Acc. to DIN 12594. For distillation thermometers with an installation length of 55 mm.

Standard ground glass joint cores	Standard ground glass joint sleeves	Art. No.	Pack Qty.	€
14/23	14/23	**KX43.1**	1 unit(s)	41,40
29/32	14/23	**Y681.1**	1 unit(s)	50,00



Distillation attachment

Lenz. Material: DURAN® glass.

With one 14/23 sleeve and two NS cores. Drain angle 75°.
For distillation thermometers with an installation length of 55 mm.

Standard ground glass joint core, vertical	Standard ground glass joint core, angled	Art. No.	Pack Qty.	€
14/23	14/23	**KX44.1**	1 unit(s)	34,40
19/26	19/26	**EPE4.1**	1 unit(s)	30,00
24/29	19/26	**EPE5.1**	1 unit(s)	37,10
24/29	24/29	**EPE6.1**	1 unit(s)	37,55
29/32	29/32	**Y680.1**	1 unit(s)	42,50



Vacuum receiver

Lenz. Material: DURAN® glass.
With connector of outside Ø 7–8 mm and angle tip.

Curved 105°

Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	14/23	**Y341.1**	1 unit(s)	30,00
19/26	19/26	**LK70.1**	1 unit(s)	39,25
24/29	24/29	**LK71.1**	1 unit(s)	42,90
29/32	29/32	**Y342.1**	1 unit(s)	39,80

Straight

Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	14/23	**LK62.1**	1 unit(s)	29,05
19/26	19/26	**LK63.1**	1 unit(s)	31,75
24/29	24/29	**LK64.1**	1 unit(s)	37,55
29/32	29/32	**LK65.1**	1 unit(s)	32,15



Vacuum receiver with threaded connection

Lenz. Material: DURAN® glass.
With GL 18 threaded connection and angle tip.

Curved 105°

Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	14/23	**EPP9.1**	1 unit(s)	47,85
19/26	19/26	**EPT0.1**	1 unit(s)	48,95
24/29	24/29	**EPT1.1**	1 unit(s)	53,65
29/32	29/32	**EPT2.1**	1 unit(s)	53,65

Straight

Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	14/23	**EPP5.1**	1 unit(s)	40,35
19/26	19/26	**EPP6.1**	1 unit(s)	39,25
24/29	24/29	**EPP7.1**	1 unit(s)	44,65
29/32	29/32	**EPP8.1**	1 unit(s)	44,65



Receiver for Bredt distilling distributors

Lenz. Material: DURAN® glass.
With GL 18 connecting piece.

Version	Standard ground glass joint sleeves	Art. No.	Pack Qty.	€
Bent by 105°	29/32	**EE76.1**	1 unit(s)	79,45
Straight	29/32	**EPT3.1**	1 unit(s)	60,75



Distilling distributor according to Bredt

Lenz. Material: DURAN® glass.
With four NS 14/23 cores for round bottom flasks up to max. 250 ml.
Top core NS 29/32.

Standard ground glass joint core	Standard ground glass joint cores	Art. No.	Pack Qty.	€
29/32	14/23	**EE75.1**	1 unit(s)	134,40



Distilling distributor according to Bernauer (receiver)

Lenz. Material: DURAN® glass.
With vacuum connection.

Standard ground glass joint cores	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	14/23	**KX78.1**	1 unit(s)	110,75
14/23	29/32	**KX79.1**	1 unit(s)	115,05



Delivery adapter

Lenz. Material: DURAN® glass.

With curved drain pipe, 105° angle.

Standard ground glass joint sleeve	Length (mm)	Art. No.	Pack Qty.	€
14/23	65	**LK58.1**	1 unit(s)	15,50
19/26	65	**LK59.1**	1 unit(s)	25,30
24/29	65	**LK60.1**	1 unit(s)	26,90
29/32	65	**LK61.1**	1 unit(s)	21,10



Delivery adapter

Lenz. Material: DURAN® glass.

Curved 105°, with angle tip.

Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/32	14/32	**KX77.1**	1 unit(s)	22,50
19/26	19/26	**EPN9.1**	1 unit(s)	23,65
24/29	24/29	**EPP0.1**	1 unit(s)	38,20
29/32	29/32	**EE74.1**	1 unit(s)	28,95



Delivery adapter

Lenz. Material: DURAN® glass.

Straight, with suction connection (glass connector).

Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	14/23	**EPP1.1**	1 unit(s)	28,50
19/26	19/26	**EPP2.1**	1 unit(s)	25,70
24/29	24/29	**EPP3.1**	1 unit(s)	28,50
29/32	29/32	**EPP4.1**	1 unit(s)	31,20



Drip-catcher according to Stutzer

Lenz. Material: DURAN® glass.

Straight with core and sleeve. Fits directly onto the distillation flask for droplet separation. Not centred.

Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	29/32	**EPE7.1**	1 unit(s)	93,00
14/23	14/23	**KX80.1**	1 unit(s)	78,50
24/29	19/26	**EPE8.1**	1 unit(s)	93,00
29/32	29/32	**EE70.1**	1 unit(s)	79,45



Bubble counters

Lenz. Material: DURAN® glass.

For monitoring the gas flow. Ø 32 mm, overall height 120 mm, hose connections Ø 8 mm.

Length (mm)	Art. No.	Pack Qty.	€
100	**KX54.1**	1 unit(s)	35,40



Bubble counters with ground glass joint

Material: Borosilicate glass 3.3.

For monitoring the gas flow in apparatus. Suitable for excess pressure and vacuum. With ground glass joint and GL 32 screw cap with PTFE-coated seal. Overall height without ground glass joint approx. 145 mm, Ø approx. 30 mm. Temperature stable up to +200 °C.

Delivery without GL 14 connectors, please order separately for bubble counters with GL connection.

Version	Standard ground glass joint core	Art. No.	Pack Qty.	€
Tubing connector Ø 7-8 mm	29/32	**CEK3.1**	1 unit(s)	192,45
Tubing connector Ø 9-10 mm	14/23	**CEK5.1**	1 unit(s)	192,45
Threaded connection GL 14	29/32	**CEK4.1**	1 unit(s)	192,45
Threaded connection GL 14	14/23	**CEK6.1**	1 unit(s)	192,45

Distilling link

Lenz. Material: DURAN® glass.

Parallel and vertical cores.

Cover length (mm)	Standard ground glass joint cores	Art. No.	Pack Qty.	€
150	14/23	**KX82.1**	1 unit(s)	37,65
350	29/32	**EE71.1**	1 unit(s)	44,65



Distilling link

Lenz. Material: DURAN® glass.

Without cooler, with two vertical cores and NS 14/23 sleeve. For distillation thermometers with an installation length of 55 mm.

Cover length (mm)	Standard ground glass joint cores	Art. No.	Pack Qty.	€
350	29/32	**KY60.1**	1 unit(s)	62,90



Distilling link

Lenz. Material: DURAN® glass.

Liebig condenser with straight outlet.
For distillation thermometers with an installation length of 55 mm.
Ø 11 mm connectors.

Cover length (mm)	Standard ground glass joint cores	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
160	14/23	14/23	**KX72.1**	1 unit(s)	80,65
250	29/32	14/23	**KX73.1**	1 unit(s)	95,70



Distilling link

Lenz. Material: DURAN® glass.

Liebig condenser with Ø 8 mm vacuum receiver.
For distillation thermometers with an installation length of 55 mm.
Ø 11 mm connectors for water connection.

Cover length (mm)	Standard ground glass joint cores	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
160	14/23	14/23	**KX49.1**	1 unit(s)	85,50
250	29/32	14/23	**EE72.1**	1 unit(s)	104,20
400	29/32	14/23	**EE73.1**	1 unit(s)	176,30



Distilling link according to Claisen

Lenz. Material: DURAN® glass.

Liebig condenser with straight outlet.
For distillation thermometers with an installation length of 55 mm.
Ø 11 mm connectors.

Cover length (mm)	Standard ground glass joint cores	Standard ground glass joint sleeves	Art. No.	Pack Qty.	€
160	14/23	14/23	**KX70.1**	1 unit(s)	96,65
250	29/32	14/23	**KX71.1**	1 unit(s)	106,45



Distilling link according to Claisen

Lenz. Material: DURAN® glass.

Liebig condenser with Ø 8 mm vacuum receiver.
For distillation thermometers with an installation length of 55 mm.
Ø 11 mm connectors for water connection.

Cover length (mm)	Standard ground glass joint cores	Standard ground glass joint sleeves	Art. No.	Pack Qty.	€
160	14/23	14/23	**KX45.1**	1 unit(s)	112,90
250	14/23	14/23	**KX46.1**	1 unit(s)	117,20
250	29/32	14/23	**KX47.1**	1 unit(s)	123,65
400	29/32	14/23	**KX48.1**	1 unit(s)	127,95



Distilling link Micro

Lenz. Material: DURAN® glass.

GL 14 cooling water and vacuum connections.

Delivery without connectors and screw caps, please order separately.

Standard ground glass joint cores	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
14/23	14/23	**LE20.1**	1 unit(s)	127,95



Distillation apparatus Micro

Winzer. Material: Borosilicate glass 3.3.

Compact design for lossless condensate flow. Short-flow distilling link with sleeve and two cores 14/23, Liebig condenser, jacket length 70 mm and vacuum receiver.

Delivery incl. distillation receiver, 3 x 5 ml round bottom flasks, 50 ml double-neck flask and NS 14/23 hollow glass stopper.
Delivery without ground joint clamps or thermometer, please order separately.

Cover length (mm)	Standard ground glass joint cores	Standard ground glass joint sleeves	Art. No.	Pack Qty.	€
70	14/23	14/23	**AAN5.1**	1 unit(s)	294,55



Apparatus for determination of etheric oils

Winzer. Material: Borosilicate glass 3.3.

Acc. to DAB. Complete distillation attachment with core NS 29/32, Allihn cooler, vent plug NS 7/16, 1 ml measuring tube (graduated 0.01 ml) with 3 ml ball, refill/overflow funnel and Czako three-way stopcock with PTFE plugs.

Standard ground glass joint core	Art. No.	Pack Qty.	€
29/32	**XX23.1**	1 unit(s)	404,20



Water determination measuring tube according to Dean Stark

Lenz. Material: DURAN® glass.

Acc. to DIN 12420. With NS 14.5 stopcock; Ø 2.5 mm hole. Measuring volume up to 10 ml, 0.1 ml graduation.

Delivery without condensers and flasks, please order separately.

Version	Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
Without stopcock, zero point at tip	29/32	29/32	**LE62.1**	1 unit(s)	127,95
Zero point above stopcock	29/32	29/32	**LE61.1**	1 unit(s)	127,95
Zero point at the stopcock	29/32	29/32	**LE60.1**	1 unit(s)	127,95



Attachment for steam distillation

Lenz. Material: DURAN® glass.

With two NS 29/32 cores and GL 14 threaded connection.

Standard ground glass joint cores	Suitable for	Art. No.	Pack Qty.	€
29/32	2000 ml flask	**LE19.1**	1 unit(s)	78,40

Condensors



Condensers with glass connectors

Lenz. Material: DURAN® glass.

With standard ground socket and core. Connector Ø 11 mm.

Liebig condenser

Cover length (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
160	14/23	14/23	**TK27.1**	1 unit(s)	55,40
160	19/26	19/26	**TK28.1**	1 unit(s)	55,90
250	14/23	14/23	**TK29.1**	1 unit(s)	60,10
250	19/26	19/26	**TK30.1**	1 unit(s)	59,70
250	24/29	24/29	**TK31.1**	1 unit(s)	63,45
250	29/32	29/32	**TK32.1**	1 unit(s)	65,05
400	29/32	29/32	**TK33.1**	1 unit(s)	75,80

Dimroth condenser

Cover length (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
160	14/23	14/23	**TK34.1**	1 unit(s)	93,55
160	19/26	19/26	**TK35.1**	1 unit(s)	102,15
250	14/23	14/23	**TK36.1**	1 unit(s)	120,40
250	19/26	19/26	**TK37.1**	1 unit(s)	126,85
250	24/29	24/29	**TK38.1**	1 unit(s)	126,85
250	29/32	29/32	**TK39.1**	1 unit(s)	149,45
400	29/32	29/32	**TK40.1**	1 unit(s)	123,65
400	45/40	45/40	**TK41.1**	1 unit(s)	220,40



Liebig condenser

Lenz. Material: DURAN® glass.

With ground joints and two unscrewable plastic connectors, GL 14 thread.

Cover length (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
160	14/23	14/23	**E630.1**	1 unit(s)	61,20
250	14/23	14/23	**E631.1**	1 unit(s)	68,80
250	29/32	29/32	**E632.1**	1 unit(s)	75,25
400	29/32	29/32	**E633.1**	1 unit(s)	79,05



Condenser

Lenz. Material: DURAN® glass.

With ground joints and two unscrewable plastic connectors, GL 14 thread.

Cover length (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Number of balls (unit(s))	Art. No.	Pack Qty.	€
160	14/23	14/23	5	**KX81.1**	1 unit(s)	73,10
250	29/32	29/32	5	**E634.1**	1 unit(s)	90,20
400	29/32	29/32	8	**E635.1**	1 unit(s)	106,45



Dimroth condenser

Lenz. Material: DURAN® glass.

With ground joints and two unscrewable plastic connectors, GL 14 thread.

Cover length (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
160	14/23	14/23	**E637.1**	1 unit(s)	105,35
250	29/32	29/32	**E638.1**	1 unit(s)	112,90
400	29/32	29/32	**E639.1**	1 unit(s)	138,70



Coil condenser

Lenz. Material: DURAN® glass.

With two unscrewable plastic connectors, GL 14 thread.

Cover length (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
160	14/23	14/23	**TH44.1**	1 unit(s)	127,95
160	29/32	29/32	**TH46.1**	1 unit(s)	127,95
250	29/32	29/32	**E640.1**	1 unit(s)	145,15
250	24/29	24/29	**TH45.1**	1 unit(s)	155,90
400	29/32	29/32	**E641.1**	1 unit(s)	153,75
500	29/32	29/32	**TH47.1**	1 unit(s)	235,45

Condensors

Vigreux column

Lenz. Material: DURAN® glass.
Alternating horizontal and diagonal grooves.



(1) Without shell

Fill level (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Length (mm)	Art. No.	Pack Qty.	€
200	14/23	14/23	300	**LE21.1**	1 unit(s)	66,65
300	14/23	14/23	425	**LE22.1**	1 unit(s)	84,40
300	29/32	29/32	445	**LE23.1**	1 unit(s)	82,70

(2) With glass shell

Fill level (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Length (mm)	Art. No.	Pack Qty.	€
300	29/32	29/32	450	**E628.1**	1 unit(s)	149,45
600	29/32	29/32	650	**E629.1**	1 unit(s)	203,20

(3) With fused-on vacuum shell

Fill level (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Length (mm)	Art. No.	Pack Qty.	€
200	14/23	14/23	300	**LE24.1**	1 unit(s)	198,90
300	29/32	29/32	445	**LE25.1**	1 unit(s)	252,65
600	29/32	29/32	745	**LE26.1**	1 unit(s)	267,70

Column Hempel type

Lenz. Material: DURAN® glass.
For filling with packing (Raschig rings or glass beads).



Without glass shell

Fill level (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
200	14/23	14/23	**TK19.1**	1 unit(s)	42,50
300	29/32	29/32	**TK20.1**	1 unit(s)	60,10
500	29/32	29/32	**TK21.1**	1 unit(s)	60,10
800	29/32	29/32	**TK22.1**	1 unit(s)	86,55

With fused-on glass shell

Fill level (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
200	14/23	14/23	**TK23.1**	1 unit(s)	188,15
300	29/32	29/32	**TK24.1**	1 unit(s)	241,90
500	29/32	29/32	**TK25.1**	1 unit(s)	256,95
800	29/32	29/32	**TK26.1**	1 unit(s)	310,70

Condensors



Spiral condenser

Lenz. Material: DURAN® glass.

With two unscrewable plastic connectors, GL 14 thread.

Cover length (mm)	Standard ground glass joint core	Standard ground glass joint sleeve	Art. No.	Pack Qty.	€
160	14/23	14/23	**TH48.1**	1 unit(s)	96,65
250	29/32	29/32	**E636.1**	1 unit(s)	115,05
400	29/32	29/32	**TH49.1**	1 unit(s)	181,70
500	29/32	29/32	**TH50.1**	1 unit(s)	198,90



Dimroth condenser

Lenz. Material: DURAN® glass.

For Soxhlet extraction attachments. With two unscrewable plastic connectors.

Standard ground glass joint core	Suitable for	Art. No.	Pack Qty.	€
45/40	100–250 ml desiccators	**AA60.1**	1 unit(s)	112,90
60/46	300–500 ml extractors	**AA61.1**	1 unit(s)	203,20
71/51	1000 ml extractors	**AA62.1**	1 unit(s)	213,95



Soxhlet extractor

Isolab. Material: Borosilicate glass 3.3.

Core NS 29/32, sleeve 45/40. Acc. to DIN 12602 (Art. No. Y356.1 not acc. to DIN).

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Ø Internal (mm)	Art. No.	Pack Qty.	€
100	45/40	29/32	43	**Y353.1**	1 unit(s)	51,55
150	45/40	29/32	43	**Y354.1**	1 unit(s)	56,15
250	45/40	29/32	45	**Y355.1**	1 unit(s)	70,60
500	45/40	29/32	54	**Y356.1**	1 unit(s)	93,60



Soxhlet extractor

Lenz. Material: DURAN® glass.

Core NS 29/32. Acc. to DIN 12602.

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Art. No.	Pack Qty.	€
30	29/32	29/32	**TE05.1**	1 unit(s)	68,80
100	45/40	29/32	**Y685.1**	1 unit(s)	98,40
150	45/40	29/32	**Y686.1**	1 unit(s)	104,30
250	45/40	29/32	**Y687.1**	1 unit(s)	107,00
500	60/46	29/32	**Y688.1**	1 unit(s)	170,95
1,000	71/51	29/32	**Y689.1**	1 unit(s)	192,45



Soxhlet extractor with stopcock

Lenz. Material: DURAN® glass.

Core NS 29/32. Acc. to DIN 12602 (Art. No. Y691.1 not acc. to DIN).

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Art. No.	Pack Qty.	€
100	45/40	29/32	**Y690.1**	1 unit(s)	138,70
150	45/40	29/32	**Y691.1**	1 unit(s)	145,15
250	45/40	29/32	**Y692.1**	1 unit(s)	164,50
500	60/46	29/32	**Y693.1**	1 unit(s)	223,60



Extraction attachment according to Knöfler-Böhm

Lenz. Material: DURAN® glass.

Core NS 29/32. The extracting agent flows continuously through the circuit; the condensate flows continuously through the extraction material back into the flask.

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Art. No.	Pack Qty.	€
30	29/32	29/32	**LE38.1**	1 unit(s)	213,95
100	45/40	29/32	**LE39.1**	1 unit(s)	267,70
250	45/40	29/32	**LE40.1**	1 unit(s)	289,20
500	60/46	29/32	**LE41.1**	1 unit(s)	385,95



Extraction attachment for solids

Lenz. Material: DURAN® glass.

Core NS 29/32. The rising vapours enter the cooler directly; the condensate flows continuously through the extraction material back into the flask.

Delivery without glass insert for extraction sleeve, please order separately.

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Art. No.	Pack Qty.	€
70	45/40	29/32	**LE42.1**	1 unit(s)	116,10
100	45/40	29/32	**LE43.1**	1 unit(s)	120,40
250	60/46	29/32	**LE44.1**	1 unit(s)	174,15

Accessories glass inserts for extraction sleeves

Lenz. Material: DURAN® glass.

For extraction attachments for solids Art. No. LE42.1 ff.

Vol. (ml)	Art. No.	Pack Qty.	€
70	**LE45.1**	1 unit(s)	44,00
100	**LE46.1**	1 unit(s)	46,25
250	**LE47.1**	1 unit(s)	53,65



Extraction attachment acc. to Thielepape

Lenz. Material: DURAN® glass.

Core NS 29/32. With two-way stopcock NS 18.8, hole Ø 4 mm. For the extraction of solid materials. The rising vapours enter the cooler directly; the condensate flows continuously through the extraction material back into the flask.

Delivery without fritted sleeve, please order separately.

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Art. No.	Pack Qty.	€
30	29/32	29/32	**LE32.1**	1 unit(s)	164,50
150	45/40	29/32	**LE33.1**	1 unit(s)	246,20
250	45/40	29/32	**LE34.1**	1 unit(s)	267,70

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Extraction attachment

Lenz. Material: DURAN® glass.

Core NS 29/32. For the extraction of liquids with specifically light extracting agents.

Delivery without distributor pipe, please order separately.

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Art. No.	Pack Qty.	€
100	45/40	29/32	**LE48.1**	1 unit(s)	246,20
250	45/40	29/32	**LE49.1**	1 unit(s)	289,20
500	60/46	29/32	**LE50.1**	1 unit(s)	342,95

Accessories distributor pipe for extraction attachment

Lenz. Material: DURAN® glass.

With frit porosity 0. For extraction attachments Art. No. LE48.1 ff.

Vol. (ml)	Art. No.	Pack Qty.	€
100	**LE51.1**	1 unit(s)	78,40
250	**LE52.1**	1 unit(s)	89,15
500	**LE53.1**	1 unit(s)	94,10



Extraction attachment

Lenz. Material: DURAN® glass.

Core 29/32. For the extraction of liquids with specifically heavy extracting agents.

Delivery without distributor pipe, please order separately.

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Art. No.	Pack Qty.	€
100	45/40	29/32	**LE54.1**	1 unit(s)	224,70
250	45/40	29/32	**LE55.1**	1 unit(s)	295,65
500	60/46	29/32	**LE56.1**	1 unit(s)	349,40

Accessories distributor pipe for extraction attachment

Lenz. Material: DURAN® glass.

With frit porosity 0. For extraction attachments Art. No. LE54.1 ff.

Vol. (ml)	Art. No.	Pack Qty.	€
100	**LE57.1**	1 unit(s)	47,30
250	**LE58.1**	1 unit(s)	53,55
500	**LE59.1**	1 unit(s)	69,90

Drying tubes



Drying tube

Lenz. Material: DURAN® glass.

Curved (75°). Inner Ø 15 mm.

Standard ground glass joint core	Ø Internal (mm)	Art. No.	Pack Qty.	€
14/23	15	**KX74.1**	1 unit(s)	24,95
29/32	15	**Y340.1**	1 unit(s)	34,40



Drying tube

Lenz. Material: DURAN® glass.

Acc. to DIN 12610. Inner Ø 13 mm, nominal length 130 mm. Ø Hose connection 6 mm.

Version	Length (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
curved	130	13	**KX76.1**	1 unit(s)	17,10
straight	130	13	**KX75.1**	1 unit(s)	10,15



Drying tube U-shaped

Lenz. Material: DURAN® glass.

(1) With connector Ø 6 mm

Height (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
100	13	**PL35.1**	1 unit(s)	33,65
130	13	**PL36.1**	1 unit(s)	33,65
180	18	**PL37.1**	1 unit(s)	36,90

(2) With NS stopcocks

Compliant with DIN 12616. With replaceable NS stopcock plugs and 6 mm Ø hose connectors on the side.

Standard ground glass joint sleeves	Height (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
14/23	125	13	**PL38.1**	1 unit(s)	88,05
19/26	150	13	**PL39.1**	1 unit(s)	117,20



Drying tube ROTILABO®

ROTH SELECTION. Material: PE.

For drying gases. Press-in plugs on both sides with conical connectors for hoses with Ø 8 to 10 mm.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
100	20	**6553.1**	1 unit(s)	5,85
150	20	**6554.1**	1 unit(s)	6,10
200	20	**6557.1**	1 unit(s)	7,00



A 121 °C

Fermentation tube ROTILABO®

Hecht. Material: Soda-lime glass. Autoclavable: Yes.

With two spheres and extension.

Total length 200 mm, tube Ø approx. 10–11 mm.

Length (mm)	Art. No.	Pack Qty.	€
200	**CKY8.1**	1 unit(s)	3,95



A 121 °C

Fermentation tube ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.

With NS 29/32 ground joint. Height 200 mm.

Standard ground glass joint core	Height (mm)	Art. No.	Pack Qty.	€
29/32	200	**ACL2.1**	1 unit(s)	132,70

Melting point determination



Melting point determination apparatus acc. to Thiele

Lenz. Material: DURAN® glass.

Application:
Fill apparatus with silicone oil. Insert a melting point capillary (outside-Ø max. 2 mm) into one of the side tubes so that the molten end touches the ball of the thermometer. The other side tube serves for venting. In the case of apparatus without side tubes, a long capillary is inserted from above; venting must also take place from above in this case. Heat at the tube elbow to ensure a uniform temperature increase.

Version	Length (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
without side tubes	200	16	**TH23.1**	1 unit(s)	52,60
with side tubes	200	16	**TH24.1**	1 unit(s)	71,95



Melting point capillary ROTILABO®

ROTH SELECTION. Material: Soda-lime glass.
Thin-walled, open at one end.

Length (mm)	Ø ext. (mm)	Ø Internal (mm)	Packaging type	Art. No.	Pack Qty.	€
80	1.35	0.95	Can	**0820.1**	100 unit(s)	10,95



Clay squares ROTILABO®

ROTH SELECTION.

For drying melting point samples. Dimensions 150 x 150 mm, divided into 25 squares 30 x 30 mm. Easy to break off by hand. No sharp edges or splinters, therefore there is no risk of injury.

Version	Art. No.	Pack Qty.	€
Rotilabo® clay square	**A205.1**	1 unit(s)	16,90



Melting point capillary

Hirschmann. Material: Glass, clear.
Thin-walled, open at one end.

Length (mm)	Ø ext. (mm)	Ø Internal (mm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
75	1.35	0.95	Can	10 x 100	**EAA9.1**	1,000 unit(s)	75,15
75	1.55	1.15	Can	10 x 100	**EAC0.1**	1,000 unit(s)	84,30
80	1.00	0.80	Can	10 x 100	**EAC1.1**	1,000 unit(s)	100,20
80	1.55	1.15	Can	10 x 100	**EAC2.1**	1,000 unit(s)	87,05
90	1.55	1.15	Can	10 x 100	**EAC3.1**	1,000 unit(s)	89,20
100	1.00	0.80	Can	10 x 100	**EAC4.1**	1,000 unit(s)	132,50
100	1.35	0.95	Can	10 x 100	**EAC5.1**	1,000 unit(s)	77,80
100	1.55	1.15	Can	10 x 100	**EAC6.1**	1,000 unit(s)	89,30



DURAN WHEATON KIMBLE

One-way tap

DWK Life Sciences. Material: DURAN® glass, glass plug made from SBW glass.
Complete with SBW glass plug and three-part stopcock safety.

Version	Tap cock with ground glass joints	Ø ext. (mm)	Ø Hole (mm)	Art. No.	Pack Qty.	€
Capillary attachment	12,5	8	2.0	**LP05.1**	1 unit(s)	21,20
Capillary attachment	14,5	9	2.5	**LP06.1**	1 unit(s)	22,10
Standard	12,5	8	2.0	**LP07.1**	1 unit(s)	14,40
Standard	12,5	8	2.5	**LP08.1**	1 unit(s)	14,30
Standard	14,5	9	2.5	**LP09.1**	1 unit(s)	15,25
Standard	14,5	10	4.0	**LP10.1**	1 unit(s)	16,75
Standard	18,8	10	4.0	**LP11.1**	1 unit(s)	20,35
Standard	18,8	13	6.0	**LP12.1**	1 unit(s)	22,90

Stopcocks and plugs



DURAN WHEATON KIMBLE

One-way tap

DWK Life Sciences. Material: DURAN® glass, PTFE plug.

With PTFE plug and three-part stopcock safety.
Wall thickness 3 mm, 1.5 mm in Art. No. LP13.1 and in LP14.1.

Tap cock with ground glass joints	Ø ext. (mm)	Ø Hole (mm)	Art. No.	Pack Qty.	€
12,5	8	2.0	**LP13.1**	2 unit(s)	41,30
12,5	8	2.5	**LP14.1**	2 unit(s)	41,30
14,5	9	2.5	**LP15.1**	2 unit(s)	46,90
14,5	10	4.0	**LP16.1**	2 unit(s)	50,45
18,8	10	4.0	**LP17.1**	2 unit(s)	63,45
18,8	13	6.0	**LP18.1**	2 unit(s)	67,20
21,5	13	6.0	**LP19.1**	1 unit(s)	47,05
24,0	15	8.0	**LP20.1**	1 unit(s)	62,85
29,2	18	10.0	**LP21.1**	1 unit(s)	85,75



DURAN WHEATON KIMBLE

Stopcock plug

DWK Life Sciences. Material: Glass (SBW glass).

With thread and ground glass joint.

Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
12,5	2.0	**LN87.1**	2 unit(s)	17,45
12,5	2.5	**LN88.1**	2 unit(s)	17,30
14,5	2.5	**LN89.1**	2 unit(s)	20,00
14,5	4.0	**LN90.1**	2 unit(s)	20,00
18,8	4.0	**LN91.1**	2 unit(s)	26,35
18,8	6.0	**LN92.1**	2 unit(s)	24,65



DURAN WHEATON KIMBLE

Accessories stopcock safety

DWK Life Sciences.

Three-part, pre-assembled. For SBW-glass plug Art. No. LN87.1 ff.

Suitable for	Thread	Art. No.	Pack Qty.	€
Plug NS 12.5	GL 8	**LN93.1**	10 unit(s)	13,30
Plug NS 14.5	GL 9	**LN94.1**	10 unit(s)	13,30
Plug NS 18.8	GL 12	**LN95.1**	10 unit(s)	16,50



A 121 °C

Stopcock plug

Bohlender. Material: PTFE, Stopcock safety made of PP.
Autoclavable: Yes.

With thread and ground glass joint.

Delivery without O-rings, please order separately.

Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
12,5	2.0	**LN96.1**	2 unit(s)	9,95
12,5	2.5	**LN97.1**	2 unit(s)	11,15
14,5	2.5	**LN98.1**	2 unit(s)	12,30
14,5	4.0	**LN99.1**	2 unit(s)	12,05
18,8	4.0	**LP00.1**	2 unit(s)	14,25
18,8	6.0	**LP01.1**	2 unit(s)	19,30
21,5	6.0	**LP02.1**	1 unit(s)	18,65
24,0	8.0	**LP03.1**	1 unit(s)	21,95
29,2	10.0	**LP04.1**	1 unit(s)	35,80

Accessories O-rings for stopcock plugs

Bohlender. Material: Perbunan.

For PTFE stopcock plug Art. No. LN96.1 ff.

Suitable for	Art. No.	Pack Qty.	€
NS 12.5 and NS 14.5	**CNC6.1**	20 unit(s)	38,25
Plug NS 18.8	**CNC7.1**	20 unit(s)	32,15
Plugs NS 21.5, NS 24.0 and NS 29.1	**CNC8.1**	20 unit(s)	20,05

Chromatography columns



Chromatography columns

Lenz. Material: DURAN® glass, stopcock made of PTFE.
With ground glass socket and PTFE stopcock NS 14.5.

(1) Without frit
With grooves under the stopcock to apply a piece of cotton wool.

Vol. (ml)	Ø Internal (mm)	Length (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
15	10	200	14/23	**TK54.1**	1 unit(s)	61,20
35	15	200	14/23	**Y669.1**	1 unit(s)	64,40
125	20	400	29/32	**Y670.1**	1 unit(s)	71,50
430	30	600	29/32	**Y671.1**	1 unit(s)	81,20
1,000	40	800	29/32	**TK55.1**	1 unit(s)	138,70

(2) With frit
With fused-in frit, porosity 0.

Vol. (ml)	Ø Internal (mm)	Length (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
8	10	100	14/23	**TK56.1**	1 unit(s)	81,70
15	10	200	14/23	**Y672.1**	1 unit(s)	81,70
23	10	300	14/23	**Y673.1**	1 unit(s)	87,65
35	15	200	14/23	**Y674.1**	1 unit(s)	90,20
125	20	400	29/32	**Y675.1**	1 unit(s)	107,00
430	30	600	29/32	**HX73.1**	1 unit(s)	112,90

(3) With frit, ground glass core and GL 18 extraction connection
With fused-in frit, porosity 0.

Vol. (ml)	Ø Internal (mm)	Length (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
35	15	200	14/23	**TK57.1**	1 unit(s)	160,20
120	20	400	14/23	**TK58.1**	1 unit(s)	166,65
280	30	400	29/32	**TK59.1**	1 unit(s)	177,40
430	30	600	29/32	**TK60.1**	1 unit(s)	188,15



Chromatography columns with beaded rim

Lenz. Material: DURAN® glass, stopcock made of PTFE.
With ground glass socket and PTFE stopcock NS 14.5.

(1) Without frit
With grooves under the stopcock to apply a piece of cotton wool.

Vol. (ml)	Ø Internal (mm)	Length (mm)	Art. No.	Pack Qty.	€
15	10	200	**ENT5.1**	1 unit(s)	63,45
35	15	200	**ENT6.1**	1 unit(s)	65,60
125	20	400	**ENT7.1**	1 unit(s)	71,95
430	30	600	**ENT8.1**	1 unit(s)	85,50
1,000	40	800	**ENT9.1**	1 unit(s)	117,20

(2) With frit
With fused-in frit, porosity 0.

Vol. (ml)	Ø Internal (mm)	Length (mm)	Art. No.	Pack Qty.	€
15	10	200	**ENX0.1**	1 unit(s)	85,50
35	15	200	**ENX1.1**	1 unit(s)	91,95
125	20	400	**ENX2.1**	1 unit(s)	88,70
430	30	600	**ENX3.1**	1 unit(s)	107,00
1,000	40	800	**ENX4.1**	1 unit(s)	145,15

Separating funnels

Separating funnel

Material: Borosilicate glass 3.3, stopper made of plastic.
Conical shape. Acc. to DIN 12451.



With glass tap cocks

Vol. (ml)	Standard ground glass joint	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	19/26	12,5	2.5	**E646.1**	1 unit(s)	50,00
100	19/26	12,5	2.5	**E647.1**	1 unit(s)	53,65
250	29/32	14,5	4.0	**E648.1**	1 unit(s)	61,85
500	29/32	14,5	4.0	**E649.1**	1 unit(s)	72,60
1,000	29/32	18,8	6.0	**E650.1**	1 unit(s)	104,20
2,000	29/32	18,8	6.0	**E651.1**	1 unit(s)	160,20

With PTFE plugs

Vol. (ml)	Standard ground glass joint	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	19/26	12,5	2.5	**KT70.1**	1 unit(s)	50,55
100	19/26	12,5	2.5	**KT71.1**	1 unit(s)	56,45
250	29/32	14,5	4.0	**KT72.1**	1 unit(s)	68,70
500	29/32	14,5	4.0	**KT73.1**	1 unit(s)	81,70
1,000	29/32	18,8	6.0	**KT74.1**	1 unit(s)	107,00
2,000	29/32	18,8	6.0	**KT75.1**	1 unit(s)	149,45

Separating funnel cylindrical

Lenz. Material: Borosilicate glass 3.3, with stopper made of PE.
Autoclavable: Yes.
Graduated.



A 121 °C

With glass tap cocks

Vol. (ml)	Graduations (ml)	Standard ground glass joint	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	2	29/32	12,5	2.5	**ENN3.1**	2 unit(s)	123,65
100	5	29/32	12,5	2.5	**ENN4.1**	2 unit(s)	117,20
250	10	29/32	14,5	4.0	**ENN5.1**	2 unit(s)	149,45
500	10	29/32	14,5	4.0	**ENN6.1**	2 unit(s)	177,40
1,000	20	29/32	18,8	6.0	**ENN7.1**	2 unit(s)	246,20

With PTFE plugs

Vol. (ml)	Graduations (ml)	Standard ground glass joint	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	2	29/32	12,5	2.5	**ENN8.1**	2 unit(s)	145,15
100	5	29/32	12,5	2.5	**ENN9.1**	2 unit(s)	138,70
250	10	29/32	14,5	4.0	**ENP0.1**	2 unit(s)	188,15
500	10	29/32	14,5	4.0	**ENP1.1**	2 unit(s)	198,90
1,000	20	29/32	18,8	6.0	**ENP2.1**	2 unit(s)	267,70

Separating funnels



Separating funnel acc. to Squibb

Lenz. Material: Borosilicate glass 3.3, glass ground joint plug made of PTFE and stopper made of plastic.

Graduated.

Vol. (ml)	Standard ground glass joint	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	19/26	12,5	2.5	**KT76.1**	2 unit(s)	99,90
100	19/26	12,5	2.5	**KT77.1**	2 unit(s)	93,55
250	29/32	14,5	4.0	**KT78.1**	2 unit(s)	112,90
500	29/32	14,5	4.0	**KT79.1**	2 unit(s)	134,40
1,000	29/32	18,8	6.0	**KT80.1**	2 unit(s)	160,20
2,000	29/32	18,8	6.0	**KT81.1**	1 unit(s)	106,45



Separating funnel acc. to Gilson

Lenz. Material: Borosilicate glass 3.3, ground glass plugs made of PTFE and stopper made of PE.

Vol. (ml)	Standard ground glass joint	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	19/26	12,5	2.5	**LK40.1**	2 unit(s)	170,95
100	19/26	12,5	2.5	**LK41.1**	2 unit(s)	181,70
250	29/32	14,5	4.0	**LK42.1**	2 unit(s)	203,20
500	29/32	14,5	4.0	**LK43.1**	2 unit(s)	256,95
1,000	29/32	18,8	6.0	**LK44.1**	2 unit(s)	321,45
2,000	29/32	18,8	6.0	**LK45.1**	1 unit(s)	241,90

Separating funnel acc. to Squibb

Bel-Art Products. Material: PP, plugs made of PTFE, screw cap made of PP. Autoclavable: Limited.

Graduated. Transparent (to allow easy recognition of phase transitions). Ground glass 14.5 plug, borehole Ø 4 mm. Temperature-stable up to 135 °C. High chemical stability, max. 60 % hydrofluoric acid. Autoclavable without stop cock and closure.

Vol. (ml)	Art. No.	Pack Qty.	€
100	**YA73.1**	1 unit(s)	113,95
250	**YA74.1**	1 unit(s)	120,40



Separating funnel

Bohlender. Material: FEP, fine dosage tap and joint core made of PTFE.

High purity, chemically inert, temperature-stable from -200 to +250 °C. Hydrophobic, anti-adhesive surfaces. With fine dosage tap, screw cap and integrated combination nut to secure/release the conical joint.

Vol. (ml)	Standard ground glass joint core	Art. No.	Pack Qty.	€
125	29/32	**NY53.1**	1 unit(s)	510,65
250	29/32	**NY54.1**	1 unit(s)	596,65
500	29/32	**NY55.1**	1 unit(s)	762,20



Separating funnel holder

Kartell. Material: PP.

For separating funnels from 125-500 ml. With clamp for fastening to the stand rods with Ø 8-14 mm.

Suitable for	Art. No.	Pack Qty.	€
Separating funnels 125-500 ml	**PY61.1**	1 unit(s)	15,35

Dropping funnels

Dropping funnels cylindrical

Lenz. Material: Borosilicate glass 3.3.

Graduated. With glass ground glass sleeve, ground glass core and stop cock plug with threaded safety device. Acc. to DIN 12567, ISO 4800.



With solid glass plugs

Vol. (ml)	Graduations (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	1	29/32	29/32	12,5	2.5	**CH30.1**	1 unit(s)	69,90
100	2	29/32	29/32	12,5	2.5	**CH31.1**	1 unit(s)	77,95
250	5	29/32	29/32	14,5	4.0	**CH32.1**	1 unit(s)	94,50
500	10	29/32	29/32	14,5	4.0	**CH33.1**	1 unit(s)	103,10

With PTFE plugs

Vol. (ml)	Graduations (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	1	29/32	29/32	12,5	2.5	**CH34.1**	1 unit(s)	77,40
100	2	29/32	29/32	12,5	2.5	**CH35.1**	1 unit(s)	84,40
250	5	29/32	29/32	14,5	4.0	**CH36.1**	1 unit(s)	101,05
500	10	29/32	29/32	14,5	4.0	**CH37.1**	1 unit(s)	111,80

Dropping funnels with pressure compensation

Lenz. Material: Borosilicate glass 3.3. Autoclavable: Yes.

Cylindrical, graduated. With pressure compensation tube, ground glass core, ground glass sleeve and stop cock plug with threaded safety device.
Acc. to DIN 12567, ISO 4800.



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With solid glass plugs

Vol. (ml)	Graduations (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	1	14/23	14/23	12,5	2.5	**E642.1**	1 unit(s)	89,15
50	1	29/32	29/32	12,5	2.5	**KL62.1**	1 unit(s)	88,05
100	2	14/23	14/23	12,5	2.5	**E643.1**	1 unit(s)	92,45
100	2	29/32	29/32	12,5	2.5	**KL63.1**	1 unit(s)	92,45
250	5	29/32	29/32	14,5	4.0	**E644.1**	1 unit(s)	106,45
500	10	29/32	29/32	14,5	4.0	**E645.1**	1 unit(s)	117,20
1,000	20	29/32	29/32	18,8	6.0	**KL64.1**	1 unit(s)	145,15

With PTFE plugs

Vol. (ml)	Graduations (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	1	14/23	14/23	12,5	2.5	**KL65.1**	1 unit(s)	93,55
50	1	29/32	29/32	12,5	2.5	**KL76.1**	1 unit(s)	93,55
100	2	14/23	14/23	12,5	2.5	**KL77.1**	1 unit(s)	98,40
100	2	29/32	29/32	12,5	2.5	**KL78.1**	1 unit(s)	98,40
250	5	29/32	29/32	14,5	4.0	**KL79.1**	1 unit(s)	117,20
500	10	29/32	29/32	14,5	4.0	**KL80.1**	1 unit(s)	127,95
1,000	20	29/32	29/32	18,8	6.0	**KL81.1**	1 unit(s)	155,90

Dropping funnels

Dropping funnels

Lenz. Material: Borosilicate glass 3.3. Autoclavable: Yes.

Conical. With ground glass sleeve, ground glass core and stop cock plugs with threaded safety device.



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With solid glass plugs

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	19/26	19/26	12,5	2.5	**ENP3.1**	1 unit(s)	79,05
100	19/26	19/26	12,5	2.5	**ENP4.1**	1 unit(s)	78,50
250	29/32	29/32	14,5	4.0	**ENP5.1**	1 unit(s)	89,80
500	29/32	29/32	14,5	4.0	**ENP6.1**	1 unit(s)	100,55
1,000	29/32	29/32	18,8	6.0	**ENP7.1**	1 unit(s)	123,65
2,000	29/32	29/32	18,8	6.0	**ENP8.1**	1 unit(s)	209,65

With PTFE plugs

Vol. (ml)	Standard ground glass joint sleeve	Standard ground glass joint core	Tap cock with ground glass joints	Ø Hole (mm)	Art. No.	Pack Qty.	€
50	19/26	19/26	12,5	2.5	**ENP9.1**	1 unit(s)	91,40
100	19/26	19/26	12,5	2.5	**ENT0.1**	1 unit(s)	94,10
250	29/32	29/32	14,5	4.0	**ENT1.1**	1 unit(s)	104,20
500	29/32	29/32	14,5	4.0	**ENT2.1**	1 unit(s)	138,70
1,000	29/32	29/32	18,8	6.0	**ENT3.1**	1 unit(s)	145,15
2,000	29/32	29/32	18,8	6.0	**ENT4.1**	1 unit(s)	235,45

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Funnels

Funnels ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.
With short stem. 60° angle.

A 121 °C

Ø Inner upper (mm)	Ø Outer outlet (mm)	Tube length (mm)	Suitable for	Art. No.	Pack Qty.	€
35	6	35	paper filter Ø 45-55 mm	**ACC3.1**	10 unit(s)	46,35
45	6	45	paper filter Ø 55-70 mm	**ACC4.1**	10 unit(s)	50,40
55	8	55	paper filter Ø 70-90 mm	**ACC5.1**	10 unit(s)	54,70
75	8	75	paper filter Ø 125-150 mm	**ACC6.1**	10 unit(s)	70,15
85	9	85	paper filter Ø 150 mm	**ACC7.1**	10 unit(s)	78,55
100	10	100	paper filter Ø 150-185 mm	**ACC8.1**	10 unit(s)	95,85
125	16	125	paper filter Ø 185 mm	**ACC9.1**	1 unit(s)	23,15
150	16	150	paper filter Ø 240-270 mm	**ACE0.1**	1 unit(s)	27,85
200	24	150	paper filter Ø 320-385 mm	**ACE1.1**	1 unit(s)	62,25
250	30	175	paper filter Ø 400-450 mm	**ACE2.1**	1 unit(s)	81,25
300	34	175	paper filter Ø 500 mm	**ACE3.1**	1 unit(s)	146,55

Funnels

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
With short stem.



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Ø Outer upper (mm)	Ø Outer outlet (mm)	Tube length (mm)	Suitable for	Art. No.	Pack Qty.	€
35	6	35	Paper filter-Ø 45-55 mm	**C153.1**	10 unit(s)	123,20
45	6	45	Paper filter-Ø 55-70 mm	**C154.1**	10 unit(s)	127,60
55	8	55	Paper filter-Ø 70-90 mm	**C155.1**	10 unit(s)	187,00
70	8	70	Paper filter-Ø 110-125 mm	**C156.1**	10 unit(s)	185,00
80	10	80	Paper filter-Ø 125-150 mm	**C157.1**	10 unit(s)	197,00
100	10	100	Paper filter-Ø 150-185 mm	**C158.1**	1 unit(s)	22,10
150	16	150	Paper filter-Ø 240-270 mm	**C159.1**	1 unit(s)	38,20
200	26	175	Paper filter-Ø 320-385 mm	**C160.1**	1 unit(s)	91,15
300	30	175	Paper filter-Ø 500 mm	**C161.1**	1 unit(s)	177,00

Funnels



121 °C

Funnels with ribs

Bohemia. Material: Borosilicate glass 3.3. Autoclavable: Yes.
For quick filtration.

Ø Outer upper (mm)	Ø Outer outlet (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
105	18	80	**NY75.1**	1 unit(s)	26,10
138	22	90	**NY76.1**	1 unit(s)	31,45
170	26	120	**NY77.1**	1 unit(s)	39,85
210	38	140	**NY78.1**	1 unit(s)	64,65
250	40	155	**NY79.1**	1 unit(s)	90,95

Funnels ROTILABO®

ROTH SELECTION. Material: Soda-lime glass.
With short stem. 60° angle.

Ø Outer upper (mm)	Ø Outer outlet (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
30	6	30	**EE58.1**	10 unit(s)	39,70
35	6	35	**EE59.1**	10 unit(s)	40,35
40	6	40	**EE60.1**	10 unit(s)	41,95
45	7	45	**EE61.1**	10 unit(s)	47,85
50	7	50	**EE62.1**	10 unit(s)	52,60
55	8	55	**EE63.1**	10 unit(s)	53,65
60	8	60	**EE64.1**	10 unit(s)	56,90
70	9	70	**EE65.1**	10 unit(s)	70,45
80	9	80	**EE66.1**	10 unit(s)	77,95
100	10	100	**EE67.1**	10 unit(s)	98,40



Funnels

Vitlab. Material: PP, transparent.
With handle and lifting eye. Suitable for foodstuffs.

Ø Upper (mm)	Ø Outlet (mm)	Height (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
30	1.5	45	25	**YA44.1**	1 unit(s)	1,70
30	4	47	25	**YA45.1**	1 unit(s)	1,70
40	4	65	35	**YA46.1**	1 unit(s)	1,90
50	7	85	43	**YA47.1**	1 unit(s)	2,15
75	7	108	55	**YA48.1**	1 unit(s)	2,35
100	8	155	77	**YA49.1**	1 unit(s)	2,65
120	11	180	90	**YA50.1**	1 unit(s)	3,45
150	15	220	95	**YA51.1**	1 unit(s)	4,55



Funnels ROTILABO®

ROTH SELECTION. Material: HDPE.
Natural colours with smooth surface. With lifting eye and 4 ventilation ribs (except Art. No. 0583.1).
Art. No. A828.1 incl. sieve Ø 50 mm, mesh size 0.4 mm.

Ø Upper (mm)	Ø Outlet (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	3	60	**0583.1**	1 unit(s)	1,95
60	8	80	**0584.1**	1 unit(s)	2,10
80	11	105	**0585.1**	1 unit(s)	2,35
100	12	125	**0586.1**	1 unit(s)	2,55
120	12	145	**0587.1**	1 unit(s)	2,65
140	15	165	**0588.1**	1 unit(s)	3,20
164	17	195	**0589.1**	1 unit(s)	3,80
208	20	220	**A828.1**	1 unit(s)	6,40

Funnel range ROTILABO®

ROTH SELECTION. Material: HDPE.
7 pieces, one for each funnel, Art. No. 0583.1 to 0589.1.

Version	Art. No.	Pack Qty.	€
ROTILABO® funnel range	**0594.1**	1 set	13,45

Funnels

Funnels ROTILABO® disposable

ROTH SELECTION.
With ventilation grooves. 60° angle. Inner outlet Ø 4.3 mm.



Transparent
Material: PP.

Ø Inner upper (mm)	Ø Inner outlet (mm)	Height (mm)	Tube length (mm)	Suitable for	Art. No.	Pack Qty.	€
55	4.3	69	25	paper filter-Ø 110 mm	**HY47.1**	100 unit(s)	31,15
65	4.3	78	30	paper filter-Ø 125 mm	**HY48.1**	100 unit(s)	31,15

Clear
Material: PS.

Ø Inner upper (mm)	Ø Inner outlet (mm)	Height (mm)	Tube length (mm)	Suitable for	Art. No.	Pack Qty.	€
55	4.3	69	25	Paper filter-Ø 110 mm	**HY45.1**	100 unit(s)	31,15
65	4.3	78	30	Paper filter-Ø 125 mm	**HY46.1**	100 unit(s)	31,15

Funnels ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
With lifting eye and side groove to bleed off the air from the container (except for Art. No. 0162.1). Suitable for foodstuffs.



A 121 °C

Ø Outer upper (mm)	Ø Outlet (mm)	Height (mm)	Version	Art. No.	Pack Qty.	€
55	8	65	without handle/eyelet	**0162.1**	1 unit(s)	14,55
94	13	120	with handle	**0164.1**	1 unit(s)	25,70
127	15	132	with eyelet	**0166.1**	1 unit(s)	31,50
154	15	152	with eyelet	**0167.1**	1 unit(s)	35,25
210	23	227	with eyelet	**0168.1**	1 unit(s)	50,45
257	23	265	with eyelet	**0169.1**	1 unit(s)	61,05

Funnel assortment ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
Includes six funnels (Art. No. 0162.1, 0164.1, 0166.1, 0167.1, 0168.1 and 0169.1).

A 121 °C

Version	Art. No.	Pack Qty.	€
Funnel assortment ROTILABO®	**5838.1**	1 set	213,95

Funnels



A 121 °C ❄❄❄

Funnels ROTILABO® made of fluoroplastic

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Chemically inert, temperature stable from -200 to + 250 °C. With smooth, hydrophobic inner surfaces.

Ø Outer upper (mm)	Ø Outlet (mm)	Height (mm)	Art. No.	Pack Qty.	€
30	8	50	**NX77.1**	1 unit(s)	23,90
50	10	85	**NX78.1**	1 unit(s)	32,75
70	12	110	**NX79.1**	1 unit(s)	47,45
100	14	170	**NX80.1**	1 unit(s)	98,95
150	16	220	**NX81.1**	1 unit(s)	163,40



A 121 °C

Funnels

Bürkle. Material: Stainless steel V2A (1.4301). Autoclavable: Yes.

With an air channel at the spout for unhindered flow.

Ø Upper (mm)	Ø Outlet (mm)	Version	Art. No.	Pack Qty.	€
60	13	without handle	**1C82.1**	1 unit(s)	15,95
100	13	with handle	**1C83.1**	1 unit(s)	22,50
150	19	with handle	**1C84.1**	1 unit(s)	33,95
300	20	with handle	**1C85.1**	1 unit(s)	58,65



A 121 °C

Funnels Micro

Bel-Art Products. Material: PP. Autoclavable: Yes.

For filling burettes and vessels with small opening.

Vol. (ml)	Ø Upper (mm)	Ø Outlet (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
2.6	24	5,4	16	**YA66.1**	12 unit(s)	58,60
5.2	28	6	19	**YA67.1**	12 unit(s)	49,45
8.1	35	8	23	**YA68.1**	12 unit(s)	44,10
15.7	43	8	26	**YA69.1**	12 unit(s)	94,55



A 121 °C

Funnels ROTILABO® Mini

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Seamless, matt polished. Suitable for foodstuffs.

Ø Upper (mm)	Ø Outlet (mm)	Height (mm)	Art. No.	Pack Qty.	€
27	4	50	**YY23.1**	10 unit(s)	28,90
27	6	50	**YY24.1**	10 unit(s)	28,90
28	7	50	**YY25.1**	10 unit(s)	28,90
29	8	50	**YY26.1**	10 unit(s)	28,90
31	10	50	**YY27.1**	10 unit(s)	28,90
32	11	50	**YY28.1**	10 unit(s)	28,90
33	12	50	**YY29.1**	10 unit(s)	28,90
34	13	50	**YY30.1**	10 unit(s)	28,90
35	14	50	**YY31.1**	10 unit(s)	28,90

Funnels



121 °C

Funnels with core

Lenz. Material: DURAN® glass. Autoclavable: Yes.
Filler funnel with 60° angle.

Standard ground glass joint core	Ø Outer upper (mm)	Art. No.	Pack Qty.	€
14/23	45	**KX83.1**	1 unit(s)	24,75
19/26	55	**EHL5.1**	1 unit(s)	28,85
24/29	70	**EHL6.1**	1 unit(s)	45,05
29/32	80	**KY11.1**	1 unit(s)	40,85



121 °C

Powder funnel

Bohemia. Material: Borosilicate glass 3.3. Autoclavable: Yes.
With short stem.

Ø Outer upper (mm)	Ø Outer outlet (mm)	Height (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
50	20	50	20	**X669.1**	10 unit(s)	165,55
60	20	60	20	**X670.1**	10 unit(s)	167,70
80	25	75	25	**X672.1**	10 unit(s)	186,00
100	25	95	25	**X673.1**	10 unit(s)	231,15
120	30	110	25	**X674.1**	10 unit(s)	252,65
160	35	137	30	**NX16.1**	1 unit(s)	45,55
200	38	180	30	**NX17.1**	1 unit(s)	50,05



Funnels ROTILABO® with standard taper joint

ROTH SELECTION. Material: PP.
For clean filling of flasks and equipment. Suitable for foodstuffs.

Standard ground glass joint	Ø Upper (mm)	Height (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
14/23	40	75	17	**2060.1**	1 unit(s)	4,90
19/26	50	95	23	**2073.1**	1 unit(s)	6,40
29/32	75	135	30	**2075.1**	1 unit(s)	8,05

Funnel range ROTILABO® with standard ground joint

ROTH SELECTION. Material: PP.
Includes 3 funnels (Art. No. 2060.1, 2073.1 and 2075.1).

Version	Art. No.	Pack Qty.	€
ROTILABO® ground joint funnel range	**2080.1**	1 set	18,05



121 °C

Powder funnel

Kartell. Material: PP. Autoclavable: Yes.
With a ribbed exterior to avoid pressure build-up. 60° inclination angle.

Vol. (ml)	Ø Outer upper (mm)	Ø Outer outlet (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
45	60	15	18	**TT41.1**	1 unit(s)	2,70
94	80	15	22	**TT42.1**	1 unit(s)	4,70
200	100	25	25	**TT43.1**	1 unit(s)	5,55
360	120	30	27	**TT44.1**	1 unit(s)	5,70
730	150	36	40	**TT45.1**	1 unit(s)	6,65
1,290	180	43	49	**TT46.1**	1 unit(s)	8,50



Powder funnel ROTILABO®

ROTH SELECTION. Material: PP or HDPE, transparent.

With smooth surface. Autoclavable, except for Art. No. 2057.1.
Art. No. 2057.1 incl. sieve Ø 105 mm.

Ø Inner upper (mm)	Ø Inner outlet (mm)	Height (mm)	Version	Art. No.	Pack Qty.	€
65	16	68	PP	**2041.1**	1 unit(s)	2,65
80	22	75	PP	**2046.1**	1 unit(s)	3,70
100	23	94	PP	**2047.1**	1 unit(s)	3,95
120	27	110	PP	**2049.1**	1 unit(s)	4,45
150	29	138	PP	**2051.1**	1 unit(s)	6,10
253	50	190	HDPE	**2057.1**	1 unit(s)	12,15

Powder funnel range ROTILABO®

ROTH SELECTION.

Includes 6 funnels (Art. No. 2041.1, 2046.1, 2047.1, 2049.1, 2051.1 and 2057.1).

Version	Art. No.	Pack Qty.	€
ROTILABO® powder funnel range	**2020.1**	1 set	29,95



Drum funnels ROTILABO®

ROTH SELECTION.

Made of PP or HDPE, transparent. Art. No. HY26.1 and HY27.1 with side handle.

Ø Upper (mm)	Ø Outlet (mm)	Height (mm)	Version	Art. No.	Pack Qty.	€
200	22	200	PP	**HY26.1**	1 unit(s)	10,05
250	30	260	PP	**HY27.1**	1 unit(s)	16,10
350	35	440	PP	**HY28.1**	1 unit(s)	33,40
400	42	365	HDPE	**HY29.1**	1 unit(s)	78,45

Accessories sieve insert for ROTILABO® drum funnel

ROTH SELECTION. Material: Stainless steel, Aluminium.

Suitable for Art. No. HY26.1 and HY27.1.

Ø (mm)	Mesh size (mm)	Art. No.	Pack Qty.	€
50	0.45	**HY30.1**	1 unit(s)	6,25



A 121 °C

Analytical funnels ROTILABO® Urbanti

ROTH SELECTION. Material: PMP. Autoclavable: Yes.

With spiral rib on the inside of the funnel to accelerate filtration speed. With ventilation ribs. Temperature stable up to 170 °C.

Ø Inner upper (mm)	Ø Inner outlet (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
51	3	150	**EA42.1**	1 unit(s)	8,10
70	3	150	**EA43.1**	1 unit(s)	9,95
100	7	108	**EA44.1**	1 unit(s)	11,85
140	10	132	**EA45.1**	1 unit(s)	39,25
196	20	160	**EA46.1**	1 unit(s)	52,70

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Funnels

Analytical funnels ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes. Acc. to ISO 4798. Stem Ø 8 mm. Length 150 mm. For quick filtration.



A 121 °C

Ø Inner upper (mm)	Ø Outlet (mm)	Height (mm)	Suitable for	Art. No.	Pack Qty.	€
55	8	150	paper filter-Ø 70-90 mm	**NT85.1**	1 unit(s)	31,25
75	8	150	paper filter-Ø 110-125 mm	**NT86.1**	1 unit(s)	32,65
100	8	150	paper filter-Ø 150-185 mm	**NT87.1**	1 unit(s)	36,90

Analytical funnels

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes. Ribbed.

A 121 °C

DURAN WHEATON KIMBLE

Ø Outer upper (mm)	Ø Outer outlet (mm)	Tube length (mm)	Suitable for	Art. No.	Pack Qty.	€
70	8	70	paper filter-Ø 110-125 mm	**K243.1**	1 unit(s)	27,40
80	10	80	paper filter-Ø 125-150 mm	**K244.1**	1 unit(s)	29,20
100	10	100	paper filter-Ø 150-185 mm	**K245.1**	1 unit(s)	35,10
150	16	150	paper filter-Ø 240-270 mm	**K246.1**	1 unit(s)	46,50
200	26	175	paper filter-Ø 320-385 mm	**K247.1**	1 unit(s)	75,90

Analytical funnels ROTILABO®

ROTH SELECTION. Material: PP, transparent. Autoclavable: Yes.

A 121 °C

Ø Outer upper (mm)	Ø Outlet (mm)	Tube length (mm)	Suitable for	Art. No.	Pack Qty.	€
60	8	150	paper filter-Ø 70-90 mm	**9518.1**	1 unit(s)	11,45
80	8	150	paper filter-Ø 110-125 mm	**9519.1**	1 unit(s)	12,90
100	8	150	paper filter-Ø 150-185 mm	**9520.1**	1 unit(s)	13,85

Funnel holder

Bürkle. Material: PP, Steel chrome-plated.

For funnel Ø of 40 to 180 mm (for smaller funnels, the supplied reducing inserts can be used) or for sediment funnels from Ø 90 mm. Infinitely adjustable thanks to magnet concept. Height is adjustable up to 450 mm. With 2 or 4 spaces on the base.



Version	Art. No.	Pack Qty.	€
for 2 funnels	**HCC8.1**	1 unit(s)	89,35
for 4 funnels	**HCC9.1**	1 unit(s)	123,20
for 2 sedimentation cones	**HCE0.1**	1 unit(s)	96,70

Accessories

Bürkle.

Type	Art. No.	Pack Qty.	€
Holder (2 holding rings) for 1 sedimentation cone	**HCE2.1**	1 unit(s)	19,75
Funnel holder with reduction insert	**HCE1.1**	1 unit(s)	16,00

Funnel holder ROTILABO®

ROTH SELECTION. Material: PP.

With stand clamp for mounting on stands of Ø 8 to 14 mm. Suitable for funnel Ø of 50 to 120 mm and hose outer Ø of max. 39 mm.
With replaceable inner ring for varying funnel sizes.



Version	Art. No.	Pack Qty.	€
for 1 funnel	**9768.1**	1 unit(s)	20,60
for 2 funnels	**9769.1**	1 unit(s)	28,55

Fritted filter funnels

Filter 126 according to Hirsch

Haldenwanger. Material: Porcelain glazed.



Ø Filter plate (mm)	Suitable for	Ø Upper (mm)	Ø Outlet (mm)	Height (mm)	Art. No.	Pack Qty.	€
9	filter Ø: 8 mm	30	5,5 - 7	45	**TL75.1**	1 unit(s)	42,90
11	filter Ø: 10 mm	40	6 - 9	56	**TL76.1**	1 unit(s)	46,80
13	filter Ø: 12 mm	45	7 - 12	61	**TL77.1**	1 unit(s)	46,80
15	filter Ø: 13 mm	52	8 - 11,5	74	**TL78.1**	1 unit(s)	54,30
27	filter Ø: 25 mm	72	11 - 16	102	**TL79.1**	1 unit(s)	58,60

Büchner funnel ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Robust, non-breakable. Upper and lower part can be separated for cleaning.



A 121 °C

Vol. (ml)	Suitable for	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
70	filter Ø: 55 mm	5.1	**HT33.1**	1 unit(s)	12,75
180	filter Ø: 70 mm	6.8	**HT34.1**	1 unit(s)	13,50
285	filter Ø: 80 mm	8.1	**HT35.1**	1 unit(s)	15,05
390	filter Ø: 90 mm	9.1	**HT36.1**	1 unit(s)	20,10
810	filter Ø: 110 mm	22	**HT37.1**	1 unit(s)	25,80
2,100	filter Ø: 150 mm	16	**HT38.1**	1 unit(s)	44,70

Slit-sieve filters

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

For round paper filters and membrane filters.



A 121 °C DURAN WHEATON KIMBLE

Slit-sieve filters (Büchner funnel)

Vol. (ml)	Ø Filter plate (mm)	Suitable for	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
70	48	filter Ø: 45 mm	10	**Y880.1**	1 unit(s)	90,20
125	60	filter Ø: 55 mm	10	**Y881.1**	1 unit(s)	106,35
220	73	filter Ø: 70 mm	18	**Y882.1**	1 unit(s)	139,60
500	95	filter Ø: 90 mm	22	**Y883.1**	1 unit(s)	160,00
1,000	120	filter Ø: 110 mm	22	**Y884.1**	1 unit(s)	226,00

Fritted filter funnels

Büchner funnel ROTILABO®

ROTH SELECTION. Material: Porcelain, glazed.

Excellent resistance to acids and bases. Max. Temperature stability up to +1,000 °C.



Vol. (ml)	Ø Filter plate (mm)	Suitable for	Height (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
35	48	filter Ø: 45 mm	24	43	**XX44.1**	1 unit(s)	24,70
70	62	filter Ø: 55 mm	30	64	**XX45.1**	1 unit(s)	28,90
120	77	filter Ø: 70 mm	35	64	**XX46.1**	1 unit(s)	34,60
240	97	filter Ø: 90 mm	40	71	**XX47.1**	1 unit(s)	48,20
400	116	filter Ø: 110 mm	49	83	**XX48.1**	1 unit(s)	60,20
600	130	filter Ø: 125 mm	52	85	**XX49.1**	1 unit(s)	76,00
1,000	156	filter Ø: 150 mm	59	96	**XX50.1**	1 unit(s)	101,20
2,000	192	filter Ø: 185 mm	74	117	**XX51.1**	1 unit(s)	135,80
4,000	248	filter Ø: 240 mm	90	117	**XX52.1**	1 unit(s)	316,05
7,000	296	filter Ø: 290 mm	105	130	**XX53.1**	1 unit(s)	751,45
10,000	334	filter Ø: 320 mm	120	133	**XX54.1**	1 unit(s)	939,55

Büchner funnel 127 C

Haldenwanger. Material: Porcelain (Laboratory porcelain according to DIN 60672-3, type C 110).

With fixed sieve plate. Highly resistant to chemical and physical effects.



Version	Vol. (ml)	Ø Filter plate (mm)	Suitable for	Ø Outlet (mm)	Height (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
000	9	19	filter Ø: 15 mm	9 - 8	47	22	**1578.1**	1 unit(s)	47,30
00	10	29	filter Ø: 25 mm	10,5 - 8,5	64	30	**1579.1**	1 unit(s)	48,95
0	25	42	filter Ø: 40 mm	12,5 - 10	76	50	**4168.1**	1 unit(s)	51,50
0 a	50	48	filter Ø: 45 mm	16 - 14	95	35	**1580.1**	1 unit(s)	52,70
1	75	59	filter Ø: 55 mm	19 - 16,5	110	50	**1581.1**	1 unit(s)	61,85
2	135	74	filter Ø: 70 mm	21 - 15,5	140	65	**1582.1**	1 unit(s)	78,50
2 a	290	94	filter Ø: 90 mm	24 - 19	165	70	**4177.1**	1 unit(s)	100,00
3	580	114	filter Ø: 110 mm	31 - 23	195	75	**1583.1**	1 unit(s)	123,65
4	795	129	filter Ø: 125 mm	31 - 25,5	215	100	**4178.1**	1 unit(s)	164,50
4 a	1,200	155	filter Ø: 150 mm	35 - 25	235	105	**1584.1**	1 unit(s)	224,70
5	1,900	190	filter Ø: 185 mm	35 - 25	280	105	**XX19.1**	1 unit(s)	353,70
6	4,300	248	filter Ø: 240 mm	40 - 26	300	120	**XX20.1**	1 unit(s)	579,45
6 a	5,800	279	filter Ø: 270 mm	48 - 30	330	125	**XX21.1**	1 unit(s)	1.048,15
8	10,600	330	filter Ø: 320 mm	55 - 36	350	150	**XX22.1**	1 unit(s)	1.392,15

Fritted filter funnels

Fritted filter funnel

Material: Borosilicate glass 3.3. Autoclavable: Yes.



A 121 °C

50 ml

Vol. (ml)	Porosity	Ø Filter plate (mm)	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
50	1 (100 – 160 µm)	35	10	**Y772.1**	1 unit(s)	39,70
50	2 (40 – 100 µm)	35	10	**Y773.1**	1 unit(s)	39,70
50	3 (16 – 40 µm)	35	10	**Y774.1**	1 unit(s)	39,70
50	4 (10 – 16 µm)	35	10	**Y775.1**	1 unit(s)	41,85
50	5 (1,0 – 1,6 µm)	35	10	**Y871.1**	1 unit(s)	74,60

75 ml

Vol. (ml)	Porosity	Ø Filter plate (mm)	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
75	1 (100 – 160 µm)	45	10	**Y777.1**	1 unit(s)	44,00
75	2 (40 – 100 µm)	45	10	**Y778.1**	1 unit(s)	44,00
75	3 (16 – 40 µm)	45	10	**Y779.1**	1 unit(s)	44,00
75	4 (10 – 16 µm)	45	10	**Y780.1**	1 unit(s)	49,35
75	5 (1,0 – 1,6 µm)	45	10	**Y872.1**	1 unit(s)	82,25

125 ml

Vol. (ml)	Porosity	Ø Filter plate (mm)	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
125	1 (100 – 160 µm)	60	10	**Y782.1**	1 unit(s)	62,35
125	2 (40 – 100 µm)	60	10	**Y783.1**	1 unit(s)	62,35
125	3 (16 – 40 µm)	60	10	**Y784.1**	1 unit(s)	64,00
125	4 (10 – 16 µm)	60	10	**Y785.1**	1 unit(s)	67,20
125	5 (1,0 – 1,6 µm)	60	10	**Y873.1**	1 unit(s)	122,90

500 ml

Vol. (ml)	Porosity	Ø Filter plate (mm)	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
500	1 (100 – 160 µm)	95	22	**Y787.1**	1 unit(s)	123,65
500	2 (40 – 100 µm)	95	22	**Y788.1**	1 unit(s)	123,65
500	3 (16 – 40 µm)	95	22	**Y789.1**	1 unit(s)	123,65
500	4 (10 – 16 µm)	95	22	**Y790.1**	1 unit(s)	149,45
500	5 (1,0 – 1,6 µm)	95	22	**Y874.1**	1 unit(s)	258,00

1000 ml

Vol. (ml)	Porosity	Ø Filter plate (mm)	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
1,000	1 (100 – 160 µm)	120	22	**Y792.1**	1 unit(s)	188,15
1,000	2 (40 – 100 µm)	120	22	**Y793.1**	1 unit(s)	188,15
1,000	3 (16 – 40 µm)	120	22	**Y794.1**	1 unit(s)	188,15
1,000	4 (10 – 16 µm)	120	22	**Y795.1**	1 unit(s)	194,60
1,000	5 (1,0 – 1,6 µm)	120	22	**Y875.1**	1 unit(s)	442,00

4000 ml

Vol. (ml)	Porosity	Ø Filter plate (mm)	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
4,000	1 (100 – 160 µm)	175	30	**Y876.1**	1 unit(s)	546,00
4,000	2 (40 – 100 µm)	175	30	**Y877.1**	1 unit(s)	546,00
4,000	3 (16 – 40 µm)	175	30	**Y878.1**	1 unit(s)	546,00
4,000	4 (10 – 16 µm)	175	30	**Y879.1**	1 unit(s)	629,00

Glass filter crucible



A 121 °C DURAN WHEATON KIMBLE

Filter crucible

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Made by DURAN®. Temperature stable up to max. 450 °C.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Art. No.	Pack Qty.	€
8	2 (40 – 100 µm)	20	**E549.1**	1 unit(s)	17,40
8	3 (16 – 40 µm)	20	**E550.1**	1 unit(s)	17,65
8	4 (10 – 16 µm)	20	**E551.1**	1 unit(s)	20,15
15	1 (100 – 160 µm)	23	**E552.1**	1 unit(s)	17,20
15	2 (40 – 100 µm)	23	**E553.1**	1 unit(s)	17,20
15	3 (16 – 40 µm)	23	**E554.1**	1 unit(s)	17,20
15	4 (10 – 16 µm)	23	**E555.1**	1 unit(s)	20,80
30	1 (100 – 160 µm)	30	**E556.1**	1 unit(s)	18,10
30	2 (40 – 100 µm)	30	**E557.1**	1 unit(s)	18,10
30	3 (16 – 40 µm)	30	**E558.1**	1 unit(s)	18,10
30	4 (10 – 16 µm)	30	**E559.1**	1 unit(s)	20,35
30	5 (1,0 – 1,6 µm)	30	**E560.1**	1 unit(s)	38,85
50	1 (100 – 160 µm)	40	**E561.1**	1 unit(s)	26,30
50	2 (40 – 100 µm)	40	**E562.1**	1 unit(s)	26,30
50	3 (16 – 40 µm)	40	**E563.1**	1 unit(s)	26,30
50	4 (10 – 16 µm)	40	**E564.1**	1 unit(s)	30,10
50	5 (1,0 – 1,6 µm)	40	**E565.1**	1 unit(s)	61,10



A 121 °C DURAN WHEATON KIMBLE

Accessories rubber sleeves for filter crucibles

DWK Life Sciences. Material: EPDM. Autoclavable: Yes.
For vacuum-tight connection of crucibles and adapters.
Temperature stable between -45 and +150 °C.

Suitable for	Ø ext. (mm)	Art. No.	Pack Qty.	€
filter crucible 8 ml	26	**E566.1**	10 unit(s)	25,95
filter crucible 15 ml	33	**E567.1**	10 unit(s)	26,85
filter crucible 30 ml	41	**E568.1**	10 unit(s)	27,80
filter crucible 15 ml	49	**E569.1**	10 unit(s)	29,85



A 121 °C DURAN WHEATON KIMBLE

Crucible adapter

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
For holding filter crucibles.

Suitable for	Ø Inner upper (mm)	Ø Outer outlet (mm)	Height (mm)	Art. No.	Pack Qty.	€
filter crucible 8 ml	27	10	108	**E570.1**	1 unit(s)	25,95
filter crucible 15 ml	34	10	110	**E571.1**	1 unit(s)	26,40
filter crucible 30 ml	41	10	125	**E572.1**	1 unit(s)	27,40
filter crucible 15 ml	50	10	132	**E573.1**	1 unit(s)	28,55



A 121 °C

Filter tube acc. to Alihn

Lenz. Material: Borosilicate glass 3.3. Autoclavable: Yes.
Volume: 30 ml. Filter plate Ø: 20 mm. Tube outside Ø: 9 mm.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
30	1 (100 – 160 µm)	20	9	**LE72.1**	1 unit(s)	37,10
30	2 (40 – 100 µm)	20	9	**LE73.1**	1 unit(s)	37,10
30	3 (16 – 40 µm)	20	9	**LE74.1**	1 unit(s)	37,10
30	4 (10 – 16 µm)	20	9	**LE75.1**	1 unit(s)	39,25

Glass filter crucible



121 °C

Filter funnels Micro

Lenz. Material: Borosilicate glass 3.3. Autoclavable: Yes.

Volume: 2 ml. Filter plate Ø: 10 mm. Tube outside Ø: 6 mm.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
2	0 (160 – 250 µm)	10	6	**LE65.1**	1 unit(s)	33,90
2	1 (100 – 160 µm)	10	6	**LE66.1**	1 unit(s)	33,90
2	2 (40 – 100 µm)	10	6	**LE67.1**	1 unit(s)	33,90
2	3 (16 – 40 µm)	10	6	**LE68.1**	1 unit(s)	36,05
2	4 (10 – 16 µm)	10	6	**LE69.1**	1 unit(s)	38,70



121 °C

Filter funnel shaped

Lenz. Material: Borosilicate glass 3.3. Autoclavable: Yes.

Volume: 25 ml. Filter plate Ø: 25 mm. Tube outside Ø: 55 mm. Height 100 mm.

Vol. (ml)	Porosity	Ø Filter plate (mm)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	3 (16 – 40 µm)	25	55	100	**LE70.1**	1 unit(s)	38,70
25	4 (10 – 16 µm)	25	55	100	**LE71.1**	1 unit(s)	41,95



121 °C

Vacuum filter adapters

Bohlender. Material: PTFE, FKM sealing ring. Autoclavable: Yes.

Enables filtration with common filters directly into vessels with ground joint sleeves or laboratory flasks with GL 45 thread. For funnels with spout Ø up to 22 mm. Side staggered connectors made from PTFE for connecting to a vacuum pump using a hose with an inside Ø of 9 or 12 mm. Temperature stable from -15 to +200 °C.

For vessels with ground joint sleeves

Suitable for	Art. No.	Pack Qty.	€
Ground NS 29/32	**HKK8.1**	1 unit(s)	73,40
Ground NS 45/40	**HKK9.1**	1 unit(s)	143,30

For vessels with thread

Suitable for	Art. No.	Pack Qty.	€
Thread GL 45	**HKL0.1**	1 unit(s)	115,75

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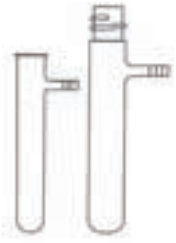
121 °C

Suction bottle

Nalgene. Material: PP. Autoclavable: Yes.

Moulded from a single piece. Downwards-facing hose connection reduces tilting hazard.

Vol. (ml)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
500	108	29.0	187	6,4–9,5	**ATL0.1**	1 unit(s)	33,35
1,000	140	32.5	215	6,4–9,5	**ATL1.1**	1 unit(s)	52,45
1,700	162	44.0	272	9,5	**ATL2.1**	1 unit(s)	73,25



Suction tube

Winzer. Material: Borosilicate glass 3.3.

With glass olive.

With beaded rim

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	16	160	**AAP7.1**	1 unit(s)	30,95
30	18	180	**AAP8.1**	1 unit(s)	31,15

With thread GL 14

Delivery incl. screw cap with borehole and silicone seal (Ø inside 6 mm).

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	12	160	**AAP9.1**	1 unit(s)	37,20



121 °C

Suction bottle ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.

With glass olive Ø 10 mm.

Vol. (ml)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	70	24	105	**NY65.1**	1 unit(s)	54,85
250	85	35	145	**NY66.1**	1 unit(s)	61,10
500	105	35	175	**NY67.1**	1 unit(s)	67,10
1,000	135	45	230	**NY68.1**	1 unit(s)	92,75
2,000	165	60	255	**NY69.1**	1 unit(s)	104,60



121 °C

DURAN WHEATON KIMBLE

Suction bottle with safety coating

DWK Life Sciences. Material: Borosilicate glass with PVC coating. Autoclavable: Yes.

With glass olive for hoses with inside Ø 6 mm.

Vol. (ml)	Ø Outer flask (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
1,000	136	37	225	**EXX9.1**	1 unit(s)	205,35

Filtering flasks, seals

Suction bottle

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Vacuum-resistant. Acc. to DIN 12 476, ISO 6556.
With KECK™ assembly set.



A 121 °C

DURAN WHEATON KIMBLE

Erlenmeyer shape

Vol. (ml)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	64	24	105	**E575.1**	1 unit(s)	24,85
250	85	34	155	**E576.1**	1 unit(s)	31,95
500	105	34	185	**E577.1**	1 unit(s)	39,65
1,000	135	45	230	**E578.1**	1 unit(s)	60,40
2,000	166	60	255	**E579.1**	1 unit(s)	123,80

Bottle shape

Vol. (ml)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	Art. No.	Pack Qty.	€
3,000	170	58	295	**E580.1**	1 unit(s)	154,00
5,000	185	68	360	**E581.1**	1 unit(s)	214,00
10,000	240	70	420	**E582.1**	1 unit(s)	353,00
15,000	255	70	500	**E583.1**	1 unit(s)	457,00
20,000	290	70	535	**E584.1**	1 unit(s)	573,00

Filtration apparatus acc. to Witt

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Complete with tubus lid and assembly set KECK™.



A 121 °C

DURAN WHEATON KIMBLE

Version	Ø Nominal (mm)	Standard ground glass joint sleeve	Height (mm)	Art. No.	Pack Qty.	€
DN 100	100	29/32	236	**PL01.1**	1 unit(s)	304,00
DN 100	100	45/40	244	**PL04.1**	1 unit(s)	321,00
DN 150	150	29/32	302	**PL02.1**	1 unit(s)	366,00
DN 150	150	45/40	312	**PL05.1**	1 unit(s)	407,00
DN 200	200	29/32	426	**PL03.1**	1 unit(s)	491,00

Filtering flasks, seals

Guko sleeves ROTILABO®

ROTH SELECTION. Material: Natural rubber.

For vacuum-tight connection of suction bottle and filter funnel.
Successive sizes can be stacked inside each other.



Ø Outer upper (mm)	Ø Outer lower (mm)	Ø Inner lower (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
21	12	7	18	2,5	**9755.1**	1 unit(s)	2,90
27	17	11	20	3	**9756.1**	1 unit(s)	3,40
33	21	15	24	3	**9757.1**	1 unit(s)	4,20
41	27.5	20	27	4	**9758.1**	1 unit(s)	4,90
53	33	23	34	5	**9759.1**	1 unit(s)	5,30
68	48	37	35	5,5	**9760.1**	1 unit(s)	5,95
78	58	46	35	6	**9761.1**	1 unit(s)	7,45
89	66	53	40	6,5	**9762.1**	1 unit(s)	8,85

Guko sleeve set

DWK Life Sciences. Material: EPDM. Autoclavable: Yes.

Conical rubber seals for suction bottle.
Set consisting of 8 Gukos (sizes 22, 29, 36, 44, 53, 63, 73 and 84 mm).
Temperature-stable between -45 and +150 °C.

A 121 °C

DURAN WHEATON KIMBLE

Version	Art. No.	Pack Qty.	€
GUKO set	**PK84.1**	1 set	50,20

Gas wash bottle

Lenz. Material: Borosilicate glass 3.3. Autoclavable: Yes.

According to DIN 12463. Height bottle 200 mm.



A 121 °C

Delivery incl. DURAN® attachment with two connectors (outside Ø approx. 11 mm).

Version	Vol. (ml)	Ø ext. (mm)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
With filter plate, porosity 1 (100 – 160 µm)	100	40	29/32	200	**KX64.1**	1 unit(s)	70,85
Without filter plate	100	40	29/32	200	**KX61.1**	1 unit(s)	48,40
With filter plate, porosity 1 (100 – 160 µm)	250	55	29/32	200	**KX65.1**	1 unit(s)	74,10
Without filter plate	250	55	29/32	200	**KX62.1**	1 unit(s)	51,60
With filter plate, porosity 1 (100 – 160 µm)	500	75	29/32	200	**KX66.1**	1 unit(s)	88,05
Without filter plate	500	75	29/32	200	**KX63.1**	1 unit(s)	66,15

Gas wash and Woulff's bottles



121 °C

Gas wash bottle

Lenz. Material: DURAN® glass. Autoclavable: Yes.

Delivery incl. drechsel insert and two hose connectors for tubes with 8 mm inside Ø.

Version	Vol. (ml)	Art. No.	Pack Qty.	€
With filter plate, porosity 1 (100–160 µm)	500	**C216.1**	1 unit(s)	85,90
without filter plate	500	**C215.1**	1 unit(s)	61,85

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121 °C

Woulff bottle GL 45

ROTH SELECTION. Material: DURAN® glass. Autoclavable: Yes.

Delivery incl. DURAN® pressure plus screw top bottle, Drechsel attachment without filter plate, two hose connectors for hoses with an inner Ø of 8 mm, GL 45 screw cap and silicone seal.

Vol. (ml)	Art. No.	Pack Qty.	€
1,000	**KLY0.1**	1 unit(s)	78,95



121 °C

DURAN WHEATON KIMBLE

Woulff bottle

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
With three NS necks. Vacuum tight. Acc. to DIN 12480.

Vol. (ml)	Ø ext. (mm)	Standard ground glass joint sleeves	Art. No.	Pack Qty.	€
500	87	19/26	**AK00.1**	1 unit(s)	120,35
1,000	113	24/29	**AK01.1**	1 unit(s)	129,05
2,000	135	29/32	**AAC2.1**	1 unit(s)	195,00
5,000	185	34/35	**AAC3.1**	1 unit(s)	294,00

Gas wash and Woulff's bottles

Gas wash bottle made from fluoroplastics

Bohlender. Material: PFA, PTFE attachment.

Attachment with two screw connections for hoses with outside Ø 6 or 8 mm. Pure, chemically inert. Hydrophobic, anti-adhesive surfaces. Temperature stable from -200 to +250 °C.



❄❄❄

Delivery incl. replaceable frit made of porous PTFE (Art. No. NY24.1), pore size approx. 3 µm, M8 threaded connection.

Vol. (ml)	Ø ext. (mm)	Height (mm)	For hoses with outer Ø (mm)	Art. No.	Pack Qty.	€
250	60	175	6	**NY26.1**	1 unit(s)	393,45
500	75	200	6	**NY27.1**	1 unit(s)	522,45
1,000	95	240	8	**NY28.1**	1 unit(s)	593,40

Gas inlet tube made from fluoroplastics

Bohlender. Material: PTFE. Autoclavable: Yes.

Highly pure, chemically inert. Hydrophobic, anti-adhesive surface. Inside Ø 5 mm. With hose connector Ø 9 mm and M8 thread for connecting a gas frit or gas distributor. Temperature stable from -200 to +250 °C, autoclavable.



A 121 °C ❄❄❄

Delivery without gas frit or PTFE gas distributor, please order separately.

Height (mm)	Art. No.	Pack Qty.	€
200	**NY21.1**	1 unit(s)	22,40
400	**NY22.1**	1 unit(s)	24,10
600	**NY23.1**	1 unit(s)	27,60

Accessories

Bohlender.

Suitable for gas inlet pipes and gas washing bottles made of fluoroplastic.



(1) Gas Frit

Material: PTFE porous. Pore size approx. 3 µm, M8 threaded connection.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	26	**NY24.1**	1 unit(s)	38,55

(2) Gas distributor

Material: PTFE. With ports (4 x Ø 0.4 mm) for even dispersion of the flowing gas. M8 threaded connection.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
28	24	**NY25.1**	1 unit(s)	67,50

Gas wash and Woulff's bottles

Filter tube

DWK Life Sciences. Material: DURAN® glass.

For treatment of liquids for intake or for protecting downstream pumps and other apparatus against ingress of solid particles.



(1) Microfilter cartridges

Filter cartridges Ø 13 x H 25 mm, tube Ø 8 mm.

Porosity	Height (mm)	Art. No.	Pack Qty.	€
1 (100 – 160 µm)	200	**AAC7.1**	10 unit(s)	431,00
2 (40 – 100 µm)	200	**AAC8.1**	10 unit(s)	431,00
3 (16 – 40 µm)	200	**AAC9.1**	10 unit(s)	431,00
4 (10 – 16 µm)	200	**AAE0.1**	10 unit(s)	482,00

(2) Immersion filter micro

Tube Ø 6 mm.

Porosity	Ø Filter plate (mm)	Height (mm)	Art. No.	Pack Qty.	€
1 (100 – 160 µm)	10	100	**AAE1.1**	10 unit(s)	319,00
2 (40 – 100 µm)	10	100	**AAE2.1**	10 unit(s)	319,00
3 (16 – 40 µm)	10	100	**AAE3.1**	10 unit(s)	319,00
4 (10 – 16 µm)	10	100	**AAE4.1**	10 unit(s)	335,00

(2) Immersion filter standard

Tube Ø 10 mm.

Porosity	Ø Filter plate (mm)	Height (mm)	Art. No.	Pack Qty.	€
1 (100 – 160 µm)	35	210	**AAE5.1**	1 unit(s)	63,60
2 (40 – 100 µm)	35	210	**AAE6.1**	1 unit(s)	63,60
3 (16 – 40 µm)	35	210	**AAE7.1**	1 unit(s)	63,60
4 (10 – 16 µm)	35	210	**AAE8.1**	1 unit(s)	66,40

Gas dispersion tube

DWK Life Sciences. Material: DURAN® glass.

For fine dispersion of gases in liquids, e.g. during reactions.



Glass tube fused on at the centre

Porosity	Ø ext. (mm)	Ø Filter plate (mm)	Height (mm)	Art. No.	Pack Qty.	€
0 (160 – 250 µm)	9	25	250	**AAH2.1**	5 unit(s)	244,00
1 (100 – 160 µm)	9	25	250	**AAH3.1**	5 unit(s)	244,00
1 (100 – 160 µm)	11	34	250	**AAH5.1**	5 unit(s)	298,00
2 (40 – 100 µm)	9	25	250	**AAH4.1**	5 unit(s)	244,00

Glass tube fused onto the side

Porosity	Ø ext. (mm)	Ø Filter plate (mm)	Height (mm)	Art. No.	Pack Qty.	€
0 (160 – 250 µm)	6	22	250	**AAE9.1**	5 unit(s)	215,00
1 (100 – 160 µm)	6	22	250	**AAH0.1**	5 unit(s)	215,00
2 (40 – 100 µm)	6	22	250	**AAH1.1**	5 unit(s)	215,00

Sampling bowls



A 121 °C

Sample tray ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10, high-gloss. Autoclavable: Yes.

Suitable for foodstuffs.

Delivery without lid, please order separately.

Not a medical device / Not an IVD product

Vol. (ml)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	120	35	**YH20.1**	1 unit(s)	14,65
400	130	40	**YH21.1**	1 unit(s)	13,45
650	150	45	**YH22.1**	1 unit(s)	16,00
850	170	45	**YH23.1**	1 unit(s)	19,20
1,250	190	50	**YH24.1**	1 unit(s)	21,55
1,400	190	55	**YH25.1**	1 unit(s)	24,55
1,600	210	55	**YH26.1**	1 unit(s)	28,70
2,000	225	55	**YH27.1**	1 unit(s)	32,20

A 121 °C

Accessories lid for ROTILABO® sample trays

ROTH SELECTION. Material: Stainless steel 18/10, high-gloss. Autoclavable: Yes.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
Sample tray Order No. YH20.1	**YL03.1**	1 unit(s)	10,65
Sample tray Order No. YH21.1	**YL04.1**	1 unit(s)	12,00
Sample tray Order No. YH22.1	**YL05.1**	1 unit(s)	13,35
Sample tray Order No. YH23.1	**YL06.1**	1 unit(s)	15,75
Sample tray Order No. YH24.1	**YL07.1**	1 unit(s)	17,20
Sample tray Order No. YH25.1	**YL08.1**	1 unit(s)	18,75
Sample tray Order No. YH26.1	**YL09.1**	1 unit(s)	21,20
Sample tray Order No. YH27.1	**YL10.1**	1 unit(s)	24,05



A 121 °C

Tablet pans

Contacto Bander. Material: Stainless steel 18/10, high-gloss. Autoclavable: Yes.

Suitable for foodstuffs.

Not a medical device / Not an IVD product

Flat shape

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
120	20	**YX74.1**	1 unit(s)	11,45
140	25	**YX75.1**	1 unit(s)	15,55

Tall

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
65	20	**YX76.1**	1 unit(s)	5,55
100	30	**YX77.1**	1 unit(s)	9,05



Sample tray ROTILABO® with lid

ROTH SELECTION. Material: Aluminium.

Pressed from one piece. Non-permeable. The cardboard lids that are aluminium-coated on one side are held in place by bending the tray edge. The white top side can be marked or labelled.

Not a medical device / Not an IVD product

Vol. (ml)	Upper length (mm)	Upper width (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	120	95	35	**0522.1**	100 unit(s)	66,95
500	140	115	40	**0906.1**	100 unit(s)	78,05

Sampling bowls



Sample tray ROTILABO®

ROTH SELECTION. Material: Aluminium.

Free of oil residues and coatings. Highly versatile as weighing or drying dishes, as dispensing or storage containers or for covering vessels. Stackable.

Not a medical device / Not an IVD product

Vol. (ml)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	44	12	**PP65.1**	100 unit(s)	22,80
60	63	17	**PP66.1**	100 unit(s)	22,80
75	62	30	**PP67.1**	100 unit(s)	22,80
200	110	35	**PP68.1**	50 unit(s)	26,55
500	181	25	**PP69.1**	50 unit(s)	28,65



Sample tray ROTILABO®

ROTH SELECTION. Material: Aluminium.

Not a medical device / Not an IVD product

Vol. (ml)	Ø Outer upper (mm)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
28	64	55	13	**5494.1**	100 unit(s)	21,10
125	96	85	26	**5496.1**	100 unit(s)	32,30



Dappenglas

Hecht. Material: Soda-lime glass.

For mixing small quantities of substances. Usable on both sides, volume approx. 1.5 ml or 3 ml.

Not a medical device / Not an IVD product

Ø (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
31	29	colourless	**CKY4.1**	1 unit(s)	8,25
31	29	green	**CKY5.1**	1 unit(s)	8,25
31	29	pink	**CKY6.1**	1 unit(s)	8,25
31	29	brown	**CKY7.1**	1 unit(s)	8,25



Specimen jars ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3.

Not a medical device / Not an IVD product

(1) With knob

Ø ext. (mm)	Outer lid Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
85	95	85	**NT38.1**	1 unit(s)	67,10
100	110	100	**NT39.1**	1 unit(s)	73,75
120	130	120	**NT40.1**	1 unit(s)	86,85
150	162	150	**NT41.1**	1 unit(s)	113,15
200	214	200	**NT42.1**	1 unit(s)	198,90
250	264	250	**NT43.1**	1 unit(s)	291,35
300	314	300	**NT44.1**	1 unit(s)	354,75

(2) With recessed knob

Ø ext. (mm)	Outer lid Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
65	60	65	**NT46.1**	1 unit(s)	98,30
85	79	85	**NT47.1**	1 unit(s)	119,25
100	94	100	**NT48.1**	1 unit(s)	130,35
100	94	500	**NT49.1**	1 unit(s)	223,60
120	103	120	**NT50.1**	1 unit(s)	152,50
120	103	500	**NT51.1**	1 unit(s)	245,10
150	130	150	**NT52.1**	1 unit(s)	184,90
150	130	500	**NT53.1**	1 unit(s)	282,75



A 121 °C

DURAN WHEATON KIMBLE

Glass jar DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

High temperature and chemical resistance.

Delivery incl. lid.

Not a medical device / Not an IVD product

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
75	60	40	**CCL2.1**	1 unit(s)	46,45
175	80	50	**CCL3.1**	1 unit(s)	55,80
325	100	60	**CCL4.1**	1 unit(s)	70,20
1,000	150	80	**CCL5.1**	1 unit(s)	126,40

Sampling bowls



121 °C

Cotton and swab containers

Contacto Bander. Material: Stainless steel 18/10. Autoclavable: Yes. Suitable for foodstuffs.

Delivery without lid, please order separately.

Not a medical device / Not an IVD product

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
150	60	60	**YT80.1**	1 unit(s)	14,85
250	85	50	**YT81.1**	1 unit(s)	15,95
350	100	50	**YT82.1**	1 unit(s)	20,40
400	85	85	**YT83.1**	1 unit(s)	19,65
600	85	125	**YT84.1**	1 unit(s)	27,50
750	100	100	**YT85.1**	1 unit(s)	21,85
1,750	150	100	**YT86.1**	1 unit(s)	36,05
2,500	150	150	**YT87.1**	1 unit(s)	36,05
3,000	200	100	**YT88.1**	1 unit(s)	49,90

121 °C

Accessories lids for cotton wool and swab containers

Contacto Bander. Material: Stainless steel 18/10. Autoclavable: Yes.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
Container-Ø 60 mm	**YT89.1**	1 unit(s)	8,95
Container-Ø 85 mm	**YT90.1**	1 unit(s)	10,40
Container-Ø 100 mm	**YT91.1**	1 unit(s)	10,70
Container-Ø 150 mm	**YT92.1**	1 unit(s)	17,15
Container-Ø 200 mm	**YT93.1**	1 unit(s)	18,20



121 °C

Crystallization dishes ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.

With spout
Acc. to DIN 12338.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	40	25	**AYE1.1**	10 unit(s)	65,60
40	50	30	**AYE2.1**	10 unit(s)	67,80
60	60	35	**AYE3.1**	10 unit(s)	80,70
100	70	40	**AYE4.1**	10 unit(s)	92,50
150	80	45	**AYE5.1**	10 unit(s)	172,00
300	95	55	**AYE6.1**	10 unit(s)	193,50
500	115	65	**AYE7.1**	10 unit(s)	220,40
900	140	75	**AYE8.1**	10 unit(s)	278,45
2,000	190	90	**AYE9.1**	1 unit(s)	43,30
3,500	230	100	**AYH0.1**	1 unit(s)	51,30

Without spout
Acc. to DIN 12337.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	40	25	**AYH1.1**	10 unit(s)	49,70
40	50	30	**AYH2.1**	10 unit(s)	50,40
60	60	35	**AYH3.1**	10 unit(s)	59,70
100	70	40	**AYH4.1**	10 unit(s)	74,40
150	80	45	**AYH5.1**	10 unit(s)	157,70
300	95	55	**AYH6.1**	10 unit(s)	169,85
500	115	65	**AYH7.1**	10 unit(s)	186,00
900	140	75	**AYH8.1**	10 unit(s)	249,40
2,000	190	90	**AYH9.1**	1 unit(s)	40,00
3,500	230	100	**AYK0.1**	1 unit(s)	47,85

Crystallising dishes, watch glasses



A 121 °C

DURAN WHEATON KIMBLE

Crystallization dishes DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

With spout

Acc. to DIN 12338.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	40	25	**C091.1**	10 unit(s)	87,55
40	50	30	**C092.1**	10 unit(s)	88,20
60	60	35	**C093.1**	10 unit(s)	91,40
100	70	40	**C094.1**	10 unit(s)	101,15
150	80	45	**C095.1**	10 unit(s)	112,10
300	95	55	**C096.1**	10 unit(s)	119,10
500	115	65	**C097.1**	1 unit(s)	18,40
900	140	75	**C098.1**	1 unit(s)	27,15
2,000	190	90	**HX07.1**	1 unit(s)	66,30
3,500	230	100	**HX08.1**	1 unit(s)	95,60

Without spout

Acc. to DIN 12337.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	40	25	**HX09.1**	10 unit(s)	87,55
40	50	30	**HX10.1**	10 unit(s)	88,20
60	60	35	**HX11.1**	10 unit(s)	91,40
100	70	40	**HX12.1**	10 unit(s)	101,15
150	80	45	**HX13.1**	10 unit(s)	112,10
300	95	55	**HX14.1**	10 unit(s)	119,10
500	115	65	**HX15.1**	1 unit(s)	18,40
900	140	75	**HX16.1**	1 unit(s)	26,00
2,000	190	90	**HX17.1**	1 unit(s)	66,30
3,500	230	100	**HX18.1**	1 unit(s)	95,60



Watch glasses

Bohemia. Material: Soda-lime glass.
Edges rounded off (C090.2: edges ground).

Ø ext. (mm)	Art. No.	Pack Qty.	€
40	**C079.1**	10 unit(s)	16,65
50	**C080.1**	10 unit(s)	16,65
60	**C081.1**	10 unit(s)	17,45
70	**C082.1**	10 unit(s)	19,30
80	**C083.1**	10 unit(s)	20,65
90	**C084.1**	10 unit(s)	22,10
100	**C085.1**	10 unit(s)	23,40
120	**C086.1**	10 unit(s)	29,35
125	**C087.1**	10 unit(s)	31,20
150	**C088.1**	10 unit(s)	33,95
200	**C089.1**	10 unit(s)	65,45
250	**C090.2**	5 unit(s)	61,05



A 121 °C

DURAN WHEATON KIMBLE

Watch glasses DURAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Edge fused. Acc. to DIN 12341.

Ø ext. (mm)	Art. No.	Pack Qty.	€
40	**Y634.1**	10 unit(s)	96,10
50	**Y635.1**	10 unit(s)	105,65
60	**Y636.1**	10 unit(s)	114,60
80	**Y637.1**	10 unit(s)	125,40
100	**Y638.1**	10 unit(s)	143,90
125	**Y639.1**	10 unit(s)	156,00
150	**Y640.1**	10 unit(s)	202,00
200	**Y641.1**	10 unit(s)	304,00
250	**Y642.1**	1 unit(s)	54,00



A 121 °C

Watch glasses ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Ø ext. (mm)	Art. No.	Pack Qty.	€
60	**K842.1**	10 unit(s)	15,75
80	**K843.1**	10 unit(s)	19,35
100	**K844.1**	10 unit(s)	23,95
125	**K845.1**	10 unit(s)	28,80



A 121 °C ❄❄❄

Watch glasses ROTILABO®

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Excellent chemical resistance.
Temperature-stable from -200 to +250 °C.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	6	**K837.1**	1 unit(s)	7,80
75	13	**K838.1**	1 unit(s)	9,45
100	20	**K839.1**	1 unit(s)	16,10
125	20	**K840.1**	1 unit(s)	17,35
150	25	**K841.1**	1 unit(s)	27,85



Mortars ROTILABO® with pestle

ROTH SELECTION. Material: Borosilicate glass 3.3.
With spout. Volume data are approximate values.

(1) Rough friction surface

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	80	60	**TX04.1**	1 unit(s)	54,25
200	100	75	**TX05.1**	1 unit(s)	63,30
300	120	90	**TX06.1**	1 unit(s)	81,65
650	150	110	**TX07.1**	1 unit(s)	105,95
800	200	135	**NX15.1**	1 unit(s)	143,85

(2) Smooth friction surface

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	80	60	**NT80.1**	1 unit(s)	48,30
200	100	75	**NT81.1**	1 unit(s)	51,50
300	120	90	**NT82.1**	1 unit(s)	62,05
650	150	110	**NT83.1**	1 unit(s)	87,60
800	200	135	**NT84.1**	1 unit(s)	110,60



A 121 °C ❄❄

Mortars with pestle low form

ROTH SELECTION. Material: Agate. Autoclavable: Yes.

Inside surface polished. Minimum abrasion.
Dimensions are approximate values.

Vol. (ml)	Ø ext. (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
5	25	20	**TL93.1**	1 set	60,75
10	40	35	**TL94.1**	1 set	64,00
15	50	42	**HC74.1**	1 set	73,65
20	60	48	**TL95.1**	1 set	84,40
40	75	63	**HC75.1**	1 set	127,95
65	85	70	**TL96.1**	1 set	170,95
80	100	80	**HC76.1**	1 set	258,00
100	110	90	**TL97.1**	1 set	349,40
150	125	115	**HC77.1**	1 set	446,15
180	150	125	**HC78.1**	1 set	951,40
400	200	170	**TL98.1**	1 set	3.063,75

Mortar and graters



A 121 °C ❄❄

Mortars with pestle high form

ROTH SELECTION. Material: Agate. Autoclavable: Yes.

Inside surface polished. Minimum abrasion.
Dimensions are approximate values.

Vol. (ml)	Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	60	50	36	**TP10.1**	1 set	194,60
40	70	55	42	**TP11.1**	1 set	246,20
65	80	65	53	**TP12.1**	1 set	364,45
100	90	70	56	**TP13.1**	1 set	471,95
125	100	80	61	**TP14.1**	1 set	600,95
250	130	110	72	**TP15.1**	1 set	1.343,75



❄

Mortars with pestle

Usbeck. Material: Stainless steel 18/10, Powder-coated steel.

Mortar and pestle head made of stainless steel 18/10, mortar frame and pestle handle made of powder-coated steel. Smooth friction surfaces. Heavy-duty design, with anti-slip feet.
Note: not autoclavable, not suitable for dishwashers. Do not immerse in water.

Vol. (ml)	Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
165	100	90	60	**LL28.1**	1 unit(s)	100,75
330	135	125	80	**LL29.1**	1 unit(s)	123,95
450	160	150	90	**LL30.1**	1 unit(s)	152,70



Mortars ROTILABO®

ROTH SELECTION. Material: Stainless steel, with plastic foot.
Heavy duty. Suitable for foodstuffs.

Delivery incl. pestle, length 175 mm.

Ø Inner upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
110	80	**YX96.1**	1 unit(s)	30,15



❄

Mortars

Vitlab. Material: MF.

With spout. Colour: White. Smooth friction surface prevents accumulation of sample residues and cross-contamination. Microwave safe. Withstands temperatures from -40 to +110 °C.

Delivery without pestle, please order separately.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
300	125	75	**PY55.1**	1 unit(s)	23,85
500	150	90	**PY56.1**	1 unit(s)	28,00



❄

Accessories pestle for MF mortar

Vitlab. Material: MF.

Heavy-duty design, with smooth head. Colour: White. Temperature-stable between -40 and +110 °C.

Ø Head (mm)	Length (mm)	Weight (g)	Art. No.	Pack Qty.	€
30	125	55	**PY57.1**	1 unit(s)	27,05
35	145	85	**PY58.1**	1 unit(s)	29,35
40	160	120	**PY59.1**	1 unit(s)	32,45
42	215	175	**PY60.1**	1 unit(s)	68,05

Mortar and graters



Mortars 55 rough

Haldenwanger. Material: Porcelain, glazed.

Rough friction surface (non-glazed).

Version	Vol. (ml)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
00	20	50	32	**XL89.1**	1 unit(s)	16,05
0a	70	65	40	**1567.1**	1 unit(s)	24,20
1	75	70	45	**3773.1**	1 unit(s)	25,50
2	100	80	50	**3782.1**	1 unit(s)	32,80
3	170	90	55	**1568.1**	1 unit(s)	35,40
4	300	115	63	**3820.1**	1 unit(s)	46,80
5	400	130	65	**3823.1**	1 unit(s)	66,65
6a	700	150	70	**3824.1**	1 unit(s)	87,65
8	1,000	180	80	**3826.1**	1 unit(s)	209,65
11	2,600	240	100	**XL90.1**	1 unit(s)	483,75
15	6,000	330	140	**XL91.1**	1 unit(s)	790,15



Pestle 56 rough

Haldenwanger. Material: Porcelain, glazed.

Rough friction surface (non-glazed).

Version	Ø Head (mm)	Height (mm)	Art. No.	Pack Qty.	€
00	24	115	**1570.1**	1 unit(s)	15,60
0a	28	125	**3831.1**	1 unit(s)	17,45
1	30	135	**1571.1**	1 unit(s)	19,70
2	36	150	**3832.1**	1 unit(s)	27,20
3	42	175	**3836.1**	1 unit(s)	38,70
4	45	180	**XL92.1**	1 unit(s)	42,70
5	48	185	**3839.1**	1 unit(s)	46,15
6a	55	210	**3841.1**	1 unit(s)	49,45
8	60	215	**XL93.1**	1 unit(s)	69,80



Mortars 55 smooth

Haldenwanger. Material: Porcelain, glazed.

Smooth friction surface (glazed), prevents sample residues and cross-contaminations.

Version	Vol. (ml)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
00	20	50	32	**XL96.1**	1 unit(s)	34,95
0a	70	65	40	**XL97.1**	1 unit(s)	40,85
3	170	90	55	**XL98.1**	1 unit(s)	52,70
6a	700	150	70	**XL99.1**	1 unit(s)	103,75
8	1,000	180	80	**XP00.1**	1 unit(s)	231,15



Pestle 56 smooth

Haldenwanger. Material: Porcelain, glazed.

Smooth friction surface (glazed).

Version	Ø Head (mm)	Height (mm)	Art. No.	Pack Qty.	€
00	24	115	**XP01.1**	1 unit(s)	31,75
0a	28	125	**XP02.1**	1 unit(s)	32,25
1	30	135	**XP03.1**	1 unit(s)	34,95
3	42	175	**XP04.1**	1 unit(s)	52,70
6a	55	210	**XP05.1**	1 unit(s)	65,60
8	60	215	**XP06.1**	1 unit(s)	83,85

Mortar and graters



Mini-Cryo mortars with pestle

Bel-Art Products. Material: Stainless steel with insulating coat made of PE.

Container made of stainless steel with PE insulating jacket, reaction vial holder made of stainless steel with insulated, removable handle (L 102 mm). For filling with liquid nitrogen. Allows the homogenisation of plant material or tissue directly inside the 1.5 ml reaction vial.

Delivery incl. pestle (Ø 9 x L 127 mm) with PE handle.

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
165	114	**CXX6.1**	1 unit(s)	600,95



Cryo mortars

Bel-Art Products. Material: Stainless steel with insulating coat made of PE.

Container made of stainless steel with PE insulating jacket, mortar and pestle insert made of stainless steel with insulated, removable handle (length 102 mm). For filling with liquid nitrogen; cooling facilitates the crushing and homogenisation of plant material and similar samples, for example.
Dimensions: Ø 165 x H 114 mm. Mortar insert Ø inside 100 mm, height 48 mm.

Delivery without pestle, can be used with porcelain pestle Art. No. 3836.1 or XL92.1, for example.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
165	114	**CYH1.1**	1 unit(s)	588,05



Evaporating dishes

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
With spout. Acc. to DIN 12336.

Vol. (ml)	Ø Outer upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
15	50	25	**E540.1**	10 unit(s)	90,20
45	60	30	**E541.1**	10 unit(s)	92,70
60	70	35	**E542.1**	10 unit(s)	104,25
90	80	45	**E543.1**	10 unit(s)	112,70
170	95	55	**E544.1**	10 unit(s)	120,50
320	115	65	**E545.1**	10 unit(s)	182,00
600	140	80	**E546.1**	1 unit(s)	27,80
1,500	190	100	**E547.1**	1 unit(s)	66,15
2,500	230	130	**E548.1**	1 unit(s)	98,55



Evaporating dishes ROTILABO®

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.
Flat shape. Chemically inert. Temperature stable from -200 to +250 °C. Anti-adhesive.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	42	25	**T654.1**	1 unit(s)	25,30
50	65	23	**1188.1**	1 unit(s)	28,35
100	80	28	**1189.1**	1 unit(s)	36,70
180	78	46	**T655.1**	1 unit(s)	51,00
350	100	55	**1190.1**	1 unit(s)	71,60

Evaporating bowls



A 121 °C

Evaporating dishes ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.
With spout.

With round bottom

Vol. (ml)	Ø Outer upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
15	51	22	**AYK1.1**	10 unit(s)	147,30
35	64	29	**AYK2.1**	10 unit(s)	178,45
90	85	39	**AYK3.1**	10 unit(s)	180,60
180	105	49	**AYK4.1**	10 unit(s)	203,20
400	131	62	**AYK5.1**	10 unit(s)	254,80
800	166	80	**AYK6.1**	1 unit(s)	30,55
1,700	206	100	**AYK7.1**	1 unit(s)	44,05
2,600	235	115	**AYK8.1**	1 unit(s)	51,55

With flat bottom

Vol. (ml)	Ø Outer upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	40	18	**AYK9.1**	10 unit(s)	120,75
15	50	25	**AYL0.1**	10 unit(s)	133,80
45	60	30	**AYL1.1**	10 unit(s)	174,15
60	70	35	**AYL2.1**	10 unit(s)	203,20
90	80	45	**AYL3.1**	10 unit(s)	180,60
170	95	55	**AYL4.1**	10 unit(s)	191,35
320	115	65	**AYL5.1**	10 unit(s)	216,10
600	140	80	**AYL6.1**	1 unit(s)	33,00
1,500	190	100	**AYL7.1**	1 unit(s)	42,60
2,500	230	130	**AYL8.1**	1 unit(s)	48,70

A 121 °C ❄❄❄

Evaporating dishes with snap-on lid

Vitlab. Material: PFA Transparent, cap made from PE.
Autoclavable: Yes.

For contamination-free sample preparation and for transporting samples.

- Temperature stable in the range -200 to +250 °C
- Chemically inert to nearly all chemicals
- Hydrophobic and anti-adhesive
- High purity, ideal for use in trace analysis and for storage of reference solutions
- With conical recess in base, to hold small quantities of solvent for absorption of evaporated samples
- Extremely smooth surfaces allow easy cleaning, no memory effects

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	50	25	**XY19.1**	1 unit(s)	53,60
50	50	54	**XY20.1**	1 unit(s)	71,10



A 121 °C

Evaporating dishes ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
Cylindrical.

High form

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
125	71	35	**C873.1**	1 unit(s)	35,80
250	85	50	**C874.1**	1 unit(s)	45,75
500	110	55	**C875.1**	1 unit(s)	65,80
1,000	140	75	**C876.1**	1 unit(s)	99,90
2,000	160	105	**C877.1**	1 unit(s)	128,65
5,000	200	160	**C878.1**	1 unit(s)	265,55

Lower form

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	60	20	**C879.1**	1 unit(s)	24,30
75	70	20	**C880.1**	1 unit(s)	30,55
100	80	20	**C881.1**	1 unit(s)	42,45



A 121 °C

Evaporating dishes ROTILABO®

ROTH SELECTION. Material: Porcelain, glazed inside.
Autoclavable: Yes.

Semi-deep form with round bottom.
Max. Temperature stability up to +1,000 °C.

Vol. (ml)	Ø Outer upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
41	72	26	**XX26.1**	5 unit(s)	51,15
62	83	27	**XX27.1**	5 unit(s)	56,35
110	96	30	**XX28.1**	5 unit(s)	83,50
160	110	37	**XX29.1**	5 unit(s)	86,05
215	117	41	**XX30.1**	5 unit(s)	87,40
240	127	42	**XX31.1**	5 unit(s)	108,40
325	142	46	**XX32.1**	5 unit(s)	111,95
420	154	50	**XX33.1**	5 unit(s)	123,50
558	170	55	**XX34.1**	5 unit(s)	149,60



A 121 °C

Evaporating dishes 888

Haldenwanger. Material: Porcelain, glazed. Autoclavable: Yes.

Unglazed outer base. Flat shape, with spout. Max. Temperature stability up to +400 °C.

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
000	5	40	9	**XL72.1**	1 unit(s)	11,80
00	10	50	11	**XL73.1**	1 unit(s)	13,25
0	20	63	13	**XL74.1**	1 unit(s)	14,55
2	40	80	20	**XL75.1**	1 unit(s)	16,15
4	80	100	22	**XL76.1**	1 unit(s)	22,05
6	270	125	27	**XL77.1**	1 unit(s)	28,95
6a	450	160	35	**XL78.1**	1 unit(s)	48,30
8	1,100	190	55	**XL79.1**	1 unit(s)	104,30
9	1,750	240	65	**XL80.1**	1 unit(s)	188,15
10	2,500	300	60	**XL81.1**	1 unit(s)	267,70



A 121 °C

Evaporating dishes 109

Haldenwanger. Material: Porcelain, glazed. Autoclavable: Yes.

With spout and round base. Max. Temperature stability up to +400 °C.

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
4/0	20	50	20	**3860.1**	10 unit(s)	87,10
000	40	63	25	**1575.1**	10 unit(s)	99,45
00	50	70	26	**3880.1**	10 unit(s)	123,65
0	75	80	34	**3933.1**	10 unit(s)	139,75
1	110	85	36	**3945.1**	10 unit(s)	150,50
2	180	100	40	**1576.1**	1 unit(s)	18,50
5	310	115	47	**4004.1**	1 unit(s)	32,80
6	370	150	45	**4012.1**	1 unit(s)	47,85
6a	640	160	64	**1577.1**	1 unit(s)	57,55
7b	1,000	200	80	**XL62.1**	1 unit(s)	85,50
9	2,200	260	86	**XL63.1**	1 unit(s)	145,15
10	3,400	310	110	**XL64.1**	1 unit(s)	263,40



A 121 °C

Evaporating dishes 131

Haldenwanger. Material: Porcelain, glazed. Autoclavable: Yes.

French style, with spout and flat bottom. Max. Temperature stability up to +400 °C.

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	30	58	24	**XL65.1**	1 unit(s)	16,90
3	60	75	30	**XL66.1**	1 unit(s)	28,50
4	100	84	38	**XL67.1**	1 unit(s)	32,80
5	150	97	40	**XL68.1**	1 unit(s)	40,85
6	250	110	50	**XL69.1**	1 unit(s)	50,45
7	290	125	52	**XL70.1**	1 unit(s)	57,00
8	400	150	60	**XL71.1**	1 unit(s)	69,90



A 121 °C

Casseroles

Haldenwanger. Material: Porcelain. Autoclavable: Yes.

With stem. Glazed, apart from the edge.
Max. Temperature stability up to +400 °C. Acc. to DIN 12907.

Not a medical device / Not an IVD product

Version	Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
4/0	80	63	36	**HC79.1**	1 unit(s)	38,20
000	140	80	46	**HC80.1**	1 unit(s)	47,85
0	290	102	69	**HC81.1**	1 unit(s)	57,00
2	500	127	70	**HC82.1**	1 unit(s)	85,50
4	1,300	160	97	**HC83.1**	1 unit(s)	274,15
4b	2,600	215	110	**HC84.1**	1 unit(s)	284,90



A 121 °C

Ignition dishes 33 D

Haldenwanger. Material: Porcelain, glazed, apart from the base.
Autoclavable: Yes.

Flat shape. Temperature stable up to +1000 °C.

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	8	37	10	**XL82.1**	1 unit(s)	9,90
3	10	42	11	**XL83.1**	1 unit(s)	10,25
4	15	48	12	**XL84.1**	1 unit(s)	12,85



A 121 °C

Ignition dishes 33

Haldenwanger. Material: Porcelain, glazed. Autoclavable: Yes.

Temperature stable up to +1000 °C.

Version	Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	15	40	21	**3740.1**	10 unit(s)	87,65
2	30	50	25	**1564.1**	10 unit(s)	110,75
4	60	60	31	**1565.1**	10 unit(s)	134,40



A 121 °C

Ignition dishes 33 C

Haldenwanger. Material: Porcelain, glazed. Autoclavable: Yes.

Slightly tapered. Temperature stable up to +400 °C.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
48	26	10	**TL80.1**	1 unit(s)	14,55
55	42	16	**TL81.1**	1 unit(s)	18,20
70	46	13	**TL82.1**	1 unit(s)	23,15
96	55	16	**TL83.1**	1 unit(s)	29,05



Porcelain marker pen

For labelling glazed and unglazed lab porcelain. Ink colour: brown, temperature stable up to max. 1400 °C.

Version	Art. No.	Pack Qty.	€
Porcelain marker pen	**CEK7.1**	1 unit(s)	15,00

Lab porcelain



121 °C

Weighing bottle ROTILABO®

ROTH SELECTION. Material: Porcelain, glazed. Autoclavable: Yes.
Temperature-stable up to +1000 °C.

Length (mm)	Width (mm)	Weight (g)	Art. No.	Pack Qty.	€
37	17	7	**XX55.1**	10 unit(s)	42,75
53	23	10	**XX56.1**	10 unit(s)	44,05
64	29	12	**XX57.1**	10 unit(s)	47,55



121 °C

Combustion boats

Haldenwanger. Material: Porcelain. Autoclavable: Yes.
With eyelet.

Glazed
Glazing prevents build-up of sample residues and cross-contamination.
Temperature stable up to 1000 °C.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
90	12	8	**L016.1**	1 unit(s)	24,20
100	12	10	**L017.1**	1 unit(s)	26,05
130	20	13	**L019.1**	1 unit(s)	38,60

Unglazed
Temperature stable up to +1350 °C.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
80	13	9	**TL84.1**	10 unit(s)	24,20



121 °C

Spot test plate

Haldenwanger. Material: Porcelain, glazed. Autoclavable: Yes.
Temperature-stable up to +400 °C.

Number of trays	Length (mm)	Width (mm)	Height (mm)	Version	Art. No.	Pack Qty.	€
6	115	80	12	Ø x deep reces-ses: 36 x 11 mm	**C765.1**	1 unit(s)	25,50
12	119	85	6	Ø x deep reces-ses: 20 x 3 mm	**C767.1**	1 unit(s)	37,10
12	127	97	12	Ø x deep reces-ses: 25 x 6 mm	**C768.1**	1 unit(s)	38,60



Filter crucible ROTILABO®

ROTH SELECTION. Material: Porcelain, glazed.
With porous, unglazed bottom.
Max. temperature stability +1000 °C. Acc. to DIN 12909.

Vol. (ml)	Pore size (µm)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
8	6	25	28	**XX64.1**	2 unit(s)	48,15
8	7	25	28	**XX65.1**	2 unit(s)	48,15
8	8	25	28	**XX66.1**	2 unit(s)	48,15
15	6	30	35	**XX67.1**	2 unit(s)	54,45
15	7	30	35	**XX68.1**	2 unit(s)	54,45
15	8	30	35	**XX69.1**	2 unit(s)	54,45
25	6	35	40	**XX70.1**	2 unit(s)	58,50
25	7	35	40	**XX71.1**	2 unit(s)	58,50
25	8	35	40	**XX72.1**	2 unit(s)	58,50
35	6	40	43	**XX73.1**	2 unit(s)	59,80
35	7	40	43	**XX74.1**	2 unit(s)	59,80
35	8	40	43	**XX75.1**	2 unit(s)	59,80
50	6	45	50	**XX76.1**	2 unit(s)	59,80
50	7	45	50	**XX77.1**	2 unit(s)	59,80
50	8	45	50	**XX78.1**	2 unit(s)	59,80

Porcelain filter crucible



Filter crucible 84

Haldenwanger. Material: Porcelain, glazed.

Acc. to DIN 12909. Max. temperature stability +400 °C. Base porosity: P2 (~5 µm).

Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	35	43	**C760.1**	1 unit(s)	170,95



Source crucible ROTILABO® with lid

ROTH SELECTION. Material: Porcelain, unglazed.

Wide shape. Temperature-stable up to +1350 °C.

Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
19	43	27	**XX25.1**	5 unit(s)	23,90



Crucible ROTILABO® with lid

ROTH SELECTION. Material: Porcelain, unglazed.

High form. For the determination of volatile liquids. Temperature-stable up to +1350 °C.

Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
22	32	42	**XX24.1**	5 unit(s)	21,95



Filter crucible acc. to Gooch

Haldenwanger. Material: Porcelain, glazed.

Temperature stable up to +400 °C.

Delivery without sieve plate, please order separately.

Type 82 A, wide form

Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	39	42	**TL86.1**	1 unit(s)	20,75
35	42	45	**TL87.1**	1 unit(s)	28,50

Type 82 R, high form

Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	35	41	**TL88.1**	1 unit(s)	22,05

Accessories sieve plates for Gooch filter crucibles

Haldenwanger. Material: Porcelain, glazed.

Acc. to Dr. Witt.

Suitable for	Ø (mm)	Art. No.	Pack Qty.	€
Crucible Art. No. TL86.1 and TL88.1	22	**TL89.1**	1 unit(s)	12,15
Crucible Art. No. TL87.1	25	**TL90.1**	1 unit(s)	13,45



Melting crucible 79 low form

Haldenwanger. Material: Porcelain, glazed.

Temperature stable up to +1000 °C.

Delivery without cover, please order separately.

Version	Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
000a	8	30	20	**L217.1**	10 unit(s)	62,35
00	11	35	23	**L218.1**	10 unit(s)	65,60
0	20	40	26	**L219.1**	10 unit(s)	71,50
1	25	45	29	**L220.1**	10 unit(s)	91,30
2	40	50	32	**L221.1**	10 unit(s)	117,20
2a	65	60	38	**L222.1**	10 unit(s)	127,95
3	95	70	47	**L223.1**	10 unit(s)	166,65
4	180	83	55	**L224.1**	10 unit(s)	218,25

Crucibles



Melting crucible 79 MF medium high form

Haldenwanger. Material: Porcelain, glazed.
Temperature stable up to +1000 °C.

Delivery without cover, please order separately.

Version	Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
8	10	30	25	**L225.1**	10 unit(s)	65,60
7	13	35	28	**L226.1**	10 unit(s)	65,60
7a	20	40	32	**L227.1**	10 unit(s)	71,50
6	38	45	36	**L228.1**	10 unit(s)	89,25
6a	50	50	40	**L229.1**	10 unit(s)	101,60
5	60	52	43	**L230.1**	10 unit(s)	104,30
4	90	60	50	**L231.1**	10 unit(s)	127,95
2	150	70	60	**L232.1**	10 unit(s)	170,95
1	230	82	65	**L233.1**	10 unit(s)	231,15



Melting crucible 79 C high form

Haldenwanger. Material: Porcelain, glazed.
Temperature stable up to +1000 °C.

Delivery without cover, please order separately.

Version	Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
0	15	30	38	**1572.1**	10 unit(s)	71,95
1	24	35	44	**3842.1**	10 unit(s)	76,35
2	40	40	51	**3848.1**	10 unit(s)	90,30
3	50	46	53	**1573.1**	10 unit(s)	104,30
4	85	51	65	**3859.1**	10 unit(s)	155,90
5	140	60	79	**1574.1**	10 unit(s)	203,20

Accessories lids for melting/filter crucibles

Haldenwanger. Material: Porcelain, glazed.
For porcelain crucible Art. No. 1572.1 ff, L217.1 ff and L225.1 ff.
Temperature stable up to +1000 °C.

Suitable for	Art. No.	Pack Qty.	€
Crucible Ø 30 mm	**L234.1**	10 unit(s)	77,95
Crucible Ø 35 mm	**L235.1**	10 unit(s)	80,55
Crucible Ø 40 mm	**L236.1**	10 unit(s)	85,50
Crucible Ø 45 to 46 mm	**L237.1**	10 unit(s)	90,30
Crucible Ø 50 to 52 mm	**L238.1**	10 unit(s)	97,85
Crucible Ø 60 mm	**L239.1**	10 unit(s)	117,20
Crucible Ø 70 mm	**L240.1**	5 unit(s)	65,50
Crucible Ø 80 to 85 mm	**L241.1**	5 unit(s)	93,45



A 121 °C

Melting crucible ROTILABO® medium high form

ROTH SELECTION. Material: Porcelain, glazed. Autoclavable: Yes.
Temperature-stable up to +1000 °C.

Delivery without cover, please order separately.

Vol. (ml)	Ø Upper (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	30	25	**XX79.1**	5 unit(s)	20,60
12	35	28	**XX80.1**	5 unit(s)	21,20
20	40	32	**XX81.1**	5 unit(s)	25,05
30	45	36	**XX82.1**	5 unit(s)	26,05
45	50	40	**XX83.1**	5 unit(s)	34,70
80	60	48	**XX84.1**	5 unit(s)	43,15
120	70	56	**XX85.1**	5 unit(s)	55,60
200	80	62	**XX86.1**	5 unit(s)	68,30

A 121 °C

Accessories lids for melting crucibles

ROTH SELECTION. Material: Porcelain, glazed. Autoclavable: Yes.
For porcelain melting crucible Art. No. XX79.1 ff.
Temperature-stable up to +1000 °C.

Ø (mm)	Suitable for	Art. No.	Pack Qty.	€
34	Crucible Ø 30 mm	**XX87.1**	5 unit(s)	21,20
39	Crucible Ø 35 mm	**XX88.1**	5 unit(s)	23,50
44	Crucible Ø 40 mm	**XX89.1**	5 unit(s)	24,90
49	Crucible Ø 45 mm	**XX90.1**	5 unit(s)	30,75
54	Crucible Ø 50 mm	**XX91.1**	5 unit(s)	31,90
64	Crucible Ø 60 mm	**XX92.1**	5 unit(s)	34,70
74	Crucible Ø 70 mm	**XX93.1**	5 unit(s)	42,20
84	Crucible Ø 80 mm	**XX94.1**	5 unit(s)	43,90

Crucibles



Melting crucible ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (material 1.4301).
Heat resistant up to approx. +550 °C.

Delivery without cover, please order separately.

Vol. (ml)	Ø (mm)	Wall thickness (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	35	1	35	**8307.1**	1 unit(s)	57,05
30	40	1	35	**8309.1**	1 unit(s)	59,05
70	50	1	45	**8311.1**	1 unit(s)	64,55

Accessories lids for melting crucibles

ROTH SELECTION. Material: Stainless steel.
For stainless steel melting crucible Art. No. 8307.1 ff.

Suitable for	Art. No.	Pack Qty.	€
Crucible 25 ml	**8313.1**	1 unit(s)	51,90
Crucible 30 ml	**8314.1**	1 unit(s)	52,20
Crucible 70 ml	**8315.1**	1 unit(s)	46,70



Melting crucible ROTILABO®

ROTH SELECTION. Material: Iron.
Wall thickness 2 mm, Ø top 48 mm, height 36 mm. Temperature-stable up to +800 °C, without oxygen up to +1000 °C.

Ø Upper (mm)	Wall thickness (mm)	Height (mm)	Art. No.	Pack Qty.	€
48	2	36	**8316.1**	1 unit(s)	15,75



Melting crucible ROTILABO®

ROTH SELECTION. Material: Nickel 99.5%.
Heat resistant up to approx. +750 °C.

Delivery without cover, please order separately.

Vol. (ml)	Ø (mm)	Wall thickness (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	20	0,5	20	**ETY8.1**	1 unit(s)	55,70
10	25	0,5	25	**ETY9.1**	1 unit(s)	57,20
15	30	1,0	30	**8291.1**	1 unit(s)	69,05
25	35	1,0	35	**8293.1**	1 unit(s)	78,15
30	40	1,0	40	**8294.1**	1 unit(s)	89,25
30	40	2,0	40	**EXA0.1**	1 unit(s)	117,00
50	45	1,0	45	**8296.1**	1 unit(s)	97,45
50	45	1,5	45	**EXA1.1**	1 unit(s)	104,80
70	50	1,0	50	**8298.1**	1 unit(s)	100,75
70	50	2,0	50	**EXA2.1**	1 unit(s)	222,55
130	60	1,0	60	**8299.1**	1 unit(s)	124,90
130	60	2,0	60	**EXA3.1**	1 unit(s)	247,25
270	80	1,0	80	**EXA4.1**	1 unit(s)	158,20

Accessories lids for nickel melting crucibles

ROTH SELECTION. Material: Nickel.
For nickel melting crucible Art. No. ETY8.1 ff.

Suitable for	Art. No.	Pack Qty.	€
Crucible 5 ml	**EXA5.1**	1 unit(s)	50,90
Crucible 10 ml	**EXA6.1**	1 unit(s)	53,25
Crucible 15 ml	**8300.1**	1 unit(s)	54,40
Crucible 25 ml	**8301.1**	1 unit(s)	57,20
Crucible 30 ml	**8302.1**	1 unit(s)	58,25
Crucible 50 ml	**8303.1**	1 unit(s)	59,80
Crucible 70 ml	**8304.1**	1 unit(s)	61,45
Crucible 130 ml	**8305.1**	1 unit(s)	64,80
Crucible 270 ml	**EXA7.1**	1 unit(s)	81,00

Weighing accessories



A 121 °C

Weighing glass caps ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.
With NS cap and labelling space.

Medium form

Vol. (ml)	Standard ground glass joint	Height without closure (mm)	Art. No.	Pack Qty.	€
25	29/12	50	**ACA2.1**	1 unit(s)	25,30
32	34/12	50	**ACA3.1**	1 unit(s)	29,80
47	40/12	50	**ACA4.1**	1 unit(s)	33,25
70	50/12	50	**ACA5.1**	1 unit(s)	38,85
185	80/12	50	**ACA6.1**	1 unit(s)	65,25

Low form

Vol. (ml)	Standard ground glass joint	Height without closure (mm)	Art. No.	Pack Qty.	€
9	29/12	30	**AAY7.1**	1 unit(s)	25,30
12	34/12	30	**AAY8.1**	1 unit(s)	29,80
25	40/12	35	**AAY9.1**	1 unit(s)	33,25
38	50/12	35	**ACA0.1**	1 unit(s)	38,85
100	80/12	35	**ACA1.1**	1 unit(s)	65,25



A 121 °C

Weighing box ROTILABO®

Kartell. Material: PP, translucent. Autoclavable: Yes.
With airtight lid. The top part an be pressed together to facilitate pouring. Low weight reduces the tare correction.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Tare (g)	Art. No.	Pack Qty.	€
20	40	30	8	**K778.1**	2 unit(s)	8,15
23	30	50	8	**K779.1**	2 unit(s)	8,20
30	50	30	10	**K790.1**	2 unit(s)	9,35
40	40	70	14	**K791.1**	2 unit(s)	9,15
50	60	35	18	**K792.1**	2 unit(s)	9,50
190	60	90	28	**K793.1**	2 unit(s)	10,90
360	70	120	40	**K794.1**	2 unit(s)	12,10



A 121 °C

Weighing bottle ROTILABO® high form

ROTH SELECTION. Material: Borosilicate glass. Autoclavable: Yes.
With replaceable NS lid, label field and size details.

Vol. (ml)	Standard ground glass joint	Ø ext. (mm)	Height without closure (mm)	Art. No.	Pack Qty.	€
2	14/8	15	20	**1368.1**	1 unit(s)	23,70
4.5	19/9	20	30	**1367.1**	1 unit(s)	24,55
10	24/11	25	40	**1366.1**	1 unit(s)	23,40
20	29/11	30	50	**1365.1**	1 unit(s)	24,00
40	40/11	40	50	**HNX1.1**	1 unit(s)	26,05
45	34/11	35	70	**1364.1**	1 unit(s)	24,65
45	40/11	40	65	**HNX2.1**	1 unit(s)	27,50
70	40/11	40	80	**HNX3.1**	1 unit(s)	30,55
110	50/11	50	80	**HNX4.1**	1 unit(s)	39,10

Set

Sizes 2 / 4.5 / 10 / 20 / 45 ml

Pack.	Art. No.	Pack Qty.	€
5 pieces	**1369.1**	1 set	94,90

A 121 °C

Weighing bottle ROTILABO® low form

Lenz. Material: DURAN® glass. Autoclavable: Yes.
With replaceable NS lid, label field and size details.

Technical specifications:

Art. No.	HNX5.1	HNX6.1	K615.1	K616.2	K617.1	K614.1
Standards	DIN 12605					in addition

Vol. (ml)	Standard ground glass joint	Ø ext. (mm)	Height without closure (mm)	Art. No.	Pack Qty.	€
6	24/12	25	25	**K614.1**	1 unit(s)	22,60
15	40/12	40	25	**HNX5.1**	1 unit(s)	26,90
15	34/12	35	30	**K615.1**	1 unit(s)	18,85
30	50/12	50	30	**K616.2**	6 unit(s)	123,65
45	60/12	60	30	**HNX6.1**	1 unit(s)	45,00
80	80/12	80	30	**K617.1**	1 unit(s)	44,65

Weighing accessories



A 121 °C

Weighing funnels ROTILABO®

ROTH SELECTION. Autoclavable: Yes.

For weighing liquid and solid samples. Sits safely and flush on the balance. Spout enables easy filling and emptying of measuring flasks and test tubes.

Polypropylene
Material: PP.

Vol. (ml)	Ø ext. (mm)	Ø Outlet (mm)	Length (mm)	Art. No.	Pack Qty.	€
1	15	5	38	**HTT3.1**	96 unit(s)	117,30
2	23	7	44	**P652.1**	50 unit(s)	59,85
7	35	11	63	**P653.1**	50 unit(s)	81,65
10	48	17	88	**P654.1**	20 unit(s)	81,20
25	63	20	117	**P655.1**	10 unit(s)	89,95

Polypropylene, antistatic
Material: PP antistatic.

Vol. (ml)	Ø ext. (mm)	Ø Outlet (mm)	Length (mm)	Art. No.	Pack Qty.	€
1	15	5	38	**HTT4.1**	96 unit(s)	121,95
2	23	7	44	**HTT5.1**	50 unit(s)	130,85
7	35	11	63	**HTT6.1**	50 unit(s)	106,40
10	48	17	88	**HTT7.1**	20 unit(s)	93,10
25	63	20	117	**HTT8.1**	10 unit(s)	101,10

Glass
Material: Borosilicate glass.

Vol. (ml)	Ø ext. (mm)	Ø Outlet (mm)	Length (mm)	Art. No.	Pack Qty.	€
1	15	5	38	**HTT9.1**	6 unit(s)	81,10
2	23	7	44	**P656.1**	6 unit(s)	88,00
7	35	11	63	**P657.1**	6 unit(s)	101,10
10	48	17	88	**P658.1**	6 unit(s)	117,00
25	63	20	117	**P659.1**	6 unit(s)	122,80



A 121 °C

Weighing bottle ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.

With flat bottom.

Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
2	50	**AAY4.1**	1 unit(s)	56,10
4	70	**AAY5.1**	1 unit(s)	62,50
7	100	**AAY6.1**	1 unit(s)	66,45



Weighing funnels

Mettler-Toledo. Material: PP, antistatic.

Resistant to electrostatics charges. With wide mouth for easy access. Tapered neck for use with volumetric flasks, extended metering neck for direct transfer of samples and liquids to flask, ventilation slot between funnel and vessel prevents liquid accumulation.

- Typical dosing quantity: 1 mg - 5 g
- Suitable for volumetric flasks: 5 ml (wide neck), 10-250 ml
- Suitable for standard ground joint: 10/19, 12/21, 14/23
- Ø outer spout, conical, 9-15 mm

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
75	30	26	**CET4.1**	50 unit(s)	109,00

Weighing accessories



121 °C

Weighing bottle ROTILABO®

ROTH SELECTION. Material: Porcelain, glazed. Autoclavable: Yes. Temperature-stable up to +1000 °C.

Length (mm)	Width (mm)	Weight (g)	Art. No.	Pack Qty.	€
37	17	7	**XX55.1**	10 unit(s)	42,75
53	23	10	**XX56.1**	10 unit(s)	44,05
64	29	12	**XX57.1**	10 unit(s)	47,55



121 °C

Weighing bottle ROTILABO®

Usbeck. Material: Stainless steel 1.4301. Autoclavable: Yes. Material thickness 1 mm.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
105	30	**HT05.1**	1 unit(s)	9,30
120	30	**HT06.1**	1 unit(s)	10,15



121 °C

Weighing boat

Bochem. Material: Stainless steel (18/10). Autoclavable: Yes.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
70	32	**1C53.1**	1 unit(s)	12,50
90	32	**1C54.1**	1 unit(s)	12,85



121 °C

Weighing pan ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes. Rounded borders.

Technical specifications:

Art. No.	YE43.1	YE44.1	YE45.1
Version	matt	glossy	

Length (mm)	Width (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
260	180	25	266	**YE43.1**	1 unit(s)	17,85
260	200	45	356	**YE44.1**	1 unit(s)	25,05
310	245	50	564	**YE45.1**	1 unit(s)	30,80



Micro aluminium dishes ROTILABO®

ROTH SELECTION. Material: Aluminium.
Free of oil residues and coatings.

- Suitable for micro scales, micro-elementary and thermal systems
- Compatible with most micro scales and analysis devices
- Packed in practical plastic containers

Oval form

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.04	6.5	3.5	2.5	**PP60.1**	250 unit(s)	116,80
0.11	10	4	4.5	**PP61.1**	250 unit(s)	112,65
0.12	12	4	2.7	**PP62.1**	250 unit(s)	124,90
1.12	25	7.0	7	**PP64.1**	50 unit(s)	73,70

Round form

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.035	6	2.5	**PP58.1**	250 unit(s)	131,00
0.35	13	3.5	**PP59.1**	100 unit(s)	67,80

Weighing accessories



Alu dishes ROTILABO®

ROTH SELECTION. Material: Aluminium.

Free of oil residues and coatings. Compressed walls for extra stability. Handles ideal for labelling or holding. Easy to stack. Variety of applications that require weighing dishes, evaporating dishes or drying dishes to cover containers or store small items.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
8	28	10	**PP54.1**	500 unit(s)	71,30
20	43	13	**PP55.1**	100 unit(s)	13,60
60	57	16	**PP56.1**	100 unit(s)	14,50
80	70	16	**PP57.1**	100 unit(s)	17,80



Weighing pan ROTILABO®

ROTH SELECTION. Material: Aluminium.

For solid and liquid substances. stackable.
Temperature-stable up to approx. +400 °C.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	7	**9262.1**	80 unit(s)	48,40



Weighing pan flat

ROTH SELECTION. Material: PS, antistatic.

Flexible design with wide base for even pouring and dispensing of solids and liquids. resistant to diluted acids, bases and alcohols.

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	89	89	6	**ATC3.1**	500 unit(s)	43,65



Weighing boats

ROTH SELECTION. Material: PS, Anti-static.

For weighing liquid and solid substances. With spout and flat bootm.
Temperature-stable up to +90 °C.

Vol. (ml)	Length (mm)	Width (mm)	Depth (mm)	Art. No.	Pack Qty.	€
20	57	41	8	**A229.1**	250 unit(s)	34,30
140	133	89	25	**A230.1**	250 unit(s)	52,35
270	190	120	25	**ATC2.1**	250 unit(s)	80,05



Weighing bottle ROTILABO® antistatic

ROTH SELECTION. Material: PS.

Spoon, weighing boat and funnel in one: Take a sample, weigh it and decant it all without the need for a new container. Flat-packed, easy to assemble. When flat, can be used as an alternative to weighing paper. Antistatic design for the best possible sample recovery.

White

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
127	90	**KLC5.1**	100 unit(s)	37,40
127	63	**KLC6.1**	100 unit(s)	25,30

Weighing accessories

Weighing pan ROTILABO®

ROTH SELECTION. Material: PS.

- For solid and liquid substances
- Resistant to diluted acids, bases and alcohols
- Bioinert
- Temperature stability up to +80 °C



White

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
8	46	46	8	Non-sterile	1 x 500	**HYT8.1**	500 unit(s)	21,65
100	85	85	24	**Sterile**	40 x 5	**KLA8.1**	200 unit(s)	98,80
100	85	85	24	Non-sterile	1 x 500	**HYT9.1**	500 unit(s)	34,70
330	140	140	22	Non-sterile	1 x 500	**HYX0.1**	500 unit(s)	65,05

White, antistatic

Antistatic design for the best possible sample recovery.

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
8	46	46	8	Non-sterile	1 x 500	**1878.2**	500 unit(s)	33,50
100	85	85	24	Non-sterile	1 x 500	**1884.1**	500 unit(s)	46,50
330	140	140	22	Non-sterile	1 x 500	**0875.2**	500 unit(s)	91,05

Blue

Opaque blue design specifically for white weighing material.

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
8	46	46	8	Non-sterile	1 x 500	**HYX1.1**	500 unit(s)	35,75
100	85	85	22	Non-sterile	1 x 500	**HYX2.1**	500 unit(s)	54,85
330	140	140	24	Non-sterile	1 x 500	**HYX3.1**	500 unit(s)	99,10

Blue, antistatic

Opaque blue design specifically for white weighing material. Antistatic design for the best possible sample recovery.

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
8	46	46	8	Non-sterile	1 x 500	**2149.2**	500 unit(s)	31,65
100	85	85	24	Non-sterile	1 x 500	**2150.1**	500 unit(s)	48,30
330	140	140	22	Non-sterile	1 x 500	**2159.2**	500 unit(s)	90,00

Black, standard

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
8	46	46	8	Non-sterile	1 x 500	**KLA9.1**	500 unit(s)	26,85
100	85	85	24	Non-sterile	1 x 500	**KLC0.1**	500 unit(s)	42,95
330	140	140	22	Non-sterile	1 x 500	**KLC1.1**	500 unit(s)	79,25

Black, antistatic

Antistatic version for the best possible sample recovery.

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
8	46	46	8	Non-sterile	1 x 500	**KLC2.1**	500 unit(s)	27,10
100	85	85	24	Non-sterile	1 x 500	**KLC3.1**	500 unit(s)	45,70
330	140	140	22	Non-sterile	1 x 500	**KLC4.1**	500 unit(s)	90,00

Weighing accessories



Weighing pan diamond-shaped

ROTH SELECTION. Material: PS, antistatic.

Flexible pans with smooth surface for thorough emptying with minimal sample loss.

- FDA-compliant
- Temperature-stable from -10 to +70 °C

White

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	55	35	6	**TP58.1**	500 unit(s)	26,65
25	71	46	14	**TP59.1**	500 unit(s)	45,10
100	119	90	19	**TP60.1**	500 unit(s)	84,30

Black

Optimal contrast, specially designed for white weighing material.

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	55	35	6	**TP61.1**	500 unit(s)	31,30
25	71	46	14	**TP62.1**	500 unit(s)	45,10
100	119	90	19	**TP63.1**	500 unit(s)	89,85



Weighing pan ROTILABO® hexagonal

ROTH SELECTION. Material: PS, antistatic.

For solid and liquid substances. With flat bottom. stackable. Boats can be pressed together at several points to form a pouring spout. Temperature-stable up to +80 °C.

Vol. (ml)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
9	25	9	**KC03.1**	500 unit(s)	27,95
50	51	19	**KC04.1**	500 unit(s)	37,40
200	76	22	**KC05.1**	500 unit(s)	75,70
350	89	31	**KC06.1**	500 unit(s)	107,15



NEW / +

Weighing boat micro

ROTH SELECTION. Material: PS, antistatic.

For weighing very small quantities of solid or liquid substances. With large tabs for easy handling.

Vol. (ml)	Length (mm)	Width (mm)	Depth (mm)	Art. No.	Pack Qty.	€
0.5	25	8.9	7.5	**1L98.1**	250 unit(s)	31,30



Weighing pan SmartBoat™

ROTH SELECTION. Material: Paper, bio-degradable.

Suitable for dry substances and substances containing fat. Temperature stability up to +210 °C

White

For dark weighing material.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
35	35	15	**HYT2.1**	500 unit(s)	55,80
48	48	14	**HYT3.1**	500 unit(s)	63,40
92	92	25	**HYT4.1**	250 unit(s)	64,20

Brown

For bright samples.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
35	35	15	**HYT5.1**	500 unit(s)	55,80
48	48	14	**HYT6.1**	500 unit(s)	63,40
92	92	25	**HYT7.1**	250 unit(s)	64,20

Weighing accessories



Weighing bottle

Macherey-Nagel. Material: Parchment, nitrogen-free.

For weighing viscous and syrupy substances. For determining nitrogen concentration using the Kjeldahl method. Surface weight 83 g/m².

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
58	10	10	**EL10.1**	100 unit(s)	98,10
70	23	15	**EL11.1**	100 unit(s)	140,00



Weighing pan ROTILABO®

ROTH SELECTION. Material: Parchment paper.

For solid substances. No static charging. Colour brown, for enhanced detection of bright weighing material.

Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	88	11	**HX57.1**	150 unit(s)	38,85



Card sheets ROTILABO®

ROTH SELECTION. Material: Paper painted on both sides.

Non-printed for laboratory purposes, e. g. as weighing sheets or scrapers. Rounded corners.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
91	59	**1656.1**	1 kg	18,20



Weighing paper

Macherey-Nagel. Material: Glassine, transparent.

Smooth surface, impermeable.
In block with 100 sheets.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
115	90	**1069.1**	10 unit(s)	127,00
115	90	**1069.2**	1 unit(s)	14,50



Weighing paper ROTILABO®

ROTH SELECTION. Material: Paper, nitrogen-free.

Smooth surfaces for optimum sample recovery.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
76	76	**TP64.1**	500 unit(s)	28,55
102	102	**TP65.1**	500 unit(s)	48,55
152	152	**TP66.1**	500 unit(s)	71,10



Handles ergo brush

Hammacher. Material: Plastic.

Equips with various sizes of brush heads. Clear view of the workpiece thanks to angled head.

Delivery without brush heads.

Pic.	Suitable for	Colour	Length (mm)	Art. No.	Pack Qty.	€
(1)	brush heads size 0-4	petrol	140	**EXC8.1**	1 unit(s)	29,05
(2)	brush heads size 5-8	violet	140	**EXC9.1**	1 unit(s)	29,05

Weighing brushes



Brush heads

Hammacher. Material: Chrome-nickel steel, red sable hair.
Suitable for ergo brush handles.

Technical specifications:

Art. No.	EXE1.1	EXE2.1	EXE3.1	EXE4.1	EXE5.1	EXE6.1
Shaft length	25 mm	27 mm		30 mm	33 mm	37 mm
Tip length	7 mm	8 mm	10 mm	13 mm	17 mm	20 mm

Delivery without handle.

Pic.	Size	Total length (mm)	Art. No.	Pack Qty.	€
(1)	0	32	**EXE1.1**	1 unit(s)	8,55
(2)	1	35	**EXE2.1**	1 unit(s)	8,80
(3)	2	37	**EXE3.1**	1 unit(s)	10,05
(4)	4	43	**EXE4.1**	1 unit(s)	12,80
(5)	6	50	**EXE5.1**	1 unit(s)	21,45
(6)	8	57	**EXE6.1**	1 unit(s)	29,75



Brush set

ROTH SELECTION. Material: Wood (not painted), cow hair, clamps made of nickel.

For cleaning sensitive devices. Set comprises 6 brushes of sizes 2 to 12.

Length (mm)	Art. No.	Pack Qty.	€
300	**L242.1**	1 set	21,40



Weighing brush

ROTH SELECTION. Material: Wood (painted white), goat hair.

For dusting weighing boats, scales and weights.

Length (mm)	Art. No.	Pack Qty.	€
170	**5481.1**	3 unit(s)	10,20



A 121 °C

Round sieves ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (1.4301).
Autoclavable: Yes.

With handle, rolled rim and two eyelets for hooking over vessels.

Vol. (ml)	Ø ext. (mm)	Mesh size (mm)	Art. No.	Pack Qty.	€
150	100	1.5	**8096.1**	1 unit(s)	11,60
250	120	1.5	**8097.1**	1 unit(s)	13,25
400	140	1.5	**8098.1**	1 unit(s)	15,90
700	160	1.5	**8099.1**	1 unit(s)	17,80
1,000	180	1.5	**8100.1**	1 unit(s)	19,30
1,500	200	1.5	**8101.1**	1 unit(s)	21,35
2,000	220	1.5	**8102.1**	1 unit(s)	25,55



A 121 °C

Round sieves ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/8 (1.4112).
Autoclavable: Yes.

With stem, wide rim and large resting eyelet.

Ø ext. (mm)	Mesh size (mm)	Art. No.	Pack Qty.	€
75	0.5	**A624.1**	1 unit(s)	14,95
120	0.8	**A625.1**	1 unit(s)	19,10
160	1.2	**1359.1**	1 unit(s)	28,25
190	1.2	**A626.1**	1 unit(s)	31,20
230	1.2	**A627.1**	1 unit(s)	35,95

Sieves



Flat sieves ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10.

Suitable for separating powders, granulates and other bulk goods. Easy to clean, dishwasher safe.

Extra fine

Without ground clearance.

Pic.	Ø Internal (mm)	Height (mm)	Mesh size (mm)	Art. No.	Pack Qty.	€
(1)	200	60	1	**YH29.1**	1 unit(s)	14,65
(1)	240	63	1	**YH30.1**	1 unit(s)	17,20
(1)	275	67	1	**YH31.1**	1 unit(s)	25,60
(1)	390	77	1	**YH32.1**	1 unit(s)	69,95

Medium fine

Hole size approx. 1 x 2.5 mm. Filling height 50 mm.

Pic.	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
(2)	300	100	**YH36.1**	1 unit(s)	92,85
(2)	350	100	**YH37.1**	1 unit(s)	114,90

Coarse

Filling height 50 mm.

Pic.	Ø Internal (mm)	Height (mm)	Mesh size (mm)	Art. No.	Pack Qty.	€
(3)	250	100	3	**YH38.1**	1 unit(s)	71,30
(3)	300	100	3	**YH39.1**	1 unit(s)	92,85



Flat sieve ROTILABO® plastic

ROTH SELECTION. Material: PP, nylon mesh.

Suitable for separating powders, bulk goods and granulates.

Technical specifications:

Art. No.	**YH42.1**
Inner height	60 mm

Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Mesh size (mm)	Art. No.	Pack Qty.	€
240	220	82	1	**YH42.1**	1 unit(s)	28,00



A 121 °C

Drain scoop ROTILABO®

ROTH SELECTION. Material: Stainless steel. Autoclavable: Yes.

Perforated ladle, with hollow handle. For taking samples from water baths, transporting agarose gels, etc.
Ladle dimensions: L 100 x W 80 mm.

Length (mm)	Art. No.	Pack Qty.	€
255	**YE60.1**	1 unit(s)	11,65



Ice shovel

ROTH SELECTION. Material: Stainless steel.

Perforated, ideal for filling ice. Melt water flows back into the ice container.

Technical specifications:

Art. No.	**HEC6.1**
Total length	190 mm

Ø (mm)	Art. No.	Pack Qty.	€
50	**HEC6.1**	1 unit(s)	11,45

Ladles, sieve ladles/spoons



121 °C

Slotted ladles ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
Heavy duty, seamless.

Flat
Hole Ø 4 mm.

Pic.	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	80	280	**YE97.1**	1 unit(s)	10,15
(1)	100	320	**YE98.1**	1 unit(s)	11,95
(1)	120	360	**YE99.1**	1 unit(s)	14,15
(1)	140	400	**YH00.1**	1 unit(s)	17,40
(1)	160	430	**YH01.1**	1 unit(s)	21,25
(1)	200	470	**YH03.1**	1 unit(s)	32,65

Deep
Hole Ø 5-6 mm.

Pic.	Vol. (ml)	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
(2)	80	70	290	**YE90.1**	1 unit(s)	24,35
(2)	125	80	320	**YE91.1**	1 unit(s)	26,75
(2)	200	90	330	**YE92.1**	1 unit(s)	28,50
(2)	250	100	370	**YE93.1**	1 unit(s)	29,90
(2)	500	120	400	**YE94.1**	1 unit(s)	34,10
(2)	750	140	410	**YE95.1**	1 unit(s)	40,00



Sieve spoon

Usbeck. Material: Copper.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
25	180	**P180.1**	1 unit(s)	11,40



121 °C

Strainer spoons ROTILABO®

ROTH SELECTION. Material: Stainless steel. Autoclavable: Yes.
To hold delicate structures. Perforated spoon allows fluid to drain.

Not a medical device / Not an IVD product

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
145	15	**TL85.1**	1 unit(s)	74,75



121 °C

Standard ladles ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (1.4301).
Autoclavable: Yes.

High-gloss, seamless, made in one piece (except L006.1). Heavy duty.
Standard ladle fixed at an angle of approx. 120°.

Vol. (ml)	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
20	45	220	**L001.1**	1 unit(s)	14,25
30	50	220	**L002.1**	1 unit(s)	16,10
60	60	230	**L003.1**	1 unit(s)	16,80
80	70	290	**L004.1**	1 unit(s)	18,50
125	80	320	**L005.1**	1 unit(s)	21,90
200	90	330	**L006.1**	1 unit(s)	23,90
250	100	360	**L007.1**	1 unit(s)	30,75
500	120	400	**L008.1**	1 unit(s)	37,90
750	140	410	**L009.1**	1 unit(s)	49,00
1,000	160	450	**L010.1**	1 unit(s)	54,30

Hand scoops



121 °C

Scoops with knob

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

Technical specifications:

Art. No.	YC81.1	YC80.1
Scoop width	30 mm	35 mm
Total length	205 mm	190 mm

Scoop length (mm)	Art. No.	Pack Qty.	€
63	**YC81.1**	1 unit(s)	28,95
70	**YC80.1**	1 unit(s)	25,10



121 °C

Scoops

Bochem. Material: Stainless steel V4A (1.4401), mirror finished. Autoclavable: Yes.

GMP-compliant. Smooth scoop surface. Wall thickness 1.2 mm.

Technical specifications:

Art. No.	CHX0.1	CHX1.1	CHX2.1	CHX3.1
Scoop width	50 mm	75 mm	110 mm	135 mm
Total length	180 mm	260 mm	365 mm	400 mm

Vol. (ml)	Scoop length (mm)	Art. No.	Pack Qty.	€
100	100	**CHX0.1**	1 unit(s)	153,10
450	150	**CHX1.1**	1 unit(s)	164,50
1,000	235	**CHX2.1**	1 unit(s)	186,00
2,500	250	**CHX3.1**	1 unit(s)	215,00



121 °C

Scoops ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (1.4301). Autoclavable: Yes.

Extra heavy duty. Seamless connection between scoop and hollow handle. With hanger eyelet.

Technical specifications:

Art. No.	KP45.1	KP46.1	KP47.1	KP48.1	KP49.1
Scoop width	59 mm	75 mm	85 mm	100 mm	130 mm
Total length	215 mm	230 mm	245 mm	290 mm	350 mm
Weight	145 g	190 g	223 g	280 g	415 g

Vol. (ml)	Scoop length (mm)	Art. No.	Pack Qty.	€
100	120	**KP45.1**	1 unit(s)	23,60
200	140	**KP46.1**	1 unit(s)	21,90
250	155	**KP47.1**	1 unit(s)	28,40
350	180	**KP48.1**	1 unit(s)	30,60
500	220	**KP49.1**	1 unit(s)	39,60



121 °C

Scoops ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

Vol. (ml)	Scoop length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
120	100	50	**0703.1**	1 unit(s)	16,60
450	150	75	**0704.1**	1 unit(s)	21,40
1,000	200	100	**PX24.1**	1 unit(s)	22,50
1,500	240	120	**0705.1**	1 unit(s)	26,85
2,500	250	150	**PX25.1**	1 unit(s)	32,75

Set

Volumes 120, 450 and 1500 ml.

Pack.	Art. No.	Pack Qty.	€
3 pieces	**0706.1**	1 set	56,65

Hand scoops



A 121 °C

Scoops ROTILABO®

ROTH SELECTION. Material: Aluminium (cast). Autoclavable: Yes.

Suitable for hand cleaning using mild detergents (no soda). A dark-coloured protective film may form (does not have to be removed).

Technical specifications:

Art. No.	YE53.1	YE54.1	YE55.1	YE56.1	YE57.1	YE58.1	YE59.1
Scoop width	50 mm	55 mm	70 mm	90 mm	100 mm	105 mm	135 mm
Total length	145 mm	185 mm	210 mm	250 mm	265 mm	310 mm	350 mm
Weight	38 g	45 g	78 g	118 g	148 g	206 g	303 g

Vol. (ml)	Scoop length (mm)	Art. No.	Pack Qty.	€
20	85	**YE53.1**	1 unit(s)	3,60
80	105	**YE54.1**	1 unit(s)	5,15
110	120	**YE55.1**	1 unit(s)	6,25
250	150	**YE56.1**	1 unit(s)	10,00
400	170	**YE57.1**	1 unit(s)	10,80
400	180	**YE58.1**	1 unit(s)	20,75
750	220	**YE59.1**	1 unit(s)	23,55

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Scoops

ROTH SELECTION. Material: PP.

With precision moulded filling edge and comfortable, sturdy handle. Also suitable as weighing scoop. Easily legible volume quantities on the upper side of the handle.
Suitable for foodstuffs in accordance with Regulation (EU) No. 10/2011.

Technical specifications:

Art. No.	APH4.1	APH5.1
Scoop width	70 mm	
Total length	200 mm	

Vol. (ml)	Colour	Art. No.	Pack Qty.	€
100	white	**APH4.1**	12 unit(s)	21,95

Set
Assorted colours: White, yellow, green, light blue, blue, ultramarine, red, grey, black.

Vol. (ml)	Colour	Art. No.	Pack Qty.	€
100	assorted colours	**APH5.1**	9 unit(s)	18,65

Scoops ROTILABO® plastic

ROTH SELECTION. Material: HDPE.

Technical specifications:

Art. No.	0574.1	0575.1	0576.1	0577.1	0578.1	0579.1	0580.1
Scoop width	42 mm	60 mm	65 mm	90 mm	110 mm	145 mm	170 mm
Total length	135 mm	185 mm	187 mm	250 mm	310 mm	350 mm	400 mm

Vol. (ml)	Colour	Art. No.	Pack Qty.	€
25	natural	**0574.1**	1 unit(s)	2,45
65	natural	**0575.1**	1 unit(s)	2,55
125	natural	**0576.1**	1 unit(s)	3,05
275	natural	**0577.1**	1 unit(s)	4,10
512	natural	**0578.1**	1 unit(s)	6,05
857	natural	**0579.1**	1 unit(s)	7,15
1,520	natural	**0580.1**	1 unit(s)	10,55

Seven scoops, volume 25 ml to 1520 ml.

Colour	Pack.	Art. No.	Pack Qty.	€
natural	7 unit(s)	**0997.1**	1 set	23,60

Hand scoops



S

Sample scoops

ROTH SELECTION. Material: PS. **Sterile**.

For sampling, analysing or transporting substances.

- Gamma sterilised, individually packed
- Long handle provides safe distance between sample and hand
- Flat base for upright storage
- Usable as a weighing bottle

Technical specifications:

Art. No.	YC16.1	YC15.1	YC11.1	YC14.1
Scoop width	41 mm			51 mm
Total length	205 mm			221 mm
Height	29 mm			33 mm

Red
Suitable for light-coloured substances, aids visibility.

Vol. (ml)	Scoop length (mm)	Colour	Art. No.	Pack Qty.	€
60	78	red	**YC16.1**	100 unit(s)	229,00

White

Vol. (ml)	Scoop length (mm)	Colour	Art. No.	Pack Qty.	€
60	78	white	**YC15.1**	100 unit(s)	177,40
125	94	white	**YC14.1**	100 unit(s)	226,85

White with lid
Lid with tab. Spoon and sample container in one.

Vol. (ml)	Scoop length (mm)	Colour	Art. No.	Pack Qty.	€
60	78	white	**YC11.1**	10 unit(s)	76,30



Measuring spoons

Bürkle. Material: PS.

The measuring and dosing spoons can be used for precisely measuring and dosing small quantities of powders, granulates and liquids. Any excess medium is wiped off at the top edge of the spoon to allow precise measuring.
The flat front edge of the measuring spoon is perfect for collecting medium from the base of the container or reaching into the corners of the container to efficiently remove any residue. Its flat base means that the measuring spoon can be put down without spilling its contents.

- With wiping edge
- The volumes are engraved on the handle
- Manufactured in a clean room (clean room class 7)
- Compliant with the EU food directives and FDA guidelines

Non-sterile
Non-sterile.

Vol. (ml)	Colour	Pack.	Art. No.	Pack Qty.	€
0.5	white	1 x 100	**1A4N.1**	100 unit(s)	25,00
1	white	1 x 100	**1A4P.1**	100 unit(s)	28,70
2.5	white	1 x 100	**1A4T.1**	100 unit(s)	31,90
5	white	1 x 100	**1A4X.1**	100 unit(s)	34,85
10	white	1 x 100	**1A4Y.1**	100 unit(s)	37,45
15	white	1 x 100	**1A50.1**	100 unit(s)	38,85
25	white	1 x 100	**1A51.1**	100 unit(s)	45,05
50	white	1 x 100	**1A52.1**	100 unit(s)	62,75

Non-sterile set
Non-sterile.

Delivery incl.
eight measuring spoons, volumes: 0.5/1/2.5/5/10/15/25/50 ml.

Colour	Pack.	Art. No.	Pack Qty.	€
white	1 x 8	**1A4L.1**	1 set	11,15

Non-sterile, blue set
Non-sterile. Can be used under HACCP/IFS Foreign Body Management Guideline.

Delivery incl.
eight measuring spoons, volumes: 0.5/1/2.5/5/10/15/25/50 ml.

Colour	Pack.	Art. No.	Pack Qty.	€
blue	1 x 8	**1A49.1**	1 set	11,15

Sterile
Sterile. Can be used under HACCP/IFS Foreign Body Management Guideline.

Vol. (ml)	Colour	Pack.	Art. No.	Pack Qty.	€
0.5	blue	100 x 1	**1A41.1**	100 unit(s)	49,50
1	blue	100 x 1	**1A42.1**	100 unit(s)	50,90
2.5	blue	100 x 1	**1A43.1**	100 unit(s)	55,05
5	blue	100 x 1	**1A44.1**	100 unit(s)	60,15
10	blue	100 x 1	**1A45.1**	100 unit(s)	62,50
15	blue	100 x 1	**1A46.1**	100 unit(s)	64,95
25	blue	100 x 1	**1A47.1**	100 unit(s)	73,75
50	blue	100 x 1	**1A48.1**	100 unit(s)	119,15

Spoons and spatula



S

Sample spoons sterile

ROTH SELECTION. Material: PS. **Sterile**.

Individually packed. For powders, granulates, pastes and liquids.

Vol. (ml)	Spoon width (mm)	Spoon length (mm)	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
2	25	35	125	10 x 100	**X031.2**	1,000 unit(s)	387,00
8	35	50	150	10 x 100	**X032.2**	1,000 unit(s)	384,85



S

Sample spoons sterile

Nasco Sampling. Material: PS. **Sterile**.

Vol. (ml)	Colour	Spoon width (mm)	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
2.5	white	32.5	155	5 x 20	**EPY9.1**	100 unit(s)	36,80



A 121 °C

Spoon spatulas plastic

Kartell. Material: PA, glass fibre reinforced. Autoclavable: Yes.

Vol. (ml)	Colour	Total length (mm)	Art. No.	Pack Qty.	€
1.5	red	180	**TT33.1**	10 unit(s)	18,10
1.8	red	210	**TT34.1**	10 unit(s)	19,95



Spoon spatulas plastic

Bürkle. Material: PS.

Designed for single use, chemical-resistant, corrosion-resistant. Numerous applications for measuring or transferring small amounts or mixing and stirring.

- Manufactured in a clean-room (class 7)
- Suitable for foodstuffs

Technical specifications:

Art. No.	HEP4.1	HEP5.1
Sheet width	17 mm	

Vol. (ml)	Total length (mm)	Art. No.	Pack Qty.	€
0.5	178	**HEP4.1**	100 unit(s)	26,10

Sterile

- Gamma sterilised
- Individually packed

Vol. (ml)	Total length (mm)	Art. No.	Pack Qty.	€
0.5	178	**HEP5.1**	100 unit(s)	67,25

Spoons and spatula



Measuring spoons ROTILABO® set

Bochem. Material: Stainless steel 18/10 (1.4301).

Type	Volume (ml)	Length (mm)	Ø (mm)	Depth (mm)
(1)	1.25	120	24	5
(2)	2.5	125	28	8
(3)	5	130	32	10
(4)	15	145	48	10

Pack.	Art. No.	Pack Qty.	€
4 pieces	**HC47.1**	1 set	17,00



Spoons glass set

ROTH SELECTION. Material: Borosilicate glass.
Eight spoons in four sizes. Length 210 to 230 mm.

Pack.	Art. No.	Pack Qty.	€
4 x 2 pieces	**0185.1**	1 set	297,80

ROTH SELECTION



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A 121 °C

Spoons ROTILABO® porcelain

ROTH SELECTION. Material: Porcelain, glazed. Autoclavable: Yes.
Temperature stable up to max. 1000 °C.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
48	85	237	**XX62.1**	5 unit(s)	151,80



A 121 °C

Spoon spatulas porcelain

Haldenwanger. Material: Porcelain. Autoclavable: Yes.
Max. temperature resistance +400 °C.

Total length (mm)	Art. No.	Pack Qty.	€
120	**C749.1**	1 unit(s)	21,00
160	**C751.1**	1 unit(s)	22,05
200	**C753.1**	1 unit(s)	32,80
300	**C755.1**	1 unit(s)	61,30

Spoons and spatula



A 121 °C

Spoons

Hammacher. Material: Stainless steel Wironit 4301. Autoclavable: Yes.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
44	60	195	**YC90.1**	1 unit(s)	18,35
55	70	205	**YC91.1**	1 unit(s)	31,25



Spoons ROTILABO® melting spoon

Usbeck. Material: Stainless steel, with wooden handle.
Dish with spout. Weight 73 g.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
75	75	275	**YT65.1**	1 unit(s)	7,40



Spoons round

ROTH SELECTION. Material: Stainless steel, ABS handle.
Temperature stable up to +99 °C. Dishwasher safe.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
40	40	148	**YC43.1**	1 unit(s)	10,35



A 121 °C

Spoons ROTILABO® spoon for chemicals

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
Single-ended, with rounded handle.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
25	25	120	**A635.1**	1 unit(s)	5,85
25	25	150	**A636.1**	1 unit(s)	5,90
25	25	180	**A637.1**	1 unit(s)	6,35
30	30	210	**A638.1**	1 unit(s)	7,60
35	35	250	**A639.1**	1 unit(s)	8,45
35	35	300	**A640.1**	1 unit(s)	8,95



A 121 °C

Spoons angled

Hammacher. Material: Stainless steel Wironit 4301. Autoclavable: Yes.
Spoon for chemicals.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
27	27	200	**YC82.1**	1 unit(s)	48,00



Spoons ROTILABO® phosphorous spoon

Usbeck. Material: Stainless steel.
Weight 14 g.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
16	16	450	**YT64.1**	1 unit(s)	4,35

Spoons and spatula



A 121 °C

Spoons ROTILABO®

ROTH SELECTION. Material: Stainless steel Remanit 4301. Autoclavable: Yes.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
15	30	150	**K745.1**	1 unit(s)	3,60



A 121 °C

Spoons ROTILABO® open type

ROTH SELECTION. Material: Stainless steel Remanit 4301. Autoclavable: Yes.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
20	30	200	**K734.1**	1 unit(s)	8,65



A 121 °C

Spoons ROTILABO® wide shape

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Technical specifications:

Art. No.	HY05.1	HY06.1	HY07.1	HY09.1	HY08.1
Sheet width	17 mm	22 mm	25 mm	32 mm	31 mm
Sheet length	60 mm	80 mm	90 mm	115 mm	105 mm

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
28	43	150	**HY05.1**	1 unit(s)	5,75
36	60	200	**HY06.1**	1 unit(s)	6,35
43	75	240	**HY07.1**	1 unit(s)	7,65
45	110	320	**HY09.1**	1 unit(s)	11,85
50	85	280	**HY08.1**	1 unit(s)	10,25



A 121 °C

Double spoon large

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

Technical specifications:

Art. No.	YC88.1	YC89.1
Width of spoon 2	30 mm	38 mm
Length of spoon 2	45 mm	75 mm

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
22	35	160	**YC88.1**	1 unit(s)	8,55
30	60	230	**YC89.1**	1 unit(s)	10,65



A 121 °C

Double spoon ROTILABO® rounded handle

ROTH SELECTION. Material: Stainless steel 18/10 (1.4301). Autoclavable: Yes.

Technical specifications:

Art. No.	K746.1	K747.1	K748.1	K749.1	K750.1	K751.1
Width of spoon 2	25 mm			30 mm	35 mm	
Length of spoon 2	30 mm			35 mm	45 mm	

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
17	17	120	**K746.1**	1 unit(s)	7,55
17	17	150	**K747.1**	1 unit(s)	7,75
17	17	180	**K748.1**	1 unit(s)	8,25
20	25	210	**K749.1**	1 unit(s)	8,65
20	25	250	**K750.1**	1 unit(s)	9,80
20	25	300	**K751.1**	1 unit(s)	10,35

Spoons and spatula



Double spoon ROTILABO® open type

ROTH SELECTION. Material: Stainless steel 1.4301.
Double-sided, large spoon, open at front.

Technical specifications:

Art. No.	HPY7.1	HPY8.1	HPY9.1
Width of spoon 2	15 mm		
Length of spoon 2	17 mm		

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
20	32	150	**HPY7.1**	5 unit(s)	33,85
20	32	180	**HPY8.1**	5 unit(s)	34,95
20	32	210	**HPY9.1**	5 unit(s)	36,10



A 121 °C

Double spoon

Hammacher. Material: Stainless steel Wironit 4301. Autoclavable: Yes.

Technical specifications:

Art. No.	YC83.1	YC84.1	YC85.1	YC86.1	YC87.1
Width of spoon 2	20 mm	24 mm	27 mm	30 mm	35 mm
Length of spoon 2	25 mm	32 mm	35 mm	40 mm	45 mm

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
11	22	150	**YC83.1**	1 unit(s)	34,30
20	27	180	**YC84.1**	1 unit(s)	35,75
20	28	210	**YC85.1**	1 unit(s)	39,05
24	32	250	**YC86.1**	1 unit(s)	42,10
29	40	300	**YC87.1**	1 unit(s)	44,65



A 121 °C

Double spoon narrow form

ROTH SELECTION. Material: Stainless steel Remanit 4301.
Autoclavable: Yes.

Technical specifications:

Art. No.	K733.1
Width of spoon 2	20 mm
Length of spoon 2	35 mm

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
12	30	190	**K733.1**	1 unit(s)	8,80



A 121 °C

Double spoon

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.
Handle Ø 3.5 mm.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
10	20	180	**YK72.1**	1 unit(s)	8,00
10	20	210	**YK73.1**	1 unit(s)	8,10

Spoons and spatula



121 °C

Spoons ROTILABO® multi-purpose spoon

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
With sturdy round handle.

(1) Small form
Handle Ø 5 mm.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
15	35	150	**HX95.1**	1 unit(s)	7,65
15	35	180	**HX96.1**	1 unit(s)	7,90
15	35	210	**HX97.1**	1 unit(s)	8,20
15	35	250	**HX98.1**	1 unit(s)	9,00
15	35	300	**HX99.1**	1 unit(s)	9,10

(2) Large form
Handle Ø 8 mm.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
28	65	210	**HY00.1**	1 unit(s)	11,30
28	65	250	**HY01.1**	1 unit(s)	11,80
28	65	300	**HY02.1**	1 unit(s)	12,45
28	65	400	**HY03.1**	1 unit(s)	15,95
28	65	500	**HY04.1**	1 unit(s)	17,60



121 °C

Spoon spatulas

ROTH SELECTION. Material: Stainless steel 18/10, Remanit 4301.
Autoclavable: Yes.

(1) With rounded handle

Technical specifications:

Art. No.	A641.1	A642.1	A643.1	A644.1
Sheet width	15 mm			
Sheet length	35 mm			

Spoon width (mm)	Total length (mm)	Art. No.	Pack Qty.	€
25	150	**A641.1**	1 unit(s)	7,75
25	180	**A642.1**	1 unit(s)	8,35
25	210	**A643.1**	1 unit(s)	9,10
25	250	**A644.1**	1 unit(s)	9,10

(2) With flat handle

Technical specifications:

Art. No.	YP87.1	YP88.1	YP89.1	YP90.1	YP91.1	YP92.1
Sheet width	18 mm		20 mm		28 mm	
Sheet length	20 mm	25 mm		30 mm	40 mm	

Spoon width (mm)	Total length (mm)	Art. No.	Pack Qty.	€
20	120	**YP87.1**	1 unit(s)	4,05
25	150	**YP88.1**	1 unit(s)	4,30
25	180	**YP89.1**	1 unit(s)	4,70
30	210	**YP90.1**	1 unit(s)	5,60
35	250	**YP91.1**	1 unit(s)	9,30
35	300	**YP92.1**	1 unit(s)	10,60



121 °C

Micro-spoon spatulas

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
With hexagonal handle.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
5	5	140	**AT18.1**	1 unit(s)	12,85

Spoon spatula



A 121 °C

Micro-spoon spatulas ROTILABO® powder spatula

ROTH SELECTION. Material: Stainless steel 1.4301. Autoclavable: Yes.

Contents:
1 x L 150 mm, 1 x L 180 mm, 1 x L 210 mm

Technical specifications:

Art. No.	HEY4.1	HEY5.1
Sheet width	5 mm	7 mm

Set narrow form

Spoon width (mm)	Pack.	Art. No.	Pack Qty.	€
5.5	3 units	**HEY4.1**	1 set	17,05

Set wide form

Spoon width (mm)	Pack.	Art. No.	Pack Qty.	€
8	3 units	**HEY5.1**	1 set	17,25



A 121 °C

Spoons multi-purpose, for left-handed users set

ROTH SELECTION. Material: Stainless steel 1.4301. Autoclavable: Yes.

With sturdy round handle.

Contents:
3 spoons, type (1):
Total length: 1 x 150, 1 x 180, 1 x 210 mm
Spoon dimensions: L 35 x W 15 mm
Handle Ø 5 mm
2 spoons, type (2):
Total length: 1 x 210, 1 x 300 mm
Spoon dimensions: L 65 x W 28 mm
Handle Ø 8 mm

Pack.	Art. No.	Pack Qty.	€
5 pieces	**HEY3.1**	1 set	37,60



Spoon spatulas

Bochem.

Technical specifications:

Art. No.	PH56.1	PH57.1	PH58.1	PH62.1	PH59.1	PH60.1	PH61.1
Sheet width	20 mm	22 mm				32 mm	37 mm
Sheet length	30 mm	32 mm				45 mm	50 mm

(1) Stainless steel
Material: Stainless steel 18/10. Autoclavable: Yes.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
23	31	120	**PH56.1**	1 unit(s)	4,15
27	38	150	**PH57.1**	1 unit(s)	5,05
28	40	180	**PH58.1**	1 unit(s)	5,70
28	40	210	**PH59.1**	1 unit(s)	6,50
35	50	250	**PH60.1**	1 unit(s)	10,65
41	55	300	**PH61.1**	1 unit(s)	12,85

(2) PTFE-coated
Material: Stainless steel 18/10, PTFE-coated.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
28	40	180	**PH62.1**	1 unit(s)	34,90



A 121 °C

Micro-spoon spatulas ROTILABO® powder spatula

ROTH SELECTION. Material: Stainless steel 1.4301. Autoclavable: Yes.

Technical specifications:

Art. No.	CHN5.1
Sheet width	5 mm
Sheet length	30 mm

Spoon width (mm)	Total length (mm)	Art. No.	Pack Qty.	€
5	150	**CHN5.1**	1 unit(s)	6,80

Spoon spatula



121 °C

Spoon spatulas

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

Technical specifications:

Art. No.	YK74.1	YK75.1	YK76.1	YK77.1	YK78.1	YK79.1
Sheet width	10 mm					
Sheet length	35 mm		50 mm	55 mm	60 mm	

(1) With micro-spoon
Handle Ø 3.5 mm.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
10	20	180	**YK74.1**	1 unit(s)	6,40
10	20	210	**YK75.1**	1 unit(s)	6,90

(2) With flat spoon
Handle Ø 3.5 mm (YK79.1 handle Ø 4 mm).

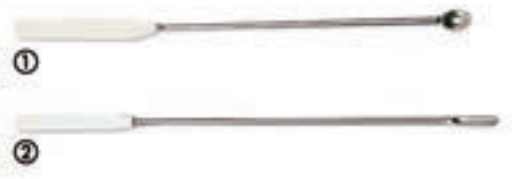
Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
17	38	150	**YK76.1**	1 unit(s)	8,10
17	38	180	**YK77.1**	1 unit(s)	8,35
17	38	210	**YK78.1**	1 unit(s)	8,85
17	38	230	**YK79.1**	1 unit(s)	9,20

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121 °C

Micro-spoon spatulas

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

(1) Spoon form

Technical specifications:

Art. No.	PX33.1	6186.1	PX34.1	PX35.1	YP97.1	YP98.1	YP99.1
Sheet width	5 mm						
Sheet length	30 mm						

Spoon width (mm)	Total length (mm)	Art. No.	Pack Qty.	€
5	100	**PX33.1**	1 unit(s)	5,20
5	150	**6186.1**	1 unit(s)	6,05
5	185	**PX34.1**	1 unit(s)	5,50
5	300	**PX35.1**	1 unit(s)	6,05
7	150	**YP97.1**	1 unit(s)	5,20
7	185	**YP98.1**	1 unit(s)	5,40
7	210	**YP99.1**	1 unit(s)	5,85

(2) Shovel form

Technical specifications:

Art. No.	3191.1	PX36.1
Sheet width	5 mm	
Sheet length	40 mm	

Total length (mm)	Art. No.	Pack Qty.	€
150	**3191.1**	1 unit(s)	5,90
180	**PX36.1**	1 unit(s)	7,40



121 °C

Micro-spoon with wire end

Hammacher. Material: Stainless steel Wironit 1.4301. Autoclavable: Yes.

Version	Total length (mm)	Art. No.	Pack Qty.	€
Right-handed	180	**KAT0.1**	1 unit(s)	23,25
Left-handed	180	**KAT1.1**	1 unit(s)	23,25



121 °C

Spatula american form

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
140	6	45	**YL35.1**	1 unit(s)	5,85
160	6	45	**YL36.1**	1 unit(s)	6,40
210	6	45	**YL37.1**	1 unit(s)	7,35



121 °C

Double spatulas micro

Hammacher. Autoclavable: Yes.

(1) Rectangular form
Material: Stainless steel Remanit 4024. Flexible, handle Ø 2.5 mm.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
130	6	40	**YL38.1**	1 unit(s)	5,20
150	6	40	**YL39.1**	1 unit(s)	5,45
185	6	50	**YL40.1**	1 unit(s)	5,85
210	6	55	**YL41.1**	1 unit(s)	6,25

(2) Trapezoidal
Material: Stainless steel Wironit 4301. Handle Ø 2.0 mm.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
130	5	28	**YL42.1**	1 unit(s)	12,45
185	5	30	**YL43.1**	1 unit(s)	12,90
210	5	30	**YL44.1**	1 unit(s)	14,05



121 °C

Double spatulas

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

(1) Narrow form

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
300	15	70	**YK66.1**	1 unit(s)	8,75
350	15	70	**YK67.1**	1 unit(s)	10,30
400	20	70	**YK68.1**	1 unit(s)	11,25
500	20	70	**YK69.1**	1 unit(s)	13,55

(2) Wide form

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
150	15	32	**YK70.1**	1 unit(s)	5,55
210	18	36	**YK71.1**	1 unit(s)	6,40

121 °C

Double spatulas ROTILABO® micro

ROTH SELECTION. Material: Stainless steel 18/10, electrolytically polished. Autoclavable: Yes.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
100	2	**3396.1**	1 unit(s)	3,60
130	2	**3415.1**	1 unit(s)	3,95
150	2	**3433.1**	1 unit(s)	4,00
100	3	**3439.1**	1 unit(s)	5,20
130	3	**2865.1**	1 unit(s)	5,20
150	3	**2866.1**	1 unit(s)	5,20
100	4	**2867.1**	1 unit(s)	5,20
130	4	**2868.1**	1 unit(s)	5,20
150	4	**2869.1**	1 unit(s)	5,20
185	4	**2889.1**	1 unit(s)	5,20
100	5	**2901.1**	1 unit(s)	5,20
130	5	**2905.1**	1 unit(s)	5,20
150	5	**2906.1**	1 unit(s)	5,20
185	5	**2910.1**	1 unit(s)	5,20
210	5	**2912.1**	1 unit(s)	5,20

Spatula



Double spatulas

ROTH SELECTION. Material: Stainless steel.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
150	6	**1902.1**	5 unit(s)	27,05



A 121 °C

Double spatulas

Hammacher. Material: Stainless steel Wironit 4301. Autoclavable: Yes.

(1) One spatula blade is rounded

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
120	4	25	**YK51.1**	1 unit(s)	11,50
120	6	28	**YK52.1**	1 unit(s)	12,45
150	9	36	**YK53.1**	1 unit(s)	12,90
180	9	38	**YK55.1**	1 unit(s)	13,50
210	9	40	**YK57.1**	1 unit(s)	13,80
150	11	38	**YK54.1**	1 unit(s)	12,90
180	11	40	**YK56.1**	1 unit(s)	14,20
210	11	40	**YK58.1**	1 unit(s)	14,15
240	12	60	**YK59.1**	1 unit(s)	17,50
300	13	60	**YK60.1**	1 unit(s)	18,55

(2) Two spatula blades rounded

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
150	7	28	**YK61.1**	1 unit(s)	14,35
180	7	28	**YK62.1**	1 unit(s)	14,75

(3) One spatula blade is trapezoidal

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
150	9	33	**YK63.1**	1 unit(s)	14,15
180	10	38	**YK64.1**	1 unit(s)	16,30
210	12	40	**YK65.1**	1 unit(s)	17,50



A 121 °C

Double spatulas

ROTH SELECTION. Autoclavable: Yes.

Stainless steel flexible

Material: Stainless steel 18/10 (Remanit 4301), electrolytically polished.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
130	8	**3293.1**	1 unit(s)	6,05
150	9	**3294.1**	1 unit(s)	6,30
185	9	**3298.1**	1 unit(s)	6,40
210	11	**3311.1**	1 unit(s)	7,05
250	11	**3318.1**	1 unit(s)	7,15

Stainless steel rigid

Material: Stainless steel 18/10 (Remanit 4301), electrolytically polished.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
300	16	**3321.1**	1 unit(s)	8,50
350	16	**3335.1**	1 unit(s)	9,05
500	20	**3351.1**	1 unit(s)	12,50

Pure nickel rigid

Material: Nickel 99.5 %, electrolytically polished. Spatula blades, trapezoidal.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
130	9	**3361.1**	1 unit(s)	59,85
210	11	**3371.1**	1 unit(s)	62,40
250	11	**3376.1**	1 unit(s)	66,50



A 121 °C

Double spatulas curved

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301), electrolytically polished. Autoclavable: Yes.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
130	4	30	**3194.1**	1 unit(s)	6,40
150	4	30	**3200.1**	1 unit(s)	6,40
185	4	30	**3455.1**	1 unit(s)	5,90
150	9	35	**3207.1**	1 unit(s)	6,95
185	9	35	**3472.1**	1 unit(s)	6,75
210	9	35	**3489.1**	1 unit(s)	7,10

Spatula



121 °C

Double spatulas type Chattaway

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

(1) Straight

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
100	7	30	**YL21.1**	1 unit(s)	4,25
125	7	40	**YL22.1**	1 unit(s)	4,25
150	7	40	**YL23.1**	1 unit(s)	4,85
180	8	50	**YL24.1**	1 unit(s)	5,25
200	9	60	**YL25.1**	1 unit(s)	5,25
235	10	70	**YL26.1**	1 unit(s)	5,90
265	11	70	**YL27.1**	1 unit(s)	6,30

(2) Round spatula blade, curved

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
100	7	30	**YL28.1**	1 unit(s)	4,85
125	7	40	**YL29.1**	1 unit(s)	5,00
150	7	40	**YL30.1**	1 unit(s)	5,25
180	8	50	**YL31.1**	1 unit(s)	5,25
200	9	60	**YL32.1**	1 unit(s)	5,55
235	10	70	**YL33.1**	1 unit(s)	5,85
265	11	70	**YL34.1**	1 unit(s)	7,60



121 °C

Powder spatulas micro straight

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes. With hexagonal handle.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
150	3	**AT23.1**	1 unit(s)	12,85
150	4	**AT24.1**	1 unit(s)	12,85



121 °C

Powder spatulas micro

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes. Flexible.

Straight

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
150	3	40	**YL51.1**	1 unit(s)	6,45
185	3	50	**YL53.1**	1 unit(s)	7,35
130	6	40	**YL50.1**	1 unit(s)	6,90
150	6	40	**YL52.1**	1 unit(s)	7,20
185	6	50	**YL54.1**	1 unit(s)	8,10
210	6	55	**YL55.1**	1 unit(s)	8,10

Powder scoops, angled

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
210	4	55	**YL58.1**	1 unit(s)	7,85
150	5	40	**YL56.1**	1 unit(s)	7,35
185	5	50	**YL57.1**	1 unit(s)	7,85



121 °C

Powder spatulas

Hammacher. Material: Stainless steel 18/10 (Wironit 4301). Autoclavable: Yes.

(1) Standard

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
120	6	28	**YL14.1**	1 unit(s)	12,90
150	9	30	**YL15.1**	1 unit(s)	13,50
180	9	35	**YL16.1**	1 unit(s)	14,15
210	9	38	**YL17.1**	1 unit(s)	15,00

(2) Micro

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
130	4	28	**YL18.1**	1 unit(s)	14,35
150	4	28	**YL19.1**	1 unit(s)	14,80
180	5	30	**YL20.1**	1 unit(s)	14,75

Spatula



121 °C

Powder spatulas

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
10	40	170	**YL59.1**	1 unit(s)	6,40



121 °C

Powder spatulas

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
10	40	170	**C829.1**	1 unit(s)	3,60



121 °C

Spatula Curved spoon-shaped

ROTH SELECTION. Material: Stainless steel 18/10, electrolytically polished. Autoclavable: Yes.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
130	5	**3006.1**	1 unit(s)	3,75
150	5	**3066.1**	1 unit(s)	3,75
185	5	**3015.1**	1 unit(s)	4,00
210	5	**3042.1**	1 unit(s)	4,00



Spatula micro Set

ROTH SELECTION. Material: Stainless steel 18/10, plastic handle made of PVC, black.

Blade width 3 to 6 mm.

Total length (mm)	Pack.	Art. No.	Pack Qty.	€
160	4 pieces	**AT16.1**	1 set	18,20



Powder spatulas micro Set

ROTH SELECTION. Material: Stainless steel 18/10, plastic handle made of PVC, black.

Blade width 3 to 6 mm.

Total length (mm)	Pack.	Art. No.	Pack Qty.	€
160	4 pieces	**AT17.1**	1 set	20,05



Spatula micro

Bochem. Material: Stainless steel 18/10, plastic handle made of PVC, black.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
160	4	**6191.1**	1 unit(s)	4,20
160	5	**3119.1**	1 unit(s)	4,20

Spatula



A 121 °C

Spatula micro straight

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
With hexagonal handle.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
140	3	**AT21.1**	1 unit(s)	12,85
140	4	**AT22.1**	1 unit(s)	12,85



A 121 °C

Spatula micro round

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
With hexagonal handle.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
140	2	**AT19.1**	1 unit(s)	12,85
140	3	**AT20.1**	1 unit(s)	12,85



Dosing spatula

Bochem. Material: Stainless steel 18/10, plastic handle.
For powder. granulate and similar. Dosing is performed by turning the thumbwheel.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
190	12	50	**C848.1**	1 unit(s)	21,85



Dosing spatula type vibration spatula

Hammacher. Material: Stainless steel 1.4301, handle made of PVC.

Standard

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
210	5	18	**KAX3.1**	1 unit(s)	32,75

PTFE-coated

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
210	5	18	**KAX4.1**	1 unit(s)	38,20



Spatula with knob

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301), Button made of plastic.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
150	9	35	**K722.1**	1 unit(s)	7,35
210	11	40	**K723.1**	1 unit(s)	7,60
250	20	40	**K728.1**	1 unit(s)	10,20
300	30	70	**K729.1**	1 unit(s)	11,70
400	30	65	**K730.1**	1 unit(s)	13,10
500	30	60	**K731.1**	1 unit(s)	14,30



Double spatulas for mortar

Bochem. Material: Stainless steel (18/10).
Solid version.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
150	20	40	**1C57.1**	1 unit(s)	15,30
200	20	40	**1C58.1**	1 unit(s)	16,70
250	25	60	**1C59.1**	1 unit(s)	20,60
300	25	60	**1C5A.1**	1 unit(s)	24,20
400	25	60	**1C5C.1**	1 unit(s)	31,80

Spatula



Spatula ROTILABO®

ROTH SELECTION. Material: Stainless steel (hardened), handle made of wood.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
180	18	70	**A651.1**	1 unit(s)	9,20
210	20	100	**A652.1**	1 unit(s)	9,45
235	20	125	**A653.1**	1 unit(s)	10,55
255	22	145	**A654.1**	1 unit(s)	11,30



Chemist's spatula

ROTH SELECTION. Material: Stainless steel 1.4034 (hardened), handle made of wood.

Flat blade.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
320	30	200	**HPY4.1**	2 unit(s)	19,95
370	30	250	**HPY5.1**	2 unit(s)	21,70
420	30	300	**HPY6.1**	2 unit(s)	23,10



A 121 °C

Spatula

ROTH SELECTION. Material: Stainless steel 18/0 (flexible), handle made of stainless steel 18/10. Autoclavable: Yes.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
340	30	210	**CY65.1**	1 unit(s)	10,00



Spatula set

ROTH SELECTION. Material: Stainless steel 18/10 (instruments), Case made of plastic.

Instruments autoclavable, case not autoclavable.

Contents:

Microspoon, L 150 mm, spoon width 5 mm
Micro spoon spatula L 150 mm, spoon width 7 mm
Micro double spatula, L 150 mm, blade width 4 mm
Double spatula, L 150 mm, blade width 9 mm
Double spatula, curved, L 150 mm, blade width 4 mm
Double spatula, curved, L 150 mm, blade width 9 mm
Tweezers, straight blunt (anatomical), L 145 mm

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
150	90	**E286.1**	1 unit(s)	56,20



Spatula set

Hammacher.

In zip-up case, spatula fastened with elastic loops.

Contents:

2 spoon spatulas, 150 mm and 180 mm
3 micro spoon spatula, spoon 5 x 7 mm, L 100, 150, 185 mm
3 double spatulas, rigid, L 130, 150, 185 mm
1 micro-powder spatula, flexible, 150 mm
1 chemist's spoon, double-ended, 170 mm
1 spoon for chemicals, double-ended, 150 mm
1 weighing spatula, 170 mm
2 micro-double spatulas, spoon-shaped, L 130, 150 mm

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
215	155	25	**KAT8.1**	1 unit(s)	97,80



Spatula stirring spatula wide shape

Hammacher. Material: PP.

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
160	20	**HEA6.1**	1 unit(s)	14,35

Spatula



A 121 °C

Scalpel for easy lifting of tissue solid

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
Flexible blade.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
150	10	50	**A645.1**	1 unit(s)	8,40
150	15	50	**A646.1**	1 unit(s)	8,85
150	20	50	**A647.1**	1 unit(s)	8,85



A 121 °C

Spatula

ROTH SELECTION. Material: Stainless steel 18/0, handle made of PA.
Autoclavable: Yes.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
260	65	100	**YE83.1**	1 unit(s)	27,90
285	100	160	**YE84.1**	1 unit(s)	36,35



Spatula

ROTH SELECTION. Material: Stainless steel 18/0 (1.4016), handle made of wood.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
215	100	115	**8108.1**	1 unit(s)	13,55



Scraper

ROTH SELECTION. Material: PP.
Flexible.

Sheet width (mm)	Sheet length (mm)	Material thickness (mm)	Art. No.	Pack Qty.	€
100	130	0.6	**YE82.1**	10 unit(s)	10,05



NEW / +

Spatula ROTILABO®

Boettger.

Wood

Material: Wood.

Not a medical device / Not an IVD product

Sterility	Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
Non-sterile	150	20	**EH10.1**	100 unit(s)	5,70

Mouth spatulas sterile wood

Material: Wood. For use as tongue depressor. ETO gas sterilised, individually packed.

Medical device class I MDD

Sterility	Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
Sterile	150	20	**XL58.2**	1,000 unit(s)	484,85

Mouth spatulas plastic

Material: PS. For use as tongue depressor.

Medical device class I MDD

Sterility	Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
Non-sterile	150	20	**XL59.2**	1,500 unit(s)	130,65

Spatula



Spatula wood

ROTH SELECTION. Material: Wood.

Not a medical device / Not an IVD product

Total length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
140	5	**APE1.1**	1,000 unit(s)	6,85



A 121 °C

Spatula glass

Hammacher. Material: Soda-lime glass. Autoclavable: Yes.

Total length (mm)	Art. No.	Pack Qty.	€
100	**HEA5.1**	1 unit(s)	5,85



Spatula ROTILABO® stirring spatula

ROTH SELECTION. Material: PS, transparent.

Bar Ø 3 mm.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
120	3	30	**4893.2**	500 unit(s)	21,20

With mixing plate
For vertical mixing in cuvettes or other narrow vessels.

Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
120	3	30	**XL60.1**	500 unit(s)	21,75



A 121 °C

Double spatulas ROTILABO® porcelain

ROTH SELECTION. Material: Porcelain, glazed. Autoclavable: Yes.
Temperature-stable to 1000 °C.

Total length (mm)	Art. No.	Pack Qty.	€
104	**XX58.1**	5 unit(s)	57,50
186	**XX59.1**	5 unit(s)	74,85
250	**XX60.1**	5 unit(s)	86,00
298	**XX61.1**	5 unit(s)	104,35



A 121 °C

Double spatulas PTFE

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

- Double-sided, flexible
- Chemically inert
- Weight 19 g
- Temperature stability: -200 to +250 °C

Total length (mm)	Sheet width (mm)	Material thickness (mm)	Art. No.	Pack Qty.	€
150	16	4	**0503.1**	1 unit(s)	21,55



A 121 °C

Double spatulas plastic

Kartell. Material: PA, glass fibre reinforced. Autoclavable: Yes.

Total length (mm)	Art. No.	Pack Qty.	€
150	**TT31.1**	10 unit(s)	12,95
180	**TT32.1**	10 unit(s)	15,25

Spatula

Spatula disposable plastic

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Suitable for use as sample spoon, scraper and stirring rod. Ideal for weighing, e.g. in PCR vessels, reaction vials and centrifuge tubes. FDA-compliant. Temperature stability: 0 to +121 °C.



A 121 °C

Eco

Handle Ø 7 mm.

Pic.	Colour	Spoon width (mm)	Spoon length (mm)	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
(2)	natural	14	25	140	1 x 300	**NL91.1**	300 unit(s)	61,40

Macro

Handle Ø 10 mm.

Pic.	Colour	Spoon width (mm)	Spoon length (mm)	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
(5)	green	23.5	42	310	1 x 150	**NL95.1**	150 unit(s)	60,55

Micro, anti-static

Handle Ø 3.5 mm.

Pic.	Colour	Spoon width (mm)	Spoon length (mm)	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
(1)	natural	3.5	10	140	1 x 300	**NL90.1**	300 unit(s)	43,50

Standard

Handle Ø 7 mm.

Pic.	Colour	Spoon width (mm)	Spoon length (mm)	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
(3)	blue	14	25	210	1 x 300	**NL92.1**	300 unit(s)	58,65
(4)	natural	14	25	210	1 x 300	**NL93.1**	300 unit(s)	58,65

Sterile

Sterile. Handle Ø 7 mm.

Pic.	Colour	Spoon width (mm)	Spoon length (mm)	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
(4)	natural	14	25	210	10 x 10	**NL94.1**	100 unit(s)	195,65

Spatula micro disposable

Bürkle. Material: PS.

Double scoop spatula with rounded ends, contents 1.0 and 0.25 ml. Stable and comfortable centre handle for prcise working. For filling or processing small amounts of chemicals, powders, granulates, pastes, creams or liquids.
Cleanroom-manufactured (class 7). Suitable for foodstuffs. Optionally sterile (gamma-sterilised).



Sterility	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
Non-sterile	180	1 x 100	**HEP6.1**	100 unit(s)	25,50
Sterile	180	100 x 1	**HEP7.1**	100 unit(s)	67,25

Laboratory jacks

Jack ROTILABO®

Usbeck. Material: Stainless steel, Aluminium scissor frame.

Rubber feet for slip-resistant standing position. Support plates with M10 threaded hole, e.g. for attaching the Flex clamps, Art. No. YT72.1ff (please order separately).



L x W (mm)	Height-adjustability (mm)	Moveable load (kg)	Static load (kg)	Standards	Art. No.	Pack Qty.	€
120 x 140	60–243	5	30	DIN 12897	**YT69.1**	1 unit(s)	164,50
130 x 160	60–255	7	30	DIN 12897	**T458.1**	1 unit(s)	182,75
200 x 200	60–265	7	30	DIN 12897	**T459.1**	1 unit(s)	204,25

Heavy duty version

Gas-spring assisted for easy action.

L x W (mm)	Height-adjustability	Moveable load (kg)	Static load (kg)	Standards	Art. No.	Pack Qty.	€
300 x 300	130-470 mm	12	60	DIN 12897	**YT70.1**	1 unit(s)	689,10
400 x 400	150-670 mm	15	60	DIN 12897	**YT71.1**	1 unit(s)	819,15

Jack ROTILABO® Mini

Usbeck. Material: Stainless steel, Aluminium scissor frame.

Rubber feet for slip-resistant standing position.



L x W (mm)	Height-adjustability (mm)	Moveable load (kg)	Static load (kg)	Standards	Art. No.	Pack Qty.	€
75 x 80	49–147	2	15	DIN 12897	**YT68.1**	1 unit(s)	152,80

Jack autoclavable

Bochem. Material: Stainless steel 18/10 (plates, scissor and rotary knob). Autoclavable: Yes.



A 121 °C

L x W (mm)	Height-adjustability (mm)	Moveable load (kg)	Static load (kg)	Standards	Art. No.	Pack Qty.	€
160 x 130	60–275	7	30	DIN 12897	**CHY3.1**	1 unit(s)	222,55
200 x 200	60–275	7	30	DIN 12897	**CHY4.1**	1 unit(s)	261,25
240 x 240	60–275	7	30	DIN 12897	**CHY5.1**	1 unit(s)	279,50

Laboratory jacks

Lab jack

Bochem. Material: Aluminium, powder-coated, scissor construction made of 18/10 stainless steel.

Ergonomic knob, rounded.



Type 1

With simple setting wheel, manual operation.

L x W (mm)	Height-adjustability (mm)	Moveable load (kg)	Static load (kg)	Standards	Art. No.	Pack Qty.	€
100 x 100	55–120	5	10	DIN 12897	**K578.1**	1 unit(s)	202,10
160 x 130	60–275	7	30	DIN 12897	**K579.1**	1 unit(s)	160,85
200 x 200	60–275	7	30	DIN 12897	**K580.1**	1 unit(s)	178,45
240 x 240	60–275	7	30	DIN 12897	**K581.1**	1 unit(s)	210,70

Type 2

It is recommended to use a ratchet, which is attached to a special adjusting wheel.

Delivery incl. ratchet.

L x W (mm)	Height-adjustability (mm)	Moveable load (kg)	Static load (kg)	Standards	Art. No.	Pack Qty.	€
300 x 300	90–470	12	60	DIN 12897	**0483.1**	1 unit(s)	585,90
400 x 400	90–470	15	60	DIN 12897	**K583.1**	1 unit(s)	903,00

Jack MAXI

Bochem.

Height adjustment via adjusting wheel, 30% more height thanks to extended scissor lift.



Stainless steel

Material: Stainless steel 18/10.

L x W (mm)	Height-adjustability (mm)	Moveable load (kg)	Static load (kg)	Colour	Standards	Art. No.	Pack Qty.	€
160 x 130	75–400	7	30	silver	DIN 12897	**YT34.1**	1 unit(s)	238,65
200 x 200	75–400	7	30	silver	DIN 12897	**YT35.1**	1 unit(s)	282,75

Aluminium

Material: Aluminium powder coated.

L x W (mm)	Height-adjustability (mm)	Moveable load (kg)	Static load (kg)	Colour	Standards	Art. No.	Pack Qty.	€
160 x 130	75–400	7	30	green	DIN 12897	**YT36.1**	1 unit(s)	194,60
200 x 200	75–400	7	30	green	DIN 12897	**YT37.1**	1 unit(s)	219,30

Laboratory jacks

Jack Swiss Boy

Rudolf Grauer. Material: Aluminium anodised.

- Easily adjustable
- High stability
- High load capacity



The static load is always specified at the centre position.

Standard

Type	L x W (mm)	Height-adjustability (mm)	Static load (kg)	Colour	Art. No.	Pack Qty.	€
100	40 x 50	30-91	10	green	**1A1C.1**	1 unit(s)	123,65
105	75 x 80	49-147	15	blue	**1A1K.1**	1 unit(s)	139,75
110	140 x 120	60-243	30	pink	**1A1L.1**	1 unit(s)	177,40
115	150 x 122	80-278	40	yellow	**1A1N.1**	1 unit(s)	209,65
116	216 x 180	95-398	60	blue	**1A22.1**	1 unit(s)	327,90
118	320 x 240	120-493	70	silver	**1A1E.1**	1 unit(s)	1.021,25
122	400 x 400	253-629	110	yellow/black	**1A1H.1**	1 unit(s)	2.663,85

One additional plate

The additional plate fitted on the jack offers a larger mounting surface. Dimensions (L x W) are overall dimensions including additional plate.

Delivery incl. additional plate (fitted).

Type	L x W (mm)	Height-adjustability	Static load (kg)	Colour	Art. No.	Pack Qty.	€
110+	200 x 200	60-243	30	pink	**1A1P.1**	1 unit(s)	229,00
115+	200 x 200	80-278	40	yellow	**1A25.1**	1 unit(s)	261,25
118+	500 x 400	120-493	70	silver	**1A23.1**	1 unit(s)	1.269,60
110+	300 x 300	60-243	30	pink	**1A1X.1**	1 unit(s)	258,00
115+	300 x 300	80-278	40	yellow	**1A27.1**	1 unit(s)	291,35
110+	260 x 180	60-243	30	pink	**1A20.1**	1 unit(s)	241,90
115+	260 x 180	80-278	40	yellow	**1A29.1**	1 unit(s)	274,15

Two additional plates

The two additional plates (fitted at the top and bottom of the jack) provide a larger mounting surface and improved stability. Dimensions (L x W) are overall dimensions including additional plates.

Delivery incl. additional plate (fitted).

Type	L x W (mm)	Height-adjustability	Static load (kg)	Colour	Art. No.	Pack Qty.	€
110+	200 x 200	60-243	30	pink	**1A1T.1**	1 unit(s)	278,45
115+	200 x 200	80-278	40	yellow	**1A26.1**	1 unit(s)	310,70
118+	500 x 400	120-493	70	silver	**1A24.1**	1 unit(s)	1.517,90
110+	300 x 300	60-243	30	pink	**1A1Y.1**	1 unit(s)	339,70
115+	300 x 300	80-278	40	yellow	**1A28.1**	1 unit(s)	373,05
110+	260 x 180	60-243	30	pink	**1A21.1**	1 unit(s)	306,40
115+	260 x 180	80-278	40	yellow	**1A2A.1**	1 unit(s)	338,65

With rollers

Delivery incl. rollers.

Type	L x W (mm)	Height-adjustability	Static load (kg)	Colour	Art. No.	Pack Qty.	€
122R	400 x 400	317-693	90	yellow/black	**1A1A.1**	1 unit(s)	2.676,75



H-stand

Bochem. Material: Aluminium, base made of grey cast iron.

Support rods Ø 12 mm.

Delivery incl. base, 3 stand rods 80 cm, 2 stand rods 50 cm and 6 boss heads.

Width (mm)	Depth (mm)	Height (mm)	Weight (kg)	Art. No.	Pack Qty.	€
500	250	800	6,5	**CHH2.1**	1 unit(s)	323,60



H-stand

IKA.

Suitable for larger, heavy devices and structures such as stirrers. Tilt-resistant thanks to H-base. With balance screw to compensate for uneven surfaces on the laboratory table.
Support rods-Ø: 34 mm. Max. weight load: 10 kg.

Type	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
R 2722	460	420	1,010	**CC16.1**	1 unit(s)	756,00

Height-adjustable
With compression sprung telescopic support rod for smoothly moving heavy devices or structures up and down. Lifting height: 390 mm.

Type	Width (mm)	Depth (mm)	Height-adjustability (mm)	Art. No.	Pack Qty.	€
R 2723	460	420	620-1010	**CC17.1**	1 unit(s)	1.402,00



H-tripod S2 series

Heidolph. Material: Stainless steel V2A.

The support rod is additionally secured with a nut which prevents it from being unscrewed accidentally. With levelling screw to compensate for unevenness. Max. weight load: 4 kg.

(1) Standard
Tripod rods-Ø 25 mm.

Type	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
S2	345	420	700	**TL67.1**	1 unit(s)	286,00
S2 XXL	345	420	1,000	**TL68.1**	1 unit(s)	323,00

(2) Tele
With extendable tripod rod from 725 to 1025 mm.
Support rods-Ø 32 mm.

Type	Width (mm)	Depth (mm)	Height-adjustability (mm)	Art. No.	Pack Qty.	€
Tele S2	345	420	725–1025	**TL69.1**	1 unit(s)	652,00



Plate stands

IKA. Material: Stainless steel, tripod plate epoxy coated, rubber pad.

With slip-resistant foil on the plate. The support rod is additionally secured with a nut under the plate which prevents it from being unscrewed accidentally. Support rod-Ø: 16 mm. Max. weight load: 5 kg.

Type	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
R 1825	200	316	560	**CC13.1**	1 unit(s)	315,00
R 1826	200	316	800	**CC14.1**	1 unit(s)	347,00
R 1827	200	316	1,000	**CC15.1**	1 unit(s)	370,00

Stand material



Stand plate with rods

Kartell. Material: PP, Rods made of chrome-plated steel.

Stand plate height 15 mm. Stand rod length 250 mm, Ø 12 mm, can be screwed together to increase the overall height.

Delivery incl. two support rods.

Version	Width (mm)	Depth (mm)	Height-adjustability (mm)	Art. No.	Pack Qty.	€
Central insertion opening	300	150	>250	**TT24.1**	1 unit(s)	84,00
Side insertion opening	150	300	>250	**TT25.1**	1 unit(s)	80,20



Flexible stand ROTILABO®

Usbeck. Material: Die-cast zinc, Brass, nickel-plated.

With safety base.
Length 300 mm.

Version	Span (mm)	Art. No.	Pack Qty.	€
3 prong	0–40	**X094.1**	1 unit(s)	46,00
round	12–25	**X095.1**	1 unit(s)	44,75



Flex clamp ROTILABO® with M 10 thread

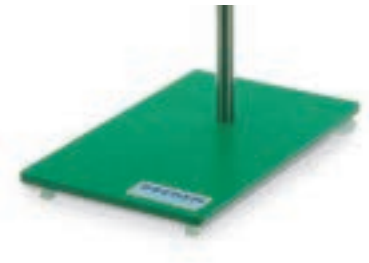
Usbeck. Material: Die-cast zinc, Brass nickel-plated.

For use on lifting platforms (Art. No. YT69.1ff) or stand plates with M 10 thread (e.g. Art. No. X072.1ff).

Technical specifications:

Art. No.	YT72.1	YT73.1
Total length	300 mm	

Version	Span (mm)	Art. No.	Pack Qty.	€
3 prong	0–40	**YT72.1**	1 unit(s)	35,65
round	12–25	**YT73.1**	1 unit(s)	35,45



Stand plates classic

Bochem. Material: Steel, powder-coated.

Acc. to DIN 12892.
With M10 threaded hole in the centre of the face side.
Stable position, with four feet, one adjustable foot.

Delivery without stand rod, please order separately.

Width (mm)	Depth (mm)	Weight (g)	Art. No.	Pack Qty.	€
130	210	1300	**2369.1**	1 unit(s)	38,20
150	300	2200	**2376.1**	1 unit(s)	45,90
160	250	2000	**2375.1**	1 unit(s)	44,70
200	315	3000	**2377.1**	1 unit(s)	57,60



Stand plates ROTILABO® high form

ROTH SELECTION. Material: Stainless steel 18/10 (material 1.4301).

With four anti-slip feet for safe positioning. M 10 threaded hole in the centre of the face side. Ground clearance 28 mm.

Width (mm)	Depth (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
130	210	33	1600	**EPA1.1**	1 unit(s)	67,30
150	300	33	2500	**EPA2.1**	1 unit(s)	89,80



Stand plates stable position

Bochem. Material: Stainless steel 18/10 (material 1.4301-5, AISI type 304-303), anti-magnetic.

Acc. to DIN 12892. Wide, heavy adjusting feet with non-slip rubber surface for high stability, 1 adjustable foot to compensate for uneven surfaces. M10 threaded hole in the centre of the face side.

Delivery without stand rod, please order separately.

Width (mm)	Depth (mm)	Weight (g)	Art. No.	Pack Qty.	€
130	210	1600	**C851.1**	1 unit(s)	139,20
150	300	2000	**C853.1**	1 unit(s)	152,05
160	250	1900	**C852.1**	1 unit(s)	143,95
200	315	2400	**C854.1**	1 unit(s)	165,55

Stand material



Stand plates ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (material 1.4301).

With four adjustable feet made of plastic. M 10 threaded hole in the centre of the face side.

Width (mm)	Depth (mm)	Weight (g)	Art. No.	Pack Qty.	€
100	180	850	**ENY4.1**	1 unit(s)	55,75
142	220	1470	**ENY5.1**	1 unit(s)	72,65
142	250	1670	**ENY6.1**	1 unit(s)	79,95
142	285	1900	**ENY7.1**	1 unit(s)	86,40
165	330	2600	**ENY9.1**	1 unit(s)	104,15
200	315	2970	**ENY8.1**	1 unit(s)	112,15



Tripods ROTILABO®

Usbeck. Material: Steel, powder-coated.

With M10 threaded hole.
Rubber feet for stability.

Arm length (mm)	Art. No.	Pack Qty.	€
80	**X072.1**	1 unit(s)	24,85
115	**X075.1**	1 unit(s)	28,00
150	**X076.1**	1 unit(s)	34,30
185	**X077.1**	1 unit(s)	41,05



Tripods ROTILABO®

Usbeck. Material: Steel, powder-coated.

Fixing of the rods with locking screw M 6.

- For rods up to Ø 13 mm
- Rubber feet for stability

Arm length (mm)	Art. No.	Pack Qty.	€
80	**X078.1**	1 unit(s)	31,35
115	**X079.1**	1 unit(s)	35,95
150	**X080.1**	1 unit(s)	45,40
185	**X081.1**	1 unit(s)	49,10



Tripod duo

Usbeck. Material: Steel, powder-coated.

- For two rods up to Ø 16 mm
- M 6 joint screws
- Anti-slip adjustable feet

Arm length (mm)	Art. No.	Pack Qty.	€
150	**1A05.1**	1 unit(s)	54,60
185	**1A06.1**	1 unit(s)	74,20



Stand base

Bochem. Material: Aluminium alloy (Laboral).

For stand rod-Ø 12-13 mm. Secured by socket head screw.
Base Ø 50 mm. With three screw holes.

Delivery without mounting material.

Version	Art. No.	Pack Qty.	€
For wall/ceiling attachment	**CHE9.1**	1 unit(s)	46,45



Stand base

Bochem. Material: Malleable cast iron.

For up to three Ø 12 mm stand rods. Rods are secured by slotted-head screws. Base Ø 80 mm. With four screw holes.

Delivery without bounting material.

Version	Art. No.	Pack Qty.	€
For wall/ceiling attachment	**CHE8.1**	1 unit(s)	25,40

Stand material



Burette stand

Bochem. Material: Grey cast iron, stainless steel stand rod (18/10), plastic plates.

For fastening 1-2 burettes using burette clamps (please order separately).

- Stand rod length 600 mm, Ø 10 mm
- Plate Ø 105 mm

Delivery incl. stand rod and 2 plates (black and white).

Width (mm)	Depth (mm)	Platform height (mm)	Total height (mm)	Weight (kg)	Art. No.	Pack Qty.	€
300	130	15	620	1,975	**1C4C.1**	1 unit(s)	103,90



Table clamp ROTILABO®

Usbeck. Material: Aluminium powder-coated.

For rods up to Ø 13 mm and table plates up to 60 mm thick.

Weight (g)	Art. No.	Pack Qty.	€
340	**X082.1**	1 unit(s)	36,75



Stand rods

Usbeck. Material: Steel stainless (material 1.4305), solid.

With M10 thread.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
600	10	**2378.1**	1 unit(s)	19,90
750	12	**2379.1**	1 unit(s)	21,45
1,000	12	**2380.1**	1 unit(s)	27,65
1,250	12	**2381.1**	1 unit(s)	32,45
1,500	16	**2382.1**	1 unit(s)	45,90



Stand rods ROTILABO®

ROTH SELECTION. Material: Stainless steel stainless (material 1.4305), polished.

With M10 thread.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
450	12	**CHC9.1**	1 unit(s)	17,35
500	12	**CHE0.1**	1 unit(s)	21,40
600	12	**P110.1**	1 unit(s)	26,00
750	12	**P111.1**	1 unit(s)	30,25
1,000	12	**P112.1**	1 unit(s)	37,65
1,250	12	**P113.1**	1 unit(s)	46,35
1,500	12	**P114.1**	1 unit(s)	53,25



Stand rods ROTILABO® without thread

ROTH SELECTION. Material: Stainless steel stainless (material 1.4305), polished.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
450	12	**CHE1.1**	1 unit(s)	17,45
500	12	**CHE2.1**	1 unit(s)	18,60
600	12	**CHE3.1**	1 unit(s)	22,00
750	12	**CHE4.1**	1 unit(s)	25,20
1,000	12	**CHE5.1**	1 unit(s)	31,50
1,250	12	**CHE6.1**	1 unit(s)	37,85
1,500	12	**CHE7.1**	1 unit(s)	43,95



Double boss heads rectangular

Bochem. Material: Malleable cast iron, chrome-plated.

90° angle. With clamping screws.

Suitable for	Art. No.	Pack Qty.	€
Tripod rods up to Ø 16.5 mm	**2134.1**	1 unit(s)	18,65
Tripod rods up to Ø 20 mm	**2135.1**	1 unit(s)	17,45
Tripod rods up to Ø 36 mm	**2179.1**	1 unit(s)	30,75



Double boss heads square

Bochem.

For connecting 2 stand rods Ø 12-13 mm at an angle of 90°. With hexagon socket screws. Angles from 0-360° can be set by connecting two double boss heads using a connecting rod.

Delivery without connecting rod, please order separately.

Materialspecification	Suitable for	Art. No.	Pack Qty.	€
stainless steel 18/10	Tripod rods Ø 12-13 mm	**CHX6.1**	1 unit(s)	48,95
Aluminium alloy (Laboral)	Tripod rods Ø 12-13 mm	**CHX7.1**	1 unit(s)	21,75



Double boss head rectangular Aluminium

Bochem. Material: Aluminium.

Angle 90 °. With clamping screw, M8 thread.

Suitable for	Art. No.	Pack Qty.	€
Stand rods up to Ø 16.5 mm	**1C4E.1**	1 unit(s)	13,40



Cross double boss head

Bochem. Material: Malleable cast iron, chrome-plated.

90/180° angle. With clamping screws.

Suitable for	Art. No.	Pack Qty.	€
Tripod rods up to Ø 16.5 mm	**2194.1**	1 unit(s)	20,50



Clamp stainless steel

Bochem. Material: Stainless steel 18/10.

With heart-shaped safety screws.

Suitable for	Art. No.	Pack Qty.	€
Stand rods up to Ø 16.5 mm	**XT63.1**	1 unit(s)	70,95



Double boss head rotatable

Usbeck. Material: Die-cast zinc powder-coated, with nickel-plated brass clamping screws.

Suitable for	Art. No.	Pack Qty.	€
Rods up to Ø 16 mm	**2136.1**	1 unit(s)	22,20



Double boss head rotatable atainless steel

Bochem. Material: Stainless steel (18/10).

Angle 0-360 °. With heart-shaped safety screws, M6 thread.

Suitable for	Art. No.	Pack Qty.	€
Stand rods up to Ø 16 mm	**1C5E.1**	1 unit(s)	116,80

Stand material



Ball sleeves

Usbeck. Material: Die-cast zinc, with nickel-plated articulated screws.
Ball Ø 35 mm.

Materialspecification	Suitable for	Art. No.	Pack Qty.	€
unvarnished	Rods up to Ø 13 mm	**PH47.1**	1 unit(s)	11,35
nickel-plated	Rods up to Ø 13 mm	**PH48.1**	1 unit(s)	13,60
powder-coated	Rods up to Ø 13 mm	**PH46.1**	1 unit(s)	11,10



Hook boss heads

Usbeck.
For securely connecting stand rods or clamps to rods at a right angle.
Powder-coated steel with nickel-plated brass screw and plastic handle.

Materialspecification	Suitable for	Art. No.	Pack Qty.	€
Stainless steel	Tripod rods up to Ø 13 mm	**E040.1**	1 unit(s)	22,55
Steel powder coated	Tripod rods up to Ø 13 mm	**E039.1**	1 unit(s)	13,95



Cross double boss head

Bochem. Material: Aluminium.
90° angle. With easily accessible clamping screws.

Suitable for	Art. No.	Pack Qty.	€
Stand rods up to Ø 16.5 mm	**P179.1**	1 unit(s)	14,65



Universal clamp

Usbeck. Material: Aluminium powder-coated, nickel-plated brass clamping screws.
90/180° angle.

Suitable for	Art. No.	Pack Qty.	€
Stand rods up to Ø 13 mm	**P178.1**	1 unit(s)	21,10



Clamps

IKA. Material: Aluminium (cast).

R 270
Suitable for tripod type R 2722, R 2723.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	Tripod rods Ø 25-36 mm, extension arms Ø 5-21 mm	**CC18.1**	1 unit(s)	130,00

R 182
Suitable for tripod type R 1825, R 1826, R 1827.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(2)	Tripod rods Ø 6-12 mm, extension arms Ø 6-16 mm	**CY92.1**	1 unit(s)	99,00



Universal boss head GIROFIX rotatable

Bochem. Material: Aluminium.

Angle 0–360 °.

Suitable for	Art. No.	Pack Qty.	€
Stand rods up to Ø 15 mm	**1C4K.1**	1 unit(s)	53,75

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Three-angle boss head

Bochem. Material: Aluminium (Duraluminium alloy).

Angle 90 + 180 + 270 °. Suitable for three-dimensional constructions and constructions across multiple levels.

Suitable for	Art. No.	Pack Qty.	€
Stand rod Ø 9-13 mm	**1C4L.1**	1 unit(s)	17,95
Stand rod Ø 19-23 mm	**1C4N.1**	1 unit(s)	32,55



Frame boss head

Bochem. Material: Malleable cast iron.

Angle 90 °. With ring bolt, M6 thread.

Suitable for	Art. No.	Pack Qty.	€
Stand rods up to Ø 13 mm	**1C4H.1**	1 unit(s)	13,20



Stand clamp universal

ROTH SELECTION.

4-finger jaws.

Technical specifications:

Art. No.	KX88.1	KX89.1
Total length	240 mm	

Stainless steel

Material: Stainless steel 18/10 (Remanit 4301), clamps with cork inlays.

Pic.	Version	Span (mm)	Art. No.	Pack Qty.	€
(1)	Four finger	90	**KX88.1**	1 unit(s)	53,60

Die-cast zinc

Material: Die-cast zinc clamps with cork inlays.

Pic.	Version	Span (mm)	Art. No.	Pack Qty.	€
(2)	Four finger	80	**KX89.1**	1 unit(s)	20,65

Stand material



Stand clamp universal Aluminium

Bochem. Material: Aluminium, clamps with cork inlays.
4-finger jaws.

Technical specifications:

Art. No.	1C50.1
Shaft length	180 mm
Ø Shaft	12 mm

Version	Span (mm)	Pack.	Art. No.	Pack Qty.	€
Four-finger	0-80	1 piece	**1C50.1**	1 unit(s)	17,35



Stand clamp large span

Bochem.
Acc. to DIN 12894.

Stainless steel
Material: Stainless steel 18/10, clamps with cork inlays.

Version	Span (mm)	Art. No.	Pack Qty.	€
round	80	**CHL9.1**	1 unit(s)	40,80
round	100	**CHN0.1**	1 unit(s)	62,35
round	120	**CHN1.1**	1 unit(s)	68,65
round	150	**CHN2.1**	1 unit(s)	89,05

Galvanised steel
Material: Steel galvanised, clamps with cork inlays.

Version	Span (mm)	Art. No.	Pack Qty.	€
round	80	**CHL5.1**	1 unit(s)	25,45
round	100	**CHL6.1**	1 unit(s)	30,60
round	120	**CHL7.1**	1 unit(s)	34,35
round	150	**CHL8.1**	1 unit(s)	39,45



Stand clamp with boss head

Usbeck. Material: Die-cast zinc powder-coated, clamps with cork inlays.

Technical specifications:

Art. No.	X083.1	X084.1	X086.1
Total length	185 mm	195 mm	200 mm

Version	Span (mm)	Art. No.	Pack Qty.	€
round	12–25	**X083.1**	1 unit(s)	16,20
round	20–40	**X084.1**	1 unit(s)	17,35
round	38–60	**X086.1**	1 unit(s)	20,25



Stand clamp

Usbeck. Material: Die-cast zinc powder-coated, clamps with cork inlays.

Technical specifications:

Art. No.	P172.1	P174.1	P175.1
Ø Shaft	10 mm		

Version	Span (mm)	Art. No.	Pack Qty.	€
square	10–25	**P172.1**	1 unit(s)	13,40
square	13–40	**P174.1**	1 unit(s)	14,20
square	26–60	**P175.1**	1 unit(s)	15,60



Stand clamp die-cast zinc

Usbeck. Material: Die-cast zinc powder-coated, clamps with cork inlays.

Technical specifications:

Art. No.	1993.1	1995.1	1998.1
Ø Shaft	10 mm		

Version	Span (mm)	Art. No.	Pack Qty.	€
round	12–25	**1993.1**	1 unit(s)	14,30
round	20–40	**1995.1**	1 unit(s)	15,40
round	38–60	**1998.1**	1 unit(s)	17,60

Stand material



Stand clamp stainless steel

Bochem. Material: Stainless steel 18/10, clamps with cork inlays.
With two round jaws.

Technical specifications:

Art. No.	2000.1	2004.1	2007.1	P177.1
Shaft length	150 mm			180 mm
Ø Shaft	10 mm			12 mm

Version	Span (mm)	Art. No.	Pack Qty.	€
round	20–25	**2000.1**	1 unit(s)	30,30
round	25–40	**2004.1**	1 unit(s)	33,00
round	50–60	**2007.1**	1 unit(s)	35,75
round	40–80	**P177.1**	1 unit(s)	40,80



NEW/+

Stand clamp adjustable

Bochem.
Clamping width can be adjusted independently of each other using 2 adjusting screws.

Technical specifications:

Art. No.	1C4P.1	1C4X.1	1C4T.1
Shaft length	125 mm	140 mm	
Ø Shaft	8 mm	12 mm	

Stainless steel
Material: Stainless steel (18/10), jaws coated with silicone.

Version	Span (mm)	Art. No.	Pack Qty.	€
round	8-30	**1C4P.1**	1 unit(s)	95,45
round	20-75	**1C4T.1**	1 unit(s)	186,00

Aluminium
Material: Aluminium (Laboral alloy), jaws coated with PVC.

Version	Span (mm)	Art. No.	Pack Qty.	€
round	22-70	**1C4X.1**	1 unit(s)	65,75



Stand clamp universal swivelling

ROTH SELECTION. Material: Die-cast zinc powder-coated, clamps with cork inlays.
4-finger jaws. Swivel range 180°.

Technical specifications:

Art. No.	YP54.1
Total length	275 mm
Shaft length	150 mm
Ø Shaft	10 mm

Version	Span (mm)	Art. No.	Pack Qty.	€
Four finger	0–80	**YP54.1**	1 unit(s)	43,25



Flex clamp ROTILABO®

Bochem.

Technical specifications:

Art. No.	C863.1	C864.1	C865.1	C866.1	C867.1
Shaft length	250 mm	200 mm	250 mm		200 mm
Ø Shaft	12 mm				8 mm

Delivery without order boss.

Laboral
Material: Aluminium alloy, Nickel-plated shaft.

Pic.	Version	Span (mm)	Art. No.	Pack Qty.	€
(2)	round	15–65	**C864.1**	1 unit(s)	220,40
(5)	Three-Fingered	0–30	**C867.1**	1 unit(s)	163,40

Stainless steel
Material: Stainless steel 18/10, Nickel-plated shaft.

Pic.	Version	Span (mm)	Art. No.	Pack Qty.	€
(1)	round	25–40	**C863.1**	1 unit(s)	133,90
(3)	rectangular	25–40	**C865.1**	1 unit(s)	133,90
(4)	Three-Fingered	0–20	**C866.1**	1 unit(s)	133,90

Stand material



Flex clamp ROTILABO® with rotatable boss head

Usbeck. Material: Die-cast zinc, Brass, nickel-plated.

Technical specifications:

Art. No.	X087.1	X088.1
Total length	300 mm	

Version	Span (mm)	Suitable for	Art. No.	Pack Qty.	€
3 prong	0–40	Rods up to Ø 16 mm	**X087.1**	1 unit(s)	44,30
round	12–25	Rods up to Ø 16 mm	**X088.1**	1 unit(s)	45,70



Stand clamp ROTILABO® three-finger type

Usbeck. Material: Die-cast zinc powder-coated, plastic-coated fingers.

Technical specifications:

Art. No.	X096.1	X097.1	X098.1
Total length	225 mm		250 mm
Shaft length	140 mm		
Ø Shaft	8 mm	10 mm	

Version	Span (mm)	Art. No.	Pack Qty.	€
Three-finger	0–40	**X096.1**	1 unit(s)	12,00
Three-finger	0–40	**X097.1**	1 unit(s)	12,65
Three-finger	25–80	**X098.1**	1 unit(s)	19,95



Stand clamp ROTILABO® three-finger type

Bochem. Material: Stainless steel 18/10, silicone-coated fingers.

Technical specifications:

Art. No.	CHN3.1	C827.1
Total length	320 mm	340 mm
Shaft length	190 mm	
Ø Shaft	12 mm	

Pic.	Version	Span (mm)	Art. No.	Pack Qty.	€
(1)	Three-finger	0–80	**CHN3.1**	1 unit(s)	84,05
(2)	Three-finger	0–120	**C827.1**	1 unit(s)	162,35



Stand clamp three-finger type adjustable

Bochem. Material: Aluminium (Laboral alloy), jaws coated with PVC. Clamping width can be adjusted independently of each other using 2 adjusting screws.

Technical specifications:

Art. No.	1C4Y.1
Shaft length	140 mm
Ø Shaft	12 mm

Version	Span (mm)	Art. No.	Pack Qty.	€
Three finger	12-100	**1C4Y.1**	1 unit(s)	75,55



Stand clamp ROTILABO® four-finger type

Bochem. Material: Stainless steel 18/10, silicone-coated fingers.

Technical specifications:

Art. No.	CHN6.1
Total length	360 mm
Shaft length	190 mm
Ø Shaft	12 mm

Version	Span (mm)	Art. No.	Pack Qty.	€
Four-finger	50–150	**CHN6.1**	1 unit(s)	113,40



Stand clamp ROTILABO® cooler clamps

Bochem. Material: Malleable cast iron chrome-plated, clamp fingers with silicone coating.

With movable shaft.

Technical specifications:

Art. No.	C826.1
Shaft length	150 mm
Ø Shaft	12 mm

Version	Span (mm)	Art. No.	Pack Qty.	€
Cooler clamp	50–100	**C826.1**	1 unit(s)	44,05



Stand clamp MAXI

Bochem. Material: Steel (chrome-plated), jaws with fibreglass coating.

To securely fix beakers.

Technical specifications:

Art. No.	1C51.1
Total length	400 mm
Shaft length	210 mm

Version	Span (mm)	Art. No.	Pack Qty.	€
Beaker holder	80-180	**1C51.1**	1 unit(s)	268,75



A 121 °C

Universal holder ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Suitable for fixing or connecting measuring probes, hoses and thermometers to beakers or Erlenmeyer flasks. The white holder has an additional opening.

Colour	Span (mm)	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
green	10, 12, 15	85	22	**C535.1**	5 unit(s)	26,00
white	6, 7, 9, 11	100	15	**C534.1**	5 unit(s)	45,35
orange	7, 9, 11	70	15	**C533.1**	5 unit(s)	18,95



A 121 °C

Clamping tongs

Hammacher. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

Jaws ribbed on inside for better grip.

Production-related indentations do not affect the functionality.

Length (mm)	Art. No.	Pack Qty.	€
200	**YL66.1**	1 unit(s)	58,05
280	**YL67.1**	1 unit(s)	59,60

Stand material



Stand clamp chain clamps

Usbeck.

With cork inlay. For fastening flasks and other laboratory vessels.

Technical specifications:

Art. No.	E050.1	E051.1	E052.1
Shaft length	200 mm		
Ø Shaft	10 mm		

Version	Suitable for	Art. No.	Pack Qty.	€
Chain clamps	Container-Ø 40-120 mm	**E050.1**	1 unit(s)	51,55
Chain clamps	Container-Ø 80-150 mm	**E051.1**	1 unit(s)	52,30
Chain clamps	Container-Ø 100-170 mm	**E052.1**	1 unit(s)	52,75



Stand clamp telt clamp type

Usbeck. Material: Aluminium powder-coated, Handle made of nickel-plated steel.

With eccentric lock and cork inlay.
Belt length 600 mm, width 12 mm.

Technical specifications:

Art. No.	PH45.1
Shaft length	195 mm
Ø Shaft	10 mm

Version	Suitable for	Art. No.	Pack Qty.	€
Belt clamp	Vessel Ø 60 to 170 mm	**PH45.1**	1 unit(s)	49,30



Stand ring ROTILABO® with opening

Bochem. Material: Stainless steel 18/10.

Technical specifications:

Art. No.	CHN7.1	CHN8.1	CHN9.1
Total length	220 mm	280 mm	330 mm
Shaft length	160 mm	200 mm	220 mm
Ø Shaft	8 mm		

Version	Ø Internal (mm)	Ø ext. (mm)	Opening width (mm)	Art. No.	Pack Qty.	€
Stand ring	50	68	35	**CHN7.1**	1 unit(s)	24,30
Stand ring	70	87	50	**CHN8.1**	1 unit(s)	24,30
Stand ring	100	120	70	**CHN9.1**	1 unit(s)	27,20



Stand ring ROTILABO® with three-point support

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301), electrolytically polished.

Technical specifications:

Art. No.	C882.1	C883.1	C884.1	C885.1	C886.1
Total length	210 mm	240 mm	255 mm	290 mm	330 mm
Shaft length	150 mm		145 mm		155 mm
Ø Shaft	8 mm				

Version	Ø Internal (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Stand ring	50	65	**C882.1**	1 unit(s)	17,15
Stand ring	70	85	**C883.1**	1 unit(s)	18,95
Stand ring	100	115	**C884.1**	1 unit(s)	19,65
Stand ring	130	145	**C885.1**	1 unit(s)	23,15
Stand ring	160	175	**C886.1**	1 unit(s)	25,40

Stand material

Stand ring

Usbeck.



Technical specifications:

Art. No.	2206.1	2264.1	2210.1	2265.1	2211.1	2283.1	2336.1	2262.1
Total length	235 mm	240 mm	250 mm	255 mm	265 mm	270 mm	280 mm	300 mm
Shaft length	165 mm	70 mm	150 mm	55 mm	135 mm	40 mm	35 mm	135 mm
Ø Shaft	8 mm							

With three-point support
Material: Steel galvanised.

Version	Ø Internal (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Stand ring	54	70	**2206.1**	1 unit(s)	12,10
Stand ring	84	100	**2210.1**	1 unit(s)	13,40
Stand ring	114	130	**2211.1**	1 unit(s)	16,35
Stand ring	130	146	**2262.1**	1 unit(s)	16,35

With three-point support and boss head
Material: Steel galvanised, boss head with brass screw, nickel-plated.

Version	Ø Internal (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Stand ring	54	70	**2264.1**	1 unit(s)	19,50
Stand ring	84	100	**2265.1**	1 unit(s)	21,25
Stand ring	114	130	**2283.1**	1 unit(s)	23,05
Stand ring	130	146	**2336.1**	1 unit(s)	23,45

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Stand material



Burette holder ROTILABO®

Usbeck. Material: Die-cast zinc nickel-plated.

Version	Span (mm)	Suitable for	Art. No.	Pack Qty.	€
for 1 burette	0–40	Rods up to Ø 16 mm	**2048.1**	1 unit(s)	28,15
for 2 burettes	0–40	Rods up to Ø 16 mm	**2129.1**	1 unit(s)	40,15



Burette holder

Kartell. Material: PP, with rubber grips and steel springs.

Lateral mounting provides for excellent burette readability.

Version	Suitable for	Art. No.	Pack Qty.	€
For 1 burette	Stand rod Ø 8–14 mm	**PY63.1**	1 unit(s)	29,75
For 2 burettes	Stand rod Ø 8–14 mm	**PY64.1**	1 unit(s)	35,85



Burette holder

Usbeck. Material: Aluminium (die-cast).

With roll mounting. Lateral mounting provides for excellent burette readability.

Version	Span (mm)	Art. No.	Pack Qty.	€
for 1 burette	0–20	**PH49.1**	1 unit(s)	32,75
for 2 burettes	0–20	**PH50.1**	1 unit(s)	43,45



Thermometer clamp

Bochem.

With adjustable boss head (Angle 0–360 °).

Version	Span (mm)	Art. No.	Pack Qty.	€
Thermometer clamp	6-15	**1C52.1**	1 unit(s)	34,60



Holding pliers

Bochem. Material: Stainless steel (18/10, electrolytically polished).

For evaporating dishes.

Span (mm)	Art. No.	Pack Qty.	€
75-100	**1C55.1**	1 unit(s)	22,50
100-250	**1C56.1**	1 unit(s)	23,05



Beaker tongs

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301), with cork inserts.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
30	200	**YP93.1**	1 unit(s)	25,55
40	220	**YP94.1**	1 unit(s)	25,85
50	250	**YP95.1**	1 unit(s)	26,30
60	300	**YP96.1**	1 unit(s)	26,50



Beaker tongs ROTILABO® ceramic

ROTH SELECTION. Material: Stainless steel 18/10, jaws covered with ceramic coating.

For Ø 60 to 150 mm.

Length (mm)	Art. No.	Pack Qty.	€
330	**6150.1**	1 unit(s)	31,95



Flask tongs ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10, electrolytically polished, with cork inserts.

For Ø 15 to 60 mm.

Length (mm)	Art. No.	Pack Qty.	€
230	**6160.1**	1 unit(s)	29,70



A 121 °C

Clamping tongs Hünebeck

Hammacher. Material: Stainless steel Wironit, anti-magnetic, acid-resistant. Autoclavable: Yes.

Jaws ribbed on inside for better grip.

Length (mm)	Art. No.	Pack Qty.	€
195	**HCN7.1**	1 unit(s)	58,20



Flask tongs ROTILABO®

Usbeck. Material: Stainless steel, plastic-coated.

Pic.	Span (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	45-70	300	**X100.1**	1 unit(s)	20,70
(2)	17-60	220	**X101.1**	1 unit(s)	22,60



Beaker tongs ROTILABO®

Usbeck. Material: Stainless steel, with PVC coating.

Span (mm)	Length (mm)	Art. No.	Pack Qty.	€
40–100	250	**X099.1**	1 unit(s)	16,80



A 121 °C

Crucible tongs

Hammacher. Material: Stainless steel Remanit 4301. Autoclavable: Yes.

Double curved, with scissor movement, notched inner surface.

Span (mm)	Length (mm)	Art. No.	Pack Qty.	€
65	200	**YL62.1**	1 unit(s)	21,65
65	250	**YL63.1**	1 unit(s)	21,95
130	400	**YL64.1**	1 unit(s)	30,70
130	600	**YL65.1**	1 unit(s)	35,30

Tongs, clips and holders



A 121 °C

Crucible tongs ROTILABO®

ROTH SELECTION. Material: Stainless steel Remanit 4301, electrolytically polished. Autoclavable: Yes.

Double curved.

Riveted

Length (mm)	Art. No.	Pack Qty.	€
200	**3214.1**	1 unit(s)	11,65
220	**3221.1**	1 unit(s)	12,15
250	**3228.1**	1 unit(s)	12,55
300	**3231.1**	1 unit(s)	12,65
400	**3232.1**	1 unit(s)	21,80
500	**3236.1**	1 unit(s)	22,20
600	**3237.1**	1 unit(s)	22,00

Bolted

Length (mm)	Art. No.	Pack Qty.	€
200	**3240.1**	1 unit(s)	24,70
220	**3241.1**	1 unit(s)	26,25
300	**3271.1**	1 unit(s)	27,40



Crucible tongs

Hammacher. Material: Stainless steel Remanit 4301.

Cuvette forceps.

Length (mm)	Art. No.	Pack Qty.	€
550	**YL61.1**	1 unit(s)	56,65



Clamping tongs ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10.

Span (mm)	Length (mm)	Art. No.	Pack Qty.	€
71	355	**0065.1**	1 unit(s)	32,00



A 121 °C

Test tube holder

Hammacher. Material: Stainless steel (1.4301). Autoclavable: Yes.

Span (mm)	Length (mm)	Art. No.	Pack Qty.	€
25	75	**KAT2.1**	1 unit(s)	49,15



A 121 °C

Mercury tongs ROTILABO®

Bochem. Material: Stainless steel 18/10. Autoclavable: Yes.

Length (mm)	Weight (g)	Art. No.	Pack Qty.	€
220	140	**1551.1**	1 unit(s)	20,25



Tube tongs ROTILABO®

Usbeck. Material: Die-cast zinc, nickel-plated, plastic-coated handle.

Width (mm)	Art. No.	Pack Qty.	€
55	**X102.1**	1 unit(s)	37,40

Weighing rings



Weighting ring ROTILABO®

ROTH SELECTION. Material: Lead (Core), cover made of vinyl.

To stabilise volumetric flasks and Erlenmeyer flasks in a water bath and during stirring processes.

Closed type

Ø Internal (mm)	Suitable for	Weight (g)	Art. No.	Pack Qty.	€
48	Erlenmeyer flask 125-500 ml	270	**CY71.1**	1 unit(s)	40,65
51	Erlenmeyer flask 250-1000 ml	500	**CY72.1**	1 unit(s)	45,80
57	Erlenmeyer flask 500-2000 ml	700	**CY73.1**	1 unit(s)	51,15
70	Erlenmeyer flask 1000-4000 ml	840	**CY74.1**	1 unit(s)	55,30

Open type

Ø Internal (mm)	Suitable for	Weight (g)	Art. No.	Pack Qty.	€
42	Erlenmeyer flask 125-500 ml	200	**CY81.1**	1 unit(s)	45,35
51	Erlenmeyer flask 250-1000 ml	480	**CY82.1**	1 unit(s)	51,15
54	Erlenmeyer flask 500-2000 ml	660	**CY83.1**	1 unit(s)	55,30
66	Erlenmeyer flask 1000-4000 ml	930	**CY84.1**	1 unit(s)	62,70



Weighting ring ROTILABO® with holder

ROTH SELECTION. Material: Lead (Core), cover made of vinyl, clips made of stainless steel.

Ideal in water baths, circulation thermostats, etc., as the water is able to circulate under the glass.

Ø Internal (mm)	Suitable for	Weight (g)	Art. No.	Pack Qty.	€
80	Cup 250 ml	237	**K989.1**	1 unit(s)	166,65



Weighting ring ROTILABO® open type

ROTH SELECTION. Material: Lead (Core), PVC cover.

For stabilising Erlenmeyer flasks, volumetric flasks, etc. in water baths.

Technical specifications:

Art. No.	L076.1	L078.1	L079.1	L075.1	L077.1	L080.1
Colour	red		blue	orange		

Ø Internal (mm)	Suitable for	Weight (g)	Art. No.	Pack Qty.	€
20	Measuring cylinder 5-10 ml	95	**L075.1**	1 unit(s)	42,90
35	Erlenmeyer flask 25 ml	240	**L076.1**	1 unit(s)	58,05
50	Erlenmeyer flask 50-250 ml	650	**L077.1**	1 unit(s)	69,40
70	Erlenmeyer flask 200-500 ml	900	**L078.1**	1 unit(s)	74,95
100	Erlenmeyer flask 750-1500 ml	1200	**L079.1**	1 unit(s)	84,75
150	Erlenmeyer flask 2000 ml	1750	**L080.1**	1 unit(s)	108,65



Weighting ring ROTILABO® collar

ROTH SELECTION. Material: Lead (Core), PVC coating.

For bottles, beakers, suction bottles, flasks, etc.

- Flexible, can be opened and closed
- Secure container against falling over and keep in an upright positions

Technical specifications:

Art. No.	L082.1	L084.1	L085.1	L083.1
Colour	red		blue	orange

Suitable for	Weight (g)	Art. No.	Pack Qty.	€
Vessel Ø 45–65 mm	240	**L082.1**	1 unit(s)	60,05
Vessel Ø 55–80 mm	460	**L083.1**	1 unit(s)	68,95
Vessel Ø 65–100 mm	600	**L084.1**	1 unit(s)	72,70
Vessel Ø 85–125 mm	750	**L085.1**	1 unit(s)	89,45

Floating racks



Floating stands ROTILABO®

ROTH SELECTION. Material: HDPE (foamed).

For bringing reaction vials and centrifuge tubes up to the right temperature in water baths. With handles for insertion and removal. When loaded, the stands float on the surface of the water, while the inserted tubes do not float.

For 0.2–2 ml reaction vials

Pic.	No. of slots	Ø x H (mm)	Colour	Art. No.	Pack Qty.	€
(1)	18	82 x 60	blue	**LP92.1**	5 unit(s)	21,45

For 1.5–2 ml reaction vials

Pic.	No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
(2)	24	150 x 82 x 69	yellow	**P199.1**	5 unit(s)	20,80

For 15 ml centrifuge tubes

Pic.	No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
(3)	8	130 x 59 x 65	blue	**P200.1**	5 unit(s)	20,80

For 50 ml centrifuge tubes

Pic.	No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
(4)	4	105 x 105 x 65	green	**P201.1**	5 unit(s)	20,80



A 121 °C ❄❄

Floating stands

Nalgene. Material: PP. Autoclavable: Yes.

For bringing reaction vials up to the right temperature in water bath vessels. With handle for insertion and removal.

- Racks float on the surface of the water when fully loaded
- Reaction vials are fixed in position in the rack and therefore cannot float
- Suitable for 0.5–2 ml reaction vials
- Temperature stability -70 to +100 °C

Version	No. of slots	Art. No.	Pack Qty.	€
round	8	**E072.1**	1 unit(s)	12,50
round	20	**E073.1**	1 unit(s)	12,50
square	16	**E075.1**	1 unit(s)	12,50



❄❄

Floating stands Cryogenic

ROTH SELECTION. Material: PE (foamed).

Ideal for bringing samples in PCR vessels to the right temperature. The loaded stands are still fully capable of floating; the tubes are fitted securely, meaning that it is not possible for them to float.

- Suitable for: 0.2 ml PCR vessels
- Temperature stability -80 to +80 °C

Round

No. of slots	Ø x H (mm)	Art. No.	Pack Qty.	€
10	70 x 8.5	**LH39.1**	10 unit(s)	13,55

Square

Suitable for PCR single vessels and PCR 8-strips.

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
32	4 x 8	80 x 80 x 8.5	**LH40.1**	10 unit(s)	24,60

Stands for vials, tubes

Storage box ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- With transparent lid
- Stackable
- Temperature stability -80 to +100 °C



A 121 °C

(1) For 1.5 ml autosampler vials (ND8–ND11)
With alphanumeric labelling on all four edges and the base cavities.

Version	Compartment size (mm)	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	12 x 12	130	130	45	pink	**TY99.1**	1 unit(s)	26,80
Slip lid	12 x 12	130	130	45	yellow	**XA00.1**	1 unit(s)	26,80
Slip lid	12 x 12	130	130	45	orange	**XA01.1**	1 unit(s)	26,80
Slip lid	12 x 12	130	130	45	blue	**XA02.1**	1 unit(s)	26,80
Slip lid	12 x 12	130	130	45	green	**XA03.1**	1 unit(s)	26,80
Slip lid	12 x 12	130	130	45	colourless	**XA04.1**	1 unit(s)	26,80

(2) For 4 ml autosampler vials (ND13)
With alphanumeric labelling on all four edges and the base cavities.

Version	Compartment size (mm)	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	Ø 15	130	130	52	red	**XA05.1**	1 unit(s)	33,35

(3) For 20 ml EPA screw-top bottles

Version	Compartment size (mm)	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	30 x 30	130	130	70	violet	**XA07.1**	1 unit(s)	39,25

(4) For 30 and 40 ml EPA screw-top bottles

Version	Compartment size (mm)	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	Ø 30	130	130	105	violet	**XA08.1**	1 unit(s)	46,25

(3) For 5, 10 and 20 ml headspace bottles

Version	Compartment size (mm)	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	25 x 25	130	130	102	blue	**XA06.1**	1 unit(s)	39,25

Storage box for sample vials

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for ND8–ND11 autosampler vials



A 121 °C

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	12 x 12	96 (8 x 12)	172.5	116.5	40.5	**A618.1**	1 unit(s)	13,75

Stands for vials, tubes



Sample stands ROTILABO®

ROTH SELECTION. Material: PMMA (Acrylic), transparent.
With silicon feet for stability and stackability.

For autosampler vial micro inserts
Also suitable for tubes with a conical base.

- Compartment size (hole): Ø 8,5 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
50	5 x 10	173 x 95 x 20	**TY95.1**	1 unit(s)	95,70

For ND8 to ND11 autosampler vials
Also suitable for tubes with a conical base.

- Compartment size (hole): Ø 12 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
50	5 x 10	173 x 95 x 20	**TY96.1**	1 unit(s)	96,75

For ND13 autosampler vials

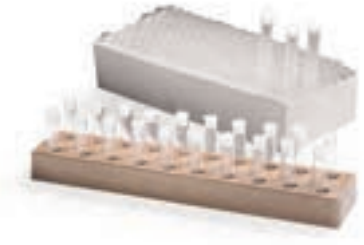
- Compartment size (hole): Ø 15,1 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
40	5 x 8	176 x 116 x 20	**TY97.1**	1 unit(s)	99,45

For ND18, ND20 autosampler vials (up to 20 ml)

- Compartment size (hole): Ø 24 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
25	5 x 5	160 x 160 x 30	**TY98.1**	1 unit(s)	112,90



Sample stands wood

ROTH SELECTION. Material: Wood.

- Compartment size (hole): Ø 11 mm
- Suitable for: Test tubes Ø 10 mm

L x W x H (mm)	Art. No.	Pack Qty.	€
257 x 47 x 24	**0403.1**	1 unit(s)	21,00



121 °C

Sample stands

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For incubation of small test tubes, serum / RIA test tubes and T3/T4 reaction vials.

- Suitable for most water baths
- Height of second level: 41 mm
- Temperature stability -80 to +121 °C

For tube Ø 10–13 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
72	238 x 111 x 89	**YC06.1**	1 unit(s)	53,65

For tube Ø 13–16 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
40	254 x 111 x 89	**YC07.1**	1 unit(s)	51,10

For tube Ø 16–20 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
40	254 x 111 x 89	**YC08.1**	1 unit(s)	52,15



121 °C

Sample stands ROTILABO® PTFE

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

- Chemically inert
- Temperature stability -200 to +250 °C

For tube Ø 6–8 mm

- Compartment size (hole): Ø 8 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
27	3 x 9	180 x 60 x 45	**NY05.1**	1 unit(s)	110,40

For tube Ø 16–18 mm

- Compartment size (hole): Ø 19 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
10	2 x 5	180 x 60 x 70	**NY07.1**	1 unit(s)	110,40

Stands for vials, tubes

For tube Ø 25–30 mm

- Compartment size (hole): Ø 30 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
4	1 x 4	180 x 60 x 80	**NY08.1**	1 unit(s)	110,40



A 121 °C

Sample stands for scintillation flasks

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Perfect for storage, transportation or as a rack on the laboratory bench.

- Suitable for: Scintillation vials up to Ø 28 mm
- Compartment size (hole): Ø 30 mm
- Height to intermediate floor 44 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
24	3 x 8	298 x 127 x 95	**K993.1**	1 unit(s)	60,20



Sample stands acrylic

ROTH SELECTION. Material: PMMA (Acrylic), transparent.

- Suitable for: Sample vials Ø 20–22 mm
- Compartment size (hole): Ø 24 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
30	3 x 10	330 x 110 x 22	**YC05.1**	1 unit(s)	138,70



A 121 °C

Sample stands

ROTH SELECTION. Material: Steel, epoxy-coated. Autoclavable: Yes.

Temperature stability to +121 °C.

For vessel Ø 23 mm

- Compartment size: 24 x 24 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	2 x 6	164 x 64 x 32	**AXE5.1**	1 unit(s)	27,70
50	5 x 10	271 x 145 x 32	**AXE6.1**	1 unit(s)	45,50

For vessel Ø 32 mm

- Compartment size: 33 x 33 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	2 x 6	212 x 80 x 60	**AXE7.1**	1 unit(s)	27,70
50	5 x 10	355 x 189 x 60	**AXE8.1**	1 unit(s)	45,50

For vessel Ø 56 mm

- Compartment size: 58 x 58 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
24	4 x 6	393 x 262 x 50	**AXE9.1**	1 unit(s)	76,85



A 121 °C

Sample stands for NMR tubes

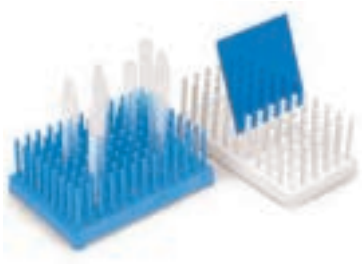
ROTH SELECTION. Material: PP. Autoclavable: Yes.

With two handles on the side for easy transportation. Stability is provided by hemispherical holes in the lower level.

- Suitable for NMR tubes Ø 5 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
72	210 x 110 x 220	**YA94.1**	1 unit(s)	71,50

Racks and boxes



A 121 °C

Test tube stands

Nalgene. Material: PP. Autoclavable: Yes.

Secure hold for test tubes and reaction vials, e.g. when used as a holder in shakers. The contents of the tubes are always clearly visible, and the racks do not float in water baths. Can also be used as a drip rack for tubes, electrophoresis and chromatography plates.

For Ø 10–13 mm

No. of slots	Arrange-ment of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
96	8 x 12	179 x 127 x 64	white	**E088.1**	1 unit(s)	19,60
96	8 x 12	179 x 127 x 64	blue	**E091.1**	1 unit(s)	19,60

For Ø 14–17 mm

No. of slots	Arrange-ment of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
50	5 x 10	187 x 105 x 70	white	**E094.1**	1 unit(s)	21,05
50	5 x 10	187 x 105 x 70	blue	**E097.1**	1 unit(s)	21,05



Sample stands ROTILABO®

Kartell. Material: PS, foamed.

Ideal for large quantities of test tubes or reaction vials. The holes are deep enough to keep test tubes, vials, etc. straight. Stackable. Extremely lightweight. With finger grips for easy lifting.

For 1.5 ml reaction vials

- Compartment size (hole) Ø 8,5 mm, depth of 15 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
250	218 x 218 x 33	**K828.1**	5 unit(s)	35,65

For vessel Ø 14 mm

- Compartment size (hole) Ø 14,5 mm, depth of 18 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
119	218 x 218 x 33	**K829.1**	5 unit(s)	35,65

For vessel Ø 16 mm

- Compartment size (hole) Ø 16,5 mm, depth of 22 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
96	218 x 218 x 33	**K830.1**	5 unit(s)	35,65



A 121 °C

Test tube stands

Kartell. Material: PP. Autoclavable: Yes.

Temperature stability: 0 to +120 °C

For vessel Ø 10 mm

- Compartment size: Ø 12 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	190 x 60 x 80	**EPC0.1**	1 unit(s)	11,10

For vessel Ø 16 mm

- Compartment size: Ø 18 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
10	250 x 60 x 74	**EPA9.1**	1 unit(s)	10,35

For vessel Ø 18 mm

- Compartment size: Ø 20 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	190 x 60 x 80	**EPC1.1**	1 unit(s)	12,10
24	375 x 65 x 95	**EPC2.1**	1 unit(s)	20,55



NEW / +

Sample stands foldable for vessel Ø 56 mm, plastic

ROTH SELECTION. Material: PP corrugated, moisture-resistant.

Removable partitions, so can also be used as a transport container or tray. Stackable.

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
24	4 x 6	406 x 260 x 89	**1LEH.1**	10 unit(s)	144,55

Racks and boxes

Test tube stands

Nalgene. Material: Plastic Resmer®. Autoclavable: Yes.

Moulded from a single piece, with three tiers, contents always clearly visible.

- Alphanumeric labelling on the top level
- Large labelling area on the front
- Does not float in a water bath
- Stackable
- Temperature stability -70 to +121 °C



A 121 °C

For glass Ø 13 mm

- Compartment size: 14 x 14 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
36	6 x 6	102 x 102 x 56	white	**H529.1**	1 unit(s)	21,10
36	6 x 6	102 x 102 x 56	blue	**H530.1**	1 unit(s)	21,10
36	6 x 6	102 x 102 x 56	red	**H532.1**	1 unit(s)	21,10
72	6 x 12	200 x 100 x 57	white	**7390.1**	1 unit(s)	30,25
72	6 x 12	200 x 100 x 57	orange	**7391.1**	1 unit(s)	30,25
72	6 x 12	200 x 100 x 57	yellow	**7392.1**	1 unit(s)	30,25
72	6 x 12	200 x 100 x 57	blue	**7393.1**	1 unit(s)	30,25
72	6 x 12	200 x 100 x 57	green	**7394.1**	1 unit(s)	30,25
72	6 x 12	200 x 100 x 57	red	**H524.1**	1 unit(s)	29,00

For glass Ø 16 mm

- Compartment size: 18 x 18 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
36	6 x 6	126 x 126 x 68	white	**H533.1**	1 unit(s)	23,25
36	6 x 6	126 x 126 x 68	blue	**H534.1**	1 unit(s)	23,25
36	6 x 6	126 x 126 x 68	green	**H535.1**	1 unit(s)	23,25
36	6 x 6	126 x 126 x 68	red	**H536.1**	1 unit(s)	23,25
72	6 x 12	250 x 130 x 70	white	**7395.1**	1 unit(s)	30,25
72	6 x 12	250 x 130 x 70	orange	**7401.1**	1 unit(s)	30,25
72	6 x 12	250 x 130 x 70	yellow	**7407.1**	1 unit(s)	30,25
72	6 x 12	250 x 130 x 70	blue	**7431.1**	1 unit(s)	30,25
72	6 x 12	250 x 130 x 70	green	**7435.1**	1 unit(s)	30,25
72	6 x 12	250 x 130 x 70	red	**H525.1**	1 unit(s)	29,00

For glass Ø 20 mm

- Compartment size: 22 x 22 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
20	4 x 5	128 x 103 x 83	white	**H537.1**	1 unit(s)	23,25
20	4 x 5	128 x 103 x 83	blue	**H538.1**	1 unit(s)	23,25
20	4 x 5	128 x 103 x 83	green	**H539.1**	1 unit(s)	23,25
20	4 x 5	128 x 103 x 83	red	**H540.1**	1 unit(s)	23,25
40	4 x 10	250 x 100 x 83	white	**7438.1**	1 unit(s)	30,25
40	4 x 10	250 x 100 x 83	orange	**7441.1**	1 unit(s)	30,25
40	4 x 10	250 x 100 x 83	yellow	**7475.1**	1 unit(s)	30,25
40	4 x 10	250 x 100 x 83	blue	**7477.1**	1 unit(s)	30,25
40	4 x 10	250 x 100 x 83	green	**7478.1**	1 unit(s)	30,25
40	4 x 10	250 x 100 x 83	red	**H526.1**	1 unit(s)	29,00

For glass Ø 25 mm

- Compartment size: 26 x 26 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
16	4 x 4	122 x 122 x 75	white	**H541.1**	1 unit(s)	23,25
16	4 x 4	122 x 122 x 75	blue	**H542.1**	1 unit(s)	23,25
40	4 x 10	300 x 120 x 92	white	**7479.1**	1 unit(s)	30,75
40	4 x 10	300 x 120 x 92	orange	**7484.1**	1 unit(s)	30,75
40	4 x 10	300 x 120 x 92	yellow	**7487.1**	1 unit(s)	30,75
40	4 x 10	300 x 120 x 92	blue	**7488.1**	1 unit(s)	30,75
40	4 x 10	300 x 120 x 92	green	**7489.1**	1 unit(s)	30,75
40	4 x 10	300 x 120 x 92	red	**H527.1**	1 unit(s)	30,75

Racks and boxes

For glass Ø 30 mm

- Compartment size: 32 x 32 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
24	3 x 8	285 x 110 x 83	white	**7492.1**	1 unit(s)	30,75
24	3 x 8	285 x 110 x 83	orange	**7493.1**	1 unit(s)	30,75
24	3 x 8	285 x 110 x 83	yellow	**7495.1**	1 unit(s)	30,75
24	3 x 8	285 x 110 x 83	blue	**7497.1**	1 unit(s)	30,75
24	3 x 8	285 x 110 x 83	green	**7508.1**	1 unit(s)	30,75
24	3 x 8	285 x 110 x 83	red	**H528.1**	1 unit(s)	30,75
9	3 x 3	109 x 109 x 84	white	**H543.1**	1 unit(s)	23,25
9	3 x 3	109 x 109 x 84	blue	**H544.1**	1 unit(s)	23,25
9	3 x 3	109 x 109 x 84	green	**H545.1**	1 unit(s)	23,25
9	3 x 3	109 x 109 x 84	red	**H546.1**	1 unit(s)	23,25

Test tube stands ROTILABO®

Kartell. Material: PP. Autoclavable: Yes.

- Does not float in water
- Alphanumerically labelled slots
- Temperature stability -10 to +120 °C



A 121 °C

For glass Ø 13 mm

- Compartment size: 13 x 13 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
90	6 x 15	250 x 105 x 60	white	**4279.1**	1 unit(s)	13,25
90	6 x 15	250 x 105 x 60	red	**4283.1**	1 unit(s)	13,25
90	6 x 15	250 x 105 x 60	blue	**4287.1**	1 unit(s)	13,25
90	6 x 15	250 x 105 x 60	yellow	**4288.1**	1 unit(s)	13,25

For glass Ø 16 mm

- Compartment size: 16 x 16 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
60	5 x 12	250 x 105 x 70	white	**4299.1**	1 unit(s)	13,25
60	5 x 12	250 x 105 x 70	red	**4327.1**	1 unit(s)	13,25
60	5 x 12	250 x 105 x 70	blue	**4367.1**	1 unit(s)	13,25
60	5 x 12	250 x 105 x 70	yellow	**4383.1**	1 unit(s)	13,25

For glass Ø 20 mm

- Compartment size: 21 x 21 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
40	4 x 10	250 x 105 x 70	white	**4388.1**	1 unit(s)	13,25
40	4 x 10	250 x 105 x 70	red	**4398.1**	1 unit(s)	13,25
40	4 x 10	250 x 105 x 70	blue	**4399.1**	1 unit(s)	13,85
40	4 x 10	250 x 105 x 70	yellow	**4430.1**	1 unit(s)	13,85

For glass Ø 25 mm

- Compartment size: 26 x 26 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
40	4 x 10	300 x 125 x 85	white	**4448.1**	1 unit(s)	13,85
40	4 x 10	300 x 125 x 85	red	**4449.1**	1 unit(s)	13,85
40	4 x 10	300 x 125 x 85	blue	**4450.1**	1 unit(s)	13,85
40	4 x 10	300 x 125 x 85	yellow	**4466.1**	1 unit(s)	13,85

Racks and boxes

For glass Ø 30 mm

- Compartment size: 31 x 31 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
24	3 x 8	300 x 110 x 85	white	**K833.1**	1 unit(s)	19,15
24	3 x 8	300 x 110 x 85	red	**K834.1**	1 unit(s)	19,15
24	3 x 8	300 x 110 x 85	blue	**K835.1**	1 unit(s)	19,15
24	3 x 8	300 x 110 x 85	yellow	**K836.1**	1 unit(s)	19,15

Sample stands

ROTH SELECTION. Material: Steel, epoxy-coated. Autoclavable: Yes. Temperature stability: -40 to +121 °C



NEW / +

A 121 °C

For tube Ø 10–13 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
72	6 x 12	205 x 105 x 65	blue	**AXH0.1**	1 unit(s)	39,45
108	9 x 12	204 x 161 x 65	blue	**1LHX.1**	1 unit(s)	39,45

For tube Ø 13–16 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
40	4 x 10	200 x 83 x 59	blue	**1LHY.1**	1 unit(s)	34,15
48	4 x 12	237 x 127 x 65	blue	**1LK0.1**	1 unit(s)	34,35
72	6 x 12	241 x 127 x 65	blue	**AXH2.1**	1 unit(s)	39,45
108	9 x 12	237 x 127 x 65	blue	**1LK1.1**	1 unit(s)	39,90
108	9 x 12	237 x 127 x 65	red	**AXH3.1**	1 unit(s)	39,45

For tube Ø 16–20 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
15	3 x 5	127 x 76 x 76	blue	**AXH4.1**	1 unit(s)	37,80
40	4 x 10	240 x 90 x 80	blue	**1LK5.1**	1 unit(s)	40,05
80	8 x 10	240 x 190 x 80	blue	**1LK6.1**	1 unit(s)	40,35

For tube Ø 20–25 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
24	3 x 8	273 x 105 x 80	blue	**1LK7.1**	1 unit(s)	36,60
40	4 x 10	290 x 118 x 80	blue	**1LK8.1**	1 unit(s)	39,20

For tube Ø 25–30 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
8	2 x 4	147 x 80 x 89	blue	**AXH5.1**	1 unit(s)	38,75
48	6 x 8	277 x 209 x 98	blue	**1LK9.1**	1 unit(s)	47,35

For tube Ø 35–40 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
24	3 x 8	357 x 139 x 98	blue	**1LKA.1**	1 unit(s)	36,80
48	6 x 8	350 x 260 x 98	blue	**1LKC.1**	1 unit(s)	46,60

For tube Ø 55–60 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
6	2 x 3	2050 x 1352 x 104	blue	**1LKE.1**	1 unit(s)	36,50



121 °C

Test tube stands ROTILABO® stainless steel

ROTH SELECTION. Material: Stainless steel 18/10 (1.4301), electrolytically polished. Autoclavable: Yes.

With four feet, 14 mm clearance from the floor.

For test tube Ø 16 mm

- Compartment size: 18 x 18 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
25	5 x 5	115 x 115 x 70	**1C6K.1**	1 unit(s)	35,95
100	10 x 10	200 x 200 x 70	**ENX9.1**	1 unit(s)	47,30

For test tube Ø 30 mm

- Compartment size: 30 x 30 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	2 x 6	200 x 70 x 70	**1C6L.1**	1 unit(s)	43,45



Test tube stands ROTILABO® acrylic

ROTH SELECTION. Material: PMMA (Acrylic glass).

Hole Ø 18 mm

Base plate with holes (hole Ø 14 mm).

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
6	1 x 6	165 x 55 x 75	**CPT9.1**	1 unit(s)	19,35
24	3 x 8	220 x 80 x 79	**CPX0.1**	1 unit(s)	52,55
12	2 x 6	186 x 60 x 80	**5119.1**	1 unit(s)	68,00
33	3 x 11	310 x 80 x 80	**CPX1.1**	1 unit(s)	66,55

Hole Ø 36 mm

Base plate without holes.

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	2 x 6	275 x 100 x 80	**5416.1**	1 unit(s)	95,65



Test tube stands ROTILABO®

ROTH SELECTION.

Stainless steel compartment size 14 x 14 mm

Material: Stainless steel. Autoclavable: Yes.

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	2 x 6	101 x 44 x 70	**H439.1**	1 unit(s)	51,00
24	2 x 12	197 x 44 x 70	**H440.1**	1 unit(s)	65,00
48	4 x 12	197 x 76 x 70	**H441.1**	1 unit(s)	78,00

Stainless steel compartment size 18 x 18 mm

Material: Stainless steel. Autoclavable: Yes.

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	2 x 6	130 x 50 x 70	**H442.1**	1 unit(s)	50,40
24	2 x 12	250 x 50 x 70	**H443.1**	1 unit(s)	62,80
48	4 x 12	250 x 90 x 70	**H444.1**	1 unit(s)	57,60

PA-coated compartment size 18 x 18 mm

Material: Steel PA-coated.

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	2 x 6	130 x 50 x 70	**L385.1**	1 unit(s)	41,45
20	2 x 10	210 x 50 x 70	**L386.1**	1 unit(s)	48,50
24	2 x 12	250 x 50 x 70	**L387.1**	1 unit(s)	47,30
24	4 x 6	130 x 90 x 70	**L389.1**	1 unit(s)	52,00
36	3 x 12	250 x 70 x 70	**L388.1**	1 unit(s)	60,65
48	4 x 12	250 x 90 x 70	**L390.1**	1 unit(s)	54,40
100	10 x 10	210 x 210 x 70	**L391.1**	1 unit(s)	76,95



121 °C

Test tube stands ROTILABO® round

Bochem. Material: Stainless steel 18/10. Autoclavable: Yes.

- Compartment size (hole): Ø 20 mm
- Suitable for: Test tubes Ø 18 mm

No. of slots	Ø x H (mm)	Art. No.	Pack Qty.	€
9	98 x 165	**YT05.1**	1 unit(s)	67,70
12	116 x 165	**YT06.1**	1 unit(s)	97,10
45	194 x 165	**YT07.1**	1 unit(s)	112,00



A 121 °C

Test tube stands stainless steel

Bochem. Material: Stainless steel 18/10. Autoclavable: Yes.

Hole Ø 17 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	2 x 6	145 x 55 x 90	**PH51.1**	1 unit(s)	42,75
24	2 x 12	278 x 55 x 90	**PH52.1**	1 unit(s)	46,80
48	4 x 12	287 x 100 x 90	**PH53.1**	1 unit(s)	80,20

Hole Ø 20 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	2 x 6	164 x 62 x 90	**PH54.1**	1 unit(s)	53,40
24	2 x 12	310 x 60 x 90	**PH55.1**	1 unit(s)	69,20



A 121 °C

Test tube stands ROTILABO® stainless steel Z shape

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

Stackable.

Hole Ø 12.5 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
50	155 x 78 x 50	**X115.1**	1 unit(s)	33,35

Hole Ø 14.5 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
50	188 x 95 x 58	**X116.1**	1 unit(s)	40,50

Hole Ø 17.5 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
25	110 x 110 x 40	**PX26.1**	1 unit(s)	33,35
50	220 x 115 x 63	**X117.1**	1 unit(s)	40,50

Hole Ø 30 mm

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
15	220 x 115 x 63	**PX27.1**	1 unit(s)	40,50



Test tube stands wood

Hecht. Material: Wood (Oak) varnished.

For glass Ø 18 mm

For test tubes with a height up of at least 100 mm. Optionally with drip pegs for drying test tubes after cleaning.

Version	No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
one tier, with 6 drip pegs	6	210 x 55 x 120	**AEE1.1**	1 unit(s)	13,05
one tier, without drip pegs	6	210 x 55 x 120	**AEE0.1**	1 unit(s)	11,25
two tiers, with 6 drip pegs	12	210 x 55 x 200	**AEE5.1**	1 unit(s)	17,20
two tiers, without drip pegs	12	210 x 55 x 200	**AEE4.1**	1 unit(s)	14,15
two tiers, without drip pegs	24	370 x 55 x 200	**AEE8.1**	1 unit(s)	17,90

For glass Ø 22 mm

For test tubes with a height up of at least 100 mm. Optionally with drip pegs for drying test tubes after cleaning.

Version	No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
one tier, without drip pegs	6	230 x 55 x 120	**AEE2.1**	1 unit(s)	12,00
two tiers, with 6 drip pegs	12	230 x 75 x 200	**AEH0.1**	1 unit(s)	16,80

For glass Ø 30 mm

For test tubes with a height of at least 160 mm.

Version	No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
one tier, without drip pegs	6	270 x 55 x 180	**AEE3.1**	1 unit(s)	14,90

Racks and boxes



NEW / +

121 °C

Test tube stands extra large

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For applications involving high sample throughput.
With alphanumeric labelling

For tube Ø 10–13 mm

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
216	337 x 235 x 91	blue	**TP50.1**	1 unit(s)	52,10
216	337 x 235 x 91	white	**TP51.1**	1 unit(s)	52,10

For tube Ø 13–16 mm

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
120	337 x 267 x 91	blue	**TP55.1**	1 unit(s)	52,10
120	337 x 267 x 91	white	**TP54.1**	1 unit(s)	52,10

For tube Ø 18–20 mm

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
120	377 x 301 x 91	blue	**1LKL.1**	1 unit(s)	51,05
120	377 x 301 x 91	white	**1LKN.1**	1 unit(s)	51,05



121 °C

Test tube stands slant rack

Nalgene. Material: PC. Autoclavable: Yes.

For simple and safe production of slant agar with two different inclination angles, for incubating liquid tissue cultures and for use in a water bath (not floating). Tubes containing culture media can be autoclaved in the rack in an upright position.

- Slanted rack enables tilting at an inclination angle of 5° or 20° so that culture media can harden at an angle
- 5° inclination angle: Larger surface, e.g. for aerobic cultures
- 20° inclination angle: Smaller surface, e.g. for anaerobic cultures; reduces the risk of culture media drying out during long-term storage

For glass Ø 16 mm

- Compartment size (hole): Ø 17 mm

No. of slots	Arrangement of slots	Art. No.	Pack Qty.	€
40	4 x 10	**E100.1**	1 unit(s)	73,15

For glass Ø 20 mm

- Compartment size (hole): Ø 20 mm

No. of slots	Arrangement of slots	Art. No.	Pack Qty.	€
40	4 x 10	**E101.1**	1 unit(s)	73,15

Combi racks

Test tube stands combined

ROTH SELECTION. Material: POM, rubber feet. Autoclavable: Yes.

Versatile rack with replaceable grid- inserts.

- Grid inserts in 5 colours for different test tube sizes
- 2 different test tube sizes are possible per rack
- Fast replacement of individual grids
- 3 levels for stability
- Stackable
- Temperature stability -80 to +121 °C



A 121 °C

Delivery incl. rack and a set of 4 grids.

For glass Ø 10–13 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
84	14 x 6	318 x 111 x 67	orange	**YA95.1**	1 unit(s)	31,10

For glass Ø 13–16 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
60	12 x 5	318 x 111 x 67	blue	**YA96.1**	1 unit(s)	31,10

For glass Ø 16–20 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
40	10 x 4	318 x 111 x 67	green	**YA97.1**	1 unit(s)	31,10

For glass Ø 20–25 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
24	8 x 3	318 x 111 x 67	pink	**YA98.1**	1 unit(s)	31,10

For glass Ø 25–30 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
12	6 x 2	318 x 111 x 67	yellow	**YA99.1**	1 unit(s)	31,10

Sample stands Pop-up™ racks

ROTH SELECTION. Material: PP. Autoclavable: No.

- Folds up for space-saving storage
- Height when folded up 21 mm
- Easy to unfold for quick use
- Numbered slots for identification of samples
- Robust design



For 15/50 ml centrifuge tubes

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
33	21 x Ø 17 / 12 x Ø 30 mm	255 x 137 x 72	blue	**PC54.1**	2 unit(s)	38,70
33	21 x Ø 17 / 12 x Ø 30 mm	255 x 137 x 72	pink	**PC55.1**	2 unit(s)	38,70

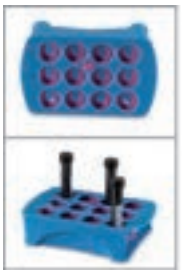
For 15 ml centrifuge tubes

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
45	45 x Ø 17 mm	255 x 137 x 72	violet	**TP22.1**	2 unit(s)	38,70

For 50 ml centrifuge tubes

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
18	18 x Ø 30 mm	255 x 137 x 72	green	**TP23.1**	2 unit(s)	38,70

Combi racks





Sample stands universal

ROTH SELECTION. Material: PP. Autoclavable: No.

Slots with adjustable size, can be opened by inserting the vessels or by turning a knob.

- Suitable for: 15/50 ml centrifuge tubes

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
12	194 x 140 x 51	**NY31.1**	1 unit(s)	64,40



Sample stands for 50 ml centrifuge tubes

ROTH SELECTION.

For tubes with conical or round base, Ø 27.5 to 29 mm.

(1) Plastic
Material: PS.

No. of slots	Ø x H (mm)	Art. No.	Pack Qty.	€
1	92 x 30	**TP29.1**	5 unit(s)	28,25

(2) Metal
Material: Steel epoxy-coated. Autoclavable: Yes.

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
1	90 x 67 x 67	**TP30.1**	1 unit(s)	19,15



A 121 °C ❄❄

Sample stands ROTILABO® combined (4-in-1)

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Space-saving use on a laboratory bench, beneath the vent, in a water bath and in a freezer. For centrifuge tubes, test tubes, reaction vials, PCR-vials. Temperature stability -90 to +121 °C.

With four sides which can be equipped as required:

- Hole Ø 30 mm – 4 x 50 ml centrifuge tubes
- Hole Ø 17 mm – 12 x 15 ml centrifuge tubes
- Hole Ø 11 mm – 32 x 1.5/2 ml reaction vials
- Hole Ø 8 mm – 32 x 0.5 ml reaction vials

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
174 x 95 x 52	colourless	**HYN6.1**	5 unit(s)	44,95
174 x 95 x 52	neon blue	**K082.1**	1 unit(s)	21,35
174 x 95 x 52	neon green	**K083.1**	1 unit(s)	21,35
174 x 95 x 52	neon orange	**K084.1**	1 unit(s)	21,35
174 x 95 x 52	neon pink	**K085.1**	1 unit(s)	21,35
174 x 95 x 52	neon yellow	**K086.1**	1 unit(s)	21,35

Set
Assorted colours (neon blue, neon green, neon orange, neon pink, neon yellow).

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
174 x 95 x 52	assorted colours	**HYN7.1**	5 unit(s)	44,95



A 121 °C

Sample stands ROTILABO® combined (4-in-1) cubic

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Can be connected in any way at the open sides. For centrifuge tubes, test tubes and reaction vials.

With four sides which can be equipped as required:

- Hole Ø 30 mm – 4 x 50 ml centrifuge tubes
- Hole Ø 17 mm – 10 x 15 ml centrifuge tubes
- Hole Ø 13 mm – 12 x test tubes Ø 12 x L 75/100 mm
- Hole Ø 12 mm – 16 x 1.5/2 ml reaction vials

Assorted colours (blue, yellow, green, orange, pink).

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
108 x 108 x 108	assorted colours	**AK71.1**	5 unit(s)	56,60

Combi racks



A 121 °C

Sample stands ROTILABO® combined (4-in-1)

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For round, flat and conical blood collection and culture tubes from 3.5 to 10 ml, and for 15 ml centrifuge tubes.
Suitable for: Vessel Ø 13–16 mm.
Recommended tube size:
13 x 75/100 mm, 16 x 100/125 mm, 17 x 120 mm.

- Can be combined individually by fitting them together
- Alphanumerically coded
- Suitable for use in a water bath

With four sides which can be equipped as required:

- Side A: 12 x hole Ø 13 mm
- Side B: 18 x hole Ø 13 mm
- Side C: 12 x hole Ø 17 mm
- Side D: 18 x hole Ø 17 mm

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
232 x 95 x 70	blue	**KKY8.1**	5 unit(s)	106,35
232 x 95 x 70	violet	**KKY9.1**	5 unit(s)	106,35
232 x 95 x 70	green	**KLA0.1**	5 unit(s)	106,35
232 x 95 x 70	colourless	**KLA1.1**	5 unit(s)	106,35

Set
Assorted colours (blue, purple, green, red neutral).

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
232 x 95 x 70	assorted colours	**KLA2.1**	1 set	106,35



A 121 °C

Sample stands Multi-tube rack

ROTH SELECTION. Material: POM. Autoclavable: Yes.

- Suitable for vessel Ø 12–30 mm
- Variable use thanks to 4 flexible slots
- Can be connected together

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
4	181 x 56 x 76	blue/green	**AXH9.1**	2 unit(s)	17,50
4	181 x 56 x 76	blue/yellow	**AXK0.1**	2 unit(s)	17,50
4	181 x 56 x 76	blue	**AXK1.1**	2 unit(s)	17,50
4	181 x 56 x 76	green	**AXK2.1**	2 unit(s)	17,50
4	181 x 56 x 76	yellow	**AXK3.1**	2 unit(s)	17,50
4	181 x 56 x 76	white	**AXK4.1**	2 unit(s)	17,50
4	181 x 56 x 76	pink	**AXK5.1**	2 unit(s)	17,50



A 121 °C

Sample stands ROTILABO® combined (4-in-1) rotatable

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Four coloured modules are securely connected to each other but can each be turned individually so that reaction vials and tubes of different sizes can be stored and transported in a single rack.

For reaction vials

- Hole Ø 16.4 mm: 6 x 15 ml centrifuge tubes
- Hole Ø 11.2 mm: 9 x 1.5 to 2 ml reaction vials
- Hole Ø 8.0 mm: 12 x 0.5 ml reaction vials
- Hole Ø 6.5 mm: 32 x PCR single vials/4 x 8-tube PCR strips

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
100 x 100 x 208	violet, blue, green, yellow	**HC26.1**	1 unit(s)	68,40

For centrifuge tubes

- Hole Ø 29.6 mm: 2 x 50 ml centrifuge tubes
- Hole Ø 16.4 mm: 8 x 15 ml centrifuge tubes
- Hole Ø 20.5 mm: 6 x Ø 16 to 20 mm tubes
- Hole Ø 13.5 mm: 10 x Ø 10 to 13 mm tubes

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
112 x 112 x 224	violet, blue, green, yellow	**HC25.1**	1 unit(s)	68,40



A 121 °C

Reaction vial stands for 5 ml tubes

ROTH SELECTION. Material: PP. Autoclavable: Yes.

With side handles for transporting and stacking.

- Suitable for: 5 ml reaction vials/tube Ø 13–16 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
40	4 x 10	260 x 113 x 105	**CXP6.1**	1 unit(s)	49,35

Reaction vessel stands



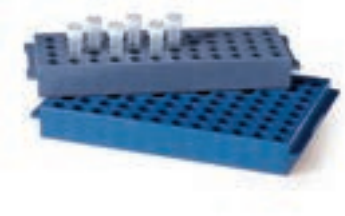
121 °C

Reaction vial stands ROTILABO® with two levels

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for: 1.5/2 ml reaction vials
- Compartment size (hole): Ø 10,5 mm
- Arranged in two tiers (levels)
- Large, easy-to-read numbering of the individual slots
- Can be connected together at the sides
- Recessed finger hold at the front for easy handling

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
20	210 x 90 x 50	blue	**N390.1**	1 unit(s)	8,60



Reaction vial stands recycled

ROTH SELECTION. Material: Plastic recycled (colour variations possible).

- Double-sided, slots are labelled alphanumerically
- Hole Ø 10.5 mm for 1.5/2 ml reaction vials
- Hole Ø 7.5 mm for 0.5 ml reaction vials
- Large distances between the holes to ensure that screw cap vials can be opened easily
- Temperature stability -80 to +50 °C

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
48	215 x 69 x 27	**EEC5.1**	5 unit(s)	25,30
96	215 x 130 x 27	**EEC6.1**	5 unit(s)	46,25



121 °C

Reaction vial stands

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Slots are numbered alphanumerically.

For 0.5 ml tubes

- Compartment size (hole): Ø 8 mm

No. of slots	Colour	Art. No.	Pack Qty.	€
48	grey	**A775.1**	1 unit(s)	27,80

For 1.5/2 ml tubes

- Compartment size (hole): Ø 11 mm

No. of slots	Colour	Art. No.	Pack Qty.	€
48	grey	**A777.1**	1 unit(s)	27,80



121 °C

Reaction vial stands with two tiers

Kartell. Material: PP. Autoclavable: Yes.

- Suitable for 1.5/2 ml reaction vials
- Compartment size: 10,8 mm
- Slots are labelled alphanumerically
- Does not float in water
- Stackable (even when filled)
- Temperature stability -15 to +130 °C

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
100	265 x 110 x 45	white	**4562.1**	1 unit(s)	17,55
100	265 x 110 x 45	blue	**4563.1**	1 unit(s)	17,55
100	265 x 110 x 45	red	**4575.1**	1 unit(s)	17,55
100	265 x 110 x 45	yellow	**4581.1**	1 unit(s)	17,55

Reaction vessel stands

Reaction vial stands combined (2-in-1) Set

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Double-sided, with slip lid
- Labelled alphanumerically on both sides
- Stackable



A 121 °C

Page 1:

- 32 holes for 0.5/0.65 ml reaction vials
- 8 holes for 1.5/1.7/2 ml vessels

Page 2:

- 32 holes for 1.5/1.7/2 ml vessels
- 8 holes for 0.5/0.65 ml vessels

Assorted colours (blue, green, orange, pink, yellow).

Version	Length (mm)	Width (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	158	79	assorted colours	**EHP2.1**	5 unit(s)	114,95

Reaction vial stands ROTILABO® 2-in-1

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for 0.5–2 ml reaction vials
- Double-sided, with slip lid
- Alphanumerically labelled slots
- Holes Ø 8 or 11 mm, drilled vertically
- Large labelling areas on all four sides of the rack
- Height with lid 50 mm



A 121 °C

Version	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	96 (8 x 12)	210	115	25	natural	**E271.1**	1 unit(s)	41,60
Slip lid	96 (8 x 12)	210	115	25	blue	**E272.1**	1 unit(s)	41,60
Slip lid	96 (8 x 12)	210	115	25	green	**E273.1**	1 unit(s)	41,60
Slip lid	96 (8 x 12)	210	115	25	red	**E274.1**	1 unit(s)	41,60
Slip lid	96 (8 x 12)	210	115	25	yellow	**E275.1**	1 unit(s)	41,60

Reaction vessel stands

Reaction vial stands ROTILABO® 2-in-1

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for 0.5–2 ml reaction vials
- Double-sided, with slip/hinged lid and labelling area
- Alphanumerically labelled slots
- Holes Ø 8 to 11 mm
- Height with lid 50 mm



A 121 °C

Version	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip/hinged lid	96 (8 x 12)	246	121	25	natural	**T216.1**	1 unit(s)	16,40
Slip/hinged lid	96 (8 x 12)	246	121	25	blue	**T217.1**	1 unit(s)	16,40
Slip/hinged lid	96 (8 x 12)	246	121	25	green	**T218.1**	1 unit(s)	16,40
Slip/hinged lid	96 (8 x 12)	246	121	25	pink	**T219.1**	1 unit(s)	16,40
Slip/hinged lid	96 (8 x 12)	246	121	25	yellow	**T220.1**	1 unit(s)	16,40

Set

Assorted colours (blue, green, pink, yellow, orange).

Version	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip/hinged lid	96 (8 x 12)	246	121	25	assorted colours	**NY18.1**	5 unit(s)	75,70

Reaction vial stands ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Compartment size (hole): Ø 11 mm
- Suitable for: 1.5/2 ml reaction vials
- Slots are labelled numerically
- Slot depth 25 mm, drilled vertically
- With labelling area
- Temperature stability -80 to +121 °C



A 121 °C

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
80	5 x 16	210 x 65 x 27	blue	**C771.1**	1 unit(s)	9,60
80	5 x 16	210 x 65 x 27	green	**C772.1**	1 unit(s)	9,60
80	5 x 16	210 x 65 x 27	orange	**C773.1**	1 unit(s)	9,60
80	5 x 16	210 x 65 x 27	pink	**C774.1**	1 unit(s)	9,60
80	5 x 16	210 x 65 x 27	yellow	**C775.1**	1 unit(s)	9,60

Reaction vessel stands



121 °C

Reaction vial stands 2-in-1 Mini

ROTH SELECTION. Material: PP. Autoclavable: Yes.

With 25 slots for 1.5 / 2 ml reaction vials or screw cap vials up to 2 ml on one side and 16 slots for 0.2 / 0.5 ml PCR vials on the other side.

No. of slots	Arrange-ment of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
25	5 x 5	75 x 65 x 22	blue	**CXN7.1**	10 unit(s)	30,65
25	5 x 5	75 x 65 x 22	red	**CXN8.1**	10 unit(s)	30,65
25	5 x 5	75 x 65 x 22	yellow	**CXN9.1**	10 unit(s)	30,65



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Sample stands for screw cap vials

ROTH SELECTION. Material: POM.

Latching device in the base and grooved holes, which make it possible to open most common reaction vials with screw top and cryogenic vials using just one hand.

- Suitable for: Reaction vials with screw top, cryogenic vials
- Compartment size (hole): Ø 10,75 mm
- Suitable for use in water baths
- Does not float, remains stable even under water
- Stackable
- Temperature stability -196 to +121 °C

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
50	293 x 115 x 39	green	**AEN3.1**	10 unit(s)	145,15
50	293 x 115 x 39	orange	**AEN5.1**	10 unit(s)	145,15



121 °C ❄❄

Sample stands for cryogenic vials

Nalgene. Material: PC, rubber feet. Autoclavable: Yes.

Latching device in the base prevents the tubes from also turning when opening and closing and makes work convenient thanks to single-hand operation. Alphanumeric labelling for simple identification of samples.

- Compartment size (hole): Ø 12,5 mm

No. of slots	Arrange-ment of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
50	5 x 10	197 x 102 x 28	white	**H615.1**	1 unit(s)	58,65



121 °C

Sample stands ROTILABO® for cryogenic vials

ROTH SELECTION. Material: PP, Rubber feet. Autoclavable: Yes.

Latching device in the base makes it possible to open and close the cryogenic vials using just one hand.

- Compartment size (hole): Ø 12,5 mm
- Slots are labelled alphanumerically
- Stackable

No. of slots	Arrange-ment of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
50	5 x 10	200 x 100 x 25	blue	**K551.1**	1 unit(s)	17,20
50	5 x 10	200 x 100 x 25	red	**K552.1**	1 unit(s)	17,20
50	5 x 10	200 x 100 x 25	purple	**K554.1**	1 unit(s)	17,20

PCR stands and boxes

Reaction vial stands PCR workstation

ROTH SELECTION. Material: PP. Autoclavable: Yes.

With slip lid. Alphanumeric labelling of the holes and large labelling areas on all four sides for simple identification of samples.

- 24 x Ø 12 mm slots for 1.5/2 m reaction vials
- 16 x Ø 8 mm slots for 0.5 ml reaction vials
- 32 x Ø 6.5 mm slots for 0.2 ml PCR vessels



A 121 °C

Can be combined with PCR racks Art. No. K823.1–K827.1.

Version	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	215	120	50	neon blue	**K818.1**	1 unit(s)	39,95
Slip lid	215	120	50	neon green	**K819.1**	1 unit(s)	39,95
Slip lid	215	120	50	neon orange	**K820.1**	1 unit(s)	39,95
Slip lid	215	120	50	neon pink	**K821.1**	1 unit(s)	39,95
Slip lid	215	120	50	neon yellow	**K822.1**	1 unit(s)	39,95

PCR rack

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Arranged in microtiter plate format, therefore ideal for PCR trays, strips of 8 or 12 PCRs and single vessels.
Racks can simply be fitted via the 32 x 0.2 ml slots of the PCR workstation. The rack is held in place by four clips, allowing it to be simply removed and inserted again at any time.

- Compartment size (hole): Ø 6 mm
- Height with lid 33 mm



A 121 °C

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	Ø 6	96 (8 x 12)	126	86	11	neon blue	**K823.1**	1 unit(s)	16,40
Slip lid	Ø 6	96 (8 x 12)	126	86	11	neon green	**K824.1**	1 unit(s)	16,40
Slip lid	Ø 6	96 (8 x 12)	126	86	11	neon orange	**K825.1**	1 unit(s)	16,40
Slip lid	Ø 6	96 (8 x 12)	126	86	11	neon pink	**K826.1**	1 unit(s)	16,40
Slip lid	Ø 6	96 (8 x 12)	126	86	11	neon yellow	**K827.1**	1 unit(s)	16,40

PCR rack ROTILABO® set

ROTH SELECTION. Material: PP.

- Compartment size (hole): 5,5 mm
- With transparent slip lid
- Height with lid: 39 mm
- Stackable
- Temperature stability -80 to +121 °C



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Assorted colours (blue, yellow, green red, purple).

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	5,5	96 (8 x 12)	138	98	30	assorted colours	**HX25.1**	5 unit(s)	84,70

PCR stands and boxes

PCR rack ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for: 0.2 ml PCR vessels
- Compartment size (hole): Ø 6 mm
- With hinged lid, removable
- Height with lid: 30 mm



A 121 °C

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Hinged lid	Ø 6	96 (8 x 12)	130	100	15	natural	**T098.1**	1 unit(s)	10,05
Hinged lid	Ø 6	96 (8 x 12)	130	100	15	blue	**T099.1**	1 unit(s)	10,05
Hinged lid	Ø 6	96 (8 x 12)	130	100	15	green	**T100.1**	1 unit(s)	10,05

Set
Assorted colours (blue, green, pink, yellow, orange).

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Hinged lid	Ø 6	96 (8 x 12)	130	100	15	assorted colours	**NY17.1**	5 unit(s)	43,05

Storage box PCR

ROTH SELECTION. Material: PC.

- Suitable for 0.2 ml PCR vessels
- Temperature stability from -86 °C



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Version	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	132	132	25	translucent	**CXP1.1**	1 unit(s)	13,95

Cryogenic box PCR

ROTH SELECTION. Material: Cardboard (resistant to low temperatures and moisture-repellent).

- Suitable for 0.2 ml PCR vessels
- For storing PCR single vials or PCR 8-tube strips



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Delivery incl. divider inserts.

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	8 x 8	64 (8 x 8)	85	85	25	**EKN0.1**	5 unit(s)	38,20
Slip lid	8 x 8	196 (14 x 14)	133	133	25	**EKN1.1**	5 unit(s)	38,20

PCR stands and boxes

PCR rack

ROTH SELECTION.

- Suitable for 0.2 ml PCR vessels
- Compartment size (hole): Ø 6 mm



Delivery without lid.

Material: PP.

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	Ø 6	96 (8 x 12)	127	85	16	white	**P765.2**	10 unit(s)	22,85
Slip lid	Ø 6	96 (8 x 12)	127	85	16	blue	**P766.2**	10 unit(s)	22,85
Slip lid	Ø 6	96 (8 x 12)	127	85	16	red	**P767.2**	10 unit(s)	22,85

Accessories lid for PCR rack

ROTH SELECTION.

Material: SBS.

Version	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	28	colourless	**P769.2**	10 unit(s)	22,95

Cryogenic box ROTILABO® cardboard mini

ROTH SELECTION. Material: Cardboard (resistant to low temperatures, water-repellent).

For storage of cryogenic vials and other sample containers.

- Can be labelled
- Space-saving
- Environmentally friendly



Delivery without divider inserts, please order separately.

Square

Version	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	75	75	50	**LH31.1**	10 unit(s)	44,10

Rectangular

Version	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	136	68	50	**LH33.1**	10 unit(s)	38,85

Accessories divider inserts for ROTILABO® mini cryogenic box made of cardboard

ROTH SELECTION. Material: Cardboard.

Compartment size (mm)	Slots	Height (mm)	Art. No.	Pack Qty.	€
15 x 15	32 (8 x 4)	30	**LH34.1**	10 unit(s)	17,70
12,5 x 12,5	25 (5 x 5)	30	**LH32.1**	10 unit(s)	16,70
12,5 x 12,5	50 (10 x 5)	30	**LH35.1**	10 unit(s)	16,70

Cryo boxes, storage boxes

Cryogenic box ROTILABO® cardboard

ROTH SELECTION. Material: Cardboard (resistant to low temperatures).

Flexible storage of cryogenic vials and other sample containers through variable configurations using different dividers. Also suitable for larger containers without grid dividers.



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Fitting table

Sample vessel type	Cryogenic box	Divider insert
0.5 ml reaction vials	Y054.2/CLE8.1	Y050.2
1.5/2 ml reaction vials	P895.3/CLE9.1	P900.2
Cryogenic vials up to 2 ml, internal thread	P895.3/CLE9.1	P900.2
Cryogenic vials up to 2 ml, external thread	P895.3/CLE9.1	P899.2
5 ml cryogenic vials	P897.2/CLH5.1	Y046.2

Delivery without divider inserts, please order separately.

With water-repellent standard coating

Version	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	136	136	50	white	**P895.2**	50 unit(s)	104,60
Slip lid	136	136	50	white	**P895.3**	10 unit(s)	30,00
Slip lid	136	136	75	white	**P896.2**	10 unit(s)	50,15
Slip lid	136	136	100	white	**P897.2**	10 unit(s)	76,20
Slip lid	136	136	50	blue	**XP98.1**	10 unit(s)	44,55
Slip lid	136	136	50	red	**XP99.1**	10 unit(s)	44,55
Slip lid	136	136	50	green	**XT00.1**	10 unit(s)	44,55
Slip lid	136	136	50	yellow	**XT01.1**	10 unit(s)	44,55
Slip lid	136	136	32	white	**Y054.2**	10 unit(s)	41,90
Slip lid	136	136	130	white	**Y055.2**	10 unit(s)	78,60

With waterproof plastic coating

Version	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	136	136	32	white	**CLE8.1**	10 unit(s)	61,90
Slip lid	136	136	50	white	**CLE9.1**	10 unit(s)	41,40
Slip lid	136	136	50	blue	**CLH0.1**	10 unit(s)	71,00
Slip lid	136	136	50	red	**CLH1.1**	10 unit(s)	71,00
Slip lid	136	136	50	green	**CLH2.1**	10 unit(s)	68,45
Slip lid	136	136	50	yellow	**CLH3.1**	10 unit(s)	68,45
Slip lid	136	136	75	white	**CLH4.1**	10 unit(s)	52,50
Slip lid	136	136	100	white	**CLH5.1**	10 unit(s)	88,70
Slip lid	136	136	130	white	**CLH6.1**	10 unit(s)	89,40

Cryo boxes, storage boxes

Accessories divider inserts cardboard

ROTH SELECTION. Material: Cardboard.

For dividing the cryogenic boxes.

Compartment size (mm)	Slots	Height (mm)	Art. No.	Pack Qty.	€
31 x 31	16 (4 x 4)	30	**Y037.2**	10 unit(s)	38,00
31 x 31	16 (4 x 4)	65	**Y038.2**	10 unit(s)	35,45
24 x 24	25 (5 x 5)	30	**Y039.2**	10 unit(s)	30,40
24 x 24	25 (5 x 5)	65	**Y040.2**	10 unit(s)	29,55
20 x 20	36 (6 x 6)	30	**Y041.2**	10 unit(s)	30,40
20 x 20	36 (6 x 6)	65	**Y042.2**	10 unit(s)	33,85
17 x 17	49 (7 x 7)	30	**Y043.2**	10 unit(s)	24,50
17 x 17	49 (7 x 7)	65	**Y044.2**	10 unit(s)	33,85
15 x 15	64 (8 x 8)	30	**P898.2**	10 unit(s)	20,90
15 x 15	64 (8 x 8)	65	**Y045.2**	10 unit(s)	33,85
13,5 x 13,5	81 (9 x 9)	30	**P899.2**	10 unit(s)	20,90
13,5 x 13,5	81 (9 x 9)	65	**Y046.2**	10 unit(s)	33,85
12,5 x 12,5	100 (10 x 10)	30	**P900.2**	10 unit(s)	20,90
12,5 x 12,5	100 (10 x 10)	65	**Y047.2**	10 unit(s)	33,85
10 x 10	144 (12 x 12)	25	**Y048.2**	10 unit(s)	30,40
10 x 10	144 (12 x 12)	30	**Y049.2**	10 unit(s)	30,40
9 x 9	169 (13 x 13)	25	**Y050.2**	10 unit(s)	35,45
9 x 9	169 (13 x 13)	30	**Y051.2**	10 unit(s)	35,45
8 x 8	196 (14 x 14)	25	**Y052.2**	10 unit(s)	35,45
8 x 8	196 (14 x 14)	30	**Y053.2**	10 unit(s)	35,45

Cryogenic box ROTILABO® cardboard maxi

ROTH SELECTION. Material: Cardboard (plastic-coated), waterproof and resistant to low temperatures.

For storing samples in reaction vials and centrifuge tubes. Also suitable for larger containers without grid dividers.
Temperature stability up to -80 °C



Delivery incl. divider inserts.

For 5 ml reaction vials

Version	Compartment size (mm)	Slots	Length (mm)	Width (m)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	18 x 18	36 (6 x 6)	136	136	75	**HNY0.1**	10 unit(s)	64,40

For 15 ml centrifuge tubes

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	18 x 18	36 (6 x 6)	148	148	130	**CLE7.1**	5 unit(s)	78,65

For 50 ml centrifuge tubes

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	33 x 33	16 (4 x 4)	148	148	130	**CLE6.1**	5 unit(s)	75,10

Cryo boxes, storage boxes

Storage box for centrifuge tubes

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Replaceable inserts that can be inserted quickly offering ample depth for stable, upright storage of vials. Translucent lid and numbered inserts for fast identification of samples.

- Suitable for 15/50 ml centrifuge tubes
- Temperature stability -80 to +121 °C



A 121 °C ❄❄

Version	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	132	132	129	**PC60.1**	5 unit(s)	84,80

Storage box ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

With transparent lid, labelling area on two sides.

- Height without lid: 102 mm
- Temperature stable from -90 to +121 °C



A 121 °C ❄❄

(1) For 15 ml centrifuge tubes

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	18 x 18	36 (6 x 6)	144	144	127	green	**HX01.1**	2 unit(s)	75,65

(2) For 50 ml centrifuge tubes

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	30 x 30	16 (4 x 4)	144	144	127	blue	**HX02.1**	2 unit(s)	75,65

Storage box Work2Store™

ROTH SELECTION. Autoclavable: Yes.

Variable all-in-one rack and storage boxes: Can be pulled apart for easy sample handling with large distances between rows. Can be stored flat to save space.
Length when open: 310 mm.

- Alphanumeric numbering
- Stackable
- Temperature stable from -80 to +121 °C.



A 121 °C ❄❄

For reaction vials and cryogenic vials

- Slots: 64 x Ø 12 mm
- Holes with latching devices for cryogenic vials

Version	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	133	133	53	**NL88.1**	1 unit(s)	44,25

Cryo boxes, storage boxes

Cryogenic box ROTILABO® without division

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Flexible storage of cryogenic vials and other sample containers through variable configurations using different dividers. Also suitable for larger containers without grid dividers.

- Outlets in the base
- Temperature stability -90 to +121 °C



A 121 °C ❄❄

Delivery without grid inserts, please order separately.

Version	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Hinged lid	133	133	52	natural	**CLH7.1**	5 unit(s)	19,80
Hinged lid	133	133	52	yellow	**CLH8.1**	5 unit(s)	19,80
Hinged lid	133	133	52	red	**CLH9.1**	5 unit(s)	19,80
Hinged lid	133	133	52	green	**CLK0.1**	5 unit(s)	19,80
Hinged lid	133	133	52	blue	**CLK1.1**	5 unit(s)	19,80
Hinged lid	133	133	52	black	**CLK2.1**	5 unit(s)	19,80
Hinged lid	133	133	75	natural	**CLK3.1**	5 unit(s)	21,25
Hinged lid	133	133	75	yellow	**CLK4.1**	5 unit(s)	21,25
Hinged lid	133	133	75	red	**CLK5.1**	5 unit(s)	21,25
Hinged lid	133	133	75	green	**CLK6.1**	5 unit(s)	21,25
Hinged lid	133	133	75	blue	**CLK7.1**	5 unit(s)	21,25
Hinged lid	133	133	75	black	**CLK8.1**	5 unit(s)	21,25

Accessories grid insert for cryogenic boxes

ROTH SELECTION. Material: PP. Autoclavable: Yes.

A 121 °C ❄❄

Compartment size (mm)	Slots	Height (mm)	Art. No.	Pack Qty.	€
11,2 x 11,2	100 (10 x 10)	30	**CLL3.1**	5 unit(s)	22,75
12,8 x 12,8	81 (9 x 9)	30	**CLL2.1**	5 unit(s)	20,00
15,8 x 15,8	64 (8 x 8)	30	**CLL1.1**	5 unit(s)	18,75
17,3 x 17,3	49 (7 x 7)	30	**CLL0.1**	5 unit(s)	17,25
20,5 x 20,5	36 (6 x 6)	30	**CLK9.1**	5 unit(s)	16,00

Cryogenic box foldable

ROTH SELECTION. Material: PP.

- Suitable for 1.5/2 ml reaction vials, 2 ml cryogenic vials
- Thin-walled
- Moisture-resistant
- Temperature stability -196 to +50 °C
- Suitable for storing samples in the gas phase of liquid nitrogen



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Delivery incl. divider inserts (pre-installed), boxes simply need to be assembled.

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	12 x 12	81 (9 x 9)	124	124	49	white	**HYN2.1**	10 unit(s)	95,85
Slip lid	12 x 12	81 (9 x 9)	124	124	49	blue	**HYN3.1**	10 unit(s)	95,85
Slip lid	12 x 12	81 (9 x 9)	124	124	49	green	**HYN4.1**	10 unit(s)	95,85
Slip lid	12 x 12	81 (9 x 9)	124	124	49	violet	**HYN5.1**	10 unit(s)	95,85

Cryo boxes, storage boxes

Cryogenic box foldable

ROTH SELECTION. Material: PP corrugated, moisture-resistant.

- Temperature stability -80 to +50 °C



Delivery incl. divider inserts.

For 0.2 ml PCR reaction vials

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	7,9 x 7,9	144 (12 x 12)	133	130	30	**ENL0.1**	10 unit(s)	102,95

For 0.5 ml reaction vials

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	12 x 12	81 (9 x 9)	133	130	42	**ENL1.1**	10 unit(s)	102,95

For 1.5/2 ml reaction vials

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	12 x 12	81 (9 x 9)	133	130	51	**AXE4.1**	10 unit(s)	50,50

For 5 ml reaction vials

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	22,6 x 22,6	25 (5 x 5)	133	130	75	**ENL2.1**	10 unit(s)	102,95

For 15 ml centrifuge tubes

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	19,8 x 19,8	36 (6 x 6)	147	145	120	**ENL3.1**	10 unit(s)	140,15

For 50 ml centrifuge tubes

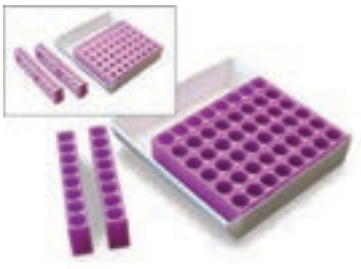
Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	31,6 x 31,6	16 (4 x 4)	147	145	120	**ENL4.1**	10 unit(s)	136,40

Storage box with inserts

ROTH SELECTION. Material: PP.

Box with 8 inserts. Individually removable inserts for flexible working, alphanumeric marking for sample identification.

- Temperature stability -80 to +70 °C
- Autoclavable inserts



For 1.5/2 ml vessels

- Suitable for 1.5/2 ml reaction vials/2 ml cryogenic vials
- Latching device at bottom for cryogenic vials enables single-handed opening and closing

Version	Compartment size (mm)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	Ø 12,3	129	130	35	**ENL8.1**	1 unit(s)	32,00

Cryo boxes, storage boxes

Cryogenic box without division

ROTH SELECTION. Material: PP, transparent. Autoclavable: Yes.

For storage of reaction vials, cryogenic vials and other sample containers.

- Height-adjustable lid, locks at 43 mm, 50 mm and 55 mm
- Temperature stability -196 to +121 °C



A 121 °C ❄❄❄

Delivery without divider inserts, please order separately.

Version	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	130	130	43	**ACL8.1**	5 unit(s)	38,25

Divider inserts

A 121 °C ❄❄❄

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Individual dividers for flexible division of ACL8.1 cryogenic boxes.

Variable division by using between 2 and 16 divider inserts:
2 divider inserts: 4 slots (50 x 55 to 65 x 65 mm)
4 divider inserts: 9 slots (40 x 40 mm)
8 divider inserts: 16 slots (25 x 25 mm)
16 divider inserts: 81 slots (12 x 12 mm)

L x W x H (mm)	Art. No.	Pack Qty.	€
121 x 1 x 30	**ACL9.1**	16 unit(s)	9,15

Cryogenic box ROTILABO®

ROTH SELECTION. Material: PC. Autoclavable: Yes.

- Suitable for 1–2 ml cryogenic vials
- Lid with alphanumeric labelling
- Stackable
- With outlets in the base
- Temperature stability -196 to +121 °C



A 121 °C ❄❄❄

Slip lid slots, round

Pic.	Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
(1)	Slip lid	Ø 12,5	25 (5 x 5)	76	76	53	red	**HE00.1**	1 unit(s)	12,55

Hinged lid slots, round

Assorted colours: Blue, red, green, purple.

Delivery incl. removal aid.

Pic.	Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
(2)	Hinged lid	Ø 12,5	81 (9 x 9)	133	133	53	assorted colours	**HE01.1**	4 unit(s)	67,90

Hinged lid pin pattern

Pic.	Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
(3)	Hinged lid	12,5 x 12,5	100 (10 x 10)	133	133	53	blue	**HE03.1**	1 unit(s)	17,15

Cryo boxes, storage boxes

Cryogenic box ROTILABO® for 5 ml cryogenic vials

ROTH SELECTION. Material: PC, transparent. Autoclavable: Yes.

- Suitable for 5 ml cryogenic vials
- With embossed numeric labelling
- Removable insert
- Stackable
- Temperature stability from -196 °C



A 121 °C ❄❄❄

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Hinged lid	13 x 13	81 (9 x 9)	145	142	97	**ACL7.1**	1 unit(s)	14,15

Cryogenic box ROTILABO®

ROTH SELECTION. Material: PC. Autoclavable: Yes.

With transparent lid and removable coloured insert.

- Slots and lid are labelled numerically
- Labelling area on box and lid
- Outlets in the base
- Stackable
- Temperature stability -196 to +121 °C



A 121 °C ❄❄❄

For 1–2 ml cryogenic vials

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	12,2 x 12,2	81 (9 x 9)	133	133	52	blue	**K585.1**	1 unit(s)	15,30
Slip lid	12,2 x 12,2	81 (9 x 9)	133	133	52	green	**K586.1**	1 unit(s)	15,30
Slip lid	12,2 x 12,2	81 (9 x 9)	133	133	52	red	**K587.1**	1 unit(s)	15,30
Slip lid	12,2 x 12,2	81 (9 x 9)	133	133	52	yellow	**K588.1**	1 unit(s)	15,30

For 3–5 ml cryogenic vials

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	12,2 x 12,2	81 (9 x 9)	133	133	95	blue	**K589.1**	1 unit(s)	16,70
Slip lid	12,2 x 12,2	81 (9 x 9)	133	133	95	green	**K590.1**	1 unit(s)	16,70
Slip lid	12,2 x 12,2	81 (9 x 9)	133	133	95	red	**K591.1**	1 unit(s)	16,70
Slip lid	12,2 x 12,2	81 (9 x 9)	133	133	95	yellow	**K592.1**	1 unit(s)	16,70

Cryogenic box ROTILABO® 100 slots

ROTH SELECTION. Material: PC. Autoclavable: Yes.

- Suitable for 1/2 ml cryogenic vials, internal thread
- Slots: Pin pattern
- Labelled numerically (lid and base)
- Outlets in the base
- Labelling area on the side
- Stackable
- Temperature stability -196 to +121 °C



A 121 °C ❄❄❄

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	12,5 x 12,5	100 (10 x 10)	133	133	52	blue	**K593.1**	1 unit(s)	13,90
Slip lid	12,5 x 12,5	100 (10 x 10)	133	133	52	green	**K594.1**	1 unit(s)	13,90
Slip lid	12,5 x 12,5	100 (10 x 10)	133	133	52	red	**K595.1**	1 unit(s)	13,90
Slip lid	12,5 x 12,5	100 (10 x 10)	133	133	52	yellow	**K596.1**	1 unit(s)	13,90

Cryo boxes, storage boxes

Storage box ROTILABO® 100 slots

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Transparent lid with alphanumerically labelled index card for rapid identification. Black box with black lid for the storage of light-sensitive samples.

- Suitable for 0.5–2 ml reaction vials
- Stackable
- Temperature stability -90 to +121 °C



A 121 °C ❄❄

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Hinged lid	12,4 x 12,4	100 (10 x 10)	140	140	60	colourless	**N195.1**	1 unit(s)	18,45
Hinged lid	12,4 x 12,4	100 (10 x 10)	140	140	60	red	**N196.1**	1 unit(s)	18,45
Hinged lid	12,4 x 12,4	100 (10 x 10)	140	140	60	blue	**N197.1**	1 unit(s)	18,45
Hinged lid	12,4 x 12,4	100 (10 x 10)	140	140	60	green	**N198.1**	1 unit(s)	18,45
Hinged lid	12,4 x 12,4	100 (10 x 10)	140	140	60	yellow	**N199.1**	1 unit(s)	18,45
Hinged lid	12,4 x 12,4	100 (10 x 10)	140	140	60	black	**N200.1**	1 unit(s)	15,50

Storage box 81 slots hinged lid

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for 1.5/2 ml reaction vials
- Removable grid division
- Labelled numerically
- Outlets in the base
- Stacking corners for safe transportation
- Temperature stability -90 to +121 °C



A 121 °C ❄❄

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Hinged lid	13 x 13	81 (9 x 9)	133	133	52	colourless	**T435.1**	1 unit(s)	6,60
Hinged lid	13 x 13	81 (9 x 9)	133	133	52	red	**T436.1**	1 unit(s)	6,60
Hinged lid	13 x 13	81 (9 x 9)	133	133	52	blue	**T437.1**	1 unit(s)	6,60
Hinged lid	13 x 13	81 (9 x 9)	133	133	52	green	**T438.1**	1 unit(s)	6,60
Hinged lid	13 x 13	81 (9 x 9)	133	133	52	yellow	**T439.1**	1 unit(s)	6,60

Storage box recycled

ROTH SELECTION. Material: Plastic, Recycled (colour variations possible). Autoclavable: Yes.

With hinged lid, alphanumerically labelled, removable.

- Suitable for 0.5–2 ml reaction vials
- Taller than standard boxes, for tubes up to max. height of 53.5 mm
- Stackable
- Temperature stability -80 to +135 °C



A 121 °C ❄❄

Version	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Hinged lid	140	140	62	**EEC4.1**	5 unit(s)	32,50

Cryo boxes, storage boxes

Storage box 81 slots

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for 1.5/2 ml reaction vials
- Slots are labelled alphanumerically
- Outlets in the base
- Black box with black lid for storing light-sensitive samples
- Temperature stability -90 to +121 °C



A 121 °C

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	13 x 13	81 (9 x 9)	130	130	47	colourless	**NL80.1**	5 unit(s)	43,20
Slip lid	13 x 13	81 (9 x 9)	130	130	47	blue	**NL81.1**	5 unit(s)	43,20
Slip lid	13 x 13	81 (9 x 9)	130	130	47	green	**NL82.1**	5 unit(s)	43,20
Slip lid	13 x 13	81 (9 x 9)	130	130	47	pink	**NL83.1**	5 unit(s)	43,20
Slip lid	13 x 13	81 (9 x 9)	130	130	47	yellow	**NL84.1**	5 unit(s)	43,20
Slip lid	13 x 13	81 (9 x 9)	130	130	47	orange	**NL85.1**	5 unit(s)	43,20
Slip lid	13 x 13	81 (9 x 9)	130	130	47	black	**NL86.1**	5 unit(s)	43,20

Set

Assorted colours (blue, green, pink, yellow, orange).

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	13 x 13	81 (9 x 9)	130	130	47	assorted colours	**NL87.1**	5 unit(s)	43,20

Storage box 50 slots

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for 1.5/2 ml reaction vials, 2 ml cryogenic vials



A 121 °C

(1) Hinged lid set colourless

Slots are numbered alphanumerically.

Version	Compartment size (mm)	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Hinged lid	13 x 13	142	92	56	colourless	**NY15.1**	5 unit(s)	28,20

(1) Hinged lid set assorted colours

Slots are numbered alphanumerically.

Assorted colours: Blue, green, purple, yellow, orange.

Version	Compartment size (mm)	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Hinged lid	13 x 13	142	92	56	assorted colours	**NY16.1**	5 unit(s)	28,20

(2) Slip lid

Tube height variable up to 55 mm due to height-adjustable plug-in lid.

Version	Compartment size (mm)	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	12,5 x 12,5	144	75	35	colourless	**N201.1**	1 unit(s)	11,65
Slip lid	12,5 x 12,5	144	75	35	pink	**P184.1**	1 unit(s)	10,90
Slip lid	12,5 x 12,5	144	75	35	yellow	**P185.1**	1 unit(s)	10,90
Slip lid	12,5 x 12,5	144	75	35	blue	**P186.1**	1 unit(s)	11,50
Slip lid	12,5 x 12,5	144	75	35	green	**P187.1**	1 unit(s)	10,90

Cryo boxes, storage boxes

Storage box ROTILABO® 200 slots

ROTH SELECTION. Material: PP. Autoclavable: Yes.

With two tabs on the front for inserting tags.

- Suitable for 0.5–2 ml reaction vials
- With alphanumeric labelling
- Stackable
- Temperature stability -80 to +135 °C



A 121 °C ❄❄

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Hinged lid	12 x 12	200 (10 x 20)	275	151	64	black	**ACN1.1**	1 unit(s)	29,05
Hinged lid	12 x 12	200 (10 x 20)	275	151	64	colourless	**P786.1**	1 unit(s)	29,05

Storage box ROTILABO® slimline shape

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Temperature stable from -80 to +135 °C.

- Suitable for 0.5–2 ml reaction vials
- Slip lid with alphanumeric labelling, loosely attached, adjustable height up to 52 mm
- Stackable



A 121 °C ❄❄

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	12 x 12	100 (5 x 20)	287	76	38	black	**ACN0.1**	1 unit(s)	11,45

Cryogenic rack drawer rack

ROTH SELECTION. Material: Stainless steel, polished, drawers made of aluminium.

For the storage of cryogenic boxes in deep freezers, less effort is required for removal and insertion. Cabinet modules without pull-out stop. Suitable for cryogenic boxes in sizes from 130 x 130 to 136 x 136 mm.



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Suitable for	Width (mm)	Height (mm)	Depth (mm)	Arrangement of compartments	Art. No.	Pack Qty.	€
Box height: 50 mm	144	224	570	4 x 4	**CLL9.1**	1 unit(s)	187,60
Box height: 50 mm	144	280	570	5 x 4	**CLN0.1**	1 unit(s)	194,10
Box height: 50 mm	144	336	570	6 x 4	**CLN1.1**	1 unit(s)	200,35
Box height: 50 mm	144	280	709	5 x 5	**HHX5.1**	1 unit(s)	218,25
Box height: 75 mm	144	250	570	3 x 4	**CLN2.1**	1 unit(s)	188,95
Box height: 75 mm	144	335	570	4 x 4	**CLN3.1**	1 unit(s)	195,20

Cryo racks

Cryogenic rack stainless steel

ROTH SELECTION. Material: Stainless steel, polished.

Extremely stable and easy to clean. For storing cryogenic boxes in deep freezers. With carry handles. Suitable for cryogenic boxes in sizes from 130 x 130 to 136 x 136 mm.



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Wide (for upright freezers)

Pic.	Suitable for	Width (mm)	Height (mm)	Depth (mm)	Arrangement of compartments	Art. No.	Pack Qty.	€
(1)	Box height: 50 mm	140	274	424	3 x 5	**LH44.1**	1 unit(s)	147,05
(1)	Box height: 50 mm	140	219	566	4 x 4	**LH43.1**	1 unit(s)	143,35
(1)	Box height: 50 mm	140	274	566	4 x 5	**LH42.1**	1 unit(s)	164,80
(1)	Box height: 50 mm	140	328	566	4 x 6	**LH41.1**	1 unit(s)	183,95

Tall (for chest freezers)

Pic.	Suitable for	Width (mm)	Height (mm)	Depth (mm)	Arrangement of compartments	Art. No.	Pack Qty.	€
(2)	Box height: 50 mm	140	495	140	1 x 9	**LH49.1**	1 unit(s)	107,80
(2)	Box height: 50 mm	140	550	140	1 x 10	**T440.1**	1 unit(s)	93,80
(2)	Box height: 50 mm	140	604	140	1 x 11	**LH47.1**	1 unit(s)	93,80
(2)	Box height: 50 mm	140	659	140	1 x 12	**LH48.1**	1 unit(s)	102,30
(2)	Box height: 50 mm	140	713	140	1 x 13	**LH46.1**	1 unit(s)	109,05
(2)	Box height: 75–77 mm	140	641	140	1 x 8	**LH50.1**	1 unit(s)	100,20
(2)	Box height: 75–77 mm	140	720	140	1 x 9	**LH51.1**	1 unit(s)	148,20

Cryogenic rack Aluminium

ROTH SELECTION. Material: Aluminium.

With carry handle. At least 30 % lighter than stainless steel racks. For the storage of cryogenic boxes in chest freezers or upright freezers, less effort is required for removal and insertion. Improved design for faster cooling rate. Suitable for cryogenic boxes in sizes from 130 x 130 to 136 x 136 mm.



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Wide (for upright freezers)

Pic.	Suitable for	Width (mm)	Height (mm)	Depth (mm)	Arrangement of compartments	Art. No.	Pack Qty.	€
(1)	Box height: 50 mm	140	274	566	4 x 5	**CLL6.1**	1 unit(s)	220,40
(1)	Box height: 50 mm	140	328	566	4 x 6	**CLL7.1**	1 unit(s)	247,25

Tall (for chest freezers)

Pic.	Suitable for	Width (mm)	Height (mm)	Depth (mm)	Arrangement of compartments	Art. No.	Pack Qty.	€
(2)	Box height: 50 mm	140	550	140	1 x 10	**CLL8.1**	1 unit(s)	161,25

Cooling racks

Cooling box ROTILABO®

ROTH SELECTION. Material: PS (foamed).

Ideal for long-term storage in refrigerators and freezers or as a rack on the laboratory bench.

- Stackable
- Temperature stability -196 to +50 °C



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Version	Suitable for	Arrangement of slots	No. of slots	Ø Hole (mm)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Slip lid	1.5/2 ml reaction vials, 2 ml cryogenic vials	5 x 20	100	12	338	95	63	**K496.2**	10 unit(s)	58,60
Slip lid	1.5/2 ml reaction vials, 2 ml cryogenic vials	5 x 10	50	13	210	110	71	**N443.2**	10 unit(s)	61,40

Cryo-freezing container FreezeCell

ROTH SELECTION. Material: Plastic EVAC (ethylene-vinyl acetate copolymer), core made of aluminium alloy.

Container for the controlled freezing of samples in cryogenic tubes or reaction vials at -80 °C for later cryogenic long-term storage.

- Heat-conducting alloy and optimised insulation for uniform cryo-preservation
- Controlled, reproducible gradual cooling rates for high cell survival rate
- Cooling rate (-1 °C/min) independent of filling quantity
- No alcohol or other coolant required
- Can be used directly without pre-cooling



NEW / +

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Directions for use

Place the samples in the freezing container and close the lid. Incubate the freezing container at -80 °C for at least three hours and do not open it during this time. At the end of the incubation period, the samples can be removed and transferred, e.g. to a tank with liquid nitrogen, for long-term storage.

Hexagonal

Suitable for	No. of slots	Outer length (mm)	Outer width (mm)	Outer height (mm)	Weight (g)	Art. No.	Pack Qty.	€
1-2 ml cryogenic vials	12	216	189	100	120	**1L02.1**	1 unit(s)	170,95

Rectangular

Suitable for	No. of slots	Outer length (mm)	Outer width (mm)	Outer height (mm)	Weight (g)	Art. No.	Pack Qty.	€
1-2 ml cryogenic vials	12	117	117	100	160	**1L03.1**	1 unit(s)	170,95

Cooling racks

Cooling system FreezeBox

ROTH SELECTION.

Simple system for cooling samples or for rapid freezing, defrosting and heating. Cooling box, cooling block or cryoblock and cooling module are the perfect combination.



NEW / +

Directions for use

Pre-cool the cooling or cryo block at -20/-80 °C and keep samples cool in the cooling box for several hours on the laboratory bench. Alternatively, the cooling box can be filled with approx. 200 g of dry ice. The cooling module itself does not require any pre-cooling.
Do not keep the cooling box in the freezer.

Standard

Pre-cool the cooling block for at least four hours at –20 °C or at least two hours at –80 °C. Duration of use: Four hours (open lid) or six hours (closed lid).

Operating temperature approx. +0.5 to +4 °C.

Delivery incl. cooling box, cooling block and cooling module.

Suitable for	No. of slots	Ø Hole (mm)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5 ml reaction vials	48	11	170	152	123	**1L09.1**	1 unit(s)	258,00
2 ml cryogenic vials	30	12.6	170	152	123	**1L08.1**	1 unit(s)	258,00
5 ml cryogenic vials	30	13.5	170	152	123	**1L0A.1**	1 unit(s)	258,00
0.2 ml PCR vessels	96	0.7	170	152	123	**1L0C.1**	1 unit(s)	269,85

Cryogenic

Pre-cool the cryoblock for at least six hours at –20 °C or at least three hours at –80 °C. Duration of use: Three hours (open lid) or five hours (closed lid).

Operating temperature approx. –18 to +4 °C.

Delivery incl. cooling box, cryoblock and cooling module.

Suitable for	No. of slots	Ø Hole (mm)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5 ml reaction vials	48	11	170	152	123	**1L05.1**	1 unit(s)	258,00
2 ml cryogenic vials	30	12.6	170	152	123	**1L04.1**	1 unit(s)	258,00
5 ml cryogenic vials	30	13.5	170	152	123	**1L06.1**	1 unit(s)	258,00
0.2 ml PCR vessels	96	0.7	170	152	123	**1L07.1**	1 unit(s)	269,85

Cryo-freezing container Mr. Frosty

Nalgene. Material: PC, lid and tube holder made of HDPE. With foam rubber insert.

Easy to use: Only 100% isopropyl alcohol and a freezer are required.
For reproducible, repeated cooling of samples at approx. -1 °C/min.
Optimum cellular yield after storage at low temperatures.
The tube holder prevents direct contact between the tubes and the alcohol; any marking on the tubes remains readable. The tube holder can be used as a floating stand for thawing samples in the water bath.



Suitable for	No. of slots	Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
1–2 ml cryogenic vials	18	120	86	**AC96.1**	1 unit(s)	169,85

Cooling racks

Cooling box

Nalgene. Material: PC.

For cooling heat-sensitive samples on the lab bench.

- Can be used up to -20 °C (max. -40 °C)
- Protects against temperature fluctuations and power failure
- Markable grid surface on the lid
- Breakproof and stackable with non-slip feet



-20 °C for 12 reaction vials (3 x 4)
Blue base, gel-filled; transparent lid, without gel filling.

Delivery incl. adapter for 0.5 ml reaction vials.

Temperature constancy	Suitable for	Arrangement of slots	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
<-15 °C (–1 h)	0.5-2 ml reaction vials	3 x 4	12	151	108	125	**L243.1**	1 unit(s)	233,30

-20 °C for 32 reaction vials (4 x 8)
Blue base, gel-filled; white lid with non-toxic gel filling.

Delivery incl. adapter for 0.5 ml reaction vials.

Temperature constancy	Suitable for	Arrangement of slots	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
<-15 °C (–2 h)	0.5–2 ml reaction vials	4 x 8	32	243	157	146	**L244.1**	1 unit(s)	436,45

0 °C for 12 reaction vials (3 x 4)
Green base, gel-filled; transparent lid, without gel filling.

Delivery incl. adapter for 0.5 ml reaction vials.

Temperature constancy	Suitable for	Arrangement of slots	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
<1 °C (–3,5 h)	0.5-2 ml reaction vials	3 x 4	12	151	108	125	**L245.1**	1 unit(s)	233,30

0 °C for 32 reaction vials (4 x 8)
Green base, gel-filled; white lid with non-toxic gel filling.

Delivery incl. adapter for 0.5 ml reaction vials.

Temperature constancy	Suitable for	Arrangement of slots	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
<1 °C (–5 h)	0.5-2 ml reaction vials	4 x 8	32	243	157	146	**L246.1**	1 unit(s)	417,10

0 °C for 12 vials (3 x 4)
Green base, gel-filled; transparent lid, without gel filling.

Temperature constancy	Suitable for	Arrangement of slots	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
<1 °C (–5 h)	Vessel Ø 12-13 mm	3 x 4	12	197	140	190	**L247.1**	1 unit(s)	431,10
<1 °C (–5 h)	Vessel Ø 16-17 mm	3 x 4	12	197	140	190	**L248.1**	1 unit(s)	431,10

Cooling racks

Cooling box

Nalgene. Material: PC.

Ideal for quick and repeated cooling of samples. Can be used repeatedly for up to 45 minutes. Cools up to 2 ml of alcohol-based solutions to –20 °C in less than 3 minutes or up to 2 ml of water-based solutions to 0 °C in less than 4 minutes.
Labels and markings do not come off as there is no direct contact between the vessel and the insulating liquid. Breakproof and stackable. Rubber feet to prevent slipping.



Delivery incl. inserts for 0.2 to 0.5 ml vials.

Suitable for	Arrangement of slots	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.2–2 ml reaction vials	3 x 4	12	151	108	125	**L249.1**	1 unit(s)	259,10

Cooling box

ROTH SELECTION. Material: PC, gel-filled.

For cooling heat-sensitive samples such as PCR-reagents or enzymes on the lab bench. With non-slip rubber feet.



0,5-2 ml

Delivery incl. adapter for 0.5 ml reaction vials.

Version	Temperature constancy	Suitable for	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Gel-filled lid	-15 °C (–5 h)	0.5–2 ml reaction vials / Cryogenic vials up to 2 ml	32	245	105	100	**NY11.1**	1 unit(s)	211,80
Basic lid (transparent)	-15 °C (–2,5 h)	0.5–2 ml reaction vials / Cryogenic vials up to 2 ml	12	145	105	100	**NY09.1**	1 unit(s)	112,05
Basic lid (transparent)	-15 °C (–3,5 h)	0.5–2 ml reaction vials / Cryogenic vials up to 2 ml	32	245	105	100	**NY10.1**	1 unit(s)	183,85

For 32 vials (4 x 8)

Delivery incl. Adapter for 0.5 ml reaction vials

PCR

Also suitable for PCR plates.

Version	Temperature constancy	Suitable for	Arrangement of slots	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Basic lid (transparent)	-15 °C (–3,5 h)	0.2 ml PCR vessels	8 x 12	96	225	165	100	**NY12.1**	1 unit(s)	211,80

Cooling racks

Cooling box ROTILABO®

ROTH SELECTION. Material: PC, gel-filled, transparent lid.

For cooling heat-sensitive samples on the lab bench, transporting frozen samples or as a storage box in the refrigerator to protect against temperature fluctuations and power failure.

- Double sided, reaction vials 0.5 ml on one side, 1.5/2 ml on the other side
- Holes (Ø 8/12 mm) are alphanumerically coded on both sides



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White

Temperature constancy	Suitable for	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
0 °C (–5 h)	0.5–2 ml reaction vials	20	170	110	105	**K087.1**	1 unit(s)	192,45

Blue

Temperature constancy	Suitable for	No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
-15 °C (–2 h)	0.5–2 ml reaction vials	20	170	110	105	**K088.1**	1 unit(s)	244,05

Cooling box ROTILABO® PCR

ROTH SELECTION. Material: PP, with non-toxic gel filling.

For cooling heat-sensitive samples on the lab bench.
Suitable for 0.2 ml PCR vessels, plates and reaction vial strips.

- Rack changes colour from approx. 7 °C
- Recommended storage temperature: -20 °C
- Slot Ø 6 mm
- Height without lid 38 mm



Temperature constancy	Suitable for	Arrangement of slots	No. of slots	Length (mm)	Width (mm)	Height (mm)	Colour conversion	Art. No.	Pack Qty.	€
4-7 °C (3 h)	0.2 ml PCR vessels	8 x 12	96	141	99	44	violet to pink	**EX48.1**	2 unit(s)	163,40
4-7 °C (3 h)	0.2 ml PCR vessels	8 x 12	96	141	99	44	green to yellow	**EX49.1**	2 unit(s)	163,40

Cooling box PCR

ROTH SELECTION. Material: PP, PC lid.

Ice-free cooling system for preparing and storing PCR single vessels, strips and plates. For heat-sensitive applications, PCR or cell-based assays, as well as for gentle thawing of samples and stopping reactions. After two hours of pre-cooling at -20 °C, a sample temperature of 0 °C is maintained for over one hour or below 5 °C for up to three hours. Colour change if the temperature limit of 6 °C is exceeded.

- Constant and reliable
- Modern design cools down more quickly in freezers and remains colder for longer
- Temperature-stable up to -80 °C
- Vented lid for faster cooling of samples in a freezer compartment
- Lid can be removed completely and can be used as a stand by rotating by 180°
- Alphanumerically coded



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Arrangement of slots	No. of slots	Colour conversion	Art. No.	Pack Qty.	€
8 x 12	96	from violet to pink	**KLA3.1**	2 unit(s)	118,50
8 x 12	96	from dark blue to light blue	**KLA4.1**	2 unit(s)	118,50

Cooling racks

Cooling rack ROTILABO® Alu.Rack

ROTH SELECTION. Material: Aluminium.
For cooling samples in an ice bath.



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For 0.2/1.5 ml reaction vials
Compatible with PCR trays, PCR strips or 96 PCR single vessels. Additional 6 slots for 1.5 ml reaction vials.

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
100	8 x 12 / 6	115 x 90 x 15	**N470.1**	1 unit(s)	91,55

For 0.5/1.5 ml reaction vials
With 36 slots for 0.5 ml reaction vials and 11 slots for 1.5 ml reaction vials.

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
47	4 x 6 / 11	180 x 90 x 15	**N548.1**	1 unit(s)	91,55

For 1.5 ml reaction vials

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
24	4 x 6	115 x 90 x 30	**EP69.1**	1 unit(s)	97,60

For 2 ml reaction vials

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
24	4 x 6	115 x 80 x 30	**KH56.1**	1 unit(s)	97,60

Cooling rack ROTILABO® for centrifuge tubes

ROTH SELECTION. Material: Aluminium.
For cooling samples in an ice bath.



Arrangement of slots	No. of slots	Ø Hole (mm)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
3 x 4	12	17	95	70	95	**KKK3.1**	1 unit(s)	135,45

Cooling racks

Cooling rack Polar Safe™

ROTH SELECTION. Material: Aluminium, blue, anodised.
Autoclavable: Yes.

Ideal for use on ice, dry ice, in water baths or liquid nitrogen. With side recesses for safe grip. Temperature stable up to -196 °C.



A 121 °C ❄❄❄

Note: Frequent autoclaving and cleaning can cause colour changes.

For 2 ml cryogenic tubes

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
15	3 x 5	113 x 77 x 38	**EKP9.1**	1 unit(s)	187,00

For 1.5/2 ml reaction vials

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
15	3 x 5	113 x 77 x 38	**EKT0.1**	1 unit(s)	187,00

For 0.5 ml reaction vials

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
24	4 x 6	113 x 77 x 33	**EKT1.1**	1 unit(s)	224,00

PCR 96-well

Compatible with PCR trays, PCR strips and single vessels.

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
96	8 x 12	113 x 77 x 20	**EKT2.1**	1 unit(s)	255,35

PCR 384-well

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
384	16 x 24	113 x 77 x 13	**EKT3.1**	1 unit(s)	348,00

ACCESSORIES & SPARE PARTS in the ROTH webshop

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations



Cooling racks

Cooling rack

ROTH SELECTION. Material: Metal (thermally conductive), anodised. Autoclavable: Yes.

Suitable for cooling samples on ice, dry ice or in the vapour phase of liquid nitrogen as well as for heating samples in water baths and incubators.

- Slots are labelled alphanumerically
- Temperature stable up to -150 °C



A 121 °C ❄❄

For reaction vials

For 1.5/2 ml reaction vials and 0.5 to 2 ml screw cap vials.

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
6	2 x 3	60 x 43 x 32	**CXK6.1**	1 unit(s)	88,70
15	3 x 5	96 x 60 x 32	**CXK7.1**	1 unit(s)	181,70
30	5 x 6	114 x 96 x 32	**CXK8.1**	1 unit(s)	306,40
90	6 x 15	274 x 114 x 32	**CXK9.1**	1 unit(s)	489,15
96	8 x 12	221 x 149 x 32	**CXL0.1**	1 unit(s)	622,45

For cryogenic vials

No. of slots	Arrangement of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
15	3 x 5	128 x 85 x 32	**CXL1.1**	1 unit(s)	213,95
24	4 x 6	96 x 60 x 32	**CXL2.1**	1 unit(s)	378,40

For PCR trays

SBS dimensions, compatible with automated systems.

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
384	128 x 85 x 23	**CXL6.1**	1 unit(s)	478,40
96	128 x 85 x 25	**CXL5.1**	1 unit(s)	370,90

Cooling rack ROTILABO® for sample vials

ROTH SELECTION. Material: Aluminium.

For cooling samples in an ice bath.



Suitable for	Arrangement of slots	No. of slots	Ø Hole (mm)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Sample vials 1.5–2 ml	7 x 14	98	12	220	110	30	**KKY5.1**	1 unit(s)	203,20
Headspace vials 20 ml	4 x 8	32	22.5	220	110	30	**KKY6.1**	1 unit(s)	203,20



Ice container

ROTH SELECTION. Material: PP, expanded (EPP).

Highly robust with excellent insulation properties. With recessed hand grips.

Technical specifications:

Art. No.	EET6.1
L x W x H, interior	345 x 345 x 175 mm

Delivery incl. lid.

L x W x H, external (mm)	Art. No.	Pack Qty.	€
400 x 400 x 220	**EET6.1**	1 unit(s)	48,15



Ice container True North™

ROTH SELECTION. Material: PU.

Excellent insulation properties for deep-freeze applications using ice, ice-salt mixtures or other cooling media. Tight-fitting lid for minimum evaporation loss (can be stored below ice container when not in use). Pouring spout for easy pouring out of melted ice.
Conical shape and recessed lid for space-saving stacking.

Delivery incl. lid.

Square

Vol. (l)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
1	267 x 196 x 114	turquoise	**TP25.1**	1 unit(s)	83,25
4	381 x 254 x 182	blue	**TP26.1**	1 unit(s)	118,15
9	521 x 292 x 163	red	**TP27.1**	1 unit(s)	166,65

Round

Vol. (l)	Ø ext. (mm)	Colour	Art. No.	Pack Qty.	€
4	234	black	**TP24.1**	1 unit(s)	105,50



Ice container

ROTH SELECTION. Material: PS, foamed.

Sturdy, thick-walled design provides ideal cooling and prevents condensation. Suitable for ethanol and refrigerant mixtures, dry ice or liquid nitrogen. Temperature stable up to –196 °C.

Square

Vol. (l)	Ø ext. (mm)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
1	300	155 x 155 x 95	blue	**TE12.1**	1 unit(s)	21,80
4	300	220 x 310 x 125	blue	**TE14.1**	1 unit(s)	45,40
9	300	335 x 435 x 130	blue	**TE16.1**	1 unit(s)	62,60

Round
Tight-fitting lid minimises evaporation loss.

Delivery incl. lid.

Vol. (l)	Ø ext. (mm)	Colour	Art. No.	Pack Qty.	€
2.5	300	blue	**TE08.1**	1 unit(s)	45,40
5.0	300	blue	**TE10.1**	1 unit(s)	59,75



Ice bucket ROTILABO®

ROTH SELECTION. Material: Stainless steel.

Double wall, with carrying handle.

Delivery incl. lid.

Vol. (l)	Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
2	150	210	**YE46.1**	1 unit(s)	44,90



Cooling box

ROTH SELECTION. Material: PP, PU foam insulation.
With hinged lid and bow handle.

Technical specifications:

Art. No.	AA46.1	AA47.1
Cooling capacity	24 h	
Inner length	330 mm	
Inner width	240 mm	370 mm
Inner height	330 mm	240 mm
Weight	2,4 kg	2,6 kg

Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
26	407	313	424	**AA46.1**	1 unit(s)	45,45
30	408	322	461	**AA47.1**	1 unit(s)	51,05



Cooling box Xtreme®

ROTH SELECTION. Material: HDPE, full PU foam insulation.
Close using attached lid and snap lock for a leak-tight seal. Waterpoof and corrosion resistant drainage.

Technical specifications:

Art. No.	LT01.1	LT02.1	LT03.1
Cooling capacity	120 h		
Inner length	530 mm	610 mm	790 mm
Inner width	240 mm	300 mm	330 mm
Inner height	280 mm	330 mm	290 mm
Weight	5,6 kg	6,1 kg	7,4 kg

Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
48	700	380	440	**LT01.1**	1 unit(s)	107,00
66	720	400	440	**LT02.1**	1 unit(s)	143,00
90	920	420	440	**LT03.1**	1 unit(s)	203,20



Cooling box

ROTH SELECTION. Material: PP, Full PU foam insulation.

Technical specifications:

Art. No.	P252.1	P253.1
Cooling capacity	17 h	20,5 h
Inner length	265 mm	320 mm
Inner width	165 mm	195 mm
Inner height	250 mm	275 mm
Weight	1,4 kg	2,1 kg

With bow handle
Loose-fit lid, can be locked with carrying handles.

Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
10	350	225	310	**P252.1**	1 unit(s)	43,45
17	410	245	355	**P253.1**	1 unit(s)	65,95



Cooling box thermoelectric

ROTH SELECTION.

Can be operated via 230 V mains supply (optional) or via the car's 12 V connector.

- Strong PU insulation
- Secure lid
- Integrated storage compartment for the cable
- Integrated fan (39 dB) accelerates the cooling process
- Cooling capacity up to 20 °C below outside temperature
- Weight 3.6 kg

Technical specifications:

Art. No.	P272.1
Inner length	328 mm
Inner width	243 mm
Inner height	310 mm

Delivery incl. 12 V plug, please order 230 V transformer separately.

Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
24	407	313	435	**P272.1**	1 unit(s)	113,65

Cooling, Insulating





Cooling bag Fold'N Cool™

ROTH SELECTION. Material: Polyester with rear PU coating, inner material PEFA, EPE foam insulation.

Collapsible for space-saving storage. With adjustable shoulder strap, hanger loop and separate front bag.

Technical specifications:

Art. No.	LP95.1	LP93.1	LP94.1
Weight	310 g	610 g	765 g

Pic.	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
(1)	5	230	155	190	**LP95.1**	1 unit(s)	23,85
(2)	20	320	200	370	**LP93.1**	1 unit(s)	34,15

Maxi
With two additional carrying handles.

Pic.	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
(3)	30	390	250	380	**LP94.1**	1 unit(s)	37,95



Insulating bag Frozen Food Bag

ROTH SELECTION. Material: PE, EPE foam insulation.

Technical specifications:

Art. No.	LP96.1	LP97.1
Cooling capacity	to 3 h	
Weight	110 g	120 g

Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
19	500	465	7	**LP96.1**	10 unit(s)	55,05
26	585	475	7	**LP97.1**	10 unit(s)	60,20



Cooling packs ROTILABO®

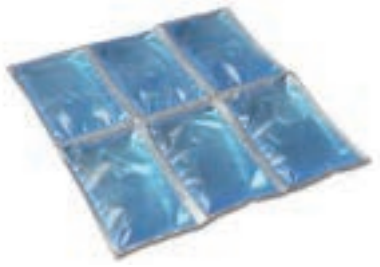
ROTH SELECTION. Material: Plastic (PA/PE film), with gel filling.

- Outstanding cooling properties
- Suitable for multiple use

Technical specifications:

Art. No.	PX99.1	PY00.1
Weight	230 g	460 g

Outer length (mm)	Outer width (mm)	Art. No.	Pack Qty.	€
140	137	**PX99.1**	60 unit(s)	59,95
190	137	**PY00.1**	32 unit(s)	26,55



Cooling elements Flexi Freez'Pack®

ROTH SELECTION.

Very flexible thanks to individual cooling segments, even when frozen. Suitable for foodstuffs.

Technical specifications:

Art. No.	LT04.1	LT05.1	LT06.1
Weight	150 g	300 g	600 g

Outer length (mm)	Outer width (mm)	Outer height (mm)	Refrige-ration segments	Art. No.	Pack Qty.	€
290	160	18	6 x 2	**LT04.1**	10 unit(s)	45,30
300	240	18	4 x 3	**LT05.1**	10 unit(s)	63,20
600	240	18	12 x 3	**LT06.1**	10 unit(s)	64,30



Cooling packs ROTILABO®

ROTH SELECTION. Material: PE, filled with coolant.

Technical specifications:

Art. No.	E447.1	E447.2
Weight	220 g	

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
169	75	19	**E447.1**	5 unit(s)	10,35
169	75	19	**E447.2**	50 unit(s)	79,30



Cooling collar ROTILABO®

ROTH SELECTION. Material: Microfibre.

Insulating cooling pack in flexible sleeve. For the cooling and keeping cool of bottles with Ø approx. 70–100 mm. Adapts well to the shape of the bottle. Also suitable for angled containers. Can be reused any number of times. Foldable for space-saving storage.
Dimensions when folded approx. L 200 x W 150 mm.

Outer length (mm)	Outer width (mm)	Art. No.	Pack Qty.	€
450	200	**CY97.1**	1 unit(s)	34,70



Temperature control vessel

KGW. Material: Stainless steel.

For keeping samples warm or cold.

- Double-wall
- Quick response to temperature changes
- With connections for hoses with a 6 mm inner Ø

The hot or cold tempering medium is pumped around the double-walled casing with the aid of a thermostat.

Technical specifications:

Art. No.	A628.1	A629.1	A630.1	A631.1
Temperature range	-30 to +120 °C			
Ø Internal	85 mm	100 mm	185 mm	
Inner height	206 mm	285 mm	160 mm	270 mm

Vol. (l)	Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
1	107	231	**A628.1**	1 unit(s)	505,25
2	122	312	**A629.1**	1 unit(s)	592,35
3	200	190	**A630.1**	1 unit(s)	810,55
6	200	300	**A631.1**	1 unit(s)	970,75



Dewar vacuum flask large

KGW. Material: Metal blue-coated, Borosilicate glass 3.3 insert, fully silver-plated.

With lid and carrying handle. For storage and transport of heat-sensitive goods such as dry ice (CO_2).

Technical specifications:

Art. No.	0443.1	1100.1	0444.1
Ø Internal	200 mm		250 mm
Inner height	350 mm	500 mm	620 mm

Type	Vol. (l)	Outer height (mm)	Art. No.	Pack Qty.	€
31 C	10	475	**0443.1**	1 unit(s)	732,10
32 C	14	610	**1100.1**	1 unit(s)	772,95
34 C	28	750	**0444.1**	1 unit(s)	1.316,90

Dewar containers

Dewar vacuum flask cylindrical

KGW. Material: Metal blue-coated, borosilicate glass 3.3 insert, fully silver-plated.

For storage and internal transport of samples in coolants, such as liquid nitrogen.



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Delivery without plug, please order separately.

Type C

Technical specifications:

Art. No.	LE85.1	0440.1	0441.1	LE86.1	LE87.1	1003.1	LE88.1
Ø Internal	40 mm	57 mm	77 mm	90 mm		110 mm	138 mm
Inner height	90 mm	210 mm	235 mm	245 mm	340 mm	290 mm	310 mm

Type	Vol. (ml)	Outer height (mm)	Art. No.	Pack Qty.	€
00C	100	135	**LE85.1**	1 unit(s)	104,15
3C	500	260	**0440.1**	1 unit(s)	153,35
9C	1,000	290	**0441.1**	1 unit(s)	192,45
12C	1,500	300	**LE86.1**	1 unit(s)	247,25
13C	2,000	390	**LE87.1**	1 unit(s)	258,00
18C	2,500	345	**1003.1**	1 unit(s)	285,95
S21C	4,000	375	**LE88.1**	1 unit(s)	413,90

Type G-C

With side grip.

Technical specifications:

Art. No.	LE89.1	LE90.1	LE91.1	LE92.1	LE93.1	LE94.1	LE95.1	LE96.1
Ø Internal	40 mm	57 mm	77 mm	90 mm		110 mm	138 mm	
Inner height	170 mm	210 mm	235 mm	245 mm	340 mm	290 mm	310 mm	600 mm

Type	Vol. (ml)	Outer height (mm)	Art. No.	Pack Qty.	€
G0C	200	215	**LE89.1**	1 unit(s)	146,25
G3C	500	260	**LE90.1**	1 unit(s)	194,60
G9C	1,000	290	**LE91.1**	1 unit(s)	230,05
G12C	1,500	300	**LE92.1**	1 unit(s)	280,60
G13C	2,000	390	**LE93.1**	1 unit(s)	285,95
G18C	2,500	345	**LE94.1**	1 unit(s)	311,75
GS21C	4,000	375	**LE95.1**	1 unit(s)	444,00
GS22C	8,000	660	**LE96.1**	1 unit(s)	625,65

Accessories plug for Dewar vacuum flask cylindrical

KGW. Material: PU.

Rests loosely on top.

Suitable for	Art. No.	Pack Qty.	€
Dewar vacuum flask 100 ml (LE85.1)	**LE97.1**	1 unit(s)	44,70
Dewar vacuum flask 1000 ml (0441.1LE91.1)	**LH00.1**	1 unit(s)	48,85
Dewar vacuum flask 1500 ml (LE86.1/LE92.1)	**LH01.1**	1 unit(s)	48,85
Dewar vacuum flask 200 ml (LE89.1)	**LE98.1**	1 unit(s)	44,70
Dewar vacuum flask 2000 ml (LE87.1/LE93.1)	**LH02.1**	1 unit(s)	48,85
Dewar vacuum flask 2500 ml (1003.1LE94.1)	**LH03.1**	1 unit(s)	60,45
Dewar vacuum flask 4000 ml (LE88.1/LE95.1)	**LH04.1**	1 unit(s)	60,45
Dewar vacuum flask 500 ml (0440.1/LE90.1)	**LE99.1**	1 unit(s)	44,70
Dewar vacuum flask 8000 ml (LE96.1)	**LH05.1**	1 unit(s)	60,45

Dewar containers

Dewar vessel stainless steel

KGW. Material: Stainless steel.

For the safe handling of coolants and freezing mixtures such as liquid nitrogen or dry ice.

- Cylindrical
- Easy to use
- High mechanical breaking strength



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Delivery without plug, please order separately.

DSS

From 1000 ml capacity with removable carrying handle.

Technical specifications:

Art. No.	3628.1	3635.1	3651.1	3653.1	3655.1	3669.1
Ø Internal	65 mm	85 mm	100 mm		185 mm	
Inner height	180 mm	206 mm	157 mm	285 mm	160 mm	270 mm

Type	Vol. (ml)	Outer height (mm)	Art. No.	Pack Qty.	€
DSS 500	500	203	**3628.1**	1 unit(s)	364,45
DSS 1000	1,000	231	**3635.1**	1 unit(s)	387,00
DSS 1000 W	1,000	177	**3651.1**	1 unit(s)	419,25
DSS 2000	2,000	312	**3653.1**	1 unit(s)	476,25
DSS 3000	3,000	190	**3655.1**	1 unit(s)	686,95
DSS 6000	6,000	300	**3669.1**	1 unit(s)	869,70

GSS

With grip and handle.

Technical specifications:

Art. No.	A632.1	A633.1	A634.1
Ø Internal	85 mm	100 mm	185 mm
Inner height	206 mm	285 mm	160 mm

Type	Vol. (ml)	Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
GSS 1000	1,000	107	231	**A632.1**	1 unit(s)	451,50
GSS 2000	2,000	122	312	**A633.1**	1 unit(s)	541,80
GSS 3000	3,000	200	190	**A634.1**	1 unit(s)	721,35

Accessories plug for Dewar vessel made of stainless steel

KGW. Material: PU.

Rests loosely on top.

Suitable for	Art. No.	Pack Qty.	€
Dewar vessel, 500 ml (3628.1)	**XX13.1**	1 unit(s)	49,30
Dewar vessel, 1000 ml (3635.1/A632.1)	**XX14.1**	1 unit(s)	49,30
Dewar vessel, 1000 ml (W) and 2000 ml (3651.1/3653.1/A633.1)	**XX15.1**	1 unit(s)	51,95
Dewar vessel 3000 ml and 6000 ml (3655.1/3669.1/A634.1)	**XX16.1**	1 unit(s)	60,55

Dewar containers

Dewar transport vessel

KGW.

Suitable for storage and transport of heat-sensitive samples in coolants, such as liquid nitrogen.
When using gassing coolants, a hole must be made in the lid (central; Ø approx. 2 mm).



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Technical specifications:

Art. No.	0442.1	HT40.1	HT39.1	HT41.1	1098.1	HT42.1	1099.1	HT43.1
Evaporation rate	1.1 l liquid N_2/d		1.7 l liquid N_2/d		1.5 l liquid N_2/d		1.3 l liquid N_2/d	
Ø Internal	100 mm		138 mm					
Inner height	150 mm		170 mm		230 mm		310 mm	

(1) Type B (Metal sleeve, blue)
Material: Metal blue-coated, borosilicate glass 3.3 insert, fully silver-plated, lid made of insulated plastic, aluminium handle.

Type	Vol. (l)	Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
26 B	1	132	215	**0442.1**	1 unit(s)	273,05
27 B	2	170	245	**HT39.1**	1 unit(s)	295,65
28 B	3	170	305	**1098.1**	1 unit(s)	353,70
29 B	4	170	385	**1099.1**	1 unit(s)	438,60

(2) Type B-E (Stainless steel sleeve)
Material: Stainless steel borosilicate glass 3.3 insert, fully silver-plated, lid made of insulated plastic, aluminium handle.

Type	Vol. (l)	Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
26 BE	1	132	215	**HT40.1**	1 unit(s)	270,90
27 BE	2	170	245	**HT41.1**	1 unit(s)	333,25
28 BE	3	170	305	**HT42.1**	1 unit(s)	427,85
29 BE	4	170	385	**HT43.1**	1 unit(s)	485,90

Dewar vessel spherical

KGW. Material: Metal (Aluminium casing, brushed), borosilicate glass 3.3 insert, fully silver-plated.

For storing liquid nitrogen. Glass insert is wrapped in foam rubber to prevent breakage.

- Low evaporation rate
- High stability



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Technical specifications:

Art. No.	C369.1	C370.1	C371.1	C372.1
Evaporation rate	0.2 l liquid N_2/d	0.4 l liquid N_2/d		0.6 l liquid N_2/d
Ø Inner neck	30 mm	60 mm		65 mm
Inner height	235 mm	305 mm	350 mm	380 mm

Delivery incl. handle and insulating lid (loose-fit).

Type	Vol. (l)	Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
21 AL	1	175	300	**C369.1**	1 unit(s)	370,90
22 AL	3	225	380	**C370.1**	1 unit(s)	582,65
23 AL	5	260	450	**C371.1**	1 unit(s)	683,70
24 AL	10	330	480	**C372.1**	1 unit(s)	904,10

Dewar containers

Dewar vessel dish-shaped

KGW. Material: Aluminium, Borosilicate glass 3.3 insert, fully silver-plated.

For liquid and solid media and solids (LN_2 or CO_2). Anti-magnetic.

Application:

- Tempering of round-bottom flasks
- Cooling of small samples
- Hot or cold bath
- Suitable for use on magnetic stirrers



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Technical specifications:

Art. No.	LH06.1	C610.1	C611.1	C612.1	C613.1	LH07.1
Ø Internal	67 mm	77 mm	110 mm	138 mm	170 mm	200 mm
Inner height	40 mm	50 mm	70 mm	80 mm	110 mm	125 mm

Type	Vol. (ml)	Outer height (mm)	Art. No.	Pack Qty.	€
SCH 6 CAL	80	75	**LH06.1**	1 unit(s)	170,95
SCH 9 CAL	120	90	**C610.1**	1 unit(s)	184,90
SCH 18 CAL	400	115	**C611.1**	1 unit(s)	295,65
SCH 20 CAL	800	125	**C612.1**	1 unit(s)	353,70
SCH 30 CAL	1,600	145	**C613.1**	1 unit(s)	484,85
SCH 31 CAL	2,700	160	**LH07.1**	1 unit(s)	754,65

Dewar vessel

Nalgene. Material: HDPE, double walls filled with polyurethane foam.

Suitable for safe short-term handling and storage of liquid nitrogen, dry ice, freezing mixtures and iced water. Shatter-proof. Temperature stability: -196 to +100 °C.

- Vented, insulating lid
- Metal clips to secure the lid
- With moulded-in ribs
- Pour spout and bottom grip area
- Container with carrying handle (except for 10 l)



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Technical specifications:

Art. No.	PP15.1	PP16.1	PP17.1	PP18.1
Ø Internal	96 mm	122 mm	158 mm	198 mm
Inner height	195 mm	231 mm	295 mm	396 mm

Vol. (l)	Art. No.	Pack Qty.	€
1	**PP15.1**	1 unit(s)	229,00
2	**PP16.1**	1 unit(s)	253,70
4	**PP17.1**	1 unit(s)	266,60
10	**PP18.1**	1 unit(s)	476,25

Dewar containers

Dry ice machine SnowPack®



Bürkle.

Various possible applications, such as lowering the temperature in cooling baths or cold traps, pre-cooling tissue samples, transport lock or embedding biological substances, freezing blood and tissue samples, or studies in chemistry and physics.
Suitable for use with any commercial CO_2 steel bottle with a standpipe valve (W 21.80 x 1/14″ in according to DIN 477 no. 6).

Handling:
Connect to a CO_2 bottle, open valve, allow CO_2 to flow through, close valve, open the lock and remove the block.

Series 250
Dry ice machine for 250 g block

- Yield from 22 kg gas bottle: Approx. 16 blocks
- To make a -79 °C block of dry ice weighing 250 g within ~1 min

Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
80	60	**9285.1**	1 unit(s)	352,60

Series 50
Dry ice machine for 50 g block

- Yield from 22 kg gas bottle: Approx. 90 blocks
- To make a -79 °C block of dry ice weighing 50 g within ~0.5 min

Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
50	30	**9282.1**	1 unit(s)	273,05

ROTH SELECTION



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- Proven ROTH SELECTION products for reliable results

Sample bags



Mailing bags docuCARE® med

ROTH SELECTION. Material: LDPE.

Liquid-tight sample bags for safe and secure transport of medical samples, laboratory samples or cytostatic agents. Blue security seal with hidden "ILLEGAL ENTRY" lettering in multiple languages (certified by "ISEGA"), width 45 mm. Straightforward handling thanks to tamper-proof self-adhesive seal. Suitable as secondary packaging for transporting biological substances of Category B (UN 3373) according to ADR and packaging instruction P650.

- Liquid-tight (confirmed by BAM)
- Highly tearproof film, recyclable, transparent
- Durable duplex seam, with microprint
- Printed with the UN 3373 number / Biological materials, category B
- Serial numbering and barcodes

Suitable absorbent nonwoven sheet for use as an absorption material available as an option.

Version	Outer width (mm)	Outer height (mm)	Inner width (mm)	Inner height (mm)	Art. No.	Pack Qty.	€
A4 format	225	360	215	350	**1C80.1**	500 unit(s)	191,35
A5 format	165	265	155	255	**1C7Y.1**	500 unit(s)	141,80



Accessories absorbent non-woven sheet for mailing bags

ROTH SELECTION. Material: Cellulose, Superabsorbent polymer.

Nonwoven sheet inserts for use as an absorption material in mailing bags. Surface weight 345 g/m².

Width (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
120	180	4 x 250	**1C81.1**	1,000 unit(s)	337,55



Sample bags ROTILABO®

ROTH SELECTION. Material: LDPE.

With zip lock seal.

Thickness 50 µm

Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
40	60	50	**HHL0.1**	1,000 unit(s)	18,60
50	80	50	**P277.2**	1,000 unit(s)	32,25
60	130	50	**HHL1.1**	1,000 unit(s)	27,00
70	100	50	**HHL2.1**	1,000 unit(s)	25,80
80	120	50	**P278.2**	1,000 unit(s)	40,45
90	90	50	**HHL3.1**	1,000 unit(s)	38,20
100	150	50	**P279.2**	1,000 unit(s)	45,90
120	170	50	**P280.2**	1,000 unit(s)	59,90
140	190	50	**HHL4.1**	1,000 unit(s)	50,20
150	220	50	**P281.2**	1,000 unit(s)	73,00
180	250	50	**P282.2**	1,000 unit(s)	95,35
200	300	50	**P283.2**	1,000 unit(s)	123,65
250	350	50	**HHL5.1**	100 unit(s)	24,20
300	400	50	**P284.1**	100 unit(s)	23,25
350	450	50	**HHL6.1**	100 unit(s)	33,90

Thickness 90 µm

Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
160	220	90	**HHL7.1**	100 unit(s)	22,85
200	300	90	**HHL8.1**	100 unit(s)	26,75
300	400	90	**HHL9.1**	100 unit(s)	42,50



Sample bags ROTILABO® with labelling area

ROTH SELECTION. Material: LDPE.

With zip lock seal. With a white, lined labelling area on one side.

Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
40	60	50	**HHK7.1**	100 unit(s)	9,15
70	100	50	**0638.1**	100 unit(s)	9,15
100	150	50	**0639.1**	100 unit(s)	10,65
120	170	50	**0640.1**	100 unit(s)	12,05
160	220	50	**HHK8.1**	100 unit(s)	15,95
200	300	50	**HHK9.1**	100 unit(s)	21,40

Sample bags



Sample bags ROTILABO® drawstring

ROTH SELECTION. Material: LDPE.

Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
160	240	50	**1510.1**	100 unit(s)	24,20
200	300	50	**1511.1**	100 unit(s)	28,50
300	500	50	**1512.1**	100 unit(s)	41,40
400	600	50	**1A5X.1**	100 unit(s)	66,55



Paper bags

ROTH SELECTION.

For storage of small parts, plant seeds, etc.

Cellulose

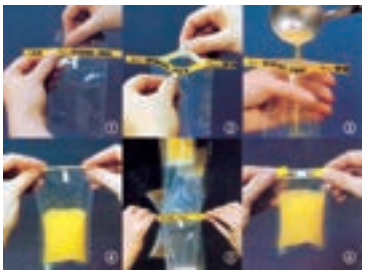
Material: Cellulose. Non-sterile.

Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
65	90	**TK02.1**	1,000 unit(s)	44,10
95	132	**TK03.1**	1,000 unit(s)	55,85
130	180	**TK04.1**	1,000 unit(s)	90,70

Glassine

Material: Glassine. Non-sterile.

Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
65	90	**XC52.1**	100 unit(s)	6,05
95	132	**XC53.1**	100 unit(s)	8,75
130	180	**XC54.1**	100 unit(s)	16,95



S ❄❄❄

Liquid sample bags Whirl-Pak®

Nasco Sampling. Material: LDPE. **Sterile**.

For the storage of liquid and solid samples.
Wire ties allow leak-proof, water-tight and air-tight closure of the bags.

Application:

- 1. Easy to open by tearing the foil along the perforation. The inside of the bags remains sterile as long they are not opened
- 2. The bags can be opened using the lifting straps, without touching the inside of the bag
- 3. The wide neck opening of the bags simplifies filling. Hold the bag as shown and fill to approx. 2/3 full
- 4. Close the bags by pulling on the outer straps.
- 5. Hold the bag away from you and swirl it around at least 3 times. (Fold bags with volumes upwards of 2500 ml 4–5 times)
- 6. Fold the straps over to close the bags with a watertight seal

Temperature stability: -196 to +80 °C.

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
120	75	185	76	**T252.2**	500 unit(s)	105,75
210	95	180	76	**CEE7.1**	500 unit(s)	120,80
530	115	230	64	**T253.2**	500 unit(s)	147,65
710	150	230	76	**T254.2**	500 unit(s)	199,95
800	125	305	76	**CEE8.1**	500 unit(s)	186,00
1,080	125	380	76	**T255.2**	500 unit(s)	212,85
1,630	190	300	76	**CEE9.1**	500 unit(s)	282,75
2,070	190	380	76	**T256.2**	500 unit(s)	284,90

With labelling area

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
30	65	125	64	**E252.2**	500 unit(s)	92,40
60	75	125	57	**E253.2**	500 unit(s)	112,35
120	75	185	57	**1611.2**	500 unit(s)	118,75
210	95	180	64	**CEE1.1**	500 unit(s)	127,15
530	115	230	64	**1612.2**	500 unit(s)	149,35
710	150	230	76	**CEE2.1**	500 unit(s)	173,10
800	125	305	76	**CEE3.1**	500 unit(s)	212,85
2,720	254	380	102	**CEE5.1**	250 unit(s)	281,65
5,440	380	508	102	**CEE6.1**	100 unit(s)	212,85

Free-standing

Standing completely free due to special base, without a stand. Suitable for liquids and solids. With large labelling area.

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
120	75	185	64	**T261.2**	500 unit(s)	148,20
540	115	230	76	**T262.2**	500 unit(s)	215,00
710	150	230	76	**ETA5.1**	500 unit(s)	280,60
2,000	190	380	102	**ETA6.1**	250 unit(s)	290,25

Sample bags

Black
For retaining and storing light-sensitive liquid and solid samples. With labelling area imprinted in white.

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
532	115	230	64	**HT83.1**	500 unit(s)	197,80
1,627	190	300	102	**KLA7.1**	500 unit(s)	380,55



S ❄❄❄

Liquid sample bags Whirl-Pak® with sponge Speci-Sponge®

Nasco Sampling. Material: LDPE. **Sterile**.

For sampling of laboratory benches, furniture, devices and other areas where testing for pathogens such as listeria, salmonella and *E. coli* is required. The sponge is sterile and not growth-inhibiting. After the sample has been collected, return the sponge to the bag. Add medium and, if necessary, incubate directly in the bag.

- With wire ties and large labelling area
- Sponge dimensions when wet: L 76 x W 38 x H 16 mm

Vol. (ml)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
540	115	230	**T263.2**	100 unit(s)	176,30
1,650	190	300	**T265.2**	100 unit(s)	182,75



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Homogenising bag Whirl-Pak®

Nasco Sampling. Material: PE. **Sterile**.

For use with homogenisers (lab blenders).

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
380	130	190	76	**T257.2**	500 unit(s)	159,30
710	150	230	102	**T258.2**	500 unit(s)	244,05

With labelling area

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
710	150	230	102	**E254.2**	500 unit(s)	247,25
1,650	190	300	102	**E255.2**	500 unit(s)	328,95

Round base
Rounded base prevents the sample from settling in the corners of the bag. With labelling area.

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
1,540	185	330	102	**CEC2.1**	500 unit(s)	344,00

With filter
With labelling area and full-surface filter. Contains a third layer of finely perforated PE, which filters out solids when used in lab blenders.

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
200	95	180	76	**CEC3.1**	250 unit(s)	237,60
710	150	230	102	**P310.2**	250 unit(s)	299,95
1,650	190	300	102	**P311.2**	250 unit(s)	385,95
2,040	190	380	102	**CEC4.1**	250 unit(s)	394,55
2,720	254	380	102	**CEC5.1**	100 unit(s)	293,50

Homogenising bags

S

Homogenising bag

ROTH SELECTION. Material: PE. **Sterile**.

Suitable for use in homogenisers.

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
80	105	150	70	**AYY6.1**	1,500 unit(s)	142,30
400	180	300	70	**EP15.1**	500 unit(s)	64,80
3,500	380	510	70	**AYY7.1**	100 unit(s)	47,80

With filter (full-surface)
The filter traps solid particles, thereby preventing the pipettes from becoming blocked.

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
400	190	300	70	**EP16.1**	500 unit(s)	304,25

With side filter
The filter traps solid particles, thereby preventing the pipettes from becoming blocked.

Vol. (ml)	Width (mm)	Height (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
400	190	300	70	**EP17.1**	500 unit(s)	308,55



Sealing ties ROTILABO® Soft

ROTH SELECTION. Material: TPU.

- Very tearproof and flexible
- UV- and weather-resistant
- Can be opened and closed any number of times
- Secure hold thanks to variable preload
- Resistant to oils, grease and solvents
- Temperature stability: -40 to +80 °C
- Dielectric strength: 20 kV/mm
- Elongation at break: Approx. 400%

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
180	7	**K150.1**	50 unit(s)	13,85
260	7	**K151.1**	50 unit(s)	17,45
260	11	**K152.1**	50 unit(s)	22,75
340	11	**K153.1**	50 unit(s)	29,70



Sealing ties ROTILABO®

ROTH SELECTION. Material: PE.

With round profile. Suitable e.g. for sealing bags, for use as a cable tie, wire replacement. Lock-in fastener can be opened a virtually unlimited number of times.

Version	Length (mm)	Art. No.	Pack Qty.	€
Standard, 2 locking holes	180	**H721.1**	100 unit(s)	8,65
Standard, 2 locking holes	240	**H722.1**	100 unit(s)	9,90
Reinforced, 1 closing hole	140	**H720.1**	100 unit(s)	8,50

Foils, foil dispenser and holders



Roll holder

Leifheit.

With cutting devices. Two holders for rolls of foil and one holder for wipes up to 35 cm wide. Colour: White grey.

Width (mm)	Height (mm)	Depth (mm)	Art. No.	Pack Qty.	€
395	310	75	**0661.2**	1 unit(s)	38,60



Foil welding device

Severin.

With viewing window, sealing and cut-off wire and automatic air extraction. Power approx. 160 W.

Delivery incl. sample roll of foil.

Width (mm)	Height (mm)	Depth (mm)	Art. No.	Pack Qty.	€
350	90	130	**K279.1**	1 unit(s)	45,85



Dispenser box ROTILABO®

ROTH SELECTION. Material: PMMA, lid made of PC.

With safety cutting device. For neatly storing and cutting rolls of foil up to 10 cm wide.

Suitable for	Art. No.	Pack Qty.	€
PARAFILM® M (H666.1), DuraSeal® (E364.1)	**H413.1**	1 unit(s)	176,30



Dispenser box ROTILABO® attachment dispenser

ROTH SELECTION. Material: ABS.

Attachment dispenser for one 100 mm wide roll or for two 50 mm wide rolls.

Application

Place the dispenser directly on the PARAFILM® M box and pull the film through. The roll must not be taken out of the packaging. Built-in safety blade slides and cuts without risk of injury. Easy to clean.

Delivery incl. two safety blades.

Version	Art. No.	Pack Qty.	€
Dispenser box	**KLA5.1**	1 unit(s)	39,70



Dispenser box ROTILABO®

ROTH SELECTION. Material: ABS.

For quickly and cleanly cutting PARAFILM® M and Dura Seal® (only Art. No. E364.1) or Tough-Tags®.

- Processing width up to 10 cm
- With safety cutting device

Colour	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
red	171	120	144	**HY14.1**	1 unit(s)	73,15
blue	171	120	144	**EE82.1**	1 unit(s)	73,15
green	171	120	144	**HY13.1**	1 unit(s)	73,15

Foils, foil dispenser and holders





Sealing film PARAFILM® M

ROTH SELECTION.

Ideal for sealing vessels, petri dishes, cells etc. High flexible (stretches up to 200%). Clings even around irregular shapes.

- The sealing film is free of plasticisers, and consists largely of polyolefins and paraffin waxes
- Meets the requirements of the FDA when used at temperatures below 55 °C, as well as when GMP (Good Manufacturing Practice) is followed
- PARAFILM® M is resistant to many polar substances for up to 48 hours, such as saline solutions, inorganic acids and bases; brittleness may occur after this time
- Temperature stability: -45 to +50 °C (Melting point: 60 °C)
- Elasticity: 200 %

Gas permeability in 24 hours at 23 °C and 50% RH for:

- Oxygen: 350 cm^3/m^2
- Nitrogen: 105 cm^3/m^2
- Carbon dioxide: 1100 cm^3/m^2

Water vapour permeability in 24 hours at 37 °C and 90% RH for:

- 0.8 g/m^2

Film thickness (µm)	Width (mm)	Length (m)	Art. No.	Pack Qty.	€
120	100	75	**CNP8.1**	1 unit(s)	76,00
120	100	38	**H666.1**	1 unit(s)	42,80
120	50	75	**H951.1**	1 unit(s)	42,30
120	500	15	**PC00.1**	1 unit(s)	101,60

Sealing film DuraSeal

ROTH SELECTION. Material: LDPE.

Stretch film for covering beakers, Erlenmeyer flasks, test tubes, etc. Chemical-resistant to most aliphatic, aromatic and chlorinated solvents, as well as acids and bases.

- Highly transparent
- Elasticity: 500-800 %
- Microwave-safe
- Temperature stability: Up to approx. +100 °C

Delivery incl. cutter box, without intermediate paper layer.

Film thickness (µm)	Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
38	102	150	**E364.1**	1 unit(s)	100,50
38	127	45	**Y701.1**	1 unit(s)	66,50



Clear cling film

ROTH SELECTION. Material: LDPE.

For wrapping and covering vessels.

- Fully transparent
- Extremely flexible
- Waterproof and greaseproof
- Temperature stability: -20 to +70 °C

Delivery incl. cutter box.

Film thickness (µm)	Width (mm)	Length (m)	Art. No.	Pack Qty.	€
14	300	300	**1255.1**	1 unit(s)	30,85

Foils, foil dispenser and holders



Sealing film Seal-R-Film™

BRAND.

For temporarily sealing beakers, flasks and other vessels.

- Material thickness: 0.14 ±0.02 mm
- Elasticity (25 °C): 300%
- Tear strength (25 °C): 1.5 MPa
- Melting temperature: >65 °C (151 °F)
- Boiling point: >288 °C (550 °F)
- Continuous service temperature: -20 °C to +46 °C
- Toxicity: Non-toxic

The sealing film can be stretched to three times its original length. Therefore, Seal-R-film™ always fits, even with irregular shapes. Traceability through batch identification per roll.

Gas permeability:

- CO_2 (carbon dioxide) <1000 cm^3/m^2
- O_2 (oxygen) <350 cm^3/m
- Water vapour permeability <0.8 g/m^2

(in 24 hours at room temperature and a pressure of 0.1 MPa)

Chemical resistance: Ammonia (NH_3) 28%; ethanol; isopropanol; iodine solution 0.1 mol/l (brown colouring); potassium permanganate ($KMnO_4$) 5% (brown colouring); methanol; sodium chloride (NaCl) 20%; sodium hydroxide (NaOH) 22%; nitric acid (HNO_3) 95% (brown colouring); hydrochloric acid (HCl) 36.5%; sulphuric acid (H_2SO_4) 98%; hydrogen peroxide (H_2O_2) 30%

Film thickness (µm)	Width (mm)	Length (m)	Art. No.	Pack Qty.	€
140	100	38	**KKY7.1**	1 unit(s)	50,85



Clear cling film Barriofilm

ROTH SELECTION. Material: Vinylidene chloride.

Very good barrier properties. Foil does not stick and is easy to roll.

- Non-flammable, self-extinguishing
- High water vapour and oxygen barrier
- Suitable for foodstuffs
- Microwave-safe
- Temperature stability: -60 to +140 °C

Delivery incl. foil cutter, in box.

Film thickness (µm)	Width (mm)	Length (m)	Art. No.	Pack Qty.	€
10	295	300	**HCL0.1**	1 roll(s)	51,85



Cover film ROTILABO®

ROTH SELECTION. Material: LDPE transparent.

Standard

Film thickness (µm)	Width (m)	Length (m)	Art. No.	Pack Qty.	€
80	6	4	**0833.1**	1 unit(s)	52,15

Heavy

Very robust and tearproof.

Film thickness (µm)	Width (m)	Length (m)	Art. No.	Pack Qty.	€
160	6	4	**0828.1**	1 unit(s)	71,50



Protective film filmolux 609

ROTH SELECTION. Material: PVC soft.

Self-adhesive. For protecting labels, laminating books, warning signs, instructions and similar. High-gloss, transparent, non-yellowing. On siliconised paper with grid (20 mm) for easy cutting to size.

Film thickness (µm)	Width (mm)	Length (m)	Art. No.	Pack Qty.	€
70	420	10	**0484.1**	1 unit(s)	56,25
70	40	50	**C327.1**	1 unit(s)	29,55
70	100	50	**C328.1**	1 unit(s)	64,25
70	240	25	**YY17.1**	1 unit(s)	63,00

Foils, foil dispenser and holders



ROTILABO®-aluminium foils

ROTH SELECTION. Material: Aluminium (Aluminium content ≥ 99%).
For covering, wrapping, insulating.

Delivery incl. cutter box.

Film thickness (µm)	Width (mm)	Length (m)	Art. No.	Pack Qty.	€
12	295	150	**1399.1**	1 unit(s)	34,95
15	300	150	**AA76.1**	1 unit(s)	37,65
15	450	150	**AA77.1**	1 unit(s)	53,25
16	300	100	**1770.1**	1 unit(s)	34,95
18	440	150	**1502.1**	1 unit(s)	71,95
20	450	150	**0954.1**	1 unit(s)	83,75
30	500	100	**2596.1**	1 unit(s)	84,95

Refill rolls

Delivery without cutter box.

Film thickness (µm)	Width (mm)	Length (m)	Art. No.	Pack Qty.	€
13	300	20	**0192.1**	6 unit(s)	36,05
16	300	100	**1770.2**	4 unit(s)	132,80



A 121 °C

Aluminium foil Polyfoil™ coated sheets

ROTH SELECTION. Material: Aluminium, Polyester coating.
Autoclavable: Yes.

Square sheets, easy to fold and adapt well to surfaces. Suitable for sterilisation of laboratory vessels, incubation of cultures or temporary sterile storage of laboratory materials.

- Resistant to mechanical influences
- Resistant to most organic solvents as well as corrosive media
- FDA-compliant

Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
102	102	**YA90.1**	100 unit(s)	59,15



Aluminium foil sheets in dispenser box

ROTH SELECTION. Material: Aluminium.
Easy to remove from the dispenser box.

Film thickness (µm)	Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
13	230	270	**EE77.1**	200 unit(s)	20,35



Aluminium foil ROTILABO® sheets

ROTH SELECTION. Material: Aluminium.

Delivery incl. box, with tissue paper intermediate layer.

Film thickness (µm)	Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
25	177	245	**5473.1**	1,000 unit(s)	121,50
25	235	290	**5474.1**	1,000 unit(s)	166,65



Aluminium foil ROTILABO® roundings

ROTH SELECTION. Material: Aluminium.

Delivery incl. box, with tissue paper intermediate layer.

Type	Film thickness (µm)	Ø (mm)	Art. No.	Pack Qty.	€
R 80	30	80	**E723.1**	1,000 unit(s)	61,85
R 100	30	100	**0953.1**	1,000 unit(s)	73,00
R 120	30	120	**E724.1**	1,000 unit(s)	99,85
R 130	30	130	**E725.1**	1,000 unit(s)	110,75
R 150	30	150	**0196.1**	1,000 unit(s)	118,25

Foils, foil dispenser and holders



121 °C

Aluminium foil lid

ROTH SELECTION. Material: Aluminium. Autoclavable: Yes.

Pre-formed lid for quickly covering various laboratory vessels. Suitable for sterilisation of Erlenmeyer flasks, beakers and measuring cylinders.

Film thickness (µm)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
25	25	38	**YA87.1**	252 unit(s)	44,10
25	44	51	**YA89.1**	252 unit(s)	51,60



Gold leaf

ROTH SELECTION. Material: Gold.

22 carat.

Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
80	80	**7605.1**	25 sheet	170,95



Silver leaf

ROTH SELECTION. Material: Silver.

Film thickness (µm)	Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
4	95	95	**9367.1**	25 sheet	53,65

Our ROTH-Service

Personal, expert advice and many advantages for you



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- NEW! Subscription service
- 10-day return guarantee



Sterile indicator strip ROTILABO®

ROTH SELECTION.

Self-adhesive, for labelling or sealing sterilisation vessels. Labellable. Inner Ø core 76 mm.

(1) Steam sterilisation
Autoclavable: Yes.

- Colour change from yellow to brown:
  121 °C → 10 min/135 °C → 2 min

L x W	Art. No.	Pack Qty.	€
55 m x 19 mm	**XC20.1**	1 unit(s)	12,80

(2) Hot air sterilisation

- Colour change of the V print from green to brown:
  155 °C → 30 min (Poupinel method)

L x W	Art. No.	Pack Qty.	€
55 m x 19 mm	**XC21.1**	1 unit(s)	25,65



Sterile indicator strip Comply™

3M.

Self-adhesive, for labelling or sealing sterilisation vessels. Labellable. Inner Ø core 76 mm.

(1) Steam sterilisation
Autoclavable: Yes.

- Colour change from beige to dark brown:
  121 °C → 10 min/134 °C → 2 min
- Process indicator according to EN ISO 11140-1:2005

Type	L x W	Art. No.	Pack Qty.	€
1322	55 m x 18 mm	**8221.1**	1 unit(s)	19,50

(2) Hot air sterilisation

- Colour change from green to brown:
  155 °C → approx. 30 min

Type	L x W	Art. No.	Pack Qty.	€
1226	50 m x 19 mm	**H590.1**	1 unit(s)	32,45



A 121 °C

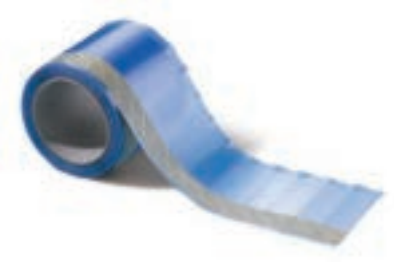
Sterile indicator strip stericlin®

ROTH SELECTION. Autoclavable: Yes.

self-adhesive. For marking or sealing sterilisation containers as well as differentiating between untreated and treated sterile materials. Colour change from light green to dark brown/black following exposure to saturated steam for ten minutes at 121 °C or two minutes at 134 °C.

- Sterilisation method: Steam sterilisation
- Process indicators type 1
- With steam indicator (STEAM)
- Core Ø 76 mm
- Material thickness: 0.17 mm

Version	Colour	L x W	Art. No.	Pack Qty.	€
Paper	beige	50 m x 19 mm	**HXE6.1**	1 unit(s)	5,55
Low-crepe paper	beige	50 m x 25 mm	**HXE7.1**	1 unit(s)	6,90
Low-crepe paper	blue	50 m x 19 mm	**HXE8.1**	1 unit(s)	8,15



A 121 °C

Sterile indicator labels Comply™

3M. Autoclavable: Yes.

Simple identification labels for steam sterilisation, with treatment indicator, lead-free. Can be labelled with an indelible pen, easily removable without residues, especially from metal containers.

L x W (mm)	Art. No.	Pack Qty.	€
100 x 25	**ANX6.1**	500 unit(s)	182,75



Bowie-Dick single use test pack Comply™

3M.

Indicator for autoclave monitoring

Free from heavy metals, for daily air removal and steam permeability test according to DIN EN 17665. Meets the requirements of EN 867-1 1997, EN 867-4:2000, ISO 11140-1:1995 and ISO 11140-4:2001. Simple interpretation and error detection thanks to colour change from blue to pink and non-reflective surface. No subsequent colour change, ensuring safe storage and traceability of results. Reproducible.

Type	Art. No.	Pack Qty.	€
1301	**ANX4.1**	20 unit(s)	225,75



Bowie-Dick single use test pack stericlin®

ROTH SELECTION.

Indicator for autoclave monitoring

Steam penetration test for daily function monitoring and quality assurance of the steam steriliser according to DIN EN ISO 11140-4. Free from heavy metals and toxic substances.

Application:

- Place the test pack in the steriliser
- Carry out the Bowie-Dick test procedure
- Remove the test sheet
- Review the result: In the event of complete steam penetration, the indicator will evenly change colour from blue to pink. In the event of a malfunction, however, no even colour conversion will occur. Following a successful colour conversion, the colour hue of the indicator will no longer change. This ensures complete reliability of documentation.

L x W (mm)	Art. No.	Pack Qty.	€
125 x 125	**HXC6.1**	20 unit(s)	116,15



A 121 °C

Indicator strips Comply™ SteriGage™

3M. Autoclavable: Yes.

Integrating class 5 indicators (integrators)

Individually packaged chemical indicators for monitoring the sterilisation process.

Clear results thanks to „Moving Front“ technology: As the sterilisation process progresses, a dark strip appears, which either moves to the „Accept“ area (passed) or remains in the „Reject“ area (not passed). This can be read from the indicator directly without the need for interpretation.

- Suitable for steam sterilisation at +121 °C and +134 °C
- High performance: The reaction is the same as that of a bio indicator strip during the sterilisation process

Type	Art. No.	Pack Qty.	€
1243	**ANX5.1**	100 unit(s)	83,80



A 121 °C

Indicator strips stericlin® type 5 (STEAM)

ROTH SELECTION. Autoclavable: Yes.

Absorptive indicators for package monitoring according to DIN EN ISO 11140-1.

Review of the sterilisation process for sufficient influence from the vapour (vapour and temperature) in the interior of packaging or in other selected areas. Free from heavy metals and toxic substances.

Application:

- Place in the desired areas of the load (in transparent packaging, wrapping materials, containers, etc.)
- Carry out the sterilisation program (121 °C/134 °C)
- Remove the indicator strips
- Review the result: In the event of sufficient influence from vapour, the indicator will change colour from blue to pink. An incomplete colour change indicates a malfunction of the steriliser. Following a successful colour conversion, the colour hue of the indicator will no longer change. This ensures complete reliability of documentation.

L x W (mm)	Art. No.	Pack Qty.	€
80 x 30	**HXE9.1**	500 unit(s)	57,95

Sterilisation





A 121 °C

A 121 °C

Sterilisation bags stericlin®

ROTH SELECTION. Material: Paper, Plastic (Film). Autoclavable: Yes.

Pre-sealed on three sides, for sealing with heat sealing units (sealing temperature: 175–200 °C). The sterilisation-resilient kraft paper with a strength of 70 g/m² constitutes an effective barrier against germs, yet is also permeable to air, vapour and sterilising gases. With three imprinted indicators outside the filling area: STEAM, EO and FORM. According to DIN EN ISO 11607 and DIN 868-5.

Packaging material for disposable medical products and reusable medical products.

Medical device class I MDD

L x W (mm)	Art. No.	Pack Qty.	€
200 x 100	**HXE0.1**	2,000 unit(s)	111,35
250 x 125	**HXE1.1**	2,000 unit(s)	168,80
300 x 150	**HXE2.1**	1,000 unit(s)	105,90



Sterilisation pouch Steriking® self-adhesive

ROTH SELECTION. Material: Paper, medical-grade paper (70 g/m²) and multi-layer laminated foil made of PET/PP (12/40 µm).

For packaging sterile goods with subsequent sterilisation using steam, ethylene oxide or formaldehyde gas under normal sterilisation conditions (3 minutes at 134 °C or 15 minutes at 121 °C).

- Self-adhesive closure for use without a heat sealer
- With indicator imprints for steam and ETO gas sterilisation
- Standards: ISO 11607-1:2006, ISO 11607-2:2006 and EN 868-5:2009
- Acc. to 93/42/EEC and 2007/42/EC concerning medical devices (accessories) according to Class 1, CE-marked

Medical device class I

L x W (mm)	Art. No.	Pack Qty.	€
200 x 90	**KKX9.1**	200 unit(s)	50,00
250 x 60	**KKX8.1**	200 unit(s)	50,00
250 x 90	**KKY0.1**	200 unit(s)	58,60
270 x 130	**KKY1.1**	200 unit(s)	70,45
350 x 200	**KKY2.1**	200 unit(s)	121,50
400 x 250	**KKY3.1**	200 unit(s)	140,85
450 x 300	**KKY4.1**	200 unit(s)	191,35

Sterilisation pouches stericlin® rolls

ROTH SELECTION. Material: Paper, Plastic (film). Autoclavable: Yes.

Pre-sealed on two sides, for sealing with heat sealing units (sealing temperature: 175–200 °C). The sterilisation-resilient kraft paper with a thickness of 70 g/m² constitutes an effective barrier against germs, yet is also permeable to air, vapour and sterilising gases. With three imprinted indicators outside the filling area: STEAM, EO and FORM. According to DIN EN ISO 11607 and DIN 868-5.

Packaging material for disposable medical products and reusable medical products.

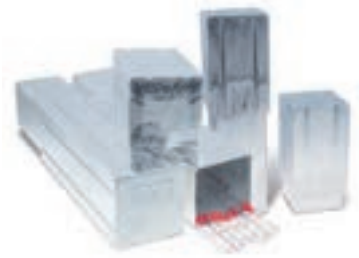
Medical device class I MDD

Flat

L x W	Art. No.	Pack Qty.	€
200 m x 50 mm	**1C70.1**	6 unit(s)	173,10
200 m x 75 mm	**1C71.1**	4 unit(s)	155,00
200 m x 100 mm	**1C72.1**	3 unit(s)	133,20
200 m x 125 mm	**1C73.1**	2 unit(s)	118,85
200 m x 150 mm	**1C74.1**	2 unit(s)	128,85
200 m x 200 mm	**1C75.1**	2 unit(s)	178,45
200 m x 250 mm	**1C76.1**	2 unit(s)	226,85
200 m x 300 mm	**1C77.1**	1 unit(s)	136,60
200 m x 350 mm	**1C78.1**	1 unit(s)	178,45
200 m x 380 mm	**1C79.1**	1 unit(s)	187,05
200 m x 400 mm	**1C7A.1**	1 unit(s)	220,40
200 m x 420 mm	**1C7C.1**	1 unit(s)	253,70

With side gusset

L x W	Inner height (mm)	Art. No.	Pack Qty.	€
100 m x 75 mm	25	**1C7E.1**	4 unit(s)	176,30
100 m x 100 mm	50	**1C7H.1**	3 unit(s)	147,95
100 m x 150 mm	50	**1C7K.1**	2 unit(s)	128,85
100 m x 200 mm	50	**1C7L.1**	2 unit(s)	153,40
100 m x 250 mm	65	**1C7N.1**	2 unit(s)	189,20
100 m x 300 mm	65	**1C7P.1**	1 unit(s)	115,05
100 m x 380 mm	80	**1C7T.1**	1 unit(s)	150,55
100 m x 420 mm	80	**1C7X.1**	1 unit(s)	189,20



A 121 °C ❄❄

Sterilising containers for pipettes

ROTH SELECTION. Material: Aluminium. Autoclavable: Yes.

Pipette container for sterilising and storing plastic pipettes and glassware, e.g. stirrer rods, serological, Pasteur, volumetric and graduated pipettes. With silicone inner padding and lid for protection of the stored glass pipettes.

Technical specifications:

Art. No.	CLN4.1	CLN5.1	CLN6.1	CLN7.1
Sleeve length	110 mm			210 mm
Core length	160 mm	240 mm	315 mm	

Suitable for	Outer width (mm)	Art. No.	Pack Qty.	€
Pipettes 160–200 mm	67	**CLN4.1**	1 unit(s)	40,60
Pipettes 235–305 mm	67	**CLN5.1**	1 unit(s)	47,20
Pipettes 315–385 mm	67	**CLN6.1**	1 unit(s)	51,20
Pipettes 315–485 mm	67	**CLN7.1**	1 unit(s)	54,00



A 121 °C

Sterilising containers Varicon for pipettes, round

ROTH SELECTION. Material: Aluminium. Autoclavable: Yes.

Pipette containers for sterilising graduated pipettes and volumetric pipettes with different volumes and sizes. Consists of two aluminium parts that are inserted into one other.

Suitable for	Ø ext. (mm)	Art. No.	Pack Qty.	€
Pipettes 280–420 mm	60	**P979.1**	1 unit(s)	49,30
Pasteur pipettes 145–235 mm	60	**P978.1**	1 unit(s)	63,55

Accessories insert for sterilising containers Varicon

ROTH SELECTION. Material: Silicone.

Prevents damage to pipettes in the case of sudden impact.

Material thickness (mm)	Art. No.	Pack Qty.	€
2	**P980.1**	1 unit(s)	7,80



A 121 °C

Sterilising containers ROTILABO® for pipettes round

ROTH SELECTION. Material: Stainless steel, silicone-coated base and lid. Autoclavable: Yes.

The holes in the lid can be opened and closed by turning the lid. Sterilisable up to +205 °C.

Ø ext. (mm)	Outer length (mm)	Art. No.	Pack Qty.	€
65	380	**C841.1**	1 unit(s)	87,65
80	380	**C843.1**	1 unit(s)	91,40
80	500	**C844.1**	1 unit(s)	103,20



A 121 °C

Sterilising containers ROTILABO® for pipettes square

Bochem. Material: Stainless steel, silicone-coated base and lid. Autoclavable: Yes.

Tube dimensions 70 x 70 mm, stackable. Sterilisable up to +205 °C.

Suitable for	Outer length (mm)	Art. No.	Pack Qty.	€
Pipettes up to 180 mm	210	**C868.1**	1 unit(s)	149,65
Pipettes up to 257 mm	290	**C869.1**	1 unit(s)	160,30
Pipettes up to 412 mm	430	**C871.1**	1 unit(s)	191,35



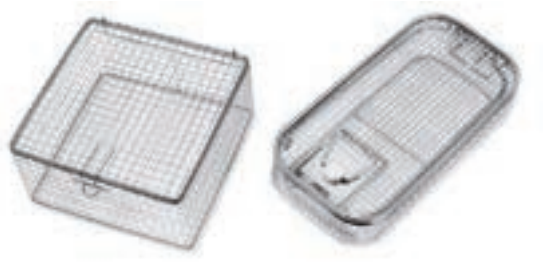
121 °C

Sterilising containers ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/8. Autoclavable: Yes.

With insertable rack for Petri dishes up to Ø 100 mm.
Sterilisable up to +150 °C.

Suitable for	Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
10 Petri dishes	120	250	**C846.1**	1 unit(s)	127,95
20 Petri disches	120	500	**C847.1**	1 unit(s)	203,20



121 °C

Sterilisation basket ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (material 1.4301), electrolytically polished. Autoclavable: Yes.

With lid attached.

Technical specifications:

Art. No.	EPA3.1	EPA4.1
Version	square	rectangulair, with handle
Mesh size	8.5 mm	5 mm

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
180	180	90	**EPA3.1**	1 unit(s)	94,05
250	130	60	**EPA4.1**	1 unit(s)	126,60



121 °C

Sterilisation basket ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (material 1.4301), electrolytically polished. Autoclavable: Yes.

Grating spot-welded, 8 x 8 x 1 mm. For storing, transporting, cleaning and sterilising laboratory equipment.

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
100	100	100	**L040.1**	1 unit(s)	57,65
120	120	120	**L041.1**	1 unit(s)	68,40
140	140	140	**L042.1**	1 unit(s)	72,65
160	160	160	**L043.1**	1 unit(s)	87,00
180	180	180	**L044.1**	1 unit(s)	96,50
200	200	200	**L045.1**	1 unit(s)	102,75
300	200	200	**L046.1**	1 unit(s)	148,80
400	200	200	**L047.1**	1 unit(s)	153,95



121 °C

Sterilisation basket ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (material 1.4301), electrolytically polished. Autoclavable: Yes.

Grating spot-welded, 8 x 8 x 1 mm. For storing, transporting, cleaning and sterilising laboratory equipment. With carrying handle.

Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
100	80	**HHA1.1**	1 unit(s)	58,90
120	100	**L050.1**	1 unit(s)	71,50
150	120	**L051.1**	1 unit(s)	82,85
160	180	**HHE0.1**	1 unit(s)	93,45
180	160	**L052.1**	1 unit(s)	129,25
210	180	**L053.1**	1 unit(s)	136,55
240	180	**L054.1**	1 unit(s)	141,65
270	180	**L055.1**	1 unit(s)	136,55
300	200	**L056.1**	1 unit(s)	181,70



121 °C

Sterilisation basket square

Bochem. Material: Stainless steel 18/10, electrolytically polished. Autoclavable: Yes.

For storage, transportation, cleaning and sterilisation of labware. Mesh size 8 x 8 x 1 mm.

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
150	100	100	**YT41.1**	1 unit(s)	59,65
200	150	150	**YT42.1**	1 unit(s)	75,20
250	150	150	**YT43.1**	1 unit(s)	134,40
500	300	250	**YT44.1**	1 unit(s)	262,30
600	400	300	**YT45.1**	1 unit(s)	277,35



NEW / +

121 °C

Sterilisation basket

ROTH SELECTION. Material: Aluminium. Autoclavable: Yes.

For sterilising, cleaning and storing test tubes and other laboratory aids. Dishwasher-safe.

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
152	152	152	**1L8L.1**	1 unit(s)	34,90
256	152	152	**1L8N.1**	1 unit(s)	44,45



121 °C

Sterilisation basket

Nalgene. Material: PP. Autoclavable: Yes.

For storing, sterilising and cleaning laboratory items.

- Smooth, scratchproof surface
- Enables complete ventilation and drainage
- Stackable

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
123	154	105	**L068.1**	1 unit(s)	28,20
168	178	156	**L069.1**	1 unit(s)	31,30
230	239	233	**L070.1**	1 unit(s)	41,25



121 °C

Sterilisation containers polysteribox®

Ritter. Material: Plastic. Autoclavable: Yes.

For sterilising and storing instruments. Acc. to DIN 58952, 58953, EN 868-1/868-8/554, ISO 11607 and DIN EN ISO 17664 and 11137-1.

- Suitable for steam, gas and plasma sterilisation
- Germ and bacteria-proof thanks to hydrophobic PTFE filter
- A sterilisation seal and protective seal can be used to monitor the sterility of the contents
- Safety tilt seal for safe transportation
- Stackable
- Dishwasher-safe
- Autoclavable up to 134 °C

Technical specifications:

Art. No.	X616.1	KP96.1	TA78.1
Type	polysteribox® SH	polysteribox® M	polysteribox® XL
Inner length	177 mm	156 mm	465 mm
Inner width	76 mm	124 mm	90 mm
Inner height	44 mm	48 mm	54 mm

Delivery incl. PTFE filters.

Medical device class I MDD

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
208	111	55	**X616.1**	1 unit(s)	134,85
185	145	59	**KP96.1**	1 unit(s)	157,20
497	122	65	**TA78.1**	1 unit(s)	260,15

Cell culture bottles

Cell culture bottles CELLMASTER™ roller bottles

Greiner Bio-One. Material: PS (TC-treated), HDPE screw cap. **Sterile**.

- Improved cell adherence through physical surface treatment
- Free of DNase, RNase and human DNA, non-pyrogenic
- Graduated



S

Standard screw cap

Growth surface (cm²)	Ø ext. (mm)	Art. No.	Pack Qty.	€
850	122	**CE58.1**	24 unit(s)	157,95

Filter screw cap

Cap with hydrophobic membrane (PET/PTFE) for optimal gas exchange.

Growth surface (cm²)	Ø ext. (mm)	Art. No.	Pack Qty.	€
850	122	**CE59.1**	24 unit(s)	197,80

Suspension culture bottles CELLSTAR®

Greiner Bio-One. Material: PS. **Sterile**.

With white screw cap. High, angled bottle neck protects the inside of the screw cap from contamination by medium.

- Graduations and labelling area on the side
- Hydrophobic surface, ideal for suspension cultures and hybridoma cells
- **Free of DNase, RNase and human DNA**
- Endotoxin-free, free of cytotoxic substances



S

Pack.	Art. No.	Pack Qty.	€
20 x 10	**CE51.1**	200 unit(s)	168,80
24 x 5	**CE52.1**	120 unit(s)	169,85
10 x 4	**CE53.1**	40 unit(s)	115,60

Suspension culture bottles CELLSTAR® filter screw cap

Greiner Bio-One. Material: PS. **Sterile**.

Hydrophobic membrane (pore size 0.2 µm) for minimal risk of contamination and optimal gas exchange. High, angled bottle neck reduces the risk of media contact with the inside of the screw cap and therefore provides an additional layer of protection against contamination.

- Hydrophobic surface
- Ideal for suspension cultures, hybridoma cells and embryonic stem cells
- Optimal access with pipette
- Graduations and labelling area on the side
- Optimal gas exchange thanks to high air flow rate of membrane
- **Free of DNase, RNase and human DNA**
- Endotoxin-free, free of cytotoxic substances



S

Delivery incl. standard screw-cap closures (without filter, in addition to the fitted filter screw-cap closures).

Pack.	Art. No.	Pack Qty.	€
20 x 10	**CNA6.1**	200 unit(s)	167,70
24 x 5	**CNA7.1**	120 unit(s)	136,70
8 x 5	**CNA8.1**	40 unit(s)	102,65

Cell culture bottles

Cell culture bottles filter screw cap

Greiner Bio-One. Material: PS. **Sterile**.

Hydrophobic membrane (pore size 0.2 µm) for minimal risk of contamination and optimal gas exchange. High, angled bottle neck reduces the risk of media contact with the inside of the screw cap and therefore provides an additional layer of protection against contamination.

- Cell layers are easy to reach with the cell scraper
- Optimal access with pipette
- Graduations and labelling area on the side
- Improved cell adherence through physical surface treatment
- Optimal gas exchange thanks to high air flow rate of membrane
- **Free of DNase, RNase and human DNA**
- Endotoxin-free, free of cytotoxic substances



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Growth surface (cm²)	Pack.	Art. No.	Pack Qty.	€
25	20 x 10	**CE48.1**	200 unit(s)	179,55
75	24 x 5	**CE49.1**	120 unit(s)	190,30
175	10 x 5	**CLY2.1**	50 unit(s)	135,35
175	8 x 5	**CE50.1**	40 unit(s)	116,15

Cell culture bottles

ROTH SELECTION. Material: PS, PE screw cap. **Sterile**.

Variable closure: Screw cap can be closed tightly for anaerobic cultures or screwed in the “vent” position for defined aeration of aerobic cultures. Angled neck and large opening allow access to the entire culture surface.

- Very high visual clarity
- Graduation and labelling area
- Stackable
- Non-toxic
- Bottom of bottle has been surface-treated for optimal cell growth



S

Growth surface (cm²)	Pack.	Art. No.	Pack Qty.	€
25	36 x 10	**X845.1**	360 unit(s)	479,45
75	20 x 5	**X846.1**	100 unit(s)	279,50
150	12 x 3	**X847.1**	36 unit(s)	226,85

Cell culture bottles

Greiner Bio-One. Material: PS. **Sterile**.

Screw cap can be used in two positions: Ventilation position or gas-tight closure. High, angled bottle neck reduces the risk of media contact with the inside of the screw cap.

- Cell layers are easy to reach with the cell scraper
- Optimal access with pipette
- Graduations and labelling area on the side
- Improved cell adherence through physical surface treatment
- **Free of DNase, RNase and human DNA**
- Endotoxin-free, free of cytotoxic substances



S

Growth surface (cm²)	Pack.	Art. No.	Pack Qty.	€
25	20 x 10	**CNA9.1**	200 unit(s)	167,70
75	24 x 5	**CNC1.1**	120 unit(s)	130,10
175	10 x 5	**CNC2.1**	50 unit(s)	125,20
175	10 x 4	**CNC3.1**	40 unit(s)	103,45

Cell culture bottles



S

Cell scrapers

Greiner Bio-One. Material: PS, blade made of HDPE. **Sterile**.

Rotatable blade, for soft scrape-off of cells on surfaces that are difficult to access.

Total length (mm)	Width (mm)	Pack.	Art. No.	Pack Qty.	€
280	18	individual	**CE60.1**	100 unit(s)	278,45
400	18	individual	**CE61.1**	100 unit(s)	320,35



S

Cell scrapers

ROTH SELECTION. Material: ABS, blade made of TPE, flexible. **Sterile**.

For cell harvesting in cell culture flasks and dishes. Swivelling movements, as well as horizontal and vertical blade rotation, enable a variety of applications and allow access to points that are difficult to reach.

Total length (mm)	Width (mm)	Pack.	Art. No.	Pack Qty.	€
245	20	individual	**EKX9.1**	100 unit(s)	261,00
385	30	individual	**EKY0.1**	100 unit(s)	305,00



S

Microtitration plates CELLSTAR® FourWell Plate™

Greiner Bio-One. Material: PS. **Sterile**.

Four-well plate for microscopic applications, for cultivation and processing of cells on microscope slides. Also for use as incubation tray for blotting membranes. Plate layout corresponds to ANSI Standard.

- 4 individual chambers, each with a max. volume of 18.6 ml per well
- Numbered wells for secure sample identification
- Bevelled edges on the left-hand side of the plates serve as a guide
- Vents
- With cover panel
- **Free of DNase, RNase and human DNA**
- Endotoxin-free, free of cytotoxic substances

Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
translucent	**Sterile**	4 x 8	**CNA2.1**	32 unit(s)	144,65

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Microtitration plates cellGrade™ sterile

BRAND. Material: PS. **Sterile**.

Standard plate for cultivating adherent cell cultures.
Manufactured according to ANSI/SBS standards 1 to 4-2004 to ensure compatibility when carrying out manual processes and, in particular, automatic processes.



S

Properties of BRAND*plates*® microtiter plates:

- 96 well standard format
- Alphanumerically coded
- **Free of endotoxins, DNase, DNA, RNase, non-cytotoxic**

Properties of cellGrade™ microtiter plates:

- Colour code: orange for the cell culture
- PS surface with various freely accessible chemical groups, e.g. carboxyl and hydroxyl groups
- Surface is hydrophilic (untreated PS is non-hydrophilic)
- Serum constituents are bound to the free chemical groups which allow indirect adhesion of cells

Delivery incl. lid.

F-bottom

Wells	Volume per well (ml)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	0,35	white	**Sterile**	individual	**XT72.1**	50 unit(s)	320,35
96	0,35	black	**Sterile**	individual	**XT73.1**	50 unit(s)	320,35

F-bottom (transparent)

Transparent bottom in F-profile (flat bottom shape) for precise optical measurements.

Wells	Volume per well (ml)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	0,35	translucent	**Sterile**	individual	**CNP6.1**	50 unit(s)	180,60
96	0,33	white	**Sterile**	individual	**XT74.1**	50 unit(s)	767,55
96	0,33	black	**Sterile**	individual	**XT75.1**	50 unit(s)	767,55

Microtitration plates inertGrade™ sterile

S

BRAND. Material: PS. **Sterile**.

Suitable for cultivating suspension cell cultures.
Manufactured according to ANSI/SBS standards 1 to 4-2004 to ensure compatibility when carrying out manual processes and, in particular, automatic processes.

Properties of BRAND*plates*® microtiter plates:

- 96 well standard format
- Alphanumerically coded
- **Free of endotoxins, DNase, DNA, RNase, non-cytotoxic**

Properties of inertGrade microtiter plates™:

- Colour code: orange for the cell culture.
- Ideal for cell cultures if cell adhesion is to be avoided
- Optimised surface properties minimise cell binding, protein absorption, enzyme activation and cellular activation
- This allows, for example, premature differentiation of stem cells to be inhibited

Delivery incl. lid.

F-bottom, transparent

F-profile (flat bottom shape) for precise optical measurements.

Wells	Volume per well (ml)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	0,35	translucent	**Sterile**	individual	**XT77.1**	40 unit(s)	585,90

U-bottom

U-bottom (round bottom shape), ideal for mixing and washing samples.

Wells	Volume per well (ml)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	0,33	translucent	**Sterile**	individual	**XT76.1**	40 unit(s)	585,90

Cell culture inserts BRAND Insert 2in1



BRAND. **Sterile**.

Suitable for producing skin models, 3D epithelial cell cultures, study of chemotaxis, transmigration assays or, e.g., in transport and polarity studies. For general cell culture work or swapping from the standing to the hanging position, already validated cell culture plates can be reused. Thanks to their feet and hooks, BRAND Inserts 2in1 can be positioned both ways. With its protein-like structure, the cellGrade™ plus surface optimally promotes the growth of primary keratinocytes and many other cell types.

- Can be used as a hanging or standing insert
- Compatible with all good multiwell plates
- Suitable for 2D and 3D cell cultures
- Surface: cellGrade™ plus
- Sterility Assurance Level (SAL) of 10^{-6}

S

For 6-well

Membrane material	Pore size (µm)	Pack.	Art. No.	Pack Qty.	€
PC	0.4	24 x 1	**1CEC.1**	24 unit(s)	254,40
PC	0.4	4 x 6	**1CEE.1**	24 unit(s)	235,95
PC	8	24 x 1	**1CEH.1**	24 unit(s)	254,40
PC	8	4 x 6	**1CEK.1**	24 unit(s)	235,95
PET	0.4	24 x 1	**1CEL.1**	24 unit(s)	254,40
PET	0.4	4 x 6	**1CEN.1**	24 unit(s)	235,95
PET	8	24 x 1	**1CEP.1**	24 unit(s)	254,40
PET	8	4 x 6	**1CET.1**	24 unit(s)	235,95

For 12-well

Membrane material	Pore size (µm)	Pack.	Art. No.	Pack Qty.	€
PC	0.4	48 x 1	**1CEX.1**	48 unit(s)	397,00
PC	0.4	4 x 9	**1CEY.1**	36 unit(s)	268,50
PC	8	48 x 1	**1CH0.1**	48 unit(s)	397,00
PC	8	4 x 9	**1CH1.1**	36 unit(s)	268,50
PET	0.4	48 x 1	**1CH2.1**	48 unit(s)	397,00
PET	0.4	4 x 9	**1CH3.1**	36 unit(s)	268,50
PET	8	48 x 1	**1CH4.1**	48 unit(s)	397,00
PET	8	4 x 9	**1CH5.1**	36 unit(s)	268,50

For 24-well

Membrane material	Pore size (µm)	Pack.	Art. No.	Pack Qty.	€
PC	0.4	48 x 1	**1CH6.1**	48 unit(s)	357,35
PC	0.4	4 x 12	**1CH7.1**	48 unit(s)	322,80
PC	8	48 x 1	**1CH8.1**	48 unit(s)	357,35
PC	8	4 x 12	**1CH9.1**	48 unit(s)	322,80
PET	0.4	48 x 1	**1CHA.1**	48 unit(s)	357,35
PET	0.4	4 x 12	**1CHC.1**	48 unit(s)	322,80
PET	8	48 x 1	**1CHE.1**	48 unit(s)	357,35
PET	8	4 x 12	**1CHH.1**	48 unit(s)	322,80

Cell culture plates, pans, vials

Cell culture plates sterile

ROTH SELECTION. Material: PS. **Sterile**.

Hydrophilic, negatively-charged surface through plasma treatment for uniform cell adhesion and cell growth.

- F-profile (flat-shaped base)
- Optically clear for good cell visualisation
- Increased well edge reduces evaporation
- Condensation rings in the lid reduce cross-contamination
- Alphanumeric numbering
- Gamma-sterilised
- Non-pyrogenic



S

Delivery incl. lid.

Wells	Volume per well (ml)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
6	17	translucent	**Sterile**	individual	**EKX5.1**	100 unit(s)	265,00
12	6,8	translucent	**Sterile**	individual	**EKX6.1**	100 unit(s)	261,00
24	3,5	translucent	**Sterile**	individual	**EKX7.1**	100 unit(s)	261,00
96	0,39	translucent	**Sterile**	individual	**EKX8.1**	100 unit(s)	265,00

Cell culture plates CELLSTAR® sterile

Greiner Bio-One. Material: PS. **Sterile**.

- Multiwell plates for adherent cell cultures
- Improved cell adherence through surface treatment
- F-bottom
- Alphanumerical well coding
- Centrifugable to max. 4800 x g
- **Free of detectable DNase, RNase and human DNA**
- Free of detectable endotoxins, free of cytotoxic substances



S

Delivery incl. lid.

Wells	Volume per well (ml)	Growth surface (cm²)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
6	2-5	9.6	translucent	**Sterile**	individual	**CE54.1**	100 unit(s)	230,05
12	2-4	3.9	translucent	**Sterile**	individual	**CE55.1**	100 unit(s)	290,25
24	0,5-1,5	1.9	translucent	**Sterile**	individual	**CE56.1**	100 unit(s)	255,85
48	0,5-1	1.0	translucent	**Sterile**	individual	**CE57.1**	100 unit(s)	341,85
96	0,025-0,34	0.34	translucent	**Sterile**	individual	**KL43.1**	100 unit(s)	270,90



S

Cell strainer EASYstrainer™

Greiner Bio-One. Material: PP, filter membrane made of PET. **Sterile**.

For the filtration of cell suspensions and primary cell isolates, e.g. after organ digestion, for use in primary cell extraction or cell preparation for flow cytometry.

- Fits all standard 50 ml tubes
- With handle and mantle surface for improved aseptic handling
- Venting slot for rapid filtration, no overflowing of the cell strainer
- Individually packed in blister pack

Aids aseptic work: The mantle surface and handle protect against unintentional contact with the sterile filter material. The single blister pack allows for convenient and aseptic removal of the strainer. Venting slot between fitted cell strainer and tube allows the air in the tube to escape quickly during filtration and ensures that liquid does not accumulate between the strainer and the tube or that the strainer cannot overflow.

Mesh size (µm)	Colour	Pack.	Art. No.	Pack Qty.	€
40	green	individually	**CLY9.1**	50 unit(s)	120,45
70	blue	individually	**CNA0.1**	50 unit(s)	120,45
100	yellow	individually	**CNA1.1**	50 unit(s)	120,45



S

Cell strainer Flowmi™

ROTH SELECTION. **Sterile**.

For direct filtration of up to 1000 µl cell suspensions through pipette tips before FLOW or FACS analysis. Compatible with most conventional 1000 µl pipette tips.

- Filters small quantities of cell liquids without losing any volume
- Removes cell clumping, resulting in homogeneous individual cell suspensions
- Filters cell fragments in order to reduce the blockage potential for FLOW or FACS devices

Application:

- Take up a sample in the pipette tip
- Insert it into the Flowmi™ cell strainer
- Filter the sample through the cell strainer into a reaction vial
- Discard the cell strainer along with the pipette tip

Note: The Flowmi™ cell strainer should be used with cell suspensions of up to two million cells/ml (40 µl) or four million cells/ml (70 µl).

Mesh size (µm)	Art. No.	Pack Qty.	€
40	**KKE3.1**	50 unit(s)	117,20
70	**KKE4.1**	50 unit(s)	117,20



S

Cell culture dishes

Sarstedt. Material: PS. **Sterile**.

- Hydrophilic surface for adherent cells
- Flat, transparent growth surface for visual monitoring of cell growth
- *SURE*Grip design for reduced risk of contamination by being able to grip the dish securely
- With vents for continuous gas exchange and securely seated lid
- Distinct stacking rings in lid and base
- Packed in a resealable bag with tamper-evident cap
- **Free of DNase, RNase and DNA, non-pyrogenic/endotoxin-free, non-cytotoxic**

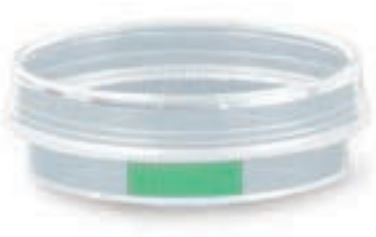
Standard

Growth surface (cm²)	Ø ext. (mm)	Art. No.	Pack Qty.	€
8	35	**KKH4.1**	500 unit(s)	156,95
21	60	**KKH5.1**	500 unit(s)	170,95
58	100	**KKH6.1**	300 unit(s)	155,20
152	150	**HPX6.1**	100 unit(s)	146,45

With grid
For cloning experiments.

Growth surface (cm²)	Ø ext. (mm)	Art. No.	Pack Qty.	€
8	35	**KKH7.1**	500 unit(s)	179,55
21	60	**KKH8.1**	500 unit(s)	195,65

Cell culture plates, pans, vials



S

Cell culture dishes Suspension

Sarstedt. Material: PS. **Sterile**.

Suspension culture surfaces for cells which are not adherently cultivated in solution (e.g. cells of lymphoid origin or hybridoma cells).

- Hydrophobic surface minimises cell loss when subcultivating due to unwanted micro-adhesion
- Flat, transparent growth surface for visual monitoring of cell growth
- *SURE*Grip design for reduced risk of contamination by being able to grip the dish securely
- With vents for continuous gas exchange and securely seated lid
- Distinct stacking rings in lid and base
- Packed in a resealable bag with tamper-evident cap
- **Free of DNase, RNase and DNA, non-pyrogenic/endotoxin-free, non-cytotoxic**

Growth surface (cm²)	Ø ext. (mm)	Pack.	Art. No.	Pack Qty.	€
8	35	50 x 10	**KKH9.1**	500 unit(s)	151,20
21	60	50 x 10	**KKK0.1**	500 unit(s)	156,40
58	100	50 x 10	**KKK1.1**	300 unit(s)	164,50



S

Cell culture tubes CELLSTAR®

Greiner Bio-One. Material: PS, HDPE screw cap. **Sterile**.

- Improved cell adherence through physical surface treatment
- **Free of DNase, RNase and human DNA**
- Endotoxin-free, free of cytotoxic substances

Technical specifications:

Art. No.	CNC4.1	CNC5.1
Centrifugability in g (max.)	3,000	5,000

Free-standing
With standing ledge and bayonet lock (with 1/3 turn to open)

Vol. (ml)	Ø ext. (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
12	17	100	200 x 5	**CNC5.1**	1,000 unit(s)	337,55

Round base
With screw closure

Vol. (ml)	Ø ext. (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
12	17	100	200 x 5	**CNC4.1**	1,000 unit(s)	333,25



S

Cell culture tubes CELLSTAR® CELLreactor™ tube

Greiner Bio-One. Material: PP, Filter screw closure with PTFE-coated membrane, pore size 0.2 µm. **Sterile**.

Tube temperature stable from -196 to +121 °C, screw closure from -80 to +100 °C. Autoclavable tube (without screw closure).

- Conical tube design facilitates direct cell harvesting
- With graduations and labelling area
- Excellent gas exchange
- **Free of DNase, RNase and human DNA**
- Pyrogen free, non-cytotoxic

Applications:

- Miniaturisation of large-scale test setups
- Maximises the number of parallel experiments
- Bioreactors for the cultivation of suspension cells and spheroid cells
- Expansion of aerobic bacteria, yeasts and micro-organisms
- Storage of substances which require gas exchange

Technical specifications:

Art. No.	CLY3.1
Centrifugability in g (max.)	3,200

Vol. (ml)	Ø ext. (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
50	30	115	25 x 20	**CLY3.1**	500 unit(s)	469,80



A 121 °C

Culture tubes

ROTH SELECTION. Material: Soda-lime glass, AR-GLAS®. Autoclavable: Yes.

Delivery without screw closures, please order separately.

Version	Vol. (ml)	Ø ext. (mm)	Length (mm)	Art. No.	Pack Qty.	€
Round base	15	16	125	**EXE8.1**	100 unit(s)	27,55
flat bottom	15	16	125	**EXE9.1**	100 unit(s)	27,55

A 121 °C

Accessories screw closures for culture tubes

ROTH SELECTION. Material: PP, integrated TPE seal. Autoclavable: Yes.

- Extended closures, reduced risk of contamination
- Short screw thread for easy opening and closing
- Highest safety for sterilisation through injected seal
- Leak-proof
- Temperature stability: -10 to +121 °C

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	30	**EXH0.1**	100 unit(s)	41,40



S

Culture tubes sterile with screw closure

ROTH SELECTION. Material: PS, HDPE closure. **Sterile**.

- Free of pyrogenics
- Temperature stability: -80 to +80 °C

Technical specifications:

Art. No.	AEL3.1
Centrifugability in g (max.)	3,000

Coloured lid inserts for identification are optional (CK72.1ff).

Vol. (ml)	Ø ext. (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
8	13	100	8 x 125	**AEL3.1**	1,000 unit(s)	289,20

Culture tubes

Culture tubes

ROTH SELECTION. **Sterile**.

- With two-position closure for anaerobic and aerobic bacteria cultures



S

Polypropylene graduated

Material: PP PE closure. With labelling area.

- Suitable for use in a centrifuge: 3000 x g
- Temperature stable: -190 to 121 °C

Vol. (ml)	Filling capacity (ml)	Ø ext. (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
5	4	12	75	500 x 1	**EC01.1**	500 unit(s)	155,90
5	4	12	75	20 x 25 (box)	**EC02.1**	500 unit(s)	123,65
14	12	17	95	500 x 1	**EC03.1**	500 unit(s)	218,25
14	12	17	95	20 x 25 (box)	**EC04.1**	500 unit(s)	165,55

Polypropylene ungraduated

Material: PP PE closure. Without labelling area.

- Suitable for use in a centrifuge: 3000 x g
- Temperature stable: -190 to 121 °C

Vol. (ml)	Filling capacity (ml)	Ø ext. (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
5	4	12	75	20 x 25 (bag)	**AEY0.1**	500 unit(s)	78,50
14	12	17	95	20 x 25 (bag)	**AEY1.1**	500 unit(s)	127,95

Polystyrene graduated

Material: PS PE closure. With labelling area.

- Transparent
- Suitable for use in a centrifuge: 1400 x g
- Temperature stable: +70 °C

Vol. (ml)	Ø ext. (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
5	12	75	500 x 1	**EA97.1**	500 unit(s)	170,95
5	12	75	20 x 25 (box)	**EA98.1**	500 unit(s)	127,95
14	17	95	500 x 1	**EA99.1**	500 unit(s)	231,15
14	17	95	20 x 25 (box)	**EC00.1**	500 unit(s)	166,65

Polystyrene ungraduated

Material: PS PE closure. Without labelling area.

- Transparent
- Suitable for use in a centrifuge: 1400 x g
- Temperature stable: +70 °C

Vol. (ml)	Ø ext. (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
5	12	75	1 x 100 (Bag)	**AEX8.1**	500 unit(s)	82,25
14	17	95	1 x 100 (Bag)	**AEX9.1**	500 unit(s)	99,15

Culture tubes



Drosophila vessels

Greiner Bio-One. Material: PS.

Ideal for the cultivation of Drosophila melanogaster.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
28	27	64	**CLY6.1**	1,500 unit(s)	180,60

Accessories plug for Drosophila vessels

Greiner Bio-One. Material: PU foamed (Ceapren), water-repellent, air-permeable.

Ø ext. (mm)	Suitable for	Art. No.	Pack Qty.	€
26	Vessel volume: 28 ml	**CLY8.1**	1,500 unit(s)	151,00



A 121 °C

Drosophila vessels

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Ideal for cultivating drosophila and other insects. Straight-walled for easy storage in racks, filling and sealing.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
28	85	**PK10.2**	950 unit(s)	165,55
50	100	**PK11.1**	225 unit(s)	130,15



Accessories plug for Drosophila vessels

ROTH SELECTION. Material: PU foamed.

Air-permeable and mite-proof.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
28	25	**PK13.1**	100 unit(s)	70,85
50	25	**PK15.1**	100 unit(s)	137,50



A 121 °C DURAN WHEATON KIMBLE

Culture bottle according to Breed-Demeter square

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Technical specifications:

Art. No.	T954.1
Width	48 mm
Height	148 mm

Vol. (ml)	Ø Outer neck (mm)	Art. No.	Pack Qty.	€
180	28	**T954.1**	1 unit(s)	22,85



S

Medium bottles

Nalgene. Material: PETG, HDPE screw cap. **Sterile**.

Low permeation of CO_2 and O_2 allows storage of culture media for up to six months. The cap and neck are sealed with a heat-shrink band: Vessel remains sterile as long as the band is intact.

- Transparent
- Square
- Breakproof and robust
- Leak-proof
- Bottle and cap are non-pyrogenic

2000 ml volume with integrated handles for easy handling.

Technical specifications:

Art. No.	C481.1	C482.1	C483.1	C484.1	C485.1	C486.1	C487.1
Length	38 cm	41 mm	52 mm	58 mm	73 mm	93 mm	116 mm
Width	38 cm	41 mm	52 mm	58 mm	73 mm	93 mm	116 mm
Height	63 mm	82 mm	108 mm	147 mm	177 mm	218 mm	270 mm

Vol. (ml)	Outer lid Ø (mm)	Art. No.	Pack Qty.	€
30	20	**C481.1**	24 unit(s)	79,90
60	24	**C482.1**	24 unit(s)	101,90
125	38	**C483.1**	24 unit(s)	163,40
250	38	**C484.1**	24 unit(s)	192,45
500	38	**C485.1**	12 unit(s)	145,50
1,000	38	**C486.1**	12 unit(s)	198,90
2,000	53	**C487.1**	6 unit(s)	167,70

Culture bottles





Cell culture media bottle DURAN® *TILT*

DWK Life Sciences. Material: DURAN® glass, PP screw cap. Autoclavable: Yes.

Can be used in two positions: Upright for storage, tilted at 45° for ergonomic pipetting.

- Compact shape, ideal for low sliding windows in sterile work-benches
- Stackable and space-saving
- Wide opening for easy pipetting
- Ergonomic screw thread for easy opening and closing
- Double volume marking for added convenience

Technical specifications:

Art. No.	EXH2.1
Height	151 mm

Delivery incl. screw cap, white.

Vol. (ml)	Thread	Art. No.	Pack Qty.	€
500	GL 56	**EXH2.1**	4 unit(s)	65,25

Accessories for DURAN® *TILT* cell culture media bottle

DWK Life Sciences.

Designation	Art. No.	Pack Qty.	€
DURAN® bottle tags, silicone, GL56, orange	**EXH4.1**	20 unit(s)	35,55
DURAN® bottle tags, silicone, GL56, yellow	**EXH5.1**	20 unit(s)	35,55
DURAN® bottle tags, silicone, GL56, blue	**EXH6.1**	20 unit(s)	35,55
DURAN® bottle tags, silicone, GL56, purple	**EXH7.1**	20 unit(s)	35,55
PTFE thread adapter, white, for DURAN® TILT bottles (GL 45 external, GL 56 internal)	**EXH8.1**	1 unit(s)	42,75
Replacement screw-cap closures GL 56, PP, white	**EXK0.1**	10 unit(s)	25,85
Self-adhesive labels, polyester, white, Ø 40 mm, for GL 56 screw-cap closures	**EXH9.1**	60 unit(s)	17,90
White silicone light protection cover, with 4 identifi-cation rings (orange, yellow, blue, purple)	**EXH3.1**	4 unit(s)	32,05

Medium bottles

Greiner Bio-One. Material: PET. **Sterile**.

- With graduations
- Square
- **Free of DNase, RNase and human DNA**
- Endotoxin-free, free of cytotoxic substances

Technical specifications:

Art. No.	CNA3.1	CNA4.1	CNA5.1
Length	53 mm	77 mm	92 mm
Width	77 mm	53 mm	92 mm
Height	108.3 mm	177.3 mm	218.8 mm

Vol. (ml)	Pack.	Art. No.	Pack Qty.	€
100	4 x 25	**CNA3.1**	100 unit(s)	163,40
500	2 x 25	**CNA4.1**	50 unit(s)	121,35
1,000	2 x 12	**CNA5.1**	24 unit(s)	117,70



Culture bottle with beaded rim

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Technical specifications:

Art. No.	T955.1	T956.1	T958.1	T959.1
Ø ext.	50 mm	70 mm	105 mm	150 mm
Height	115 mm	168 mm	237 mm	315 mm

Vol. (ml)	Ø Outer neck (mm)	Art. No.	Pack Qty.	€
100	29	**T955.1**	1 unit(s)	25,00
300	42	**T956.1**	1 unit(s)	33,00
1,000	46	**T958.1**	1 unit(s)	51,50
2,500	50	**T959.1**	1 unit(s)	91,15

Culture bottles



121 °C

Culture bottle with a straight neck

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Technical specifications:

Art. No.	T962.1	T963.1	T964.1
Ø ext.	70 mm	83 mm	105 mm
Height	170 mm	208 mm	243 mm

Suitable for Erlenmeyer CAP caps K395.1-K397.1

Vol. (ml)	Ø Outer neck (mm)	Art. No.	Pack Qty.	€
300	38	**T962.1**	1 unit(s)	53,00
500	38	**T963.1**	1 unit(s)	65,00
1,000	38	**T964.1**	1 unit(s)	75,90



121 °C DURAN WHEATON KIMBLE

Culture flask Fernbach

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Large liquid surface, ideal for cultivating micro-organisms in liquid nutrient media, with improved ventilation for faster growth. Conical shape with a straight neck for Erlenmeyer CAP caps K395.1-K397.1.

Technical specifications:

Art. No.	T965.1
Ø ext.	200 mm
Height	175 mm

Vol. (ml)	Ø Outer neck (mm)	Art. No.	Pack Qty.	€
1,800	38	**T965.1**	1 unit(s)	88,65



121 °C DURAN WHEATON KIMBLE

Culture flask in Erlenmeyer shape

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Uniform, straight neck, suitable for Erlenmeyer CAP caps K395.1-K397.1

Technical specifications:

Art. No.	L182.1	L183.1	L184.1	L185.1	L186.1	L187.1	L188.1
Ø ext.	64 mm	79 mm	85 mm	87 mm	105 mm	131 mm	166 mm
Height	114 mm	138 mm	149 mm	161 mm	183 mm	229 mm	302 mm

Vol. (ml)	Ø Outer neck (mm)	Art. No.	Pack Qty.	€
100	38	**L182.1**	10 unit(s)	212,00
200	38	**L183.1**	10 unit(s)	232,00
250	38	**L184.1**	10 unit(s)	237,00
300	38	**L185.1**	10 unit(s)	116,50
500	38	**L186.1**	10 unit(s)	146,35
1,000	38	**L187.1**	1 unit(s)	30,45
2,000	38	**L188.1**	1 unit(s)	39,55



121 °C

Baffled flasks plastic

Nalgene. Material: PC. Autoclavable: Yes.

- Shatter-proof alternative to glass flasks
- Comparable growth rates for *E. coli* and *S. cerevisiae*
- Baffles increase the mixing during trypsinisation, aeration and fermentation in cell culture technology or genetic engineering.

Straight neck

Suitable for Erlenmeyer CAP caps K395.1-K397.1.

Vol. (ml)	Art. No.	Pack Qty.	€
500	**E105.1**	1 unit(s)	26,30
1,000	**E106.1**	1 unit(s)	44,70

Neck with flanged rim

Vol. (ml)	Art. No.	Pack Qty.	€
250	**E104.1**	1 unit(s)	20,95
2,000	**E107.1**	1 unit(s)	61,60

Culture flasks



S

Culture flask sterile

Nalgene. Material: PETG, HDPE screw closure, with aeration filter (PTFE membrane, pore size 0.2 µm). **Sterile**.

Suitable for agitation and suspension cultures, for making culture media or storage. The aeration filter enables sterile aeration and reduces the risk of contamination.

- With graduations
- Non-pyrogenic, non-cytotoxic
- Individually packed

Vol. (ml)	Art. No.	Pack Qty.	€
125	**PX73.1**	24 unit(s)	269,85
250	**PX74.1**	12 unit(s)	147,90
500	**PX75.1**	12 unit(s)	182,75
1,000	**PX76.1**	6 unit(s)	105,55
2,000	**PX77.1**	4 unit(s)	105,65



S

Baffled flasks sterile

Nalgene. Material: PETG, HDPE screw closure, with aeration filter (PTFE membrane, pore size 0.2 µm). **Sterile**.

Suitable for agitation and suspension cultures, for making culture media or storage. The aeration filter enables sterile aeration and reduces the risk of contamination.

- With graduations
- Non-pyrogenic, non-cytotoxic
- Individually packed

Vol. (ml)	Art. No.	Pack Qty.	€
125	**ETA0.1**	24 unit(s)	261,25
250	**ETA1.1**	12 unit(s)	147,90
500	**ETA2.1**	12 unit(s)	176,30
1,000	**ETA3.1**	6 unit(s)	103,60
2,000	**ETA4.1**	4 unit(s)	100,90



A 121 °C

DURAN WHEATON KIMBLE

Baffled flasks WHEATON®

DWK Life Sciences. Material: Borosilicate glass. Autoclavable: Yes.

With four bottom baffles for improved mixing and aeration when cultivating bacterial cultures on orbital shakers or shakers with lateral shaking movement. The constriction in the neck and the flanged rim prevent liquids from spurting out.

Technical specifications:

Art. No.	HYH2.1	HYH3.1	HYH4.1	HYH5.1	HYH6.1
Ø ext.	47 mm	67 mm	82 mm	100 mm	133 mm
Height	83 mm	110 mm	140 mm	180 mm	210 mm

Vol. (ml)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
50	17.5	**HYH2.1**	1 unit(s)	75,30
125	23.8	**HYH3.1**	1 unit(s)	76,45
250	28.4	**HYH4.1**	1 unit(s)	77,55
500	33.1	**HYH5.1**	1 unit(s)	79,35
1,000	39.5	**HYH6.1**	1 unit(s)	127,50



A 121 °C

Baffled flasks ROTILABO® with screw closure

ROTH SELECTION. Material: DURAN® glass, screw cap made from PBT, PTFE-coated seal. Autoclavable: Yes.

Culture flask with three integrated baffles for better mixing.

Technical specifications:

Art. No.	LK17.1	LK18.1	LK19.1	LK20.1
Ø ext.	64 mm	85 mm	105 mm	131 mm
Height	109 mm	149 mm	180 mm	225 mm

Ideal for cultivating *S. cerevisiae* (cap not screwed tight).

Vol. (ml)	Thread	Art. No.	Pack Qty.	€
100	GL 25	**LK17.1**	1 unit(s)	50,00
250	GL 32	**LK18.1**	1 unit(s)	51,10
500	GL 32	**LK19.1**	1 unit(s)	53,25
1,000	GL 32	**LK20.1**	1 unit(s)	74,75

Culture flasks



121 °C

Baffled flasks ROTILABO®

ROTH SELECTION. Material: DURAN® glass. Autoclavable: Yes.

Culture flask with three integrated baffles for better mixing. Ideal for cultivating *S. cerevisiae* and aerobic bacteria cultures. Flasks with straight necks, suitable for Erlenmeyer CAP caps K395.1-K397.1.

Technical specifications:

Art. No.	LY94.1	LY95.1	LY96.1	LY97.1	LY98.1	PK29.1
Ø ext.	64 mm	85 mm	105 mm	131 mm	166 mm	220 mm
Height	114 mm	149 mm	183 mm	232 mm	305 mm	365 mm

Version	Vol. (ml)	Ø Outer neck (mm)	Art. No.	Pack Qty.	€
straight neck	100	38	**LY94.1**	1 unit(s)	50,00
straight neck	250	38	**LY95.1**	1 unit(s)	55,40
straight neck	500	38	**LY96.1**	1 unit(s)	52,15
straight neck	1,000	38	**LY97.1**	1 unit(s)	74,10
straight neck	2,000	38	**LY98.1**	1 unit(s)	98,90
neck with flanged rim	5,000	52	**PK29.1**	1 unit(s)	181,70



121 °C

DURAN WHEATON KIMBLE

Baffled flasks DURAN® with screw closure

DWK Life Sciences. Material: DURAN® glass, PP screw closure with PTFE membrane. Autoclavable: Yes.

Four baffles on the base create a turbulent flow, enlarge the gas exchange surface area and therefore increase oxygen intake. Automated production ensures a reproducible flask geometry and consistent results.

- Double-thickness walls for exceptional mechanical stability
- With Retrace Code (batch identification)
- Temperature stable up to +140 °C

Technical specifications:

Art. No.	PK16.1	PK17.1	AEP1.1
Ø ext.	81 mm	105 mm	136 mm
Height	145 mm	180 mm	221 mm

Vol. (ml)	Thread	Art. No.	Pack Qty.	€
250	GL 45	**PK16.1**	4 unit(s)	97,35
500	GL 45	**PK17.1**	4 unit(s)	109,50
1,000	GL 45	**AEP1.1**	1 unit(s)	35,25



121 °C

Screw caps

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For test tubes, culture tubes and straight-neck Erlenmeyer flasks. For air-tight closure, please also use closure bands or Parafilm® M.

Suitable for	Art. No.	Pack Qty.	€
Ø 13 mm	**CXK0.1**	1,000 unit(s)	155,00
Ø 16 mm	**CXK1.1**	1,000 unit(s)	157,60
Ø 18 mm	**CXK2.1**	1,000 unit(s)	209,65
Ø 20 mm	**CXK3.1**	500 unit(s)	152,40
Ø 25 mm	**CXK4.1**	500 unit(s)	236,50
Ø 38 mm	**CXK5.1**	250 unit(s)	258,00

Culture stoppers, caps

Culture plug ROTILABO®

ROTH SELECTION. Material: Cellulose. Autoclavable: Yes.

Air-permeable, bacteria-filtering plug, ideal for the incubation of plant or bacteria cultures and for the sterilisation of culture media. Autoclavable up to +200 °C.



A 121 °C

Type	Suitable for	Application	Ø Lower (mm)	Ø Upper (mm)	Length (mm)	Art. No.	Pack Qty.	€
8 P	Inside Ø 7.5–11.0 mm		7.5	12.5	30	**PC16.1**	1,000 unit(s)	38,95
9 P	Inside Ø 9.0–10.5 mm		8.5	12	31	**CTC8.1**	2,000 unit(s)	70,65
13	Inside Ø 12.0–14.5 mm	Erlenmeyer flask, NS 14/23	11	16	36.5	**PC17.1**	1,000 unit(s)	37,60
14 P	Inside Ø 12.0–14.0 mm		11	17	37	**CTC9.1**	1,000 unit(s)	43,55
14	Inside Ø 13.0–14.5 mm		11.5	16.5	40	**PC18.1**	1,000 unit(s)	37,60
15 P	Inside Ø 14.0–16.5 mm		13	20	39	**PC19.1**	1,000 unit(s)	46,10
16	Inside Ø 16.5–18.0 mm	Erlenmeyer flask, NS 19/26	15.5	20	39	**PC20.1**	1,000 unit(s)	60,35
17	Inside Ø 13.0–16.0 mm		11.5	18.5	34	**CTE0.1**	1,000 unit(s)	55,50
18 D	Inside Ø 17.5–19.5 mm		16.5	22	36.5	**PC21.1**	1,000 unit(s)	50,65
20 P	Inside Ø 19.0–22.5 mm	Erlenmeyer flasks: Narrow-necked, 25–100 ml	18.5	25	39	**PC22.1**	500 unit(s)	58,95
26	Inside Ø 25–27 mm	Erlenmeyer flask, NS 29/32	24	27.5	42	**PC23.1**	2,000 unit(s)	205,35
27	Inside Ø 27.0–32.5 mm	Erlenmeyer flasks: Narrow-necked 200–500 ml/wide-necked 50–100 ml	24	35	54	**PC24.1**	1,500 unit(s)	225,75
29	Inside Ø 28.5–31.0 mm	Erlenmeyer flasks: Wide-necked 25 ml	27.5	33	63	**PC25.1**	1,200 unit(s)	196,75
32 P	Inside Ø 31.0–33.5 mm		31	45.5	55.5	**PC26.1**	850 unit(s)	199,95
32	Inside Ø 32.5–35.0 mm	Culture flasks, straight neck Ø 38 mm	31	36	61	**PC27.1**	1,000 unit(s)	201,05
34	Inside Ø 33.5–36.0 mm		33	37	61.5	**PC28.1**	900 unit(s)	190,30
37	Inside Ø 37.5–41.5 mm		38	47	60	**CTE1.1**	400 unit(s)	121,40
38	Inside Ø 40.0–45.5 mm	Narrow-necked Erlenmeyer flasks, 1000 ml/Erlenmeyer flasks, NS 45/40	38	49	61	**PC29.1**	650 unit(s)	180,60
40 P	Inside Ø 43.0–46.0 mm		42	52	50	**PC30.1**	650 unit(s)	275,20
45 P	Inside Ø 44–48 mm	Erlenmeyer flasks: Narrow-necked, 2000–5000 ml/wide-necked 200–1000 ml	44	60	65	**PC31.1**	370 unit(s)	195,65
60 P	Inside Ø 58.0–66.0 mm		56	71	68	**PC32.1**	250 unit(s)	262,30

Culture stoppers, caps



A 121 °C

Culture plug silicone sponge

Hirschmann. Material: Silicone. Autoclavable: Yes.

With regularly spaced pores, ideal for preparing and sterilising culture media and for cultivating aerobic micro-organisms.

- Good air permeability with low evaporation
- Ideal for cultures in long-term tests
- Washable and reusable
- Can be dry sterilised up to 180 °C

Ø Lower (mm)	Ø Upper (mm)	Length (mm)	Art. No.	Pack Qty.	€
9	12	30	**NN15.1**	10 unit(s)	41,05
11	15	20	**NN16.1**	10 unit(s)	48,95
13	17	40	**0599.2**	10 unit(s)	58,95
15	19	42	**0606.2**	10 unit(s)	64,05
18	22	45	**0607.2**	10 unit(s)	72,60
22	32	60	**0615.2**	10 unit(s)	112,25
30	42	90	**NN17.1**	10 unit(s)	282,75
40	52	100	**0616.2**	10 unit(s)	420,35



A 121 °C

Screw caps LABOCAP with grip

ROTH SELECTION. Material: Aluminium colour anodised, chrome-nickel-steel spring. Autoclavable: Yes.

For closure of straight-necked test tubes and culture tubes. Spring clamp on the vessel outer wall. Temperature stable up to 140 °C.

Only use neutral cleaner for cleaning.

For Ø 15/16 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 15/16 mm	silver	**K363.1**	100 unit(s)	132,90
Ø 15/16 mm	blue	**K367.1**	100 unit(s)	132,90
Ø 15/16 mm	red	**K371.1**	100 unit(s)	132,90

For Ø 17/18 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 17/18 mm	silver	**K364.1**	100 unit(s)	140,30
Ø 17/18 mm	blue	**K368.1**	100 unit(s)	140,30
Ø 17/18 mm	red	**K372.1**	100 unit(s)	140,30



A 121 °C

Screw caps LABOCAP

ROTH SELECTION. Material: Aluminium colour anodised, chrome-nickel-steel spring. Autoclavable: Yes.

For closure of straight-necked test tubes and culture tubes. Spring clamp on the vessel outer wall. Temperature stable up to 140 °C.

Only use neutral cleaner for cleaning.

For Ø 9/10 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 9/10 mm	silver	**LL88.1**	100 unit(s)	100,25

For Ø 12/13 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 12/13 mm	silver	**K375.1**	100 unit(s)	97,45
Ø 12/13 mm	blue	**K385.1**	100 unit(s)	97,45
Ø 12/13 mm	red	**K390.1**	100 unit(s)	97,45
Ø 12/13 mm	yellow	**LL91.1**	100 unit(s)	100,25
Ø 12/13 mm	green	**LN06.1**	100 unit(s)	100,25
Ø 12/13 mm	black	**LN08.1**	100 unit(s)	100,25
Ø 12/13 mm	violet	**LN09.1**	100 unit(s)	100,25

For Ø 14/15 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 14/15 mm	silver	**K376.1**	100 unit(s)	119,35
Ø 14/15 mm	blue	**LN10.1**	100 unit(s)	119,35

For Ø 15/16 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 15/16 mm	silver	**K377.1**	100 unit(s)	103,55
Ø 15/16 mm	blue	**K387.1**	100 unit(s)	103,55
Ø 15/16 mm	red	**K392.1**	100 unit(s)	103,55
Ø 15/16 mm	yellow	**LN11.1**	100 unit(s)	108,40
Ø 15/16 mm	green	**LN12.1**	100 unit(s)	108,40
Ø 15/16 mm	black	**LN14.1**	100 unit(s)	108,40
Ø 15/16 mm	violet	**LN15.1**	100 unit(s)	108,40

For Ø 17/18 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 17/18 mm	silver	**K378.1**	100 unit(s)	103,55
Ø 17/18 mm	blue	**K388.1**	100 unit(s)	103,55
Ø 17/18 mm	red	**K393.1**	100 unit(s)	103,55
Ø 17/18 mm	yellow	**LN16.1**	100 unit(s)	108,40
Ø 17/18 mm	green	**LN17.1**	100 unit(s)	108,40
Ø 17/18 mm	black	**LN19.1**	100 unit(s)	108,40
Ø 17/18 mm	violet	**LN20.1**	100 unit(s)	108,40

Culture stoppers, caps

For Ø 19/20 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 19/20 mm	silver	**K379.1**	100 unit(s)	115,65
Ø 19/20 mm	blue	**K389.1**	100 unit(s)	115,65
Ø 19/20 mm	red	**LN21.1**	100 unit(s)	115,65
Ø 19/20 mm	yellow	**LN22.1**	100 unit(s)	115,70
Ø 19/20 mm	green	**LN23.1**	100 unit(s)	115,70

For Ø 21/23 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 21/23 mm	silver	**LN27.1**	100 unit(s)	181,70

For Ø 24/26 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 24/26 mm	silver	**K381.1**	100 unit(s)	231,15
Ø 24/26 mm	blue	**LN30.1**	100 unit(s)	231,15
Ø 24/26 mm	red	**LN31.1**	100 unit(s)	231,15

For Ø 28/30 mm

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 28/30 mm	silver	**K382.1**	100 unit(s)	242,95



A 121 °C

Screw caps LABOCAP

ROTH SELECTION. Material: Aluminium colour anodised, chrome-nickel-steel spring. Autoclavable: Yes.

For Erlenmeyer and culture flasks with straight necks, Ø 38 mm. Spring clamp on the vessel outer wall. Temperature stable up to 140 °C.

Only use neutral cleaner for cleaning.

Suitable for	Colour	Art. No.	Pack Qty.	€
Ø 37/39 mm	silver	**K395.1**	10 unit(s)	42,60
Ø 37/39 mm	blue	**K396.1**	10 unit(s)	42,60
Ø 37/39 mm	red	**K397.1**	10 unit(s)	42,60



Petri dish stands DishRack

Sarstedt. Material: PC.

For storage, transport and incubation of up to 52 Petri dishes with Ø 92 mm. with 4 compartments, Petri dishes easy to remove at every point, with no need for restacking. Two flexible silicone retaining lips provide a secure hold for the plates in the stands, even during transport. Height: 240 mm.

Note: Autoclaving of the rack is possible as a rule; however, if carried out several times (more than 3x) stress cracks can occur at the riveted eyelets of the rack, which can adversely affect the stability of the rack.

Delivery incl. paper marking strips.

Number of petri dishes	Colour	Art. No.	Pack Qty.	€
4 x 13	colourless	**HPT9.1**	1 unit(s)	88,40



A 121 °C

Petri dish stands ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For Petri disks with Ø 90–94 mm. Robust, stable design with rounded edges. Clips on the end rods of the stand enable a card to be attached to identify the stand.

Number of petri dishes	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
3 x 10	294 x 100 x 172	natural	**K120.1**	1 unit(s)	61,20
3 x 10	294 x 100 x 172	red	**K121.1**	1 unit(s)	69,35
3 x 10	294 x 100 x 172	blue	**K122.1**	1 unit(s)	69,35

Petri dishes and accessories



A 121 °C

Petri dish stands for Ø 60 mm

ROTH SELECTION. Material: PP, base made of steel, powder-coated. Autoclavable: Yes.

With carry handle. For Petri dishes with Ø max. 60 mm.

Number of petri dishes	L x W x H (mm)	Art. No.	Pack Qty.	€
6 x 9	267 x 171 x 171	**CXP2.1**	1 unit(s)	107,40



Petri dish stands ROTILABO®

ROTH SELECTION.

For Petri dishes with Ø 100 mm. stand height 230 mm, total height 250 mm.

Plastic-coated

Material: Steel PE-coated.

Ø ext. (mm)	Art. No.	Pack Qty.	€
120	**L057.1**	1 unit(s)	27,10

Stainless steel

Material: Stainless steel electrolytically polished. Autoclavable: Yes.

Ø ext. (mm)	Art. No.	Pack Qty.	€
120	**L058.1**	1 unit(s)	36,75



A 121 °C

Petri dish stands for Ø 60 mm

ROTH SELECTION. Material: Steel, powder-coated. Autoclavable: Yes.

For Petri dishes with Ø max. 72 mm.

Number of petri dishes	L x W x H (mm)	Art. No.	Pack Qty.	€
1 x 10	82 x 82 x 140	**CXP3.1**	1 unit(s)	42,50
3 x 10	82 x 246 x 140	**CXP4.1**	1 unit(s)	95,15



Adhesive tape for closing petri dishes

ROTH SELECTION.

Elastic, self-adhesive. Also for microtiter plates, bottles and cans as an alternative to shrink tubes. Prevents water loss, gas exchange and contamination. Waterproof and resistant to most solvents. Flexible even at low temperatures (-30 °C).
Resistant from -40 to +77 °C (short-term up to +100 °C).

Colour	Width (mm)	Length (m)	Thickn. (mm)	ØCore (mm)	Art. No.	Pack Qty.	€
red	13	33	0,13	77	**K429.1**	1 unit(s)	55,60
blue	13	33	0,13	77	**K431.1**	1 unit(s)	55,60
white	13	33	0,13	77	**K428.1**	1 unit(s)	55,60
yellow	13	33	0,13	77	**K430.1**	1 unit(s)	55,60
colour-less	13	33	0,13	77	**K427.1**	1 unit(s)	55,60

Petri dishes and accessories





❄❄

Adhesive tape for closing petri dishes gas permeable

ROTH SELECTION. Material: PU (based on polyurethane).

Elastic, self-adhesive. Particularly suitable for the cultivation of aerobic bacteria, yeast cultures or plant seedlings.

- Safe sealing of Petri dishes
- Prevents contamination
- Ensures even exchange of oxygen and CO_2
- Temperature stability: -80 to +100 °C

Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
15.88	282.58	**AEA2.1**	100 unit(s)	106,25



A 121 °C

Petri dishes ROTILABO®

ROTH SELECTION. Material: Soda-lime glass. Autoclavable: Yes.

Ø x H (mm)	Art. No.	Pack Qty.	€
60 x 15	**KHY7.1**	18 unit(s)	32,90
80 x 15	**KHY8.1**	18 unit(s)	34,40
100 x 20	**0690.1**	18 unit(s)	47,10
100 x 15	**KHY9.1**	18 unit(s)	52,70
120 x 20	**KKA0.1**	18 unit(s)	60,75
150 x 25	**KKA1.1**	18 unit(s)	83,35

S

Petri dishes

ROTH SELECTION. Material: PS. **Sterile**.

- Flat surfaces for reproducible agar filling levels
- Temperature stable up to 55 °C
- Versatile: has a wide range of uses in microbiology and bacteriology
- Gamma-sterilised

Technical specifications:

Art. No.	N224.2	N223.2	TA19.1	N221.2	NP90.1
Ø Outer upper	58 mm		92 mm		
Ø Outer lower	55 mm		88 mm		

With vents

Slightly raised lid, for optimum gas exchange.

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
55 x 15	**Sterile**	108 x 15	**N223.2**	1,620 unit(s)	250,50
90 x 14	**Sterile**	25 x 33	**N221.2**	825 unit(s)	155,05

With vents, high shape

Slightly raised lid, for optimum gas exchange. High version, ideal for the germination of plant seeds.

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
90 x 25	**Sterile**	50 x 10	**NP90.1**	500 unit(s)	356,90

Without vents

Flush-fit lid for long incubation periods at 37 °C.

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
55 x 15	**Sterile**	108 x 15	**N224.2**	1,620 unit(s)	252,65
90 x 14	**Sterile**	25 x 33	**TA19.1**	825 unit(s)	179,55

Petri dishes and accessories

Petri dishes Steriplan®

DWK Life Sciences. Material: Soda-lime glass. Autoclavable: Yes.



A 121 °C

DURAN WHEATON KIMBLE

Technical specifications:

Art. No.	T946.1	T947.1	T937.1	T938.1	T939.1	PY88.1	T940.1	T941.1	T942.1	T943.1	T944.1	T945.1
Ø Outer lower	191.5 mm		34 mm	55 mm	75 mm	84 mm	95 mm			115 mm	141 mm	171 mm
Height without closure	30 mm	45 mm	12 mm	15 mm			10 mm	15 mm	20 mm		25 mm	30 mm

Ø x H (mm)	Art. No.	Pack Qty.	€
40 x 12	**T937.1**	10 unit(s)	17,45
60 x 15	**T938.1**	10 unit(s)	17,45
80 x 15	**T939.1**	10 unit(s)	18,25
90 x 15	**PY88.1**	10 unit(s)	18,15
100 x 10	**T940.1**	10 unit(s)	19,80
100 x 15	**T941.1**	10 unit(s)	19,80
100 x 20	**T942.1**	10 unit(s)	19,80
120 x 20	**T943.1**	10 unit(s)	30,70
150 x 25	**T944.1**	10 unit(s)	48,35
180 x 30	**T945.1**	10 unit(s)	100,45
200 x 30	**T946.1**	10 unit(s)	132,60
200 x 45	**T947.1**	10 unit(s)	136,40

Petri dishes DUROPLAN®

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

DIN EN ISO 13132 certified. Microscopically level, free of blisters and streaks due to a special manufacturing process. Enable a uniform culture distributions and an undistorted view.



A 121 °C

DURAN WHEATON KIMBLE

Technical specifications:

Art. No.	K608.1	K609.1	K610.1	K611.1	K612.1	K613.1
Ø Outer lower	54.5 mm	74 mm	94 mm		114 mm	142 mm

Ø x H (mm)	Total height (mm)	Art. No.	Pack Qty.	€
60 x 20	22	**K608.1**	10 unit(s)	145,05
80 x 20	22	**K609.1**	10 unit(s)	151,00
100 x 15	17	**K610.1**	10 unit(s)	159,00
100 x 20	22	**K611.1**	10 unit(s)	157,00
120 x 20	22	**K612.1**	10 unit(s)	168,00
150 x 30	32	**K613.1**	10 unit(s)	266,00

Petri dishes and accessories

Petri dishes

Greiner Bio-One. Material: PS.

- Flat stacking surfaces ensure high dimensional stability
- Versatile: has a wide range of uses in microbiology and bacteriology
- Ideal for microscopy



With vents

Slightly raised lid, for optimum gas exchange.

Technical specifications:

Art. No.	EL49.1	XH90.1	EL46.1	XH88.1	EL47.1	XH89.1	ALA5.1	EL48.1
Ø Outer upper	143.5 mm		39 mm		59 mm		93 mm	
Ø Outer lower	138.8 mm		35 mm		55.8 mm	54.4 mm	87 mm	89 mm
Height with lid	21.4 mm		13.4 mm		15.4 mm		17 mm	
Height without closure	19.5 mm		12 mm		13.8 mm		15.5 mm	

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
35 x 10	Non-sterile	74 x 10	**EL46.1**	740 unit(s)	183,85
35 x 10	**Sterile**	74 x 10	**XH88.1**	740 unit(s)	224,70
60 x 15	Non-sterile	30 x 20	**EL47.1**	600 unit(s)	96,95
60 x 15	**Sterile**	30 x 20	**XH89.1**	600 unit(s)	170,95
90 x 16	**Sterile**	24 x 20	**ALA5.1**	480 unit(s)	91,30
90 x 16	Non-sterile	24 x 20	**EL48.1**	480 unit(s)	69,45
145 x 20	Non-sterile	8 x 15	**EL49.1**	120 unit(s)	72,30
145 x 20	**Sterile**	8 x 15	**XH90.1**	120 unit(s)	112,70

Without vents

Flush-fit lid for long incubation periods at 37 °C.

Technical specifications:

Art. No.	EL45.1	EN16.1
Ø Outer upper	93 mm	
Ø Outer lower	89.3 mm	
Height with lid	16.5 mm	
Height without closure	15.5 mm	

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
90 x 16	Non-sterile	24 x 20	**EL45.1**	480 unit(s)	66,65
90 x 16	**Sterile**	24 x 20	**EN16.1**	480 unit(s)	108,20

Petri dishes and accessories

Petri dishes heavy duty version

Greiner Bio-One. Material: PS.

Optimised for use in automatic systems and higher temperature stability when working with hot agar.

- Flat stacking surfaces ensure high dimensional stability
- Versatile: has a wide range of uses in microbiology and bacteriology
- Ideal for microscopy
- Optional ally available as sterile (Gamma-sterilised)



Technical specifications:

Art. No.	PX82.1	PX84.1	PX81.1	PX83.1
Ø Outer upper	93 mm			
Ø Outer lower	89 mm			
Height with lid	16.7 mm		17 mm	
Height without closure	14.2 mm		15.5 mm	

With vents
Slightly raised lid, for optimum gas exchange.

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
90 x 16	**Sterile**	24 x 20	**PX81.1**	480 unit(s)	134,65
90 x 16	Non-sterile	24 x 20	**PX83.1**	480 unit(s)	74,80

Without vents
Flush-fit lid for long incubation periods at 37 °C.

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
90 x 16	**Sterile**	24 x 20	**PX82.1**	480 unit(s)	150,85
90 x 16	Non-sterile	24 x 20	**PX84.1**	480 unit(s)	82,95

ROTH SELECTION



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Petri dishes and accessories



Petri dishes with vents

Sarstedt. Material: PS. Non-sterile.

Coloured Petri dishes for various coding possibilities and to provide a better contrast. The vents enable improved gas exchange.

Technical specifications:

Art. No.	1A0P.1	1A0T.1	1A0X.1	1A0Y.1
Ø Outer upper	92 mm			
Ø Outer lower	88.3 mm			
Height with lid	16.4 mm			
Height without closure	14.9 mm			

Vol. (ml)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
80	red	Non-sterile	24 x 20	**1A0P.1**	480 unit(s)	74,40
80	yellow	Non-sterile	24 x 20	**1A0T.1**	480 unit(s)	74,40
80	blue	Non-sterile	24 x 20	**1A0X.1**	480 unit(s)	74,40
80	green	Non-sterile	24 x 20	**1A0Y.1**	480 unit(s)	74,40



S

Petri dishes

ROTH SELECTION. Material: PS. **Sterile**.

Stackable, tight-sealing and therefore suitable for long incubation times without drying out. Lid with matt white labelling space and projecting edge for single-handed opening.

Technical specifications:

Art. No.	AEN0.1	AEN1.1
Ø Outer upper	52 mm	
Ø Outer lower	55 mm	
Ø Inner lower	50 mm	

For 47 mm filters
For use with filter paper Ø 47 mm.

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
50 x 9	**Sterile**	25 x 20	**AEN0.1**	500 unit(s)	134,40

With absorptive paper
With absorptive paper inserted, e.g. for growing plant seedlings.

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
50 x 9	**Sterile**	25 x 20	**AEN1.1**	500 unit(s)	127,95



Petri dishes square

Greiner Bio-One. Material: PS.

With vents (slightly raised lid, for optimum gas exchange).

- Versatile: has a wide range of uses in microbiology and bacteriology
- Easy to stack
- Optionally available as sterile

Technical specifications:

Art. No.	EL50.1	PX67.1
Height with lid	16.5 mm	
Height without closure	14.6 mm	

L x W x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
120 x 120 x 17	Non-sterile	24 x 10	**EL50.1**	240 unit(s)	197,80
120 x 120 x 17	**Sterile**	24 x 10	**PX67.1**	240 unit(s)	206,40



S

Petri dishes square with grid

ROTH SELECTION. Material: PS. **Sterile**.

Volume 110 ml. Ideal for phage typing or colony counting, for example. With 13 mm grid on bottom, alphanumeric coding. With vents to prevent condensation.

L x W x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
100 x 100 x 15	**Sterile**	50 x 10	**AEL9.1**	500 unit(s)	256,95

Petri dishes and accessories



S

Contact dishes

Greiner Bio-One. Material: PS. **Sterile**.

To detect contamination and/or check the effectiveness of cleaning and disinfection on flat surfaces using contact cultures.

- Optimised dish design produces a meniscus on the surface of the agar when the contact dish is filled
- Graduated and divided into 10 mm squares to allow quick and easy analysis

Technical specifications:

Art. No.	PX86.1	PX85.1
Ø Outer upper	62.5 mm	
Ø Outer lower	66.3 mm	
Height with lid	15 mm	12.5 mm
Height without closure	8.7 mm	
Inner height	4.8 mm	

With vents
For an enhanced gas exchange.

Vol. (ml)	Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
12.5	65 x 12.5	**Sterile**	30 x 20	**PX85.1**	600 unit(s)	224,70

Without vents

Vol. (ml)	Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
13.5	65 x 15	**Sterile**	30 x 20	**PX86.1**	600 unit(s)	192,45



Petri dishes divided 2 chambers

Greiner Bio-One. Material: PS.

- Versatile: has a wide range of uses in microbiology and bacteriology
- Easy to stack
- With vents
- Volume per chamber: 25 ml

Technical specifications:

Art. No.	EP50.1	HLY9.1
Ø Outer upper	93 mm	
Ø Outer lower	89.3 mm	
Height with lid	15.8 mm	
Height without closure	14.35 mm	

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
90 x 15	Non-sterile	24 x 20	**EP50.1**	480 unit(s)	110,10
90 x 15	**Sterile**	24 x 20	**HLY9.1**	480 unit(s)	166,65



A 121 °C

DURAN WHEATON KIMBLE

Petri dishes graduated

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.
Compliant with DIN 12339.

2 chambers

Ø x H (mm)	Art. No.	Pack Qty.	€
100 x 20	**T948.1**	10 unit(s)	124,35

3 chambers

Ø x H (mm)	Art. No.	Pack Qty.	€
100 x 20	**T949.1**	10 unit(s)	124,35

4 chambers

Ø x H (mm)	Art. No.	Pack Qty.	€
100 x 20	**T950.1**	10 unit(s)	124,35



A 121 °C

Petri dishes ROTILABO® stainless steel

Bochem. Material: Stainless steel, 18/10. Autoclavable: Yes.

Ø x H (mm)	Art. No.	Pack Qty.	€
60 x 20	**YT00.1**	1 unit(s)	21,95
75 x 20	**YT01.1**	1 unit(s)	21,95
90 x 20	**YT02.1**	1 unit(s)	20,25
100 x 15	**YT03.1**	1 unit(s)	41,55
120 x 20	**YT04.1**	1 unit(s)	30,45



S

Bacterial cell spreaders Delta™

ROTH SELECTION. Material: ABS. **Sterile**.

With smooth surface, prevents scratching for agrar surfaces. Delta-shaped head distributes the contact pressure evenly for a smooth application. Individually packed.

Total length (mm)	Width (mm)	Ø (mm)	Art. No.	Pack Qty.	€
172	37	4	**PC59.1**	500 unit(s)	107,55



S

Bacterial cell spreaders

ROTH SELECTION. Material: PS. **Sterile**.

For easy spreading of cells on agar plates.

Total length (mm)	Width (mm)	Pack.	Art. No.	Pack Qty.	€
171	36	individual	**AY19.1**	100 unit(s)	93,00



A 121 °C

Bacterial cell spreaders L-shaped 90°

Hammacher. Material: Stainless steel Wironit (1.4301). Autoclavable: Yes.

Total length (mm)	Width (mm)	Ø (mm)	Art. No.	Pack Qty.	€
195	40	4	**KAP9.1**	1 unit(s)	8,40



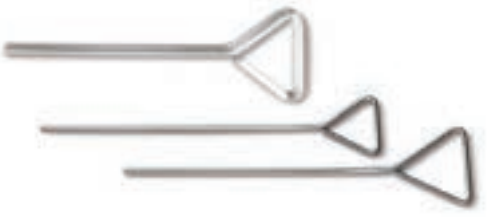
S

Bacterial cell spreaders L-shaped

ROTH SELECTION. Material: ABS. **Sterile**.

With smooth surface, prevents scratching for agrar surfaces.

Total length (mm)	Width (mm)	Ø (mm)	Pack.	Art. No.	Pack Qty.	€
146	38	4	individually	**PC57.1**	500 unit(s)	95,55
146	38	4	50 x 10	**PC58.1**	500 unit(s)	89,40



A 121 °C

Bacterial cell spreaders Drigalski

ROTH SELECTION. Autoclavable: Yes.

For uniform distribution of bacterial material on a solid culture. Also usable as stirrer.

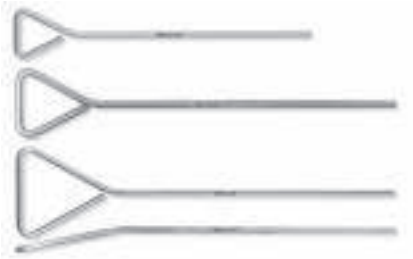
Stainless steel
Material: Stainless steel 18/10 (Remanit 4301).

Total length (mm)	Width (mm)	Ø (mm)	Art. No.	Pack Qty.	€
165	40	3	**AL98.1**	1 unit(s)	5,55
165	30	3	**K732.1**	1 unit(s)	4,90
195	40	4	**1C5H.1**	5 unit(s)	33,00

Glass
Material: Soda-lime glass.

Total length (mm)	Width (mm)	Ø (mm)	Art. No.	Pack Qty.	€
145	50	5	**T724.2**	10 unit(s)	41,35

Petri dishes and accessories



A 121 °C

Bacterial cell spreaders Drigalski

Hammacher. Material: Stainless steel Wironit (1.4301).
Autoclavable: Yes.

Straight

Total length (mm)	Width (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	25	3	**KAP0.1**	1 unit(s)	10,75
195	36	4	**KAP1.1**	1 unit(s)	11,60

Angled

Hünebeck, angled 10°.

Total length (mm)	Width (mm)	Ø (mm)	Art. No.	Pack Qty.	€
195	45	3	**KAP2.1**	1 unit(s)	11,60

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Petri dish revolving table

schuett biotec.

For uniform plating of liquids on agar surfaces in Petri dishes.

Technical specifications:

Art. No.	N962.1	HT52.1
Ø x H	160 x 45 mm	160 x 70 mm
Weight	2,3 kg	1,0 kg
Mains connection		12 V

Petriturn-M

- Manual operation
- The high mass of the revolving table produces high vibrations and ensures a long operating time
- Usable on both sides
- For Petri dishes up to Ø 100 mm, or up to Ø 150 mm when turned

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Petriturn-M	**N962.1**	1 unit(s)	273,05

Petriturn-E

- Electric drive
- Operation of the revolving table contactlessly using a sensor with automatic shutdown (3 seconds to 2 minutes)
- Operation using a footswitch is possible (please order separately)
- Continuous operation is possible
- for Petri dishes up to Ø 100 mm
  (with attachment up to Ø 150 mm, please order separately)
- Speed regulation from 10 to 100 rpm,continuous

Pic.	Type	Art. No.	Pack Qty.	€
(2)	Petriturn-E	**HT52.1**	1 unit(s)	583,75



Accessories for Petriturn-E

schuett biotec.

Footswitch

Pic.	Designation	Art. No.	Pack Qty.	€
(3)	Footswitch for Petriturn-E	**HT53.1**	1 unit(s)	113,80

Revolving table attachment

Pic.	Designation	Art. No.	Pack Qty.	€
(4)	Revolving table attachment for Petri dishes Ø 150 mm for Petriturn-E	**HT54.1**	1 unit(s)	90,20



Colony counter SC6 PLUS

Stuart.

For fast and exact counting of bacterial colonies in Petri dishes.

- Counting is initiated by pressing down on the Petri dish with any pen
- Pressure sensitivity is individually adjustable
- Confirmation of count by audible signal (optional)
- With average counter, max. 99 Petri dishes can be analysed
- Three-digit LED display (0–999)
- Anti-glare LED lighting
- Optional light or dark background (dark background aids counting translucent colonies)
- Can be connected to a PC
- Antimicrobial BioCote® surface coating

Technical specifications:

Art. No.	EN38.1
Operating temperature	+5 to +40 °C
L x W x H	300 x 310 x 140 mm
Weight	1,5 kg
Mains connection	230 V, 50 Hz

Delivery incl. 2 Wolffhügel grids and 2 reducer rings (centring aids) for Petri dishes with Ø 50–90 mm, USB cable (1 m long).
Please order magnifying glasses for counting microscopic colonies separately.

Type	Art. No.	Pack Qty.	€
SC6 PLUS	**EN38.1**	1 unit(s)	983,00

Accessories for SC6 PLUS

Stuart.

1.7x magnifying glass
With flexible swan neck stand

Designation	Art. No.	Pack Qty.	€
Magnifying glass, 1.7x magnification (with flexible swan neck stand)	**EN39.1**	1 unit(s)	120,35

3x magnifying glass
With fixed stand arm.

Designation	Art. No.	Pack Qty.	€
Magnifying glass, 3x magnification (with fixed stand arm)	**EN40.1**	1 unit(s)	145,35

Protective panel

Designation	Art. No.	Pack Qty.	€
Transparent protective panel	**EN43.1**	5 unit(s)	82,55



Colony counter

ROTH SELECTION.

Battery-powered device for counting and marking colonies.

- Acoustic or visual signal for registering the counting process
- Count-up and count-down
- Lock button to deactivate the counting function
- Counts up to 32 trays
- With totalling function

Delivery incl. pen, stand and battery (3 V, type: CR 1220).

Type	Art. No.	Pack Qty.	€
eCount	**KN08.1**	1 unit(s)	366,60



Electroporation cuvettes

ROTH SELECTION. Material: PC, Aluminium electrodes.

For transforming DNA and siRNA into various cell types. Compatible with most electroporation systems (e.g. Bio-Rad®, BTX®, Invitrogen®, Eppendorf and Kodak®/IBI®).

- Manufactured under clean-room conditions
- Available in three gap widths: 1, 2 and 4 mm
- Colour-coded lid according to gap width

100 µl
Application: Highly efficient transformation (*E. coli*)

Gap width (mm)	Colour	Pack.	Art. No.	Pack Qty.	€
1	orange	individual	**PP38.1**	50 unit(s)	189,20

450 µl
Application: Bacteria, yeast, fungi, plants

Gap width (mm)	Colour	Pack.	Art. No.	Pack Qty.	€
2	green	individual	**PP39.1**	50 unit(s)	189,20

850 µl
Application: Animal cell lines (insect, mammalian and human cells)

Gap width (mm)	Colour	Pack.	Art. No.	Pack Qty.	€
4	black	individual	**PP40.1**	10 unit(s)	46,80



S

Clone cylinder

ROTH SELECTION. Material: PS. **Sterile**.

For isolating clones or for singling out cells or cell groups. Conical cylinder flared at lower edge for good contact with dish surface.

Directions for use

To isolate a clone, the base of the cylinder is coated with a thin grease film (e.g. sterile silicone oil) in order to ensure better sealing. The silicone side cylinder is placed over the selected clone. After adding a small quantity of Trypsin/EDTA and a short incubation period at 37 °C, the cells separate and can be transferred to other vessels.

Technical specifications:

Art. No.	YA78.1	YA79.1	YA80.1
Ø Inner upper	4.7 mm	6.4 mm	9.5 mm
Ø Outer lower	7 mm	8.5 mm	12 mm

Not a medical device / Not an IVD product

Ø x H (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
7 x 8	**Sterile**	5 x 10	**YA78.1**	50 unit(s)	98,90
8.5 x 9.5	**Sterile**	5 x 10	**YA79.1**	50 unit(s)	103,75
12 x 13	**Sterile**	5 x 10	**YA80.1**	50 unit(s)	131,15



Toothpicks

ROTH SELECTION. Material: Wood (polished).

Pointed at both ends, tip Ø 0.8 mm.

Material: polished.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
2.2	80	**EC48.1**	1,000 unit(s)	4,35
2.2	65	**ETT2.1**	1,000 unit(s)	4,60



Cotton buds ROTILABO®

Boettger.

For use as a medicinal product in hygiene, cleaning or laboratory applications.

Medical device class I MDD

Wood

Material: Wood Cotton tip. For taking samples, including in the laboratory.

Ø Head (mm)	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
5	2.2	150	**EH11.1**	100 unit(s)	5,20

Wood large head

Material: Wood Cotton tip. For the care and cleaning of wounds and skin.

Ø Head (mm)	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
12	3.0	200	**XL54.1**	50 unit(s)	12,60

Wood sterile

Material: Wood Cotton tip. For taking samples, including in the laboratory. ETO gas sterilised, individually packed.

Ø Head (mm)	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
5	2.2	150	**EH12.1**	100 unit(s)	17,60

Aluminium sterile

Material: Aluminium cotton tip. For taking samples for urogenital testing. ETO gas sterilised, individually packed.

Ø Head (mm)	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
2	1.0	150	**XL55.1**	100 unit(s)	36,35

Plastic sterile

Material: PP Cotton tip. ETO gas sterilised, individually packed.

Ø Head (mm)	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
5	2.5	150	**XL56.1**	100 unit(s)	20,60

Plastic sterile, large head

Material: PP Cotton tip. For the care and cleaning of wounds and skin. ETO gas sterilised, individually packed.

Ø Head (mm)	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
12	4.7	150	**XL57.1**	100 unit(s)	31,70

Inoculating loops, applicators



S

Applicator sterile

Boettger. Material: Wood applicator with cotton tip, mounted in PP tube, HDPE closure. **Sterile**.

Not a medical device / Not an IVD product

Vol. (ml)	Ø (mm)	Height (mm)	Pack.	Art. No.	Pack Qty.	€
13	16	100	10 x 100	**XC10.2**	1,000 unit(s)	316,05



S

Applicator sterile

Sarstedt. Material: PS applicator with viscose head, tubes made of PP. **Sterile**.

Forensic swabs in transport tube with aeration membrane.

- Self-drying in the tube
- With label and tamper-evident cap
- Batch number and MHD on each individual applicator
- Free of DNA, ETO-sterilised

Not a medical device / Not an IVD product

L

- Extended handle
- Applicator rod length: 85 mm
- Handle length: 70 mm
- Length without closure: 105 mm

Ø Head (mm)	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
4.6	175	50 x 1	**1A11.1**	50 unit(s)	97,90

XL

- Applicator rod length: 125 mm
- Handle length: 25 mm
- Length without closure: 150 mm

Ø Head (mm)	Total length (mm)	Pack.	Art. No.	Pack Qty.	€
4.6	175	50 x 1	**1A10.1**	50 unit(s)	97,90



S

Inoculation loop sterile

Kartell. Material: PS. **Sterile**.

With flat, grooved handle for safe handling. Inoculation loop volume 1 µl or 10 µl, each with inoculation needle at the other end.

In vitro diagnostic medical device according to IVDD

Version	Colour	Length (mm)	Pack.	Art. No.	Pack Qty.	€
1 µl	colourless	195	25 x 20	**CPX4.1**	500 unit(s)	47,15
10 µl	blue	195	25 x 20	**CPX5.1**	500 unit(s)	47,15



S

Inoculation loop sterile

ROTH SELECTION. Material: PS. **Sterile**.

The inoculation loops are smooth and flexible, enabling inoculation in clear streaks. Needles allow colony picking and stab inoculation in all types of culture media.

Not a medical device / Not an IVD product

Version	Colour	Length (mm)	Pack.	Art. No.	Pack Qty.	€
1 µl	blue	227	40 x 25	**EA89.1**	1,000 unit(s)	87,00
10 µl	yellow	227	40 x 25	**EA91.1**	1,000 unit(s)	87,00
Needle	white	227	40 x 25	**EA93.1**	1,000 unit(s)	88,05
1 µl	blue	227	100 x 10	**EA88.1**	1,000 unit(s)	102,15
10 µl	yellow	227	100 x 10	**EA90.1**	1,000 unit(s)	102,15
Needle	white	227	100 x 10	**EA92.1**	1,000 unit(s)	107,00
1 µl	blue	227	individual	**AEL0.1**	250 unit(s)	121,50
10 µl	yellow	227	individual	**AEL1.1**	250 unit(s)	121,50
Needle	white	227	individual	**AEL2.1**	250 unit(s)	123,65

Inoculating loops, applicators



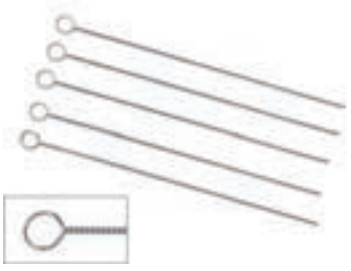
A 121 °C

Inoculation loop

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.

Not a medical device / Not an IVD product

Ø Internal (mm)	Ø ext. (mm)	Length (mm)	Art. No.	Pack Qty.	€
4	6.4	180	**1N3Y.1**	1 unit(s)	27,35



Inoculation loop

ROTH SELECTION. Material: Chrome-nickel steel (Wire) wound.

Fast cooling, uniform shape and high flexibility to conserve the agar plate. Wire Ø 0.6 mm.

Please order inoculation loop holder separately.

Not a medical device / Not an IVD product

Ø Internal (mm)	Length (mm)	Art. No.	Pack Qty.	€
2.45	75	**EKN2.1**	25 unit(s)	135,90
3.41	75	**EKN3.1**	25 unit(s)	135,90
5.45	75	**EKN4.1**	25 unit(s)	135,90

Calibrated

Delivery incl. ASM/APHA calibration certificate (test method in acc. with Evans Blue Dye test protocol).

Vol. (µl)	Ø Internal (mm)	Length (mm)	Art. No.	Pack Qty.	€
1	1.45	75	**EKN6.1**	5 unit(s)	472,00
10	4.00	75	**EKN5.1**	5 unit(s)	472,00



Inoculation loop holder ROTILABO®

ROTH SELECTION. Material: Aluminium, plastic handle.

Acc. to Kolle.

Not a medical device / Not an IVD product

Length (mm)	Art. No.	Pack Qty.	€
240	**6189.1**	1 unit(s)	11,00



A 121 °C

Inoculation loop

ROTH SELECTION. Material: Metal (NiCr 80/20) resistance wire. Autoclavable: Yes.

Wire-Ø 0.6 mm. Temperature resistant up to 1200 °C.

Please order inoculation loop holder separately.

Not a medical device / Not an IVD product

Version	Length (cm)	Art. No.	Pack Qty.	€
Loop-Ø 1.5 mm	50	**6163.1**	10 unit(s)	12,15
Loop-Ø 1.5 mm	70	**ENX6.1**	10 unit(s)	13,60
Loop-Ø 2.5 mm	50	**6173.1**	10 unit(s)	12,15
Loop-Ø 2.5 mm	70	**ENX7.1**	10 unit(s)	13,60
Loop-Ø 4.0 mm	50	**6174.1**	10 unit(s)	12,15
Loop-Ø 4.0 mm	70	**ENX8.1**	10 unit(s)	13,60
Lancet	50	**6181.1**	10 unit(s)	11,50
Needle	50	**6183.1**	10 unit(s)	9,15



A 121 °C

Inoculation loop holder Aluminium

Hammacher. Material: Stainless steel Wironit, aluminium handle. Autoclavable: Yes.

Needle holder for inoculation loop and dissecting needles up to max. Ø 1.0 mm.

Not a medical device / Not an IVD product

Ø Head (mm)	Length (mm)	Art. No.	Pack Qty.	€
5	170	**HCN8.1**	1 unit(s)	20,45



Inoculation loop holder with removable handle

Hammacher. Material: Stainless steel Wironit, plastic handle.

Needle holder for inoculation loop and dissecting needles up to max. Ø 1.0 mm, with removable handle. Upper part autoclavable.

Not a medical device / Not an IVD product

Ø Head (mm)	Length (mm)	Art. No.	Pack Qty.	€
5	240	**HCN9.1**	1 unit(s)	25,85

Inoculating loops, applicators



A 121 °C

Inoculation loop holder Set

WLD-TEC. Material: Stainless steel. Autoclavable: Yes.

- For inoculation loops with wire Ø 0.6–1.0 mm
- Loops are fixed with union nut
- Set, assorted colours: Blue, yellow, red, black

Please order inoculation loops separately.

Not a medical device / Not an IVD product

Length (mm)	Art. No.	Pack Qty.	€
245	**KL97.1**	4 unit(s)	64,40

A 121 °C

Inoculation loop

WLD-TEC. Autoclavable: Yes.

Wire Ø 0.6 mm.

Please order inoculation loop holder separately.

Not a medical device / Not an IVD product

Special stainless steel
Material: Stainless steel X15CrNiSi25-20.

Version	Length (mm)	Art. No.	Pack Qty.	€
Loops-Ø inside 3 mm	50	**KL99.1**	10 unit(s)	31,65
Loops-Ø inside 5 mm	50	**KN00.1**	10 unit(s)	34,00

Platinum/iridium
Material: Platinum, Iridium.

Version	Length (mm)	Art. No.	Pack Qty.	€
Loops-Ø inside 1 mm	50	**KN01.1**	1 unit(s)	107,20
Loops-Ø inside 3 mm	50	**KN02.1**	1 unit(s)	107,20
Loops-Ø inside 5 mm	50	**KN03.1**	1 unit(s)	107,20



A 121 °C

Instrument holder

Hammacher. Material: Stainless steel Remanit 4021. Autoclavable: Yes.

Holder for Drigalski spatula, brushes, inoculation loop holder and other instruments.

Not a medical device / Not an IVD product

Ø Hole (mm)	Art. No.	Pack Qty.	€
9.5	**EXE0.1**	1 unit(s)	112,10



A 121 °C

Micro pestle

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for all standard laboratory stirrers
- Reusable
- Dimensions: Barrel-Ø 4.9 mm;
  cone reduces from 6 to 2.5 mm, cone length 10 mm

When using the quick-change chuck:
It is possible to change the pestle when the motor is running. Hold on to the reaction vial with one hand while changing the pestle with your other hand.

Delivery without quick-change chuck.

Total length (mm)	Art. No.	Pack Qty.	€
70	**P987.1**	10 unit(s)	34,35

Accessories Quick-change chuck for micro pestle

ROTH SELECTION. Material: Stainless steel.

It is possible to change the pestle when the motor is running: Hold on to the reaction vial with one hand while changing the pestle with your other hand.

- Suitable for all standard laboratory stirrers
- Quick-change chuck is compatible with all chucks that can clamp widths of 8 mm

Length (mm)	Art. No.	Pack Qty.	€
70	**P986.1**	1 unit(s)	80,80

Homogenisers and pestles



121 °C

Micro pestle

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For homogenising cells and tissue in reaction vials by hand or using laboratory stirrers.

RNase/DNase-free
Pyrogen-free. Individually packed.

Length (mm)	Suitable for	Art. No.	Pack Qty.	€
70	reaction vials 0.5 ml	**CXH8.1**	100 unit(s)	224,70
70	reaction vials 1.5 ml	**CXH9.1**	100 unit(s)	224,70

Standard

Length (mm)	Art. No.	Pack Qty.	€
70	**CXH6.1**	100 unit(s)	164,50
70	**CXH7.1**	100 unit(s)	164,50



121 °C

Homogeniser

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For homogenising cells and tissue.

- Conical form, cone tapers from 8.2 to 2.9 mm
- Rounded at the bottom
- Cone length 18 mm
- Shank Ø 5 mm

Length (mm)	Suitable for	Art. No.	Pack Qty.	€
206	1.5 ml reaction vials	**K994.1**	6 unit(s)	30,00



121 °C

Homogeniser ROTILABO®

ROTH SELECTION. Material: Stainless steel 1.4301. Autoclavable: Yes.

For homogenising cells, tissue, foodstuff samples and much more in reaction vials or reagent test tubes manually or using laboratory stirrers. Made from one piece and polished for a perfect fit, perfect transitions, easy to disinfect. Tapered shank for minimal homogenate displacement.

(1) For 0.5 ml reaction vials

- Handle length: 60 mm
- Shank length: 26.3 mm (tapers from 6 to 3 mm)
- Cone length: 10 mm (tapers from 6 to 2.9 mm)

Total length (mm)	Suitable for	Art. No.	Pack Qty.	€
94	0.5 ml reaction vials	**YE13.1**	1 unit(s)	55,80

(2) For 1.5 ml reaction vials

- Handle length: 69 mm
- Shank length: 40 mm (tapers from 7.9 to 3.5 mm)
- Cone length: 17 mm (tapers from 7.9 to 3.5 mm)

Total length (mm)	Suitable for	Art. No.	Pack Qty.	€
124	1.5 ml reaction vials	**YE14.1**	1 unit(s)	61,95

(4) For 2 ml reaction vials

- Handle length: 67 mm
- Shank length: 40 mm (tapers from 8 to 3.5 mm)
- Cone length: 11.2 mm (tapers from 8.6 to 1.7 mm)

Total length (mm)	Suitable for	Art. No.	Pack Qty.	€
120	2 ml reaction vials	**YE15.1**	1 unit(s)	63,55

(3) For 13 ml round-bottom tubes

- Handle length: 100 mm
- Shank length: 75 mm (tapers from 8 to 4.4 mm)
- Cone: Round head, Ø 10 mm

Total length (mm)	Suitable for	Art. No.	Pack Qty.	€
190	13 ml round-bottom vessels	**YE16.1**	1 unit(s)	67,75



A 121 °C ❄❄❄

Homogeniser ROTILABO® for 15 ml centrifuge tubes

ROTH SELECTION. Material: Stainless steel 1.4301. Autoclavable: Yes.

For the homogenisation of cells, tissue, foodstuffs samples and much more, manually or using laboratory stirrers.

- Made from one piece and polished for a perfect fit
- Transitions are optimally designed for easy disinfection
- Tapered shank for minimal homogenate displacement
- Handle length 100 mm
- Shank Ø 8 mm (tapers to 4.5 mm)
- Cone Ø 12 mm (tapers to 4 mm)
- Weight 60 g

Total length (mm)	Suitable for	Art. No.	Pack Qty.	€
185	15 ml centrifuge tubes	**NH32.1**	1 unit(s)	67,75



Homogeniser

ROTH SELECTION. Material: Borosilicate glass.

Distance between mortar and pestle: 0.15 to 0.25 mm.

Technical specifications:

Art. No.	TT57.1	TT58.1	TT59.1	TT60.1	TT61.1	TT62.1
Mortar length	120 mm	135 mm	150 mm	155 mm	175 mm	195 mm
Ø Internal	8 mm	12 mm	15 mm	16 mm	25 mm	32 mm

Vol. (ml)	Art. No.	Pack Qty.	€
2	**TT57.1**	1 unit(s)	47,55
5	**TT58.1**	1 unit(s)	52,55
10	**TT59.1**	1 unit(s)	54,90
15	**TT60.1**	1 unit(s)	57,15
30	**TT61.1**	1 unit(s)	65,65
50	**TT62.1**	1 unit(s)	81,30



Accessories pestle for homogeniser

ROTH SELECTION. Material: PTFE (Head), Stainless steel rod.

Grooves on the lower edge. Rod Ø 6.5 mm.

Technical specifications:

Art. No.	TT63.1	TT64.1	TT65.1	TT66.1	TT67.1	TT68.1
Pestle length	230 mm	235 mm	270 mm			

Suitable for	Art. No.	Pack Qty.	€
Volume 2 ml	**TT63.1**	1 unit(s)	32,50
Volume 5 ml	**TT64.1**	1 unit(s)	33,00
Volume 10 ml	**TT65.1**	1 unit(s)	35,10
Volume 15 ml	**TT66.1**	1 unit(s)	35,30
Volume 30 ml	**TT67.1**	1 unit(s)	52,00
Volume 50 ml	**TT68.1**	1 unit(s)	65,45

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Homogenisers and pestles



DURAN WHEATON KIMBLE

Micro-homogeniser WHEATON®

DWK Life Sciences. Material: Borosilicate glass WHEATON® 33.

High product yield due to smaller friction area. For single use, prevents cross-contamination, e.g. when handling radioactive samples.

Technical specifications:

Art. No.	HLC0.1
Pestle length	88 mm
Mortar length	44 mm
Ø Internal	8 mm

Delivery incl. pestle.

Vol. (ml)	Art. No.	Pack Qty.	€
0.75	**HLC0.1**	25 unit(s)	334,35



A 121 °C DURAN WHEATON KIMBLE

Micro-homogeniser WHEATON® Potter-Elvehjem

DWK Life Sciences. Material: Borosilicate glass WHEATON® 33. Autoclavable: Yes.

Micro size for extremely precise work, reservoir and pouring lip to make it easier to pour out the sample.

- Mortar dimensions: L 65 x Ø 4 mm
- Gap between pestle and mortar: 0.1–0.15 mm

Technical specifications:

Art. No.	HLC1.1
Pestle length	110 mm
Mortar length	65 mm
Ø Mortars	4 mm

Delivery incl. pestle.

Vol. (ml)	Art. No.	Pack Qty.	€
0.1	**HLC1.1**	1 unit(s)	107,35



A 121 °C

Micro-homogeniser

ROTH SELECTION. Material: Borosilicate glass. Autoclavable: Yes.

For grinding and homogenising even the smallest quantities, e.g. histology.

Technical specifications:

Art. No.	0296.1	0297.1	0298.1
Mortar length	30 mm	40 mm	50 mm
Ø Internal	4 mm	6 mm	8 mm

Delivery incl. pestle.

Vol. (ml)	Art. No.	Pack Qty.	€
0.025	**0296.1**	1 unit(s)	141,45
0.1	**0297.1**	1 unit(s)	155,25
1	**0298.1**	1 unit(s)	141,45



A 121 °C

Homogenisers Dounce

ROTH SELECTION. Material: Glass. Autoclavable: Yes.

For grinding of cellular material while preserving the cell nucleus.

Delivery incl. two pestles: Pestle A for coarse grinding, pestle B for subsequent fine grinding.

Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
0.5	37	**CXC8.1**	1 unit(s)	204,25
1	88	**CXC9.1**	1 unit(s)	204,25
2	60	**CXE0.1**	1 unit(s)	247,25
7	125	**CXE1.1**	1 unit(s)	239,75
15	157	**CXE2.1**	1 unit(s)	247,25
40	215	**CXE3.1**	1 unit(s)	242,95
100	232	**CXE4.1**	1 unit(s)	584,80

Homogenisers and pestles



Homogeniser Dual

ROTH SELECTION. Material: Glass.

With tapered and cylindrical areas, for effective grinding and consistent homogenisation of tissue. Ideal for cellular tissue such as muscle, heart and lungs. Distance between mortar and pestle: 0.1 to 0.15 mm.

Technical specifications:

Art. No.	CXE5.1	CXE6.1	CXE7.1	CXE8.1	CXE9.1	CXH0.1
Pestle length	155 mm	210 mm	228 mm	268 mm	305 mm	330 mm
Ø Pestle	4.5 mm	6 mm			10 mm	
Mortar length	80 mm	120 mm	150 mm	175 mm	215 mm	225 mm
Ø Mortars	13 mm	16 mm	18 mm	25 mm	32 mm	38 mm

Delivery incl. pestle.

Vol. (ml)	Art. No.	Pack Qty.	€
1	**CXE5.1**	1 unit(s)	203,20
3	**CXE6.1**	1 unit(s)	203,20
5	**CXE7.1**	1 unit(s)	206,40
15	**CXE8.1**	1 unit(s)	235,45
30	**CXE9.1**	1 unit(s)	247,25
50	**CXH0.1**	1 unit(s)	312,85



Homogeniser Potter-Elvehjem

ROTH SELECTION. Material: Glass.

For gentle disruption of soft tissue, e.g. for the extraction of cell organelles. Suitable for motor drive by laboratory stirrers. Distance between mortar and pestle: 0.1 to 0.15 mm.

Technical specifications:

Art. No.	CXH1.1	CXH2.1	CXH3.1	CXH4.1	CXH5.1
Pestle length	145 mm	205 mm	215 mm	265 mm	315 mm
Ø Pestle	5 mm	6 mm	8 mm	10 mm	
Mortar length	95 mm	140 mm	150 mm	175 mm	220 mm
Ø Mortars	13 mm	16 mm	18 mm	25 mm	32 mm

Delivery incl. pestle.

Size	Vol. (ml)	Art. No.	Pack Qty.	€
19	1	**CXH1.1**	1 unit(s)	179,55
21	5	**CXH2.1**	1 unit(s)	142,50
22	8	**CXH3.1**	1 unit(s)	157,60
23	17	**CXH4.1**	1 unit(s)	164,50
24	45	**CXH5.1**	1 unit(s)	176,30

ROTH SELECTION



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Cuvettes



Glass cuvette ROTILABO®

ROTH SELECTION.

- Two polished sides
- Spectrally calibrated
- Transmission ≥80 %
- Layer thickness 10 mm, tolerance ±0.01 mm

Optical glass seamed lid

Material: Glass special optical glass, PTFE closure.

- Permeability range: 320–2500 nm
- With seamed lid, loosely attached
- Dimensions: L 12.5 x W 12.5 x H 45 mm

Type	Volume (ml)	Inner width (mm)	Art. No.	Pack Qty.	€
Micro	0.7	2	**X855.1**	1 unit(s)	93,90
Semi-micro	1.4	4	**X853.1**	1 unit(s)	89,20
Macro	3.5	10	**X851.1**	1 unit(s)	55,30

Optical glass plugs

Material: Glass special optical glass, PTFE closure.

- Permeability range: 320–2500 nm
- With plugs, fluid-tight
- Dimensions: L 12.5 x W 12.5 x H 48 mm

Type	Volume (ml)	Inner width (mm)	Art. No.	Pack Qty.	€
Semi-micro	1.4	4	**Y032.1**	1 unit(s)	145,10
Macro	3.5	10	**Y030.1**	1 unit(s)	105,15

Quartz glass seamed lid

Material: Quartz glass Spectrosil®, PTFE closure.

- UV-permeable
- Permeability range: 170–2700 nm
- With seamed lid, loosely attached
- Dimensions: L 12.5 x W 12.5 x H 45 mm

Type	Volume (ml)	Inner width (mm)	Art. No.	Pack Qty.	€
Micro	0.7	2	**X856.1**	1 unit(s)	155,15
Semi-micro	1.4	4	**X854.1**	1 unit(s)	144,65
Macro	3.5	10	**X852.1**	1 unit(s)	101,10

Quartz glass plugs

Material: Quartz glass Spectrosil®, PTFE closure.

- UV-permeable
- Permeability range: 170–2700 nm
- With plugs, fluid-tight
- Dimensions: L 12.5 x W 12.5 x H 48 mm

Type	Volume (ml)	Inner width (mm)	Art. No.	Pack Qty.	€
Micro	0.7	2	**Y035.1**	1 unit(s)	223,60
Semi-micro	1.4	4	**Y033.1**	1 unit(s)	218,25
Macro	3.5	10	**Y031.1**	1 unit(s)	175,25



Glass cuvette ROTILABO® fluorescence

ROTH SELECTION. Material: Quartz glass Spectrosil®, PTFE closure.

- With seamed lid, loosely attached
- Four polished sides and polished base
- UV-permeable, for fluorimetry
- Permeability range: 170–2700 nm
- Spectrally calibrated
- Transmission ≥80 %
- Layer thickness 10 mm, tolerance ±0.01 mm
- Dimensions: L 12.5 x W 12.5 x H 45 mm

Type	Volume (ml)	Art. No.	Pack Qty.	€
Macro	3.5	**AHC0.1**	1 unit(s)	203,20

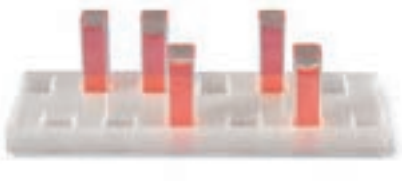


Glass cuvette ROTILABO® L 50 mm

ROTH SELECTION. Material: Glass (special optical glass), PTFE closure.

- Two polished sides
- Permeability range: 320–2500 nm
- Spectrally calibrated
- Transmission ≥80 %
- Layer thickness 50 mm, tolerance ±0.02 mm
- With seamed lid, loosely attached
- Dimensions: L 52.5 x W 12.5 x H 45 mm

Type	Volume (ml)	Inner width (mm)	Art. No.	Pack Qty.	€
Macro	17.5	9.5	**AHA7.1**	1 unit(s)	153,30



Cuvette stand ROTILABO®

Kartell. Material: PE.

For cuvettes of 10 mm thick. With staggered holder arrangement. Shallow stand for better visibility of the cuvette contents.

No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
12	170	50	15	**9663.2**	5 unit(s)	29,55

Cuvettes



Glass cuvette ROTILABO® black

ROTH SELECTION. Material: Quartz glass Spectrosil®, PTFE closure.

- With self-shielding sides made from black glass
- Two polished sides
- UV-permeable
- Permeability range: 170–2700 nm
- Spectrally calibrated
- Transmission ≥80 %
- Layer thickness 10 mm, tolerance ±0.01 mm
- With seamed lid, loosely attached
- Dimensions: L 12.5 x W 12.5 x H 45 mm

Type	Volume (ml)	Inner width (mm)	Art. No.	Pack Qty.	€
Micro	0.7	2	**AHA6.1**	1 unit(s)	299,95
Semi-micro	1.4	4	**AHA5.1**	1 unit(s)	268,75



Single-use cuvettes fluorescence

Sarstedt.

- With four optical sides
- Cavity-sorted production
- Layer thickness 10 mm
- Dimensions: L 12.5 x W 12.5 x H 45 mm

Polystyrene
Material: PS.

- For measuring from 340 nm

Volume (ml)	Art. No.	Pack Qty.	€
4	**NK49.1**	100 unit(s)	18,55



Single-use cuvettes ROTILABO®

ROTH SELECTION.

- Two optical windows
- Extremely low deviation in absorbance coefficients
- Outstanding optical transmission values
- Cavity-sorted production
- Layer thickness 10 mm
- Dimensions: L 12.5 x W 12.5 x H 45 mm

Polystyrene
Material: PS.

- Application range: 340–900 nm

Pic.	Type	Volume (ml)	Art. No.	Pack Qty.	€
(1)	Semi-micro	1.6	**XK20.1**	1,000 unit(s)	98,55
(2)	Macro	4	**XK21.1**	1,000 unit(s)	98,90

PMMA
Material: PMMA.

- Application range: 300–900 nm

Pic.	Type	Volume (ml)	Art. No.	Pack Qty.	€
(1)	Semi-micro	1.6	**XK23.1**	1,000 unit(s)	153,55
(2)	Macro	4	**XK24.1**	1,000 unit(s)	120,75

UV-permeable
Material: Plastic.

- Application range: 220–900 nm

Pic.	Type	Vol. (ml)	Art. No.	Pack Qty.	€
(1)	Semi-micro	1.6	**XK26.1**	100 unit(s)	56,55
(2)	Macro	4.0	**XK27.1**	100 unit(s)	56,55

Solvent-resistant
Material: Plastic.

- For substances with polar solvents
- Application range: 220–900 nm

Pic.	Type	Vol. (ml)	Art. No.	Pack Qty.	€
(1)	Semi-micro	1.6	**XK28.1**	100 unit(s)	56,55
(2)	Macro	4.0	**XK29.1**	100 unit(s)	56,55

Accessories lid for single-use cuvettes

ROTH SELECTION. Material: LDPE.

Suitable for	Art. No.	Pack Qty.	€
Single-use cuvettes (semi-micro/macro)	**XK25.1**	1,000 unit(s)	41,35

Cuvettes



Single-use cuvettes

BRAND.

- Two optical windows
- Optically flawless transparency
- Recessed windows to protect against scratching
- Arrow mark to indicate direction of transmission
- Standard layer thickness 10 mm
- Dimensions: 12.5 x 12.5 x 45 mm

Sorted by manufacturing mould cavity number to ensure the lowest variation in absorbance coefficients.

Polystyrene
Material: PS.

- Permeability range: 340–900 nm
- Standard deviation: ≤ 0.005 absorbance coefficients at 360 nm

Type	Volume (ml)	Art. No.	Pack Qty.	€
Semi-micro	1.5 to 3.0	**Y195.1**	100 unit(s)	15,75
Macro	2.5 to 4.5	**Y194.1**	100 unit(s)	15,30

PMMA
Material: PMMA.

- Permeability range: 300–900 nm
- Standard deviation: ≤ 0.004 absorbance coefficients at 320 nm

Type	Volume (ml)	Art. No.	Pack Qty.	€
Semi-micro	1.5 to 3.0	**Y197.1**	100 unit(s)	19,70
Macro	2.5 to 4.5	**Y196.1**	100 unit(s)	18,30



A 121 °C

Cuvette stand ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For cuvettes of 10 mm thick. The holders' special shape ensures they do not scratch the cuvette surface. Stackable.
Temperature stable up to 130 °C.

No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
12	115	110	105	**9664.1**	1 unit(s)	51,10



Single-use cuvettes UV

BRAND. Material: Plastic.

Permeability range: 230–900 nm. Specially designed for the photometric determination of proteins, ssDNA, dsDNA, RNA und oligonucleotides in the UV range.

- Single-use cuvettes, no risk of contamination through cleaning
- High chemical resistance
- Two optical windows
- Optically flawless transparency
- Recessed windows to protect against scratching
- Arrow mark to indicate direction of transmission
- Standard layer thickness 10 mm
- Standard deviation:
  240 nm ≤ ± 0.007 absorbance coefficients
  300 nm ≤ ± 0.005 absorbance coefficients
- Dimensions: 12.5 x 12.5 x 45 mm

Sorted by manufacturing mould cavity number to ensure the lowest variation in absorbance coefficients.

Type	Volume (ml)	Art. No.	Pack Qty.	€
Semi-micro	1.5 to 3.0	**Y199.1**	100 unit(s)	45,40
Macro	2.5 to 4.5	**Y198.1**	100 unit(s)	42,50

Micro (z = 8.5 mm)
Micro-cuvettes are ideal for small sample volumes from 70 µl. Centre height 8.5 mm.

Type	Version	Volume (ml)	Art. No.	Pack Qty.	€
Micro	Free of DNase/ DNA/RNase, individually packed	0.07 to 0.85	**CNT6.1**	100 unit(s)	82,65
Micro	Standard	0.07 to 0.85	**Y200.1**	100 unit(s)	31,85

Micro (z = 15 mm)
Micro-cuvettes are ideal for small sample volumes from 70 µl. Centre height 15 mm.

Type	Version	Volume (ml)	Art. No.	Pack Qty.	€
Micro	Free of DNase/ DNA/RNase, individually packed	0.07 to 0.55	**CNT7.1**	100 unit(s)	82,65
Micro	Standard	0.07 to 0.55	**Y201.1**	100 unit(s)	31,85

Cuvettes



Single-use cuvettes fluorescence

BRAND.

With four optical windows.

- Ideal for fluorescence spectroscopy
- Optically flawless radiographic area
- Four optical windows for precise measurements
- Matt handle, can be labelled
- Manufactured under controlled room conditions
- Fully automatic packaging
- Layer thickness: 10 mm
- Dimensions: L 12.5 x W 12.5 x H 45 mm, window: W 10 x H 35 mm

Sorted by manufacturing mould cavity number to ensure the lowest possible variation in absorbance coefficients.

Polystyrene
Material: PS.

- Application range: 340–900 nm
- Standard deviation (absorbance coefficients): 360 nm ≤ ±0.005 nm
- Chemical resistance (short-term resistance, 30 min): Ammoniac/hydrofluoric acid, 10 %/isopropanol/sodium hydroxide/hydrochloric acid, 36 %
- Not resistant to: Chloroform/hexane

Type	Volume (ml)	Art. No.	Pack Qty.	€
Macro	2.5 to 4	**EXP1.1**	100 unit(s)	23,55
Macro	2.5 to 4	**EXP2.1**	500 unit(s)	96,40

UV-transparent
Material: Plastic UV-transparent.

- Minimal inherent fluorescence
- Application range: 230–900 nm
- Standard deviation (absorbance coefficients):
  320 nm ≤ ±0.007
  300 nm ≤ ±0.005 nm
- Chemical resistance (short-term resistance, 30 min): Acetone/ammoniac/benzaldehyde/butanone/dioxane/DMF/DMSO/acetic acid (10 %)/ethyl acetate/hydrofluoric acid (10 %)/isopropanol/sodium hydroxide/nitric acid (65 %)/hydrochloric acid (36 %)
- Not resistant to: Chloroform/hexane

Type	Volume (ml)	Art. No.	Pack Qty.	€
Macro	2.5 to 4	**EXP3.1**	100 unit(s)	56,80
Macro	2.5 to 4	**EXP4.1**	500 unit(s)	253,70



A 121 °C

Cuvette stand

BRAND. Material: PP. Autoclavable: Yes.

For cuvettes of 10 mm thick. Numbered slots.

No. of slots	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
16	210	70	38	**CNP5.1**	1 unit(s)	18,55



Cuvette rack

ROTH SELECTION. Material: PMMA.

12-slot cuvette rack, suitable for Thermo Scientific analysers: Arena 20, Arena 20XT, Arena 30 and Arena 60.

Applications:

- Foodstuffs (milk, meat, honey)
- Beverages (wine, beer, juice)
- Customer-specific applications

Type	Pack.	Art. No.	Pack Qty.	€
Cuvette rack	40 x 25	**HNX9.1**	1,000 unit(s)	1.185,45

Counting chambers



Counting chamber C-Chip Neubauer improved

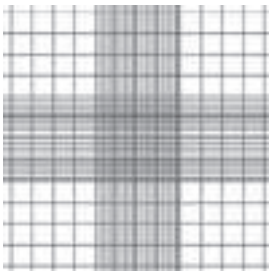
ROTH SELECTION. Material: Plastic.

Precise quantification, high reproducibility. Same chamber configuration as Neubauer improved glass counting chambers. Coverslips are not required.

- Double counting grid
- Chamber capacity 10 µl
- Dimensions: L 75 x W 25 x H 1.6 mm

Not a medical device / Not an IVD product

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
Disposable counting chamber	0.1	**PK36.1**	50 unit(s)	201,05



Counting chamber Neubauer

Marienfeld. Material: Glass.

Double counting grid. Counting grid with nine large squares. The smallest square in the centre is split into 16 group squares and these in turn are split into 16 small squares.

- Large square: 1 mm²
- Group square: 0.04 mm²
- Small square: 0.0025 mm²

Delivery incl. two haemocytometer coverslips (20 x 26 mm).

In vitro diagnostic medical device according to IVDD

Dark lines
The counting grid appears under the microscope as a grid of dark lines.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.1	**T728.1**	1 unit(s)	56,80

Dark lines, 2 spring clamps
The counting grid appears under the microscope as a grid of dark lines. Spring clips securely fix the coverslip to the counting chamber.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
with 2 spring clamps	0.1	**PC74.1**	1 unit(s)	78,05

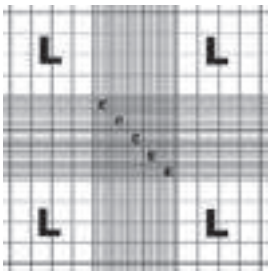
Bright lines
The grid structure is incorporated in a very thin, transparent metal layer. The bright lines contrast well with the darker, metallic background, which simplifies the evaluation of cell suspensions.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.1	**T734.1**	1 unit(s)	93,65

Bright lines, 2 spring clamps
The grid structure is incorporated in a very thin, transparent metal layer. The bright lines contrast well with the darker, metallic background, which simplifies the evaluation of cell suspensions.

Spring clips securely fix the coverslip to the counting chamber.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
with 2 spring clamps	0.1	**KHY4.1**	1 unit(s)	105,90



Counting chamber Neubauer improved

Marienfeld. Material: Glass.

For leucocyte, thrombocyte and erythrocyte counting.
Double counting grid. Counting grid with nine large squares. The four corner squares are used for leucocyte counting. The smallest square in the centre is split into 25 group squares and these in turn are split into 16 small squares. Five of the group squares are used for erythrocyte counting.

- Large square: 1 mm²
- Group square: 0.04 mm²
- Small square: 0.0025 mm²

Delivery incl. two haemocytometer coverslips (20 x 26 mm).

In vitro diagnostic medical device according to IVDD

Dark lines
The counting grid appears under the microscope as a grid of dark lines.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.01	**PC73.1**	1 unit(s)	163,40
without spring clamps	0.02	**KHY6.1**	1 unit(s)	170,95
without spring clamps	0.1	**T729.1**	1 unit(s)	51,20

Dark lines, 2 spring clamps
The counting grid appears under the microscope as a grid of dark lines. Spring clips securely fix the coverslip to the counting chamber.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
with 2 spring clamps	0.1	**PC72.1**	1 unit(s)	78,05

Bright lines
The grid structure is incorporated in a very thin, transparent metal layer. The bright lines contrast well with the darker, metallic background, which simplifies the evaluation of cell suspensions.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.1	**T735.1**	1 unit(s)	93,65

Counting chambers



Counting chamber Thoma

Marienfeld. Material: Glass.

For thrombocyte and erythrocyte counting.
Double counting grid. Counting grid with five large squares (corner fields not implemented). The large square in the centre is split into 16 group squares and these, in turn, are split into 16 small squares.

- Small square: 0.0025 mm²

Delivery incl. two haemocytometer coverslips (20 x 26 mm).

In vitro diagnostic medical device according to IVDD

Dark lines
The counting grid appears under the microscope as a grid of dark lines.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.1	**T732.1**	1 unit(s)	53,00

Counting chamber Thoma new

Marienfeld. Material: Glass.

Double counting grid. Counting grid with five large squares (corner fields not implemented). The large square in the centre is split into 16 group squares and these, in turn, are split into 16 small squares. No lines in the intermediate areas.

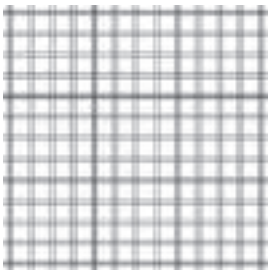
- Small square: 0.0025 mm²

Delivery incl. two haemocytometer coverslips (20 x 26 mm).

In vitro diagnostic medical device according to IVDD

Dark lines
The counting grid appears under the microscope as a grid of dark lines.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.1	**T733.1**	1 unit(s)	56,80



Counting chamber Bürker

Marienfeld. Material: Glass.

For leucocyte and erythrocyte counting.
Double counting grid. Counting grid with nine large squares for leucocyte counting. Each large square is divided into 16 group squares for erythrocyte counting. The group squares are not subdivided further.

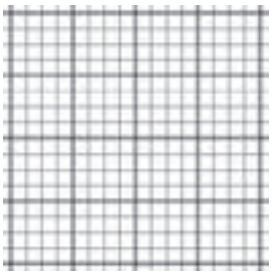
- Large square: 1 mm²
- Group square: 0.04 mm²

Delivery incl. two haemocytometer coverslips (20 x 26 mm).

In vitro diagnostic medical device according to IVDD

Dark lines
The counting grid appears under the microscope as a grid of dark lines.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.1	**T730.1**	1 unit(s)	53,00



Counting chamber Fuchs-Rosenthal

Marienfeld. Material: Glass.

For counting cells in fluid.
Double counting grid. Total area: 16 mm², counting grid with 16 large squares. The total area is counted.

Delivery incl. two haemocytometer coverslips (24 x 24 mm).

In vitro diagnostic medical device according to IVDD

Dark lines
The counting grid appears under the microscope as a grid of dark lines.

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.2	**T731.1**	1 unit(s)	53,00

Counting chambers



Counting chamber Malassez

Marienfeld. Material: Glass.

Double net ruling. **For counting cells in liquor or for counting nematodes.**
The counting grid covers an area of 2 mm x 2.5 mm. The large rectangles measure 0.25 x 0.20 mm = 0.05 mm² and are divided into 20 small squares each measuring 0.05 x 0.05 mm = 0.0025 mm².

Delivery incl. two haemocytometer coverslips (20 x 26 mm).

In vitro diagnostic medical device according to IVDD

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.2	**KHY1.1**	1 unit(s)	56,80



Counting chamber Nageotte

Marienfeld. Material: Glass.

Double net ruling. **For counting cells in liquor or for counting nematodes**. The square base area of 100 mm² is divided into 40 rectangular areas each measuring 0.25 x 10 mm.

Delivery incl. two haemocytometer coverslips (30 x 30, thickness 0.4 mm).

In vitro diagnostic medical device according to IVDD

Version	Chamber depth (mm)	Art. No.	Pack Qty.	€
without spring clamps	0.5	**KHY3.1**	1 unit(s)	119,35



Counting chamber McMaster

Marienfeld. Material: Glass.

For counting worm eggs. Suitable for solid media.
With two fields and affixed coverslip with two counting grids measuring 10 x 10 mm (divided into 10 parts). The coverslip is affixed on three supports. Distance between base plate and coverslip: 1.5 mm. Dimensions: Length 75 mm x Width 32 mm.

Not a medical device / Not an IVD product

Version	Art. No.	Pack Qty.	€
Counting chamber, complete	**KHY2.1**	1 unit(s)	235,45



Haemacytometre coverslips 0.4 mm

Marienfeld. Material: Borosilicate glass.

For use with counting chambers and haemacytometers. Edges ground and polished. Ready for use, individually packed.

In vitro diagnostic medical device according to IVDD

L x W (mm)	Art. No.	Pack Qty.	€
20 x 26	**KHT8.1**	100 unit(s)	127,95
22 x 22	**KHT9.1**	100 unit(s)	147,30
24 x 24	**KHX0.1**	100 unit(s)	154,80
30 x 30	**KHX1.1**	100 unit(s)	310,70

Cover slips



Coverslips thickness 1

Menzel. Material: Borosilicate glass from hydrolytic class I.

- Thickness no. 1 (0.13–0.16 mm)
- Colourless, absorption-free within the visible spectrum
- Optically pure, free from streaks, bubbles, striations
- Excellent chemical resistance
- Without disruptive autofluorescence even when stimulated in the near UV spectrum (e.g. 365 nm)
- Refractive index 1.5230
- Acc. to ISO 8255-1

In vitro diagnostic medical device according to IVDD

L x W (mm)	Pack.	Art. No.	Pack Qty.	€
15 x 15	5 x 200	**KKA2.1**	1,000 unit(s)	21,00
18 x 18	5 x 200	**0657.2**	1,000 unit(s)	22,85
20 x 20	5 x 200	**H873.2**	1,000 unit(s)	24,60
21 x 26	10 x 100	**H876.2**	1,000 unit(s)	33,40
22 x 22	5 x 200	**H874.2**	1,000 unit(s)	25,85
24 x 40	10 x 100	**1870.2**	1,000 unit(s)	50,40
24 x 50	10 x 100	**1871.2**	1,000 unit(s)	56,75
24 x 24	5 x 200	**H875.2**	1,000 unit(s)	34,05
24 x 32	10 x 100	**H877.2**	1,000 unit(s)	43,00
24 x 60	10 x 100	**H878.2**	1,000 unit(s)	65,40

Round

Ø (mm)	Pack.	Art. No.	Pack Qty.	€
12	10 x 100	**P231.1**	1,000 unit(s)	66,65
15	10 x 100	**P232.1**	1,000 unit(s)	66,65
18	10 x 100	**P233.1**	1,000 unit(s)	66,65
20	10 x 100	**P234.1**	1,000 unit(s)	79,70
22	10 x 100	**P235.1**	1,000 unit(s)	79,70

Coverslips thickness 1

Marienfeld. Material: Borosilicate glass from hydrolytic class I.

Applications: Examinations using light and fluorescence microscopy, especially in medicine and biology.

- Thickness 1 (0,13–0,16 mm)
- Absolutely colourless, completely clear, suitable for fluorescence microscopy
- High light transmission
- Refractive index tailored to microscopes
- Low inherent fluorescence
- Low flatness deviation, exact compliance with thicknesses
- Good wettability on both glass surfaces
- Low alkali content encourages cell growth
- Ready-to-use
- Suitable for use in coverslippers
- Meets the requirements of DIN ISO 8255

In vitro diagnostic medical device according to IVDD

L x W (mm)	Pack.	Art. No.	Pack Qty.	€
12 x 12	10 x 100	**KHX2.1**	1,000 unit(s)	23,30
15 x 15	10 x 100	**KHX3.1**	1,000 unit(s)	22,45
16 x 16	10 x 100	**HKE4.1**	1,000 unit(s)	22,45
18 x 18	10 x 100	**HKE5.1**	1,000 unit(s)	20,95
20 x 20	10 x 100	**HKE6.1**	1,000 unit(s)	27,45
22 x 22	10 x 100	**HKE7.1**	1,000 unit(s)	27,95
22 x 40	10 x 100	**HKE9.1**	1,000 unit(s)	58,05
22 x 50	10 x 100	**HKH0.1**	1,000 unit(s)	65,50
24 x 24	10 x 100	**HKE8.1**	1,000 unit(s)	39,05
24 x 32	10 x 100	**HKH1.1**	1,000 unit(s)	49,25
24 x 40	10 x 100	**HKH2.1**	1,000 unit(s)	60,20
24 x 50	10 x 100	**HKH3.1**	1,000 unit(s)	67,10
24 x 60	10 x 100	**HKH4.1**	1,000 unit(s)	76,90

Round

Ø (mm)	Pack.	Art. No.	Pack Qty.	€
10	10 x 100	**KHX4.1**	1,000 unit(s)	71,30
12	10 x 100	**HKH5.1**	1,000 unit(s)	73,10
15	10 x 100	**HKH6.1**	1,000 unit(s)	79,55
16	10 x 100	**KHX5.1**	1,000 unit(s)	82,80
18	10 x 100	**HKH7.1**	1,000 unit(s)	82,80
20	10 x 100	**KHX6.1**	1,000 unit(s)	95,70
22	10 x 100	**KHX7.1**	1,000 unit(s)	104,15
24	10 x 100	**KHX8.1**	1,000 unit(s)	115,50
25	10 x 100	**KHX9.1**	1,000 unit(s)	115,05
30	10 x 100	**KHY0.1**	1,000 unit(s)	166,65

Cover slips



Coverslips thickness 1.5

Marienfeld. Material: Borosilicate glass from hydrolytic class I.

Applications: Examinations using light and fluorescence microscopy, especially in medicine and biology.

- Thickness 1.5 (0,16–0,19 mm)
- Absolutely colourless, completely clear, suitable for fluorescence microscopy
- High light transmission
- Refractive index tailored to microscopes
- Low inherent fluorescence
- Low flatness deviation, exact compliance with thicknesses
- Good wettability on both glass surfaces
- Low alkali content encourages cell growth
- Ready-to-use
- Suitable for use in coverslippers
- Meets the requirements of DIN ISO 8255

In vitro diagnostic medical device according to IVDD

L x W (mm)	Pack.	Art. No.	Pack Qty.	€
18 x 18	10 x 200	**KCY0.1**	2,000 unit(s)	51,60
22 x 22	10 x 200	**KCY1.1**	2,000 unit(s)	71,30
24 x 24	10 x 200	**KCY2.1**	2,000 unit(s)	83,85
24 x 40	10 x 100	**KCY3.1**	1,000 unit(s)	61,30
24 x 50	10 x 100	**KCY4.1**	1,000 unit(s)	71,50
24 x 60	10 x 100	**KCY5.1**	1,000 unit(s)	88,05



Coverslips siliconised

Marienfeld. Material: Borosilicate glass from hydrolytic class I, siliconised on both sides.

- Thickness no. 1 (0.13 to 0.16 mm)
- Colourless, clear, with hydrophobic surfaces
- Suitable for protein crystallisation and for fluorescence microscopy

In vitro diagnostic medical device according to IVDD

L x W (mm)	Pack.	Art. No.	Pack Qty.	€
12 x 12	10 x 100	**TX71.1**	1,000 unit(s)	289,20
18 x 18	10 x 100	**TX72.1**	1,000 unit(s)	303,15
22 x 22	10 x 100	**TX73.1**	1,000 unit(s)	327,90

Round

Ø (mm)	Pack.	Art. No.	Pack Qty.	€
12	10 x 100	**TX74.1**	1,000 unit(s)	334,35
18	10 x 100	**TX75.1**	1,000 unit(s)	358,00
22	10 x 100	**TX76.1**	1,000 unit(s)	385,95



NEW / +

Coverslips thickness 1.5H

Marienfeld. Material: Borosilicate glass from hydrolytic class I.

- With defined thickness of 0.17 ±0.005 mm, specially for high-resolution precision instruments
- Absolutely colourless, completely clear, suitable for fluorescence microscopy
- Refractive index 1.524 to 1.527 at 546.07 nm

Ideal for lenses with a high numeric aperture and high resolving power, e.g.:

- Dry lenses (air immersion): N.A. > 0.7
- Water immersion lenses: N.A. > 1.0
- Glycerine immersion lenses: N.A. > 1.2
- Oil immersion lenses: N.A. > 1.3

In vitro diagnostic medical device according to IVDD

L x W (mm)	Pack.	Art. No.	Pack Qty.	€
18 x 18	10 x 200	**LH22.2**	2,000 unit(s)	174,15
22 x 22	10 x 200	**LH24.2**	2,000 unit(s)	239,75
24 x 50	10 x 100	**LH25.2**	1,000 unit(s)	260,15
24 x 60	10 x 100	**LH26.2**	1,000 unit(s)	319,30

Round

Ø (mm)	Pack.	Art. No.	Pack Qty.	€
10	10 x 100	**YX02.2**	1,000 unit(s)	203,20
12	10 x 100	**YX03.2**	1,000 unit(s)	226,85
18	10 x 100	**LH23.2**	1,000 unit(s)	338,65
24	10 x 100	**PK26.2**	1,000 unit(s)	573,00
25	10 x 100	**YX04.2**	1,000 unit(s)	671,90



Coverslips plastic

ROTH SELECTION. Material: Vinyl.

- Thickness: 0.157 mm
- Individual coverslips are separated from each other by layers of paper

Not a medical device / Not an IVD product

L x W (mm)	Art. No.	Pack Qty.	€
22 x 22	**PK27.1**	1,000 unit(s)	107,00

Cover slips



S

Coverslips round sterile

Sarstedt. Material: PETG (Polyethylene terephthalate, glycol-modified), transparent. **Sterile**.

- For cultivating adherent cells
- Non-pyrogenic/endotoxin-free, non-cytotoxic
- Material thickness: 0,255 mm

Not a medical device / Not an IVD product

Ø (mm)	Suitable for	Pack.	Art. No.	Pack Qty.	€
13	Cell culture dishes Ø 35 mm/ microtiter plates, 6-/12-/24-well	8 x 25	**HPX0.1**	200 unit(s)	78,95
22	Cell culture dishes Ø 35 mm/ microtiter plates, 6-well	8 x 25	**HPX1.1**	200 unit(s)	84,35
25	Cell culture dishes Ø 35 mm/ microtiter plates, 6-well	8 x 25	**HPX2.1**	200 unit(s)	88,15



Coverslips special size 75 x 50

Marienfeld. Material: Borosilicate glass from hydrolytic class I.
Thickness no. 1 (0.13 to 0.16 mm).

In vitro diagnostic medical device according to IVDD

L x W (mm)	Art. No.	Pack Qty.	€
75 x 50	**XT62.1**	100 unit(s)	80,10



Microscope slides

Menzel. Material: Soda-lime glass.
In acc. with ISO 8037/1. Dimensions: L 76 x W 26 mm, thickness 1 mm.

Optionally with frosted edge, width 20 mm.

Corners cut
For standard applications, routine microscopy.

Version	Art. No.	Pack Qty.	€
With frosted edge	**H868.1**	50 unit(s)	4,65
Without frosted edge	**0656.1**	50 unit(s)	3,60

Corners grounded 90°
For use in pathological and histological laboratories to prevent cuts.

Version	Art. No.	Pack Qty.	€
With frosted edge	**H870.1**	50 unit(s)	5,75
Without frosted edge	**H869.1**	50 unit(s)	5,20

Corner grounded 45°
For use in pathological and histological laboratories to prevent cuts, and for use in automatic systems.

Version	Art. No.	Pack Qty.	€
With frosted edge	**H872.1**	50 unit(s)	6,25
Without frosted edge	**H871.1**	50 unit(s)	5,00

Microscope slides

Microscope slides special size 76 x 52

Marienfeld. Material: Soda-lime glass.

Dimensions: L 76 x W 52 mm, thickness 1 mm.

In vitro diagnostic medical device according to IVDD

Corners cut

Version	Art. No.	Pack Qty.	€
With frosted edge	**CEX1.1**	50 unit(s)	40,15
Without frosted edge	**TX69.1**	50 unit(s)	37,10

Corners grounded 90°

Version	Art. No.	Pack Qty.	€
With frosted edge	**CEX2.1**	50 unit(s)	46,25
without frosted edge	**TX70.1**	50 unit(s)	46,25

Microscope slides corners bevelled 45°

Marienfeld. Material: Soda-lime glass.

Dimensions L 76 x W 26 mm, 1 mm thick, in accordance with DIN ISO 8037/1. With 90° grounded edges, bevelled 45°, 4 corners grounded, to reduce risk of injury. Ideal for use in automatic systems.

In vitro diagnostic medical device according to IVDD

Version	Art. No.	Pack Qty.	€
With frosted edge	**CEX4.1**	50 unit(s)	8,30
Without frosted edge	**CEX3.1**	50 unit(s)	7,55



Microscope slides Superfrost®

Menzel. Material: Soda-lime glass.

A differentiation among the specimens according to urgency, examination method, colour technology, etc. using different colours. The thickness (0,013 mm) of the coloured coding fields (L 26 x W 19 mm), which are resistant to most solvents, prevents adhesion and scratching of the glasses.
Dimensions in accordance with ISO 8037/1: L 76 x W 26 mm, thickness 1 mm.

In vitro diagnostic medical device according to IVDD

Corners cut

Version	Colour	Art. No.	Pack Qty.	€
With frosted edge	white	**1879.1**	50 unit(s)	4,80
With frosted edge	blue	**2101.1**	50 unit(s)	4,80
With frosted edge	pink	**2105.1**	50 unit(s)	4,80
With frosted edge	yellow	**2106.1**	50 unit(s)	4,80
With frosted edge	green	**2109.1**	50 unit(s)	4,80
With frosted edge	orange	**L192.1**	50 unit(s)	4,20

Corners grounded, 90°

Version	Colour	Art. No.	Pack Qty.	€
With frosted edge	white	**1880.1**	50 unit(s)	6,20
With frosted edge	blue	**2111.1**	50 unit(s)	6,20
With frosted edge	pink	**2116.1**	50 unit(s)	6,20
With frosted edge	yellow	**2119.1**	50 unit(s)	6,20

Corners grounded, 45°

Version	Colour	Art. No.	Pack Qty.	€
With frosted edge	white	**H879.1**	50 unit(s)	6,20
With frosted edge	blue	**H880.1**	50 unit(s)	6,20
With frosted edge	yellow	**H882.1**	50 unit(s)	6,20
With frosted edge	green	**H883.1**	50 unit(s)	6,20



Spreading spatula Flexistrip

ROTH SELECTION. Material: PS.

For uniform spreading of blood on slides.
Usable on both sides.

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
75	26	**L430.1**	50 unit(s)	43,40

Microscope slides



A 121 °C

Diagnostic slides

Menzel. Autoclavable: Yes.

The hydrophobic coating fixes the liquid applied to the reaction fields. They withstand highest loads without loss of the hydrophobic properties.
White frost edge as field for marking.
Edges 90° grounded to minimise risk of injuries.
Dimensions L 75 x W 25 mm, thickness 1 mm.

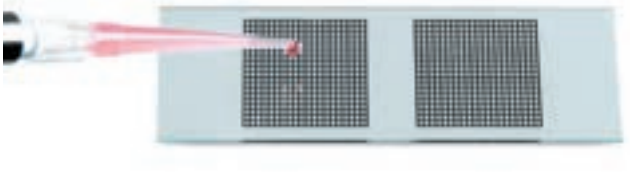
In vitro diagnostic medical device according to IVDD

Epoxy
Material: Soda-lime glass Epoxy-coated.

Number of chambers	Ø (mm)	Colour	Art. No.	Pack Qty.	€
8	6.0	black	**L197.1**	100 unit(s)	79,00
10	6.7	black	**L198.1**	100 unit(s)	79,00
12	5.0	white	**L199.1**	100 unit(s)	79,00

PTFE
Material: Soda-lime glass PTFE-coated. The PTFE coating is highly hydrophobic, which means that it is practically impossible for liquids to flow into each other and each sample remains in its reaction field.

Number of chambers	Ø (mm)	Colour	Art. No.	Pack Qty.	€
10	6.7	black	**L203.1**	100 unit(s)	106,50



Adhesive film with grids for slides

ROTH SELECTION. Material: Polyester.

Adhesive, with two grids of 20 x 20 mm.
For microscopic experiments or for counting cell cultures, yeast, bacteria and other samples.

Version	Art. No.	Pack Qty.	€
Line distance 1 mm	**AXC5.1**	40 unit(s)	47,90



NEW / +

A 121 °C

Microscope slide with recess

Marienfeld. Material: Soda-lime glass from hydrolytic class 3.
Autoclavable: Yes.

- Dimensions: L 76 x W 26 mm
- Thickness 1.2–1.5 mm
- Ø of recesses approx. 15–18 mm
- Depth approx. 0.6–0.8 mm
- Corners grounded 90°
- Pre-cleaned and ready-to-use

In vitro diagnostic medical device according to IVDD

Version	Number of trays	Art. No.	Pack Qty.	€
Without frosted edge	1	**1LN6.1**	50 unit(s)	83,35
Without frosted edge	2	**1LN7.1**	50 unit(s)	123,65
Without frosted edge	3	**1LN8.1**	50 unit(s)	170,95



Adhesive film with two indentations for slides

ROTH SELECTION. Material: Polyester.

Self-adhesive. The recesses in the foil carrier create indentations (Ø 10 mm).

Not a medical device / Not an IVD product

Ø (mm)	Depth (mm)	Number of trays	Art. No.	Pack Qty.	€
10	0.25	2	**AXC3.1**	25 unit(s)	78,45
10	0.50	2	**AXC4.1**	25 unit(s)	86,35

Adhesion slides



Adhesion slides Superfrost® Plus

Menzel. Material: Soda-lime glass.

With special adhesives for affixing cells and tissues. Complex and expensive application of adhesives or protein layers is not necessary. Unwanted background colours do not occur. Freshly frozen tissue sections and cytology preparations are attracted electrostatically to the microscope slides.
Dimensions: L 75 x W 25 mm, thickness 1 mm. Edges ground 90°.

Suitable for:

- Fixed tissue sections, embedded in paraffin (2-5 µm)
- Cell adhesions for cyto-centrifugal preparations in standard Papanicolaou smears
- Immuno-peroxidase hybridisation
- In-situ DNA hybridisation

In vitro diagnostic medical device according to IVDD

Version	Art. No.	Pack Qty.	€
With frosted edge	**H867.1**	72 unit(s)	25,80



Adhesion slides Histobond®

Marienfeld. Material: Soda-lime glass.

The silanised glass surface has a permanent positive charge which ensures that all types of section attach securely to the glass. Coloured labelling spaces enable use in routine histology.
Dimensions: L 76 x W 26 mm, thickness 1 mm.

Suitable for:

- In-situ hybridisation
- Problematic tissue samples, such as brain or bone marrow
- Multiple washing cycles, sections adhere firmly to the glass
- Microwave irradiation

In vitro diagnostic medical device according to IVDD

Corners grounded 90°

Version	Colour	Art. No.	Pack Qty.	€
With frosted edge	natural	**CEX0.1**	100 unit(s)	39,15
With frosted edge	white	**PC66.1**	100 unit(s)	40,35
With frosted edge	yellow	**PC67.1**	100 unit(s)	40,35
With frosted edge	green	**PC68.1**	100 unit(s)	40,35
With frosted edge	blue	**PC69.1**	100 unit(s)	40,35
With frosted edge	pink	**PC70.1**	100 unit(s)	40,35
With frosted edge	orange	**PC71.1**	100 unit(s)	40,35



Adhesion slides Superfrost® Plus Gold

Menzel. Material: Soda-lime glass.

With special adhesives for affixing cells and tissues. Complex and expensive application of adhesives or protein layers is not necessary. Unwanted background colours do not occur. Fresh frozen sections or frozen section fixed in formalin are attracted to the slide and then chemically fixed onto the glass surface.
Dimensions: L 75 x W 25 mm, thickness 1 mm. Edges ground 90°.

Suitable for:

- Special staining methods (toluidine blue staining, hematoxylin staining and quick-freeze eosin section staining)
- Tissue sections up to 20 µm
- Bone, frozen heart, brain, skin and other tissue sections that are normally difficult to bind
- Immunocytochemical and in-situ DNA-hybridisation of frozen tissue sections
- Selection counting for immunofluorescence analysis in the event of low tissue quantities

In vitro diagnostic medical device according to IVDD

Version	Art. No.	Pack Qty.	€
With frosted edge	**ET09.2**	72 unit(s)	76,85



Adhesion slides Polysine®

Menzel. Material: Soda-lime glass.

With special adhesives for the fixation of cells and tissue. Complex and expensive application of adhesives or protein coatings is not necessary. Preparations are first electrostatically attracted and then biochemically bound. The permanent adhesive gives the slide excellent cell and tissue adhesion. Polysine® slides are insensitive to enzyme effects or heating.
Dimensions: L 75 x W 25 mm, thickness 1 mm. Ground edges 90°.

Ideally suitable for:

- Fresh frozen sections
- Paraffin-embedded (2-5 µm, fixed with alcohol, formalin, bouins or non-crosslinking sections)
- Extended staining process
- Extended in-situ DNA hybridisation and immunocytochemical methods
- Cytocentrifuge preparations

In vitro diagnostic medical device according to IVDD

Version	Art. No.	Pack Qty.	€
With frosted edge	**ET10.1**	72 unit(s)	24,05



DURAN WHEATON KIMBLE

Balsam glass

DWK Life Sciences. Material: Soda-lime glass.

With polished cap.

Delivery incl. glass rod.

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	75	100	**HHY5.1**	6 unit(s)	335,40



Canada balsam glass ROTILABO®

Hecht. Material: Glass.

With polished cap and rod.

Vol. (ml)	Art. No.	Pack Qty.	€
60	**0708.1**	1 unit(s)	34,75



Cedar wood oil bottle ROTILABO®

Hecht. Material: Glass.

Vol. (ml)	Art. No.	Pack Qty.	€
30	**0709.1**	1 unit(s)	34,40



NEW / +

Staining plate

Marienfeld. Material: Pressed glass.

With rounded corners and matt surface.
Dimensions of depressions: Ø approx. 16 mm, depth approx. 2 mm.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
79	63	4	**CET6.2**	1 unit(s)	29,35



Staining plate acc. to Boerner

Marienfeld. Material: Pressed glass.

With optically polished, pressed and numbered depressions (Ø approx. 14 mm, depth approx. 2 mm).

Length (mm)	Width (mm)	Height (mm)	Number of trays	Art. No.	Pack Qty.	€
107	57	4	10	**CET7.1**	6 unit(s)	160,20



Staining plate plastic

Hammacher. Material: PP.

Length (mm)	Width (mm)	Number of trays	Art. No.	Pack Qty.	€
70	55	12	**KAN8.1**	10 unit(s)	6,40

Microscopy accesssories



Microscopy bowl

ROTH SELECTION. Material: Soda-lime glass.

With semi-circular indentations, Ø 30 x depth 10 mm.

Delivery incl. cover (colourless, 40 x 40 x 2 mm).

Colour	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
black	40	40	16	**TK77.1**	1 unit(s)	13,65
colourless	40	40	16	**TK76.1**	1 unit(s)	8,85



❄❄

Shipping containers for slides

Simport. Material: PS.

Ideal as shipping container for individual slides 76 x 26 mm.

- Stackable
- Easy and safe to seal
- Rocker mechanism for effortless removal of slides
- Temperature stability: -80 to +80 °C

Colour	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
blue	89	29	6	**AH01.1**	50 unit(s)	19,90
pink	89	29	6	**AH04.1**	50 unit(s)	19,90
green	89	29	6	**AH03.1**	50 unit(s)	19,90
white	89	29	6	**AH05.1**	50 unit(s)	19,90
yellow	89	29	6	**AH02.1**	50 unit(s)	19,90



Shipping boxes ROTILABO® for slides

ROTH SELECTION. Material: PP.

For 5 slides 76 x 26 mm. For storage, transport, shipping, etc. with 4 guide rails inside the box to keep the slides separated and prevet them from sticking togehter. Tight-closing lid.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
80	17	30	**T208.1**	25 unit(s)	20,30



Shipping boxes for slides

Simport. Material: PP, screw cap made of HDPE.

For storage, shipping or colouring of 4 slides 76 x 26 mm.

- Guide rails prevent sticking of the slides
- The box can be opened and closed several times
- With tamper-evident cap

Coloured lids inserts possible for colour coding of the boxes, please order separately.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
12	35	87	**KL89.1**	100 unit(s)	62,90



A 121 °C

Shipping boxes for slides

Kartell. Material: PP. Autoclavable: Yes.

For shipping or storage of 5–10 slides 76 x 26 mm, stable design. The slides are easy to remove.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
40	90	**2306.1**	10 unit(s)	54,50

Transport boxes for microscope slides



A 121 °C

Shipping containers for slides

Kartell. Material: PP. Autoclavable: Yes.

For slides 76 x 26 mm.
Ideal for shipping per letter mail.

Suitable for	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
1 microscope slides	50	100	**2304.1**	10 unit(s)	28,20
3 microscope slides	84	99	**2305.1**	10 unit(s)	30,95



❄❄

Microscope slide holder

ROTH SELECTION. Material: HPPE.

For storing, cleaning, drying, etc. of slides.

- For slides with dimensions of 76 x 26 mm
- Solid design with slip-resistant rubber feet
- Temperature stability: -50 to +80 °C

Version	L x W x H (mm)	Art. No.	Pack Qty.	€
for 15 microscope slides	153 x 102 x 21	**PC63.1**	1 unit(s)	43,85
for 40 microscope slides	298 x 105 x 24	**PC64.1**	1 unit(s)	51,25
for 78 microscope slides	299 x 178 x 21	**PC65.1**	1 unit(s)	63,30



Accessories slide dispenser

Kartell. Material: ABS.

For 50 slides 76 x 26 mm. The slides are protected from dust in a transparent container and can be taken out individually by turning the knob.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	120	140	**2298.1**	1 unit(s)	41,40



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Microscope slide tray ROTILABO®

Simport. Material: ABS.

- For microscope slides 76 x 26 mm
- Easy removal of microscope slides thanks to angled contact area
- Temperature stability: -80 to +100 °C

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
20	299 x 206 x 18	**AH09.1**	1 unit(s)	9,80



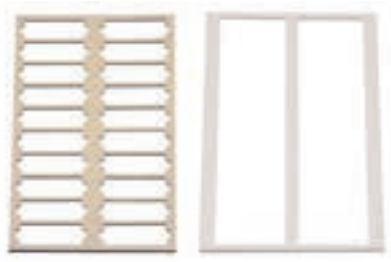
Microscope slide tray

Kartell. Material: PVC.

Storage and carry trays for 76 x 26 mm microscope slides. The white base makes object colouration easy to see.

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
20	340 x 190 x 8	**2296.1**	1 unit(s)	13,95
40	680 x 190 x 8	**2297.1**	1 unit(s)	24,85

Slide magazines



Microscope slide tray cardboard

ROTH SELECTION. Material: Cardboard, base covered with white chromo paper.

For microscope slides 76 x 26 mm.

With grid punched out

No. of slots	L x W (mm)	Colour	Art. No.	Pack Qty.	€
20	342 x 204	black	**P957.2**	10 unit(s)	89,80

Without subdivisions
With all-round edge and central divider. For storing more than 20 microscope slides or microscope slides in special sizes.

L x W (mm)	Colour	Art. No.	Pack Qty.	€
342 x 204	black	**CPT8.2**	10 unit(s)	81,20



Preparation folder

ROTH SELECTION. Material: Cardboard.

With two-piece lid, folds open in the centre.

- For microscope slides 76 x 26 mm
- Coloured edges enable easier identification

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
20	208 x 341 x 9	red	**AXK9.1**	1 unit(s)	9,50
20	208 x 341 x 9	blue	**AXK7.1**	1 unit(s)	9,50
20	208 x 341 x 9	black	**AXK6.1**	1 unit(s)	9,50
20	208 x 341 x 9	green	**AXK8.1**	1 unit(s)	9,50
20	208 x 341 x 9	yellow	**AXL0.1**	1 unit(s)	9,50
30	281 x 328 x 10	black	**AXL1.1**	1 unit(s)	13,55



Preparation folder

ROTH SELECTION. Material: Cardboard, base covered with white chromo paper.

- For microscope slides 76 x 26 mm
- Table of contents affixed
- With grid punched out

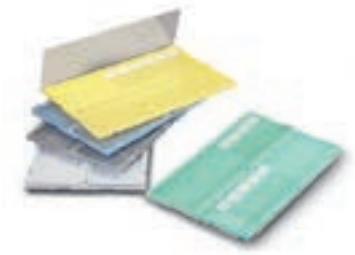
With two-piece flap lid and lock
Lid folds open in the centre.

No. of slots	L x W (mm)	Colour	Art. No.	Pack Qty.	€
20	340 x 205	black	**K326.2**	10 unit(s)	149,45

With single-piece flap lid
Lid opens from the side.

No. of slots	L x W (mm)	Colour	Art. No.	Pack Qty.	€
2	100 x 90	black	**K331.1**	10 unit(s)	34,30
6	215 x 105	black	**K329.2**	10 unit(s)	85,90
20	340 x 205	black	**K327.2**	10 unit(s)	100,95

Slide magazines



❄❄

Preparation folder ROTILABO® plastic

Simport. Material: PS.

- For microscope slides 76 x 26 mm
- With numeric labelling
- Stackable
- Easy removal of microscope slides
- Protective flaps can be folded to the back
- Temperature stability: -80 to +80 °C

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
20	295 x 192 x 11	blue	**AH10.1**	1 unit(s)	18,95
20	295 x 192 x 11	grey	**CXN4.1**	1 unit(s)	16,70
20	295 x 192 x 11	green	**AH12.1**	1 unit(s)	18,95
20	295 x 192 x 11	white	**AH13.1**	1 unit(s)	18,95
20	295 x 192 x 11	yellow	**AH11.1**	1 unit(s)	18,95

Set

Assorted colours: 2 x blue, yellow, green, grey and white.

No. of slots	L x W x H (mm)	Colour	Pack.	Art. No.	Pack Qty.	€
20	295 x 192 x 11	assorted colours	10 pieces	**CXN5.1**	1 set	149,45

Light-protected

Opaque protective flaps for light-sensitive applications.

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
20	295 x 192 x 11	white	**CXN6.1**	1 unit(s)	16,70



Microscope slide box ROTILABO®

ROTH SELECTION. Material: Wood (frame), outside covered with black paper, Inner base made from PS.

Preparation box for microscope slides 26 x 76 mm. Toothed rack with black numbers. Inner base with two tip racks, which make it easier to remove the microscope slides.

Delivery incl. table of contents (loosely inserted).

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
100	275 x 185 x 40	**K335.1**	1 unit(s)	36,45



NEW / +

Microscope slide box

ROTH SELECTION. Material: PP.

For microscope slides, 76 x 26 mm.

- With hinged lid and snap-lock mechanism
- Stackable
- Usable for vertical or horizontal storage

Delivery incl. Index card (affixed in lid).

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
25	141 x 92 x 30	blue	**1L91.1**	1 unit(s)	9,60
25	141 x 92 x 30	red	**1L92.1**	1 unit(s)	9,65
25	141 x 92 x 30	white	**1L93.1**	1 unit(s)	9,65
100	210 x 169 x 37	blue	**1L94.1**	1 unit(s)	12,05
100	210 x 169 x 37	red	**1L95.1**	1 unit(s)	12,05
100	210 x 169 x 37	white	**1L96.1**	1 unit(s)	12,05



Microscope slide box

Kartell. Material: PS.

Storage box with separate lid.

- For microscope slides 76 x 26 mm
- Stackable
- Shatterproof
- Easy to clean
- Individually numbered slots

Delivery incl. index card (loosely inserted).

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
25	98 x 83 x 38	**2301.2**	4 unit(s)	52,05
50	230 x 97 x 35	**2302.1**	1 unit(s)	23,30
100	230 x 180 x 35	**2303.1**	1 unit(s)	33,35

Slide magazines



Microscope slide box ROTILABO®

ROTH SELECTION. Material: ABS, Cork insert.

For microscope slides, 76 x 26 mm. Stackable. The numbering of the index card matches the numbering embossed on the base of the box.

Delivery incl. index card (affixed in lid).

Hinged lid

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
100	208 x 175 x 34	red	**K534.1**	1 unit(s)	9,65
100	208 x 175 x 34	blue	**K532.1**	1 unit(s)	8,55
100	208 x 175 x 34	green	**K533.1**	1 unit(s)	9,65
100	208 x 175 x 34	white	**K536.1**	1 unit(s)	9,65
100	208 x 175 x 34	yellow	**K535.1**	1 unit(s)	9,65

Slip lid

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
25	141 x 88 x 35	red	**K542.1**	1 unit(s)	8,90
25	141 x 88 x 35	blue	**K540.1**	1 unit(s)	8,90
25	141 x 88 x 35	green	**K541.1**	1 unit(s)	8,90
25	141 x 88 x 35	white	**K544.1**	1 unit(s)	8,90
50	209 x 86 x 35	red	**N953.1**	1 unit(s)	9,90
50	209 x 86 x 35	blue	**N952.1**	1 unit(s)	9,90
50	209 x 86 x 35	white	**N954.1**	1 unit(s)	9,90



Microscope slide box Premium

ROTH SELECTION. Material: ABS, PP.

For microscope slides 76 x 26 mm.

- Foam insert in the base of the box for protecting samples
- Hinged lid with non-metal closing mechanism, no risk of corrosion
- Central numbering of the samples on the central divider
- Usable for vertical or horizontal storage
- Side compartment for storing marker pens or drying agents

Delivery incl. index card (integrated in the lid, replaceable).

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
100	207 x 195 x 32	red	**HYP2.1**	5 unit(s)	86,00
100	207 x 195 x 32	blue	**HYN9.1**	5 unit(s)	86,00
100	207 x 195 x 32	green	**HYP1.1**	5 unit(s)	86,00
100	207 x 195 x 32	orange	**HYP0.1**	5 unit(s)	86,00
100	207 x 195 x 32	violet	**HYP3.1**	5 unit(s)	86,00

Set
Assorted colours: Green, red, blue, orange, purple.

No. of slots	L x W x H (mm)	Colour	Pack.	Art. No.	Pack Qty.	€
100	207 x 195 x 32	assorted colours	5 pieces	**HYP4.1**	1 set	86,00



A 121 °C ❄❄

Microscope slide box True North™

ROTH SELECTION. Material: PC, Foam insert. Autoclavable: Yes.

For microscope slides 76 x 26 mm. Stackable. Numbering of the index card corresponds to the embossed numbering on the bottom of the box and the imprint on the foam insert. Temperature stable from -80 to +121 °C.

Delivery incl. index card (in cover).

Hinged lid

Material: Lock made of stainless steel.

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
100	208 x 175 x 34	violet	**PC56.1**	1 unit(s)	29,65

Snap-on lid

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
25	141 x 88 x 35	blue	**ENL7.1**	1 unit(s)	20,00



Storage rack for microscope slide boxes

ROTH SELECTION. Material: PMMA (acrylic).

For microscope slide boxes with 50 or 100 slots.
Compartment dimensions: L 214 x W 171 x H 38 mm.

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
15	711 x 171 x 228	**TP32.1**	1 unit(s)	389,15

Slide magazines



Microscope slide box for large microscope slides

ROTH SELECTION. Material: ABS, Cork insert.

- For microscope slides 76 x 52 mm
- Stackable
- With hinged lid
- The numbering of the index card matches the numbering embossed on the base of the box

Delivery incl. index card (in lid).

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
100	208 x 175 x 60	**TP28.1**	1 unit(s)	30,25



Microscope slide containers

Kartell. Material: ABS.

For microscope slides, 76 x 26 mm.

Delivery without lid.

No. of slots	L x W x H (mm)	Art. No.	Pack Qty.	€
100	360 x 38 x 100	**2299.2**	2 unit(s)	40,90



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Microscope slide magazines

Simport. Material: PS.

For vertical storage of 76 x 26 mm microscope slides. Easy retrieval of preparations through option for tilting microscope slides inside slots.

- Coloured box with large labelling space
- Contents are easily recognisable through transparent hinged lid
- Removable insert with individually numbered slots
- Stackable
- Temperature stable from -80 to +80 °C

Delivery incl. index card (with numbering).

100 slots

Up to 200 microscope slides can be stored by double use of slots. Up to 400 microscope slides can be stored in 3 rows by removing the insert.

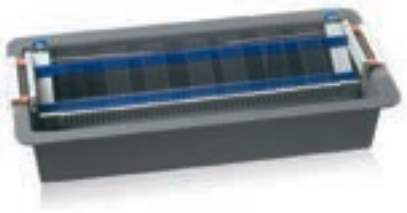
No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
100	245 x 82 x 86	blue	**X021.1**	1 unit(s)	12,60
100	245 x 82 x 86	pink	**X023.1**	1 unit(s)	12,60
100	245 x 82 x 86	green	**X022.1**	1 unit(s)	12,60
100	245 x 82 x 86	white	**X024.1**	1 unit(s)	12,60
100	245 x 82 x 86	yellow	**X025.1**	1 unit(s)	12,60

50 slots

Up to 100 microscope slides can be stored by double use of slots. Up to 200 microscope slides can be stored in 3 rows by removing the insert.

No. of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
50	140 x 82 x 86	blue	**AEL4.1**	1 unit(s)	10,15
50	140 x 82 x 86	pink	**AEL6.1**	1 unit(s)	10,15
50	140 x 82 x 86	green	**AEL5.1**	1 unit(s)	10,15
50	140 x 82 x 86	white	**AEL7.1**	1 unit(s)	10,15
50	140 x 82 x 86	yellow	**AEL8.1**	1 unit(s)	10,15

Staining racks and chambers



Staining rack

Marienfeld.

For custom adaptation to a variety of dishes and bowls. With 2 fixing clips and 2 handles, each extendible by 115 mm. For tilting and fixing in a horizontal position. When used in combination with staining tray CEX6.1, a locking bolt holds the tray securely in the tilted position. The tray can also be fixed in the horizontal position using the second locking bolt. Total length: Approx. 380 mm.

Delivery without staining tray.

Version	Art. No.	Pack Qty.	€
Staining rack	**CEX5.1**	1 unit(s)	89,50

Accessories staining tray

Marienfeld. Material: PVC.

Staining tray inner dimensions: L 380 x W 145 x H 75 mm.

Designation	Version	Art. No.	Pack Qty.	€
Staining tray, inner dimensions: L 380 x W 145 x H 75 mm	Staining tray	**CEX6.1**	1 unit(s)	50,50



❄❄

Staining chamber

Nalgene. Material: PMP, lid made of PP copolymer, drain cap made of LDPE.

For staining, fixing, bleaching membranes, electrophoresis gels, etc. Chamber with handles on both sides for easy transportation. Capacity with gel added under shaking bath conditions: 500 to 750 ml. Temperature stability: -70 to +70 °C.

Not UV-transparent.

L x W x H	Art. No.	Pack Qty.	€
12.5 x 12.5 x 50	**H591.1**	1 unit(s)	41,05



❄

Staining chamber StainTray™

Simport. Material: ABS.

Suitable as a staining chamber or a humidity chamber in immune histology, haematology, cytology and microbiology.

- Slides securely adhere to the rubber strip
- Drain with plug for simple emptying of the chamber
- Stackable

Black lid
Material: Lid made of ABS. Temperature stability: -20 to +80 °C.

Pic.	Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
(1)	20 microscope slides	380 x 240 x 45	**HA51.1**	1 unit(s)	256,95
(2)	10 microscope slides	240 x 240 x 45	**HL98.1**	1 unit(s)	224,70

Transparent lid
Material: Lid made of PETG. Temperature stability: -20 to +60 °C.

Pic.	Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
(1)	20 microscope slides	380 x 240 x 45	**HA50.1**	1 unit(s)	256,95
(2)	10 microscope slides	240 x 240 x 45	**HL97.1**	1 unit(s)	224,70



Disposable staining chambers

ROTH SELECTION. Material: PP, PE.

For staining, washing and drying microscope slides with dimensions of 76 x 26 mm.

- Chamber volume: 38 ml
- Recessed handles for easy transportation
- Two drain openings
- Dark lid for light-sensitive applications

Delivery incl. four staining chambers and one lid.

Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
8 microscope slides	305 x 127 x 30	**TP31.1**	1 set	53,05

Staining racks and chambers



Staining trough ROTILABO®

Simport. Material: POM.

Resistant to most staining reagents, but irreversible discolouration may occur.

Delivery incl. connection clips, without microscope slide holder.

Vol. (ml)	Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
80	blue	64 x 76 x 92	**HA44.1**	1 unit(s)	15,60
80	yellow	64 x 76 x 92	**HA45.1**	1 unit(s)	15,60
80	green	64 x 76 x 92	**HA46.1**	1 unit(s)	15,60
80	pink	64 x 76 x 92	**HA47.1**	1 unit(s)	15,60
80	white	64 x 76 x 92	**HA48.1**	1 unit(s)	15,60



Accessories slide holder ROTILABO®

Simport. Material: POM.

For 76 x 26 mm microscope slides. Vertical storage of the microscope slides means the labelling areas do not come into contact with staining solution.

Suitable for	Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
12 microscope slides	grey	60 x 64 x 97	**HA49.1**	1 unit(s)	17,15



Staining trough

Kartell. Material: PMP.

With two lids: One which seals tightly and the other with a small opening for attaching the insert during staining.
Microwave safe.

Delivery without inserts.

L x W x H (mm)	Art. No.	Pack Qty.	€
101 x 81 x 70	**2290.2**	4 unit(s)	76,60

Accessories insert for staining trough

Kartell. Material: PP.

For microscope slides 76 x 26 mm.

Designation	Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
Inserts for 20 microscope slides with dimensions of 76 x 26 mm,	20 microscope slides	86 x 70 x 21	**2291.2**	2 unit(s)	17,10

ACCESSORIES & SPARE PARTS in the ROTH webshop



Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

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- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Staining racks and chambers



Staining dish

Kartell. Material: PMP.

For microscope slides with dimensions of 76 x 26 mm. Microwave-safe.

Delivery incl. lid.

Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
8 microscope slides	58 x 54 x 86	**2292.2**	4 unit(s)	64,95



Staining trough acc. to Schiefferdecker

Kartell. Material: PMP.

For microscope slides 76 x 26 mm. Microwave safe.

Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
20 microscope slides	89 x 70 x 50	**XC73.1**	4 unit(s)	60,15



A 121 °C

Staining trough acc. to Coplin

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For microscope slides with dimensions of 76 x 26 mm.
Opening Ø of 53 mm for simple placement.

Delivery incl. screw-on lid.

Suitable for	Ø x H (mm)	Art. No.	Pack Qty.	€
10 microscope slides	53 x 114	**YC09.1**	1 unit(s)	12,80



DURAN
WHEATON
KIMBLE

Staining trough acc. to Coplin

DWK Life Sciences. Material: Soda-lime glass.

For microscope slides 76 x 26 mm.

Suitable for	Ø x H (mm)	Art. No.	Pack Qty.	€
10 microscope slides	66 x 108	**H548.1**	1 unit(s)	21,45



Staining dish acc. to Coplin with screw cap

Marienfeld. Material: Soda-lime glass, screw cap made of plastic (urea 131.5), with PE foam insert.

For microscope slides 76 x 26 mm.

Delivery incl. screw cap.

Suitable for	Height without closure (mm)	Art. No.	Pack Qty.	€
10 microscope slides	108	**ETE2.1**	6 unit(s)	163,40
10 microscope slides	85	**ETE3.1**	6 unit(s)	163,40

Staining racks and chambers



DURAN WHEATON KIMBLE

Staining dish acc. to Coplin

DWK Life Sciences. Material: Soda-lime glass, screw top made of PP.

For microscope slides 76 x 26 mm. Dimensions: L 26 x W 26 x D 90 mm.

Delivery incl. screw top.

Suitable for	Vol. (ml)	L x W x H (mm)	Art. No.	Pack Qty.	€
10 microscope slides	60	26 x 26 x 90	**HLA7.1**	1 unit(s)	43,65



A 121 °C

Microscope slide holder Wash-N-Dry™

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For staining, washing and drying microscope slides with dimensions of 76 x 26 mm. Ideal for tall 150 ml beakers. Distance to floor, 10 mm below the microscope slide for the use of magnetic stir bars.

Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
12 microscope slides	31.5 x 38.4 x 110	**AXC6.1**	1 unit(s)	57,75



DURAN WHEATON KIMBLE

Staining dish acc. to Columbia

DWK Life Sciences. Material: Soda-lime glass, screw top made of PP, with PTFE-coated PE insert.

For coverslips, W 17–23 mm, H 30 mm Longer coverslips can be inserted with the screw top removed.

Delivery incl. screw top.

Suitable for	Art. No.	Pack Qty.	€
4 coverslips	**HLA6.1**	1 unit(s)	56,10



A 121 °C

Coverslip rack Wash-N-Dry™

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For square or round coverslips with dimensions of 18 to 25 mm. With notches on the underside for fixing the coverslips, e.g. with elastic bands.

Colour	Slots	L x W x H (mm)	Art. No.	Pack Qty.	€
white	10	39 x 31 x 24	**TH51.1**	1 unit(s)	52,15

Staining racks and chambers





Staining trough acc. to Hellendahl

ROTH SELECTION. Material: Soda-lime glass.

For microscope slides 76 x 26 mm.

Without expansion

Pic.	Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
(1)	8 microscope slides	93 x 43 x 97	**H549.1**	1 unit(s)	41,60

With expansion
Autoclavable: Yes.

Pic.	Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
(2)	8 microscope slides	63 x 58 x 98	**H550.1**	1 unit(s)	31,90



A 121 °C

Staining trough porcelain

ROTH SELECTION. Material: Porcelain, glazed. Autoclavable: Yes.

For the protection of light-sensitive staining solutions.

- For microscope slides with dimensions of 76 x 26 mm
- Lid dimensions: L 75 x W 48 x H 5 mm
- Temperature stability: to +1000 °C
- Microwave-safe

Delivery incl. lid.

Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
6 microscope slides	70 x 40 x 86	**XX63.1**	2 unit(s)	83,30



Staining trough acc. to Schiefferdecker

ROTH SELECTION. Material: Soda-lime glass.

For microscope slides 76 x 26 mm.

Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
20 microscope slides	89 x 71 x 46	**H551.1**	1 unit(s)	30,00



Staining trough

ROTH SELECTION.

Material: Soda-lime glass.

Delivery incl. lid.

L x W x H (mm)	Art. No.	Pack Qty.	€
105 x 85 x 70	**H554.1**	1 unit(s)	33,35



Accessories glass insert for staining trough

ROTH SELECTION. Material: Soda-lime glass.

For microscope slides with dimensions of 76 x 26 mm or any width up to 52 mm.

Delivery without wire hanger.

Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
10 microscope slides	85 x 60 x 45	**H552.1**	1 unit(s)	28,60

Accessories wire hanger for glass staining rack

ROTH SELECTION. Material: Stainless steel.

Version	Art. No.	Pack Qty.	€
Stainless steel	**H553.1**	1 unit(s)	3,90



Accessories metal insert for staining trough

Marienfeld. Material: Stainless steel.

For microscope slides with dimensions of 76 x 26 mm or any width up to 52 mm.

Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
10 microscope slides	80 x 55 x 53	**CET8.1**	1 unit(s)	28,65

Staining racks and chambers



DURAN WHEATON KIMBLE

Staining trough

DWK Life Sciences. Material: Soda-lime glass, stainless steel rack.

Staining system for microscope slides with dimensions of 76 x 26 mm, 76 x 38 mm and 76 x 52 mm.
Rack with folding handle for closing the dish and inserting and removing the microscope slides.
Inner dimensions at base: L 185 x W 88 x D 78 mm.

Delivery incl. lid and rack.

Suitable for	Art. No.	Pack Qty.	€
50 microscope slides	**HLA2.1**	1 set	295,65



Staining trough acc. to Hausser/Gedigk

ROTH SELECTION. Material: Soda-lime glass.

Delivery without lid and staining insert.

L x W x H (mm)	Art. No.	Pack Qty.	€
130 x 93 x 121	**T725.1**	1 unit(s)	46,40

Accessories for Hausser/Gedigk staining trough

ROTH SELECTION.

For microscope slides 76 x 26 mm.

Lid

Designation	L x W x H (mm)	Art. No.	Pack Qty.	€
Lid, L 130 x W 93 x H 3 mm	130 x 93 x 3	**T726.1**	1 unit(s)	8,60

Staining insert

Designation	Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
Staining insert made of stainless steel, for microscope slides with dimensions of 76 x 26 mm, L 110 x W 75 x H 95 mm	60 microscope slides	110 x 75 x 95	**T727.1**	1 unit(s)	112,45



DURAN WHEATON KIMBLE

Preparation box

DWK Life Sciences. Material: DURAN® glass.

With ground glass plate. Versatile for use as a slide storage box, TLC separation chamber, etc.

Vol. (ml)	L x W x H (mm)	Art. No.	Pack Qty.	€
250	60 x 50 x 100	**T067.1**	1 unit(s)	51,65
550	100 x 50 x 120	**T068.1**	1 unit(s)	61,55
800	130 x 50 x 130	**T069.1**	1 unit(s)	82,25
1,000	150 x 50 x 150	**T070.1**	1 unit(s)	101,30
1,200	120 x 60 x 180	**T071.1**	1 unit(s)	84,15
4,000	210 x 100 x 210	**T072.1**	1 unit(s)	171,00
8,500	250 x 140 x 250	**T073.1**	1 unit(s)	240,00



Glass boxes

ROTH SELECTION. Material: Soda-lime glass.

Ground rim.

Vol. (l)	L x W x H (mm)	Art. No.	Pack Qty.	€
0.8	100 x 100 x 100	**NY95.1**	1 unit(s)	16,05
1.8	100 x 150 x 150	**NY96.1**	1 unit(s)	24,65
5.7	220 x 300 x 150	**NY97.1**	1 unit(s)	73,85
8.7	180 x 250 x 220	**NY98.1**	1 unit(s)	69,95
19.9	230 x 360 x 260	**NY99.1**	1 unit(s)	153,55



A 121 °C

Staining dish silicone

Hammacher. Material: Silicone, soft. Autoclavable: Yes.

Temperature stability: -55 to +200 °C.

Vol. (ml)	Art. No.	Pack Qty.	€
160	**HCY2.1**	1 unit(s)	40,00

Embedding cassettes, accessories



Embedding cassettes

Simport. Material: POM.

Suitable as a holder for tissue specimens during embedding or storage.

- Solvent-resistant
- Large labelling areas on the front and sides
- Compatible with standard metal lids

Delivery without lid.

In vitro diagnostic medical device according to IVDD

Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
blue	40.5 x 30 x 6	**H583.1**	500 unit(s)	55,80
grey	40.5 x 30 x 6	**AA79.1**	500 unit(s)	51,85
pink	40.5 x 30 x 6	**H580.1**	500 unit(s)	55,80
green	40.5 x 30 x 6	**H581.1**	500 unit(s)	55,80
white	40.5 x 30 x 6	**H579.1**	500 unit(s)	55,80
orange	40.5 x 30 x 6	**EH20.1**	500 unit(s)	53,65
yellow	40.5 x 30 x 6	**H582.1**	500 unit(s)	55,80



Biopsy embedding cassettes

Simport. Material: POM.

Suitable as a holder for tissue specimens during embedding or storage. To seal the cassettes, the lid is broken off and locked in the lower section. The cassettes can be opened and securely sealed again multiple times.

- Solvent-resistant
- Large labelling areas on the front and sides
- With lid attached
- Surface perforated with holes

Delivery incl. lid.

In vitro diagnostic medical device according to IVDD

Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
blue	40.5 x 28.5 x 7	**E479.1**	500 unit(s)	60,20
grey	40.5 x 28.5 x 7	**E483.1**	500 unit(s)	60,20
pink	40.5 x 28.5 x 7	**AA78.1**	500 unit(s)	58,60
green	40.5 x 28.5 x 7	**E481.1**	500 unit(s)	60,20
white	40.5 x 28.5 x 7	**E478.1**	500 unit(s)	60,20
orange	40.5 x 28.5 x 7	**E482.1**	500 unit(s)	60,20
yellow	40.5 x 28.5 x 7	**E480.1**	500 unit(s)	60,20



Embedding cassettes ROTILABO®

Kartell. Material: POM.

- For routine embedding
- With labelling area

Delivery incl. lid.

In vitro diagnostic medical device according to IVDD

Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
red	40 x 28 x 6.8	**PX06.1**	500 unit(s)	74,10
blue	40 x 28 x 6.8	**K114.1**	500 unit(s)	74,10
pink	40 x 28 x 6.8	**K117.1**	500 unit(s)	74,10
green	40 x 28 x 6.8	**K116.1**	500 unit(s)	74,10
white	40 x 28 x 6.8	**K113.1**	500 unit(s)	74,10
yellow	40 x 28 x 6.8	**K115.1**	500 unit(s)	74,10



Biopsy embedding cassettes Swingsette™

Simport. Material: POM.

Cassette and lid with small square compartments for processing, embedding and storage of tissue specimens.

- With convenient hinged lid
- Lid can be opened and closed any number of times
- Textured labelling area on the front
- 45° angle for automated labelling systems
- Resistant to standard histological solvents

Delivery incl. lid.

In vitro diagnostic medical device according to IVDD

Colour	Art. No.	Pack Qty.	€
pink	**XY23.1**	500 unit(s)	73,65
green	**XY24.1**	500 unit(s)	73,65
white	**XY22.1**	500 unit(s)	73,65
turquoise	**XY29.1**	500 unit(s)	73,65

Embedding cassettes, accessories



Biopsy embedding cassettes Micromesh™

Simport. Material: POM.

Surface with 1676 square openings each offset by 0.38 mm, for improved fluid exchange and complete drainage. Compartment size 27 mm.

- With convenient hinged lid
- Lid can be opened and closed any number of times
- Textured labelling area on the front
- 45° angle for automated labelling systems
- Resistant to standard histological solvents

Delivery incl. lid.

In vitro diagnostic medical device according to IVDD

Colour	Art. No.	Pack Qty.	€
blue	**CXN3.1**	250 unit(s)	83,35
white	**CXN2.1**	250 unit(s)	83,35



Embedding cassettes Macrosette™

Simport. Material: POM.

Extra tall, as a holder for larger tissue specimens during embedding or for storage.

- Solvent-resistant
- With labelling areas
- Easy opening and repeated resealing

Delivery incl. lid.

In vitro diagnostic medical device according to IVDD

Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
white	41 x 27.5 x 12	**EE16.1**	250 unit(s)	101,60



Embedding moulds made of metal

Kartell. Material: Stainless steel.

With polished surface, ideal for histology. Aids removing paraffin embeddings and allows ideal centring of findings in the paraffin block.

Technical specifications:

Art. No.	TT29.1	TT30.1
L x W x H, external	52 x 35 x 11.6 mm	

In vitro diagnostic medical device according to IVDD

L x W x H, interior (mm)	L x W, internal (mm)	Art. No.	Pack Qty.	€
7 x 7 x 11	7 x 7	**TT30.1**	10 unit(s)	59,25
23 x 36 x 11	23 x 36	**TT29.1**	10 unit(s)	61,45



Accessories sponges for embedding cassettes

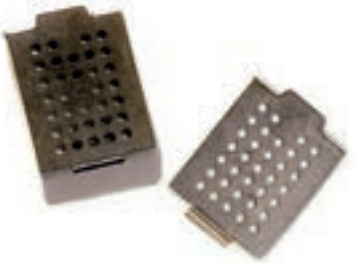
Kartell.

Synthetic sponge, for use with embedding cassettes.

- With controlled porosity
- Can easily be placed in embedding cassettes
- Ideal for preparing biopsies

In vitro diagnostic medical device according to IVDD

Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
blue	32 x 26 x 2.5	**TT56.1**	500 unit(s)	25,95



Accessories metal lid for embedding cassettes

Simport. Material: Stainless steel.

For sealing embedding cassettes without lid. With perforations for optimising the exchange of liquids.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
Embedding cassettes	**H950.1**	5 unit(s)	19,90

Embedding cassettes, accessories



Embedding moulds Macro

Simport. Material: PVC.

With smooth inner surface and rounded corners for easy sampling. Volume 5 ml.

Technical specifications:

Art. No.	AEK8.1
L x W x H, external	37 x 24 x 10 mm

In vitro diagnostic medical device according to IVDD

L x W x H, interior (mm)	L x W, internal (mm)	Art. No.	Pack Qty.	€
35 x 22 x 7	35 x 22	**AEK8.1**	500 unit(s)	89,80

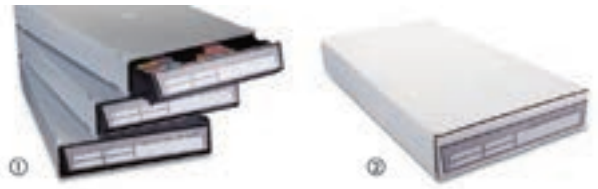


Storage system for embedding cassettes

ROTH SELECTION. Material: Cardboard.

Archiving system with five drawers for retaining and storing approx. 1400 embedding cassettes.
Delivery unassembled, easy assembly by folding together and interlocking.

L x W x H (mm)	Art. No.	Pack Qty.	€
247 x 340 x 302	**1A0N.1**	1 unit(s)	33,20



Storage system for embedding cassettes

Simport.

For retaining and storing up to 250 embedding cassettes.

Drawer type
Material: PS. Stackable.

Delivery incl. labels to write on.

Pic.	L x W x H (mm)	Art. No.	Pack Qty.	€
(1)	405 x 230 x 51	**HT97.1**	6 unit(s)	145,15

Box type
Material: Cardboard waterproof, coated. With large labelling area.

Delivery incl. labels to write on and dividers.

Pic.	L x W x H (mm)	Art. No.	Pack Qty.	€
(2)	405 x 230 x 51	**HT98.1**	12 unit(s)	117,20

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Precision tweezers

Precision tweezers DUMONT® straight with fine tips

Dumont.



Dumoxel®

Material: Stainless steel Dumoxel® (C, Cr, Ni, Mo, Cu). Autoclavable: Yes. 95% anti-magnetic alloy. Temperature stability: to +400 °C. Good resistance to corrosion, including mineral and organic acids.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	3	straight	0,04	0.08	120	**LH71.1**	1 unit(s)	41,55
(4)	4	straight	0,02	0.06	110	**LH68.1**	1 unit(s)	41,55
(5)	5	straight	0,06	0.1	110	**LH79.1**	1 unit(s)	35,75

Inox08

Material: Stainless steel Inox08 (C, Mn, Mo, V). Autoclavable: Yes. Not anti-magnetic. Resists corrosion, good salt resistance. Temperature stability: to +400 °C. LH57.1 and types 5XL and L5 have a serrated outer surface for enhanced grip.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(5)	5	straight	0,06	0.1	100	**K342.1**	1 unit(s)	38,55
(7)	SS135	straight	0,06	0.1	135	**TE69.1**	1 unit(s)	39,75

Inox02

Material: Stainless steel Inox02 (C, Mn, Cr, Si). Autoclavable: No. Standard stainless steel, not anti-magnetic. Temperature stability: to +400 °C.

Medical device class I MDD

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	3	straight	0,1	0.17	120	**K339.1**	1 unit(s)	35,75
(3)	3C	straight	0.1	0.17	110	**K340.1**	1 unit(s)	32,65
(4)	4	straight	0,08	0.13	110	**K341.1**	1 unit(s)	33,65
(7)	SS135	straight	0,12	0.2	135	**TE68.1**	1 unit(s)	36,00

Titanium

Material: Titanium (C, Fe, O, H, N, Ti). Autoclavable: Yes. 100% anti-magnetic alloy. Temperature stability: to +430 °C. Maximum corrosion resistance against chemicals such as nitric acid, chlorides and salt water. Flexible and 40% lighter than stainless steel.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	3	straight	0,10	0.17	120	**TE60.1**	1 unit(s)	43,30

Precision tweezers

Precision tweezers DUMONT® straight with extra fine tips

Dumont. Autoclavable: Yes.



A 121 °C

Not a medical device / Not an IVD product

Dumostar®

Material: Stainless steel Dumostar® (C, Cr, Mo, Mn, Co, Ni, Si). 100 % anti-magnetic alloy. Temperature stability: to +500 °C. Elastic, high resistance to corrosion, including mineral and organic acids, as well as salts.

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	5	straight	0,01	0.05	110	**LH75.1**	1 unit(s)	63,05
(2)	55	straight	0,01	0.05	110	**TE71.1**	1 unit(s)	60,20

Dumoxel®

Material: Stainless steel Dumoxel® (C, Cr, Ni, Mo, Cu). 95 % anti-magnetic alloy. Temperature stability: to +400 °C. Good resistance to corrosion, including mineral and organic acids.

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	5	straight	0,01	0.05	110	**LH66.1**	1 unit(s)	41,00
(3)	M5	straight	0,01	0.05	85	**TE72.1**	1 unit(s)	41,55

Inox08

Material: Stainless steel Inox08 (C, Mn, Mo, V). Not anti-magnetic. Corrosion-resistant, good salt resistance. Temperature stability: to +400 °C.

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	5	straight	0,01	0.05	110	**LH53.1**	1 unit(s)	45,20
(2)	55	straight	0,01	0.05	110	**TE70.1**	1 unit(s)	45,70

Inox08 unpolished

Material: Stainless steel Inox 08 (C, Mn, Mo, V). Not anti-magnetic. Corrosion-resistant, good salt resistance. Temperature stability: to +400 °C.

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	5SPSF	straight	0,005	0.025	110	**LH52.1**	1 unit(s)	99,20

Titanium

Material: Titanium (C, Fe, O, H, N, Ti). 100 % anti-magnetic alloy. Temperature stability: to +430 °C. Maximum corrosion resistance against chemicals such as nitric acid, chlorides and salt water. Flexible and 40% lighter than stainless steel.

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	5	straight	0,01	0.05	110	**TE59.1**	1 unit(s)	50,35

Precision tweezers

Precision tweezers DUMONT® Eco

Dumont.
Basic version, e.g. for student courses or routine applications.



Not a medical device / Not an IVD product

Inox02
Material: Stainless steel Inox02 (C, Mn, Cr, Si). Autoclavable: No. Standard stainless steel, not anti-magnetic. Temperature stability: to +400 °C.

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	5	straight	0,06	0.10	110	**PK78.1**	1 unit(s)	28,55
(2)	3	straight	0,10	0.17	120	**TE62.1**	1 unit(s)	29,35
(3)	7	curved	0,10	0.17	115	**TE63.1**	1 unit(s)	33,40

Epoxy-coated
Material: Steel (C, Cr, Ni, Mo), Epoxy-coated. Autoclavable: Yes. 80% anti-magnetic alloy. Temperature stability: to +400 °C. Resists corrosion.

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	5	straight	0,06	0.10	110	**LH63.1**	1 unit(s)	27,60
(2)	7	curved	0,10	0.17	115	**LH65.1**	1 unit(s)	30,30

Precision tweezers with plastic tips special shape

Dumont. Material: Steel (C, Cr, Ni, Mo) anti-magnetic, satin finish, TPE-ESD tips, conductive.

- For gentle handling of delicate materials
- Handle cast from a single piece, curved
- Easy to clean and sterilise
- Ergonomic shape for fatigue-free use
- Enhanced grip thanks to notched outside



Not a medical device / Not an IVD product

Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
straight	1	1	210	**HTX1.1**	1 unit(s)	89,80
straight	2	2	210	**HTX2.1**	1 unit(s)	89,80

Precision tweezers

Precision tweezers DUMONT® straight with thick tips

Dumont. Material: Stainless steel.



Inox02

Material: Inox02 (C, Mn, Cr, Si). Autoclavable: No. Standard stainless steel, not anti-magnetic. Temperature stability: to +400 °C.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	1	straight	0,12	0.20	120	**K337.1**	1 unit(s)	33,65
(2)	2	straight, pointed	0,14	0.34	120	**K338.1**	1 unit(s)	33,65
(3)	AA	straight, pointed	0,20	0.40	125	**TE66.1**	1 unit(s)	27,75

Inox02 (epoxy-coated)

Material: Inox02 (C, Mn, Cr, Si), Epoxy-coated. Autoclavable: No.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(3)	AA	straight	0,20	0.40	125	**TE67.1**	1 unit(s)	33,40

Precision tweezers DUMONT® angled

Dumont. Material: Stainless steel. Autoclavable: Yes.



A 121 °C

Dumoxel®

Material: Dumoxel® (C, Cr, Ni, Mo, Cu). 95 % anti-magnetic alloy. Temperature stability: to +400 °C. Good resistance to corrosion, including mineral and organic acids.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(2)	5/45	angled	0,01	0.05	109	**LH67.1**	1 unit(s)	45,50
(5)	6	angled	0,10	0.17	115	**TE75.1**	1 unit(s)	49,75

Inox08

Material: Inox 08 (C, Mn, Mo, V). Not anti-magnetic. Corrosion-resistant, good salt resistance.
Temperature stability: to +400 °C. Type SS/45 has a grooved outer surface for enhanced grip.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	5/15	angled	0,06	0.10	105	**TE73.1**	1 unit(s)	41,85
(2)	5/45	angled	0,06	0.10	109	**K343.1**	1 unit(s)	43,30
(2)	5/45	angled	0,01	0.05	109	**LH54.1**	1 unit(s)	47,65

Precision tweezers

Precision tweezers DUMONT® curved

Dumont.



Dumoxel®

Material: Stainless steel Dumoxel® (C, Cr, Ni, Mo, Cu). Autoclavable: Yes. 95 % anti-magnetic alloy. Temperature stability: to +400 °C. Good resistance to corrosion, including mineral and organic acids.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	7	curved	0,10	0.17	115	**LH81.1**	1 unit(s)	40,85

Inox08

Material: Stainless steel Inox 08 (C, Mn, Mo, V). Autoclavable: Yes. Not anti-magnetic. Resists corrosion, good salt resistance. Temperature stability: to +400 °C. Enhanced grip thanks to notched outside.

Medical device class Ir

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(2)	7XL	curved	0,14	0.24	150	**TE76.1**	1 unit(s)	65,60

Inox02

Material: Stainless steel Inox02 (C, Mn, Cr, Si). Autoclavable: No. Standard stainless steel, not anti-magnetic. Temperature stability: to +400 °C. Type 7B with grooves on the inside of the tips for extra grip.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	7	curved	0,10	0.17	115	**K344.1**	1 unit(s)	40,85
(3)	7B	curved	0,10	0.17	115	**TE77.1**	1 unit(s)	38,65

Titanium

Material: Titanium (C, Fe, O, H, N, Ti). Autoclavable: Yes. 100 % anti-magnetic alloy. Temperature stability: to +430 °C. Maximum corrosion resistance against chemicals such as nitric acid, chlorides and salt water. Flexible and 40% lighter than stainless steel.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(3)	7	curved	0,10	0.17	115	**TE61.1**	1 unit(s)	52,15

Precision tweezers DUMONT® self-closing

Dumont. Material: Stainless steel. Autoclavable: Yes.



A 121 °C

Dumoxel®

Material: Dumoxel® (C, Cr, Ni, Mo, Cu). 95 % anti-magnetic alloy. Temperature stability: to +400 °C. Good resistance to corrosion, including mineral and organic acids.

Not a medical device / Not an IVD product

Pic.	Type	Version	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	N5	straight	0,01	0.05	108	**TE64.1**	1 unit(s)	53,55
(2)	N7	curved	0,03	0.07	115	**TE65.1**	1 unit(s)	58,75

Precision tweezers

Special tweezers DUMONT®

Dumont. Material: Steel Epoxy-coated. Autoclavable: No.
Cutting.



Not a medical device / Not an IVD product

Type	Materialspecification	Tip thickness (mm)	Tip width (mm)	Length (mm)	Version	Art. No.	Pack Qty.	€
15 A ESD	Steel, epoxy-coated	8,5	10.5	115	special shape	**TE78.1**	1 unit(s)	60,55

Special tweezers DUMONT® ring-shaped

Dumont. Material: Stainless steel Dumoxel®. Autoclavable: Yes.
Tip Ø 12.7 mm.



A 121 °C

Not a medical device / Not an IVD product

Type	Length (mm)	Art. No.	Pack Qty.	€
2E½	118	**LH74.1**	1 unit(s)	49,00

Micro tweezers

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.
Tips smooth inside.



A 121 °C

Not a medical device / Not an IVD product

Straight

Pic.	Type	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	No. 3	straight	pointed	0.3	115	**YE36.1**	1 unit(s)	41,25
(2)	No. 4	straight	pointed	0.4	110	**YE37.1**	1 unit(s)	40,30
(3)	No. 5	straight	pointed	0.15	110	**YE38.1**	1 unit(s)	47,45

Angled

Angled to side, 45°.

Pic.	Type	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(4)	No. 5–45	angled	pointed	0.3	110	**YE39.1**	1 unit(s)	45,60

Curved

Pic.	Type	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(5)	No. 7	curved	pointed	0.2	115	**YE40.1**	1 unit(s)	49,15

Precision tweezers



A 121 °C

Micro tweezers serrated

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.
With guide pin. Inside serrated tips.

Not a medical device / Not an IVD product

(1) Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	105	**YK30.1**	1 unit(s)	29,30
straight	pointed	115	**YK31.1**	1 unit(s)	30,75
straight	pointed	130	**YK32.1**	1 unit(s)	33,70

(2) Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	105	**YK33.1**	1 unit(s)	30,65
curved	pointed	115	**YK34.1**	1 unit(s)	31,50

(3) Strongly curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	115	**YK35.1**	1 unit(s)	29,85



A 121 °C

Tweezers pointed shape

Hammacher. Material: Stainless steel 18/10 (Wironit 4301).
Autoclavable: Yes.
Tips smooth inside.

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	120	**YE33.1**	1 unit(s)	28,95
straight	pointed	140	**YE34.1**	1 unit(s)	31,05
straight	pointed	160	**YE35.1**	1 unit(s)	32,40



A 121 °C

Micro tweezers special shape

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.
Fine-tip tweezers.

Not a medical device / Not an IVD product

(1) Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	100	**EXC3.1**	1 unit(s)	58,40

(2) Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	100	**EXC4.1**	1 unit(s)	60,20

(3) Cross-locking
Self-closing.

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	100	**EXC5.1**	1 unit(s)	64,35



A 121 °C

Protective cap

Hammacher. Material: Silicone. Autoclavable: Yes.
For careful storage of tweezers, scissors and other delicate instruments.

Not a medical device / Not an IVD product

Round

Colour	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
green	19	2.8	**KAT9.1**	100 unit(s)	47,80
pink	25.4	3.2	**KAX0.1**	100 unit(s)	47,80
yellow	25	5	**KAX1.1**	100 unit(s)	47,80

Flat

Colour	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
orange	25	9	2	**KAX2.1**	100 unit(s)	47,80

Precision tweezers



A 121 °C

Micro tweezers serrated

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.
Fine tips, ribbed inside.

Tweezers for gentle collection of tissue samples.

Medical device class I MDD

(1) Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	80	**YK39.1**	1 unit(s)	22,90
straight	pointed	105	**YK40.1**	1 unit(s)	22,15
straight	pointed	115	**YK41.1**	1 unit(s)	23,10
straight	pointed	130	**YK42.1**	1 unit(s)	25,25
straight	pointed	145	**YK43.1**	1 unit(s)	28,25

(2) Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
bent	pointed	105	**YK44.1**	1 unit(s)	22,45
bent	pointed	115	**YK45.1**	1 unit(s)	24,15
bent	pointed	130	**YK46.1**	1 unit(s)	27,00
bent	pointed	145	**YK47.1**	1 unit(s)	28,40



A 121 °C

Micro tweezers long

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.
With guide pin and long, drawn-out tip (grooved on the inside).

Tweezers for gentle collection of tissue samples.

Medical device class I MDD

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	200	**YE29.1**	1 unit(s)	47,50



A 121 °C

Micro tweezers titanium

Hammacher. Material: Titanium. Autoclavable: Yes.
Tips smooth inside. Tip Ø 0.1 mm.

Not a medical device / Not an IVD product

Straight

Pic.	Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
(1)	straight	pointed	110	**ETC5.1**	1 unit(s)	101,55

Angled

Angled to side, 45°.

Pic.	Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
(2)	angled	pointed	110	**ETC6.1**	1 unit(s)	115,80

Curved

Short tip.

Pic.	Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
(3)	curved	pointed	110	**ETC7.1**	1 unit(s)	141,35



Micro tweezers ESD

ROTH SELECTION. Material: Stainless steel 18/10, with ESD coating (black, anti-glare).
Electrically dissipating. Fine tips, smooth inside.

Not a medical device / Not an IVD product

(1) Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	110	**EPN4.1**	1 unit(s)	28,20

(2) Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	120	**EPN5.1**	1 unit(s)	30,35

Precision tweezers



Micro tweezers insulated

ROTH SELECTION. Material: Steel (Spring steel, high-tensile), nickel-plated.

Dip-insulated, tested to IEC 60900. Fine tips, ribbed inside.

Not a medical device / Not an IVD product

(1) Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	150	**EPN6.1**	1 unit(s)	33,25

(2) Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	150	**EPN7.1**	1 unit(s)	33,55



A 121 °C

Tweezers with fine tip

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

Precision ground tips.

Not a medical device / Not an IVD product

(1) Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	120	**PX37.1**	1 unit(s)	8,10

(2) Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	120	**PX39.1**	1 unit(s)	13,35

(3) Straight, spire tip

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	110	**PX38.1**	1 unit(s)	12,60



A 121 °C

Hooked tweezers Adson Micro

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

With fine 2:1 teeth for a secure hold.

Tweezers for safely positioning tissue samples.

Medical device class I MDD

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	teeth 1:2	120	**YE32.1**	1 unit(s)	36,50



A 121 °C

Hooked tweezers fine

Hammacher. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

With fine 2:1 teeth for a secure hold.

Purpose: Tweezers for securely fixing tissue.

Medical device class I MDD

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	teeth 1:2	105	**YE30.1**	1 unit(s)	47,75

Tweezers



A 121 °C

Hooked tweezers

ROTH SELECTION. Material: Stainless steel X15Cr13 (1.4024). Autoclavable: Yes.

Surgical. With teeth 1:2 for a secure hold on tissue.

Tweezers for grasping and preparing tissue samples and vessels.

Medical device class I MDD

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	teeth 1:2	115	**2860.1**	1 unit(s)	24,75
straight	teeth 1:2	130	**2861.1**	1 unit(s)	24,75
straight	teeth 1:2	145	**2862.1**	1 unit(s)	27,00



A 121 °C

Tweezers anatomical

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

With fine tips, grooved on the inside.

Tweezers for gentle collection of tissue samples.

Medical device class I MDD

Adson fine

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	120	**YK36.1**	1 unit(s)	21,10
straight	blunt	150	**YK37.1**	1 unit(s)	34,85

Micro Adson

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	120	**YK38.1**	1 unit(s)	25,60



A 121 °C

Tweezers special shape (splinter tweezers)

Hammacher. Material: Stainless steel Remanit 4024. Autoclavable: Yes.

Tweezers for removing very small foreign bodies from the skin or from wounds.

Medical device class I MDD

Pic.	Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
(1)	straight	pointed	80	**YK48.1**	1 unit(s)	26,95
(2)	straight	pointed	105	**YK49.1**	1 unit(s)	30,10



A 121 °C

Tweezers with guide pin

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

Fine type. Inside serrated tips.

Not a medical device / Not an IVD product

(1) Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	105	**LT35.1**	1 unit(s)	8,40
straight	pointed	130	**LT36.1**	1 unit(s)	8,90

(2) Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	105	**LT37.1**	1 unit(s)	10,00
curved	pointed	130	**LT38.1**	1 unit(s)	10,30



A 121 °C

Tweezers with guide pin

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.

Straight, tips ribbed on the inside

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	155	**HCL3.1**	1 unit(s)	31,95

Angled, tips ribbed on the inside

Tweezers for gentle collection of tissue samples.

Medical device class I MDD

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
angled	pointed	155	**HCL2.1**	1 unit(s)	33,15

Angled, tips smooth

Tweezers for gentle collection of tissue samples.

Medical device class I MDD

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
angled	pointed	155	**HCL1.1**	1 unit(s)	31,55



A 121 °C

Tweezers with insulated tips

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.

Blunt tips, 45° angled, for secure gripping of small parts.

Not a medical device / Not an IVD product

Pic.	Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
(1)	angled	blunt	165	**ETC8.1**	1 unit(s)	27,75
(2)	angled	blunt	300	**ETC9.1**	1 unit(s)	34,30



A 121 °C

Tweezers

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

Inside of tip is fluted for secure grip.

Not a medical device / Not an IVD product

(1) Straight blunt

Anatomical.

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	105	**2687.1**	1 unit(s)	6,70
straight	blunt	115	**2688.1**	1 unit(s)	7,40
straight	blunt	130	**2689.1**	1 unit(s)	7,70
straight	blunt	145	**2690.1**	1 unit(s)	7,75
straight	blunt	160	**2691.1**	1 unit(s)	8,25
straight	blunt	200	**2692.1**	1 unit(s)	14,60
straight	blunt	250	**2693.1**	1 unit(s)	16,50

(2) Straight pointed

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	105	**2695.1**	1 unit(s)	8,65
straight	pointed	115	**2801.1**	1 unit(s)	10,25
straight	pointed	130	**2802.1**	1 unit(s)	10,80
straight	pointed	145	**2851.1**	1 unit(s)	10,95
straight	pointed	160	**2852.1**	1 unit(s)	11,45
straight	pointed	200	**2853.1**	1 unit(s)	19,90

(3) Curved pointed

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	105	**2854.1**	1 unit(s)	8,65
curved	pointed	115	**2855.1**	1 unit(s)	8,90
curved	pointed	130	**2856.1**	1 unit(s)	10,40
curved	pointed	145	**2857.1**	1 unit(s)	11,45
curved	pointed	160	**2858.1**	1 unit(s)	12,10
curved	pointed	200	**2859.1**	1 unit(s)	19,60

Curved blunt

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	blunt	115	**PX28.1**	1 unit(s)	7,00
curved	blunt	130	**PX29.1**	1 unit(s)	6,95
curved	blunt	145	**PX30.1**	1 unit(s)	8,05
curved	blunt	160	**PX31.1**	1 unit(s)	8,45
curved	blunt	200	**PX32.1**	1 unit(s)	13,40

Tweezers



Tweezer set ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit® 4301), Case made of plastic.

Contents:
1 tweezers with fine tip, curved, L 120 mm
1 tweezers straight, blunt, 130 mm
1 tweezers with guide pin, straight, 130 mm
1 double-glass tweezers, curved, 115 mm

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
150	90	**PX40.1**	1 unit(s)	41,25



A 121 °C

Forceps long

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

Blunt. Ribbed on the inside for a secure hold.

Not a medical device / Not an IVD product

Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	300	**0951.1**	1 unit(s)	19,15

Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	blunt	300	**HHA0.1**	1 unit(s)	18,55



Tweezers round

ROTH SELECTION. Material: Stainless steel.
With rounded tips, inside grooved for secure hold.

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	145	**HEC7.1**	1 unit(s)	9,50



A 121 °C

Tweezers self-tensioning

Usbeck. Material: Stainless steel. Autoclavable: Yes.

Not a medical device / Not an IVD product

Angled

Pic.	Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
(1)	angled	flat	105	**HL63.1**	1 unit(s)	6,95

Straight, pointed

Pic.	Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
(2)	straight	pointed	120	**HL64.1**	1 unit(s)	8,40



A 121 °C

Fixation forceps Graefe straight

Hammacher. Material: Stainless steel Wironit (1.4301). Autoclavable: Yes.

With ratchet for a secure hold.

Universal gripping tweezers for grasping tissues.

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	flat	110	**KAP3.1**	1 unit(s)	46,80



121 °C

Cover slip tweezers

ROTH SELECTION. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

According to Kühne.

Not a medical device / Not an IVD product

Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	flat	115	**K717.1**	1 unit(s)	8,00

Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	flat	115	**K718.1**	1 unit(s)	8,25
curved	flat	130	**K719.1**	1 unit(s)	9,45
curved	flat	145	**K720.1**	1 unit(s)	9,95



121 °C

Cover slip tweezers

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.

Not a medical device / Not an IVD product

(1) Straight

Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
straight	flat	5	145	**EXC6.1**	1 unit(s)	34,05

(2) Curved

Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
curved	flat	5	120	**EXC7.1**	1 unit(s)	34,95



121 °C

Special tweezers Wafer

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.

Not a medical device / Not an IVD product

PTFE-coated
Wafer tweezers with two stop angles and narrow upper part.

Pic.	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	straight	flat	7	120	**LX39.1**	1 unit(s)	79,45

3 teeth

Pic.	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(2)	straight	flat	9	125	**LX40.1**	1 unit(s)	43,65

4 teeth

Pic.	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(3)	straight	flat	12	125	**LX41.1**	1 unit(s)	43,65



Special tweezers for filter paper

Bochem. Material: Stainless steel 18/10.
For picking up filter papers, cover slips and other flat objects.

Not a medical device / Not an IVD product

Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
straight	flat	12	125	**C828.1**	1 unit(s)	12,00

Tweezers



121 °C

Special tweezers with ring-shaped pick-up

ROTH SELECTION. Material: Stainless steel 18/10. Autoclavable: Yes.
Tip dimensions: W 6.5 x Ø 3.5 mm.

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	ring-shaped	120	**LX48.1**	1 unit(s)	21,65



121 °C

Special tweezers ring-shaped

Hammacher. Material: Stainless steel 18/10 (Remanit 4301). Autoclavable: Yes.

For delicate tissue and specimens.

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Ø ext. (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
straight	ring-shaped	90	3	2.2	**LL00.1**	1 unit(s)	43,45
straight	ring-shaped	90	6	4.8	**LL01.1**	1 unit(s)	43,45



Spring steel tweezers

ROTH SELECTION. Material: Stainless steel 1.4301.

Lightweight, thin and flexible. Very gentle on delicate items, such as insects.

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	105	**AL99.1**	1 unit(s)	11,10
straight	blunt	115	**AN00.1**	1 unit(s)	11,10



Weighing tweezers ROTILABO®

Usbeck. Material: Stainless steel, PVC tips.

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	blunt	90	**YT63.1**	1 unit(s)	6,85



121 °C

Tweezers PTFE-coated

ROTH SELECTION. Material: Stainless steel 18/10 (1.4301), PTFE-coated. Autoclavable: Yes.

Suitable for liquids such as acids, bases, solvents, as long as coating is intact.

- Non-stick
- Temperature stability: -200 to +260 °C

Not a medical device / Not an IVD product

Straight pointed

Version	Tip shape	Colour	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	black	115	**C833.2**	1 unit(s)	29,05
straight	pointed	black	130	**C834.2**	1 unit(s)	29,05
straight	pointed	black	145	**C835.2**	1 unit(s)	29,05

Straight blunt

Version	Tip shape	Colour	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	black	115	**C830.1**	1 unit(s)	29,05
straight	blunt	black	130	**C831.1**	1 unit(s)	29,05
straight	blunt	black	145	**C832.1**	1 unit(s)	29,05

Curved pointed

Version	Tip shape	Colour	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	black	115	**C836.2**	1 unit(s)	29,05
curved	pointed	black	130	**C837.2**	1 unit(s)	29,05
curved	pointed	black	145	**C838.2**	1 unit(s)	29,00



Tweezer set ROTILABO® PTFE-coated

ROTH SELECTION. Material: Stainless steel 18/10 (material 1.4301) PTFE-coated, case made of plastic.

Red PTFE coating with good anti-adhesive properties forms a separating layer between the tweezers material and the sample. Dull colour of the coating enables glare-free working under the bright lighting in microscopy. The chemical-resistant coating also protects against contact with the nickel contained in the stainless steel.

Contents:
1 tweezers with fine tip, L 120 mm
1 pointed tweezers with guide pin, L 130 mm
1 pointed tweezers, curved, L 130 mm
1 blunt tweezers, L 145 mm

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
150	90	**ENX5.1**	1 unit(s)	62,15



Special tweezers aspirette®

Hirschmann.

With vacuum pump. Suitable for picking up and positioning small and micro parts weighing up to 70 g. Can be used to position membrane filters, cover slips, microscope slides, optical lenses, electronic chips and much more.

- With single-button operation
- Ergonomically designed
- Battery can be charged approx. 1000 times

Delivery incl. 230 V charging unit, three lifting needles and three suction cups, Ø 3.2/6 and 10 mm.

Version	Art. No.	Pack Qty.	€
Battery powered vacuum tweezer	**A247.1**	1 unit(s)	265,55



Tweezers long nylon

ROTH SELECTION. Material: Nylon, Handle made of stainless steel 18/10.

Temperature resistant from -20 to +150 °C.

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	300	**PT95.1**	1 unit(s)	13,05



Tweezers ceramic

ROTH SELECTION. Material: Ceramic.

- With non-stick surface
- Low abrasion
- Antimagnetic
- Low susceptibility to electrostatic charging
- Resists acids and bases (except for HF)
- Temperature stability: to +700 °C

Not a medical device / Not an IVD product

(1) Straight

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	pointed	120	**5327.1**	1 unit(s)	164,50

(2) Curved

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
curved	pointed	125	**5328.1**	1 unit(s)	198,90

Tweezers

Tweezers ceramic

ROTH SELECTION. Material: Ceramic, PAA handle.
Hardened. Metal-free and antimagnetic.



Not a medical device / Not an IVD product

Pic.	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	straight	pointed	0.5	125	**PE65.1**	1 unit(s)	22,55
(2)	straight	pointed	1	125	**PE66.1**	1 unit(s)	22,55
(3)	straight	blunt	2	125	**PE67.1**	1 unit(s)	22,55

Tweezers ROTILABO® disposable

ROTH SELECTION.
Anatomical form.



(1) ABS, sterile
Material: ABS. **Sterile**. Intended use: For handling clinical cotton wool, gauze, plasters and other items in contact with human skin. Suitable for human samples. For use by trained laboratory employees only.
NOT suitable for taking samples directly from the human body.

In vitro diagnostic medical device according to IVDD

Version	Tip shape	Colour	Tip width (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.	€
straight	blunt	white	4	120	100 x 1	**KL05.1**	100 unit(s)	110,70

Tweezers disposable

ROTH SELECTION. Material: ABS. Non-sterile.



NEW / +

Not a medical device / Not an IVD product

Version	Tip shape	Colour	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	blue	3.7	111	**1L90.1**	6 unit(s)	25,25

Tweezers

Tweezers disposable

Bürkle. Material: PS.

- Lightweight plastic tweezers for fatigue-free work
- Secure handling thanks to grooved grips
- Manufactured in a clean room (clean room class 7)
- Compliant with the EU food directives and FDA guidelines



Standard

Non-sterile.

Version	Tip shape	Colour	Length (mm)	Pack.	Art. No.	Pack Qty.	€
angled	pointed	white	130	1 x 100	**1A54.1**	100 unit(s)	37,20
straight	pointed	white	130	1 x 100	**1A53.1**	100 unit(s)	37,20
straight	flat	white	130	1 x 100	**1A55.1**	100 unit(s)	37,20

SteriPlast® sterile

Sterile.

Version	Tip shape	Colour	Length (mm)	Pack.	Art. No.	Pack Qty.	€
angled	pointed	white	130	100 x 1	**1A57.1**	100 unit(s)	61,90
straight	pointed	white	130	100 x 1	**1A56.1**	100 unit(s)	61,90
straight	flat	white	130	100 x 1	**1A58.1**	100 unit(s)	61,90

SteriPlast® can be detected, sterile

Sterile. Can be detected using a colour scanner, metal detector or X-rays.

Version	Tip shape	Colour	Length (mm)	Pack.	Art. No.	Pack Qty.	€
angled	pointed	blue	130	100 x 1	**1A5A.1**	100 unit(s)	92,00
straight	pointed	blue	130	100 x 1	**1A59.1**	100 unit(s)	92,00
straight	flat	blue	130	100 x 1	**1A5C.1**	100 unit(s)	92,00

Tweezers plastic

ROTH SELECTION. Material: POM (glass fibre reinforced), with carbon fibres.

- Good chemical resistance
- Anti-static
- High strength due to glass fibre reinforcement
- Temperature stability: to +90 °C



Not a medical device / Not an IVD product

Straight flat tip

Pic.	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	straight	flat	3.0	110	**C317.1**	3 unit(s)	42,65

Straight pointed

Pic.	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(2)	straight	pointed	0.3	110	**C318.1**	3 unit(s)	64,80
(3)	straight	pointed	1.0	110	**C319.1**	3 unit(s)	58,80

Curved flat tip

Pic.	Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
(4)	curved	flat	2.0	110	**C320.1**	3 unit(s)	58,80

Tweezers

Tweezers plastic

ROTH SELECTION. Material: CTFE.

High chemical resistance, acid-resistance. Suitable for use in chemical laboratories and in electronics. Temperature stability: to +200 °C.



Not a medical device / Not an IVD product

Ribbed tips

Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	3	112	**C322.1**	1 unit(s)	41,95

Tips smooth

Version	Tip shape	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	3	112	**C321.1**	1 unit(s)	40,85

Tweezers plastic

Vitlab. Material: POM.

Flexible, with rounded tips. Very good resilience. With stria on the outside for optimal handling and grip. Tweezer TT37.1 additionally with stria on the inside of the tip.



Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	118	**TT35.1**	5 unit(s)	16,40
straight	blunt	147	**TT36.1**	5 unit(s)	20,00
straight	blunt	253	**TT37.1**	5 unit(s)	51,60

Tweezers plastic PTFE

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

- Flexible, with smooth tips
- High chemical resistance
- Temperature stability: -200 to +250 °C



A 121 °C

Not a medical device / Not an IVD product

Fine tips

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	blunt	100	**1A0C.1**	1 unit(s)	25,55
straight	blunt	150	**0504.1**	1 unit(s)	30,00
straight	blunt	200	**1A0L.1**	1 unit(s)	37,25

Flat tips

Version	Tip shape	Length (mm)	Art. No.	Pack Qty.	€
straight	flat	100	**1A0E.1**	1 unit(s)	25,35
straight	flat	150	**1A0H.1**	1 unit(s)	25,20
straight	flat	200	**1A0K.1**	1 unit(s)	33,90



Tweezers long wood

ROTH SELECTION. Material: Wood (Beech, untreated).
Suitable for removing samples from liquid nitrogen.

Not a medical device / Not an IVD product

Version	Tip shape	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
straight	flat	300	20	**EET0.1**	1 unit(s)	3,15
straight	flat	400	20	**EET1.1**	1 unit(s)	3,80



Tweezers stands ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10 (1.4301), ESD-coated.

For safe storage of sensitive tweezers as well as for drying tweezers after cleaning. Tweezers holder can be screwed upside down under a shelf for space-saving storage.

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
185	60	135	**PX20.1**	1 unit(s)	72,75



A 121 °C

Tweezers stands

Hammacher. Material: Stainless steel, Wironit (1.4301).
Autoclavable: Yes.

For safe storage of sensitive tweezers as well as for drying tweezers after cleaning.

Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
140	120	140	**KAP8.1**	1 unit(s)	50,45



A 121 °C

Scalpel solid

ROTH SELECTION. Material: Stainless steel. Autoclavable: Yes.

Not a medical device / Not an IVD product

Chromium steel 1.4034
Material: 1.4034.

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(1)	anatomic	137	**PX21.1**	1 unit(s)	16,75

Chromium steel 1.4021
Material: 1.4021.

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(2)	pointed	125	**PX23.1**	1 unit(s)	8,95
(3)	spherical	130	**PX22.1**	1 unit(s)	8,95



A 121 °C

Scalpel handles (hinge insert)

Hammacher. Material: Stainless steel Remanit 4021. Autoclavable: Yes.

Handle for holding and guiding scalpel blades. Hinge mechanism for inserting and removing the blades reduces risk of injury. Suitable for scalpel blades types 10 to 16 (CE20.1ff and 3608.1ff).

Medical device class I MDD

Version	Art. No.	Pack Qty.	€
No. 3	**HCY7.1**	1 unit(s)	20,55

Scalpels/blades



Scalpel handles

ROTH SELECTION. Material: Steel chrome-plated.

Not a medical device / Not an IVD product

For blade types 10 to 16

Delivery incl. blade type 13.

Type	Art. No.	Pack Qty.	€
No. 3	**3607.1**	1 unit(s)	18,30



A 121 °C

Scalpel handles ROTILABO®

ROTH SELECTION. Material: Stainless steel 1.4021. Autoclavable: Yes.
Handle suitable for use with various blades.

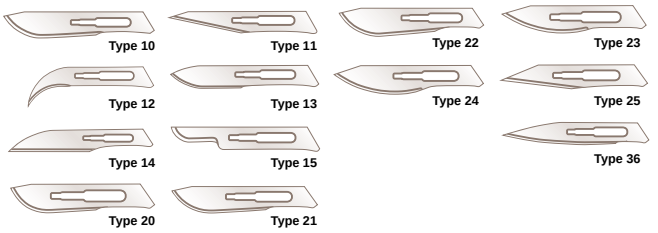
Medical device class I MDD

Small shape
Suitable for blade types 10-16.

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(1)	No. 3	125	**CE16.1**	1 unit(s)	12,95
(2)	No. 3 L	208	**CE17.1**	1 unit(s)	28,55

Large shape
Suitable for blade types 18-36.

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(3)	No. 4	135	**CE18.1**	1 unit(s)	12,95



Scalpel blades

ROTH SELECTION. Material: Carbon steel 1.2002.

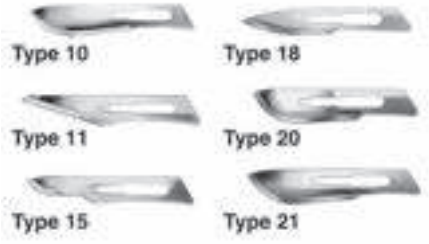
Not a medical device / Not an IVD product

For handle No. 3
Suitable for scalpels CE16.1/CE17.1, HCY7.1 and 3607.1.

Type	Art. No.	Pack Qty.	€
10	**3608.1**	10 unit(s)	9,70
11	**3621.1**	10 unit(s)	9,70
12	**3613.1**	10 unit(s)	9,70
13	**3609.1**	10 unit(s)	9,70
14	**H754.1**	10 unit(s)	9,70
15	**H755.1**	10 unit(s)	9,70

Fro handle No. 4
Suitable for scalpels CE18.1/CE19.1.

Type	Art. No.	Pack Qty.	€
20	**H760.1**	10 unit(s)	9,70
21	**H761.1**	10 unit(s)	9,70
22	**H762.1**	10 unit(s)	9,70
23	**H763.1**	10 unit(s)	9,70
24	**H764.1**	10 unit(s)	9,70
25	**H765.1**	10 unit(s)	9,70
36	**H767.1**	10 unit(s)	9,70



S

Scalpel blades

Braun. Material: Carbon steel. **Sterile**.

Medical device class IIa MDD

ID: 0123

For handle 3

Type	Art. No.	Pack Qty.	€
10	**1A3X.1**	100 unit(s)	15,00
11	**1A3Y.1**	100 unit(s)	15,00
15	**1A40.1**	100 unit(s)	15,00

For handle 4

Type	Art. No.	Pack Qty.	€
18	**1A3N.1**	100 unit(s)	15,00
20	**1A3P.1**	100 unit(s)	15,00
21	**1A3T.1**	100 unit(s)	15,00



A 121 °C

Scalpel blade remover

Hammacher. Material: Stainless steel Wironit (1.4310).
Autoclavable: Yes.

For easy and uncomplicated removal of all blade shapes from the scalpel handle.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Kling-Ex	**KAT7.1**	1 unit(s)	18,95

ACCESSORIES & SPARE PARTS in the ROTH webshop

carlroth.com

Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations



Scalpel handles BAYHA®

Bayha. Material: Stainless steel.

Suitable for scalpel blades from BAYHA® (Art. No. EX68.1ff).

- With locking mechanism
- Replaceable blades
- Risk-free insertion without the blade contact
- EX66.1 length ideal for sterile working
- XP08.1 with ergonomic handle made of PA (not sterilisable)

Intended use: Non-sterile scalpels are cutting instruments for non-invasive applications in the medical field. Sterile (treated) scalpels are intended for skin incisions (cuts to the skin surface) on the human body.

Medical device class I MDD

Pic.	Version	Length (mm)	Art. No.	Pack Qty.	€
(1)	solid, fluted handle	130	**EX64.1**	1 unit(s)	17,55
(2)	solid, smooth handle	130	**XP07.1**	1 unit(s)	17,55
(3)	solid, smooth handle	200	**EX66.1**	1 unit(s)	36,35
(4)	solid, fluted handle	160	**EX65.1**	1 unit(s)	19,20
(5)	Hollow haft	150	**EX67.1**	1 unit(s)	40,10

Not a medical device / Not an IVD product

Pic.	Version	Length (mm)	Art. No.	Pack Qty.	€
(6)	with plastic handle	160	**XP08.1**	1 unit(s)	34,30



Safety blades non-grinded

Bayha. Material: Carbon steel.

For scalpels from BAYHA® (Art. No. EX64.1ff). Non-ground scalpel blades for special applications, e.g. cutting DNA strands from agarose gels without scratching the transilluminator. Individually packed in paper film. No CE mark.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
26	**ATA9.1**	12 unit(s)	6,60

Scalpels/blades



NEW / +

Scalpel blades BAYHA®

Bayha. Material: Carbon steel.

For scalpels by BAYHA® (Art. No. EX64.1ff).

Non-sterile. Individually packed in paper film. Intended purpose: Non-sterile BAYHA® scalpel blades are designed to fit in BAYHA® scalpel holders. Non-sterile scalpels are cutting instruments for non-invasive applications in the medical field.

Medical device class I

ID: 0123

Type	Art. No.	Pack Qty.	€
11	**1L3C.1**	144 unit(s)	63,95
15	**1L3E.1**	144 unit(s)	63,95
16	**1L3H.1**	144 unit(s)	63,95
18	**1L3K.1**	144 unit(s)	63,95
19	**1L3L.1**	144 unit(s)	63,95
20	**1L3N.1**	144 unit(s)	63,95
21	**1L3P.1**	144 unit(s)	63,95
22	**1L3T.1**	144 unit(s)	63,95
23	**1L3X.1**	144 unit(s)	63,95
24	**1L3Y.1**	144 unit(s)	63,95
26	**1L40.1**	144 unit(s)	63,95
28	**1L41.1**	144 unit(s)	63,95

Sterile

Sterile. Individually packed in special film. Intended purpose: Sterile BAYHA® scalpel blades are designed to fit in treated BAYHA® scalpel holders. Sterile scalpels are intended for skin incisions (cuts to the skin surface) on the human body.

Medical device class IIa MDD

ID: 0123

Type	Art. No.	Pack Qty.	€
11	**1L42.1**	144 unit(s)	95,95
15	**1L43.1**	144 unit(s)	95,95
16	**1L44.1**	144 unit(s)	95,95
18	**1L45.1**	144 unit(s)	95,95
19	**1L46.1**	144 unit(s)	95,95
20	**1L47.1**	144 unit(s)	95,95
21	**1L48.1**	144 unit(s)	95,95
22	**1L49.1**	144 unit(s)	95,95
23	**1L4A.1**	144 unit(s)	95,95
24	**1L4C.1**	144 unit(s)	95,95
26	**1L4E.1**	144 unit(s)	95,95
28	**1L4H.1**	144 unit(s)	95,95



Scalpel protective cap BAYHA®

Bayha. Material: PP.

Suitable for scalpels from BAYHA® (Art. No. EX64.1ff).

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
80	20	11	**XP09.1**	1 unit(s)	4,60



Scalpel blade TRIMMEX CUTTOGRAF

ROTH SELECTION. Material: Plastic (handle).

The comfortable blade clamp holds the blade at the desired cutting depth. On completion of work, the blade retracts safely into the handle. Easy blade replacement.

Delivery incl. blade No. 11 (mounted).

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
11	**XK01.1**	1 unit(s)	12,85



Scalpel blade with finger guide set

ROTH SELECTION.

Ergonomic shape with rubber coated grip on handle for comfortable handling, can be guided precisely with the forefinger. Ideal for delicate dissection work and preparation. With protective cap for safe storage. Length without protective cap 98 mm.

- Set with three colours (blue, pink, green)

Delivery incl. blade (pointed).

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
104	35	20	**ANY6.1**	1 set	25,40

Scalpels/blades



S

Scalpel Cutfix® sterile

B. Braun. Material: Carbon steel, Plastic handle. **Sterile**.

- Clean, smooth cut through double precision grinding of the blades
- Firm blade fit for precise cuts
- Protective cap is easy to remove
- γ-sterilised, individually packed

Indications: For all incisions in skin, tissue, organs, muscles and ligaments.

Medical device class IIa MDD

ID: 0123

Type	Art. No.	Pack Qty.	€
10	**T997.1**	10 unit(s)	6,90
11	**T998.1**	10 unit(s)	6,90
12	**T999.1**	10 unit(s)	6,90
15	**X001.1**	10 unit(s)	6,90
20	**X002.1**	10 unit(s)	6,40
21	**X003.1**	10 unit(s)	6,90
22	**X004.1**	10 unit(s)	6,90
23	**X005.1**	10 unit(s)	6,90
24	**X006.1**	10 unit(s)	6,90



S

Scalpel Aesculap® sterile

B. Braun. **Sterile**.

Locks securely in the disposal position to prevent cutting and piercing injuries. The mechanism is activated automatically by pushing back the blade with one hand. Individually packed.

Medical device class IIa MDD

ID: 0123

Type	Art. No.	Pack Qty.	€
10	**XC14.1**	10 unit(s)	23,90
11	**XC15.1**	10 unit(s)	23,90
21	**XC16.1**	10 unit(s)	24,20
22	**XC17.1**	10 unit(s)	24,20
24	**XC18.1**	10 unit(s)	24,20
36	**XC19.1**	10 unit(s)	24,20



Scalpel blade

ROTH SELECTION. Material: Aluminium (handle).

For fine cutting work in paper, cardboard and film.

Delivery incl. 3 replacement blades, pointed.

Not a medical device / Not an IVD product

Length (mm)	Art. No.	Pack Qty.	€
148	**AH88.1**	1 unit(s)	6,40



Accessories replacement blades for scalpel knives

ROTH SELECTION.

Not a medical device / Not an IVD product

Version	Art. No.	Pack Qty.	€
machete	**AH90.1**	10 unit(s)	5,45
pointed	**AH89.1**	10 unit(s)	4,65



Special blade

ROTH SELECTION. Material: Ceramic (Diamond-coated).

For cutting and scratching glass. Suitable for opening closed pipettes and separating the base from the mark tubes.

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
30	6	**1C99.1**	1 unit(s)	119,20

Scalpels/blades



Accessories blade holder for ceramic blades

ROTH SELECTION. Material: Aluminium, plastic blade holder.
With twist fastener. Corrugated handle for secure grip.

Delivery without ceramic blades.

Not a medical device / Not an IVD product

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
109	8	**1C9A.1**	1 unit(s)	23,90



Safety blades

ROTH SELECTION. Material: PET.

Thickness 0.22 mm. For cutting bands made of agarose gels without scratching the transilluminator. Also suitable for cutting soft animal and plant tissue and for other applications where blunt blades reduce the risk of cutting injury. Blade length can be shortened by trimming.

Not a medical device / Not an IVD product

Length (mm)	Height (mm)	Art. No.	Pack Qty.	€
38	19	**AXH6.1**	100 unit(s)	34,95
50	38	**AXH7.1**	100 unit(s)	42,20



Stirrup-shaped blades

Apollo. Material: Carbon steel (chrome alloy, painted), steel handle strip.
Suitable for cutting and scraping. With handle strip for more safety.

Not a medical device / Not an IVD product

(1) Type 102

Length (mm)	Height (mm)	Art. No.	Pack Qty.	€
57	24.8	**CK08.1**	5 unit(s)	8,35

(2) Type 210

Length (mm)	Height (mm)	Pack.	Art. No.	Pack Qty.	€
39	19.0	individual	**CK07.1**	5 unit(s)	4,80
39	19.0	20 x 5, indiv.	**CK07.2**	100 unit(s)	57,20



Microtome blades Surgipath® DB80

Leica.

Disposable Microtome blades with chrome coating and honed edge along the entire blade length allows particularity thin and high-quality cuts. Extra-sharp, durable blades ensure consistently precise sectioning from the 1st to the 25th time. Cutting angle 35°

In vitro diagnostic medical device according to IVDD

LS
With narrow blade profile for routine cuts on all types of tissue. Extra-thin sections for diagnostic analysis.

Type	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
DB80 LS	80	8	**PX78.1**	50 unit(s)	192,45

LX
With narrow blade profile for particularly hard and dense tissue, as well as for routine cuts. Extremely durable.

Type	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
DB80 LX	80	8	**PX79.1**	50 unit(s)	192,45

HS
With wide blade profile for all tissue samples immersed in paraffin. Suitable for in situ specimen preparation.

Type	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
DB80 HS	80	14	**PX80.1**	50 unit(s)	188,15



Razor

ROTH SELECTION.
Blade length 64 mm.

Delivery incl. 10 replacement blades (ground on both sides, 64 x 22 mm).

Version	Art. No.	Pack Qty.	€
Metal handle	**KX91.1**	1 unit(s)	69,55
Plastic handle	**KX90.1**	1 unit(s)	62,85



A 121 °C

Nail forceps

Hammacher. Material: Stainless steel. Autoclavable: Yes.

Not a medical device / Not an IVD product

Length (mm)	Art. No.	Pack Qty.	€
120	**TC38.1**	1 unit(s)	60,55
130	**TC39.1**	1 unit(s)	63,90



Nail forceps fine

Hammacher.

Not a medical device / Not an IVD product

Stainless steel

Material: Stainless steel. Autoclavable: Yes.

Length (mm)	Art. No.	Pack Qty.	€
105	**TC42.1**	1 unit(s)	74,15
115	**TC43.1**	1 unit(s)	74,15

Steel

Material: Steel nickel plated and chrome plated. Autoclavable: No.

Length (mm)	Art. No.	Pack Qty.	€
105	**TC40.1**	1 unit(s)	42,25



A 121 °C

Scissors Universal

ROTH SELECTION. Material: Stainless steel 18/0, lacquered handle. Autoclavable: Yes.

Serrated counter blade ensures good cutting quality. Hygienic cleaning due to easy disassembly of the scissors.

Not a medical device / Not an IVD product

Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
220	100	**YE80.1**	1 unit(s)	24,85



Utility shears

ROTH SELECTION. Material: Stainless steel 18/0 (nickel-free).

Not a medical device / Not an IVD product

Curved shape with buffer spring

Autoclavable: Yes. Weight: 295 g.

Pic.	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(1)	250	80	**LT13.1**	1 unit(s)	39,10

With inner spring

Material: Grip plates made of POM, with stainless steel rivets. Weight: 233 g.

Pic.	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(2)	250	80	**LT14.1**	1 unit(s)	16,25

Scissors, pliers



Scissors Universal

Hammacher. Material: Stainless steel, handles made of plastic with insert made of soft rubber.

- Sturdy blade, serrated
- Large handles for comfortable handling
- Hygienic cleaning thanks to easy disassembly of the scissors
- Dishwasher-safe

Not a medical device / Not an IVD product

Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
215	55	**EXA9.1**	1 unit(s)	37,40



Safety scissors

Martor. Material: Stainless steel rustproof.

With special ground blades and rounded tips.
For safe cutting of cardboard, paper, foil, strappings, material, PVC, leather and much more without the risk of injury.

Not a medical device / Not an IVD product

Pic.	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(1)	135	56	**HTE9.1**	1 unit(s)	23,15
(2)	215	70	**HTH0.1**	1 unit(s)	47,85



A 121 °C

Scissors deep-drawing/foil

Hammacher. Material: Stainless steel Remanit. Autoclavable: Yes.
Curved with fine serration.

Not a medical device / Not an IVD product

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/pointed	105	**EXA8.1**	1 unit(s)	63,70



A 121 °C

Scissors for plant care

ROTH SELECTION. Material: Stainless steel 18/0. Autoclavable: Yes.
Suitable for cutting strong materials, such as plant stems.

Not a medical device / Not an IVD product

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	160	45	**YE81.1**	1 unit(s)	18,95

Microscopy, dissecting scissors



A 121 °C

Scissors

ROTH SELECTION. Material: Stainless steel (1.4021).
Autoclavable: Yes.

Not a medical device / Not an IVD product

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(1)	pointed/blunt	130	37	**3543.1**	1 unit(s)	13,50
(1)	pointed/blunt	145	38	**3545.1**	1 unit(s)	13,50
(1)	pointed/blunt	160	48	**3551.1**	1 unit(s)	13,50
(2)	pointed/ pointed	130	37	**3569.1**	1 unit(s)	13,50
(2)	pointed/ pointed	145	38	**3576.1**	1 unit(s)	13,50
(2)	pointed/ pointed	160	48	**3577.1**	1 unit(s)	13,50
(3)	blunt/blunt	130	37	**3581.1**	1 unit(s)	13,50
(3)	blunt/blunt	145	38	**3582.1**	1 unit(s)	13,50
(3)	blunt/blunt	160	48	**3592.1**	1 unit(s)	13,50



A 121 °C

Scissors Physiology

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.

Straight MDD
Intended use: Scissors for cutting tissue and vessels.

Medical device class I MDD

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(1)	pointed/blunt	130	**HCT7.1**	1 unit(s)	49,75
(1)	pointed/blunt	145	**HCT8.1**	1 unit(s)	52,80
(1)	pointed/blunt	160	**HCT9.1**	1 unit(s)	54,00
(2)	pointed/pointed	130	**HCX2.1**	1 unit(s)	65,75
(2)	pointed/pointed	145	**HCX3.1**	1 unit(s)	69,05
(2)	pointed/pointed	160	**HCX4.1**	1 unit(s)	69,90

Curved MDD
Intended use: Scissors for cutting tissue and vessels.

Medical device class I MDD

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(1)	pointed/blunt	130	**HCX0.1**	1 unit(s)	55,15
(1)	pointed/blunt	160	**HCX1.1**	1 unit(s)	58,05

Curved

Not a medical device / Not an IVD product

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(2)	pointed/pointed	130	**HCX5.1**	1 unit(s)	51,00
(2)	pointed/pointed	160	**HCX7.1**	1 unit(s)	54,75



Microscopy scissors

ROTH SELECTION. Material: Carbon steel nickel-plated.
Autoclavable: No.

Not a medical device / Not an IVD product

Straight

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	100	30	**3534.1**	1 unit(s)	16,70

Curved

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	100	28	**3539.1**	1 unit(s)	18,35

Microscopy scissors heavy duty

ROTH SELECTION. Material: Carbon steel, nickel-plated.

Straight

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
blunt/blunt	125	35	**HEY8.1**	1 unit(s)	17,20
pointed/pointed	130	45	**HEY6.1**	1 unit(s)	14,75

Curved

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
blunt/blunt	125	35	**HEY9.1**	1 unit(s)	19,15
pointed/pointed	130	45	**HEY7.1**	1 unit(s)	15,65

Microscopy, dissecting scissors



A 121 °C

Microscopy scissors

Hammacher. Material: Stainless steel. Autoclavable: Yes.

Intended use: Scissors for removing irritated gum tissue, mucous membrane or sutures.

Medical device class I MDD

Scissor stem, square

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	90	18	**TE25.1**	1 unit(s)	42,85
pointed/pointed	105	23	**TE26.1**	1 unit(s)	39,30

Scissor stem, round

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	115	26	**TE27.1**	1 unit(s)	49,05

A 121 °C

Microscopy scissors with serrated blade

Hammacher. Material: Stainless steel. Autoclavable: Yes.

For easier cutting without slipping.

Scissors blade angular

Intended use: Scissors for removing irritated gum tissue, mucous membrane or sutures.

Medical device class I MDD

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	90	18	**TE28.1**	1 unit(s)	40,15
pointed/pointed	105	23	**TE29.1**	1 unit(s)	36,55

Scissors blade round

Not a medical device / Not an IVD product

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	115	26	**TE30.1**	1 unit(s)	50,20



A 121 °C

Microscopy scissors left-handed

Hammacher. Material: Stainless steel (1.4117). Autoclavable: Yes.

Not a medical device / Not an IVD product

Straight

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/pointed	115	**KAT3.1**	1 unit(s)	53,40

Curved

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/pointed	115	**KAT4.1**	1 unit(s)	55,85



A 121 °C

Microscopy scissors angled

Hammacher. Material: Stainless steel (1.4006). Autoclavable: Yes.

Not a medical device / Not an IVD product

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	115	27	**LT18.1**	1 unit(s)	13,05

Microscopy, dissecting scissors



A 121 °C

Microscopy scissors curved

Hammacher. Material: Stainless steel Remanit 4021. Autoclavable: Yes.

Medical device class I MDD

Scissor stem, round
Fine type.

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/pointed	90	**HCP5.1**	1 unit(s)	39,95

Scissor stem, square
Pointed type.

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/pointed	105	**HCP6.1**	1 unit(s)	35,35
pointed/pointed	115	**HCP7.1**	1 unit(s)	42,20



Micro scissors with spire tip

Hammacher.
Intended use: Scissors for cutting tissue and vessels.

Medical device class I MDD

Straight
Material: Stainless steel 18/8. Autoclavable: Yes.

Length (mm)	Art. No.	Pack Qty.	€
115	**LT28.1**	1 unit(s)	60,75

Curved
Material: Stainless steel 18/8. Autoclavable: Yes.

Length (mm)	Art. No.	Pack Qty.	€
115	**HCP9.1**	1 unit(s)	64,90



A 121 °C

Dissecting scissors Stevens

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.
Intended use: Scissors for cutting tissue and vessels.

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/pointed	110	**HCT0.1**	1 unit(s)	65,35



A 121 °C

Micro scissors STEVENS

ROTH SELECTION. Material: Steel (1.4117). Autoclavable: Yes.
Intended use: Scissors for cutting tissue and vessels.

Medical device class I MDD

Length (mm)	Art. No.	Pack Qty.	€
105	**LX77.1**	1 unit(s)	121,05



A 121 °C

Dissecting scissors Stevens blunt

Hammacher. Material: Stainless steel (1.4117). Autoclavable: Yes.

Not a medical device / Not an IVD product

Straight

Length (mm)	Art. No.	Pack Qty.	€
115	**KAT5.1**	1 unit(s)	41,25

Microscopy, dissecting scissors

Curved

Length (mm)	Art. No.	Pack Qty.	€
155	**KAT6.1**	1 unit(s)	43,85



A 121 °C

Dissecting scissors with microsection

Hammacher. Material: Stainless steel. Autoclavable: Yes.
For extra sharp cutting.
Intended use: Scissors for cutting tissue and vessels.

Medical device class I MDD

Straight

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(1)	pointed/ pointed	105	24	**TE35.1**	1 unit(s)	64,25

Curved

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	105	23	**TE36.1**	1 unit(s)	69,30

Angled

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	105	28	**TE37.1**	1 unit(s)	76,45

Straight, Joseph type

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(2)	pointed/ pointed	140	31	**TE38.1**	1 unit(s)	75,60

Straight, Kelly type

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(3)	pointed/ pointed	160	29	**TE39.1**	1 unit(s)	79,15



A 121 °C

Dissecting scissors

Hammacher. Material: Stainless steel. Autoclavable: Yes.
Intended use: Scissors for cutting tissue and vessels.

Baby Metzenbaum

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(1)	blunt/blunt	145	32	**TE31.1**	1 unit(s)	62,85

Metzenbaum – fine

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(2)	pointed/ pointed	145	34	**TE33.1**	1 unit(s)	93,40
(2)	pointed/ pointed	180	33	**TE34.1**	1 unit(s)	107,00



A 121 °C

Dissecting scissors

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.

Not a medical device / Not an IVD product

Straight

Length (mm)	Art. No.	Pack Qty.	€
145	**HCT5.1**	1 unit(s)	72,85

Curved

Length (mm)	Art. No.	Pack Qty.	€
145	**HCT6.1**	1 unit(s)	71,45

Microscopy, dissecting scissors



A 121 °C

Dissecting scissors with carbide inserts

Hammacher. Material: Stainless steel. Autoclavable: Yes.

For even cutting edge retention.

Mini

Purpose: Scissors for removing painful disruptive margins, mucous membranes or stitches.

Medical device class I MDD

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(1)	pointed/ pointed	115	26	**TE40.1**	1 unit(s)	167,70

Standard

Purpose: Scissors for cutting tissue and vessels.

Medical device class I MDD

Pic.	Type	Length (m)	Length of cut (mm)	Art. No.	Pack Qty.	€
(2)	pointed/ pointed	145	47	**TE41.1**	1 unit(s)	160,90

Metzenbaum fino

Not a medical device / Not an IVD product

Pic.	Type	Length (cm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(3)	pointed/ pointed	145	38	**TE42.1**	1 unit(s)	188,15



A 121 °C

Dissecting scissors Mikro

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.

Purpose: Scissors for cutting tissue and vessels.

Medical device class I MDD

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/pointed	110	**HCP8.1**	1 unit(s)	54,80



A 121 °C

Micro scissors Micro Iris type

Hammacher. Material: Stainless steel. Autoclavable: Yes.

Not a medical device / Not an IVD product

Straight

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	90	19	**TE45.1**	1 unit(s)	42,25

Bent

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	90	19	**TE46.1**	1 unit(s)	44,15



Micro scissors

ROTH SELECTION. Material: Stainless steel (material 1.4021).

Not a medical device / Not an IVD product

Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
pointed/pointed	120	15	**EPA0.1**	1 unit(s)	31,10



A 121 °C

Micro scissors IRIS

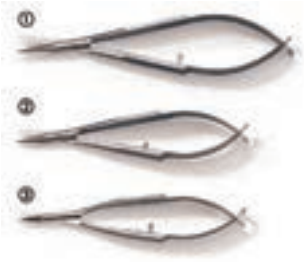
ROTH SELECTION. Material: Steel. Autoclavable: Yes.

Purpose: Scissors for cutting tissue and vessels.

Medical device class I MDD

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/pointed	110	**LX76.1**	1 unit(s)	232,20

Microscopy, dissecting scissors



121 °C

Micro scissors high precision

Hammacher. Material: Stainless steel. Autoclavable: Yes.
Very delicate for precise, clean cuts.

Purpose: Scissors for cutting tissue and vessels.

Medical device class I MDD

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(1)	pointed/ pointed	105	15	**TE44.1**	1 unit(s)	229,00
(2)	pointed/ pointed	90	10	**TE43.1**	1 unit(s)	219,30

Vannas

Not a medical device / Not an IVD product

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(3)	pointed/ pointed	80	8.5	**TE48.1**	1 unit(s)	259,10



121 °C

Micro scissors Tübingen model

Hammacher. Material: Stainless steel. Autoclavable: Yes.
Very delicate for precise, clean cuts.

Not a medical device / Not an IVD product

Straight

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(1)	pointed/ pointed	85	7	**TE47.1**	1 unit(s)	259,10

Curved

Pic.	Type	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(2)	pointed/ pointed	85	7	**HCY0.1**	1 unit(s)	244,05



121 °C

Special scissors

ROTH SELECTION. Material: Stainless steel. Autoclavable: Yes.

Medical device class I MDD

BEE-BEE

Purpose: Scissors for cutting wire.

Pic.	Length (mm)	Art. No.	Pack Qty.	€
(1)	110	**LX66.1**	1 unit(s)	42,60

SPENCER

Purpose: Scissors for cutting tissue and vessels.

Pic.	Length (mm)	Art. No.	Pack Qty.	€
(2)	120	**LX67.1**	1 unit(s)	53,25

KNOWLES bandage scissors

Purpose: Instrument for cutting dressings open.

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(3)	pointed/buttoned	140	**LX68.1**	1 unit(s)	23,90

LISTER angled dressing scissors

Purpose: Instrument for cutting dressings open.

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(4)	pointed/buttoned	110	**LX69.1**	1 unit(s)	25,10



121 °C

Special scissors Spencer angled

Hammacher. Material: Stainless steel (1.4117). Autoclavable: Yes.
Purpose: Scissors for cutting tissue and vessels.

Medical device class I MDD

Length (mm)	Art. No.	Pack Qty.	€
115	**KAP7.1**	1 unit(s)	56,40

Microscopy, dissecting scissors



A 121 °C

Ligature and vascular scissors

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.

Straight
Purpose: Scissors for cutting tissue and vessels.

Medical device class I MDD

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/blunt	110	**HCP0.1**	1 unit(s)	50,10

Bent

Not a medical device / Not an IVD product

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/blunt	110	**HCP1.1**	1 unit(s)	49,20

Strongly curved

Not a medical device / Not an IVD product

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/blunt	110	**HCP2.1**	1 unit(s)	49,20



A 121 °C

Microscopy scissors buttoned

ROTH SELECTION. Material: Steel (1.4117). Autoclavable: Yes.
Probe-pointed on one side.
Purpose: Scissors for cutting tissue and vessels.

Medical device class I MDD

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/buttoned	115	**LX78.1**	1 unit(s)	90,15



A 121 °C

Dissecting scissors probe-pointed

Hammacher. Material: Stainless steel (1.4006). Autoclavable: Yes.

Not a medical device / Not an IVD product

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed/probe-pointed	145	**LT19.1**	1 unit(s)	12,45



A 121 °C

Dissecting scissors Kilner/Ragnell

Hammacher. Material: Stainless steel Remanit 4021. Autoclavable: Yes.
Fine type.

Not a medical device / Not an IVD product

Type	Length (mm)	Art. No.	Pack Qty.	€
blunt/blunt	120	**HCT2.1**	1 unit(s)	67,95

Microscopy, dissecting scissors



A 121 °C

Special scissors Lister angled

Hammacher. Material: Stainless steel Wironit. Autoclavable: Yes.
Purpose: Scissors for cutting and removing dressing material.

Medical device class I MDD

Type	Length (mm)	Art. No.	Pack Qty.	€
blunt/pointed	145	**HCP3.1**	1 unit(s)	45,10
blunt/pointed	180	**HCP4.1**	1 unit(s)	48,30



Clamping tongs curved

Hammacher. Material: Stainless steel (1.4021).
With rubber cushions for soft grasping. Curved design.

Not a medical device / Not an IVD product

Length (mm)	Art. No.	Pack Qty.	€
170	**KAX5.1**	1 unit(s)	50,30



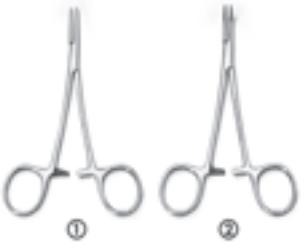
A 121 °C

Clamp smooth gripping surface

Hammacher. Material: Stainless steel Remanit 4021. Autoclavable: Yes.

Not a medical device / Not an IVD product

Jaw width (mm)	Length (mm)	Art. No.	Pack Qty.	€
8.4	160	**HCN4.1**	1 unit(s)	80,80
6.0	180	**HCN5.1**	1 unit(s)	86,60
7.7	200	**HCN6.1**	1 unit(s)	89,30



A 121 °C

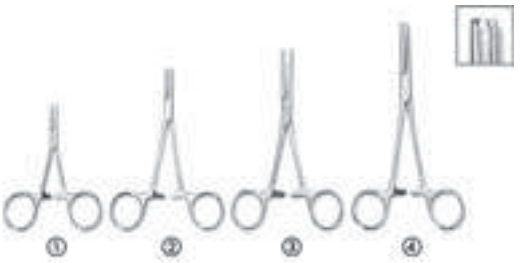
Clamp Micro-Halsted

Hammacher. Material: Stainless steel. Autoclavable: Yes.
Extra fine.
Purpose: Instrument for temporarily gripping and holding severed blood vessels, for primary haemostasis or before a planned ligature.

Medical device class I MDD

Pic.	Version	Length (mm)	Art. No.	Pack Qty.	€
(1)	Straight	125	**TC91.1**	1 unit(s)	51,75
(2)	Curved	125	**TC92.1**	1 unit(s)	53,50

Needles, clamps



A 121 °C

Clamp

Hammacher. Material: Stainless steel. Autoclavable: Yes.

(1) Baby-Mosquito

Not a medical device / Not an IVD product

Version	Length (mm)	Art. No.	Pack Qty.	€
curved	90	**TC90.1**	1 unit(s)	55,75
straight	90	**TC89.1**	1 unit(s)	52,75

(2) Halsted-Mosquito
Purpose: Instrument for temporarily gripping and holding severed blood vessels, for primary haemostasis or before a planned ligature.

Medical device class I MDD

Version	Length (mm)	Art. No.	Pack Qty.	€
curved	120	**TC96.1**	1 unit(s)	53,80
straight	120	**TC94.1**	1 unit(s)	52,75

(3) Pean
Purpose: Instrument for temporarily gripping and holding severed blood vessels, for primary haemostasis or before a planned ligature.

Medical device class I MDD

Version	Length (mm)	Art. No.	Pack Qty.	€
curved	130	**TC99.1**	1 unit(s)	55,75
curved	140	**TE00.1**	1 unit(s)	56,85
straight	130	**TC97.1**	1 unit(s)	51,75
straight	140	**TC98.1**	1 unit(s)	55,15

(4) Kocher (Ochsner)
With teeth 1:2 for a secure hold on tissue.

Not a medical device / Not an IVD product

Version	Length (mm)	Art. No.	Pack Qty.	€
curved	140	**TE03.1**	1 unit(s)	64,90
curved	160	**TE04.1**	1 unit(s)	71,60
straight	140	**TE01.1**	1 unit(s)	59,75
straight	160	**TE02.1**	1 unit(s)	67,35



A 121 °C

Clamp

Hammacher. Material: Stainless steel. Autoclavable: Yes.

Not a medical device / Not an IVD product

Pic.	Version	Length (mm)	Art. No.	Pack Qty.	€
	curved	28	**TC86.1**	1 unit(s)	55,75
	straight	50	**TC85.1**	1 unit(s)	54,50
(1)	straight	28	**TC83.1**	1 unit(s)	53,50
(2)	straight	35	**TC84.1**	1 unit(s)	56,35
(3)	curved	50	**TC88.1**	1 unit(s)	59,65



A 121 °C

Needle holder

ROTH SELECTION. Material: Steel. Autoclavable: Yes.
Purpose: Needle holder for holding needles during wound suturing.

Medical device class I MDD

Pic.	Type	Length (mm)	Art. No.	Pack Qty.	€
(1)	MAYO-HEGAR	160	**LX64.1**	1 unit(s)	48,55
(2)	MATHIEU	140	**LX65.1**	1 unit(s)	80,70

Suture material





A 121 °C

S

Surgical needles

Hammacher. Material: Stainless steel 18/8. Autoclavable: Yes.

Purpose: Needles for closing wounds.

Medical device class I MDD

Pic.	Version	Needle form	Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
(1)	fig. 11	1/2 circular, rectangular	34	0.8	**LX55.1**	12 unit(s)	26,85
(2)	fig. 14	1/2 circular, rectangular	23	0.7	**LX56.1**	12 unit(s)	26,85
(3)	fig. 16	1/2 circular, rectangular	18	0.6	**LX57.1**	12 unit(s)	26,85
(4)	fig. 11	3/8 circular, rectangular	34	0.8	**LX58.1**	12 unit(s)	26,85
(5)	fig. 14	3/8 circular, rectangular	23	0.7	**LX59.1**	12 unit(s)	26,85
(6)	fig. 14	1/2 circular, round	23	0.7	**LX60.1**	12 unit(s)	26,85
(7)	fig. 16	1/2 circular, round	18	0.6	**LX61.1**	12 unit(s)	26,85
(8)	fig. 11	3/8 circular, round	34	0.8	**LX62.1**	12 unit(s)	26,85
(9)	fig. 14	3/8 circular, round	23	0.7	**LX63.1**	12 unit(s)	26,85

Suture material

B. Braun. Material: Stainless steel (needles made of 300 stainless steel quality). **Sterile**.

Individually packed.

Atraumatic needle-suture combination: Stepless transition between needle and suture, thereby minimum wound trauma.

Needle type:

- 3/8 circle, cutting
- DS16: arc length 16 mm
- DS19: arch length 19 mm

Arc length: Distance between needle tip and end of needle, measured along the outer curve of the needle.

Dafilon® needle-suture combination

Material: Polyamide. Soft and smooth, excellent knot security. Minimum fabric trauma, low memory effect.

- Suture structure: monofilament
- non-absorbable

Medical device class IIa MDD

ID: 0123

Version	Colour	USP	Metric	Length (cm)	Art. No.	Pack Qty.	€
DS16	blue	4/0	1,5	45	**XC26.1**	36 unit(s)	204,25
DS16	blue	5/0	1	45	**XC27.1**	12 unit(s)	74,75

Silkam® needle-suture combination

Material: Silk coating: Wax and silckone. Excellent handling properties, good knot security.

- Suture structure: braided
- non-absorbable

Medical device class IIb MDD

ID: 0123

Version	Colour	USP	Metric	Length (cm)	Art. No.	Pack Qty.	€
DS16	black	4/0	1,5	45	**XC29.1**	36 unit(s)	279,50
DS19	black	3/0	2	75	**XC31.1**	36 unit(s)	260,15

Silkam® short sutures (PreCuts)

Material: Silk coating: Wax and silckone. Excellent handling properties, good knot security. Can be removed individually.

- Suture structure: braided
- non-absorbable

Delivery without needle.

Medical device class IIb MDD

ID: 0123

Colour	USP	Metric	Length (cm)	Pack.	Art. No.	Pack Qty.	€
black	4/0	1,5	45	36 x 3	**XC35.1**	108 unit(s)	254,80

Dissecting needles and probes



S

Blood lancets Solofix®

B. Braun. Material: Stainless steel. **Sterile**.

For capillary blood collection, optimum lancing depth.

Medical device class IIa MDD

ID: 0123

Version	Art. No.	Pack Qty.	€
Puncture lancets	**ATK9.1**	500 unit(s)	15,30



A 121 °C

Dissecting probe

ROTH SELECTION. Material: Steel. Autoclavable: Yes.

Not a medical device / Not an IVD product

Pic.	Version	Ø (mm)	Art. No.	Pack Qty.	€
(1)	rectangular	5	**LX45.1**	1 unit(s)	19,10
(3)	curved	5	**LX43.1**	1 unit(s)	19,10
(4)	straight	5	**LX42.1**	1 unit(s)	19,10



A 121 °C

Dissecting probe

Hammacher. Material: Stainless steel 1.4310 (tip), 1.4571 (handle). Autoclavable: Yes.

Purpose: Instrument for probing dental hard tissue.

Pic.	Version	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
(1)	punt	9	135	**LX53.1**	1 unit(s)	45,70



A 121 °C

Micro dissecting probe

Hammacher. Material: Stainless steel. Autoclavable: Yes.

Angled

Purpose: Instrument for probing dental hard tissue.

Medical device class I MDD

Pic.	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
(2)	5.5	155	**LX52.1**	1 unit(s)	14,05

Straight

Not a medical device / Not an IVD product

Pic.	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
(3)	4.5	160	**PT69.1**	1 unit(s)	16,30



Dissecting needles

ROTH SELECTION. Material: Stainless steel Remanit 4301.

Not a medical device / Not an IVD product

Stainless steel handle

Pic.	Version	Needle length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(1)	curved	70	155	**KX99.1**	10 unit(s)	57,60
(1)	Lancet	70	155	**KY00.1**	10 unit(s)	73,45
(1)	straight	45	130	**KX98.1**	10 unit(s)	54,15

Plastic handle

Pic.	Version	Needle length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(2)	curved	40	140	**KX94.1**	10 unit(s)	31,40
(2)	Lancet	40	140	**KX95.1**	10 unit(s)	44,10
(2)	straight	40	140	**KX93.1**	10 unit(s)	28,30

Wooden handle

Version	Needle length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
curved	40	140	**KX97.1**	10 unit(s)	26,90
straight	40	140	**KX96.1**	10 unit(s)	24,00

Dissecting needles and probes



A 121 °C

Probe blunt

ROTH SELECTION. Material: Stainless steel (1.4301).
Autoclavable: Yes.

Purpose: Probes are rod-shaped or tubular instruments that are inserted into body cavities or tissue for examination or treatment.

Medical device class I MDD

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
1.0	130	**LX79.1**	1 unit(s)	10,90
1.5	160	**LX80.1**	1 unit(s)	15,90



A 121 °C

Micro dissecting chisel

Hammacher. Material: Stainless steel. Autoclavable: Yes.

Not a medical device / Not an IVD product

Length (mm)	Art. No.	Pack Qty.	€
125	**TC35.1**	1 unit(s)	46,45



A 121 °C

Micro spoon pointed

Hammacher. Material: Stainless steel Wironit (1.4310).
Autoclavable: Yes.

Not a medical device / Not an IVD product

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
130	1.8	**KAP4.1**	1 unit(s)	32,40
130	2.0	**KAP5.1**	1 unit(s)	32,40
130	2.5	**KAP6.1**	1 unit(s)	32,40



A 121 °C

Spatula pointed form

Hammacher. Material: Stainless steel 18/10 (Wironit 4301).
Autoclavable: Yes.

Purpose: Instrument for mixing filler material and inserting it into tooth cavities in the event of tooth decay.

Pic.	Version	Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
(3)	Single	155	5	30	**YL49.1**	1 unit(s)	32,25

With spoon

Not a medical device / Not an IVD product

Pic.	Total length (mm)	Sheet width (mm)	Sheet length (mm)	Art. No.	Pack Qty.	€
(2)	190	10	20	**YL48.1**	1 unit(s)	40,10



A 121 °C

Double spoon Martini pointed

Hammacher. Material: Stainless steel. Autoclavable: Yes.

Spoon, round.

Purpose: Instrument for cleaning tooth alveoli after tooth extractions or osteotomies.

Medical device class I MDD

Version	Length (mm)	Art. No.	Pack Qty.	€
Spoon Ø 3.5/4 mm	135	**TC29.1**	1 unit(s)	57,45
Spoon Ø 3/3.5 mm	135	**TC28.1**	1 unit(s)	57,45
Spoon Ø 4/4.5 mm	135	**TC30.1**	1 unit(s)	57,45

Dissecting accessories



Irrigation cannula

ROTH SELECTION. Material: Stainless steel (1.4301), cannula tips made of bronze (2.0401).

With tip olives and Luer-Lock lug.
For feeding small animals using syringes, application of substances in sensitive areas and similar applications.

Medical device class I MDD

Version	Outer tip Ø (mm)	Ø ext. (mm)	Length (mm)	Art. No.	Pack Qty.	€
curved	2.0	1.2	60	**HPY1.1**	6 unit(s)	59,90
curved	2.4	1.5	80	**HPY2.1**	6 unit(s)	59,90
curved	3.2	2.0	80	**HPY3.1**	6 unit(s)	59,90
straight	2.0	1.2	60	**HPX8.1**	6 unit(s)	54,90
straight	2.4	1.5	80	**HPX9.1**	6 unit(s)	54,90
straight	3.2	2.0	80	**HPY0.1**	6 unit(s)	54,90



A 121 °C

Retractor

Hammacher. Material: Stainless steel. Autoclavable: Yes.
2-pronged.

Not a medical device / Not an IVD product

Length (mm)	Art. No.	Pack Qty.	€
160	**TC32.1**	1 unit(s)	32,30



A 121 °C

Retractor

Hammacher. Material: Stainless steel. Autoclavable: Yes.

Not a medical device / Not an IVD product

Length (mm)	Art. No.	Pack Qty.	€
100	**TC34.1**	1 unit(s)	96,45



A 121 °C

Tissue punch

Hammacher. Material: Stainless steel Remanit 4021. Autoclavable: Yes.
Suitable for animal and plant tissue. More control through manual guide.

Not a medical device / Not an IVD product

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
28	3	**HCY8.1**	1 unit(s)	60,65
28	4	**HCY9.1**	1 unit(s)	60,65
28	5	**HEA0.1**	1 unit(s)	60,65
28	6	**HEA1.1**	1 unit(s)	60,65



Dissecting needles

ROTH SELECTION. Material: PS (Head).
Head Ø 3 mm. Assorted colours.

Length (mm)	Art. No.	Pack Qty.	€
30	**PK47.1**	100 unit(s)	3,45



Preparation surface

Hammacher. Material: Glass.

Pic.	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
(1)	95	70	6	**HEA2.1**	1 unit(s)	8,80
(2)	150	75	20	**HEA3.1**	1 unit(s)	40,80

Dissecting accessories



Preparation surface

Simport. Material: HDPE.

Can be used on both sides, with a large preparation surface on one side and two smaller surfaces on the other side. Printed with helper lines and rulers, as well as circles with diameters from 4 to 14 mm. With all-round drip channel and anti-slip rubber feet.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
330	279	12.5	**CXL9.1**	1 unit(s)	110,75
575	400	12.5	**CXN0.1**	1 unit(s)	188,15



Accessories tray for preparation surfaces

Simport. Material: PS.

Suitable for use with CXN0.1 preparation surfaces. Collects liquid overflow as required. Slip-resistant. Can be stacked to elevate the preparation surfaces to a comfortable working height.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
656	481	91	**CXN1.1**	1 unit(s)	155,90



A 121 °C

Preparation surface

Simport. Material: PP, corrugated. Autoclavable: Yes.

Usable on both sides. Printed with helper lines and rulers, as well as circles with diameters from 4 to 16 mm and 2 to 6 cm. Temperature stability: -27 to +71 °C.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
152	203	**CKP5.1**	24 unit(s)	93,55
229	305	**CTY6.1**	12 unit(s)	74,20
305	483	**CTY7.1**	12 unit(s)	138,70



Dissecting dish

Nasco Sampling. Material: HDPE, PVC dissection mat.

With flexible dissection mat for the secure fixing of specimens with needles. Hygienic alternative to wax trays, easy to use. With slip-resistant base, non-corrosive, breakage-resistant and leak-proof. Dissecting mats are washable, durable and have a smooth surface.

Technical specifications:

Art. No.	CEC7.1
L x W, internal	265 x 180 mm

Delivery incl. dissection mat.

Version	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Small	320	227	41	**CEC7.1**	1 unit(s)	48,30



Dissecting set for anatomy ROTILABO®

ROTH SELECTION.

In zip-up case, with elastic loops to hold instruments.

Contents of small dissecting set:

1 pair of dissecting scissors for microscopy, straight, L 100 mm
1 scalpel, pointed, L 125 mm, blade 25 mm
1 tweezers, pointed, straight, L 105 mm
1 tweezers, blunt, straight, L 115 mm
1 tweezers made of spring steel, L 100 mm
1 lancet, straight, with plastic handle, L 140 mm

Not a medical device / Not an IVD product

Small

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
175	130	30	**ENY2.1**	1 unit(s)	46,20

Large
Contents of large dissecting set additionally:

1 lancet with plastic handle, L 140 mm

1 pair of dissecting scissors for microscopy, curved, L 100 mm

1 pair of scissors, blunt tip, L 130 mm

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
175	130	30	**ENY3.1**	1 unit(s)	66,95

Dissection sets



Dissecting set for microscopy ROTILABO®

ROTH SELECTION.

In zip-up case, with elastic loops to hold instruments.

Contents of small dissecting set for microscopy:
1 pair of dissecting scissors for microscopy, straight, L 115 mm
1 scalpel, pointed, L 155 mm, blade 40 mm
1 tweezers, pointed, straight, L 105 mm
1 lancet, straight, with plastic handle, L 140 mm
1 lancet with plastic handle, L 140 mm
1 Spatulas for easy lifting of tissues, L 160 mm, B 10 mm

Not a medical device / Not an IVD product

Small

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
175	130	30	**ENY0.1**	1 unit(s)	25,75

Large
Contents of large dissecting set for microscopy additionally:

1 pair of dissecting scissors for microscopy, curved, L 115 mm

1 razor, folds out, with plastic handle

1 dissecting needle with plastic handle, L 140 mm

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
175	130	30	**ENY1.1**	1 unit(s)	38,70



Dissecting set for anatomy

ROTH SELECTION.

In the case.

Contents:
1 scalpel handle No. 4 with 6 blades (type 21 + 23)
1 dissecting needle with plastic handle
1 self-closing tweezers, angled tip L 140 mm
1 coverslipper tweezers L 160 mm
1 anatomic tweezers, blunt tip L 140 mm
1 small pairs of scissors L 115 mm
1 pair of scissors, blunt tip L 130 mm
1 double spatula L 170 mm
10 dissecting needles

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
195	85	30	**0829.1**	1 unit(s)	64,30



Dissecting set for anatomy anatomical Premium

Hammacher. Material: Stainless steel corrosion-free (instruments), box made of wood.

Instruments made of stainless steel, autoclavable, wooden box and instruments with wooden handle not autoclavable.

Contents:
1 pair of scissors, buttoned, 145 mm
1 cartilage knife with scraper, wooden handle, 180 mm
5 scalpels with wooden handle, bundled, blade length 25-45 mm
1 tweezers, 105 mm, blunt
1 tweezers, 105 mm, sharp
1 muscle retractor, 100 mm
1 tube, double, straight
1 blunt probe, 130 mm, Ø 1 mm
2 surgical needles, ½ circle

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
190	100	35	**TE19.1**	1 unit(s)	481,60



Dissecting set for microscopy

ROTH SELECTION.

In wooden box.

Contents of small dissecting set for microscopy:
1 scalpel, full-metal 35 mm
1 dissecting needles, pointed
1 dissecting needles, lance shaped
1 splitter tweezers 110 mm
1 scalpel for easy lifting of tissue 45 x 8 mm
1 pair of microscopy scissors 110 mm, straight

Not a medical device / Not an IVD product

Small

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
195	85	32	**LX82.1**	1 unit(s)	49,10

Large
Contents of large dissecting set for microscopy additionally:

1 razor

1 dissecting probe, curved

1 pair of microscopy scissors 110 mm, curved

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
195	95	35	**LX83.1**	1 unit(s)	61,80

Dissection sets



Chemist set

Hammacher.

In zip-up case, with elastic loops to hold instruments.

Contents:
2 micro-double spatulas, flexible, 150 mm
1 spoon spatula, 150 mm
1 micro-spoon spatula, 150 mm, spoon 5 x 7 mm
1 weighing spatula, 170 mm
1 micro-powder spatula, flexible, 150 mm
1 dissecting needle with plastic handle, 140 mm
1 chemist's spoon, 150 mm
1 set of splinter forceps, curved, 105 mm
1 pair of tweezers, anatomically shaped, 145 mm
1 pair of tweezers, pointed, 105 mm
1 pair of scissors, pointed-pointed, 145 mm
1 pair of microscopy scissors, 115 mm

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
215	155	27	**KAN9.1**	1 unit(s)	103,00



Chemist set

ROTH SELECTION. Material: Stainless steel Remanit® 4301 (instruments), case made of plastic.

Instruments autoclavable, case not autoclavable.

Contents:
1 pair of precision scissors, pointed-blunt, L 130 mm
1 tweezers pointed, L 130 mm
1 micro double spatula, L 130 mm, blade width 4 mm
1 chemist double spatula, L 150 mm, blade width 9 mm

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
150	90	**1863.1**	1 unit(s)	29,20



Chemist set large

Hammacher. Material: Stainless steel (corrosion-free), scissors made of steel (nickel-plated), Box made of plastic.

Instruments made of stainless steel, autoclavable, Scissors and box not autoclavable.

Contents:
1 micro double spatula, 130 mm
1 micro spoon spatula, spoon 5 x 7 mm
1 micro powder spatula, flexible, 185 mm
1 double spatula, rigid, 185 mm
1 tweezers, straight, sharp, 160 mm
1 pair of scissors, straight, serrated, 170 mm
1 Poly spoon, 180 mm
1 weighing spoon
1 double spatula, wide, round on both sides, 150 mm

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
214	102	27	**TE20.1**	1 unit(s)	86,60



Instrument care oil

Hammacher.

Synthetic oil, silicone-free. Odourless and transparent, leaves no brown marks on the instruments. Spot-on application through safety/anti-drop valve.

Not a medical device / Not an IVD product

Pack.	Art. No.	Pack Qty.	€
12 ml application pin	**HCY1.1**	1 unit(s)	19,35



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ROTH

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Gas bags ROTILABO®

ROTH SELECTION.

(1) Standard
Material: Natural rubber. Egg-shaped for mixing or short-term storage of gases. Maximum size approx. 85 cm. Sorted by colour.

Version	Art. No.	Pack Qty.	€
Standard	**0933.1**	100 unit(s)	14,55

(2) Maxi
Material: Latex. For testing the air or gas entry to or exit from apparatus as well as for short-term storage of gases.

Empty: 22 cm long. Sorted by colour.

Version	Art. No.	Pack Qty.	€
Maxi	**TA08.1**	10 unit(s)	21,45



Gas syringe

Poulten & Graf. Material: Glass from hydrolytic class I.

For carrying out gas volumetric experiments. Brown graduation, resistant to acids and alkalis.

Areas of application:
Analysis of air and breathing air, determination of breathing quotients, indirect water analysis, qualitative gas burning, illuminating gas analysis, etc.

(1) With capillary attachment
Without stopcock, inside Ø approx. 2.5 mm, outside Ø approx. 6.5 mm

Vol. (ml)	Graduations (ml)	Art. No.	Pack Qty.	€
25	0.5	**HT27.1**	1 unit(s)	79,05
50	0.5	**HT28.1**	1 unit(s)	84,70
100	1.0	**HT29.1**	1 unit(s)	93,00

(2) With capillary stopcock
NS 12.5; hole 2.5 mm

Vol. (ml)	Graduations (ml)	Art. No.	Pack Qty.	€
50	0.5	**HT30.1**	1 unit(s)	126,35
100	1.0	**HT31.1**	1 unit(s)	138,55



Gas leak detector testo 316-1

Testo.

For detecting leaks in piping, flanges, screw connections, in gas pipes, etc. For methane.

- Visual and audible alarm signals.
- Flexible measuring probe for hard-to-reach areas
- Sensor has very short reaction times.
- Battery life: >5 h

Technical specifications:

Art. No.	P757.1
Measuring range	0 to 10,000 ppm CH4
Alarm threshold	>200 ppm LED yellow / >10000 ppm LED red
Operating temperature	+4 to +45 °C
L x W x H	190 x 57 x 42 mm
Weight	300 g
Power supply	E-block, 9 V

Delivery incl. battery (9 V).

Type	Art. No.	Pack Qty.	€
testo 316-1	**P757.1**	1 unit(s)	242,95



Bags PLASTIGAS®

Linde.

Made from multi-layer laminated foil, thermoplastically welded, with polyethylene coating inside. For storing small amounts of gas at low pressure.

(1) Volume: 2.5 l
With connection nozzle for inflation hose, and stuck-on septum for removal by syringe.

Delivery without inflation hose, please order separately.

(2) Volume: 27 l
With screw valve and metallic hose nozzle, as well as a septum for removal by syringe.

Vol. (l)	Art. No.	Pack Qty.	€
27	**0847.1**	1 unit(s)	92,60

Accessories inflation hose for 2.5 l PLASTIGAS® bags

Linde.

Version	Art. No.	Pack Qty.	€
Inflation hose, 80 cm long	**H547.1**	1 unit(s)	18,80



Gas test tube

ROTH SELECTION. Material: DURAN® glass.

According to DIN 12473-1, with two single-way stopcocks NS 14.5 and sampling nozzles (GL 14 thread). Capillary tube (inside Ø 2.7 mm, outside Ø 8 mm) on one side and hose connector (outside Ø 8 mm) on the other. With labelling area.

Vol. (ml)	Art. No.	Pack Qty.	€
350	**KX55.1**	1 unit(s)	117,20
500	**KX56.1**	1 unit(s)	127,95
1,000	**KX57.1**	1 unit(s)	177,40



Gas pressure regulator single stage

Kayser. Material: Brass.

For safe removal of gas from steel bottles up to 200 bar, while simultaneously reducing the required working pressure to 10 bar.

- Manufactured according to EN ISO 2503.
- With safety valve (triggers at 12 bar).

With standard connection

Technical specifications:

Upstream pressure, max.	200 bar
Back pressure	0–10 bar
Readability	0.5 bar
Operating temperature	-20 to +60 °C
L x W x H	180 x 65 x 170 mm
Weight	1,7 kg

Gas type	Bottle connection	Tube connection	Art. No.	Pack Qty.	€
Oxygen	G ¾″ right	G ¼″ right	**0285.1**	1 unit(s)	100,75
Hydrogen	W 21.8 x 1/14″ left	G ⅜″ left	**0284.1**	1 unit(s)	100,75
Nitrogen	W 24.32 x 1/14″ right	G ¼″ right	**0288.1**	1 unit(s)	100,75
Noble gases/ CO_2	W 21.8 x 1/14″ right	G ¼″ right	**0286.1**	1 unit(s)	100,75
Noble gases/CO_2 volumetric flow rate 0–28/30 l/min	W 21.8 x 1/14″ right	G ¼″ right	**0290.1**	1 unit(s)	100,75
Compressed air	G ⅝″ pressure screw	G ¼″ right	**0270.1**	1 unit(s)	100,75
Calibrating gas	M 19 x 1,5 left	G ⅜″ left	**0280.1**	1 unit(s)	100,75
Forming gas, volumetric flow rate 0-50 l/min	W 21.8 x 1/14″ left	G ⅜″ left	**0289.1**	1 unit(s)	100,75

With special connection (France)

Gas type	Bottle connection	Tube connection	Art. No.	Pack Qty.	€
Oxygen	W 22.91 x 1,814″	G ¼″ right	**9804.1**	1 unit(s)	n. a.
Noble gases/ CO_2	W 21,7 x 1,814″	G ¼″ right	**9805.1**	1 unit(s)	n. a.



Gas pressure regulator two-stage

AirLiquide. Material: Brass, chrome-plated.

For all pure and ultra-pure gas mixtures, apart from acetylene and corrosive gases. For applications requiring a constant initial pressure.

Back pressure up to 1 bar

Technical specifications:

Upstream pressure, max.	200 bar
Back pressure	0,05–1 bar
Readability	0.1 bar
Inlet connection	Bottle connection according to DIN 477
Outlet connection	Clamping ring screw connection for 6 mm pipe
Total leakage rate	3 x 10^{-7} mbar l/s
Operating temperature	-20 to +50 °C
L x W x H	180 x 98 x 135 mm
Weight	1,6 kg

Gas type	Bottle connection	Art. No.	Pack Qty.	€
Oxygen	R ¾″ right	**C288.1**	1 unit(s)	840,65
Hydrogen	W 21.8 x 1/14″ left	**C287.1**	1 unit(s)	840,65
Nitrogen	W 24.32 x 1/14″ right	**C289.1**	1 unit(s)	840,65
Inert gases	W 21.8 x 1/14″ right	**C286.1**	1 unit(s)	840,65
Calibrating gas	M 19 x 1,5 left	**C290.1**	1 unit(s)	840,65

Back pressure up to 3 bar

Gas type	Bottle connection	Art. No.	Pack Qty.	€
Oxygen	R ¾″ right	**C293.1**	1 unit(s)	840,65
Hydrogen	W 21.8 x 1/14″ left	**C292.1**	1 unit(s)	840,65
Nitrogen	W 24.32 x 1/14″ right	**C294.1**	1 unit(s)	840,65
Inert gases	W 21.8 x 1/14″ right	**C291.1**	1 unit(s)	840,65
Calibrating gas	M 19 x 1,5 left	**C295.1**	1 unit(s)	840,65

Back pressure up to 10 bar

Gas type	Bottle connection	Art. No.	Pack Qty.	€
Oxygen	R ¾″ right	**C298.1**	1 unit(s)	840,65
Hydrogen	W 21.8 x 1/14″ left	**C297.1**	1 unit(s)	840,65
Nitrogen	W 24.32 x 1/14″ right	**C299.1**	1 unit(s)	840,65
Inert gases	W 21.8 x 1/14″ right	**C296.1**	1 unit(s)	840,65
Calibrating gas	M 19 x 1,5 left	**C300.1**	1 unit(s)	840,65

Sampler for powder/granules



A 121 °C

Samplers Tubus

Bürkle. Material: Stainless steel 1.4404. Autoclavable: Yes.

For pourable bulk goods up to Ø approx. 10 mm, such as hazelnuts, grains, granulates, crystalline solids (e.g. sugar). Suitable for use with foodstuffs.

Application:

- Insert the tube into the bag to the desired sampling depth
- The sample flows directly through the open tube into the sampling bag

Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
400	40	**EP04.1**	1 unit(s)	180,60
800	40	**EP05.1**	1 unit(s)	226,85



A 121 °C

Samplers QuickPicker

Bürkle. Autoclavable: Yes.

For removal of bulk goods from bags and direct transfer into original sampling bottles. Suitable for use with foodstuffs. Sampler (without bottle) is autoclavable.

Delivery incl. 2 x 250 ml LDPE sample bottles and cleaning brush.

Polypropylene
Material: PP. Colour translucent

Vol. (ml)	Length (mm)	Insertion depth (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
75	500	300	25	**YK99.1**	1 unit(s)	173,10

Stainless steel
Material: Stainless steel 1.4404.

Vol. (ml)	Length (mm)	Insertion depth (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
75	500	300	25	**YL00.1**	1 unit(s)	274,15



A 121 °C

Powder and granulate sampler

Bürkle. Material: Stainless steel 1.4404. Autoclavable: Yes.

Suitable for use with foodstuffs. Compliant with EN ISO 707 and IDF (International Dairy Federation). Suitable for sampling milk powder. Application: The sampler is inserted into bags and the sample is removed using a semi-circular lance.

Vol. (ml)	Length (mm)	Insertion depth (cm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
150	480	385	28	**YL02.1**	1 unit(s)	215,00



A 121 °C

Samplers SiloPicker

Bürkle. Material: Stainless steel 1.4404. Autoclavable: Yes.

For sampling bulk materials from silos, tanks, BigBags and other large-sized containers. Suitable for use with foodstuffs.

Application:

- Insert SiloPicker into bulk goods
- The closure sleeve automatically closes the collection container
- When the sampling depth has been reached, briefly pull back the SiloPicker
- The bulk goods flow into the collection container
- Pull out the SiloPicker
- Empty the sampler

Vol. (ml)	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
100	1,300	50	**YX85.1**	1 unit(s)	496,65

Sampler for powder/granules

Zone samplers

Bürkle. Autoclavable: Yes.

For sampling bulk goods, e.g. from bags, barrels, bins, BigBags and silos. Suitable for use with foodstuffs.

Application:

- Close the chambers by turning the handle
- Insert the sampler to the desired depth
- Open the chambers to allow the bulk goods to flow into the collector
- Close the chambers
- Withdraw the sampler
- Reseal the puncture using an adhesive seal



A 121 °C

Delivery without emptying device and cleaning brush, please order separately.

All layers

Open inner tube for large sample volumes. Meets ISTA standard for seed lengths of 10 mm (wheat, oats) and 5 mm (flax, vetch).

Materialspecification	Length (mm)	Insertion depth (mm)	Number of chambers	Chamber volume (ml)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Aluminium	550	430	3	70	25	**YH96.1**	1 unit(s)	252,65
Stainless steel 1.4404	550	430	3	70	25	**YH99.1**	1 unit(s)	719,20
Aluminium	850	710	3	130	25	**YH97.1**	1 unit(s)	270,90
Stainless steel 1.4404	850	710	3	130	25	**YK00.1**	1 unit(s)	828,85
Aluminium	1,500	1,355	5	260	25	**YH98.1**	1 unit(s)	344,00
Stainless steel 1.4404	1,500	1,355	5	260	25	**YK01.1**	1 unit(s)	997,60

Multi

Inner tube with separate chambers. For multi point sampling from various sample depths.

Materialspecification	Length (mm)	Insertion depth (mm)	Number of chambers	Chamber volume (ml)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Aluminium	550	430	3	14	25	**YK02.1**	1 unit(s)	276,30
PTFE, stainless steel 1.4404	550	430	3	14	25	**YK05.1**	1 unit(s)	524,60
Aluminium	850	710	3	17	25	**YK03.1**	1 unit(s)	307,45
PTFE, stainless steel 1.4404	850	710	3	17	25	**YK06.1**	1 unit(s)	592,35
Aluminium	1,500	1,355	5	17	25	**YK04.1**	1 unit(s)	396,70
PTFE, stainless steel 1.4404	1,500	1,355	5	17	25	**YK07.1**	1 unit(s)	857,85

Uno

One closed sampling chamber. For taking target-point samples from a specific sample depth.

Materialspecification	Length (mm)	Insertion depth (mm)	Number of chambers	Chamber volume (ml)	Ø ext. (mm)	Art. No.	Pack Qty.	€
PTFE, stainless steel 1.4404	550	430	1	17	25	**YK08.1**	1 unit(s)	534,30
PTFE, stainless steel 1.4404	850	710	1	17	25	**YK09.1**	1 unit(s)	598,80
PTFE, stainless steel 1.4404	1,500	1,355	1	17	25	**YK10.1**	1 unit(s)	875,05

Security seal



Security seal food and pharma

Bürkle.

Aluminium barrier layer. Adhesive suitable for food. Prevents trickling of bulk material after sampling.
Suitable for foodstuffs, pharmaceuticals, cosmetics, food supplements and frozen goods.

- Seals gastight
- Wipe-resistant inscribable

Label dispenser optionally available, please order separately.

Close-it Standard

Colour	Width (mm)	Height (mm)	Pack.	Art. No.	Pack Qty.	€
red	95	95	Roll	**YC60.1**	500 unit(s)	74,45
blue	95	95	Roll	**YC63.1**	500 unit(s)	74,45
black	95	95	Roll	**YC61.1**	500 unit(s)	74,45
green	95	95	Roll	**YC64.1**	500 unit(s)	74,45
white	95	95	Roll	**YC65.1**	500 unit(s)	74,45
yellow	95	95	Roll	**YC62.1**	500 unit(s)	74,45

Close-it Maxi

Colour	Width (mm)	Height (mm)	Pack.	Art. No.	Pack Qty.	€
red	150	150	Roll	**YC66.1**	250 unit(s)	99,65
blue	150	150	Roll	**YC69.1**	250 unit(s)	99,65
black	150	150	Roll	**YC67.1**	250 unit(s)	99,65
green	150	150	Roll	**YC70.1**	250 unit(s)	99,65
white	150	150	Roll	**YC71.1**	250 unit(s)	99,65
yellow	150	150	Roll	**YC68.1**	250 unit(s)	99,65

Close-it[tape] Standard

Endless label for cutting to size.

Colour	Width (mm)	Length (m)	Pack.	Art. No.	Pack Qty.	€
white	95	50	Roll	**YC72.1**	1 unit(s)	74,65

Close-it[tape] Maxi

Endless label for cutting to size.

Colour	Width (mm)	Length (m)	Pack.	Art. No.	Pack Qty.	€
white	150	50	Roll	**YC73.1**	1 unit(s)	99,65



Security seal metal-detectable

ROTH SELECTION.

For hermetic sealing of pierced bags, cartons or BigBags after sampling.

- Barrier layer made of aluminium with extra-strong bonding layer, food-safe adhesive
- Temperature stable in the range -20 to +70 °C
- Min. adhesion temperature 0 °C
- ø 95 mm

Version	Pack.	Art. No.	Pack Qty.	€
QUALITÄTS-KONTROLLE	Roll	**T457.1**	1,000 unit(s)	139,90
QUALITY CONTROL	Roll	**T513.1**	1,000 unit(s)	139,90
CONTRÔLE QUALITE - PRELEVE LE	Roll	**T514.1**	1,000 unit(s)	139,90



A 121 °C

Plunge borer conical

Bürkle. Material: Stainless steel 1.4301. Autoclavable: Yes.

Conically shaped with sharp edges and a solid handle.

For sampling soft and paste-like substances, such as cheese, butter, mud, clay, soap and wax. Compliant with EN ISO 707. Suitable for use with foodstuffs.
Application: Insert the borer into the substance and turn it to cut out the sample material.

Length (mm)	Insertion depth (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
180	120	10 – 15	**YP34.1**	1 unit(s)	80,25
220	170	11 – 18	**YP35.1**	1 unit(s)	120,30

Sampler for pasty/viscous substances



A 121 °C

Plunge borer cylindrical

Bürkle. Material: Stainless steel 1.4301. Autoclavable: Yes.

With sharp cutting crown. For sampling paste-like and semi-solid substances. Suitable for use with foodstuffs.
Application: Use the piston rod to push the bored samples out of the cylinder.

Length (mm)	Insertion depth (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
260	200	10	**YP36.1**	1 unit(s)	164,50



A 121 °C

Pigment sampler

Bürkle. Material: Stainless steel 1.4404. Autoclavable: Yes.

With half-open groove for very adhesive substances or quarter-open groove for less adhesive substances. For sampling pigments, pastes and agglomerating bulk goods. Suitable for use with foodstuffs.
Application: Insert the lance to the desired depth. Turn the handle so that the sample is collected in the open groove. Withdraw the lance. Remove the sample.

Vol. (ml)	Length (mm)	Ø ext. (mm)	Groove opening (%)	Art. No.	Pack Qty.	€
85	300	30	50	**YP38.1**	1 unit(s)	275,20
145	300	30	25	**YP37.1**	1 unit(s)	249,40
179	600	30	50	**YP40.1**	1 unit(s)	387,00
312	600	30	25	**YP39.1**	1 unit(s)	356,90



Samplers

Bürkle.

Suitable for foodstuffs. Colour translucent

(1) Visco
For viscous media. Very strong suction power for sampling viscous, non-self-flowing substances such as mud, slime, watery clay and soil samples, oils, emulsions, creams.

Application: Samples are drawn in and ejected via a piston rod.

Material-speci-fication	Vol. (ml)	Immersion depth (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
PP	160	600	32	**YP46.1**	1 unit(s)	296,70
PTFE, FEP	160	600	32	**YP49.1**	1 unit(s)	404,20
PP	300	1000	32	**YP47.1**	1 unit(s)	349,40
PTFE, FEP	300	1000	32	**EE48.1**	1 unit(s)	483,75
PP	650	2000	32	**YP48.1**	1 unit(s)	524,60
PTFE, FEP	650	2000	32	**EE49.1**	1 unit(s)	666,50

(2) Liqui
For liquid mediums. DIN EN ISO 15 528 certified. Practical one-handed operation at the push of a button.

Application:
- For all-layer sampling, slowly plunge the LiquiSampler into the liquid with the button pressed (valve open). Release the button, the valve closes. Withdraw the sampler and remove the sample.
- For target-point/soil sampling: Dip the LiquiSampler in the target-point/soil with the valve closed. Press the button, the valve opens and liquid flows in. Release the button, the valve closes. Withdraw the sampler and remove the sample.

Material-speci-fication	Vol. (ml)	Immersion depth (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
PP	150	600	32	**YP50.1**	1 unit(s)	192,45
PTFE, FEP	150	600	32	**YP53.1**	1 unit(s)	302,10
PP	250	1000	32	**YP51.1**	1 unit(s)	255,85
PTFE, FEP	250	1000	32	**EE46.1**	1 unit(s)	424,65
PP	500	2000	32	**YP52.1**	1 unit(s)	381,65
PTFE, FEP	500	2000	32	**EE47.1**	1 unit(s)	589,10

Sampler for liquids



A 121 °C

Liquid collectors

Bürkle. Material: Stainless steel 1.4404. Autoclavable: Yes.

For sampling thin to viscous liquids.

- With discharge funnel for safe filling of sampling bottles
- One-handed operation
- Suitable for Opening Ø >32 mm

(1) Open with thumb

Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
50	460	**YX81.1**	1 unit(s)	239,75
100	540	**YX82.1**	1 unit(s)	254,80

(2) Open by placing onto bottle

Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
50	455	**YX83.1**	1 unit(s)	279,50
100	535	**YX84.1**	1 unit(s)	322,50



Pipette

Bürkle. Material: PP.

For taking liquid samples easily. Stopcock at upper end, ball valve at lower end. Transparent tubes allow for good visibility. Suitable for use with foodstuffs. Colour translucent.

Application:

- For all-layer sampling: with the valve open, slowly insert the pipette into the liquid. Close the valve. Withdraw the pipette and empty the sample into a container
- For target point samples: With the valve closed, insert the pipette as far as the target point. Open the valve and the liquid will flow in. Close the valve. Withdraw the pipette and empty the sample into a container

Vol. (ml)	Length (mm)	Immersion depth (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
140	600	500	25	**EN97.1**	1 unit(s)	54,80
280	1,100	1000	25	**EN98.1**	1 unit(s)	57,55
560	2,100	2000	25	**EN99.1**	1 unit(s)	68,85



A 121 °C

Samplers Mini Visco

Bürkle. Material: PTFE, Stainless steel 1.4404. Autoclavable: Yes.

For sampling viscous substances such as pastes, muds, creams and oils. Suction point with 2 mm suction hole. Ideal for the pharmaceutical and cosmetics industry. Suitable for use with foodstuffs. **Application:** Samples are drawn in and ejected via a piston rod.

Suction points available with a larger diameter for more viscous mediums, please order separately.

Vol. (ml)	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
30	600	15	**YP41.1**	1 unit(s)	339,70
50	1,000	15	**YP42.1**	1 unit(s)	392,40
75	1,500	15	**YP43.1**	1 unit(s)	476,25



Sampling container

Bürkle.

(1) Pendulum beaker
For sampling liquids, e.g. from deep tanks, tubs or narrow shafts. Vessel swings into the horizontal position. For opening Ø from 150 mm.

Delivery incl. beaker holder.

Telescopic rod not included, please order separately.

Materialspecification	Vol. (ml)	Art. No.	Pack Qty.	€
PP	600	**NH29.1**	1 unit(s)	57,45
PP	1,000	**9244.1**	1 unit(s)	56,75
Stainless steel 1.4301	1,000	**NH30.1**	1 unit(s)	217,15
PP	2,000	**9251.1**	1 unit(s)	68,35

Sampler for liquids

(2) Angular beaker
Angle of inclination can be adjusted by up to 90° by rapidly adjusting the joint.

Delivery incl. beaker holder.

Telescopic rod not included, please order separately.

Materialspecification	Vol. (ml)	Art. No.	Pack Qty.	€
PP	600	**N104.1**	1 unit(s)	57,85
PP	1,000	**N105.1**	1 unit(s)	59,60
PP	2,000	**N106.1**	1 unit(s)	64,55

(3) Beaker with scraper edge
For samples of powders, granulates, pastes and muds.

Delivery incl. beaker holder.

Telescopic rod not included, please order separately.

Materialspecification	Vol. (ml)	Art. No.	Pack Qty.	€
Stainless steel 1.4301	1,000	**NH31.1**	1 unit(s)	192,45

(4) Bottle holder
Fits bottles up to a maximum of Ø 88 mm. With quick action strap. Angle of inclination can be adjusted by up to 90° by rapidly adjusting the joint.

Delivery incl. bottle with screw top.

Telescopic rod not included, please order separately.

Materialspecification	Vol. (ml)	Art. No.	Pack Qty.	€
PP (holder) PA (tightening strap) PE (bottle)	750	**N107.1**	1 unit(s)	67,20



Telescopic rod for sampling containers

Bürkle. Material: Aluminium, PP.

For use with sampling container.
Not suitable for aggressive liquids.

Length, adjustable (mm)	Art. No.	Pack Qty.	€
600–1200	**9254.1**	1 unit(s)	30,85
1000–3000	**9257.1**	1 unit(s)	61,25
1250–2500	**9255.1**	1 unit(s)	39,65
1650–4500	**T251.1**	1 unit(s)	86,15



Sample scoops

Bürkle. Material: PP.

With secure holding rod. For collecting samples of liquids in tanks, tubs, galvanic baths, water, etc. Holding rod: 1000 mm length, Ø 20 mm.

Vol. (ml)	Art. No.	Pack Qty.	€
250	**9220.1**	1 unit(s)	64,55
600	**9225.1**	1 unit(s)	66,95
1,000	**9236.1**	1 unit(s)	76,60



ChemoSampler

Bürkle. Material: PP grey.

For safe sampling of aggressive liquids. The sample is drawn directly into the screw-on bottle.

Delivery incl. 1000 ml sample bottle.

Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
1,000	1,000	**T273.1**	1 unit(s)	97,95

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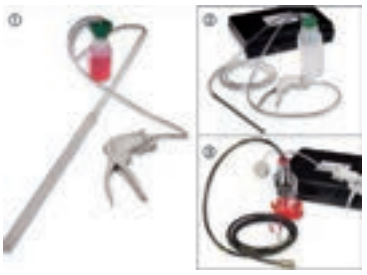
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Sampler for liquids



Liquid samplers UniSampler

Bürkle.

Simple operation: The sample is poured directly into the sample container using a vacuum, with no risk of contamination.

(1) With telescopic rod
For sampling fluids from a defined depth.
Telescopic suction tube can be extended continuously from 52 cm to 100 cm. Suction tube made of PP, tubing made of PVC.

Application:
- Adjust the required sampling depth by moving the suction lance
- Fit the sample bottle onto the adapter
- Lower the suction lance into the medium
- Generate a vacuum using the hand pump and collect the sample
- Remove the filled sample bottle and then close and label it

Delivery incl. 5 x 250 ml and 5 x 500 ml PP bottles and adapter for bottle sizes of 100–1000 ml.

Version	Art. No.	Pack Qty.	€
UniSampler with telescopic lance	**AH45.1**	1 unit(s)	309,60

(2) With tubing
Sampler for low, angled positions. The tubing is pulled down over the heavy stainless steel tube. Tubing made of PVC, 2.50 m length.

Application:
- Lower the suction hose to the required depth
- Fit the sample bottle onto the adapter
- Generate a vacuum using the hand pump and collect the sample
- Remove the filled sample bottle and then close and label it

Delivery incl. 1 x 1000 ml PP bottle, adapter bottle sizes of 100–1000 ml and carrying case.

Version	Art. No.	Pack Qty.	€
UniSampler with tube	**AH46.1**	1 unit(s)	225,75

(3) Ex
For sampling flammable liquids of hazard class A I (e.g. gasoline). Sample bottle (glass, 1000 ml) and tubing (NBR, 4 m length) connected in an electrically conducting manner and earthed via an earth cable. PTB approval D-333-009 618/00.

Application:
- Earth the implement
- Lower the suction hose to the required depth
- Fit the sample bottle onto the adapter
- Generate a vacuum using the hand pump and collect the sample
- Remove the filled sample bottle and then close and label it

Delivery incl. 4 m tubing, 1 x 1000 ml glass bottle and carrying case.

Version	Art. No.	Pack Qty.	€
UniSampler Ex	**AH47.1**	1 unit(s)	427,85



Liquid samplers

ROTH SELECTION.

For extracting liquid samples even from places that are difficult to access. The liquid only comes into contact with the PE tubing and the PE bottle. Also suitable for more viscous liquids (e.g. oils).
The PE bottle is screwed into the pump and can be tightly sealed after the sample has been taken. The tubing can be changed quickly and easily.

Application:
- A vacuum is generated by pulling up the pump.
- The liquid is drawn in and collected in the PE bottle.

Hand pump with connector 22

Delivery without PE tubing and PE bottle, please order separately.

Version	Art. No.	Pack Qty.	€
Pump, connector 22	**C001.1**	1 unit(s)	102,05

Set with connector 22

Delivery incl. 5 x 50 ml PE bottles (angular), 2 x 250 ml PE bottles (round), 13 m PE tubing and transport case.

Version	Art. No.	Pack Qty.	€
Set, connector 22	**C005.1**	1 unit(s)	138,70

Hand pump with connector 28

Delivery without PE tubing and PE bottle, please order separately.

Version	Art. No.	Pack Qty.	€
Pump, connector 28	**E514.1**	1 unit(s)	94,00

Accessories for liquid samplers

ROTH SELECTION.

PE bottles with connector 22

Version	Art. No.	Pack Qty.	€
50 ml, angular	**E516.1**	10 unit(s)	17,75
150 ml, flat	**E517.1**	10 unit(s)	26,30
150 ml, flat	**E517.2**	220 unit(s)	413,90
250 ml, angular	**C003.1**	10 unit(s)	25,70

PE bottles with connector 28, 500 ml, angular

Version	Art. No.	Pack Qty.	€
500 ml, angular	**E515.1**	10 unit(s)	30,70

PE tubing

Version	Art. No.	Pack Qty.	€
internal Ø 4.5 mm, external Ø 6 mm, 13 m length	**C004.1**	13 m	44,00

Sampler for liquids



A 121 °C

Dipping bottle glass

Bürkle. Autoclavable: Yes.

Made from non-sparking materials. Nickel-plated brass dipping frame, closure made of electrically conductive polyamide, clear glass bottle. For taking sludge and water samples as well as samples of group A petroleum products, explosion hazard groups IIA and IIB.
Tested for use in Ex protection area 0.

- Secure closure to allow for quick bottle change
- High weight (3.3 kg) for rapid lowering
- Dimensions: External Ø 89 mm, height 330 mm

Delivery without manual cable reel and lowering rope, please order separately.

Vol. (ml)	Art. No.	Pack Qty.	€
1,000	**T266.1**	1 unit(s)	563,30



Dipping bottle Ex

Bürkle.

Made from non-sparking brass, nickel-plated. For sampling of group A petroleum products, explosion groups IIA, IIB and IIC. Tested for use in Ex protection area 0.

- Removable bottle head for easy cleaning
- High weight (3.2 kg) for rapid lowering
- Dimensions: External Ø 89 mm, height 443 mm

Delivery without manual cable reel and lowering rope, please order separately.

Vol. (ml)	Art. No.	Pack Qty.	€
1,000	**T267.1**	1 unit(s)	575,15



Accessories for dipping bottles

Bürkle.

(1) Manually-operated reel
Material: PP.

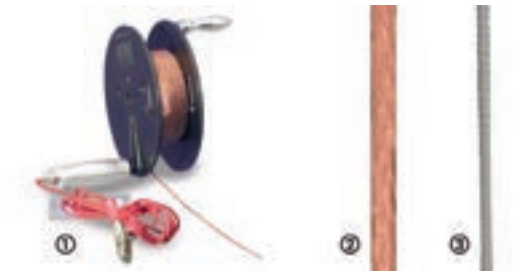
- High winding capacity: Up to 150 m for cable of Ø 2 mm
- Reel: Internal Ø 100 mm, external Ø 180 mm, 44 mm internal width, 55 mm outside width

Delivery without cable not included, please order separately.

Version	Art. No.	Pack Qty.	€
Manually-operated reel	**T269.1**	1 unit(s)	111,20

(2) Lowering cable
Material: PP. Max. tensile load of up to 10 kg

Version	Length (m)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Lowering cable	10	2	**T272.1**	1 unit(s)	15,20



Accessories for dipping bottles; sampling highly flammable solutions

Bürkle.

(1) Manually-operated reel EX
Material: Plastic electrically-conductive. With earthing duct. Explosion hazard groups IIA, IIB and IIC.

- High winding capacity: Up to 150 m for cable of Ø 2 mm
- Reel: Internal Ø 100 mm, external Ø 180 mm, 44 mm internal width, 55 mm outside width

Delivery without cable not included, please order separately.

Version	Art. No.	Pack Qty.	€
Manually-operated reel EX	**EP11.1**	1 unit(s)	272,00

(2) Copper lowering rope
Material: Copper electrically-conductive. Max. tensile load of up to 10 kg

Version	Length (m)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Lowering cable	10	4,5	**EP10.1**	1 unit(s)	147,10

(3) Stainless steel lowering cable
Material: Stainless steel V4A, electrically-conductive. Max. tensile load of up to 10 kg

Version	Length (m)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Lowering cable	10	1,25	**T271.1**	1 unit(s)	37,80

Disposable samplers



S

Sample spatula SteriPlast®

Bürkle. Material: PS. **Sterile**.

For sterile and contamination-free sampling, e.g. of powders, granulates and pastes.
With long, sturdy handle and sharp blade for piercing, e.g. paper and plastic bags.

- Colour white
- Compliant with the EU food regulations and FDA regulations
- Manufactured in a cleanroom (Class 7), individually packed

Without lid

Sterility	Length (mm)	Insertion depth (mm)	Art. No.	Pack Qty.	€
Sterile	263	150	**CLT5.1**	10 unit(s)	21,15

With lid

For sealing the sample immediately after it has been taken.

Sterility	Length (mm)	Insertion depth (mm)	Art. No.	Pack Qty.	€
Sterile	268	150	**CLT6.1**	10 unit(s)	30,65



S

Sample spoon SteriPlast® Bio

Bürkle. Material: PE Green. **Sterile**.

For sampling powders, granulates, pastes and liquids. Made from renewable raw materials and fully recyclable.

- Colour white
- Compliant with the EU food regulations and FDA regulations
- Manufactured in a cleanroom (Class 7), individually packed

Sterility	Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
Sterile	2.5	127	**CPT3.1**	100 unit(s)	58,20
Sterile	10	170	**CPT4.1**	100 unit(s)	61,35



S

Sample spoon SteriPlast® blue

Bürkle. Material: PS. **Sterile**.

For sampling powders, granulates, pastes and liquids.

- Colour blue
- Compliant with the EU food regulations and FDA regulations
- Manufactured in a cleanroom (Class 7), individually packed

Sterility	Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
Sterile	2.5	127	**HET4.1**	100 unit(s)	45,10
Sterile	10	170	**HET5.1**	100 unit(s)	47,95

Detectable

A special additive makes the single-use sample spoons visible in metal detectors or using X-rays and can be sorted out using normal systems for checking for foreign bodies.

Sterility	Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
Sterile	2.5	127	**HEP8.1**	100 unit(s)	57,45
Sterile	10	170	**HEP9.1**	100 unit(s)	63,60



S

Sample scoops SteriPlast®

Bürkle. Material: PS. **Sterile**.

For sampling powders, granulates and pastes.

- Colour white
- Compliant with the EU food directives and FDA guidelines
- Manufactured in a cleanroom (Class 7), individually packed

With lid

With transparent lid. For sterile and contamination-free sampling.
Sample scoop can be sealed with lid.

Sterility	Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
Sterile	25	142	**CPP5.1**	10 unit(s)	34,10
Sterile	50	161	**CPP6.1**	10 unit(s)	36,30
Sterile	100	206	**CPP7.1**	10 unit(s)	37,65
Sterile	150	218	**CPP8.1**	10 unit(s)	38,95

Disposable samplers



S

Sample scoops SteriPlast® blue

Bürkle. Material: PS. **Sterile**.

For sampling of powders, granulates, pastes and liquids, especially in the food, animal feed and pharmaceutical industries.

- Colour blue
- Can be used under HACCP/IFS Foreign Body Management Guideline
- Compliant with the EU food regulations and FDA regulations
- Manufactured in a cleanroom (Class 7), individually packed

Sterility	Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
Sterile	25	141	**1AHK.1**	10 unit(s)	20,40
Sterile	50	160	**1AHN.1**	10 unit(s)	21,15
Sterile	100	205	**HET6.1**	10 unit(s)	21,85
Sterile	150	216	**HET7.1**	10 unit(s)	22,35
Sterile	250	232	**HET8.1**	10 unit(s)	27,25
Sterile	500	280	**HET9.1**	10 unit(s)	48,25

Detectable
A special additive makes the single-use samplers visible in metal detectors or using X-rays and can be sorted out using normal systems for checking for foreign bodies.

Sterility	Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
Sterile	25	141	**1AHL.1**	10 unit(s)	28,60
Sterile	50	160	**1AHY.1**	10 unit(s)	31,65
Sterile	100	205	**HET0.1**	10 unit(s)	33,70
Sterile	150	216	**HET1.1**	10 unit(s)	35,80
Sterile	250	232	**HET2.1**	10 unit(s)	45,05
Sterile	500	280	**HET3.1**	10 unit(s)	81,95



S

Sample scoops SteriPlast® Bio

Bürkle. Material: PE Green. **Sterile**.

For sampling powders, granulates and pastes. Made from renewable raw materials and fully recyclable.

- Compliant with the EU food regulations and FDA regulations
- Manufactured in a cleanroom (Class 7), individually packed

Sterility	Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
Sterile	25	141	**CPP9.1**	10 unit(s)	26,40
Sterile	50	160	**CPT0.1**	10 unit(s)	26,30
Sterile	100	205	**CPT1.1**	10 unit(s)	26,95
Sterile	150	216	**CPT2.1**	10 unit(s)	28,70



S

Sample scoops with handle

ROTH SELECTION. Material: PP, PE. **Sterile**.

For collecting sterilised samples and performing subsequent analysis, reduces cross-contamination. Beaker made of shock-proof, transparent PP. Screw cap made of PE. Removable handle, 240 mm length. Colour blue.

Technical specifications:

Art. No.	**HL41.1**	**HL42.1**	**HL43.1**
Height with lid	70 mm	74 mm	102 mm
Outer beaker Ø	30 mm	52 mm	

Sterility	Vol. (ml)	Length (mm)	Art. No.	Pack Qty.	€
Sterile	40	275	**HL41.1**	250 unit(s)	313,90
Sterile	125	275	**HL42.1**	100 unit(s)	174,15
Sterile	180	305	**HL43.1**	100 unit(s)	168,80

Disposable samplers



Single-use samplers for solids

Bürkle. Material: HDPE.

For samples of bulk goods, powders and granulates. No contamination by other samples and no time-consuming cleaning.

- Colour white
- Compliant with the EU food regulations and FDA regulations
- Manufactured in a cleanroom (Class 7), individually packed

(1) PowderDispo
For all-layer samples of cohesive, powdery substances. Conical sampler for, e.g. insertion in BigBag or bag

Sterility	Vol. (ml)	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Non-sterile	60	300	21	**ETX3.1**	10 unit(s)	70,00
Sterile	60	300	21	**ETX4.1**	10 unit(s)	86,00
Non-sterile	100	500	21	**NH28.1**	10 unit(s)	87,70
Sterile	100	500	21	**ETX5.1**	10 unit(s)	91,55

(2) DispoLance
For free-flowing powders and small-grain granulates. Insert the lance down to the required depth. Empty via the open end of the handle directly into the sample bag.

Sterility	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Non-sterile	300	21	**ETX6.1**	10 unit(s)	65,35
Sterile	300	21	**ETX7.1**	10 unit(s)	75,95
Non-sterile	500	21	**ETX8.1**	10 unit(s)	82,40
Sterile	500	21	**ETX9.1**	10 unit(s)	94,00

(3) MicroDispo
For target point samples of small quantities of free-flowing bulk materials up to a grain size of 0.5 mm. Insert the sampler, pull up the handle of the pull rod and take the sample. Press the handle down to empty the sample into a vessel.

Sterility	Vol. (ml)	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Non-sterile	10	500	21	**HC55.1**	10 unit(s)	89,60
Sterile	10	500	21	**ETY0.1**	10 unit(s)	123,00
Sterile	10	1,000	21	**ETY1.1**	10 unit(s)	144,65

(4) ZoneDispo
For all-layer sampling oxf free-flowing bulk materials and fine granulates. Insert the closed zone sampler down to the desired depth and open; the bulk material flows in. Close sampler, remove it and empty through the open chambers. The sample can be secured and transported when the sampler is closed.

Sterility	Vol. (ml)	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Non-sterile	100	500	25	**HC58.1**	10 unit(s)	119,20
Sterile	100	500	25	**ETY2.1**	10 unit(s)	142,55
Non-sterile	200	1,000	25	**ETY3.1**	10 unit(s)	145,90
Sterile	200	1,000	25	**ETY4.1**	10 unit(s)	169,85



Sample scoops DispoDipper

Bürkle. Material: PP, transparent.

For taking samples from barrels, canisters and other containers. Scaled beaker can be closed liquid-tight after the sample has been taken. Removable handle.
Particularly suitable for the food, animal feed and pharmaceutical industries.

- Colour blue
- Compliant with the EU food regulations and FDA regulations
- Manufactured in a cleanroom (Class 7), individually packed

Technical specifications:

Art. No.	HXH0.1	HXH1.1	1AHP.1	1AHT.1	1AHE.1	1AHH.1
Height with lid	98 mm				116 mm	
Outer beaker Ø	40 mm		53 mm		72 mm	
Suitable for	Opening Ø 52 mm (2″ barrel openings)		Opening Ø 65 mm		Opening Ø 85 mm	

Sterility	Vol. (ml)	Length (mm)	Immersion depth (mm)	Art. No.	Pack Qty.	€
Non-sterile	50	417	270	**HXH0.1**	20 unit(s)	29,40
Sterile	50	417	270	**HXH1.1**	20 unit(s)	36,40
Non-sterile	100	415	270	**1AHP.1**	20 unit(s)	41,60
Sterile	100	415	270	**1AHT.1**	20 unit(s)	53,05
Non-sterile	250	429	270	**1AHE.1**	20 unit(s)	45,50
Sterile	250	429	270	**1AHH.1**	20 unit(s)	61,20

Disposable samplers



Single-use samplers for liquids

Bürkle. Material: HDPE.

For sampling viscous media and liquids. No contamination by other samples and no time-consuming cleaning.

- Colour white
- Compliant with the EU food regulations and FDA regulations
- Manufactured in a cleanroom (Class 7), individually packed

(1) ViscoDispo
For high-viscosity liquids up to a maximum of 100,000 mPas. Insert the sampler into the liquid. Pull up the handle of the pull rod to take the sample. Then press the pull rod down to empty the sample into a vessel.

Sterility	Vol. (ml)	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Non-sterile	100	500	21	**HC52.1**	10 unit(s)	96,45
Sterile	100	500	21	**ETT5.1**	10 unit(s)	96,25
Non-sterile	200	1,000	21	**HC53.1**	10 unit(s)	108,25
Sterile	200	1,000	21	**ETT6.1**	10 unit(s)	124,15

(2) LiquiDispo
For low-viscosity liquids up to a maximum of 2000 mPas. Insert the sampler into the liquid. Pull up the handle of the pull rod to take the sample. Then press the pull rod down to empty the sample into a vessel.

Sterility	Vol. (ml)	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Non-sterile	100	500	21	**HC50.1**	10 unit(s)	96,45
Sterile	100	500	21	**ETT7.1**	10 unit(s)	96,25
Non-sterile	200	1,000	21	**HC51.1**	10 unit(s)	108,25
Sterile	200	1,000	21	**ETT8.1**	10 unit(s)	124,15

(3) DispoPipette
For all-layer and target-point samples of liquids of different viscosities (Opening sizes of Ø 2.5/5.5 mm). When the sampler is opened, the liquid flows in or out. When the sampler is closed, the liquid is held in the sampler.

Sterility	Vol. (ml)	Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
Non-sterile	100	500	21	**ETT9.1**	10 unit(s)	56,30
Sterile	100	500	21	**ETX0.1**	10 unit(s)	71,35
Non-sterile	200	1,000	21	**ETX1.1**	10 unit(s)	65,35
Sterile	200	1,000	21	**ETX2.1**	10 unit(s)	86,00

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Canister/barrel pumps



Dosing pump with locking device

ROTH SELECTION. Material: HDPE.

Technical specifications:

Art. No.	HL77.1	P241.1	P242.1
Delivery rate	25 ml	30 ml	100 ml
Immersion depth	230 mm	175 mm	398 mm
Conductive	No		
Drum	up to 5 l	up to 30 l	

Note: The delivery rate refers to one stroke.

Pic.	Thread	Art. No.	Pack Qty.	€
(1)	DIN 55	**HL77.1**	1 unit(s)	10,55
(2)	DIN 50	**P241.1**	1 unit(s)	16,20
(2)	DIN 60	**P242.1**	1 unit(s)	67,55



Siphon with ball valve

Bürkle. Material: LDPE, PVC, PP.

For rapid filling of aqueous fluids. With robust ball valve made of PP. Works according to the siphoning principle: The fluid is only drawn in once. It is therefore particularly suitable for the complete emptying of barrels. Tubing internal Ø: 15 mm.

Technical specifications:

Art. No.	YC59.1
Delivery rate	9 l/min
Immersion depth	1000 mm
Conductive	No

Delivery incl. hose with kink protection and lifting device.

Version	Art. No.	Pack Qty.	€
with ball valve	**YC59.1**	1 unit(s)	61,35



Canister pump Pump-it®

Bürkle. Material: PP, PE, FKM.

For quick and clean emptying of canisters and small barrels. Operate according to the excess pressure principle: Excess pressure is produced using the hand piston. This pushes the fluid out of the canister.

- Exact dosing, no trailing.
- Good residue emptying. Telescopic suction tube adjusts to different container heights.
- For liquids with a viscosity of up to 500 mPas at 20 °C.

Technical specifications:

Art. No.	1601.1
Delivery rate	6 l/min
Immersion depth	1000 mm
Ø Immersion tube	15 mm
Conductive	No
Drum	up to 60 l

Please order a suitable thread adapter separately.

Thread	Art. No.	Pack Qty.	€
64 mm (BSI)	**1601.1**	1 unit(s)	188,15

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Canister/barrel pumps



Dispensing pump OTAL® Disposable PE

Bürkle. Material: PE, PVC.

Single-use feed tube is quick and easy to replace. No contamination of the solution due to contaminated reusable pumps. Time-consuming and cost-intensive cleaning is no longer required. The feed tube is the only part which comes into contact with the medium.

- PE feed tube, made of one piece and which can be cut to the required container height
- The drainage elbow from the feed pipe can also be cut
- Max. flexibility and good residue emptying
- With universal adapter made of soft PVC for container openings of Ø 30-70 mm

Technical specifications:

Art. No.	1AL2.1	1AL0.1
Delivery rate	14 l/min	
Immersion depth	900 mm	
Conductive	No	
Drum	up to 120 l	up to 60 l

Delivery incl. 10 disposable feed tubes and separators.

Foot pump

Version	Art. No.	Pack Qty.	€
with PE drainage elbow Feed tubes Ø 12 mm	**1AL2.1**	1 unit(s)	103,80

Hand pump

Version	Art. No.	Pack Qty.	€
with PE drainage elbow Feed tubes Ø 12 mm	**1AL0.1**	1 unit(s)	83,65



Dispensing pump OTAL® PP

Bürkle. Material: PP, PVC.

Works according to the excess pressure principle.

- With feed tubes made of PP. Resistant to weak acids, alkalis and cleaning agents.
- Good residue emptying. Telescopic suction tube adjusts to different container heights.
- With universal adapter made of soft PVC for container openings of Ø 30–70 mm.

Technical specifications:

Art. No.	1720.1	AN75.1	1847.1	AN74.1
Delivery rate	26 l/min	12 l/min	26 l/min	12 l/min
Immersion depth	700 mm			
Conductive	No			
Drum	up to 60 l		up to 120 l	

Delivery incl. universal adapter.

Hand pump

- Designed to be extremely compact and to save space

Pic.	Version	Art. No.	Pack Qty.	€
(1)	with PP drainage elbow Feed tubes Ø 18 mm	**1720.1**	1 unit(s)	83,00
(2)	with PVC tubing and PP/PE stopcock Feed tubes Ø 12 mm	**AN75.1**	1 unit(s)	90,75

Foot pump

- Simple operation: Both hands remain free while filling
- Excellent delivery rate thanks to large-volume foot bellow

Pic.	Version	Art. No.	Pack Qty.	€
(3)	with PP drainage elbow Feed tubes Ø 18 mm	**1847.1**	1 unit(s)	109,70
(4)	with PVC tubing and PP/PE stopcock Feed tubes Ø 12 mm	**AN74.1**	1 unit(s)	107,10

Canister/barrel pumps



Dispensing pump OTAL® PVDF

Bürkle. Material: PVDF, PVC.

Works according to the excess pressure principle.

- With feed tubes made of PVDF for improved chemical resistance. For non-strongly oxidising acids and alkalis. Resistant to chlorine bleach
- Good residue emptying. Telescopic suction tube adjusts to different container heights
- With universal adapter made of soft PVC for container openings of Ø 30–70 mm

Technical specifications:

Art. No.	HT03.1	HT04.1
Delivery rate	16 l/min	20 l/min
Immersion depth	700 mm	
Conductive	No	
Drum	up to 120 l	up to 60 l

Delivery incl. universal adapter.

(1) Hand pump

- Designed to be extremely compact and to save space.

Version	Art. No.	Pack Qty.	€
with discharge elbow feed tubes Ø 16 mm	**HT04.1**	1 unit(s)	151,00

(2) Foot pump

- Simple operation: Both hands remain free while filling
- Excellent delivery rate thanks to large-volume foot bellow

Version	Art. No.	Pack Qty.	€
with discharge elbow feed tubes Ø 16 mm	**HT03.1**	1 unit(s)	162,35



Canister pump Mini

Bürkle. Material: PP, PVC.

Works according to the excess pressure principle.

- Ideal for filling smaller volumes
- Conveyor tubes made of PP
- With universal adapter made of soft PVC for container openings of Ø 20–36 mm

Technical specifications:

Art. No.	E335.1
Delivery rate	4 l/min
Immersion depth	450 mm
Ø Immersion tube	10 mm
Conductive	No
Drum	up to 10 l

Delivery incl. universal adapter.

Version	Art. No.	Pack Qty.	€
Mini	**E335.1**	1 unit(s)	61,85



Barrel pump gas-tight

Bürkle. Material: PP, PVC.

Vented gases produced when pumping are fed back to the original container by a gas displacement line. This prevents pungent and foul-smelling gases from leaking out. Also attach a stopcock to the gas and liquid line.

- Works according to the piston stroke principle
- Conveyor tubes made of PP, tubing made of PVC (120 m length)
- With universal adapter made of soft PVC for container openings of Ø 34–70 mm
- Good residue emptying. Telescopic suction tube adjusts to different container heights

Technical specifications:

Art. No.	E013.1
Delivery rate	200 ml
Immersion depth	400–700 mm
Ø Immersion tube	22 mm
Conductive	No

Note: The delivery rate refers to one stroke.

Delivery incl. universal adapter, two adapters for container to be filled.

Version	Art. No.	Pack Qty.	€
gas-tight	**E013.1**	1 unit(s)	323,60

Barrel pumps



Barrel pump PTFE

Bürkle. Material: PTFE, FEP.

Excellent chemical resistance for safe filling of ultrapure and aggressive liquids.

- Works according to the piston stroke principle
- Stopcock stops liquids from dripping and prevents hazardous vapours from escaping
- Good residue emptying by a low-mounted non-return valve and barrel screw joint that can be continuously adjusted with respect to height
- Barrel screw joint attaches the barrel pump securely in the barrel

Technical specifications:

Art. No.	1AHX.1	1AK0.1	AH27.1	NH33.1	LY53.1	NH34.1
Delivery rate	180 ml		400 ml	270 ml		400 ml
Immersion depth	400 mm		950 mm	600 mm		950 mm
Ø Immersion tube	32 mm					
Conductive	No					

Note: The delivery rate refers to one stroke.

Delivery without barrel screw joint, please order separately.

With discharge elbow

Pic.	Length (mm)	Art. No.	Pack Qty.	€
(1)	585	**1AHX.1**	1 unit(s)	565,25
(1)	1,100	**AH27.1**	1 unit(s)	613,85
(1)	770	**LY53.1**	1 unit(s)	566,55

With drainage hose (PTFE, 1.2 m length)

Pic.	Length (mm)	Art. No.	Pack Qty.	€
(2)	585	**1AK0.1**	1 unit(s)	565,25
(2)	770	**NH33.1**	1 unit(s)	566,55
(2)	1,100	**NH34.1**	1 unit(s)	613,85



Accessories for PP/PTFE/AccuOne/EnergyOne barrel pumps

Bürkle.

PVC barrel stopper

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	Opening Ø 40–70 mm	**9276.1**	1 unit(s)	27,55

PP barrel screw joint

Pic.	Suitable for	Art. No.	Pack Qty.	€
(2)	2″ fine steel thread (internal)	**1789.1**	1 unit(s)	38,85
	2″ Mauser coarse thread (internal)	**PL93.1**	1 unit(s)	48,00
(3)	2″ fine steel thread (internal) and adapter for Tri-Sure® coarse thread (internal)	**T243.1**	1 unit(s)	46,80

PP thread adapter

Pic.	Suitable for	Art. No.	Pack Qty.	€
(4)	2″ fine steel thread (internal) and DIN 51 (external thread)	**YK28.1**	1 unit(s)	26,70
(5)	2″ fine steel thread (outside) and DIN 61 (external thread)	**YK29.1**	1 unit(s)	22,85

Screw joint with lock nut

Pic.	Suitable for	Art. No.	Pack Qty.	€
(6)	attachment in any position; 60 mm mounting hole	**T244.1**	1 unit(s)	44,05



Barrel pump PP

Bürkle.

For safely filling liquids from barrels, canisters and tanks.

- Works according to the piston stroke principle
- Good residue emptying by a low-mounted non-return valve and barrel screw joint that can be continuously adjusted with respect to height
- Barrel screw joint attaches the barrel pump securely in the barrel

Note: The delivery rate refers to one stroke.

Delivery without barrel screw joint, please order separately.

(1) With discharge elbow

Material: PP.

Technical specifications:

Art. No.	Y958.1	Y959.1	Y960.1	Y961.1	Y962.1	Y963.1
Delivery rate	200 ml	230 ml	260 ml	300 ml		
Immersion depth	500 mm	650 mm	800 mm	1000 mm	1250 mm	1500 mm
Ø Immersion tube	32 mm					
Conductive	No					

Length (mm)	Art. No.	Pack Qty.	€
600	**Y958.1**	1 unit(s)	174,15
740	**Y959.1**	1 unit(s)	174,15
900	**Y960.1**	1 unit(s)	180,60
1,090	**Y961.1**	1 unit(s)	199,95
1,340	**Y962.1**	1 unit(s)	229,00
1,590	**Y963.1**	1 unit(s)	234,35

(2) With drain hose and stopcock

Material: PP, PVC.

Technical specifications:

Art. No.	Y964.1	Y965.1	Y966.1	Y967.1	Y968.1	Y969.1
Delivery rate	200 ml	230 ml	260 ml	300 ml		
Immersion depth	500 mm	650 mm	800 mm	1000 mm	1250 mm	1500 mm
Ø Immersion tube	32 mm					
Conductive	No					

Length (mm)	Art. No.	Pack Qty.	€
600	**Y964.1**	1 unit(s)	175,25
740	**Y965.1**	1 unit(s)	175,25
900	**Y966.1**	1 unit(s)	180,60
1,090	**Y967.1**	1 unit(s)	199,95
1,340	**Y968.1**	1 unit(s)	229,00
1,590	**Y969.1**	1 unit(s)	234,35

Solvent pumps



Solvent pump Mini

Bürkle. Material: PTFE, Stainless steel.

For ultra-pure fluids and highly flammable media.

- Works according to the excess pressure principle, pressure relief valve protects against excessive build-up of pressure
- Connection apparatus for earthing cable to discharge electrostatic charges
- Medium is filled at the press of a button
- Integrated outlet spout (external Ø 7 mm) prevents dripping and allows tubing to be attached

Technical specifications:

Art. No.	APE4.1
Delivery rate	1,8 l/min
Immersion depth	400 mm
Ø Immersion tube	8 mm
Conductive	Yes
Drum	up to 5 l

Delivery incl. earthing cable and PTFE riser (internal Ø 6 mm, 1 mm wall thickness, 400 mm length).

Thread	Art. No.	Pack Qty.	€
GL 45	**APE4.1**	1 unit(s)	533,20



Anti-static set ROTH

ROTH SELECTION.

Protects against fire and explosion due to electrostatic charge when filling from solvent barrels. Consists of two isolated cables (each L 3 m, Ø 3 mm) with clamping tongs on both sides and a blank copper wire (L 3 m, Ø 2 mm) with a clamping tong on one side.

Version	Art. No.	Pack Qty.	€
ROTH anti-static set	**0213.1**	1 unit(s)	57,15



Solvent pump hand pump

ROTH SELECTION. Material: PTFE, Stainless steel 1.4301.

For ultra-pure fluids and highly flammable media.

- Works according to the excess pressure principle
- Fixed drainage elbow with stopcock
- Pump can be shut off hermetically by two ball valves

Technical specifications:

Art. No.	N103.1
Immersion depth	275 / 410 mm
Ø Immersion tube	16 mm
Conductive	Yes
Drum	10 l and 25 l
Weight	1,2 kg

Note:

Note: The container and the pump must be earthed using the ROTH anti-static set (Art. No. 0213.1) during filling of flammable liquids.

In addition, no thread adapters can be mounted on the barrel screw joint supplied.

Delivery incl. barrel screw joint and immersion tubes for 10 l (length incl. pump ball: 450 mm) and 25 l (length incl. pump ball: 575 mm) containers.

Thread	Art. No.	Pack Qty.	€
2″ steel fine thread	**N103.1**	1 unit(s)	504,20

Solvent pumps



Solvent pump SEKUROKA®

Carl ROTH. Material: PTFE, Stainless steel 1.4301 and 1.4305.

For filling of flammable liquids.

- Works according to the piston stroke principle.
- Immersion tube is continuously adjustable to barrel depth.
- Near-complete emptying of the barrels.
- Removable drainage elbow for connecting a drainage hose with stopcock, please order separately.

Technical specifications:

Art. No.	N502.1	N503.1
Delivery rate	140 ml	200 ml
Immersion depth	570 mm	910 mm
Ø Immersion tube	32 mm	
Conductive	Yes	
Drum	up to 50 l	up to 200 l
Weight	1.2 kg	1.8 kg

Note:

The delivery rate refers to one stroke.

The container and the pump must be earthed using the ROTH anti-static set (Art. No. 0213.1) during filling of flammable liquids.

Delivery incl. barrel screw joint.

Thread	Length (mm)	Art. No.	Pack Qty.	€
2″ steel fine thread	680	**N502.1**	1 unit(s)	284,90
2″ steel fine thread	1,020	**N503.1**	1 unit(s)	313,90



Solvent pump foot pump

Bürkle. Material: PTFE, Stainless steel 1.4301.

For ultra-pure fluids and highly flammable media.

- Works according to the excess pressure principle
- A barrel screw joint and stopcock allow the container and pump to be hermetically sealed
- Immersion tube can be continuously adjusted to barrel depth

Technical specifications:

Art. No.	CPT5.1	CPT6.1
Delivery rate	20 l/min	
Immersion depth	950 mm	
Ø Immersion tube	21.3 mm	
Conductive	Yes	
Drum	up to 220 l	
Weight	3.5 kg	4.4 kg

Note: The container and the pump must be earthed using the ROTH anti-static set (Art. No. 0213.1) during filling of flammable liquids.

Delivery incl. barrel screw joint.

Pic.	Version	Thread	Length (mm)	Art. No.	Pack Qty.	€
(1)	with discharge elbow	2″ steel fine thread	1,485	**CPT5.1**	1 unit(s)	566,55
(2)	with drainage hose	2″ steel fine thread	1,485	**CPT6.1**	1 unit(s)	760,05

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Barrel pumps, electric



Barrel pump

Bürkle. Material: Hastelloy, PP, PVDF, PTFE (in contact with media).

- Unique hybrid system makes filling liquids fast and versatile, i.e. by changing the supply units to use either with battery or mains adapter
- The drive can be disconnected easily via a clip lock. This makes it possible to use one drive for filling at several stationary pump stations
- continuously variable control of flow rate from 0.4 l/min to 12 l/min via TouchPanel
- barrel screw joint can be continuously adjusted with respect to height and this secures the barrel pump in the barrel

Available as an option:

- Flexible drain hose with nozzle.
  Drain hose connection ¾″

Technical specifications:

Art. No.	PL80.1	PL81.1	PL82.1	PL83.1	PL84.1	PL85.1
Motor Ex-protected	no					
Delivery rate	12 l/min					
Immersion depth	500 mm	700 mm	1000 mm	500 mm	700 mm	1000 mm
Ø Immersion tube	25 mm					
Weight	750 kg			580 kg		
Power supply	Lithium-Ion rechargeable battery/14.4 V/1.5 Ah					

AccuOne

- Battery-operated barrel pump (offers versatility and independence from the power supply)
- Up to 600 litres of delivery volume per battery charge

Delivery incl. fixed drainage elbow, battery and charger.

Barrel screw joint not included, please order separately.

Length (mm)	Art. No.	Pack Qty.	€
825	**PL80.1**	1 unit(s)	628,90
1,025	**PL81.1**	1 unit(s)	646,10
1,325	**PL82.1**	1 unit(s)	664,35

EnergyOne

- Mains-operated barrel pump (offers versatility and independence from battery charging)
- Unlimited filling duration

Delivery incl. fixed drainage adapter, mains adapter and international plug adapter.

Barrel screw joint not included, please order separately.

Length (mm)	Art. No.	Pack Qty.	€
825	**PL83.1**	1 unit(s)	531,05
1,025	**PL84.1**	1 unit(s)	549,35
1,325	**PL85.1**	1 unit(s)	566,55



Barrel pump electric

Lutz-Pumpen.

To pump fluid media out of large containers

Technical specifications:

Art. No.	KH51.1	KH52.1	KA12.1	X352.1	KA13.1	KA14.1
Motor Ex-protected	no				yes	
Delivery rate	75 l/min		85 l/min	80 l/min	95 l/min	
Immersion depth	700 mm	1000 mm				
Delivery height	7 nWC		19 nWC	17 nWC	14 nWC	
Density	1.3 kg/dm³		1.4 kg/dm³	1.8 kg/dm³	1.6 kg/dm³	
Viscosity	300 mPas			800 mPas	350 mPas	
Performance	200 W		500 W	575 W	460 W	
Cable length	3 m		5 m			
Mains connection	230 V, 50 Hz					

Set

For aqueous fluids, diluted acids and alkalis, hydrogen peroxide, etc.

Material:

- Nozzle made of PP
- Immersion tube made of PP

Delivery incl. 1.5 m PVC tubes ¾″, single-handed tap valve, suspension apparatus.

Version	Art. No.	Pack Qty.	€
1	**KH51.1**	1 unit(s)	719,20
2	**KH52.1**	1 unit(s)	751,45

Set 3

For thin alkalis, sodium hydroxide, potassium hydroxide, ammonia water, formic acid, acetic acid, etc.

Material:

- Nozzle made of PP/FEP
- Immersion tube made of PP

Delivery incl. 2.0 m PVC spiral hose ¾″ (DN 19), nozzle, barrel adapter (PP).

Version	Art. No.	Pack Qty.	€
3	**KA12.1**	1 unit(s)	1.159,95

Set 4

For most concentrated acids and alkalis, such as hydrochloric acid, sulphuric acid, hydrofluoric acid, etc.

Material:

- Nozzle made of PVDF
- Immersion tube made of PVDF

Delivery incl. 2.0 m specialised chemical hose ¾″ (DN 19), nozzle, barrel adapter (PP).

Version	Art. No.	Pack Qty.	€
4	**X352.1**	1 unit(s)	2.310,20

Barrel pumps, electric

Set 5 Ex
For highly flammable hydrocarbons, such as ethanol, gasoline, isopropanol, kerosene, methanol, petroleum, etc.

Material:
- Nozzle made of brass/PTFE
- Immersion tube made of stainless steel

Delivery incl. 2.0 m coolant hose ¾″ (DN 19), conductive hose connections, nozzle, equipotential bonding, PP barrel adapter, safety plug not protected against explosions. Universal motor protected against explosions according to ignition protection category II 2 G EEx de IIC T6 (ATEX), stainless steel pump system protected against explosions according to ignition protection category Ex II 1/2 G IIB T4 (ATEX).

Version	Art. No.	Pack Qty.	€
5 Ex	**KA13.1**	1 unit(s)	2.557,45

Set 6 Ex
For potentially explosive liquids, such as acetone, conc. formic acid, ethyl acetate, butyl acetate, conc. acetic acid, nicotine, toluene, styrene, etc.

Material:
- Nozzle made of Niro/FEP
- Immersion tube made of stainless steel

Delivery incl. 2.0 m chemical hose ¾″ (DN 19), conductive hose connections, nozzle, equipotential bonding, PP barrel adapter, safety plug not protected against explosions. Universal motor protected against explosions according to ignition protection category II 2 G EEx de IIC T6 (ATEX), stainless steel pump system protected against explosions according to ignition protection category Ex II 1/2 G IIB T4 (ATEX).

Version	Art. No.	Pack Qty.	€
6 Ex	**KA14.1**	1 unit(s)	3.277,70



Canister pump battery-operated

Bohlender. Material: PP, PTFE, Hastelloy.

Suitable for low-risk filling and transferring of liquids that are similar to water (e.g. alkalis, acids, etc.). Can be universally used and easy to operate. Powerful and light (500 g incl. batteries). Two batteries (Mono 1.5 V) are required for operation.

Technical specifications:

Art. No.	E490.1	E491.1
Motor Ex-protected	no	
Delivery rate	6 l/min	
Immersion depth	400 mm	600 mm
Ø Immersion tube	25 mm	

Delivery without batteries, please order separately.

Length (mm)	Art. No.	Pack Qty.	€
630	**E490.1**	1 unit(s)	481,60
830	**E491.1**	1 unit(s)	499,90



Dispensers Piccolo

Vitlab.

With two fixed volumes. Ideally suited to dispensing long series. Manual push-button delivery, automatic refilling. Good chemical resistance thanks to high-quality materials, but not suitable for vapourous media.

- Precise media delivery
- Freely rotatable discharge tube on the bottle
- Choice of 2 fixed volumes
- Valve block with GL 28 thread

Parts in contact with media:
PTFE, FEP, ETFE, PFA, borosilicate glass, platinum-iridium

Technical specifications:

Art. No.	Y698.1	Y699.1	Y697.1
Correctness	1,0 %		2,0 %
Variation coefficient	0,2 %		0,4 %

Volume (µl)	Art. No.	Pack Qty.	€
100 / 250	**Y697.1**	1 unit(s)	281,65
500 / 1000	**Y698.1**	1 unit(s)	281,65
1000 / 2000	**Y699.1**	1 unit(s)	281,65



Automatic pipettes

BRAND. Material: DURAN® glass (Dosing attachment).

Calibrated to “Ex”. Neck: NS 29/32. Labelling in green enamel paint. Particularly suited for dispensing suspensions.

Delivery without bottle, please order separately.

Volume (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
5	±1,0	**Y446.1**	1 unit(s)	71,50
10	±1,0	**Y447.1**	1 unit(s)	74,15
20	±2,0	**Y448.1**	1 unit(s)	79,05
25	±2,5	**Y449.1**	1 unit(s)	83,05
50	±5,0	**Y450.1**	1 unit(s)	110,75
100	±10,0	**Y451.1**	1 unit(s)	115,80

Dispensers ROTILABO® II



A 121 °C

Carl ROTH. Autoclavable: Yes.

- Direct displacing piston with wiping PFA lip seal reduces crystallisation of liquids
- Improved volume adjustment due to internal toothed rack, volumes can be set quickly and precisely
- Valve block rotatable by 360° on the bottle, with GL 45 thread
- Swivelling cap does not obstruct dispensing
- Vent valve with safety bulb closes dosing channel if discharge tube is not fitted
- Screwable ventilation stoppers for quick assembly of a drying tube
- Telescopic intake tube, infinitely adjustable to different bottle heights
- Suitable for calibration in conjunction with measuring instrument inspection acc. to ISO 9001 and GLP; change to factory calibration is displayed
- Autoclavable at 121 °C (2 bar), acc. to DIN EN 285, with no need to disassemble

Materials in contact with media: Borosilicate glass, Al_2O_3 ceramic, ETFE, FEP, PFA, PTFE, platinum-iridium, PP (cap).

Limits of use:
Temperature from +15 °C to +40 °C, steam pressure up to max. 500 mbar, kinematic viscosity up to 500 mm^2/s, density up to 2.2 g/cm^3.

Technical specifications:

Art. No.	HAC6.1	HAC7.1	HAC8.1	HAC9.1	HAE0.1	HAE1.1
Nominal volume	2 ml	5 ml	10 ml	25 ml	50 ml	100 ml
Correctness	±10	±25	±50	±125	±250	±500
Variation coefficient	±2	±5	±10	±25	±50	±100
Operating temperature	+15 – +40 °C					
Adapter	GL 25, GL 28/S 28, GL 32, GL 38, S 40			GL 32, GL 38, S 40		
Suction tube length	240 mm			330 mm		

Delivery incl. quality certificate, telescopic filling tube, valve mounting tool and PP thread adapter.

Volume (ml)	Graduation	Art. No.	Pack Qty.	€
0,2–2	0,05	**HAC6.1**	1 unit(s)	394,55
0,5–5	0,10	**HAC7.1**	1 unit(s)	394,55
1–10	0,20	**HAC8.1**	1 unit(s)	394,55
2,5–25	0,50	**HAC9.1**	1 unit(s)	526,75
5–50	1,0	**HAE0.1**	1 unit(s)	540,75
10–100	1,0	**HAE1.1**	1 unit(s)	691,25

Dispenser

Dispensers Dispensette® S

BRAND. Autoclavable: Yes.

Range of applications:
Colour code: red. For dispensing aggressive reagents directly from the supply bottle, e.g. concentrated bases and acids such as H_3PO_4, H_2SO_4 (excluding, e.g., HCl, HNO_3 and HF), saline solutions and a wide range of organic solvents.

Properties:

- The "floating piston" design makes dispensing easy
- Rapid ventilation through improved fluid mechanics
- Valves without additional seals for easier cleaning
- Rotates through 360°, valve block with GL 45 thread
- Discharge tube with swivel-mounted screw cap for protection against media contact
- Telescopic suction tube adjustable to different bottle sizes
- DE-M approved
- Suitable for calibration in conjunction with measuring instrument inspection according to ISO 9011 and GLP
- Change to factory calibration is shown
- Easy to disassemble for cleaning
- Fully autoclavable at 121 °C
- Microfilter can be connected to the ventilation opening for sterile dispensing



NEW / +

A 121 °C

Materials in contact with media:
Borosilicate glass, Al_2O_3 ceramic, platinum-iridium, ETFE, FEP, PFA, PTFE and PP.

Limits of use:
Max. vapour pressure 600 mbar; max. viscosity 500 mm^2/s; max. temperature +40 °C; max. density 2.2 g/cm^3.

Analogue without recirculation valve
Quickly adjustable dispensing volume, safe and reliable volume adjustment via the internal toothed rack.

Discharge tube without recirculation valve, prevents contamination of the bottle contents.

Technical specifications:

Art. No.	1HNK.1	1HNL.1	1HNN.1	1HNP.1	1HNT.1	1HNX.1	1HNY.1
Nominal volume	1 ml	2 ml	5 ml	10 ml	25 ml	50 ml	100 ml
Correctness	±6 µl	±10 µl	±25 µl	±50 µl	±125 µl	±250 µl	±500 µl
Variation coefficient	±2 µl		±5 µl	±10 µl	±25 µl	±50 µl	±100 µl
Operating temperature	+15 – +40 °C						
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40				GL 32-33, GL 38, S 40		
Suction tube length	240 mm				330 mm		

Delivery incl. quality certificate, telescopic filling tube, valve mounting tool and PP thread adapter.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
0,1–1	0,02	**1HNK.1**	1 unit(s)	379,50
1–10	0,20	**1HNP.1**	1 unit(s)	379,50
0,2–2	0,05	**1HNL.1**	1 unit(s)	379,50
0,5–5	0,10	**1HNN.1**	1 unit(s)	379,50
5–50	1,00	**1HNX.1**	1 unit(s)	540,75
10–100	1,00	**1HNY.1**	1 unit(s)	737,45
2,5–25	0,50	**1HNT.1**	1 unit(s)	495,60

Dispenser

Analogue with recirculation valve

Quickly adjustable dispensing volume, safe and reliable volume adjustment via the internal toothed rack.

Discharge tube with recirculation valve prevents reagent loss and allows quick, bubble-free ventilation.

Technical specifications:

Art. No.	1HK3.1	ECL9.1	ECN0.1	ECN1.1	ECN2.1	ECN3.1	ECN4.1
Nominal volume	1 ml	2 ml	5 ml	10 ml	25 ml	50 ml	100 ml
Correctness	±6 µl	±10 µl	±25 µl	±50 µl	±125 µl	±250 µl	±500 µl
Variation coefficient	±2 µl		±5 µl	±10 µl	±25 µl	±50 µl	±100 µl
Operating temperature	+15 – +40 °C						
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40				GL 32-33, GL 38, S 40		
Suction tube length	240 mm				330 mm		

Delivery incl. quality certificate, telescopic filling tube, recirculation valve and tube, valve mounting tool and PP thread adapter.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
0,1–1	0,02	**1HK3.1**	1 unit(s)	424,65
1–10	0,20	**ECN1.1**	1 unit(s)	424,65
0,2–2	0,05	**ECL9.1**	1 unit(s)	424,65
0,5–5	0,10	**ECN0.1**	1 unit(s)	424,65
5–50	1,00	**ECN3.1**	1 unit(s)	582,65
10–100	1,00	**ECN4.1**	1 unit(s)	782,60
2,5–25	0,50	**ECN2.1**	1 unit(s)	542,90

Digital without recirculation valve

Easy-to-read digital display via mechanical counter. Easy-Calibration technology for fast calibration.

Discharge tube without recirculation valve, prevents contamination of the bottle contents.

Technical specifications:

Art. No.	1HK6.1	1HK7.1	1HK8.1	1HK9.1	1HKA.1	1HKC.1
Nominal volume	1 ml	2 ml	5 ml	10 ml	25 ml	50 ml
Correctness	±6 µl	±10 µl	±25 µl	±50 µl	±125 µl	±250 µl
Variation coefficient	±2 µl		±5 µl	±10 µl	±25 µl	±50 µl
Operating temperature	+15 – +40 °C					
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40				GL 32-33, GL 38, S 40	
Suction tube length	240 mm				330 mm	

Delivery incl. quality certificate, telescopic filling tube, valve mounting tool and PP thread adapter.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
0,1–1	0,005	**1HK6.1**	1 unit(s)	428,95
1–10	0,05	**1HK9.1**	1 unit(s)	428,95
0,2–2	0,01	**1HK7.1**	1 unit(s)	428,95
0,5–5	0,02	**1HK8.1**	1 unit(s)	428,95
5–50	0,20	**1HKC.1**	1 unit(s)	593,40
2,5–25	0,10	**1HKA.1**	1 unit(s)	545,05

Digital with recirculation valve

Easy-to-read digital display via mechanical counter. Easy-Calibration technology for fast calibration.

Discharge tube with recirculation valve prevents reagent loss and allows quick, bubble-free ventilation.

Technical specifications:

Art. No.	1HK4.1	ECL4.1	ECL5.1	ECL6.1	ECL7.1	ECL8.1
Nominal volume	1 ml	2 ml	5 ml	10 ml	25 ml	50 ml
Correctness	±6 µl	±10 µl	±25 µl	±50 µl	±125 µl	±250 µl
Variation coefficient	±2 µl		±5 µl	±10 µl	±25 µl	±50 µl
Operating temperature	+15 – +40 °C					
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40				GL 32-33, GL 38, S 40	
Suction tube length	240 mm				330 mm	

Delivery incl. quality certificate, telescopic filling tube, recirculation valve and tube, valve mounting tool and PP thread adapter.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
0,1–1	0,005	**1HK4.1**	1 unit(s)	475,15
1–10	0,05	**ECL6.1**	1 unit(s)	475,15
0,2–2	0,01	**ECL4.1**	1 unit(s)	475,15
0,5–5	0,02	**ECL5.1**	1 unit(s)	475,15
5–50	0,20	**ECL8.1**	1 unit(s)	636,40
2,5–25	0,10	**ECL7.1**	1 unit(s)	585,90

Dispenser

Fixed-volume without recirculation valve
Non-adjustable dispensing volume for routine applications.

Discharge tube without recirculation valve, prevents contamination of the bottle contents.

Technical specifications:

Art. No.	1HNA.1	1HNC.1	1HNE.1	1HNH.1
Nominal volume	1 ml	2 ml	5 ml	10 ml
Correctness	±6 µl	±10 µl	±25 µl	±50 µl
Variation coefficient	±2 µl		±5 µl	±10 µl
Operating temperature	+15 – +40 °C			
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40			
Suction tube length	240 mm			

Delivery incl. quality certificate, telescopic filling tube, valve mounting tool and PP thread adapter.

Volume (ml)	Art. No.	Pack Qty.	€
1	**1HNA.1**	1 unit(s)	379,50
2	**1HNC.1**	1 unit(s)	379,50
5	**1HNE.1**	1 unit(s)	379,50
10	**1HNH.1**	1 unit(s)	379,50

Fixed with recirculation valve
Non-adjustable dispensing volume for routine applications.

Discharge tube with recirculation valve prevents reagent loss and allows quick, bubble-free ventilation.

Technical specifications:

Art. No.	ECN5.1	ECN6.1	ECN7.1	ECN8.1
Nominal volume	1 ml	2 ml	5 ml	10 ml
Correctness	±6 µl	±10 µl	±25 µl	±50 µl
Variation coefficient	±2 µl		±5 µl	±10 µl
Operating temperature	+15 – +40 °C			
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40			
Suction tube length	240 mm			

Delivery incl. quality certificate, telescopic filling tube, recirculation valve and tube, valve mounting tool and PP thread adapter.

Volume (ml)	Art. No.	Pack Qty.	€
1	**ECN5.1**	1 unit(s)	424,65
2	**ECN6.1**	1 unit(s)	424,65
5	**ECN7.1**	1 unit(s)	424,65
10	**ECN8.1**	1 unit(s)	424,65

ROTH SELECTION



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Dispensers Dispensette® *S Organic*



NEW / +

A 121 °C

BRAND. Autoclavable: Yes.

Range of applications:
Colour code: Yellow. Ideal for accurately dispensing organic solvents, e.g. chlorinated and fluorinated hydrocarbons such as trichlorofluoroethane and dichloromethane, acids such as concentrated HCl and HNO_3 (excluding HF) as well as for trifluoroacetic acid (TFA), tetrahydrofuran (THF) and peroxides.

Properties:

- The "floating piston" design makes dispensing easy
- Rapid ventilation through improved fluid mechanics
- Valves without additional seals for easier cleaning
- Rotates through 360°, valve block with GL 45 thread
- Discharge tube with swivel-mounted screw cap for protection against media contact
- Telescopic suction tube adjustable to different bottle sizes
- DE-M approved
- Suitable for calibration in conjunction with measuring instrument inspection according to ISO 9011 and GLP
- Change to factory calibration is shown
- Easy to disassemble for cleaning
- Fully autoclavable at 121 °C
- Microfilter can be connected to the ventilation opening for sterile dispensing

Materials in contact with media:
Borosilicate glass, Al_2O_3 ceramic, tantalum, ETFE, FEP, PFA, PTFE and PP.

Limits of use:
Max. vapour pressure 600 mbar; max. viscosity 500 mm^2/s; max. temperature +40 °C; max. density 2.2 g/cm^3.

Analogue without recirculation valve

Quickly adjustable dispensing volume, safe and reliable volume adjustment via the internal toothed rack.

Discharge tube without recirculation valve, prevents contamination of the bottle contents.

Technical specifications:

Art. No.	1K03.1	1K04.1	1K05.1	1K06.1	1K07.1
Nominal volume	5 ml	10 ml	25 ml	50 ml	100 ml
Correctness	±25 µl	±50 µl	±125 µl	±250 µl	±500 µl
Variation coefficient	±5 µl	±10 µl	±25 µl	±50 µl	±100 µl
Operating temperature	+15 – +40 °C				
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40		GL 32-33, GL 38, S 40		
Suction tube length	240 mm		330 mm		

Delivery incl. quality certificate, telescopic filling tube, valve mounting tool and PP thread adapter.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–10	0,2	**1K04.1**	1 unit(s)	379,50
0,5–5	0,1	**1K03.1**	1 unit(s)	379,50
5–50	1,0	**1K06.1**	1 unit(s)	540,75
10–100	1,0	**1K07.1**	1 unit(s)	737,45
2,5–25	0,5	**1K05.1**	1 unit(s)	495,60

Analogue with recirculation valve

Quickly adjustable dispensing volume, safe and reliable volume adjustment via the internal toothed rack.

Discharge tube with recirculation valve prevents reagent loss and allows quick, bubble-free ventilation.

Technical specifications:

Art. No.	ECN9.1	ECP0.1	ECP1.1	ECP2.1	ECP3.1
Nominal volume	5 ml	10 ml	25 ml	50 ml	100 ml
Correctness	±25 µl	±50 µl	±125 µl	±250 µl	±500 µl
Variation coefficient	±5 µl	±10 µl	±25 µl	±50 µl	±100 µl
Operating temperature	+15 – +40 °C				
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40		GL 32-33, GL 38, S 40		
Suction tube length	240 mm		330 mm		

Delivery incl. quality certificate, telescopic filling tube, recirculation valve and tube, valve mounting tool and PP thread adapter.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–10	0,2	**ECP0.1**	1 unit(s)	424,65
0,5–5	0,1	**ECN9.1**	1 unit(s)	424,65
5–50	1,0	**ECP2.1**	1 unit(s)	582,65
10–100	1,0	**ECP3.1**	1 unit(s)	782,60
2,5–25	0,5	**ECP1.1**	1 unit(s)	542,90

Dispenser

Digital without recirculation valve
Easy-to-read digital display via mechanical counter. Easy-Calibration technology for fast calibration.

Discharge tube without recirculation valve, prevents contamination of the bottle contents.

Technical specifications:

Art. No.	1K6L.1	1K6N.1	1K6P.1	1K6T.1
Nominal volume	5 ml	10 ml	25 ml	50 ml
Correctness	±25 µl	±50 µl	±125 µl	±250 µl
Variation coefficient	±5 µl	±10 µl	±25 µl	±50 µl
Operating temperature	+15 – +40 °C			
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40		GL 32-33, GL 38, S 40	
Suction tube length	240 mm		330 mm	

Delivery incl. quality certificate, telescopic filling tube, valve mounting tool and PP thread adapter.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–10	0,05	**1K6N.1**	1 unit(s)	428,95
0,5–5	0,02	**1K6L.1**	1 unit(s)	428,95
5–50	0,20	**1K6T.1**	1 unit(s)	593,40
2,5–25	0,10	**1K6P.1**	1 unit(s)	545,05

Digital with recirculation valve
Easy-to-read digital display via mechanical counter. Easy-Calibration technology for fast calibration.

Discharge tube with recirculation valve prevents reagent loss and allows quick, bubble-free ventilation.

Technical specifications:

Art. No.	1K69.1	1K6A.1	1K6C.1	1K6E.1
Nominal volume	5 ml	10 ml	25 ml	50 ml
Correctness	±25 µl	±50 µl	±125 µl	±250 µl
Variation coefficient	±5 µl	±10 µl	±25 µl	±50 µl
Operating temperature	+15 – +40 °C			
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40		GL 32-33, GL 38, S 40	
Suction tube length	240 mm		330 mm	

Delivery incl. quality certificate, telescopic filling tube, recirculation valve and tube, valve mounting tool and PP thread adapter.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–10	0,05	**1K6A.1**	1 unit(s)	479,45
0,5–5	0,02	**1K69.1**	1 unit(s)	479,45
5–50	0,20	**1K6E.1**	1 unit(s)	636,40
2,5–25	0,10	**1K6C.1**	1 unit(s)	590,20

Fixed-volume without recirculation valve
Non-adjustable dispensing volume for routine applications.

Discharge tube without recirculation valve, prevents contamination of the bottle contents.

Technical specifications:

Art. No.	1K67.1	1K68.1
Nominal volume	5 ml	10 ml
Correctness	±25 µl	±50 µl
Variation coefficient	±5 µl	±10 µl
Operating temperature	+15 – +40 °C	
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40	
Suction tube length	240 mm	

Delivery incl. quality certificate, telescopic filling tube, valve mounting tool and PP thread adapter.

Volume (ml)	Art. No.	Pack Qty.	€
5	**1K67.1**	1 unit(s)	379,50
10	**1K68.1**	1 unit(s)	379,50

Dispenser

Fixed-volume with recirculation valve
Non-adjustable dispensing volume for routine applications.

Discharge tube with recirculation valve prevents reagent loss and allows quick, bubble-free ventilation.

Technical specifications:

Art. No.	1K65.1	1K66.1
Nominal volume	5 ml	10 ml
Correctness	±25 µl	±50 µl
Variation coefficient	±5 µl	±10 µl
Operating temperature	+15 – +40 °C	
Adapter	GL 24-25, GL 28/S 28, GL 32-33, GL 38, S 40	
Suction tube length	240 mm	

Delivery incl. quality certificate, telescopic filling tube, recirculation valve and tube, valve mounting tool and PP thread adapter.

Volume (ml)	Art. No.	Pack Qty.	€
5	**1K65.1**	1 unit(s)	424,65
10	**1K66.1**	1 unit(s)	424,65

Dispensers seripettor®



BRAND.

Properties:

- Dispensing: Push plunger down, fills automatically
- Dispensing sterile media: Screw the valve block with filling tube onto the filled bottle, seal the valve block with the cap, attach the autoclavable sterile filter (0.2 µm) at the side and autoclave at 121 °C. Remove the cap from the valve block under clean bench conditions, screw in the sterile dispensing unit and attach the actuating unit
- Suitable for serial dispensing by means of flexible PTFE dispensing hose with a safety handle, length approx. 800 mm, please order separately
- If the snug fitting plunger seal is worn, the dispensing unit can be changed
- Screws directly onto bottle with thread GL 45

Limits of use:
15 to 40 °C, max. vapour pressure 500 mbar, max. density 2.2 g/cm^3, viscosity 300 mm^2/s (2-ml device), 150 mm^2/s (10-ml device) or 75 mm^2/s (25-ml device)

Technical specifications:

Art. No.	PP91.1	PP92.1	PP93.1	PP94.1	HX64.1	HX65.1
Nominal volume	2 ml	10 ml	25 ml	2 ml	10 ml	25 ml
Correctness	±24 µl	±120 µl	±300 µl	±24 µl	±120 µl	±300 µl
Variation coefficient	±4 µl	±20 µl	±50 µl	±4 µl	±20 µl	±50 µl
Operating temperature	+15 – +40 °C					
Adapter	GL 32-33, GL 38, S 40					
Suction tube length	250 mm			125 - 240 mm		

Delivery incl. discharge tube, filling tube, replacement dispensing unit and PP thread adapter.

Standard
For aqueous solutions, buffer solutions, culture media, thinned, non-oxidised acids and agar culture media up to max. 60 °C.

Materials in contact with media: FEP, PP, PE, EPDM

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–10	0,20	**PP92.1**	1 unit(s)	181,70
0,2–2	0,04	**PP91.1**	1 unit(s)	181,70
2,5–25	0,50	**PP93.1**	1 unit(s)	216,10

Pro
For aqueous solutions, buffer solutions, culture media, acids (e.g. concentrated HCl), polar solvents (e.g. acetone) and UV-sensitive media.

Materials in contact with media: PP, PE, borosilicate glass, Al_2O_3 ceramic, ETFE, PFA, FEP, PTFE, Pt-Ir

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
0,2–2	0,04	**PP94.1**	1 unit(s)	320,35
1–10	0,20	**HX64.1**	1 unit(s)	338,65
2,5–25	0,50	**HX65.1**	1 unit(s)	447,20

Dispenser



Dispensers Dispensette® S Trace Analysis analogue

BRAND.

Range of application: For accurate dispensing of high purity media in trace analysis. Dispensing of metal traces, usually in the low ppb range, or even in the ppt range, depending on the application. The established cleaning process for use in trace analysis is explained in the operating instructions. Can be used as a dispenser for hydrofluoric acid with a platinum-iridium valve spring.

Properties:

- Depending on requirements, the spring material is made of platinum-iridium or tantalum
- Valves without additional ring seals for easier cleaning
- Dispensing plunger with snug fitting seal
- Complete dispensing unit easily replaceable when worn
- Reliable volume control via internal toothed rack
- Rotates through 360°, valve block with GL 45 thread
- Discharge tube with swivel-mounted screw cap for protection against media contact
- Telescopic suction tube adjustable to different bottle sizes
- DE-M approved
- Suitable for calibration in conjunction with measuring instrument inspection according to ISO 9011 and GLP
- Change to factory calibration is shown
- Microfilter can be connected for sterile dispensing

Materials in contact with media:
High-purity plastics (PTFE, ETFE, PCTFE, FEP and PFA), sapphire valves, platinum-iridium or tantalum spring material.

Limits of use:
Max. vapour pressure 600 mbar; max. viscosity 500 mm²/s; max. temperature +40 °C; max. density 3.8 g/cm³.

Technical specifications:

Art. No.	ECX1.1	ECX3.1	ECX2.1	ECX4.1
Correctness	±50 µl			
Variation coefficient	±10 µl			
Operating temperature	+15 – +40 °C			
Adapter	GL 28/ S 28 (ETFE), GL 32 (ETFE), S 40 (PTFE)			
Suction tube length	240 mm			

With recirculation valve
Discharge tube with recirculation valve prevents reagent loss and allows quick, bubble-free ventilation

Delivery incl. quality certificate, recirculation tune, telescopic filling tube, valve mounting tool and thread adapter

Version	Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
Tantalum, with RDV	1–10	0,2	**ECX4.1**	1 unit(s)	911,60
Platinum-iridium, with RDV	1–10	0,2	**ECX2.1**	1 unit(s)	911,60

Without recirculation valve
Discharge tube without recirculation valve, prevents contamination of the bottle contents

Delivery incl. quality certificate, telescopic filling tube, valve mounting tool and thread adapter

Version	Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
Platinum-iridium, without RDV	1–10	0,2	**ECX1.1**	1 unit(s)	862,15
Tantalum, without RDV	1–10	0,2	**ECX3.1**	1 unit(s)	862,15



Bottle holders for dispensers

BRAND. Material: PP.

For secure attachment of bottle top dispensers or digital burettes during work with small storage bottles. Made entirely from plastic and therefore ideal for trace analysis and use in aggressive environments (e.g. acid vapours in extraction).

- Base plate: L 220 x W 160 mm
- Stand rod length: 325 mm
- Weight approx. 1.1 kg

Version	Art. No.	Pack Qty.	€
Bottle holders	**CNN2.1**	1 unit(s)	212,85

Dispensers FORTUNA® POLYFIX®

Poulten & Graf. Autoclavable: Yes.

- Conformity-certified
- Precision dispensing plunger
- Quick adjustment with easy action
- Rotatable fine adjustment
- Screws directly onto bottle with thread GL 32



A 121 °C

Technical specifications:

Art. No.	P312.1	PK97.1	PK99.1	P313.1	PK98.1	PL00.1
Nominal volume	10 ml			50 ml		
Correctness	±60 µl			±300 µl		
Variation coefficient	±20 µl			±100 µl		
Operating temperature	+15 – +50 °C					
Adapter	GL 40, GL 45					
Suction tube length	350 mm					

Delivery incl. discharge tube set, PTFE intake hose, two PP thread adapters.

With glass piston and clear glass cylinder
For dispensing aqueous media.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
2–10	0,2	**P312.1**	1 unit(s)	179,55
10–50	1,0	**P313.1**	1 unit(s)	203,20

With PTFE-coated piston and clear glass cylinder
For dispensing weak acids and bases.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
2–10	0,2	**PK97.1**	1 unit(s)	237,60
10–50	1,0	**PK98.1**	1 unit(s)	278,45

With glass piston and brown glass cylinder
For dispensing light-sensitive media.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
2–10	0,2	**PK99.1**	1 unit(s)	237,60
10–50	1,0	**PL00.1**	1 unit(s)	278,45

Dispenser

Dispensers FORTUNA® OPTIFIX®

Poulten & Graf. Autoclavable: Yes.

Properties:

- Ergonomic design with colour-code system
- Resistant to abrasion, UV radiation, acids and acid vapours
- Valve block without metal springs; no contamination of the dispensed liquid
- Quick volume adjustment with easy action and additional rotatable fine adjustment
- Visually recognisable dosing direction
- Screws directly onto bottle with thread GL 32
- Easy to dismantle and clean
- Conformity testing acc. to DIN EN ISO 8655-5



A 121 °C

BASIC

For dosing aqueous media, crystallizing substances and diluted acids and alkalis.

Plastic-coated, glass dispensing cylinder. Dosing cylinder made of glass, PTFE-coated.

Technical specifications:

Nominal volume	2 ml	5 ml	10 ml	30 ml	50 ml	100 ml	200 ml	300 ml	500 ml
Correctness	±12 µl	±30 µl	±60 µl	±180 µl	±300 µl	±600 µl	±1200 µl	±1800 µl	±3000 µl
Variation coefficient	±4 µl	±10 µl	±20 µl	±60 µl	±100 µl	±200 µl	±400 µl	±600 µl	±1000 µl
Operating temperature	+15 – +35 °C								
Adapter	GL 40, GL 45								
Suction tube length	350 mm						510 mm		

Delivery incl. PTFE intake hose and two PP thread adapters.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–5	0,1	**E822.1**	1 unit(s)	401,00
2–10	0,2	**E823.1**	1 unit(s)	401,00
0,5–2	0,1	**E821.1**	1 unit(s)	401,00
6–30	0,5	**E824.1**	1 unit(s)	565,45
10–50	1,0	**E825.1**	1 unit(s)	604,15
20–100	2,0	**E826.1**	1 unit(s)	1.015,90
40–200	5,0	**E827.1**	1 unit(s)	1.521,15
60–300	5,0	**E828.1**	1 unit(s)	2.133,90
100–500	5,0	**E829.1**	1 unit(s)	2.391,90

SOLVENT

For dosing solvents and low-viscosity media (up to 100 mPa · s).

Plastic-coated, glass dispensing cylinder. Dosing piston made of glass, without coating.

Delivery incl. PTFE intake hose and two PP thread adapters.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–5	0,1	**E834.1**	1 unit(s)	401,00
2–10	0,2	**E835.1**	1 unit(s)	401,00
0,5–2	0,1	**E833.1**	1 unit(s)	401,00
6–30	0,5	**E836.1**	1 unit(s)	565,45
10–50	1,0	**E837.1**	1 unit(s)	604,15
20–100	2,0	**E838.1**	1 unit(s)	1.015,90
40–200	5,0	**E839.1**	1 unit(s)	1.521,15
60–300	5,0	**E840.1**	1 unit(s)	2.133,90
100–500	5,0	**E841.1**	1 unit(s)	2.391,90

Dispenser

SAFETY
For dosing strong acids and aggressive chemicals.
Plastic-coated, glass dispensing cylinder. Dosing cylinder made of glass, PTFE-coated with sealing lip.

Delivery incl. PTFE intake hose and two PTFE thread adapters.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–5	0,1	**E843.1**	1 unit(s)	521,40
2–10	0,2	**E844.1**	1 unit(s)	521,40
0,5–2	0,1	**E842.1**	1 unit(s)	521,40
6–30	0,5	**E845.1**	1 unit(s)	717,05
10–50	1,0	**E846.1**	1 unit(s)	783,70
20–100	2,0	**E847.1**	1 unit(s)	1.111,55

SAFETY S
For dispensing fuming acids and other aggressive chemicals as well as odorous liquids.
Plastic-coated, glass dispensing cylinder. Dosing cylinder made of glass, PTFE-coated with sealing lip.
With safety stopcock on the discharge tube and an additional safety valve in the ventilation channel.

Delivery incl. PTFE intake hose and two PTFE thread adapters.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–5	0,1	**PL12.1**	1 unit(s)	642,85
2–10	0,2	**PL13.1**	1 unit(s)	642,85
0,5–2	0,1	**PL11.1**	1 unit(s)	642,85
10–50	1,0	**PL15.1**	1 unit(s)	934,20
20–100	2,0	**PL16.1**	1 unit(s)	1.262,05
6–30	0,5	**PL14.1**	1 unit(s)	867,55

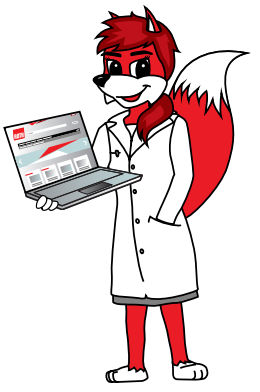
HF
With robust PTFE-encased dispensing plunger, dispensing cylinder made of PTFE. For dispensing highly aggressive and toxic chemicals (e.g. hydrofluoric acid).

Delivery incl. PTFE intake hose and two PTFE thread adapters.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–5	0,1	**PL17.1**	1 unit(s)	936,35
2–10	0,2	**PL18.1**	1 unit(s)	936,35
6–30	0,5	**PL19.1**	1 unit(s)	1.390,00
10–50	1,0	**PL20.1**	1 unit(s)	2.070,45

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Dispenser



121 °C

Dispensers ceramus® classic

Hirschmann. Autoclavable: Yes.

Properties:

- Ceramic flasks: No abrasion, no swelling, no thermal problems and high chemical resistance
- Variable volume setting
- Intake hose firmly screwed on, creating a tight seal
- Complete reproducibility of work
- Quick and safe volume adjustment
- Components are easy to change
- Rotates through 360°, valve block with GL 32 thread
- Can be steam sterilised at 121 °C/2 bar without needing to be dismantled
- Conformity certified

Materials in contact with media:
Borosilicate glass, Al_2O_3 ceramic, ECTFE, Hastelloy

Technical specifications:

Art. No.	1591.1	1592.1	1593.1	1594.1	1595.1	1596.1
Nominal volume	1 ml	2 ml	5 ml	10 ml	30 ml	60 ml
Correctness	±6 µl	±12 µl	±30 µl	±60 µl	±180 µl	±360 µl
Variation coefficient	±2 µl	±4 µl	±10 µl	±20 µl	±60 µl	±120 µl
Operating temperature	+4 – +50 °C					
Adapter	GL 28, S40, GL 45					
Suction tube length	310 mm					

Delivery incl. 3 thread adapters, one assembly key, quality certificate.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1–5	0,10	**1593.1**	1 unit(s)	378,40
0,2–1	0,05	**1591.1**	1 unit(s)	378,40
2–10	0,25	**1594.1**	1 unit(s)	378,40
0,4–2	0,05	**1592.1**	1 unit(s)	378,40
5–30	0,50	**1595.1**	1 unit(s)	492,35
10–60	1,00	**1596.1**	1 unit(s)	540,75



121 °C

Dispensers PP

Hirschmann. Autoclavable: Yes.

With glass flasks for dispensing aqueous and organic media. Sterilisable up to 121 °C, with a A32 screw thread. Conformity certified.

Materials in contact with media:
Borosilicate glass, Al_2O_3 ceramic, PP, Hastelloy

Technical specifications:

Art. No.	P207.1	P208.1
Nominal volume	10 ml	60 ml
Correctness	±60 µl	±360 µl
Variation coefficient	±20 µl	±120 µl
Operating temperature	+4 – +50 °C	
Adapter	GL 28, S 40, GL 45	
Suction tube length	310 mm	

Delivery incl. three thread adapters, quality certificate.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
2–10	0,25	**P207.1**	1 unit(s)	278,45
10–60	1,00	**P208.1**	1 unit(s)	412,80



A 121 °C

Dispensers ceramus®

Hirschmann. Autoclavable: Yes.

Properties:

- Media return system
- Ceramic flasks: No abrasion, no swelling, no thermal problems and high chemical resistance
- Intake hose firmly screwed on, creating a tight seal
- Freely rotatable dispenser on the bottle
- Luer lock connection at the back
- Ergonomic grip
- Quick and safe volume adjustment
- Complete reproducibility of work
- Components are easy to change
- Rotates through 360°, valve block with GL 45 thread
- Can be steam sterilised at 121 °C/2 bar without needing to be dismantled
- Conformity certified

Delivery incl. three thread adapters, one assembly key, quality certificate.

Variable

Materials in contact with media:
Borosilicate glass, Al_2O_3 ceramic, ECTFE, Hastelloy

Technical specifications:

Art. No.	T300.1	T301.1	T302.1	T303.1	T304.1	T305.1
Nominal volume	1 ml	2 ml	5 ml	10 ml	30 ml	60 ml
Correctness	±6 µl	±12 µl	±30 µl	±60 µl	±180 µl	±360 µl
Variation coefficient	±2 µl	±4 µl	±10 µl	±20 µl	±60 µl	±120 µl
Operating temperature	+4 – +50 °C					
Adapter	GL 32, GL 38, S 40					
Suction tube length	310 mm					

Volume (ml)	Graduation	Art. No.	Pack Qty.	€
1–5	0,10	**T302.1**	1 unit(s)	433,25
0,2–1	0,05	**T300.1**	1 unit(s)	433,25
2–10	0,25	**T303.1**	1 unit(s)	433,25
0,4–2	0,05	**T301.1**	1 unit(s)	433,25
5–30	0,50	**T304.1**	1 unit(s)	553,65
10–60	1,00	**T305.1**	1 unit(s)	602,00

Fixed

Materials in contact with media:
Borosilicate glass, Al_2O_3 ceramic, ECTFE, Hastelloy

Technical specifications:

Art. No.	T326.1	T327.1	T328.1	T329.1	T330.1	T331.1
Nominal volume	1 ml	2 ml	5 ml	10 ml	25 ml	50 ml
Correctness	±6 µl	±12 µl	±30 µl	±60 µl	±150 µl	±300 µl
Variation coefficient	±2 µl	±4 µl	±10 µl	±20 µl	±50 µl	±100 µl
Operating temperature	+4 – +50 °C					
Adapter	GL 32, GL 38, S 40					
Suction tube length	310 mm					

Volume (ml)	Art. No.	Pack Qty.	€
1	**T326.1**	1 unit(s)	449,35
2	**T327.1**	1 unit(s)	449,35
5	**T328.1**	1 unit(s)	449,35
10	**T329.1**	1 unit(s)	449,35
25	**T330.1**	1 unit(s)	569,75
50	**T331.1**	1 unit(s)	620,30

HF

For dispensing hydrofluoric acid and other problematic media.

Materials in contact with media:
Borosilicate glass, Al_2O_3 ceramic, ECTFE, platinum-iridium

Technical specifications:

Art. No.	T306.1
Nominal volume	10 ml
Correctness	±60 µl
Variation coefficient	±20 µl
Operating temperature	+4 – +50 °C
Adapter	GL 32, GL 38, S 40
Suction tube length	310 mm

Volume (ml)	Graduation	Art. No.	Pack Qty.	€
2–10	0,25	**T306.1**	1 unit(s)	1.139,50

Dispenser



Dispenser Ultra / Ultra HF

ROTH SELECTION.

For dispensing highly pure acids and alkalis.
Suitable for use in ultra trace analysis.

General features of all models:

- **Free of metals**
- Made of high quality and highly pure plastics (PTFE, TFM and PFA)
- Calibrated and mechanically tested for precision and accuracy
- 38-430 thread (fits ROTIPURAN® Ultra products)

When using bottles with a GL45 thread, please order fastening for dispenser KK11.1 separately.

Ultra

Properties:

- Acid cleansed
- Manufactured in cleanroom (class 100)

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
0,5–5	0,5	±0,02	**KK97.1**	1 unit(s)	3.601,25

Ultra HF

Properties:

- Specially for dispensing hydrofluoric acids
- Also suitable for analytical acids

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
0,5–5	0,5	±0,02	**KK98.1**	1 unit(s)	2.843,40

Accessories for Ultra/Ultra HF dispensers

ROTH SELECTION.

Bottle holder for Ultra/Ultra HF dispensers
Stabilises bottles when using a dispenser. The four-screw system is suitable for both square bottles and round bottles. The bottle holder is designed for ROTIPURAN® Supra and Ultra bottles with capacities from 250 ml to 2 litres. Also suitable for bottles with a diameter from approx. 7.0 cm to 11.5 cm.

Version	Art. No.	Pack Qty.	€
Bottle holder	**KK99.1**	1 unit(s)	147,85

Adapter to GL 45
Material: PTFE. For bottles with GL45 thread, specially for the use of ROTIPURAN® Supra products with Ultra and Ultra HF dispensers.

Version	Art. No.	Pack Qty.	€
Adapter	**KK11.1**	1 unit(s)	418,20



Digital dispensers opus® Dispensers

Hirschmann.

For motor-driven dosing directly from the lab bottle. Microprocessor-controlled piston stroke system guarantees maximum accuracy and precise, reproducible results.

Properties:

- Safe and easy handling via external touchscreen with clearly arranged menu keys; with quick-cal function for simple calibration of other temperatures or other media
- High media flexibility thanks to the highly-resistant, inert materials
- Media carrying parts are steam sterilisable (121 °C)
- Valve block with GL 45 thread
- Time-controlled serial dosing up to 9999 reruns, enables integration in automated process runs
- Methods memory for 9 different procedures
- Media feedback system for ventilation without loss of reagent
- Universal Luer connection for dry pipes, filters etc.
- Can be battery- or mains-operated (battery not included in the delivery; please order separately)
- Stepper function for delivery of up to 10 different partial quantities
- Intake and draining speeds can be set
- 4 languages (G, E, F, S) integrated by default
- Optional system platform for stability, please order separately

Materials in contact with media:
Borosilicate glass, PTFE, FEP, ECTFE, Hastelloy

Control panel:

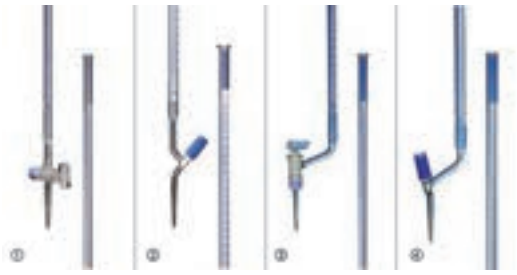
- Touchscreen: 3.5″ with 320 x 240 pixel
- PC port: USB or RS 232
- Dimensions: W 110 x D 130 x H 55 mm
- Weight without battery: 230 g

Technical specifications:

Art. No.	PA71.1	LK06.1	LK07.1
Max. piston stroke	10 ml	20 ml	50 ml
Volume range	0,010–99,999 ml	0,10–200 ml	1,00–500 ml
Resolution	<1 µl		<2 µl
Correctness	0,6 %		
Variation coefficient	0,2 %		
Operating temperature	+4 – +40 °C		
Weight	660 g		
Adapter	GL 32, GL 38, S 40		
Mains connection	230 V, 50 Hz		

Delivery incl. thread adapter, intake hose, return hose, output unit dispenser, valve assembly spanner, touchscreen control, power supply unit, data power cable, quality certificate according to DIN EN ISO 8655.

Version	Art. No.	Pack Qty.	€
10 ml	**PA71.1**	1 unit(s)	2.476,80
20 ml	**LK06.1**	1 unit(s)	2.476,80
50 ml	**LK07.1**	1 unit(s)	2.476,80



Burette with Schellbach stripes Class B

Hirschmann. Material: DURAN® glass.

Clear glass. With line graduation. Scale length: 500 mm. Blue graduated. DIN EN ISO 385 certified.

(1) With a straight glass stopcock, NS 12.5/28

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,030	**ET57.1**	2 unit(s)	121,15
25	0,05	±0,045	**ET58.1**	2 unit(s)	121,15
50	0,10	±0,075	**ET59.1**	2 unit(s)	121,15

(2) With a straight valve stopcock and a PTFE spindle

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,030	**ET60.1**	2 unit(s)	139,30
25	0,05	±0,045	**ET61.1**	2 unit(s)	139,30
50	0,10	±0,075	**ET62.1**	2 unit(s)	139,30

(3) With a glass stopcock on the side, NS 12.5/28

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,030	**ET78.1**	2 unit(s)	120,65
25	0,05	±0,045	**ET79.1**	2 unit(s)	120,65
50	0,10	±0,075	**ET80.1**	2 unit(s)	120,65

(4) With a valve stopcock on the side and a PTFE spindle

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,030	**ET81.1**	2 unit(s)	173,10
25	0,05	±0,045	**ET82.1**	2 unit(s)	173,10
50	0,10	±0,075	**ET83.1**	2 unit(s)	173,10



Burette class B made from plastic

ROTH SELECTION. Material: PVC (burette tube), PMP (tap), FEP (plug valve).

Reduced risk of breakage and injury. Suitable for routine use. Without Schellbach stripes. DIN 12700 certified.

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
25	0,1	**9717.1**	1 unit(s)	95,60
50	0,1	**XC74.1**	1 unit(s)	99,85



Burette Class B

Hirschmann. Material: DURAN® glass.

Brown glass. With line graduation. Scale length: 500 mm. White graduated. DIN EN ISO 385 certified.

(2) With a straight glass stopcock

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,030	**ET63.1**	2 unit(s)	164,50
25	0,05	±0,045	**ET64.1**	2 unit(s)	164,50
50	0,10	±0,075	**ET65.1**	2 unit(s)	164,50

(1) With a glass stopcock on the side

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,030	**ET84.1**	2 unit(s)	172,00
25	0,05	±0,045	**ET85.1**	2 unit(s)	172,00
50	0,10	±0,075	**ET86.1**	2 unit(s)	172,00



Burette Class AS

Hirschmann. Material: DURAN® glass.

Brown glass. Conformity certified with dated batch identification. Main point ring division. Scale length: 500 mm. White graduated. DIN EN ISO 385 certified.

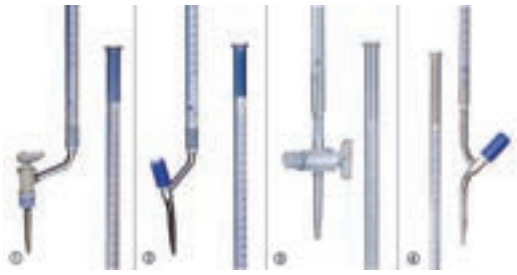
(1) With a straight glass stopcock

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,02	**ET72.1**	2 unit(s)	239,75
25	0,05	±0,03	**ET73.1**	2 unit(s)	239,75
50	0,10	±0,05	**ET74.1**	2 unit(s)	239,75

(2) With a straight valve stopcock and a PTFE spindle

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,02	**ET75.1**	2 unit(s)	240,80
25	0,05	±0,03	**ET76.1**	2 unit(s)	240,80
50	0,10	±0,05	**ET77.1**	2 unit(s)	240,80

Burettes



Burette with Schellbach stripes Class AS

Hirschmann. Material: DURAN® glass.

Clear glass. Certificate of conformity with dated batch identification and main point ring division. Calibrated to Ex. Scale length: 500 mm. Blue graduated. DIN EN ISO 385 certified.

(1) With a glass stopcock on the side, NS 12.5/28

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,02	**T736.1**	2 unit(s)	165,55
25	0,05	±0,03	**T737.1**	2 unit(s)	165,55
50	0,10	±0,05	**T738.1**	2 unit(s)	165,55

(2) With a valve stopcock on the side and a PTFE spindle

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,02	**T739.2**	2 unit(s)	209,65
25	0,05	±0,03	**T740.2**	2 unit(s)	209,65
50	0,10	±0,05	**T741.2**	2 unit(s)	209,65

(3) With a straight glass stopcock, NS 12.5/28

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,02	**ET66.1**	2 unit(s)	164,50
25	0,05	±0,03	**ET67.1**	2 unit(s)	164,50
50	0,10	±0,05	**ET68.1**	2 unit(s)	164,50

(4) With a straight valve stopcock and a PTFE spindle

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,02	**ET69.1**	2 unit(s)	182,75
25	0,05	±0,03	**ET70.1**	2 unit(s)	182,75
50	0,10	±0,05	**ET71.1**	2 unit(s)	182,75



Pellet titration apparatus Class B with a glass stopcock on the side and an intermediate stopcock

Hirschmann. Material: DURAN® glass.

Brown glass. With line graduation. Scale length: 500 mm. White graduated. DIN EN ISO 385 certified.

Delivery incl. 2 l glass bottle. Without blowball, please order separately

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,030	**ET87.1**	1 unit(s)	328,95
25	0,05	±0,045	**ET88.1**	1 unit(s)	328,95
50	0,10	±0,075	**ET89.1**	1 unit(s)	328,95



Pellet titration apparatus Class AS

Hirschmann. Material: DURAN® glass.

Certificate of conformity with dated batch identification and main point ring division. Scale length: 500 mm. DIN EN ISO 385 certified.

Delivery incl. 2 l glass bottle. Without blowball, please order separately.

(1) With a glass stopcock on the side and an intermediate stopcock, clear glass
Blue graduated.

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,02	**ET90.1**	1 unit(s)	319,30
25	0,05	±0,03	**ET91.1**	1 unit(s)	319,30
50	0,10	±0,05	**ET92.1**	1 unit(s)	319,30

(2) With a PTFE spindle stop cock on the side and an intermediate tap, clear glass
Blue graduations.

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,02	**1C5L.1**	1 unit(s)	407,45
25	0,05	±0,03	**1C5N.1**	1 unit(s)	407,45
50	0,1	±0,5	**1C5P.1**	1 unit(s)	407,45

(3) With a PTFE spindle stopcock on the side and an intermediate tap, brown glass
White graduated.

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
10	0,02	±0,02	**ET93.1**	1 unit(s)	437,55
25	0,05	±0,03	**ET94.1**	1 unit(s)	437,55
50	0,10	±0,05	**ET95.1**	1 unit(s)	437,55



Rubber blower for titration apparatus

ROTH SELECTION. Material: PVC, soft.

Hose length: 25 cm. Total length: 34 cm.

Version	Art. No.	Pack Qty.	€
Rubber blower	**ET98.1**	1 unit(s)	14,50



Titrating burettes according to Dr Schilling

Bürkle.

With Schellbach stripe. The burette is a universal aid in laboratories, electroplating, water treatment stations, sewage treatment plants, field studies, etc.
Precise dosing system with push-button, fine titration with micro screw and exact outlet tip, ultrapure drop formation.

- EX-calibrated
- With blue ring-barking
- Automatic zero-point extraction
- Feet on bottle for enhanced stability
- Graduation corresponds to Class B (tolerances according to DIN ISO 385)

Materials in contact with media:
PE, PP, natural rubber and borosilicate glass 3.3.

(1) Automatic

Volume (ml)	Graduation (ml)	Bottle volume (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
5	0,05	500	±0,015	**8226.1**	1 unit(s)	68,10
10	0,05	500	±0,045	**8227.1**	1 unit(s)	68,10
15	0,10	500	±0,045	**8228.1**	1 unit(s)	68,10
25	0,10	1,000	±0,075	**8229.1**	1 unit(s)	68,10
50	0,10	1,000	±0,075	**8230.1**	1 unit(s)	80,75

(2) Shatter-proof
Glass burette with plastic casing increases durability and serves as shatter protection.

Volume (ml)	Graduation (ml)	Bottle volume (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
15	0,1	500	±0,045	**HEX0.1**	1 unit(s)	76,85
25	0,1	1,000	±0,075	**HEX1.1**	1 unit(s)	76,85
50	0,1	1,000	±0,075	**HEX2.1**	1 unit(s)	92,95



Double bulb insufflator with net

ROTH SELECTION. Material: Natural rubber, PVC.

For generating a consistent overpressure. As one bulb is pumped, the second fills with air. The net prevents the second bulb from bursting with increasing air pressure. Tube length 25 cm, hardness 40 Shore A, black.

Version	Art. No.	Pack Qty.	€
Double bulb insufflators	**1CCE.1**	1 unit(s)	69,40



Digital burette

Vitlab.

Pulse-free dispensing. Continuous delivery of desired volume without creating a reserve. Easy and fatigue-free operation of the control elements. Volume dispensed per turn of the handwheels: 2.5 ml (continuous E) or 5.0 ml (continuous RS).

Properties:

- Specially developed return dosing system for ventilation without loss of reagent
- Power supply with longlife, easy-to-change 1.5 V AAA batteries and charge indicator
- Electronics removable as a unit, maintenance friendly modular design
- Dispensing range 0.01 ml to 999.9 ml
- Discharge tube rotatable through 360°
- Vertically and horizontally adjustable discharge tube
- Digital burette with safety valve and standard GL 45 thread
- Telescopic suction tube for different bottle sizes from 200 to 350 mm
- Simple calibration program
- Connection for drying tube
- The defined margins of error according to DIN EN ISO 8655-3 are not exceeded even when dispensing partial volumes
- Not suitable for crystallising media

Parts in contact with media:
Borosilicate glass 3.3., FEP, ETFE, PFA, PTFE, platinum-iridium

Permissible conditions of use:
Temperature +15 to +40 °C, vapour pressure up to max. 500 mbar, density 2.2 g/cm³

Technical specifications:

Art. No.	AA89.1	AA90.1
Nominal volume	25 ml	50 ml
Correctness	±50 µl	±100 µl
Variation coefficient	±25 µl	±50 µl
Operating temperature	+15 – +40 °C	
Adapter	GL 32, GL 38, S 40	
Suction tube length	200 – 350 mm	
Power supply	2 x AAA 1.5 V batteries	

Delivery incl. Three PP thread adapters, quality certificate with test values, one telescopic filling tube, one discharge tube and batteries.

Type	Volume (ml)	Art. No.	Pack Qty.	€
Continuous E	2,5	**AA89.1**	1 unit(s)	928,80
Continuous RS	5,0	**AA90.1**	1 unit(s)	928,80

Digital burettes



Digital burette Titrette®

BRAND.

Bottle-top burette for quick and reliable titration. High accuracy provides results within Class A error margins according to DIN EN ISO 385.

Properties:

- Smooth-acting gear for accurate trickle titration
- Lightweight and stable thanks to compact design
- Freely rotatable valve block, GL 45 thread
- Titrating tube is horizontally and vertically adjustable for flexible positioning
- Easy to use, no switching over between filling and titrating
- Can be removed for cleaning
- Can be calibrated without tools
- The next calibration due date can be stored
- The current displayed value can be stored with automatic stop
- Adjustable up to 20 ml to three decimal places
- DE-M approved

Parts in contact with the media:
Borosilicate glass, Al_2O_3, ETFE, PFA, FEP, PTFE, platinum-iridium, PP.

Permissible conditions of use:
Temperature +15 to +40 °C, vapour pressure up to max. 500 mbar, viscosity up to 500 mm^2/s.

Technical specifications:

Art. No.	NN43.1	PP87.1	PP88.1	NN44.1	PP89.1	PP90.1
Nominal volume	10 ml	25 ml	50 ml	10 ml	25 ml	50 ml
Correctness	±10 µl	±18 µl	±30 µl	±10 µl	±18 µl	±30 µl
Variation coefficient	±5 µl	±6 µl	±10 µl	±5 µl	±6 µl	±10 µl
Operating temperature	+15 – +40 °C					
Adapter	GL 32, S 40, NS 29/32					
Suction tube length	170–330 mm					
Power supply	2 x AAA 1.5 V batteries					

Delivery incl. three PP thread adapters, quality certificate, telescopic filling tube made from FED, recirculation tube, two coloured light-protection windows, batteries.

Standard

Volume (ml)	Art. No.	Pack Qty.	€
10	**NN43.1**	1 unit(s)	1.025,55
25	**PP87.1**	1 unit(s)	1.025,55
50	**PP88.1**	1 unit(s)	1.025,55

With RS 232 port

Volume (ml)	Art. No.	Pack Qty.	€
10	**NN44.1**	1 unit(s)	1.255,60
25	**PP89.1**	1 unit(s)	1.255,60
50	**PP90.1**	1 unit(s)	1.255,60



Digital burette opus® titration

Hirschmann.

For motor-driven titration directly from the lab bottle. Microprocessor-controlled piston stroke system guarantees maximum accuracy and precise, reproducible results.

- Safe and easy handling via external touchscreen with clearly arranged menu keys; with quick-cal function for simple calibration of other temperatures or other media
- High media flexibility thanks to the highly-resistant, inert materials (see below)
- Media carrying parts are steam sterilisable (121 °C)
- Serial dispensing function allows integration in automated processes
- Method memory for nine different titration procedures
- Media feedback system for ventilation without loss of reagent
- Universal Luer connection for dry pipes, filters etc.
- GL 45 internal thread
- Can be battery- or mains-operated (battery not included in the delivery; please order separately)
- Volume pre-selection, fast titration and drop titration options available
- Intake and draining speeds can be set
- 4 languages (G, E, F, S) integrated by default

Materials in contact with media:
Borosilicate glass, ECTFE, FEP, PTFE, Hastelloy

Control panel:

- Touchscreen: 3.5″ with 320 x 240 pixel
- PC port: USB or RS 232
- Dimensions: W 110 x D 130 x H 55 mm
- Weight without battery: 230 g

Technical specifications:

Art. No.	PA73.1	LK08.1	LK09.1
Max. piston stroke	10 ml	20 ml	50 ml
Volume range	0,010 – 99,999 ml	0,10 – 200 ml	1,00 – 500 ml
Resolution	<1 µl		<2 µl
Correctness	±20 µl	±40 µl	±100 µl
Variation coefficient	±7 µl	±14 µl	±35 µl
Operating temperature	+4 – +40 °C		
Weight	660 g		
W x D x H	63 x 80 x 320 mm		
Adapter	GL 32, GL 38, S 40		
Mains connection	230 V, 50 Hz		

Delivery incl. three thread adapters, intake hose, return hose, titration output unit, valve assembly spanner, touchscreen control, power supply unit, data power cable, quality certificate according to DIN EN ISO 8655.

Version	Art. No.	Pack Qty.	€
10 ml	**PA73.1**	1 unit(s)	2.009,20
20 ml	**LK08.1**	1 unit(s)	2.009,20
50 ml	**LK09.1**	1 unit(s)	2.009,20

Digital burettes



Digital burette solarus®

Hirschmann.

Properties:

- Power supply via solar cell, i.e. no batteries, no charging
- Large display, display from 0.01 to 99.99 ml
- 2-button operator guidance
- "Quick-Cal" function for individual calibration
- Basic unit with A45 screw thread
- Bidirectional RS 232 interface
- Handwheels with soft-touch surface
- No reagent loss through return system
- Media-transporting parts including the output unit steam-sterilisable at 121 °C / 2 bar

Materials in contact with media:
Borosilicate glass, Al_2O_3 ceramic, ECTFE, FEP, PTFE and Hastelloy

Technical specifications:

Art. No.	HLY7.1	Y063.1	Y064.1
Nominal volume	10 ml	20 ml	50 ml
Correctness	±30 µl	±40 µl	±100 µl
Variation coefficient	±10 µl	±20 µl	±50 µl
Adapter	GL 32, GL 38, S 40		
Suction tube length	310 mm		

Delivery incl. three thread adapters, output unit, intake hose, return hose and quality certificate according to DIN EN ISO 8655.

Volume (ml)	Art. No.	Pack Qty.	€
10	**HLY7.1**	1 unit(s)	1.092,20
20	**Y063.1**	1 unit(s)	1.092,20
50	**Y064.1**	1 unit(s)	1.092,20



Titrator TitroLine® 5000

SI Analytics.

Very easy to use automatic titrator for pH and mV titration: Select saved standard method, connect electrodes and press Start. In just a few minutes, the sample is titrated and the result is displayed on the screen. Result can also be output as a PDF file on USB.

Technical specifications:

Art. No.	HAN4.1	HAN5.1	HAN6.1
Type	TitroLine® 5000		
Max. piston stroke	20 ml		
Volume range	0,000 – 9999.999 ml		
Display resolution	0,005 – 0,025 ml		
Dosing speed	40 ml/min		
Dosing accuracy	systematically 0.15%, incidentally 0.05%		
pH measuring range	-3 to +17		
Voltage measuring range	-1900 to +1900 mV		
Temperature measuring range	-30 to +115 °C		
pH resolution	0,01		
Voltage resolution	1 mV		
Temperature resolution	1 °C		
pH accuracy	±0.05		
Voltage accuracy	±1 mV		
Temperature accuracy	±0.5 °C		
Connection	pH: DIN 19262, °C: 2 x 4 mm banana plugs (NTC 30 kΩ, PT 1000)		
Calibration points	pH 1/2/3		
Port	2 x RS 232-C, 1 x USB A, 1 x USB B		
W x D x H	135 x 205 x 310 mm		
Mains connection	100–240 V, 50/60 Hz		

Set 1
Range of applications: Current redox titrations, such as iodine and peroxide value, permanganate index, COD and other applications (Set 1 + metal combination electrode Pt 62 RG)

Delivery incl. support rod, electrode/burette tip holder, hose kit and titration syringe, test tubes, magnetic stirrer, magnetic stirring rod, screw cap with GL 45 thread, NS 14.5/M8x1 adapter, drying tube, USB data cable and mains adapter.

Electrode not included, please order separately.

Version	Art. No.	Pack Qty.	€
Set 1	**HAN4.1**	1 unit(s)	3.293,80

Set 2
Range of applications: Current acid-alkali titrations such as acid capacity, nitrogen according to the Kjeldahl method and total acid in wine and beverages

Delivery incl. pH combination electrode A7780, buffer solution (pH 4.00 and 7.00), support rod, electrode/burette tip holder, hose kit and titration syringe, test tubes, magnetic stirrer, magnetic stirring rod, screw cap with GL 45 thread, NS 14.5/M8x1 adapter, drying tube, USB data cable and mains adapter.

Version	Art. No.	Pack Qty.	€
Set 2	**HAN5.1**	1 unit(s)	3.776,50

Titrator

Set 3
Range of applications: Titration of chloride and sodium chloride (salt) in foods such as mustard, cheese, milk, water and other samples

Delivery incl. metal combination electrode AgCl 62 RG with connecting cable, support rod, electrode/burette tip holder, hose kit and titration syringe, test tubes, magnetic stirrer, magnetic stirring rod, screw cap with GL 45 thread, NS 14.5/M8x1 adapter, drying tube, USB data cable and mains adapter.

Version	Art. No.	Pack Qty.	€
Set 3	**HAN6.1**	1 unit(s)	3.609,85

Accessories for TitroLine® 5000

SI Analytics.

Ph combination electrode A7780
With integrated temperature sensor and fixed cable length 1 m (DIN 19262 + banana 1x4 mm).

Suitable for	Art. No.	Pack Qty.	€
TitroLine® 5000	**HAN7.1**	1 unit(s)	344,00

Metal combination electrode AgCl 62 RG
With connector.

Delivery without connecting cable, please order separately.

Suitable for	Art. No.	Pack Qty.	€
TitroLine® 5000	**HAN8.1**	1 unit(s)	398,85

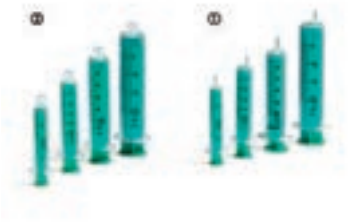
Metal combination electrode Pt 62 RG
With connector.

Delivery without connecting cable, please order separately.

Suitable for	Art. No.	Pack Qty.	€
TitroLine® 5000	**HAN9.1**	1 unit(s)	354,75

Connecting cable
Length 1 m (DIN 19262).

Suitable for	Art. No.	Pack Qty.	€
metal combination electrodes	**HAP0.1**	1 unit(s)	68,70



Disposable syringe Injekt®

B. Braun. Material: PP, PE.

Acc. to ISO 7886-1. Two-piece, individually packed. Black graduation, smudge-proof.
Scale extended beyond the nominal volume. Reliable piston stopper for problem-free collection to maximum volume.
Latex-, PVC- and silicone-free.

(1) With Luer fitting
Sterile.

Medical device class Is

ID: 0123

Volume (ml)	Max. volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
2	3	0,1	**0056.1**	100 unit(s)	9,30
5	6	0,2	**0057.1**	100 unit(s)	12,75
10	12	0,5	**0058.1**	100 unit(s)	19,75
20	24	1,0	**0059.1**	100 unit(s)	26,95

(2) With Luer-Lock fitting
Sterile. Suitable for cytostatic agents

Medical device class Is

ID: 0123

Volume (ml)	Max. volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
2	3	0,1	**EP95.1**	100 unit(s)	26,65
5	6	0,2	**EP96.1**	100 unit(s)	31,70
10	12	0,5	**EP97.1**	100 unit(s)	45,15
20	24	1,0	**EP98.1**	100 unit(s)	99,50



S

Disposable syringe Injekt® F

B. Braun. Material: PP, PE. **Sterile**.

Acc. to ISO 7886-1. Two-piece fine dosage syringes. Individually packed, latex-free and PVC-free. Green piston rod, black graduation, smudge-proof.
With efficiency pin on the piston rod to reduce the remaining volume.
Centric Luer fitting.

Medical device class Is

ID: 0123

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1	0,01	**T987.1**	100 unit(s)	23,25



S

Disposable syringe Omnifix®

B. Braun. Material: PP. **Sterile**.

Acc. to ISO 7886-1. Three-piece, individually packed. Black graduation, smudge-proof. Reliable piston stopper prevents accidental removal of piston rod.
Smooth-running plunger with double sealing ring for slow and bubble-free collection and injecting. Particularly suitable for dosing smaller volumes, made of synthetic rubber, latex-free, PVC-free.

(1) With Luer fitting

Medical device class Is

ID: 0123

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
3	0,1	**LY22.1**	100 unit(s)	11,25
5	0,2	**C537.1**	100 unit(s)	19,05
10	0,5	**C538.1**	100 unit(s)	25,40
20	1,0	**C539.1**	100 unit(s)	39,80
30	1,0	**T548.1**	100 unit(s)	105,15
50	1,0	**T549.2**	100 unit(s)	202,10

(2) With Luer-Lock fitting

Medical device class IIa

ID: 0123

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
3	0,1	**LY21.1**	100 unit(s)	42,90
5	0,2	**C541.1**	100 unit(s)	49,50
10	0,5	**C542.1**	100 unit(s)	55,45
20	1,0	**T550.1**	100 unit(s)	95,55
30	1,0	**T551.1**	100 unit(s)	121,05
50	1,0	**T552.2**	100 unit(s)	211,80



S

Disposable syringe Omnifix® F

B. Braun. Material: PP, PS. **Sterile**.

Three-piece fine dosage syringes. Individually packed, latex-free and PVC-free. Plunger made of synthetic rubber, black graduation, smudge-proof. Centric Luer fitting.
Smooth-running with double sealing ring for dosing very small volumes. For extremely slow filling and injecting. Minimal residual volume.

Duo

Delivery incl. cannula (25 G, outer Ø 0.5 mm, length 16 mm).

Medical device class IIa

ID: 0123

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1	0,01	**0053.1**	100 unit(s)	43,75

Solo

Delivery without needle.

Medical device class Is

ID: 0123

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1	0,01	**H999.1**	100 unit(s)	23,25



S

Disposable syringe Omnifix® Solo

B. Braun. Material: PP. **Sterile**.

Three-piece smooth-running plunger with double sealing ring. Reliable piston stopper. Easy-to-read, smudge-proof graduation. Centric catheter fitting Ø 7-10 mm.

Purpose: Wound irrigation syringe and blister syringe

Delivery incl. Luer adapter.

Medical device class Is

ID: 0123

Volume (ml)	Graduation	Art. No.	Pack Qty.	€
100	2,0	**HY16.1**	1 unit(s)	6,35





NEW / +

S

Disposable syringe SOL-M™

B. Braun. Material: PP. **Sterile**.

According to DIN EN ISO-NORM 7886-1. 3-piece, individually packed. With Luer fitting. Black graduation, smudge-proof. Latex- and PVC-free.

Smooth-running plunger with double sealing ring for slow, bubble-free withdrawal and injection, particularly when dosing small quantities. Reliable piston stopper prevents accidental removal of piston rod.

Medical device class Is

ID: 2797

Without efficiency pin

Volume (ml)	Gradua-tion (ml)	Dead volume (µl)	Pack.	Art. No.	Pack Qty.	€
1	0,01	48	100 x 1	**1LA6.1**	100 unit(s)	27,70

With efficiency pin
Syringe plunger with efficiency pin to reduce the dead volume to the minimum.

Volume (ml)	Gradua-tion (ml)	Dead volume (µl)	Pack.	Art. No.	Pack Qty.	€
1	0,01	17	100 x 1	**1LA7.1**	100 unit(s)	28,60

S

Insulin syringes Omnican®

B. Braun. **Sterile**.

Acc. to EN ISO 8537. Three-piece syringe with integrated plunger stop. Individually packed, latex- and PVC-free. Integrated stainless steel needle for minimal loss of fluid. With triple facet bevel and silicone coating. Ø 0.30 mm (30 G), length 12 mm.

Technical specifications:

Art. No.	AKN8.1	AKN9.1	AKP0.1
Type	Omnican® 40	Omnican® 50	Omnican® 100
Usable for	U-40 insulin	U-100 insulin	

Delivery incl. protective caps.

Medical device class IIa

ID: 0123

Volume (ml)	Vol. (I.E.)	Graduation (I.E.)	Art. No.	Pack Qty.	€
1	40	1,0	**AKN8.1**	100 unit(s)	56,20
0,5	50	1,0	**AKN9.1**	100 unit(s)	56,20
1	100	2,0	**AKP0.1**	100 unit(s)	56,20

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Syringes/Cannulas



A 121 °C

Glass syringe

Poulten & Graf. Material: Borosilicate glass. Non-sterile. Autoclavable: Yes.

Precisely adapted piston. Printed on brown graduation. Autoclavable up to 134 °C.

Not a medical device / Not an IVD product

With Luer fitting (glass)

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1	0,05	**C676.1**	1 unit(s)	10,90
2	0,1	**C677.1**	1 unit(s)	10,90
3	0,1	**C678.1**	1 unit(s)	10,90
5	0,2	**C679.1**	1 unit(s)	10,90
10	0,2	**C680.1**	1 unit(s)	13,80
20	1,0	**C681.1**	1 unit(s)	20,70
30	1,0	**C682.1**	1 unit(s)	26,80
50	2,0	**C683.1**	1 unit(s)	47,95
100	4,0	**C684.1**	1 unit(s)	77,55

With Luer-Lock fitting (glass, metal)

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1	0,05	**C685.1**	1 unit(s)	14,70
2	0,1	**C686.1**	1 unit(s)	14,70
3	0,1	**C687.1**	1 unit(s)	15,20
5	0,2	**C688.1**	1 unit(s)	15,20
10	0,2	**C689.1**	1 unit(s)	17,90
20	1,0	**C690.1**	1 unit(s)	26,80
30	1,0	**C691.1**	1 unit(s)	33,15
50	2,0	**C692.1**	1 unit(s)	52,15
100	4,0	**C693.1**	1 unit(s)	102,50



A 121 °C

Glass syringe Dosys™

Socorex. Material: Borosilicate glass. Autoclavable: Yes.

Fused brown scale, permanent and easy to read. Precision piston and cylinder can be exchanged. Impervious to fluids. Sterilisable up to 160 °C.
Suitable for: dilutions, sampling, viscous liquids, corrosive reagents, colourants, etc.

Not a medical device / Not an IVD product

With Luer fitting (glass)

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1	0,05	**HKL8.1**	3 unit(s)	34,90
5	0,2	**HKL9.1**	3 unit(s)	34,90
10	0,2	**HKN0.1**	3 unit(s)	39,65
20	1	**HKN1.1**	2 unit(s)	41,45
100	10	**HKN2.1**	1 unit(s)	58,80

With Luer-Lock fitting (glass, metal)

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1	0,05	**HKN3.1**	3 unit(s)	37,80
2	0,1	**HKN4.1**	3 unit(s)	37,80
5	0,2	**HKN5.1**	3 unit(s)	39,65
10	0,2	**HKN6.1**	3 unit(s)	44,20
20	1	**HKN7.1**	2 unit(s)	46,05
50	2	**HKN8.1**	1 unit(s)	49,70
100	10	**HKN9.1**	1 unit(s)	65,20
150	10	**HKP0.1**	1 unit(s)	484,85
200	10	**HKP1.1**	1 unit(s)	502,05
250	10	**HKP2.1**	1 unit(s)	523,55



S

Disposable needles Sterican®

B. Braun. Material: Chrome-nickel steel with silicone coating. **Sterile**.
PP connection. Individually packed.
Fits all syringes with Luer and Luer-Lock fitting.

Purpose: Blood collection, intravenous injection, subcutaneous injection, intramuscular injection, joint and soft tissue injection, fine needle aspiration, intravitreal injection

Medical device class IIa

ID: 0123

Long bevel facet

Colour	Ø ext. (mm)	Length (mm)	Gauge	Art. No.	Pack Qty.	€
grey	0.40	20	27 G	**X133.1**	100 unit(s)	8,15
brown	0.45	25	26 G	**C718.1**	100 unit(s)	8,15
violet	0.55	25	24 G	**X132.1**	100 unit(s)	8,15
blue	0.60	25	23 G	**C719.1**	100 unit(s)	8,15
blue	0.60	30	23 G	**X129.1**	100 unit(s)	8,15
blue	0.60	60	23 G	**C720.1**	100 unit(s)	13,35
blue	0.60	80	23 G	**C629.1**	100 unit(s)	19,75
black	0.70	30	22 G	**X128.1**	100 unit(s)	8,15
green	0.80	40	21 G	**X127.1**	100 unit(s)	8,15
green	0.80	50	21 G	**0060.1**	100 unit(s)	12,00
green	0.80	120	21 G	**C630.1**	100 unit(s)	36,50
yellow	0.90	40	20 G	**C721.1**	100 unit(s)	8,15
yellow	0.90	70	20 G	**C722.1**	100 unit(s)	14,65
grey	1.10	50	19 G	**C723.1**	100 unit(s)	12,00

Short bevel facet

Colour	Ø ext. (mm)	Length (mm)	Gauge	Art. No.	Pack Qty.	€
pink	1.20	40	18 G	**C724.1**	100 unit(s)	12,00

Blunt bevel facet

Colour	Ø ext. (mm)	Length (mm)	Gauge	Art. No.	Pack Qty.	€
grey	0.40	25	27 G	**HY15.1**	100 unit(s)	22,60
green	0.80	22	21 G	**X134.1**	100 unit(s)	11,70



NEW / +

A 121 °C

Injection needles

Socorex. Material: Stainless steel (rust-free). Autoclavable: Yes.
Fits all syringes with Luer and Luer-Lock fitting. With ground surface.

Not a medical device / Not an IVD product

Ø ext. (mm)	Length (mm)	Gauge	Art. No.	Pack Qty.	€
0.45	18	26 G	**1HCP.1**	12 unit(s)	14,30
0.45	21	26 G	**1HCT.1**	12 unit(s)	14,30
0.50	23	25 G	**1HCX.1**	12 unit(s)	14,30
0.55	25	24 G	**1HCY.1**	12 unit(s)	14,30
0.60	25	23 G	**1HE0.1**	12 unit(s)	14,30
0.65	30	-	**1HE1.1**	12 unit(s)	14,30
0.70	32	22 G	**1HE2.1**	12 unit(s)	14,30
0.80	35	21 G	**1HE3.1**	12 unit(s)	21,10
0.90	38	20 G	**1HE4.1**	12 unit(s)	21,10
1.00	60	19 G	**1HE5.1**	12 unit(s)	36,75
1.20	40	18 G	**1HE6.1**	12 unit(s)	23,40

Microlitre syringes

Microlitre syringe MICROLITER® series 700

HAMILTON. Material: Borosilicate glass, Stainless steel.

For dispensing liquids. The piston is ground in to the glass body and the needle is fixed in place.



Technical specifications:
Correctness:≤ ±1% of the nominal volume. Test pressure: 0.6 MPa. Operating temperature: -10 to +50 °C

Not a medical device / Not an IVD product

Tip type 2
Needle with 12° grinding, slightly bent inwards; for penetrating septa during all chromatographic methods.

Type	Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
701 N	10	0,1	0.13	0.47	51	26s ga	**X033.1**	1 unit(s)	42,20
702 N	25	0,5	0.15	0.72	51	22s ga	**X034.1**	1 unit(s)	55,30
705 N	50	1,0	0.15	0.72	51	22s ga	**X035.1**	1 unit(s)	68,60
710 N	100	1,0	0.15	0.72	51	22s ga	**X036.1**	1 unit(s)	84,15
725 N	250	5,0	0.15	0.72	51	22s ga	**X038.1**	1 unit(s)	89,80
750 N	500	10,0	0.41	0.72	51	22 ga	**X039.1**	1 unit(s)	101,70

Tip type 3
Needle with 90° grinding, blunt; for HPLC applications or for exact dispensing, for example, for thin-layer chromatography.

Type	Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
701 NR	10	0,1	0.13	0.47	51	22s ga	**EY37.1**	1 unit(s)	57,65
702 NR	25	0,5	0.15	0.72	51	22s ga	**EY38.1**	1 unit(s)	60,00
705 NR	50	1,0	0.15	0.72	51	22s ga	**EY39.1**	1 unit(s)	66,35
710 NR	100	1,0	0.15	0.72	51	22s ga	**EY40.1**	1 unit(s)	84,15
725 NR	250	5,0	0.41	0.72	51	22 ga	**EY41.1**	1 unit(s)	86,35
750 NR	500	10,0	0.41	0.72	51	22 ga	**EY42.1**	1 unit(s)	99,75

Microlitre syringe series 700 standard GC

HAMILTON. Material: Borosilicate glass, Stainless steel.

For dispensing liquids with Agilent autosamplers HP 7683/HP 7673. The piston is ground in to the glass body. Needle with 8° grinding (special cone tip for autosamplers), fixed in place.



Technical specifications:
Correctness:≤ ±1% of the nominal volume. Test pressure: 0.6 MPa. Operating temperature: -10 to +50 °C

Not a medical device / Not an IVD product

Type	Vol. (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
701 ASN 23S	10	0.34	0.64	43	23s ga	**X060.1**	1 unit(s)	63,65
701 ASN 26S	10	0.13	0.47	43	26s ga	**X061.1**	1 unit(s)	66,35

Microlitre syringes

Microlitre syringe MICROLITER® series 7000

HAMILTON. Material: Borosilicate glass, Stainless steel.

For dispensing liquids, free from dead volume, with very low nominal volumes. The needle and Wolfram piston are perfectly coordinated. The volume dispensing takes place in the needle.



Technical specifications:
Correctness:≤ ±1% of the nominal volume. Test pressure: 0.6 MPa. Operating temperature: -10 to +50 °C

Not a medical device / Not an IVD product

Tip type 2
Needle with 12° grinding, slightly bent inwards; for penetrating septa during all chromatographic methods.

Type	Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
7000.5 KH	0.5	0,005	0.10	0.51	70	25 ga	**X056.1**	1 unit(s)	133,60
7001 KH	1.0	0,01	0.14	0.51	70	25 ga	**X057.1**	1 unit(s)	103,85
7002 KH	2.0	0,02	0.20	0.51	70	25 ga	**X058.1**	1 unit(s)	126,65
7105 KH	5.0	0,05	0.32	0.56	70	24 ga	**X059.1**	1 unit(s)	116,60

Tip type 3
Needle with 90° grinding, blunt; for HPLC applications or for exact dispensing, for example, for thin-layer chromatography.

Type	Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
7000.5 KH	0.5	0,005	0.10	0.51	70	25 ga	**EY52.1**	1 unit(s)	133,60
7001 KH	1.0	0,01	0.14	0.51	70	25 ga	**EY53.1**	1 unit(s)	103,85
7002 KH	2.0	0,02	0.20	0.51	70	25 ga	**EY54.1**	1 unit(s)	131,05
7105 KH	5.0	0,05	0.32	0.56	70	24 ga	**EY55.1**	1 unit(s)	120,00

Microlitre syringe GASTIGHT® series 1000

HAMILTON. Material: Borosilicate glass, Stainless steel, Aluminium PTFE-coated.

For dispensing liquids and media with a high vapour pressure. Glass body and piston are replaceable. With PTFE Luer-Lock connection.



Technical specifications:
Correctness:≤ ±1% of the nominal volume. Test pressure: 0.6 MPa. Operating temperature: -10 to +50 °C

Delivery without needle, please order separately.

Not a medical device / Not an IVD product

Type	Vol. (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1001 TLL	1.0	0,01	**X041.1**	1 unit(s)	86,55
1002 TLL	2.5	0,05	**X042.1**	1 unit(s)	86,55
1005 TLL	5.0	0,10	**X043.1**	1 unit(s)	102,45
1010 TLL	10.0	0,20	**X044.1**	1 unit(s)	112,90

Microlitre syringes

Needles KF for 1000 series GASTIGHT® syringes

HAMILTON. Material: Stainless steel.
Luer-Lock connection PCTFE, 22G.



Not a medical device / Not an IVD product

Tip type 2
Needle with 12° grinding, slightly bent inwards; for penetrating septa during all chromatographic methods.

Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Art. No.	Pack Qty.	€
0.41	0.72	51	**X045.2**	6 unit(s)	136,55

Tip type 3
Needle with 90° grinding, blunt; for HPLC applications or for exact dispensing, for example, for thin-layer chromatography.

Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Art. No.	Pack Qty.	€
0.41	0.72	51	**EY43.1**	6 unit(s)	136,55

Microlitre syringe GASTIGHT® series 1700

HAMILTON. Material: Borosilicate glass, Stainless steel.
For dispensing liquids and gases. Glass body and piston are replaceable. With PTFE tips for sealing. Replaceable needle.



Technical specifications:
Correctness:≤ ±1% of the nominal volume. Test pressure: 0.6 MPa. Operating temperature: -10 to +50 °C

Not a medical device / Not an IVD product

Tip type 2
Needle with 12° grinding, slightly bent inwards; for penetrating septa during all chromatographic methods.

Type	Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
1701 RN	10	0,1	0.13	0.47	51	26s ga	**X046.1**	1 unit(s)	79,20
1702 RN	25	0,5	0.15	0.72	51	22s ga	**X047.1**	1 unit(s)	84,05
1705 RN	50	1,0	0.15	0.72	51	22s ga	**X048.1**	1 unit(s)	84,05
1710 RN	100	1,0	0.15	0.72	51	22s ga	**X049.1**	1 unit(s)	88,90
1725 RN	250	5,0	0.15	0.72	51	22s ga	**X050.1**	1 unit(s)	89,35
1750 RN	500	10,0	0.41	0.72	51	22 ga	**X051.1**	1 unit(s)	89,35

Tip type 3
Needle with 90° grinding, blunt; for HPLC applications or for exact dispensing, for example, for thin-layer chromatography.

Type	Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
1701 RNR	10	0,1	0.15	0.72	51	22s ga	**EY44.1**	1 unit(s)	82,05
1702 RNR	25	0,5	0.15	0.72	51	22s ga	**EY45.1**	1 unit(s)	82,05
1705 RNR	50	1,0	0.15	0.72	51	22s ga	**EY46.1**	1 unit(s)	84,15
1710 RNR	100	1,0	0.15	0.72	51	22s ga	**EY47.1**	1 unit(s)	92,10
1725 RNR	250	5,0	0.41	0.72	51	22 ga	**EY48.1**	1 unit(s)	88,90
1750 RNR	500	10,0	0.41	0.72	51	22 ga	**EY49.1**	1 unit(s)	88,90

Microlitre syringes

Microlitre syringe standard

ROTH SELECTION. Material: Borosilicate glass, Stainless steel 1.4301.

Needle with chamfered tip, fixed in place. This syringe may not be used for fluoric or strongly acidic liquids.



Technical specifications:
Tested up to 3.0 bar liquid pressure; calibrated with a ±1% accuracy; precise and easy-to-read scale; exact finishing prevents the creation of air bubbles, as far as possible

Not a medical device / Not an IVD product

Vol. (µl)	Graduation (µl)	Dead volume (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Art. No.	Pack Qty.	€
5	0,1	0,0 ±0,3	0.13	0.52	50	**E114.1**	1 unit(s)	64,95
10	0,1	0,9 ±0,3	0.13	0.52	50	**E115.1**	1 unit(s)	50,75
25	0,5	1,7 ±0,3	0.18	0.52	50	**E116.1**	1 unit(s)	63,05
50	1,0	1,7 ±0,3	0.18	0.52	50	**E117.1**	1 unit(s)	64,95
100	2,0	1,7 ±0,3	0.18	0.52	50	**E118.1**	1 unit(s)	74,15
250	5,0	3,6 ±0,3	0.30	0.56	50	**E119.1**	1 unit(s)	89,50
500	10,0	3,6 ±0,3	0.30	0.56	50	**E120.1**	1 unit(s)	95,15

Microlitre syringe for HPLC

ROTH SELECTION. Material: Borosilicate glass, Stainless steel 1.4301.

For Rheodyne valves. The specially polished, blunt needle tip ensures the perfect density and prevents damage to the seal and rotor. Needle fixed in place.



Technical specifications:
Tested up to 3.0 bar liquid pressure; calibrated with a ±1% accuracy; precise and easy-to-read scale; exact finishing prevents the creation of air bubbles, as far as possible

Not a medical device / Not an IVD product

Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Art. No.	Pack Qty.	€
25	0,5	0.18	0.72	51	**E121.1**	1 unit(s)	63,05
50	1,0	0.18	0.72	51	**E122.1**	1 unit(s)	64,95
100	2,0	0.18	0.72	51	**E123.1**	1 unit(s)	71,95
200	5,0	0.18	0.72	51	**E124.1**	1 unit(s)	89,90
500	10,0	0.18	0.72	51	**E125.1**	1 unit(s)	108,60

Microlitre syringes

Microlitre syringe with super-elastic plunger

ROTH SELECTION. Material: Borosilicate glass, Stainless steel 1.4301.

No longer possible to bend. Super-elastic plungers made from Ni-Ti alloy. Plungers always return to their original shape. Needle fixed in place.



Technical specifications:
Tested up to 3.0 bar liquid pressure; calibrated with a ±1% accuracy; precise and easy-to-read scale; exact finishing prevents the creation of air bubbles, as far as possible

Not a medical device / Not an IVD product

Version	Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Art. No.	Pack Qty.	€
Needle sharp, for GC	5	0,1	0.13	0.52	50	**E108.1**	1 unit(s)	91,35
Needle sharp, for GC	10	0,2	0.13	0.52	50	**E109.1**	1 unit(s)	57,85
Needle blunt, for Waters	10	0,2	0.13	0.51	50	**E113.1**	1 unit(s)	64,95
Needle blunt, for Rheodyne	10	0,2	0.18	0.72	51	**E111.1**	1 unit(s)	64,95

Microlitre syringe for autosamplers

ROTH SELECTION. Material: Borosilicate glass, Stainless steel 1.4301.

For Agilent (HP) model 7673A. The models with the super-elastic plungers made from Ni-Ti alloy guarantee a longer useable life. Needle with conical tip, fixed in place.



Technical specifications:
Tested up to 3.0 bar liquid pressure; calibrated with a ±1% accuracy; precise and easy-to-read scale; exact finishing prevents the creation of air bubbles, as far as possible

Not a medical device / Not an IVD product

Version	Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
Standard plungers	5	0,1	0.15	0.64	43	23 G	**H136.1**	1 unit(s)	103,45
Super-elastic plungers	5	0,1	0.15	0.64	43	23 G	**H140.1**	1 unit(s)	126,85
Standard plungers	10	0,2	0.15	0.64	43	23 G	**H138.1**	1 unit(s)	75,70
Super-elastic plungers	10	0,2	0.15	0.64	43	23 G	**H142.1**	1 unit(s)	94,85

Microlitre syringe with plunger guide

ROTH SELECTION. Material: Borosilicate glass, Stainless steel 1.4301.

Needle with chamfered tip, fixed in place.



Technical specifications:
Tested up to 3.0 bar liquid pressure; calibrated with a ±1% accuracy; precise and easy-to-read scale; exact finishing prevents the creation of air bubbles, as far as possible

Not a medical device / Not an IVD product

PTFE sleeve
Offers greater protection for the plunger in the guide.

Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Art. No.	Pack Qty.	€
10	0,1	0.18	0.52	50	**E127.1**	1 unit(s)	93,00

Microlitre syringes

Variable external guide
A fixing screw allows repeated injections for the same volume of liquid.

Vol. (µl)	Graduation (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Art. No.	Pack Qty.	€
10	0,1	0.18	0.52	50	**E126.1**	1 unit(s)	102,65

Syringe Gas-tight

ROTH SELECTION. Material: Borosilicate glass, PTFE, Stainless steel 1.4301.
With specially polished syringe hole and PTFE plunger tip. Gas and liquid-tight up to a pressure of 5.0 kg/cm².



Technical specifications:
Tested up to 3.0 bar liquid pressure; calibrated with a ±1% accuracy; precise and easy-to-read scale; exact finishing prevents the creation of air bubbles, as far as possible

Not a medical device / Not an IVD product

With Luer-Lock connection
Ideal for applications requiring particular inertness.

Delivery without needle.

Vol. (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1.0	0,02	**E133.1**	1 unit(s)	160,20
2.5	0,05	**E134.1**	1 unit(s)	167,70
5.0	0,10	**E135.1**	1 unit(s)	183,85
10.0	0,20	**E136.1**	1 unit(s)	183,85

With screw-top connection
Needle with chamfered tip, replaceable.

Delivery incl. needle.

Vol. (ml)	Graduation (ml)	Dead volume (µl)	Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
1.0	0,02	2,2 ±0,3	0.30	0.56	30	24 G	**E128.1**	1 unit(s)	216,10
2.5	0,05	2,2 ±0,3	0.30	0.56	30	24 G	**E129.1**	1 unit(s)	216,10
5.0	0,10	2,2 ±0,3	0.30	0.56	30	24 G	**E130.1**	1 unit(s)	216,10
10.0	0,20	2,2 ±0,3	0.30	0.56	30	24 G	**E131.1**	1 unit(s)	260,15

Needles for gas-tight syringes

ROTH SELECTION.



Not a medical device / Not an IVD product

With Luer-Lock connection
Chamfered tip.

Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
0.30	0.56	50	24 G	**E137.1**	5 unit(s)	110,50

With screw-top connection

Inner needle Ø (mm)	Outer needle Ø (mm)	Needle length (mm)	Gauge	Art. No.	Pack Qty.	€
0.30	0.56	30	24 G	**E132.1**	5 unit(s)	110,50



Centrifugal pump NDP 14/2

Harton.

With magnetic coupling. Ideal for circulating and recirculating chemicals and liquefied gases. Magnetic "break resistance" protects the motor from external forces. Minimal power consumption and long service life thanks to low friction.

- Output is non-adjustable
- Suitable for continuous operation
- Not self-priming. Not suitable for dry operation.

Technical specifications:

Art. No.	**A902.1**
Type	NDP 14/2
Delivery rate	13,8 l/min
Delivery height	2.3 m
Media temperature	-20 – +85 °C
Connection	External thread ¼″
Power consumption	51 W
Materials in contact with media	PP, EPDM, Ceramic
L x W x H	150 x 112 x 100 mm
Weight	1,7 kg
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
NDP 14/2	**A902.1**	1 unit(s)	292,35



Centrifugal pump NEMP 50/7

Harton.

With magnetic coupling. Suitable for pumping aggressive chemicals, acids, alkalis and liquefied gases. No shaft seal, ensuring reduced wear and long service life.

- Output is non-adjustable
- Suitable for continuous operation
- Not self-priming. Not suitable for dry operation.

Technical specifications:

Art. No.	**A903.1**
Type	NEMP 50/7
Delivery rate	52 l/min
Delivery height	6.0 m
Media temperature	-20 – +85 °C
Connection	External thread ½″
Power consumption	95 W
Materials in contact with media	PP, EPDM, Ceramic
L x W x H	214 x 102 x 143 mm
Weight	3 kg
Mains connection	230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
NEMP 50/7	**A903.1**	1 unit(s)	608,40

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Centrifugal pumps

Centrifugal pump eco series

Eheim.

With magnetic coupling for conveying and recirculating water. Complete with 1.5 m cable and connector.

- Can also be used within the pumped medium
- Output is non-adjustable
- Suitable for continuous operation
- Not self-priming. Not suitable for dry operation



Technical specifications:

Art. No.	A908.1	Y492.1	E234.1	A906.1
Type	eco 1	eco 2	eco 3	eco 4
Delivery rate	4,5 l/min	40 l/min	10 l/min	20 l/min
Delivery height	0.75 m	3.7 m	1.5 m	2.0 m
Media temperature	+4 – +35 °C			
Inlet connection	17 mm	28 mm/¾″	13 mm/⅜″	17 mm/½″
Outlet connection	13 mm	18 mm/¾″	13 mm/¼″	13 mm/⅜″
Power consumption	4 W	65 W	10 W	28 W
IP rating	67			
L x W x H	87 x 48 x 88 mm	218 x 116 x 161 mm	147 x 75 x 119 mm	178 x 96 x 121 mm
Weight	0.45 kg	2.5 kg	1.0 kg	1.6 kg
Mains connection	230 V, 50 Hz			

Type	Art. No.	Pack Qty.	€
eco 1	**A908.1**	1 unit(s)	76,55
eco 2	**Y492.1**	1 unit(s)	280,60
eco 3	**E234.1**	1 unit(s)	138,55
eco 4	**A906.1**	1 unit(s)	186,00

Diaphragm liquid pump LIQUIPORT®

KNF.

Suitable for pumping neutral and aggressive liquids (please take the chemical resistance of the pump head into account).

- The delivery rate can be adjusted within the 10–100% range via the rotary knob with LED display
- Standby mode
- Maximum pressure limit
- Self-priming
- Safe to run dry
- Long service life



NF 100 version

Technical specifications:

Art. No.	EL62.1	EL63.1	EL64.1
Type	NF 100 KT.18 S	NF 100 TT.18 S	NF 100 FT.18 S
Delivery rate	200-1300 ml/min		
Suction lift	3 nWC		
Pressure lift	10 nWC		
Max. pressure	1 bar		
Media temperature	+5 – +80 °C		
Connection	for hose inner Ø 8 mm		
Motor power	12 W		
IP rating	65		
Materials in contact with media	Pump head: PP, Diaphragms: PTFE-coated, Valves: FFKM	Pump head: PVDF, Diaphragms: PTFE-coated, Valves: FFKM	Pump head: PTFE, Diaphragms: PTFE-coated, Valves: FFKM
W x D x H	99 x 130 x 177 mm		
Weight	0.8 kg		
Mains connection	100–230 V, 50/60 Hz		

Type	Art. No.	Pack Qty.	€
NF 100 KT.18 S	**EL62.1**	1 unit(s)	706,30
NF 100 TT.18 S	**EL63.1**	1 unit(s)	866,45
NF 100 FT.18 S	**EL64.1**	1 unit(s)	2.082,30

Diaphragm liquid pumps

NF 1.100 version

Technical specifications:

Art. No.	EL65.1	EL66.1	EL67.1
Type	NF 1.100 KT. 18 S	NF 1.100 TT. 18 S	NF 1.100 FT. 18 S
Delivery rate	200-1300 ml/min		
Suction lift	3 nWC		
Pressure lift	40 nWC		
Max. pressure	4 bar		
Media temperature	+5 – +80 °C		
Connection	for hose inner Ø 8 mm		
Motor power	12 W		
IP rating	65		
Materials in contact with media	Pump head: PP, Diaphragms: PTFE-coated, Valves: FFKM	Pump head: PVDF, Diaphragms: PTFE-coated, Valves: FFKM	Pump head: PTFE, Diaphragms: PTFE-coated, Valves: FFKM
W x D x H	99 x 130 x 177 mm		
Weight	0.8 kg		
Mains connection	100–230 V, 50/60 Hz		

Type	Art. No.	Pack Qty.	€
NF 1.100 KT. 18 S	**EL65.1**	1 unit(s)	822,40
NF 1.100 TT. 18 S	**EL66.1**	1 unit(s)	979,35
NF 1.100 FT. 18 S	**EL67.1**	1 unit(s)	2.197,30

NF 300 version

Technical specifications:

Art. No.	EL68.1	EL69.1	EL70.1
Type	NF 300 KT.18 S	NF 300 TT.18 S	NF 300 FT.18 S
Delivery rate	500-3000 ml/min		
Suction lift	3 nWC		
Pressure lift	10 nWC		
Max. pressure	1 bar		
Media temperature	+5 – +80 °C		
Connection	for hose inner Ø 12 mm		
Motor power	29 W		
IP rating	65		
Materials in contact with media	Pump head: PP, Diaphragms: PTFE-coated, Valves: FFKM	Pump head: PVDF, Diaphragms: PTFE-coated, Valves: FFKM	Pump head: PTFE, Diaphragms: PTFE-coated, Valves: FFKM
W x D x H	160 x 104 x 188 mm		
Weight	1.5 kg		
Mains connection	100–230 V, 50/60 Hz		

Type	Art. No.	Pack Qty.	€
NF 300 KT.18 S	**EL68.1**	1 unit(s)	897,65
NF 300 TT.18 S	**EL69.1**	1 unit(s)	1.138,45
NF 300 FT.18 S	**EL70.1**	1 unit(s)	2.663,85

NF 1.300 version

Technical specifications:

Art. No.	EL71.1	EL72.1	EL73.1
Type	NF 1.300 KT.18 S	NF 1.300 TT.18 S	NF 1.300 FT.18 S
Delivery rate	500-3000 ml/min		
Suction lift	3 nWC		
Pressure lift	40 nWC		
Max. pressure	4 bar		
Media temperature	+5 – +80 °C		
Connection	for hose inner Ø 12 mm		
Motor power	29 W		
IP rating	65		
Materials in contact with media	Pump head: PP, Diaphragms: PTFE-coated, Valves: FFKM	Pump head: PVDF, Diaphragms: PTFE-coated, Valves: FFKM	Pump head: PTFE, Diaphragms: PTFE-coated, Valves: FFKM
W x D x H	160 x 104 x 188 mm		
Weight	1.5 kg		
Mains connection	100–230 V, 50/60 Hz		

Type	Art. No.	Pack Qty.	€
NF 1.300 KT.18 S	**EL71.1**	1 unit(s)	968,60
NF 1.300 TT.18 S	**EL72.1**	1 unit(s)	1.207,25
NF 1.300 FT.18 S	**EL73.1**	1 unit(s)	2.733,75

Diaphragm liquid pumps

Diaphragm metering pump SIMDOS® 10



KNF.

Suitable for pumping and metering neutral and aggressive liquids (please take the chemical resistance of the pump head into account).

- Optimised pump head with safety feature prevents the medium from leaking into the drive chamber in the event of leaks.
- Operating modes: Continuous pumping (unlimited time), continuous pumping with timed switch-off, volumetric metering and series metering
- With calibration function for better accuracy
- Adjustable pump characteristics (e. g. for vaporous, viscous liquids)
- Pause function without loss of data
- Safe to run dry, self-priming and maintenance-free

Technical specifications:

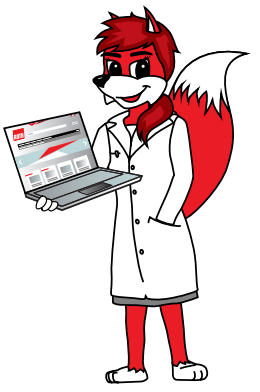
Art. No.	PA27.1	PA28.1	PA29.1
Type	FEM 1.10 KT.18 S2	FEM 1.10 TT.18 S2	FEM 1.10 FT.18 S2
Delivery rate	1-100 ml/min		
Dispensing volume	1-1000 ml		
Metering time	1 s - 99 h 59 min		
Suction lift	3 nWC		
Pressure lift	60 nWC		
Max. pressure	6 bar		
Media temperature	+5 – +80 °C		
Connection	for hose inner Ø 4 mm/outer Ø 6 mm		
Power consumption	24 W		
IP rating	65		
Noise level	≤ 40 db		
Materials in contact with media	Pump head: PP, Diaphragms: PTFE-coated EPDM, Valve plate/seals: FFKM	Pump head: PVDF, Diaphragms: PTFE-coated EPDM, Valve plate/seals: FFKM	Pump head: PTFE, Diaphragms: PTFE-coated EPDM, Valve plate/seals: FFKM
W x D x H	93 x 134 x 144 mm		
Weight	0,9 kg		
Mains connection	100–240 V, 50/60 Hz		

Delivery incl. connection kit (hose and screw fitting) and intake filter.

Type	Art. No.	Pack Qty.	€
FEM 1.10 KT.18 S2	**PA27.1**	1 unit(s)	1.622,20
FEM 1.10 TT.18 S2	**PA28.1**	1 unit(s)	1.737,20
FEM 1.10 FT.18 S2	**PA29.1**	1 unit(s)	2.986,35

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Diaphragm liquid pumps



Diaphragm metering pump DDE series

Grundfos.

Powerful, speed-controlled stepper motor. Constant, continuous dosing performance. Adjustment range up to 1:1000. Pump status can be recognised via the traffic light principle. PTFE diaphragm with universal chemical resistance.

Technical specifications:

Art. No.	PE71.1	PE72.1
Type	DDE 6-10	DDE 15-4
Delivery rate	6 l/h	15 l/h
Suction lift	6 nWC	
Max. pressure	10 bar	4 bar
Media temperature	-10 – +45 °C	
Connection	for hose inner Ø 4 mm/outer Ø 6 mm	for hose inner Ø 6 mm/outer Ø 9 mm
Ambient temperature	0 – +45 °C	
IP rating	65	
Noise level	60 db	
Materials in contact with media	PVC, FKM, Ceramic	
W x D x H	102 x 251 x 196 mm	102 x 251 x 200.5 mm
Weight	2,4 kg	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. mounting plates as a base or for wall installation.

Type	Art. No.	Pack Qty.	€
DDE 6-10	**PE71.1**	1 unit(s)	869,70
DDE 15-4	**PE72.1**	1 unit(s)	1.116,95



Peristaltic pump ROTH Cyclo II

ROTH SELECTION.

For all applications in the laboratory and analytics and biotechnology applications.

- Pump head (Ø 62 mm) can be rotated 90°
- Easy cleaning thanks to easily removable pump head
- Simple to use with two rotary knobs:
  Continuous speed adjustment from 0–100 %
  Reversible direction of rotation (clockwise/counterclockwise)
- Hose with a wall thickness of 1.6 mm can be used
- Variable hose contact pressure
- Easy hose replacement in seconds
- Temperature and current limiting for maximum reliability
- Stackable

Technical specifications:

Art. No.	Y374.1	EP75.1	EP74.1	EP76.1
Pump type	1-channel	2-channel	1-channel	2-channel
Pump head	3 rollers		6 rollers	
Delivery rate	12–240 ml/min		9,6–192 ml/min	
Max. pressure	1 bar			
Motor power	10 W			
L x W x H	131 x 134 x 190 mm			
Weight	1,6 kg			
Mains connection	100–230 V			

Optional accessory (please order separately): Hose cassettes for different hose Ø.

Delivery incl. hose cassette for hose with inner Ø of 4.8 mm and wall thickness of 1.6 mm. Without pump hoses, please order separately.

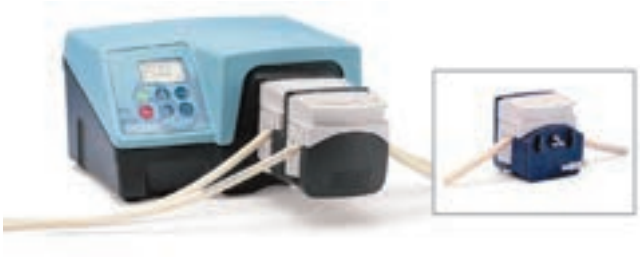
With 3-roller pump head

Version	Art. No.	Pack Qty.	€
1-channel	**Y374.1**	1 unit(s)	1.730,75
2-channel	**EP75.1**	1 unit(s)	1.929,65

With 6-roller pump head
For lower pulsation.

Version	Art. No.	Pack Qty.	€
1-channel	**EP74.1**	1 unit(s)	1.772,70
2-channel	**EP76.1**	1 unit(s)	2.127,45

Peristaltic pumps



Peristaltic pump Sci-Q 323

Watson-Marlow.

Particularly suitable for general applications in laboratory and research applications.

- Quick and easy hose laying thanks to flip-top pump head
- Digital speed control
- Manual control
- Easy-to-read display and washable membrane keyboard
- Chemical-resistant housing
- Maintenance-free, quiet motor
- Usable with hoses with a wall thickness of 1.6 mm
- Can be expanded with additional pump heads to a maximum of six parallel channels

Technical specifications:

Art. No.	**Y545.1**
Pump type	Sci-Q 323
Delivery rate	0,45–2000 ml/min
Speed	15–400 rpm
Operating temperature	+5 – +40 °C
Display	digital
Noise level	< 70 db
L x W x H	225 x 230 x 132 mm
Weight	4,7 kg
Mains connection	120/230 V, 50/60 Hz

Delivery rate depending on the hose size and the number of rollers in the pump head:

Inner Ø (mm)	**Delivery rate (ml/min)**		**Max. pump heads**
	3-roller	**4-roller**	
0.5	0.45–12	0.45–12	6
0.8	1.1–28	0.90–24	6
1.6	4.1–110	3.8–100	4
3.2	15–400	13–340	2
4.8	33–880	29–760	2
6.4	54–1400	45–1200	1
8	75–2000	60–1600	1

Optional accessory (please order separately): Additional pump heads for multichannel operation and pump heads with four rollers for lower pulsation.

Delivery incl. one 3-roller end pump head. Without pump hoses, please order separately.

Type	Art. No.	Pack Qty.	€
Sci-Q 323	**Y545.1**	1 unit(s)	4.833,20



Peristaltic pump set Hei-FLOW

Heidolph.

For conveying liquids with precision. Delivery rates depending on the hose size.

Properties of the pump drive:

- Analogue speed adjustment
- Constant speed even under varying load
- Reversible direction of rotation (clockwise/counterclockwise)
- Stackable housing (max. two pump drives)

Characteristics of pump head:

- For hose wall thickness of 1.6 mm
- Outer hose Ø freely selectable between 4 mm and 9.5 mm
- Low pulsation is ensured by five rollers
- Easy and quick hose replacement
- Stainless steel rollers and roller mounts

Technical specifications:

Art. No.	**CH22.1**	**EL51.1**
Pump type	Value 01	Advantage 01
Delivery rate	0,8–413 l/min	0,4–409 l/min
Control accuracy	±2 %	±0,5
Speed	10–120 rpm	5–120 rpm
Motor power	71 W	100 W
Port	none	analogue
Display	Digital	
L x W x H	256 x 225 x 166 mm	
Weight	6,8 kg	8,2 kg
Mains connection	110–240 V, 50/60 Hz	

Delivery rate depending on the hose size:

Inner Ø (mm)	**Delivery rate (ml/min)**	
	Value 01	**Advantage 01**
0.8	0.8–9	0.4–9
1.7	3–41	2–40
3.1	11–134	5–126
4.8	25–292	12–233
6.3	36–413	17–409

(1) Value 01

Delivery incl. SP quick 1.6 pump head and 1 m Tygon® and silicone hose with inner **Ø of 3.1 mm** each.

Pic.	Version	Type	Art. No.	Pack Qty.	€
(1)	Set	Hei-FLOW Value 01	**CH22.1**	1 unit(s)	2.773,00

(2) Advantage 01
With maximum speed button for faster filling and drainage of hoses

Delivery incl. SP quick 1.6 pump head and 1 m Tygon® and silicone hose with inner **Ø of 0.8 mm** each.

Pic.	Version	Type	Art. No.	Pack Qty.	€
(2)	Set	Hei-FLOW Advantage 01	**EL51.1**	1 unit(s)	3.207,00



Pump drive Hei-FLOW

Heidolph.

Peristaltic pump for conveying and metering liquids with precision.

- Simple calibration of conveyed and dispensed volumes
- Intermittent dispensing
- With maximum speed button for faster filling and drainage of hoses
- Constant speed even under varying load
- Reversible direction of rotation (clockwise/counterclockwise)
- Stackable housing (max. two pump drives)

Technical specifications:

Art. No.	CYC4.1	CYC5.1
Pump type	Precision 01	Precision 06
Delivery rate	0,02–409 ml/min	2–2072 ml/min
Dispensing volume	0,1–9999 ml	
Control accuracy	±0,5 %	±0,5
Speed	5–120 rpm	24–600 rpm
Motor power	100 W	
Port	analogue and digital (RS 232)	
Display	digital	
L x W x H	256 x 225 x 166 mm	
Weight	8.3 kg	7.7 kg
Mains connection	110–240 V, 50/60 Hz	

Modular design: The pump drive, pump head and pump hose can be freely combined.

Delivery without pump head and pump hose, please order separately.

Precision 01
Suitable for single-channel and multichannel operation.

Version	Type	Art. No.	Pack Qty.	€
Pump drive	Hei-FLOW Precision 01	**CYC4.1**	1 unit(s)	3.475,00

Precision 06
Suitable for single-channel operation.

Version	Type	Art. No.	Pack Qty.	€
Pump drive	Hei-FLOW Precision 06	**CYC5.1**	1 unit(s)	3.322,00



Single-channel pump head SP quick (SWS 1.6 mm) for Hei-FLOW

Heidolph.

With automatic hose anchoring.

- For standard hose with a wall thickness of 1.6 mm
- Outer hose Ø freely selectable between 4 and 9.5 mm
- Low pulsation is ensured by five rollers
- Easy and quick hose replacement
- Stainless steel rollers and roller mounts

Delivery rate depending on the hose size:

Inner Ø (mm)	Delivery rate (ml/min)	
	Precision 01	Precision 06
0.6	0.38–9	2–33
1.7	2–40	8–186
3.1	5–126	26–653
4.8	12–233	59–1529
6.3	17–409	89–2072

Version	Type	Art. No.	Pack Qty.	€
single-channel pump head	SP quick 1,6	**CYC6.1**	1 unit(s)	544,00



Accessories for Hei-FLOW Precision 01 in multi-channel operation

Heidolph.

Adapter

Version	Type	Art. No.	Pack Qty.	€
Adapter	Adapter for multi-channel pump heads	**CYC7.1**	1 unit(s)	132,00

Hose cassette

Version	Type	Art. No.	Pack Qty.	€
Hose cassette	Hose cassette	**CYC9.1**	1 unit(s)	275,00



Four-channel pump head C4 for Hei-FLOW Precision 01

Heidolph.

With automatic hose anchoring.

- For use with up to four hose cassettes, with snap lock for easy insertion even during operation
- Low pulsation is ensured by eight rollers
- For two stopper hoses with a wall thickness of 0.9 mm
- Hose outer diameters of between 0.2 mm and 2.8 mm are freely selectable
- To feed and convey different volumes, hoses of different diameters can be inserted into the hose cassette
- Roller pressure can be adjusted using an adjustment screw

Delivery rate depending on the hose size:

Inner Ø (mm)	Delivery rate (ml/min)
	Precision 01
0.2	0.02–0.49
0.5	0.08–2
0.9	0.24–6
1.4	0.60–14
6.3	2–36

Delivery without adapter and hose cassettes (max. 4), please order separately.

Version	Type	Art. No.	Pack Qty.	€
four-channel pump head	C4	**CYC8.1**	1 unit(s)	889,00



Pump drive rotarus®

Hirschmann.

Efficient, precise peristaltic pump that enables a flexible range of applications by using various pump heads and hoses. Particularly suitable for use in the pharmaceutical and food production sectors thanks to its stainless steel housing.

- Control panel directly on the pump housing for quick and easy input of basic functions
- Quick-change pump heads
- Reversible direction of rotation (clockwise/counterclockwise)
- Load-based speed control
- Suitable for continuous operation
- Stackable

Technical specifications:

Art. No.	AXN5.1	AXN7.1	AXN9.1	AXN6.1	AXN8.1	AXP0.1
Pump type	50i			100i		
Delivery rate	0,0005–1200 ml/min			0,025–6900 ml/min		
Steps	0.1 U/min					
Speed	0,2–100 rpm			5,0–500 rpm		
Power consumption	60 W			90 W		
Motor power	50 W			85 W		
Port	USB and RS 232					
Display	digital					
IP rating	65					
L x W x H	220 x 100 x 100 mm			270 x 220 x 100 mm		
Weight	7.3 kg			10.1 kg		
Mains connection	115–240 V, 50/60 Hz					

Comparison of pump models:

rotatus® model	standard	flow	volume
Control panel on pump housing	x	x	x
External control panel with touchscreen	-	x	x
Memory for 20 methods	-	x	x
Calibration function	-	x	x
Pumps by speed	x	x	x
Pumps by flow rate	-	x	x
Pumps by target volume (dispensing)	-	-	x
Autom. pump head detection	-	x	x
Autom. hose detection	-	x	x
Hose lifetime monitoring	-	x	x
Autom. hose leak and blockage detection	-	x	x

Modular design: The pump drive, pump head and pump hose can be freely combined.

Delivery without pump head and pump hose, please order separately.

50i series
For low flow rates or high-viscosity media

Version	Type	Art. No.	Pack Qty.	€
flow	rotarus® 50i	**AXN7.1**	1 unit(s)	4.329,05
volume	rotarus® 50i	**AXN9.1**	1 unit(s)	5.165,40
standard	rotarus® 50i	**AXN5.1**	1 unit(s)	3.320,70

100i series
For high flow rates

Version	Type	Art. No.	Pack Qty.	€
flow	rotarus® 100i	**AXN8.1**	1 unit(s)	4.830,00
volume	rotarus® 100i	**AXP0.1**	1 unit(s)	5.499,70
standard	rotarus® 100i	**AXN6.1**	1 unit(s)	4.159,20

Peristaltic pumps

Single-channel pump head rotarus® PK 10-16

Hirschmann.

- With automatic hose anchoring
- RFID head and hose data recognition

Alternatively, up to three single-channel pump heads can be connected in series for multichannel operation.
• Three stainless steel rollers
• Housing made of anodised aluminium
• For hoses with an inner Ø of 1.6–11.1 mm and a wall thickness of 1.6 mm
• Cascadable

Delivery rate depending on the hose size:

Inner Ø (mm)	Delivery rate (ml/min)	
	50i series	100i series
1.6	0.08–40	1.9–200
3.2	0.32–160	0.8–850
8	1.7–840	42–3900
11	2.8–1500	69–5400

Type	Art. No.	Pack Qty.	€
PK 10-16	**AXP1.1**	1 unit(s)	1.743,65

Four-channel pump head rotarus® MKF 4-8

Hirschmann.

- With automatic hose anchoring
- RFID head and hose data recognition
- 8 rollers made of Rulon®
- Housing made of polysulfone (PSU)
- For hoses with an inner Ø of 0.19–2.79 mm, variable wall thickness
- Adjustable contact pressure

Delivery rate depending on the hose size:

Inner Ø (mm)	Delivery rate (ml/min)	
	50i series	100i series
0.19	0.001–0.40	0.021–0.90
0.25	0.0017–0.85	0.043–2.1
1.42	0.026–13.0	0.66–32.0
2.79	0.048–22.7	1.7–82.1

Delivery incl. four hose cassettes.

Type	Art. No.	Pack Qty.	€
MKF 4-8	**AXP2.1**	1 unit(s)	2.253,20



Piston vacuum pump ROTILABO® CR-KP292

ROTH SELECTION.

Compact pump for vacuum and pressure applications. Suitable for pumping air and neutral gases.

Application:
Pressure filtration of aqueous solutions, use in vacuum ovens, vacuum drying and gas sampling.

Technical specifications:

Art. No.	CYA9.1
Type	CR-KP292
Delivery rate	9,2 l/min
End vacuum (abs.)	292 mbar
Overpressure	3,3 bar
Media temperature	+10 – +60 °C
Connection	for hose inner Ø 6 mm
Motor power	25 W
Ambient temperature	+10 – +40 °C
W x D x H	114 x 194 x 191 mm
Weight	2 kg
Mains connection	230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
CR-KP292	**CYA9.1**	1 unit(s)	342,95

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Diaphragm vacuum pumps



Diaphragm vacuum pump ROTILABO® CR-MV100

ROTH SELECTION.

Chemical-resistant, for conveying and compressing neutral and aggressive gases and vapours in accordance with the resistance of the given materials. Vacuum is continuously variable via manual vacuum controller (needle valve).

Application:
Suitable for vacuum filtration, vacuum drying and solid phase extraction.

Technical specifications:

Art. No.	ECK4.1
Type	CR-MV100
Delivery rate	10 l/min
End vacuum (abs.)	100 mbar
Measuring range	1000–1 mbar
Graduation	50 mbar
Overpressure	2,5 bar
Media temperature	+10 – +60 °C
Connection	for hose inner Ø 6 mm
Motor power	48 W
Ambient temperature	+10 – +40 °C
Materials in contact with media	Seal: EPDM, Hose nozzle: PP, Valve: FKM, Diaphragm: PTFE-coated, Hose/separator: PVC, Pump head: Ryton
W x D x H	144 x 198 x 244 mm
Weight	2,7 kg
Mains connection	90–260 V, 50/60 Hz

Delivery incl. vacuum metering block with pressure gauge and exhaust silencer.

Type	Art. No.	Pack Qty.	€
CR-MV100	**ECK4.1**	1 unit(s)	849,25



Diaphragm vacuum pump LABOPORT® Mini

KNF.

Ideal for pumping and evacuating slightly aggressive or corrosive gases and vapours.

- Suitable for continuous operation
- Very quiet and low vibration
- Thermal switch and mains fuse

Technical specifications:

Art. No.	Y372.1	Y373.1
Type	N 816.3 KT.18	N 816.1.2 KT.18
Delivery rate	16,0 l/min	30,0 l/min
End vacuum (abs.)	20 mbar	160 mbar
Overpressure	0,5 bar	
Media temperature	+5 – +40 °C	
Connection	Hose inner Ø 6 mm	
Motor power	100 W	
Ambient temperature	+5 – +40 °C	
IP rating	20	
Materials in contact with media	Pump head: PPS, Diaphragm: PTFE-coated, Valves: FFPM	
W x D x H	90 x 361 x 141 mm	102 x 361 x 141 mm
Weight	3,95 kg	
Mains connection	230 V, 50 Hz	

Type	Art. No.	Pack Qty.	€
N 816.3 KT.18	**Y372.1**	1 unit(s)	875,05
N 816.1.2 KT.18	**Y373.1**	1 unit(s)	893,35

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Diaphragm vacuum pumps



Diaphragm vacuum pump LABOPORT® speed-controlled

KNF.

Chemically resistant diaphragm pump, compact in design, with small footprint. Can be easily adapted to the respective application by means of integrated, manual speed control via a rotary knob. Very energy efficient and quiet. Surface is very easy to clean.

Technical specifications:

Art. No.	1EK3.1	1EK1.1	1EK2.1
Type	N 96	N 820 G	N 840 G
Delivery rate	7 l/min	20 l/min	34 l/min
End vacuum (abs.)	≤130 mbar	6 mbar	
Overpressure	2,5 bar	0,1 bar	
Media temperature	+5 – +40 °C		
Connection	for hose inner Ø 6 mm	for hose inner Ø 8–9,5 mm	
Motor power	19 W	66 W	100 W
Ambient temperature	+5 – +40 °C		
IP rating	40	30	
Materials in contact with media	Pump head: PPS, Diaphragm: PTFE-coated, Valves: FKM	Pump head: TFM™ PTFE, Diaphragm: PTFE-coated, Valves: FFPM	
W x D x H	156 x 75 x 119 mm	163 x 259 x 220 mm	177 x 289 x 240 mm
Weight	1,3 kg	8,8 kg	11,3 kg
Mains connection	100–240 V, 50/60 Hz		

N 96

Application: Filtration, liquid suction

Pic.	Type	Art. No.	Pack Qty.	€
(1)	N 96	**1EK3.1**	1 unit(s)	474,10

N 800 G series

Ideal for very aggressive/corrosive gases and vapours.

Application: Centrifugal concentration, rotary evaporation, distillation, degassing, desiccation, solid phase extraction.

- High steam and condensate resistance through integrated gas ballast valve
- Inner, media-contact area ATEX-compliant according to "(EX) II 2/-G IIB+H2 T3 internal atmosphere only"

Pic.	Type	Art. No.	Pack Qty.	€
(2)	N 820 G	**1EK1.1**	1 unit(s)	2.016,70
(3)	N 840 G	**1EK2.1**	1 unit(s)	2.220,95



Diaphragm vacuum pump LABOPORT® N 938.50.KT

KNF.

Chemical-resistant diaphragm vacuum pumps for a wide range of applications in the laboratory. The two pump heads' parallel and series connections ensure that evacuation is very fast.

- Corrosion-resistant
- Suitable for continuous operation
- Compact, quiet and reliable
- Small footprint

Application

Degassing, desiccation, liquid suction, solid phase extraction

Optional accessories (please order separately): fine adjustment head with manual vacuum control via leakage air.

Technical specifications:

Art. No.	1EA9.1
Type	N 938.50.KT
Delivery rate	30 l/min, 1,8 m³/h
End vacuum (abs.)	15 mbar
Overpressure	0,5 bar
Media temperature	+5 – +40 °C
Connection	for hose inner Ø 10 mm
Motor power	110 W
Ambient temperature	+5 – +40 °C
IP rating	20
Materials in contact with media	Pump head: PPS, Diaphragms: PTFE-coated, Valves: FFPM
W x D x H	212 x 317 x 110 mm
Weight	6,8 kg
Mains connection	230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
N 938.50.KT	**1EA9.1**	1 unit(s)	1.472,75

Diaphragm vacuum pumps



Diaphragm vacuum pump LABOPORT® chemical-resistant

KNF.

Ideal for pumping and evacuating aggressive gases and vapours.
Application:
For vacuum filtration, drying and distillation, gel drying, SPE, rotary evaporators, vacuum ovens.

- Inner media-contact area ATEX-compliant according to "ATEX II 2GB IIB+H2 T3X internal atmosphere only"
- High gas-tightness
- Suitable for continuous operation

Technical specifications:

Art. No.	C563.1	C564.1
Type	N 820.3 FT.18	N 840.3 FT.18
Delivery rate	20 l/min	34 l/min
End vacuum (abs.)	8 mbar	
Overpressure	1 bar	
Media temperature	+5 – +40 °C	
Connection	for hose inner Ø 10 mm	
Motor power	120 W	245 W
Ambient temperature	+5 – +40 °C	
IP rating	44	
Materials in contact with media	Pump head: TFM™ PTFE, Diaphragms: PTFE-coated, Valves: FFPM	
W x D x H	144 x 312 x 207 mm	166 x 341 x 226 mm
Weight	9.3 kg	12,6 kg
Mains connection	230 V, 50 Hz	

Type	Art. No.	Pack Qty.	€
N 820.3 FT.18	**C563.1**	1 unit(s)	1.936,10
N 840.3 FT.18	**C564.1**	1 unit(s)	2.118,85



Diaphragm vacuum pump LABOPORT® SD series

KNF.

Chemical-resistant, **suitable for highly aggressive and corrosive gases and vapours.**
Self-drying, **for moist gases:** During the evacuation process, the pump blows condensate liquid out of the pump heads at high speed. The vacuum remains constant during this application.
Application:
For applications such as steam sterilisers or vacuum drying in vacuum drying ovens, to significantly speed up the evacuation time.

- High steam and condensate resistance
- Gas-tight, leak rate approx. 6 x 10^{-3} mbar x l/s
- With thermal switch and mains fuse

Technical specifications:

Art. No.	Y369.1	1EK0.1	Y370.1
Type	N 820.3 FT.40.18	N 860.3 FT.40.18	N 840.3 FT.40.18
Delivery rate	20 l/min, 1,2 m^3/h	60 l/min, 3,6 m^3/h	34 l/min, 2,04 m^3/h
End vacuum (abs.)	10 mbar	4 mbar	10 mbar
Overpressure	1 bar		
Media temperature	+5 – + 40 °C		
Connection	for hose inner Ø 10 mm	for hose inner Ø 12 mm	for hose inner Ø 10 mm
Motor power	120 W	220 W	245 W
Ambient temperature	+5 – + 40 °C		
IP rating	44	54	44
Materials in contact with media	Pump head: PTFE, Diaphragms: PTFE-coated, Valves: FFPM		
W x D x H	177 x 312 x 220 mm	291 x 331 x 278 mm	189 x 341 x 239 mm
Weight	9,6 kg	14,8 kg	12,9 kg
Mains connection	230 V, 50 Hz		

Type	Art. No.	Pack Qty.	€
N 820.3 FT.40.18	**Y369.1**	1 unit(s)	2.293,00
N 840.3 FT.40.18	**Y370.1**	1 unit(s)	2.760,60
N 860.3 FT.40.18	**1EK0.1**	1 unit(s)	4.380,65

Diaphragm vacuum pumps



Diaphragm vacuum pump N 920 KT.29.18G

KNF.

For all applications that still require a **large suction capacity** at **low pressure**.
For pumping and extracting air, gases and vapours, for sampling and evacuating containers or systems.

- **The delivery rate can be adjusted by changing the speed** using the potentiometer.
- Ideal for aggressive and corrosive gases and vapours.
- Very quiet and low vibration.
- Diaphragm stabilisation system for high suction capacity in the lower vacuum range.
- With integrated gas ballast valve for reducing condensate formation within the pump head.

Application:
For various processes and procedures, e.g. in laboratories, which need to be performed under vacuum conditions. Also usable in the semi-conductor and pharmaceutical industries and in chemical and analysis technology.

Technical specifications:

Art. No.	EP19.1
Type	N 920 KT.29.18G
Delivery rate	21 l/min
End vacuum (abs.)	2 mbar
End vacuum abs. with gas ballast	<5 mbar
Overpressure	0,5 bar
Media temperature	+5 – +40 °C
Connection	for hose inner Ø 10 mm
Motor power	135 W
Ambient temperature	+10 – +40 °C
IP rating	20
Materials in contact with media	Pump head: PPS, Diaphragms: PTFE-coated, Valves: FFPM, Gas ballast valve: PVDF
W x D x H	158 x 324 x 226 mm
Weight	8,5 kg
Mains connection	100–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
N 920 KT.29.18G	**EP19.1**	1 unit(s)	2.773,50



Diaphragm vacuum pump ME 1 series

Vacuubrand.

Ideal for pumping and evacuating gases and vapours.
Application:
Uses such as vacuum filtration for sample preparation in chemical, microbiology, wastewater and other analytical processes.

- Simple to use with central power button mounted on pump housing
- Extremely quiet and low vibration
- Requires minimal benchtop space
- Long diaphragm service life

Technical specifications:

Art. No.	NA17.1	NA18.1
Type	ME 1	ME 1C
Cylinder	1	
Steps	1	
Delivery rate	11,7 l/min, 0,7 m³/h	
End vacuum (abs.)	100 mbar	
Media temperature	+10 – +40 °C (>100 mbar), 0 – +60°C (<100 mbar)	
Inlet connection	for hose inner Ø 6–10 mm	for hose inner Ø 8–10 mm
Outlet connection	Silencer/G ⅛″	for hose inner Ø 8–10 mm
Motor power	40 W	
Ambient temperature	+10 – +40 °C	
IP rating	40	
Materials in contact with media	Aluminium, ETFE	ETFE, PTFE
W x D x H	121 x 247 x 145 mm	
Weight	5 kg	
Mains connection	230 V, 50/60 Hz	

Optional accessories (please order separately): fine adjustment head with manual vacuum control via leakage air, rotatable in different directions for optimal visibility.

ME 1
Wide range of applications for neutral gases and vapours.

Type	Art. No.	Pack Qty.	€
ME 1	**NA17.1**	1 unit(s)	795,50

ME 1C
Specially designed for aggressive gases and vapours.

Type	Art. No.	Pack Qty.	€
ME 1C	**NA18.1**	1 unit(s)	1.058,90

Diaphragm vacuum pumps



Diaphragm vacuum pump MD 1 series

Vacuubrand.

For evacuating and conveying gases down to an extremely low end vacuum.

- **Three-stage, for a high suction capacity even at low pressures**
- Very quiet and low vibration
- Long service life
- Easy diaphragm and valve replacements

Technical specifications:

Art. No.	ETY5.1	HC95.1
Type	MD 1	MD 1C
Cylinder	4	
Steps	3	
Delivery rate	20 l/min, 1,2 m³/h	21,7 l/min, 1,3 m³/h
End vacuum (abs.)	1,5 mbar	2 mbar
End vacuum abs. with gas ballast		4 mbar
Media temperature	+10 – +40 °C (>100 mbar), 0 – +60°C (<100 mbar)	
Inlet connection	for hose inner Ø 6 mm	for hose inner Ø 8–10 mm
Outlet connection	G⅛″ silencer	for hose inner Ø 8 mm
Motor power	80 W	
Ambient temperature	+10 – +40 °C	
IP rating	42	
Materials in contact with media	Pump head: Aluminium, Diaphragms: PTFE, Valves: FPM	Pump head: PTFE/ETFE, Diaphragms: PTFE, Valves: FFPM
W x D x H	143 x 303 x 163 mm	143 x 316 x 175 mm
Weight	6,5 kg	6,9 kg
Mains connection	200–230 V, 50/60 Hz	

MD 1
Wide range of applications for neutral gases and vapours.

Type	Art. No.	Pack Qty.	€
MD 1	**ETY5.1**	1 unit(s)	1.827,50

MD 1C
Specially designed for aggressive gases through the use of chemical-resistant fluoroplastics, as well as excellent condensate resistance due to built-in gas ballast valve.

Type	Art. No.	Pack Qty.	€
MD 1C	**HC95.1**	1 unit(s)	3.106,75



Diaphragm vacuum pump ME 4 series

Vacuubrand.

Ideal for analytic applications in the laboratory and industrial operations.

- Continuous, oil-free evacuation and conveying of gases
- Very low leak rate thanks to particularly tightly sealed connection technology. Reliable output data
- Long diaphragm service life
- Particularly quiet and smooth running thanks to compact drive
- Long service life
- Easy diaphragm and valve replacements

Technical specifications:

Art. No.	KH50.1	1EA7.1
Type	ME 4 NT	ME 4C NT
Cylinder	2	
Steps	1	
Delivery rate	67 l/min, 4,0 m³/h	65 l/min, 3,9 m³/h
End vacuum (abs.)	70 mbar	
Overpressure	1 bar	0,1 bar
Media temperature	+10 – +40 °C	
Inlet connection	for hose inner Ø 8–10 mm	
Outlet connection	2 x silencer / G¼″	
Motor power	180 W	
Ambient temperature	+10 – +40 °C	
IP rating	40	
Noise level	45 db	
Materials in contact with media	Pump head: Aluminium, Diaphragms: FPM, Valves: FPM	ETFE pump head, carbon fibre-reinforced, Diaphragms: PTFE, Valves: PTFE
W x D x H	239 x 243 x 198 mm	243 x 254 x 198 mm
Weight	11 kg	
Mains connection	200–230 V, 50/60 Hz	

ME 4NT
Wide range of applications for neutral gases and vapours.

Extremely high diaphragm durability thanks to highly flexible FKM double diaphragms with fabric reinforcement.

Type	Art. No.	Pack Qty.	€
ME 4 NT	**KH50.1**	1 unit(s)	1.682,40

ME 4C NT
Specially designed for aggressive gases and vapours.

Long diaphragm service life thanks to the diaphragms' PTFE sandwich design.

Type	Art. No.	Pack Qty.	€
ME 4C NT	**1EA7.1**	1 unit(s)	2.279,00

Diaphragm vacuum pumps



Diaphragm vacuum pump MPC series

WELCH Vacuum.

Ideal for pumping and compressing **neutral and aggressive gases and vapours.**
With integrated gas ballast valve for reducing condensate formation within the pump head.

Application:
In physical and chemical laboratories for vacuum filtration, distillation, drying, etc.

Technical specifications:

Art. No.	1AA3.1	CE38.1	CE39.1	CE40.1
Type	MPC 201 E	MPC 101 Z	MPC 301 Z	MPC 601 T
Cylinder	2			4
Steps	1	2		3
Delivery rate	30 l/min 1,8 m³/h	16,7 l/min 1 m³/h	38,3 l/min 2,3 m³/h	75,0 l/min 4,5 m³/h
End vacuum (abs.)	< 75 mbar	< 8 mbar		< 2 mbar
End vacuum abs. with gas ballast	90 mbar	18 mbar		9 mbar
Media temperature	+10 – +40 °C			
Connection	for hose inner Ø 8 mm			
Motor power	60 W		180 W	370 W
Ambient temperature	+10 – +40 °C			
IP rating	54			
Materials in contact with media	Connection/pump head: PTFE with carbon fibre reinforcement, Seal: EPDM, Screw fitting: PVDF, Valves: PEEK, Diaphragm disc: NBR, Connecting elements: PP			
W x D x H	195 x 225 x 147 mm		230 x 265 x 169 mm	230 x 380 x 169 mm
Weight	6,5 kg		11,2 kg	18,3 kg
Mains connection	230 V, 50/60 Hz			

Pic.	Type	Art. No.	Pack Qty.	€
(1)	MPC 201 E	**1AA3.1**	1 unit(s)	1.381,40
(2)	MPC 101 Z	**CE38.1**	1 unit(s)	1.402,90
(3)	MPC 301 Z	**CE39.1**	1 unit(s)	1.886,65
(4)	MPC 601 T	**CE40.1**	1 unit(s)	3.757,15



Rotary vane pump package ROTILABO® CR-DS40

ROTH SELECTION.

Robust, two-stage vacuum pump primarily for vacuum ovens, freeze dryers and the Schlenkline technique. Its innovative technology means that it has a long service life and is highly reliable and low-maintenance.

- Lower operating temperature thanks to optimised cooling, which reduces the chemical activity in the pump and the oil consumption
- Extended oil change intervals thanks to the large oil storage tank
- Larger oil capacity results in increased dilution of chemical vapours, minimisation of oil degradation rates and reduction in chemical damage in the pump
- Decelerated metal corrosion thanks to the additional coating of pump module and oil storage tank which, in conjunction with cold traps, extend the maintenance intervals

Technical specifications:

Art. No.	1A9E.1
Type	CR-DS40
Delivery rate	38 l/min, 2,3 m³/h
End vacuum (abs.)	3 x 10^{-3} mbar
End vacuum abs. with gas ballast	9 x 10^{-2} mbar
Media temperature	+10 – +40 °C
Connection	KF DN 16 small flange
Oil filling	0,45 l
Motor power	290 W
Ambient temperature	+10 – +40 °C
IP rating	54
Noise level	50 db
W x D x H	384 x 138 x 211 mm
Weight	15 kg
Mains connection	115–230 V, 50/60 Hz

Delivery incl. oil mist filter, adapter (DN 16 small flange to DN 10/8 mm hose nozzle), 1 l pump oil, funnel, clamping and centring rings.

Type	Art. No.	Pack Qty.	€
CR-DS40	**1A9E.1**	1 unit(s)	1.993,05

Rotary vane pumps

Rotary vane pump package CRVpro series



WELCH Vacuum.

Complete packages with two-stage rotary vane pumps.

- Low operating temperature due to enhanced cooling geometry
- Coating of the pump body and the oil container as protection against chemical vapours
- Low oil consumption and corrosion inhibition due to low heat development during operation
- Large oil reservoir reduces the concentration of chemicals, thereby increasing the oil change intervals

Application:

- Freeze dryer (CRVpro 4/6/8)
- Vacuum centrifuge (CRVpro 6)
- Vacuum ovens (CRVpro 8)
- Schlenk technology (CRVpro 4)
- Glove box (CRVpro 8)

Technical specifications:

Art. No.	**HKE0.1**	**HKE1.1**	**HKE2.1**
Type	CRVpro 4	CRVpro 6	CRVpro 8
Delivery rate	63 l/min, 3,8 m^3/h	85 l/min, 5,1 m^3/h	122 l/min, 7,3 m^3/h
End vacuum (abs.)	2 x 10^{-3} mbar		
End vacuum abs. with gas ballast	7 x 10^{-2} mbar		
Media temperature	+10 – +40 °C		
Connection	KF DN 16 small flange	DN 16 KF small flange	
Oil filling	1,15 l		1,0 l
Motor power	370 W		
Ambient temperature	+10 – +40 °C		
IP rating	54		
Noise level	50 db		
W x D x H	463 x 157 x 230 mm		
Weight	21 kg	22 kg	22,5 kg
Mains connection	115–230 V, 50/60 Hz		

Delivery incl. AKD 16 oil mist separator, 2-way ball valve, adapter (DN 16 small flange to DN 10/8 mm hose nozzle), vacuum hose (1.5 m), oil change set incl. 2 x 1 l oil, clamping and centring rings.

Type	Art. No.	Pack Qty.	€
CRVpro 4	**HKE0.1**	1 unit(s)	2.821,90
CRVpro 6	**HKE1.1**	1 unit(s)	3.112,15
CRVpro 8	**HKE2.1**	1 unit(s)	3.724,90

Rotary vane pumps

Rotary vane pump XS series

Vacuubrand.

For pressure ranges up to 10^{-3} mbar.



Advantages:

- High suction capacity, even at low ultimate pressure
- High water vapour resistance (with 40 mbar gas ballast)
- Active corrosion protection against ingress of corrosive gases and oil components at a standstill through vacuum-tight closed oil circuit
- New circulation lubrication system
- Compact design and low weight
- Starts reliably even at low temperatures
- Long oil change intervals thanks to high usable oil volume
- Easy maintenance thanks to telescopic design

Technical specifications:

Art. No.	CE14.1	CE15.1	NA10.1	HC94.1	NA11.1	CTL3.1	CTL2.1
Type	RE 2.5	RZ 2.5	RZ 2.5 package	RZ 6	RZ 6 package	RZ 6 package with DCP	RZ 9
Steps	1	2					
Delivery rate	38 l/min, 2,3 m³/h			95 l/min, 5,7 m³/h			143 l/min, 8,9 m³/h
End vacuum (abs.)	3 x 10^{-1} mbar	2 x 10^{-3} mbar					
End vacuum abs. with gas ballast	8 x 10^{-1} mbar	1 x 10^{-2} mbar					
Water vapour tolerance	40 mbar						
Media temperature	+10 – +40 °C (>100 mbar), 0 – +60°C (<100 mbar)						
Inlet connection	DN 16 small flange						DN 25 small flange
Outlet connection	for hose inner Ø 10 mm						DN 25 small flange
Oil filling	0,18–0,51 l	0,1–0,28 l		0,34–0,73 l			0,2–0,8 l
Motor power	180 W			300 W			370 W
Ambient temperature	+12 – +40 °C						
IP rating	40						
W x D x H	125 x 308 x 190 mm			142 x 370 x 207 mm			232 x 460 x 232 mm
Weight	10,2 kg	11,4 kg		16,4 kg			24,2 kg
Mains connection	200–230 V, 50/60 Hz						

Single-stage

Delivery incl. oil filling, thermal motor circuit breaker, power cord (length: 2 m), clamping and centring ring for suction piece.

Type	Art. No.	Pack Qty.	€
RE 2.5	**CE14.1**	1 unit(s)	1.854,40

Two-stage

Delivery incl. oil filling, thermal motor circuit breaker, power cord (length: 2 m), clamping and centring ring for suction piece – can also be used for exhaust port with RZ 9.

Type	Art. No.	Pack Qty.	€
RZ 2.5	**CE15.1**	1 unit(s)	2.542,40
RZ 6	**HC94.1**	1 unit(s)	3.257,25
RZ 9	**CTL2.1**	1 unit(s)	4.246,25

Basic package

Delivery incl. oil filling, thermal motor circuit breaker, power cord (length: 2 m), FO exhaust filter, VS 16 butterfly valve, PP adapter (DN 16 small flange to DN 10 hose nozzle), clamping and centring rings.

Type	Version	Art. No.	Pack Qty.	€
RZ 2.5 package	with FO + VS 16 + SW DN 10	**NA10.1**	1 unit(s)	2.902,50
RZ 6 package	with FO + VS 16 + SW DN 10	**NA11.1**	1 unit(s)	3.488,40

Package with vacuum meter

Delivery incl. oil filling, thermal motor circuit breaker, power cord (length: 2 m), FO exhaust filter, VS 16 butterfly valve, PP adapter (DN 16 small flange to DN 10 hose nozzle), clamping and centring rings, DCP 3000 vacuum meter with VSP 3000 pressure sensor.

Type	Version	Art. No.	Pack Qty.	€
RZ 6 package with DCP	with FO + VS 16 + SW DN 10 + set comprising DCP 3000 and VSP 3000	**CTL3.1**	1 unit(s)	4.730,00

Vacuum measuring devices and systems



Vacuum meter

ROTH SELECTION.

The devices are connected to a vacuum pump in series on the suction side. Stand mounting possible (using spring clamps on the back of the device).

Technical specifications:

Art. No.	NA03.1	Y457.1
Type	VAC	VAR
Version	meter	controller
Measuring range	1020–0 mbar	
Resolution	10 mbar	
Connection	for hose inner Ø 8 mm	
W x D x H	80 x 80 x 150 mm	

(1) VAR with manual regulator
For controlling the vacuum and keeping it constant via a control button. Continuously adjustable for a variable vacuum level.

Type	Version	Art. No.	Pack Qty.	€
VAR	controller	**Y457.1**	1 unit(s)	246,20

(2) VAC
For displaying the current vacuum level.

Type	Version	Art. No.	Pack Qty.	€
VAC	meter	**NA03.1**	1 unit(s)	170,95

ROTH SELECTION



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Vacuum meter DVR 2pro

Vacuubrand.

Chemical-resistant materials in area in contact with media for excellent long-term stability and accuracy.

- Integrated ceramic diaphragm pressure transducer (aluminium oxide)
- Digital pressure display, with additional analogue representation
- Automatic switch-off after 1 to 600 min or continuous operation
- Adjustable measuring cycle: Automatic, 1x per 3 s, 1x per 1 s or 3x per 1 s
- Switchable pressure display (mbar, torr, hPa)

Technical specifications:

Art. No.	HTE7.1
Type	DVR 2pro
Measuring range	1060–1 mbar
Resolution	0.1 mbar
Measuring principle	capacitive absolute pressure transducer, regardless of the gas type
Accuracy	< ±1 mbar/±1 digit
Connection	KF DN 16 small flange DN 6/10 mm stepped hose nozzle Hose connection for PTFE hoses (inner Ø 8 mm, outer Ø 10 mm)
Ambient temperature	+10 – +40 °C
L x W x H	115 x 115 x 56 mm
Weight	400 g
Power supply	E-Block 9 V battery

Delivery incl. vacuum connecting parts, stand rod and battery.

Type	Art. No.	Pack Qty.	€
DVR 2pro	**HTE7.1**	1 unit(s)	810,55



NEW / +

Vacuum meter VMpro 2

WELCH Vacuum.

Robust, durable and reliable. Digital multi-range vacuum meter for measuring the vacuum in the coarse and fine vacuum ranges. Chemically resistant and therefore ideal for corrosive and aggressive gases and vapours. Combined sensor unites PIRANI technology with the benefits of a ceramic capacitive membrane sensor. In the measuring range between 10 mbar and the atmosphere, capacitive membrane technology delivers highly accurate values for reliable pressure measurement, regardless of the type of gas.

- With backlit LCD display for easy readability and for simple monitoring of the vacuum; the current measuring principle is also displayed
- High accuracy and excellent resolution in the atmospheric pressure range to $5x10^{-4}$ mbar
- Both pressure sensors are active at all times: With a low vacuum (<1 mbar), the signal from the PIRANI sensor is used exclusively for pressure measurement, and for a weaker vacuum (>10 mbar), only the signal from the capacitive membrane sensor is used. In the mixing area (1-10 mbar), both signals are weighted in proportion to the pressure and the output signal is thus determined
- Can be connected to practically any vacuum pump and any vacuum system
- LED status display

Technical specifications:

Art. No.	**1LLE.1**
Type	VMpro 2
Measuring range	1500–5x 10^{-4} mbar
Resolution	1 mbar (1050–100 mbar), 0.5 mbar (99–1 mbar), 0.1 mbar (0.9–0.1 mbar), 0.01 mbar (0.09–0.01 mbar), 0.001 mbar (0.009–0.001 mbar)
Measuring principle	capacitive and acc. to PIRANI
Accuracy	±2.5 % of the measured value (950–1050 mbar) ±5 % of the measured value (100–950 mbar) ±15 % of the measured value ($1x10^{-3}$–100 mbar) ±50 % of the measured value ($5x10^{-4}$–$1x10^{-3}$ mbar)
Connection	KF DN 16 small flange, Nozzle for internal hose Ø 8–10 mm
Ambient temperature	+10 – +50 °C
W x D x H	45 x 28 x 94 mm
Weight	120 g
Mains connection	100–240 V, 50/60 Hz

Delivery incl. DN 8-10 hose nozzle, T-piece, clamping and centring ring, plug-in power supply.

Type	Art. No.	Pack Qty.	€
VMpro 2	**1LLE.1**	1 unit(s)	1.192,20



Vacuum meter DCP 3000

Vacuubrand.

- LCD graphic display with digital pressure indicator and bar graph
- Separate pressure transducer for flexible positioning of the measuring device (cable length 2 m)
- Sensor material for contact with media: Aluminium oxide ceramic.
- Switchable pressure display (mbar, torr, hPa)
- Can be used as a tabletop device or with a stand

Technical specifications:

Art. No.	**LY74.1**	**LY75.1**
Type	DCP 3000 with VSK 3000 pressure transducer	DCP 3000 with VSP 3000 pressure transducer
Measuring range	1060–0.1 mbar	1000–0.001 mbar
Resolution	0.1 mbar	10% of displayed decade
Measuring principle	capacitive absolute pressure transducer, regardless of the gas type	Heat conduction according to PIRANI, depending on the gas type
Accuracy	< ±1 mbar/± 1 digit	±15% of the measured value (10–0.01 mbar)
Connection	for hose inner Ø 6, 8 or 10 mm	
Ambient temperature	+10 – +40 °C	
L x W x H	124 x 124 x 114 mm	
Weight	440 g	
Mains connection	100–230 V, 50/60 Hz	

Delivery incl. DCP 3000 vacuum meter with required pressure transducer, measuring cable and support.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	DCP 3000 with VSK 3000 pressure transducer	**LY74.1**	1 unit(s)	1.456,65
(2)	DCP 3000 with VSP 3000 pressure transducer	**LY75.1**	1 unit(s)	1.429,75



Vacuum meter VACUU VIEW

Vacuubrand.

For monitoring vacuum processes with particularly high precision.

- Lit pressure display makes it easy to read the measured values
- Display with menu navigation, simple adjustment of display options, e.g. pressure unit
- Compact design with integrated sensors; is practical to position for lab and process set-ups
- Sensor chemical-resistant for increased service life, even for aggressive applications
- Stable plastic housing with good chemical resistance
- Switchable pressure display (mbar, torr, hPa)

Technical specifications:

Art. No.	1E9H.1	1E9E.1
Type	VACUU VIEW Extended	VACUU VIEW Standard
Measuring range	1100–0.001 mbar	1100–1 mbar
Resolution	1 mbar (1100–10 mbar), 0.1 mbar (10–1 mbar), 0.01 mbar (1–0.1 mbar), 0.001 mbar (0.1–0.001 mbar)	1 mbar (1100–100 mbar), 0.1 mbar (100–1 mbar)
Measuring principle	Capacitive and acc. to PIRANI	capacitive
Accuracy	±3 mbar (1100–5 mbar) ±15% from the measured value (5–0.01 mbar)	< ±1 mbar/±1 digit
Connection	KF DN 16 small flange, DN 6/10 mm stepped hose nozzle	
Ambient temperature	+10 – +40 °C	
L x W x H	50 x 62 x 103 mm	
Weight	190 g	
Mains connection	100–230 V, 50/60 Hz	

Delivery incl. DN 6/10 mm hose nozzle and plug-in power supply.

(1) Standard
With chemical-resistant ceramic membrane sensor for measurements in the coarse vacuum range. Detection of the applied absolute pressure, regardless of the gas type, according to the capacitive measuring principle.

Type	Art. No.	Pack Qty.	€
VACUU VIEW Standard	**1E9E.1**	1 unit(s)	951,40

(2) Extended
A chemical-resistant combination comprising a ceramic membrane sensor and ceramic jacketed Pirani sensor for measurements in the coarse and fine vacuum ranges.

Type	Art. No.	Pack Qty.	€
VACUU VIEW Extended	**1E9H.1**	1 unit(s)	1.085,75



Vacuum controllers VCpro 601

WELCH Vacuum.

Two-point controller for regulating a rough vacuum, for universal use. Robust vacuum sensor, chemically resistant and very precisely adjustable to ±1 mbar.

- With large, multilingual colour display and light/dark screen mode for optimum visibility
- Measured values can be presented digitally as a curve progression or in an analogue manner as individual values
- Integrated solvents library with stored distillation-specific parameters or freely adjustable boiling points; storage of individual pressure histories for innovative processes possible
- With communication port for remote control/monitoring, for downloading logged process data and for software updates
- Various safety levels can be accessed for self-defined user approvals
- Selectable pressure unit (mbar/Torr/psi)
- Integrated ventilation valve for inert gas/room air and solenoid control valve for vacuum
- Connection for cooling water valve available

Technical specifications:

Art. No.	1ATL.1
Type	VCpro 601
Measuring range	1100–1 mbar
Resolution	1 mbar
Measuring principle	Capacitive absolute pressure transducer, regardless of the gas type
Accuracy	Sensor: 0.3% full scale Control: 1 mbar
Connection	For hose inner Ø 8 mm
Venting valve connection	For hose inner Ø 4 mm
Ambient temperature	+15 – +30 °C
L x W x H	195 x 178 x 105 mm
Weight	1500 g
Mains connection	115–240 V, 50/60 Hz

Delivery incl. VCpro 601 vacuum controller with vacuum valve, venting valve and holder for stand removal.

Type	Art. No.	Pack Qty.	€
VCpro 601	**1ATL.1**	1 unit(s)	2.439,20



Vacuum controller VACUU·SELECT compact

Vacuubrand.

For controlling a vacuum in the coarse vacuum range. Measures and displays the absolute pressure. Compact unit, simple installation, for increased process efficiency.

- Operation via glass touchscreen, even when wearing thick laboratory gloves
- Highly intuitive, application-oriented operator guidance with integrated help function and contextual tips for application
- Saves time thanks to preset vacuum processes for all common laboratory applications
- Independently detects the boiling point during solvent evaporation, e.g. using the rotary evaporator
- Storage of individual vacuum processes using an application editor for reproducible results
- Ceramic membrane vacuum sensor integrated in the device, measurement connection at the valve block. Easy to connect the controller between the pump and vacuum application
- Chemical vacuum power valve: Electromagnetic flip-flop valve for controlling the vacuum you require in the application, with graduated hose nozzles
- Integrated venting valve: Simple pressure compensation or ventilation with inert gas at the end of the process
- Integrated non-return valve: No interference with adjacent applications using a shared vacuum source
- Switchable pressure display (mbar, torr, hPa)

Technical specifications:

Art. No.	1E97.1	1E98.1
Type	VACUU·SELECT compact	
Version	Tabletop device	Stand-mounted device
Measuring range	1080–0.1 mbar	
Resolution	0.1 mbar	
Measuring principle	capacitive absolute pressure transducer, regardless of the gas type	
Accuracy	< ±1 mbar	
Connection	for hose inner Ø 6/10 mm	
Venting valve connection	for hose inner Ø 4–5 mm	
Ambient temperature	+10 – +40 °C	
L x W x H	191 x 127 x 187 mm	152 x 127 x 189 mm
Weight	2000 g	
Mains connection	100–230 V, 50/60 Hz	

Tabletop device

Delivery incl. VACUU·SELECT compact controller in a tabletop version, with suction line valve, non-return valve, integrated ceramic membrane vacuum sensor, venting valve and mains adapter.

Type	Version	Art. No.	Pack Qty.	€
VACUU·SELECT compact	Tabletop device	**1E97.1**	1 unit(s)	2.601,50

Stand-mounted device

Delivery incl. VACUU·SELECT compact controller for stand mounting, with suction line valve, non-return valve, integrated ceramic membrane vacuum sensor, venting valve and mains adapter.

Type	Version	Art. No.	Pack Qty.	€
VACUU·SELECT compact	Stand-mounted device	**1E98.1**	1 unit(s)	2.601,50



Vacuum system SC 920 G

KNF.

Chemical-resistant, suitable for aggressive and corrosive gases and vapours.

- Control optionally via operating unit or PC
- LCD screen displays actual and target values
- Automatic boiling point detection and boiling point tracking using integrated ramp function
- High recovery rates even with solvents that have very low boiling points
- Delivery rate (in %) can be adjusted via speed
- Integrated gas ballast valve reduces condensate formation within the pump head
- Quiet operation

Control panel:

- Display: LCD
- Operation: Touchscreen/rotary pushbutton
- Dimensions (W x H x D): 90 x 205 x 55 mm

Technical specifications:

Art. No.	EHP1.1
System	SC 920 G
Delivery rate	21 l/min
End vacuum (abs.)	2 mbar
End vacuum abs. with gas ballast	5 mbar
Connection	for hose inner Ø 10 mm
Ambient temperature	+5 – +40 °C
Materials in contact with media	Pump head: PPS, Diaphragms: PTFE-coated, Valves: FFPM, Seals: FPM, Hose nozzles: PVDF
Port	Mini USB
W x D x H	366 x 294 x 423 mm
Weight	15.2 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 2x collecting flasks (each 500 ml, made of glass, coated), 2x flask clamps, USB cable for connecting to a PC and software (compatible with Windows).

Type	Art. No.	Pack Qty.	€
SC 920 G	**EHP1.1**	1 unit(s)	5.205,15

Vacuum systems



Vacuum system LABOXACT® SEM series

KNF.

With fine adjustment valve. Chemical resistant. Specially designed for use on rotary evaporators.

Features:

- **Digital vacuum gauge**, displays the current pressure in the system
- **Fine adjustment valve** for continuously variable vacuum regulation
- **Safety venting valve** enables the piston to be ventilated in order to interrupt the evaporation process
- **Separate on/off switch** for the pump
- **Inert gas connection**
- Delivered fully assembled

Advantages:

- Safe evaporation control
- High recovery rates even with solvents that have very low boiling points
- Gentle distillation thanks to closed system layout
- Continuously variable regulation of the vacuum via fine adjustment valve
- Once the required vacuum has been achieved, the fine adjustment valve can be closed and the pump can be switched off
- Maintenance-free and quiet

Technical specifications:

Art. No.	AY12.1	AY13.1	AY14.1
System	SEM 820	SEM 840	SEM 842
Pump type	N 820.3 FT.18	N 840.3 FT.18	N 842.3 FT.18
Delivery rate	20 l/min	34 l/min	
End vacuum (abs.)	8 mbar		2 mbar
Connection	for hose inner Ø 10 mm		
Materials in contact with media	Pump head: TFM™ PTFE, Diaphragms: PTFE-coated, Valves: FFPM		
L x W x H	442 x 305 x 481 mm		
Weight	14.5 kg	17.8 kg	18.6 kg
Mains connection	230 V, 50 Hz		

Delivery incl. base plate, separator, condenser, fine adjustment valve, vacuum gauge (digital), safety venting valve, wiring and hoses.

Type	Art. No.	Pack Qty.	€
SEM 820	**AY12.1**	1 unit(s)	3.378,75
SEM 840	**AY13.1**	1 unit(s)	3.789,40
SEM 842	**AY14.1**	1 unit(s)	4.854,70



Vacuum system LABOPORT® SC series

KNF.

With vacuum controller. Chemical resistant. For laboratories that require a clean and controlled vacuum.

Applications:

- Vacuum distillation and filtration
- Rotary evaporators
- Vacuum drying
- Vacuum impregnation
- Gel drying, etc.

Features:

- **Vacuum controllers** for controlled vacuum processes
- The control unit switches the pump off or on again if the required vacuums are achieved or exceeded
- Delivered fully assembled

Advantages:

- Automatic vacuum control
- Controlled solvent recovery via high-performance condenser (pressure-side)
- Collects particles in the system (suction-side)
- Maintenance-free and quiet

Technical specifications:

Art. No.	AY16.1	AY17.1	AY18.1
System	SC 820	SC 840	SC 842
Pump type	N 820.3 FT.18	N 840.3 FT.18	N 842.3 FT.18
Delivery rate	20 l/min	34 l/min	
End vacuum (abs.)	8 mbar		2 mbar
Overpressure	1 bar		
Connection	for hose inner Ø 10 mm		
Materials in contact with media	Pump head: TFM™ PTFE, Diaphragms: PTFE-coated, Valves: FFPM		
L x W x H	397 x 289 x 506 mm	417 x 289 x 506 mm	
Weight	16.0 kg	19.3 kg	20.1 kg
Mains connection	230 V, 50 Hz		

Delivery incl. base plate, separator, condenser, vacuum controller with control unit, wiring and hoses.

Type	Art. No.	Pack Qty.	€
SC 820	**AY16.1**	1 unit(s)	4.798,80
SC 840	**AY17.1**	1 unit(s)	4.890,20
SC 842	**AY18.1**	1 unit(s)	6.215,65



Vacuum system LVS 105 T-10 ef+

WELCH Vacuum.

Specially designed for rotary evaporators, distillation, filtration, vacuum ovens and vacuum drying. With chemical-resistant diaphragm vacuum pump and vacuum controller VCpro600. To ensure a freely selectable vacuum of ±1 mbar, the pump speed is continuously adapted to the gas load.

Advantages:

- Faster process results are ensured by constant evaporation and degassing
- Automatic vacuum adjustment and control
- Controller with large, multilingual colour display and light/dark screen mode for optimum visibility
- Integrated solvent library with stored distillation-specific parameters and freely adjustable boiling points; storage of individual pressure curves for novel processes possible
- With communication interface for remote control/monitoring, for downloading logged process data and for software updates
- Low-noise operation through speed reduction

Technical specifications:

Art. No.	NH35.1
System	LVS 105 T-10 ef+
Delivery rate	18 l/min
End vacuum (abs.)	< 2,0 mbar
Connection	for hose inner Ø 8 mm
Materials in contact with media	Pump head: PTFE with carbon fibre reinforcement, Diaphragms: Elastomer with PTFE coating, Valves: PEEK, Seals: EPDM, Screw fittings/connecting elements: PP, PVDF, Vacuum hose: PTFE
Port	RS 232, LAN
W x D x H	250 x 260 x 435 mm
Weight	9,5 kg
Mains connection	115–240 V, 50/60 Hz

Delivery incl. chemical-resistant diaphragm pump, built-in controller, ecoflex control unit, suction-side separator with 500 ml round bottom flask, pressure-side intensive cooler with 500 ml round bottom flask and safety valve.

Type	Art. No.	Pack Qty.	€
LVS 105 T-10 ef+	**NH35.1**	1 unit(s)	3.799,05



Vacuum system PC 3000 VARIO select series

Vacuubrand.

Optimal solution for chemical processes requiring a precise vacuum, such as rotary evaporation, vacuum drying or vacuum concentration, by combining the speed-controlled VARIO chemical diaphragm pump and VACUU·SELECT vacuum controller.

- Uncompromising chemical version: Excellent chemical resistance throughout from the suction side to the pressure side
- Precise and efficient vacuum control via the pump speed (VARIO technology).
- Vacuum controller with graphical user interface and predefined vacuum processes for all standard laboratory applications.
- Automatic boiling point detection and vacuum adaptation for short process times.
- Application, required vacuum and other parameters can also be individually configured and controlled.
- Very quiet and low vibration operation.
- Excellent environmental compatibility through low energy consumption, extended maintenance intervals and efficient solvent recovery.
- Suction-side separator made of glass with protective coating retains particles and droplets, very compact pressure-side emission condenser enables almost 100% solvent recovery.
- Interfaces for remote monitoring, remote control, data transfer (export/import), software updating

Technical specifications:

Art. No.	1EN0.1	1EN1.1
System	PC 3001 VARIO select	PC 3003 VARIO select
Delivery rate	33 l/min, 2,0 m³/h	46 l/min, 2,8 m³/h
End vacuum (abs.)	2 mbar	0,6 mbar
End vacuum abs. with gas ballast	4 mbar	1,5 mbar
Overpressure	0,1 bar	
Ambient temperature	+10 – +40 °C	
Materials in contact with media	ETFE pump head, carbon fibre-reinforced, Diaphragms: PTFE sandwich, Valves: Perfluoroelastomer (FFKM), Cylinder wiring/hose nozzles: PTFE, ETFE, ECTFE	
Port	USB type A, LAN	
Motor power	160 W	530 W
L x W x H	303 x 306 x 400 mm	419 x 243 x 457 mm
Weight	8,2 kg	21,1 kg
Mains connection	230 V, 50/60 Hz	

Delivery incl. chemical-resistant diaphragm pump, vacuum controller, emission condenser, separator, round flask and hose connections.

PC 3001 VARIO select
Extremely compact and powerful, very good end vacuum even with the opened gas ballast valve.

Type	Art. No.	Pack Qty.	€
PC 3001 VARIO select	**1EN0.1**	1 unit(s)	7.212,20

PC 3003 VARIO select
Ideal for high boilers and low evaporation temperatures due to the particularly low end vacuum.

Type	Art. No.	Pack Qty.	€
PC 3003 VARIO select	**1EN1.1**	1 unit(s)	10.023,30



Extraction system biovac 106

WELCH Vacuum.

For safe and precise extraction of liquid, non-explosive residues from slides, Petri dishes and other containers.

- Incl. chemical-resistant diaphragm pump with long service life
- Connections to the diaphragm pump and to the handpiece via quick couplings with double-sided shut-off valve
- The pipette holder enables a variety of pipette tips or glass tips to be used. Delivery incl. eight-channel suction rake
- Integrated collection container (autoclavable) with integrated float valve, closes automatically once the max. fill level has been reached
- Integrated filter mount for diaphragm filter between the collection container and the diaphragm pump. Diaphragm filters up to max. pore size of 0.22 µm, Ø 55 mm can be used. Factory-integrated: 0.22 µm PTFE filter, Ø 55 mm
- If necessary, the pump can be switched on via a footswitch which can be purchased as an option

Technical specifications:

Art. No.	KH49.1
Type	biovac 106
Bottle volume	2,000 ml
Delivery rate	12 l/min, 0,72 m³/h
End vacuum (abs.)	100 mbar
Overpressure	1 bar
Ambient temperature	+10 – +40 °C
W x D x H	357 x 145 x 277 mm
Weight	8 kg
Mains connection	115–230 V, 50/60 Hz

Note: When the quick couplings are fitted, unscrew the cap before autoclaving and place it on the bottle.

Delivery incl. mains adapter.

Type	Art. No.	Pack Qty.	€
biovac 106	**KH49.1**	1 unit(s)	2.139,25



Extraction system

Hettich Benelux.

For safe vacuum extraction of liquid residues.

Basic equipment:

- Vacuum pump
- Collecting bottle made of PP, vacuum-resistant, autoclavable
- Screw cap with two quick-release couplings for tight sealing of the collecting bottle after the hoses are disconnected
- Ventilation insert for pressure compensation during autoclaving of collecting bottle
- Safety filter to protect the vacuum pump and surrounding area
- Silicone hose (3 m) for placing the extraction system away from the workbench

Technical specifications:

Art. No.	CE30.1	CE31.1	HA39.1	HA40.1	CE32.1	CE33.1
Type	AZ 02	AZ 04	AC 02	AC 04	AA 02	AA 04
Bottle volume	2,000 ml	4,000 ml	2,000 ml	4,000 ml	2,000 ml	4,000 ml
Delivery rate	8 l/min		25 l/min		17 l/min	
End vacuum (abs.)	700 mbar		250 mbar		100 mbar	
Ambient temperature	+4 – +40 °C					
W x D x H	75 x 170 x 60 mm		170 x 220 x 155 mm			
Weight	1.5 kg		4.5 kg		5.5 kg	
Mains connection	230 V, 50 Hz					

Note: When the quick couplings are fitted, unscrew the cap before autoclaving and place it on the bottle.

AZ model

- Simple system for extraction of small volumes
- Attachment of Pasteur pipettes or aspiration pipettes directly to the hose
- Please order metal stand for the collecting bottle separately

Pic.	Type	Art. No.	Pack Qty.	€
(1)	AZ 02	**CE30.1**	1 unit(s)	556,85
(1)	AZ 04	**CE31.1**	1 unit(s)	582,65

AC model

- Lacquered aluminium housing
- Compact design, safety bottle holder mounted on high-performance vacuum pump
- Suitable for up to two sampling points (optional)

Pic.	Type	Art. No.	Pack Qty.	€
(2)	AC 02	**HA39.1**	1 unit(s)	1.279,25
(2)	AC 04	**HA40.1**	1 unit(s)	1.317,95

AA model

- Lacquered aluminium housing
- Compact design, safety bottle holder mounted on high-performance vacuum pump
- Suitable for up to four sampling points (optional)
- Handle with AH 01 trumpet valve for attaching various suction instruments and a mechanical flow rate control system; incl. adapter for Pasteur pipettes, adapter for 1 ml pipette tips and angle adapter
- Vacuum pump with automatic cut-out. The pump cuts out automatically when extraction is completed using the handle and the final vacuum is reached

Pic.	Type	Art. No.	Pack Qty.	€
(3)	AA 02	**CE32.1**	1 unit(s)	1.861,90
(3)	AA 04	**CE33.1**	1 unit(s)	1.886,65

Extraction system BioChemVacuuCenter BVC

Vacuubrand.

Safe, precise and effective extraction of liquids in all areas of laboratory work (chemistry, biochemistry and biology).

- Ergonomic VHC^{pro} extraction handle with continuous tube; mechanism does not come into contact with fluids
- With swivelling pipette holder, for left- and right-handed users
- Lockable button for continuous extraction, µl precision extraction using thumbwheel
- Simultaneous extraction at two workstations is possible by connecting an optional second extraction handle
- Hydrophobic protective filter with 0.2 µm pore size for protection of the pump unit and the surrounding area



NEW / +

Technical specifications:

Art. No.	1EP8.1	XE35.1	1EP9.1	XE36.1	1EPA.1	XE37.1
Type	BVC Basic G	BVC Basic	BVC Control G	BVC Control	BVC Professional G	BVC Professional
Bottle volume	2,000 ml	4,000 ml	2,000 ml	4,000 ml	2,000 ml	4,000 ml
Pump type	without		ME 1C			
Delivery rate			11,7 l/min, 0,7 m³/h			
End vacuum (abs.)			150 mbar			
Control range			850 – 150 mbar			
Ambient temperature			+10 – +40 °C			
L x W x H	230 x 180 x 430 mm	250 x 200 x 490 mm	408 x 194 x 430 mm	408 x 194 x 500 mm	408 x 194 x 430 mm	408 x 194 x 500 mm
Weight	3,2 kg	2,8 kg	7,7 kg	7,3 kg	7,7 kg	7,3 kg
Mains connection	230 V, 50/60 Hz					

(1) Basic model

- Without vacuum pump, for connecting to external vacuum sources
- With mechanical vacuum controller for optimal working volume

Delivery incl. housing, collecting bottle (vacuum-resistant, autoclavable), sterilisable protective filter (0.2 µm pore size), VHC^{pro} extraction handle (autoclavable), three adapters for mounting different pipettes and tips, silicone hose (length: 2 m).

Type	Version	Art. No.	Pack Qty.	€
BVC Basic G	2 l glass collecting bottle, with hose nozzles	**1EP8.1**	1 unit(s)	1.069,65
BVC Basic	4 l PP collecting bottle, with hose nozzles	**XE35.1**	1 unit(s)	962,15

(2) Control model

- With powerful, chemical-resistant ME 1C diaphragm pump (switch-off vacuum of 150 mbar abs., delivery rate of 11.7 l/min)
- Continuous precision adjustment of vacuum/suction power electronically via touch panel
- Continuous vacuum with minimised pumping times thanks to automatic pump activation/deactivation
- Very low noise level for a pleasant working environment

Delivery incl. diaphragm pump and control unit, housing, collecting bottle (vacuum-resistant, autoclavable), sterilisable protective filter (0.2 µm pore size), VHC^{pro} extraction handle (autoclavable), three adapters for mounting different pipettes and tips, silicone hose (length: 2 m).

Type	Version	Art. No.	Pack Qty.	€
BVC Control G	2 l glass collecting bottle, with hose nozzles	**1EP9.1**	1 unit(s)	2.090,90
BVC Control	4 l PP collecting bottle, with hose nozzles	**XE36.1**	1 unit(s)	1.983,40

(3) Professional model

- With powerful, chemical-resistant ME 1C diaphragm pump (switch-off vacuum of 150 mbar abs., delivery rate of 11.7 l/min)
- Continuous precision adjustment of vacuum/suction power electronically via touch panel
- Continuous vacuum with minimised pumping times thanks to automatic pump activation/deactivation
- Very low noise level for a pleasant working environment
- non-contact fill level sensor for electronic monitoring of the fluid level in the collecting bottle
- Disinfection routine for the suction hose for drawing in disinfectants after the pump is shut down automatically

Delivery incl. diaphragm pump and control unit, fill level sensor, housing, collecting bottle (vacuum-resistant, autoclavable), sterilisable protective filter (0.2 µm pore size), VHC^{pro} extraction handle (autoclavable), three adapters for mounting different pipettes and tips, silicone hose (length: 2 m).

Type	Version	Art. No.	Pack Qty.	€
BVC Professional G	2 l glass collecting bottle, with hose nozzles	**1EPA.1**	1 unit(s)	2.542,40
BVC Professional	4 l PP collection bottle, with self-closing quick couplings	**XE37.1**	1 unit(s)	2.612,25

Water jet pumps



Water jet pump

ROTH SELECTION. Material: PP.

For extraction of liquids and vapours as well as generating vacuum. With built-in non-return valve. Can be disassembled, making cleaning easy.

Connection for the tap:

- Union nut R¾″ or
- Reducer R½″ or
- Hose connection (connector) with outer Ø 10–12 mm
- Optional accessory (please order separately):
  Adapter from R¾″ to M22 x 1 (Perlator thread), with seal

Vacuum connection:

- Connector with outer Ø 6–9 mm

Technical specifications:

- Water consumption: Approx. 220 l/h at a flow pressure of 3.5 bar
- Delivery rate: Approx. 450 l of air/h at a flow pressure of 3.5 bar
- Abs. end vacuum at a water pressure of 3.5 bar:
  Approx. 16 mbar at +12 °C
  Approx. 24 mbar at +20 °C
- Length of the water jet pump with R¾″ connection: Approx. 210 mm

Version	Art. No.	Pack Qty.	€
Water jet pump	**7366.1**	1 unit(s)	57,65

Accessories adapter for water jet pump

Vitlab.

Designation	Art. No.	Pack Qty.	€
Adapter with Perlator thread	**N876.1**	1 unit(s)	15,60



Low-pressure water jet pump

Thermo. Material: Brass nickel-plated with plastic sleeve.

With built-in non-return valve.

Technical specifications:

- Water consumption: 4–12 l/min
- Delivery rate: 2.5 l/min (at a water pressure of 5 bar)
- Abs. end vacuum: 16 mbar (at 0.5 bar and +14 °C)
- Dimensions: H 185 x W 80 mm
- Weight approx. 250 g
- Suction piece connection, 9–14 mm

Version	Art. No.	Pack Qty.	€
with tubing connection and 2 hose clips	**9660.1**	1 unit(s)	186,00
with ½″ screw connection (20 mm)	**9661.1**	1 unit(s)	197,00
with ¾″ screw connection (26 mm)	**9662.1**	1 unit(s)	197,00



Tube ROTILABO® Rubber

ROTH SELECTION. Material: Natural rubber.

Not pressure-resistant.

Standard design

Technical specifications:

Temperature stability	-10 to +50 °C
Colour	red
Hardness	45 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
5	8	1,5	**0674.1**	10 m	20,75
6	10	2,0	**0675.1**	10 m	26,00
6	10	2,0	**0675.2**	25 m	62,10
8	12	2,0	**0676.1**	10 m	36,35
8	12	2,0	**0676.2**	25 m	87,15
10	14	2,0	**0677.1**	10 m	37,25
12	17	2,5	**T981.1**	12 m	63,10
14	20	3,0	**T982.1**	12 m	83,60
16	22	3,0	**T983.1**	12 m	108,55
20	28	4,0	**T984.1**	5 m	73,50

Vacuum design

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
5	15	5,0	**0678.1**	5 m	40,45
6	16	5,0	**0679.1**	5 m	43,45
6	16	5,0	**0679.2**	25 m	181,70
8	18	5,0	**0680.1**	5 m	58,25
8	18	5,0	**0680.2**	25 m	246,20
10	20	5,0	**0681.1**	5 m	56,50
12	22	5,0	**T985.1**	5 m	83,10
15	31	8,0	**T986.1**	5 m	181,70

Set

Standard tubes (length 10 m each):
internal Ø 6 mm, external Ø 10 mm and internal Ø 8 mm, external Ø 12 mm

Vacuum tubes (length 5 m each):
internal Ø 6 mm, external Ø 16 mm and internal Ø 8 mm, external Ø 18 mm

Type	Art. No.	Pack Qty.	€
Set	**H279.1**	1 set	116,55



Tube ROTILABO® PE

ROTH SELECTION. Material: PE.
Hard, odourless.

Technical specifications:

Temperature stability	-40 to +80 °C
Colour	translucent
Hardness	45 Shore D

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1	1,8	0,4	**9583.1**	25 m	14,10
1	1,8	0,4	**9583.2**	100 m	37,70
2	4,0	1,0	**9584.1**	25 m	25,75
2	4,0	1,0	**9584.2**	100 m	76,70
3	5,0	1,0	**9585.1**	25 m	37,70
4	6,0	1,0	**9586.1**	25 m	30,95
5	7,0	1,0	**9587.1**	25 m	37,15
6	8,0	1,0	**9589.1**	25 m	34,30
7	9,0	1,0	**9591.1**	25 m	40,35
8	10,0	1,0	**9593.1**	25 m	45,60
9	11,0	1,0	**9594.1**	10 m	23,10
10	12,0	1,0	**9595.1**	10 m	26,25
12	14,0	1,0	**9596.1**	10 m	28,40



A 121 °C

Tubing ROTILABO® Flex

ROTH SELECTION. Material: PFA. Autoclavable: Yes.
Chemical-resistant, suitable for vacuum, non-porous. Highly flexible and therefore ideal for narrow spaces and thermal length extensions. For example, the 40 mm-length cylindrical end sections can be joined to connectors. Dimensions apply to end sections.

Technical specifications:

Temperature stability	-270 to +260 °C
Colour	translucent

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
6	8	1	**Y484.1**	1 m	100,80
8	10	1	**Y485.1**	1 m	102,60
10	12	1	**Y486.1**	1 m	115,25
14	16	1	**Y487.1**	1 m	142,05
16	18	1	**Y488.1**	1 m	207,50
18	20	1	**Y489.1**	1 m	203,20



A 121 °C

Tube ROTILABO® FEP

ROTH SELECTION. Material: FEP. Autoclavable: Yes.
Flexible, non-porous, gas-tight.

Technical specifications:

Temperature stability	-270 to +205 °C
Colour	translucent
Hardness	55–60 Shore D

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
0.8	1,6	0,4	**C022.1**	10 m	20,65
1.6	3,2	0,8	**Y504.1**	5 m	34,30
2.0	4,0	1,0	**C023.1**	10 m	76,65
4.0	6,0	1,0	**C024.1**	10 m	117,95
4.0	6,4	1,2	**Y505.1**	5 m	66,35
4.4	6,4	1,0	**Y506.1**	5 m	56,15
6.0	8,0	1,0	**C025.1**	5 m	72,75
6.4	9,5	1,6	**Y507.1**	5 m	128,65
8.0	10,0	1,0	**C026.1**	5 m	104,80
9.5	12,7	1,6	**Y508.1**	5 m	167,70
10.0	12,0	1,0	**C027.1**	5 m	118,05



A 121 °C

Tube ROTILABO® PTFE

ROTH SELECTION. Material: PTFE opaque PTFE. Autoclavable: Yes.

Rigid, anti-adhesive, with low water absorption, chemical-resistant, gas permeable.

Technical specifications:

Temperature stability	-200 to +260 °C
Colour	colourless
Hardness	55 Shore D

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
2	3	0,5	**1173.1**	5 m	17,75
2	4	1,0	**1174.1**	5 m	26,00
4	6	1,0	**1175.1**	5 m	31,00
5	7	1,0	**1176.1**	5 m	35,50
6	8	1,0	**1177.1**	5 m	43,20
8	10	1,0	**1178.1**	5 m	52,90
10	12	1,0	**1179.1**	5 m	56,20
12	14	1,0	**XX06.1**	5 m	60,10



Safety gas tubes ROTILABO®

ROTH SELECTION. Material: Chloroprene rubber.

For supplying Bunsen burners operated with gas in accordance with DIN 30665. With kink-proof elastic end fittings, suitable for all three gas families in accordance with DVGW worksheet G 260. **Suitable for pressures up to 100 mbar.** DVGW tested and registered.

Technical specifications:

Temperature stability	to +70 °C
Colour	red
Hardness	60 Shore A

Not suitable for connection to gas cylinders.

Ø Internal (mm)	Length (cm)	Art. No.	Pack Qty.	€
9	50	**1716.1**	1 unit(s)	47,65
9	60	**A268.1**	1 unit(s)	49,90
9	75	**1717.1**	1 unit(s)	55,05
9	100	**1718.1**	1 unit(s)	64,35
9	125	**A269.1**	1 unit(s)	76,30
9	150	**1719.1**	1 unit(s)	80,25
9	200	**A270.1**	1 unit(s)	105,35
9	300	**A271.1**	1 unit(s)	169,85



Gas tubes ROTILABO®

ROTH SELECTION. Material: Chloroprene rubber.

For laboratory gas burners operated with gas in accordance with DIN 30665. Suitable for all three gas families outlined in the G260 worksheet from the German Association for Gas and Water Industries (DVGW). Compliant with DIN 30664 Part 1, without casing and armouring. **Suitable for pressures of up to 100 mbar.** DVGW-tested and registered.

Technical specifications:

Temperature stability	to +70 °C
Colour	red
Hardness	60 Shore A

Not suitable for connection to gas cylinders.

Ø Internal (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
9.5	14	**E485.1**	5 m	64,50



Tube ROTILABO® PVC

ROTH SELECTION. Material: PVC DEHP-free.

Flexible.

Technical specifications:

Temperature stability	-20 to +60 °C
Colour	translucent
Hardness	75 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1	1,8	0,4	**9724.1**	100 m	45,75
2	4,0	1,0	**9725.1**	100 m	35,95
3	5,0	1,0	**9726.1**	100 m	37,80
4	7,0	1,5	**9727.1**	100 m	76,65
5	8,0	1,5	**9730.1**	100 m	87,40
6	10,0	2,0	**9732.1**	50 m	60,45
7	11,0	2,0	**9733.1**	50 m	74,50
8	12,0	2,0	**9736.1**	50 m	77,25
12	16,0	2,0	**XX05.1**	50 m	104,90



Pressure tubing PVC

Nalgene. Material: PVC with fabric insert.

Can be sterilised by gas or chemicals. Very flexible and easy to bend. Neutral taste and authorised for the food industry (FDA approval). Suitable for pressure applications, weak acids, alkalis and salt solutions. Internal Ø and max. working pressure marked on the tubing.

Technical specifications:

Temperature stability	-21 to +82 °C
Colour	translucent
Hardness	65 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Max. pressure	Art. No.	Pack Qty.	€
4.8	9,5	2,4	19 bar (23 °C) 9,5 bar (52 °C)	**CA88.1**	15 m	87,10
8.0	12,7	2,4	19 bar (23 °C) 9,5 bar (52 °C)	**CA90.1**	15 m	99,75
9.5	14,3	2,4	17 bar (23 °C) 8,6 bar (52 °C)	**CA91.1**	15 m	100,95
12.7	19,1	3,2	15,8 bar (23 °C) 7,9 bar (52 °C)	**CA92.1**	15 m	132,25
15.9	22,2	3,2	15,8 bar (23 °C) 7,9 bar (52 °C)	**CA93.1**	15 m	206,40
19.1	25,4	3,2	12 bar (23 °C) 6 bar (52 °C)	**CA94.1**	15 m	227,90
25.4	33,4	4,0	9,6 bar (23 °C) 4,8 bar (52 °C)	**CA95.1**	15 m	319,30



A 121 °C

Tube ROTILABO® silicone

ROTH SELECTION. Material: Silicone opaque silicone.
Autoclavable: Yes.

Temperature-resistant up to +260 °C for short periods of time

Standard design

Soft, flexible. Suitable for peristaltic pumps.

Technical specifications:

Temperature stability	-60 to +200 °C
Colour	colourless
Hardness	60 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
0.5	2,5	1,0	**9554.1**	25 m	28,95
1.0	1,8	0,4	**9555.1**	25 m	21,25
1.0	3,0	1,0	**9556.1**	25 m	27,35
1.5	3,5	1,0	**9557.1**	25 m	26,10
2.0	4,0	1,0	**9559.1**	25 m	29,15
2.0	6,0	2,0	**9560.1**	25 m	61,55
2.5	4,5	1,0	**9561.1**	25 m	35,80
3.0	5,0	1,0	**9562.1**	25 m	37,20
3.0	6,0	1,5	**9563.1**	25 m	55,35
3.0	7,0	2,0	**9565.1**	25 m	80,85
4.0	6,0	1,0	**9566.1**	25 m	44,85
4.0	7,0	1,5	**9568.1**	25 m	64,35
4.0	8,0	2,0	**N874.1**	25 m	97,30
4.0	8,0	2,0	**N875.1**	5 m	18,45
5.0	7,0	1,0	**9569.1**	25 m	61,55
5.0	8,0	1,5	**9571.1**	25 m	79,75
6.0	9,0	1,5	**9572.1**	25 m	87,10
6.0	10,0	2,0	**9573.1**	10 m	51,10
7.0	10,0	1,5	**9574.1**	10 m	41,90
7.0	11,0	2,0	**9575.1**	10 m	56,20
8.0	11,0	1,5	**9576.1**	10 m	47,45
8.0	12,0	2,0	**9577.1**	10 m	62,40
9.0	12,0	1,5	**9578.1**	10 m	55,95
9.0	13,0	2,0	**9580.1**	10 m	69,80
10.0	14,0	2,0	**9581.1**	10 m	72,50
12.0	16,0	2,0	**T975.1**	5 m	41,30
14.0	20,0	3,0	**T976.1**	5 m	74,25
16.0	21,0	2,5	**T977.1**	5 m	67,30
18.0	24,0	3,0	**T978.1**	5 m	77,40
20.0	26,0	3,0	**T979.1**	5 m	97,40

Hoses

Vacuum design
Thick-walled.

Technical specifications:

Temperature stability	-60 to +180 °C
Colour	colourless
Hardness	55 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
3	9	3	**9737.1**	5 m	41,25
4	12	4	**9738.1**	5 m	55,80
5	15	5	**9740.1**	5 m	81,00
6	12	3	**9742.1**	5 m	51,85
7	15	4	**9744.1**	5 m	86,70
8	16	4	**9746.1**	5 m	97,20
10	20	5	**9747.1**	5 m	123,15
12	22	5	**T980.1**	5 m	135,50



A 121 °C

Tube Versilic®

Saint-Gobain. Material: Silicone Peroxide-cured. Autoclavable: Yes.

Temperature-resistant up to +220 °C for short periods of time. Biologically inert (USP XXIII Class 6), no inhibiting effect on cell cultures.

Acc. to the following standards:

- European Pharmocopoeia
- Biological tests by the United States Pharmacopeia Class VI
- Biocompatibility requirements of the ISO 10993 standard (General toxic irritation and sensitisation, cytotoxicity, hemocompatibility)
- FDA
- Manufactured under GMP conditions, ISO 9001 and EN 13485

Technical specifications:

Temperature stability	-50 to +200 °C
Colour	translucent
Hardness	60 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1.0	3,0	1,0	**HC61.1**	50 m	57,30
2.0	4,0	1,0	**HC62.1**	50 m	79,10
3.0	5,0	1,0	**HC63.1**	50 m	84,05
3.0	5,0	1,0	**HC63.2**	10 m	42,60
3.0	6,0	1,5	**HC64.1**	50 m	125,25
4.0	6,0	1,0	**HC65.1**	50 m	96,40
5.0	8,0	1,5	**HC66.1**	25 m	84,85
6.0	9,0	1,5	**HC67.1**	25 m	95,95
6.0	12,0	3,0	**HC68.1**	25 m	212,85
7.0	10,0	1,5	**HC69.1**	25 m	107,70
8.0	12,0	2,0	**HC70.1**	25 m	173,10
8.0	12,0	2,0	**HC70.2**	10 m	113,90
8.0	14,0	3,0	**HC71.1**	25 m	260,15
10.0	14,0	2,0	**HC72.1**	25 m	187,05
10.0	18,0	4,0	**HC73.1**	25 m	409,60

A 121 °C

Tube for peristaltic pumps

ROTH SELECTION. Material: Silicone treated silicone.
Autoclavable: Yes.

Ultra-smooth surface to prevent adhesions, deposits and bacterial growth. Compliant with USP Class VI, Eur. Ph. 6.5: 3.1.9 and FDA regulations 21 CFR 177.2600.

Technical specifications:

Temperature stability	-20 to +80 °C
Colour	translucent
Hardness	60 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
0.5	3,7	1,6	**CH23.1**	5 m	56,90
0.8	4,0	1,6	**CH24.1**	5 m	56,90
1.6	4,8	1,6	**CH25.1**	5 m	84,05
3.2	6,4	1,6	**CH26.1**	5 m	84,05
4.8	8,0	1,6	**CH27.1**	5 m	98,75
6.4	9,5	1,6	**CH28.1**	5 m	106,30
8.0	11,2	1,6	**CH29.1**	5 m	131,15

Hoses



A 121 °C

Tube PharMed®

Saint-Gobain. Material: TPV. Autoclavable: Yes.

For fermentation processes, cultivation of cell cultures, among other purpose, special tubes for peristaltic pumps. Good chemical resistance. Low gas permeability, good resistance to ageing.

Technical specifications:

Temperature stability	-50 to +135 °C
Colour	natural
Hardness	64 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
0.5	3,7	1,6	**Y534.1**	7.5 m	102,00
0.8	4,0	1,6	**Y535.1**	7.5 m	114,50
1.6	4,8	1,6	**H191.1**	7.5 m	148,25
3.2	6,4	1,6	**H192.1**	7.5 m	148,25
4.8	8,0	1,6	**H193.1**	7.5 m	148,35
6.4	9,5	1,6	**H194.1**	7.5 m	172,00
8.0	11,2	1,6	**H195.1**	7.5 m	196,75
9.5	15,9	3,2	**H196.1**	7.5 m	302,10
12.7	19,0	3,2	**H197.1**	7.5 m	348,30



A 121 °C

Tube TYGON® LMT-55

Saint-Gobain. Material: PVC-based DEHP-free. Autoclavable: Yes.

Smooth, polished inner wall. Good chemical resistance to many inorganic solutions.

Technical specifications:

Temperature stability	-50 to +74 °C
Colour	translucent
Hardness	55 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1.6	3,2	0,8	**CAN7.1**	15 m	25,75
1.6	4,8	1,6	**CAN8.1**	15 m	52,45
2.4	5,6	1,6	**CAN9.1**	15 m	62,75
3.2	6,4	1,6	**CAP0.1**	15 m	85,25
4.8	7,9	1,6	**CAP1.1**	15 m	110,50
6.4	9,5	1,6	**CAP2.1**	15 m	121,40
6.4	11,1	2,4	**CAP3.1**	15 m	208,55
7.9	11,1	1,6	**CAP4.1**	15 m	149,00
7.9	12,7	2,4	**CAP5.1**	15 m	216,10
9.5	12,7	1,6	**CAP6.1**	15 m	168,80
9.5	15,9	3,2	**CAP7.1**	15 m	296,70



A 121 °C

Tube PharMed® BPT for multichannel pump heads

Saint-Gobain. Material: TPV. Autoclavable: Yes.

With biocompatible fluid surface specially for microbiological applications. Impervious to UV rays and light. Low gas permeability. In accordance with USP Class VI, ISO 10993 and FDA.

With stopper
Two stoppers, stopper gap: 152 mm.

Technical specifications:

Temperature stability	-50 to +135 °C
Colour	natural
Hardness	64 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thick-ness (mm)	Length (mm)	Colour coding	Art. No.	Pack Qty.	€
0.51	2,31	0,90	381	orange/ yellow	**CYN7.1**	6 unit(s)	80,60
0.76	2,46	0,85	381	black/ black	**CYN8.1**	6 unit(s)	82,75
0.89	2,56	0,85	381	orange/ orange	**CYN9.1**	6 unit(s)	80,60
1.52	3,22	0,85	381	yellow/ blue	**CYP0.1**	6 unit(s)	80,60
2.06	3,76	0,85	381	violet/ violet	**CYP1.1**	6 unit(s)	80,60
2.79	4,49	0,85	381	violet/ white	**CYP2.1**	6 unit(s)	80,60

For extending
Extension tubing for stopper tubing.

Technical specifications:

Temperature stability	-50 to +135 °C
Colour	natural
Hardness	64 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
0.51	2,31	0,90	**CYP3.1**	3 m	42,45
0.76	2,46	0,85	**CYP4.1**	3 m	42,45
0.89	2,56	0,85	**CYP5.1**	3 m	42,45
1.52	3,22	0,85	**CYP6.1**	3 m	42,45
2.06	3,76	0,85	**CYP7.1**	3 m	42,45
2.79	4,49	0,85	**CYP8.1**	3 m	42,45



A 121 °C

Tube TYGON® LMT-55 for multichannel pump heads

Saint-Gobain. Material: PVC-based DEHP-free. Autoclavable: Yes.

Smooth, polished inner wall. Good chemical resistance to many inorganic solutions.

With stopper
Two stoppers, stopper gap: 152 mm.

Technical specifications:

Temperature stability	-50 to +74 °C
Colour	translucent
Hardness	55 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thick-ness (mm)	Length (mm)	Colour coding	Art. No.	Pack Qty.	€
0.51	2,31	0,90	381	orange/ yellow	**CYP9.1**	12 unit(s)	71,60
0.76	2,46	0,85	381	black/ black	**CYT0.1**	12 unit(s)	55,35
0.89	2,56	0,85	381	orange/ orange	**CYT1.1**	12 unit(s)	55,35
1.52	3,22	0,85	381	yellow/ blue	**CYT2.1**	12 unit(s)	55,35
2.06	3,76	0,85	381	violet/ violet	**CYT3.1**	12 unit(s)	55,35
2.79	4,49	0,85	381	violet/ white	**CYT4.1**	12 unit(s)	63,80

For extending
Extension tubing for stopper tubing.

Technical specifications:

Temperature stability	-50 to +74 °C
Colour	translucent
Hardness	55 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
0.51	2,31	0,90	**CYT5.1**	10 m	73,25
0.76	2,46	0,85	**CYT6.1**	10 m	73,25
0.89	2,56	0,85	**CYT7.1**	10 m	84,85
1.52	3,22	0,85	**CYT8.1**	10 m	73,25
2.06	3,76	0,85	**CYT9.1**	10 m	73,25
2.79	4,49	0,85	**CYX0.1**	10 m	73,25



A 121 °C

Tube TYGON® S3™ E-3603

Saint-Gobain. Material: PVC-based DEHP-free. Autoclavable: Yes.

FDA-compliant. Very smooth, polished inner wall. Good chemical resistance.

Standard design

For normal laboratory purposes; also suitable for coolers, incubators and peristaltic pumps.

Technical specifications:

Temperature stability	-46 to +74 °C
Colour	translucent
Hardness	56 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1.6	3,2	0,8	**YL81.1**	15 m	26,15
1.6	4,8	1,6	**YL82.1**	15 m	56,90
2.4	4,0	0,8	**EHE7.1**	15 m	34,65
3.2	4,8	0,8	**YL83.1**	15 m	40,45
3.2	6,4	1,6	**YL84.1**	15 m	81,40
4.8	6,4	0,8	**YL85.1**	15 m	54,50
4.8	8,0	1,6	**YL86.1**	15 m	117,85
6.4	9,5	1,6	**YL87.1**	15 m	127,55
6.4	11,2	2,4	**YL88.1**	15 m	206,40
9.5	12,7	1,6	**YL89.1**	15 m	177,40
9.5	14,3	2,4	**YL90.1**	15 m	226,85
9.5	15,9	3,2	**YL91.1**	15 m	342,95
12.7	15,9	1,6	**YL92.1**	15 m	202,10
12.7	17,5	2,4	**YL93.1**	15 m	275,20
12.7	19,1	3,2	**YL94.1**	15 m	373,05
19.0	25,4	3,2	**YL95.1**	15 m	497,75

Vacuum design

For use with, for example, desiccators, filtration systems and vacuum pumps.

Technical specifications:

Temperature stability	-46 to +74 °C
Colour	translucent
Hardness	56 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
4.8	14,4	4,8	**YL96.1**	15 m	405,30
6.4	15,9	4,8	**YL97.1**	15 m	436,45
9.5	22,3	6,4	**YL98.1**	15 m	740,70
12.7	28,7	8,0	**YL99.1**	15 m	1.125,55



A 121 °C

Tube VERSILON™ 2001

Saint-Gobain. Material: TPO. Autoclavable: Yes.

Without plasticisers and oils. Very flexible, very good food chemical resistance, durable. Longer service life when used in peristaltic pumps. In accordance with FDA requirements.

Technical specifications:

Temperature stability	-78 to +57 °C
Colour	translucent
Hardness	69 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1.6	4,8	1,6	**EL12.1**	15 m	120,45
3.2	6,4	1,6	**EL13.1**	15 m	151,85
4.8	8,0	1,6	**EL14.1**	15 m	167,70
6.4	9,5	1,6	**EL15.1**	15 m	317,15
8.0	11,2	1,6	**EL16.1**	15 m	347,25
9.5	12,7	1,6	**EL17.1**	15 m	373,05



A 121 °C

Tube TYGON® E-1000 Ultra-Soft

Saint-Gobain. Material: PVC-based DEHP-free. Autoclavable: Yes.

Soft, pliable, stays flexible even at low temperatures (-55 °C). Good alternative to silicone tubing with good chemical resistance. Suitable for general laboratory applications and peristaltic pumps.

Technical specifications:

Temperature stability	-55 to +52 °C
Colour	translucent
Hardness	40 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1.6	4,8	1,6	**TP79.1**	15 m	87,90
3.2	6,4	1,6	**TP80.1**	15 m	121,50
4.8	8,0	1,6	**TP81.1**	15 m	170,95
6.4	9,6	1,6	**TP82.1**	15 m	155,05
6.4	12,7	3,2	**TP83.1**	15 m	324,65
8.0	11,2	1,6	**TP84.1**	15 m	217,15
9.5	12,7	1,6	**TP85.1**	15 m	260,15
12.7	15,9	1,6	**TP86.1**	15 m	303,15



Tube TYGON® F-4040-A

Saint-Gobain. Material: TPE.

For conveying petrol, kerosine, fuel oil and glycol-based coolants. No swelling and hardening. Ozone- and UV-resistant.

Technical specifications:

Temperature stability	-34 to +74 °C
Colour	yellow
Hardness	57 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
3.2	6,4	1,6	**AEC4.1**	15 m	89,75
4.8	8,0	1,6	**AEC5.1**	15 m	133,70
6.4	9,5	1,6	**AEC6.1**	15 m	151,35
8.0	11,2	1,6	**AEC7.1**	15 m	175,80
9.5	12,7	1,6	**AEC8.1**	15 m	198,90
12.7	15,9	1,6	**AEC9.1**	15 m	284,90



Tube TYGON® 2375

Saint-Gobain. Material: TPO.

Flexible. Without plasticisers. Suitable for extreme chemical applications. Resists acids, alkalis, ketones (methyl ethyl ketone), salts and alcohols. The smooth inner surface minimises the deposition of particle matter.

Technical specifications:

Temperature stability	-59 to +54 °C
Colour	translucent
Hardness	75 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1.6	4,8	1,6	**NA64.1**	15 m	117,85
3.2	6,4	1,6	**NA65.1**	15 m	146,70
4.8	8,0	1,6	**NA66.1**	15 m	160,05
6.4	9,5	1,6	**NA67.1**	15 m	181,70
8.0	11,2	1,6	**NA68.1**	15 m	198,90
9.5	12,7	1,6	**NA69.1**	15 m	220,40
12.7	19,1	3,2	**NA70.1**	15 m	455,80



Tube Viton®

ROTH SELECTION. Material: Fluorinated rubber.

Good resistance to ozone and the effects of the weather, as well as gasoline and mineral oils.

Technical specifications:

Temperature stability	-10 to +200 °C
Colour	black
Hardness	75 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
4	6	1,0	**EX14.1**	5 m	52,50
5	7	1,0	**EX15.1**	5 m	66,70
6	8	1,0	**EX16.1**	5 m	71,00
7	9	1,0	**EX17.1**	5 m	107,65
8	11	1,5	**EX18.1**	5 m	146,00
9	13	2,0	**EX19.1**	5 m	195,65
10	14	2,0	**EX20.1**	5 m	210,70



Hose ROTILABO® Butyl

ROTH SELECTION. Material: Butyl rubber (IIR).

Without insert. Approx. 8x less air diffusion than other natural rubber hoses. Good chemical resistance.

Technical specifications:

Temperature stability	-35 to +100 °C
Colour	black
Hardness	60 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
3	7	2	**TE85.1**	5 m	31,15
6	10	2	**TE86.1**	5 m	37,70
6	14	4	**TE87.1**	5 m	57,25



Tube ISO-VERSINIC®

Saint-Gobain. Material: Fluorinated rubber.

Temperature resistant up to +300 °C for short periods of time. Suitable for producing very aggressive chemicals and demanding applications in industry laboratories. Good resistance to hydrocarbons, oils, strong acids, oxidising agents, aromatic and chlorinated solvents. Resistant to ageing and weathering. Flame-resistant.

Technical specifications:

Temperature stability	-20 to +200 °C	
Colour	black	
Hardness	60 Shore A (HC36.1–HC37.1)	70 Shore A (HC38.1–HC42.1)

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
3.0	5,0	1,0	**HC36.1**	5 m	90,15
4.0	6,0	1,0	**HC37.1**	5 m	92,75
5.0	8,0	1,5	**HC38.1**	5 m	134,95
6.0	9,0	1,5	**HC39.1**	5 m	150,65
7.0	10,0	1,5	**HC40.1**	5 m	175,25
8.0	12,0	2,0	**HC41.1**	5 m	264,45
10.0	14,0	2,0	**HC42.1**	5 m	311,75



Tube VERSILON™ F-5500-A

Saint-Gobain. Material: Fluorinated rubber.

Excellent resistance to corrosive chemicals, oils, fuels, solvents and most acids. Resistant to ozone, sunlight and weathering, also tear-proof and hard-wearing. Suitable for peristaltic pumps due to their high flexibility and elasticity.

Technical specifications:

Temperature stability	-51 to +204 °C
Colour	black
Hardness	60 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1.6	3,2	0,8	**EY77.1**	15 m	231,15
3.2	6,4	1,6	**EY78.1**	15 m	622,45
4.8	8,0	1,6	**EY79.1**	15 m	790,15
6.4	9,5	1,6	**EY80.1**	15 m	994,40
8.0	11,2	1,6	**EY81.1**	15 m	1.314,75
9.5	12,7	1,6	**EY82.1**	15 m	1.296,45



Tube TYGON® A-60-G

Saint-Gobain. Material: TPE.

Suitable for peristaltic pumps, chemical and industrial applications. Ozone-resistant. Long service life, good weather-resistance. Lower gas permeability compared to rubber hoses. Very good resistance to inorganic fluids.

Technical specifications:

Temperature stability	-60 to +135 °C
Colour	black
Hardness	61 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1.6	4,8	1,6	**AH61.1**	15 m	67,30
3.2	6,4	1,6	**AH62.1**	15 m	68,95
4.8	8,0	1,6	**AH63.1**	15 m	76,85
6.4	9,5	1,6	**AH64.1**	15 m	87,75
6.4	11,2	2,4	**AH65.1**	15 m	116,85
8.0	11,2	1,6	**AH66.1**	15 m	108,80
9.5	12,7	1,6	**AH67.1**	15 m	116,65
11.1	14,3	1,6	**AH68.1**	15 m	216,10
12.7	17,5	2,4	**AH69.1**	15 m	241,90

Accessories for hoses



Tube cutter

ROTH SELECTION.

Suitable for	Art. No.	Pack Qty.	€
Tube external Ø of up to 13 mm	**6737.1**	1 unit(s)	21,15



Tubing gauge ROTILABO®

ROTH SELECTION.

For determining the internal or external Ø of tubes, glass tubes, etc.
With engraved numbers that are easy to read.
Dimensions: L 165 x W 90 mm.

Suitable for	Art. No.	Pack Qty.	€
Tubing of internal Ø 1–25 mm Tubing of external Ø of 1.5–21 mm	**4892.1**	1 unit(s)	7,90



Hose and tube cutter ROTILABO®

ROTH SELECTION. Material: Stainless steel 18/10, high-gloss.

For cutting tubing and reaction vessels.
Blade length: 2.5 cm. Total length: 10 cm.

Delivery incl. synthetic leather case.

Suitable for	Art. No.	Pack Qty.	€
External Ø of up to 10 mm	**CK56.1**	1 unit(s)	36,70



Tube clamps ROTILABO®

ROTH SELECTION. Material: POM.

Resistant to UV radiation and have good chemical properties.
Temperature range: -40 to +90 °C (up to +110 °C for short periods).

Suitable for	Art. No.	Pack Qty.	€
Tube external Ø of 6.0–6.5 mm	**EX50.1**	10 unit(s)	5,00
Tube external Ø of 9.0–10.0 mm	**EX51.1**	10 unit(s)	5,00
Tube external Ø of 10.0–11.0 mm	**EX52.1**	10 unit(s)	5,00
Tube external Ø of 11.0–12.0 mm	**EX53.1**	10 unit(s)	5,00
Tube external Ø of 12.0–14.0 mm	**EX54.1**	10 unit(s)	5,00
Tube external Ø of 13.0–15.0 mm	**EX55.1**	10 unit(s)	5,00
Tube external Ø of 15.0–17.0 mm	**EX56.1**	10 unit(s)	5,00
Tube external Ø of 17.0–19.0 mm	**EX57.1**	10 unit(s)	5,00
Tube external Ø of 18.0–20.0 mm	**EX58.1**	10 unit(s)	5,95
Tube external Ø of 20.0–22.0 mm	**EX59.1**	10 unit(s)	5,95
Tube external Ø of 23.0–25.0 mm	**EX61.1**	10 unit(s)	5,95



Tube clamps with worm drive

ROTH SELECTION. Material: Stainless steel 1.4016, galvanised screw.

Suitable for	Art. No.	Pack Qty.	€
Tube external Ø of 8–12 mm	**AEH1.1**	10 unit(s)	14,50
Tube external Ø of 10–16 mm	**AEH2.1**	10 unit(s)	14,50
Tube external Ø of 12–20 mm	**AEH3.1**	10 unit(s)	16,45
Tube external Ø of 16–27 mm	**AEH4.1**	10 unit(s)	17,15
Tube external Ø of 20–32 mm	**AEH5.1**	10 unit(s)	17,70

Accessories for hoses



Tube clamp coloured

ROTH SELECTION. Material: PVDF, handles made of galvanised steel, screw nut made of aluminum.

Continuously variable flow control for flexible tubes. Temperature stable up to +140 °C.

Suitable for	Colour	Art. No.	Pack Qty.	€
Tube external Ø of up to 10 mm	blue	**YE70.1**	1 unit(s)	4,05
Tube external Ø of up to 10 mm	green	**YE71.1**	1 unit(s)	4,00
Tube external Ø of up to 10 mm	red	**YE68.1**	1 unit(s)	4,05
Tube external Ø of up to 10 mm	yellow	**YE69.1**	1 unit(s)	4,05
Tube external Ø of up to 15 mm	blue	**YE74.1**	1 unit(s)	6,05
Tube external Ø of up to 15 mm	green	**YE75.1**	1 unit(s)	6,05
Tube external Ø of up to 15 mm	red	**YE72.1**	1 unit(s)	6,05
Tube external Ø of up to 15 mm	yellow	**YE73.1**	1 unit(s)	6,05
Tube external Ø of up to 20 mm	blue	**YE78.1**	1 unit(s)	7,40
Tube external Ø of up to 20 mm	green	**YE79.1**	1 unit(s)	7,35
Tube external Ø of up to 20 mm	red	**YE76.1**	1 unit(s)	7,40
Tube external Ø of up to 20 mm	yellow	**YE77.1**	1 unit(s)	7,35

ACCESSORIES & SPARE PARTS in the ROTH webshop



Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations



Tube clamps ROTILABO® with screw conductive

ROTH SELECTION. Material: Metal.

For safely securing tubing to pipes and taps. With phosphorous bronze band, anti-magnetic and largely resistant to aggressive liquids and vapours. Conductive.

Suitable for	Art. No.	Pack Qty.	€
Tube external Ø of 5–10 mm	**N042.1**	10 unit(s)	30,85
Tube external Ø of 7–12 mm	**N043.1**	10 unit(s)	30,85
Tube external Ø of 9–14 mm	**N044.1**	10 unit(s)	30,85
Tube external Ø of 12–17 mm	**5252.1**	10 unit(s)	30,85
Tube external Ø of 17–22 mm	**0784.1**	10 unit(s)	30,85
Tube external Ø of 22–27 mm	**N045.1**	10 unit(s)	30,85
Tube external Ø of 25–30 mm	**0785.1**	10 unit(s)	30,85



NEW / +

Hose clamp ROTILABO® metal

ROTH SELECTION. Material: Steel (galvanised), aluminium nut.

Continuously variable flow control for various hoses. Very heat-resistant and stable.

Suitable for	Art. No.	Pack Qty.	€
Hose external dimensions Ø of up to 10 mm	**1L7K.1**	5 unit(s)	18,25
Hose external dimensions Ø of up to 15 mm	**1L7L.1**	5 unit(s)	28,70
Hose external dimensions Ø of up to 20 mm	**1L7N.1**	5 unit(s)	31,25
Hose external dimensions Ø of up to 30 mm	**1L7P.1**	5 unit(s)	47,85

Accessories for hoses



Pinchcock ROTILABO®

ROTH SELECTION. Material: Stainless steel.

With clamping springs. Variable mounting bracket allows the clamp to be permanently opened. Tubing is securely attached to the pinchcock using clips. Single-handed operation possible.

Delivery incl. 20 cm silicone tubing.

Suitable for	Art. No.	Pack Qty.	€
Tube external Ø of 10–15 mm	**H452.1**	1 unit(s)	14,35



Pinchcock according to Mohr

ROTH SELECTION. Material: Brass nickel-plated.

For shutting off flexible tubing.
Single-handed operation possible.

Length (mm)	Suitable for	Art. No.	Pack Qty.	€
50	Tube external Ø of up to 20 mm	**KY01.1**	5 unit(s)	34,90
60	Tube external Ø of up to 25 mm	**KY02.1**	5 unit(s)	36,85
70	Tube external Ø of up to 30 mm	**KY03.1**	5 unit(s)	37,70
80	Tube external Ø of up to 35 mm	**KY04.1**	5 unit(s)	39,55



Clamping scissors ROTILABO®

ROTH SELECTION. Material: PA glass fibre reinforced.

For clamping and holding tubing, etc. Largely resistant to chemicals, highly robust, temperature-resistant up to +130 °C.

Version	Length (mm)	Art. No.	Pack Qty.	€
With smooth edges	110	**LH90.1**	10 unit(s)	19,10
With offset edges	130	**N141.1**	10 unit(s)	12,60



Tube clamp ROTILABO® Keck type

ROTH SELECTION. Material: PBT.

Can be operated single-handedly, can be continuously adjusted to total closure, causes no damage to the tubing, can be sterilised up to +160 °C.

Suitable for	Colour	Art. No.	Pack Qty.	€
Tube external Ø of up to 10 mm	blue	**1159.1**	12 unit(s)	69,80
Tube external Ø of up to 14 mm	red	**1158.1**	12 unit(s)	73,65
Tube external Ø of up to 4.5 mm	red	**1161.1**	12 unit(s)	40,85
Tube external Ø of up to 6 mm	yellow	**1160.1**	12 unit(s)	66,55



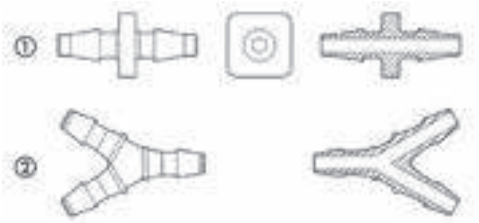
Tube clamp ROTILABO® according to Hoffmann

ROTH SELECTION. Material: Metal chrome-plated.

Can be finely adjusted. The lower bar can be opened.

Width (mm)	Opening width (mm)	Art. No.	Pack Qty.	€
13	12 x 11	**1585.1**	5 unit(s)	19,60
17	17 x 16	**1586.1**	5 unit(s)	18,40
20	20 x 16	**1587.1**	5 unit(s)	19,00
25	25 x 16	**1588.1**	5 unit(s)	20,65
30	30 x 16	**1589.1**	5 unit(s)	21,25

Hose connectors



Hose connectors ROTILABO® Mini

ROTH SELECTION. Material: PP transparent.

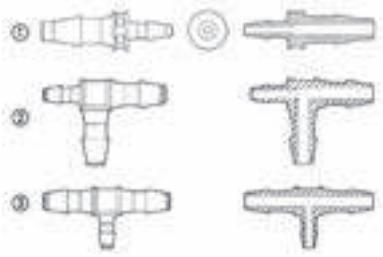
Not a medical device / Not an IVD product

(1) Straight shape

Suitable for	Art. No.	Pack Qty.	€
Hose inner Ø 1.6 mm	**CT33.1**	10 unit(s)	21,00
Hose inner Ø 2.4 mm	**CT34.1**	10 unit(s)	21,00
Hose inner Ø 3.2 mm	**CT35.1**	10 unit(s)	21,00

(2) Y-shape

Suitable for	Art. No.	Pack Qty.	€
Hose inner Ø 1.6 mm	**CT36.1**	10 unit(s)	23,15
Hose inner Ø 2.4 mm	**CT37.1**	10 unit(s)	23,15
Hose inner Ø 3.2 mm	**CT38.1**	10 unit(s)	23,15



Hose reducers ROTILABO® Mini

ROTH SELECTION. Material: PP transparent.

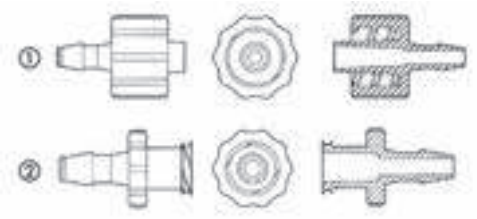
Not a medical device / Not an IVD product

(1) Straight shape

Suitable for	Art. No.	Pack Qty.	€
Hose inner Ø 1.6/4.0 mm	**CT42.1**	10 unit(s)	22,60
Hose inner Ø 2.4/4.0 mm	**CT43.1**	10 unit(s)	22,60
Hose inner Ø 3.2/4.0 mm	**CT44.1**	10 unit(s)	22,60
Hose inner Ø 2.4/4.8 mm	**CT46.1**	10 unit(s)	22,60
Hose inner Ø 3.2/4.8 mm	**CT47.1**	10 unit(s)	23,65

T-shape

Pic.	Suitable for	Art. No.	Pack Qty.	€
(3)	Hose inner Ø 1.6/2.4/1.6 mm	**CT52.1**	10 unit(s)	29,60
(3)	Hose inner Ø 1.6/3.2/1.6 mm	**CT53.1**	10 unit(s)	29,60
(3)	Hose inner Ø 2.4/3.2/2.4 mm	**CT55.1**	10 unit(s)	29,60
(3)	Hose inner Ø 3.2/1.6/3.2 mm	**CT56.1**	10 unit(s)	29,60

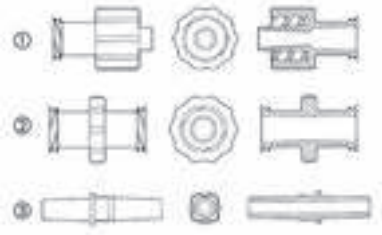


Luer hose connectors ROTILABO®

ROTH SELECTION. Material: PP transparent.

Not a medical device / Not an IVD product

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	Luer Lock Female / hose inner Ø 1.6 mm	**CT58.1**	10 unit(s)	16,45
(1)	Luer Lock Female / hose inner Ø 2.4 mm	**CT59.1**	10 unit(s)	16,45
(1)	Luer Lock Female / hose inner Ø 3.2 mm	**CT60.1**	10 unit(s)	16,45
(1)	Luer Lock Female / hose inner Ø 4.0 mm	**CT61.1**	10 unit(s)	16,45
(2)	Luer Lock Male / hose inner Ø 1.6 mm	**CT62.1**	10 unit(s)	16,45
(2)	Luer Lock Male / hose inner Ø 2.4 mm	**CT63.1**	10 unit(s)	16,45
(2)	Luer Lock Male / hose inner Ø 3.2 mm	**CT64.1**	10 unit(s)	16,45
(2)	Luer Lock Male / hose inner Ø 4.0 mm	**CT65.1**	10 unit(s)	16,45

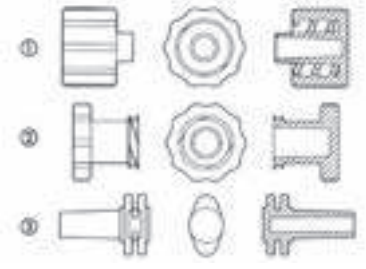


Luer connectors ROTILABO®

ROTH SELECTION. Material: PP transparent.

Not a medical device / Not an IVD product

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	Luer Lock female / Luer Male	**CT66.1**	10 unit(s)	19,15
(2)	Luer Lock Male / Luer Lock Male	**CT67.1**	10 unit(s)	19,15
(3)	Luer Female / Luer Female	**CT68.1**	10 unit(s)	19,15



Luer stopper ROTILABO®

ROTH SELECTION. Material: PP transparent.

Not a medical device / Not an IVD product

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	Luer Lock female	**CT69.1**	10 unit(s)	12,40
(2)	Luer Lock male	**CT70.1**	10 unit(s)	15,60
(3)	Luer female	**CT71.1**	10 unit(s)	15,60

Hose connectors



A 121 °C

Hose connectors ROTILABO® T-shape

ROTH SELECTION. Material: PP natural, translucent.
Autoclavable: Yes.

Purpose: for any tubing system and vacuum line

In vitro diagnostic medical device according to IVDD

Ø ext. (mm)	Suitable for	Art. No.	Pack Qty.	€
4	Hose inner Ø 3 mm	**E763.1**	10 unit(s)	10,55
6	Hose inner Ø 4–5 mm	**E764.1**	10 unit(s)	10,40
8	Hose inner Ø 6–7 mm	**E765.1**	10 unit(s)	9,70
10	Hose inner Ø 8–9 mm	**E766.1**	10 unit(s)	12,35
12	Hose inner Ø 10–11 mm	**E767.1**	10 unit(s)	14,15
14	Hose inner Ø 12–13 mm	**E768.1**	10 unit(s)	16,85
16	Hose inner Ø 14–15 mm	**E769.1**	10 unit(s)	21,35



A 121 °C

Hose connectors ROTILABO® cross shape

ROTH SELECTION. Material: PP natural, translucent.
Autoclavable: Yes.

Purpose: for any tubing system and vacuum line

In vitro diagnostic medical device according to IVDD

Ø ext. (mm)	Suitable for	Art. No.	Pack Qty.	€
4	Hose inner Ø 3 mm	**E777.1**	10 unit(s)	17,90
6	Hose inner Ø 4–5 mm	**E778.1**	10 unit(s)	18,95
8	Hose inner Ø 6–7 mm	**E779.1**	10 unit(s)	19,75
10	Hose inner Ø 8–9 mm	**E780.1**	10 unit(s)	23,05
12	Hose inner Ø 10–11 mm	**E781.1**	10 unit(s)	24,25
14	Hose inner Ø 12–13 mm	**E782.1**	10 unit(s)	26,55



A 121 °C

Hose connectors ROTILABO® angle shape

ROTH SELECTION. Material: PP natural, translucent.
Autoclavable: Yes.

Purpose: for any tubing system and vacuum line

In vitro diagnostic medical device according to IVDD

Ø ext. (mm)	Suitable for	Art. No.	Pack Qty.	€
4	Hose inner Ø 3 mm	**E784.1**	10 unit(s)	7,50
6	Hose inner Ø 4–5 mm	**E785.1**	10 unit(s)	7,60
8	Hose inner Ø 6–7 mm	**E786.1**	10 unit(s)	10,95
10	Hose inner Ø 8–9 mm	**E787.1**	10 unit(s)	11,45
12	Hose inner Ø 10–11 mm	**E788.1**	10 unit(s)	15,20
14	Hose inner Ø 12–13 mm	**E789.1**	10 unit(s)	16,85
16	Hose inner Ø 14–15 mm	**E790.1**	10 unit(s)	21,70



A 121 °C

Hose connectors ROTILABO® Y-shape

ROTH SELECTION. Autoclavable: Yes.

Purpose: for any tubing system and vacuum line

In vitro diagnostic medical device according to IVDD

(1) With straight ends
Material: PP natural, translucent.

Ø ext. (mm)	Suitable for	Art. No.	Pack Qty.	€
4	Hose inner Ø 3 mm	**E770.1**	10 unit(s)	9,60
6	Hose inner Ø 4–5 mm	**E771.1**	10 unit(s)	12,40
8	Hose inner Ø 6–7 mm	**E772.1**	10 unit(s)	16,20
10	Hose inner Ø 8–9 mm	**E773.1**	10 unit(s)	17,40
12	Hose inner Ø 10–11 mm	**E774.1**	10 unit(s)	22,20
14	Hose inner Ø 12–13 mm	**E775.1**	10 unit(s)	24,00
16	Hose inner Ø 14–15 mm	**E776.1**	10 unit(s)	26,05

Hose connectors

(2) With conical ends
Material: PP.

Ø ext. (mm)	Suitable for	Art. No.	Pack Qty.	€
4 / 5	Hose inner Ø 3–5 mm	**TT50.1**	10 unit(s)	15,60
7 / 9	Hose inner Ø 7–9 mm	**TT52.1**	10 unit(s)	21,55
10 / 11,5	Hose inner Ø 9–11 mm	**TT53.1**	10 unit(s)	22,00
12 / 14	Hose inner Ø 11–13 mm	**TT54.1**	10 unit(s)	24,25
14 / 15,5	Hose inner Ø 13–15 mm	**TT55.1**	10 unit(s)	27,85
5,5 / 7	Hose inner Ø 5–7 mm	**TT51.1**	10 unit(s)	18,05



Hose connectors made of glass

ROTH SELECTION. Material: DURAN® glass.

Not a medical device / Not an IVD product

(1) T-shape
With straight ends.

Ø ext. (mm)	Length (mm)	Suitable for	Art. No.	Pack Qty.	€
8	115	Hose inner Ø 6–8 mm	**EKH1.1**	1 unit(s)	6,80
10	115	Hose inner Ø 8–10 mm	**EKH2.1**	1 unit(s)	10,00

(2) Y-shape
With straight ends.

Ø ext. (mm)	Length (mm)	Suitable for	Art. No.	Pack Qty.	€
8	115	Hose inner Ø 6–8 mm	**EKH3.1**	1 unit(s)	7,10
10	115	Hose inner Ø 8–10 mm	**EKH4.1**	1 unit(s)	11,00

(3) Straight
With conical ends.

Ø ext. (mm)	Length (mm)	Suitable for	Art. No.	Pack Qty.	€
6–14	110	Hose inner Ø 6–14 mm	**EKH5.1**	1 unit(s)	10,45

Hose connectors ROTILABO® straight shape

ROTH SELECTION. Material: HDPE white.

Not a medical device / Not an IVD product

Ø Internal (mm)	Suitable for	Art. No.	Pack Qty.	€
7	Hose inner Ø 10 mm	**E797.1**	10 unit(s)	12,85
9	Hose inner Ø 12 mm	**E798.1**	10 unit(s)	13,95
15	Hose inner Ø 19 mm	**E799.1**	10 unit(s)	15,00
20	Hose inner Ø 25 mm	**E800.1**	10 unit(s)	14,90



A 121 °C

Hose connectors ROTILABO® straight shape with conical ends

ROTH SELECTION. Material: PP white. Autoclavable: Yes.

Purpose: for any tubing system and vacuum line

In vitro diagnostic medical device according to IVDD

Ø Internal (mm)	Suitable for	Art. No.	Pack Qty.	€
2	Hose inner Ø 4–5 mm	**E791.1**	10 unit(s)	9,75
3	Hose inner Ø 5–7 mm	**E792.1**	10 unit(s)	11,10
4	Hose inner Ø 8–10 mm	**E793.1**	10 unit(s)	11,70
6	Hose inner Ø 10–12 mm	**E794.1**	10 unit(s)	14,10
8	Hose inner Ø 12–14 mm	**E795.1**	10 unit(s)	15,80
10	Hose inner Ø 14–16 mm	**E796.1**	10 unit(s)	18,95

Hose connectors



A 121 °C

Hose reducers ROTILABO®

ROTH SELECTION. Material: PP white. Autoclavable: Yes.
Purpose: for any tubing system and vacuum line
With conical ends. Temperature stable up to +130 °C. Length 87 mm.

In vitro diagnostic medical device according to IVDD

Suitable for	Art. No.	Pack Qty.	€
Hose inner Ø 8–12/4–8 mm	**E801.1**	10 unit(s)	19,75
Hose inner Ø 12–16/4–8 mm	**E802.1**	10 unit(s)	19,75
Hose inner Ø 12–16/8–12 mm	**E803.1**	10 unit(s)	23,35



A 121 °C

Hose connectors straight shape universal

ROTH SELECTION. Autoclavable: Yes.
With conical ends.

Not a medical device / Not an IVD product

Pic.	Materialspeci-fication	Suitable for	Art. No.	Pack Qty.	€
(1)	PP	Hose inner Ø 4–17/8–17 mm	**Y523.1**	10 unit(s)	23,65
(2)	PVDF	Hose inner Ø 4–17/8–17 mm	**Y524.1**	10 unit(s)	35,00

Hose couplings ROTILABO®

ROTH SELECTION. Material: PE natural, translucent.
Purpose: for joining hoses made of glass, rubber or plastic.

Excellent sealing properties and can be disassembled effortlessly at any time. Conical, temperature stable up to +100 °C.

In vitro diagnostic medical device according to IVDD

Ø Internal (mm)	Suitable for	Art. No.	Pack Qty.	€
2	Hose inner Ø 4–5 mm	**E806.1**	10 unit(s)	16,90
3	Hose inner Ø 6–7 mm	**E807.1**	10 unit(s)	20,20
4	Hose inner Ø 8–9 mm	**E808.1**	10 unit(s)	22,80
6	Hose inner Ø 9–12 mm	**E809.1**	10 unit(s)	23,70
7	Hose inner Ø 11–14 mm	**E810.1**	10 unit(s)	27,90



Non-return valves ROTILABO®

ROTH SELECTION. Material: PP natural colours, translucent.
Suitable for liquids. Consists of two parts. Prevents pressure drop and backflow. With conical ends. Temperature stable up to +100 °C.

Not a medical device / Not an IVD product

Length (mm)	Suitable for	Art. No.	Pack Qty.	€
60	Hose inner Ø 7.8–10 mm	**E804.1**	5 unit(s)	19,75
70	Hose inner Ø 9.5–12.5 mm	**E805.1**	5 unit(s)	30,85

Hose connectors



Quick-release coupling

ROTH SELECTION. Material: PP, EPDM, Stainless steel.

For easy, leak-free connection and disconnection of hoses. With hose connector. Optionally with shut-off, stops the flow automatically upon disconnection. Can be sterilised with gamma rays.

- NW flow opening: 3.2 mm
- Temperature range: 0 to +71 °C
- Operating pressure: Vacuum up to 8.3 bar

Not a medical device / Not an IVD product

(1) Female connection straight

Suitable for	Shut-off	Art. No.	Pack Qty.	€
Hose inner Ø 3.2 mm	Yes	**HAH8.1**	1 unit(s)	21,40
Hose inner Ø 6.4 mm	Yes	**HAK0.1**	1 unit(s)	21,20

(2) Male connection straight

Suitable for	Shut-off	Art. No.	Pack Qty.	€
Hose inner Ø 1.6 mm	Yes	**HAK2.1**	1 unit(s)	18,85
Hose inner Ø 3.2 mm	No	**HAK3.1**	1 unit(s)	6,45
Hose inner Ø 3.2 mm	Yes	**HAK4.1**	1 unit(s)	28,50
Hose inner Ø 6.4 mm	Yes	**HAK6.1**	1 unit(s)	18,85

(3) Male connection angled

Suitable for	Shut-off	Art. No.	Pack Qty.	€
Hose inner Ø 6.4 mm	No	**KA53.1**	1 unit(s)	19,90
Hose inner Ø 6.4 mm	Yes	**HAK9.1**	1 unit(s)	21,00



NEW / +

A 121 °C

Luer hose connectors made of metal with conical ends

ROTH SELECTION. Material: Brass nickel-plated, bright chrome-plated. Autoclavable: Yes.

For connecting needles, syringes and taps to hoses.
LLM: Luer Lock Male, LLF: Luer Lock Female

Not a medical device / Not an IVD product

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	LLM/hose inner Ø 2–6 mm	**1HCC.1**	1 unit(s)	22,80
(2)	LLM/hose inner Ø 5–9 mm	**1HCE.1**	1 unit(s)	22,80
(3)	LLF/hose inner Ø 2–6 mm	**1HCH.1**	1 unit(s)	24,55
(4)	LLF/hose inner Ø 5–9 mm	**1HCK.1**	1 unit(s)	24,55



NEW / +

A 121 °C

Luer hose connectors made of metal with straight ends

ROTH SELECTION. Material: Brass nickel-plated, bright chrome-plated. Autoclavable: Yes.

For connecting needles, syringes and taps to hoses.
LLM: Luer Lock Male, LLF: Luer Lock Female

Not a medical device / Not an IVD product

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	LLM/hose inner Ø 1.5 mm	**1HC7.1**	1 unit(s)	11,90
(2)	LLM/hose inner Ø 3.0 mm	**1HC8.1**	1 unit(s)	10,05
(3)	LLF/hose inner Ø 1.5 mm	**1HC9.1**	1 unit(s)	13,55
(4)	LLF/hose inner Ø 3.0 mm	**1HCA.1**	1 unit(s)	11,60

Hose connectors



NEW / +

A 121 °C

Luer valve made of metal

ROTH SELECTION. Material: Brass nickel-plated, bright chrome-plated. Autoclavable: Yes.

Suitable for pressures up to 3 bar.
LLM: Luer Lock Male, LLF: Luer Lock Female

Not a medical device / Not an IVD product

Pic.	Version	Suitable for	Art. No.	Pack Qty.	€
(1)	2-way tap	LLF / LLM	**1HCL.1**	1 unit(s)	43,70
(2)	3-way tap	LLF / LLM / LLM	**1HCN.1**	1 unit(s)	51,95



Hose valve ROTILABO®

ROTH SELECTION. Material: LDPE natural colours.

Temperature range: -20 to +70 °C. Withstands pressures up to 0.4 bar.

Not a medical device / Not an IVD product

Ø ext. (mm)	Length (mm)	Suitable for	Art. No.	Pack Qty.	€
10	70	Hose inner Ø 8–9 mm	**1622.1**	5 unit(s)	21,45
13	95	Hose inner Ø 11–12 mm	**1623.1**	5 unit(s)	26,35



Hose valve

Bürkle.

For the transfer of liquids or gases. Max. pressure 1 bar. Operating temperature +5 to +40 °C. Available in various materials: PVDF (natural colours) offers better chemical resistance than PP/PE (red/white).

Not a medical device / Not an IVD product

2-way tap

Materialspecification	Ø Internal (mm)	Suitable for	Art. No.	Pack Qty.	€
PP/PE	4	Hose inner Ø 5–7 mm	**1015.1**	1 unit(s)	8,65
PP/PE	6	Hose inner Ø 7–9 mm	**1016.1**	1 unit(s)	9,85
PP/PE	8	Tubing of internal Ø 9–11 mm	**1017.1**	1 unit(s)	11,10
PP/PE	8	Hose inner Ø 11–13 mm	**CPH6.1**	1 unit(s)	11,10
PVDF	4	Hose inner Ø 5–7 mm	**1761.1**	1 unit(s)	15,65
PVDF	6	Hose inner Ø 7–9 mm	**1762.1**	1 unit(s)	18,30
PVDF	8	Hose inner Ø 9–11 mm	**1763.1**	1 unit(s)	21,35
PVDF	8	Hose inner Ø 11–13 mm	**CPH7.1**	1 unit(s)	21,35

3-way tap

Materialspecification	Ø Internal (mm)	Suitable for	Art. No.	Pack Qty.	€
PP/PE	4	Hose inner Ø 5–7 mm	**1018.1**	1 unit(s)	14,85
PP/PE	6	Hose inner Ø 7–9 mm	**1019.1**	1 unit(s)	18,80
PP/PE	8	Hose inner Ø 9–11 mm	**1020.1**	1 unit(s)	19,40
PP/PE	8	Hose inner Ø 11–13 mm	**CPH8.1**	1 unit(s)	18,60
PVDF	4	Hose inner Ø 5–7 mm	**1766.1**	1 unit(s)	24,05
PVDF	6	Hose inner Ø 7–9 mm	**1767.1**	1 unit(s)	26,35
PVDF	8	Hose inner Ø 9–11 mm	**1768.1**	1 unit(s)	28,80
PVDF	8	Hose inner Ø 11–13 mm	**CPH9.1**	1 unit(s)	24,95

Hose connectors



Hose connections ROTILABO® system Keck

ROTH SELECTION. Material: PBT, aeals made of EPDM.

For quickly establishing secure and leak-tight connections between hoses and glass nozzles/glass threads. Excellent chemical and temperature resistance up to +130 °C.

Not a medical device / Not an IVD product

For glass threads

Delivery incl. screw cap, hose part and seals.

Ø ext. (mm)	Suitable for	Art. No.	Pack Qty.	€
9,0	GL 14 (Schott), yellow	**H075.1**	10 unit(s)	87,10

For glass nozzles

Delivery incl. clamping ring, screw cap, hose part and seals.

Ø ext. (mm)	Suitable for	Art. No.	Pack Qty.	€
9,0	GL 14 (Schott), yellow	**H072.1**	10 unit(s)	109,65



A 121 °C

Hose couplings ROTILABO® system Keck

ROTH SELECTION. Autoclavable: Yes.

Not a medical device / Not an IVD product

Hose nozzles

Made of PBT, seal made of EPDM. Outer Ø 9 mm, length 43 mm. Light blue colour.

Delivery without connecting pieces, please order separately.

Version	Art. No.	Pack Qty.	€
Hose nozzles	**0354.1**	10 unit(s)	41,95

Connecting pieces

White colour, 8 mm outlet.

Delivery without hose nozzles, please order separately.

Version	Art. No.	Pack Qty.	€
Connecting pieces	**0343.1**	5 unit(s)	24,55



Draincock red/natural

ROTH SELECTION. Material: PE.

With separate ventilation channel. Continuously variable regulation of the discharge speed.

Not suitable for glass threads.

Thread	Art. No.	Pack Qty.	€
DIN 45	**X530.1**	3 unit(s)	27,70
DIN 50	**X531.1**	3 unit(s)	33,70



Draincock FLUXX®

ROTH SELECTION. Material: PE.

The patented ventilation system allows easy, clean and fast filling and transfer of liquids without gurgling.

Not suitable for glass threads.

Thread	Art. No.	Pack Qty.	€
DIN 51 / DIN 40	**T358.1**	3 unit(s)	12,50
DIN 61 / DIN 40	**T359.1**	3 unit(s)	13,75



Spout

ROTH SELECTION. Material: PE, Alkozell seal.

Flexible spout tube with snap-on lid, screwed into a screw cap. With riser for smooth pouring.

Not suitable for glass threads

Thread	Art. No.	Pack Qty.	€
DIN 45	**TE90.1**	2 unit(s)	17,90
DIN 51	**TE91.1**	2 unit(s)	17,90
DIN 61	**TE92.1**	2 unit(s)	18,60

Cocks



Draincock Compact

Bürkle. Material: PP, seals made of PE/PTFE.

Closes tight. Easy to open and close. Can be operated single-handed. Space-saving design: The tap does not protrude beyond the base of the container and can remain on the container in storage.
Optimised drainage spout for an even, splash-free flow.

Thread	Art. No.	Pack Qty.	€
G¾″ (internal thread)	**PE42.1**	1 unit(s)	17,70



Draincock

Bürkle.

Closes tight. Easy to open and close. Can be operated single-handed. With rotating non-drip nozzle and metering scale. With reducing outlet spout (outside Ø 6–8 mm) for narrow bottle openings.

Non-self-ventilating draincock.

Stopcock
Material: PP Seal made of PE/PTFE.

Delivery incl. reducing outlet spout.

Thread	Conductive	Art. No.	Pack Qty.	€
G¾″ (internal thread)	No	**2683.1**	1 unit(s)	27,95

PA stopcock
Material: PA electrically conductive, Seal made of PTFE.
Note: The drum and the tap must be grounded using the Roth antistatic set (Art. No. 0213.1) during filling with flammable liquids.

Delivery incl. reducing outlet spout and electrically conductive PA adapter for drum with G¾″ internal thread.

Thread	Conductive	Art. No.	Pack Qty.	€
G¾″ (internal thread)	Yes	**LP75.1**	1 unit(s)	33,45



Draincock Air

Bürkle. Material: PE, seal made of natural rubber.
Self-ventilating.

Thread	Art. No.	Pack Qty.	€
G¾″ external thread	**Y496.1**	3 unit(s)	19,80



Draincock PP

Bürkle. Material: PP.
Ball valve suitable for crystallising media. Pressure max. 4 bar at 20 °C.

Delivery without hose connector, please order separately.

Thread	Art. No.	Pack Qty.	€
G¾″ external thread	**P943.1**	1 unit(s)	63,80

Accessories hose connector for PP draincock

Bürkle.

Version	Art. No.	Pack Qty.	€
Bent 90°	**P946.1**	1 unit(s)	4,10
straight	**P947.1**	1 unit(s)	2,85

Capillary pipettes

Capillary pipettes ringcaps®

Hirschmann. Material: DURAN® glass. Autoclavable: Yes.

Purpose: Removal of samples from the human body.

- Not heparinised
- According to ISO 7550
- Correctness up to 5 µl 0.3%, from 10 µl 0.25%
- Variation coefficient up to 5 µl 0.60%, from 10 µl 0.50%
- Conformity certified



A 121 °C

In vitro diagnostic medical device according to IVDD

1 mark

Vol. (µl)	Length (mm)	Ø Internal (mm)	Ø ext. (mm)	Pack.	Art. No.	Pack Qty.	€
10	125	0,47	1,25	4 x 250	**A757.1**	1,000 unit(s)	139,30
20	125	0,63	1,50	4 x 250	**A758.1**	1,000 unit(s)	139,30
25	125	0,72	1,50	4 x 250	**A759.1**	1,000 unit(s)	139,30
40	125	1,02	1,50	4 x 250	**A760.1**	1,000 unit(s)	139,30
50	125	1,02	1,50	4 x 250	**A761.1**	1,000 unit(s)	139,30
100	125	1,39	1,95	4 x 250	**A762.1**	1,000 unit(s)	139,30

2 marks

Volume (µl)	Length (mm)	Ø Internal (mm)	Ø ext. (mm)	Pack.	Art. No.	Pack Qty.	€
5/10	125	0,47	1,25	4 x 250	**A764.1**	1,000 unit(s)	139,90
20/40	125	1,02	1,50	4 x 250	**A765.1**	1,000 unit(s)	139,90
50/100	125	1,39	1,95	4 x 250	**A766.1**	1,000 unit(s)	139,90
100/200	125	1,89	2,50	4 x 100	**A767.1**	400 unit(s)	91,30

5 marks

Volume (µl)	Length (mm)	Ø Internal (mm)	Ø ext. (mm)	Pack.	Art. No.	Pack Qty.	€
1/2/3/4/5	125	0,29	1,25	4 x 250	**A756.1**	1,000 unit(s)	149,75

Capillary pipettes minicaps

Hirschmann. Material: DURAN® glass.

Purpose: Removal of samples from the human body.

- Independent filling via capillary action (end-to-end)
- Not heparinised
- According to ISO 7550
- Correctness 0.5%
- Variation coefficient 1%
- Conformity certified



In vitro diagnostic medical device according to IVDD

Vol. (µl)	Colour coding	Length (mm)	Tolerance (mm)	Ø Internal (mm)	Ø ext. (mm)	Pack.	Art. No.	Pack Qty.	€
0.5	black	31	±1,0	0,14	0,56	10 x 100	**L918.2**	1,000 unit(s)	124,40
1	blue	31	±1,0	0,20	0,68	10 x 100	**0771.2**	1,000 unit(s)	124,40
2	red	31	±1,0	0,28	0,74	10 x 100	**L919.2**	1,000 unit(s)	124,40
3	yellow	31	±1,0	0,34	0,83	10 x 100	**L920.2**	1,000 unit(s)	124,40
3.33	yellow	36	±1,0	0,34	0,82	10 x 100	**L921.2**	1,000 unit(s)	124,40
4	green	31	±1,0	0,40	0,83	10 x 100	**L922.2**	1,000 unit(s)	124,40
5	white	31	±1,0	0,45	0,89	10 x 100	**L923.2**	1,000 unit(s)	124,40
6.66	natural	72	±1,0	0,34	0,82	10 x 100	**L924.2**	1,000 unit(s)	124,40
10	orange	31	±1,0	0,63	0,90	10 x 100	**L925.2**	1,000 unit(s)	124,40
20	black	30	±0,5	0,92	1,40	10 x 100	**L926.2**	1,000 unit(s)	124,40

Capillary pipettes

Capillary pipettes micro hematocrit

Marienfeld. Material: AR-GLAS®.

Micro hematocrit capillary tubes for centrifugation of blood samples.

- Colour-coded end is fire-polished to reduce centrifuge wear
- Thickness 0.2 ±0.025 mm
- According to ISO 12772



In vitro diagnostic medical device according to IVDD

With sodium heparinisation

Sodium heparin (80 iu/ml ±30%) applied as a thin, homogeneous film delays coagulation of blood.

Vol. (µl)	Length (mm)	Tolerance (mm)	Ø Internal (mm)	Ø ext. (mm)	Pack.	Art. No.	Pack Qty.	€
60	75	±0,5	0,9–1,2	1,3–1,4	10 x 100	**TX79.1**	1,000 unit(s)	33,90
75	75	±0,5	1,1–1,2	1,5–1,6	10 x 100	**TX80.1**	1,000 unit(s)	32,80

Without heparinisation

Immediately after filling, seal with wax and centrifuge.

Vol. (µl)	Length (mm)	Tolerance (mm)	Ø Internal (mm)	Ø ext. (mm)	Pack.	Art. No.	Pack Qty.	€
60	75	±0,5	0,9–1,0	1,3–1,4	10 x 100	**TX77.1**	1,000 unit(s)	36,55
75	75	±0,5	1,1–1,2	1,5–1,6	10 x 100	**TX78.1**	1,000 unit(s)	29,60

Pasteur pipettes

ROTH SELECTION. Material: Soda-lime glass (hydrolytic class 3). Autoclavable: Yes.

For one-time use in serological and microbiological laboratories. Also suitable for filling and draining NMR vials.

- Uniformly shaped
- Double thickness 0.55-0.8 mm
- With neck for cotton stoppers



A 121 °C

Without cotton plug

Non-sterile.

Vol. (ml)	Total length (mm)	Ø ext. (mm)	Tip length (mm)	Outer tip Ø (mm)	Version	Sterility	Art. No.	Pack Qty.	€
2	150	7	60	1.3	open tip	Non-sterile	**4518.1**	1,000 unit(s)	67,20
2	230	7	140	1.3	open tip	Non-sterile	**4522.1**	1,000 unit(s)	79,70
2.5	270	7	160	1.3	open tip	Non-sterile	**HX77.1**	1,000 unit(s)	155,80
2.5	300	7	195	1.5	open tip	Non-sterile	**HX78.1**	500 unit(s)	93,90
3	350	7	230	1.5	open tip	Non-sterile	**HX79.1**	1,000 unit(s)	382,70

With cotton plug

Non-sterile.

Vol. (ml)	Total length (mm)	Ø ext. (mm)	Tip length (mm)	Outer tip Ø (mm)	Version	Sterility	Art. No.	Pack Qty.	€
2	150	7	60	1.3	open tip	Non-sterile	**E326.1**	1,000 unit(s)	150,90
2	230	7	140	1.3	open tip	Non-sterile	**E327.1**	1,000 unit(s)	148,15

With cotton plug sterile

Sterile.

Vol. (ml)	Total length (mm)	Ø ext. (mm)	Tip length (mm)	Version	Sterility	Art. No.	Pack Qty.	€
2	150	7	60	closed tip	**Sterile**	**AHA3.1**	1,000 unit(s)	207,50
2	230	7	140	closed tip	**Sterile**	**AHA4.1**	1,000 unit(s)	194,60

Pasteur/disposable pipettes

Pasteur pipettes

DWK Life Sciences. Material: Borosilicate glass 5.1. Autoclavable: Yes.

For single use in microbiological and serological laboratories. Ideal for distributing aliquot quantities of liquid.

- In accordance with ISO 7712
- Practically inert borosilicate glass (USP type I neutral glass)
- With neck for cotton stoppers
- Good resistance to temperature variation, suitable for transferring hot liquids
- Excellent chemical resistance to acid and alkaline solutions



A 121 °C

DURAN WHEATON KIMBLE

Vol. (ml)	Total length (mm)	Ø ext. (mm)	Tip length (mm)	Outer tip Ø (mm)	Pack.	Art. No.	Pack Qty.	€
2	147.5	6.95	55	1.1	4 x 250	**HXH7.1**	1,000 unit(s)	64,35
2	227.5	6.95	135	1.1	4 x 250	**HXH8.1**	1,000 unit(s)	70,80

Pasteur pipettes plastic sterile

ROTH SELECTION. Material: PS. **Sterile**.

For use with pipette bulbs or as aspiration pipettes in combination with suction systems. Safe alternative to Pasteur pipettes made of glass.



S

Vol. (ml)	Total length (mm)	Ø ext. (mm)	Outer tip Ø (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
2	145	6	1.5	**Sterile**	4 x 50, individual	**EKN7.1**	200 unit(s)	82,35
3	230	6	1.5	**Sterile**	4 x 50, individual	**EKN8.1**	200 unit(s)	95,10

Aspiration pipettors sterile

ROTH SELECTION. Material: PS. **Sterile**.

Pipettes without cotton plug, without graduation.
Suitable for vacuum applications and liquid handling where no high precision is required.
Safe alternative to Pasteur pipettes made of glass.



S

Vol. (ml)	Total length (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
2	271	**Sterile**	individually	**NA41.2**	200 unit(s)	29,80

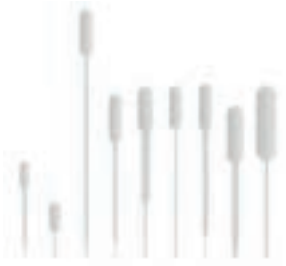
Pasteur/disposable pipettes

Pasteur pipettes ungraduated

ROTH SELECTION. Material: LDPE.

Single-use pipettes with integrated suction ball for straightforward transfer of liquids where precision volume is not required. Suitable for media aliquoting thanks to reproducible droplet size.

- No slipping with latex gloves
- Precise, fine tip for reproducible results



Not a medical device / Not an IVD product

1 ml, universal

For routine work and quick liquid transfers.

Vol. (ml)	Filling capacity (ml)	Total volume (l)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
1	0.9	1.8	87	4.8	40	26	Non-sterile	1 x 500	**1CC3.1**	500 unit(s)	24,65

1 ml, fine tip

Manageable pipette for applications involving limited space.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
1	1	1.6	51	1.2	30	34	Non-sterile	1 x 500	**1CC4.1**	500 unit(s)	41,50

2 ml, extra long

For use in sampling, coating of columns in chromatography or for transferring into columns.

Vol. (ml)	Filling capacity (ml)	Total volume (l)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
2	2.3	5.6	225	5	40	25	Non-sterile	1 x 400	**1CC5.1**	400 unit(s)	26,60

3 ml, fine tip

For precision liquid application.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
3	3.3	5.8	147	4.6	19	53	Non-sterile	1 x 500	**1CC6.1**	500 unit(s)	46,30

3 ml, narrow stem

Narrow stem for special applications, e.g. pipetting in semi-micro cuvettes. Suitable for filling and heat sealing for the purpose of storing liquids.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
3	3.2	6.9	155	8	32	31	Non-sterile	1 x 500	**1CC7.1**	500 unit(s)	27,90

3 ml, narrow stem, extra long

Extra long , slimline body for pipetting in narrow vessels.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
3	3.3	4.5	155	2.5	38	26	Non-sterile	1 x 500	**1CC8.1**	500 unit(s)	27,20

4 ml, fine tip (extended)

Suitable for loading electrophoresis gels.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
4	3.7	5.8	157	4.6	20	50	Non-sterile	1 x 500	**1CC9.1**	500 unit(s)	43,70

6 ml, wide opening

For viscous samples, e.g. creams, oils, sludges, paints. Can be used as a funnel if the suction ball is cut open centrally and a filter is placed. Suitable for use as a spatula if the suction ball is cut at an angle.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
6	6.2	9.5	137	6.1	50	20	Non-sterile	1 x 250	**1CCA.1**	250 unit(s)	16,70

Pasteur/disposable pipettes

10 ml, extra long
For use in sampling, pipetting of media from tall vessels, coating of columns in chromatography or for transferring into columns.

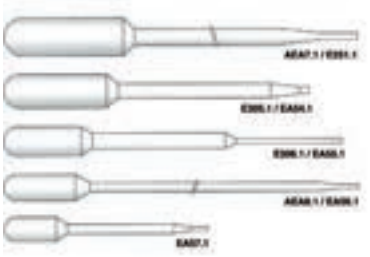
Vol. (ml)	Filling capacity (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
10	10.7	300	50	20	Non-sterile	1 x 100	**E251.1**	100 unit(s)	38,05

10 ml, narrow stem
For dispensing larger liquid volumes. Slimline stem for narrow vessels.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
10	11.6	15.3	155	3	52	19	Non-sterile	1 x 250	**1CCC.1**	250 unit(s)	24,30

Pasteur pipettes ungraduated

ROTH SELECTION. Material: LDPE.
Precision-formed, unbreakable, non toxic and with controlled, reproducible drop size.



Not a medical device / Not an IVD product

Vol. (ml)	Filling capacity (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Version	Sterility	Pack.	Art. No.	Pack Qty.	€
7	7.3	300	50	20	very long	**Sterile**	indiv.	**AEA7.1**	100 unit(s)	94,95
5	4.8	137	62	16	wide opening, for viscose media	Non-sterile	1 x 250	**E305.1**	250 unit(s)	34,80
5	4.8	137	62	16	Wide opening, for cell culture	**Sterile**	indiv.	**EA54.1**	250 unit(s)	90,30
3	3.0	155	34	29	long tip, for cells	Non-sterile	1 x 500	**E306.1**	500 unit(s)	57,60
3	3.0	155	34	29	long tip, for cells	**Sterile**	50 x 10	**EA55.1**	500 unit(s)	81,90
2	2.3	225	40	25	long	**Sterile**	indiv.	**AEA8.1**	400 unit(s)	114,95
2	2.3	225	40	25	long	Non-sterile	1 x 400	**EA56.1**	400 unit(s)	42,30
1	0.9	87	40	25	short	Non-sterile	1 x 500	**EA57.1**	500 unit(s)	38,55

Mixing pipettes ungraduated

ROTH SELECTION. Material: LDPE.
Precision-formed, unbreakable, non toxic and with controlled, reproducible drop size.



Not a medical device / Not an IVD product

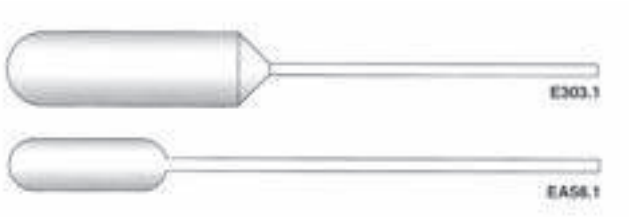
Vol. (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Version	Sterility	Art. No.	Pack Qty.	€
0.2	124	50	20	standard	Non-sterile	**EA52.1**	500 unit(s)	38,55
0.2	131	25	40	fine	Non-sterile	**EA53.1**	500 unit(s)	40,75

Pasteur/disposable pipettes

Pasteur pipettes ungraduated

ROTH SELECTION. Material: LDPE.

Precision-formed, unbreakable, non toxic and with controlled, reproducible drop size.



Not a medical device / Not an IVD product

Vol. (ml)	Filling capacity (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
3	3.3	155	40	25	Non-sterile	1 x 500	**EA58.1**	500 unit(s)	30,10
8	8.0	155	52	19	Non-sterile	1 x 250	**E303.1**	250 unit(s)	42,65

Pasteur pipettes ultra-fine tip ungraduated

ROTH SELECTION. Material: LDPE.

Precision-formed, unbreakable, non toxic and with controlled, reproducible drop size.



Not a medical device / Not an IVD product

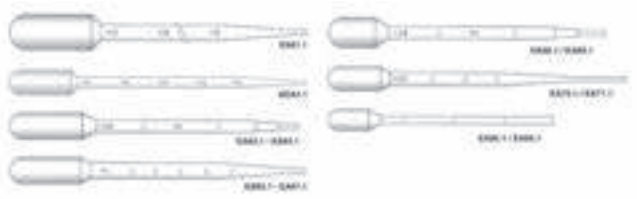
Vol. (ml)	Filling capacity (ml)	Total length (mm)	Outer tip Ø (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
3.5	3.5	157	1.1	20	50	**Sterile**	individually	**AEA5.1**	400 unit(s)	130,75
3.5	3.5	157	1.1	20	50	Non-sterile	1 x 500	**E304.1**	500 unit(s)	76,80
3	3.3	147	1.1	18	55	Non-sterile	1 x 500	**EA94.1**	500 unit(s)	65,75
1	1.0	51	1.5	22	45	Non-sterile	1 x 500	**E250.1**	500 unit(s)	57,85
0.5	0.5	36	1.1	25	40	Non-sterile	1 x 500	**AEA6.1**	500 unit(s)	57,85

Pasteur/disposable pipettes

Pasteur pipettes graduated

ROTH SELECTION. Material: LDPE.

Precision-formed, unbreakable, non toxic and with controlled, reproducible drop size.



Not a medical device / Not an IVD product

Filling volume 0.8 ml

Vol. (ml)	Filling capacity (ml)	Graduation range (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
0.3	0.8	0,1-0,3	116	47	21	Non-sterile	1 x 500	**EA95.1**	500 unit(s)	44,80
0.3	0.8	0,1-0,3	116	47	21	**Sterile**	25 x 20	**EA96.1**	500 unit(s)	66,85

Filling volume 1.8 ml

Filling volume 1.8 ml is achieved by pressing the suction ball. To achieve a filling capacity 2 ml, the stem must also be squeezed.

Vol. (ml)	Filling capacity (ml)	Graduation range (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
2	1.8	0,5-2	152	41	24	Non-sterile	1 x 500	**EA70.1**	500 unit(s)	44,80
2	1.8	0,5-2	152	41	24	**Sterile**	25 x 20	**EA71.1**	500 unit(s)	67,95

Filling volume 2.2 ml

Vol. (ml)	Filling capacity (ml)	Graduation range (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
1	2.2	0,25-1	140	40	25	Non-sterile	1 x 500	**EA68.1**	500 unit(s)	42,30
1	2.2	0,25-1	140	40	25	**Sterile**	25 x 20	**EA69.1**	500 unit(s)	61,20

Filling volume 3.2 ml

Vol. (ml)	Filling capacity (ml)	Graduation range (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
3	3.2	0,5-3	155	50	20	Non-sterile	1 x 500	**EA65.1**	500 unit(s)	24,65
3	3.2	0,5-3	155	50	20	**Sterile**	individually	**EA66.1**	500 unit(s)	105,30
3	3.2	0,5-3	155	50	20	**Sterile**	25 x 20	**EA67.1**	500 unit(s)	56,20

Filling volume 3.4 ml

Vol. (ml)	Filling capacity (ml)	Graduation range (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
1	3.4	0,25-1	155	40	25	Non-sterile	1 x 500	**EA62.1**	500 unit(s)	26,15
1	3.4	0,25-1	155	40	25	**Sterile**	individually	**EA63.1**	500 unit(s)	109,90
1	3.4	0,25-1	155	40	25	**Sterile**	25 x 20	**EA64.1**	500 unit(s)	48,25

Filling volume 6.2 ml

Vol. (ml)	Filling capacity (ml)	Graduation range (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
5	6.2	1-5	217	54	19	**Sterile**	12 x 20	**AEA4.1**	240 unit(s)	57,85
5	6.2	1-5	217	54	19	Non-sterile	1 x 250	**EA61.1**	250 unit(s)	31,75

Pasteur/disposable pipettes

Pasteur pipettes graduated

ROTH SELECTION. Material: LDPE.

Single-use pipettes with integrated suction ball for straightforward transfer of liquids. With graduation for approximation of dispensed volume. Suitable for media aliquoting thanks to reproducible droplet size.

- Clear graduation
- No slipping with latex gloves
- Precise, fine tip for reproducible results



Not a medical device / Not an IVD product

0.3 ml

For drawing and dispensing small volumes, for transferring into and out of multiwell plates, and for pH measuring instruments (drawing and redispensing of filling solutions for electrodes).

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Graduation range (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
0.3	0.8	1.5	0,1 / 0,2 / 0,3	116	3	45	22	Non-sterile	1 x 500	**1CAC.1**	500 unit(s)	24,50
0.3	0.8	1.5	0,1 / 0,2 / 0,3	116	3	45	22	**Sterile**	25 x 20	**1CAE.1**	500 unit(s)	37,90

1 ml, small suction ball

For drawing and dispensing small volumes, for sample preparation in chromatography (autosampler vials 1 ml), and for pH measuring instruments (addition of acids and bases).

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Graduation range (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
1	2.1	3.9	0,25 / 0,5 / 0,75 / 1	140	4.7	40	25	Non-sterile	1 x 500	**1CAH.1**	500 unit(s)	24,50
1	2.1	3.9	0,25 / 0,5 / 0,75 / 1	140	4.7	40	25	**Sterile**	25 x 20	**1CAK.1**	500 unit(s)	47,05

1 ml, large suction ball

For sample preparation in chromatography (autosampler vials 1 ml).

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Graduation range (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
1	3.5	5.8	0,25 / 0,5 / 0,75 / 1	155	4.6	40	25	Non-sterile	1 x 500	**1CAL.1**	500 unit(s)	24,10
1	3.5	5.8	0,25 / 0,5 / 0,75 / 1	155	4.6	40	25	**Sterile**	25 x 20	**1CAN.1**	500 unit(s)	42,60

1 ml, large suction ball, wide opening

For handling reagents, for microscope slide examinations and for quickly transferring media.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Graduation range (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
1	4.3	5.8	0,25 / 0,5 / 0,75 / 1	152	2.8	50	20	Non-sterile	1 x 500	**1CAP.1**	500 unit(s)	24,80

2 ml

For handling reagents, for microscope slide examinations and for quickly transferring media.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Graduation range (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
2	1.8	4.6	1 / 2	152	7.1	40	25	Non-sterile	1 x 500	**1CAT.1**	500 unit(s)	24,80
2	1.8	4.6	1 / 2	152	7.1	40	25	**Sterile**	25 x 20	**1CAX.1**	500 unit(s)	36,90

Pasteur/disposable pipettes

3 ml

For sample preparation in chromatography (autosampler vials 2 ml). For handling reagents, for microscope slide examinations. Suitable for filling and heat sealing for the purpose of storing liquids.

Vol. (ml)	Filling capacity (ml)	Total volume (ml)	Graduation range (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
3	3.2	7.7	1 / 2 / 3	155	7.9	47	21	Non-sterile	1 x 500	**1CAY.1**	500 unit(s)	24,10
3	3.2	7.7	1 / 2 / 3	155	7.9	47	21	**Sterile**	500 x 1	**1CC0.1**	500 unit(s)	58,20
3	3.2	7.7	1 / 2 / 3	155	7.9	47	21	**Sterile**	25 x 20	**1CC1.1**	500 unit(s)	38,30

5 ml

For dispensing larger liquid volumes and quickly transferring media. Suitable for filling and heat sealing for the purpose of storing liquids.

Vol. (ml)	Filling capacity (ml)	Total volume (l)	Graduation range (ml)	Total length (mm)	Ø ext. (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
5	7.4	13.7	1 / 2 / 3 / 4 / 5	217	3.0	52	19	Non-sterile	1 x 250	**1CC2.1**	250 unit(s)	18,20

Pasteur pipettes with folding bellows graduated

Kartell. Material: PE.

Dropping pipettes for use in laboratory analytics.



In vitro diagnostic medical device according to IVDD

Vol. (ml)	Graduation range (ml)	Total length (mm)	Ø ext. (mm)	Ø Inner outlet (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
1.5	0,5-1,5	134	8	2	Non-sterile	1 x 100	**TT22.1**	100 unit(s)	18,10
5	1-5	195	5.5	1.5	Non-sterile	1 x 100	**TT23.1**	100 unit(s)	20,70

Serological pipettes ROTILABO®

ROTH SELECTION. Material: PS, Plug made of polyester fibre. **Sterile**.

- Easy-to-read graduation
- With additional reverse graduation
- RNase/DNase-free and not pyrogenic



S

Not a medical device / Not an IVD product

Vol. (ml)	Filling capacity (ml)	Graduations (ml)	Total length (mm)	Ø ext. (mm)	Outer tip Ø (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
1	1.04	0.01	279	4.7	3.4	**Sterile**	10 x (100 x 1)	**N231.2**	1,000 unit(s)	155,40
1	1.04	0.01	279	4.7	3.4	**Sterile**	40 x 25	**N232.1**	1,000 unit(s)	136,30
2	2.08	0.01	270	5.5	3.7	**Sterile**	10 x (100 x 1)	**N236.2**	1,000 unit(s)	166,65
2	2.08	0.01	270	5.5	3.7	**Sterile**	40 x 25	**N237.1**	1,000 unit(s)	141,15
5	7.5	0.1	348	8	3.4	**Sterile**	4 x (50 x 1)	**N239.2**	200 unit(s)	56,90
10	13	0.1	347	10	3.35	**Sterile**	4 x (50 x 1)	**N242.1**	200 unit(s)	75,70
10	13	0.1	347	10	3.35	**Sterile**	20 x 25	**N243.2**	500 unit(s)	131,65
25	32	0.25	311	15	4.8	**Sterile**	4 x (50 x 1)	**N245.1**	200 unit(s)	150,00
50	60	1	368	18	5.5	**Sterile**	4 x (25 x 1)	**ET25.2**	100 unit(s)	237,60

Pasteur/disposable pipettes

Serological pipettes CELLSTAR®

Greiner Bio-One. Material: PS, Polyester plugs. **Sterile**.

- Maximum accuracy
- High visual transparency
- Easy-to-read graduation
- Pipette tip design guarantees pipetting without droplets
- Increased volume capacity thanks to the extended negative graduation
- Fitted with a synthetic filter to prevent liquids from being drawn into the pipette
- Pipette colour code according to international standards for easy identification
- Expiration date and lot number printed on each individual piece of packaging
- Individually packed in plastic/plastic packaging with a peel-off function
- **Free of detectable DNase, RNase and human DNA**
- **Free of detectable endotoxins, free of cytotoxic substances**



S

Not a medical device / Not an IVD product

Vol. (ml)	Filling capacity (ml)	Graduations (ml)	Total length (mm)	Ø ext. (mm)	Outer tip Ø (mm)	Colour coding	Sterility	Pack.	Art. No.	Pack Qty.	€
1	1.25	0.01	277	4.55	2.75	yellow	**Sterile**	10 x (100 x 1)	**1A74.1**	1,000 unit(s)	342,95
2	2.5	0.01	277	5.65	4.05	green	**Sterile**	10 x (100 x 1)	**1A75.1**	1,000 unit(s)	304,25
5	7.5	0.1	336.5	8	3.05	blue	**Sterile**	4 x (50 x 1)	**1A76.1**	200 unit(s)	82,00
10	13	0.1	340	9.5	3.2	orange	**Sterile**	4 x (50 x 1)	**1A77.1**	200 unit(s)	87,85
25	35	0.2	343	14.3	4.76	red	**Sterile**	4 x (50 x 1)	**1A78.1**	200 unit(s)	112,05
50	60	0.5	343	18.1	5.3	violet	**Sterile**	5 x (20 x 1)	**1A79.1**	100 unit(s)	163,40

Short shape

Short shape pipettes enable users to work comfortably and without straining their back. Practical for use at low heights, e.g. under the flow cabinet.

Vol. (ml)	Filling capacity (ml)	Graduations (ml)	Total length (mm)	Ø ext. (mm)	Outer tip Ø (mm)	Colour coding	Sterility	Pack.	Art. No.	Pack Qty.	€
5	8	0.1	221	9.5	3.2	blue	**Sterile**	4 x (50 x 1)	**1A7A.1**	200 unit(s)	252,65
10	20	0.2	221	14.3	4.76	orange	**Sterile**	4 x (50 x 1)	**1A7C.1**	200 unit(s)	349,40

Serological pipettes

Bürkle. Material: PS. **Sterile**.

For aqueous solutions.



S

Not a medical device / Not an IVD product

Vol. (ml)	Sterility	Pack.	Art. No.	Pack Qty.	€
25	**Sterile**	50 x 1	**CPP2.1**	50 unit(s)	133,85
50	**Sterile**	25 x 1	**CPP3.1**	25 unit(s)	115,35
100	**Sterile**	10 x 1	**CPP4.1**	10 unit(s)	254,80

Pasteur/disposable pipettes

Serological pipettes ROTILABO® large opening

ROTH SELECTION. Material: PS, Plug made of polyester fibre. **Sterile**.

For pepitting viscose liquids, for the cell cutlure.

- Easy-to-read graduation
- RNase-/DNase-free, non-pyrogenic, non-cytotoxic and non-haemolytic



S

Not a medical device / Not an IVD product

Vol. (ml)	Graduations (ml)	Sterility	Pack.	Art. No.	Pack Qty.	€
10	0.1	**Sterile**	individually	**ET30.1**	200 unit(s)	59,45

Demeter pipettes sterile

ROTH SELECTION. Material: PS, Plug made of polyester fibre. **Sterile**.

Dilution pipettes for bacteriological examinations in food laboratories and in the dairy products industry.

- RNase/DNase-free, not pyrogenic



S

Not a medical device / Not an IVD product

Vol. (ml)	Graduation range (ml)	Total length (mm)	Ø ext. (mm)	Outer tip Ø (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
2.2	1,0 / 2,0 / 2,1 / 2,2	282.5	6.3	3.7	**Sterile**	40 x 25	**NA44.1**	1,000 unit(s)	134,85

Graduated pipettes plastic

Vitlab. Material: PP.

- Blue graduated
- EX calibrated
- Shatter-proof



Cleaning with low alkaline cleaning agents is recommended up to a max. temperature of 60 °C in order to avoid changes in volume.

Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Ø Outer upper (mm)	Art. No.	Pack Qty.	€
1	0,1	±0,02	300	8	**XY57.1**	12 unit(s)	189,20
2	0,1	±0,02	300	8	**XY58.1**	12 unit(s)	193,50
5	0,1	±0,05	330	8	**XY59.1**	12 unit(s)	199,95
10	0,1	±0,10	330	10	**XY60.1**	12 unit(s)	246,20
10	0,1	±0,10	320	8	**XY61.1**	12 unit(s)	325,75

Bulb / graduated pipettes

Bulb pipettes plastic

Vitlab. Material: PP.

- Blue graduated
- EX calibrated
- Shatter-proof



Cleaning with low alkaline cleaning agents is recommended up to a max. temperature of 60 °C in order to avoid changes in volume.

Vol. (ml)	Limit of error (ml)	Total length (mm)	Art. No.	Pack Qty.	€
1	±0,02	300	**YA06.1**	12 unit(s)	183,85
2	±0,02	300	**YA07.1**	12 unit(s)	196,75
5	±0,03	300	**YA08.1**	6 unit(s)	178,45
10	±0,04	440	**YA09.1**	6 unit(s)	182,75
25	±0,05	450	**YA10.1**	6 unit(s)	196,75
50	±0,10	460	**YA11.1**	6 unit(s)	203,20

Suction piston graudated pipette

Hirschmann. Material: AR-GLAS®.

With main-point ring graduation, graduated up to the tip.

- Brown graduated
- Upper zero point



Vol. (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
1	0,01	**T742.1**	1 unit(s)	25,85
2	0,02	**T743.1**	1 unit(s)	26,35
5	0,05	**T744.1**	1 unit(s)	31,25
10	0,1	**T745.1**	1 unit(s)	33,55
20	0,1	**T746.1**	1 unit(s)	41,55
25	0,1	**T747.1**	1 unit(s)	43,00
50	0,2	**T748.1**	1 unit(s)	79,00

Graduated pipettes BLAUBRAND® type 2 class AS, USP

BRAND. Material: AR-GLAS®. Autoclavable: Yes.

Graduation and inscriptions in high-contrast blue enamel paint.

- Blue graduated
- Upper nominal capacity
- Calibrated to 'Ex'
- Total delivery
- DE-M approved



A 121 °C

Total length ± 10 mm. HXN1.1: limit of error USP ±0.01 ml.

Delivery incl. USP batch certificate.

Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Standards	Art. No.	Pack Qty.	€
1	0,01	± 0,007 USP	360	Yes	DIN EN ISO 835	**HXN1.1**	12 unit(s)	89,10
2	0,02	± 0,01 USP	360	Yes	DIN EN ISO 835	**HXN2.1**	12 unit(s)	89,10
5	0,05	± 0,02 USP	360	Yes	DIN EN ISO 835	**HXN3.1**	12 unit(s)	104,10
10	0,1	± 0,03 USP	360	Yes	DIN EN ISO 835	**HXN4.1**	12 unit(s)	104,10

Bulb / graduated pipettes

Graduated pipettes BLAUBRAND® type 2 class AS

BRAND. Material: AR-GLAS®. Autoclavable: Yes.

Graduation and inscriptions in high-contrast blue enamel paint.

- Blue graduated
- Upper nominal capacity
- Calibrated to 'Ex'
- Total delivery
- DE-M approved*



A 121 °C

Total length ± 10 mm. *HXK9.1 not DE-M marked.

Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Standards	Art. No.	Pack Qty.	€
0.5	0,01	± 0,006	360	No	DIN EN ISO 835	**HXK5.1**	12 unit(s)	97,35
1	0,01	± 0,007	360	No	DIN EN ISO 835	**HXK6.1**	12 unit(s)	77,00
1	0,01	± 0,007	360	Yes	DIN EN ISO 835	**HXK7.1**	12 unit(s)	101,25
1	0,1	± 0,007	360	No	DIN EN ISO 835	**HXK8.1**	12 unit(s)	77,00
2	0,01	± 0,010	360	No	in addition	**HXK9.1**	12 unit(s)	108,95
2	0,02	± 0,010	360	No	DIN EN ISO 835	**HXL0.1**	12 unit(s)	77,00
2	0,02	± 0,010	360	Yes	DIN EN ISO 835	**HXL1.1**	12 unit(s)	101,25
2	0,1	± 0,010	360	No	DIN EN ISO 835	**HXL2.1**	12 unit(s)	77,00
5	0,05	± 0,030	360	Yes	DIN EN ISO 835	**HXL3.1**	12 unit(s)	92,05
5	0,1	± 0,030	360	Yes	DIN EN ISO 835	**HXL4.1**	12 unit(s)	89,75
10	0,1	± 0,05	360	Yes	DIN EN ISO 835	**HXL5.1**	12 unit(s)	92,05
20	0,1	± 0,1	360	Yes	DIN EN ISO 835	**HXL6.1**	6 unit(s)	93,75
25	0,1	± 0,1	450	Yes	DIN EN ISO 835	**HXL7.1**	6 unit(s)	93,75
50	0,5	± 0,2	450	Yes	in addition	**HXL8.1**	6 unit(s)	152,70

Graduated pipettes type 2 SILBERBRAND ETERNA class B

BRAND. Material: AR-GLAS®. Autoclavable: Yes.

Graduation and inscription in ETERNA permanent amber diffusion colour.

- Brown graduated
- Upper nominal capacity
- Calibrated to 'Ex'
- Total delivery



A 121 °C

Total length ±10 mm.

Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Standards	Art. No.	Pack Qty.	€
1	0,01	± 0,007	360	No	DIN EN ISO 835	**HXN6.1**	12 unit(s)	58,25
2	0,01	± 0,010	360	No	in addition	**HXN9.1**	12 unit(s)	76,35
2	0,02	± 0,010	360	No	DIN EN ISO 835	**HXP0.1**	12 unit(s)	58,30
5	0,05	± 0,030	360	Yes	DIN EN ISO 835	**HXP3.1**	12 unit(s)	65,80
5	0,1	± 0,030	360	Yes	DIN EN ISO 835	**HXP4.1**	12 unit(s)	60,10
10	0,1	± 0,05	360	Yes	DIN EN ISO 835	**HXP5.1**	12 unit(s)	65,80
25	0,1	± 0,15	450	Yes	DIN EN ISO 835	**HXP7.1**	6 unit(s)	60,50

Bulb / graduated pipettes

Graduated pipettes type 3 class B

Hirschmann. Material: AR-GLAS®. Autoclavable: Yes.

The volume displayed is achieved through normal draining of the graduated pipette. Graduated up to the tip.

- Brown graduated
- Upper zero point
- EX calibrated



A 121 °C

Total length ±5 mm.

Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Standards	Art. No.	Pack Qty.	€
0.5	0,01	±0,0075	360	No	in addition	**E941.1**	12 unit(s)	46,70
1	0,01	±0,01	360	No	DIN EN ISO 835	**E942.1**	12 unit(s)	41,20
2	0,02	±0,015	360	No	DIN EN ISO 835	**E943.1**	12 unit(s)	41,20
5	0,05	±0,045	360	Yes	DIN EN ISO 835	**E944.1**	12 unit(s)	59,20
5	0,1	±0,045	360	Yes	in addition	**E945.1**	12 unit(s)	47,60
10	0,1	±0,075	360	Yes	DIN EN ISO 835	**E946.1**	12 unit(s)	51,55
20	0,1	±0,15	360	Yes	in addition	**E947.1**	6 unit(s)	43,50
25	0,1	±0,15	450	Yes	DIN EN ISO 835	**E948.1**	6 unit(s)	48,85
50	0,2	±0,30	450	Yes	in addition	**E949.1**	6 unit(s)	80,45

Graduated pipettes BLAUBRAND® type 3 class AS

BRAND. Material: AR-GLAS®. Autoclavable: Yes.

Graduation and inscription in high-contrast blue enamel paint

- Blue graduated
- Upper zero point
- Calibrated to 'Ex'
- Total delivery
- DE-M approved*



A 121 °C

Total length ± 10 mm. *HXT2.1: not DE-M marked.

Delivery incl. Batch certificate

Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Standards	Art. No.	Pack Qty.	€
0.5	0,01	± 0,006	360	No	DIN EN ISO 835	**HXP8.1**	12 unit(s)	97,35
1	0,01	± 0,007	360	No	DIN EN ISO 835	**HXP9.1**	12 unit(s)	77,00
1	0,01	± 0,007	360	Yes	DIN EN ISO 835	**HXT0.1**	12 unit(s)	120,05
1	0,1	± 0,007	360	No	DIN EN ISO 835	**HXT1.1**	12 unit(s)	77,00
2	0,01	± 0,010	360	No	in addition	**HXT2.1**	12 unit(s)	99,60
2	0,02	± 0,010	360	No	DIN EN ISO 835	**HXT3.1**	12 unit(s)	77,00
2	0,02	± 0,010	360	Yes	DIN EN ISO 835	**HXT4.1**	12 unit(s)	120,05
2	0,1	± 0,010	360	No	DIN EN ISO 835	**HXT5.1**	12 unit(s)	77,00
5	0,05	± 0,030	360	Yes	DIN EN ISO 835	**HXT6.1**	12 unit(s)	92,05
5	0,1	± 0,030	360	Yes	DIN EN ISO 835	**HXT7.1**	12 unit(s)	89,75
10	0,1	± 0,05	360	Yes	DIN EN ISO 835	**HXT8.1**	12 unit(s)	92,05
20	0,1	± 0,1	360	Yes	DIN EN ISO 835	**HXT9.1**	6 unit(s)	94,10
25	0,1	± 0,1	450	Yes	DIN EN ISO 835	**HXX0.1**	6 unit(s)	94,10
50	0,5	± 0,2	450	Yes	in addition	**HXX1.1**	6 unit(s)	152,70

Bulb / graduated pipettes

Graduated pipettes type 3, class AS

Hirschmann. Material: AR-GLAS®. Autoclavable: Yes.

With main-point ring graduation, graduated up to the tip.

- Blue graduated
- Upper zero point
- EX calibrated
- Conformity certified
- With dated batch code



A 121 °C

Total length ±5 mm.

Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Standards	Art. No.	Pack Qty.	€
0.5	0,01	±0,005	360	No	DIN EN ISO 835	**E950.1**	12 unit(s)	63,10
1	0,01	±0,007	360	No	DIN EN ISO 835	**E951.1**	12 unit(s)	62,65
2	0,02	±0,01	360	No	DIN EN ISO 835	**E952.1**	12 unit(s)	62,65
5	0,05	±0,03	360	Yes	DIN EN ISO 835	**E953.1**	12 unit(s)	70,40
5	0,1	±0,03	360	Yes	in addition	**E954.1**	12 unit(s)	68,60
10	0,1	±0,05	360	Yes	DIN EN ISO 835	**E955.1**	12 unit(s)	70,40
20	0,1	±0,1	360	Yes	in addition	**E956.1**	6 unit(s)	66,45
25	0,1	±0,1	450	Yes	DIN EN ISO 835	**E957.1**	6 unit(s)	68,75
50	0,2	±0,2	450	Yes	in addition	**E958.1**	6 unit(s)	123,05

Small pack

Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Standards	Art. No.	Pack Qty.	€
1	0,01	±0,007	360	No	DIN EN ISO 835	**E951.2**	6 unit(s)	51,80
2	0,02	±0,01	360	No	DIN EN ISO 835	**E952.2**	6 unit(s)	51,80
5	0,05	±0,03	360	Yes	DIN EN ISO 835	**E953.2**	6 unit(s)	59,90
10	0,1	±0,05	360	Yes	DIN EN ISO 835	**E955.2**	6 unit(s)	59,15
20	0,1	±0,1	360	Yes	in addition	**E956.2**	3 unit(s)	57,35
25	0,1	±0,1	450	Yes	DIN EN ISO 835	**E957.2**	3 unit(s)	63,25
50	0,2	±0,2	450	Yes	in addition	**E958.2**	3 unit(s)	98,15

Graduated pipettes type 3 class AS

Hirschmann. Material: AR-GLAS®. Autoclavable: Yes.

With main-point ring graduation, graduated up to the tip. Graduated with permanent silver diffusion colour.

- Brown graduated
- Upper zero point
- Calibrated to Ex
- Conformity certified
- With dated batch code



A 121 °C

Total length ±5 mm.

Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Standards	Art. No.	Pack Qty.	€
0.5	0,01	±0,005	360	No	DIN EN ISO 835	**AH36.1**	12 unit(s)	83,40
1	0,01	±0,007	360	No	DIN EN ISO 835	**AH37.1**	12 unit(s)	72,55
2	0,02	±0,01	360	No	DIN EN ISO 835	**AH38.1**	12 unit(s)	72,55
5	0,05	±0,03	360	Yes	DIN EN ISO 835	**AH39.1**	12 unit(s)	82,15
5	0,1	±0,03	360	Yes	in addition	**AH40.1**	12 unit(s)	81,15
10	0,1	±0,05	360	Yes	DIN EN ISO 835	**AH41.1**	12 unit(s)	82,15
20	0,1	±0,1	360	Yes	in addition	**AH42.1**	6 unit(s)	66,45
25	0,1	±0,1	450	Yes	DIN EN ISO 835	**AH43.1**	6 unit(s)	82,85
50	0,2	±0,2	450	Yes	in addition	**AH44.1**	6 unit(s)	143,50

Bulb / graduated pipettes

Graduated pipettes BLAUBRAND® sprue class A

BRAND. Material: AR-GLAS®. Autoclavable: Yes.

Graduation and inscriptions in high-contrast blue enamel paint.

- Blue graduated
- Upper nominal capacity
- Calibrated to 'In'
- Total delivery
- Limits of error and tolerances according to DIN 12689
- DE-M approved



A 121 °C

Total length ±10 mm.

Delivery incl. batch certificate.

Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Standards	Art. No.	Pack Qty.	€
0.1	0,001	± 0,001	360	No	DIN 12689	**HXL9.1**	12 unit(s)	103,10
0.2	0,002	± 0,002	360	No	DIN 12689	**HXN0.1**	12 unit(s)	103,10

Graduated pipettes for tissue cultures

Hirschmann. Material: AR-GLAS®. Autoclavable: Yes.

With main-point ring graduation. Short shape for use in sterile benches.

- Brown graduated
- Botton zero point
- Calibrated to Ex



A 121 °C

Total length ±3 mm.

Vol. (ml)	Graduation (ml)	Total length (mm)	Cotton stopper end	Art. No.	Pack Qty.	€
1	0,1	230	Yes	**X157.1**	12 unit(s)	89,85
2	0,1	230	Yes	**X158.1**	12 unit(s)	89,85
5	0,1	230	Yes	**X159.1**	12 unit(s)	89,85
10	0,1	230	Yes	**X160.1**	12 unit(s)	108,20
25	0,2	230	Yes	**X162.1**	12 unit(s)	176,30

Cotton cord for pipettes

BRAND. Material: Cotton 100 %, degreased.

Light version (approx. 13 g/10 m).



Cotton stoppers can extend the draining time and thus affect the accuracy of the measurement. The results of tests using pipettes that were stoppered in cotton stopper machines were within the specified limits of error.

Version	Art. No.	Pack Qty.	€
Cotton cord	**HYE6.1**	1 kg	126,55

Bulb / graduated pipettes

Graduated pipettes wide opening

Hirschmann. Material: AR-GLAS®. Autoclavable: Yes.
With wide opening for tissue cultures or viscous media.

- Brown graduated
- Zero point at the top, graduated to the tip



A 121 °C

Total length ±5 mm.

Vol. (ml)	Graduation (ml)	Limit of error (ml)	Total length (mm)	Cotton stopper end	Art. No.	Pack Qty.	€
1	0,01	±0,01	360	No	**HLC3.1**	12 unit(s)	117,90
2	0,02	±0,015	360	No	**HLC4.1**	12 unit(s)	117,90
5	0,1	±0,045	360	Yes	**HLC5.1**	12 unit(s)	122,00
10	0,1	±0,075	360	Yes	**HLC6.1**	12 unit(s)	135,50
25	0,1	±0,15	450	Yes	**HLC7.1**	6 unit(s)	126,75

Bulb pipettes BLAUBRAND® 1 mark class AS

BRAND. Material: AR-GLAS®. Autoclavable: Yes.
Ring marking and inscription in high-contrast blue enamel paint.

- Calibrated to 'Ex'
- Waiting time of 5 s
- DE-M approved



A 121 °C

Total length ±10 mm (HYE5.1 ±15 mm).
Delivery incl. batch certificate.

Vol. (ml)	Limit of error (ml)	Total length (mm)	Standards	Art. No.	Pack Qty.	€
0.5	± 0,005	300	DIN EN ISO 648	**HYA7.1**	12 unit(s)	93,55
1	± 0,008	300	DIN EN ISO 648	**HYA8.1**	12 unit(s)	77,40
2	± 0,010	330	DIN EN ISO 648	**HYA9.1**	12 unit(s)	77,40
2.5	± 0,010	330	DIN EN ISO 648	**HYC0.1**	6 unit(s)	52,15
3	± 0,010	330	DIN EN ISO 648	**HYC1.1**	6 unit(s)	43,85
4	± 0,015	400	DIN EN ISO 648	**HYC2.1**	6 unit(s)	50,55
5	± 0,015	400	DIN EN ISO 648	**HYC3.1**	6 unit(s)	50,00
6	± 0,015	400	DIN EN ISO 648	**HYC4.1**	6 unit(s)	65,00
7	± 0,015	400	DIN EN ISO 648	**HYC5.1**	6 unit(s)	65,00
8	± 0,02	440	DIN EN ISO 648	**HYC6.1**	6 unit(s)	65,00
9	± 0,02	440	DIN EN ISO 648	**HYC7.1**	6 unit(s)	65,00
10	± 0,02	440	DIN EN ISO 648	**HYC8.1**	6 unit(s)	51,50
15	± 0,03	510	DIN EN ISO 648	**HYC9.1**	6 unit(s)	65,00
20	± 0,03	510	DIN EN ISO 648	**HYE0.1**	6 unit(s)	65,65
25	± 0,03	520	DIN EN ISO 648	**HYE1.1**	6 unit(s)	66,60
30	± 0,03	520	DIN EN ISO 648	**HYE2.1**	6 unit(s)	76,85
40	± 0,05	540	DIN EN ISO 648	**HYE3.1**	6 unit(s)	96,00
50	± 0,05	540	DIN EN ISO 648	**HYE4.1**	6 unit(s)	88,40
100	± 0,08	585	DIN EN ISO 648	**HYE5.1**	6 unit(s)	121,40

Bulb / graduated pipettes

Bulb pipettes BLAUBRAND® ETERNA 1 mark class AS

BRAND. Material: AR-GLAS®. Autoclavable: Yes.

Ring markings and inscriptions in ETERNA permanent amber diffusion colour

- Calibrated to 'Ex'
- Waiting time of 5 s
- DE-M approved



A 121 °C

Total length ±10 mm.

Delivery incl. batch certificate.

Vol. (ml)	Limit of error (ml)	Total length (mm)	Standards	Art. No.	Pack Qty.	€
1	± 0,008	300	DIN EN ISO 648	**HXX2.1**	12 unit(s)	77,40
2	± 0,010	330	DIN EN ISO 648	**HXX3.1**	12 unit(s)	77,40
5	± 0,015	400	DIN EN ISO 648	**HXX4.1**	6 unit(s)	50,00
10	± 0,02	440	DIN EN ISO 648	**HXX5.1**	6 unit(s)	51,50
20	± 0,03	510	DIN EN ISO 648	**HXX6.1**	6 unit(s)	65,65
25	± 0,03	520	DIN EN ISO 648	**HXX7.1**	6 unit(s)	66,60
50	± 0,05	540	DIN EN ISO 648	**HXX8.1**	6 unit(s)	88,40

Bulb pipettes BLAUBRAND® 1 mark class AS, USP

BRAND. Material: AR-GLAS®. Autoclavable: Yes.

Ring marking and inscription in high-contrast blue enamel paint.

- Calibrated to 'Ex'
- Waiting time of 5 s
- DE-M approved



A 121 °C

Total length ± 10 mm (HYA6.1 ± 15 mm). HXX9.1: limit of error USP ±0.006 ml.

Delivery incl. USP batch certificate.

Vol. (ml)	Limit of error (ml)	Total length (mm)	Standards	Art. No.	Pack Qty.	€
0.5	± 0,005	300	DIN EN ISO 648	**HXX9.1**	12 unit(s)	117,70
1	± 0,008	300	DIN EN ISO 648	**HXY0.1**	12 unit(s)	93,55
2	± 0,010	330	DIN EN ISO 648	**HXY1.1**	12 unit(s)	93,55
3	± 0,010	330	DIN EN ISO 648	**HXY2.1**	6 unit(s)	57,00
4	± 0,015	400	DIN EN ISO 648	**HXY3.1**	6 unit(s)	66,15
5	± 0,015	400	DIN EN ISO 648	**HXY4.1**	6 unit(s)	57,00
6	± 0,015	400	DIN EN ISO 648	**HXY5.1**	6 unit(s)	78,15
7	± 0,015	400	DIN EN ISO 648	**HXY6.1**	6 unit(s)	78,15
8	± 0,02	440	DIN EN ISO 648	**HXY7.1**	6 unit(s)	78,15
9	± 0,02	440	DIN EN ISO 648	**HXY8.1**	6 unit(s)	78,15
10	± 0,02	440	DIN EN ISO 648	**HXY9.1**	6 unit(s)	58,90
15	± 0,03	510	DIN EN ISO 648	**HYA0.1**	6 unit(s)	72,65
20	± 0,03	510	DIN EN ISO 648	**HYA1.1**	6 unit(s)	73,30
25	± 0,03	520	DIN EN ISO 648	**HYA2.1**	6 unit(s)	75,25
30	± 0,03	520	DIN EN ISO 648	**HYA3.1**	6 unit(s)	87,15
40	± 0,05	540	DIN EN ISO 648	**HYA4.1**	6 unit(s)	107,30
50	± 0,05	540	DIN EN ISO 648	**HYA5.1**	6 unit(s)	98,65
100	± 0,08	585	DIN EN ISO 648	**HYA6.1**	6 unit(s)	136,60

Bulb / graduated pipettes

Bulb pipettes 1 mark class AS

Hirschmann. Material: AR-GLAS®. Autoclavable: Yes.

Ring marking and brown marking (resistant silver-diffusion colour).

- Calibrated to EX
- Conformity certified
- With dated batch code



A 121 °C

Total length ±10 mm.

Vol. (ml)	Limit of error (ml)	Total length (mm)	Standards	Art. No.	Pack Qty.	€
0.5	±0,005	325	DIN EN ISO 648	**AC84.1**	12 unit(s)	76,80
1	±0,008	325	DIN EN ISO 648	**AC85.1**	12 unit(s)	76,80
2	±0,01	350	DIN EN ISO 648	**AC86.1**	12 unit(s)	76,25
3	±0,01	350	in addition	**AC87.1**	6 unit(s)	43,70
4	±0,015	410	in addition	**AC88.1**	6 unit(s)	49,90
5	±0,015	410	DIN EN ISO 648	**AC89.1**	6 unit(s)	48,35
10	±0,02	450	DIN EN ISO 648	**AC90.1**	6 unit(s)	53,90
15	±0,03	520	in addition	**AC91.1**	6 unit(s)	56,60
20	±0,03	520	DIN EN ISO 648	**AC92.1**	6 unit(s)	67,90
25	±0,03	530	DIN EN ISO 648	**AC93.1**	6 unit(s)	68,00
30	±0,03	530	in addition	**AC94.1**	6 unit(s)	71,45
40	±0,05	550	in addition	**AH33.1**	6 unit(s)	87,40
50	±0,05	550	DIN EN ISO 648	**AH34.1**	6 unit(s)	86,70
100	±0,08	600	DIN EN ISO 648	**AH35.1**	6 unit(s)	121,70

Bulb pipettes 2 marks class AS

Hirschmann. Material: AR-GLAS®.

With two volume markings, lower marking as zero point. Ring markings and brown labelling (resistant silver-diffusion colour).

- Partial drain, volumetric measurement between both markings
- For media with special draining behaviour
- Conformity certified



Vol. (ml)	Limit of error (ml)	Total length (mm)	Standards	Art. No.	Pack Qty.	€
0.5	±0,005	300	DIN EN ISO 648	**HLC8.1**	12 unit(s)	89,55
1	±0,008	325	DIN EN ISO 648	**HLC9.1**	12 unit(s)	89,55
2	±0,01	350	DIN EN ISO 648	**HLE0.1**	12 unit(s)	123,60
3	±0,01	350	in addition	**HLE1.1**	6 unit(s)	64,90
5	±0,015	410	DIN EN ISO 648	**HLE2.1**	6 unit(s)	72,05
10	±0,02	450	DIN EN ISO 648	**HLE3.1**	6 unit(s)	78,00
15	±0,03	520	in addition	**HLE4.1**	6 unit(s)	92,15
20	±0,03	520	DIN EN ISO 648	**HLE5.1**	6 unit(s)	98,95
25	±0,03	530	DIN EN ISO 648	**HLE6.1**	6 unit(s)	98,95
50	±0,05	550	DIN EN ISO 648	**HLE7.1**	6 unit(s)	116,60
100	±0,08	600	DIN EN ISO 648	**HLE8.1**	6 unit(s)	162,35

Bulb / graduated pipettes

Bulb pipettes 1 mark, class AS

Hirschmann. Material: AR-GLAS®. Autoclavable: Yes.

Blue ring marking and labelling.

- EX calibrated
- Conformity certified
- With dated batch code



A 121 °C

Total length ±10 mm.

Vol. (ml)	Limit of error (ml)	Total length (mm)	Standards	Art. No.	Pack Qty.	€
1	±0,008	325	DIN EN ISO 648	**E972.1**	12 unit(s)	72,95
2	±0,01	350	DIN EN ISO 648	**E973.1**	12 unit(s)	70,65
2.5	±0,01	350	DIN EN ISO 648	**HLH7.1**	6 unit(s)	56,80
3	±0,01	350	in addition	**E974.1**	6 unit(s)	42,30
5	±0,015	410	DIN EN ISO 648	**E976.1**	6 unit(s)	47,70
10	±0,02	450	DIN EN ISO 648	**E977.1**	6 unit(s)	52,20
15	±0,03	520	in addition	**E978.1**	6 unit(s)	53,25
20	±0,03	520	DIN EN ISO 648	**E979.1**	6 unit(s)	63,10
25	±0,03	530	DIN EN ISO 648	**E980.1**	6 unit(s)	64,70
50	±0,05	550	DIN EN ISO 648	**E983.1**	6 unit(s)	85,90
100	±0,08	600	DIN EN ISO 648	**E984.1**	6 unit(s)	113,40

Small pack

Vol. (ml)	Limit of error (ml)	Total length (mm)	Standards	Art. No.	Pack Qty.	€
1	±0,008	325	DIN EN ISO 648	**E972.2**	6 unit(s)	58,75
2	±0,01	350	DIN EN ISO 648	**E973.2**	6 unit(s)	58,75
5	±0,015	410	DIN EN ISO 648	**E976.2**	3 unit(s)	31,10
10	±0,02	450	DIN EN ISO 648	**E977.2**	3 unit(s)	36,35
20	±0,03	520	DIN EN ISO 648	**E979.2**	3 unit(s)	44,10
25	±0,03	530	DIN EN ISO 648	**E980.2**	3 unit(s)	44,80
50	±0,05	550	DIN EN ISO 648	**E983.2**	3 unit(s)	55,50
100	±0,08	600	DIN EN ISO 648	**E984.2**	3 unit(s)	83,60

Bulb pipettes 1 mark class B

Hirschmann. Material: AR-GLAS®. Autoclavable: Yes.

Ring marking and brown marking (resistant silver-diffusion colour).

- EX calibrated



A 121 °C

Total length ±10 mm.

Vol. (ml)	Limit of error (ml)	Total length (mm)	Standards	Art. No.	Pack Qty.	€
1	±0,012	325	DIN EN ISO 648	**E960.1**	12 unit(s)	55,55
2	±0,015	350	DIN EN ISO 648	**E961.1**	12 unit(s)	64,30
5	±0,023	410	DIN EN ISO 648	**E964.1**	6 unit(s)	38,45
10	±0,03	450	DIN EN ISO 648	**E965.1**	6 unit(s)	48,30
20	±0,045	520	DIN EN ISO 648	**E967.1**	6 unit(s)	59,20
25	±0,045	530	DIN EN ISO 648	**E968.1**	6 unit(s)	60,85
50	±0,075	550	DIN EN ISO 648	**E969.1**	6 unit(s)	73,50
100	±0,12	600	DIN EN ISO 648	**E970.1**	6 unit(s)	102,05

Manual pipetting aids

Pipetting ball ROTILABO®

ROTH SELECTION. Material: Natural rubber.

Glass ball valve is opened by pressing marked point.



Standard model

Length: 125 mm, Weight: 50 g.

Version	Suitable for	Art. No.	Pack Qty.	€
manually	Graduated/volumetric pipettes up to 10 ml	**0251.1**	1 unit(s)	9,20

Universal model

Matches pipettes Ø up to 9 mm. Length: 152 mm, Weight: 58 g.

Version	Suitable for	Art. No.	Pack Qty.	€
manually	Graduated/volumetric pipettes up to 100 ml	**PC78.1**	1 unit(s)	8,30

Accessories adapter for pipetting bulbs

NEW/+

ROTH SELECTION. Material: Natural rubber.

For securely holding pipettes with a small diameter in pipetting bulbs.
Suitable, e.g. for small bulb pipettes.

Colour	Art. No.	Pack Qty.	€
red	**1L10.1**	15 unit(s)	32,85

Pipetting ball ROTILABO® Flip

ROTH SELECTION. Material: Natural rubber.

Suitable for pipettes Ø 6–8 mm.

- With removal safety valve
- Evacuation via automatic valve
- Aspiration and draining using two working points
- Interior cleaning possible



Version	Suitable for	Colour	Art. No.	Pack Qty.	€
manually	Graduated/volumetric pipettes 10-100 ml	red	**C261.1**	1 unit(s)	12,60
manually	Graduated/volumetric pipettes 10-100 ml	yellow	**C262.1**	1 unit(s)	12,60
manually	Graduated/volumetric pipettes 10-100 ml	green	**C263.1**	1 unit(s)	12,60
manually	Graduated/volumetric pipettes 10-100 ml	blue	**C264.1**	1 unit(s)	12,60

Set

Sorted by colour: red, yellow, green, blue.

Version	Suitable for	Colour	Art. No.	Pack Qty.	€
manually	Graduated/volumetric pipettes 10-100 ml	assorted colours	**ETY6.1**	4 unit(s)	47,25

Manual pipetting aids

Pipetting bulb Howorka



ROTH SELECTION. Material: Natural rubber.

Manual pipette controller for Pasteur, graduated and volumetric pipettes for all common pipe diameters. Resistant to the effects of acids, bases, oils and solvents in the short term.

- Easy to operate with a special opening for an immediate sealing effect
- No additional valves or disruptive air cushions
- Almost no limit to the suction volume with multiple repetitions of the suction process
- After suction via the meniscus, the bulb is lifted and the pointer indicates the calibration mark
- Easy to clean
- Individual parts are autoclavable

Applications:

- Pipetting aqueous media, organic solvents and viscous substances
- Filling narrow-necked burettes
- Filling, emptying and cleaning separating columns
- Filling and emptying capillaries
- Filtering through filter tubes

Version	Vol. (ml)	Suitable for	Art. No.	Pack Qty.	€
manually	20	Graduated/volumetric pipettes up to 20 ml	**KKK6.1**	1 unit(s)	25,70
manually	50	Graduated/volumetric pipettes up to 50 ml	**KKK7.1**	1 unit(s)	30,00

Pipette bulb

ROTH SELECTION. Material: PVC.



Version	Vol. (ml)	Suitable for	Ball Ø (mm)	Ø Hole (mm)	Art. No.	Pack Qty.	€
manually	5	Pasteur pipettes, graduated/volumetric pipettes up to 5 ml	25	6	**C260.1**	5 unit(s)	22,50
manually	7.5	Graduated/volumetric pipettes up to 5 ml	30	6	**H616.1**	5 unit(s)	28,15
manually	20	Graduated/volumetric pipettes up to 10 ml	42	6	**H617.1**	5 unit(s)	30,55
manually	30	Graduated/volumetric pipettes up to 25 ml	48	6	**H618.1**	5 unit(s)	40,80
manually	85	Graduated/volumetric pipettes up to 50 ml	62	6	**H619.1**	2 unit(s)	18,80
manually	140	Graduated/volumetric pipettes 10-100 ml	72	6	**H620.1**	2 unit(s)	25,70
manually	220	Graduated/volumetric pipettes 20-200 ml	84	6	**H621.1**	2 unit(s)	32,10
manually	340	Graduated/volumetric pipettes 20-200 ml	94	6	**H622.1**	1 unit(s)	19,70

Manual pipetting aids

Pipette bulb

ROTH SELECTION. Material: Natural rubber.



Nature

Version	Vol. (ml)	Suitable for	Colour	Ø Hole (mm)	Art. No.	Pack Qty.	€
manually	1.8	Pasteur pipettes	natural	5.5	**8404.1**	100 unit(s)	53,25

Red

Version	Vol. (ml)	Suitable for	Colour	Ø Hole (mm)	Art. No.	Pack Qty.	€
manually	5	Graduated/volumetric pipettes up to 5 ml	red	6	**ATN7.1**	5 unit(s)	16,80
manually	10	Graduated/volumetric pipettes up to 10 ml	red	6	**ATN8.1**	3 unit(s)	19,35
manually	2	Pasteur pipettes	red	5	**YX53.1**	100 unit(s)	69,75

Pipette bulb

ROTH SELECTION. Material: Silicone. Autoclavable: Yes.



A 121 °C

Version	Vol. (ml)	Suitable for	Ø Hole (mm)	Art. No.	Pack Qty.	€
manually	1	Pasteur pipettes	5	**C529.1**	10 unit(s)	16,25
manually	2	Pasteur pipettes	6	**C530.1**	5 unit(s)	12,55
manually	5	Graduated/volumetric pipettes up to 5 ml	8	**C531.1**	5 unit(s)	22,35
manually	10	Graduated/volumetric pipettes up to 10 ml	8	**C532.1**	5 unit(s)	36,45

Suction aid

ROTH SELECTION. Material: Silicone. Autoclavable: Yes.

Fatigue-free pipetting thanks to thin wall combined with soft silicone.

- Extra large volume of over 2 ml
- Anti-roll profile
- Oval body for better handling
- Insertion aid for the pipette



A 121 °C

Version	Vol. (ml)	Suitable for	Colour	Art. No.	Pack Qty.	€
Manual	2	Pasteur pipettes	anthracite	**1C9C.1**	100 unit(s)	127,45
Manual	2	Pasteur pipettes	red	**1C9E.1**	100 unit(s)	127,45
Manual	2	Pasteur pipettes	yellow	**1C9H.1**	100 unit(s)	127,45
Manual	2	Pasteur pipettes	blue	**1C9K.1**	100 unit(s)	127,45
Manual	2	Pasteur pipettes	turquoise	**1C9L.1**	100 unit(s)	127,45
Manual	2	Pasteur pipettes	pink	**1C9N.1**	100 unit(s)	127,45

Manual pipetting aids

Pipette bulb

Saint-Gobain. Material: Natural rubber.



Version	Vol. (ml)	Suitable for	Colour	Art. No.	Pack Qty.	€
manually	1	Pasteur pipettes	grey	**1C6N.1**	10 unit(s)	29,55
manually	2	Pasteur pipettes	grey	**1C6P.1**	10 unit(s)	30,05
manually	5	Graduated/volumetric pipettes up to 5 ml	grey	**1C6T.1**	10 unit(s)	64,55
manually	10	Graduated/volumetric pipettes up to 10 ml	grey	**1C6X.1**	10 unit(s)	69,30
manually	15	Graduated/volumetric pipettes up to 15 ml	grey	**1C6Y.1**	10 unit(s)	104,80

Pipetting aid

ROTH SELECTION. Material: Rubber, PE.

- With 3-point operation
- Can be dismantled for cleaning purposes
- Pull the head part to accelerate the aspiration speed



Version	Suitable for	Art. No.	Pack Qty.	€
manually	Graduated/volumetric pipettes up to 50 ml	**C614.1**	1 unit(s)	32,25

Pipetting aid pi-pump 2500

ROTH SELECTION. Material: Plastic.

Thumbwheel for drawing and dispensing liquid.
Size 2-25 ml with venting lever for quick emptying.



Version	Size	Suitable for	Colour	Art. No.	Pack Qty.	€
manually	25	Graduated/volumetric pipettes up to 25 ml	red	**0387.1**	1 unit(s)	19,80
manually	10	Graduated/volumetric pipettes up to 10 ml	green	**0388.1**	1 unit(s)	17,65
manually	2	Graduated/volumetric pipettes up to 2 ml	blue	**0389.1**	1 unit(s)	17,65
manually	0	Graduated/volumetric pipettes up to 0,2 ml	yellow	**0390.1**	1 unit(s)	17,65

Manual pipetting aids



A 121 °C

Pipetting aid macro

BRAND. Autoclavable: Yes.

- Suction of up to 50 ml in 11 seconds following one-time ventilation
- Single-level operation for sucking and delivering liquid
- Spring-loaded control lever for delicate pipetting
- Blow-Out function
- Drip stop via hydrophobic membrane filter (3 µm)
- Fully autoclavable at 121 °C (2 bar) according to DIN EN 285
- Replaceable valve system

Effortless pipetting: The further up the pipette lever is operated, the faster the pipette is filled. To deliver the liquid, move the pipette lever fully downward. Even when flowing freely, the pipette's volume accuracy is not affected.

Delivery incl. replacement filter.

Version	Suitable for	Colour	Art. No.	Pack Qty.	€
manually	Graduated/ volumetric pipettes 0.1-200 ml	grey	**X478.1**	1 unit(s)	64,65
manually	Graduated/ volumetric pipettes 0.1-200 ml	blue	**X479.1**	1 unit(s)	64,65
manually	Graduated/ volumetric pipettes 0.1-200 ml	magenta	**X480.1**	1 unit(s)	64,65
manually	Graduated/ volumetric pipettes 0.1-200 ml	green	**X482.1**	1 unit(s)	64,65



Pipetting aid ROTILABO®

ROTH SELECTION.

Manual pipette controller for precise and convenient pipetting.

- Ergonomic grip
- With operating lever for liquid intake and delivery
- Blow-Out function for blowing out the pipette
- Pipette holder (made of PP) and silicone adapter, autoclavable
- Dimensions: Length 230 mm, ø 54 mm

Delivery incl. membrane filter to protect against ingress of liquids as well as two additional pipette holders in the colours green and white for colour-coding.

Version	Suitable for	Art. No.	Pack Qty.	€
manually	Graduated/volumetric pipettes 1 to 100 ml, serological pipettes	**HYT0.1**	1 unit(s)	68,00



Pipetting aid ROTILABO® *ergo*

ROTH SELECTION.

Manual pipette controller for precise and convenient pipetting with one hand.

- Ergonomic grip
- With operating lever for liquid intake and delivery
- Blow-Out function for blowing out the pipette
- Pipette holder (made of PP) and silicone adapter, autoclavable
- Dimensions: length 180 mm, width 45 mm, height 120 mm

Delivery incl. membrane filter to protect against liquid penetration.

Version	Suitable for	Art. No.	Pack Qty.	€
manually	Graduated/volumetric pipettes 1 to 50 ml, serological pipettes	**HYT1.1**	1 unit(s)	72,30

Pipetting aids



Pipetting aid pipetus® junior

Hirschmann.

Manual pipetting aid with ergonomic shape. Defined intake of the pipetting medium possible, approx. 2 ml per complete stroke.

- Silicone adapter ensure tight fit of the pipette
- Fine dosing valves
- Weight 115 g

Delivery incl. round filter (PTFE, pore width 0.2 µm, hydrophob).

Version	Suitable for	Art. No.	Pack Qty.	€
manually	Graduated/volumetric pipettes 0.5–100 ml	**L468.1**	1 unit(s)	166,65



Pipetting aid pipetus® standard

Hirschmann.

Electric pipetting aid. Additional safety for special environments through separation of electric pump and handheld unit. Ideally suited for working in explosion-proof areas, with toxic reactants or in clean-room technology.

- Light handheld unit with external pump
- Select the pipetting speed directly at the pump part
- Ergonomic shape for fatigue-free working
- Suitable for EX and blow-out pipettes
- Exact meniscus setting with fine precision-dosing valves, valve pins made of ceramic compound
- Integrated safety check valve

Hose length 150 cm. cable length 140 cm.
Mains connection: 230 V, 50 Hz.

Delivery incl. round filter (PTFE, pore width 0.2 µm, hydrophob), hand part, dual hose and pump with power supply.

Version	Suitable for	Art. No.	Pack Qty.	€
with electric pump	Graduated/volumetric pipettes 0.1-100 ml	**1534.1**	1 unit(s)	326,80

With large-volume filter
With additional large capacity filter on the pump section for sterile work.

Version	Suitable for	Art. No.	Pack Qty.	€
with electric pump	Graduated/volumetric pipettes 0.1-100 ml	**B010.1**	1 unit(s)	367,65



Battery-powered pipette controller pipetus®

Hirschmann.

- Press a button to take up and discharge the medium
- Integrated colour display for visual checking of all functions
- Display of set pipetting speed (5 levels are selectable)
- Pre-selected pipetting mode (EX or Blow-Out)
- Exact meniscus setting with fine precision-dosing valves, valve pins made of ceramic compound
- Continuous pipetting for up to 1 week
- Permanent battery capacity display
- Charge via charging station or charger, overcharge protection
- Silicone adapter ensures absolute tight fit for all pipettes
- Integrated safety check valve
- Hydrophobic PTFE membrane filter, pore width 0,2 µm
- Pipette holder, sterilisable (excl. PTFE filter) at 121 °C
- Weight 200 g

Delivery incl. 2 round filters (PTFE, pore width 0.2 µm, hydrophob), 1 safety valve, socket charger and inductive charging station.

Version	Suitable for	Art. No.	Pack Qty.	€
battery-operated	Graduated/volumetric pipettes 0.1–200 ml	**N472.1**	1 unit(s)	542,90



Battery-powered pipette controller ROTILABO®

ROTH SELECTION.

Pipette holder made of PP, autoclavable. Replaceable PTFE membrane filter prevents contaminations.

- Ergonomically shaped housing for fatigue-free working
- UV-resistant housing material
- 2 pipetting speeds (High or Low Speed)
- Gravity mode, for non-motorised fluid drainage
- 20 h continuous duty, can be used while charging is in progress
- LED-based low battery indicator
- User friendly thanks to concave shaped finger pads
- With labelling space on the side
- Five coloured pipette holders for distinguishing between apparatus
- Additional pipette adapter for low pipetting volumes
- Weight approx. 200 g
- 5 years warranty

Delivery incl. power supply (100–240 V, 50/60 Hz), Li-Ion battery, 1 replacement membrane filters (PTFE 0.45 µm), 5 pipette holder, silicon adapter, stand, wall holder.

Version	Suitable for	Art. No.	Pack Qty.	€
Battery operated	Graduated/volumetric pipettes 1–100 ml	**TC16.1**	1 unit(s)	284,90

Battery-powered pipette controller accu-jet® S



NEW / +

BRAND.

Easy and precise pipetting of large and small volumes: With just one hand you have sensitive control of the pipetting speed, from fast, powerful absorption with exact meniscus configuration to precise discharge of even small volumes. Thanks to precise control, the exact volume required will always be achieved, even when using graduated and volumetric pipettes made of glass/plastic. Without having to move your hand, the motor speed can be regulated between particularly powerful and particularly sensitive operation and to switch between free flow (with "EX"-calibrated pipettes) or rapid blowing of the liquid with motor power.

- Precise volume adjustment thanks to accurate control
- Integrated parking position for rear storage with attached pipette
- Continuously-adjustable control of the pipetting speed
- Fast: 25 ml pipette filled in 3 s at max. motor speed
- 8 hours of continuous pipetting without recharging (with 10 ml pipette)
- Pipetting is possible during the loading cycle
- Two-tone battery charge indicator, intelligent battery charging electronics
- Ergonomic handle and balanced weight distribution
- Robust design, straightforward maintenance and repair
- Protection against ingress of liquid through the membrane filter and additional safety valve
- Valve system directs liquid vapour straight out of the device, reduces risk of corrosion

Note about sustainability:

The packaging is made from more than 90% recycled material. Production uses electricity from renewable sources.

With mains adapter

Delivery incl. universal mains adapter (100-240 V/50-60 Hz), nickel-metal hydride battery, wall bracket and 2 replacement membrane filters 0.2 µm, sterile.

Version	Suitable for	Colour	Art. No.	Pack Qty.	€
Battery-powered	Graduated/volumetric pipettes 0.1-200 ml, serological pipettes	berry	**1LH0.1**	1 unit(s)	527,85
Battery-powered	Graduated/volumetric pipettes 0.1-200 ml, serological pipettes	petrol	**1LH1.1**	1 unit(s)	527,85
Battery-powered	Graduated/volumetric pipettes 0.1-200 ml, serological pipettes	amethyst	**1LH2.1**	1 unit(s)	527,85
Battery-powered	Graduated/volumetric pipettes 0.1-200 ml, serological pipettes	anthracite	**1LH3.1**	1 unit(s)	527,85

Without mains adapter

Delivery without universal mains adapter, incl. nickel-metal hydride battery, wall bracket and 2 replacement membrane filters 0.2 µm, sterile.

Version	Suitable for	Colour	Art. No.	Pack Qty.	€
Battery-powered	Graduated/volumetric pipettes 0.1-200 ml, serological pipettes	berry	**1LH4.1**	1 unit(s)	495,60
Battery-powered	Graduated/volumetric pipettes 0.1-200 ml, serological pipettes	petrol	**1LH5.1**	1 unit(s)	495,60
Battery-powered	Graduated/volumetric pipettes 0.1-200 ml, serological pipettes	amethyst	**1LH6.1**	1 unit(s)	495,60
Battery-powered	Graduated/volumetric pipettes 0.1-200 ml, serological pipettes	anthracite	**1LH7.1**	1 unit(s)	495,60

Pipette accessories



Pipette rinsing system ROTILABO®

Kartell. Material: HDPE.

For gentle cleaning of pipettes according to the siphon principle. A complete rinsing system consist of a rinser unit and/or cleaning container as well as the pipette basket in each case.

Please order all individual elements separately.

(1) Rinser
With drain siphon for an automatic water exchange. Suitable for use with pipette baskets.

Delivery without hose.

Suitable for	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Pipette length 460 mm	170	735	**Y810.1**	1 unit(s)	186,00
Pipette length 600 mm	170	990	**Y809.1**	1 unit(s)	192,45

(2) Cleaning container
For pre-cleaning the pipettes or burettes with cleaning agent.

Suitable for	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Pipette length 460 mm	162	505	**Y812.1**	1 unit(s)	88,15
Pipette length 600 mm	162	650	**Y811.1**	1 unit(s)	92,25

(3) Pipette basket
For immersing the pipettes into the cleaning container and/or rinser and for transporting the pipettes. Basket height 300 mm.
Optionally available: extension piece to extend the pipette basket Y813.1 from 650 to 870 mm.

Suitable for	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Pipette length 460 mm	145	500	**Y814.1**	1 unit(s)	43,45
Pipette length 600 mm	145	650	**Y813.1**	1 unit(s)	47,15



Pipette cleaning container

ROTH SELECTION. Material: LDPE.

For gentle cleaning of volumetric and graduated pipettes. Versatile, also suitable for storing and wetting pipettes.

(1) Cleaning cylinder
Leakproof pipette cylinder. Secure standing through wide foot.

Suitable for	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Cleaning basket CXT0.1	152	460	**CXP8.1**	1 unit(s)	138,70
Cleaning basket CXT1.1	152	610	**CXP9.1**	1 unit(s)	145,15

(2) Cleaning basket
Pipette basket with boreholes for draining. Inner foam padding prevents damage to pipettes.

Suitable for	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Pipette length 460 mm	102	580	**CXT0.1**	1 unit(s)	181,70
Pipette length 610 mm	102	810	**CXT1.1**	1 unit(s)	201,05



A 121 °C

Pipette stands

Kartell. Material: PP. Autoclavable: Yes.

16 slots: For 8 pipettes up to Ø 8 mm and 8 pipettes up to Ø 16 mm. Small boreholes in the bottom part allow liquid to drain off.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
200	75	150	**HX82.1**	1 unit(s)	16,35

Pipette accessories



Pipette stands

Kartell. Material: PP.

Top part (pipette support)
28 slots: For 18 pipettes up to Ø 10 mm and 10 pipettes up to Ø 15 mm. Small boreholes in the bottom layer allow the liquid to drain off. Can also be used without foot.

Delivery without foot.

Ø (mm)	Art. No.	Pack Qty.	€
175	**HX80.1**	1 unit(s)	30,05

Foot
With rod made of PVC. For flexible height adjustment of the top part.

Delivery without top part (pipette support).

Ø (mm)	Art. No.	Pack Qty.	€
230	**HX81.1**	1 unit(s)	18,95



Pipette stands ROTILABO®

ROTH SELECTION.

Rotatable. With 94 openings of varying diameter for graduation and volumetric pipettes of different sizes (Ø max. 13 mm). With reinforced foot and additional, rotatable support plate to preserve the pipette tips.

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
230	470	**7364.1**	1 unit(s)	71,35



Pipette stands pipettor combi rack

ROTH SELECTION. Material: ABS.

For storage of measuring pipettes and disposable pipettes below the sterile bench or exhaust hood.

- Inclined storage of pipettes for safe storage
- Straight lid, usable as additional work surface
- Racks can be combined horizontally or vertically
- Magnets on both sides for mounting the racks to metal walls

Delivery incl. three pipette racks in complementing blue tones.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
301	100	127.5	**NA53.1**	1 set	98,30



Pipette stands ROTILABO® pipettor rack

ROTH SELECTION.

Rack with 4 tiers to accommodate measuring pipettes.

ABS
Material: ABS. With brackets on both side for pipetting aids and pipetting balls.

Colour	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
red	291	88	401	**CX90.1**	1 unit(s)	121,50
blue	291	88	401	**CX89.1**	1 unit(s)	121,50

Acrylic
Material: PMMA.

Colour	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
translucent	291	88	401	**CX88.1**	1 unit(s)	189,20

Dispenser pipettes



Dispenser pipette HandyStep®

BRAND.

Electronic multi-dispenser with touch operation.

- Touch operation with intuitive menu navigation and integrated assistance
- Variable volume adjustment between 1.0 µl and 50 ml
- Automatic size recognition for BRAND PD-Tips//
- Button for automatic tip ejection to avoid contamination
- Compatible with dispenser tips from other manufacturers
- Inductive charging, quick charging via a USB-C port
- One fully charged battery provides many hours of continuous operation
- Long service life thanks to high-quality materials
- Smooth surfaces make cleaning/disinfecting easy
- Languages: German, English, Spanish, French and Chinese

Standard modes: Multi-dispensing, auto dispensing, pipetting and favourites.

Not a medical device / Not an IVD product

(1) Touch

Delivery incl. Li-battery, universal mains adapter (for Europe, UK, USA, Japan, Australia, New Zealand), USB type C cable, wall/shelf holder, standard PD-Tips // (each PD-Tip in sizes 0.5 ml, 1.25 ml, 2.5 ml, 5 ml and 12.5 ml), instructions for use and quality certificate.

Version	Art. No.	Pack Qty.	€
HandyStep® touch	**KHL2.1**	1 unit(s)	961,05

(1) Touch Set

Delivery incl. charging stand, Li-battery, universal mains adapter (for Europe, UK, USA, Japan, Australia, New Zealand), USB type C cable, wall/shelf holder, standard PD-Tips // (each PD-Tip in sizes 0.5 ml, 1.25 ml, 2.5 ml, 5 ml and 12.5 ml), instructions for use and quality certificate.

Version	Art. No.	Pack Qty.	€
HandyStep® touch incl. charging stand	**1CCY.1**	1 unit(s)	1.062,10

(2) Touch S

Additional functions: Sequential dispensing, multi-aspiration and titration.

Delivery incl. Li-battery, universal mains adapter (for Europe, UK, USA, Japan, Australia, New Zealand), USB type C cable, wall/shelf holder, standard PD-Tips // (each PD-Tip in sizes 0.5 ml, 1.25 ml, 2.5 ml, 5 ml and 12.5 ml), instructions for use and quality certificate.

Version	Art. No.	Pack Qty.	€
HandyStep® touch S	**KHL3.1**	1 unit(s)	1.207,25

(2) Touch S Set

Additional functions: Sequential dispensing, multi-aspiration and titration.

Delivery incl. charging stand, Li-battery, universal mains adapter (for Europe, UK, USA, Japan, Australia, New Zealand), USB type C cable, wall/shelf holder, standard PD-Tips//(each PD-Tip in sizes 0.5 ml, 1.25 ml, 2.5 ml, 5 ml and 12.5 ml), instructions for use and quality certificate.

Version	Art. No.	Pack Qty.	€
HandyStep® touch S incl. charging stand	**1CE0.1**	1 unit(s)	1.333,00



Dispenser pipette HandyStep® S

BRAND.

Manual multi-dispenser for fast, repetitive dispensing of liquids. PD-Tips allow volumes of between 2 µl and 5 ml to be dispensed in up to 49 increments in a single filling without refilling. HandyStep® S and PD-Tips work according to the positive displacement principle. High viscosity, high density and high vapour pressure liquid media can be dispensed with extremely high precision. Direct displacement allows contamination-free operation since no aerosols are formed.

- Ergonomic design
- Stroke length setting wheel with nine positions
- Easy tip attachment - the PD-Tips are inserted straight from below
- Safe tip removal at the touch of a button - no need to touch the dispenser tips
- Easy-to-read display, no battery required
- Innovative plastics provide increased resistance to chemicals
- For use with PD-Tips, Combitips®, Combitips® plus, Ritips®, Repet-Tips, Encode™-Tips and other compatible tips
- Operating temperature range: 15 to 40 °C
- Maintenance-free, factory-calibrated
- Includes a quality certificate
- DE-M approved

Technical specifications:

PD-Tip size (ml)	Volume range (µl)	Correctness ≤ ±% Stroke setting = % of nominal volume			Variation coefficient ≤% Stroke setting = % of nominal volume		
		1 = 2%	3 = 6%	5 = 10%	1 = 2%	3 = 6%	5 = 10%
0.1	2 – 10	4.0	2.4	1.6	6.0	3.0	2.0
0.5	10 – 50	2.5	1.5	1.0	2.5	1.5	1.0
1.0	20 – 100	2.5	1.5	1.0	2.0	1.2	0.8
1.25	25 – 125	2.5	1.4	0.9	2.0	1.1	0.7
2.5	50 – 250	1.8	1.1	0.7	1.5	0.9	0.6
5.0	100 – 500	1.8	1.1	0.7	1.5	0.9	0.7
10.0	200 – 1000	1.8	1.1	0.7	2.0	1.2	0.8
12.5	250 – 1250	1.8	1.1	0.8	3.2	2.0	1.4
25	500 – 2500	1.5	0.9	0.6	3.0	1.5	1.0
50	1000 – 5000	1.5	0.8	0.5	5.0	1.8	1.2

HandyStep S precision table® in combination with PD-Tips. Error limits refer to the set dispensing volume according to PD-Tip size, with the device, tip, environment and distilled water at a uniform temperature (20 °C) and with smooth operation. This test is performed according to DIN EN ISO 8655-5. The nominal volume is the maximum volume printed on the PD-Tip.

Delivery incl. shelf/rack mount and three PD-Tips: 0.1, 1 and 10 ml.

Not a medical device / Not an IVD product

Version	Designation	Art. No.	Pack Qty.	€
Manual	HandyStep® S	**EH21.1**	1 unit(s)	268,75

Dispenser pipettes



Dispenser tips PD-Tips //

BRAND. Material: PP (Cylinder), HDPE piston.

Precision tips with patented type encoding.

- Compatible with different dispensing systems
- Compatible with automatic size recognition: HandyStep® touch, HandyStep® electronic, Gilson® Repetman®, Rainin AutoRep™ E
- Compatible without automatic size recognition: HandyStep® S, HandyStep®, Rainin AutoRep™ S, Rainin AutoRep™ M, Eppendorf®, Multipette® 4780 and EDOS® 5221
- Meets the requirements of ISO 8655

Stroke setting	1	1.5	2	2.5	3	3.5	4	4.5	5
Number of steps	49	32	24	19	15	13	11	10	9
PD-Tips (ml)	**Dispensing volume (µl)**								
0.1	2	3	4	5	6	7	8	9	10
0.5	10	15	20	25	30	35	40	45	50
1	20	30	40	50	60	70	80	90	100
1.25	25	37.5	50	62.5	75	87.5	100	112.5	125
2.5	50	75	100	125	150	175	200	225	250
5	100	150	200	250	300	350	400	450	500
10	200	300	400	500	600	700	800	900	1000
12.5	250	375	500	625	750	875	1000	1125	1250
25	500	750	1000	1250	1500	1750	2000	2250	2500
50	1000	1500	2000	2500	3000	3500	4000	4500	5000

Volume table in combination with Brand HandyStep® S. The dispensing volumes may vary when using other devices. Using electronic multi-dispensers (e.g. HandyStep® Touch) provides greater variability.

Delivery incl. adapter (volumes of 25 and 50 ml only) and batch certificate.

Not a medical device / Not an IVD product

BIO-CERT®
Sterile.

- DNA-/RNase-/ATP- and endotoxin-free

Volume (ml)	Dispensing volume (µl)	Pack.	Art. No.	Pack Qty.	€
0.1	2-10	individually	**KHL9.1**	100 unit(s)	209,65
0.5	10-50	individually	**KHN0.1**	100 unit(s)	183,85
1	20-100	individually	**KHN1.1**	100 unit(s)	183,85
1.25	25-125	individually	**KHN2.1**	100 unit(s)	183,85
2.5	50-250	individually	**KHN3.1**	100 unit(s)	183,85
5	100-500	individually	**KHN4.1**	100 unit(s)	183,85
10	200-1000	individually	**KHN5.1**	100 unit(s)	183,85
12.5	250-1250	individually	**KHN6.1**	100 unit(s)	183,85
25	500-2500	individually	**KHN7.1**	25 unit(s)	54,65
50	1000-5000	individually	**KHN8.1**	25 unit(s)	57,55

Standard
Non-sterile.

Volume (ml)	Dispensing volume (µl)	Pack.	Art. No.	Pack Qty.	€
0.1	2-10	loose	**KHN9.1**	100 unit(s)	98,75
0.5	10-50	loose	**KHP0.1**	100 unit(s)	87,85
1	20-100	loose	**KHP1.1**	100 unit(s)	87,85
1.25	25-125	loose	**KHP2.1**	100 unit(s)	87,85
2.5	50-250	loose	**KHP3.1**	100 unit(s)	87,85
5	100-500	loose	**KHP4.1**	100 unit(s)	87,85
10	200-1000	loose	**KHP5.1**	100 unit(s)	87,85
12.5	250-1250	loose	**KHP6.1**	100 unit(s)	87,85
25	500-2500	loose	**KHP7.1**	50 unit(s)	60,80
50	1000-5000	loose	**KHP8.1**	25 unit(s)	33,65

Set
Non-sterile. 20 PD-Tips for each of the following sizes: 0.5 ml, 1 ml, 1.25 ml, 2.5 ml, 5 ml, 10 ml and 12.5 ml.

Version	Art. No.	Pack Qty.	€
PD-Tip set	**KHP9.1**	1 set	123,20



Dispenser tips Ritips® evolution

ROTH SELECTION.

Universal dispenser tips, suitable for many common dispenser pipettes such as Ripette®, Ripette® pro, HandyStep® S, HandyStep® electronic, Multipette® M4 (without activated display), Multipette® stream, Multipette® plus, Multipette® 4780, Repetman®, Biohit eLine™, Minilab 100/101, STEPMATE Handrop.

Not a medical device / Not an IVD product

Standard
Non-sterile.

Volume (ml)	Dispensing volume (µl)	Pack.	Art. No.	Pack Qty.	€
0.1	2-10	loose	**KKA3.1**	100 unit(s)	109,45
0.2	4-20	loose	**KKA4.1**	100 unit(s)	109,45
0.5	10-50	loose	**KKA5.1**	100 unit(s)	109,45
1	20-100	loose	**KKA6.1**	100 unit(s)	109,45
2.5	50-250	loose	**KKA7.1**	100 unit(s)	109,45
5	100-500	loose	**KKA8.1**	100 unit(s)	109,45
10	200-1000	loose	**KKA9.1**	100 unit(s)	109,45
25	500-2500	loose	**KKC0.1**	25 unit(s)	32,75
50	1000-5000	loose	**KKC1.1**	25 unit(s)	32,15

Bioclean®
Sterile. DNA-/RNase-/ATP-free, pyrogen-free.

Volume (ml)	Dispensing volume (µl)	Pack.	Art. No.	Pack Qty.	€
0.1	2-10	individually	**KKC2.1**	100 unit(s)	186,00
0.2	4-20	individually	**KKC3.1**	100 unit(s)	186,00
0.5	10-50	individually	**KKC4.1**	100 unit(s)	186,00
1	20-100	individually	**KKC5.1**	100 unit(s)	186,00
2.5	50-250	individually	**KKC6.1**	100 unit(s)	186,00
5	100-500	individually	**KKC7.1**	100 unit(s)	186,00
10	200-1000	individually	**KKC8.1**	100 unit(s)	186,00
25	500-2500	individually	**KKC9.1**	25 unit(s)	56,45
50	1000-5000	individually	**KKE0.1**	25 unit(s)	60,05

Dispenser pipettes



Dispenser tips Ritips®

Ritter.

Classic dispenser tips, suitable for Ripette®, Ripette® pro, HandyStep®, Distriman®, Multipette® 4780 dispenser pipettes, and other compatible dosing systems. In compliance with ISO 8655.

Control wheel	1	2	3	4	5		
Number of steps	48	23	15	11	8		
Tip (ml)	**Dispensing volume (µl)**					**Non accuracy**	**Non precision**
0,05	1	2	3	4	5	±2,5 %	≤5 %
0,5	10	20	30	40	50	±0,8 %	≤0,7 %
1,25	25	50	75	100	125	±0,8 %	≤0,5 %
2,5	50	100	150	200	250	±0,8 %	≤0,4 %
5,0	100	200	300	400	500	±0,4 %	≤0,3 %
12,5	250	500	750	1000	1250	±0,3 %	≤0,3 %
25,0	500	1000	1500	2000	2500	±0,2 %	≤0,3 %
50,0	1000	2000	3000	4000	5000	±0,2 %	≤0,2 %

Not a medical device / Not an IVD product

Standard
Non-sterile. For optimum results, use Art. No. H679.1 in combination with 10 µl pipette tips only.

Volume (ml)	Dispensing volume	Pack.	Art. No.	Pack Qty.	€
0.05	1-5 µl	loose	**H679.1**	100 unit(s)	130,45
0.5	10-50	loose	**H680.1**	100 unit(s)	92,70
1.25	25-125	loose	**H681.1**	100 unit(s)	92,70
2.5	50-250	loose	**H682.1**	100 unit(s)	92,70
5	100-500	loose	**H683.1**	100 unit(s)	92,70
12.5	250-1250	loose	**H684.1**	100 unit(s)	92,70
25	500-2500	loose	**H685.2**	25 unit(s)	31,20
50	1000-5000	loose	**H686.2**	25 unit(s)	31,20

Bioclean®
Sterile.

- DNA/RNase/ATP-free and pyrogen-free

Volume (ml)	Dispensing volume (µl)	Pack.	Art. No.	Pack Qty.	€
0.5	10-50	individually	**H688.1**	100 unit(s)	157,65
1.25	25-125	individually	**H689.1**	100 unit(s)	157,65
2.5	50-250	individually	**H690.1**	100 unit(s)	157,65
5	100-500	individually	**H691.1**	100 unit(s)	157,65
12.5	250-1250	individually	**H692.1**	100 unit(s)	157,65
25	500-2500	individually	**H693.2**	25 unit(s)	52,70
50	1000-5000	individually	**H694.2**	25 unit(s)	52,70



Dispenser pipette Ripette®

Ritter.

Adjustable piston pipettor for serial pipetting in the voume range from 1 µl to 5 ml, without refilling, with up to 48 dispensing settings. Tested according to DIN EN ISO 8655, with Certificate of Conformity. Easy to operate setting device cuts down on fatigue during long-term use. Light, robust construction, ergonomic design.

Technical specifications:

Program	1	2	3	4	5
Number of steps	48	23	15	11	8
Tip size (ml)	**Dispensing volume (µl)**				
0,05	1	2	3	4	5
0,10	2	4	6	8	10
0,20	4	8	12	16	20
0,50	10	20	30	40	50
1,00	20	40	60	80	100
1,25	25	50	75	100	125
2,50	50	100	150	200	250
5,00	100	200	300	400	500
10,00	200	400	600	800	1000
12,50	250	500	750	1000	1250
25,00	500	1000	1500	2000	2500
50,00	1000	2000	3000	4000	5000

Delivery incl. adapter for 50 ml dispenser tips.

Not a medical device / Not an IVD product

Version	Colour	Art. No.	Pack Qty.	€
manual	red	**H768.1**	1 unit(s)	278,45
manual	violet	**HLK5.1**	1 unit(s)	278,45
manual	blue	**HLK6.1**	1 unit(s)	278,45
manual	grey	**HLK7.1**	1 unit(s)	278,45

Dispenser pipettes



Dispenser pipette Ripette® pro

Ritter.

Manual series dispenser with sight glass for easy tip selection and setting the dispensing volume.

- Stroke setting wheel with 10 positions
- 10 program numbers and 12 tip sizes give you a choice of 120 different setting options
- Straightforward display of stroke setting and dispensing volume in sight glass
- Anatomical design, easy-action dispensing button, low weight
- Good chemical resistance
- Suitable for Ritips®, PD-Tips, Combitips®, Combitips® plus
- Includes a quality certificate
- Conformity certified, with serial number

Technical specifications:

Program	1	2	3	4	5	6	7	8	9	10
Number of steps	48	31	23	18	15	11	10	9	8	7
Tip size (ml)	**Dispensing volume (µl)**									
0,05	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5
0,10	2	3	4	5	6	7	8	9	10	11
0,20	4	6	8	10	12	14	16	18	20	22
0,50	10	15	20	25	30	35	40	45	50	55
1,00	20	30	40	50	60	70	80	90	100	110
1,25	25	37,5	50	62,5	75	87,5	100	112,5	125	137,5
2,50	50	75	100	125	150	175	200	225	250	275
5,00	100	150	200	250	300	350	400	450	500	550
10,00	200	300	400	500	600	700	800	900	1000	1100
12,50	250	375	500	625	750	875	1000	1125	1250	1375
25,00	500	750	1000	1250	1500	1750	2000	2250	2500	2750
50,00	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500

Delivery incl. adapter for 50 ml dispenser tips.

Not a medical device / Not an IVD product

Version	Designation	Art. No.	Pack Qty.	€
manual	Ripette® pro	**YK24.1**	1 unit(s)	335,40



Dispenser pipette Stepper™ 416

Socorex.

Compact and reliable repeater pipette for precise serial dispensing in the volume range from 10 µl to 5 ml.

- Four-finger activation function eliminates thumb fatigue
- Dose range: 53 volumes from 10 to 5000 µl
- 3 different tip sizes, colour-coded
- Up to 73 doses per filling
- Enables fast work rates, up to 2 doses per second
- Stop mechanism: Self-locking mechanism prevents false delivery
- Individually calibrated with test certificate

A separate adjustable head of matching colour is available for each tip size; it displays the dosing volume and number for a filled tip. An automatic locking mechanism prevents dosing errors once the remaining liquid in the dispenser tip is no longer sufficient for complete dosing.

Not a medical device / Not an IVD product

Version	Designation	Art. No.	Pack Qty.	€
manual	Stepper™ 416	**6952.1**	1 unit(s)	374,10

A 121 °C

Dispenser tips Ecostep™ for Stepper™ 416

Socorex. Non-sterile. Autoclavable: Yes.

Material: PP. Colour-coded.

Not a medical device / Not an IVD product

Volume (ml)	Graduation	Dispensing volume	Art. No.	Pack Qty.	€
0.75	5	10–100 µl	**6953.1**	100 unit(s)	141,30
3.75	25	50–500 µl	**6969.1**	100 unit(s)	159,10
37.5	250	500–5000 µl	**6987.1**	100 unit(s)	190,30

Dispenser pipettes



121 °C

Dispenser pipette Acura® 865

Socorex. Autoclavable: Yes.

Manual dispensing pipette for serial dosing in microlitre range.

- Three-way valve allows continuous dosing
- Low weight and ergonomic design for fatigue-free working
- Easy to operate function keys
- Gentle piston stroke activation
- Large volume display window
- Rotatable valve unit
- Liquid can be supplied by hose, syringe or, optionally, bottle EP91.1
- Simple calibration system
- With individual serial number and control certificate

Volume (µl)	Graduation (µl)	Non accuracy (%)	Non precision (%)
5–50	0,1	5 µl <±5,0	5 µl <±2,0
		50 µl <±1,5	50 µl <±0,4
20–200	0,2	20 µl <±2,5	20 µl <±1,5
		200 µl <±1,0	200 µl <±0,3
100–1000	1	100 µl <±1,5	100 µl <±0,6
		1000 µl <±0,6	1000 µl <±0,2

Delivery incl. silicone hose, single-channel dosing cannula made of stainless steel, valve cap for drawing-off liquid from a disposable syringe.

Not a medical device / Not an IVD product

Version	Volume (µl)	Graduation (µl)	Art. No.	Pack Qty.	€
manual	5 to 50	0,1	**EP88.1**	1 unit(s)	489,15
manual	2 to 200	0,2	**EP89.1**	1 unit(s)	448,30
manual	100 to 1000	1,0	**EP90.1**	1 unit(s)	419,25

Accessories for Acura® 865

Socorex.

Not a medical device / Not an IVD product

Bottle, Luer fitting, PP, 30 ml
For sucking up from the bottle

Designation	Art. No.	Pack Qty.	€
Bottle made of PP, Luer fitting, 30 ml	**EP91.1**	1 unit(s)	50,85

8-channel stainless steel cannula, Luer-Lock
Other accessories

Designation	Art. No.	Pack Qty.	€
8-channel cannula made of stainless steel with Luer-Lock fitting	**EP92.1**	1 unit(s)	188,15



121 °C

Single-channel microlitre pipette Acura® *manual* 810 for dilutions

Socorex. Autoclavable: Yes.

Stem pipette for 1:10 dilutions
Air displacement pipette with two pre-calibrated fixed volumes in one piston stroke allows sequential delivery of 1 and 0.1 ml of the same liquid. For more flexibility, the volumes can be used either individually or in combination for dilutions.
The metal cone provides a perfect seat for long PP stem tips, ideal for taking samples from narrow vessels Stomacher®- bags and other blending bags. The Acura® manual 810 is an ideal alternative to conventional graduated pipettes for serial 1:10 dilutions in bacteriology.

Properties:

- Two pre-calibrated fixed volumes – no adjustment necessary
- The two volumes 1 and 0.1 ml can be calibrated separately
- Easy performance of all functions
- Excellent ergonomics, lightweight
- Metal shaft allows the use of long stem tips
- Justip™ system to adjust the height of the tip ejector
- Simple, efficient ejection of stem tips
- Replaceable PE protective filter

Technical specifications:

Volume: 100 µl:

- Inaccuracy (E %): <±2,0
- Imprecision (CV %): <±2,5

Volume: 1000 µl:

- Inaccuracy (E %): <±0,5
- Imprecision (CV %): <±0,4

The values were achieved with distilled water at a constant (±0.5 °C) ambient temperature between 20 and 25 °C, in accordance with. EN ISO 8655.

In vitro diagnostic medical device according to IVDD

Version	Volume (µl)	Art. No.	Pack Qty.	€
Single-channel, fixed volume	100 / 1000	**HK00.1**	1 unit(s)	622,45

Accessories for Acura® 810

Socorex.

Not a medical device / Not an IVD product

Stem tips
Sterile.

Designation	Pack.	Art. No.	Pack Qty.	€
Stem tips made of PP L 190 mm, Ø inner 4 mm	40 x 25	**HK01.2**	1,000 unit(s)	93,05

Protective filter

Designation	Art. No.	Pack Qty.	€
Protection filter made of PE for protection against penetration of liquid	**HK02.1**	100 unit(s)	69,45

Direct displacement pipettes

Positive displacement pipette digital Transferpettor

BRAND.

Piston pipettes for difficult media
For foaming media (e.g. tenside solutions), high-vapour-pressure media (e.g. alcohols, ether, hydrocarbons), viscous media and high-density media (e.g. concentrated protein solutions, oils, resins, fats, glycerine, mercury, sulphuric acid).



Unlike air displacement pipettes, the piston of the positive displacement pipette is in direct contact with the liquid to be pipetted. This principle always provides precise reproducible results, regardless of the pipetting speed and the ambient conditions. Capillaries and tips can be reused, since the minimal residual wetting is negligible for most applications. Where carry-over is not permitted, such as with infectious or radioactive media, air displacement pipettes with disposable tips should be used. With DE-M marking and quality certificate.

Applications:

- Media with densities up to 13.6 g/cm³
- Viscosity up to 140,000 mm²/s (depending on size of apparatus)
- Vapour pressure up to 500 mbar
- Working temperature range 15 to 40 °C

Technical specifications:

Art. No.	NA87.1	NA88.1	NA89.1	NA90.1	NA91.1	NA92.1	NA93.1	NA94.1
Correctness	10 µl ≤1,0 %	25 µl ≤0,8 %	50 µl ≤0,6 %	100 µl ≤0,6 %	500 µl ≤0,5 %	1000 µl ≤0,5 %	5000 µl ≤0,5 %	10000 µl ≤0,5 %
Variation coefficient	10 µl ≤0,8 %	25 µl ≤0,5 %	50 µl ≤0,4 %	100 µl ≤0,4 %	500 µl ≤0,2 %	1000 µl ≤0,2 %	5000 µl ≤0,2 %	10000 µl ≤0,2 %

Not a medical device / Not an IVD product

Volume (µl)	Graduation	Colour coding	Art. No.	Pack Qty.	€
2.5 to 10	0,01	orange	**NA87.1**	1 unit(s)	420,35
5 to 25	0,1	white/white	**NA88.1**	1 unit(s)	420,35
10 to 50	0,1	green	**NA89.1**	1 unit(s)	420,35
20 to 100	0,1	blue	**NA90.1**	1 unit(s)	420,35
100 to 500	1,0	green	**NA91.1**	1 unit(s)	420,35
200 to 1000	1,0	yellow	**NA92.1**	1 unit(s)	420,35
1000 to 5000	10,0	red	**NA93.1**	1 unit(s)	420,35
2000 to 10000	10,0	orange	**NA94.1**	1 unit(s)	420,35

Accessories for digital Transferpettor

BRAND.

Not a medical device / Not an IVD product

Caps

Pic.	Materialspecification	Suitable for	Colour coding	Art. No.	Pack Qty.	€
(1)	Glass	Volume: 1, 2, 5 µl	white	**NA95.1**	100 unit(s)	39,75
(1)	Glass	Volume: 10 µl	orange	**NA96.1**	100 unit(s)	39,75
(1)	Glass	Volume: 20 µl	black	**NA97.1**	100 unit(s)	39,75
(1)	Glass	Volume: 25 µl	white/white	**NA98.1**	100 unit(s)	39,75
(1)	Glass	Volume: 50 µl	green	**NA99.1**	100 unit(s)	39,75
(1)	Glass	Volume: 100, 200 µl	blue/red	**PA00.1**	50 unit(s)	21,30
(2)	PP	Volume: 100–500 µl	green	**PA01.1**	10 unit(s)	35,45
(2)	PP	Volume: 200–1000 µl	yellow	**PA02.1**	10 unit(s)	35,45
(2)	PP	Volume: 1000–5000 µl	red	**PA03.1**	10 unit(s)	35,45
(2)	PP	Volume: 2000–10,000 µl	orange	**PA04.1**	10 unit(s)	35,45

Seals

Pic.	Materialspecification	Suitable for	Art. No.	Pack Qty.	€
(3)	PTFE	Volume: 20, 25 µl	**PA05.1**	3 unit(s)	21,45
(3)	PTFE	Volume: 50 µl	**PA06.1**	3 unit(s)	21,45
(3)	PTFE	Volume: 100, 200 µl	**PA07.1**	3 unit(s)	21,45
(4)	PE	Volume: 100–500 µl	**PA08.1**	10 unit(s)	26,90
(4)	PE	Volume: 200–1000 µl	**PA09.1**	10 unit(s)	26,90
(4)	PE	Volume: 1000–5000 µl	**PA10.1**	10 unit(s)	26,90
(4)	PE	Volume: 2000–10,000 µl	**PA11.1**	10 unit(s)	26,90

Direct displacement pipettes

Positive displacement pipette MICROMAN® E



Gilson.

Positive displacement system without air cushion between sample and piston prevents contamination as well as aerosol formation and produces precise and reproducible pipetting results. Caps fit straight out of the box, pistons and capillaries lock into place automatically ("QuickSnap system").
Conformity certified to DIN EN ISO 8655 with test protocol.
CE/IVD marking.

For problematic media, e.g.:

- Viscous media, e.g. oils, glycerol, gel loading buffer
- Media with a high vapour pressure (acetone, hexane or other solvents)
- Sterile media
- PCR/qPCR preparations
- Radioactive media
- Cold/warm solutions

Advantages:

- QuickSnap system for easy handling
- Volume lock for safe pipetting
- Ergonomically designed and comfortable handle
- Lightweight and narrow CP tips for narrow vessels

Technical specifications:

Art. No.	CTT1.1	CTT2.1	CTT3.1	CTT4.1	CTT5.1	CTT6.1
Correctness	10 µl ≤1,5 %	25 µl ≤1,2 %	50 µl ≤1,4 %	100 µl ≤1 %	250 µl ≤1 %	1000 µl ≤0,8 %
Variation coefficient	10 µl ≤0,6 %	25 µl ≤0,4 %	50 µl ≤0,6 %	100 µl ≤0,4 %	250 µl ≤0,2 %	1000 µl ≤0,4 %

Not a medical device / Not an IVD product

Type	Volume (µl)	Art. No.	Pack Qty.	€
M10E	1 to 10	**CTT1.1**	1 unit(s)	345,10
M25E	3 to 25	**CTT2.1**	1 unit(s)	345,10
M50E	20 to 50	**CTT3.1**	1 unit(s)	345,10
M100E	10 to 100	**CTT4.1**	1 unit(s)	345,10
M250E	50 to 250	**CTT5.1**	1 unit(s)	345,10
M1000E	100 to 1000	**CTT6.1**	1 unit(s)	345,10

Accessories CP tips for positive displacement pipettes MICROMAN® E

Gilson. Material: PP, Polyester, type CP100/CP100ST and CP250/CP250ST made of PP and PE.

Capillary piston tips, suitable for Gilson MICROMAN® and MICROMAN® E.

Not a medical device / Not an IVD product

Standard
Non-sterile.

Type	Volume (µl)	Suitable for	Pack.	Art. No.	Pack Qty.	€
CP10	1 to 10	M10E	Rack (2 x 96)	**CTT7.1**	192 unit(s)	88,15
CP25	3 to 25	M25E	Bag	**CTT9.1**	200 unit(s)	80,65
CP25	3 to 25	M25E	Rack (10 x 96)	**CTX0.1**	960 unit(s)	413,90
CP100	10 to 100	M100E	Rack (2 x 96)	**CTX5.1**	192 unit(s)	88,15
CP50	20 to 50	M50E	Bag	**CTX2.1**	200 unit(s)	80,65
CP50	20 to 50	M50E	Rack (10 x 96)	**CTX3.1**	960 unit(s)	413,90
CP250	50 to 250	M250E	Bag	**CTX7.1**	200 unit(s)	80,65
CP250	50 to 250	M250E	Rack (10 x 96)	**CTX8.1**	960 unit(s)	413,90
CP1000	100 to 1000	M1000E	Rack (2 x 91)	**CTY0.1**	182 unit(s)	88,15

Sterile
Sterile. Free of detectable DNA, RNA, DNase, RNase, ATP and pyrogens.

Type	Volume (µl)	Suitable for	Pack.	Art. No.	Pack Qty.	€
CP10ST	1 to 10	M10E	Rack (2 x 96)	**CTT8.1**	192 unit(s)	105,35
CP25ST	3 to 25	M25E	Rack (6 x 96)	**CTX1.1**	576 unit(s)	308,55
CP100ST	10 to 100	M100E	Rack (2 x 96)	**CTX6.1**	192 unit(s)	105,35
CP50ST	20 to 50	M50E	Rack (6 x 96)	**CTX4.1**	576 unit(s)	308,55
CP250ST	50 to 250	M250E	Rack (6 x 96)	**CTX9.1**	576 unit(s)	308,55
CP1000ST	100 to 1000	M1000E	Rack (2 x 91)	**CTY1.1**	182 unit(s)	105,35

Microlitre pipettes, ROTH

Single-channel microlitre pipette ROTILABO®

ROTH SELECTION. Autoclavable: Yes.

Robust quality pipettes with variable volume for routine work and demanding applications.

- Ergonomic finger support for comfortable handling and single-hand operation
- Separate tip eject button
- Central, large pipettor button for even plunger movement
- Separate volume adjustment, for left- and right-handed users
- Easy-to-read display
- Integrated calibration function for easy adjustment without tools
- Corrosion-resistant plunger and ejector
- Slim shaft
- Fully autoclavable at 121 °C (2 bar) according to DIN EN 285
- A filter for protection of the pipettes is optional with volumes of 5 ml and higher. Please order separately



A 121 °C

Technical specifications:

Art. No.	TA21.1	TA22.1	TA23.1	TA24.1	TA25.1	TA26.1	TA27.1
Volume	0.5 to 10 µl	2 to 20 µl	10 to 100 µl	20 to 200 µl	100 to 1000 µl	500 to 5000 µl	1000 to 10000 µl
Nominal volume	10 µl	20 µl	100 µl	200 µl	1,000 µl	5,000 µl	10,000 µl
Correctness	±1,0 %	±0,8 %	±0,6 %				
Variation coefficient	±0,5 %	±0,4 %	±0,2 %				

Calibrated to ‚Ex'. Margins of error refer to the nominal volume (= max. volume) printed on the device, assuming that the device, ambient air and distilled water are at the same temperature (20 °C), and that the instrument is operated evenly and smoothly. Margins of error are within the limits specified in DIN EN ISO 8655-2.

Not a medical device / Not an IVD product

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Single-channel, variable	0.5 to 10	0,01	20	**TA21.1**	1 unit(s)	309,60
Single-channel, variable	2 to 20	0,02	200	**TA22.1**	1 unit(s)	285,95
Single-channel, variable	10 to 100	0,1	200/300	**TA23.1**	1 unit(s)	285,95
Single-channel, variable	20 to 200	0,2	200/300	**TA24.1**	1 unit(s)	285,95
Single-channel, variable	100 to 1000	1	1000	**TA25.1**	1 unit(s)	285,95
Single-channel, variable	500 to 5000	5	5000	**TA26.1**	1 unit(s)	309,60
Single-channel, variable	1000 to 10000	10	10000	**TA27.1**	1 unit(s)	309,60

ROTH SELECTION



Discover additional current NEW PRODUCTS and SPECIAL OFFERS in our overall product portfolio ... **www.carlroth.com**

- Extensive product range
- Best quality
- Top price-performance ratio
- High-quality top brands
- Proven ROTH SELECTION products for reliable results

Microlitre pipettes, BRAND

Single-channel microlitre pipette Transferpette® S

BRAND. Autoclavable: Yes.

Manual plunger pipettes for demanding applications.

- In any position: Comfortable one-handed operation
- For every hand: Ergonomic design
- Short lifting distance and low operational forces
- Universal tip attachment cone
- Thinner shaft for drawing liquids from narrow vessels
- Fully autoclavable at 121 °C
- DE-M approved



A 121 °C

Delivery incl. quality certificate and shelf-holder, labelling foils and silicone grease.

In vitro diagnostic medical device according to IVDD

Variable

- Secure: Volume lock prevents any accidental adjustments
- Colour code on the volume adjustment wheel, shaft and volume lock
- Can be easily adjusted without the need for tools thanks to Easy Calibration technology

Technical specifications:

Art. No.	KLY3.1	KLY5.1	KLY6.1	KLY7.1	KLY8.1	KLY9.1	KNA0.1	KNA1.1	KNA2.1	KLY4.1
Volume	0.1 to 1 µl	0.5 to 10 µl	2 to 20 µl	5 to 50 µl	10 to 100 µl	20 to 200 µl	100 to 1000 µl	500 to 5000 µl	1000 to 10000 µl	0.1 to 2.5 µl
Correctness	1 µl ≤± 2,0 %	10 µl ≤±1,0 %	20 µl ≤± 0,8 %	50 µl ≤±0,8 %	100 µl ≤±0,6 %	200 µl ≤±0,6 %	1000 µl ≤±0,6 %	5000 µl ≤±0,6 %	10000 µl ≤±0,6 %	2,5 µl ≤±1 ,4 %
Variation coefficient	1µl ≤1,2 %	10 µl ≤0,5 %	20 µl ≤0,4 %	50 µl ≤0,3 %	100 µl ≤0,2 %	200 µl ≤0,2 %	1000 µl ≤0,2 %	5000 µl ≤0,2 %	10000 µl ≤0,2 %	2,5 µl ≤0,7 %

Type	Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
D-1	Single-channel, variable	0.1 to 1	0,001	20	**KLY3.1**	1 unit(s)	294,15
D-2.5	Single-channel, variable	0.1 to 2.5	0,002	20	**KLY4.1**	1 unit(s)	294,15
D-10	Single-channel, variable	0.5 to 10	0,01	20	**KLY5.1**	1 unit(s)	294,15
D-20	Single-channel, variable	2 to 20	0,02	200	**KLY6.1**	1 unit(s)	279,95
D-50	Single-channel, variable	5 to 50	0,05	200	**KLY7.1**	1 unit(s)	279,95
D-100	Single-channel, variable	10 to 100	0,1	200	**KLY8.1**	1 unit(s)	279,95
D-200	Single-channel, variable	20 to 200	0,2	200	**KLY9.1**	1 unit(s)	279,95
D-1000	Single-channel, variable	100 to 1000	1	1000/1250	**KNA0.1**	1 unit(s)	279,95
D-5000	Single-channel, variable	500 to 5000	5	5000	**KNA1.1**	1 unit(s)	294,15
D-10000	Single-channel, variable	1000 to 10000	10	10000	**KNA2.1**	1 unit(s)	294,15

Fixed volume

Technical specifications:

Art. No.	KNA3.1	KNA4.1	KNA5.1	KNA6.1	KNA7.1	KNA8.1	KNA9.1	KNC0.1	KNC1.1
Volume	10 µl	20 µl	25 µl	50 µl	100 µl	200 µl	500 µl	1000 µl	2000 µl
Correctness	≤±1,0 %	≤±0,8 %			≤±0,6 %				≤±0,8 %
Variation coefficient	≤0,5 %	≤0,4 %			≤0,2 %				≤0,3 %

Type	Version	Volume (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
F-10	Single-channel, fixed volume	10	20	**KNA3.1**	1 unit(s)	177,75
F-20	Single-channel, fixed volume	20	200	**KNA4.1**	1 unit(s)	177,75
F-25	Single-channel, fixed volume	25	200	**KNA5.1**	1 unit(s)	177,75
F-50	Single-channel, fixed volume	50	200	**KNA6.1**	1 unit(s)	177,75
F-100	Single-channel, fixed volume	100	200	**KNA7.1**	1 unit(s)	177,75
F-200	Single-channel, fixed volume	200	200	**KNA8.1**	1 unit(s)	177,75
F-500	Single-channel, fixed volume	500	1000	**KNA9.1**	1 unit(s)	177,75
F-1000	Single-channel, fixed volume	1000	1000	**KNC0.1**	1 unit(s)	177,75
F-2000	Single-channel, fixed volume	2000	5000	**KNC1.1**	1 unit(s)	177,75

Multi-channel microlitre pipette Transferpette® S



BRAND. Autoclavable: Yes.

Manual plunger pipettes for demanding applications.

- In any position: Comfortable one-handed operation
- For every hand: Ergonomic design
- Short lifting distance and low operational forces
- Universal tip attachment cone
- Four-digit volume display for maximum accuracy, always clearly visible
- Featuring Easy Calibration technology for adjustment without tools
- Secure: Volume lock prevents any accidental adjustments
- Easy to attach and eject the tips thanks to O-rings
- With freely rotatable pipetting unit (360°)
- Fully autoclavable at 121 °C
- DE-M approved

A 121 °C

Delivery incl. quality certificate, 1 x shelf holder, 1 x reagent reservoir, assembly key, labelling foils, silicone grease and 1 x set of shaft seals.

In vitro diagnostic medical device according to IVDD

8-channel

Technical specifications:

Art. No.	KNC2.1	KNC3.1	KNC4.1	KNC5.1	KNC6.1
Volume	0.5 to 10 µl	5 to 50 µl	10 to 100 µl	20 to 200 µl	30 to 300 µl
Correctness	10 µl ≤±1,6 %	50 µl ≤±0,8 %	100 µl ≤±0,8 %	200 µl ≤±0,8 %	300 µl ≤±0,6 %
Variation coefficient	10 µl ≤1,0 %	20 µl ≤0,4 %	100 µl ≤0,3 %	200 µl ≤0,3 %	300 µl ≤0,3 %

Type	Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
M8-10	Multi-channel	0.5 to 10	0,01	20	**KNC2.1**	1 unit(s)	739,60
M8-50	Multi-channel	5 to 50	0,05	200	**KNC3.1**	1 unit(s)	739,60
M8-100	Multi-channel	10 to 100	0,1	200	**KNC4.1**	1 unit(s)	739,60
M8-200	Multi-channel	20 to 200	0,2	200	**KNC5.1**	1 unit(s)	739,60
M8-300	Multi-channel	30 to 300	0,5	300	**KNC6.1**	1 unit(s)	739,60

12-channel

Technical specifications:

Art. No.	KNC7.1	KNC8.1	KNC9.1	KNE0.1	KNE1.1
Volume	0.5 to 10 µl	5 to 50 µl	10 to 100 µl	20 to 200 µl	30 to 300 µl
Correctness	10 µl ≤±1,6 %	50 µl ≤±0,8 %	100 µl ≤±0,8 %	200 µl ≤±0,8 %	300 µl ≤±0,6 %
Variation coefficient	10 µl ≤1,0 %	20 µl ≤0,4 %	100 µl ≤0,3 %	200 µl ≤0,3 %	300 µl ≤0,3 %

Type	Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
M12-10	Multi-channel	0.5 to 10	0,01	20	**KNC7.1**	1 unit(s)	847,10
M12-50	Multi-channel	5 to 50	0,05	200	**KNC8.1**	1 unit(s)	847,10
M12-100	Multi-channel	10 to 100	0,1	200	**KNC9.1**	1 unit(s)	847,10
M12-200	Multi-channel	20 to 200	0,2	200	**KNE0.1**	1 unit(s)	847,10
M12-300	Multi-channel	30 to 300	0,5	300	**KNE1.1**	1 unit(s)	847,10

Microlitre pipettes, BRAND

Single-channel microlitre pipette set Transferpette® S

BRAND.



In vitro diagnostic medical device according to IVDD

Micro starter kit

Delivery incl. three Transferpette® S pipettes, variable and three shelf holders.

Version	Capacity	Art. No.	Pack Qty.	€
Starter kit	0,1-2,5 µl, 0,5-10 µl, 10-100 µl	**KNE2.1**	1 unit(s)	800,90

Standard starter kit

Delivery incl. three Transferpette® S pipettes, variable and three shelf holders.

Version	Capacity	Art. No.	Pack Qty.	€
Starter kit	0,5-10 µl, 10-100 µl, 100-1000 µl	**KNE3.1**	1 unit(s)	797,65

Midi starter kit

Delivery incl. three Transferpette® S pipettes, variable and three shelf holders.

Version	Capacity	Art. No.	Pack Qty.	€
Starter kit	2-20 µl, 20-200 µl, 100-1000 µl	**KNE4.1**	1 unit(s)	797,65

Macro starter kit

Delivery incl. three Transferpette® S pipettes, variable and three shelf holders.

Version	Capacity	Art. No.	Pack Qty.	€
Starter kit	100-1000 µl, 500-5000 µl, 1000-10000 µl	**KNE5.1**	1 unit(s)	800,90

Pipette packs 1

Delivery incl. five Transferpette® S pipettes and table stands for six devices.

Version	Capacity	Art. No.	Pack Qty.	€
Starter kit	0,1-2,5 µl, 0,5-10 µl, 2-20 µl, 20-200 µl, 100-1000 µl	**KNE6.1**	1 unit(s)	1.328,70

Pipette packs 2

Delivery incl. five Transferpette® S pipettes and table stands for six devices.

Version	Capacity	Art. No.	Pack Qty.	€
Starter kit	0,5-10 µl, 10-100 µl, 20-200 µl, 100-1000 µl, 500-5000 µl	**KNE7.1**	1 unit(s)	1.328,70

Microlitre pipettes, BRAND

Single-channel microlitre pipette Transferpette® electronic



BRAND.

Microprocessor-controlled plunger pipette.

- Ergonomic design makes working easier
- Height-adjustable finger support to optimise the positioning of your hand for the function keys
- Five functions:
  Pipetting, mixing, reverse pipetting, dispensing, gel electrophoresis mode
- High pipetting speed
- Eight hours' continuous pipetting possible
- Ready for use during charging cycle
- Refresh mode to increase the battery life
- Slim pipette shaft allows pipetting into even the narrowest vessels
- Easy Calibration function for adjustment without tools
- Fully autoclavable pipette shaft
- DE-M approved
- Includes a quality certificate

In vitro diagnostic medical device according to IVDD

With mains adapter

Technical specifications:

Art. No.	CH82.1	AA39.1	AA40.1	AA41.1	CH83.1
Volume	0.5 to 10 µl	2 to 20 µl	10 to 200 µl	50 to 1000 µl	250 to 5000 µl
Nominal volume	10 µl	20 µl	200 µl	1,000 µl	5,000 µl
Correctness	±1,0 %		±0,8 %	±0,6 %	
Variation coefficient	±0,4 %		±0,2 %		

Delivery incl. mains adapter (110–240 V/50–60 Hz).

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Single-channel, electronic	0.5 to 10	0,01	10/20	**CH82.1**	1 unit(s)	438,60
Single-channel, electronic	2 to 20	0,02	20	**AA39.1**	1 unit(s)	438,60
Single-channel, electronic	10 to 200	0,2	200/300	**AA40.1**	1 unit(s)	438,60
Single-channel, electronic	50 to 1000	1,0	1000/1250	**AA41.1**	1 unit(s)	438,60
Single-channel, electronic	250 to 5000	5,0	5000	**CH83.1**	1 unit(s)	438,60

Without mains adapter

Technical specifications:

Art. No.	CH84.1	AA42.1	AA43.1	AA44.1	CH85.1
Volume	0.5 to 10 µl	2 to 20 µl	10 to 200 µl	50 to 1000 µl	250 to 5000 µl
Nominal volume	10 µl	20 µl	200 µl	1,000 µl	5,000 µl
Correctness	±1,0 µl	±1,0 %	±0,8 %	±0,6 %	±0,6 µl
Variation coefficient	±0,4 %		±0,2 %		

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Single-channel, electronic	0.5 to 10	0,01	10/20	**CH84.1**	1 unit(s)	416,05
Single-channel, electronic	2 to 20	0,02	20	**AA42.1**	1 unit(s)	416,05
Single-channel, electronic	10 to 200	0,2	200/300	**AA43.1**	1 unit(s)	416,05
Single-channel, electronic	50 to 1000	1,0	1000/1250	**AA44.1**	1 unit(s)	416,05
Single-channel, electronic	250 to 5000	5,0	5000	**CH85.1**	1 unit(s)	416,05

Microlitre pipettes, BRAND

Multi-channel microlitre pipette Transferpette® electronic



BRAND.

Microprocessor-controlled plunger pipette.

- Ergonomic design makes working easier
- Height-adjustable finger support to optimise the positioning of your hand for the function keys
- Five functions:
  Pipetting, mixing, reverse pipetting, dispensing, gel electrophoresis mode
- High pipetting speed
- Eight hours' continuous pipetting possible
- Ready for use during charging cycle
- Refresh mode to increase the battery life
- Easy Calibration function for adjustment without tools
- Fully autoclavable pipette shaft
- DE-M approved
- Includes a quality certificate

Delivery incl. mains adapter (110–240 V/50–60 Hz).

In vitro diagnostic medical device according to IVDD

8-channel

Technical specifications:

Art. No.	CNL2.1	CNL3.1	CNL4.1	CNL5.1	CNL6.1
Volume	0.5 to 10 µl	1 to 20 µl	5 to 100 µl	10 to 200 µl	15 to 300 µl
Nominal volume	10 µl	20 µl	100 µl	200 µl	300 µl
Correctness	±1,2 %	±1,0 %	±0,8 %		±0,6 %
Variation coefficient	±0,8 %	±0,5 %	±0,25 %		

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Multi-channel, electronic	0.5 to 10	0,01	10/20	**CNL2.1**	1 unit(s)	922,35
Multi-channel, electronic	1 to 20	0,02	10/20	**CNL3.1**	1 unit(s)	922,35
Multi-channel, electronic	5 to 100	0,1	200/300	**CNL4.1**	1 unit(s)	922,35
Multi-channel, electronic	10 to 200	0,2	200/300	**CNL5.1**	1 unit(s)	922,35
Multi-channel, electronic	15 to 300	0,5	200/300	**CNL6.1**	1 unit(s)	922,35

12-channel

Technical specifications:

Art. No.	CNL7.1	CNL8.1	CNL9.1	CNN0.1	CNN1.1
Volume	0.5 to 10 µl	1 to 20 µl	5 to 100 µl	10 to 200 µl	15 to 300 µl
Nominal volume	10 µl	20 µl	100 µl	200 µl	300 µl
Correctness	±1,2 %	±1,0 %	±0,8 %		±0,6 %
Variation coefficient	±0,8 %	±0,5 %	±0,25 %		

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Multi-channel, electronic	0.5 to 10	0,01	10/20	**CNL7.1**	1 unit(s)	1.065,35
Multi-channel, electronic	1 to 20	0,02	10/20	**CNL8.1**	1 unit(s)	1.065,35
Multi-channel, electronic	5 to 100	0,1	200/300	**CNL9.1**	1 unit(s)	1.065,35
Multi-channel, electronic	10 to 200	0,2	200/300	**CNN0.1**	1 unit(s)	1.065,35
Multi-channel, electronic	15 to 300	0,5	200/300	**CNN1.1**	1 unit(s)	1.065,35

Microlitre pipettes, Gilson

Single-channel microlitre pipette Pipetman® G



Gilson.

Adjustable air-cushion plunger pipette offering one of the lowest pipetting forces on the market. Low effort for ejecting tips thanks to the metal clip ejector. (TP74.1 and TP75.1 without chip ejector.)
These pipette models are noted for their robustness, accuracy, ease of maintenance and long service life.

- Easy dismantling and maintenance
- Despite the low pipetting force, the initial pressure point is easy to feel during pipetting
- P5000G and P10 ml G pipettes come with a protective filter which protects the plunger and prevents contamination
- Conformity certified according to DIN EN ISO 8655 with test protocol

Technical specifications:

Art. No.	TP68.1	TP69.1	TP70.1	TP71.1	TP72.1	TP73.1	TP74.1	TP75.1
Volume	0.2 to 2 µl	1 to 10 µl	2 to 20 µl	10 to 100 µl	20 to 200 µl	100 to 1000 µl	1000 to 5000 µl	1000 to 10000 µl
Nominal volume	2 µl	10 µl	20 µl	100 µl	200 µl	1,000 µl	5,000 µl	10,000 µl
Correctness	±1,5 %	±1 %		±0,8 %			±0,6 %	
Variation coefficient	±0,7 %	±0,4 %	±0,3 %	±0,15 %			±0,16 %	

Not a medical device / Not an IVD product

Type	Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
P2G	Single-channel, variable	0.2 to 2	0,002	10	**TP68.1**	1 unit(s)	305,30
P10G	Single-channel, variable	1 to 10	0,02	10	**TP69.1**	1 unit(s)	305,30
P20G	Single-channel, variable	2 to 20	0,02	200	**TP70.1**	1 unit(s)	305,30
P100G	Single-channel, variable	10 to 100	0,2	200	**TP71.1**	1 unit(s)	305,30
P200G	Single-channel, variable	20 to 200	0,2	200	**TP72.1**	1 unit(s)	305,30
P1000G	Single-channel, variable	100 to 1000	2,0	1000	**TP73.1**	1 unit(s)	305,30
P5000G	Single-channel, variable	1000 to 5000	2,0	5000	**TP74.1**	1 unit(s)	305,30
P10mLG	Single-channel, variable	1000 to 10000	20,0	10000	**TP75.1**	1 unit(s)	305,30

Single-channel microlitre pipette set Pipetman® G



Gilson.

Delivery incl. three Pipetman® microlitre pipettes G, two filled boxes with pipette tips, three single-pipette holders, and three plastic ejectors.

Not a medical device / Not an IVD product

Type	Version	Volume range (µl)	Capacity	Art. No.	Pack Qty.	€
Starter kit G	Starter kit	2-20 / 20-200 / 100-1000	P20G, P200G, P1000G	**TP76.1**	1 unit(s)	827,75
Starter kit G micro volume	Starter kit	0,2-2 / 1-10 / 10-100	P2G, P10G, P100G	**TP77.1**	1 unit(s)	827,75

Microlitre pipettes, Gilson

Single-channel microlitre pipette Pipetman® L

Gilson. Autoclavable: Yes.

Lightweight and safe yet robust quality pipette.
Pipette with improved pipetting strength, increases the performance without sacrificing on comfort.

- Patented Lock/Unlock System for safe pipetting
- The set volume is locked during the first pipetting operation
- Easy release of the volume adjustment lock
- Ergonomic handle
- Adjustable tip ejector for left- and right-handed users
- Plastic tip ejectors (TT03.1 and TT04.1 without tip ejector)
- 2D identification code
- Fully autoclavable



A 121 °C

Technical specifications:

Art. No.	TP97.1	TP98.1	TP99.1	TT00.1	TT01.1	TT02.1	TT03.1	TT04.1
Volume	0.2 to 2 µl	1 to 10 µl	2 to 20 µl	10 to 100 µl	20 to 200 µl	100 to 1000 µl	500 to 5000 µl	1000 to 10000 µl
Nominal volume	2 µl	10 µl	20 µl	100 µl	200 µl	1,000 µl	5,000 µl	10,000 µl
Correctness	±1,5 %	±1 %		±0,8 %			±0,6 %	
Variation coefficient	±0,7 %	±0,4 %	±0,3 %	±0,15 %			±0,16 %	

Not a medical device / Not an IVD product

Type	Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
P2L	Single-channel, variable	0.2 to 2	0,002	10	**TP97.1**	1 unit(s)	340,80
P10L	Single-channel, variable	1 to 10	0,02	10	**TP98.1**	1 unit(s)	340,80
P20L	Single-channel, variable	2 to 20	0,02	200	**TP99.1**	1 unit(s)	340,80
P100L	Single-channel, variable	10 to 100	0,2	200	**TT00.1**	1 unit(s)	340,80
P200L	Single-channel, variable	20 to 200	0,2	200	**TT01.1**	1 unit(s)	340,80
P1000L	Single-channel, variable	100 to 1000	2,0	1000	**TT02.1**	1 unit(s)	340,80
P5000L	Single-channel, variable	500 to 5000	2,0	5000	**TT03.1**	1 unit(s)	340,80
P10mL L	Single-channel, variable	1000 to 10000	20,0	10000	**TT04.1**	1 unit(s)	340,80

Single-channel microlitre pipette set Pipetman® L

Gilson.



Not a medical device / Not an IVD product

Delivery incl. three Pipetman® microlitre pipettes L, two filled boxes with pipette tips and three pipette holders.

Version	Volume range (µl)	Capacity	Art. No.	Pack Qty.	€
Starter kit	2-20 / 50-200 / 100-1000	P20L, P200L, P1000L	**CTY2.1**	1 unit(s)	980,40
Starter kit	0,2-2 / 0,5-10 / 10-100	P2L, P10L, P100L	**CTY3.1**	1 unit(s)	980,40

Microlitre pipettes, Socorex

Single-channel microlitre pipette Acura® *manual* XS 826



A 121 °C

Socorex. Autoclavable: Yes.

- Outstanding ergonomic profile
- Easy to operate function keys
- Extremely gentle pipetting action, easier on the hands
- Separate, large tip eject button, easy tip ejection
- Narrow pipette shaft
- Reduced shaft length allows optimised instrument guidance
- Conical shaft end for easy access to reaction vials
- Justip™ tip adjustment system allows exact calibration of the shaft height
- Reduced weight (to 83 from 88 g)
- Innovative calibration system (Swift-Set)
- Tamper-proof seal label for protection of the calibrator
- Individual serial number and inspection certificate
- Fully autoclavable

Technical specifications:

Art. No.	TX47.1	TX48.1	TX49.1	TX50.1	TX51.1	TX52.1	TX53.1	TX54.1
Volume	0.1 to 2 µl	0.5 to 10 µl	1 to 10 µl	2 to 20 µl	5 to 50 µl	10 to 100 µl	20 to 200 µl	100 to 1000 µl
Nominal volume	2 µl	10 µl		20 µl	50 µl	100 µl	200 µl	1,000 µl
Correctness	±2 %	±1 %				±0,8 %		±0,5 %
Variation coefficient	±1,5 %	±0,5 %	±0,7 %	±0,5 %	±0,4 %	±0,2 %		

In vitro diagnostic medical device according to IVDD

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Single-channel, variable	0.1 to 2	0,002	10	**TX47.1**	1 unit(s)	369,80
Single-channel, variable	0.5 to 10	0,01	10	**TX48.1**	1 unit(s)	369,80
Single-channel, variable	1 to 10	0,01	200	**TX49.1**	1 unit(s)	369,80
Single-channel, variable	2 to 20	0,02	200	**TX50.1**	1 unit(s)	369,80
Single-channel, variable	5 to 50	0,1	200	**TX51.1**	1 unit(s)	369,80
Single-channel, variable	10 to 100	0,1	200	**TX52.1**	1 unit(s)	369,80
Single-channel, variable	20 to 200	0,2	200	**TX53.1**	1 unit(s)	369,80
Single-channel, variable	100 to 1000	1,0	1000	**TX54.1**	1 unit(s)	369,80

Single-channel microlitre pipette set Acura® *manual* XS 826 TwiXS pack

Socorex.

Delivery incl. two Acura® *manual* single-channel microlitre pipettes XS, shelf holder for two pipettes and inspection certificate.

In vitro diagnostic medical device according to IVDD

Type	Version	Volume range (µl)	Art. No.	Pack Qty.	€
TwiXS E	Starter kit	0,1-2 / 2-20	**TX55.1**	1 set	642,85
TwiXS G	Starter kit	0,5-10 / 10-100	**TX56.1**	1 set	642,85
TwiXS H	Starter kit	2-20 / 20-200	**TX57.1**	1 set	623,50
TwiXS K	Starter kit	5-50 / 20-200	**TX58.1**	1 set	623,50
TwiXS N	Starter kit	10-100 / 100-1000	**TX59.1**	1 set	623,50
TwiXS Q	Starter kit	20-200 / 100-1000	**TX60.1**	1 set	623,50

Microlitre pipettes, Socorex

Single-channel microlitre pipette Acura® *manual*

Socorex. Autoclavable: Yes.

- Easy to operate function keys
- Extremely gentle plunger activation
- Separate, large tip eject button
- Gentle tip ejection
- Narrow pipette shaft
- Justip™ tip adjustment system allows exact calibration of the shaft height
- Low weight
- Innovative, rapid calibration system with integrated key
- Individual serial number and inspection certificate
- Fully autoclavable



A 121 °C

In vitro diagnostic medical device according to IVDD

Variable

Technical specifications:

Art. No.	AT26.1	AT27.1	AT28.1	AT29.1	AT30.1	AT31.1	AT32.1	AT33.1	AT34.1	AT35.1
Volume	0.1 to 2 µl	0.5 to 10 µl	1 to 10 µl	2 to 20 µl	5 to 50 µl	10 to 100 µl	20 to 200 µl	100 to 1000 µl	500 to 5000 µl	1000 to 10000 µl
Nominal volume	2 µl	10 µl		20 µl	50 µl	100 µl	200 µl	1,000 µl	5,000 µl	10,000 µl
Correctness	±2 %	±1 %				±0,8 %		±0,5 %	±0,7 %	±0,5 %
Variation coefficient	±1,5 %	±0,5 %	±0,7 %	±0,5 %	±0,4 %	±0,2 %			±0,4 %	±0,2 %

Type	Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
825	Single-channel, variable	0.1 to 2	0,002	10	**AT26.1**	1 unit(s)	333,25
825	Single-channel, variable	0.5 to 10	0,01	10	**AT27.1**	1 unit(s)	333,25
825	Single-channel, variable	1 to 10	0,01	200	**AT28.1**	1 unit(s)	311,75
825	Single-channel, variable	2 to 20	0,02	200	**AT29.1**	1 unit(s)	311,75
825	Single-channel, variable	5 to 50	0,1	200	**AT30.1**	1 unit(s)	311,75
825	Single-channel, variable	10 to 100	0,1	200	**AT31.1**	1 unit(s)	311,75
825	Single-channel, variable	20 to 200	0,2	200	**AT32.1**	1 unit(s)	311,75
825	Single-channel, variable	100 to 1000	1,0	1000	**AT33.1**	1 unit(s)	311,75
835	Single-channel, variable	500 to 5000	10,0	5000	**AT34.1**	1 unit(s)	342,95
835	Single-channel, variable	1000 to 10000	10,0	10000	**AT35.1**	1 unit(s)	342,95

Fixed volume

Technical specifications:

Art. No.	AN94.1	AN95.1	AN96.1	AN97.1	AN98.1	AN99.1	AP00.1	AP01.1	AP02.1	AP03.1	AP04.1	AP05.1	AP06.1	AP07.1	AP08.1
Volume	1 µl	5 µl	10 µl	20 µl	25 µl	50 µl	100 µl	200 µl	250 µl	500 µl	1000 µl	2000 µl	2500 µl	5000 µl	10000 µl
Correctness	±2 %	±1,4 %	±0,7 %								±0,6 %	±0,8 %		±0,7 %	±0,5 %
Variation coefficient	±2 %	±1 %	±0,7 %	±0,5 %	±0,6 %	±0,5 %	±0,3 %	±0,4 %		±0,3 %	±0,2 %	±0,5 %		±0,4 %	±0,2 %

Type	Version	Volume (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
815	Single-channel, fixed volume	1	10	**AN94.1**	1 unit(s)	215,00
815	Single-channel, fixed volume	5	10	**AN95.1**	1 unit(s)	215,00
815	Single-channel, fixed volume	10	10	**AN96.1**	1 unit(s)	215,00
815	Single-channel, fixed volume	20	200/300	**AN97.1**	1 unit(s)	215,00
815	Single-channel, fixed volume	25	200/300	**AN98.1**	1 unit(s)	215,00
815	Single-channel, fixed volume	50	200/300	**AN99.1**	1 unit(s)	215,00
815	Single-channel, fixed volume	100	200/300	**AP00.1**	1 unit(s)	215,00
815	Single-channel, fixed volume	200	200/300	**AP01.1**	1 unit(s)	215,00
815	Single-channel, fixed volume	250	1000	**AP02.1**	1 unit(s)	215,00
815	Single-channel, fixed volume	500	1000	**AP03.1**	1 unit(s)	215,00
815	Single-channel, fixed volume	1000	1000	**AP04.1**	1 unit(s)	215,00
835F	Single-channel, fixed volume	2000	2000	**AP05.1**	1 unit(s)	258,00
835F	Single-channel, fixed volume	2500	5000	**AP06.1**	1 unit(s)	258,00
835F	Single-channel, fixed volume	5000	5000	**AP07.1**	1 unit(s)	258,00
835F	Single-channel, fixed volume	10000	10000	**AP08.1**	1 unit(s)	258,00

Microlitre pipettes, Socorex

Single-channel microlitre pipette set Acura® *manual* TrioPack

A 121 °C

Socorex. Autoclavable: Yes.

Delivery incl. 3 Acura® single-channel microlitre pipettes and inspection certificate.

In vitro diagnostic medical device according to IVDD

Type	Version	Volume range (µl)	Art. No.	Pack Qty.	€
Trio C	Starter kit	0,1-2 / 0,5-10 / 5-50	**TY62.1**	1 unit(s)	877,20
Trio J	Starter kit	0,1-2 / 2-20 / 20-200	**TY63.1**	1 unit(s)	860,00
Trio M	Starter kit	1-10 / 5-50 / 20-200	**TY64.1**	1 unit(s)	839,60
Trio O	Starter kit	0,5-10 / 10-100 / 100-1000	**TY65.1**	1 unit(s)	860,00
Trio P	Starter kit	1-10 / 10-100 / 100-1000	**TY66.1**	1 unit(s)	839,60
Trio S	Starter kit	2-20 / 20-200 / 100-1000	**TY67.1**	1 unit(s)	839,60
Trio T	Starter kit	5-50 / 20-200 / 100-1000	**TY68.1**	1 unit(s)	839,60
Trio V	Starter kit	10-100 / 100-1000 / 500-5000	**TY69.1**	1 unit(s)	867,55
Trio Y	Starter kit	100-1000 / 500-5000 / 1000-10000	**TY70.1**	1 unit(s)	896,55

Multi-channel microlitre pipette Acura® *manual*



Socorex. Autoclavable: Yes.

- 360° rotatable housing for maximum comfort while working
- Gradual tip ejection
- Easy to operate function keys
- Extremely gentle plunger activation
- Separate, large tip eject button
- Gentle tip ejection
- Justip™ tip adjustment system allows exact calibration of the shaft height
- Low weight
- Innovative calibration system with integrated key
- Individual serial number and inspection certificate
- Fully autoclavable

A 121 °C

Technical specifications:

Art. No.	AT46.1	AT43.1	AT47.1	AT44.1	AT48.1	AT45.1
Volume	0.5 to 10 µl		5 to 50 µl		40 to 350 µl	
Nominal volume	10 µl		50 µl		350 µl	
Correctness	±1,5 %		±0,8 %			
Variation coefficient	±1 %		±0,4 %		±0,3 %	

In vitro diagnostic medical device according to IVDD

8-channel

Type	Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
855	Multi-channel	0.5 to 10	0,01	10	**AT43.1**	1 unit(s)	854,65
855	Multi-channel	5 to 50	0,1	200/300	**AT44.1**	1 unit(s)	801,95
855	Multi-channel	40 to 350	0,4	350	**AT45.1**	1 unit(s)	801,95

12-channel

Type	Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
855	Multi-channel	0.5 to 10	0,01	10	**AT46.1**	1 unit(s)	984,70
855	Multi-channel	5 to 50	0,1	200/300	**AT47.1**	1 unit(s)	920,20
855	Multi-channel	40 to 350	0,4	350	**AT48.1**	1 unit(s)	920,20

Microlitre pipettes, Sartorius

Single-channel microlitre pipette Proline® Plus variable



Sartorius. Autoclavable: Yes.

For all types of routine laboratory work.
The ergonomic design enables effortless operation and minimises the effort required.

- Robust, yet light and easy to use
- Graduated volume setting, easy-to-read display
- Thermal insulation of internal components for improved accuracy
- Highly resistant to chemicals and UV light
- Compatible with numerous tips
- Long shaft for narrow laboratory vessels
- Easy to clean; no tools required for opening
- Supplied with tools for easy self-calibration
- Suitable for both left-handed and right-handed users
- High level of accuracy and precision according to ISO 8655
- Individual quality certificate
- Replaceable Safe-Cone filters to prevent contamination of the pipette and the sample material (for pipettes from 10 µl). Please order separately.
- Fully autoclavable when Safe-Cone filters are removed

A 121 °C

Technical specifications:

Art. No.	NA71.1	NA72.1	NA73.1	NA74.1	NA75.1	NA76.1	NA77.1	NA78.1
Volume	0.1 to 3 µl	0.5 to 10 µl	2 to 20 µl	10 to 100 µl	20 to 200 µl	100 to 1000 µl	500 to 5000 µl	1000 to 10000 µl
Nominal volume	3 µl	10 µl	20 µl	100 µl	200 µl	1,000 µl	5,000 µl	10,000 µl
Correctness	±1,3 %	±1 %	±0,9 %	±0,8 %	±0,6 %		±0,5 %	±0,6 %
Variation coefficient	±0,8 %	±0,6 %	±0,4 %	±0,15 %		±0,2 %		

Not a medical device / Not an IVD product

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Single-channel, variable	0.1 to 3	0,002	10	**NA71.1**	1 unit(s)	265,00
Single-channel, variable	0.5 to 10	0,01	10	**NA72.1**	1 unit(s)	265,00
Single-channel, variable	2 to 20	0,02	200/300	**NA73.1**	1 unit(s)	265,00
Single-channel, variable	10 to 100	0,1	200/300/350	**NA74.1**	1 unit(s)	265,00
Single-channel, variable	20 to 200	0,2	200/300/350	**NA75.1**	1 unit(s)	265,00
Single-channel, variable	100 to 1000	1,0	1000	**NA76.1**	1 unit(s)	265,00
Single-channel, variable	500 to 5000	10,0	5000	**NA77.1**	1 unit(s)	265,00
Single-channel, variable	1000 to 10000	20,0	10000	**NA78.1**	1 unit(s)	265,00

Multi-channel microlitre pipette Proline® Plus

A 121 °C

Sartorius. Autoclavable: Yes.

For all types of routine laboratory work.
The ergonomic design enables effortless operation and minimises the effort required.

- Robust, yet light and easy to use
- Graduated volume setting, easy-to-read display
- Optiload tip loading mechanism
- Thermal insulation of internal components for improved accuracy
- Highly resistant to chemicals and UV light
- Compatible with numerous tips
- Easy to clean; no tools required for opening
- Supplied with tools for easy self-calibration
- Suitable for both left-handed and right-handed users
- High level of accuracy and precision according to ISO 8655
- Individual quality certificate
- Replaceable Safe-Cone filters to prevent contamination of the pipette and the sample material (for pipettes from 10 µl). Please order separately.
- Fully autoclavable when Safe-Cone filters are removed

Technical specifications:

Art. No.	NA79.1	NA82.1	NA80.1	NA83.1	NA81.1	NA84.1
Volume	0.5 to 10 µl		10 to 100 µl		30 to 300 µl	
Nominal volume	10 µl		100 µl		300 µl	
Correctness	±1,1 %	±1,5 %	±0,7 %		±0,6 %	
Variation coefficient	±1 %		±0,25 %			

Not a medical device / Not an IVD product

Microlitre pipettes, Sartorius

8-channel

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Multi-channel	0.5 to 10	0,01	10	**NA79.1**	1 unit(s)	777,00
Multi-channel	10 to 100	0,1	200/300/350	**NA80.1**	1 unit(s)	777,00
Multi-channel	30 to 300	0,2	300/350	**NA81.1**	1 unit(s)	777,00

12-channel

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Multi-channel	0.5 to 10	0,01	10	**NA82.1**	1 unit(s)	847,00
Multi-channel	10 to 100	0,1	200/300/350	**NA83.1**	1 unit(s)	847,00
Multi-channel	30 to 300	0,2	300/350	**NA84.1**	1 unit(s)	847,00

Single-channel microlitre pipette mLINE® variable



Sartorius. Autoclavable: Yes.

mLINE® single-channel pipettes are extremely light, requiring very little effort for pipetting and tip ejection.

- Ergonomic design allows fatigue-free operation
- Thermal insulation of internal components for improved accuracy
- Easy-to-read display
- Opti-Load tip loading mechanism for easy tip ejection
- Start button enables automatic Safe-Cone filter ejection
- Ergonomic finger support with ID window for individual labelling
- Five different coloured button covers for colour coding
- Conformity certified with test protocol
- Safe-Cone filter to prevent contamination of the pipette and the sample material (for pipettes from 10 µl). Please order separately.
- Fully autoclavable when Safe-Cone filters are removed

A 121 °C

Technical specifications:

Art. No.	KC10.1	AN21.1	AN22.1	AN23.1	AN24.1	AN25.1	AN26.1
Volume	0.1 to 3 µl	0.5 to 10 µl	2 to 20 µl	10 to 100 µl	20 to 200 µl	100 to 1000 µl	500 to 5000 µl
Nominal volume	3 µl	10 µl	20 µl	100 µl	200 µl	1,000 µl	5,000 µl
Correctness	±1,3 %	±1 %	±0,9 %	±0,8 %	±0,6 %		±0,5 %
Variation coefficient	±0,8 %	±0,6 %	±0,4 %	±0,15 %		±0,2 %	±0,15 %

Not a medical device / Not an IVD product

Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
Single-channel, variable	0.1 to 3	0,002	10/20	**KC10.1**	1 unit(s)	374,00
Single-channel, variable	0.5 to 10	0,01	10/20	**AN21.1**	1 unit(s)	374,00
Single-channel, variable	2 to 20	0,02	200/300	**AN22.1**	1 unit(s)	374,00
Single-channel, variable	10 to 100	0,1	200/300	**AN23.1**	1 unit(s)	374,00
Single-channel, variable	20 to 200	0,2	200/300	**AN24.1**	1 unit(s)	374,00
Single-channel, variable	100 to 1000	1,0	1000	**AN25.1**	1 unit(s)	374,00
Single-channel, variable	500 to 5000	10,0	5000	**AN26.1**	1 unit(s)	374,00

Microlitre pipette accessories



Pipette carousel Twister® universal 336

Socorex. Material: PA, PC.

Carousel stand for the most common pipette brands.
360° axial rotation allows easy access to instruments.

Colour	Slots	Art. No.	Pack Qty.	€
red	6	**TX66.1**	1 unit(s)	143,30
blue	6	**TX62.1**	1 unit(s)	143,30
grey	6	**TX65.1**	1 unit(s)	143,30
green	6	**TX63.1**	1 unit(s)	143,30
white	6	**TX67.1**	1 unit(s)	143,30
orange	6	**TX64.1**	1 unit(s)	143,30
yellow	6	**TX68.1**	1 unit(s)	143,30



Pipette stands universal 337

Socorex. Material: PA.

For all common microlitre pipette brands. Space-saving.

Colour	Slots	Width (mm)	Depth (mm)	Art. No.	Pack Qty.	€
ice blue	7	195	140	**T278.1**	1 unit(s)	116,25
light grey	7	195	140	**T277.1**	1 unit(s)	116,25
mint green	7	195	140	**T279.1**	1 unit(s)	116,25
vanilla yellow	7	195	140	**T280.1**	1 unit(s)	116,25



Pipette stands ROTILABO®

ROTH SELECTION. Material: PMMA.

Suitable for all common pipette brands.

- Stable and shatter-proof
- Slot Ø 20 mm

Slots	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	280	80	165	**A804.1**	1 unit(s)	104,15



Pipette carousel

ROTH SELECTION. Material: ABS.

Suitable for all standard models. Holds up to 8 single-channel pipettes or 4 multi-channel pipettes vertically in order to prevent contamination. Customised colour scheme thanks to interchangeable upper sections. Inserts can be removed from the upper level to make space for larger pipettes. Can be cleaned with soap/water and standard laboratory disinfectants.

Delivery incl. white frame, eight single-coloured bases, as well as 2 x 8 coloured tops and a handle. Delivered unassembled.

Colour	Slots	Art. No.	Pack Qty.	€
blue/green	8	**HYP7.1**	1 unit(s)	131,15
violet/colourless	8	**HYP8.1**	1 unit(s)	131,15
colourless/colourful	8	**HYP9.1**	1 unit(s)	131,15



Pipette carousel Flip & Grip™

ROTH SELECTION.

Carousel stand for the most common pipette brands. Holds up to 12 single-channel pipettes (6 on the handle + 6 attached to the pipetting button) or 3 multi-channel plus 3 single-channel pipettes. With heavy base for stability on laboratory benches. Pipette holder can be screwed under a shelf overhead to save storage space.

Colour	Slots	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
blue	6	332	193	**XT82.1**	1 unit(s)	100,50
magenta	6	332	193	**XT84.1**	1 unit(s)	100,50
mint green	6	332	193	**XT83.1**	1 unit(s)	100,50

Microlitre pipette accessories



Pipette stands

ROTH SELECTION. Material: ABS.

Suitable for picking up narrow pipettes.
Top cut-out: W 25 mm, bottom cut-out: W 20 mm.

Slots	Width (mm)	Depth (mm)	Art. No.	Pack Qty.	€
6	294	173	**N949.1**	1 unit(s)	50,10



Pipette stands ROTILABO®

ROTH SELECTION. Material: PMMA.

Suitable for all conventional pipettes with finger support. Rubber feet for stability.

Single stand

Slots	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	125	115	230	**HEC2.1**	1 unit(s)	30,10

For four pipettes

Slots	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
4	305	115	230	**HEC1.1**	1 unit(s)	50,70



Wall holders for microlitre pipettes

ROTH SELECTION. Material: ABS.

For vertical storage of two microlitre pipettes.

- Suitable for all common brands
- Suitable for single-channel and multi-channel pipettes
- For narrow pipettes, the upper part of the pipette holder can be made smaller using the inserts included in the delivery

Delivery incl. two mounting plates and six bases (2 x blue, 2 x green, 2 x colourless) and six tops (2 x blue, 2 x green, 1 x purple, 1 x yellow), which can be combined in any way for fastening the pipettes.
Delivery without mounting material.

Version	Art. No.	Pack Qty.	€
Wall holder	**HYP6.1**	2 unit(s)	50,50

ACCESSORIES & SPARE PARTS in the ROTH webshop



Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Pipette tips and refill systems

Pipette tips

ROTH SELECTION. Material: PP. Autoclavable: Yes.



NEW / +

A 121 °C

MIKRO 0.1–10 µl graduated

Graduated. Suitable for BRAND, Sartorius.

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Standard	colourless	31.5	Non-sterile	Bag	loose	**K138.1**	1,000 unit(s)	24,05
0.1 to 10	Standard	colourless	31.5	Non-sterile	Refill	10 x 96	**KE22.1**	960 unit(s)	46,75
0.1 to 10	Standard	colourless	31.5	Non-sterile	Box (hinged lid)	10 x 96	**CLC9.1**	960 unit(s)	56,25

KRISTALL 0.5–20 µl

Suitable for Eppendorf, Sartorius, Socorex.

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.5 to 20	Standard	colourless	45	Non-sterile	Bag	loose	**9260.1**	1,000 unit(s)	24,20
0.5 to 20	Standard	colourless	45	Non-sterile	Refill	10 x 96	**CLE0.1**	960 unit(s)	46,75
0.5 to 20	Standard	colourless	45	Non-sterile	Box (hinged lid)	10 x 96	**CLE1.1**	960 unit(s)	56,25

UNIVERSAL 1–200 µl

Non-sterile. Suitable for ROTH, BRAND, Eppendorf, Gilson, Sartorius, Socorex.

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	Standard	yellow	50	Non-sterile	Bag	loose	**1LP1.1**	1,000 unit(s)	11,65
1 to 200	Standard	yellow	50	Non-sterile	Box (hinged lid)	10 x 96	**1LP2.1**	960 unit(s)	50,20
1 to 200	Standard	yellow	50	Non-sterile	Refill	10 x 96	**1LP3.1**	960 unit(s)	40,60

UNIVERSAL 5–200 µl graduated

Graduated. Suitable for Eppendorf, Gilson, Sartorius, Socorex.

In vitro diagnostic medical device according to IVDD

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
5 to 200	Standard	colourless	51	Non-sterile	Bag	loose	**B002.1**	1,000 unit(s)	21,95
5 to 200	Standard	colourless	51	Non-sterile	Box (slip lid)	10 x 96	**CPX3.1**	960 unit(s)	70,85

UNIVERSAL 1–300 µl

Suitable for BRAND, Eppendorf, Gilson, Sartorius.

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 300	Standard	colourless	52	Non-sterile	Bag	loose	**XC75.1**	1,000 unit(s)	22,75
1 to 300	Standard	colourless	52	Non-sterile	Refill	10 x 96	**XC76.1**	960 unit(s)	54,40
1 to 300	Standard	colourless	52	Non-sterile	Box (hinged lid)	10 x 96	**XC77.1**	960 unit(s)	55,75

UNIVERSAL 40–350 µl

Suitable for Socorex.

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
40 to 350	Standard	colourless	60	Non-sterile	Bag	loose	**AT49.1**	1,000 unit(s)	80,75
40 to 350	Standard	colourless	60	Non-sterile	Box (hinged lid)	10 x 96	**AT50.1**	960 unit(s)	156,05

Pipette tips and refill systems

UNIVERSAL 100–1200 µl
Suitable for Eppendorf, Gilson, Sartorius, Socorex.

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
100 to 1200	Standard	blue	71	Non-sterile	Bag	loose	**2679.1**	1,000 unit(s)	13,15
100 to 1200	Standard	colourless	71	Non-sterile	Bag	loose	**B006.1**	1,000 unit(s)	19,00
100 to 1200	Standard	colourless	71	Non-sterile	Refill	16 x 60	**KE23.1**	960 unit(s)	46,75
100 to 1200	Standard	blue	71	Non-sterile	Refill	16 x 60	**KE24.1**	960 unit(s)	53,45
100 to 1200	Standard	colourless	71	Non-sterile	Box (hinged lid)	10 x 60	**CLE2.1**	600 unit(s)	42,85
100 to 1200	Standard	blue	71	Non-sterile	Box (hinged lid)	10 x 60	**CLE3.1**	600 unit(s)	42,15

50-1200 µl
Suitable for Sartorius.

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
50 to 1200	Standard	colourless	71.5	Non-sterile	Bag	loose	**LT33.2**	480 unit(s)	27,80
50 to 1200	Standard	colourless	71.5	Non-sterile	Box (hinged lid)	10 x 96	**LT34.1**	960 unit(s)	99,85

Pipette tips

Material: PP. Autoclavable: Yes.



A 121 °C

MAKRO 0.1–2 ml Suitable for Eppendorf, Socorex.

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Ø Inner upper (mm)	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
100 to 2000	Standard	colourless	10	115	Non-sterile	Bag	loose	**K315.1**	250 unit(s)	54,90

MAKRO 1–5 ml Suitable for Sartorius, Socorex, Labmate

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Ø Inner upper (mm)	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000 to 5000	Standard	colourless	12.5	134	Non-sterile	Bag	loose	**CX70.1**	300 unit(s)	40,35
1000 to 5000	Standard	colourless	12.5	134	Non-sterile	Box (sliding lid)	1 x 50	**XP91.1**	50 unit(s)	26,85

MAKRO 1–5 ml Suitable for Starlab, Gilson, Oxford

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Ø Inner upper (mm)	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000 to 5000	Standard	colourless	12	120	Non-sterile	Bag	loose	**5846.1**	250 unit(s)	27,65
1000 to 5000	Standard	colourless	12	120	Non-sterile	Box (slip lid)	1 x 50	**XP92.1**	50 unit(s)	26,85

MAKRO 1–5 ml Suitable for Eppendorf, Sartorius, Socorex
Graduated.

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Ø Inner upper (mm)	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000 to 5000	Standard	colourless	12.5	123	Non-sterile	Bag	2 x 250	**AT51.1**	500 unit(s)	115,20
1000 to 5000	Standard	colourless	12.5	123	Non-sterile	Box (slip lid)	2 x 50	**AT52.1**	100 unit(s)	83,55

Pipette tips and refill systems

MAKRO 1–5 ml Suitable for BRAND, Finnpipette®

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Ø Inner upper (mm)	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000 to 5000	Standard	colourless	9	148	Non-sterile	Bag	loose	**6946.2**	500 unit(s)	63,95
1000 to 5000	Standard	colourless	9	148	Non-sterile	Box	loose	**6946.1**	75 unit(s)	17,70
1000 to 5000	Standard	colourless	9	148	Non-sterile	Box (sliding lid)	1 x 50	**XP93.1**	50 unit(s)	26,85

MAKRO 0.5–5 ml Suitable for ROTH, BRAND

In vitro diagnostic medical device according to IVDD

Volume (µl)	Version	Colour	Ø Inner upper (mm)	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
500 to 5000	Standard	colourless	9.5	160	Non-sterile	Bag	loose	**HL73.1**	200 unit(s)	29,50
500 to 5000	Standard	colourless	9.5	160	Non-sterile	Box (slip lid)	1 x 28	**HL74.1**	28 unit(s)	51,30

MAKRO 1–10 ml Suitable for Socorex, Finnpipette®

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Ø Inner upper (mm)	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000 to 10000	Standard	colourless	15.5	150	Non-sterile	Bag	loose	**E736.1**	100 unit(s)	41,35
1000 to 10000	Standard	colourless	15.5	150	Non-sterile	Box (hinged lid)	1 x 24	**PC77.1**	24 unit(s)	38,25

MAKRO 1–10 ml Suitable for Gilson

Not a medical device / Not an IVD product

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000 to 10000	Standard	colourless	160	Non-sterile	Bag	4 x 50	**HTA0.1**	200 unit(s)	55,90
1000 to 10000	Standard	colourless	160	Non-sterile	Box (slip lid)	1 x 30	**HTA1.1**	30 unit(s)	21,35

MAKRO 1–10 ml Suitable for ROTH, BRAND, Eppendorf, Sartorius

In vitro diagnostic medical device according to IVDD

Volume (µl)	Version	Colour	Ø Inner upper (mm)	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000 to 10000	Standard	colourless	14.5	156.5	Non-sterile	Bag	loose	**HL75.1**	100 unit(s)	27,45
1000 to 10000	Standard	colourless	14.5	156.5	Non-sterile	Box (slip lid)	1 x 18	**HL76.1**	18 unit(s)	64,50

Pipette tips large opening

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- With extra large opening for the protection of cells
- Suitable for pipetting of suspensions or for viscous liquids
- RNase/DNase/human DNA and pyrogen free



A 121 °C

Not a medical device / Not an IVD product

1-200 µl
Suitable for BRAND, Eppendorf, Gilson, ROTH.

Volume (µl)	Version	Colour	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	Cell-Saver	colourless	Non-sterile	Bag	loose	**AEA9.1**	1,000 unit(s)	55,65

100-1000 µl, with filter, sterile
With aerosol filter. Suitable for Eppendorf, Finnpipette®, Gilson, Rainin®, Sartorius.

Volume (µl)	Version	Colour	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
100 to 1000	Cell-Saver	colourless	**Sterile**	Box (slip lid)	6 x 96	**CHC6.1**	576 unit(s)	141,75

Pipette tips and refill systems

Pipette tips ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Made of non-cytotoxic, biologically inert and highly transparent polypropylene
- Production under strictly controlled clean room conditions
- Extra smooth inner surface
- Graduation for quick and convenient visual volume testing
- Universal fit to many popular pipette brands, simple and effortless ejection
- Special design prevents DNA denaturation
- **Free from RNase/DNase and human DNA**
- **Pyrogen and PCR-inhibitor free**
- **Non-metallic**



NEW / +

A 121 °C

In vitro diagnostic medical device according to IVDD

10 µl

Graduation at 2 and 10 µl, for quick volume control. Suitable for: Sartorius, BRAND, Eppendorf, Finnpipette®, Gilson, Rainin®, ROTH.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Standard	colourless	31.2	Non-sterile	Bag	loose	**1EK4.1**	1,000 unit(s)	11,30
0.1 to 10	Standard	colourless	31.2	Non-sterile	Box (hinged lid)	10 x 96	**1EK5.1**	960 unit(s)	42,85
0.1 to 10	Standard	colourless	31.2	Non-sterile	Refill	10 x 96	**1EK6.1**	960 unit(s)	29,60

10/20 µl XL

Graduation at 2 and 10 µl, for quick volume control. Suitable for: Sartorius, BRAND, Eppendorf, Finnpipette®, Gilson, Rainin®, ROTH.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.5 to 20	Standard	colourless	45.8	Non-sterile	Bag	loose	**1EK7.1**	1,000 unit(s)	12,90
0.5 to 20	Standard	colourless	45.8	Non-sterile	Box (hinged lid)	10 x 96	**1EK8.1**	960 unit(s)	44,10
0.5 to 20	Standard	colourless	45.8	Non-sterile	Refill	10 x 96	**1EK9.1**	960 unit(s)	31,05

200 µl

Graduation at 10, 50 and 200 µl, for quick volume control. Suitable for: Sartorius, BRAND, Eppendorf, Finnpipette®, Gilson, Rainin®, ROTH.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
20 to 200	Standard	colourless	53.4	Non-sterile	Bag	loose	**1EKA.1**	1,000 unit(s)	10,20
20 to 200	Standard	yellow	53.4	Non-sterile	Bag	loose	**1EKC.1**	1,000 unit(s)	10,20
20 to 200	Standard	colourless	53.4	Non-sterile	Box (hinged lid)	10 x 96	**1EKE.1**	960 unit(s)	42,85
20 to 200	Standard	colourless	53.4	Non-sterile	Refill	10 x 96	**1EKH.1**	960 unit(s)	29,60

1000 µl

Graduation at 100, 500 and 1000 µl, for quick volume control. Suitable for: Sartorius, BRAND, Eppendorf, Finnpipette®, Gilson, Rainin®, ROTH.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
100 to 1000	Standard	colourless	84.3	Non-sterile	Bag	loose	**1EKK.1**	1,000 unit(s)	15,50
100 to 1000	Standard	blue	84.3	Non-sterile	Bag	loose	**1EKL.1**	1,000 unit(s)	15,50
100 to 1000	Standard	colourless	84.3	Non-sterile	Box (hinged lid)	8 x 96	**1EKN.1**	768 unit(s)	35,35
100 to 1000	Standard	colourless	84.3	Non-sterile	Refill	10 x 96	**1EKP.1**	960 unit(s)	37,65

5 ml

Graduation in 0.5 ml increments, for quick volume control. Suitable for: Gilson, Rainin®.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
500 to 5000	Standard	colourless	124	Non-sterile	Bag	loose	**1EKT.1**	250 unit(s)	25,85

10 ml

Graduation in 1 ml increments, for quick volume control. Suitable for: Sartorius, Eppendorf, Rainin®, Gilson

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000 to 10000	Standard	colourless	181	Non-sterile	Bag	loose	**1EKX.1**	200 unit(s)	59,15

Filter tips ROTILABO®



NEW / +

ROTH SELECTION. Material: PP, Filter made of PE. Autoclavable: No.

Filter tips eliminate harmful aerosol transfer during pipetting and protect pipette shafts from contamination and cross-contamination. In this way, reproducible and reliable results are guaranteed. The efficient barrier against aerosols and vapours also protects against radioactive, environmentally harmful or corrosive substances penetration the pipette body.

- Made of non-cytotoxic, biologically inert and highly transparent polypropylene
- Hydrophobic filters made of pure polyethylene
- Free of chemical additives, no risk of cross-contamination in case the liquid comes into contact with the filter
- Filter pore size of 10-40 µm for extremely high filter density
- Production under strictly controlled clean room conditions
- Extra smooth inner surface
- Graduation for quick and convenient visual volume testing
- Universal fit to many popular pipette brands, simple and effortless ejection
- Special design prevents DNA denaturation
- **Free from RNase/DNase and human DNA**
- **Pyrogen and PCR-inhibitor free**
- **Non-metallic**

In vitro diagnostic medical device according to IVDD

10 µl

Graduation at 2 and 10 µl, for quick volume control. Suitable for: ROTH, BRAND, Eppendorf, Finnpipette®, Gilson, Rainin®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Standard	colourless	31.2	Non-sterile	Bag	loose	**1EL5.1**	1,000 unit(s)	44,45
0.1 to 10	Standard	colourless	31.2	**Sterile**	Box (hinged lid)	10 x 96	**1EL6.1**	960 unit(s)	61,80

10/20 µl XL

Graduation at 2 and 10 µl, for quick volume control. Suitable for: ROTH, BRAND, Eppendorf, Finnpipette®, Gilson, Rainin®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.5 to 20	Standard	colourless	45.8	Non-sterile	Bag	loose	**1EL7.1**	1,000 unit(s)	48,15
0.5 to 20	Standard	colourless	45.8	**Sterile**	Box (hinged lid)	10 x 96	**1EL8.1**	960 unit(s)	61,80

20 µl

Graduation at 10 µl, for quick volume control. Suitable for: Eppendorf, Gilson.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
2 to 20	Standard	colourless	53.4	Non-sterile	Bag	loose	**1EL9.1**	1,000 unit(s)	43,65
2 to 20	Standard	colourless	53.4	**Sterile**	Box (hinged lid)	10 x 96	**1ELA.1**	960 unit(s)	61,80

100 µl

Graduation at 10 and 50 µl, for quick volume control. Suitable for: Eppendorf, Finnpipette®, Gilson, Rainin®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
2 to 100	Standard	colourless	53.4	Non-sterile	Bag	loose	**1ELC.1**	1,000 unit(s)	43,65
2 to 100	Standard	colourless	53.4	**Sterile**	Box (hinged lid)	10 x 96	**1ELE.1**	960 unit(s)	61,80

200 µl

Graduation at 10, 50 and 200 µl, for quick volume control. Suitable for: ROTH, BRAND, Eppendorf, Finnpipette®, Gilson, Rainin®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
2 to 200	Standard	colourless	53.4	Non-sterile	Bag	loose	**1ELH.1**	1,000 unit(s)	43,65
2 to 200	Standard	colourless	53.4	**Sterile**	Box (hinged lid)	10 x 96	**1ELK.1**	960 unit(s)	61,80

1000 µl

Graduation at 100, 500 and 1000 µl, for quick volume control. Suitable for: ROTH, BRAND, Eppendorf, Finnpipette®, Gilson, Rainin®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
100 to 1000	Standard	colourless	84.3	Non-sterile	Bag	loose	**1ELL.1**	1,000 unit(s)	53,60
100 to 1000	Standard	colourless	84.3	**Sterile**	Box (hinged lid)	8 x 96	**1ELN.1**	768 unit(s)	59,05

Pipette tips and refill systems

Pipette tips

BRAND. Material: PP. Autoclavable: Yes.

- High quality PP types, free from DiHEMDA and oleamide
- Produced in a cleanroom environment, automatically palletised and packaged
- Produced without plasticizer, cadmium-free colour pigments
- Palletised tips, free of DNA, RNase, Endotoxins and ATP
- Sterile tips incl. BIO-CERT®-grade packaging: Sterile according to ISO 11137 and AAMI guidelines, an SAL of 10^{-6} is guaranteed, with certificate



A 121 °C

In vitro diagnostic medical device according to IVDD

0.1–20 µl

Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius. Specially designed for nanoscale applications.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 20	Standard	colourless	37	Non-sterile	Bag	loose	**AL17.1**	1,000 unit(s)	39,00
0.1 to 20	Standard	colourless	37	Non-sterile	Refill unit (palletised)	10 x 96	**ALT4.1**	960 unit(s)	70,20
0.1 to 20	Standard	colourless	37	Non-sterile	Box (combi-lid)	5 x 96	**HL65.1**	480 unit(s)	55,80
0.1 to 20	Standard	colourless	37	**Sterile**	Box (combi-lid)	10 x 96	**ALT5.1**	960 unit(s)	127,00
0.1 to 20	Ultra Low Retention	colourless	37	Non-sterile	Box (combi-lid)	5 x 96	**ALT6.1**	480 unit(s)	66,50
0.1 to 20	Ultra Low Retention	colourless	37	**Sterile**	Box (combi-lid)	10 x 96	**ALT7.1**	960 unit(s)	128,45

0.5–20 µl

Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.5 to 20	Standard	colourless	46	Non-sterile	Refill	10 x 96	**1CE1.1**	960 unit(s)	70,55
0.5 to 20	Standard	colourless	46	Non-sterile	Bag	loose	**HKA4.1**	1,000 unit(s)	37,70
0.5 to 20	Standard	colourless	46	Non-sterile	Refill unit (palletised)	10 x 96	**HKA5.1**	960 unit(s)	59,35
0.5 to 20	Standard	colourless	46	Non-sterile	Box (combi-lid)	5 x 96	**HKA6.1**	480 unit(s)	52,90

1-50 µl

Graduation at 2.5 µl, 10, 25 and 50 µl, for quick volume control. Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 50	Standard	colourless	50	Non-sterile	Bag	loose	**ALT8.1**	1,000 unit(s)	27,75
1 to 50	Standard	colourless	50	Non-sterile	Refill unit (palletised)	10 x 96	**ALT9.1**	960 unit(s)	65,25
1 to 50	Standard	colourless	50	Non-sterile	Box (combi-lid)	5 x 96	**ALX0.1**	480 unit(s)	57,10
1 to 50	Standard	colourless	50	**Sterile**	Box (combi-lid)	10 x 96	**ALX1.1**	960 unit(s)	123,45
1 to 50	Ultra Low Retention	colourless	50	Non-sterile	Box (combi-lid)	5 x 96	**ALX2.1**	480 unit(s)	60,95
1 to 50	Ultra Low Retention	colourless	50	**Sterile**	Box (combi-lid)	10 x 96	**ALX3.1**	960 unit(s)	132,15

2-200 µl

Graduated at 20 and 100 µl, for quick volume control. Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
2 to 200	Standard	colourless	50	Non-sterile	Refill	10 x 96	**1CE2.1**	960 unit(s)	63,55
2 to 200	Standard	yellow	50	Non-sterile	Bag	loose	**HL67.1**	1,000 unit(s)	24,00
2 to 200	Standard	colourless	50	Non-sterile	Refill unit (palletised)	10 x 96	**ALX4.1**	960 unit(s)	60,70
2 to 200	Standard	colourless	50	Non-sterile	Box (combi-lid)	5 x 96	**HL68.1**	480 unit(s)	49,65
2 to 200	Standard	colourless	50	**Sterile**	Box (combi-lid)	10 x 96	**ALX5.1**	960 unit(s)	115,05
2 to 200	Ultra Low Retention	colourless	50	Non-sterile	Box (combi-lid)	5 x 96	**ALX6.1**	480 unit(s)	58,35
2 to 200	Ultra Low Retention	colourless	50	**Sterile**	Box (combi-lid)	10 x 96	**ALX7.1**	960 unit(s)	120,60

Pipette tips and refill systems

5-300 µl
Graduation at 50, 100 and 300 µl, for quick volume control. Thin-walled tip, suitable for reverse pipetting. Ideal for working with multichannel pipettes. Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
5 to 300	Standard	colourless	53	Non-sterile	Bag	loose	**ALX8.1**	1,000 unit(s)	30,10
5 to 300	Standard	colourless	53	Non-sterile	Refill	10 x 96	**ALX9.1**	960 unit(s)	60,70
5 to 300	Standard	colourless	53	Non-sterile	Box (combi-lid)	5 x 96	**ALY0.1**	480 unit(s)	55,10
5 to 300	Standard	colourless	53	**Sterile**	Box (combi-lid)	10 x 96	**ALY1.1**	960 unit(s)	113,75
5 to 300	Ultra Low Retention	colourless	53	Non-sterile	Box (combi-lid)	5 x 96	**ALY2.1**	480 unit(s)	58,35
5 to 300	Ultra Low Retention	colourless	53	**Sterile**	Box (combi-lid)	10 x 96	**ALY3.1**	960 unit(s)	120,90

50-1000 µl
Graduation at 250, 500 and 1000 µl, for quick volume control. Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

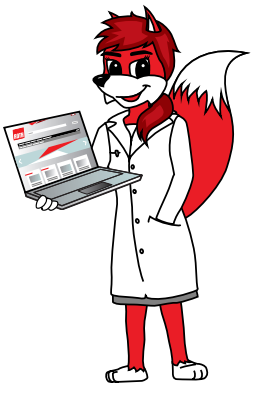
Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
50 to 1000	Standard	colourless	70	Non-sterile	Refill	10 x 96	**1CE3.1**	960 unit(s)	69,30
50 to 1000	Standard	blue	70	Non-sterile	Bag	2 x 500	**HL70.1**	1,000 unit(s)	27,65
50 to 1000	Standard	blue	70	Non-sterile	Bag	10 x 500	**HL70.2**	5,000 unit(s)	115,30
50 to 1000	Standard	colourless	70	Non-sterile	Refill	10 x 96	**ALY4.1**	960 unit(s)	62,00
50 to 1000	Standard	colourless	70	Non-sterile	Box (combi-lid)	5 x 96	**HL71.1**	480 unit(s)	50,90
50 to 1000	Standard	colourless	70	**Sterile**	Box (combi-lid)	10 x 96	**ALY5.1**	960 unit(s)	128,10
50 to 1000	Ultra Low Retention	colourless	70	Non-sterile	Box (combi-lid)	5 x 96	**ALY6.1**	480 unit(s)	60,60
50 to 1000	Ultra Low Retention	colourless	70	**Sterile**	Box (combi-lid)	10 x 96	**ALY7.1**	960 unit(s)	136,45

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Pipette tips and refill systems

Filter tips

BRAND. Material: PP with PE filter. Autoclavable: Yes.

- With aerosol filter
- High quality PP types, free from DiHEMDA and oleamide
- Produced in a cleanroom environment, automatically palletised and packaged
- Produced without plasticizer, cadmium-free colour pigments
- Free of DNA, RNase, endotoxins and ATP
- Sterile tips incl. BIO-CERT®-grade packaging: Sterile according to ISO 11137 and AAMI guidelines, an SAL of 10^{-6} is guaranteed, with certificate



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In vitro diagnostic medical device according to IVDD

0.1–1 µl
Specially designed for nanoscale applications. Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	
0.1 to 1	Standard	colourless	37	Non-sterile	Refill unit (palletised)	10 x 96	**ALY9.1**	960 unit(s)	129,25
0.1 to 1	Standard	colourless	37	**Sterile**	Box (combi-lid)	10 x 96	**ANA0.1**	960 unit(s)	165,55
0.1 to 1	Ultra Low Retention	colourless	37	Non-sterile	Box (combi-lid)	5 x 96	**ANA1.1**	480 unit(s)	83,65
0.1 to 1	Ultra Low Retention	colourless	37	**Sterile**	Box (combi-lid)	10 x 96	**ANA2.1**	960 unit(s)	199,95

1-20 µl
Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	
1 to 20	Standard	colourless	50	Non-sterile	Refill unit (palletised)	10 x 96	**ANA4.1**	960 unit(s)	119,40
1 to 20	Standard	colourless	50	**Sterile**	Box (combi-lid)	10 x 96	**ANA5.1**	960 unit(s)	156,75
1 to 20	Ultra Low Retention	colourless	50	Non-sterile	Box (combi-lid)	5 x 96	**ANA6.1**	480 unit(s)	70,85
1 to 20	Ultra Low Retention	colourless	50	**Sterile**	Box (combi-lid)	10 x 96	**ANA7.1**	960 unit(s)	165,55

5-200 µl
Graduated at 20 and 100 µl for quick volume control. Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	
5 to 200	Standard	colourless	50	Non-sterile	Refill unit (palletised)	10 x 96	**ANA9.1**	960 unit(s)	105,60
5 to 200	Standard	colourless	50	**Sterile**	Box (combi-lid)	10 x 96	**ANC0.1**	960 unit(s)	137,95
5 to 200	Ultra Low Retention	colourless	50	Non-sterile	Box (combi-lid)	5 x 96	**ANC1.1**	480 unit(s)	70,20
5 to 200	Ultra Low Retention	colourless	50	**Sterile**	Box (combi-lid)	10 x 96	**ANC2.1**	960 unit(s)	146,95

50-1000 µl
Graduation at 250, 500 and 1000 µl for quick volume control. Suitable for ROTH, BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	
50 to 1000	Standard	colourless	70	Non-sterile	Refill unit (palletised)	10 x 96	**ANC4.1**	960 unit(s)	129,40
50 to 1000	Standard	colourless	70	**Sterile**	Box (combi-lid)	10 x 96	**ANC5.1**	960 unit(s)	159,10
50 to 1000	Ultra Low Retention	colourless	70	Non-sterile	Box (combi-lid)	5 x 96	**ANC6.1**	480 unit(s)	77,65
50 to 1000	Ultra Low Retention	colourless	70	**Sterile**	Box (combi-lid)	10 x 96	**ANC7.1**	960 unit(s)	156,00

Pipette tips and refill systems

Pipette tips MµltiⓇ

Sorenson. Material: PP. Autoclavable: Yes.

- Positioning rings in neck of tip for better grip on the pipette
- Very high transparency
- Colourless tips, metal and cadmium free
- Tapered tips
- RNase/DNase, human DNA, PCR-inhibitor and pyrogen free



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MIKRO ULTRA 0.1–10 µl

Graduated at 2 µl and 10 µl. Suitable for BRAND, Eppendorf, Gilson, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	LowBinding	colourless	28.8	Non-sterile	Bag	loose	**NL51.1**	1,000 unit(s)	42,90
0.1 to 10	Standard	colourless	28.8	Non-sterile	Refill	10 x 96	**NL61.1**	960 unit(s)	43,85
0.1 to 10	Standard	colourless	28.8	Non-sterile	Bag	loose	**P866.1**	1,000 unit(s)	32,45
0.1 to 10	Standard	colourless	28.8	Non-sterile	Box (slip lid)	10 x 96	**P867.1**	960 unit(s)	66,35
0.1 to 10	Standard	colourless	28.8	**Sterile**	Box (slip lid)	10 x 96	**P868.1**	960 unit(s)	71,50
0.1 to 10	LowBinding	colourless	28.8	**Sterile**	Box (slip lid)	10 x 96	**PC91.1**	960 unit(s)	74,20
0.1 to 10	LowBinding	colourless	28.8	Non-sterile	Box (slip lid)	10 x 96	**X590.1**	960 unit(s)	79,35

Long Reach 0.1–10 µl

Graduated at 2 µl, 5 µl and 10 µl. Suitable for Socorex, Sartorius, ROTH, Gilson, Finnpipette®, Eppendorf, BRAND.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Standard	colourless	45.3	Non-sterile	Bag	loose	**KP26.1**	1,000 unit(s)	35,55
0.1 to 10	Standard	colourless	45.3	Non-sterile	Box (slip lid)	10 x 96	**KP27.1**	960 unit(s)	74,25
0.1 to 10	Standard	colourless	45.3	**Sterile**	Box (slip lid)	10 x 96	**KP28.1**	960 unit(s)	85,00
0.1 to 10	Standard	colourless	45.3		Refill	10 x 96	**KP34.1**	960 unit(s)	45,75

KRISTALL 0.5–10 µl

Suitable for Socorex, Sartorius, ROTH, Gilson, Finnpipette®, Eppendorf, BRAND.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.5 to 10	Standard	colourless	45.5	Non-sterile	Bag	loose	**2393.1**	1,000 unit(s)	34,90
0.5 to 10	Standard	colourless	45.5	Non-sterile	Box (slip lid)	10 x 96	**8144.1**	960 unit(s)	89,60
0.5 to 10	Standard	colourless	45.5	**Sterile**	Box (slip lid)	10 x 96	**8148.1**	960 unit(s)	98,65
0.5 to 10	LowBinding	colourless	45.5	Non-sterile	Bag	loose	**NL52.1**	1,000 unit(s)	40,50
0.5 to 10	LowBinding	colourless	45.5	**Sterile**	Box (slip lid)	10 x 96	**PC92.1**	960 unit(s)	87,65
0.5 to 10	LowBinding	colourless	45.5	Non-sterile	Box (slip lid)	10 x 96	**X591.1**	960 unit(s)	83,45

Pipette tips and refill systems

UNIVERSAL 1–200 µl
Suitable for Socorex, Sartorius, ROTH, Gilson, Finnpipette®, Oxford, Eppendorf, BRAND.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	Standard	colourless	50.7	Non-sterile	Bag	loose	**7058.1**	1,000 unit(s)	20,55
1 to 200	Standard	colourless	50.7	Non-sterile	Box (slip lid)	10 x 96	**8151.1**	960 unit(s)	55,75
1 to 200	Standard	colourless	50.7	**Sterile**	Box (slip lid)	10 x 96	**8154.1**	960 unit(s)	67,65
1 to 200	Standard	yellow	50.7	Non-sterile	Bag	loose	**8156.1**	1,000 unit(s)	20,55
1 to 200	Standard	yellow	50.7	Non-sterile	Box (slip lid)	10 x 96	**8157.1**	960 unit(s)	55,85
1 to 200	Standard	yellow	50.7	**Sterile**	Box (slip lid)	10 x 96	**8159.1**	960 unit(s)	61,45
1 to 200	Standard	colourless	50.7		Refill	10 x 96	**T686.1**	960 unit(s)	39,45
1 to 200	Standard	yellow	50.7		Refill	10 x 96	**T687.1**	960 unit(s)	39,45

UNIVERSAL 1–200 µl graduated
Graduated. Suitable for Socorex, Sartorius, ROTH, Gilson, Finnpipette®, Eppendorf, BRAND.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	Standard	yellow	50.7	Non-sterile	Bag	loose	**E707.1**	1,000 unit(s)	30,55
1 to 200	Standard	colourless	50.7	Non-sterile	Box (slip lid)	10 x 96	**EC33.1**	960 unit(s)	55,60
1 to 200	Standard	colourless	50.7	**Sterile**	Box (slip lid)	10 x 96	**EL96.1**	960 unit(s)	66,50
1 to 200	LowBinding	colourless	50.7	Non-sterile	Bag	loose	**NL53.1**	1,000 unit(s)	34,45
1 to 200	Standard	yellow	50.7	Non-sterile	Box (slip lid)	10 x 96	**NL55.1**	960 unit(s)	55,60
1 to 200	Standard	yellow	50.7	**Sterile**	Box (slip lid)	10 x 96	**NL56.1**	960 unit(s)	62,20
1 to 200	LowBinding	colourless	50.7	**Sterile**	Box (slip lid)	10 x 96	**PC93.1**	960 unit(s)	71,90
1 to 200	Standard	colourless	50.7	Non-sterile	Bag	loose	**PP71.1**	1,000 unit(s)	30,55
1 to 200	LowBinding	colourless	50.7	Non-sterile	Box (slip lid)	10 x 96	**X592.1**	960 unit(s)	59,70

UNIVERSAL 1–300 µl
Graduated at 10 µl, 50 µl and 100 µl. Suitable for BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 300	Standard	colourless	58.57	Non-sterile	Bag	loose	**KC07.1**	1,000 unit(s)	26,80
1 to 300	Standard	colourless	58.57	Non-sterile	Box (slip lid)	10 x 96	**KC08.1**	960 unit(s)	55,10
1 to 300	Standard	colourless	58.57	**Sterile**	Box (slip lid)	10 x 96	**KC09.1**	960 unit(s)	66,15

UNIVERSAL 100–1000 µl
Suitable for BRAND, Eppendorf, Gilson, Finnpipette®, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
100 to 1000	Standard	blue	78.3	Non-sterile	Bag	loose	**8160.1**	1,000 unit(s)	33,25
100 to 1000	Standard	blue	78.3	Non-sterile	Box (slip lid)	10 x 100	**8161.1**	1,000 unit(s)	66,45
100 to 1000	Standard	blue	78.3	**Sterile**	Box (slip lid)	10 x 100	**8162.1**	1,000 unit(s)	74,25
100 to 1000	Standard	colourless	78.3	Non-sterile	Bag	loose	**8163.1**	1,000 unit(s)	31,10
100 to 1000	Standard	colourless	78.3	Non-sterile	Box (slip lid)	10 x 100	**8164.1**	1,000 unit(s)	66,45
100 to 1000	Standard	colourless	78.3	**Sterile**	Box (slip lid)	10 x 100	**8165.1**	1,000 unit(s)	79,35
100 to 1000	LowBinding	colourless	78.3	Non-sterile	Bag	loose	**NL54.1**	1,000 unit(s)	35,55
100 to 1000	LowBinding	colourless	78.3	**Sterile**	Box (slip lid)	10 x 100	**PC94.1**	1,000 unit(s)	76,70
100 to 1000	LowBinding	colourless	78.3	Non-sterile	Box (slip lid)	10 x 100	**X594.1**	1,000 unit(s)	70,70

UNIVERSAL 50–1250 µl
Graduated at 200 µl, 500 µl and 1000 µl. Suitable for Eppendorf, Gilson, Finnpipette®, Oxford, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
50 to 1250	Standard	colourless	102	Non-sterile	Box (hinged lid)	8 x 96	**EL23.1**	768 unit(s)	76,45
50 to 1250	Standard	colourless	102	**Sterile**	Box (hinged lid)	8 x 96	**EL24.1**	768 unit(s)	97,00
50 to 1250	Standard	colourless	102	Non-sterile	Bag	loose	**NL57.1**	768 unit(s)	31,15

Pipette tips and refill systems

Pipette tip refill system MµIti® Platinum Reload

Sorenson. Autoclavable: Yes.

Pipette tips in pre-assembled inserts.
Easy to use: Transfer the inserts with tips into the empty rack, tips are ready for use immediately.

- Reusable boxes with hinged lid
- Stackable
- Free of human DNA and PCR inhibitors
- RNase-/DNase-free, pyrogen-free



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Starter kit 0.1–10 µl

Delivery incl. 10 boxes (hinged lid).

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
45.3	colourless	Non-sterile	10 x 96	**PK18.1**	960 unit(s)	70,45

Starter kit 1–200 µl

Delivery incl. 10 boxes (hinged lid)

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
50.7	colourless	Non-sterile	10 x 96	**NL65.1**	960 unit(s)	67,20

Starter kit 1–200 µl

Delivery incl. 10 boxes (hinged lid)

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
51.44	yellow	Non-sterile	10 x 96	**PK19.1**	960 unit(s)	67,20

Starter kit 1–300 µl

Delivery incl. 10 boxes (hinged lid)

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
58.57	colourless	Non-sterile	10 x 96	**PK20.1**	960 unit(s)	89,70

Starter kit 50–1250 µl

Delivery incl. 8 boxes (hinged lid)

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
102	colourless	Non-sterile	8 x 96	**PK21.1**	768 unit(s)	75,45

Refill set 0,1–10 µl

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
45.3	colourless	Non-sterile	4 x (10 x 96)	**PK22.1**	3,840 unit(s)	162,35

Refill set 1–200 µl

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
50.7	colourless	Non-sterile	4 x (10 x 96)	**NL66.1**	3,840 unit(s)	146,75
50.7	colourless	Non-sterile	4 x (10 x 96)	**NL67.1**	3,840 unit(s)	167,70

Refill set 1–200 µl

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
51.44	yellow	Non-sterile	4 x (10 x 96)	**PK23.1**	3,840 unit(s)	146,75

Refill set 1–300 µl

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
58.57	colourless	Non-sterile	4 x (10 x 96)	**PK24.1**	3,840 unit(s)	187,05

Refill set 50–1250 µl

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
102	colourless	Non-sterile	4 x (8 x 96)	**PK25.1**	3,072 unit(s)	215,00

Pipette tips and refill systems

Pipette tip station MµltiⓇ TipStation

Sorenson. Material: PP (100% recycled plastic).

5-layer pipette tip station.
Ideal for loading multichannel pipettes.

- 960 pipette tips in a MµltiⓇ TipStation
- 2 x 96 (=192) pipette tips in each layer
- The lid can be positioned over one half of the layer (96 tips) to minimise the risk of contamination
- Space-saving



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0.1–10 µl Long Reach

Suitable for: Socorex, Sartorius, ROTH, Gilson, Finnpipette®, Eppendorf, BRAND.

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
45.3	colourless	**Sterile**	5 x 960	**EL29.1**	4,800 unit(s)	258,00
45.3	colourless	Non-sterile	5 x 960	**EL30.1**	4,800 unit(s)	234,35

1-200 µl

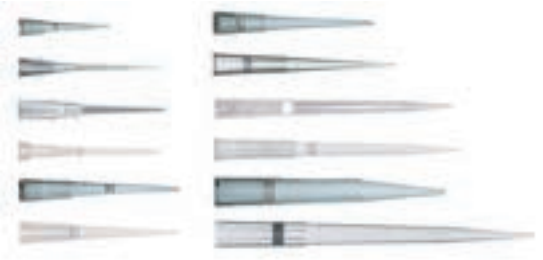
Suitable for: Socorex, Sartorius, ROTH, Gilson, Finnpipette®, Oxford, Eppendorf, BRAND.

Tip length (mm)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
51.44	yellow	**Sterile**	5 x 960	**EL33.1**	4,800 unit(s)	224,70
51.44	yellow	Non-sterile	5 x 960	**EL34.1**	4,800 unit(s)	225,75

Filter tips MµltiGuard® sterile

Sorenson. Material: PP. **Sterile**. Autoclavable: Yes.

- With aerosol filter
- Specially developed hydrophobic membranes for protection against contamination from bio-hazardous, toxic or radioactive substances
- Made of fully inert material – to eliminate "false signals" during PCR experiments
- RNase/DNase, human DNA, PCR-inhibitor and pyrogen free



S A 121 °C

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Ultra G 0.1–10 µl

Graduated at 2 µl and 10 µl. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Standard	colourless	28.8	**Sterile**	Box (slip lid)	10 x 96	**T613.1**	960 unit(s)	96,50
0.1 to 10	LowBinding	colourless	28.8	**Sterile**	Box (slip lid)	10 x 96	**X595.1**	960 unit(s)	116,45

0.1–10 µl

Graduated at 2 µl, 5 µl and 10 µl. Extra long. Suitable for Eppendorf, Finnpipette®, Gilson, Oxford, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Standard	colourless	45.34	**Sterile**	Box (hinged lid)	10 x 96	**EL28.1**	960 unit(s)	96,50

LongReach 0.1–10 µl

Graduated at 2 µl, 5 µl and 10 µl. Extra long. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Standard	colourless	45.34	**Sterile**	Box (slip lid)	10 x 96	**Y816.1**	960 unit(s)	111,10

E 0.5–10 µl

Suitable for BRAND, Eppendorf, Gilson, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.5 to 10	Standard	colourless	45.5	**Sterile**	Box (slip lid)	10 x 96	**A567.1**	960 unit(s)	100,25
0.5 to 10	LowBinding	colourless	45.5	**Sterile**	Box (slip lid)	10 x 96	**X596.1**	960 unit(s)	116,45

Pipette tips and refill systems

1-20 µl
Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 20	Standard	colourless	50.7	**Sterile**	Box (slip lid)	10 x 96	**9770.1**	960 unit(s)	100,45
1 to 20	LowBinding	colourless	50.7	**Sterile**	Box (slip lid)	10 x 96	**X597.1**	960 unit(s)	116,45

1-100 µl
Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 100	Standard	colourless	50.7	**Sterile**	Box (slip lid)	10 x 96	**XC78.1**	960 unit(s)	111,10

1-200 µl
Suitable for Finnpipette®, Oxford, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	Standard	colourless	50.7	**Sterile**	Box (slip lid)	10 x 96	**9771.1**	960 unit(s)	100,45

NX 1–200 µl
Graduated at 10 µl, 50 µl and 100 µl. Suitable for Eppendorf, Gilson, Finnpipette®, Oxford.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	LowBinding	colourless	58.57	**Sterile**	Box (slip lid)	10 x 96	**EL27.1**	960 unit(s)	127,00

XT 1–300 µl
Graduated at 10 µl, 50 µl, 100 µl and 200 µl. Suitable for BRAND, Eppendorf, Gilson, Finnpipette®, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 300	Standard	colourless	77.5	**Sterile**	Box (slip lid)	10 x 96	**KL03.1**	960 unit(s)	114,85
1 to 300	LowBinding	colourless	77.5	**Sterile**	Box (slip lid)	10 x 96	**KL04.1**	960 unit(s)	124,10

1-200 µl
Graduated at 10 µl, 50 µl, 100 µl and 200 µl. Suitable for BRAND, Eppendorf, Gilson, Finnpipette®, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	Standard	colourless	77.5	**Sterile**	Box (slip lid)	10 x 96	**H698.1**	960 unit(s)	99,40
1 to 200	LowBinding	colourless	77.5	**Sterile**	Box (slip lid)	10 x 96	**X599.1**	960 unit(s)	117,15

100-1000 µl
Suitable for BRAND, Eppendorf, Gilson, Finnpipette®, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
100 to 1000	Standard	colourless	78.3	**Sterile**	Box (slip lid)	10 x 100	**9773.1**	1,000 unit(s)	99,40
100 to 1000	LowBinding	colourless	78.3	**Sterile**	Box (slip lid)	10 x 100	**X601.1**	1,000 unit(s)	117,15

XT 50–1250 µl
Graduated at 200 µl, 500 µl and 1000 µl. Suitable for Eppendorf, Gilson, Finnpipette®, Oxford, Sartorius.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
50 to 1250	Standard	colourless	102	**Sterile**	Box (hinged lid)	8 x 96	**EL25.1**	768 unit(s)	99,40

Pipette tips and refill systems

Pipette tips MµLti® OneTouch

Sorenson. Material: PP, elastic shaft made of TPE.

- RNase/DNase, human DNA, pyrogen and PCR-inhibitor free



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0.1–20 µl

Graduated at 1 µl, 5 µl and 10 µl. Suitable for extending syringes with Luer connection.Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 20	Standard	colourless, red	45.38	Non-sterile	Box (slip lid)	10 x 96	**KT09.1**	960 unit(s)	73,70
0.1 to 20	Standard	colourless, red	45.38	**Sterile**	Box (slip lid)	10 x 96	**KT10.1**	960 unit(s)	78,35
0.1 to 20	Standard	colourless, red	45.38	**Sterile**	Cardboard box (slip lid)	10 x 96	**KT11.1**	960 unit(s)	78,35

1-350 µl

Graduated at 10 µl, 50 µl and 100 µl. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 350	Standard	colourless, yellow	58.5	Non-sterile	Box (slip lid)	10 x 96	**KP90.1**	960 unit(s)	74,20
1 to 350	Standard	colourless, yellow	58.5	**Sterile**	Box (slip lid)	10 x 96	**KP91.1**	960 unit(s)	78,35
1 to 350	Standard	colourless, yellow	58.5	**Sterile**	Cardboard box (slip lid)	10 x 96	**KP92.1**	960 unit(s)	78,35

50-1250 µl

Graduated at 200 µl, 500 µl and 1000 µl. Suitable for Eppendorf, Finnpipette®, Gilson, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
50 to 1250	Standard	colourless, blue	102.2	Non-sterile	Box (hinged lid)	8 x 96	**KT14.1**	768 unit(s)	73,70
50 to 1250	Standard	colourless, blue	102.2	**Sterile**	Box (hinged lid)	8 x 96	**KT15.1**	768 unit(s)	78,35
50 to 1250	Standard	colourless, blue	102.2	**Sterile**	Cardboard box (slip lid)	12 x 64	**KT16.1**	768 unit(s)	85,60

Filter tips MµLti® OneTouch sterile

Sorenson. Material: PP, elastic shaft made of TPE.

- With aerosol filter
- RNase/DNase, human DNA, pyrogen and PCR-inhibitor free

Not a medical device / Not an IVD product

0.1–20 µl

Graduated at 1 µl, 5 µl and 10 µl. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 20	Standard	colourless, red	45.38	**Sterile**	Box (slip lid)	10 x 96	**KT12.1**	960 unit(s)	128,15
0.1 to 20	Standard	colourless, red	45.38	**Sterile**	Cardboard box (slip lid)	10 x 96	**KT13.1**	960 unit(s)	128,15

1-350 µl

Graduated at 1 µl, 5 µl and 10 µl. Suitable for BRAND, Eppendorf, Finnpipette®, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 350	Standard	colourless, yellow	58.5	**Sterile**	Box (slip lid)	10 x 96	**KP93.1**	960 unit(s)	128,15
1 to 350	Standard	colourless, yellow	58.5	**Sterile**	Cardboard box (slip lid)	10 x 96	**KP94.1**	960 unit(s)	128,15

Pipette tips and refill systems

50-1250 µl
Graduated at 200 µl, 500 µl and 1000 µl. SSuitable for Eppendorf, Finnpipette®, Gilson, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
50 to 1250	Standard	colourless, blue	102.2	**Sterile**	Box (hinged lid)	8 x 96	**KT17.1**	768 unit(s)	128,15
50 to 1250	Standard	colourless, blue	102.2	**Sterile**	Cardboard box (slip lid)	12 x 64	**KT18.1**	768 unit(s)	128,15

Pipette tips MµLti®

Sorenson. Material: PP. Autoclavable: Yes.

- Suitable for loading SDS-PAGE protein gels, horizontal agarose and DNA sequencing gels
- Precise pipetting of minute samples at the lower end of the micron range (restriction enzyme digestion, nick translation, enzyme assay, immune precipitation and DNA sequencing reaction)
- RNase/DNase/human DNA, PCR-inhibitor and pyrogen free



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MiniFlex 0.1–10 µl, round
Graduation at 2 µl for checking the accuracy of pipettes. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Flex tips	colourless	45.72	Non-sterile	Box (slip lid)	1 x 200	**A569.1**	200 unit(s)	41,00
0.1 to 10	Flex tips	colourless	45.72	**Sterile**	Box (slip lid)	1 x 200	**NL58.1**	200 unit(s)	44,10

MiniFlex 0.1–10 µl, flat 0.4 mm
Graduation at 2 µl for checking the accuracy of pipettes. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Flex tips	colourless	45.72	Non-sterile	Box (slip lid)	1 x 200	**A570.1**	200 unit(s)	81,00

MiniFlex 0.1–10 µl, flat 0.2 mm
Graduation at 2 µl for checking the accuracy of pipettes. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, Sartorius, Socorex

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
0.1 to 10	Flex tips	colourless	45.72	Non-sterile	Box (slip lid)	1 x 200	**A571.1**	200 unit(s)	111,55

Flex 1-200 µl, round
Graduation from 5 µl for quick volume control. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	Flex tips	colourless	82.55	Non-sterile	Box (slip lid)	1 x 200	**6144.1**	200 unit(s)	42,60
1 to 200	Flex tips	colourless	82.55	**Sterile**	Box (slip lid)	1 x 200	**NL60.1**	200 unit(s)	47,65
1 to 200	Flex tips	colourless	82.55	Non-sterile	Bag	loose	**Y419.1**	1,000 unit(s)	56,65

Flex 1-200 µl, flat 0.4 mm
Graduation from 5 µl for quick volume control. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	Flex tips	colourless	82.55	Non-sterile	Box (slip lid)	1 x 200	**6128.1**	200 unit(s)	79,80

Flex 1-200 µl, flat 0.2 mm
Graduation from 5 µl for quick volume control. Suitable for BRAND, Eppendorf, Finnpipette®, Gilson, Oxford, ROTH, Sartorius, Socorex.

Volume (µl)	Version	Colour	Length (mm)	Sterility	Packaging type	Pack.	Art. No.	Pack Qty.	€
1 to 200	Flex tips	colourless	82.55	Non-sterile	Box (slip lid)	1 x 200	**6124.1**	200 unit(s)	107,45

Reagent reservoirs

Reagent reservoirs

ROTH SELECTION. Material: PS.

- Minimum reagent loss through conical collecting channel on the bottom
- Graduated volume markings on the inner wall
- Reinforced side walls and wider base for better stability



Volume 25 ml

Pic.	Colour	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
(1)	white	146	57	26	Non-sterile	10 x 10	**CYN5.1**	100 unit(s)	125,25
(1)	white	146	57	26	**Sterile**	10 x 10	**HT65.1**	100 unit(s)	137,80
(1)	white	146	57	26	**Sterile**	indiv.	**HT66.1**	50 unit(s)	124,45

Volume 25 ml partitioned

Reservoir partitioned in 2 chambers with capacity 5 or 10 ml, suitable for 8 and 4-channel pipettes.

Pic.	Colour	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
(2)	white	146	57	26	Non-sterile	10 x 10	**CYN4.1**	100 unit(s)	125,25
(2)	white	146	57	26	**Sterile**	10 x 10	**HT67.1**	100 unit(s)	137,80
(2)	white	146	57	26	**Sterile**	indiv.	**HT68.1**	50 unit(s)	124,45

Volume 100 ml

Pic.	Colour	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
(3)	white	146	83	32	Non-sterile	10 x 10	**CYN6.1**	100 unit(s)	163,40
(3)	white	146	83	32	**Sterile**	10 x 10	**HT69.1**	100 unit(s)	145,15
(3)	white	146	83	32	**Sterile**	indiv.	**HT70.1**	50 unit(s)	155,75

Volume 100 + 15 ml sterile

With additional reservoir at the side.

Pic.	Colour	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
(4)	white	146	102	32	**Sterile**	10 x 10	**HT71.1**	100 unit(s)	144,00

Reagent reservoirs Bio-pure™ sterile

ROTH SELECTION. Material: PET, biodegradable.

- Minimum reagent loss through conical collecting channel on the bottom
- Reinforced side walls and wider base for better stability
- Packed in biodegradable bags and recyclable boxes



Volume 25 ml

Pic.	Colour	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
(1)	white	146	57	26	**Sterile**	10 x 10	**AXC7.1**	100 unit(s)	136,90

Volume 25 ml (partitioned)

Reservoir partitioned in 2 chambers with capacity 5 or 10 ml, suitable for 8 and 4-channel pipettes.

Pic.	Colour	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
(2)	white	146	57	26	**Sterile**	10 x 10	**AXC8.1**	100 unit(s)	136,90

Volume 100 ml

Pic.	Colour	Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
(3)	white	146	83	32	**Sterile**	10 x 10	**AXC9.1**	100 unit(s)	166,65

Reagent reservoirs

Reagent reservoirs

ROTH SELECTION. Material: PS.

- Compatible with 8 and 12-channel pipettes
- Robust design for safe handling
- V-shaped base for non-loss pipetting
- Graduations on the inside wall
- Spouts at the corners
- **RNase/DNase-free, pyrogen-free**



Volume 25 ml

Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
147	61	25	Non-sterile	1 x 100	**EKT6.1**	100 unit(s)	113,40
147	61	25	**Sterile**	20 x 5	**EKT7.1**	100 unit(s)	106,75
147	61	25	**Sterile**	indiv.	**EKT8.1**	50 unit(s)	91,50

Volume 50 ml

Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
147	76	28	Non-sterile	1 x 100	**EKT9.1**	100 unit(s)	107,10
147	76	28	**Sterile**	20 x 5	**EKX0.1**	100 unit(s)	113,55
147	76	28	**Sterile**	indiv.	**EKX1.1**	50 unit(s)	104,85

Volume 100 ml

Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
147	80	32	Non-sterile	1 x 100	**EKX2.1**	100 unit(s)	117,70
147	80	32	**Sterile**	20 x 5	**EKX3.1**	100 unit(s)	127,55
147	80	32	**Sterile**	indiv.	**EKX4.1**	50 unit(s)	104,85

Reagent reservoirs ROTILABO®

ROTH SELECTION.

- Graduations on the inside wall
- Spout for pouring without loss of substance or dripping
- V-shaped channel in the base for pipetting without loss of substance
- Strengthened side walls and a wide base ensure stability
- Stackable
- **RNase-/DNase-free, pyrogen-free**



Volume 5 ml

Graduated at 5 ml.

Length (mm)	Inner length (mm)	Width (mm)	Inner width (mm)	Height (mm)	Inner height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
107	72	54	21	19	18	**Sterile**	50 x 1	**KLE5.1**	50 unit(s)	45,70

Volume 10 ml

Graduated at 5 ml/10 ml.

Length (mm)	Inner length (mm)	Width (mm)	Inner width (mm)	Height (mm)	Inner height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
107	72	54	21	19	18	Non-sterile	1 x 100	**KLE6.1**	100 unit(s)	56,95
107	72	54	21	19	18	**Sterile**	100 x 1	**KLE7.1**	100 unit(s)	89,15

Reagent reservoirs

Reagent reservoirs ROTILABO® transparent

ROTH SELECTION. Material: PVC.

- Graduations on the inside wall
- Spout for pouring without loss of substance or dripping
- V-shaped channel in the base for pipetting without loss of substance
- Strengthened side walls and a wide base ensure stability
- Stackable
- **RNase-/DNase-free, pyrogen-free**



Volume 50 ml

Graduated at 25 ml/50 ml.

Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
102	28	30	**Sterile**	20 x 5	**KLE8.1**	100 unit(s)	124,70
102	28	30	Non-sterile	1 x 100	**KLE9.1**	100 unit(s)	53,65

Volume 100 ml

Graduated at 50 ml/100 ml.

Length (mm)	Width (mm)	Height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
109	48	32	Non-sterile	1 x 100	**KLH0.1**	100 unit(s)	68,40

Reagent reservoir cooler ROTILABO®

ROTH SELECTION. Material: PP.

Filled with coolant. Suitable for reagent reservoirs ROTILABO®, transparent. Cools media for up to three hours at a temperature of 5 °C. Stackable.



For 50 ml reservoirs

Colour	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
violet	144	74	45	**KLE1.1**	2 unit(s)	67,90
blue	144	74	45	**KLE2.1**	2 unit(s)	67,90

For 100 ml reservoirs

Colour	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
violet	150	90	43	**KLE3.1**	2 unit(s)	66,40
blue	150	90	43	**KLE4.1**	2 unit(s)	66,40

Reagent reservoirs Trifill Multi-channel

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Trifill is a combination of three reservoir units. With V-shaped, graduated liquid container, max. volume 50 ml, as well as 8 and 12 graduated liquid reservoirs. Max. filling capacity of 5 ml per numbered, V-shaped chamber.



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Colour	Length (mm)	Width (mm)	Height (mm)	Sterility	Art. No.	Pack Qty.	€
white	120	111	40	Non-sterile	**AA87.1**	10 unit(s)	46,55

Reagent reservoirs

Reagent reservoirs 175 ml

ROTH SELECTION. Material: PP, transparent. Autoclavable: Yes.

- Volume 175 ml
- Graduated at: 25, 50, 75, 100, 125, 150 ml
- Stable
- Reusable
- Compatible with 8/12-channel pipettes as well as 96-well pipetting systems



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With lid
Removable lid, easy to open.

Inner length (mm)	Inner width (mm)	Inner height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
113.6	75.5	28.7	**Sterile**	20 x 5	**APX0.1**	100 unit(s)	291,35
113.6	75.5	28.7	Non-sterile	10 x 10	**APX1.1**	100 unit(s)	204,25

Without lid

Inner length (mm)	Inner width (mm)	Inner height (mm)	Sterility	Pack.	Art. No.	Pack Qty.	€
113.6	75.5	28.7	**Sterile**	20 x 5	**APX2.1**	100 unit(s)	253,70
113.6	75.5	28.7	Non-sterile	10 x 10	**APX3.1**	100 unit(s)	170,95

Reagent reservoirs for 8-channel pipettes

ROTH SELECTION. Material: PS. Non-sterile.
Single compartments with round bottom for minimal reagent loss.
Capacity per well approx. 7 ml.



Colour	Length (mm)	Width (mm)	Sterility	Art. No.	Pack Qty.	€
white	126.5	84	Non-sterile	**NA12.1**	100 unit(s)	86,50

Reagent reservoirs for 8/12-channel pipettes

ROTH SELECTION. Material: PP. Autoclavable: Yes.
With 12 numbered, V-shaped wells. Capacity per well approx. 3 ml.
Temperature stable from -80 to +121 °C.



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Delivery incl. lid.

Sterility	Pack.	Art. No.	Pack Qty.	€
Non-sterile	indiv.	**EKT5.1**	50 unit(s)	276,00
Sterile	indiv.	**EKT4.1**	20 unit(s)	93,65

Microtiter plates and accessories

Deepwell plates Riplate®

Ritter. Material: PP. Autoclavable: Yes.

Suitable for all common automation systems, plate size 1 and 2 ml suitable for multi-channel pipettes.

- Alphanumeric well identification
- Includes angled corner for proper orientation
- Stackable
- SBS dimensions
- Optimised base structure minimises specimen losses
- Temperature-stable up to -85 °C
- Centrifugable to 3000 x g
- Sterile article, individually packed



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Applications:
High Throughput Screening (HTS), general analysis necessitating the use of a stock plate; serial dilution; reagent transfer; cell and tissue cultures; specimen storage.

Technical specifications:

Art. No.	CEX7.1	EN06.1	EN07.1	EN08.1	TC23.1
L x W x H	127.8 x 85.5 x 44.0 mm	127.3 x 84.7 x 41.2 mm	127.8 x 85.5 x 44.0 mm		

Wells	Volume per well (µl)	Working volume (µl)	Format	Type	Version	Sterility	Art. No.	Pack Qty.	€
24	10000	9,900	4 x 6	Riplate® sw 10 ml	rectangular/ V-shaped	Non-sterile	**TC23.1**	20 unit(s)	138,05
48	5000	4,900	8 x 6	Riplate® sw 5 ml	rectangular/ V-shaped	Non-sterile	**EN08.1**	20 unit(s)	138,05
96	2200	1,900	8 x 12	Riplate® rw 2 ml	round/round	Non-sterile	**CEX7.1**	20 unit(s)	117,05
96	1200	1,000	8 x 12	Riplate® rw 1 ml	round/round	Non-sterile	**EN06.1**	20 unit(s)	104,95
96	2500	2,400	8 x 12	Riplate® sw 2 ml	rectangular/round	Non-sterile	**EN07.1**	20 unit(s)	117,05

Medio

For sample storage, requires 50 % less storage space due to reduced height.

Technical specifications:

Art. No.	TC22.1
L x W x H	127.8 x 85.5 x 27.0 mm

Wells	Volume per well (µl)	Working volume (µl)	Format	Type	Version	Sterility	Art. No.	Pack Qty.	€
96	1200	1,000	8 x 12	Riplate® 1 ml medio	round/round	Non-sterile	**TC22.1**	32 unit(s)	158,00

Plus

With raised wells: reduction of cross-contaminations, improved lamination or sealing with adhesive film.

Technical specifications:

Art. No.	TC21.1
L x W x H	127.8 x 85.5 x 41.0 mm

Wells	Volume per well (µl)	Working volume (µl)	Format	Type	Version	Sterility	Art. No.	Pack Qty.	€
96	1200	1,000	8 x 12	Riplate® 1 ml plus	round/round	Non-sterile	**TC21.1**	20 unit(s)	102,05

Accessories sealing mats

Ritter.

❄❄

Suitable for	Sterility	Art. No.	Pack Qty.	€
Riplate® 1 ml medio / Riplate® rw 2 ml	Non-sterile	**CEX8.1**	20 unit(s)	63,05
Riplate® 1 ml / Riplate® 1 ml plus	Non-sterile	**EN09.1**	20 unit(s)	63,05
Riplate® sw 2 ml	Non-sterile	**EN10.1**	20 unit(s)	63,05
Riplate® sw 5 ml	Non-sterile	**TC24.1**	20 unit(s)	71,30
Riplate® sw 10 ml	Non-sterile	**TC25.1**	20 unit(s)	76,55

Microtiter plates and accessories

Deepwell plates Riplate® magnetic



Ritter. Material: PP.

For cleaning, mixing, centrifuging samples. For storing and preparing substances. For cleaning proteins as well as for DNA extraction via automatic magnet separation. Corresponds to the SBS standard (Society for Biomolecular Screening).

- Resistant to common chemicals. solvents and alcohols
- High stability also when centrifuging
- Cylindrical wells for optimum sample mixing
- Slightly raised rim of the well prevents cross-contamination
- Alphanumeric marking for registering and identifying the samples
- Production under clean-room conditions Class 8

Application:
Specially developed for robots for magnetic separation:
Automated magnetic separation is often used for cleaning proteins as well as for DNA extraction. This technology that is based on magnetic particles enables fast and efficient preparation of samples with high throughput. In order to perform this separation process reproducibly in the long-term, precise plastic plates made of ultrapure polypropylene were developed, the Riplate® magnetic. Production under Class 8 clean-room conditions ensures the sustainability of these products as well as reliable analysis results.
Suitable for:
KingFisher™ 96 Flex Magnetic Particle Processors.

Volume per well (µl)	Working volume (µl)	Type	Art. No.	Pack Qty.	€
200	100	Riplate® 96 SRW magnetic, 0.2 ml	**HLK2.2**	60 unit(s)	340,80
2000	1,000	Riplate® 96 SRW magnetic, 2 ml	**HLK3.2**	60 unit(s)	368,75

Reaction vial system BioTube™



ROTH SELECTION. Material: PP. Autoclavable: Yes.

Ideal for storing, transporting and freezing samples as well as for use in many biological tests, e.g. PCR, radio immunoassays (RIA), enzyme immunoassays (EIA) or cell growth studies. Racks can be removed from their base, e.g. for homogeneous heating of vials in a water bath.

- Rack with snap-on lid, filled with 96 vials
- Vials arranged in microtritation plate format 8 x 12
- Suitable for working with multichannel pipettors
- With alphanumeric marking on outside of rack
- Label inside rack
- Temperature-stable up to -90 °C

A 121 °C ❄❄

Delivery without cap strips, please order separately.

Volume per well (µl)	Sterility	Art. No.	Pack Qty.	€
1200	Non-sterile	**EC05.1**	10 unit(s)	70,85
1200	**Sterile**	**EC06.1**	10 unit(s)	76,25

Accessories for reaction vial systems BioTube™

ROTH SELECTION.

Material: PP. Autoclavable: Yes.

Vol. (ml)	Version	Sterility	Art. No.	Pack Qty.	€
1.2	Single receptacles	Non-sterile	**EC07.1**	960 unit(s)	36,45
1.2	8 strips	Non-sterile	**YC41.1**	120 unit(s)	32,80

Cap strips
Material: PE. Autoclavable: No.

Version	Sterility	Art. No.	Pack Qty.	€
8 strips	Non-sterile	**EC08.1**	120 unit(s)	22,90
8 strips	**Sterile**	**EC09.1**	120 unit(s)	24,20

Microtiter plates and accessories

Micro Racks

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Racks with lid, filled with 96 microtubes. Tubes number-coded on the base. Pressure tested for leak tightness.

- SBS standard microtest plate format 8 x 12
- Sides can be labelled, e.g. with a bar-code
- Suitable for use in combination with automatic dispensing systems and robots
- Racks are stackable and suitable for stacker systems
- Temperature-stable down to -80 °C



A 121 °C ❄❄

Technical specifications:

Art. No.	XK05.1	XK08.1
L x W x H	127.76 x 85.48 x 20.4 mm	127.76 x 85.48 x 28.4 mm

Vol. (ml)	Format	Sterility	Art. No.	Pack Qty.	€
0.65	8 x 12	Non-sterile	**XK05.1**	50 unit(s)	547,50
1.20	8 x 12	Non-sterile	**XK08.1**	50 unit(s)	547,50

Micro Tubes

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Wit round bottom. A individual vials or 8-tube strips for use in micro-racks.



A 121 °C ❄❄

Vol. (ml)	Ø x H (mm)	Version	Sterility	Pack.	Art. No.	Pack Qty.	€
0.65	8.3 x 28	Single container	Non-sterile	5 x 1000	**XK10.1**	5,000 unit(s)	220,85
0.65	8.3 x 28	8 strips	Non-sterile	5 x 120	**XK11.1**	600 unit(s)	230,05
1.20	8.3 x 44.1	Single container	Non-sterile	5 x 1000	**XK12.1**	5,000 unit(s)	220,85
1.20	8.3 x 44.1	8 strips	Non-sterile	5 x 120	**XK13.1**	600 unit(s)	227,75

Accessories for microtubes

A 121 °C ❄❄

ROTH SELECTION. Material: TPE. Autoclavable: Yes.

For sealing 0.65 and 1.2 ml micro tubes. Can be punctured with syringe needles for sampling and filling.

Version	Sterility	Art. No.	Pack Qty.	€
8 tube cap strip	Non-sterile	**XK18.1**	1,000 unit(s)	200,35
8 x 12 sealing mats	Non-sterile	**XK19.1**	100 unit(s)	264,45

Microtiter plates and accessories

Microtitration plates 6 well



Boettger. Material: PS. Non-sterile.

For all bacteriological work that requires multiple partitioning of the culture tray. Simple, space-saving alternative to six conventional 35 mm Petri dishes.

- Manufactured under aseptic conditions
- Recesses, alphanumerically marked, well Ø 35 mm
- Max. volume 15 ml per well
- Centrifuges up to 4500 x g
- Temperature stable from -20 to approx. +60 °C

Delivery incl. lid.

Wells	Volume per well (ml)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
6	2-5	translucent	Non-sterile	50 x 2	**ATC0.1**	100 unit(s)	125,80

Microtitration plates ROTILABO®



Boettger. Material: PS. Non-sterile.

- With 96 alphanumerically marked recesses
- Manufactured under aseptic conditions
- Stackable

Delivery without lid.

F-profile

With transparent F-bottom, for good sample visibility.

Pic.	Wells	Volume per well (ml)	Colour	Sterility	Art. No.	Pack Qty.	€
(3)	96	0,405	translucent	Non-sterile	**9293.1**	100 unit(s)	95,65

U-profil

With round bottom, for mixing and washing samples.

Pic.	Wells	Volume per well (ml)	Colour	Sterility	Art. No.	Pack Qty.	€
(1)	96	0,345	translucent	Non-sterile	**9291.1**	100 unit(s)	76,85

V-profil

With conical bottom, for optimum sample recovery.

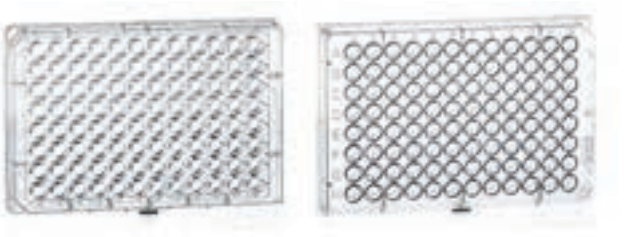
Pic.	Wells	Volume per well (ml)	Colour	Sterility	Art. No.	Pack Qty.	€
(2)	96	0,335	translucent	Non-sterile	**9292.1**	100 unit(s)	89,25

Microtiter plates and accessories

Microtitration plates

Greiner Bio-One. Material: PS.

- Solid base
- Free of detectable endotoxins
- Free of detectable DNase, RNase and human DNA



F-profile

Ideal for extremely precise optical measurements. The cell geometry does not deflect the measurement light beam.

- Cell geometry: F-base/standard (flat base)
- For microscopic applications (bottom reading)
- Excellent optical properties thanks to the flat base of the cells

Wells	Volume per well (µl)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	25-340	translucent	Non-sterile	10 x 10	**1A70.1**	100 unit(s)	125,80
96	25-340	translucent	**Sterile**	50 x 2	**1A71.1**	100 unit(s)	153,30

V-profile

Particularly well suited to applications where the entire sample volume must be removed by pipette. For precise pipetting because the sample is collected at the base. Ideal for storing samples.

- Cell geometry: V-base (conical base)
- Suitable for +/- analyses

Wells	Volume per well (µl)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	40-200	translucent	Non-sterile	10 x 10	**1A72.1**	100 unit(s)	127,45
96	40-200	translucent	**Sterile**	50 x 2	**1A73.1**	100 unit(s)	153,20

Microtitration plates sterile

ROTH SELECTION. Material: PS. **Sterile**.

- F-profile (flat-shaped base)
- Optically clear for good visualization
- Increased well edge reduces evaporation
- Condensation rings in the lid reduce cross-contamination
- Alphanumeric numbering
- Gamma-sterilised
- Non-pyrogenic



S

Delivery incl. lid.

Wells	Volume per well (ml)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	0,39	translucent	**Sterile**	individual	**EKL9.1**	100 unit(s)	223,00

Microtiter plates and accessories

Microtitration plates pureGrade™

BRAND.

Untreated surface.
Manufactured according to ANSI/SBS standards 1 to 4-2004 to ensure compatibility when carrying out manual processes and, in particular, automatic processes.

Properties of BRAND*plates*® microtiter plates:

- 96 well standard format
- Alphanumerically coded
- **Free of endotoxins, DNase, DNA, RNase, non-cytotoxic**

Properties of the pureGrade™ microtiter plates:

- Chimney-shaped cavities
- Colour code: grey for standard plates
- F-profile (flat bottom shape) for precision optical measurements

F-bottom, transparent
Material: PS. Transparent bottom in F-profile (flat bottom shape) for precise optical measurements.

Delivery without lid.

Wells	Volume per well (ml)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	0,35	translucent	Non-sterile	20 x 5	**CNP7.1**	100 unit(s)	124,50

F-bottom, transparent, sterile
Material: PS. Transparent bottom in F-profile (flat bottom shape) for precise optical measurements. Sterilised through β-irradiation. Ideal for bacteriological assays.

Delivery incl. lid.

Wells	Volume per well (µl)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	350	translucent	**Sterile**	individual	**XT64.1**	50 unit(s)	150,55

UV
Material: Polymer (UV polymer, slightly hydrophilic), rack PS.

- Suitable for the determination of nucleic acid and protein concentrations (at 260 and 280 nm respectively)
- Transmission at 240 nm is 80 %
- Bottom: UV-transparent film, wall thickness 25 µm

Delivery without lid.

Wells	Volume per well (µl)	Colour	Sterility	Pack.	Art. No.	Pack Qty.	€
96	350	translucent	Non-sterile	5 x 10	**XT65.1**	50 unit(s)	839,60

Microtitration plates ROTILABO®

ROTH SELECTION. Material: PS. Non-sterile.

Black plates for low background and reduced light scatter during applications in fluorescence microscopy.

- Alphanumerically marked cavities with flat bottom
- „Chimney top“ well design reduces the risk of contamination
- SBS dimensions
- **Free of RNase, DNase and human-DNAi**



Delivery without lid.

Wells	Volume per well (ml)	Colour	Sterility	Art. No.	Pack Qty.	€
96	0,35	black	Non-sterile	**CEK8.1**	100 unit(s)	410,65

Microtiter plates and accessories

Microtitration plates ROTILABO® Polypropylene

ROTH SELECTION. Material: PP. Non-sterile. Autoclavable: Yes.

- Good chemical stability e.g. against DMSO, phenol and chloroform
- SBS dimensions, suitable for robot systems
- Wells in round U-profile for maximum sample recovery with reduced capillary effect
- **Free of DNase, RNase and human DNA**



A 121 °C

Delivery without cap mats.

Wells	Volume per well (ml)	Colour	Sterility	Art. No.	Pack Qty.	€
96	0,35	colourless	Non-sterile	**CEL3.1**	100 unit(s)	224,70

Microtitration plates immunoGrade™

BRAND. Material: PS.

For optimal binding of IgG.
Manufactured according to ANSI/SBS standards 1 to 4-2004 to ensure compatibility when carrying out manual processes and, in particular, automatic processes.

Properties of BRAND*plates*® microtiter plates:

- 96 well standard format
- Alphanumerically coded
- **Free of endotoxins, DNase, DNA, RNase, non-cytotoxic**

Properties of immunoGrade™ microtiter plates:

- Colour code: blue for immunology
- Highest binding capacity for molecules with hydrophilic and hydrophobic regions
- Ideal surface for most standard ELISA assays
- Suitable for solid phase immunoassays
- Equivalent to high-binding products from other manufacturers

Delivery without lid.

F-bottom (transparent)
Transparent bottom in F-profile (flat bottom shape) for precise optical measurements.

Wells	Volume per well (ml)	Colour	Pack.	Art. No.	Pack Qty.	€
96	0,35	translucent	20 x 5	**XT66.1**	100 unit(s)	205,35
96	0,33	black	20 x 5	**XT71.1**	100 unit(s)	985,80

U-bottom
U-bottom (round bottom shape), ideal for mixing and washing samples.

Wells	Volume per well (ml)	Colour	Pack.	Art. No.	Pack Qty.	€
96	0,33	white	20 x 5	**XT67.1**	100 unit(s)	397,75

Microtitration plates ROTILABO® 384 well

ROTH SELECTION. Material: PS. Non-sterile.

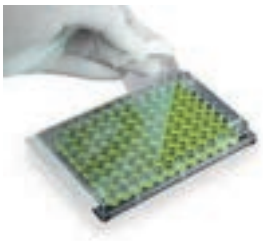
- Black plates for low background and reduced light scatter during applications in fluorescence microscopy
- Alphanumerically marked cavities with flat bottom
- Reduced capillary effect thanks to rounded corners
- SBS dimensions
- **Free of DNase, RNase and human DNA**



Delivery without lid.

Wells	Volume per well (ml)	Colour	Sterility	Art. No.	Pack Qty.	€
384	0,12	translucent	Non-sterile	**CEL0.1**	100 unit(s)	370,90
384	0,12	black	Non-sterile	**CEL1.1**	100 unit(s)	410,65

Sealing films



Sealing film ROTILABO® for microtest plates

ROTH SELECTION.

Minimises cross-contaminations of the samples when handling and during transport. With perforated ends for simple and fast adhesion.

Technical specifications:

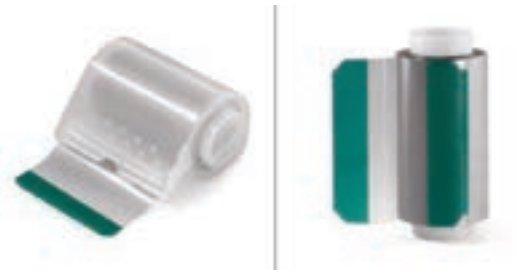
Art. No.	EN76.1	EN77.1	H769.1	H770.1	X172.1
Gas-permeable	No				
Puncturable	No		Yes		No
Temperature stability	-40 to +120 °C				-20 to +80 °C

Polyester
Material: Polyester self-adhesive. Also suitable for ELISA plates. Minimises evaporation. Films with thickness 25 µm can be penetrated using a single-channel pipette.

L x W (mm)	Thickn. (µm)	Sterility	Art. No.	Pack Qty.	€
141 x 79.4	25	Non-sterile	**H769.1**	100 unit(s)	90,15
141 x 79.4	25	**Sterile**	**H770.1**	100 unit(s)	120,05
146 x 79.4	50	Non-sterile	**EN76.1**	100 unit(s)	60,55
146 x 79.4	50	**Sterile**	**EN77.1**	100 unit(s)	90,55

Aluminium
Material: Aluminium (aluminium-coated paper), self-adhesive, acrylic-based adhesive. Good diffusion barrier.

L x W (mm)	Thickn. (µm)	Sterility	Art. No.	Pack Qty.	€
130 x 78	65	Non-sterile	**X172.1**	100 unit(s)	42,25



Sealing film (Roll) for microtitration plates

ROTH SELECTION. Material: Polyester (self-adhesive).

For closing microtest plates. Minimises cross-contaminations of the samples during incubation, transport and brief storage. Also suitable for ELISA plates. Without intermedia layer of paper, for fast handling.

Technical specifications:

Art. No.	APT6.1
Gas-permeable	No
Puncturable	No
Temperature stability	-40 to +120 °C

L x W (mm)	Thickn. (µm)	Sterility	Pack.	Art. No.	Pack Qty.	€
122 x 79	38	Non-sterile	100 single films on the roll	**APT6.1**	2 unit(s)	163,95

Accessories dispenser for rolls of sealing film

ROTH SELECTION. Material: PP. Non-sterile.

Handy dispenser for quick unrolling and adhesion of covering films from rolls.

Delivery incl. 2 roll of covering film (APT6.1)

L x W (mm)	Sterility	Art. No.	Pack Qty.	€
80 x 105	Non-sterile	**APT7.1**	1 unit(s)	175,25



Seal roller ROTILABO®

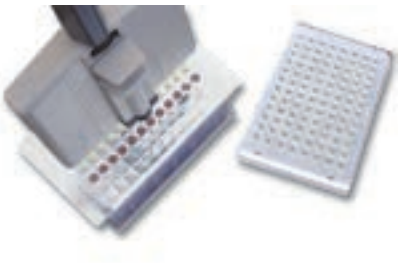
ROTH SELECTION. Material: Rubber (Roller), Metal (frame).

For more effective sealing of microtest, PCR and Deep-Well plates with sealing foil or sealing mats as the roller presses them on more evenly. Roller width: 100 mm, roller Ø: 30 mm.

Colour	Art. No.	Pack Qty.	€
white	**HE23.1**	1 unit(s)	47,15

Sealing films





S ❄❄

Sealing film gas-permeable sterile

ROTH SELECTION. Material: PU (polyurethane-based film, self-adhesive). **Sterile**.

- For closing microtitration plates
- Prevents well-to-well contamination
- Allows exchange of oxygen, CO_2 and water vapour
- Ideal for aerobe cell cultures, for biological and immunological cell bases, cell selection, screening
- Gamma-sterilised, not cytotoxic

Technical specifications:

Art. No.	T093.1
Gas-permeable	Yes
Puncturable	Yes
Temperature stability	-80 to +110 °C

L x W (mm)	Thickn. (µm)	Sterility	Art. No.	Pack Qty.	€
153 x 78	25	**Sterile**	**T093.1**	100 unit(s)	149,10



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Sealing film ROTILABO® for cell cultures

ROTH SELECTION. Material: Cellulose (plastic), self-adhesive.

Hydrophobic sealing film for cell culture and deep-well plates.

- Gas-permeable, for even air and CO_2 exchange
- Minimises evaporation and cross-contaminations
- Perforated ends for simple and fast adhesion
- Not cytotoxic

Technical specifications:

Art. No.	EN84.1	EN85.1
Gas-permeable	Yes	
Puncturable	Yes	
Temperature stability	-20 to +80 °C	

L x W (mm)	Sterility	Art. No.	Pack Qty.	€
142.9 x 82.6	Non-sterile	**EN84.1**	100 unit(s)	111,10
142.9 x 82.6	**Sterile**	**EN85.1**	50 unit(s)	78,05

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Sealing film ROTILABO® PCR

ROTH SELECTION.

For sealing PCR plates.

- Suitable for use in thermocyclers
- Perforated ends for simple and fast adhesion
- **Free of nucleic acid, RNase/DNase-free**

Technical specifications:

Art. No.	EN80.1	EN81.1	KKE1.1	KKE2.1	EN82.1	EN83.1
Gas-permeable	No					
Puncturable	Yes			No		
Temperature stability	-80 to +120 °C			-40 to +125 °C	-40 to +120 °C	

Polypropylene
Material: PP self-adhesive.

- Easy to use

L x W (mm)	Thickn. (µm)	Sterility	Pack.	Art. No.	Pack Qty.	€
135.1 x 79.4	50	Non-sterile	1 x 100	**EN82.1**	100 unit(s)	95,75
135.1 x 79.4	50	**Sterile**	1 x 100	**EN83.1**	100 unit(s)	120,55

Aluminium
Material: Aluminium Self-adhesive.

- Excellent barrier properties
- No sample evaporation

L x W (mm)	Thickn. (µm)	Sterility	Pack.	Art. No.	Pack Qty.	€
146.1 x 82.6	36	Non-sterile	1 x 100	**EN80.1**	100 unit(s)	119,45
146.1 x 82.6	36	**Sterile**	2 x 25	**EN81.1**	50 unit(s)	98,20

Sealing films



Sealing film PCR Individual strips

Self-adhesive. For sealing PCR reaction vials (Eight-tube strips) or individual rows on PCR trays.

- Suitable for use in thermal cyclers
- Perforated ends make them easy and quick to attach
- **RNase-/DNase-free**

Technical specifications:

Art. No.	KKE7.1	KKE6.1
Puncturable	No	Yes
Temperature stability	-40 to +120 °C	-80 to +120 °C

Aluminium

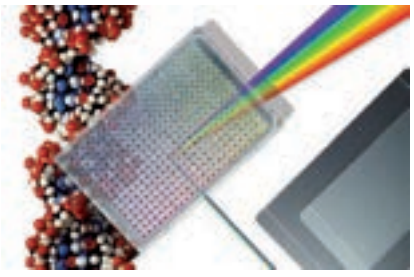
- Ideal for standard PCR applications and for storage
- Suitable for light-sensitive applications
- Resistant to DMSO

Thickn. (µm)	Art. No.	Pack Qty.	€
50	**KKE6.1**	300 unit(s)	42,20

Polyester

- Ideal for standard PCR applications and for storage
- Suitable for RT-PCR

Thickn. (µm)	Art. No.	Pack Qty.	€
50	**KKE7.1**	400 unit(s)	65,05



Sealing film for RT-PCR

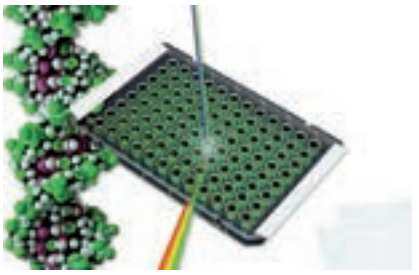
ROTH SELECTION. Material: Polyester (visually transparent), with strong, non-absorbant and non-fluorescent adhesive.

Suitable for ELISA, real-time qPCR applications as well as for protein crystallisation. On plastic carrier film, easy to remove.
Length between perforations 121.9 mm.
Free of DNase, RNase and nuclein acid.

Technical specifications:

Art. No.	APT8.1
Gas-permeable	No
Puncturable	No
Temperature stability	-40 to +120 °C

L x W (mm)	Thickn. (µm)	Sterility	Art. No.	Pack Qty.	€
142.9 x 79.4	50	Non-sterile	**APT8.1**	100 unit(s)	156,65



Sealing film PCR with special adhesive

ROTH SELECTION. Material: Polyolefin (visually transparent), with integrated, encapsulated silicone adhesive.

The initially non-sticking adhesive is activated by applying pressure to the PCR plate for optimum sealing, while the area directly above the well remains unchanged. The high visual clarity at these points ensures reproducible results.
Suitable for ELISA, real-time qPCR applications, quantitative DNA amplifications, as well as protein crystallisation.

- Low autofluorescence
- Resistant to DMSO
- **Free of DNase, RNase and DNA**

Technical specifications:

Art. No.	APT9.1
Gas-permeable	No
Puncturable	No
Temperature stability	-70 to +100 °C

Length between perforations 113 mm.

L x W (mm)	Thickn. (µm)	Sterility	Art. No.	Pack Qty.	€
139.7 x 78.6	50	Non-sterile	**APT9.1**	100 unit(s)	303,15

ROTH SELECTION



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PCR plates and vessels

PCR trays ROTILABO® 96 well

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Black, alphanumeric numbering
- Thin-walled for optimal heat transfer between thermocycler and sample
- Cavities with raised edge to aid covering with PCR film
- Suitable for most standard thermocyclers
- **RNase-, DNase- and human-DNA-free**



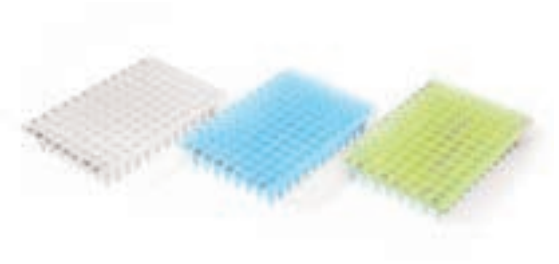
A 121 °C

Version	Type	Volume per well (µl)	Cut corner	Colour	Art. No.	Pack Qty.	€
Standard	with half rack	250	A12	colourless	**CEN0.1**	50 unit(s)	181,70
Low Profile	with whole rack	150	H1	colourless	**CEN1.1**	50 unit(s)	181,70

PCR trays ROTILABO® 96 well

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Black, alphanumeric numbering
- Volume per well 0,3 ml (working volume max. 250 µl, filling volume max. 300 µl)
- Thin-walled for optimal heat transfer between thermocycler and sample
- Cavities with raised edge to aid covering with PCR film
- Suitable for most standard thermocyclers
- **DNase-, RNase- and human DNA-free**



A 121 °C

Version	Type	Volume per well (µl)	Cut corner	Colour	Art. No.	Pack Qty.	€
Standard	without frame	250	H12	colourless	**CEL7.1**	50 unit(s)	181,70
Standard	without frame	250	H12	blue	**CEL8.1**	50 unit(s)	184,90
Standard	without frame	250	H12	yellow	**CEL9.1**	50 unit(s)	184,90

PCR trays ROTILABO® 96 well with partitioning

ROTH SELECTION. Material: PP. Autoclavable: Yes.

With perforation, separable into individual PCR-strips or smaller trays.

- Black, alphanumeric numbering
- Thin-walled for optimal heat transfer between thermocycler and sample
- Cavities with raised edge to aid covering with PCR film
- Suitable for most standard thermocyclers
- **DNase-, RNase- and human DNA-free**



A 121 °C

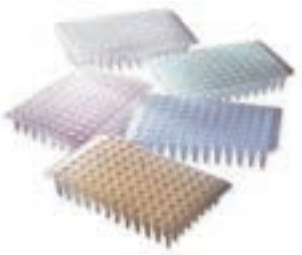
Type	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
without frame	250	colourless	**CEN2.1**	50 unit(s)	199,95

PCR plates and vessels

PCR trays MµltiⓇ 96 well µltraPlate

Sorenson. Material: PP. Autoclavable: Yes.

- Extremely thin wall, producing an even heat transfer and short cycle times for PCR experiments
- Easy to close with lid clips or sealing foil
- Alphanumerical coding for easy identification of samples
- Suitable for all current thermocyclers
- **Free of RNase/DNase/human DNA, PCR-inhibitor and pyrogen free**



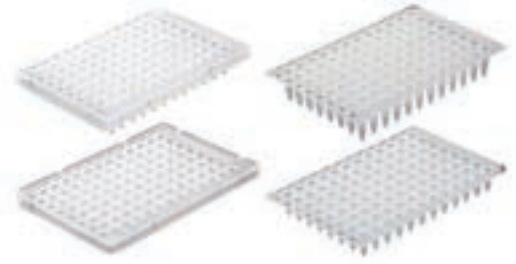
A 121 °C

Version	Type	Volume per well (µl)	Cut corner	Colour	Art. No.	Pack Qty.	€
Standard	without rack	200	H12	colourless	**N421.1**	25 unit(s)	129,85
Standard	without rack	200	H12	red	**N422.1**	25 unit(s)	121,50
Standard	without rack	200	H12	blue	**N423.1**	25 unit(s)	121,50
Standard	without rack	200	H12	green	**N424.1**	25 unit(s)	121,50
Standard	without rack	200	H12	yellow	**N425.1**	25 unit(s)	121,50

PCR trays 96 well

BRAND. Material: PP. Autoclavable: Yes.

- Blue, alphanumeric coding
- Cut corner for easier orientation
- Even, fast and precise heat transfer
- Smooth, inert container inner
- Reduced formation of enzymes and nucleic acids
- Reliable sealing with associated sealing mats
- Frame suitable for labelling
- PCR plates without rack suitable for all conventional thermocyclers
- Suitable for real-time PCR
- **Free from DNase/RNase, DNA and endotoxins**



A 121 °C

Version	Type	Volume per well (µl)	Cut corner	Colour	Pack.	Art. No.	Pack Qty.	€
Standard	with half frame	200	A12	colourless	10 x 5	**EYT4.1**	50 unit(s)	213,95
Standard	without rack	200	A12	colourless	10 x 5	**HAE6.1**	50 unit(s)	213,95
Low Profile	with half frame (raised)	150	A1	colourless	10 x 5	**EYT5.1**	50 unit(s)	213,95
Low Profile	without rack	150	H12	colourless	10 x 5	**HAE7.1**	50 unit(s)	213,95

PCR plates and vessels

PCR trays

BRAND. Material: PP. Autoclavable: Yes.

- Extra-thin, even wall thickness, for optimal heat transfer and short cycle times
- Thin-walled PCR trays for constant, fast and precise heat transfer
- Tubes have smooth and inert inner surfaces to minimise binding of enzymes and nucleic acids
- Wells have raised rims for protection against cross-contamination and reliable sealing with suitable sealing mats
- Suitable for all standard quantitative real-time thermocyclers
- **DNase-, DNA- and RNase-free**



A 121 °C

24 well

Version	Type	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
Standard	without rack	200	colourless	**XT94.1**	40 unit(s)	84,90

48 well

Version	Type	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
Standard	without rack	200	colourless	**XT95.1**	20 unit(s)	82,35

384 well

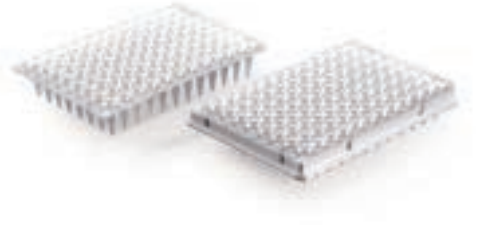
For sample volumes from 2 to 30 µl. The plates can be equipped using conventional multi-channel pipettes or by robot systems.

Version	Type	Volume per well (µl)	Colour	Pack.	Art. No.	Pack Qty.	€
Standard	with whole rack	40	colourless	5 x 10	**XT98.1**	50 unit(s)	405,30

PCR trays 96 well Real time

BRAND. Material: PP.

- Colour white, for the qPCR
- Significantly better results than clear 8-tube strips or trays in fluorescence measurements
- Evenly dyed with titanium dioxide to achieve an optimal reflection of fluorescence signals in combination with smooth surfaces



Version	Type	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
Standard	without rack	200	white	**XX02.1**	50 unit(s)	262,30
Standard	with half rack	200	white	**XX03.1**	50 unit(s)	262,30

PCR strips 8 Real time

BRAND. Material: PP.

- Colour white, for the qPCR
- Significantly better results than clear 8-tube strips or trays in fluorescence measurements
- Evenly dyed with titanium dioxide to achieve an optimal reflection of fluorescence signals in combination with smooth surfaces
- Vials with retaining tab at one end
- **Free from DNase/RNase, DNA and endotoxins**

Delivery without cap strips.

Version	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
without lid	200	white	**XX01.1**	125 unit(s)	130,45

PCR plates and vessels

PCR strips 12

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- PCR reaction strips, each with 12 reaction vials
- Thin-walled PCR vials guarantee optimum temperature exchange when heating and cooling during the PCR cycles
- **DNase-, RNase- and DNA-free**



A 121 °C

Delivery without cap strips.

Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
200	colourless	**EL74.1**	125 unit(s)	134,40

PCR strips 8

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- PCR reaction strips, each with 8 reaction vials
- Lid suspended individually
- Extremely thin-walled PCR vials guarantee optimum temperature exchange when heating and cooling down during the PCR cycles
- **DNase-, RNase- and DNA-free**



A 121 °C

Flat lid
Flat lid with penetrable cannula.

Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
200	colourless	**CH87.1**	125 unit(s)	117,20
200	blue	**CH88.1**	125 unit(s)	117,20
200	green	**CH89.1**	125 unit(s)	117,20
200	red	**CH90.1**	125 unit(s)	117,20
200	yellow	**CH91.1**	125 unit(s)	117,20

Convex cap
Convex cap, not puncturable.

Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
200	colourless	**CH92.1**	125 unit(s)	117,20
200	blue	**CH93.1**	125 unit(s)	117,20
200	green	**CH94.1**	125 unit(s)	117,20
200	red	**CH95.1**	125 unit(s)	117,20
200	yellow	**CH96.1**	125 unit(s)	117,20

PCR strips ROTILABO® 8 with single lids

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Single lid attached, flat
- Volume 0.2 ml (max. working volume 250 µl, max. filling volume 300 µl)
- Thin-walled for optimal heat transfer between thermocycler and sample
- Suitable for most standard thermocyclers
- Suitable for real-time PCR
- **DNase-, RNase- and human DNA-free**

A 121 °C

Version	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
Flat caps	200	colourless	**CEN5.1**	120 unit(s)	118,75

PCR plates and vessels

PCR strips ROTILABO® 8

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Volume 0.2 ml (max. working volume 250 µl, max. filling volume 300 µl)
- Numbering 1 to 8 for sample differentiation
- Thin-walled for optimal heat transfer between thermocycler and sample
- Suitable for most standard thermocyclers
- Containers with flat lids, suitable for real-time PCR
- **DNase-, RNase- and human DNA-free**



A 121 °C

Delivery incl. cap strips.

Version	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
Cover strips flat	200	colourless	**CEN4.1**	125 unit(s)	120,95
Cover strips convex	200	colourless	**CEN3.1**	125 unit(s)	120,95

PCR strips 8

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- PCR reaction strips, each with 8 reaction vials
- Attached cap strips allow easy opening and closing
- Convex cap
- Thin-walled PCR vials guarantee optimum temperature exchange when heating and cooling during the PCR cycles
- **DNase-, RNase- and DNA-free**



A 121 °C

Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
200	colourless	**CK82.1**	125 unit(s)	106,45
200	blue	**CK83.1**	125 unit(s)	106,45
200	green	**CK84.1**	125 unit(s)	106,45
200	pink	**CK85.1**	125 unit(s)	106,45
200	yellow	**CK86.1**	125 unit(s)	106,45

PCR strips 8

BRAND. Material: PP. Autoclavable: Yes.

- Extra-thin, even wall thickness, for optimal heat transfer and short cycle times
- Made of high-grade pure plastics containing no additives
- Produced under clean room conditions according to ISO 14 644-1 Class 5, 7 and 8
- Suitable for all standard thermocyclers
- Caps are easy to open and close
- **DNase-, DNA- and RNase-free**



A 121 °C

(1) Attached cap strips

Version	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
Cover convex	200	colourless	**XT89.1**	125 unit(s)	169,85

(2) Attached single cap

Flat single cap for optimal protection against contamination. Ideal for real-time PCR.

Version	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
Flat caps	200	colourless	**XT90.1**	120 unit(s)	182,75
Low Profile, flat caps	150	colourless	**CNT0.1**	120 unit(s)	182,75

(3) Separate cap strips
Vials with retaining tab on one end. Capped strips with a small lip on the side of each cap for careful, contamination-free opening. Vials with flat lids suitable for real-time PCR.

Delivery incl. cap strips.

Version	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
Flat cap	200	colourless	**HAE9.1**	250 unit(s)	272,00
Cover convex	200	colourless	**HAE8.1**	250 unit(s)	275,20

(3) Without lid
Suitable for use with flat lids for real-time PCR.

Delivery without cap strips.

Version	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
without lid	200	colourless	**XT91.1**	125 unit(s)	116,25

PCR strips MµltiⓇ 8 µltraStrips

Sorenson. Material: PP. Autoclavable: Yes.
Suitable for all conventional thermocycles, such as Perkin Elmer, Biometra.

- **Free of RNase/DNase-free, human DNAi, PCR inhibitor and pyrogen**



A 121 °C

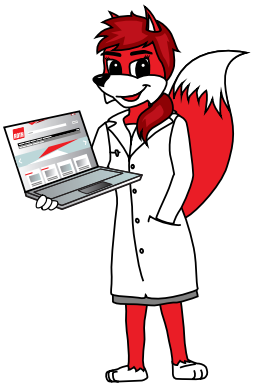
Sterile

Delivery incl. cap strips (8, convex, not puncturable).

Version	Volume per well (µl)	Colour	Art. No.	Pack Qty.	€
Convex cap	200	colourless	**E712.1**	120 unit(s)	208,55

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Reaction vessels

PCR individual vials

BRAND. Material: PP. Autoclavable: Yes.

Attached lid with secure fit, loss of liquid due to evaporation is reduced to a minimum. Lids are easy to open and close.

- Extra-thin, even wall thickness, for optimal heat transfer and short cycle times
- Made of high-grade pure plastics containing no additives
- Produced under clean room conditions according to ISO 14 644-1 Class 5, 7 and 8
- Suitable for all standard thermocyclers
- Containers with flat lids, suitable for real-time PCR
- **DNase, DNA and RNase free**



A 121 °C

Version	Vol. (ml)	Colour	Art. No.	Pack Qty.	€
Convex caps	0.2	colourless	**XT86.1**	1,000 unit(s)	85,65
Flat caps	0.2	colourless	**XT87.1**	1,000 unit(s)	71,45
Flat caps	0.5	colourless	**XT88.1**	1,000 unit(s)	64,55

PCR individual vials ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Volume 0.2 ml (max. working volume 250 µl, max. filling volume 300 µl)
- Thin-walled for optimal heat transfer between thermocycler and sample
- Suitable for all current thermocoupless
- Containers with flat lids, suitable for real-time PCR
- **Free of DNase, RNase and human DNA**



A 121 °C

Pic.	Version	Vol. (µl)	Colour	Art. No.	Pack Qty.	€
(1)	Convex cap	200	colourless	**CEL5.1**	1,000 unit(s)	69,95
(2)	Flat cap	200	colourless	**CEL6.1**	1,000 unit(s)	69,95

PCR individual vials MµLti®

Sorenson. Material: PP. Autoclavable: Yes.

- Extremely thin wall, fast and uniform heat transfer
- Suitable for all current thermocoupless
- **Free of RNase/DNase/human DNA, PCR-inhibitor and pyrogen free**



A 121 °C

Version	Vol. (µl)	Colour	Art. No.	Pack Qty.	€
Flat lid	500	colourless	**A774.1**	1,000 unit(s)	71,50
Flat lid	200	colourless	**H560.1**	1,000 unit(s)	132,05
Flat lid	200	red	**H561.1**	1,000 unit(s)	132,05
Flat lid	200	blue	**H562.1**	1,000 unit(s)	132,05
Flat lid	200	green	**H563.1**	1,000 unit(s)	132,05
Flat lid	200	yellow	**H564.1**	1,000 unit(s)	132,70

Reaction vessels

Reaction vials ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Graduated, frosted labelling area



A 121 °C ❄❄

Not a medical device / Not an IVD product

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
1.5	colourless	18,000	18,000	-70 to +121	**4182.1**	1,000 unit(s)	20,95
1.5	red	18,000	18,000	-70 to +121	**4189.1**	1,000 unit(s)	29,75
1.5	blue	18,000	18,000	-70 to +121	**4190.1**	1,000 unit(s)	29,75
1.5	yellow	18,000	18,000	-70 to +121	**4204.1**	1,000 unit(s)	29,75
1.5	green	18,000	18,000	-70 to +121	**4209.1**	1,000 unit(s)	29,75

Assorted colours

Colours available: red, blue, yellow, green, transparent.

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Pack.	Art. No.	Pack Qty.	€
1.5	assorted colours	18,000	18,000	-70 to +121	5 x 1000	**5913.1**	5,000 unit(s)	116,45

Reaction vials ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Additional volume above the last graduation allows for liquid expansion
- Graduated, frosted labelling space
- Ergonomic lid, opens with one hand, with click closure
- Puncturable lid
- **RNase/DNase-free, pyrogen-free, PCR inhibitor-free, metal-free**



NEW / +

A 121 °C ❄

Not a medical device / Not an IVD product

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Sterility	Art. No.	Pack Qty.	€
1.5	colourless	25,000	70,000	-20 to +121	**Sterile**	**ENE8.2**	500 unit(s)	12,80
1.5	colourless	25,000	70,000	-20 to +121	Non-sterile	**ENE9.2**	500 unit(s)	11,80
1.5	black	25,000	70,000	-20 to +121	Non-sterile	**ENH0.2**	500 unit(s)	12,60
2.0	colourless	25,000	70,000	-20 to +121	**Sterile**	**ENH1.2**	500 unit(s)	13,95
2.0	colourless	25,000	70,000	-20 to +121	Non-sterile	**ENH2.2**	500 unit(s)	12,80

Reaction vessels

Safety reaction tubes ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Firm plug fit, e.g. for applications under thermal load. Vessel base of 2 ml tubes is rounded on inside to enhance pellet formation.

- Graduated, with labelling space
- Penetrable lid membrane

A 121 °C ❄❄

Not a medical device / Not an IVD product

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
0.5	colourless	18,000	18,000	-70 to +121	**XC62.1**	1,000 unit(s)	21,70
1.5	colourless	18,000	18,000	-70 to +121	**XC63.1**	1,000 unit(s)	26,25
2	colourless	18,000	18,000	-70 to +121	**NA16.1**	1,000 unit(s)	25,70

Reaction vials 2 ml

BRAND. Material: PP. Autoclavable: Yes.

- Graduated, frosted labelling space on the side
- Lid membrane with even thickness of approx. 0.3 mm, can be penetrated by the analyser
- **Free of RNase, DNase, DNA and endotoxins**

A 121 °C ❄

Not a medical device / Not an IVD product

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Art. No.	Pack Qty.	€
2.0	colourless	20,000	20,000	**CK06.1**	500 unit(s)	41,30

Reaction vessels

Safety reaction vessels

BRAND. Material: PP. Autoclavable: Yes.

Additional lid lock for extra tightness, prevents unintentional opening of the lid. The wide lid rim allows easy handling using only one hand.

- Graduated with frosted labelling space
- Manufactured from high quality medical grade polypropylene
- Produced under clean-room conditions to ISO 14 644-1 Class 8
- **RNase-, DNase-, DNA- and endotoxins-free**



A 121 °C

Not a medical device / Not an IVD product

Vol. (ml)	Ø ext. (mm)	Height (mm)	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
0.5	10	30	30,000	30,000	-190 to +121	**CNT3.1**	500 unit(s)	30,10
1.5	10.75	40.8	30,000	30,000	-190 to +121	**CNT4.1**	1,000 unit(s)	52,30
2	12.8	40	30,000	30,000	-190 to +121	**CNT5.1**	500 unit(s)	31,60

Reaction vials 1.5 ml without lid

Kartell. Material: PP. Autoclavable: Yes.

Dimensions: outside Ø 11.0 x H 39.5 mm.

- Frosted labelling space on the side



A 121 °C

In vitro diagnostic medical device according to IVDD

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Art. No.	Pack Qty.	€
1.5	colourless	6,000	6,000	**CK05.2**	1,000 unit(s)	28,45

Reaction vessels

Reaction vials MµLti®

Sorenson. Material: PP. Autoclavable: Yes.

- Graduation every 250 µl
- Frosted labelling spaces
- Leak-tight closure
- Flat, markable lid
- **RNase/DNase-free, human DNA-free, PCR inhibitor-free, pyrogen-free**



A 121 °C ❄❄

Not a medical device / Not an IVD product

SafeSeal

Vol. (ml)	Filling capacity (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
0.5	0.65	colourless	25,000	25,000	-80 to +121	**7060.1**	1,000 unit(s)	28,35
1.5	1.7	colourless	25,000	25,000	-80 to +121	**7080.1**	1,000 unit(s)	41,95
2	2	colourless	25,000	25,000	-80 to +121	**7083.1**	800 unit(s)	64,00

SafeSeal assorted colours

Colours available: red, blue, green, yellow, purple.

Vol. (ml)	Filling capacity (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
0.5	0.65	assorted colours	25,000	25,000	-80 to +121	**7096.1**	1,000 unit(s)	61,15
2	2	assorted colours	25,000	25,000	-80 to +121	**N457.1**	800 unit(s)	69,70

SafeSeal LowBinding

Optimised surface with polymer coating, thus minimum sample adhesion.

Vol. (ml)	Filling capacity (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
0.5	0.65	colourless	25,000	25,000	-80 to +121	**7137.1**	1,000 unit(s)	99,95
1.5	1.7	colourless	25,000	25,000	-80 to +121	**7154.1**	1,000 unit(s)	99,95
2	2	colourless	25,000	25,000	-80 to +121	**7181.1**	1,000 unit(s)	110,05

Reaction vials MµLti® Dolphin 2 ml

Sorenson. Material: PP. Autoclavable: Yes.

With special design to facilitate sample removal, particularly for DNA/RNA centrifuging.

- Flat lid with syringe penetration zone
- Easy to label due to roughened side surfaces and flat lid
- **RNase/DNase-free, human DNA-free, PCR inhibitor-free, pyrogen-free**



A 121 °C ❄❄

Not a medical device / Not an IVD product

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
2	colourless	15,000	15,000	-80 to +121	**E708.1**	1,000 unit(s)	64,75

Reaction vessels

Reaction vials ROTILABO®

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- **RNase/DNase-free**



A 121 °C ❄❄

Not a medical device / Not an IVD product

0.5 ml
Graduated.

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
0.5	colourless	30,000	30,000	-90 to +121	**EA83.1**	1,000 unit(s)	67,00

1.5 ml
Graduated.

Vol. (ml)	Colour	Ø ext. (mm)	Height (mm)	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
1.5	colourless	10.67	41.15	26,000	26,000	-90 to +121	**EA84.1**	1,000 unit(s)	75,95

2 ml
Graduated.

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
2	colourless	25,000	25,000	-90 to +121	**EA85.1**	1,000 unit(s)	97,35

Reaction vials ROTILABO® 1.5 ml black

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Suitable for storage of light-sensitive samples



A 121 °C ❄❄

Not a medical device / Not an IVD product

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
1.5	black	15,000	15,000	-80 to +121	**AA80.1**	500 unit(s)	29,50

Reaction vessels

Safety reaction tubes 5 ml

ROTH SELECTION. Autoclavable: Yes.

- Tight closing seal
- Graduated labelling space on side of vessel and lid
- **Free of RNase/DNase/human**
- **PCR Inhibitor-free, ATP-free**
- **Pyrogen-free**

A 121 °C ❄❄

Not a medical device / Not an IVD product

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Sterility	Pack.	Art. No.	Pack Qty.	€
5	colourless	21,000	21,000	-80 to +100	**Sterile**	individually	**HNY1.1**	50 unit(s)	77,60
5	colourless	21,000	21,000	-80 to +100	Non-sterile	1 x 100	**HNY2.1**	100 unit(s)	23,15

Reaction vials 5 ml

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Dimensions: vial-Ø 15 mm (incl. edge 18 mm) x H 61 mm.

- Easy to open lock for simple handling
- Labelling space on side of vessel and lid
- **RNase/DNase-free, pyrogen-free**



A 121 °C ❄❄

Not a medical device / Not an IVD product

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Sterility	Pack.	Art. No.	Pack Qty.	€
5	colourless	5,000	5,000	-90 to +121	**Sterile**	10 x 20	**EKY3.1**	200 unit(s)	73,45
5	colourless	5,000	5,000	-90 to +121	Non-sterile	1 x 200	**EKY4.1**	200 unit(s)	72,80
5	blue	5,000	5,000	-90 to +121	Non-sterile	1 x 200	**EKY5.1**	200 unit(s)	72,80
5	green	5,000	5,000	-90 to +121	Non-sterile	1 x 200	**EKY6.1**	200 unit(s)	72,80
5	yellow	5,000	5,000	-90 to +121	Non-sterile	1 x 200	**EKY7.1**	200 unit(s)	72,80
5	pink	5,000	5,000	-90 to +121	Non-sterile	1 x 200	**EKY8.1**	200 unit(s)	72,80
5	black	5,000	5,000	-90 to +121	Non-sterile	1 x 200	**EKY9.1**	200 unit(s)	78,40

Reaction vials ROTILABO® 5 ml

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- Graduated labelling space on side of vessel and lid
- Leak-tight closure
- Vial Ø 15 mm (incl. edge 18 mm) x H 60 mm



A 121 °C ❄❄

Not a medical device / Not an IVD product

Vol. (ml)	Colour	Centrifugability fixed angle rotor (x g)	Centrifugability swing-out rotor (x g)	Temperature stability (°C)	Art. No.	Pack Qty.	€
5	colourless	5,000	5,000	-80 to +121	**PE68.1**	250 unit(s)	59,25
5	black	5,000	5,000	-80 to +121	**PE69.1**	250 unit(s)	59,25

Reaction vessels



Locking clips ROTILABO®

ROTH SELECTION.

For reaction vials. Secure closure of vials when cooking or freezing. With grip lug for easy adjustment and removal of the vials. Reusable. Assorted colours.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
0.5 ml reaction vials	**N216.1**	100 unit(s)	61,50
1.5 / 2 ml reaction vials	**N217.1**	100 unit(s)	63,65



A 121 °C

Reaction vial opener ROTILABO®

ROTH SELECTION. Autoclavable: Yes.

Opens and closes reaction vials. The opener only touches the outside edge of the lid, reduces risk of contamination. Assorted colours.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
0.2-2 ml reaction vials	**AA94.1**	10 unit(s)	19,05



A 121 °C ❄❄

Reaction vials SnapTwist™

ROTH SELECTION. Material: PP. Autoclavable: Yes.

- **Time-saving cap:** simply press for a secure closure, open with only a ¼ turn
- With clear polished surface
- Leak-proof lip seal on closure
- Temperature-stable from -90 to +100 °C
- **RNase, DNase, DNA and pyrogen-free**

Not a medical device / Not an IVD product

Freestanding
Centrifugable up to 17 000 x g.

Delivery without cap.

Vol. (ml)	Lock	Art. No.	Pack Qty.	€
1.5	Lip seal	**YK13.1**	1,000 unit(s)	85,50
1.8	Lip seal	**YK15.1**	1,000 unit(s)	81,60

Conical
Centrifugable up to 20 000 x g.

Delivery without cap.

Vol. (ml)	Lock	Art. No.	Pack Qty.	€
1.5	Lip seal	**YK14.1**	1,000 unit(s)	74,75
1.8	Lip seal	**YK16.1**	1,000 unit(s)	91,40



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Accessories cap for reaction vials SnapTwist™

ROTH SELECTION. Material: HDPE. Non-sterile. Autoclavable: No.
Cap inserts for identification available as an option (CK72.1 ff).

Not a medical device / Not an IVD product

Lock	Colour	Art. No.	Pack Qty.	€
Lip seal	colourless	**YK17.1**	1,000 unit(s)	74,75
Lip seal	blue	**YK18.1**	1,000 unit(s)	74,75
Lip seal	green	**YK19.1**	1,000 unit(s)	74,75
Lip seal	violet	**YK20.1**	1,000 unit(s)	74,75
Lip seal	red	**YK21.1**	1,000 unit(s)	74,75
Lip seal	yellow	**YK22.1**	1,000 unit(s)	74,75
Lip seal	white	**YK23.1**	1,000 unit(s)	74,75

Screw-top jars

Screw vials sterile

ROTH SELECTION. Material: PP, Screw cap made of **HDPE,** with seal made of **TPS**. **Sterile**. Autoclavable: Yes.

- 1.5 and 2 ml reaction vials with labelling space
- Temperature-stable from -80 to +121 °C
- Screw cap Ø 13 mm
- **RNase/DNase-free, pyrogen-free**



S A 121 °C ❄❄

Delivery incl. screw-on lid.

Not a medical device / Not an IVD product

Free-standing

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	TPS seal	10.5	48	**XC80.1**	200 unit(s)	52,70
1.5	TPS seal	10.5	48	**XC82.1**	200 unit(s)	52,70
2	TPS seal	10.5	48	**XC84.1**	200 unit(s)	52,70

Conical

Centrifugable to 25 000 x g.

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	TPS seal	8.0	47	**XC79.1**	200 unit(s)	51,20
1.5	TPS seal	10.5	47	**XC81.1**	200 unit(s)	52,70
2	TPS seal	11.5	47	**XC83.1**	200 unit(s)	51,20

Screw vials

Sarstedt. Material: PP, Cap with O-ring seal made of EPDM. Non-sterile. Autoclavable: Yes.

- Centrifugable to 20000 x g
- Without graduation and labelling field
- With knurling, for single-handed insertion into suitable stands
- Cap attached, non-screwed
- In accordance with IATA requirements



A 121 °C ❄❄

In vitro diagnostic medical device according to IVDD

Free-standing

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	EPDM seal	10.8	44	**HPX5.1**	500 unit(s)	69,90

Conical

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5	EPDM seal	10.8	44	**HPX3.1**	500 unit(s)	65,80
2	EPDM seal	10.8	44	**HPX4.1**	500 unit(s)	69,90

Screw-top jars

Screw vials

ROTH SELECTION. Material: PP, screw cap with silicone seal.
Autoclavable: Yes.

- Only 1¼ rotations of the lid for fast opening and closing
- Temperature-stable from -196 to +121 °C
- Lid inserts for identification available as an option (see CK72.1 ff.)
- **RNase/DNase/DNA-free and pyrogen-free**



A 121 °C ❄❄❄

Not a medical device / Not an IVD product

Free-standing

Non-sterile.

- Without graduation and labelling field
- Centrifugability in g: 17,000

Delivery incl. screw-on lid (for attachment, packed separately).

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	Silicone seal	13	47	**CK57.1**	1,000 unit(s)	198,90
1.5	Silicone seal	13	47	**CK58.1**	1,000 unit(s)	170,95
2	Silicone seal	13	47	**CK60.1**	1,000 unit(s)	170,95

Free-standing sterile

Sterile.

- Without graduation and labelling field
- Centrifugability in g: 17,000

Delivery incl. screw cap (attached, fitted).

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	Silicone seal	13	47	**CK62.1**	500 unit(s)	117,20
1.5	Silicone seal	13	47	**CK63.1**	500 unit(s)	117,20
2	Silicone seal	13	47	**CK65.1**	500 unit(s)	117,20

Free-standing sterile, graduated

Sterile.

- With graduation and labelling area
- Centrifugability in g: 17,000

Delivery incl. screw cap (attached, fitted).

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	Silicone seal	13	47	**CK67.1**	500 unit(s)	175,25
1.5	Silicone seal	13	47	**CK68.1**	500 unit(s)	155,90
2	Silicone seal	13	47	**CK70.1**	500 unit(s)	155,90

Conical

Non-sterile.

- Without graduation and labelling field
- Centrifugability in g: 20,000

Delivery incl. screw-on lid (for attachment, packed separately).

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5	Silicone seal	13	47	**CK59.1**	1,000 unit(s)	170,95
2	Silicone seal	13	47	**CK61.1**	1,000 unit(s)	201,05

Screw-top jars

Conical sterile
Sterile.

- Without graduation and labelling field
- Centrifugability in g: 20,000

Delivery incl. screw cap (attached, fitted).

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5	Silicone seal	13	47	**CK64.1**	500 unit(s)	117,20
2	Silicone seal	13	47	**CK66.1**	500 unit(s)	145,15

Conical sterile, graduated
Sterile.

- With graduation and labelling area
- Centrifugability in g: 20,000

Delivery incl. screw cap (attached, fitted).

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5	Silicone seal	13	47	**CK69.1**	500 unit(s)	155,90
2	Silicone seal	13	47	**CK71.1**	500 unit(s)	155,90

Screw vials sterile

ROTH SELECTION. Material: PP. **Sterile**. Autoclavable: Yes.

Ideal for storage in freezers, for applications in boiling water bath or for centrifuging. Tight sealing due to combination of lip seal and silicone ring in cap.

- Graduated, with large labelling space
- Only 1¼ rotations of the lid for fast opening and closing
- Thick-walled for high stability
- Excellent visual clarity
- Temperature-stable from -196 to +121 °C
- **RNase/DNase/DNA-free and pyrogen-free**



S A 121 °C ❄❄❄

Delivery incl. screw-on lid (mounted).

Not a medical device / Not an IVD product

Free-standing
Single-handed opening in appropriate racks (e.g. AEN2.1ff) through longitudinal rib at the top edge and engaging device on the bottom.

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Pack.	Art. No.	Pack Qty.	€
0.5	Lip seal + silicone seal	13	47	10 x 50	**AET3.1**	500 unit(s)	138,70
1.5	Lip seal + silicone seal	13	47	10 x 50	**AET4.1**	500 unit(s)	145,15
2	Lip seal + silicone seal	13	47	10 x 50	**AET6.1**	500 unit(s)	145,15

Conical
Centrifugable to 20 000 x g.

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Pack.	Art. No.	Pack Qty.	€
1.5	Lip seal + silicone seal	13	47	10 x 50	**AET5.1**	500 unit(s)	145,15

Screw-top jars

Screw vials

ROTH SELECTION. Material: PP. Non-sterile. Autoclavable: Yes.

Ideal for storage in freezers, for applications in boiling water bath or for centrifuging. Tight sealing due to combination of lip seal and silicone ring in cap.

- Graduated, with large labelling space
- Only 1¼ rotations of the lid for fast opening and closing
- Thick-walled for high stability
- Excellent visual clarity
- Temperature-stable from -196 to +121 °C
- **RNase/DNase/DNA-free and pyrogen-free**





A 121 °C ❄❄❄

Delivery without lid.

Not a medical device / Not an IVD product

Free-standing
Single-handed opening in appropriate racks (e.g. AEN2.1ff) through longitudinal rib at the top edge and engaging device on the bottom.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
0.5	13	47	**AET7.1**	1,000 unit(s)	112,90
1.5	13	47	**AET8.1**	1,000 unit(s)	112,90
2	13	47	**AEX0.1**	1,000 unit(s)	112,90

Conical
Centrifugable to 20 000 x g.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5	13	47	**AET9.1**	1,000 unit(s)	112,90

Screw vials

ROTH SELECTION. Material: PP. Non-sterile. Autoclavable: Yes.

- Graduated, with labelling space
- Temperature-stable from -196 to +121 °C
- **RNase/DNase/DNA-free and pyrogen-free**



A 121 °C ❄❄❄

Delivery without lid.

Not a medical device / Not an IVD product

Free-standing

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5	11	44	**AEK4.1**	1,000 unit(s)	149,45
2	11	44	**AEK6.1**	1,000 unit(s)	108,60

Conical
Centrifugable to 20 000 x g.

Vol. (ml)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.5	11	44	**AEK5.1**	1,000 unit(s)	149,45

Accessories screw caps with septum

ROTH SELECTION. Material: PP, Septum made of PTFE/silicone.

Tight seal through integrated septum. Easy to pierce with pipette tips or cannula.

Not a medical device / Not an IVD product

Lock	Art. No.	Pack Qty.	€
PTFE/silicone-septum	**AEK7.1**	250 unit(s)	145,15

Screw-top jars

Screw vials

ROTH SELECTION. Material: PP. Non-sterile. Autoclavable: Yes.

- For storing light-sensitive samples
- Only 1¼ rotations of the lid for fast opening and closing
- Temperature-stable from -196 to +121 °C
- **RNase/DNase/DNA-free and pyrogen-free**



A 121 °C ❄❄❄

Delivery without screw-on lid.

Not a medical device / Not an IVD product

Free-standing

Vol. (ml)	Lock	Colour	Art. No.	Pack Qty.	€
0.5	Silicone seal	brown	**CK47.1**	1,000 unit(s)	112,90
1.5	Silicone seal	brown	**CK48.1**	1,000 unit(s)	112,90
2	Silicone seal	brown	**CK50.1**	1,000 unit(s)	112,90

Conical

Centrifugable to 20 000 x g.

Vol. (ml)	Lock	Colour	Art. No.	Pack Qty.	€
1.5	Silicone seal	brown	**CK49.1**	1,000 unit(s)	112,90
2	Silicone seal	brown	**CK51.1**	1,000 unit(s)	112,90

Accessories screw-on lid

A 121 °C ❄❄❄

ROTH SELECTION. Material: PP. Non-sterile. Autoclavable: Yes.

- Suitable for reaction vials (CK47.1 ff, AET7.1 ff)
- Brown lids offer optimum light protection in combination with brown reaction vials
- Lid inserts for identification available as an option (see CK72.1 ff)

Not a medical device / Not an IVD product

Screw-on lid attached

Lock	Colour	Art. No.	Pack Qty.	€
Silicone seal	white	**CK53.1**	1,000 unit(s)	149,45

Loose

Lock	Colour	Art. No.	Pack Qty.	€
Silicone seal	brown	**AEK2.1**	1,000 unit(s)	123,65
Silicone seal	red	**CK54.1**	1,000 unit(s)	117,20
Silicone seal	white	**CK55.1**	1,000 unit(s)	117,20

Cryogenic vials Cryo.s™ sterile



S ❄❄❄

Greiner Bio-One. Material: PP, transparent. **Sterile**.

For storage of tissue, cells, fungi, bacteria, spores, cellular extractions or bodily fluids at ultra-low temperatures for research and development as well as diagnostic purposes. Cryo.s™ cryogenic tubes must not be stored in the liquid phase of liquid nitrogen, but rather only in the superjacent gas phase. Not intended for an application in the area of reproduction.

- For sample storage at -20/-80 °C and in the gas phase above LN_2
- Suitable for shipping via air freight
- White labelling space, scratch resistant
- Colour of screw cap: natural
- Free of heavy metals, USP class VI-certified
- Temperature-stable from -196 to +121 °C
- **Free of detectable RNase, DNase, and human DNA, detectable endotoxins and cytotoxic substances**

Delivery incl. 150 (volume 1-2 ml) and/or 100 (volume 5 ml) cap inserts for additional identification of the caps.

In vitro diagnostic medical device according to IVDD

Screw-top jars

Round bottom inside thread

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Pack.	Art. No.	Pack Qty.	€
2	Lip seal	12.5	48	5 x 100	**HLX1.1**	500 unit(s)	224,70
5	Lip seal	12.5	86	6 x 50	**HLX3.1**	300 unit(s)	150,95

Star foot outer thread

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Pack.	Art. No.	Pack Qty.	€
2	Lip seal	12.5	47	5 x 100	**HLX4.1**	500 unit(s)	224,70
3	Lip seal	12.5	83	6 x 50	**HLX5.1**	300 unit(s)	150,95

Star foot i

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Pack.	Art. No.	Pack Qty.	€
1	Lip seal	12.5	42	5 x 100	**HLX0.1**	500 unit(s)	224,70
2	Lip seal	12.5	48	5 x 100	**HLX2.1**	500 unit(s)	224,70

Cryogenic vials True North™ sterile

ROTH SELECTION. Material: PP. **Sterile**. Autoclavable: Yes.

Lid via vial with identical Ø (13 mm), therefore also suitable for cryogenic box format 10 x 10. Suitable for storage in freezers or liquid nitrogen (gas phase). Temperature-stable from -196 to +121 °C.

- Graduated, with labelling space
- **RNase/DNase-free, non-pyrogenic and non-cytotoxic**



S | A 121 °C | ❄❄❄

Colour assortment: coloured lid (blue, red, green, violet, grey).

Not a medical device / Not an IVD product

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Colour	Pack.	Art. No.	Pack Qty.	€
2	Silicone seal	13	49	assorted colours	10 x 50	**TP67.1**	500 unit(s)	203,20
2	Silicone seal	13	49	colourless	10 x 50	**XT57.1**	500 unit(s)	203,20

Accessories screw-on lid

ROTH SELECTION. Material: PP. Non-sterile. Autoclavable: Yes.

Flat cap, suitable for automatic packaging machines. Suitable for vials AET7.1 ff.

- **RNase/DNase/DNA-free and pyrogen-free**

A 121 °C | ❄❄❄

Not a medical device / Not an IVD product

Lock	Colour	Designation	Art. No.	Pack Qty.	€
Lip seal and silicone seal	yellow	Lid, yellow	**AEX1.1**	1,000 unit(s)	115,05
Lip seal and silicone seal	red	Lid, red	**AEX2.1**	1,000 unit(s)	115,05
Lip seal and silicone seal	green	Lid, green	**AEX3.1**	1,000 unit(s)	115,05
Lip seal and silicone seal	blue	Lid, blue	**AEX4.1**	1,000 unit(s)	115,05
Lip seal and silicone seal	white	Lid, white	**AEX5.1**	1,000 unit(s)	115,05
Lip seal and silicone seal	colourless	Lid, colourless	**AEX6.1**	1,000 unit(s)	115,05
Lip seal and silicone seal	assorted colours	Lid, assorted colours (yellow, red, green, blue, white)	**AEX7.1**	1,000 unit(s)	115,05

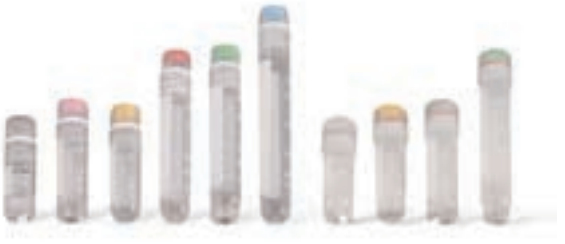
Screw-top jars

Cryogenic vials sterile

ROTH SELECTION. Material: PP. **Sterile**. Autoclavable: Yes.

Suitable for storage of cell cultures, serums, blood components, bacteriological cultures and other liquids at low temperatures in refrigerators or nitrogen vessels. Suitable for storage of samples in he gas phase of liquid nitrogen. Lid and vial made of identical material, even expansion of the material, no danger of explosion.

- Non-slip lid with vertical strips
- 1¼ turn for quick cap opening and closing
- White labelling space
- High transparency, sample readily visible
- Round inside bottom, contents empty completely
- Temperature-stable up to -196 °C
- Gamma-sterilised
- **RNase/DNase/DNA-free and pyrogen-free**



S A 121 °C ❄❄❄

In vitro diagnostic medical device according to IVDD

Round bottom outer thread

Centrifugability in g: 17,000

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	Lip seal + silicone seal	12.5	48	**AEH7.1**	100 unit(s)	46,15
2	Lip seal	12.5	48	**E291.1**	100 unit(s)	35,30
2	Silicone seal	12.5	48	**E315.1**	100 unit(s)	46,80

Round bottom inside thread

Centrifugability in g: 17,000

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	Silicone seal	12.5	48	**E310.1**	100 unit(s)	42,80
4	Silicone seal	12.5	72	**E311.1**	100 unit(s)	49,25
5	Silicone seal	12.5	92	**E313.1**	100 unit(s)	48,30

Free-standing outer thread

Self-standing vials with thread on the bottom, thus possible to open with one hand in stands with engaging device.

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.2	Lip seal + silicone seal	12.5	43	**AEH6.1**	100 unit(s)	46,15
1.2	Lip seal	12.5	43	**E290.1**	100 unit(s)	32,15
1.2	Silicone seal	12.5	43	**E314.1**	100 unit(s)	46,80
2	Lip seal + silicone seal	12.5	49	**AEH8.1**	100 unit(s)	40,10
2	Lip seal	12.5	49	**E292.1**	100 unit(s)	32,15
2	Silicone seal	12.5	49	**E316.1**	100 unit(s)	41,40
3	Lip seal + silicone seal	12.5	72	**AEH9.1**	100 unit(s)	40,10
3	Lip seal	12.5	72	**E293.1**	100 unit(s)	34,30
3	Silicone seal	12.5	72	**E317.1**	100 unit(s)	48,95
4	Lip seal + silicone seal	12.5	78	**AEK0.1**	100 unit(s)	52,60
4	Lip seal	12.5	78	**E294.1**	100 unit(s)	40,35
4	Silicone seal	12.5	78	**E318.1**	100 unit(s)	51,50
5	Lip seal + silicone seal	12.5	92	**AEK1.1**	100 unit(s)	57,65
5	Lip seal	12.5	92	**E295.1**	100 unit(s)	40,35
5	Silicone seal	12.5	92	**E319.1**	100 unit(s)	46,80

Free-standing inside thread

Self-standing vials with thread on the bottom, thus possible to open with one hand in stands with engaging device.

Vol. (ml)	Lock	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
1.2	Silicone seal	12.5	43	**E308.1**	100 unit(s)	39,25
2	Silicone seal	12.5	49	**E309.1**	100 unit(s)	39,25
4	Silicone seal	12.5	78	**E312.1**	100 unit(s)	49,25

Screw-top jars



❄❄❄

Accessories lid inserts for cryogenic vials

ROTH SELECTION. Material: PP.

For colour-coding and easier identification of samples.
Suitable for 1.2 to 5 ml cryogenic vials.

Colour	Art. No.	Pack Qty.	€
red	**E322.1**	500 unit(s)	18,50
blue	**E321.1**	500 unit(s)	18,50
green	**E323.1**	500 unit(s)	18,50
white	**E320.1**	500 unit(s)	18,50
yellow	**E324.1**	500 unit(s)	18,50
assorted colours	**E325.1**	500 unit(s)	18,50

❄❄❄

Accessories holder for cryogenic vials

ROTH SELECTION. Material: Aluminium.

For storage of up to 5 cryogenic vials 1.2 or 2 ml in liquid nitrogen vessels and Dewar vessels.

Length (mm)	Art. No.	Pack Qty.	€
290	**P169.1**	12 unit(s)	15,00



NEW / +

❄❄❄

Cryo holder

ROTH SELECTION. Material: Aluminium.

Flexible cryo holder, suitable for up to six cryogenic tubes up to 5 ml.
For storage in a freezer or Dewar vessel.

Length (mm)	Art. No.	Pack Qty.	€
150	**1L8X.1**	12 unit(s)	32,75

NEW / +

❄❄❄

Accessories sleeve for cryo holder

ROTH SELECTION. Material: PVC.

Transparent sleeve protects cryogenic tubes in the cryo holder during storage.

Length (mm)	Ø ext. (mm)	Art. No.	Pack Qty.	€
275	14.5	**1L8Y.1**	100 unit(s)	100,80



S | A 121 °C | ❄❄❄

Cryogenic vials 10 ml sterile

ROTH SELECTION. Material: PP, Lid made of HDPE. **Sterile**.
Autoclavable: Yes.

Suitable for storage of cell cultures, serums, blood components, bacteriological cultures and other liquids.

- Self-standing
- Outer thread
- Non-slip lid with vertical strips
- White labelling space
- High transparency, sample readily visible
- Round inside bottom, contents empty completely
- Gamma-sterilised
- **RNase/DNase/DNA-free and pyrogen-free**

In vitro diagnostic medical device according to IVDD

Vol. (ml)	Lock	Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	Silicone seal	17	14	84	**P168.1**	50 unit(s)	28,50
10	Silicone seal	17	14	84	**P168.2**	500 unit(s)	266,60



Filtration, Water Purification & Dialysis

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Syringe filters



Syringe filters ROTILABO®

ROTH SELECTION. Non-sterile.

With hydrophilic or hydrophobic membranes.

Not a medical device / Not an IVD product

MCE

With hydrophilic membrane made of mixed cellulose ester (cellulose acetate and nitrate) for filtration of aqueous solutions.

Technical specifications:

Art. No.	P820.1	P818.1	P819.1
Ø Membrane	25 mm		
Ø Housing	29 mm		
Housing material	PVC		
Sample volume	~100 ml		
Dead volume	<100 µl		
Filtration area	3.9 cm²		
Max. application temperature	45 °C		
Max. operating pressure	5 bar		
Inlet connection	Luer lock connector		
Outlet connection	Luer connector		

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,8	Non-sterile	25	**P820.1**	100 unit(s)	181,70
0,22	Non-sterile	25	**P818.1**	100 unit(s)	181,70
0,45	Non-sterile	25	**P819.1**	100 unit(s)	174,15

Nylon

With hydrophilic nylon membrane for filtration of aqueous and many organic solutions.

Technical specifications:

Art. No.	CCX8.1	KY61.1	CCX9.1	KY64.1
Ø Membrane	13 mm	30 mm	13 mm	30 mm
Ø Housing	19 mm	33 mm	19 mm	33 mm
Housing material	PP			
Sample volume	~10 ml	~100 ml	~10 ml	~100 ml
Dead volume	<15 µl	<80 µl	<15 µl	<80 µl
Filtration area	0.8 cm²	4.52 cm²	0.8 cm²	4.52 cm²
Max. application temperature	45 °C			
Max. operating pressure	10 bar	8.6 bar	10 bar	8.6 bar
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,20	Non-sterile	13	**CCX8.1**	100 unit(s)	160,20
0,20	Non-sterile	30	**KY61.1**	100 unit(s)	166,65
0,45	Non-sterile	13	**CCX9.1**	100 unit(s)	160,20
0,45	Non-sterile	30	**KY64.1**	100 unit(s)	170,95

PES

With hydrophilic membrane made of polyethersulfone (PES) for separation of extremely fine particles in aqueous solutions.

Technical specifications:

Art. No.	P821.1
Ø Membrane	30 mm
Ø Housing	33 mm
Housing material	PP
Sample volume	~100 ml
Dead volume	<80 µl
Filtration area	4.52 cm²
Max. application temperature	45 °C
Max. operating pressure	8.6 bar
Inlet connection	Luer lock connector
Outlet connection	Luer connector

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	Non-sterile	30	**P821.1**	100 unit(s)	344,00

PTFE

With hydrophobic membrane made of polytetrafluoroethylene (PTFE) for filtration of organic solutions and for air filtration.

Technical specifications:

Art. No.	CCY2.1	P815.1	CCY3.1	P816.1	P817.1
Ø Membrane	13 mm	25 mm	13 mm	25 mm	
Ø Housing	19 mm	29 mm	19 mm	29 mm	
Housing material	PP	PE	PP	PE	
Sample volume	~10 ml	~100 ml	~10 ml	~100 ml	
Dead volume	<15 µl	<100 µl	<15 µl	<100 µl	
Filtration area	0.8 cm²	3.9 cm²	0.8 cm²	3.9 cm²	
Max. application temperature	45 °C				
Max. operating pressure	10 bar	5 bar	10 bar	5 bar	
Inlet connection	Luer lock connector				
Outlet connection	Luer connector				

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,20	Non-sterile	13	**CCY2.1**	100 unit(s)	160,20
0,20	Non-sterile	25	**P815.1**	100 unit(s)	241,90
0,45	Non-sterile	13	**CCY3.1**	100 unit(s)	160,20
0,45	Non-sterile	25	**P816.1**	100 unit(s)	174,15
5,0	Non-sterile	25	**P817.1**	100 unit(s)	174,15

PVDF

With hydrophilic membrane made of polyvinylidene fluoride (PVDF) for filtration of aqueous and slightly organic solutions.

Technical specifications:

Art. No.	CCY0.1	KY62.1	CCY1.1	KY63.1
Ø Membrane	13 mm	30 mm	13 mm	30 mm
Ø Housing	19 mm	33 mm	19 mm	33 mm
Housing material	PP			
Sample volume	~10 ml	~100 ml	~10 ml	~100 ml
Dead volume	<15 µl	<80 µl	<15 µl	<80 µl
Filtration area	0.8 cm²	4.52 cm²	0.8 cm²	4.52 cm²
Max. application temperature	45 °C			
Max. operating pressure	10 bar	8.6 bar	10 bar	8.6 bar
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	Non-sterile	13	**CCY0.1**	100 unit(s)	160,20
0,22	Non-sterile	30	**KY62.1**	100 unit(s)	166,65
0,45	Non-sterile	13	**CCY1.1**	100 unit(s)	160,20
0,45	Non-sterile	30	**KY63.1**	100 unit(s)	170,95

Syringe filters



S

Syringe filters ROTILABO®

ROTH SELECTION. **Sterile**.

Individually packed. With Luer lock inlet and Luer outlet.

Not a medical device / Not an IVD product

MCE

With hydrophilic membrane made of mixed cellulose ester (MCE) for filtering additives, tissue culture media and antibiotics.

Technical specifications:

Art. No.	KH54.1	KH55.1
Ø Membrane	30 mm	
Ø Housing	33 mm	
Housing material	PMMA polymer	
Sample volume	~100 ml	
Dead volume	<80 µl	
Filtration area	4.52 cm²	
Max. application temperature	45 °C	
Max. operating pressure	8.6 bar	
Inlet connection	Luer lock connector	
Outlet connection	Luer connector	

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	**Sterile**	30	**KH54.1**	50 unit(s)	88,70
0,45	**Sterile**	30	**KH55.1**	50 unit(s)	88,70

PES

With hydrophilic membrane made of polyethersulfone (PES) for ultra-fast filtration of tissue culture media, additives and other aqueous solutions.

Technical specifications:

Art. No.	P668.1
Ø Membrane	30 mm
Ø Housing	33 mm
Housing material	PMMA polymer
Sample volume	~100 ml
Dead volume	<80 µl
Filtration area	4.52 cm²
Max. application temperature	45 °C
Max. operating pressure	8.6 bar
Inlet connection	Luer lock connector
Outlet connection	Luer connector

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	**Sterile**	30	**P668.1**	50 unit(s)	91,40

PVDF

With hydrophilic membrane made of polyvinylidene fluoride (PVDF) for filtration of protein solutions, tissue culture media, additives, antibiotics and alcoholic solutions.

Technical specifications:

Art. No.	P666.1	P667.1
Ø Membrane	30 mm	
Ø Housing	33 mm	
Housing material	PMMA polymer	
Sample volume	~100 ml	
Dead volume	<80 µl	
Filtration area	4.52 cm²	
Max. application temperature	45 °C	
Max. operating pressure	8.6 bar	
Inlet connection	Luer lock connector	
Outlet connection	Luer connector	

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	**Sterile**	30	**P666.1**	50 unit(s)	91,40
0,45	**Sterile**	30	**P667.1**	50 unit(s)	91,40



Syringe filters ROTILABO® glass fibre

ROTH SELECTION.

For prefiltration of samples with high particle loads. Retention range 1–2 µm, binder-free.
Housing made of PP, ultrasonically welded, housing made of PC, injection-moulded.

Technical specifications:

Art. No.	KC98.1	KC99.1	KE00.1
Ø Membrane	15 mm	25 mm	30 mm
Ø Housing	20 mm	30 mm	34 mm
Housing material	PP		PC
Sample volume	1–10 ml	10–100 ml	>100 ml
Dead volume	<25 µl	<65 µl	<170 µl
Total filter volume	0.335 ml	0.6 ml	0.864 ml
Filtration area	1.77 cm²	4.90 cm²	7.07 cm²
Max. operating pressure	7 bar		6 bar
Inlet connection	Luer lock connector		
Outlet connection	Luer connector		

Not a medical device / Not an IVD product

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
1-2	Non-sterile	15	**KC98.1**	100 unit(s)	77,80
1-2	Non-sterile	25	**KC99.1**	100 unit(s)	129,55
1-2	Non-sterile	30	**KE00.1**	100 unit(s)	230,05

Syringe filters

Syringe filters

With housing made of PP, ultrasonically welded (filter with membrane Ø 13 mm) or injection-moulded (filter with membrane Ø 25 mm). Sterile version (individually packed) available as an option.



Not a medical device / Not an IVD product

Cellulose acetate (CA)

Hydrophilic membrane for filtration of aqueous solutions.

Technical specifications:

Art. No.	1AN9.1	1ANA.1	1ANC.1	1ANE.1
Ø Membrane	13 mm	25 mm		
Ø Housing	17 mm	30 mm		
Housing material	PP			
Sample volume	< 10 ml	< 100 ml		
Inlet connection	Luer lock connector			
Outlet connection	Luer fitting			

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	Non-sterile	13	**1AN9.1**	100 unit(s)	67,95
0,22	**Sterile**	25	**1ANA.1**	100 unit(s)	152,55
0,45	Non-sterile	25	**1ANC.1**	100 unit(s)	122,45
0,45	**Sterile**	25	**1ANE.1**	100 unit(s)	152,55

Polyethersulfone (PES)

Hydrophilic membrane with low protein binding and high flow rate.

Technical specifications:

Art. No.	1ANH.1	1ANK.1
Ø Membrane	25 mm	
Ø Housing	30 mm	
Housing material	PP	
Sample volume	< 100 ml	
Inlet connection	Luer lock connector	
Outlet connection	Luer fitting	

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	Non-sterile	25	**1ANH.1**	100 unit(s)	118,40
0,22	**Sterile**	25	**1ANK.1**	100 unit(s)	152,55

Polyvinylidene fluoride (PVDF)

Hydrophilic membrane with low protein binding.

Technical specifications:

Art. No.	1ANL.1	1ANN.1	1ANP.1	1ANT.1
Ø Membrane	25 mm			
Ø Housing	30 mm			
Housing material	PP			
Sample volume	< 100 ml			
Inlet connection	Luer lock connector			
Outlet connection	Luer fitting			

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	Non-sterile	25	**1ANL.1**	100 unit(s)	132,20
0,22	**Sterile**	25	**1ANN.1**	100 unit(s)	166,65
0,45	Non-sterile	25	**1ANP.1**	100 unit(s)	132,20
0,45	**Sterile**	25	**1ANT.1**	100 unit(s)	166,65

Syringe filters

Nylon
Hydrophilic membrane which is highly resistant to many organic solvents.

Technical specifications:

Art. No.	1ANX.1	1ANY.1	1AP0.1	1AP1.1
Ø Membrane	13 mm	25 mm	13 mm	25 mm
Ø Housing	17 mm	30 mm	17 mm	30 mm
Housing material	PP			
Sample volume	< 10 ml	< 100 ml	< 10 ml	< 100 ml
Inlet connection	Luer lock connector			
Outlet connection	Luer fitting			

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	Non-sterile	13	**1ANX.1**	100 unit(s)	72,10
0,22	Non-sterile	25	**1ANY.1**	100 unit(s)	98,85
0,45	Non-sterile	13	**1AP0.1**	100 unit(s)	72,10
0,45	Non-sterile	25	**1AP1.1**	100 unit(s)	98,85

Hydrophilic polytetrafluoroethylene (PTFE)
Hydrophilic membrane with high chemical resistance.

Technical specifications:

Art. No.	1AP2.1	1AP3.1	1AP4.1	1AP5.1	1AP6.1
Ø Membrane	13 mm	25 mm		13 mm	25 mm
Ø Housing	17 mm	30 mm		17 mm	30 mm
Housing material	PP				
Sample volume	< 10 ml	< 100 ml		< 10 ml	< 100 ml
Inlet connection	Luer lock connector				
Outlet connection	Luer fitting				

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	Non-sterile	13	**1AP2.1**	100 unit(s)	106,05
0,22	Non-sterile	25	**1AP3.1**	100 unit(s)	111,80
0,22	**Sterile**	25	**1AP4.1**	100 unit(s)	166,65
0,45	Non-sterile	13	**1AP5.1**	100 unit(s)	106,05
0,45	Non-sterile	25	**1AP6.1**	100 unit(s)	111,80

Hydrophobic polytetrafluoroethylene (PTFE)
Hydrophobic membrane with high chemical resistance.

Technical specifications:

Art. No.	1AP7.1	1AP8.1	1AP9.1	1APA.1	1APC.1	1APE.1
Ø Membrane	13 mm		25 mm		13 mm	25 mm
Ø Housing	17 mm		30 mm		17 mm	30 mm
Housing material	PP					
Sample volume	< 10 ml		< 100 ml		< 10 ml	< 100 ml
Inlet connection	Luer lock connector					
Outlet connection	Luer fitting					

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	Non-sterile	13	**1AP7.1**	100 unit(s)	72,10
0,22	**Sterile**	13	**1AP8.1**	100 unit(s)	101,95
0,22	Non-sterile	25	**1AP9.1**	100 unit(s)	111,80
0,22	**Sterile**	25	**1APA.1**	100 unit(s)	152,55
0,45	Non-sterile	13	**1APC.1**	100 unit(s)	72,75
0,45	Non-sterile	25	**1APE.1**	100 unit(s)	111,80

Glass fibre
Glass fibre filters for clear filtration of liquids with high particle content.

Technical specifications:

Art. No.	1APH.1	1APK.1
Ø Membrane	13 mm	25 mm
Ø Housing	17 mm	30 mm
Housing material	PP	
Sample volume	< 10 ml	< 100 ml
Inlet connection	Luer lock connector	
Outlet connection	Luer fitting	

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,7	Non-sterile	13	**1APH.1**	100 unit(s)	67,95
0,7	Non-sterile	25	**1APK.1**	100 unit(s)	106,05

Syringe filters

Syringe filters ROTILABO®

ROTH SELECTION.

With pressure- and chemical-resistant housing made of PP, housing ultrasonically welded (filter with membrane Ø 15 mm) or injection-moulded (filter with membrane Ø 25 and 30 mm). Sterile version (individually packed) available as an option.



Not a medical device / Not an IVD product

Cellulose acetate (CA)

Hydrophilic membrane with very low protein adsorption (3.8 µg/cm²) for biological samples (e.g. enzyme solutions, biological macromolecules) and for clarification and sterile filtration of aqueous solutions.

Technical specifications:

Art. No.	KC60.1	KC70.1	KC80.1	KC61.1	KC71.1	KC81.1
Ø Membrane	25 mm		30 mm	25 mm		30 mm
Ø Housing	30 mm		34 mm	30 mm		34 mm
Housing material	PP					
Sample volume	10–100 ml		>100 ml	10–100 ml		>100 ml
Dead volume	<65 µl		<170 µl	<65 µl		<170 µl
Total filter volume	0.6 ml		0.864 ml	0.6 ml		0.864 ml
Filtration area	4.90 cm²		7.07 cm²	4.90 cm²		7.07 cm²
Max. operating pressure	7 bar		6 bar	7 bar		6 bar
Inlet connection	Luer lock connector					
Outlet connection	Luer connector					

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	25	light grey	**KC60.1**	100 unit(s)	149,60
0,2	**Sterile**	25	light grey	**KC70.1**	100 unit(s)	170,95
0,2	Non-sterile	30	light grey	**KC80.1**	100 unit(s)	259,10
0,45	Non-sterile	25	grey	**KC61.1**	100 unit(s)	149,60
0,45	**Sterile**	25	grey	**KC71.1**	100 unit(s)	167,70
0,45	Non-sterile	30	grey	**KC81.1**	100 unit(s)	259,10

Mixed cellulose ester (MCE)

Hydrophilic membrane with high non-specific adsorption capacity for sample preparation for aqueous media and for separating microbiological material (bacteria, yeast, etc.).

Technical specifications:

Art. No.	PA63.1	PA64.1
Ø Membrane	15 mm	
Ø Housing	20 mm	
Housing material	PP	
Sample volume	1–10 ml	
Dead volume	<25 µl	
Total filter volume	0.335 ml	
Filtration area	1.77 cm²	
Max. operating pressure	7 bar	
Inlet connection	Luer lock connector	
Outlet connection	Luer connector	

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	**Sterile**	15	colourless	**PA63.1**	100 unit(s)	108,75
0,45	**Sterile**	15	colourless	**PA64.1**	100 unit(s)	108,75

Syringe filters

Nylon

For the filtration of HPLC and GC solvents and for purification and sterile filtration of aqueous, alkaline and organic solutions. Hydrophilic, resistant to many solvents. High mechanical stability.

Technical specifications:

Art. No.	KC92.1	PA51.1	KC64.1	KC74.1	KC84.1	KC93.1	PA52.1	KC65.1	KC75.1	KC85.1
Ø Membrane	15 mm		25 mm		30 mm	15 mm		25 mm		30 mm
Ø Housing	20 mm		30 mm		34 mm	20 mm		30 mm		34 mm
Housing material	PP									
Sample volume	1–10 ml		10–100 ml		>100 ml	1–10 ml		10–100 ml		>100 ml
Dead volume	<25 µl		<65 µl		<170 µl	<25 µl		<65 µl		<170 µl
Total filter volume	0.335 ml		0.6 ml		0.864 ml	0.335 ml		0.6 ml		0.864 ml
Filtration area	1.77 cm²		4.90 cm²		7.07 cm²	1.77 cm²		4.90 cm²		7.07 cm²
Max. operating pressure	7 bar				6 bar	7 bar				6 bar
Inlet connection	Luer lock connector									
Outlet connection	Luer connector									

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	colourless	**KC92.1**	100 unit(s)	89,30
0,2	**Sterile**	15	colourless	**PA51.1**	100 unit(s)	108,75
0,2	Non-sterile	25	yellow	**KC64.1**	100 unit(s)	151,20
0,2	**Sterile**	25	yellow	**KC74.1**	100 unit(s)	184,90
0,2	Non-sterile	30	yellow	**KC84.1**	100 unit(s)	234,35
0,45	Non-sterile	15	colourless	**KC93.1**	100 unit(s)	89,30
0,45	**Sterile**	15	colourless	**PA52.1**	100 unit(s)	108,75
0,45	Non-sterile	25	light orange	**KC65.1**	100 unit(s)	151,20
0,45	**Sterile**	25	light orange	**KC75.1**	100 unit(s)	184,90
0,45	Non-sterile	30	light orange	**KC85.1**	100 unit(s)	234,35

Polyethersulfone (PES)

Hydrophilic membrane with low protein binding (< 20 µg/cm²) and high flow rates. Suitable for aqueous and partially organic media, e.g. for biological sample preparation.

Technical specifications:

Art. No.	PA59.1	NA21.1	PA60.1
Ø Membrane	15 mm	25 mm	15 mm
Ø Housing	20 mm	30 mm	20 mm
Housing material	PP		
Sample volume	1–10 ml	10–100 ml	1–10 ml
Dead volume	<25 µl	<65 µl	<25 µl
Total filter volume	0.335 ml	0.6 ml	0.335 ml
Filtration area	1.77 cm²	4.90 cm²	1.77 cm²
Max. operating pressure	7 bar		
Inlet connection	Luer lock connector		
Outlet connection	Luer connector		

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	**Sterile**	15	colourless	**PA59.1**	100 unit(s)	103,65
0,2	Non-sterile	25	blue	**NA21.1**	100 unit(s)	140,95
0,45	**Sterile**	15	colourless	**PA60.1**	100 unit(s)	103,65

Polypropylene (PP)

Weakly hydrophobic all-round membrane for aqueous and organic media.

Technical specifications:

Art. No.	PA57.1
Ø Membrane	15 mm
Ø Housing	20 mm
Housing material	PP
Sample volume	1–10 ml
Dead volume	<25 µl
Total filter volume	0.335 ml
Filtration area	1.77 cm²
Max. operating pressure	7 bar
Inlet connection	Luer lock connector
Outlet connection	Luer connector

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	**Sterile**	15	colourless	**PA57.1**	100 unit(s)	111,50

Syringe filters

Polytetrafluoroethylene (PTFE)

Hydrophobic membrane for the filtration of aggressive chemicals, acids and non-polar solvents. Low flow resistance to gases, can therefore also be used for air and gas filtration (e.g. for aeration and ventilation work and for sterile gas exchange).

Technical specifications:

Art. No.	KC94.1	PA53.1	KC66.1	KC76.1	KC86.1	KC95.1	PA54.1	KC67.1	KC77.1	KC87.1
Ø Membrane	15 mm		25 mm		30 mm	15 mm		25 mm		30 mm
Ø Housing	20 mm		30 mm		34 mm	20 mm		30 mm		34 mm
Housing material	PP									
Sample volume	1–10 ml		10–100 ml		>100 ml	1–10 ml		10–100 ml		>100 ml
Dead volume	<25 µl		<65 µl		<170 µl	<25 µl		<65 µl		<170 µl
Total filter volume	0.335 ml		0.6 ml		0.864 ml	0.335 ml		0.6 ml		0.864 ml
Filtration area	1.77 cm²		4.90 cm²		7.07 cm²	1.77 cm²		4.90 cm²		7.07 cm²
Max. operating pressure	7 bar				6 bar	7 bar				6 bar
Inlet connection	Luer lock connector									
Outlet connection	Luer connector									

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	colourless	**KC94.1**	100 unit(s)	89,30
0,2	**Sterile**	15	colourless	**PA53.1**	100 unit(s)	108,75
0,2	Non-sterile	25	magenta	**KC66.1**	100 unit(s)	168,80
0,2	**Sterile**	25	magenta	**KC76.1**	100 unit(s)	184,90
0,2	Non-sterile	30	magenta	**KC86.1**	100 unit(s)	253,70
0,45	Non-sterile	15	colourless	**KC95.1**	100 unit(s)	89,30
0,45	**Sterile**	15	colourless	**PA54.1**	100 unit(s)	108,75
0,45	Non-sterile	25	purple	**KC67.1**	100 unit(s)	168,80
0,45	**Sterile**	25	purple	**KC77.1**	100 unit(s)	184,90
0,45	Non-sterile	30	purple	**KC87.1**	100 unit(s)	253,70

Polyvinylidene fluoride (PVDF)

Slightly hydrophobic membrane for clarification and sterile filtration of organic and partially organic solutions. Protein adsorption 125 µg/cm².

Technical specifications:

Art. No.	KC96.1	PA55.1	KC68.1	KC78.1	KC88.1	KC97.1	PA56.1	KC69.1	KC79.1	KC89.1
Ø Membrane	15 mm		25 mm		30 mm	15 mm		25 mm		30 mm
Ø Housing	20 mm		30 mm		34 mm	20 mm		30 mm		34 mm
Housing material	PP									
Sample volume	1–10 ml		10–100 ml		>100 ml	1–10 ml		10–100 ml		>100 ml
Dead volume	<25 µl		<65 µl		<170 µl	<25 µl		<65 µl		<170 µl
Total filter volume	0.335 ml		0.6 ml		0.864 ml	0.335 ml		0.6 ml		0.864 ml
Filtration area	1.77 cm²		4.90 cm²		7.07 cm²	1.77 cm²		4.90 cm²		7.07 cm²
Max. operating pressure	7 bar				6 bar	7 bar				6 bar
Inlet connection	Luer lock connector									
Outlet connection	Luer connector									

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	colourless	**KC96.1**	100 unit(s)	112,90
0,2	**Sterile**	15	colourless	**PA55.1**	100 unit(s)	129,50
0,2	Non-sterile	25	violet	**KC68.1**	100 unit(s)	159,05
0,2	**Sterile**	25	violet	**KC78.1**	100 unit(s)	204,25
0,2	Non-sterile	30	violet	**KC88.1**	100 unit(s)	239,75
0,45	Non-sterile	15	colourless	**KC97.1**	100 unit(s)	112,90
0,45	**Sterile**	15	colourless	**PA56.1**	100 unit(s)	129,50
0,45	Non-sterile	25	blue	**KC69.1**	100 unit(s)	159,05
0,45	**Sterile**	25	blue	**KC79.1**	100 unit(s)	204,25
0,45	Non-sterile	30	blue	**KC89.1**	100 unit(s)	275,20

Syringe filters

Regenerated cellulose (RC)
Hydrophilic membrane with low non-specific adsorption performance for proteins (<10 µg/cm²). For filtering biological solutions and for preparing samples and degassing eluents for HPLC. Good resistance to aqueous and organic solutions.

Technical specifications:

Art. No.	KC90.1	PA49.1	KC62.1	KC72.1	KC82.1	KC91.1	PA50.1	KC63.1	KC73.1	KC83.1
Ø Membrane	15 mm		25 mm		30 mm	15 mm		25 mm		30 mm
Ø Housing	20 mm		30 mm		34 mm	20 mm		30 mm		34 mm
Housing material	PP									
Sample volume	1–10 ml		10–100 ml		>100 ml	1–10 ml		10–100 ml		>100 ml
Dead volume	<25 µl		<65 µl		<170 µl	<25 µl		<65 µl		<170 µl
Total filter volume	0.335 ml		0.6 ml		0.864 ml	0.335 ml		0.6 ml		0.864 ml
Filtration area	1.77 cm²		4.90 cm²		7.07 cm²	1.77 cm²		4.90 cm²		7.07 cm²
Max. operating pressure	7 bar				6 bar	7 bar				6 bar
Inlet connection	Luer lock connector									
Outlet connection	Luer connector									

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	colourless	**KC90.1**	100 unit(s)	127,20
0,2	**Sterile**	15	colourless	**PA49.1**	100 unit(s)	152,45
0,2	Non-sterile	25	orange	**KC62.1**	100 unit(s)	229,00
0,2	**Sterile**	25	orange	**KC72.1**	100 unit(s)	253,70
0,2	Non-sterile	30	orange	**KC82.1**	100 unit(s)	311,75
0,45	Non-sterile	15	colourless	**KC91.1**	100 unit(s)	127,20
0,45	**Sterile**	15	colourless	**PA50.1**	100 unit(s)	152,45
0,45	Non-sterile	25	red	**KC63.1**	100 unit(s)	229,00
0,45	**Sterile**	25	red	**KC73.1**	100 unit(s)	253,70
0,45	Non-sterile	30	red	**KC83.1**	100 unit(s)	311,75

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Syringe filters



Syringe filters ROTILABO® Mini-Tip

ROTH SELECTION.

With housing made of PP, ultrasonically welded, colourless. Ideally suitable for HPLC samples. The Mini-Tip opening is ideal for filtering in very small sample containers or vials.

Not a medical device / Not an IVD product

Cellulose acetate (CA)

Hydrophilic membrane with very low protein adsorption (3.8 µg/cm²) for biological samples (e.g. enzyme solutions, biological macromolecules) and for clarification and sterile filtration of aqueous solutions.

Technical specifications:

Art. No.	PP52.1	PP53.1
Ø Membrane	15 mm	
Ø Housing	20 mm	
Housing material	PP	
Sample volume	1–10 ml	
Dead volume	<25 µl	
Total filter volume	0.335 ml	
Filtration area	1.77 cm²	
Max. operating pressure	7 bar	
Inlet connection	Luer lock connector	
Outlet connection	Mini-Tip	

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	**PP52.1**	100 unit(s)	85,20
0,45	Non-sterile	15	**PP53.1**	100 unit(s)	85,20

Nylon

For the filtration of HPLC and GC solvents and for purification and sterile filtration of aqueous, alkaline and organic solutions. Hydrophilic, resistant to many solvents. High mechanical stability.

Technical specifications:

Art. No.	PP43.1	PP44.1
Ø Membrane	15 mm	
Ø Housing	20 mm	
Housing material	PP	
Sample volume	1–10 ml	
Dead volume	<25 µl	
Total filter volume	0.335 ml	
Filtration area	1.77 cm²	
Max. operating pressure	7 bar	
Inlet connection	Luer lock connector	
Outlet connection	Mini-Tip	

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	**PP43.1**	100 unit(s)	86,90
0,45	Non-sterile	15	**PP44.1**	100 unit(s)	86,90

Polytetrafluoroethylene (PTFE)

Hydrophobic membrane for the filtration of aggressive chemicals, acids and non-polar solvents. Low flow resistance to gases, can therefore also be used for air and gas filtration (e.g. for aeration and ventilation work and for sterile gas exchange).

Technical specifications:

Art. No.	PP45.1	PP46.1
Ø Membrane	15 mm	
Ø Housing	20 mm	
Housing material	PP	
Sample volume	1–10 ml	
Dead volume	<25 µl	
Total filter volume	0.335 ml	
Filtration area	1.77 cm²	
Max. operating pressure	7 bar	
Inlet connection	Luer lock connector	
Outlet connection	Mini-Tip	

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	**PP45.1**	100 unit(s)	86,90
0,45	Non-sterile	15	**PP46.1**	100 unit(s)	86,90

Polyvinylidene fluoride (PVDF)

Slightly hydrophobic membrane for clarification and sterile filtration of organic and partially organic solutions. Protein adsorption 125 µg/cm².

Technical specifications:

Art. No.	PP47.1	PP48.1
Ø Membrane	15 mm	
Ø Housing	20 mm	
Housing material	PP	
Sample volume	1–10 ml	
Dead volume	<25 µl	
Total filter volume	0.335 ml	
Filtration area	1.77 cm²	
Max. operating pressure	7 bar	
Inlet connection	Luer lock connector	
Outlet connection	Mini-Tip	

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	**PP47.1**	100 unit(s)	116,45
0,45	Non-sterile	15	**PP48.1**	100 unit(s)	116,45

Regenerated cellulose (RC)

Hydrophilic membrane with low non-specific adsorption performance for proteins (<10 µg/cm²). For filtering biological solutions and for preparing samples and degassing eluents for HPLC. Good resistance to aqueous and organic solutions.

Technical specifications:

Art. No.	PP41.1	PP42.1
Ø Membrane	15 mm	
Ø Housing	20 mm	
Housing material	PP	
Sample volume	1–10 ml	
Dead volume	<25 µl	
Total filter volume	0.335 ml	
Filtration area	1.77 cm²	
Max. operating pressure	7 bar	
Inlet connection	Luer lock connector	
Outlet connection	Mini-Tip	

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	**PP41.1**	100 unit(s)	127,20
0,45	Non-sterile	15	**PP42.1**	100 unit(s)	127,20

Syringe filters



A 121 °C

Syringe filters CAMEO™

GVS. Autoclavable: Yes.

Not a medical device / Not an IVD product

Cellulose acetate (CA)
Hydrophilic. Very low protein binding (approx. 3.8 µg/cm²). For sterile filtration of biological media (proteins, enzymes, buffer, cell culture, etc.), as well as for particle extraction from aqueous and alcohol-based solutions.

Technical specifications:

Art. No.	AH54.1	AH52.1	AH53.1
Ø Membrane	30 mm		
Ø Housing	34 mm		
Housing material	PP		
Sample volume	10-120 ml		
Dead volume	<60 µl		
Filtration area	4.8 cm²		
Max. application temperature	80 °C		
Max. operating pressure	8 bar		
Inlet connection	Luer lock connector		
Outlet connection	Luer connector		

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,8	Non-sterile	30	**AH54.1**	50 unit(s)	105,65
0,22	Non-sterile	30	**AH52.1**	50 unit(s)	105,65
0,45	Non-sterile	30	**AH53.1**	50 unit(s)	105,65

Nylon
Hydrophilic. Good chemical resistance, very low extractable substances content. For the filtration of organic solvents, for HPLC sample preparation and for sterile filtration and clarification of biological media. High protein binding (approx. 120 µg/cm²).

Technical specifications:

Art. No.	AH50.1	A068.2	A069.2	A070.2
Ø Membrane	30 mm			
Ø Housing	34 mm			
Housing material	PP			
Sample volume	10-120 ml			
Dead volume	<60 µl			
Filtration area	4.8 cm²			
Max. application temperature	80 °C			
Max. operating pressure	8 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
1,2	Non-sterile	30	**AH50.1**	50 unit(s)	105,65
0,22	Non-sterile	30	**A068.2**	50 unit(s)	88,20
0,45	Non-sterile	30	**A069.2**	50 unit(s)	88,20
5,0	Non-sterile	30	**A070.2**	50 unit(s)	88,20

Polytetrafluoroethylene (PTFE)
Hydrophobic. Excellent chemical resistance. For filtration of aggressive substances, solvent, gases and aerosols.

Technical specifications:

Art. No.	A075.2	A077.2	A076.2	A078.2
Ø Membrane	17 mm	30 mm	17 mm	30 mm
Ø Housing	22 mm	34 mm	22 mm	34 mm
Housing material	PP			
Sample volume	1-10 ml	10-120 ml	1-10 ml	10-120 ml
Dead volume	<15 µl	<60 µl	<15 µl	<60 µl
Filtration area	1.4 cm²	4.8 cm²	1.4 cm²	4.8 cm²
Max. application temperature	80 °C			
Max. operating pressure	8 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
0,22	Non-sterile	17	**A075.2**	50 unit(s)	94,25
0,22	Non-sterile	30	**A077.2**	50 unit(s)	105,65
0,45	Non-sterile	17	**A076.2**	50 unit(s)	94,25
0,45	Non-sterile	30	**A078.2**	50 unit(s)	105,65



Syringe filters Millex® IC

MERCK MILLIPORE.

IC-certified.
Filter units specifically for sample preparation in ion chromatography.

- Low-binding hydrophilic PTFE membrane
- Low extractable substances content
- For clear filtration of aqueous and slightly organic solutions

Technical specifications:

Art. No.	XE82.1	XE83.1	XE84.1	XE85.1
Ø Membrane	13 mm	25 mm	13 mm	25 mm
Housing material	HDPE			
Sample volume	~10 ml	~100 ml	~10 ml	~100 ml
Dead volume	<25 µl	<100 µl	<25 µl	<100 µl
Max. application temperature	45 °C			
Max. operating pressure	7 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Not a medical device / Not an IVD product

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Millex®-LG	0,20	Non-sterile	13	**XE82.1**	100 unit(s)	385,95
Millex®-LG	0,20	Non-sterile	25	**XE83.1**	50 unit(s)	306,40
Millex®-LH	0,45	Non-sterile	13	**XE84.1**	100 unit(s)	392,40
Millex®-LH	0,45	Non-sterile	25	**XE85.1**	50 unit(s)	375,20

Syringe filters

Syringe filters Millex®

MERCK MILLIPORE.



Not a medical device / Not an IVD product

Nylon

Hydrophilic membrane for clear filtration of aqueous and organic solutions.

Technical specifications:

Art. No.	XE16.1	XE02.1	XE18.1	XE03.1	XE17.1	XE19.1
Ø Membrane	13 mm	33 mm	13 mm	33 mm	13 mm	
Housing material	HDPE	PP	HDPE	PP	HDPE	
Sample volume	~10 ml	~100 ml	~10 ml	~100 ml	~10 ml	
Dead volume	<25 µl	<100 µl	<25 µl	<100 µl	<25 µl	
Filtration area	0.65 cm²	4.5 cm²	0.65 cm²	4.5 cm²	0.65 cm²	
Max. application temperature	45 °C					
Max. operating pressure	7 bar	8.6 bar	7 bar	8.6 bar	7 bar	
Inlet connection	Luer lock connector					
Outlet connection	Luer connector				Luer cone connector with extended outlet	

Pic.	Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
	Millex®-GN	0,2	Non-sterile	13	**XE16.1**	100 unit(s)	317,15
	Millex®-GN	0,2	Non-sterile	33	**XE02.1**	50 unit(s)	231,15
	Millex®-HN	0,45	Non-sterile	13	**XE18.1**	100 unit(s)	317,15
	Millex®-HN	0,45	Non-sterile	33	**XE03.1**	50 unit(s)	231,15
(2)	Millex® GN with extended outlet	0,2	Non-sterile	13	**XE17.1**	100 unit(s)	321,45
(2)	Millex® HN with extended outlet	0,45	Non-sterile	13	**XE19.1**	100 unit(s)	321,45

Polyethersulfone (PES)

Hydrophilic membrane for filtration of aqueous solutions.

Technical specifications:

Art. No.	XE10.1	XC98.1	XE11.1	XC99.1
Ø Membrane	13 mm	33 mm	13 mm	33 mm
Housing material	HDPE	PP	HDPE	PP
Sample volume	~10 ml	~100 ml	~10 ml	~100 ml
Dead volume	<25 µl	<100 µl	<25 µl	<100 µl
Filtration area	0.65 cm²	4.5 cm²	0.65 cm²	4.5 cm²
Max. application temperature	45 °C			
Max. operating pressure	7 bar	8.6 bar	7 bar	8.6 bar
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Millex®-GP	0,22	Non-sterile	13	**XE10.1**	100 unit(s)	317,15
Millex®-GP	0,22	Non-sterile	33	**XC98.1**	50 unit(s)	416,05
Millex®-HP	0,45	Non-sterile	13	**XE11.1**	100 unit(s)	317,15
Millex®-HP	0,45	Non-sterile	33	**XC99.1**	50 unit(s)	235,45

Syringe filters

Hydrophilic polytetrafluoroethylene (PTFE)
Hydrophilic LCR membrane with low protein binding for clear filtration of aqueous and organic solutions.

Technical specifications:

Art. No.	XE20.1	XE06.1	XE07.1	XE21.1	XE26.1
Ø Membrane	13 mm	4 mm		13 mm	25 mm
Housing material	HDPE				
Sample volume	~10 ml	~1 ml		~10 ml	~100 ml
Dead volume	<25 µl	<10 µl		<25 µl	<100 µl
Filtration area	0.65 cm²	0.1 cm²		0.65 cm²	3.9 cm²
Max. application temperature	45 °C				
Max. operating pressure	7 bar	14 bar		7 bar	
Inlet connection	Luer lock connector				
Outlet connection	Luer connector	Luer cone connector, graduated		Luer cone connector with extended outlet	Luer connector

Pic.	Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
	Millex®-LCR	0,45	Non-sterile	13	**XE20.1**	100 unit(s)	403,15
(1)	Millex®-LG	0,2	Non-sterile	4	**XE06.1**	100 unit(s)	246,20
(1)	Millex®-LH	0,45	Non-sterile	4	**XE07.1**	100 unit(s)	246,20
(2)	Millex® LCR with extended outlet	0,45	Non-sterile	13	**XE21.1**	100 unit(s)	418,20
(3)	Millex®-LCR	0,45	Non-sterile	25	**XE26.1**	50 unit(s)	356,90

Hydrophobic polytetrafluoroethylene (PTFE)
Hydrophobic Fluoropore membrane for clear filtration of organic solvents.

Technical specifications:

Art. No.	XE22.1	XE24.1	XE08.1	XE09.1	XE23.1	XE25.1	XE27.1	XE28.1
Ø Membrane	13 mm		4 mm		13 mm		25 mm	
Housing material	HDPE							
Sample volume	~10 ml		~1 ml		~10 ml		~100 ml	
Dead volume	<25 µl		<10 µl		<25 µl		<100 µl	
Filtration area	0.65 cm²		0.1 cm²		0.65 cm²		3.9 cm²	
Max. application temperature	45 °C							
Max. operating pressure	7 bar		14 bar		7 bar			
Inlet connection	Luer lock connector							
Outlet connection	Luer connector		Luer cone connector, graduated		Luer cone connector with extended outlet		Luer connector	

Pic.	Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
	Millex®-FG	0,2	Non-sterile	13	**XE22.1**	100 unit(s)	327,90
	Millex®-FH	0,45	Non-sterile	13	**XE24.1**	100 unit(s)	327,90
(1)	Millex®-FG	0,2	Non-sterile	4	**XE08.1**	100 unit(s)	235,45
(1)	Millex®-FH	0,45	Non-sterile	4	**XE09.1**	100 unit(s)	235,45
(2)	Millex® FG with extended outlet	0,2	Non-sterile	13	**XE23.1**	100 unit(s)	353,70
(2)	Millex® FH with extended outlet	0,45	Non-sterile	13	**XE25.1**	100 unit(s)	353,70
(3)	Millex®-FG	0,2	Non-sterile	25	**XE27.1**	50 unit(s)	385,95
(3)	Millex®-FH	0,45	Non-sterile	25	**XE28.1**	50 unit(s)	321,45

Syringe filters

Polyvinylidene fluoride (PVDF)
Hydrophilic Durapore® membrane for clear filtration of aqueous and slightly organic solutions.

Very low protein binding characteristics.

Technical specifications:

Art. No.	XE12.1	XE00.1	XE14.1	XE01.1	XE04.1	XE05.1	XE13.1	XE15.1
Ø Membrane	13 mm	33 mm	13 mm	33 mm	4 mm		13 mm	
Housing material	HDPE	PP	HDPE	PP	HDPE			
Sample volume	~10 ml	~100 ml	~10 ml	~100 ml	~1 ml		~10 ml	
Dead volume	<25 µl	<100 µl	<25 µl	<100 µl	<10 µl		<25 µl	
Filtration area	0.65 cm²	4.5 cm²	0.65 cm²	4.5 cm²	0.1 cm²		0.65 cm²	
Max. application temperature	45 °C							
Max. operating pressure	7 bar	8.6 bar	7 bar	8.6 bar	14 bar		7 bar	
Inlet connection	Luer lock connector							
Outlet connection	Luer connector				Luer cone connector, graduated		Luer cone connector with extended outlet	

Pic.	Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
	Millex®-GV	0,22	Non-sterile	13	**XE12.1**	100 unit(s)	332,20
	Millex®-GV	0,22	Non-sterile	33	**XE00.1**	50 unit(s)	235,45
	Millex®-HV	0,45	Non-sterile	13	**XE14.1**	100 unit(s)	349,40
	Millex®-HV	0,45	Non-sterile	33	**XE01.1**	50 unit(s)	246,20
(1)	Millex®-GV	0,22	Non-sterile	4	**XE04.1**	100 unit(s)	246,20
(1)	Millex®-HV	0,45	Non-sterile	4	**XE05.1**	100 unit(s)	246,20
(2)	Millex® GV with extended outlet	0,22	Non-sterile	13	**XE13.1**	100 unit(s)	349,40
(2)	Millex® HV with extended outlet	0,45	Non-sterile	13	**XE15.1**	100 unit(s)	349,40

Syringe filters Millex® 33 mm

MERCK MILLIPORE. **Sterile**.

Individually packed. Housing made of modified acrylic.



S

Technical specifications:

Art. No.	XC58.1	XC57.1	XC55.1	XC61.1	XC59.1	XC56.1	XE79.1	XC60.1
Ø Membrane	33 mm							
Housing material	PMMA							
Sample volume	~100 ml			~200 ml	~100 ml		~200 ml	~100 ml
Dead volume	<100 µl							
Filtration area	4.5 cm²							
Max. application temperature	45 °C							
Max. operating pressure	10 bar							
Inlet connection	Luer lock connector							
Outlet connection	Luer connector							

Medical device class IIa MDD

ID: 0459

Mixed cellulose ester (MCE)
Hydrophilic membrane.

Intended use: Outside of the U.S. and Japan, Millex®-GS/HA/AA filter units may also be used for direct patient care and pharmacy admixture applications. In the hospital pharmacy, Millex® filter units can be used to sterile filter or clarify small volumes of protein pharmaceuticals, diagnostic imaging agents, chemotherapeutics, aqueous solutions, or water during admixture preparation. Direct patient care applications include sterilization and/or particulate removal from epidural and other liquid anesthetics as well as from irrigation solutions used in ophthalmic, otic, and other surgical procedures.

- Application: 0.2 µm filter units for the sterilisation of aqueous solutions, large pore sizes for prefiltration and clear filtration
- Colour code: blue
- Work volume: approx. 100 ml

Syringe filters

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
Millex®-AA	0,8	**Sterile**	33	blue	**XC57.1**	50 unit(s)	246,20
Millex®-GS	0,22	**Sterile**	33	blue	**XC55.1**	50 unit(s)	241,90
Millex®-HA	0,45	**Sterile**	33	blue	**XC56.1**	50 unit(s)	246,20

Polyethersulfone (PES)
Hydrophilic Millipore Express® membrane.

Intended use: Outside the U.S. and Japan, Millex®-GP/HP filter units are intended for use as a syringe filter to sterilize and/or clarify low volume solutions in direct patient care and pharmacy admixture applications.

- Application: Sterilisation of tissue culture media and additives, buffers, protein solutions, virus suspensions, DNA and other aqueous solutions
- Colour code: green
- Work volume: approx. 200 ml

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
Millex®-GP	0,22	**Sterile**	33	green	**XC61.1**	50 unit(s)	289,20
Millex®-HP	0,45	**Sterile**	33	green	**XE79.1**	50 unit(s)	244,05

Polyvinylidene fluoride (PVDF)
Hydrophilic Durapore® membrane.

Intended use: Outside the U.S. and Japan, Millex®-VV/GV/HV filter units are intended for use as a syringe filter to sterilize and/or clarify low volume solutions in direct patient care and pharmacy admixture applications.

- Application: Sterilisation of aqueous and protein solutions, syringe filter with lowest protein binding ratio
- Colour code: yellow
- Work volume: approx. 100 ml

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
Millex®-VV	0,1	**Sterile**	33	yellow	**XC58.1**	50 unit(s)	267,70
Millex®-GV	0,22	**Sterile**	33	yellow	**XC59.1**	50 unit(s)	289,20
Millex®-HV	0,45	**Sterile**	33	yellow	**XC60.1**	50 unit(s)	289,20

Syringe filters CHROMAFIL®

Macherey-Nagel. Autoclavable: Yes.

For clarification or sterile filtration of liquids or gases, as well as for sample preparation for use in HPLC, GC, ICP, AAS, TOC, DOC, IR, NMR, photometry, spectroscopy, etc.
Compacted PP housing with very low extractable substances content and good chemical resistance.
Autoclavable at 121 °C and 1.1 bar for 30 min.



A 121 °C

Not a medical device / Not an IVD product

CA non-sterile
Non-sterile. Hydrophilic cellulose acetate membrane for filtration of aqueous solutions. Ideal for use with biological macromolecules, water-soluble oligomers and polymers.

Extremely low protein binding capacity (21 µg per 25 mm filter).

Technical specifications:

Art. No.	XH38.1	XH38.2	XH39.1	XH39.2
Ø Membrane	25 mm			
Ø Housing	30 mm			
Housing material	PP			
Sample volume	5–100 ml			
Dead volume	~80 µl			
Filtration area	4.9 cm²			
Max. application temperature	55 °C			
Max. operating pressure	6 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
CA-20/25	0,20	Non-sterile	25	**XH38.1**	100 unit(s)	129,00
CA-20/25	0,20	Non-sterile	25	**XH38.2**	400 unit(s)	515,00
CA-45/25	0,45	Non-sterile	25	**XH39.1**	100 unit(s)	129,00
CA-45/25	0,45	Non-sterile	25	**XH39.2**	400 unit(s)	515,00

Syringe filters

CA sterile

Hydrophilic cellulose acetate membrane for filtration of aqueous solutions. Ideal for use with biological macromolecules, water-soluble oligomers and polymers.

Extremely low protein binding capacity (21 µg per 25 mm filter).

Technical specifications:

Art. No.	XH42.1	XH43.1
Ø Membrane	25 mm	
Ø Housing	30 mm	
Housing material	PP	
Sample volume	5–100 ml	
Dead volume	~80 µl	
Filtration area	4.9 cm²	
Max. application temperature	55 °C	
Max. operating pressure	6 bar	
Inlet connection	Luer lock connector	
Outlet connection	Luer	

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
CA-20/25 (S)	0,20	**Sterile**	25	**XH42.1**	50 unit(s)	99,80
CA-45/25 (S)	0,45	**Sterile**	25	**XH43.1**	50 unit(s)	99,80

MV

Non-sterile. Hydrophilic cellulose ester composite membrane with very low adsorption for the filtration of aqueous and polar solutions.

Technical specifications:

Art. No.	XH49.1	XH49.2	XH50.1	XH50.2
Ø Membrane	25 mm			
Ø Housing	30 mm			
Housing material	PP			
Sample volume	5-100 ml			
Dead volume	~80 µl			
Filtration area	4.9 cm²			
Max. application temperature	55 °C			
Max. operating pressure	6 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
MV A-20/25	0,20	Non-sterile	25	**XH49.1**	100 unit(s)	129,00
MV A-20/25	0,20	Non-sterile	25	**XH49.2**	400 unit(s)	515,00
MV A-45/25	0,45	Non-sterile	25	**XH50.1**	100 unit(s)	129,00
MV A-45/25	0,45	Non-sterile	25	**XH50.2**	400 unit(s)	515,00

PA

Non-sterile. PA (nylon) membrane for the filtration of medium polar organic-aqueous liquids.

Technical specifications:

Art. No.	XH53.1	XH55.1	XH57.1	XH57.2	XH54.1	XH56.1	XH58.1	XH58.2
Ø Membrane	3 mm	15 mm	25 mm		3 mm	15 mm	25 mm	
Ø Housing	6 mm	25 mm	30 mm		6 mm	25 mm	30 mm	
Housing material	PP							
Sample volume	≤1 ml	1–5 ml	5–100 ml		≤1 ml	1–5 ml	5–100 ml	
Dead volume	~5 µl	~35 µl	~80 µl		~5 µl	~35 µl	~80 µl	
Filtration area	0.07 cm²	1.6 cm²	4.9 cm²		0.07 cm²	1.6 cm²	4.9 cm²	
Max. application temperature	55 °C							
Max. operating pressure	6 bar							
Inlet connection	Luer lock connector							
Outlet connection	Luer	Mini-Spike	Luer			Mini-Spike	Luer	

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
AO-20/3	0,20	Non-sterile	3	**XH53.1**	100 unit(s)	156,00
AO-20/15 MS	0,20	Non-sterile	15	**XH55.1**	100 unit(s)	129,00
AO-20/25	0,20	Non-sterile	25	**XH57.1**	100 unit(s)	129,00
AO-20/25	0,20	Non-sterile	25	**XH57.2**	400 unit(s)	515,00
AO-45/3	0,45	Non-sterile	3	**XH54.1**	100 unit(s)	156,00
AO-45/15 MS	0,45	Non-sterile	15	**XH56.1**	100 unit(s)	129,00
AO-45/25	0,45	Non-sterile	25	**XH58.1**	100 unit(s)	129,00
AO-45/25	0,45	Non-sterile	25	**XH58.2**	400 unit(s)	515,00

Syringe filters

PET

Non-sterile. Hydrophilic polyester all-round membrane for polar and nonpolar solutions. Particularly suitable for the filtration of eluent mixtures made of water and organic solvents for HPLC and for sample preparation for TOC/DOC determination.

Not cytotoxic, does not inhibit the growth of microorganisms and higher cells.

Technical specifications:

Art. No.	P300.1	P298.1	P298.2	P301.1	P299.1	P299.2
Ø Membrane	15 mm	25 mm		15 mm	25 mm	
Ø Housing	25 mm	30 mm		25 mm	30 mm	
Housing material	PP					
Sample volume	1–5 ml	5–100 ml		1–5 ml	5–100 ml	
Dead volume	~35 µl	~80 µl		~35 µl	~80 µl	
Filtration area	1.6 cm²	4.9 cm²		1.6 cm²	4.9 cm²	
Max. application temperature	55 °C					
Max. operating pressure	6 bar					
Inlet connection	Luer lock connector					
Outlet connection	Mini-Spike	Luer		Mini-Spike	Luer	

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
PET-20/15 MS	0,20	Non-sterile	15	**P300.1**	100 unit(s)	129,00
PET-20/25	0,20	Non-sterile	25	**P298.1**	100 unit(s)	129,00
PET-20/25	0,20	Non-sterile	25	**P298.2**	400 unit(s)	488,00
PET-45/15 MS	0,45	Non-sterile	15	**P301.1**	100 unit(s)	129,00
PET-45/25	0,45	Non-sterile	25	**P299.1**	100 unit(s)	129,00
PET-45/25	0,45	Non-sterile	25	**P299.2**	400 unit(s)	515,00

PTFE

Non-sterile. Hydrophobic PTFE membrane for nonpolar liquids and gases. Highly resistant to solvents, acids and bases. Non-sterile.

Note: The membrane can be wetted with water by rinsing with alcohol and subsequently with water.

Technical specifications:

Art. No.	XH61.1	XH63.1	XH65.1	XH65.2	XH62.1	XH64.1
Ø Membrane	3 mm	15 mm	25 mm		3 mm	15 mm
Ø Housing	6 mm	25 mm	30 mm		6 mm	25 mm
Housing material	PP					
Sample volume	≤1 ml	1–5 ml	5–100 ml		≤1 ml	1–5 ml
Dead volume	~5 µl	~35 µl	~80 µl		~5 µl	~35 µl
Filtration area	0.07 cm²	1.6 cm²	4.9 cm²		0.07 cm²	1.6 cm²
Max. application temperature	55 °C					
Max. operating pressure	6 bar					
Inlet connection	Luer lock connector					
Outlet connection	Luer	Mini-Spike	Luer			Mini-Spike

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
O-20/3	0,20	Non-sterile	3	**XH61.1**	100 unit(s)	156,00
O-20/15 MS	0,20	Non-sterile	15	**XH63.1**	100 unit(s)	129,00
O-20/25	0,20	Non-sterile	25	**XH65.1**	100 unit(s)	129,00
O-20/25	0,20	Non-sterile	25	**XH65.2**	400 unit(s)	515,00
O-45/3	0,45	Non-sterile	3	**XH62.1**	100 unit(s)	156,00
O-45/15 MS	0,45	Non-sterile	15	**XH64.1**	100 unit(s)	129,00

Syringe filters

PVDF

Non-sterile. Hydrophilic PVDF membrane for polar and nonpolar solutions, water-soluble oligomers, proteins and other polymers. Protein binding capacity: 82 µg per 25 mm filter.

Technical specifications:

Art. No.	XH69.1	XH70.1
Ø Membrane	15 mm	
Ø Housing	25 mm	
Housing material	PP	
Sample volume	1–5 ml	
Dead volume	~35 µl	
Filtration area	1.6 cm²	
Max. application temperature	55 °C	
Max. operating pressure	6 bar	
Inlet connection	Luer lock connector	
Outlet connection	Mini-Spike	

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
PVDF-20/15 MS	0,20	Non-sterile	15	**XH69.1**	100 unit(s)	129,00
PVDF-45/15 MS	0,45	Non-sterile	15	**XH70.1**	100 unit(s)	129,00

RC

Non-sterile. Regenerated cellulose hydrophilic membrane with very low adsorption. For filtration of aqueous and organic-aqueous solutions. Protein binding capacity: 84 µg per 25 mm filter.

Technical specifications:

Art. No.	XH45.1	XH45.2	EE80.1	EE80.2	XH46.1	XH46.2	EE81.1	EE81.2
Ø Membrane	15 mm		25 mm		15 mm		25 mm	
Ø Housing	25 mm		30 mm		25 mm		30 mm	
Housing material	PP							
Sample volume	1–5 ml		5–100 ml		1–5 ml		5–100 ml	
Dead volume	~35 µl		~80 µl		~35 µl		~80 µl	
Filtration area	1.6 cm²		4.9 cm²		1.6 cm²		4.9 cm²	
Max. application temperature	55 °C							
Max. operating pressure	6 bar							
Inlet connection	Luer lock connector							
Outlet connection	Mini-Spike		Luer		Mini-Spike		Luer	

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
RC-20/15 MS	0,2	Non-sterile	15	**XH45.1**	100 unit(s)	147,00
RC-20/15 MS	0,2	Non-sterile	15	**XH45.2**	800 unit(s)	1.030,00
RC-20/25	0,2	Non-sterile	25	**EE80.1**	100 unit(s)	147,00
RC-20/25	0,2	Non-sterile	25	**EE80.2**	400 unit(s)	590,00
RC-45/15 MS	0,45	Non-sterile	15	**XH46.1**	100 unit(s)	147,00
RC-45/15 MS	0,45	Non-sterile	15	**XH46.2**	800 unit(s)	1.030,00
RC-45/25	0,45	Non-sterile	25	**EE81.1**	100 unit(s)	147,00
RC-45/25	0,45	Non-sterile	25	**EE81.2**	400 unit(s)	590,00

GF/PET

Non-sterile. Hydrophilic PET all-round membrane with glass fibre prefilter for polar and nonpolar solutions. Especially suited to filtering eluent mixtures of water and organic solvents. Recommended for solutions with high proportions of suspended matter or highly viscous solutions; the glass fibre membrane removes large particles and prevents the membrane from being blocked. This improves filtration efficiency, increases filtrate yield and aids clarification of solutions with a high particulate matter load.

Technical specifications:

Art. No.	EE78.1	EE79.1
Ø Membrane	25 mm	
Ø Housing	30 mm	
Housing material	PP	
Sample volume	5–100 ml	
Dead volume	~80 µl	
Filtration area	4.9 cm²	
Max. application temperature	55 °C	
Max. operating pressure	12 bar	
Inlet connection	Luer lock connector	
Outlet connection	Luer connector	

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
GF/PET-20/25	1,0/0,20	Non-sterile	25	**EE78.1**	100 unit(s)	162,00
GF/PET-45/25	1,0/0,45	Non-sterile	25	**EE79.1**	100 unit(s)	162,00

Syringe filters

A 121 °C

Syringe filters CHROMAFIL® Xtra

Macherey-Nagel. Non-sterile. Autoclavable: Yes.

For clarification or sterile filtration of liquids or gases, as well as for sample preparation for use in HPLC, GC, ICP, AAS, TOC, DOC, IR, NMR, photometry, spectroscopy, method validation and certification. Non-coloured, pure compacted PP housing with good chemical resistance, very low extractable substances content and low bleeding. With imprint for quick and easy identification of membrane type, diameter and pore size.
Autoclavable at 121 °C and 1.1 bar for 30 min.

Not a medical device / Not an IVD product

CA

Hydrophilic cellulose acetate membrane for filtration of aqueous solutions. Ideal for use with biological macromolecules, water-soluble oligomers and polymers.

Extremely low protein binding capacity (21 µg per 25 mm filter).

Technical specifications:

Art. No.	XH44.1	XH44.2
Ø Membrane	25 mm	
Ø Housing	30 mm	
Housing material	PP	
Sample volume	5–100 ml	
Dead volume	~80 µl	
Filtration area	4.9 cm²	
Max. application temperature	55 °C	
Max. operating pressure	12 bar	
Inlet connection	Luer lock connector	
Outlet connection	Luer connector	

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Xtra CA-20/25	0,20	Non-sterile	25	**XH44.1**	100 unit(s)	129,00
Xtra CA-20/25	0,20	Non-sterile	25	**XH44.2**	400 unit(s)	515,00

MV

Hydrophilic cellulose ester composite membrane with very low adsorption for the filtration of aqueous and polar solutions.

Technical specifications:

Art. No.	XH51.1	XH51.2	XH52.1	XH52.2
Ø Membrane	25 mm			
Ø Housing	30 mm			
Housing material	PP			
Sample volume	5–100 ml			
Dead volume	~80 µl			
Filtration area	4.9 cm²			
Max. application temperature	55 °C			
Max. operating pressure	12 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Xtra MV-20/25	0,20	Non-sterile	25	**XH51.1**	100 unit(s)	129,00
Xtra MV-20/25	0,20	Non-sterile	25	**XH51.2**	400 unit(s)	515,00
Xtra MV-45/25	0,45	Non-sterile	25	**XH52.1**	100 unit(s)	129,00
Xtra MV-45/25	0,45	Non-sterile	25	**XH52.2**	400 unit(s)	515,00

PA

Nylon membrane for the filtration of medium polar organic-aqueous liquids.

Technical specifications:

Art. No.	XH59.1	XH59.2	XH60.1	XH60.2
Ø Membrane	25 mm			
Ø Housing	30 mm			
Housing material	PP			
Sample volume	5–100 ml			
Dead volume	~80 µl			
Filtration area	4.9 cm²			
Max. application temperature	55 °C			
Max. operating pressure	12 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Xtra PA-20/25	0,20	Non-sterile	25	**XH59.1**	100 unit(s)	129,00
Xtra PA-20/25	0,20	Non-sterile	25	**XH59.2**	400 unit(s)	515,00
Xtra PA-45/25	0,45	Non-sterile	25	**XH60.1**	100 unit(s)	129,00
Xtra PA-45/25	0,45	Non-sterile	25	**XH60.2**	400 unit(s)	515,00

PES

Hydrophilic PES membrane for aqueous and slightly organic solutions. Very low adsorption of proteins, good resistance to acids and bases. Protein binding capacity: 29 µg per 25 mm filter.

Technical specifications:

Art. No.	XH73.1	XH73.2	XH74.1	XH74.2	XH75.1	XH75.2
Ø Membrane	25 mm					
Ø Housing	30 mm					
Housing material	PP					
Sample volume	5–100 ml					
Dead volume	~80 µl					
Filtration area	4.9 cm²					
Max. application temperature	55 °C					
Max. operating pressure	12 bar					
Inlet connection	Luer lock connector					
Outlet connection	Luer connector					

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Xtra PES-20/25	0,20	Non-sterile	25	**XH73.1**	100 unit(s)	129,00
Xtra PES-20/25	0,20	Non-sterile	25	**XH73.2**	400 unit(s)	515,00
Xtra PES-45/25	0,45	Non-sterile	25	**XH74.1**	100 unit(s)	129,00
Xtra PES-45/25	0,45	Non-sterile	25	**XH74.2**	400 unit(s)	515,00
Xtra PES-500/25	5,0	Non-sterile	25	**XH75.1**	100 unit(s)	129,00
Xtra PES-500/25	5,0	Non-sterile	25	**XH75.2**	400 unit(s)	515,00

Syringe filters

PET

Hydrophilic PET all-round membrane for polar and nonpolar solutions. Particularly suitable for the filtration of eluent mixtures made of water and organic solvents for HPLC and for sample preparation for TOC/DOC determination.

Not cytotoxic, does not inhibit the growth of microorganisms and higher cells.

Technical specifications:

Art. No.	XH76.1	XH76.2	XH77.1	XH77.2
Ø Membrane	25 mm			
Ø Housing	30 mm			
Housing material	PP			
Sample volume	5–100 ml			
Dead volume	~80 µl			
Filtration area	4.9 cm²			
Max. application temperature	55 °C			
Max. operating pressure	12 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Xtra PET-20/25	0,2	Non-sterile	25	**XH76.1**	100 unit(s)	129,00
Xtra PET-20/25	0,2	Non-sterile	25	**XH76.2**	400 unit(s)	515,00
Xtra PET-45/25	0,45	Non-sterile	25	**XH77.1**	100 unit(s)	129,00
Xtra PET-45/25	0,45	Non-sterile	25	**XH77.2**	400 unit(s)	515,00

PTFE

Hydrophobic PTFE membrane for nonpolar liquids and gases. Highly resistant to solvents, acids and bases.

Note: The membrane can be wetted with water by rinsing with alcohol and subsequently with water.

Technical specifications:

Art. No.	XH68.1	XH66.1	XH66.2	XH67.1
Ø Membrane	25 mm			
Ø Housing	30 mm			
Housing material	PP			
Sample volume	5–100 ml			
Dead volume	~80 µl			
Filtration area	4.9 cm²			
Max. application temperature	55 °C			
Max. operating pressure	12 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Xtra PTFE-100/25	1,0	Non-sterile	25	**XH68.1**	100 unit(s)	129,00
Xtra PTFE-20/25	0,20	Non-sterile	25	**XH66.1**	100 unit(s)	129,00
Xtra PTFE-20/25	0,20	Non-sterile	25	**XH66.2**	400 unit(s)	515,00
Xtra PTFE-45/25	0,45	Non-sterile	25	**XH67.1**	100 unit(s)	129,00

PVDF

Hydrophilic PVDF-membrane for polar and nonpolar solutions, water-soluble oligomers, proteins and other polymers. Protein binding capacity: 82 µg per 25 mm filter.

Technical specifications:

Art. No.	XH71.1	XH72.1
Ø Membrane	25 mm	
Ø Housing	30 mm	
Housing material	PP	
Sample volume	5–100 ml	
Dead volume	~80 µl	
Filtration area	4.9 cm²	
Max. application temperature	55 °C	
Max. operating pressure	12 bar	
Inlet connection	Luer lock connector	
Outlet connection	Luer connector	

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Xtra PVDF-20/25	0,20	Non-sterile	25	**XH71.1**	100 unit(s)	129,00
Xtra PVDF-45/25	0,45	Non-sterile	25	**XH72.1**	100 unit(s)	129,00

RC

Regenerated cellulose hydrophilic membrane with very low adsorption. For filtration of aqueous and organic-aqueous solutions. Protein binding capacity: 84 µg per 25 mm filter.

Technical specifications:

Art. No.	XH47.1	XH47.2	XH48.1	XH48.2
Ø Membrane	25 mm			
Ø Housing	30 mm			
Housing material	PP			
Sample volume	5–100 ml			
Dead volume	~80 µl			
Filtration area	4.9 cm²			
Max. application temperature	55 °C			
Max. operating pressure	12 bar			
Inlet connection	Luer lock connector			
Outlet connection	Luer connector			

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Xtra RC-20/25	0,2	Non-sterile	25	**XH47.1**	100 unit(s)	147,00
Xtra RC-20/25	0,2	Non-sterile	25	**XH47.2**	400 unit(s)	590,00
Xtra RC-45/25	0,45	Non-sterile	25	**XH48.1**	100 unit(s)	147,00
Xtra RC-45/25	0,45	Non-sterile	25	**XH48.2**	400 unit(s)	590,00

Syringe filters

Syringe filters SPARTAN®

Cytiva.

With hydrophilic membrane made of regenerated cellulose (RC). Specially developed for cleaning HPLC samples and for filtration of aqueous and organic solvents.



Technical specifications:

Art. No.	5989.2	5824.2	5992.2	0062.2
Ø Membrane	13 mm	30 mm	13 mm	30 mm
Ø Housing	17 mm	34 mm	17 mm	34 mm
Housing material	PP			
Sample volume	~5 ml	~100 ml	~5 ml	~100 ml
Dead volume	10 µl	50 µl	10 µl	50 µl
Filtration area	0.75 cm²	5.7 cm²	0.75 cm²	5.7 cm²
Max. application temperature	80 °C			
Max. operating pressure	7 bar			
Inlet connection	Luer-Lock connector			
Outlet connection	Luer connector			

Not a medical device / Not an IVD product

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	13	dark brown	**5989.2**	100 unit(s)	369,80
0,2	Non-sterile	30	dark brown	**5824.2**	100 unit(s)	423,55
0,45	Non-sterile	13	light brown	**5992.2**	100 unit(s)	369,80
0,45	Non-sterile	30	light brown	**0062.2**	100 unit(s)	419,25

Syringe filters ReZist®

Cytiva.

With hydrophobic PTFE membrane. For ventilation, gas filtration and HPLC sample preparation of organic solutions.



Technical specifications:

Art. No.	5994.2	5998.2	5996.2	6000.2
Ø Membrane	30 mm			
Ø Housing	34 mm			
Housing material	PP			
Inlet connection	Luer-Lock connector			
Outlet connection	Luer connector			

Not a medical device / Not an IVD product

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	30	white	**5994.2**	100 unit(s)	579,45
1,0	Non-sterile	30	yellow	**5998.2**	100 unit(s)	579,45
0,45	Non-sterile	30	green	**5996.2**	100 unit(s)	579,45
5,0	Non-sterile	30	grey	**6000.2**	100 unit(s)	579,45

Syringe filters

Syringe filters Minisart® High Flow

Sartorius.

Hydrophilic polyethersulphone membrane with low non-specific binding for aqueous media with a pH range of 3 to 12.
High flow rates due to asymmetrical membrane structure.
Free of PVC and phthalates, but limited compatibility with alcohols.
Minimum extractables and leachables.



Not a medical device / Not an IVD product

Non-sterile

Technical specifications:

Art. No.	1CNL.1	1CNN.1	1CNP.1	1CNT.1
Ø Membrane	28 mm			
Ø Housing	33 mm			
Housing material	MBS			
Filtration area	6.2 cm²			
Max. operating pressure	6 bar			
Inlet connection	Luer-Lock			
Outlet connection	Male Luer Lock	Male Luer Slip	Male Luer Lock	Male Luer Slip

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,22	Non-sterile	28	blue	**1CNL.1**	500 unit(s)	950,00
0,22	Non-sterile	28	blue	**1CNN.1**	500 unit(s)	950,00
0,45	Non-sterile	28	amber	**1CNP.1**	500 unit(s)	950,00
0,45	Non-sterile	28	amber	**1CNT.1**	500 unit(s)	950,00

Sterile (EtO-sterilised)

Technical specifications:

Art. No.	1CNX.1	1CNY.1	1CP0.1	1CP1.1	1CP2.1
Ø Membrane	28 mm				
Ø Housing	33 mm				
Housing material	MBS				
Filtration area	6.2 cm²				
Max. operating pressure	6 bar				
Inlet connection	Luer-Lock				
Outlet connection	Male Luer Lock		Male Luer Slip	Male Luer Lock	Male Luer Slip

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,1	**Sterile**	28	red	**1CNX.1**	50 unit(s)	160,00
0,22	**Sterile**	28	blue	**1CNY.1**	50 unit(s)	160,00
0,22	**Sterile**	28	blue	**1CP0.1**	50 unit(s)	160,00
0,45	**Sterile**	28	amber	**1CP1.1**	50 unit(s)	160,00
0,45	**Sterile**	28	amber	**1CP2.1**	50 unit(s)	160,00

Sterile (gamma-sterilised)

Technical specifications:

Art. No.	1CP3.1	1CP4.1
Ø Membrane	28 mm	
Ø Housing	33 mm	
Housing material	MBS	
Filtration area	6.2 cm²	
Max. operating pressure	6 bar	
Inlet connection	Luer-Lock	
Outlet connection	Male Luer Lock	Male Luer Slip

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,22	**Sterile**	28	blue	**1CP3.1**	50 unit(s)	160,00
0,45	**Sterile**	28	amber	**1CP4.1**	50 unit(s)	160,00

Syringe filters

Syringe filters Minisart® NML

Sartorius.

Hydrophilic SFCA membrane (surfactant-free cellulose acetate) with low non-specific binding for aqueous solutions and oils with a pH range of 4 to 8.
Free of surfactants, PVC and phthalates, but limited compatibility with alcohols. Minimum extractables and leachables.



Technical specifications:

Art. No.	1CPC.1	1CP9.1	1CPH.1	1CPL.1	1CPA.1	1CPK.1	1CPE.1
Ø Membrane	28 mm						
Ø Housing	33 mm						
Housing material	MBS						
Filtration area	6.2 cm²						
Max. operating pressure	4.5 bar						
Inlet connection	Luer-Lock						
Outlet connection	Male Luer Lock						Male Luer Slip

Not a medical device / Not an IVD product

Non-sterile

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
5	Non-sterile	28	brown	**1CPC.1**	500 unit(s)	981,00
0,8	Non-sterile	28	green	**1CP9.1**	500 unit(s)	921,00
1,2	Non-sterile	28	red	**1CPA.1**	500 unit(s)	921,00

Sterile (ETO-sterilised)

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,8	**Sterile**	28	green	**1CPH.1**	50 unit(s)	152,00
1,2	**Sterile**	28	red	**1CPK.1**	50 unit(s)	152,00
0,65	**Sterile**	28	pink	**1CPE.1**	50 unit(s)	152,00

Sterile (gamma-sterilised)

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,8	**Sterile**	28	green	**1CPL.1**	50 unit(s)	152,00

Syringe filters



Syringe filters Minisart® NML Plus

Sartorius.

Hydrophilic SFCA membrane (surfactant-free cellulose acetate) with prefilter (0.7 µm glass fibre) for the filtration of samples containing large amounts of particulate matter.
Suitable for aqueous solutions and oils with a pH range of 4 to 8.
Low non-specific binding. Free of PVC and phthalates, but limited compatibility with alcohols.
Minimum extractables and leachables.

Technical specifications:

Art. No.	1CPN.1	1CPX.1	1CPT.1	1CPP.1	1CPY.1
Ø Membrane	28 mm				
Ø Housing	33 mm				
Housing material	MBS				
Filtration area	6.2 cm²				
Max. operating pressure	4.5 bar				
Inlet connection	Luer-Lock				
Outlet connection	Male Luer Lock				

Not a medical device / Not an IVD product

Non-sterile

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	28	blue	**1CPN.1**	500 unit(s)	1.080,00
1,2	Non-sterile	28	red	**1CPT.1**	500 unit(s)	1.210,00
0,45	Non-sterile	28	yellow	**1CPP.1**	500 unit(s)	1.080,00

Sterile (EtO-sterilised)

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	**Sterile**	28	blue	**1CPX.1**	50 unit(s)	180,00
0,45	**Sterile**	28	yellow	**1CPY.1**	50 unit(s)	180,00



Syringe filters Minisart® NML Plus

Sartorius.

Glass fibre membrane for the filtration of samples containing large amounts of particulate matter. Suitable for aqueous solutions and oils.
Low non-specific binding.
Free of PVC and phthalates, but limited compatibility with alcohols.
Minimum extractables and leachables.

Technical specifications:

Art. No.	1CX1.1	1CX2.1
Ø Membrane	28 mm	
Ø Housing	33 mm	
Housing material	MBS	
Filtration area	6.2 cm²	
Max. operating pressure	4.5 bar	
Inlet connection	Luer-Lock	
Outlet connection	Male Luer Lock	

Not a medical device / Not an IVD product

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,7	Non-sterile	28	colourless	**1CX1.1**	50 unit(s)	98,70
0,7	Non-sterile	28	colourless	**1CX2.1**	500 unit(s)	801,00

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Syringe filters

Syringe filters Minisart® NML with CE marking



Sartorius.

Hydrophilic SFCA membrane (surfactant-free cellulose acetate) with low non-specific binding for aqueous solutions and oils with a pH range of 4 to 8.
Free of surfactants, PVC and phthalates, but limited compatibility with alcohols. Minimum extractables and leachables.
Intended use: sterile filtration and/or clarification of low volume aqueous solutions. For pharmacy admixture applications in a laboratory environment before use for patient care.

Medical device class IIa MDD

ID: 0123

Non-sterile

Technical specifications:

Art. No.	1CT6.1	1CT7.1	1CT8.1	1CT9.1
Ø Membrane	28 mm			
Ø Housing	33 mm			
Housing material	MBS			
Filtration area	6.2 cm²			
Max. operating pressure	4.5 bar			
Inlet connection	Luer-Lock			
Outlet connection	Male Luer Lock	Male Luer Slip	Male Luer Lock	Male Luer Slip

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	28	blue	**1CT6.1**	500 unit(s)	1.050,00
0,2	Non-sterile	28	blue	**1CT7.1**	500 unit(s)	1.050,00
0,45	Non-sterile	28	yellow	**1CT8.1**	500 unit(s)	1.050,00
0,45	Non-sterile	28	yellow	**1CT9.1**	500 unit(s)	1.050,00

Sterile (EtO-sterilised)

Technical specifications:

Art. No.	1CTA.1	1CTC.1	1CTE.1	1CTH.1	1CTK.1
Ø Membrane	28 mm				
Ø Housing	33 mm				
Housing material	MBS				
Filtration area	6.2 cm²				
Max. operating pressure	4.5 bar				
Inlet connection	Luer-Lock				
Outlet connection	Male Luer Lock	Male Luer Slip	Male Luer Lock	Male Luer Slip	Male Luer Lock

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	**Sterile**	28	blue	**1CTA.1**	50 unit(s)	175,00
0,2	**Sterile**	28	blue	**1CTC.1**	50 unit(s)	176,00
5	**Sterile**	28	brown	**1CTK.1**	50 unit(s)	176,00
0,45	**Sterile**	28	yellow	**1CTE.1**	50 unit(s)	175,00
0,45	**Sterile**	28	yellow	**1CTH.1**	50 unit(s)	176,00

Sterile (gamma-sterilised)

Technical specifications:

Art. No.	1CTL.1	1CTN.1
Ø Membrane	28 mm	
Ø Housing	33 mm	
Housing material	MBS	
Filtration area	6.2 cm²	
Max. operating pressure	4.5 bar	
Inlet connection	Luer-Lock	
Outlet connection	Male Luer Lock	

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	**Sterile**	28	blue	**1CTL.1**	50 unit(s)	175,00
0,45	**Sterile**	28	yellow	**1CTN.1**	50 unit(s)	175,00

Syringe filters

Syringe filters Minisart® SRP

Sartorius. Autoclavable: Yes.

Hydrophobic PTFE membrane for the filtration of solvents, for use as breather filter or for aggressive media with a pH range of 1 to 14. Minimum extractables and leachables.
For hydrophilic solutions, priming with solvent is necessary to make the membrane permeable to aqueous liquids.



A 121 °C

Not a medical device / Not an IVD product

Non-sterile, with Male Spike outlet

Technical specifications:

Art. No.	1CL4.1	1CL5.1	1CL6.1	1CL7.1
Ø Membrane	15 mm			
Ø Housing	25 mm			
Housing material	PP			
Dead volume	10 µl			
Filtration area	1.7 cm²			
Max. operating pressure	4.5 bar			
Inlet connection	Luer-Lock			
Outlet connection	Male Spike			

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	15	colourless	**1CL4.1**	50 unit(s)	168,00
0,2	Non-sterile	15	colourless	**1CL5.1**	500 unit(s)	956,00
0,45	Non-sterile	15	colourless	**1CL6.1**	50 unit(s)	157,00
0,45	Non-sterile	15	colourless	**1CL7.1**	500 unit(s)	956,00

Non-sterile, with Male Luer Slip outlet

Technical specifications:

Art. No.	1CL8.1	1CLK.1	1CLL.1	1CL9.1	1CLA.1	1CLN.1	1CLP.1	1CLC.1	1CLE.1	1CLH.1	1CLT.1	1CLX.1	1CLY.1
Ø Membrane	4 mm			15 mm				25 mm					
Ø Housing	12 mm			25 mm				33 mm					
Housing material	PP												
Dead volume	1 µl			10 µl				100 µl					
Filtration area	0.07 cm²			1.7 cm²				4.8 cm²					
Max. operating pressure	4.5 bar												
Inlet connection	Luer-Lock												
Outlet connection	Male Luer Slip												

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	4	blue	**1CL8.1**	500 unit(s)	773,00
0,2	Non-sterile	15	colourless	**1CL9.1**	50 unit(s)	151,00
0,2	Non-sterile	15	colourless	**1CLA.1**	500 unit(s)	950,00
0,2	Non-sterile	25	colourless	**1CLC.1**	50 unit(s)	173,00
0,2	Non-sterile	25	colourless	**1CLE.1**	200 unit(s)	578,00
0,2	Non-sterile	25	colourless	**1CLH.1**	500 unit(s)	1.090,00
0,45	Non-sterile	4	yellow	**1CLK.1**	50 unit(s)	83,70
0,45	Non-sterile	4	yellow	**1CLL.1**	500 unit(s)	773,00
0,45	Non-sterile	15	colourless	**1CLN.1**	50 unit(s)	151,00
0,45	Non-sterile	15	colourless	**1CLP.1**	500 unit(s)	950,00
0,45	Non-sterile	25	colourless	**1CLT.1**	50 unit(s)	173,00
0,45	Non-sterile	25	colourless	**1CLX.1**	200 unit(s)	578,00
0,45	Non-sterile	25	colourless	**1CLY.1**	500 unit(s)	1.090,00

Syringe filters

Sterile (EtO-sterilised), with Male Luer Slip outlet

Technical specifications:

Art. No.	1CN0.1	1CN1.1
Ø Membrane	15 mm	25 mm
Ø Housing	25 mm	33 mm
Housing material	PP	
Dead volume	10 µl	100 µl
Filtration area	1.7 cm²	4.8 cm²
Max. operating pressure	4.5 bar	
Inlet connection	Luer-Lock	
Outlet connection	Male Luer Slip	

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	**Sterile**	15	colourless	**1CN0.1**	50 unit(s)	167,00
0,2	**Sterile**	25	colourless	**1CN1.1**	50 unit(s)	210,00

Syringe filters Minisart® NY

Sartorius. Autoclavable: Yes.

Hydrophilic nylon membrane for solvents and aqueous solutions with a pH of 3 to 14. Low non-specific binding and rapid flow rates, minimum extractables and leachables.



A 121 °C

Technical specifications:

Art. No.	1CKP.1	1CKT.1	1CKY.1	1CL0.1	1CKX.1	1CL1.1	1CL2.1	1CL3.1
Ø Membrane	15 mm				25 mm			
Ø Housing	25 mm				33 mm			
Housing material	PP							
Filtration area	1.7 cm²				4.8 cm²			
Max. operating pressure	4.5 bar							
Inlet connection	Luer-Lock							
Outlet connection	Male Luer Slip							

Not a medical device / Not an IVD product

Non-sterile

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,20	Non-sterile	15	colourless	**1CKP.1**	50 unit(s)	127,00
0,20	Non-sterile	15	colourless	**1CKT.1**	500 unit(s)	908,00
0,20	Non-sterile	25	colourless	**1CKX.1**	500 unit(s)	981,00
0,45	Non-sterile	15	colourless	**1CKY.1**	50 unit(s)	127,00
0,45	Non-sterile	15	colourless	**1CL0.1**	500 unit(s)	908,00
0,45	Non-sterile	25	colourless	**1CL1.1**	500 unit(s)	981,00

Sterile (EtO-sterilised)

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,20	**Sterile**	25	colourless	**1CL2.1**	50 unit(s)	152,00
0,45	**Sterile**	25	colourless	**1CL3.1**	50 unit(s)	152,00

Syringe filters

Syringe filters Minisart® NY25 Plus

Sartorius. Autoclavable: Yes.

Hydrophilic nylon membrane with prefilter (0.7 µm glass fibre) for the filtration of samples containing large amounts of particulate matter. Suitable for solvents and aqueous solutions with a pH of 3 to 14. Low non-specific binding and rapid flow rates. Minimum extractables and leachables.



A 121 °C

Technical specifications:

Art. No.	1CNC.1	1CNE.1	1CNH.1	1CNK.1
Ø Membrane	25 mm			
Ø Housing	33 mm			
Housing material	PP			
Filtration area	4.8 cm²			
Max. operating pressure	4.5 bar			
Inlet connection	Luer-Lock			
Outlet connection	Male Luer Slip			

Not a medical device / Not an IVD product

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	25	colourless	**1CNC.1**	50 unit(s)	193,00
0,2	Non-sterile	25	colourless	**1CNE.1**	500 unit(s)	1.370,00
0,45	Non-sterile	25	colourless	**1CNH.1**	50 unit(s)	193,00
0,45	Non-sterile	25	colourless	**1CNK.1**	500 unit(s)	1.370,00

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Syringe filters

Syringe filters Minisart® RC

Sartorius. Autoclavable: Yes.

Hydrophilic membrane made of regenerated cellulose for the filtration of solvents and aqueous solutions with a pH of 3 to 14. Resistant to DMSO and other amides, ketones, esters and ether. Very low non-specific binding. Minimum extractables and leachables.



A 121 °C

Not a medical device / Not an IVD product

Non-sterile

Technical specifications:

Art. No.	1CK1.1	1CK2.1	1CK8.1	1CK9.1	1CK3.1	1CK4.1	1CKA.1	1CKC.1	1CK5.1	1CK6.1	1CK7.1	1CKE.1	1CKH.1	1CKK.1
Ø Membrane	4 mm				15 mm				25 mm					
Ø Housing	12 mm				25 mm				33 mm					
Housing material	PP													
Dead volume	5 µl				10 µl				150 µl					
Filtration area	0.07 cm²				1.7 cm²				4.8 cm²					
Max. operating pressure	4.5 bar													
Inlet connection	Luer-Lock													
Outlet connection	Male Luer Slip													

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	Non-sterile	4	blue	**1CK1.1**	50 unit(s)	85,60
0,2	Non-sterile	4	blue	**1CK2.1**	500 unit(s)	776,00
0,2	Non-sterile	15	colourless	**1CK3.1**	50 unit(s)	128,00
0,2	Non-sterile	15	colourless	**1CK4.1**	500 unit(s)	912,00
0,2	Non-sterile	25	colourless	**1CK5.1**	50 unit(s)	139,00
0,2	Non-sterile	25	colourless	**1CK6.1**	200 unit(s)	444,00
0,2	Non-sterile	25	colourless	**1CK7.1**	500 unit(s)	987,00
0,45	Non-sterile	4	yellow	**1CK8.1**	50 unit(s)	85,60
0,45	Non-sterile	4	yellow	**1CK9.1**	500 unit(s)	776,00
0,45	Non-sterile	15	colourless	**1CKA.1**	50 unit(s)	128,00
0,45	Non-sterile	15	colourless	**1CKC.1**	500 unit(s)	912,00
0,45	Non-sterile	25	colourless	**1CKE.1**	50 unit(s)	139,00
0,45	Non-sterile	25	colourless	**1CKH.1**	200 unit(s)	444,00
0,45	Non-sterile	25	colourless	**1CKK.1**	500 unit(s)	987,00

Sterile (EtO-sterilised)

Technical specifications:

Art. No.	1CKL.1	1CKN.1
Ø Membrane	15 mm	25 mm
Ø Housing	25 mm	33 mm
Housing material	PP	
Dead volume	10 µl	150 µl
Filtration area	1.7 cm²	4.8 cm²
Max. operating pressure	4.5 bar	
Inlet connection	Luer-Lock	
Outlet connection	Male Luer Slip	

Pore size (µm)	Sterility	Ø Membrane (mm)	Colour coding	Art. No.	Pack Qty.	€
0,2	**Sterile**	15	colourless	**1CKL.1**	50 unit(s)	139,00
0,2	**Sterile**	25	colourless	**1CKN.1**	50 unit(s)	154,00



Inline filter PTFE

ROTH SELECTION.

For gas filtration, ventilation and venting as well as for filtration of large amounts of liquid. Ultrasonically welded housing.
Sterile version (individually packed) available as an option.

Technical specifications:

Art. No.	HLL7.1	HLL9.1	HLL8.1	HLN0.1
Ø Membrane	47 mm			
Housing material	PP			
Filtration area	17.35 cm²			
Inlet connection	stepped tube connection (Ø 6–12 mm)			
Outlet connection	stepped tube connection (Ø 6–12 mm)			

Pore size (µm)	Membrane material	Sterility	Art. No.	Pack Qty.	€
0,2	Hydrophobic PTFE	Non-sterile	**HLL7.1**	50 unit(s)	473,00
0,2	Hydrophobic PTFE	**Sterile**	**HLL9.1**	50 unit(s)	528,90
0,45	Hydrophobic PTFE	Non-sterile	**HLL8.1**	50 unit(s)	473,00
0,45	Hydrophobic PTFE	**Sterile**	**HLN0.1**	50 unit(s)	528,90



A 121 °C

Inline filter Millex® PTFE

MERCK MILLIPORE. Autoclavable: Yes.

For the sterile filtration of gases, the sterile aeration of containers and for the sterilisation and clear filtration of organic solutions. Also suitable for preventing the ingress of liquids in downstream pumps and other devices.

Technical specifications:

Art. No.	CY08.1	CY06.1	CY07.1
Ø Membrane	50 mm		
Housing material	PP		
Filtration area	19.6 cm²		
Max. operating pressure	4 bar		
Max. application temperature	121 °C		
Inlet connection	stepped tube connection (Ø 6–13 mm) with internal Luer Cone		
Outlet connection	stepped tube connection (Ø 6–13 mm) with internal Luer Cone		

Type	Pore size (µm)	Membrane material	Art. No.	Pack Qty.	€
Millex®-FA	1,0	Hydrophobic PTFE	**CY08.1**	10 unit(s)	192,45
Millex®-FG	0,22	Hydrophobic PTFE	**CY06.1**	10 unit(s)	181,70
Millex®-FH	0,45	Hydrophobic PTFE	**CY07.1**	10 unit(s)	192,45

Filter units



Filter units Millex® glass fibre

MERCK MILLIPORE.

For pre-filtration of solutions and liquids with a high particle load that are difficult to filter. Protects downstream membranes against blocking quickly. Retention range approx. 2.0 µm.

Technical specifications:

Art. No.	CY09.1	CY10.1
Ø Membrane	25 mm	50 mm
Housing material	PVC	
Sample volume	100 ml	4000 ml
Dead volume	<100 µl	<1000 µl
Filtration area	3.9 cm²	19.6 cm²
Max. operating pressure	5 bar	4.1 bar
Max. application temperature	45 °C	
Inlet connection	female Luer Lock, internal	stepped tube connection (Ø 6–13 mm) with internal Luer Cone
Outlet connection	male Luer Cone, external	stepped tube connection (Ø 6–13 mm) with internal Luer Cone

Type	Pore size (µm)	Membrane material	Art. No.	Pack Qty.	€
Millex®-AP 25	~2	Glass fibre	**CY09.1**	50 unit(s)	138,70
Millex®-AP 50	~2	Glass fibre	**CY10.1**	10 unit(s)	84,95

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Syringe filters Millex® HPF

MERCK MILLIPORE. Non-sterile.

For clear filtration of solutions with a high particle load prior to instrument based assay.
With graduated glass fibre prefilter (10.0 to 0.7 µm), enabling two to four times higher throughput than syringe filters without prefilter. Housing made of HDPE with low extractable substances content.

Technical specifications:

Art. No.	XE30.1	XE33.1	XE31.1	XE34.1	XE32.1
Ø Membrane	25 mm				
Housing material	HDPE				
Sample volume	~100 ml				
Dead volume	<250 µl				
Filtration area	3.9 cm²				
Max. application temperature	45 °C				
Max. operating pressure	7 bar				
Inlet connection	Luer lock connector				
Outlet connection	Luer connector				

Not a medical device / Not an IVD product

Nylon
Hydrophilic membrane with glass fibre prefilter for clear filtration of aqueous and slightly organic solutions with a high particle load.

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Millex®-GN	0,2	Non-sterile	25	**XE30.1**	50 unit(s)	235,45
Millex®-HN	0,45	Non-sterile	25	**XE31.1**	50 unit(s)	252,65

Hydrophilic polytetrafluoroethylene (PTFE)
Hydrophilic membrane with glass fibre prefilter for clear filtration of aqueous and organic solutions with a high particle load. Low protein binding.

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Millex®-LLG	0,2	Non-sterile	25	**XE33.1**	50 unit(s)	246,20
Millex®-LCR	0,45	Non-sterile	25	**XE34.1**	50 unit(s)	235,45

Polyvinylidene fluoride (PVDF)
Hydrophilic Durapore® membrane with glass fibre prefilter. Very low protein binding, for clear filtration of protein solutions with a high particle load.

Type	Pore size (µm)	Sterility	Ø Membrane (mm)	Art. No.	Pack Qty.	€
Millex®-HV	0,45	Non-sterile	25	**XE32.1**	50 unit(s)	252,65



S

Filter units Millex® PES

MERCK MILLIPORE. **Sterile**.

Express® PES membrane with low protein binding and high flow speed. For sterile filtration of cell culture media and other aqueous solutions. With optional filling bell for reducing the risk of contamination.

The dead volume given refers to the volume left in the filter after purging the filter with air.

Technical specifications:

Art. No.	CY11.1	CY12.1
Ø Membrane	50 mm	
Housing material	MBS	
Sample volume	~4000 ml	
Dead volume	<1000 µl	
Filtration area	19.6 cm²	
Max. operating pressure	3.4 bar	
Max. application temperature	45 °C	
Inlet connection	stepped tube connection (Ø 6–13 mm) with internal Luer Cone	
Outlet connection	stepped tube connection (Ø 6–13 mm) with internal Luer Cone	

Type	Pore size (µm)	Membrane material	Sterility	Art. No.	Pack Qty.	€
Millex®-GP	0,22	PES	**Sterile**	**CY11.1**	10 unit(s)	187,05
Millex®-GP with filling cone	0,22	PES	**Sterile**	**CY12.1**	10 unit(s)	187,05



S

Filter units Sterivex™

MERCK MILLIPORE. **Sterile**.

For the sterile filtration of aqueous liquids. Filter units can be operated with syringe pumps or hose pumps. With optional filling bell for reducing the risk of contamination.

The dead volume given refers to the volume left in the filter after purging the filter with air.

Technical specifications:

Art. No.	CT79.1	CT80.1	CT81.1	CT82.1	CT83.1	CT84.1
Housing material	Eastar®					
Sample volume	1000 ml				2000 ml	
Dead volume	<200 µl					
Filtration area	10 cm²					
Max. operating pressure	3 bar					
Max. application temperature	45 °C					
Inlet connection	female Luer Lock					
Outlet connection	male Luer Lock					

Durapore® (PVDF) membrane
With extremely low protein binding. Filtration volume approx. 1 litre.

Type	Pore size (µm)	Membrane material	Sterility	Art. No.	Pack Qty.	€
With filling bell	0,22	PVDF	**Sterile**	**CT79.1**	10 unit(s)	192,45
Without filling bell	0,22	PVDF	**Sterile**	**CT80.1**	15 unit(s)	231,15
With filling bell	0,45	PVDF	**Sterile**	**CT81.1**	10 unit(s)	192,45
Without filling bell	0,45	PVDF	**Sterile**	**CT82.1**	15 unit(s)	231,15

Millipore Express® (PES) membrane
With low protein binding and high flow speed.
Filtration volume approx. 2 litres.

Type	Pore size (µm)	Membrane material	Sterility	Art. No.	Pack Qty.	€
With filling bell	0,22	PES	**Sterile**	**CT83.1**	10 unit(s)	177,40
Without filling bell	0,22	PES	**Sterile**	**CT84.1**	15 unit(s)	231,15

Filter units



S

Filter units Steripak™

MERCK MILLIPORE. **Sterile**.

Disposable filter units for sterile filtration of large volumes up to 20 l.
With Millipore Express® (PES) membranes with high flow rate and low protein binding. Packaged ready to use, for operation with hose pumps or pressurised containers.

- Filling bell on the outlet side of the unit increases the safety of the sterilisation process
- Manual ventilation opening prevents air blocking the membrane
- For sterile filtration of tissue culture media, buffers and other aqueous solutions

The dead volume given refers to the volume left in the filter after purging the filter with air.

Technical specifications:

Art. No.	CT85.1	CT86.1
Ø ext.	76 mm	
Housing material	SAN	
Sample volume	10000 ml	20000 ml
Dead volume	<2700 µl	
Filtration area	100 cm²	200 cm²
Max. operating pressure	5.2 bar	
Max. application temperature	45 °C	
Inlet connection	stepped tube connection (Ø 6–8 mm)	
Outlet connection	stepped tube connection and filling bell	

Type	Pore size (µm)	Membrane material	Sterility	Art. No.	Pack Qty.	€
GP 10	0,22	PES	**Sterile**	**CT85.1**	3 unit(s)	231,15
GP 20	0,22	PES	**Sterile**	**CT86.1**	3 unit(s)	284,90



Centrifuge filter unit Ultrafree

MERCK MILLIPORE.

Centrifuge filter units for sample volumes of no more than 0.5 or 2.0 ml. For use in fixed-angle rotors for 1.5 or 15 ml sample tubes. Filter unit and collector tube are made of PP.

- **Hydrophilic Durapore® PVDF-membrane:** Extremely low protein binding. Suitable for removal of particulate matter and precipitate from aqueous samples, and for protein and nucleic acid applications
- **Hydrophilic PTFE membrane:** for removal of precipitate from solvent-based samples

Procedure:

- Open the attached lid of the filter unit
- Fill the insert with the volume of sample
- Close the filtration unit and insert it in the centrifuge
- On completion of centrifuging, remove the filtration unit, open the lid and remove the insert
- The insert contains the residue and the sealable housing contains the filtrate

Ultrafree-MC: PVDF membrane, sample volume up to 0.5 ml
Filter insert volume max. 0.5 ml, collector tube volume 1.5 ml.

Technical specifications:

Art. No.	T341.1	T342.1	XH78.1	T343.1	XH80.1	T344.1	XH79.1
Version	Ultrafree-MC						
Sample volume	≤ 0,5 ml						
Centrifugability in g (max.)	12,000						
Filtration area	0.2 cm²						
Dead volume	5 µl						
Ø ext.	10.6 mm						
Height	45 mm						

Membrane material	Pore size (µm)	Sterility	Colour coding	Art. No.	Pack Qty.	€
PVDF	0,10	Non-sterile	orange	**T341.1**	25 unit(s)	177,40
PVDF	0,22	Non-sterile	yellow	**T342.1**	25 unit(s)	177,40
PVDF	0,22	**Sterile**	yellow	**XH78.1**	50 unit(s)	327,90
PVDF	0,45	Non-sterile	red	**T343.1**	25 unit(s)	177,40
PVDF	5,0	Non-sterile	dark green	**XH80.1**	100 unit(s)	536,45
PVDF	0,65	Non-sterile	purple	**T344.1**	25 unit(s)	177,40
PVDF	0,65	**Sterile**	purple	**XH79.1**	50 unit(s)	321,45

Centrifuge filter units

Ultrafree-MC: Hydrophilic PTFE membrane, sample volume up to 0.5 ml
Filter insert volume max. 0.5 ml, collector tube volume 1.5 ml.

Technical specifications:

Art. No.	XH81.1	XH82.1
Version	Ultrafree-MC	
Sample volume	≤ 0,5 ml	
Centrifugability in g (max.)	12,000	
Filtration area	0.2 cm²	
Dead volume	5 µl	
Ø ext.	10.6 mm	
Height	45 mm	

Membrane material	Pore size (µm)	Sterility	Colour coding	Art. No.	Pack Qty.	€
Hydrophilic PTFE	0,20	Non-sterile	yellow	**XH81.1**	25 unit(s)	209,65
Hydrophilic PTFE	0,45	Non-sterile	red	**XH82.1**	25 unit(s)	209,65

Ultrafree-CL: PVDF membrane, sample volume up to 2.0 ml
Filter insert volume max. 2 ml, collector tube volume 5 ml.

Technical specifications:

Art. No.	T345.1	T346.1	XH83.1	T347.1	XH85.1	XH84.1
Version	Ultrafree-CL					
Sample volume	≤ 2 ml					
Centrifugability in g (max.)	5,000					
Filtration area	0.8 cm²					
Dead volume	10 µl					
Ø ext.	16.3 mm					
Height	77 mm					

Membrane material	Pore size (µm)	Sterility	Colour coding	Art. No.	Pack Qty.	€
PVDF	0,10	Non-sterile	orange	**T345.1**	25 unit(s)	213,95
PVDF	0,22	Non-sterile	yellow	**T346.1**	25 unit(s)	213,95
PVDF	0,22	**Sterile**	yellow	**XH83.1**	50 unit(s)	385,95
PVDF	0,45	Non-sterile	red	**T347.1**	25 unit(s)	213,95
PVDF	5,0	Non-sterile	dark green	**XH85.1**	25 unit(s)	213,95
PVDF	0,65	Non-sterile	purple	**XH84.1**	25 unit(s)	213,95

Ultrafree-CL: Hydrophilic PTFE membrane, sample volume up to 2.0 ml
Filter insert volume max. 2 ml, collector tube volume 5 ml.

Technical specifications:

Art. No.	XH86.1	XH87.1
Version	Ultrafree-CL	
Sample volume	≤ 2 ml	
Centrifugability in g (max.)	5,000	
Filtration area	0.8 cm²	
Dead volume	10 µl	
Ø ext.	16.3 mm	
Height	77 mm	

Membrane material	Pore size (µm)	Sterility	Colour coding	Art. No.	Pack Qty.	€
Hydrophilic PTFE	0,22	Non-sterile	yellow	**XH86.1**	25 unit(s)	213,95
Hydrophilic PTFE	0,45	Non-sterile	red	**XH87.1**	25 unit(s)	213,95



S

Vacuum filter unit Steriflip®

MERCK MILLIPORE. Material: PP, modified acrylic (MBS). **Sterile**.

For filtration of sample volumes up to 50 ml.

- **Millipore Express® PES membrane** with high flow rate and low protein binding: For routine sterile filtration of tissue culture media, sera, buffers and other aqueous solutions
- **Durapore® PVDF membrane** with very low protein binding: For sterile and clear filtration of aqueous solutions
- **Hydrophilic nylon mesh filter:** For removing coarse particulate matter, e.g. for applications with stem, heart muscle and nerve cells, or skeletal tissue

Procedure:
Connect the filter unit to the centrifuge tube containing the sample. Rotate the filter unit through 180° and apply vacuum.
Optional: Screw the funnel attachment onto the sterile filter unit, fill with the sample and apply vacuum, Steriflip® filter unit filters directly into a sterile 50 ml centrifuge tube.

Technical specifications:

Art. No.	XH01.1	X348.1	XE99.1	XH02.1	XH00.1	XH03.1	XH04.1
Sample volume	50 ml						
Filtration area	7 cm²						
Dead volume	600 µl						
Max. application temperature	45 °C						

Delivery incl. fitted 50 ml centrifuge tube and lid (each packaged separately) and a single tube holder (blue).
Delivery without funnel attachment or second 50 ml centrifuge tube (e.g. Art. No. N462.1), please order separately.

Membrane material	Pore size (µm)	Sterility	Art. No.	Pack Qty.	€
Nylon	20	**Sterile**	**XH01.1**	25 unit(s)	252,65
PES	0,22	**Sterile**	**X348.1**	25 unit(s)	224,70
PVDF	0,22	**Sterile**	**XE99.1**	25 unit(s)	256,95
Nylon	40	**Sterile**	**XH02.1**	25 unit(s)	252,65
PVDF	0,45	**Sterile**	**XH00.1**	25 unit(s)	274,15
Nylon	60	**Sterile**	**XH03.1**	25 unit(s)	252,65
Nylon	100	**Sterile**	**XH04.1**	25 unit(s)	252,65

Accessories Funnel attachment for Steriflip® vacuum filter unit

MERCK MILLIPORE.

Type	Art. No.	Pack Qty.	€
Funnel attachment, 50 ml, PP, non-sterile	**XH05.1**	25 unit(s)	149,45

Bottle-top filters



S

Bottle-top filters Steritop™

MERCK MILLIPORE. **Sterile**.

For sterile filtration of tissue culture media, sera, additives, buffers and other aqueous solutions. Compatible with 45 mm or GL 45 screw top bottles suitable for vacuum.

- Low protein binding
- High flow speeds, short filtration times
- 40 cm^2 filtration surface
- Housing made of PS
- Max. application temperature 45 °C
- Vacuum connection for hoses with inner Ø of 6.5 to 12 mm

MILLIPORE Express® PLUS (PES) membrane
With low protein binding.

Pore size (µm)	Funnel volume (ml)	Art. No.	Pack Qty.	€
0,22	150	**X334.1**	12 unit(s)	117,20
0,22	250	**X335.1**	12 unit(s)	138,70
0,22	500	**X336.1**	12 unit(s)	167,70
0,22	1,000	**X337.1**	12 unit(s)	263,40

Durapore® (PVDF) membrane
With very low protein binding.

Pore size (µm)	Funnel volume (ml)	Art. No.	Pack Qty.	€
0,22	500	**CT99.1**	12 unit(s)	162,35



S

Receiver bottle Stericup®

MERCK MILLIPORE. Material: PS, PE screw cap. **Sterile**.
Receiver bottles for Steritop™ and Stericup® bottle-top filters.

Bottle volume (ml)	Thread	Art. No.	Pack Qty.	€
250	45 mm	**CX04.1**	12 unit(s)	69,90
500	45 mm	**CX05.1**	12 unit(s)	84,95
1,000	45 mm	**CX06.1**	12 unit(s)	134,40



S

Filtration unit Stericup® with MILLIPORE Express® PLUS (PES) membrane

MERCK MILLIPORE. **Sterile**.

A combination of bottle-top filter and collecting bottle. For routine sterile filtration of tissue culture media, sera, additives and other aqueous solutions. Ideal for use under laminar flow conditions thanks to its compact form. Stackable bottles.

- Low protein binding
- High flow speeds, short filtration times
- 73 mm membrane diameter
- 40 cm^2 filtration surface
- Housing made of PS
- Max. application temperature 45 °C
- Vacuum connection for hoses with inner Ø of 6.5 to 12 mm

Pore size 0.1 µm
For removal of mycoplasma.

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,10	73	250	250	**CX01.1**	12 unit(s)	207,50

Pore size 0.22 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,22	73	150	150	**X338.1**	12 unit(s)	134,40
0,22	73	250	250	**X339.1**	12 unit(s)	160,20
0,22	73	500	500	**X340.1**	12 unit(s)	252,65
0,22	73	500	1,000	**X341.1**	12 unit(s)	338,65
0,22	73	1,000	1,000	**X342.1**	12 unit(s)	353,70

Bottle-top filters



S

Filtration unit Stericup® with Durapore® (PVDF) membrane

MERCK MILLIPORE. **Sterile**.

A combination of bottle-top filter and collecting bottle. For routine sterile filtration of tissue culture media, sera, additives and other aqueous solutions. Ideal for use under laminar flow conditions thanks to its compact form. Bottles are stackable.

- Very low protein binding
- High flow speeds, short filtration times
- 73 mm membrane diameter
- 40 cm^2 filtration surface
- Housing made of PS
- Max. application temperature 45 °C
- Vacuum connection for hoses with inner Ø of 6.5 to 12 mm

Pore size 0.22 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,22	73	150	150	**CT87.1**	12 unit(s)	133,30
0,22	73	250	250	**CT88.1**	12 unit(s)	181,70
0,22	73	500	500	**CT89.1**	12 unit(s)	256,95
0,22	73	500	1,000	**CT90.1**	12 unit(s)	375,20
0,22	73	1,000	1,000	**CT91.1**	12 unit(s)	364,45

Pore size 0.45 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,45	73	150	150	**CT92.1**	12 unit(s)	145,15
0,45	73	250	250	**CT93.1**	12 unit(s)	170,95
0,45	73	500	500	**CT94.1**	12 unit(s)	267,70
0,45	73	1,000	1,000	**CT96.1**	12 unit(s)	385,95



S

Filtration unit with cellulose nitrate membrane

Nalgene. **Sterile**.

Triton-free cellulose nitrate membrane **(CN)** with excellent wetting properties and high flow rates for aqueous solutions. For cold sterilisation, clear filtration, prefiltration and ultrafiltration of buffers, microbiological culture media and other aqueous solutions.

Type:

- Green colour coding
- white membrane colour
- Filtration units made of PS
- Graduated filter upper sections and filter bottles
- With quick connector tube adapter and cotton stopper
- Leakproof screw cap
- Filtration units are non-pyrogenic and non-cytotoxic

Filtration units with volumes of 500 and 1000 ml are delivered with 12 glass fibre prefilters included.

Pore size 0.2 µm, without grid

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,20	50	150	150	**AC48.1**	12 unit(s)	139,50
0,20	50	250	250	**AC51.1**	12 unit(s)	155,35
0,20	75	500	500	**AC54.1**	12 unit(s)	258,00
0,20	75	500	1,000	**AC57.1**	12 unit(s)	311,75

Pore size 0.45 µm, with grid

Pore size (µm)	Ø Membrane (mm)	Grid colour	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,45	50	green	150	150	**AC49.1**	12 unit(s)	139,50
0,45	50	green	250	250	**AC52.1**	12 unit(s)	155,35
0,45	75	green	500	500	**AC55.1**	12 unit(s)	258,00
0,45	75	green	500	1,000	**AC58.1**	12 unit(s)	311,75

Pore size 0.8 µm, with grid

Pore size (µm)	Ø Membrane (mm)	Grid colour	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,80	50	black	150	150	**AC50.1**	12 unit(s)	139,50
0,80	50	black	250	250	**AC53.1**	12 unit(s)	155,35
0,80	75	black	500	500	**AC56.1**	12 unit(s)	258,00
0,80	75	black	500	1,000	**AC59.1**	12 unit(s)	311,75

Bottle-top filters



S

Receiver bottle for bottle-top filters

Nalgene. Material: PS, PE screw cap. **Sterile**.

Thread 45 mm. Screw cap can be closed with 1½ turns. Non-pyrogenic, non-cytotoxic. γ-sterilised.
Suitable for all bottle-top filters and filtration units with Art. No. AC08.1 to AC59.1.

Bottle volume (ml)	Thread	Art. No.	Pack Qty.	€
150	45 mm	**AC60.1**	24 unit(s)	135,40
250	45 mm	**AC61.1**	24 unit(s)	154,25
500	45 mm	**AC62.1**	12 unit(s)	107,50
1,000	45 mm	**AC63.1**	12 unit(s)	154,25



S

Filtration unit with SFCA membrane

Nalgene. **Sterile**.

Membranes made of surfactant-free cellulose acetate (SF**CA**) with extremely low protein binding and high flow rate. SFCA is ideal for applications in tissue culture and for filtration of sera containing protein, as the membranes do not contain any surfactants that could have a toxic effect on cells.
Type:

- Yellow colour coding
- Filtration units made of PS
- Graduated filter upper sections and filter bottles
- With quick connector tube adapter and cotton stopper
- Leakproof screw cap
- Filtration units are non-pyrogenic and non-cytotoxic

Filtration units Art. No. AC27.1 and AC28.1 are delivered with 12 glass fibre prefilters included.

Pore size 0.2 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,20	50	150	150	**AC23.1**	12 unit(s)	147,20
0,20	50	250	250	**AC25.1**	12 unit(s)	157,70
0,20	75	500	500	**AC27.1**	12 unit(s)	256,95
0,20	90	500	500	**AC29.1**	12 unit(s)	307,45
0,20	90	1,000	1,000	**AC31.1**	12 unit(s)	377,35

Pore size 0.45 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,45	50	150	150	**AC24.1**	12 unit(s)	147,20
0,45	50	250	250	**AC26.1**	12 unit(s)	157,70
0,45	75	500	500	**AC28.1**	12 unit(s)	256,95
0,45	90	500	500	**AC30.1**	12 unit(s)	307,45
0,45	90	1,000	1,000	**AC32.1**	12 unit(s)	377,35



S

Bottle-top filters with SFCA membrane

Nalgene. **Sterile**.

Filter with SF**CA** membrane for screwing onto bottles with thread 45 mm or GL 45. The leakproof screw cap enables vacuum filtration directly into a sterile bottle.
Type:

- Yellow colour coding
- Graduated filter upper section
- Quick connector tube adapter for tubes with internal Ø 6–8 mm
- Leakproof screwed connection for vacuum filtration
- Filtration units are non-pyrogenic and non-cytotoxic

Pore size 0.2 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Art. No.	Pack Qty.	€
0,20	50	150	**AC33.1**	12 unit(s)	110,75
0,20	75	500	**AC35.1**	12 unit(s)	155,75
0,20	90	1,000	**AC37.1**	12 unit(s)	258,00

Pore size 0.45 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Art. No.	Pack Qty.	€
0,45	50	150	**AC34.1**	12 unit(s)	110,75
0,45	75	500	**AC36.1**	12 unit(s)	155,75

Bottle-top filters



NEW / +

S

Filtration unit Rapid-Flow™ with PES membrane

Nalgene. **Sterile**.

Disposable filtration unit with hydrophilic polyethersulfone diaphragm **(PES).** The innovative Rapid-Flow™ design of the filter membrane carrier plate provides faster flow rates and higher flow volumes. The PES membrane with minimal protein binding and a minimal proportion of extractable substances is ideally suited to biological sterile filtration of cell culture media, sera, additives and buffers.

Type:

- Blue colour coding
- Filtration units made of PS
- Graduated filter upper sections and filter bottles
- With quick connector tube adapter and cotton stopper
- Leak-proof screw cap closure
- Gamma sterilised and individually packed
- Filtration units are **non-pyrogenic** and **non-cytotoxic**

Not a medical device / Not an IVD product

Pore size 0.1 µm

Application examples:

- 0.1 µm filters also protect against mycoplasma contamination

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,1	50	150	150	**1LAX.1**	12 unit(s)	139,40
0,1	50	250	250	**1LAY.1**	12 unit(s)	155,95
0,1	75	500	500	**1LC0.1**	12 unit(s)	245,10
0,1	90	1,000	1,000	**1LC1.1**	12 unit(s)	364,45

Pore size 0.2 µm

Application examples:

- 0.2 µm filters remove bacteria and microbes and are used for sterile filtration

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,2	50	150	150	**AC08.1**	12 unit(s)	139,50
0,2	50	250	250	**AC10.1**	12 unit(s)	159,30
0,2	75	500	500	**AC12.1**	12 unit(s)	249,40
0,2	90	500	500	**AC14.1**	12 unit(s)	294,55
0,2	90	1,000	1,000	**AC16.1**	12 unit(s)	313,90

Pore size 0.45 µm

Application examples:

- 0.45 µm filters ensure particle removal and fluid clarification

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,45	50	150	150	**AC09.1**	12 unit(s)	148,40
0,45	50	250	250	**AC11.1**	12 unit(s)	157,70
0,45	75	500	500	**AC13.1**	12 unit(s)	254,80
0,45	90	500	500	**AC15.1**	12 unit(s)	307,45
0,45	90	1,000	1,000	**AC17.1**	12 unit(s)	332,20



S

Bottle-top filters with PES membrane

Nalgene. **Sterile**.

Filter with **PES** membrane for screwing onto bottles with thread 45 mm or GL 45. The leakproof screw cap enables vacuum filtration directly into a sterile bottle. Art. No. AC18.1, AC20.1 and AC22.1 with PES membrane Supor®.

Type:

- Blue colour coding
- Graduated filter upper section
- Quick connector tube adapter for tubes with internal Ø 6–8 mm
- Leakproof screwed connection for vacuum filtration
- Filtration units are non-pyrogenic and non-cytotoxic

Pore size 0.2 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Art. No.	Pack Qty.	€
0,20	50	150	**AC18.1**	12 unit(s)	109,90
0,20	75	500	**AC20.1**	12 unit(s)	142,80
0,20	90	1,000	**AC22.1**	12 unit(s)	293,50

Pore size 0.45 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Art. No.	Pack Qty.	€
0,45	50	150	**AC19.1**	12 unit(s)	116,00
0,45	75	500	**AC21.1**	12 unit(s)	151,35

Bottle-top filters



S

Filtration unit with nylon membrane

Nalgene. **Sterile**.

Ideal for sterile filtration of culture media and sensitive cell and tissue cultures. Alcohol-resistant **nylon** membranes with extremely low content (<0.5 percent by weight) of extractable substances and high flow rates with short filtration times. Hydrophilic and free of surfactants.

Type:

- Red colour coding
- Filtration units made of PS
- Graduated filter upper sections and filter bottles
- With quick connector tube adapter and cotton stopper
- Leakproof screw cap
- Filtration units are non-pyrogenic and non-cytotoxic

Filtration units with a membrane Ø of 75 mm are delivered with 12 glass fibre prefilters included.

Pore size 0.2 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,20	50	150	150	**AC38.1**	12 unit(s)	177,40
0,20	50	250	250	**AC40.1**	12 unit(s)	187,05
0,20	75	500	500	**AC42.1**	12 unit(s)	298,85
0,20	75	500	1,000	**AC44.1**	12 unit(s)	364,45
0,20	90	500	500	**AC46.1**	12 unit(s)	366,60
0,20	90	1,000	1,000	**AC47.1**	12 unit(s)	414,95

Pore size 0.45 µm

Pore size (µm)	Ø Membrane (mm)	Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
0,45	50	150	150	**AC39.1**	12 unit(s)	177,40
0,45	50	250	250	**AC41.1**	12 unit(s)	187,05
0,45	75	500	500	**AC43.1**	12 unit(s)	298,85
0,45	75	500	1,000	**AC45.1**	12 unit(s)	364,45



A 121 °C

Filter funnels reusable

Nalgene. Material: PSF. Autoclavable: Yes.

Graduated. For use with membranes Ø 47 or 50 mm.

Delivery incl. suction sleeve, suitable for suction bottles with an internal neck Ø 30 to 38 mm.

Funnel volume (ml)	Art. No.	Pack Qty.	€
250	**ATC8.1**	1 unit(s)	159,75
500	**ATC9.1**	1 unit(s)	222,55



A 121 °C

Filtration unit reusable

Nalgene. Material: PSF. Autoclavable: Yes.

Filter holder with receiver bottle for vacuum filtration with 47 mm or 50 mm membranes. With graduation and two tube connections for tubes with internal Ø 6–8 mm.

Delivery incl. cap for sterile filtrate storage.

Funnel volume (ml)	Bottle volume (ml)	Art. No.	Pack Qty.	€
250	250	**KA84.1**	1 unit(s)	153,20
500	500	**KA85.1**	1 unit(s)	224,70
500	1,000	**KA86.1**	1 unit(s)	280,60

Bottle-top filters



A 121 °C

Bottle-top filter holders reusable

Nalgene. Material: PSF. Autoclavable: Yes.

For screwing onto vacuum-sealed bottles with 33 mm thread or GL 45. Ideal for vacuum filtration with 47 mm or 50 mm membranes. With graduations. Hose connection for hoses with inner Ø of 6–8 mm.

Funnel volume (ml)	Thread	Art. No.	Pack Qty.	€
500	33 mm	**KA89.1**	1 unit(s)	223,60
500	GL 45	**KA90.1**	1 unit(s)	223,60



S

Bottle-top filters Steritop™ E

MERCK MILLIPORE. Housing: PS, membrane: PES, hydrophilic. **Sterile**.

Funnelless bottle-top filter. This bottle-top filter enables direct filtration from a media bottle or tissue culture reagents/buffer bottle with a neck thread size of 38 mm or 45 mm into a vacuum-compatible, sterile screw top bottle with a neck thread of 45 mm or GL 45. The Steritop™ E funnelless bottle-top filter offers a more sustainable option for sterile filtration thanks to a considerable reduction in plastic and packaging material. For routine sterile filtration of tissue culture media, buffers, reagents and other aqueous liquids.

- Membrane material: Express® PLUS (PES) membrane, hydrophilic
- Low protein binding, high flow speed and short filtration time
- Housing: PS
- For sample volume: 150 to max. 1000 ml
- Membrane-Ø: 73 mm
- Filtration surface: 40 cm^2
- Pore size: 0.22 µm
- Max. usage temperature: 50 °C
- Vacuum connection: for tubes with inner Ø of 6.5 to 12 mm

Pore size (µm)	Ø Membrane (mm)	Thread	Art. No.	Pack Qty.	€
0,22	73	38 mm	**1CA0.1**	12 unit(s)	181,70
0,22	73	45 mm	**1CA1.1**	12 unit(s)	181,70



S

Filtration unit Stericup® E

MERCK MILLIPORE. Housing: PS, membrane: PES, hydrophilic. **Sterile**.

A combination of funnelless bottle-top filter and collecting bottle. The bottle-top filter enables direct filtration into the sterile collecting bottle from a media bottle or tissue culture reagents/buffer bottle with a neck thread size of 38 mm or 45 mm. The Stericup® E funnelless sterile vacuum system offers a more sustainable option for sterile filtration thanks to a considerable reduction in plastic and packaging material. For routine sterile filtration of tissue culture media, buffers and reagents. Ideal for use under laminar flow conditions thanks to its compact form. Stackable bottles.

- Membrane material: Express® PLUS (PES) membrane, hydrophilic
- Low protein binding, high flow speed and short filtration time
- Housing: PS
- Sample volume: 150 to max. 500/1000 ml
- Membrane-Ø: 73 mm
- Filtration surface: 40 cm^2
- Pore size: 0.22 µm
- Max. usage temperature: 50 °C
- Vacuum connection: for tubes with inner Ø of 6.5 to 12 mm
- Inlet connection: for screw top bottles 38 mm or 45 mm

Pore size (µm)	Ø Membrane (mm)	Bottle volume (ml)	Thread	Art. No.	Pack Qty.	€
0,22	73	500	38 mm	**1C9P.1**	12 unit(s)	252,65
0,22	73	500	45 mm	**1C9T.1**	12 unit(s)	252,65
0,22	73	1,000	38 mm	**1C9X.1**	12 unit(s)	353,70
0,22	73	1,000	45 mm	**1C9Y.1**	12 unit(s)	353,70

Filtration units and holders



A 121 °C

DURAN WHEATON KIMBLE

Filtration attachment DURAN®

DWK Life Sciences. Material: DURAN® glass, Funnel base made from PP, Viton® seals. Autoclavable: Yes.

- Replaceable filter plate, four different porosities available
- Simple and safe removal of the filtration substance
- Both sides of the filter plates can be cleaned
- **Note**: Lay filter plate between the Viton® seals

Delivery without filter plate, please order separately.

Funnel volume (ml)	Suitable for	Ø Outer outlet (mm)	Thread	Art. No.	Pack Qty.	€
30	Filter-plate-Ø 25 mm	10	28 mm	**1631.1**	1 unit(s)	26,40
250	Filter-plate-Ø 50 mm	12	54 mm	**1632.1**	1 unit(s)	63,85
1,000	Filter-plate-Ø 90 mm	18	95 mm	**CT08.1**	1 unit(s)	137,95

Accessories slit-sieve plate

DWK Life Sciences.

Suitable for filtration device Art. No. 1632.1, XT09.1 and HKL5.1.
Suitable as a holder for membrane and paper filters with Ø 47 mm.

Ø (mm)	Art. No.	Pack Qty.	€
48	**N886.1**	1 unit(s)	32,25

Accessories filter plate for filtration attachment DURAN®

DWK Life Sciences.

With glass edge.

Ø filter plate 25 mm
Suitable for for 30 ml-devices.

Porosity	Ø (mm)	Art. No.	Pack Qty.	€
1 (100 – 160 µm)	25	**1633.1**	1 unit(s)	34,90
2 (40 – 100 µm)	25	**1634.1**	1 unit(s)	34,90
3 (16 – 40 µm)	25	**1635.1**	1 unit(s)	34,90
4 (10 – 16 µm)	25	**1636.1**	1 unit(s)	37,40

Ø filter plate 50 mm
Suitable for 250 ml-devices.

Porosity	Ø (mm)	Art. No.	Pack Qty.	€
1 (100 – 160 µm)	50	**1637.1**	1 unit(s)	48,65
2 (40 – 100 µm)	50	**1638.1**	1 unit(s)	48,65
3 (16 – 40 µm)	50	**1639.1**	1 unit(s)	48,65
4 (10 – 16 µm)	50	**1640.1**	1 unit(s)	50,65

Ø filter plate 90 mm
Suitable for for 30 ml-devices.

Porosity	Ø (mm)	Art. No.	Pack Qty.	€
1 (100 – 160 µm)	90	**CT09.1**	1 unit(s)	63,25
2 (40 – 100 µm)	90	**CT10.1**	1 unit(s)	63,25
3 (16 – 40 µm)	90	**CT11.1**	1 unit(s)	63,25
4 (10 – 16 µm)	90	**CT12.1**	1 unit(s)	67,60



A 121 °C

Vacuum filtration unit 25 mm

DWK Life Sciences. Material: Borosilicate glass acc. to ASTM E 438 type I, Class A. Autoclavable: Yes.

For filtration of small volumes, such as in microbiology or particle analyses. For filter Ø: 25 mm.

Delivery incl. 15 ml funnel attachment, funnel bottom section with glass frit as filter support (porosity: 40-60 µm), aluminium bracket and silicone stopper. **Delivery without** 150 ml suction bottle (Art. No. EYA6.1), please order separately.

Type	Suitable for	Art. No.	Pack Qty.	€
Filtration unit 25 mm	Filter Ø: 25 mm	**EYA0.1**	1 unit(s)	268,75



121 °C

Vacuum filtration unit 47 mm

DWK Life Sciences. Material: Borosilicate glass acc. to ASTM E 438 type I, Class A. Autoclavable: Yes.

For filtration of volumes up to approx. 1 l, in microbiology or particle analyses. For filter Ø of 47 mm.

Delivery incl. 300 ml funnel attachment, funnel bottom section with glass frit as filter support (porosity: 40-60 µm), aluminium bracket and silicone stopper. **Delivery without** 1000 ml suction bottle (Art. No. EYC5.1), please order separately.

Type	Suitable for	Art. No.	Pack Qty.	€
47 mm filtration unit	Filter Ø: 47 mm	**EYA7.1**	1 unit(s)	281,65



121 °C

Vacuum filtration unit GV 050/0

Cytiva. Material: DURAN® glass. Autoclavable: Yes.

For filter Ø 47–50 mm and upstream filter Ø 37 mm. Corrosion resistant, biologically inert and autoclavable at 121 °C and 1.1 bar overpressure (20 min).
Wide range of applications: Analytical biochemical and radiochemical work, particle tests in microelectronics.

Delivery incl. 250 ml insert, glass frit for filter support, glass nozzles, spring clips, rubber caps and PTFE ring.

Type	Funnel volume (ml)	Suitable for	Ø Outer outlet (mm)	Art. No.	Pack Qty.	€
GV 050/0	250	Filter Ø: 47/50 mm	14.75	**H434.1**	1 unit(s)	566,55



121 °C

DURAN WHEATON KIMBLE

Vacuum filtration unit DURAN® 47 mm with ground joint

DWK Life Sciences. Material: Borosilicate glass, PTFE. Autoclavable: Yes.

For coarse and membrane filtration, retention analysis, particle tests and microbiology, as well as for filtration of alkali and aggressive media. For use with filter papers, membrane filters or glass filters with Ø of 47 mm or 50 mm. Temperature stable up to +180 °C.

- Parts in contact with media are made of glass and PTFE, therefore are suitable for universal use, biologically inert and corrosion resistant
- Scaled reservoir for easier metering and evaluation
- Plates are optionally available in porosity grades of 1-4, which means they are also suitable for analytical filtration
- Fast and easy to clean
- Connection hose suitable for hoses with an inside Ø of 5–8 mm

Delivery incl. slit-sieve plate as a filter holder, glass filter disc, porosity 2 and vaccum bottle.

Type	Funnel volume (ml)	Bottle volume (ml)	Suitable for	Art. No.	Pack Qty.	€
Filtration unit 250 ml / 1000 ml	250	1,000	Filter Ø: 47/50 mm	**XT09.1**	1 unit(s)	632,00
Filtration unit 500 ml / 2000 ml	500	2,000	Filter Ø: 47/50 mm	**HKL5.1**	1 unit(s)	747,00

Adapter DURAN® NS core 45/40 to GL 45

DWK Life Sciences. Material: PTFE.

Allows you to use filtration units with NS 45/40 ground sleeve on vacuum-sealed GL 45 laboratory bottles.

Version	Art. No.	Pack Qty.	€
NS core 45/40 to GL 45	**CCX4.1**	1 unit(s)	135,45

Filtration units and holders



A 121 °C

Vacuum filtration unit 47 mm with slots

DWK Life Sciences. Material: Borosilicate glass acc. to ASTM E 438 type I, Class A. Autoclavable: Yes.

For filtration of solvents, acids, bases and other aggressive liquids.
For filter Ø: 47 mm.

Delivery incl. 500 ml funnel attachment, funnel bottom section with 40/35 ground joint sleeve, vacuum connection (Ø 6 mm) and glass frit (porosity: 40-60 µm) as filtering support, aluminium clamp and 2000 ml vacuum bottle.

Type	Suitable for	Art. No.	Pack Qty.	€
Filtration unit 47 mm	Filter Ø: 47 mm	**EYC7.1**	1 unit(s)	770,80



A 121 °C

Vacuum filtration unit 90 mm

DWK Life Sciences. Material: Borosilicate glass acc. to ASTM E 438 type I, Class A. Autoclavable: Yes.

For filtration of large volumes, particle-loaded or viscous liquids.
For filter Ø 90 mm.

Delivery incl. 1000 ml funnel attachment with screw top, funnel bottom section with glass frit as filter support (porosity: 40–60 µm) and silicone stopper. **Delivery without** 2000 ml suction bottle (Art. No. EYC6.1), please order separately.

Type	Suitable for	Art. No.	Pack Qty.	€
Filtration unit 90 mm	Filter Ø: 90 mm	**EYE1.1**	1 unit(s)	806,25



A 121 °C

Vacuum filtration unit GV 050/2

Cytiva. Material: DURAN® glass. Autoclavable: Yes.

For filter Ø 47–50 mm. With glass frit as a filter support.
Ideal for microscopic retention analysis, particle tests, filtration of alkali and aggressive solutions as well as buffer solutions for the HPLC.
Biologically inert and corrosion-resistant.
Connection hose suitable for hoses with an inside Ø of 5–8 mm.
Outside Ø 450 mm (without clamp), height 135 mm. Weight: 1122 g.

Delivery incl. 250 ml funnel attachment, funnel bottom with ground joint sleeve NS 45, glass frit, PTFE centring ring, spring clip and 1000 ml suction bottle.

Type	Funnel volume (ml)	Bottle volume (ml)	Suitable for	Art. No.	Pack Qty.	€
GV 050/2	250	1,000	Filter Ø: 47/50 mm	**5986.1**	1 unit(s)	948,15



A 121 °C

Vacuum filtration unit 90 mm with slots

DWK Life Sciences. Material: Borosilicate glass acc. to ASTM E 438 type I, Class A. Autoclavable: Yes.

For filtration of large volumes, HPLC solvents and other aggressive liquids. For filter Ø: 90 mm.

Delivery incl. 1000 ml funnel attachment with screw clip, funnel bottom section with 40/35 ground joint sleeve, vacuum connection (Ø 6 mm) and glass frit (porosity: 40-60 µm) as filtering support. **Delivery without** 2000 ml suction bottle (Art. No. EYC6.1), please order separately.

Type	Suitable for	Art. No.	Pack Qty.	€
Filtration unit 90 mm	Filter Ø: 90 mm	**EXP5.1**	1 unit(s)	929,90



121 °C

Vacuum filtration unit MV 050

Cytiva. Material: Stainless steel. Autoclavable: Yes.

For **membrane filters of 47/50 mm** and upstream filters of 40 mm. Resistant to many aqueous and organic solutions. With perforated sieve for filter support. Steel frit insert (Art. No. CC12.1) available, please order separately. External Ø 110 mm, height 320 mm.

Version	Funnel volume (ml)	Suitable for	Art. No.	Pack Qty.	€
MV 050/0, with knurled screw clamp	500	Ø 47/50 mm	**CC09.1**	1 unit(s)	1.455,55
MV 050A/0, with snap buckle	500	Ø 47/50 mm	**CC10.1**	1 unit(s)	1.593,15

Suction attachment

Cytiva. Material: PP, Natural rubber seal.

Hole Ø: 9 mm. With hose connector for hoses with inside Ø of 7–9 mm. For use with vacuum-sealed GL 45 screw top bottles (Art. No. H995.1), please order separately.

Autoclavable: Yes.

Thread	Art. No.	Pack Qty.	€
GL 45	**CC56.1**	1 unit(s)	58,70



121 °C

Multiple vacuum filtration units AS series

Cytiva. Material: Stainless steel. Autoclavable: Yes.

For **filters** of Ø **47/50 mm** and pre-filters of Ø 40 mm. Stainless steel holder for 3 or 6 filtration inserts complete with 500 ml stainless steel inserts. Each insert can be operated with a separate tap. With quick-close system. Temperature-resistant up to 180 °C. Suction manifold with hose connectors for tubes with inside Ø of 8–10 mm.

Applications: Microbiological quality controls, retention analyses and serial filtration.

Delivery incl. perforated sieves for filter support.

Version	Suitable for	Art. No.	Pack Qty.	€
Six-fold dilter unit AS 610/3	Filter Ø: 47/50 mm	**CC33.1**	1 unit(s)	9.509,45



121 °C

Filter holder for syringes

Cytiva. Autoclavable: Yes.

Made from polysulfone or stainless steel. With silicone O-ring. Suitable for multiple uses with membrane, paper or round glass fibre filters. Maximum pressure loading: 7 bar. Connections: Luer or hose connectors (external Ø 11 mm), can be unscrewed.

Applications:
For clear and sterile filtration of biological media, reagents and buffer solutions, as well as aqueous solutions and gases.

Technical specifications:

Art. No.	CC19.1	CC23.1	CC20.1	CC21.1
Suitable for	Filter Ø: 25 mm		Filter Ø: 47/50 mm	
Ø Housing	30 mm		65 mm	
Housing material	PS	Stainless steel	PS	
Height	34 mm	26 mm	80 mm	95 mm
Max. application temperature	180 °C	200 °C	180 °C	
Max. operating pressure	7 bar			
Inlet connection	Luer-Lock connector		Luer-Lock	Hose olive
Outlet connection	Luer connector		Hose olive	

Polysulfone

Version	Art. No.	Pack Qty.	€
FP 025/1	**CC19.1**	10 unit(s)	194,60
FP 050/0	**CC20.1**	1 unit(s)	115,00
FP 050/1	**CC21.1**	1 unit(s)	115,00

Stainless steel

Version	Art. No.	Pack Qty.	€
FM 025/0	**CC23.1**	1 unit(s)	390,25

Filtration units and holders



Filter holder In-Line

MERCK MILLIPORE. Material: PP strengthened, nylon hand screws.

For filter Ø 47 mm. For pressure filtration of liquids or gases.
With stepped hose connectors.

Technical specifications:

Art. No.	XE95.1
Suitable for	Filter Ø: 47 mm
Ø ext.	76 mm
Height	120 mm
Filtration area	13.8 cm²
Max. application temperature	70 °C
Max. operating pressure	5.5 bar
Inlet connection	¼″ NPTF; connector for tube inside-Ø 6 mm to 9.5 mm
Outlet connection	¼″ NPTF; connector for tube inside-Ø 6 mm to 9.5 mm

Version	Art. No.	Pack Qty.	€
In-Line filter holder	**XE95.1**	1 unit(s)	342,95



A 121 °C

Filter holder Swinnex®

MERCK MILLIPORE. Material: PP. Autoclavable: Yes.

For filtration, cleaning or sterile filtration of small amounts of liquid by means of injection. 47 mm filter holder can also be used with a hose connector.

Technical specifications:

Art. No.	XE86.1	XE87.1	XE88.1
Suitable for	Filter Ø: 13 mm	Filter Ø: 25 mm	Filter Ø: 47 mm
Ø ext.	17 mm	32 mm	57 mm
Height	35 mm	37 mm	54 mm
Filtration area	0.7 cm²	3.4 cm²	13.8 cm²
Max. operating pressure	3.5 bar		5 bar
Inlet connection	Luer-Lock connector		¼″ NPTM/female Luer Lock connector
Outlet connection	Luer connector		¼″ hose connection/ female Luer Lock connector

Version	Art. No.	Pack Qty.	€
Swinnex® 13	**XE86.1**	10 unit(s)	134,40
Swinnex® 25	**XE87.1**	12 unit(s)	274,15
Swinnex® 47	**XE88.1**	8 unit(s)	611,70



A 121 °C ❄❄❄

Filter holder for syringes

Bohlender. Material: PTFE. Autoclavable: Yes.

For filter membranes with Ø of 13 or 25 mm. No discharge of trace elements to the medium being filtered. Simply screw off to easily change the filter membrane. Anti-adhesive surface makes cleaning easy.

Technical specifications:

Art. No.	Y933.1	Y934.1
Suitable for	Filter Ø: 13 mm	Filter Ø: 25 mm
Ø ext.	21 mm	34 mm
Filtration area	0.78 cm²	3.80 cm²
Max. operating pressure	2 bar	
Inlet connection	Female Luer Lock	
Outlet connection	Male Luer Lock	

Version	Art. No.	Pack Qty.	€
13 mm	**Y933.1**	1 unit(s)	254,80
25 mm	**Y934.1**	1 unit(s)	272,00

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121 °C

Flow-through filter unit

Bohlender. Material: PTFE. Autoclavable: Yes.

Suitable for vacuum operation and overpressure operation up to approx. 5 bar. Does not discharge trace elements to the medium being filtered. Filter membrane is easy to change, by simply unscrewing the sample filter. Cutting rings can be used to connect plastic hoses. Includes suitable adapter for each of the two hose sizes. Anti-adhesive surface makes cleaning easy.

Technical specifications:

Art. No.	Y935.1	Y936.1	Y937.1
Suitable for	Filter Ø: 25 mm	Filter Ø: 47 mm	Filter Ø: 90 mm
Filtration area	3.1 cm²	13.8 cm²	52.0 cm²
Max. operating pressure	5 bar		
Inlet connection	GL 14, with adapters for hose with external Ø 3.2 and 6 mm	GL 18, with adapters for hose with external Ø 6 and 8 mm	GL 25, with adapters for hose with external Ø 8 and 10 mm
Outlet connection	GL 14, with adapters for hose with external Ø 3.2 and 6 mm	GL 18, with adapters for hose with external Ø 6 and 8 mm	GL 25, with adapters for hose with external Ø 8 and 10 mm

Delivery without filter membrane, please order separately.

Version	Art. No.	Pack Qty.	€
25 mm	**Y935.1**	1 unit(s)	347,25
47 mm	**Y936.1**	1 unit(s)	475,15
90 mm	**Y937.1**	1 unit(s)	886,90



121 °C

Membrane filters PTFE

Bohlender. Material: Hydrophobic PTFE. Autoclavable: Yes.

Made of micro-porous PTFE. Membrane strength 0.2 mm. Temperature-stable from -200 to 250 °C.
For use with filter holders (Y933.1-Y934.1) and flow-through filters (Y935.1-Y936.1).

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
1	47	**Y951.1**	10 unit(s)	70,35
0,05	13	**Y938.1**	10 unit(s)	34,40
0,05	25	**Y943.1**	10 unit(s)	51,10
0,05	47	**Y948.1**	10 unit(s)	78,75
5	47	**Y952.1**	10 unit(s)	69,30
0,20	47	**Y949.1**	10 unit(s)	70,80
0,45	47	**Y950.1**	10 unit(s)	81,85

121 °C

Membrane filters Nitrocellulose

GVS. Material: Cellulose nitrate. Autoclavable: Yes.

Hydrophilic. High flow rates. Biologically inert, non-cytotoxic. Maximum usage temperature 180 °C. Protein binding approx. 160 µg/cm².
Wide range of applications: gravimetric analysis, particulate analysis, microbiological analysis, sterile filtration of aqueous solutions.

Danger H228

0.22 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,22	47	Non-sterile	No	**A009.1**	100 unit(s)	115,30

0.45 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	47	Non-sterile	No	**A012.1**	100 unit(s)	111,35

Membrane filters

0.45 µm, Ø 47 mm, sterile with grid
Individually packed.

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	47	**Sterile**	Yes	**A023.1**	200 unit(s)	109,65

0.45 µm, Ø 90 mm

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	90	Non-sterile	No	**A014.1**	25 unit(s)	71,35

1.2 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
1,20	47	Non-sterile	No	**A021.1**	100 unit(s)	121,00

Membrane filters

GVS.

Hydrophilic.

Nylon
Material: Nylon polyester-reinforced. Non-sterile. Very low extractable substances content, fre of wetting agent. Good chemical resistance, polyester reinforcement for higher mechanical stability. Protein binding approx. 120 µg/cm². Maximum usage temperature 180 °C.

Wide application spectrum: solvent filtration (HPLC), sample preparation (HPLC, GC), sterile filtration of aqueous and organic solutions.

Pore size (µm)	Ø (mm)	Sterility	Art. No.	Pack Qty.	€
0,22	47	Non-sterile	**A026.1**	100 unit(s)	119,15
0,45	13	Non-sterile	**A029.1**	100 unit(s)	76,40
0,45	47	Non-sterile	**A031.1**	100 unit(s)	119,15

Track-etched polycarbonate
Material: PC. Non-sterile. Autoclavable: Yes. Exact pore sizes, very smooth surface. Very low extractable substances content. Low protein binding <5 µg/cm², ashing residue approx. 0.92 µg/cm². Maximum usage temperature 140 °C.

Wide range of applications: Particle analysis, microscopy, electron microscopy.

Pore size (µm)	Ø (mm)	Sterility	Art. No.	Pack Qty.	€
0,20	25	Non-sterile	**A044.1**	100 unit(s)	79,15
0,45	25	Non-sterile	**A045.1**	100 unit(s)	79,15
0,45	47	Non-sterile	**A046.1**	100 unit(s)	111,35



A 121 °C

Membrane filters cellulose mixed ester

Cytiva. Material: CME, hydrophilic. Autoclavable: Yes.

Versatile membrane made of cellulose acetate and cellulose nitrate mixed ester.
Application examples: sterile and clear filtration, particle separation and analysis, microbiological analyses, counting of germs, yeasts, fungi and particle, food biology, air pollutant measurements, etc.
Max. usage temperature 130 °C.
Gridded membranes **(line spacing 3.1 mm)** make it easier to count particles and micro-organisms; the dyes used are non-toxic and free of antibacterial substances.

- High dirt absorbing capacity prevents rapid clogging of the membrane
- Uniform membrane structure ensures high flow rates
- Very smooth and even surface aids microscopic evaluation
- Biologically inert and free of surfactants

Sterile membranes are individually packed.

0.2 µm, Ø 47 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,20	47	Non-sterile	No	**NH80.1**	100 unit(s)	227,90

0.2 µm, Ø 47 mm, without grid, sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,20	47	**Sterile**	No	**NH83.1**	100 unit(s)	207,50

0.2 µm, Ø 47 mm, with grid, sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,20	47	**Sterile**	Yes	**NH84.1**	100 unit(s)	231,15

0.2 µm, Ø 142 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,20	142	Non-sterile	No	**ECT7.1**	25 unit(s)	240,80

0.45 µm, Ø 47 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	47	Non-sterile	No	**NH81.1**	100 unit(s)	227,90

0.45 µm, Ø 47 mm, with grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	47	Non-sterile	Yes	**NH82.1**	100 unit(s)	190,30

Membrane filters

0.45 µm, Ø 47 mm, without grid, sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	47	**Sterile**	No	**NH85.1**	100 unit(s)	231,15

0.45 µm, Ø 142 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	142	Non-sterile	No	**ECT8.1**	25 unit(s)	240,80



A 121 °C

Membrane filters RC

Cytiva. Material: Cellulose, regenerated, hydrophilic, with support structure made of PP fleece. Autoclavable: Yes.

Suitable for aqueous and organic media. Thickness 155 µm.

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,20	50	**5987.1**	100 unit(s)	447,20
0,45	50	**5988.1**	100 unit(s)	447,20



A 121 °C

Membrane filters Cellulose nitrate

Cytiva. Material: Cellulose nitrate, hydrophilic. Autoclavable: Yes.

Versatile standard membrane.
Applications: filtration of aqueous solutions, sample preparation, microbiological studies etc. High stability and flexibility, low extractable substances content. Max. usage temperature 80 °C.
Sterile Membranes are individually packed.
Gridded membranes **(line spacing 3.1 mm)** make it easier to count particles and micro-organisms; the dyes used are non-toxic and free of antibacterial substances.

0.1 µm, Ø 47 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,10	47	Non-sterile	No	**NH68.1**	100 unit(s)	325,75

0.2 µm, Ø 47 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,20	47	Non-sterile	No	**NH69.1**	100 unit(s)	287,05

0.2 µm, Ø 47 mm, without grid, sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,20	47	**Sterile**	No	**NH77.1**	100 unit(s)	169,85

0.45 µm, Ø 47 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	47	Non-sterile	No	**NH70.1**	100 unit(s)	268,75

0.45 µm, Ø 47 mm, with grid, sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	47	**Sterile**	Yes	**NH78.1**	100 unit(s)	163,40

0.45 µm, Ø 47 mm, with grid, sterile, 200 pce.

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,45	47	**Sterile**	Yes	**NH79.1**	200 unit(s)	264,45

0.8 µm, Ø 47 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
0,80	47	Non-sterile	No	**NH73.1**	100 unit(s)	298,85

1 µm, Ø 47 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
1,0	47	Non-sterile	No	**NH74.1**	100 unit(s)	285,95

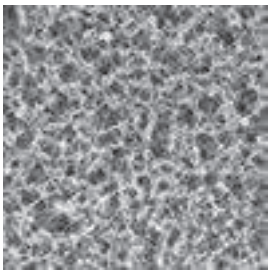
3 µm, Ø 47 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
3,0	47	Non-sterile	No	**NH75.1**	100 unit(s)	285,95

5 µm, Ø 47 mm, without grid, non-sterile

Pore size (µm)	Ø (mm)	Sterility	Grid	Art. No.	Pack Qty.	€
5,0	47	Non-sterile	No	**NH76.1**	100 unit(s)	287,05

Membrane filters



A 121 °C

Membrane filters MF-Millipore™ Cellulose mixed ester

MERCK MILLIPORE. Material: CME, hydrophilic. Autoclavable: Yes.

Versatile standard membrane.
Applications: clear filtration and sterilisation of liquids, air particle analysis, contamination analysis of fuels and hydraulic liquids to determine the particulate load, biological applications such as cell harvesting or washing, micro-dialysis.

- Material: mixed ester made of cellulose nitrate and cellulose acetate
- Protein binding: 150 µg/cm²
- Membrane thickness: 105-150 µm
- Colour: white

0.025 µm, Ø 13 mm, without grid

Danger H228-H412

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,025	13	No	**CY35.1**	100 unit(s)	317,15

0.025 µm, Ø 25 mm, without grid

Danger H228-H412

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,025	25	No	**CY36.1**	100 unit(s)	407,45

0.025 µm, Ø 47 mm, without grid

Danger H228-H412

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,025	47	No	**CY37.1**	100 unit(s)	499,90

0.025 µm, Ø 90 mm, without grid

Danger H228-H412

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,025	90	No	**CY38.1**	25 unit(s)	450,45

0.22 µm, Ø 13 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,22	13	No	**CY39.1**	100 unit(s)	138,70

0.22 µm, Ø 25 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,22	25	No	**CY40.1**	100 unit(s)	170,95

0.22 µm, Ø 47 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,22	47	No	**CY41.1**	100 unit(s)	224,70

0.22 µm, Ø 90 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,22	90	No	**CY42.1**	100 unit(s)	579,45

0.45 µm, Ø 13 mm, with grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,45	13	Yes	**CY44.1**	100 unit(s)	166,65

0.45 µm, Ø 13 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,45	13	No	**CY43.1**	100 unit(s)	138,70

0.45 µm, Ø 25 mm, with grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,45	25	Yes	**CY46.1**	100 unit(s)	177,40

0.45 µm, Ø 25 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,45	25	No	**CY45.1**	100 unit(s)	155,90

0.45 µm, Ø 47 mm, with grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,45	47	Yes	**CY48.1**	100 unit(s)	256,95

0.45 µm, Ø 47 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,45	47	No	**CY47.1**	100 unit(s)	220,40

0.45 µm, Ø 90 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,45	90	No	**CY49.1**	100 unit(s)	611,70

Membrane filters

0.65 µm, Ø 13 mm, without grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,65	13	No	**CY50.1**	100 unit(s)	138,70

0.65 µm, Ø 25 mm, without grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,65	25	No	**CY51.1**	100 unit(s)	170,95

0.65 µm, Ø 47 mm, without grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,65	47	No	**CY52.1**	100 unit(s)	231,15

0.65 µm, Ø 90 mm, without grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,65	90	No	**CY53.1**	25 unit(s)	181,70

0.8 µm, Ø 13 mm, with grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,80	13	Yes	**CY55.1**	100 unit(s)	160,20

0.8 µm, Ø 13 mm, without grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,80	13	No	**CY54.1**	100 unit(s)	138,70

0.8 µm, Ø 25 mm, with grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,80	25	Yes	**CY57.1**	100 unit(s)	177,40

0.8 µm, Ø 25 mm, without grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,80	25	No	**CY56.1**	100 unit(s)	170,95

0.8 µm, Ø 47 mm, with grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,80	47	Yes	**CY59.1**	100 unit(s)	209,65

0.8 µm, Ø 47 mm, without grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,80	47	No	**CY58.1**	100 unit(s)	224,70

0.8 µm, Ø 90 mm, without grid

Danger H228-H319-H410

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
0,80	90	No	**CY60.1**	100 unit(s)	521,40

8.0 µm, Ø 13 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
8,0	13	No	**CY61.1**	100 unit(s)	134,40

8.0 µm, Ø 25 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
8,0	25	No	**CY62.1**	100 unit(s)	166,65

8.0 µm, Ø 47 mm, without grid

Danger H228

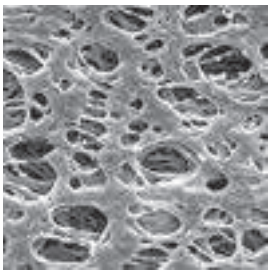
Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
8,0	47	No	**CY63.1**	100 unit(s)	231,15

8.0 µm, Ø 90 mm, without grid

Danger H228

Pore size (µm)	Ø (mm)	Grid	Art. No.	Pack Qty.	€
8,0	90	No	**CY64.1**	25 unit(s)	203,20

Membrane filters



A 121 °C

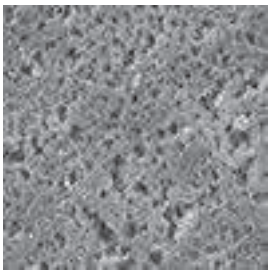
Membrane filters Express® PLUS PES

MERCK MILLIPORE. Material: PES, surface-modified, hydrophilic. Autoclavable: Yes.

Application examples: Ultrafast filtration of tissue media, buffers and other aqueous solutions.

- High flow rates and higher throughput
- Low protein binding
- Membrane strength: ≥ 150 µm and ≤ 200 µm
- Colour: white
- Surface: smooth

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,22	13	**CX07.1**	100 unit(s)	166,65
0,22	25	**CX08.1**	100 unit(s)	203,20
0,22	47	**CX09.1**	100 unit(s)	295,65
0,22	90	**CX10.1**	50 unit(s)	321,45
0,22	142	**XA42.1**	50 unit(s)	607,40
0,45	13	**XA43.1**	100 unit(s)	149,45
0,45	25	**XA44.1**	100 unit(s)	203,20
0,45	47	**XA45.1**	100 unit(s)	274,15
0,45	90	**XA46.1**	50 unit(s)	299,95
0,45	142	**XA47.1**	50 unit(s)	607,40



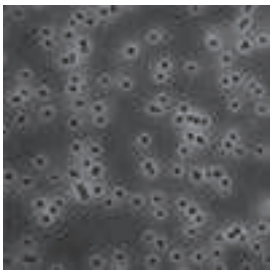
Membrane filters Nylon

MERCK MILLIPORE. Material: Nylon, hydrophilic.

Highly compatible with solvents.
Applications: sterile filtration, bioassays, filtration of solvents, clear filtration of aqueous solutions, as well as particle separation and analysis.

- Membrane thickness: 170 µm
- Colour: white
- Surface: smooth
- Sterilisation: compatible with gamma or EO sterilisation
- Max. working temperature: 75 °C

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,20	25	**XA48.1**	100 unit(s)	188,15
0,20	47	**XA49.1**	100 unit(s)	241,90
0,45	25	**XA50.1**	100 unit(s)	188,15
0,45	47	**XA51.1**	100 unit(s)	267,70
0,80	25	**XA52.1**	100 unit(s)	138,70
1,20	25	**XA54.1**	100 unit(s)	166,65
1,20	47	**XA55.1**	100 unit(s)	220,40



A 121 °C

Membrane filters Isopore™ Polycarbonate

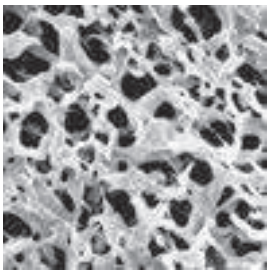
MERCK MILLIPORE. Material: PC, hydrophilic, not-hygroscopic. Autoclavable: Yes.

Smooth surface, suitable for microscopic evaluations.
Application examples: Chemotaxis studies, drink analyses, sterility tests, cell culture/cell biology, bioassays, cytology, environment/air analyses, epifluorescence measurements (black membranes).

- Membrane strength: 9-10 µm
- Max. working temperature: 140 °C
- Colour: white or black

Pore size (µm)	Ø (mm)	Colour	Art. No.	Pack Qty.	€
0,10	13	white	**CY17.1**	100 unit(s)	149,45
0,10	25	white	**CY18.1**	100 unit(s)	364,45
0,10	47	white	**CY19.1**	100 unit(s)	536,45
0,22	13	white	**CY20.1**	100 unit(s)	166,65
0,22	13	black	**CY24.1**	100 unit(s)	166,65
0,22	25	white	**CY21.1**	100 unit(s)	256,95
0,22	25	black	**CY25.1**	100 unit(s)	375,20
0,22	47	white	**CY22.1**	100 unit(s)	289,20
0,22	47	black	**CY26.1**	100 unit(s)	557,95
0,22	90	white	**CY23.1**	30 unit(s)	231,15
0,40	13	white	**CY28.1**	100 unit(s)	170,95
0,40	13	black	**CY32.1**	100 unit(s)	166,65
0,40	25	white	**CY29.1**	100 unit(s)	256,95
0,40	25	black	**CY33.1**	100 unit(s)	289,20
0,40	47	white	**CY30.1**	100 unit(s)	321,45
0,40	47	black	**CY34.1**	100 unit(s)	697,70
0,40	90	white	**CY31.1**	30 unit(s)	235,45

Membrane filters



A 121 °C

Membrane filters Durapore® PVDF hydrophilic

MERCK MILLIPORE. Material: PVDF, hydrophilic. Autoclavable: Yes.

Surface-modified polyvinylidene fluoride with very low protein binding.
Application examples: sterile filtration of protein solutions, tissue culture media, additives, antibiotics and alcoholic solutions; particle removal, biological assays (e.g. receptor binding studies TCA precipitation).

- Protein binding: 4 µg/cm²
- Membrane thickness: approx. 125 µm
- Colour: white
- Surface: smooth
- Max. working temperature: 85 °C

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,10	13	**CX11.1**	100 unit(s)	166,65
0,10	25	**CX12.1**	100 unit(s)	188,15
0,10	47	**CX13.1**	100 unit(s)	278,45
0,10	90	**CX14.1**	50 unit(s)	403,15
0,22	13	**CX15.1**	100 unit(s)	166,65
0,22	25	**CX16.1**	100 unit(s)	209,65
0,22	47	**CX17.1**	100 unit(s)	278,45
0,22	90	**CX18.1**	50 unit(s)	375,20
0,45	13	**CX19.1**	100 unit(s)	166,65
0,45	25	**CX20.1**	100 unit(s)	209,65
0,45	47	**CX21.1**	100 unit(s)	278,45
0,45	90	**CX22.1**	50 unit(s)	428,95
5,0	13	**CX27.1**	100 unit(s)	160,20
5,0	25	**CX28.1**	100 unit(s)	198,90
5,0	47	**CX29.1**	100 unit(s)	332,20
0,65	13	**CX23.1**	100 unit(s)	166,65
0,65	25	**CX24.1**	100 unit(s)	198,90
0,65	47	**CX25.1**	100 unit(s)	274,15
0,65	90	**CX26.1**	50 unit(s)	375,20

Membrane filters Durapore® PVDF hydrophobic

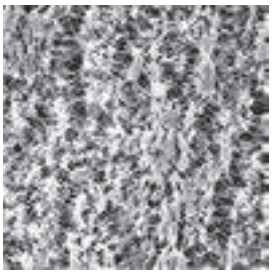
MERCK MILLIPORE. Material: PVDF, hydrophobic.

Application examples: clear filtration of air/gases, sterile filtration of gases.

- Protein binding: 150 µg/cm²
- Membrane thickness: approx. 125 µm
- Colour: white
- Surface: smooth
- Max. working temperature: 85 °C

Autoclavable: Yes.

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,10	47	**CX31.1**	100 unit(s)	256,95
0,22	13	**CX32.1**	100 unit(s)	224,70
0,22	25	**CX33.1**	100 unit(s)	278,45
0,22	47	**CX34.1**	100 unit(s)	375,20
0,22	90	**CX35.1**	50 unit(s)	504,20
0,45	13	**CX36.1**	100 unit(s)	235,45
0,45	25	**CX37.1**	100 unit(s)	278,45
0,45	47	**CX38.1**	100 unit(s)	407,45
0,45	90	**CX39.1**	50 unit(s)	514,95



A 121 °C

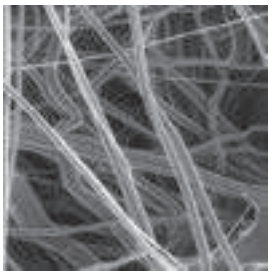
Membrane filters LCR PTFE hydrophilic

MERCK MILLIPORE. Material: Hydrophilic PTFE. Autoclavable: Yes.

Hydrophilised PTFE enables the filtration of aqueous solvents without previous wetting. For use with all common HPLC solvents.
Application examples: clear filtration of acids, bases, cryogenic liquids and fuels, analysis of hydraulic liquids, RNA isolation.

- Very low ionic strength, also suitable for IC
- Membrane strength: 150 µm
- Max. working temperature: 130 °C
- Colour: white

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,45	13	**CX67.1**	100 unit(s)	364,45
0,45	25	**CX68.1**	100 unit(s)	499,90
0,45	47	**CX69.1**	100 unit(s)	661,15



Prefilter PP

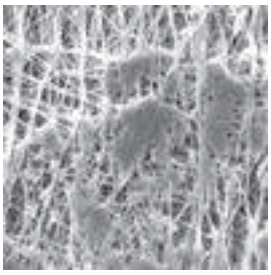
MERCK MILLIPORE. Material: PP, hydrophobic.

Pre-filters made of 100 % pure polypropylene. High particle retention and dirt absorbing capacity at low pressure drop.
Suitable for filtration of many organic solvents.

- Filter type: deep-bed filter
- Colour: white
- Surface: smooth
- Sterilisation: compatible with gamma or EO sterilisation
- Max. working temperature: 90 °C

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
5,0	47	**XC01.1**	100 unit(s)	213,95
0,60	47	**XA98.1**	100 unit(s)	203,20
10,0	47	**XC02.1**	100 unit(s)	220,40
1,20	47	**XA99.1**	100 unit(s)	203,20
2,50	47	**XC00.1**	100 unit(s)	203,20
30,0	47	**XC03.1**	100 unit(s)	209,65

Membrane filters



A 121 °C

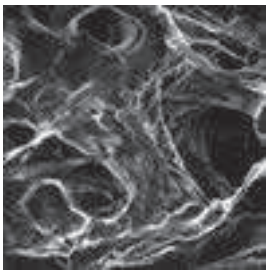
Membrane filters Fluoropore™ PTFE with laminated support structure

MERCK MILLIPORE. Material: Hydrophobic PTFE, HDPE. Autoclavable: Yes.

Membrane filter made of PTFE (polytetrafluoroethylene) with support structure made of high-density polyethylene fabric.
Application examples: clear filtration of acids, bases, solvents and alcoholic solutions, gas/air filtration, UV spectroscopy.
If wetted beforehand with methanol or ethanol, aqueous solutions can also be filtered.

- Membrane strength: 150 µm
- Max. working temperature: 130 °C
- Colour: white

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
1,0	13	**CX52.1**	100 unit(s)	353,70
1,0	25	**CX53.1**	100 unit(s)	471,95
1,0	47	**CX54.1**	100 unit(s)	590,20
0,22	13	**CX44.1**	100 unit(s)	342,95
0,22	25	**CX45.1**	100 unit(s)	471,95
0,22	47	**CX46.1**	100 unit(s)	590,20
0,22	90	**CX47.1**	50 unit(s)	858,95
3,0	25	**CX56.1**	100 unit(s)	525,70
3,0	47	**CX57.1**	100 unit(s)	643,95
3,0	90	**CX58.1**	25 unit(s)	643,95
0,50	13	**CX48.1**	100 unit(s)	349,40
0,50	25	**CX49.1**	100 unit(s)	471,95
0,50	47	**CX50.1**	100 unit(s)	622,45
0,50	90	**CX51.1**	50 unit(s)	912,70



A 121 °C

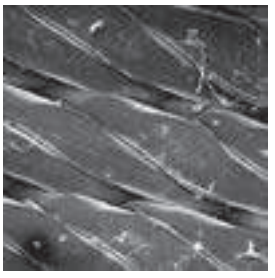
Membrane filters Mitex™ PTFE

MERCK MILLIPORE. Material: Hydrophobic PTFE. Autoclavable: Yes.

Hydrophobic PTFE membrane filter without support structure.
Application examples: filtration under extreme chemical or thermal conditions, clear filtration of acids, bases, cryogenic liquids and fuels, analysis of hydraulic liquids, RNA isolation.
If wetted beforehand with methanol or ethanol, aqueous solutions can also be filtered.

- Membrane strength: 130-140 µm
- Max. working temperature: 260 °C
- Colour: white

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
5,0	13	**CX59.1**	100 unit(s)	375,20
5,0	25	**CX60.1**	100 unit(s)	428,95
5,0	47	**CX61.1**	100 unit(s)	697,70
5,0	90	**CX62.1**	25 unit(s)	536,45
10,0	13	**CX63.1**	100 unit(s)	375,20
10,0	25	**CX64.1**	100 unit(s)	428,95
10,0	47	**CX65.1**	100 unit(s)	590,20
10,0	90	**CX66.1**	25 unit(s)	525,70



Mesh filter PP

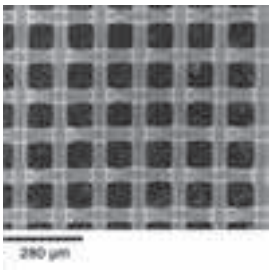
MERCK MILLIPORE. Material: PP, hydrophilic.

Mesh filters made of 100 % pure polypropylene.
Applications: clear filtration, collection of cells and protein precipitates, separation of large particles, analysis of particulate impurities.

- Colour: white
- Surface: smooth
- Sterilisation: compatible with gamma or EO sterilisation
- Max. working temperature: 100 °C

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
25	25	**XC04.1**	100 unit(s)	170,95
25	47	**XC05.1**	100 unit(s)	224,70
45	25	**XC06.1**	100 unit(s)	170,95
45	47	**XC07.1**	100 unit(s)	220,40

Membrane filters



Mesh filter Nylon

MERCK MILLIPORE. Material: Nylon, hydrophilic.

Mesh filter with high compatibility with solvents.
Applications: collection of algae and cells, particle analysis, separation of large particles, background filter for use in monitoring by automatic particle imaging systems, pre-filtration of solvents, monitoring of contamination in paints and lacquers.

- Colour: white
- Surface: smooth
- Sterilisation: compatible with gamma or EO sterilisation
- Max. working temperature: 100 °C

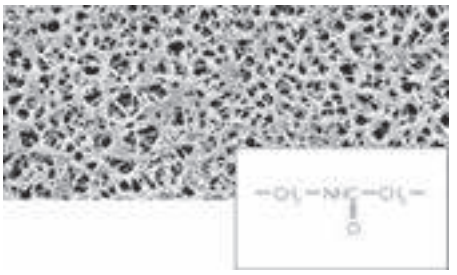
Circular filters

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
10	25	**XA56.1**	100 unit(s)	123,65
10	47	**XA57.1**	100 unit(s)	152,85
10	90	**XA58.1**	50 unit(s)	349,40
11	25	**XA59.1**	100 unit(s)	155,90
11	47	**XA60.1**	100 unit(s)	192,45
11	90	**XA61.1**	50 unit(s)	360,15
20	25	**XA62.1**	100 unit(s)	155,90
20	47	**XA63.1**	100 unit(s)	188,15
20	90	**XA64.1**	50 unit(s)	403,15
30	25	**XA65.1**	100 unit(s)	155,90
30	47	**XA66.1**	100 unit(s)	188,15
30	90	**XA67.1**	50 unit(s)	360,15
41	25	**XA68.1**	100 unit(s)	155,90
41	47	**XA69.1**	100 unit(s)	198,90
41	90	**XA70.1**	50 unit(s)	360,15
60	25	**XA71.1**	100 unit(s)	155,90
60	47	**XA72.1**	100 unit(s)	188,15
60	90	**XA73.1**	50 unit(s)	364,45
80	25	**XA74.1**	100 unit(s)	155,90
80	47	**XA75.1**	100 unit(s)	188,15
80	90	**XA76.1**	50 unit(s)	360,15
100	25	**XA77.1**	100 unit(s)	155,90
100	47	**XA78.1**	100 unit(s)	188,15
100	90	**XA79.1**	50 unit(s)	360,15
120	25	**XA80.1**	100 unit(s)	155,90
120	47	**XA81.1**	100 unit(s)	188,15
120	90	**XA82.1**	50 unit(s)	360,15
140	25	**XA83.1**	100 unit(s)	155,90
140	47	**XA84.1**	100 unit(s)	188,15
140	90	**XA85.1**	50 unit(s)	338,65
160	25	**XA86.1**	100 unit(s)	155,90
160	47	**XA87.1**	100 unit(s)	188,15
160	90	**XA88.1**	50 unit(s)	360,15
180	25	**XA89.1**	100 unit(s)	151,45
180	47	**XA90.1**	100 unit(s)	188,15
180	90	**XA91.1**	50 unit(s)	360,15

Filter rolls

Dimensions: W 30 x L 300 cm

Pore size (µm)	Art. No.	Pack Qty.	€
11	**XA92.1**	1 unit(s)	697,70
20	**XA93.1**	1 unit(s)	665,45
41	**XA94.1**	1 unit(s)	639,65
60	**XA95.1**	1 unit(s)	639,65
100	**XA96.1**	1 unit(s)	665,45
160	**XA97.1**	1 unit(s)	751,45



A 121 °C

Membrane filters Polyamide

Sartorius. Material: Nylon, hydrophilic. Autoclavable: Yes.

Good chemical resistance to alkaline solutions and organic solvents. Relatively high non-specific adsorption.

- Membrane thickness: 115 µm
- Colour: white

Application examples:
Removal of particulates from aqueous solutions and solvents.

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,2	25	**1C0L.1**	100 unit(s)	110,00
0,2	47	**1C0N.1**	100 unit(s)	153,00
0,2	50	**1C0P.1**	100 unit(s)	160,00
0,2	90	**1C0T.1**	25 unit(s)	167,00
0,45	25	**1C0X.1**	100 unit(s)	110,00
0,45	47	**1C0Y.1**	100 unit(s)	153,00
0,45	50	**1C10.1**	100 unit(s)	160,00
0,45	90	**1C11.1**	25 unit(s)	162,00

Membrane filters



121 °C

Membrane filters Polyethersulfone

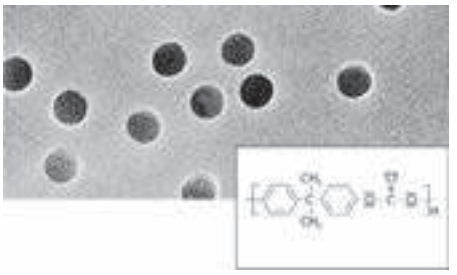
Sartorius. Material: PES, hydrophilic. Autoclavable: Yes.

High throughput, low protein adsorption, low content of extractable substances.

- Membrane thickness: 150 µm
- Colour: white
- Temperature-stable up to 180 °C

Application examples:
Filtration of aqueous solutions and proteins, sample preparation in environmental analytics.

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,1	25	**1C1A.1**	100 unit(s)	151,00
0,1	47	**1C1C.1**	100 unit(s)	220,00
0,1	50	**1C1E.1**	100 unit(s)	228,00
0,2	25	**1C1H.1**	100 unit(s)	147,00
0,2	47	**1C1K.1**	100 unit(s)	220,00
0,2	50	**1C1L.1**	100 unit(s)	223,00
0,2	90	**1C1N.1**	50 unit(s)	193,00
0,45	25	**1C1P.1**	100 unit(s)	147,00
0,45	47	**1C1T.1**	100 unit(s)	220,00
0,45	50	**1C1X.1**	100 unit(s)	228,00



121 °C

Membrane filters Track-etched polycarbonate

Sartorius. Material: PC, hydrophilic. Autoclavable: Yes.

For filtration of aqueous solutions or gases.
Uniform and precise capillary pore structure thanks to the track-etching technique. Suitable for applications in which particulates need to be retained on the membrane surface or for the fractionation of particulates.

- Membrane thickness: 25 µm
- Colour: white
- Temperature-stable up to 140 °C

Application examples:
Particulate analysis, epifluorescence microscopy, fluid clarification, cytology, cell biology, water microbiology and environmental analysis.

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,1	25	**1C12.1**	100 unit(s)	117,00
0,1	47	**1C13.1**	100 unit(s)	170,00
0,2	25	**1C14.1**	100 unit(s)	118,00
0,2	47	**1C15.1**	100 unit(s)	170,00
0,2	50	**1C16.1**	100 unit(s)	175,00
0,4	25	**1C17.1**	100 unit(s)	118,00
0,4	47	**1C18.1**	100 unit(s)	170,00
0,8	25	**1C19.1**	100 unit(s)	119,00

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Membrane filters



A 121 °C

Membrane filters PTFE

Sartorius. Material: Hydrophobic PTFE. Autoclavable: Yes.

Outstanding chemical resistance.
For hydrophilic media, priming with ethanol or methanol is necessary to make the membrane permeable to aqueous liquids.

- Membrane thickness: 65 - 100 µm
- Colour: white

Application examples:
Filtration of air, gases and chemicals.

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,2	25	**1C1Y.1**	100 unit(s)	366,00
0,2	47	**1C20.1**	100 unit(s)	459,00
0,2	50	**1C21.1**	100 unit(s)	461,00
0,2	90	**1C22.1**	25 unit(s)	412,00
5	25	**1C2C.1**	100 unit(s)	428,00
5	47	**1C2E.1**	25 unit(s)	131,00
5	50	**1C2H.1**	100 unit(s)	543,00
1,2	25	**1C27.1**	100 unit(s)	428,00
1,2	47	**1C28.1**	100 unit(s)	545,00
1,2	50	**1C29.1**	100 unit(s)	545,00
1,2	90	**1C2A.1**	25 unit(s)	404,00
0,45	25	**1C23.1**	100 unit(s)	373,00
0,45	47	**1C24.1**	100 unit(s)	469,00
0,45	50	**1C25.1**	100 unit(s)	469,00
0,45	90	**1C26.1**	25 unit(s)	404,00



A 121 °C

Membrane filters cellulose acetate

Sartorius. Material: CA, hydrophilic. Autoclavable: Yes.

For filtration of aqueous solutions or gases. High throughput, good thermal and chemical resistance (pH 4-8), low adsorption. Suitable for pressure filtration.

- Membrane thickness: 120 – 140 µm
- Colour: white
- Temperature stable up to 180 °C

Application examples:
Analytical sample preparation, clear filtration.

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,2	25	**1AX8.1**	100 unit(s)	106,00
0,2	47	**1AX9.1**	100 unit(s)	142,00
0,2	50	**1AXA.1**	100 unit(s)	153,00
0,2	90	**1AXC.1**	25 unit(s)	156,00
5	25	**1AY6.1**	100 unit(s)	178,00
5	47	**1AY7.1**	100 unit(s)	260,00
0,8	25	**1AXY.1**	100 unit(s)	115,00
0,8	47	**1AY0.1**	100 unit(s)	154,00
0,8	50	**1AY1.1**	100 unit(s)	165,00
0,8	90	**1AY2.1**	100 unit(s)	421,00
1,2	25	**1AY3.1**	100 unit(s)	167,00
1,2	47	**1AY4.1**	100 unit(s)	235,00
1,2	50	**1AY5.1**	100 unit(s)	259,00
0,45	25	**1AXE.1**	100 unit(s)	106,00
0,45	47	**1AXH.1**	100 unit(s)	142,00
0,45	50	**1AXK.1**	100 unit(s)	153,00
0,45	90	**1AXL.1**	25 unit(s)	156,00
0,65	25	**1AXN.1**	100 unit(s)	106,00
0,65	47	**1AXP.1**	100 unit(s)	142,00
0,65	50	**1AXT.1**	100 unit(s)	153,00
0,65	90	**1AXX.1**	25 unit(s)	156,00

Membrane filters



A 121 °C

Membrane filters cellulose nitrate mixed ester

Sartorius. Material: CME, hydrophilic. Autoclavable: Yes.

Composed of cellulose nitrate and a small content of cellulose acetate. For filtration of aqueous solutions or gases.

- Membrane thickness: 130 µm
- Colour: white
- Temperaturestable up to 130 °C

Application examples:
Analytical sample preparation, clear filtration, particulate analysis.

Danger H228

0.22 µm, Ø 25 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,22	25	**1AY8.1**	100 unit(s)	101,00

0.22 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,22	47	**1AY9.1**	100 unit(s)	180,00

0.45 µm, Ø 25 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,45	25	**1AYA.1**	100 unit(s)	102,00

0.45 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,45	47	**1AYC.1**	100 unit(s)	180,00

0.45 µm, Ø 50 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,45	50	**1AYE.1**	100 unit(s)	121,00

0.45 µm, Ø 90 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,45	90	**1AYH.1**	100 unit(s)	510,00

0.65 µm, Ø 25 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,65	25	**1AYK.1**	100 unit(s)	134,00

0.65 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,65	47	**1AYL.1**	100 unit(s)	180,00

0.65 µm, Ø 50 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,65	50	**1AYN.1**	100 unit(s)	196,00

0.8 µm, Ø 25 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,8	25	**1AYP.1**	100 unit(s)	134,00

0.8 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,8	47	**1AYT.1**	100 unit(s)	180,00

0.8 µm, Ø 50 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,8	50	**1AYX.1**	100 unit(s)	196,00

0.8 µm, Ø 90 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,8	90	**1AYY.1**	25 unit(s)	205,00

1.2 µm, Ø 25 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
1,2	25	**1C00.1**	100 unit(s)	134,00

1.2 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
1,2	47	**1C01.1**	100 unit(s)	184,00

1.2 µm, Ø 50 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
1,2	50	**1C02.1**	100 unit(s)	194,00

1.2 µm, Ø 90 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
1,2	90	**1C03.1**	25 unit(s)	205,00

3 µm, Ø 25 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
3	25	**1C04.1**	100 unit(s)	134,00

3 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
3	47	**1C05.1**	100 unit(s)	184,00

3 µm, Ø 50 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
3	50	**1C06.1**	100 unit(s)	194,00

3 µm, Ø 90 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
3	90	**1C07.1**	25 unit(s)	205,00

5 µm, Ø 25 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
5	25	**1C08.1**	100 unit(s)	169,00

5 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
5	47	**1C09.1**	100 unit(s)	243,00

5 µm, Ø 50 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
5	50	**1C0A.1**	100 unit(s)	250,00

Membrane filters

5 µm, Ø 90 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
5	90	**1C0C.1**	25 unit(s)	216,00

8 µm, Ø 25 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
8	25	**1C0E.1**	100 unit(s)	134,00

8 µm, Ø 47 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
8	47	**1C0H.1**	100 unit(s)	190,00

8 µm, Ø 50 mm

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
8	50	**1C0K.1**	100 unit(s)	194,00



A 121 °C

Membrane filters regenerated cellulose

Sartorius. Material: RC, hydrophilic, reinforced with cellulose nonwoven fabric. Autoclavable: Yes.

High resistance to aqueous and organic solvents (pH 3-12), low non-specific adsorption.

- Membrane thickness: 170 µm
- Colour: white
- Temperature stable up to 180 °C

Application examples:
Removal of particulates from solvents, purification and degassing of solutions for HPLC.

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0,2	25	**1C2K.1**	100 unit(s)	164,00
0,2	47	**1C2L.1**	100 unit(s)	236,00
0,2	50	**1C2N.1**	100 unit(s)	240,00
0,45	25	**1C2P.1**	100 unit(s)	162,00
0,45	47	**1C2T.1**	100 unit(s)	241,00
0,45	50	**1C2X.1**	100 unit(s)	241,00



Glass fibre round filters ROTILABO®

ROTH SELECTION. Material: Borosilicate glass fibres, 100%.

Free from binding agent, with fast flow rates, high load-capacity and exceptional retention. Max. application temperature 500 °C.

Type: CR259
Filtration speed according to Herzberg: 60 s. Surface weight: 52 g/m². Retention range :1.6 µm. Thickness: 0.26 mm

Type	Ø (mm)	Art. No.	Pack Qty.	€
CR259	25	**HTK7.1**	100 unit(s)	19,25
CR259	47	**HTK8.1**	100 unit(s)	25,85
CR259	55	**HTK9.1**	100 unit(s)	29,10
CR259	70	**HTL0.1**	100 unit(s)	39,65
CR259	90	**HTL1.1**	100 unit(s)	54,10
CR259	110	**HTL2.1**	100 unit(s)	70,75
CR259	125	**HTL3.1**	100 unit(s)	100,65
CR259	150	**HTL4.1**	100 unit(s)	123,55

Type: CR261
Filtration speed according to Herzberg: 100 s. Surface weight: 52 g/m². Retention range: up to 1.2 µm. Thickness: 0.26 mm

Type	Ø (mm)	Art. No.	Pack Qty.	€
CR261	25	**HTN2.1**	100 unit(s)	22,20
CR261	47	**HTN3.1**	100 unit(s)	29,10
CR261	55	**HTN5.1**	100 unit(s)	37,85
CR261	70	**HTN6.1**	100 unit(s)	45,20
CR261	90	**HTN7.1**	100 unit(s)	61,80
CR261	110	**HTN8.1**	100 unit(s)	78,40
CR261	125	**HTN9.1**	100 unit(s)	111,00
CR261	150	**HTP0.1**	100 unit(s)	138,00

Type: CR262
Filtration speed according to Herzberg: 30 s. Surface weight: 120 g/m². Retention range: up to 2.7 µm. Thickness: 0.53 mm

Type	Ø (mm)	Art. No.	Pack Qty.	€
CR262	47	**HTP1.1**	50 unit(s)	19,60
CR262	70	**HTP2.1**	50 unit(s)	33,40
CR262	90	**HTP3.1**	50 unit(s)	47,70

Type: CR263
Filtration speed according to Herzberg: 310 s. Surface weight: 75 g/m². Retention range: up to 0.7 µm. Thickness: 0.45 mm

Type	Ø (mm)	Art. No.	Pack Qty.	€
CR263	47	**HTP5.1**	100 unit(s)	50,45
CR263	70	**HTP6.1**	100 unit(s)	91,35
CR263	90	**HTP7.1**	50 unit(s)	84,15
CR263	110	**HTP8.1**	50 unit(s)	103,65

Glass/quartz fibre filter papers



Glass fibre round filters

Cytiva. Material: Borosilicate glass fibres, Inorganic binding agent.

- Chemically resistant to the majority of organic and inorganic solvents, aggressive chemicals and highly concentrated bases (not resistant to hydrofluoric acid)
- Constant weight, negligible influence on fluctuations in ambient humidity
- Mechanically stable (limited bending resistance)

Note: Filter units and clamping fixtures must have flexible sealing surfaces.

Type GF 6
Applications: Environmental analysis, biology, physics, drinks industry.

Use: Gas/air monitoring, water and waste water tests, scintillation measurements, dry mass determinations.

- Filtration speed: Low
- Retention rate: 99.97%
- Retention range: < 1 µm
- Surface weight: 80 g/m²
- Thickness: 0.35 mm

Type	Ø (mm)	Art. No.	Pack Qty.	€
GF 6	25	**AY36.1**	200 unit(s)	83,30
GF 6	47	**AY39.1**	200 unit(s)	121,75
GF 6	50	**AY40.1**	200 unit(s)	136,85
GF 6	55	**AY41.1**	100 unit(s)	126,00
GF 6	70	**AY42.1**	100 unit(s)	159,15
GF 6	90	**AY43.1**	100 unit(s)	220,40
GF 6	100	**AY44.1**	100 unit(s)	344,00
GF 6	110	**AY45.1**	100 unit(s)	353,70
GF 6	125	**AY46.1**	100 unit(s)	370,90
GF 6	150	**AY47.1**	100 unit(s)	508,50
GF 6	185	**AY48.1**	100 unit(s)	568,70
GF 6	200	**Y716.1**	100 unit(s)	659,00
GF 6	240	**AY49.1**	100 unit(s)	743,90

Type GF 8
Applications: Environmental analysis and industry.

Use: Determination of PCB, DDE, DDT, furans and dioxins in the air, dust calculations and filtration of coarse particles.

- Filtration speed: High
- Retention rate: 99%
- Retention range: 3 µm
- Surface weight: 80 g/m²
- Thickness: 0.35 mm

Type	Ø (mm)	Art. No.	Pack Qty.	€
GF 8	90	**AY51.1**	100 unit(s)	220,40

Type GF 92
Applications: Environmental analysis, biology, drinks industry.

Use: Membrane upstream filters, soot extraction from gas analysers.

- Filtration speed: Medium-fast
- Surface weight: 70 g/m²
- Retention range: 2–3 µm
- Thickness: 0.35 mm

Type	Ø (mm)	Art. No.	Pack Qty.	€
GF 92	47	**AY55.1**	200 unit(s)	188,15
GF 92	50	**AY56.1**	200 unit(s)	193,50
GF 92	100	**AY57.1**	100 unit(s)	279,50
GF 92	135	**AY58.1**	100 unit(s)	440,75
GF 92	142	**AY59.1**	100 unit(s)	449,35



A 121 °C

Quartz fibre round filters MN QF-10

Macherey-Nagel. Material: Quartz fibres. Autoclavable: Yes.

Made from pure quartz fibres, without binding agent. High chemical resistance to organic and inorganic solvents, acids (except hydrofluoric acid) and alkalis. For filtration of aggressive media in trace analytics, emissions control, airborne dust analytics, etc.
Extremely low metallic trace element content.

- Filtration speed (according to DIN 53137): <5 s
- Surface weight: 85 g/m²
- Retention range: Up to 0.3 µm
- Temperature stable up to 950 °C
- Thickness: 0.46 mm

Ø (mm)	Art. No.	Pack Qty.	€
45	**EN12.1**	100 unit(s)	210,00
47	**EN13.1**	100 unit(s)	210,00
50	**EN14.1**	100 unit(s)	214,00
90	**EN15.1**	100 unit(s)	520,00

Glass/quartz fibre filter papers





Glass fibre round filters

Macherey-Nagel.

For fast filtration with simultaneously high retention. Very good resistance to most organic and inorganic solvents (not resistant to hydrofluoric acid).

- Filtration speed, air: 15 s
- Surface weight: 70 g/m²
- Retention range: ≥0,6 µm
- Thickness: 0.35 mm

Type: MN 85/70
Material: Borosilicate glass fibres Organic binding agent.

Most commonly used glass fibre filter with high mechanical stability for general use. Temperature stable up to 200 °C.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 85/70	25	**EN17.1**	100 unit(s)	14,80
MN 85/70	37	**EN18.1**	100 unit(s)	18,40
MN 85/70	40	**EN19.1**	100 unit(s)	19,80
MN 85/70	45	**EN20.1**	100 unit(s)	19,80
MN 85/70	55	**EN21.1**	100 unit(s)	21,00
MN 85/70	70	**EN22.1**	100 unit(s)	26,10
MN 85/70	90	**EN23.1**	100 unit(s)	34,50
MN 85/70	110	**EN24.1**	100 unit(s)	43,70
MN 85/70	125	**EN25.1**	100 unit(s)	54,30
MN 85/70	150	**EN26.1**	100 unit(s)	71,50
MN 85/70	185	**EN27.1**	100 unit(s)	99,70
MN 85/70	200	**EN28.1**	100 unit(s)	151,00
MN 85/70	240	**EN29.1**	100 unit(s)	151,00
MN 85/70	270	**EN30.1**	100 unit(s)	177,00
MN 85/70	320	**EN31.1**	100 unit(s)	240,00

MN 85/70 BF
Material: Borosilicate glass fibres Free from binding agent.

Use, for example, as an upstream filter in the membrane filtration of particle-laden media. Temperature stable up to 500 °C.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 85/70 BF	25	**HK45.1**	100 unit(s)	25,90
MN 85/70 BF	37	**HK46.1**	100 unit(s)	32,80
MN 85/70 BF	45	**HK47.1**	100 unit(s)	35,10
MN 85/70 BF	55	**HK48.1**	100 unit(s)	38,40
MN 85/70 BF	70	**HK49.1**	100 unit(s)	47,00
MN 85/70 BF	90	**HK50.1**	100 unit(s)	62,60
MN 85/70 BF	110	**HK51.1**	100 unit(s)	78,90
MN 85/70 BF	125	**HK52.1**	100 unit(s)	98,80
MN 85/70 BF	150	**HK53.1**	100 unit(s)	134,00
MN 85/70 BF	185	**HK54.1**	100 unit(s)	189,00
MN 85/70 BF	240	**HK55.1**	100 unit(s)	267,00
MN 85/70 BF	270	**HK56.1**	100 unit(s)	321,00

Round filters ROTILABO®

ROTH SELECTION.

Filter paper for **qualitative analysis**. Made of 100% cellulose.
Ash content: 0.06%.

Type 111A
Very fast filtration speed. Filtration time according to DIN 53137: 10 s.

Surface weight: 80 g/m². Retention range: 12–15 µm.
Thickness: 0.16 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
111A	25	12–15	**XP31.1**	100 unit(s)	8,75
111A	47	12–15	**XP32.1**	100 unit(s)	8,75
111A	55	12–15	**AP58.1**	100 unit(s)	8,95
111A	70	12–15	**AP59.1**	100 unit(s)	9,75
111A	90	12–15	**AP60.1**	100 unit(s)	12,60
111A	110	12–15	**AP61.1**	100 unit(s)	13,25
111A	125	12–15	**AP62.1**	100 unit(s)	16,85
111A	150	12–15	**AP63.1**	100 unit(s)	20,55
111A	185	12–15	**AP64.1**	100 unit(s)	25,50
111A	240	12–15	**AP65.1**	100 unit(s)	40,15

Type 112A
Fast filtration speed. Filtration time according to DIN 53137: 20 s.

Surface weight: 80 g/m². Retention range: 8–12 µm.
Thickness: 0.16 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
112A	47	8–12	**XP34.1**	100 unit(s)	8,75
112A	55	8–12	**AP66.1**	100 unit(s)	8,95
112A	70	8–12	**AP67.1**	100 unit(s)	9,75
112A	90	8–12	**AP68.1**	100 unit(s)	12,60
112A	110	8–12	**AP69.1**	100 unit(s)	13,25
112A	125	8–12	**AP70.1**	100 unit(s)	16,85
112A	150	8–12	**AP71.1**	100 unit(s)	20,65
112A	185	8–12	**AP72.1**	100 unit(s)	25,20
112A	240	8–12	**AP73.1**	100 unit(s)	40,00

Type 113A
Medium filtration speed. Filtration time according to DIN 53137: 50 s.

Surface weight 87 g/m². Retention range: 5–8 µm. Thickness: 0.16 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
113A	47	5–8	**XP36.1**	100 unit(s)	8,75
113A	55	5–8	**AP74.1**	100 unit(s)	8,95
113A	70	5–8	**AP75.1**	100 unit(s)	9,75
113A	90	5–8	**AP76.1**	100 unit(s)	12,55
113A	110	5–8	**AP77.1**	100 unit(s)	13,25
113A	125	5–8	**AP78.1**	100 unit(s)	16,85
113A	150	5–8	**AP79.1**	100 unit(s)	20,55
113A	185	5–8	**AP80.1**	100 unit(s)	25,50
113A	240	5–8	**AP81.1**	100 unit(s)	40,00

Filter papers for qualitative analysis

Type 114A
Low filtration speed. Filtration time according to DIN 53137: 100 s.
Surface weight: 80 g/m². Retention range: 3–5 µm. Thickness: 0.15 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
114A	47	3–5	**XP38.1**	100 unit(s)	8,75
114A	55	3–5	**AP82.1**	100 unit(s)	7,75
114A	70	3–5	**AP83.1**	100 unit(s)	8,50
114A	90	3–5	**AP84.1**	100 unit(s)	10,45
114A	110	3–5	**AP85.1**	100 unit(s)	12,60
114A	125	3–5	**AP86.1**	100 unit(s)	12,80
114A	150	3–5	**AP87.1**	100 unit(s)	17,10
114A	185	3–5	**AP88.1**	100 unit(s)	21,00
114A	240	3–5	**AP89.1**	100 unit(s)	33,35

Type 115A
Very low filtration speed. Filtration time according to DIN 53137: 180 s.
Surface weight 80 g/m². Retention range: 2–3 µm. Thickness: 0.14 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
115A	47	2–3	**XP40.1**	100 unit(s)	7,35
115A	55	2–3	**AP90.1**	100 unit(s)	7,75
115A	70	2–3	**AP91.1**	100 unit(s)	8,50
115A	90	2–3	**AP92.1**	100 unit(s)	10,35
115A	110	2–3	**AP93.1**	100 unit(s)	12,60
115A	125	2–3	**AP94.1**	100 unit(s)	14,45
115A	150	2–3	**AP95.1**	100 unit(s)	17,70
115A	185	2–3	**AP96.1**	100 unit(s)	21,10
115A	240	2–3	**AP97.1**	100 unit(s)	33,35

Type 601A
Low filtration speed. Filtration time according to DIN 53137: 88 s.
Surface weight: 73 g/m². Retention range: 5–13 µm.
Thickness: 0.16 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
601A	55	5–13	**AP98.1**	100 unit(s)	8,95
601A	70	5–13	**CA04.1**	100 unit(s)	8,95
601A	90	5–13	**AT00.1**	100 unit(s)	8,95
601A	100	5–13	**AT01.1**	100 unit(s)	9,35
601A	110	5–13	**AT02.1**	100 unit(s)	9,35
601A	125	5–13	**AT03.1**	100 unit(s)	9,95
601A	150	5–13	**AT05.1**	100 unit(s)	12,10
601A	185	5–13	**AT06.1**	100 unit(s)	15,40
601A	210	5–13	**AT08.1**	100 unit(s)	17,75
601A	240	5–13	**AT09.1**	100 unit(s)	20,55
601A	250	5–13	**AT10.1**	100 unit(s)	20,55
601A	320	5–13	**AT11.1**	100 unit(s)	29,95
601A	330	5–13	**AT12.1**	100 unit(s)	29,95
601A	400	5–13	**AT13.1**	100 unit(s)	43,35



Round filters

Macherey-Nagel.
For **qualitative analysis**. Not chemically treated.
Ash content: 0.1 to 0.2%.

Type: MN 615
Medium filtration speed. Thin filter paper for general applications. Especially suited to filtration of water and saline solutions. Surface weight: 70 g/m². Thickness: 0.16 mm. Filtration time according to DIN 53137: 22 s. Retention range 4–12 µm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 615	55	4–12	**L870.1**	100 unit(s)	5,90
MN 615	70	4–12	**L871.1**	100 unit(s)	5,90
MN 615	90	4–12	**L872.1**	100 unit(s)	7,20
MN 615	110	4–12	**L873.1**	100 unit(s)	9,60
MN 615	125	4–12	**L874.1**	100 unit(s)	10,40
MN 615	150	4–12	**L875.1**	100 unit(s)	13,80
MN 615	185	4–12	**L876.1**	100 unit(s)	18,90
MN 615	240	4–12	**L877.1**	100 unit(s)	30,10

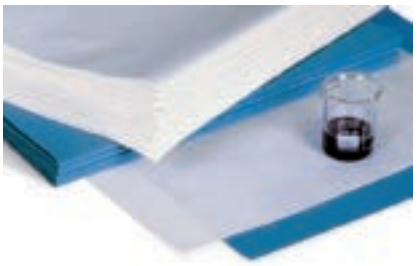
Type: MN 616
Medium filtration speed. For deposits such as sulphide, lead chromate, calcium oxalate. Surface weight: 85 g/m². Thickness: 0.20 mm. Filtration time according to DIN 53137: 27 s. Retention range 4–12 µm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 616	55	4–12	**L878.1**	100 unit(s)	7,20
MN 616	70	4–12	**L879.1**	100 unit(s)	7,20
MN 616	90	4–12	**L880.1**	100 unit(s)	9,90
MN 616	110	4–12	**L881.1**	100 unit(s)	12,70
MN 616	125	4–12	**L882.1**	100 unit(s)	15,10
MN 616	150	4–12	**L883.1**	100 unit(s)	19,20
MN 616	185	4–12	**L884.1**	100 unit(s)	26,90
MN 616	240	4–12	**L885.1**	100 unit(s)	43,90

Type: MN 619 eh
Low filtration speed. Density filter for fine deposits. Surface weight: 85 g/m². Thickness: 0.17 mm. Filtration time according to DIN 53137: 140 s. Retention range 2-4 µm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 619 eh	55	2–4	**L886.1**	100 unit(s)	7,20
MN 619 eh	70	2–4	**L887.1**	100 unit(s)	7,20
MN 619 eh	90	2–4	**L888.1**	100 unit(s)	9,90
MN 619 eh	110	2–4	**L889.1**	100 unit(s)	12,70
MN 619 eh	125	2–4	**L890.1**	100 unit(s)	15,10
MN 619 eh	150	2–4	**L891.1**	100 unit(s)	19,20
MN 619 eh	185	2–4	**L892.1**	100 unit(s)	26,90
MN 619 eh	240	2–4	**L893.1**	100 unit(s)	43,90

Filter papers for qualitative analysis



Filter papers ROTILABO®

ROTH SELECTION.

Qualitative filter papers made from 100% cellulose. High absorbency. Standard filter paper with a smooth surface for analysis. Larger sizes are ideal as surface protection paper or working surface. Colour: White.

Type 600
Weight: 64 g/m². Thickness: 0.15 mm. Retention range: 10–20 µm.

Type	Length (mm)	Width (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
600	420	520	10–20	**XP43.1**	500 unit(s)	102,60
600	500	500	10–20	**XP44.1**	500 unit(s)	122,20
600	600	600	10–20	**XP45.1**	500 unit(s)	168,80

Type 601
Weight: 73 g/m². Thickness: 0.16 mm. Retention range: 5–13 µm.

Type	Length (mm)	Width (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
601	450	450	5–13	**XP46.1**	500 unit(s)	285,95
601	460	570	5–13	**XP47.1**	100 unit(s)	65,50

Type 122
Weight: 73 g/m². Thickness: 0.17 mm. Retention range: 17–30 µm.

Type	Length (mm)	Width (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
122	520	520	17–30	**XP48.1**	500 unit(s)	272,00
122	600	600	17–30	**XP49.1**	500 unit(s)	317,15



Filter papers

Macherey-Nagel.

Alpha cellulose content approx. 95%. Format 58 x 58 cm.

Type: MN 713 medium filtration speed
Technical filter paper for general laboratory work.

Weight: 70 g/m². Filtration time: 20 s. Thickness: 0.15 mm.

Type	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
MN 713	58	58	**HPL1.1**	100 unit(s)	90,90

Type: MN 615 medium filtration speed
Qualitative standard paper for various applications. Weight: 70 g/m². Filtration time: 22 s. Ash content: 0.1%. Retention range: 4–12 µm. Thickness: 0.16 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 615	58	58	4-12	**HPL2.1**	100 unit(s)	152,00

Type: MN 617 fast filtration speed
Qualitative filter paper for quick filtering of coarse deposits. Weight: 85 g/m². Filtration time: 9 s. Ash content: 0.1%. Retention range: 7–12 µm. Thickness 0.2 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 617	58	58	7-12	**HPL3.1**	100 unit(s)	223,00

Type: MN 640 w fast filtration speed, ash-less
Quantitative filter paper for quick filtering of coarse deposits. Weight: 85 g/m². Filtration time: 9 s. Ash content: < 0.01%. Retention range: 7–12 µm. Thickness: 0.2 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
640 w	58	58	7-12 µm	**HPL4.1**	100 unit(s)	565,00

Type: MN 640 m medium filtration speed, ash-less
Quantitative standard paper for various applications. Weight: 85 g/m². Filtration time: 27 s. Ash content: < 0.01%. Retention range: 4–12 µm. Thickness: 0.2 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
Type: MN 640 m	58	58	4-12	**HPL5.1**	100 unit(s)	565,00

Type: MN 640 d low filtration speed, ash-less
Quantitative filter paper for fine and very fine deposits. Weight: 85 g/m². Filtration time: 140 s. Ash content: < 0.01%. Retention range: 2–4 µm. Thickness: 0.17 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 640 d	58	58	2-4	**HPL6.1**	100 unit(s)	565,00

Filter papers for qualitative analysis





Folded filters ROTILABO®

ROTH SELECTION.

Filter paper for **qualitative analysis**. Made of 100% cellulose. Ash content: 0.06%.

Type: 113P
Medium filtration speed. Filtration time according to DIN 53137: 50 s

Surface weight 87 g/m². Retention range: 5–8 µm. Thickness: 0.16 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
113P	110	5–8	**CA07.1**	100 unit(s)	46,20
113P	125	5–8	**CA08.1**	100 unit(s)	50,30
113P	150	5–8	**CA09.1**	100 unit(s)	52,55
113P	185	5–8	**CA10.1**	100 unit(s)	59,45
113P	210	5–8	**CA11.1**	100 unit(s)	71,35
113P	240	5–8	**CA12.1**	100 unit(s)	80,15
113P	270	5–8	**CA13.1**	100 unit(s)	94,20
113P	320	5–8	**CA14.1**	100 unit(s)	126,05

Type: 600P
Fast filtration speed. Filtration time according to DIN 53137: 30 s

Surface weight: 64 g/m². Retention range: 13 µm. Thickness: 0.15 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
600P	100	13	**CA16.1**	100 unit(s)	28,30
600P	110	13	**CA17.1**	100 unit(s)	27,75
600P	125	13	**CA18.1**	100 unit(s)	28,60
600P	150	13	**CA20.1**	100 unit(s)	29,85
600P	185	13	**CA21.1**	100 unit(s)	33,15
600P	240	13	**CA23.1**	100 unit(s)	38,95
600P	320	13	**CA25.1**	100 unit(s)	50,20
600P	400	13	**CA27.1**	100 unit(s)	70,25
600P	450	13	**CA28.1**	100 unit(s)	100,50
600P	500	13	**CA29.1**	100 unit(s)	109,35

Type: 601P
Low filtration speed. Filtration time according to DIN 53137: 130 s

Surface weight: 73 g/m². Retention range: 5–13 µm.
Thickness: 0.16 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
601P	100	5–13	**AY74.1**	100 unit(s)	30,35
601P	110	5–13	**AY75.1**	100 unit(s)	31,40
601P	125	5–13	**AY76.1**	100 unit(s)	31,90
601P	150	5–13	**AY78.1**	100 unit(s)	34,45
601P	185	5–13	**AY79.1**	100 unit(s)	37,95
601P	240	5–13	**AY81.1**	100 unit(s)	44,95
601P	320	5–13	**AY83.1**	100 unit(s)	66,25
601P	500	5–13	**AY87.1**	100 unit(s)	160,95

Folded filters

Macherey-Nagel.

For **qualitative analysis**. Ash content approx. 0.1%. Alpha cellulose content approx. 95%.

Type: MN 615 ¼
Medium filtration speed. Thin filter paper for general application, mainly for filtering water and saline solutions. Surface weight: 70 g/m². Filtration time according to DIN 53137: 22 s. Retention range: > 4 µm. Thickness: 0.16 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 615 ¼	70	> 4	**A795.1**	100 unit(s)	28,10
MN 615 ¼	90	> 4	**A796.1**	100 unit(s)	28,10
MN 615 ¼	110	> 4	**A797.1**	100 unit(s)	28,10
MN 615 ¼	125	> 4	**A798.1**	100 unit(s)	28,10
MN 615 ¼	150	> 4	**A799.1**	100 unit(s)	28,10
MN 615 ¼	185	> 4	**A800.1**	100 unit(s)	31,00
MN 615 ¼	210	> 4	**A801.1**	100 unit(s)	45,90
MN 615 ¼	240	> 4	**Y856.1**	100 unit(s)	45,90
MN 615 ¼	270	> 4	**Y857.1**	100 unit(s)	53,20
MN 615 ¼	320	> 4	**Y858.1**	100 unit(s)	65,40
MN 615 ¼	380	> 4	**Y859.1**	100 unit(s)	95,30

Type: MN 617 ¼
Fast filtration speed. For filtering coarse deposits.
Surface weight: 85 g/m². Filtration time according to DIN 53137: 92 s.
Retention range: 7–12 µm. Thickness: 0.2 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 617 ¼	70	7–12	**EEY9.1**	100 unit(s)	31,90
MN 617 ¼	90	7–12	**EHA0.1**	100 unit(s)	31,90
MN 617 ¼	110	7–12	**EHA1.1**	100 unit(s)	31,90
MN 617 ¼	125	7–12	**EHA2.1**	100 unit(s)	31,90
MN 617 ¼	150	7–12	**EHA3.1**	100 unit(s)	31,90
MN 617 ¼	185	7–12	**EHA4.1**	100 unit(s)	39,00
MN 617 ¼	240	7–12	**EHA5.1**	100 unit(s)	58,80
MN 617 ¼	270	7–12	**EHA6.1**	100 unit(s)	69,40
MN 617 ¼	320	7–12	**EHA7.1**	100 unit(s)	90,10
MN 617 ¼	385	7–12	**EHA8.1**	100 unit(s)	132,00

Type: MN 619 eh¼
Low filtration speed. For fine and very fine deposits.
Surface weight: 85 g/m². Filtration time according to DIN 53137: 140 s.
Retention range: 2–4 µm. Thickness: 0.17 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 619 eh ¼	70	2–4	**EHA9.1**	100 unit(s)	31,70
MN 619 eh ¼	90	2–4	**EHC0.1**	100 unit(s)	31,70
MN 619 eh ¼	110	2–4	**EHC1.1**	100 unit(s)	31,70
MN 619 eh ¼	125	2–4	**EHC2.1**	100 unit(s)	31,70
MN 619 eh ¼	150	2–4	**EHC3.1**	100 unit(s)	31,70
MN 619 eh ¼	185	2–4	**EHC4.1**	100 unit(s)	39,00
MN 619 eh ¼	240	2–4	**EHC5.1**	100 unit(s)	58,80
MN 619 eh ¼	270	2–4	**EHC6.1**	100 unit(s)	69,40
MN 619 eh ¼	320	2–4	**EHC7.1**	100 unit(s)	90,10
MN 619 eh ¼	385	2–4	**EHC8.1**	100 unit(s)	132,00

Filter papers for quantitative analysis



Round filters ROTILABO®

ROTH SELECTION.

Filter paper for **qualitative analysis**. Made of 100% cellulose. Ash content: 0.007%.

Type 11A

Equivalent black strip, very fast filtration speed. Filtrations speed according to DIN 53137: 10 s. Surface weight: 84 g/m². Retention range 12–15 µm. Thickness: 0.18 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
11A	15	12–15	**XP13.1**	100 unit(s)	9,85
11A	42.5	12–15	**XP15.1**	100 unit(s)	9,85
11A	47	12–15	**XP16.1**	100 unit(s)	9,85
11A	55	12–15	**AP18.1**	100 unit(s)	10,75
11A	70	12–15	**AP19.1**	100 unit(s)	12,80
11A	90	12–15	**AP20.1**	100 unit(s)	18,15
11A	110	12–15	**AP21.1**	100 unit(s)	24,05
11A	125	12–15	**AP22.1**	100 unit(s)	29,95
11A	150	12–15	**AP23.1**	100 unit(s)	40,30
11A	185	12–15	**AP24.1**	100 unit(s)	57,15
11A	240	12–15	**AP25.1**	100 unit(s)	114,70

Type 12A

Fast filtration speed. Filtrations speed according to DIN 53137: 20 s. Surface weight: 84 g/m². Retention range 8–12 µm. Thickness: 0.18 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
12A	55	8–12	**AP26.1**	100 unit(s)	10,75
12A	70	8–12	**AP27.1**	100 unit(s)	12,80
12A	90	8–12	**AP28.1**	100 unit(s)	18,15
12A	110	8–12	**AP29.1**	100 unit(s)	24,05
12A	125	8–12	**AP30.1**	100 unit(s)	30,30
12A	150	8–12	**AP31.1**	100 unit(s)	40,30
12A	185	8–12	**AP32.1**	100 unit(s)	57,15
12A	240	8–12	**AP33.1**	100 unit(s)	114,90

Type 13A

Equivalent white strip, medium filtration speed. Filtrations speed according to DIN 53137: 50 s. Surface weight: 84 g/m². Retention range 5-8 µm. Thickness: 0.16 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
13A	15	5–8	**XP20.1**	100 unit(s)	9,85
13A	42.5	5–8	**XP22.1**	100 unit(s)	9,85
13A	47	5–8	**XP23.1**	100 unit(s)	9,85
13A	55	5–8	**AP34.1**	100 unit(s)	10,95
13A	70	5–8	**AP35.1**	100 unit(s)	12,80
13A	90	5–8	**AP36.1**	100 unit(s)	18,15
13A	110	5–8	**AP37.1**	100 unit(s)	24,05
13A	125	5–8	**AP38.1**	100 unit(s)	30,30
13A	150	5–8	**AP39.1**	100 unit(s)	40,30
13A	185	5–8	**AP40.1**	100 unit(s)	57,15
13A	240	5–8	**AP41.1**	100 unit(s)	114,90

Type 14A

Low filtration speed. Filtrations speed according to DIN 53137: 100 s. Surface weight: 84 g/m². Retention range 3-5 µm. Thickness: 0.15 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
14A	55	3–5	**AP42.1**	100 unit(s)	10,75
14A	70	3–5	**AP43.1**	100 unit(s)	13,25
14A	90	3–5	**AP44.1**	100 unit(s)	17,10
14A	110	3–5	**AP45.1**	100 unit(s)	24,05
14A	125	3–5	**AP46.1**	100 unit(s)	30,50
14A	150	3–5	**AP47.1**	100 unit(s)	40,30
14A	185	3–5	**AP48.1**	100 unit(s)	57,15

Type 15A

Equivalent blue strip, very low filtration speed. Filtrations speed according to DIN 53137: 180 s. Surface weight: 84 g/m². Retention range 2-3 µm. Thickness: 0.14 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
15A	15	2–3	**XP27.1**	100 unit(s)	9,85
15A	47	2–3	**XP30.1**	100 unit(s)	9,85
15A	55	2–3	**AP50.1**	100 unit(s)	10,75
15A	70	2–3	**AP51.1**	100 unit(s)	12,80
15A	90	2–3	**AP52.1**	100 unit(s)	17,10
15A	110	2–3	**AP53.1**	100 unit(s)	24,05
15A	125	2–3	**AP54.1**	100 unit(s)	30,30
15A	150	2–3	**AP55.1**	100 unit(s)	40,30
15A	185	2–3	**AP56.1**	100 unit(s)	57,15
15A	240	2–3	**AP57.1**	100 unit(s)	114,85

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Filter papers for quantitative analysis





Round filters

Macherey-Nagel.

For **qualitative analysis**. Made from refined pulp washed in acid and linters with a α cellulose content of over 95%. Ash content < 0.01%. Temperature stable up to approx. +130 °C. Surface weight: 85 g/m².

Type: MN 640 w
Fast filtration speed. Filtration time according to DIN 53137: 9 s. Equivalent black strip. Soft filter with a loose structure for coarse deposits like iron and aluminium hydroxide, bismuth, copper, iron sulphide, nickel-dimethylglyoxime, etc. Standard filter for determining Si. Retention range: > 8 µm

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 640 w	55	> 8	**EEX7.1**	100 unit(s)	11,30
MN 640 w	70	> 8	**A780.1**	100 unit(s)	15,00
MN 640 w	90	> 8	**A781.1**	100 unit(s)	21,90
MN 640 w	110	> 8	**A782.1**	100 unit(s)	30,80
MN 640 w	125	> 8	**A783.1**	100 unit(s)	35,80
MN 640 w	150	> 8	**A784.1**	100 unit(s)	49,80
MN 640 w	185	> 8	**EEX8.1**	100 unit(s)	74,10
MN 640 w	240	> 8	**EEX9.1**	100 unit(s)	125,00
MN 640 w	320	> 8	**EEY0.1**	100 unit(s)	212,00

Type: MN 640 m
Medium filtration speed. Filtration time according to DIN 53137: 27 s. Equivalent white strip. For deposits such as sulphide, lead chromate, calcium oxalate. Typical uses: Gravimetrical analyses, quantitative determination of retention and purification processes. Retention range: > 4 µm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 640 m	55	> 4	**EEY1.1**	100 unit(s)	11,30
MN 640 m	70	> 4	**A785.1**	100 unit(s)	15,00
MN 640 m	90	> 4	**A786.1**	100 unit(s)	21,90
MN 640 m	110	> 4	**A787.1**	100 unit(s)	30,80
MN 640 m	125	> 4	**A788.1**	100 unit(s)	35,80
MN 640 m	150	> 4	**A789.1**	100 unit(s)	49,80
MN 640 m	185	> 4	**EEY2.1**	100 unit(s)	74,10
MN 640 m	240	> 4	**EEY3.1**	100 unit(s)	125,00
MN 640 m	320	> 4	**EEY4.1**	100 unit(s)	212,00

Type: MN 640 d
Low filtration speed. Filtration time according to DIN 53137: 140 s. Equivalent blue strip. Density filters for all fine and super fine deposits. Retention range: > 2 µm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 640 d	55	> 2	**EEY5.1**	100 unit(s)	11,30
MN 640 d	70	> 2	**A790.1**	100 unit(s)	15,00
MN 640 d	90	> 2	**A791.1**	100 unit(s)	21,90
MN 640 d	110	> 2	**A792.1**	100 unit(s)	30,80
MN 640 d	125	> 2	**A793.1**	100 unit(s)	35,80
MN 640 d	150	> 2	**A794.1**	100 unit(s)	49,80
MN 640 d	185	> 2	**EEY6.1**	100 unit(s)	74,10
MN 640 d	240	> 2	**EEY7.1**	100 unit(s)	125,00
MN 640 d	320	> 2	**EEY8.1**	100 unit(s)	212,00

Round filters hardened

Hahnemühle.

Ash-less for **quantitative analysis**.
α- cellulose content of over 95%, ash content approx. 0.002%.
Made of high-purity acid washed cotton linter pulp and cellulose mixed with a small quantity consolidating resin. Free of minerals and metal ions. High stability and resistance, very high wet strength. Deposits can be removed easily with no fibres.
For analytical applications, routine quantitative and gravimetric methods. Highly recommended for vacuum and pressure filtration, determination of metal ions, and filtration of acidic and alkaline solutions. Resistant to sulphuric and nitric acids (up to 40% at 50 °C) and alkalis (up to 10% at 20 °C).

Type 1505
Fast filtration speed. Herzberg filtration time: 50 s. Surface weight: 88 g/m². Retention range: 12–25 µm. Thickness: 0.17 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
1505	90	12–25	**NL29.1**	100 unit(s)	39,90
1505	110	12–25	**NL30.1**	100 unit(s)	47,20
1505	125	12–25	**NL31.1**	100 unit(s)	51,80
1505	150	12–25	**NL32.1**	100 unit(s)	65,60

Type 1506
Medium filtration speed. Herzberg filtration time: 170 s. Surface weight: 90 g/m². Retention range: 4–12 µm. Thickness: 0.16 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
1506	90	4–12	**NL37.1**	100 unit(s)	39,90
1506	110	4–12	**NL38.1**	100 unit(s)	47,20
1506	125	4–12	**NL39.1**	100 unit(s)	51,80
1506	150	4–12	**NL40.1**	100 unit(s)	65,80

Type 1507
Low filtration speed. Herzberg filtration time: 600 s. Surface weight: 90 g/m². Retention range: ≤ 2 µm. Thickness: 0.14 mm.

Type	Ø (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
1507	70	≤ 2	**NL44.1**	100 unit(s)	36,50
1507	90	≤ 2	**NL45.1**	100 unit(s)	39,90
1507	110	≤ 2	**NL46.1**	100 unit(s)	47,20
1507	125	≤ 2	**NL47.1**	100 unit(s)	51,80
1507	150	≤ 2	**NL48.1**	100 unit(s)	65,80
1507	185	≤ 2	**NL49.1**	100 unit(s)	112,40
1507	240	≤ 2	**NL50.1**	100 unit(s)	181,70

Special filter papers



Round filters phosphate-free

Macherey-Nagel. Material: Paper, phosphate-free.

For soil analyses and for P-analysis in smelting and steel works.

Type: MN 617 G
Fast filtration speed.

Surface weight: 85 g/m². Filtration time according to DIN 53137: 9 s.
Thickness: 0.2 mm.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 617 G	55	**HK24.1**	100 unit(s)	7,20
MN 617 G	70	**HK25.1**	100 unit(s)	7,20
MN 617 G	90	**HK26.1**	100 unit(s)	9,90
MN 617 G	110	**HK27.1**	100 unit(s)	12,70
MN 617 G	125	**HK28.1**	100 unit(s)	15,10
MN 617 G	150	**HK29.1**	100 unit(s)	19,20
MN 617 G	185	**HK30.1**	100 unit(s)	26,90
MN 617 G	240	**HK31.1**	100 unit(s)	43,90
MN 617 G	320	**HK32.1**	100 unit(s)	76,10
MN 617 G	400	**HK33.1**	100 unit(s)	131,00

Type: MN 616 G
Medium filtration speed.

Surface weight: 85 g/m². Filtration time according to DIN 53137: 22 s.
Thickness: 0.2 mm.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 616 G	55	**HK14.1**	100 unit(s)	7,20
MN 616 G	70	**HK15.1**	100 unit(s)	7,20
MN 616 G	90	**HK16.1**	100 unit(s)	10,00
MN 616 G	110	**HK17.1**	100 unit(s)	12,90
MN 616 G	125	**HK18.1**	100 unit(s)	15,40
MN 616 G	150	**HK19.1**	100 unit(s)	19,60
MN 616 G	185	**HK20.1**	100 unit(s)	26,90
MN 616 G	240	**HK21.1**	100 unit(s)	43,90
MN 616 G	320	**HK22.1**	100 unit(s)	76,10
MN 616 G	400	**HK23.1**	100 unit(s)	131,00

Type: MN 619 G
Low filtration speed.

Surface weight: 75 g/m². Filtration time according to DIN 53137: 100 s.
Thickness: 0.17 mm.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 619 G	55	**HK04.1**	100 unit(s)	5,90
MN 619 G	70	**HK05.1**	100 unit(s)	5,90
MN 619 G	90	**HK06.1**	100 unit(s)	7,40
MN 619 G	110	**HK07.1**	100 unit(s)	10,00
MN 619 G	125	**HK08.1**	100 unit(s)	11,10
MN 619 G	150	**HK09.1**	100 unit(s)	15,20
MN 619 G	185	**HK10.1**	100 unit(s)	20,70
MN 619 G	240	**HK11.1**	100 unit(s)	32,80
MN 619 G	320	**HK12.1**	100 unit(s)	52,30
MN 619 G	400	**HK13.1**	100 unit(s)	90,10



Folded filters MN 280 ¼ phosphate-free

Macherey-Nagel. Material: Paper, acid washed and phosphate-free.

Low filtration speed. With optimum purification and a flat surface. For determination of the micronutrients available to plants (Mg, Mn, Cu, Zn, Co, B, Mo) as well as for soil analyses.
Surface weight: 75 g/m². Filtration time according to DIN 53137: 100 s.
Thickness: 0.18 mm.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 280 ¼	110	**HK34.1**	100 unit(s)	61,30
MN 280 ¼	125	**HK35.1**	100 unit(s)	61,30
MN 280 ¼	150	**HK36.1**	100 unit(s)	61,30
MN 280 ¼	185	**HK37.1**	100 unit(s)	80,70
MN 280 ¼	240	**HK38.1**	100 unit(s)	105,00



Folded filters MN 615 ff ¼ for oil testing

Macherey-Nagel.

Medium filtration speed. For oil testing, free from oils and resins.
Thickness: 0.16 mm. Surface weight 70 g/m². Ether-soluble residue <0.1 mg on filters with Ø 270 mm.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 615 ff ¼	110	**HK80.1**	100 unit(s)	67,20
MN 615 ff ¼	125	**HK81.1**	100 unit(s)	67,20
MN 615 ff ¼	150	**HK82.1**	100 unit(s)	67,20
MN 615 ff ¼	185	**HK83.1**	100 unit(s)	76,00
MN 615 ff ¼	240	**HK84.1**	100 unit(s)	120,00
MN 615 ff ¼	270	**HK85.1**	100 unit(s)	139,00

Special filter papers



Folded filters grained

Macherey-Nagel.

Surface weight: 75 g/m². Filtration time according to DIN 53137: 25 s. Grained surface. E.g. for analyses in breweries.

Type: MN 614 ¼
Medium filtration speed, bleached, low in nitrogen. Suitable for malt analysis as well as for filtration of essential oils, emulsions, essences, etc. Thickness 0.25 mm.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 614 ¼	55	**HK57.1**	100 unit(s)	28,80
MN 614 ¼	70	**HK58.1**	100 unit(s)	28,80
MN 614 ¼	90	**HK59.1**	100 unit(s)	28,80
MN 614 ¼	110	**HK60.1**	100 unit(s)	28,80
MN 614 ¼	125	**HK61.1**	100 unit(s)	28,80
MN 614 ¼	150	**HK62.1**	100 unit(s)	28,80
MN 614 ¼	185	**HK63.1**	100 unit(s)	33,50
MN 614 ¼	240	**HK64.1**	100 unit(s)	50,10
MN 614 ¼	320	**HK65.1**	100 unit(s)	70,40
MN 614 ¼	400	**HK66.1**	100 unit(s)	115,00

Type: MN 620 ¼
Unbleached. Suitable for removing carbonic acids before the analysis, for example. Thickness: 0.26 mm.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 620 ¼	70	**HK67.1**	100 unit(s)	23,60
MN 620 ¼	90	**HK68.1**	100 unit(s)	23,60
MN 620 ¼	110	**HK69.1**	100 unit(s)	23,60
MN 620 ¼	125	**HK70.1**	100 unit(s)	23,60
MN 620 ¼	150	**HK71.1**	100 unit(s)	23,60
MN 620 ¼	185	**HK72.1**	100 unit(s)	28,80
MN 620 ¼	240	**HK73.1**	100 unit(s)	38,90
MN 620 ¼	320	**HK74.1**	100 unit(s)	57,60
MN 620 ¼	385	**HK75.1**	100 unit(s)	80,10
MN 620 ¼	400	**HK76.1**	100 unit(s)	89,60



Germ testing paper ROTILABO®

ROTH SELECTION.

Folded, waterproof, germ testing paper. For carrying out germ resistance tests, e.g. for root vegetable seeds. Surface weight: 160 g/m². Shape: Width 110 mm, fold depth 20 mm, double folds (50 units), length 2 m.

Length (m)	Width (mm)	Art. No.	Pack Qty.	€
2	110	**AT14.1**	1 unit(s)	6,05



Phase separating paper MN 616 WA

Macherey-Nagel. Material: Paper, Impregnated with silicone.

Circular filters for **qualitative analysis**. The hydrophobic surface separates water from non water-miscible liquids. Enables partial quantities to be filtered out. Surface weight: 85 g/m². Temperature stable up to +120 °C. Largely solvent resistant.

Ø (mm)	Art. No.	Pack Qty.	€
125	**1284.1**	100 unit(s)	27,30



Single-use sieve

Material: Cardboard, water-resistant, nylon sieve cloth.

Suitable for liquids of various consistencies, for example varnishes and paints. Height: 12 cm, upper Ø approx. 16 cm.

Type	Retention range (µm)	Colour coding	Art. No.	Pack Qty.	€
superfine	125	blue	**TA93.1**	125 unit(s)	35,85
extra fine	150	turquoise	**AXL8.1**	125 unit(s)	35,85
fine	190	yellow	**TA92.1**	125 unit(s)	32,20
medium	260	orange	**TA91.1**	125 unit(s)	33,20
coarse	1000	white	**AXL9.1**	125 unit(s)	48,20



Test papers ROTILABO®

ROTH SELECTION.

Untreated cellulose sheets made from 100% cotton linters. Good absorbency, surface weight of 290 g/m², thickness 0.75 mm. For impregnating with agent solution.
Suitable for determining the resistance to antibiotics or chemotherapeutic substances in bacteria cultures and pathogenic organisms.

Ø (mm)	Art. No.	Pack Qty.	€
6	**KA07.1**	1,000 unit(s)	27,70
9	**KA08.1**	1,000 unit(s)	34,75
12	**KA09.1**	1,000 unit(s)	45,60
12.7	**KA10.1**	1,000 unit(s)	45,60
25	**KA11.1**	1,000 unit(s)	117,15

Special filter papers

Blotting paper blocks ROTILABO®

ROTH SELECTION.

Highly absorbent paper for removing surplus liquid from small samples or microscope slides.
Surface weight: 73 g/m². Dimensions: L 100 x W 37 mm.



Length (mm)	Width (mm)	Pack.	Art. No.	Pack Qty.	€
100	37	1 x 50 sheets	**XP50.1**	1 unit(s)	12,85

Activated carbon filter ROTILABO®

ROTH SELECTION.

For filtration of liquids or gases. Filter material: Activated carbon granules, **PC** casing. Temperature stable up to max. 70 °C, pressure stable up to max. 2 bar. For hose connections with inside Ø 6.3 mm. Dimensions: Ø 26 x L 82 mm.



Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
26	82	**HC24.1**	10 unit(s)	153,70

Extraction sleeves ROTILABO®

ROTH SELECTION. Material: Cellulose, 100%.

Grease-free, high mechanical strength and high retention capacity. Ideal for many extraction systems.



Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
19	90	**HTH3.1**	25 unit(s)	79,55
20	80	**HTH4.1**	25 unit(s)	74,35
22	80	**HTH5.1**	25 unit(s)	74,35
26	60	**HTH6.1**	25 unit(s)	74,35
28	80	**HTH7.1**	25 unit(s)	84,15
30	80	**HTH8.1**	25 unit(s)	84,15
30	100	**HTH9.1**	25 unit(s)	82,85
33	80	**HTK0.1**	25 unit(s)	71,35
33	94	**HTK1.1**	25 unit(s)	92,85
33	100	**HTK2.1**	25 unit(s)	84,40
33	118	**HTK3.1**	25 unit(s)	82,00
34	130	**HTK4.1**	25 unit(s)	111,45
41	123	**HTK5.1**	25 unit(s)	107,90
43	123	**HTK6.1**	25 unit(s)	130,10

Extraction sleeves

Extraction sleeves MN 645

Macherey-Nagel. Material: Cellulose.

For holding solids during Soxhlet and other extractions. Also suitable for separating solid or liquid particles from air and gases.
Extraction sleeves according to DIN 12449 are suitable for extractors according to DIN 12602 and 12604.



Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
23	20	80	not in acc. with DIN	**H202.1**	25 unit(s)	86,70
25	22	80	DIN 12449	**H203.1**	25 unit(s)	86,70
26	23	100	not in acc. with DIN	**H204.1**	25 unit(s)	86,70
27	24	60	not in acc. with DIN	**H205.1**	25 unit(s)	86,70
31	28	80	not in acc. with DIN	**H206.1**	25 unit(s)	86,70
32	29	100	not in acc. with DIN	**H207.1**	25 unit(s)	102,00
33	30	80	not in acc. with DIN	**H208.1**	25 unit(s)	86,70
33	30	100	not in acc. with DIN	**H210.1**	25 unit(s)	104,00
34	31	118	not in acc. with DIN	**H211.1**	25 unit(s)	128,00
36	33	94	DIN 12449	**H209.1**	25 unit(s)	104,00
36	33	205	DIN 12449	**L867.1**	25 unit(s)	172,00
52	48	230	DIN 12449	**L868.1**	25 unit(s)	231,00
61	57	315	DIN 12449	**L869.1**	25 unit(s)	341,00

Extraction sleeves made of glass fibres MN 649

Macherey-Nagel. Material: Borosilicate glass fibres.

Micro-glass fibres consist of binding-agent-free borosilicate glass, temperature stable for short periods up to 500 °C. The sleeves have a high chemical compatibility, a very high separation capacity and a very high particle retention capacity.
Suitable for emissions measurements at high temperatures, for separating dust particles or aerosols from gases or air flows.
Extraction sleeves according to DIN 12449 are suitable for extractors with defined nominal volumes according to DIN 12602 and 12604.



Ø ext. (mm)	Ø Internal (mm)	Wall thickness (mm)	Height (mm)	Standards	Art. No.	Pack Qty.	€
17	15	1,0	50	not in acc. with DIN	**CYH8.1**	25 unit(s)	162,00
18	16	1,0	100	not in acc. with DIN	**CYH9.1**	25 unit(s)	162,00
25	22	1,5	80	DIN 12449	**CYK0.1**	25 unit(s)	162,00
26	23	1,5	90	not in acc. with DIN	**CYK1.1**	25 unit(s)	162,00
26	23	1,5	100	not in acc. with DIN	**CYK2.1**	25 unit(s)	162,00
30	27	1,5	80	not in acc. with DIN	**CYK3.1**	25 unit(s)	162,00
31	28	1,5	60	not in acc. with DIN	**CYK4.1**	25 unit(s)	162,00
31	28	1,5	120	not in acc. with DIN	**CYK5.1**	25 unit(s)	193,00
33	30	1,5	150	not in acc. with DIN	**CYK6.1**	25 unit(s)	237,00
36	33	1,5	80	not in acc. with DIN	**CYK7.1**	25 unit(s)	162,00
36	33	1,5	90	not in acc. with DIN	**CYK8.1**	25 unit(s)	196,00
36	33	1,5	94	DIN 12449	**CYK9.1**	25 unit(s)	196,00
36	33	1,5	100	not in acc. with DIN	**CYL0.1**	25 unit(s)	196,00
36	33	1,5	118	not in acc. with DIN	**CYL1.1**	25 unit(s)	236,00
36	33	1,5	205	DIN 12449	**CYL2.1**	25 unit(s)	316,00
36	35	1,5	150	not in acc. with DIN	**CYL3.1**	25 unit(s)	276,00
47	43	2,0	123	not in acc. with DIN	**CYL4.1**	25 unit(s)	300,00
52	48	2,0	230	DIN 12449	**CYL5.1**	25 unit(s)	420,00
61	57	2,0	315	DIN 12449	**CYL6.1**	25 unit(s)	645,00
79	75	2,0	330	not in acc. with DIN	**CYL7.1**	25 unit(s)	720,00

Analytical sieve machines



Analytical sieve machine HAVER EML 200 Premium series

Haver & Boecker.

For sieve analysis in accordance with ISO 2591-1. Measuring range 20 µm–125 mm. Suitable for test sieves with Ø 50 to 203 mm.

- Fast and easy to operate
- Amplitude is adjustable in 0.1 mm increments
- Intermittent operation or continuous operation
- Memory for storing various sieve modes (49 memory slots)
- Ethernet interface
- Optional TwinNut rapid clamping system allows easier and faster replacement of sieves without time-consuming screwing

Technical specifications:

Art. No.	ECE6.1	ECE7.1	ECE8.1	ECE9.1
Type	EML 200 Premium		EML 200 Premium Remote	
Measuring range	0.02–125 mm			
Movement type	three-dimensional			
Shaking amplitude (stroke)	0,1–3,0 mm			
Timer	1 to 99 min or continuous operation			
Interval operation	1 to 99 s			
Loading capacity from	min. 3 test sieves, one sieve pan			
Loading capacity up to	Max. 9 test sieves or 8.7 kg sieve stack weight			
Width	295 mm			
Depth	385 mm			
Height	880 mm			
Weight	38 kg			
Mains connection	110–230 V, 50/60 Hz			

(1) Model: Premium
Suitable for dry sieving.

Delivery incl. clamping system (2 x M20 guide bars, 660 mm long, 2 clamping nuts) and a machine cover with window.

Delivery without sieve pan (please order separately).

Type	Version	Art. No.	Pack Qty.	€
EML 200 Premium	Classic clamping system	**ECE6.1**	1 unit(s)	3.427,10
EML 200 Premium	TwinNut rapid clamping system	**ECE7.1**	1 unit(s)	3.607,70

(2) Model: Premium Remote
Suitable for wet and dry sieving.

Unit with protection class IP 54 and separate control unit for wall mounting allows the additional option of wet sieving.

Delivery incl. separate control device with wall holder and connecting cable, clamping system (2 x M20 guide bars, 660 mm long, 2 clamping nuts), machine cover with full-cone nozzle and window, water connector with socket and PVC hose (3 m long).

Delivery without sieve pan (please order separately).

Type	Version	Art. No.	Pack Qty.	€
EML 200 Premium Remote	Classic clamping system	**ECE8.1**	1 unit(s)	3.970,00
EML 200 Premium Remote	TwinNut rapid clamping system	**ECE9.1**	1 unit(s)	4.149,50

Accessories

Haver & Boecker.

For dry sieving
Suitable for EML 200 Pure, EML 200 Premium and EML 200 Premium Remote.

Version	Art. No.	Pack Qty.	€
Sieve pan for dry sieving, Ø 200 x H 50 mm, stainless steel	**ECC7.1**	1 unit(s)	59,00
Replacement machine cover with window	**ECE3.1**	1 unit(s)	244,05

For wet sieving
Suitable for EML 200 Premium Remote.

Version	Art. No.	Pack Qty.	€
Sieve pan with outlet and PVC hose for wet sieving	**ECH0.1**	1 unit(s)	206,40
Replacement machine cover with full-cone nozzle and window	**ECH1.1**	1 unit(s)	424,65
PVC hose (1/2″), 3 m	**ECH2.1**	1 unit(s)	14,80

Analytical sieve machines



Analytical sieve machine HAVER EML 200 Pure

Haver & Boecker.

For sieve analysis in accordance with ISO 2591-1. Standard model for dry sieving and fast and easy operation. Measuring range 20 µm–125 mm. Suitable for test sieves with Ø 50 to 203 mm.

- Two optional amplitudes to select from: 2.2 mm for coarse or 0.9 for fine materials
- Preset interval (10 s)
- Digital timer
- Anodised aluminium housing

Technical specifications:

Art. No.	ECE2.1
Type	EML 200 Pure
Measuring range	0.02–125 mm
Movement type	Three-dimensional
Shaking amplitude (stroke)	2,2 mm / 0,9 mm
Timer	1 min or continuous operation
Loading capacity from	Min. 3 test sieves with usable height 50 mm and one sieve pan
Loading capacity up to	Max. 9 test sieves with usable height 50 mm or 8.7 kg sieve stack weight
Width	295 mm
Depth	385 mm
Height	900 mm
Weight	38 kg
Mains connection	110–230 V, 50/60 Hz

Delivery incl. Classic „eco“ clamping system (2 x M16 guide bars, 660 mm long, 2 clamping nuts) and a machine cover with window. **Delivery without** sieve pan (Art. No. ECC7.1), please order separately.

Type	Art. No.	Pack Qty.	€
EML 200 Pure	**ECE2.1**	1 unit(s)	2.744,50



Test sieve Ø 200 mm

Haver & Boecker. Material: Stainless steel.

Sieve frame fabricated in stainless steel 1.4301 with stainless steel wire mesh base. Compliant with DIN ISO 3310, ASTM E11, ISO 565, BS 410, etc. Suitable for testing granulates, powders, plastics, silicon, dyes, metal filings etc.

- Strong sieve construction for long life
- Sieve mesh retains excellent tension, even during intensive use
- Smooth frame surface avoids cross contamination
- Usable height 50 mm

Delivery incl. PVC sealing ring and Certificate of Compliance 2.1 according to DIN EN 10 204.

Mesh size (mm)	Art. No.	Pack Qty.	€
0.02	**EAE7.1**	1 unit(s)	659,00
0.025	**EAE8.1**	1 unit(s)	385,95
0.032	**EAE9.1**	1 unit(s)	231,15
0.036	**EAH0.1**	1 unit(s)	221,45
0.038	**EAH1.1**	1 unit(s)	221,45
0.04	**EAH2.1**	1 unit(s)	158,60
0.045	**EAH3.1**	1 unit(s)	158,60
0.05	**EAH4.1**	1 unit(s)	130,20
0.053	**EAH5.1**	1 unit(s)	130,20
0.056	**EAH6.1**	1 unit(s)	130,20
0.063	**EAH7.1**	1 unit(s)	117,95
0.071	**EAH8.1**	1 unit(s)	117,95
0.075	**EAH9.1**	1 unit(s)	117,95
0.08	**EAK0.1**	1 unit(s)	117,95
0.09	**EAK1.1**	1 unit(s)	117,95
0.1	**EAK2.1**	1 unit(s)	117,95
0.106	**EAK3.1**	1 unit(s)	117,95
0.112	**EAK4.1**	1 unit(s)	117,95
0.125	**EAK5.1**	1 unit(s)	117,95
0.14	**EAK6.1**	1 unit(s)	117,95
0.15	**EAK7.1**	1 unit(s)	117,95
0.16	**EAK8.1**	1 unit(s)	117,95
0.18	**EAK9.1**	1 unit(s)	117,95
0.2	**EAL0.1**	1 unit(s)	117,95
0.212	**EAL1.1**	1 unit(s)	117,95
0.224	**EAL2.1**	1 unit(s)	117,95
0.25	**EAL3.1**	1 unit(s)	117,95
0.28	**EAL4.1**	1 unit(s)	117,95
0.3	**EAL5.1**	1 unit(s)	117,95
0.315	**EAL6.1**	1 unit(s)	117,95
0.355	**EAL7.1**	1 unit(s)	117,95
0.4	**EAL8.1**	1 unit(s)	117,95
0.425	**EAL9.1**	1 unit(s)	117,95
0.45	**EAN0.1**	1 unit(s)	117,95
0.5	**EAN1.1**	1 unit(s)	117,95
0.56	**EAN2.1**	1 unit(s)	117,95
0.6	**EAN3.1**	1 unit(s)	117,95
0.63	**EAN4.1**	1 unit(s)	117,95
0.71	**EAN5.1**	1 unit(s)	117,95
0.8	**EAN6.1**	1 unit(s)	117,95
0.85	**EAN7.1**	1 unit(s)	117,95
0.9	**EAN8.1**	1 unit(s)	117,95
1	**EAN9.1**	1 unit(s)	119,90
1.12	**EAP0.1**	1 unit(s)	119,90
1.18	**EAP1.1**	1 unit(s)	119,90
1.25	**EAP2.1**	1 unit(s)	119,90
1.4	**EAP3.1**	1 unit(s)	119,90

Analytical sieves

Mesh size (mm)	Art. No.	Pack Qty.	€
1.6	**EAP4.1**	1 unit(s)	119,90
1.7	**EAP5.1**	1 unit(s)	119,90
1.8	**EAP6.1**	1 unit(s)	119,90
2	**EAP7.1**	1 unit(s)	119,90
2.24	**EAP8.1**	1 unit(s)	119,90
2.36	**EAP9.1**	1 unit(s)	119,90
2.5	**EAT0.1**	1 unit(s)	119,90
2.8	**EAT1.1**	1 unit(s)	137,50
3.15	**EAT2.1**	1 unit(s)	137,50
3.35	**EAT3.1**	1 unit(s)	137,50
3.55	**EAT4.1**	1 unit(s)	137,50
4	**EAT5.1**	1 unit(s)	137,50
4.5	**EAT6.1**	1 unit(s)	137,50
4.75	**EAT7.1**	1 unit(s)	137,50
5	**EAT8.1**	1 unit(s)	137,50
5.6	**EAT9.1**	1 unit(s)	137,50
6.3	**EAX0.1**	1 unit(s)	137,50
6.7	**EAX1.1**	1 unit(s)	137,50
7.1	**EAX2.1**	1 unit(s)	137,95
8	**EAX3.1**	1 unit(s)	137,50
9	**EAX4.1**	1 unit(s)	137,50
9.5	**EAX5.1**	1 unit(s)	137,50
10	**EAX6.1**	1 unit(s)	137,50
11.2	**EAX7.1**	1 unit(s)	147,35
12.5	**EAX8.1**	1 unit(s)	147,35
13.2	**EAX9.1**	1 unit(s)	147,35
14	**EAY0.1**	1 unit(s)	147,35
16	**EAY1.1**	1 unit(s)	147,35
18	**EAY2.1**	1 unit(s)	147,35
19	**EAY3.1**	1 unit(s)	147,35
20	**EAY4.1**	1 unit(s)	147,35
22.4	**EAY5.1**	1 unit(s)	155,90
25	**EAY6.1**	1 unit(s)	155,90
26.5	**EAY7.1**	1 unit(s)	155,90
28	**EAY8.1**	1 unit(s)	155,90
31.5	**EAY9.1**	1 unit(s)	155,90
35.5	**ECA0.1**	1 unit(s)	155,90
37.5	**ECA1.1**	1 unit(s)	155,90
40	**ECA2.1**	1 unit(s)	155,90
45	**ECA3.1**	1 unit(s)	155,90
50	**ECA4.1**	1 unit(s)	155,90
53	**ECA5.1**	1 unit(s)	155,90
56	**ECA6.1**	1 unit(s)	155,90
63	**ECA7.1**	1 unit(s)	155,90
71	**ECA8.1**	1 unit(s)	155,90
75	**ECA9.1**	1 unit(s)	155,90
80	**ECC0.1**	1 unit(s)	155,90
90	**ECC1.1**	1 unit(s)	155,90
100	**ECC2.1**	1 unit(s)	155,90
106	**ECC3.1**	1 unit(s)	155,90
112	**ECC4.1**	1 unit(s)	155,90
125	**ECC5.1**	1 unit(s)	155,90



Ion exchanger Destillo 2

Herco.

Wall device for producing small amounts of demineralised water.

- Very effective, handy and functionally safe
- Hourly performance approx. 50 l water
- Capacity at 10° dH approx. 320 l, at 20° dH approx. 160 l water
- Conductivity display up to 100 µS/cm

Note: Capacity data apply for feed water with a total salt content of 10° dH; with a higher salt content or higher amounts of carbonic and silicic acid in the water, the capacity reduces.

Technical specifications:

Art. No.	**0092.1**
Type	Destillo 2
Cartridge filling	Mixed bed resin, disposable
Capacity	320 l
Flow rate	50 l/h
Clean water quality	0,1-20 µS/cm
Width	115 mm
Depth	115 mm
Height	520 mm
Connection	R ¾″
Mains connection	220–240 V, 50/60 Hz

Delivery incl. cartridges, conductivity tester, supply hose length 150 cm, outlet hose length 100 cm, wall screws and connecting cable length 150 cm.

Type	Art. No.	Pack Qty.	€
Destillo 2	**0092.1**	1 unit(s)	360,15

Accessories replacement cartridges for ion exchanger device Destillo 2

Herco.

Colour to prevent algae growth. Height 380 mm, Ø 90 mm, weight approx. 1400 g.

Technical specifications:

Art. No.	**0093.1**
Type	Disposable cartridge D 2
Ø	90 mm
Height	380 mm
Weight	1400 g

Type	Art. No.	Pack Qty.	€
Disposable cartridge D 2	**0093.1**	1 unit(s)	87,65



Ion exchanger DS series

stakpure.

Pressureless. Plastic ion exchanger system made of plastic (PE) for producing fully desalinated pure water using a mixed bed ion exchanger resin. Suitable for small laboratories with a daily requirement of up to 15 litres. Can be connected directly to the mains water supply. With analogue conductivity tester, hose set and integrated filter system to prevent escape of resin. Acc. to standards such as DIN EN 13060, ASTM and VDE 0510.

Note: Capacity data apply for feed water with a total salt content of 10° dH; with a higher salt content or higher amounts of carbonic and silicic acid in the water, the capacity reduces.

Technical specifications:

Art. No.	KCE7.1	KCE8.1
Type	DS 450	DS 750
Cartridge filling	Mixed bed resin, disposable	Mixed bed resin, regenerative
Capacity	425 l	750 l
Flow rate	50 l/h	100 l/h
Clean water quality	0,1-20 µS/cm	
Measuring range	0.1-50 µS/cm	
Ø	100 mm	175 mm
Height	600 mm	470 mm
Weight	3 kg	6 kg
Max. water temperature	30 °C	
Connection	R ¾″	
Mains connection	230 V, 50/60 Hz	

Delivery incl. cartridge, analogue conductivity tester and hose set. Model DS 450 also includes a wall mount.

Type	Art. No.	Pack Qty.	€
DS 450	**KCE7.1**	1 unit(s)	366,60
DS 750	**KCE8.1**	1 unit(s)	496,65



Ion exchanger cartridge DS series

stakpure. Material: Stainless steel AISI 316.

Pressure-resistant (up to 10 bar) stainless steel ion exchanger cartridges made of stainless steel, can be connected directed to the mains water.
For the production of demineralised water. Suitable for supplying ultra-pure water systems, analysis machines, dishwashers and autoclaves, or for industrial use with process water, battery water and cooling water. Acc. to standards such as ASTM, CLSI, DIN EN 285, VDE 0510.

Note: Capacity data apply for feed water with a total salt content of 10° dH; with a higher salt content or higher amounts of carbonic and silicic acid in the water, the capacity reduces.

Technical specifications:

Art. No.	KCE3.1	KCE4.1	KCE5.1	KCE6.1
Type	DS 1500	DS 2000	DS 2800	DS 4000
Cartridge filling	Mixed bed resin, regenerative			
Capacity	1,500 l	2,000 l	2,800 l	4,000 l
Flow rate	300 l/h		950 l/h	1,000 l/h
Clean water quality	0,1-20 µS/cm			
Ø	240 mm			
Height	410 mm	490 mm	570 mm	700 mm
Weight	14 kg	18 kg	24 kg	27 kg
Max. operating pressure	10 bar			
Max. water temperature	30 °C			
Connection	R ¾″			

Delivery without conductivity tester (Art. No. KCH2.1, analogue or Art. No. KCH1.1, digital), please order separately.

Type	Art. No.	Pack Qty.	€
DS 1500	**KCE3.1**	1 unit(s)	733,15
DS 2000	**KCE4.1**	1 unit(s)	815,95
DS 2800	**KCE5.1**	1 unit(s)	957,85
DS 4000	**KCE6.1**	1 unit(s)	1.288,95



Conductivity tester AC 100 analogue

stakpure.

Suitable for ion exchangers DS 1500 to DS 4000.
With integrated measuring cell. Analogue measured value display in µS/cm.

Technical specifications:

Art. No.	**KCH2.1**
Type	AC 100
Measuring range	0.1 to 50 µS/cm
Width	93 mm
Depth	123 mm
Height	170 mm
Connection	R ¾″
Mains connection	230 V, 50/60 Hz

Delivery incl. hose set (2 x 1.5 m hoses with R ¾″ connections).

Type	Art. No.	Pack Qty.	€
AC 100	**KCH2.1**	1 unit(s)	366,60

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Conductivity tester DC 400 digital

stakpure.

Suitable for ion exchangers DS 1500 to DS 4000. Conductivity measuring range 0.1 to 300 µS/cm (automatic switchover at 9.99). For the online measurement of pure and ultrapure water downstream of ion exchanger cartridges and for monitoring closed-loop systems. For wall mounting.

- Large two-colour backlit graphic display for digitally displaying the conductivity in µS/cm or in MΩ x cm and the temperature in °C
- Continuous adjustment of the limit values for temperature (from 10 to 40 °C) and conductivity (from 0.1 to 30 µS/cm)
- Signals for exceeded limits for temperature and conductivity: LED display green/red + buzzer (both limit values can be deactivated)
- Signals for fault message: display switch-over green/red
- Automatic comparison before each measurement using an integrated reference resistor and temperature measurement using platinum temperature sensor
- Automatic voltage switching for international use

Technical specifications:

Art. No.	**KCH1.1**
Type	DC 400
Conductivity measuring range from	0.1 µS/cm
Conductivity measuring range up to	300 µS/cm
Temperature measuring range from	0.1 °C
Temperature measuring range up to	99.9 °C
Temp. compensation	Automatic
Width	73 mm
Depth	32 mm
Height	141 mm
Connection	¾″
Protection class	IP 54
Mains connection	110/230 V, 50/60 Hz

Delivery incl. connecting cable, plug-in power supply, measuring cell and tube set consisting of 2 x 1.5 m tubes with R ¾″-connections and wall mount.

Type	Art. No.	Pack Qty.	€
DC 400	**KCH1.1**	1 unit(s)	709,50

Wasser purification

Ultrapure water system OmniaPure series



stakpure.

For the production of 20-100 litres ultrapure water ASTM Type I per day. Flexible dispenser with digital control for water withdrawal at the touch of a button.

- OptiFill dispenser as standard
- Space-saving mounting on a laboratory bench or optionally on a wall
- Simple and cost-effective filter replacement
- Integrated pre-treatment unit
- RS 232 port
- Leak sensor as standard
- Integrated pressure reducer as standard
- Ready to use, ready to connect, incl. filter cartridges
- Model type "TOC" with TOC monitoring

Technical specifications:

Art. No.	KCC7.1	KCC8.1	KCE0.1	KCC9.1	KCE1.1
Type	OmniaPure	OmniaPure UV	OmniaPure UV-TOC	OmniaPure UV/UF	OmniaPure UV-TOC/UF
Conductivity of high-purity water, type I	0.055 µS/cm				
Resistance of high-purity water, type I	18.2 MΩ*cm				
Withdrawal capacity of high-purity water, type I	2 l/min			1.6 l/min	
Bacteria content of high-purity water, type I	< 0,1 KbE/ml				
Endotoxin content of high-purity water, type I				0.001 EU/ml	
TOC value of high-purity water, type 1	5-10 ppb	1-5 ppb			
DNase content of high-purity water, type I				4 ng/ml	
RNase content of high-purity water, type I				0.01 ng/ml	
Particle content of high-purity water, type I	< 1/ml				
Width	390 mm				
Depth	525 mm				
Height	720 mm				
Weight	19 kg	20 kg			
Min. operating pressure	0.5 bar				
Max. operating pressure	6 bar				
Ambient temperature	2-35 °C				
Connection	R ¾″				
Mains connection	100–240 V, 50/60 Hz				

Feed water requirements: Water treated through ion exchange, reverse osmosis, deionisation or distillation	
Feed water temperature (°C)	+2–35
Feed water pressure (bar)	0.5–6
Inlet conductivity (µS/cm)	<100
TOC value (ppb)	<50

Note: endotoxin concentration, RNase, DNase content and TOC value depend on the quality of the feed water. The 0.2 µm sterile filter capsule is needed to meet the requirements for particle and bacteria contents.

Typical applications: AAS, IC, ICP, buffer and media preparation.

Delivery incl. OmniaPure pure water system, pretreatment cartridge (RO cartridge), ultrapure water cartridge, sterile filter capsule 0.2 µm, PE hose Ø 8 mm, L 2.5 m, one PE hose Ø 8 mm, L 2.5 m incl. input protection filter and water connection adapter R ¾″. Also includes a UV lamp and/or ultrafiltration module (UF) depending on the model.

Type	Art. No.	Pack Qty.	€
OmniaPure	**KCC7.1**	1 unit(s)	5.805,00

Wasser purification

Typical applications: Ultratrace analysis, ICP-MS, HPLC, TOC analysis.

Delivery incl. OmniaPure pure water system, pretreatment cartridge (RO cartridge), ultrapure water cartridge, sterile filter capsule 0.2 µm, PE hose Ø 8 mm, L 2.5 m, one PE hose Ø 8 mm, L 2.5 m incl. input protection filter and water connection adapter R ¾″. Also includes a UV lamp and/or ultrafiltration module (UF) depending on the model.

Type	Art. No.	Pack Qty.	€
OmniaPure UV	**KCC8.1**	1 unit(s)	6.718,75
OmniaPure UV-TOC	**KCE0.1**	1 unit(s)	7.342,25

Typical applications: cell culture media, molecular and microbiology.

Delivery incl. OmniaPure pure water system, pretreatment cartridge (RO cartridge), ultrapure water cartridge, sterile filter capsule 0.2 µm, PE hose Ø 8 mm, L 2.5 m, one PE hose Ø 8 mm, L 2.5 m incl. input protection filter and water connection adapter R ¾″. Also includes a UV lamp and/or ultrafiltration module (UF) depending on the model.

Type	Art. No.	Pack Qty.	€
OmniaPure UV/UF	**KCC9.1**	1 unit(s)	7.342,25
OmniaPure UV-TOC/UF	**KCE1.1**	1 unit(s)	7.976,50

Accessories for OmniaTap and OmiaPure and ultrapure water systems

stakpure.

Type	Art. No.	Pack Qty.	€
Replacement pretreatment cartridge (RO cartridge) for OmniaTap 6 l/h	**KCA7.1**	1 unit(s)	319,30
Replacement pretreatment cartridge (RO cartridge) for OmniaTap 12 l/h	**KCA8.1**	1 unit(s)	462,25
Replacement ultrapure water cartridge for Omnia Tap and OmniaPure	**KCA9.1**	1 unit(s)	462,25
Replacement UV lamp, 185/254 nm	**KCC0.1**	1 unit(s)	350,45
Replacement UF ultrafiltration module	**KCC1.1**	1 unit(s)	913,75
Replacement sterile filter capsule (0.2 µm)	**KCC2.1**	1 unit(s)	182,75
Replacement tank breather filter	**KCC3.1**	1 unit(s)	110,75
Optional OmniaTap/Lab10" treatment unit - incl. connection hose. For pretreating the feed water if it does not meet the feed requirements.	**KCC4.1**	1 unit(s)	319,30
Optional pump station for OmniaTap	**KCC5.1**	1 unit(s)	1.005,15
Optional wall mount incl. fixing material	**KCC6.1**	1 unit(s)	201,05

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Pure and ultrapure water system OmniaTap series



stakpure.

Preparation system for producing both pure and ultrapure water. **Directly connectable to the mains water supply.** The flexible dispenser is used to draw ASTM Type I ultrapure water. The water is drawn at the touch of a button using the dispenser's digital control system. An integrated 10-litre tank with recirculation keeps the quality constantly at ASTM Type II. An optionally available pump station can be used to supply downstream devices with pure water (ASTM Type II) from the pure water tank.

- Space-saving mounting on a laboratory bench or optionally on a wall
- OptiFill dispenser as standard
- TapWater set – direct connection to drinking water
- 10 l tank with recirculation system
- Tank volume display in percent
- Simple and cost-effective filter replacement
- RS 232 port
- Leak sensor as standard
- Ready to use, ready to connect, incl. filter cartridges
- Can be operated using just one hand

Technical specifications:

Art. No.	KCA1.1	KCA2.1	KCA3.1	KCA4.1	KCA5.1	KCA6.1
Type	OmniaTap 6 l/h	OmniaTap 12 l/h	OmniaTap UV 6 l/h	OmniaTap UV 12 l/h	OmniaTap UV/UF 6 l/h	OmniaTap UV/UF 12 l/h
Conductivity of high-purity water, type I	0.055 µS/cm					
Conductivity of pure water, type II	0.067-0.1 µS/cm					
Resistance of high-purity water, type I	18.2 MΩ*cm					
Resistance of pure water, type II	10-15 MΩ*cm					
Withdrawal capacity of high-purity water, type I	2 l/min				1.6 l/min	
Withdrawal capacity of pure water, type II	6 l/h	12 l/h	6 l/h	12 l/h	6 l/h	12 l/h
Bacteria content of high-purity water, type I	< 0,1 KbE/ml					
Endotoxin content of high-purity water, type I					0.001 EU/ml	
TOC value of high-purity water, type 1	5-10 ppb		1-5 ppb			
Particle content of high-purity water, type I	< 1 particle per ml (particle size > 0.2 µm)					
Width	390 mm					
Depth	615 mm					
Height	725 mm					
Weight	20 kg		21 kg			
Min. operating pressure	2 bar					
Max. operating pressure	6 bar					
Ambient temperature	2-35 °C					
Connection	R ¾″					
Mains connection	100–240 V, 50/60 Hz					

Feed water requirements: drinking water acc. to DIN 2000	
Feed water temperature (°C)	+2–35
Feed water pressure (bar)	0.5–6
Manganese, aluminium and iron content (ppm)	<0.05
Free chlorine (ppm)	<4
Silt density index (SDI)	Max. 3
pH range	4–11

Note: endotoxin concentration and TOC value depend on the quality of the feed water. The 0.2 µm sterile filter capsule is needed to meet the requirements for particle and bacteria contents.

Wasser purification

Typical applications: AAS, IC, ICP, buffer and media preparation.

Delivery incl. OmniaTap ultrapure water system with integrated 10-l tank, sterile tank overflow and venting filter, pretreatment cartridge (RO cartridge), ultrapure water cartridge, sterile filter capsule 0.2 µm, 3 x PE hoses Ø 8 mm, L 2.5 m, water connection adapter R ¾″. Also includes a UV lamp and/or ultrafiltration module (UF) depending on the model.

Type	Art. No.	Pack Qty.	€
OmniaTap 6 l/h	**KCA1.1**	1 unit(s)	5.213,75
OmniaTap 12 l/h	**KCA2.1**	1 unit(s)	6.761,75

Typical applications: Ultratrace analysis, ICP-MS, HPLC, TOC.

Delivery incl. OmniaTap ultrapure water system with integrated 10-l tank, sterile tank overflow and venting filter, pretreatment cartridge (RO cartridge), ultrapure water cartridge, sterile filter capsule 0.2 µm, 3 x PE hoses Ø 8 mm, L 2.5 m, water connection adapter R ¾″. Also includes a UV lamp and/or ultrafiltration module (UF) depending on the model.

Type	Art. No.	Pack Qty.	€
OmniaTap UV 6 l/h	**KCA3.1**	1 unit(s)	6.052,25
OmniaTap UV 12 l/h	**KCA4.1**	1 unit(s)	7.578,75

Typical applications: cell culture media, molecular and microbiology.

Delivery incl. OmniaTap ultrapure water system with integrated 10-l tank, sterile tank overflow and venting filter, pretreatment cartridge (RO cartridge), ultrapure water cartridge, sterile filter capsule 0.2 µm, 3 x PE hoses Ø 8 mm, L 2.5 m, water connection adapter R ¾″. Also includes a UV lamp and/or ultrafiltration module (UF) depending on the model.

Type	Art. No.	Pack Qty.	€
OmniaTap UV/UF 6 l/h	**KCA5.1**	1 unit(s)	6.880,00
OmniaTap UV/UF 12 l/h	**KCA6.1**	1 unit(s)	8.266,75

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Pure and ultrapure water system Smart2Pure series



Thermo.

Compact system for the production of contamination-free water from mains water. The device is **connected directly to the mains water** supply.
Simultaneous provision of ultrapure and pure water qualities:

- **ASTM Type I** (resistance of 18.2 MΩ x cm)
- **ASTM Type II** (resistance of 10-15 MΩ x cm)

Easy to use, space-saving design and low follow-up costs. The pre-treatment cartridge is separate from the ultrapure water cartridge. Only the used cartridge need be replaced, when necessary.

Applications:
Analytical chemistry:
HPLC, GC, GC-MS, ICP-MS, AA, TOC measurements, IC
Molecular biology and microbiology:
Cell/tissue culture, PCR, DNA sequencing, electrophoresis
Routine tasks in the laboratory
Preparation and dilution of buffers and reagents, rinsing of laboratory glass instruments, supply of autoclaves, analysers and other laboratory instruments

Features:

- Combined cartridge (reverse osmosis membrane/activated charcoal) for pre-treatment of feed water
- Direct tapping of type I ultrapure water through a sterile end filter (0.2 µm)
- Integrated 6-litre tank for storing type II pure water
- Guaranteed pure water quality: the recirculation pump and sterile air filter protect from microbial contamination
- Additional pressure outlet on ultrapure water tank for supplying downstream devices
- Simple and economical change of expendables as treatment cartridges can be replaced separately
- Space-saving mounting on laboratory bench or on the wall

Technical specifications:

Art. No.	**HE81.1**	**HE82.1**	**HE83.1**	**HE84.1**
Type	Smart2Pure UV 3 l/h	Smart2Pure UV 6 l/h	Smart2Pure UV/UF 3 l/h	Smart2Pure UV/UF 6 l/h
Conductivity of high-purity water, type I	0.055 µS/cm			
Conductivity of pure water, type II	0,067-0,1 µS/cm			
Resistance of high-purity water, type I	18.2 MΩ*cm			
Resistance of pure water, type II	10-15 MΩ*cm			
Withdrawal capacity of high-purity water, type I	1 l/min		0.6 l/min	
Withdrawal capacity of pure water, type II	3 l/h	6 l/h	3 l/h	6 l/h
Bacteria content of high-purity water, type I	< 1 KbE/ml			
Endotoxin content of high-purity water, type I			0.001 EU/ml	
TOC value of high-purity water, type 1	1-5 ppb			
Particle content of high-purity water, type I	< 1 particle per ml (particle size < 0.2 µm)			
Width	305 mm			
Depth	400 mm			
Height	545 mm			
Weight	22 kg			
Connection	**Feedwater:** hose (length 1.5 m) with Ø outside 8 mm and ¾″, **Waste water:** ¼″ or Ø outside 8 mm, hose (length 2 m), pressure-free discharge			
Mains connection	100–240 V, 50/60 Hz			

Drinking water requirements:	
Drinking water to DIN 2000	Manganese and iron content: <0.05 mg/l
	Chlorine concentration: <0.1 mg/l
	Colloid index: <3
	Feed water temperature: 2–35 °C
	Feed water pressure: 1–6 bar

Delivery incl. Smart2Pure unit with integral 6-litre tank, sterile tank ventilation filter, combined cartridge (reverse osmosis membrane/activated charcoal), ultrapure water cartridge, 0.2 µm end filter, pressure retaining valve, device socket (length 1.8 m) UV lamp and/or ultra-filter (depending on model).

Wasser purification

With UV lamp (wave length 254 and 185 nm), which inactivates bacteria, oxidises organic compounds and enables germ-free ultrapure water quality with a TOC concentration < 5 ppb.

Typical applications: Anorganic and organic trace analysis, HPLC, ICP-MS, IC, TOC analysis.

Type	Art. No.	Pack Qty.	€
Smart2Pure UV 3 l/h	**HE81.1**	1 unit(s)	6.638,15
Smart2Pure UV 6 l/h	**HE82.1**	1 unit(s)	8.147,45

With UV lamp and UF module. The UF ultra-filtration module guarantees almost complete elimination of macro-molecular contamination such as micro-organisms, pyrogens (bacterial endotoxins), nucleases and particles; the combination of UV oxidation (254 and 185 nm) and ultra-filtration produces analytically pure water with a specific resistance of up to 18.2 MΩ cm, TOC values of < 5 ppb, pyrogene levels of < 0.001 EU/ml and RNase, DNase and DNA concentrations below the detection limit.

Typical applications: molecular biology, PCR, DNA, monoclonal antibodies, cell culture media.

Type	Art. No.	Pack Qty.	€
Smart2Pure UV/UF 3 l/h	**HE83.1**	1 unit(s)	7.471,25
Smart2Pure UV/UF 6 l/h	**HE84.1**	1 unit(s)	8.977,35

Benchtop water filter Brita®

Brita.

For optimal drinking water quality. Reduces limescale, lead, copper and chlorine content using a combination of ion exchange and activated charcoal.

- Electronic cartridge exchange indicator
- With MAXTRA Flow Control for steady flow and optimal filtration capacity



Technical specifications:

Art. No.	XC11.1	XC12.1
Type	MARELLA	FLOW
Filling capacity	2.4 l	8.5 l
Width	109 mm	350 mm
Depth	267 mm	217 mm
Height	277 mm	224 mm

Delivery incl. Li button cells and 1 filter cartridge MAXTRA.

MARELLA

With wide filling opening.

Type	Art. No.	Pack Qty.	€
MARELLA	**XC11.1**	1 unit(s)	n. a.

FLOW

Easy removal via stop cock.

Type	Art. No.	Pack Qty.	€
FLOW	**XC12.1**	1 unit(s)	n. a.



Capillary tube

Hirschmann. Material: Soda-lime glass.
Open at both ends.

Ø ext. (mm)	Ø Internal (mm)	Height (mm)	Packa-ging type	Pack.	Art. No.	Pack Qty.	€
1.0	0.80	80	Can	10 x 100	**EAC7.1**	1,000 unit(s)	91,25
1.0	0.80	90	Can	10 x 100	**EAE0.1**	1,000 unit(s)	91,75
1.0	0.80	100	Can	10 x 100	**EAE1.1**	1,000 unit(s)	104,45
1.0	0.80	120	Can	4 x 250	**EAE4.1**	1,000 unit(s)	106,65
1.0	0.80	150	Can	4 x 250	**EAE6.1**	1,000 unit(s)	115,65
1.35	0.95	80	Can	10 x 100	**EAC8.1**	1,000 unit(s)	63,55
1.35	0.95	100	Can	10 x 100	**EAE2.1**	1,000 unit(s)	74,10
1.35	0.95	120	Can	4 x 250	**EAE5.1**	1,000 unit(s)	87,60
1.55	1.15	80	Can	10 x 100	**EAC9.1**	1,000 unit(s)	66,35
1.55	1.15	100	Can	10 x 100	**EAE3.1**	1,000 unit(s)	67,95



A 121 °C

Battery jars ROTILABO®

ROTH SELECTION. Material: Borosilicate glass 3.3. Autoclavable: Yes.
Cylindrical glass beaker with ground rim.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
60	120	**AYL9.1**	10 unit(s)	208,55
100	100	**AYN0.1**	6 unit(s)	143,25
100	150	**AYN1.1**	6 unit(s)	146,60
100	200	**AYN2.1**	6 unit(s)	174,15
125	125	**AYN3.1**	6 unit(s)	187,05
125	250	**AYN4.1**	6 unit(s)	190,30
150	150	**AYN5.1**	4 unit(s)	165,55
150	200	**AYN6.1**	1 unit(s)	40,60
150	250	**AYN7.1**	1 unit(s)	43,70
160	320	**AYN8.1**	1 unit(s)	70,25
200	200	**AYN9.1**	1 unit(s)	83,15
200	250	**AYP0.1**	1 unit(s)	88,70
200	300	**AYP1.1**	1 unit(s)	95,65
200	400	**AYP2.1**	1 unit(s)	101,45
240	480	**AYP3.1**	1 unit(s)	195,65



A 121 °C

TLC atomiser with test tube

Lenz. Material: DURAN® glass. Autoclavable: Yes.
Autoclavable without rubber hose.

Delivery incl. clamp for ground joint and rubber ball.

Vol. (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
6	14/23	**TK61.1**	1 unit(s)	61,85
12	19/26	**TK62.1**	1 unit(s)	63,35



A 121 °C

TLC atomiser with Erlenmeyer flask

Lenz. Material: DURAN® glass. Autoclavable: Yes.
NS 19/26, volume 100 ml. Total height 160 mm.
Autoclavable without rubber hose.

Delivery incl. erlenmeyer flask, clamp for ground joint and rubber ball with 20 cm rubber hose.

Vol. (ml)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
100	160	19/26	**0707.1**	1 unit(s)	82,25



Spray unit

Haubold.

Versatile spray unit with gas cartridge for spraying reagents and other aqueous liquids. Constant spray pressure approx. 4.4 bar. Eco-friendly propellant mixture of dimethyl ether, propane and isobutane. Sufficient for approx. 500 ml liquid.
Easy to clean: Unscrew the cartridge, immerse the riser in a container with cleaning liquid and spray until the spray jet contains no residue.
Propellants: Dimethyl ether, isobutane, propane.

Danger H222-H229
Delivery incl. propellant cartridge (55 g or 94 ml), glass reservoir bottle 170 ml, suction tube and screw cap.

Vol. (ml)	Art. No.	Pack Qty.	€
170	**YC44.1**	1 unit(s)	15,30



Spray bottle with atomiser

Rixius. Material: Glass brown, sprayer with cover cap and riser made of PE.

Spray volume approx. 0.05 ml per pump operation.

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
20	29	98	GL 18	**N145.1**	3 unit(s)	10,15



A 121 °C

TLC separation chamber

Material: Borosilicate glass 3.3. Autoclavable: Yes.

For immersing pre-treated TLC ready-to-use foils (size 8 x 4 cm) in the solvent. Cylindrical glass beaker with loose-fitting glass lid. Inner height 100 mm, Ø 60 mm.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
60	100	**0823.1**	1 unit(s)	43,55

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Dialysis tubular membranes

Dialysis membrane Membra-Cel™

Viskase. Material: Cellulose, regenerated. Autoclavable: Yes.

Colourless, transparent to slightly opaque, semi-permeable and seamless. Application area: Dialysis and ultrafiltration in the laboratory.

- **Exclusion limit (MWCO) 14,000**
- Dry packaged on rolls, treated with glycerine
- Stable in the pH range from 5 to 9
- No unspecific protein binding, protein adsorption < 1 ng/g
- Autoclavable up to +120 °C (max. 15 min, immersed in distilled water)



A 121 °C

Not a medical device / Not an IVD product

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
14000	10	6	51	Roll	30 m	**1780.1**	1 unit(s)	308,55
14000	10	6	51	Roll	152 m	**1781.1**	1 unit(s)	937,40
14000	25	16	20	Roll	152 m	**0653.1**	1 unit(s)	349,40
14000	34	22	23	Roll	152 m	**0654.1**	1 unit(s)	391,30
14000	34	22	23	Roll	30 m	**1784.1**	1 unit(s)	130,95
14000	44	28	20	Roll	152 m	**0655.1**	1 unit(s)	473,00
14000	44	28	20	Roll	30 m	**1785.1**	1 unit(s)	156,20
14000	77	49	41	Roll	30 m	**5358.1**	1 unit(s)	373,05

Dialysis membrane Nadir®

Material: Cellulose, regenerated.

Suitable for laboratory experiments. MWCO approx. 10,000–20,000 daltons. **Packaged dry** on roles, glycerine content approx. 21%.



Not a medical device / Not an IVD product

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
~ 10 000 - 20 000	62.8	40	Roll	25 m	**5101.1**	1 unit(s)	74,75
~ 10 000 - 20 000	62.8	40	Roll	100 m	**5101.2**	1 unit(s)	252,65
~ 10 000 - 20 000	66.0	42	Roll	25 m	**5102.1**	1 unit(s)	74,75
~ 10 000 - 20 000	66.0	42	Roll	100 m	**5102.2**	1 unit(s)	252,65
~ 10 000 - 20 000	78.5	50	Roll	25 m	**5104.1**	1 unit(s)	74,75
~ 10 000 - 20 000	78.5	50	Roll	100 m	**5104.2**	1 unit(s)	252,65

Dialysis tubular membranes

Dialysis membrane Spectra/Por® 1 to 4

Repligen. Material: Cellulose, regenerated.

- High-quality membranes on rolls, **packaged dry**
- Max. application temperature +60 °C
- Good resistance to chemicals
- Treated with glycerine to protect against embrittlement
- Contain low quantities of contaminations such as sulphides and heavy metals
- **Metal traces:** Cadmium < 0.02 ppm, lead 2–6 ppm, chromium 0.1–0.2 ppm, magnesium 0.1–0.3 ppm, copper 0.8–1.2 ppm, nickel 1.3–1.7 ppm, iron 20–60 ppm, zinc 1.5–5 ppm



Not a medical device / Not an IVD product

Spectra/Por® 1 - MWCO 6000 to 8000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
6000–8000	10	6.4	30-50	Roll	15 m	**1954.1**	1 unit(s)	317,15
6000–8000	23	14.6	30-50	Roll	30 m	**1955.1**	1 unit(s)	325,75
6000–8000	32	20.4	30-50	Roll	30 m	**1956.1**	1 unit(s)	325,75
6000–8000	40	25.5	30-50	Roll	30 m	**2710.1**	1 unit(s)	350,45
6000–8000	50	31.8	30-50	Roll	30 m	**2711.1**	1 unit(s)	408,50
6000–8000	100	63.7	70	Roll	15 m	**2712.1**	1 unit(s)	494,50
6000–8000	120	76.4	70	Roll	15 m	**2713.1**	1 unit(s)	512,80

Spectra/Por® 2 - MWCO 12,000 to 14,000

Highly porous membranes for high dialysis rates.

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
12000–14000	10	6.4	20-50	Roll	15 m	**1958.1**	1 unit(s)	432,15
12000–14000	25	15.9	20-50	Roll	15 m	**1964.1**	1 unit(s)	432,15
12000–14000	45	28.6	20-50	Roll	15 m	**2714.1**	1 unit(s)	432,15
12000–14000	105	63.7	135-155	Roll	15 m	**2715.1**	1 unit(s)	954,60
12000–14000	120	76.4	135-155	Roll	15 m	**2716.1**	1 unit(s)	954,60

Spectra/Por® 3 - MWCO 3500

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
3500	18	11.5	25–30	Roll	15 m	**0978.1**	1 unit(s)	383,80
3500	45	28.6	25–30	Roll	15 m	**0959.1**	1 unit(s)	383,80
3500	54	34.0	25–30	Roll	15 m	**0983.1**	1 unit(s)	409,60

Spectra/Por® 4 - MWCO 12,000 to 14,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
12000–14000	10	6.4	20–50	Roll	30 m	**2717.1**	1 unit(s)	479,45
12000–14000	25	15.9	20–50	Roll	30 m	**2718.1**	1 unit(s)	266,60
12000–14000	32	20.4	20–50	Roll	30 m	**2719.1**	1 unit(s)	287,05
12000–14000	45	28.6	20–50	Roll	30 m	**2720.1**	1 unit(s)	334,35
12000–14000	75	47.7	20–50	Roll	15 m	**2721.1**	1 unit(s)	352,60

Dialysis tubular membranes

Trial kit Spectra/Por® 1-3

Repligen. Material: Cellulose, regenerated.

Hose membrane pieces on rolls, packaged dry. Particularly suitable for small-scale dialysis and for testing membranes for special applications.



Delivery incl. 1 pair of Spectra/Por® locking clips made of PP (1x with weight, 1x without).

Not a medical device / Not an IVD product

Spectra/Por® 1 – MWCO 6000–8000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
6000–8000	32	20.4	Roll	5 m	**4570.1**	1 unit(s)	152,65
6000–8000	50	32.0	Roll	5 m	**4572.1**	1 unit(s)	165,55

Spectra/Por® 2 - MWCO 12,000–14,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
12000–14000	25	16.0	Roll	5 m	**4574.1**	1 unit(s)	152,65
12000–14000	45	29.0	Roll	5 m	**4577.1**	1 unit(s)	165,55

Spectra/Por® 3 - MWCO 3500

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
3500	18	11.5	Roll	5 m	**4578.1**	1 unit(s)	152,65
3500	54	34.0	Roll	5 m	**4579.1**	1 unit(s)	165,55

Dialysis membrane Spectra/Por® 6

Repligen. Material: Cellulose, regenerated.

- **Packaged moist** in 0.05% sodium azide solution, on rolls
- Contain low quantities of contaminations such as sulphides and heavy metals
- Recommended storage temperature +4 °C
- Max. application temperature +60 °C
- **Metal traces:** Cadmium < 0.02 ppm, lead 2–6 ppm, chromium 0.1–0.2 ppm, magnesium 0.1–0.3 ppm, copper 0.8–1.2 ppm, nickel 1.3–1.7 ppm, iron 20–60 ppm, zinc 1.5–5 ppm



Not a medical device / Not an IVD product

MWCO 1000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000	18	11.5	60–65	Roll	10 m	**1966.1**	1 unit(s)	466,55
1000	38	24.0	60–65	Roll	10 m	**1967.1**	1 unit(s)	466,55
1000	45	29.0	60–65	Roll	10 m	**1968.1**	1 unit(s)	466,55

MWCO 2000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
2000	18	11.5	60–65	Roll	10 m	**1973.1**	1 unit(s)	466,55
2000	38	24.0	60–65	Roll	10 m	**1974.1**	1 unit(s)	466,55
2000	45	29.0	60–65	Roll	10 m	**1975.1**	1 unit(s)	466,55

MWCO 3500

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
3500	18	11.5	60–65	Roll	10 m	**1976.1**	1 unit(s)	466,55
3500	45	29.0	60–65	Roll	10 m	**1977.1**	1 unit(s)	466,55
3500	54	34.0	60–65	Roll	10 m	**1978.1**	1 unit(s)	466,55

Dialysis tubular membranes

MWCO 8000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
8000	12	7.5	60–65	Roll	10 m	**1924.1**	1 unit(s)	466,55
8000	24	15.0	60–65	Roll	10 m	**1926.1**	1 unit(s)	466,55
8000	40	25.5	60–65	Roll	10 m	**1934.1**	1 unit(s)	466,55
8000	50	32.0	60–65	Roll	10 m	**1935.1**	1 unit(s)	466,55

MWCO 10,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
10000	12	7.5	60–65	Roll	10 m	**1990.1**	1 unit(s)	466,55
10000	24	15.0	60–65	Roll	10 m	**1991.1**	1 unit(s)	466,55
10000	32	20.4	60–65	Roll	10 m	**1992.1**	1 unit(s)	466,55
10000	45	29.0	60–65	Roll	10 m	**1996.1**	1 unit(s)	466,55

MWCO 15,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
15000	12	7.5	60–65	Roll	10 m	**1881.1**	1 unit(s)	466,55
15000	24	15.0	60–65	Roll	10 m	**1883.1**	1 unit(s)	466,55
15000	32	20.4	60–65	Roll	10 m	**1887.1**	1 unit(s)	466,55
15000	45	29.0	60–65	Roll	10 m	**1888.1**	1 unit(s)	466,55

MWCO 25,000 (opaque)

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
25000	12	7.5	60–65	Roll	10 m	**1979.1**	1 unit(s)	466,55
25000	28	18.0	60–65	Roll	10 m	**1981.1**	1 unit(s)	466,55
25000	34	22.0	60–65	Roll	10 m	**1982.1**	1 unit(s)	466,55

MWCO 50,000 (opaque)

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
50000	12	7.5	60–65	Roll	10 m	**1891.1**	1 unit(s)	466,55
50000	28	18.0	60–65	Roll	10 m	**1892.1**	1 unit(s)	466,55
50000	34	22.0	60–65	Roll	10 m	**1893.1**	1 unit(s)	466,55

Dialysis membrane Spectra/Por® 7

Repligen. Material: Cellulose, regenerated.

- **Packaged moist** in 0.05% sodium azide solution, on rolls
- **Highly pure membranes without trace elements** such as heavy metals, sulphides, glycerine
- Can be used without the need for complex cleaning processes
- Recommended storage temperature +4 °C
- Max. application temperature +60 °C

Not a medical device / Not an IVD product

MWCO 1000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000	18	11.5	60–65	Roll	5 m	**E853.1**	1 unit(s)	396,70
1000	38	24.0	60–65	Roll	5 m	**E854.1**	1 unit(s)	396,70
1000	45	29.0	60–65	Roll	5 m	**E855.1**	1 unit(s)	396,70

MWCO 2000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
2000	18	11.5	60–65	Roll	5 m	**E856.1**	1 unit(s)	396,70
2000	38	24.0	60–65	Roll	5 m	**E857.1**	1 unit(s)	396,70
2000	45	29.0	60–65	Roll	5 m	**E858.1**	1 unit(s)	396,70

MWCO 3500

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
3500	18	11.54	60–65	Roll	5 m	**E859.1**	1 unit(s)	396,70
3500	45	29.0	60–65	Roll	5 m	**E860.1**	1 unit(s)	396,70
3500	54	34.0	60–65	Roll	5 m	**E861.1**	1 unit(s)	396,70

Dialysis tubular membranes

MWCO 8000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
8000	12	7.5	60–65	Roll	5 m	**E862.1**	1 unit(s)	396,70
8000	18	11.5	60–65	Roll	5 m	**E863.1**	1 unit(s)	396,70
8000	24	15.0	60–65	Roll	5 m	**E864.1**	1 unit(s)	396,70
8000	32	20.4	60–65	Roll	5 m	**E865.1**	1 unit(s)	396,70
8000	40	25.5	60–65	Roll	5 m	**E866.1**	1 unit(s)	396,70
8000	50	32.0	60–65	Roll	5 m	**E867.1**	1 unit(s)	396,70

MWCO 10,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
10000	12	7.5	60–65	Roll	5 m	**E868.1**	1 unit(s)	396,70
10000	18	11.5	60–65	Roll	5 m	**E869.1**	1 unit(s)	396,70
10000	24	15.0	60–65	Roll	5 m	**E870.1**	1 unit(s)	396,70
10000	32	20.4	60–65	Roll	5 m	**E871.1**	1 unit(s)	396,70
10000	45	29.0	60–65	Roll	5 m	**E872.1**	1 unit(s)	396,70

MWCO 15,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
15000	12	7.5	60–65	Roll	5 m	**E873.1**	1 unit(s)	396,70
15000	24	15.0	60–65	Roll	5 m	**E875.1**	1 unit(s)	396,70
15000	32	20.4	60–65	Roll	5 m	**E876.1**	1 unit(s)	396,70
15000	45	29.0	60–65	Roll	5 m	**E877.1**	1 unit(s)	396,70

MWCO 25,000 (opaque)

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
25000	12	7.5	60–65	Roll	5 m	**E878.1**	1 unit(s)	396,70
25000	18	11.5	60–65	Roll	5 m	**E879.1**	1 unit(s)	396,70
25000	28	18.0	60–65	Roll	5 m	**E881.1**	1 unit(s)	396,70
25000	34	22.0	60–65	Roll	5 m	**E882.1**	1 unit(s)	396,70

MWCO 50,000 (opaque)

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
50000	12	7.5	60–65	Roll	5 m	**E883.1**	1 unit(s)	396,70
50000	28	18.0	60–65	Roll	5 m	**E884.1**	1 unit(s)	396,70
50000	34	22.0	60–65	Roll	5 m	**E885.1**	1 unit(s)	396,70

Dialysis membrane Spectra/Por® Biotech CE

Repligen. Material: CE.

- **Very high purity**, contain no trace elements, heavy metals, sulphides or glycerine
- Low reactivity of the membrane, therefore hardly any adsorption of proteins and liposomes
- No time-consuming cleaning processes necessary
- Max. application temperature +37 °C
- **Packaged moist** in 0.05% sodium azide solution
- Recommended storage temperature +4 °C



Not a medical device / Not an IVD product

MWCO 100–500

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
100–500	10	6.4	75–85	Roll	10 m	**2702.1**	1 unit(s)	502,05
100–500	16	10.2	75–85	Roll	10 m	**4594.1**	1 unit(s)	577,30

MWCO 500–1000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
500–1000	10	6.4	75–85	Roll	10 m	**2704.1**	1 unit(s)	502,05
500–1000	16	10.2	75–85	Roll	10 m	**4596.1**	1 unit(s)	577,30

Dialysis tubular membranes

MWCO 3500–5000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
3500–5000	10	6.4	75–85	Roll	10 m	**2708.1**	1 unit(s)	502,05
3500–5000	16	10.2	75–85	Roll	10 m	**4616.1**	1 unit(s)	577,30

MWCO 8000–10,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
8000–10000	10	6.4	75–85	Roll	10 m	**4633.1**	1 unit(s)	502,05
8000–10000	16	10.2	75–85	Roll	10 m	**4635.1**	1 unit(s)	577,30

MWCO 20,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
20000	10	6.4	75–85	Roll	10 m	**4643.1**	1 unit(s)	502,05
20000	16	10.2	75–85	Roll	10 m	**4646.1**	1 unit(s)	577,30

MWCO 50,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
50000	10	6.4	75–85	Roll	10 m	**8957.1**	1 unit(s)	502,05
50000	16	10.2	75–85	Roll	10 m	**8959.1**	1 unit(s)	577,30

MWCO 100,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
100000	10	6.4	100–125	Roll	10 m	**8960.1**	1 unit(s)	502,05
100000	16	10.2	100–125	Roll	10 m	**8967.1**	1 unit(s)	577,30
100000	24	15.2	100–125	Roll	10 m	**8968.1**	1 unit(s)	638,55

MWCO 300,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
300000	16	10.2	100–125	Roll	10 m	**8977.1**	1 unit(s)	577,30

MWCO 1,000,000

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Wall thickness (µm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000000	16	10.2	100–125	Roll	10 m	**2786.1**	1 unit(s)	577,30

Trial kit Spectra/Por® Biotech CE

Repligen. Material: CE.

Hose membrane pieces on rolls, packaged moist in 0.05% sodium azide solution. Particularly suitable for dialysis where only a small amount of tubing is required (test runs, small-scale applications, etc.).

Delivery incl. 1 pair of Spectra/Por® universal locking clips (red, seal length 50 mm).

Not a medical device / Not an IVD product

MWCO (dalton(s))	Surface width (mm)	Ø (mm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
100 - 500	16	10	Roll	1 m	**4556.1**	1 unit(s)	178,45
500 - 1000	16	10	Roll	1 m	**4558.1**	1 unit(s)	178,45
3500 - 5000	16	10	Roll	1 m	**4567.1**	1 unit(s)	178,45
8000 - 10000	16	10	Roll	1 m	**4583.1**	1 unit(s)	178,45
20000	16	10	Roll	1 m	**4584.1**	1 unit(s)	178,45
50000	16	10	Roll	1 m	**4585.1**	1 unit(s)	178,45
100000	16	10	Roll	1 m	**4586.1**	1 unit(s)	178,45
300000	16	10	Roll	1 m	**4587.1**	1 unit(s)	178,45
1000000	16	10	Roll	1 m	**4588.1**	1 unit(s)	178,45

Dialysis systems



Dialysis systems Spectra/Por® Float-A-Lyzer® G2

Repligen. Material: CE, Caps made of PC.

Highly efficient, *ready-to-use* dialysis system, easy to use and **with an extremely high sample recovery of 95–98%.**
Hose membrane made of cellulose ester with caps made of polycarbonate. **Packaged dry**, with low quantities of glycerine to protect against embrittlement. The glycerine must be removed with distilled water in a rinsing step prior to use (duration: 15-30 min).

- For 1–10 ml samples
- Screw cap (Ø 23 mm) enables easy handling; checks can also be carried out during dialysis
- Dialysis tube made of highly pure cellulose ester, contains no contamination such as trace elements or sulphides, therefore no complex pretreatment required
- Low reactivity of the membrane, hardly any adsorption of proteins and liposomes, suitable for direct use with biological sample material
- Floating ring made of PE (Ø 38 mm) improves floatability and vertical alignment
- Various MWCOs available, lid colour-coded accordingly
- Several Float-A-Lyzers can be used at the same time in a single vessel

Not a medical device / Not an IVD product

Filling volume 1 ml

MWCO (dalton(s))	Colour coding	Ø Membrane (mm)	Height (mm)	Art. No.	Pack Qty.	€
100–500	green	10	50	**P560.1**	12 unit(s)	175,25
500–1000	orange	10	50	**4549.1**	12 unit(s)	175,25
3500–5000	black	10	50	**P564.1**	12 unit(s)	175,25
8000–10000	yellow	10	50	**P566.1**	12 unit(s)	175,25
20000	red	10	50	**P568.1**	12 unit(s)	175,25
50000	violet	10	50	**P569.1**	12 unit(s)	175,25
100000	blue	10	50	**P570.1**	12 unit(s)	175,25
300000	amber	10	50	**4550.1**	12 unit(s)	175,25
1000000	pink	10	50	**4608.1**	12 unit(s)	175,25

Filling volume 5 ml

MWCO (dalton(s))	Colour coding	Ø Membrane (mm)	Height (mm)	Art. No.	Pack Qty.	€
100–500	green	10	100	**P586.1**	12 unit(s)	191,35
500–1000	orange	10	100	**4617.1**	12 unit(s)	191,35
3500–5000	black	10	100	**P590.1**	12 unit(s)	191,35
8000–10000	yellow	10	100	**P592.1**	12 unit(s)	191,35
20000	red	10	100	**P594.1**	12 unit(s)	191,35
50000	violet	10	100	**P595.1**	12 unit(s)	191,35
100000	blue	10	100	**P596.1**	12 unit(s)	191,35
300000	amber	10	100	**4624.1**	12 unit(s)	191,35
1000000	pink	10	100	**4653.1**	12 unit(s)	191,35

Filling volume 10 ml

MWCO (dalton(s))	Colour coding	Ø Membrane (mm)	Height (mm)	Art. No.	Pack Qty.	€
100–500	green	10	160	**P599.1**	12 unit(s)	194,60
500–1000	orange	10	160	**4657.1**	12 unit(s)	194,60
3500–5000	black	10	160	**P603.1**	12 unit(s)	194,60
8000–10000	yellow	10	160	**P605.1**	12 unit(s)	194,60
20000	red	10	160	**P607.1**	12 unit(s)	194,60
50000	violet	10	160	**P608.1**	12 unit(s)	194,60
100000	blue	10	160	**P609.1**	12 unit(s)	194,60
300000	amber	10	160	**4660.1**	12 unit(s)	194,60
1000000	pink	10	160	**4663.1**	12 unit(s)	194,60



Mini Dialyzer ZelluTrans/ROTH MD 300

ROTH SELECTION. Material: Cellulose, regenerated.

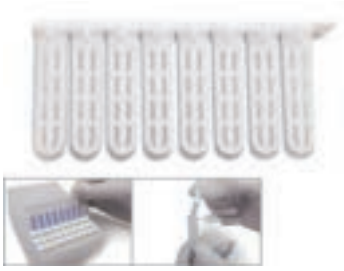
Ready-to-use dialysis system for samples of between 50 and 300 µl.
The Mini Dialyzer consists of a U-shaped polypropylene capillary with 75 µl graduations and membranes on both sides. The filled sample forms a thin layer over a large surface area, ensuring very short dialysis times.

- Available as an **individual dialyzer** packaged in a 5 ml test tube or as a **dialyzer strip** with 8 interconnected individual dialyzers (can be separated)
- Membranes are made of high-quality regenerated cellulose with different pore sizes (MWCO), **dry packaged**
- Easy to use: Can be filled with the sample and emptied using any standard pipette (100–1000 µl)
- Short dialysis times (30–480 min)
- Flexible: Uses ranging from low-volume dialysis (in test tube, 96-deepwell plates, 2.5 ml) to high-volume dialysis (using a suitable flotation aid, 4768.1)

The Mini Dialyzers are ready for use straight away – no pretreatment required.
For sensitive applications, soak in water or buffer for 15 min beforehand to remove any traces of glycerine.

Not a medical device / Not an IVD product

MWCO (dalton(s))	Version	Art. No.	Pack Qty.	€
3500	Individual dialyzer in 5 ml test tube	**NH91.1**	12 unit(s)	72,05
3500	Dialyzer strip (8 connected individual dialyzers)	**NH92.1**	1 unit(s)	47,35
6000–8000	Individual dialyzer in 5 ml test tube	**NH94.1**	12 unit(s)	72,05
6000–8000	Dialyzer strip (8 connected individual dialyzers)	**NH95.1**	1 unit(s)	47,35
12000–14000	Individual dialyzer in 5 ml test tube	**NH97.1**	12 unit(s)	72,05
12000–14000	Dialyzer strip (8 connected individual dialyzers)	**NH98.1**	1 unit(s)	47,35



Mini Dialyzer ZelluTrans/ROTH MD 100

ROTH SELECTION. Material: Cellulose, regenerated.

Ready-to-use dialysis system for samples of between 10 and 100 µl.
The Mini Dialyzer consists of a U-shaped polypropylene capillary with 25 µl graduations and membranes on both sides. The filled sample forms a thin layer over a large surface area, ensuring very short dialysis times.

- Available as an **individual dialyzer** packaged in a 2 ml reaction vial or as a **dialyzer strip** with 8 interconnected individual dialyzers (can be separated)
- Membranes are made of high-quality regenerated cellulose with different pore sizes (MWCO), **dry packaged**
- Easy to use: Can be filled with the sample and emptied using any standard pipette (2–200 µl)
- Flexible: Uses ranging from low-volume dialysis (in reaction vial or micro-titration plate) to high-volume dialysis (using a suitable flotation aid, as described below)
- Compatible with **96-deepwell plates (2.5 ml)**, 8-channel multichannel pipettes and standard automation systems; allows simultaneous processing of up to 96 samples.

The Mini Dialyzers are ready for use straight away – no pretreatment required. For sensitive applications, soak in water or buffer for 15 min beforehand to remove any traces of glycerine.

Not a medical device / Not an IVD product

MWCO (dalton(s))	Version	Art. No.	Pack Qty.	€
3500	Individual dialyzer in 2 ml reaction vial	**4766.1**	12 unit(s)	70,10
6000–8000	Individual dialyzer in 2 ml reaction vial	**4770.1**	12 unit(s)	70,10
6000–8000	Dialyzer strip (8 connected individual dialyzers)	**4771.1**	1 unit(s)	45,90
12000–14000	Individual dialyzer in 2 ml reaction vial	**4775.1**	12 unit(s)	70,10
12000–14000	Dialyzer strip (8 connected individual dialyzers)	**4776.1**	1 unit(s)	45,90

Accessories for MD 100 and MD 300 Mini Dialyzers

ROTH SELECTION.

Not a medical device / Not an IVD product

(1) For MD 100 and MD 300 Mini Dialyzer Flotation aid
Material: PE. Made of PE foam, for using the Mini Dialyzers in larger dialysis vessels. Reusable.

Version	Art. No.	Pack Qty.	€
Flotation aid	**4768.1**	1 unit(s)	7,15

(2) For MD 100 and MD 300 Mini Dialyzer Cover film
Material: PP. To protect against contamination and evaporation or for storage. Self-adhesive.

Version	Art. No.	Pack Qty.	€
Cover film (for 12 dialyzer strips)	**4781.1**	1 unit(s)	9,45



A 121 °C

Closure clips

Material: PA. Autoclavable: Yes.

Made of polyamide. For sealing plastic bags, freezer bags and dialysis tubes made of regenerated cellulose.
Usage temperature -30 to +80 °C. Colour: White.

Not a medical device / Not an IVD product

Seal length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
45	65	**H277.1**	10 unit(s)	10,25
65	90	**H278.1**	10 unit(s)	14,95
110	130	**P901.1**	10 unit(s)	25,30
150	170	**P902.1**	10 unit(s)	40,35



A 121 °C

Closure Clips Spectra/Por® Universal

Repligen. Material: PA. Autoclavable: Yes.

Made of **PA**. For liquid-tight sealing of tube membranes. Non floating. **Suitable for all membrane types, especially recommended for membranes made of cellulose ester.** Autoclavable, usage temperature 0 to 90 °C.

Not a medical device / Not an IVD product

Seal length (mm)	Colour	Art. No.	Pack Qty.	€
50	yellow	**0685.1**	10 unit(s)	117,20
70	yellow	**0686.1**	10 unit(s)	136,55
110	yellow	**0687.1**	10 unit(s)	150,50
150	yellow	**0688.1**	10 unit(s)	155,90

Dialysis accessories



A 121 °C

Closure clips Spectra/Por®

Repligen. Material: PP. Autoclavable: Yes.

Temperature stable from 0 to 121 °C.
Note: Suitable for membranes made of regenerated cellulose; for membranes made of cellulose ester, please use universal locking clips (Art. No. 0685.1 ff).

Not a medical device / Not an IVD product

Standard caps

Floating.

Seal length (mm)	Colour	Art. No.	Pack Qty.	€
12	orange	**0985.1**	10 unit(s)	122,55
23	orange	**2768.1**	10 unit(s)	131,15
35	orange	**0988.1**	10 unit(s)	136,55
55	orange	**2770.1**	10 unit(s)	139,75
75	orange	**2771.1**	10 unit(s)	141,90

With weights

Caps with weights, enable upright dialysis position.

Seal length (mm)	Colour	Art. No.	Pack Qty.	€
12	white	**2773.1**	10 unit(s)	134,40
23	white	**2774.1**	10 unit(s)	145,15
35	white	**2775.1**	10 unit(s)	152,65
55	white	**2776.1**	10 unit(s)	154,80
75	white	**2777.1**	10 unit(s)	161,25

Combi packaging

Contains 10 clips with and 10 clips without weights.

Seal length (mm)	Colour	Art. No.	Pack Qty.	€
12	white, orange	**2779.1**	20 unit(s)	218,25
23	white, orange	**2780.1**	20 unit(s)	237,60
35	white, orange	**2781.1**	20 unit(s)	260,15
55	white, orange	**2782.1**	20 unit(s)	268,75
75	white, orange	**2783.1**	20 unit(s)	280,60

Closure clips Spectra/Por® with magnetic weight

Repligen. Material: PP.

With embedded magnetic weight for use with magnetic stirrers.

- The dialysis bag is completely immersed in the buffer
- Continuous rotation for optimum material exchange
- No additional magnetic stirrer rod is required

Note: Suitable for membranes made of regenerated cellulose; for membranes made of cellulose ester, please use universal closure clips (Art. No. 0685.1 ff).

Not a medical device / Not an IVD product

Seal length (mm)	Colour	Art. No.	Pack Qty.	€
23	red	**4647.1**	2 unit(s)	94,60
35	red	**4648.1**	2 unit(s)	97,85
55	red	**4650.1**	2 unit(s)	102,15
75	red	**4652.1**	2 unit(s)	111,80



A 121 °C

Dialysis tube holder ZelluTrans/ROTH

ROTH SELECTION. Material: PP. Autoclavable: Yes.

With labelling area. Robust design. For mounting filled dialysis tubes in large containers.

Not a medical device / Not an IVD product

Version	Art. No.	Pack Qty.	€
Dialysis tube holder	**E704.1**	6 unit(s)	34,40



A 121 °C

Filling funnel ZelluTrans/ROTH

ROTH SELECTION. Material: PP. Autoclavable: Yes.

For easy filling and draining of dialysis tubes. The open end of the dialysis tube is pushed onto the funnel nozzle and held in place by a silicone strap. The holder on the funnel allows the funnel to be mounted in different containers. With snap-lock mechanism.

Not a medical device / Not an IVD product

Version	Suitable for	Art. No.	Pack Qty.	€
Mini	hoses with 10-19 mm flat width	**E709.1**	10 unit(s)	101,60
Maxi	hoses with 23-45 mm flat width	**E710.1**	10 unit(s)	107,00



Occupational Safety and Personal Protection

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Body/eye showers



Emergency body shower

B-Safety.

DVGW-tested and approved. Acc. to DIN EN 15154-1:2006, DIN 12899-3:2009 and ANSI Z 358.1-2009.

- Application through wall flange, surface-mounted supply line
- Stable design due to robust brass body
- Chemical-resistant powder coating
- Large maintenance-free ball valve for high flow rates (60 l/min at 1.5 bar)
- Application range from 1 to 10 bar water pressure
- Triggered through non-self-closing pull-rod valve
- Large, easy-to-operate pull rod
- Self-emptying high-performance shower head (prevents build-up of bacteria and calcification)
- Adhesive information label for body shower, 150 x 150 mm

(1) Wall-mounted

- Water connection ¾″ internal thread
- Overhang 625 mm
- Pull rod length 700 mm

Type	Art. No.	Pack Qty.	€
Wall-mounted emergency body shower	**EP70.1**	1 unit(s)	346,15

(2) Over-door-mounted

Can be mounted either to left or right of door.

- Water connection ¾″ internal thread
- Overhang 565 mm
- Distance between rod valve and shower arm 500 mm
- Pull rod length 700 mm

Type	Art. No.	Pack Qty.	€
Emergency body shower mounted over the door	**EP72.1**	1 unit(s)	468,70



Emergency shower test trolley

B-Safety.

Mobile collection tank on 4 castors with two recessed handles.

- Can be dismantled into three pieces for easy storage
- Retention capacity: 30 litres
- Drain screw is attached to the container at the top
- For emptying via floor drain, the container must be tipped
- Total/catch height 2.1 m, W 440 x D 440 mm
- Aluminium tube Ø 47 mm, connectable, not extendible
- Funnel Ø 440 mm, height 160 mm
- Overall weight 7 kg

Type	Art. No.	Pack Qty.	€
Emergency shower test trolley	**YP27.1**	1 unit(s)	311,75



Combined emergency shower

B-Safety.

DVGW-tested and approved. Acc. to DIN EN 15154-1:2006, DIN 12899-3:2009 and ANSI Z 358.1-2009.

- Application through wall flange, surface-mounted supply line
- Stable design due to robust brass body
- Chemical-resistant powder coating
- Water connection ¾″ internal thread
- Overhang 625 mm
- Pull rod made of steel, powder-coated, length 700 mm
- Integrated automatic flow regulator 50 l/min for a standard spray pattern at a specified working range of 1.5 to 3 bar flow pressure
- Valves not self-closing
- Adhesive information label for body and eye shower, 150 x 150 mm

(1) Body shower and hand-held eye shower

Hand-held eye shower with a spray head angled at 45° with rubber protection and tightly closing dust cover with folding mechanism. For wall mounting. Integrated automatic flow regulator 7 l/min. Stainless steel-sheathed hose, length 1.5 m. Connection ½″ union nut.

Type	Art. No.	Pack Qty.	€
Emergency shower and hand-held eye shower	**YP32.1**	1 unit(s)	982,55

(2) Body shower and eye shower, 2 shower heads

Safety eye shower with two wide-spraying high-performance spray heads angled at 45°, with rubber protection and tightly closing dust cover with folding mechanism. Integrated automatic flow regulator 14 l/min.

Type	Art. No.	Pack Qty.	€
Body shower and eye shower, two shower heads	**YP33.1**	1 unit(s)	982,55



Emergency shower tester SEKUROKA®

ROTH SELECTION.

For easily carrying out regular checks of body showers. Consisting of: Synthetic hose with sewn-in opening ring, top Ø 28 cm, bottom Ø 12 cm, length 180 cm.
Plastic bucket, 20 litres. Metal clamp rod, 80 cm long.

Type	Art. No.	Pack Qty.	€
Emergency shower tester	**T348.1**	1 set	250,50

Eye showers



Hand-held eye shower straight

B-Safety.

DIN-DVGW tested and approved. Acc. to DIN EN 15154-2:2006 and ANSI Z358.1-2014.
Universal use, for wall or table mounting. With non-self-closing valve; the release lever locks by itself and the water is switched off again by simply unlocking this. Made of plastic, media-carrying parts made of brass. Silicone tube sheathed in stainless steel, length 1.5 m. Flow rate 7 l/min per shower head at a minimum operating pressure of 1 bar. Water connection ½″ internal thread, union nut.

- With rubber sleeves that protect against injuries
- Dust cover caps that open automatically upon actuation
- Integrated flow regulator for constant water jet, even with fluctuating pressure
- Extremely wide-spraying shower heads ensure water distribution over a large area
- Large holes in the shower heads protect against calcification
- Shower heads can be easily removed for maintenance purposes
- Adhesive information label for eye shower, 150 x 150 mm

With one spray head

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
7	Wall and table	**KT00.1**	1 unit(s)	226,85



Hand-held eye shower Premium

B-Safety.

DIN-DVGW tested and approved. Acc. to DIN EN 15154-2:2006 and ANSI Z358.1-2014.
The hand-held eye showers made of stainless steel are particularly suitable for use in industry and in cleanrooms. High-performance shower heads ensure water distribution over a particularly large area at a flow rate of 7 l/min per shower head and at a minimum pressure of 1 bar.

- For table or wall mounting
- Automatic flow regulator
- Integrated backflow preventer
- Stainless steel sheathed potable water tube DN 10, length 1.5 m
- Water connection ½″ internal thread

With one spray head

- Attachment height: 77 cm (±20 cm)
- Height of shower: 21 cm

Pic.	Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
(1)	7	Table	**YP23.1**	1 unit(s)	331,10
(2)	7	wall	**YP24.1**	1 unit(s)	331,10

With two spray heads

- Attachment height: 68 cm (±20 cm)
- Height of shower: 26 cm

Pic.	Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
(3)	14	Table	**YP25.1**	1 unit(s)	453,65
(4)	14	Wall	**YP26.1**	1 unit(s)	453,65



Hand-held eye shower angled at 45°

B-Safety.

DIN-DVGW tested and approved. Acc. to DIN EN 15154-2:2006 and ANSI Z358.1-2014.
Universal use, for wall or table mounting. With non-self-closing valve; the release lever locks by itself and the water is switched off again by simply unlocking this. Made of plastic, media-carrying parts made of brass. Silicone tube sheathed in stainless steel, length 1.5 m. Flow rate 7 l/min per shower head at a minimum operating pressure of 1 bar. Water connection ½″ internal thread, union nut.

- With rubber sleeves that protect against injuries
- Dust cover caps that open automatically upon actuation
- Integrated flow regulator for constant water jet, even with fluctuating pressure
- Extremely wide-spraying shower heads ensure water distribution over a large area
- Large holes in the shower heads protect against calcification
- Shower heads can be easily removed for maintenance purposes
- Adhesive information label for eye shower, 150 x 150 mm

With a spray head

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
7	Wall and table	**KT01.1**	1 unit(s)	293,50

With two spray heads

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
14	Wall and table	**KT02.1**	1 unit(s)	334,35

Eye showers



Eye shower for table mounting

B-Safety.

DIN-DVGW tested and approved. Acc. to DIN EN 15154-2:2006 and ANSI Z358.1-2014.
Two shower heads angled at 45° and distributor fork made of brass, with chemical-resistant green powder coating. With a large release lever of 130 mm in length, with a large signal “PUSH”, photoluminescent as per DIN 67510. Maintenance-free ball valve, 90° operation, made of stainless steel, not self-closing. Flow rate 14–16 l/min at a minimum operating pressure of 1 bar. Water connection ½″ external thread, incl. mounting kit. Dimensions: W (incl. lever) 240 x H 180 mm.

- With rubber sleeves that protect against injuries
- Dust cover caps that open automatically upon actuation
- Integrated flow regulator for constant water jet, even with fluctuating pressure
- Extremely wide-spraying shower heads ensure water distribution over a large area
- Large holes in the shower heads protect against calcification
- Shower heads can be easily removed for maintenance purposes
- Adhesive information label for eye shower, 150 x 150 mm

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
14–16	Table	**LP23.1**	1 unit(s)	250,50



Eye shower for surface-type wall mounting

B-Safety.

DIN-DVGW tested and approved. Acc. to DIN EN 15154-2:2006 and ANSI Z358.1-2014.
Two shower heads angled at 45°, distributor fork and wall flange (water connection ¾″ internal thread) made of brass with chemical-resistant green powder coating. With a large release lever of 130 mm in length, with a large signal „PUSH“, photoluminescent as per DIN 67510. Maintenance-free ball valve, 90° operation, made of stainless steel, not self-closing.
Flow rate 14–16 l/min at a minimum operating pressure of 1 bar.
Dimensions: W (incl. lever) 330 x D 330 mm.

- With rubber sleeves that protect against injuries
- Dust cover caps that open automatically upon actuation
- Integrated flow regulator for constant water jet, even with fluctuating pressure
- Extremely wide-spraying shower heads ensure water distribution over a large area
- Large holes in the shower heads protect against calcification
- Shower heads can be easily removed for maintenance purposes
- Adhesive information label for eye shower, 150 x 150 mm

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
14–16	Wall	**LP25.1**	1 unit(s)	311,75

Eye showers



Eye wash for flush-type wall mounting

B-Safety.

DIN-DVGW tested and approved. Acc. to DIN EN 15154-2:2006 and ANSI Z358.1-2014.
For flush-type wall mounting or replacing the cold water tap. Made of brass, with chemical-resistant powder coating. Plastic spray plate. Two wide-spraying shower heads angled by 45°. Release lever with 90° actuation. Valve not self-closing. Water connection ½″ external thread.

- With rubber sleeves that protect against injuries
- Dust cover caps that open automatically upon actuation
- Integrated flow regulator for constant water jet, even with fluctuating pressure
- Extremely wide-spraying shower heads ensure water distribution over a large area
- Large holes in the shower heads protect against calcification
- Shower heads can be easily removed for maintenance purposes
- Adhesive information label for eye shower, 150 x 150 mm

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
14–16	Wall	**KX21.1**	1 unit(s)	273,05



Eye wash with collection basin for surface-type wall mounting

B-Safety.

DIN-DVGW tested and approved. Acc. to DIN EN 15154-2:2006 and ANSI Z358.1-2009.
Two shower heads, distributor fork and wall flange (water connection ¾″ internal thread) made of brass, with chemical-resistant green powder coating.
Collection basin made of stainless steel, diameter 275 mm, drain connection 1¼″ internal thread. With a large release lever 240 mm long, with a large signal „PUSH“, photoluminescent as per DIN 67510. Maintenance-free ball valve, 90° operation, made of stainless steel, not self-closing.
Flow rate 14–16 l/min at a minimum operating pressure of 1 bar.
Dimensions: W (incl. lever) 425 x D 385 mm.

- Shower heads with rubber sleeves that protect against injuries
- Dust cover caps that open automatically upon actuation
- Integrated flow regulator for constant water jet, even with fluctuating pressure
- Extremely wide-spraying shower heads ensure water distribution over a large area
- Large holes in the shower heads protect against calcification
- Shower heads can be easily removed for maintenance purposes
- Adhesive information label for eye shower, 150 x 150 mm

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
14–16	Wall	**LP26.1**	1 unit(s)	470,85

ACCESSORIES & SPARE PARTS in the ROTH webshop



Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

- Accessories & Spare Parts - Links directly to the product
- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Eye showers



Eye wash Kleen Eyes® II

Gateway Safety.

For connection to water taps with external thread M 22 x 1. Can be started up with a simple press of a button when its use is required. Provides continuous flow of fresh water. Leaves both hands free. US patent. **Switches back** to normal tap usage **automatically** once the flow of water is shut off. The eye wash nozzles are adjustable and can be adjusted to the required angle. The eye wash itself can continue to be rotated even after it is affixed to the tap. Consequently, the eye wash can also be affixed to less easily accessible water taps and positioned as needed.

Please note

The Kleen Eyes® II eye wash does not comply with DIN EN 15154-2. The eye wash must only be used as an addition to the eye emergency safety showers as per DIN EN 15154-2.

Mounting	Art. No.	Pack Qty.	€
Tap	**E348.1**	1 unit(s)	136,10

Adapter for eye wash Kleen Eyes®

Gateway Safety.

M 22 x 1 external, 1/2″ internal. For connecting Kleen Eyes® to taps with 1/2″ external thread.

Mounting	Art. No.	Pack Qty.	€
Tap	**E711.1**	1 unit(s)	5,95

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S

Eye wash bottle

Plum. **Sterile**.

Acc. to DIN EN 15154-4. Disposable eye wash bottles with 0.9% sodium chloride solution for rinsing out foreign particles, such as dust, dirt and fragments. This easy-to-use product is designed to allow fast rinsing of eyes in an emergency. Patented eye support keeps the eyelids open during rinsing. For single use only. There is a risk of infection if reused.

- Quick and easy use
- User-friendly design since the bottles are quick and easy in a single turn
- Directions for use on the bottle
- No cleaning or maintenance needed
- Shelf life of 3 years (if unopened)

Note: Disposable eye wash bottles acc. to DIN EN 15154-4 may be used in addition to existing eye shower units acc. to DIN EN 15154-2. Furthermore, it may be used if no running potable water or water of equivalent quality is available.

Medical device class I MDD

(1) Bottle for one eye

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
NaCl 0,9 %	200	**Y829.1**	1 unit(s)	13,95
NaCl 0,9 %	500	**Y828.1**	1 unit(s)	21,65
NaCl 0,9 %	1,000	**LH95.1**	1 unit(s)	24,85

(2) DUO bottle

The special DUO eye support allows both eyes to be rinsed simultaneously.

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
NaCl 0,9 %	500	**ALA8.1**	1 unit(s)	19,20
NaCl 0,9 %	1,000	**LY44.1**	1 unit(s)	33,20

Eye wash bottles



S

Eye wash station

Plum. **Sterile**.

Wall mounting with pictogram, including one eye wash bottle. For eye wash use at any time in the workplace.
Pictogram dimensions: H 300 x W 90 x D 3 mm.

Note: Disposable eye wash bottles acc. to DIN EN 15154-4 may only be used in addition to existing eye shower units acc. to DIN EN 15154-2 if no running potable water or water of equivalent quality is available.

Delivery incl. mounting material.

(1) Wall mount with bottle for one eye
Equipped with 1 x 500 ml sterile NaCl eye wash solution (Y828.1)

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
NaCl 0,9 %	500	**Y830.1**	1 unit(s)	42,50

(2) DUO Wall mount with DUO bottle
Equipped with 1 x 1000 ml sterile NaCl eye wash solution (LY44.1). For rinsing both eyes simultaneously.

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
NaCl 0,9 %	1,000	**LY50.1**	1 unit(s)	52,70



S

Wall-mounted eye wash box

Plum. **Sterile**.

Wall box with two eye wash bottles filled with 500 ml sterile NaCl eye wash solution (Y828.1). With marking indicating eye wash direction and mirror.

- Ideal for use in workplaces where dust and dirt accumulate (e.g. workshops)
- Easy to open for quick access in an emergency

Dimensions: H 270 x W 227 x D 110 mm

Delivery incl. mounting material.

Rinsing solution	Art. No.	Pack Qty.	€
NaCl 0,9 %	**Y831.1**	1 unit(s)	77,85



S

Eye wash bottle pH neutral

Plum. **Sterile**.

Acc. to DIN EN 15154-4. Disposable eye wash bottles with sterile phosphate buffer (4.9%). For fast and effective neutralisation of acids and a wide range of alkaline substances. This easy-to-use product is designed to allow fast rinsing of eyes in an emergency. Patented eye support keeps the eyelids open during rinsing.

- pH neutral (pH value 7.4)
- Quick and easy use
- Directions for use on the bottle
- No cleaning or maintenance needed
- Shelf life of 3 years (if unopened)

Note: Disposable eye wash bottles acc. to DIN EN 15154-4 may only be used in addition to existing eye shower units acc. to DIN EN 15154-2 if no running potable water or water of equivalent quality is available.

Medical device class I MDD

(1) Bottle for one eye

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
Phosphate buffer 4.9 %	200	**AA81.1**	1 unit(s)	16,50

(2) pH Neutral DUO bottle
DUO design allows both eyes to be rinsed simultaneously.

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
Phosphate buffer 4.9 %	500	**LY45.1**	1 unit(s)	30,75

Eye wash bottles



S

Eye wash station DUO

Plum. **Sterile**.

Wall mount with pictogram and mirror, including DUO eye wash bottles:

- 1 x 1000 ml sterile NaCL eye wash solution (LY44.1)
- 1 x 500 ml sterile pH neutral phosphate buffer eye wash solution (LY45.1)

Ideal for use in workplaces where acids, bases and foreign bodies can get into the eyes.
Duo bottles come with an eye support which allows both eyes to be rinsed simultaneously. After rinsing with the phosphate buffer solution, it is recommended to continue rinsing with the sodium chloride solution until medical treatment is provided.
Pictogram dimensions: H 300 x W 90 x D 3 mm

Note: Disposable eye wash bottles acc. to DIN EN 15154-4 may only be used in addition to existing eye shower units acc. to DIN EN 15154-2 if no running potable water or water of equivalent quality is available.

Delivery incl. mounting material and mirror.

Wall mount with 2 DUO bottles

Rinsing solution	Art. No.	Pack Qty.	€
NaCl 0.9 % and phosphate buffer 4.9 %	**LY51.1**	1 unit(s)	82,00



Eye wash first aid box QuickSafe

Plum.

- First aid ready to hand in one place
- Flexible and clearly organised system
- Includes the most important products for cases of emergency
- High hygiene standard through dust-proof housing
- Robust and stable box made of impact-resistant plastic
- Low space requirements thanks to small dimensions: H 430 x W 253 x D 92 mm

Delivery incl. mounting material.

(1) QuickSafe Complete
For eye rinsing, wound care, small cuts and burns.
Content:

- 2 x 500 ml sterile NaCl eye wash solution 0.9% (Y828.1)
- 1 x 200 ml sterile pH Neutral eye wash solution (AA81.1)
- 5 x 20 ml sterile QuickRinse eye wash ampoules (ALC3.1)
- 18 x QuickCool burn gel (ALC2.1)
- 1 x QuickStop wound dressing set with 1 x 17 x 17 cm and 2 x 7.5 x 12 cm (ANE4.1)
- 20 x QuickClean wound cleansing wipes (ALC1.1)
- 1 x QuickFix elastic plaster refill set with 45 plasters (LH94.1)

Version	Art. No.	Pack Qty.	€
Complete	**ALA9.1**	1 unit(s)	160,20

(2) QuickSafe Chemical industry
For eye rinsing in accidents involving acids and alkalis.
Content:

- 1 x 500 ml NaCl eye wash solution 0.9%, Duo bottle (ALA8.1)
- 1 x 500 ml sterile pH Neutral eye wash solution, Duo bottle (LY45.1)
- 1 x 200 ml sterile pH Neutral eye wash solution (AA81.1)
- 5 x 20 ml sterile QuickRinse eye wash ampoules (ALC3.1)
- 1 x QuickFix Elastic plaster refill set with 45 plasters (LH94.1)

Version	Art. No.	Pack Qty.	€
Chemical industry	**ALC0.1**	1 unit(s)	150,70

Refill packaging for QuickSafe first aid box

Plum.

Eye wash ampoules QuickRinse
Ampoules with 20 ml 0.9% sterile sodium chloride solution. For rinsing small contaminations of dust and dirt.

Version	Art. No.	Pack Qty.	€
QuickRinse eye wash ampoules	**ALC3.1**	5 unit(s)	12,15

Burn gel QuickCool
Sachets with pain-relief gel for first aid for smaller burns and scalds. Cools and relieves pain. Contains tea tree oil.

Version	Art. No.	Pack Qty.	€
QuickCool burn gel	**ALC2.1**	18 unit(s)	20,90

Eye wash bottles

Wound cleansing wipes QuickClean
Wound cleansing wipes for cleaning smaller wounds and cuts. Contains sterile water.

Version	Art. No.	Pack Qty.	€
QuickClean wound cleansing wipes	**ALC1.1**	20 unit(s)	11,95

Wound dressing set QuickStop
Sterile wound dressings with integrated compress. Elastic, non-adhesive and skin-friendly. Can be applied universally as a compression, covering or support dressing. In cases of heavy bleeding, the smaller wound dressings can also be used as an additional compress.
Set consists of: 1 wound dressing 3 m x 8 cm with compress 17 x 17 cm and 2 wound dressings 2 m x 7 cm with compresses 7.5 x 12 cm.

Version	Art. No.	Pack Qty.	€
QuickStop wound dressing set	**ANE4.1**	1 unit(s)	14,10



S

Eye wash station

Plum. **Sterile**.

- Ensures quick and effective eye rinsing
- Visible and easily accessible
- Can be simply and quickly mounted on the wall, close to the workstation
- Suitable for hanging in places where instant rinsing may be required
- Equipped with label for eye rinsing and mirror

Emergency stations, each with:

- 1 x 500 ml sterile NaCl eye wash solution (Y828.1)
- 1 x 200 ml sterile pH Neutral eye wash solution (AA81.1)

Delivery incl. mounting material.

(1) Wall mount with 2 bottles
For workplaces without dust or dirt.
Dimensions: H 290 x W 230 x D 80 mm

Rinsing solution	Art. No.	Pack Qty.	€
NaCl 0.9 % and phosphate buffer 4.9 %	**CK43.1**	1 unit(s)	68,25

(2) Wall box with 2 bottles
Dust-proof wall box made of polystyrene. Suitable for production areas with large amounts of dust and dirt. Quick and easy to open in case of emergency.
Dimensions: H 270 x W 227 x D 110 mm

Rinsing solution	Art. No.	Pack Qty.	€
NaCl 0.9 % and phosphate buffer 4.9 %	**CK44.1**	1 unit(s)	81,70



Eye wash bottle station

ROTH SELECTION.

Made of impact-resistant plastic. For dust-proof and splash-proof storage of standard eye wash bottles. Protective covers locked in opened position. With mirror for inspection and immediate use on site.

Suitable for storage of no more than:

- 6 x BARIKOS To-Go (K128.1) eye wash bottles or
- 3 x 500 ml disposable eye wash bottles (Y828.1/1K11.1) or
- 6 x 200 ml disposable eye wash bottles (Y829.1/ AA81.1/1K10.1/1K0Y.1)

Delivery incl. mounting material (screws and wall plugs) and labels for customisation on the opening handle, without content.

W x D x H (mm)	Art. No.	Pack Qty.	€
225 x 125 x 236	**Y832.1**	1 unit(s)	63,50



NEW / +

Eye wash bottle BARIKOS KS

BartelsRieger Atemschutztechnik.

Acc. to EN 15154-4. Filled with 620 ml eye wash fluid (water with no chemical additives). Usable for 2 years.

- **Refillable:** The eye wash bottle can be filled with drinking water any number of times after the first complete rinse to allow continuous rinsing until medical care is provided
- **Patented tilt valve:** Allows the eye wash bottle to be drained both upwards and downwards, e.g. in a bent-forward posture or in a reclining body position

Medical device class I

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
Water	620	**1LN5.1**	1 unit(s)	26,85

Wall mount for eye wash bottle

BartelsRieger Atemschutztechnik. Material: Steel Plastic coated wire.

Suitable for	Art. No.	Pack Qty.	€
Eye wash bottle 620 ml	**5546.1**	1 unit(s)	6,40

Eye wash bottles



Wall box SEKUROKA®

ROTH SELECTION.

Made of solid ABS. Lid made of transparent PETG. For wall mounting. For storing eye wash bottles 620 ml.

Delivery without mounting material and content.

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
1 eye wash bottle	180 x 80 x 320	**8120.1**	1 unit(s)	50,55
2 eye wash bottles	280 x 80 x 320	**2005.1**	1 unit(s)	51,95



S

Wound and eye spray

Plum. **Sterile**.

Isotonic saline solution, quick and effective rinsing for small superficial wounds such as scratches and cuts on skin or dust and dirt in eyes.

- Easy to carry with you and ready for immediate use when needed
- Easy operation with one hand, spraying possible from all directions
- Suitable for multiple use, stays sterile after opening
- Contains non-flammable aerosol
- Rinsing solution and propellant are separate, the propellant remains in the can when spraying (bag-on-valve system)
- Total spraying time of a can approx. 15 minutes
- Shelf life of 3 years after production

Applications: Industry, production, laboratories, hazardous goods transport, work in the open, rescue services and emergency aid, wherever no clean water is available immediately.

Medical device class IIa

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
NaCl solution 0,9 %	250	**HLY6.1**	1 unit(s)	27,60



Eye wash bottle BARIKOS To-Go

BartelsRieger Atemschutztechnik.

Acc. to DIN EN 15154-4. Filled with 175 ml eye wash fluid (water with no chemical additives). When working at different workstations, this flat eye wash bottle can easily be carried in the pocket of a coat or overalls so it is always close at hand.

- With patented tilt valve
- Ergonomically shaped eye cup
- Can be refilled with potable water
- Shelf life of 2 years when sealed

Dimensions: H 185 x W 90 x D 37 mm

Medical device class I

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
Water	175	**K128.1**	1 unit(s)	21,40



NEW / +

S

Eye wash bottle Actiomedic® Sodium chloride solution

GRAMM medical healthcare. **Sterile**.

Acc. to EN 15154-4. Eye wash bottle, with 0.9% sterile sodium chloride solution, for washing foreign particles, e.g. wood and metal splinters, dust, dirt.

- Ready-to-use
- Eye wash bottle with ergonomically designed spray head and dust cap
- For mobile use and for refilling eye wash stations and first-aid cases

Note: Disposable eye wash bottles acc. to DIN EN 15154-4 may only be used in addition to existing eye shower units acc. to DIN EN 15154-2 if no running potable water or water of equivalent quality is available.

Medical device class I MDD

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
NaCl 0.9%	250	**1K10.1**	1 unit(s)	13,35
NaCl 0.9%	500	**1K11.1**	1 unit(s)	20,30

Eye wash bottles



NEW / +

S

Eye wash bottle Actiomedic® BioPhos®74 solution

GRAMM medical healthcare. **Sterile**.

Acc. to EN 15154-4. Eye wash bottle with sterile phosphate-buffered 4.9% rinsing solution in the event of chemical burns to eyes or skin.

- Ready-to-use
- High buffer capacity leads to fast neutralisation
- Especially gentle due to lack of artificial components and preservatives
- Eye wash bottle with ergonomically designed spray head and dust cap
- For mobile use and for refilling eye wash stations and first-aid cases

Note: Disposable eye wash bottles acc. to DIN EN 15154-4 may only be used in addition to existing eye shower units acc. to DIN EN 15154-2 if no running potable water or water of equivalent quality is available.

Medical device class I MDD

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
Phosphate buffer 4.9%	250	**1K0Y.1**	1 unit(s)	16,40



NEW / +

Eye wash station Actiomedic® Single

GRAMM medical healthcare.

- For wall installation at easily visible and easily reachable places
- Fast and easy to handle
- With mirror and pictograms

Contents: One eye wash bottle, ready-to-use and sterile with ergonomic spray head.

- 1 x 500 ml sodium chloride solution for washing foreign particles (1K11.1)

Note: Disposable eye wash bottles acc. to DIN EN 15154-4 may only be used in addition to existing eye shower units acc. to DIN EN 15154-2 if no running potable water or water of equivalent quality is available.

Delivery incl. eye emergency plan, holder and mounting material.

Rinsing solution	Vol. (ml)	Art. No.	Pack Qty.	€
NaCl 0.9%	500	**1K14.1**	1 unit(s)	37,55

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Eye wash bottles



NEW / +

Eye wash station Actiomedic® Wall box

GRAMM medical healthcare.

- Space-saving and simple eye wash station
- Translucent cover allows a good overview
- Protects the contents from dust and splashes of water
- With mirror and pictograms

Note: Disposable eye wash bottles acc. to DIN EN 15154-4 may only be used in addition to existing eye shower units acc. to DIN EN 15154-2 if no running potable water or water of equivalent quality is available.

Delivery incl. eye emergency plan and mounting material.

Medidrop I
Contents: Two eye wash bottles, ready-to-use and sterile with ergonomic spray head.

- 2 x 500 ml sodium chloride solution for washing foreign particles (1K11.1)

Rinsing solution	Art. No.	Pack Qty.	€
NaCl 0.9%	**1K12.1**	1 unit(s)	81,60

Medidrop II
Contents: Two eye wash bottles, ready-to-use and sterile with ergonomic spray head.

- 1 x 500 ml sodium chloride solution for washing foreign particles (1K11.1)
- 1 x 250 ml buffer solution BioPhos®74 for chemical burns (1K0Y.1)

Rinsing solution	Art. No.	Pack Qty.	€
NaCl 0.9% and phosphate buffer 4.9%	**1K13.1**	1 unit(s)	89,20



NEW / +

Eye wash station Actiomedic® Medi2Protect I

GRAMM medical healthcare.

- Space-saving, quickly accessible and easy to operate
- Signal colour for fast location in an emergency
- Protects the contents from dust and splashes of water
- With integrated mirror
- Extra large grip for easy operation
- Good overview thanks to translucent front panel
- Can be used for wall installation or as a mobile emergency kit

Contents: Three eye wash bottles, ready-to-use and sterile with ergonomic spray head.

- 2 x 500 ml sodium chloride solution for washing foreign particles (1K11.1)
- 1 x 250 ml buffer solution BioPhos®74 for chemical burns (1K0Y.1)

Note: Disposable eye wash bottles acc. to DIN EN 15154-4 may only be used in addition to existing eye shower units acc. to DIN EN 15154-2 if no running potable water or water of equivalent quality is available.

Delivery incl. eye emergency plan, installation guide and mounting material.

Rinsing solution	Art. No.	Pack Qty.	€
NaCl 0.9% and phosphate buffer 4.9%	**1K15.1**	1 unit(s)	114,80

Full view goggles

Wide-vision safety spectacles BLAST



Bollé.

Acc. to **EN 166** and **EN 170.** Also suitable for work with UV light. Special features: Combined with attachable visor (please order separately), it has the same degree of protection as a face visor and improved eye protection.
Weight: Safety spectacles 113 g, visor 65 g.

- Very comfortable to wear, flexible application options
- Anti-scratch, anti-fog and antistatic PC lens
- Protection against dust, droplets, gases and splashes of molten metal
- Can be worn over spectacles
- Adjustable head strap
- Rotatable articulated hinge
- Outer channel for fluid transport
- Permits wearing of a respiratory half-mask
- 2 versions: Indirect venting or gas-tight

Version	Lens design	Art. No.	Pack Qty.	€
Indirect venting	clear, UV protection, anti-scratch, anti-fog, anti-static	**KP07.1**	1 unit(s)	19,15
Gas-tight	clear, UV protection, anti-scratch, anti-fog, anti-static	**KP08.1**	1 unit(s)	19,15

Visor for BLAST full-vision safety spectacles

Designation	Art. No.	Pack Qty.	€
Face visor	**KP09.1**	1 unit(s)	11,00

Wide-vision safety spectacles ultrasonic



UVEX.

Acc. to **EN 166, EN 170**. **Also suitable for work with UV light.** Polycarbonate lens. Flexible soft component for pressure-free goggles with panoramic vision. Also suitable for spectacle wearers. Wide, infinitely adjustable headband.

Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
grey, black	clear, UV protection, anti-scratch, anti-fog	9302-285	**X407.1**	1 unit(s)	23,25
orange, grey	clear, UV protection, anti-scratch, anti-fog	9302-245	**X406.1**	1 unit(s)	23,25

Wide-vision safety spectacles ultravision gas-tight



UVEX.

Acc. to **EN 166, EN 170**. Clear UV protective lens made of PC. Anti-fog on the inside, scratch-resistant and resistant to chemicals on the outside. Unrestricted side view. Also suitable as over-goggles.

Frame colour	Lens design	Art. No.	Pack Qty.	€
yellow	UV protection, anti-fog, anti-scratch, chemical-resistant	**HHX4.1**	1 unit(s)	25,20

Full view goggles



A 121 °C

Autoclavable safety spectacles COVERALL CLAVE

Bollé. Autoclavable: Yes.

Acc. to **EN 166**. Suitable for working in the **clean room**. Lens with high-quality anti-fog and anti-scratch coating. With indirect ventilation.

- Can be worn over prescription spectacles
- Adjustable head strap
- High wearing comfort

Lens design	Art. No.	Pack Qty.	€
clear, anti-fog, anti-scratch	**PK52.1**	1 unit(s)	23,65



Wide-vision safety spectacles uvex 9405 for respiratory protection masks

UVEX.

Acc. to **EN 166**.

- Large, full-vision spectacles with all-round ventilation system
- Protective lenses made of cellulose acetate
- Upper section of spectacle body frosted to suppress light reflections
- Can be worn over prescription glasses
- Shape at bottom has been specially flattened, making it ideal to be combined with respiratory protection masks
- Headband can be easily adjusted

Lens design	Art. No.	Pack Qty.	€
clear, anti-fog	**EEK7.1**	1 unit(s)	18,55



Wide-vision safety spectacles 9305

UVEX.

Acc. to **EN 166**. Close, pressure-free fit. Ventilation slots. Lens made of cellulose acetate. Headband made of solid rubber. Suitable for the clean room.

Lens design	Art. No.	Pack Qty.	€
clear, anti-fog	**P822.1**	1 unit(s)	18,65



Wide-vision safety spectacles ultravision

UVEX.

Acc. to **EN 166**. Panoramic lens with 180° vision. Ventilation system. Lens made of cellulose acetate. Wide, infinitely adjustable headband.

Lens design	Art. No.	Pack Qty.	€
clear, anti-fog	**X368.1**	1 unit(s)	21,25



Wide-vision safety spectacles 6X3

Univet.

Acc. to **EN 166**.
Large panoramic lens, can be worn over prescription glasses and is compatible with half masks. Clear glass lenses made of PC with innovative double-layer anti-scratch/anti-fog coating.

- Adjustable head strap
- Indirect ventilation system ensures protection against liquid droplets and splashes
- Optional attachable face shield
- Weight of safety spectacles: 75 g

Lens design	Art. No.	Pack Qty.	€
clear, anti-scratch, anti-fog	**ATP4.1**	1 unit(s)	32,65

Visor for 6X3 full-vision safety spectacles

Designation	Art. No.	Pack Qty.	€
Face visor	**ATP5.1**	1 unit(s)	14,00

Full view goggles



Wide-vision safety spectacles 2890

3M.

Acc. to **EN 166, EN 170**. Also suitable for work with UV light. Polycarbonate lens, indirect ventilation. Can be worn over most prescription glasses. Wide adjustable headband, with adjustable joints for optimum fit. Good compatibility with 3M half masks. Weight 41 g.

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch, anti-fog	**PT44.1**	1 unit(s)	22,65



Wide-vision safety spectacles 601

Univet.

Acc. to **EN 166**. Lenses made of clear acetate with anti-fog coating. Excellent resistance to chemicals and solvents. Soft and elastic, allows perfect adaptation to the face, with anatomically shaped bridge for optimum wear comfort.

- Wide and undistorted field of view
- Soft fitting, pressure-free rubber frame
- Wide, adjustable elastic head strap
- Can be worn over corrective spectacles
- Adaptor available for corrective lenses
- Weight 118 g

With indirect ventilation

Frame colour	Lens design	Art. No.	Pack Qty.	€
blue	clear, anti-fog	**ATP1.1**	1 unit(s)	26,50

Without ventilation, gas-tight

Frame colour	Lens design	Art. No.	Pack Qty.	€
white	clear, anti-fog	**ATP2.1**	1 unit(s)	26,80

Safety spectacle accessories

Adaptor for corrective lenses for full-vision safety spectacles 601 and 611

Designation	Art. No.	Pack Qty.	€
Adaptor for corrective lenses	**ATP3.1**	1 unit(s)	16,15



Safety spectacles Fahrenheit™

3M.

Acc. to **EN 166**. PC lenses, clear, with anti-scratch and anti-fog coating. Light blue frame. Indirect ventilation, adjustable nylon head band. Suitable for use with prescription glasses and half mask respirators.

Delivery incl. microfibre pouch.

Lens design	Art. No.	Pack Qty.	€
clear, anti-scratch, anti-fog	**AKX2.1**	1 unit(s)	17,85



Wide-vision safety spectacles 6X1

Univet.

Acc. to **EN 166**. The perfect combination. Clear lenses made of PC with anti-scratch/anti-fog coating. The adjustable SoftPad™ arms can be replaced by an elastic head strap and therefore offer absolute flexibility.

- Wide lens for distortion-free field of view
- Indirect ventilation system
- Soft fitting, pressure-free rubber frame
- Adaptor available for corrective lenses
- Angle and length of arms can be adjusted

Delivery incl. head strap.

Lens design	Art. No.	Pack Qty.	€
clear, anti-scratch, anti-fog	**APY5.1**	1 unit(s)	36,35

Full view goggles



Wide-vision safety spectacles X90

Bollé.

Acc. to **EN 166**. Small, compact wide-vision spectacles.

- Lens made of PC
- Wide, adjustable head strap
- Rotatable articulated hinge
- Indirect venting
- Weight 62 g

Lens design	Art. No.	Pack Qty.	€
clear, anti-scratch, anti-fog, anti-static	**KP06.1**	1 unit(s)	17,00



Wide-vision safety spectacles carbonvision

UVEX.

Acc. to **EN 166 and EN 170**. Also suitable for work with UV light. Polycarbonate lens. Excellent mechanical stability with high-grade, long-life headband. Very light full-vision goggles combinable with respiratory protection and safety cap. Weight 46 g.

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch, anti-fog	**PP31.1**	1 unit(s)	23,35



Safety spectacles SP1000™

Honeywell Safety.

Acc. to **EN 166 and EN 170**. Offers protection against liquid splashes, impacts, wind, dust and flying particles. With black frame and clear PC lens. Weight 50 g.

- With Dura-streme™ coating: Anti-fog inside, anti-scratch outside
- With indirect ventilation at the top and bottom
- First-class comfort and sealing properties thanks to excellent contact with the face
- Soft and flexible nose pads for easy fitting to a variety of face shapes
- Padded ear-piece tips for all-day wear comfort
- Flexible design: Can be used with arms or adjustable headband.

Delivery incl. arm and headband.

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch, anti-fog	**PT41.1**	1 unit(s)	32,40

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Full view goggles

Wide-vision safety spectacles 611 Fire service



Univet.

Acc. to **EN 166, EN 170**. Developed for the requirements of professionals who need maximum protection when working under extreme conditions with high-tech equipment.
Application: Protection against liquids, coarse and fine dust, gas, molten metal and hot solids.

- Clear UV-protection double lens made of polycarbonate. With anti-scratch and anti-fog plus coating
- Double lens protects against heat, fog and impact
- Frame, safety lens and elastic band made of fireproof material
- Gas-tight protective frame offers protection against irritating gases and fine dust
- Version with quick-release closure for use with different helmet types
- Wide elastic band ensures additional stability

Version	Frame colour	Lens design	Art. No.	Pack Qty.	€
gas-tight	red	clear, UV protection, anti-scratch, anti-fog	**EYY6.1**	1 unit(s)	66,10
gas-tight with quick-release closure	red	clear, UV protection, anti-scratch, anti-fog	**EYY7.1**	1 unit(s)	62,50

Wide-vision safety spectacles u-sonic



UVEX.

Acc. to **EN 166, EN 170**.
Small, compact full-vision spectacles with perfect fit. Clear UV protective lens made of polycarbonate, outside scratch-proof and chemical-resistant, anti-fog inside.

- Adapts perfectly to any face - ergonomic design with flexible soft components
- High-comfort fit - through light weight and low pressure
- Keeps the eyes comfortable - due to innovative ventilation system
- Ideally combinable with hard hat - due to compact geometry
- Weight: Without attachable lens 69 g

Without attachable lens

Pic.	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(1)	grey/lime	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	9308-245	**EEK3.1**	1 unit(s)	25,00
(2)	black/red	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	9308-247	**EEK4.1**	1 unit(s)	23,35

With attachable lens

Easy, fast application of the attachable lens through integrated magnet technology.

Attachable lens in grey, also offers protection against glare (sun protection).

Pic.	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(3)	black/orange	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	9308-248	**EEK5.1**	1 unit(s)	30,95

Over glasses

Over-spectacles 5X7

Univet.

Acc. to **EN 166, EN 170, EN 172** (grey lens only).
Innovative frame design prevents the arms from overlapping and offers absolute wearer comfort. UV protective lenses made of polycarbonate. Orange lenses: Protection against UV light and blue light up to 525 nm.

- 3x length adjustable arms
- SoftPad™ arms allow optimum adaptation to the face shape of the wearer
- Weight: 37 g



Pic.	Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(1)	colourless	gunmetal, orange	clear, UV protection, anti-scratch	5X7.01.00.00	**HAA6.1**	1 unit(s)	17,15
(2)	colourless	gunmetal, green	clear, UV protection, anti-scratch, anti-fog	5X7.03.11.00	**APY1.1**	1 unit(s)	22,80
(3)	colourless	white, blue	clear, UV protection, anti-scratch, anti-fog	5X7.03.22.00	**APY2.1**	1 unit(s)	22,80
(4)	grey	gunmetal, green	tinted, UV protection, anti-scratch	5X7.01.11.02	**APY3.1**	1 unit(s)	18,45
(5)	orange	black, orange	tinted, UV protection, anti-scratch, anti-fog	5X7.03.00.04	**APY4.1**	1 unit(s)	24,35

Over-spectacles super OTG

UVEX.

Acc. to **EN 166, EN 170** and **EN 172** (only Art. No. KX41.1). Can be worn as over-spectacles over most prescription glasses.

- PC lens, highly scratch-resistant on both sides
- Hingeless arms
- Flexible, soft ear pieces
- Weight 57 g



Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
colourless	blue	clear, UV protection, anti-scratch	**KX39.1**	1 unit(s)	22,85
colourless	black	clear, UV protection, anti-scratch	**KX40.1**	1 unit(s)	21,00
grey	black	tinted, UV protection, anti-scratch	**KX41.1**	1 unit(s)	21,40

Over glasses

Over-spectacles super f OTG

UVEX.

Acc. to **EN 166**, **EN 170** and **EN 172** (grey and brown lenses). Lightweight over-spectacles with excellent coverage of the eye area.

- Anti-scratch and chemical-resistant polycarbonate lens
- Can be worn over most prescription glasses
- Hingeless arms
- Flexible, soft ear pieces



NEW / +

Pic.	Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(1)	colourless	black, white	clear, UV protection, anti-scratch, chemical-resistant	9169585	**1E1N.1**	1 unit(s)	21,75
(2)	yellow	black, white	tinted, UV protection, anti-scratch, chemical-resistant	9169580	**1E1P.1**	1 unit(s)	24,20
(3)	grey	black, white	tinted, UV protection, anti-scratch, chemical-resistant	9169586	**1E1T.1**	1 unit(s)	22,90

CBR65

The tint on the CBR65 (contrast blue relax 65) version enhances the contrast, reduces blue light and eliminates strain on the eyes. Light transmission 65 %.

Pic.	Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(4)	brown	black, white	tinted, UV protection, anti-scratch, chemical-resistant, anti-fog	9169164	**1E1L.1**	1 unit(s)	24,85

Over-spectacles 2800

3M.

Acc. to **EN 166 and EN 170**. Lenses made of PC with UV protection, anti-scratch coating. Dark-blue frame. Can be worn as over-goggles over most types of corrective spectacle.

- 4x adjustable arm length
- Adjustable lens angle for perfect fit
- Soft tip ear pieces for wearing comfort
- Yellow lenses filter UV radiation and blue light up to 480 nm and increase contrast even in weak light conditions.
- Weight 38 g



Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
colourless	dark blue	clear, UV protection, anti-scratch	2800	**KA80.1**	1 unit(s)	14,60
yellow	dark blue	tinted, UV protection, anti-scratch	2802	**AKT8.1**	1 unit(s)	15,10

Over-spectacles OX 3000

3M.

Acc. to **EN 160, EN 170**. Also suitable for work with UV light. Comfortable over-spectacles for glasses wearers; fit over any kind of prescription glasses.

- Clear polycarbonate lens, coating protects against fogging, scratches, static charge and chemical influences
- Straight arms, adjustable to 4 settings, ideal for use in combination with ear defenders
- Anti-slip, rubber coated earpieces for optimum comfort
- No metal parts; also suitable for electricians
- Weight 46 g



Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch, anti-fog, chemical-resistant	**KA31.1**	1 unit(s)	16,50

Over glasses



Over-spectacles ARMAMAX AX5

Honeywell Safety.

Acc. to **EN 166**. Clear, uncoated polycarbonate lens. Large over-spectacles that fit over most prescription glasses. Side sections and top edge in a frosted glass design reduce glare and reflections. Curved side arms and raised bridge for optimum fit. Weight 46 g.

Lens design	Art. No.	Pack Qty.	€
clear	**1726.1**	1 unit(s)	12,40



Over-spectacles uvex 9161

UVEX.

Acc. to **EN 166, EN 170**. **Also suitable for work with UV light.** Fit over any prescription glasses. Unrestricted side view thanks to Super Panorama lens with 180° field of vision.

(1) Model 9161-014
Uncoated polycarbonate lens. With standard arms, length not adjustable.

Lens design	Art. No.	Pack Qty.	€
clear, UV protection	**1554.1**	1 unit(s)	8,50

(2) Model 9161-005
Polycarbonate lens, extremely scratch-resistant on both sides and highly resistant to chemicals.

Special arms, adjustable to 4 lengths, with cushioned arms for a pressure-free fit.

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch, chemical-resistant	**N163.1**	1 unit(s)	13,60



Over-spectacles SQUALE

Bollé.

Acc. to. **EN 166** and **170**. Can be worn over corrective spectacles.

- Length-adjustable arms
- Additional top and bottom protection
- Weight 43 g

Delivery incl. thin spectacle cord.

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch, anti-fog	**KP05.1**	1 unit(s)	10,00



Over-spectacles safety spectacles for visitors

Univet.

Acc. to **EN 166**. Rugged over-spectacle with uncoated PC lens. Ventilated side protectors. Can be worn over prescription glasses.

Lens design	Art. No.	Pack Qty.	€
clear	**CNH1.1**	1 unit(s)	7,15



Safety spectacles futura

UVEX.

Acc. to **EN 166, EN 170**. Excellent fit. Clear panes made of polycarbonate, extremely scratch-resistant and with a near unrestricted field of view. Arms with maximum wearing comfort, 4-stage individual adjustment, anti-slip, infinitely adjustable arm angle. Weight 46 g. Lenses can be replaced.

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch	**C522.1**	1 unit(s)	18,65

Over glasses



Safety spectacles Max A1

HHW.

Acc. to **EN 166**. Polycarbonate lens. Integrated side protection. Arms are flexible and length can be adjusted; softpads reduce the pressure. Lens inclination to fit individual face shapes. Weight 34 g.

Lens design	Art. No.	Pack Qty.	€
clear, anti-scratch, anti-fog	**Y254.1**	1 unit(s)	12,75



Safety spectacles XC

Honeywell Safety.

Acc. to **EN 166, EN 170**. Anti-fog polycarbonate lens. Individually adjustable lens tilt, adjustable arm length. Can also be worn by people wearing prescription glasses by using the corrective lens insert (CK91.1).

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-fog	**CK90.1**	1 unit(s)	26,50



Safety spectacles 511

Univet.

Acc. to **EN 166**. Clear lenses made of PC. Narrow type is suitable for narrow faces and school pupils.

- Angle and length of arms can be adjusted
- Integrated side protection
- Weight 34 g

Version	Frame colour	Lens design	Art. No.	Pack Qty.	€
Narrow type	blue	clear, anti-scratch	**APY8.1**	1 unit(s)	8,40
Normal type	blue	clear, anti-scratch	**APY7.1**	1 unit(s)	8,40
Normal type	black	clear, anti-fog	**CNH0.1**	1 unit(s)	10,70

Adapter for corrective lenses for the XC safety spectacles

Honeywell Safety.

To be combined with the XC (CK90.1) UV safety spectacles. The insert must be fitted with customised lenses by your optician, according to your prescription.

- Can be inserted easily and securely behind the safety spectacle lens
- The lenses from your optician are protected by the lenses of the safety spectacles
- More comfortable to wear than over-spectacles or clip on spectacles

Version	Art. No.	Pack Qty.	€
Adapter for corrective lenses	**CK91.1**	1 unit(s)	47,70

UV-safety spectacles

Safety spectacles i-5



UVEX.

Acc. to **EN 166, EN 170** and **EN 172** (grey lenses).

- Polycarbonate lenses – anti-fog on the inside, anti-scratch on the outside, resistant to chemicals
- Soft and flexible nose pad for maximum comfort and slip-resistant grip
- Improved lens design for greater side protection and protection against flying particles, dust and dirt.
- Three-stage inclination and adjustable arm length allow easy adaptation to every head shape

Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
colourless	anthracite, blue	clear, UV protection, anti-scratch, chemical-resistant, anti-fog	9183265	**1CY4.1**	1 unit(s)	21,95
grey	anthracite, lime	tinted, UV protection, anti-scratch, chemical-resistant, anti-fog	9183281	**1CY5.1**	1 unit(s)	23,65

Safety spectacles x-fit



UVEX.

Acc. to **EN 166, EN 170** and **EN 172** (grey lenses).

- Anti-scratch and chemical-resistant polycarbonate lens
- Classic safety spectacles with perfect fit
- Innovative arm-hinge concept
- X-Design for stability
- Low weight, 23 g
- Non-metallic

Pic.	Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(1)	colourless	grey	clear, UV protection, anti-scratch, chemical-resistant	9199085	**1CTP.1**	1 unit(s)	11,30
(2)	colourless	blue	clear, UV protection, anti-scratch, chemical-resistant, anti-fog	9199265	**1CTT.1**	1 unit(s)	12,80
(3)	colourless	pink	clear, UV protection, anti-scratch, chemical-resistant, anti-fog	9199123	**1CTX.1**	1 unit(s)	12,80
(4)	yellow	grey	tinted, UV protection, anti-scratch, chemical-resistant, anti-fog	9199286	**1CTY.1**	1 unit(s)	15,55
(5)	grey	grey	tinted, UV protection, anti-scratch, chemical-resistant, anti-fog	9199280	**1CX0.1**	1 unit(s)	14,30

Safety spectacles x-fit pro



UVEX.

Acc. to **EN 166, EN 170** and **EN 172** (grey lenses).

- Anti-scratch and chemical-resistant polycarbonate lens
- Innovative arm-hinge concept
- Soft nose pad in X-Design for maximum wearing comfort
- Elastic arms for a pressure-free fit
- Arm angle can be adjusted with the Comfort slider and adapted to every head shape
- Non-metallic

Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
colourless	white, anthracite	clear, UV protection, anti-scratch, chemical-resistant	9199005	**1CP6.1**	1 unit(s)	18,05
colourless	blue, anthracite	clear, UV protection, anti-scratch, chemical-resistant, anti-fog	9199245	**1CP7.1**	1 unit(s)	20,05
grey	anthracite, light grey	tinted, UV protection, anti-scratch, chemical-resistant, anti-fog	9199276	**1CP8.1**	1 unit(s)	21,20

UV-safety spectacles

Safety spectacles SILEX+

Bollé.

Acc. to **EN 166, EN 170, EN 172** (dark lens).
UV protective lenses made of polycarbonate with the Bollé platinum coating inside and outside. Arms made of polycarbonate/TPR.

- Wraparound frame for a comfortable fit
- Extremely flexible arms 160°
- Panoramic field of vision, no annoying edges
- Without metal parts
- Ideal for long periods of wear
- Weight 30 g



NEW / +

Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
colourless	dark green/green	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	**1HP2.1**	1 unit(s)	11,50
grey	black/green	tinted glass, slightly dark, UV protection, anti-scratch, anti-fog, chemical-resistant	**1HP3.1**	1 unit(s)	12,20

CSP

The additional CSP coating is suitable for all activities where light alternates between strong and weak.

Frame colour	Lens design	Art. No.	Pack Qty.	€
grey/black	UV protection, anti-scratch, anti-fog, chemical-resistant	**1HP1.1**	1 unit(s)	12,20

Safety spectacles skylite

UVEX.

Acc. to **EN 166, EN 170**. Clear lenses made of polycarbonate, scratch-resistant on the inside and outside. Angle of arms can be adjusted. Integrated side protectors with a matt finish. Ultra-lightweight spectacles, approx. 26 g.



Pic.	Frame colour	Lens design	Art. No.	Pack Qty.	€
(1)	metallic red	clear, UV protection, anti-scratch	**CH18.1**	1 unit(s)	11,30
(2)	blue	clear, UV protection, anti-scratch	**NP29.1**	1 unit(s)	11,95

Safety spectacles B272

Bollé.

Acc. to **EN 166** and **EN 170**.

- Anti-scratch and anti-fog PC lens
- Length-adjustable arms
- Adjustable lens inclination
- Additional top and bottom protection
- Weight 31 g



Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch, anti-fog	**KP00.1**	1 unit(s)	15,45

UV-safety spectacles

Safety spectacles astrospec 2.0



UVEX.

Acc. to **EN 166, EN 170**. Clear panorama lens made of polycarbonate with UV filter and integrated side protection.

- Flexible duo component arms and adjustable lens inclination for perfect fit
- Soft ear pieces ensure a secure fit without pressure points
- Maximum wearing comfort for all face shapes
- Also suitable for extended wear
- Extremely flat-folding and space-saving
- Weight: 37 g

Pic.	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(1)	anthracite/blue	clear, UV protection, anti-scratch, long-lasting anti-fog	9164-275	**CYN0.1**	1 unit(s)	25,85
(2)	black/lime	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	9164-285	**CYN2.1**	1 unit(s)	21,65
(3)	blue/light blue	clear, UV protection, anti-scratch, chemical-resistant	9164-065	**EEK6.1**	1 unit(s)	19,30
(4)	black/grey	anti-fog, anti-scratch, anti-static, clear, UV protection	9164-187	**HYX5.1**	1 unit(s)	21,40

Safety spectacles super g



UVEX.

Acc. to **EN 166, EN 170**. **Extremely lightweight safety spectacles.**

- Very thin, shatterproof lens made of PC
- Completely metal-free
- Easy to wear and a secure fit, thanks to a barely perceptible, extremely flexible frame design
- Unique nose pad can be easily combined with a respiratory mask
- XST technology in the arms (earpieces with soft components) ensures a comfortable, pressure-free fit
- Weight 18 g

Pic.	Frame colour	Lens design	Art. No.	Pack Qty.	€
(1)	crystal	clear, UV protection, anti-scratch, long-lasting anti-fog, anti-static	**HH50.1**	1 unit(s)	18,65
(2)	blue	clear, UV protection, anti-scratch, long-lasting anti-fog	**HH51.1**	1 unit(s)	19,70

Safety spectacles SILIUM



Bollé.

Acc. to **EN 166, EN 170** and **EN 172** (dark lens).

- Non-slip TIPGRIP arms and non-slip adjustable nose bridge plates
- Anti-scratch, anti-fog and antistatic PC lens
- Bendy, Flex arm 160%
- Brass frame
- Weight 34 g

Lens colour	Lens design	Art. No.	Pack Qty.	€
colourless	clear, UV protection, anti-scratch, anti-fog, anti-static	**KN95.1**	1 unit(s)	15,55
grey	tinted glass, slightly dark, UV protection, anti-scratch, anti-fog, anti-static	**KN96.1**	1 unit(s)	17,55

UV-safety spectacles

Safety spectacles SILIUM+

Bollé.

Acc. to **EN 166, EN 170**.

- UV lens and frame made of PC. With Bollé platinum coating
- Comfortable fit thanks to straight, ergonomic and extremely flexible arms
- Slip-resistant and adjustable bridge
- Light as a feather, suitable for long periods of wear
- Weight 21 g



Pic.	Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
(1)	colourless	black	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	**HYL4.1**	1 unit(s)	16,25
(2)	grey	black	tinted glass, slightly dark, UV protection, anti-scratch, anti-fog, chemical-resistant	**HYL5.1**	1 unit(s)	16,25

CSP

The additional CSP coating is suitable for all activities where light alternates between strong and weak.

Pic.	Frame colour	Lens design	Art. No.	Pack Qty.	€
(3)	black	UV protection, anti-scratch, anti-fog, chemical-resistant	**HYL6.1**	1 unit(s)	16,25

Safety spectacles 506U

Univet.

Acc. to **EN 166, EN 170.** Clear UV protective lenses made of PC with anti-scratch/anti-fog coating.

- Angle and length adjustable arms
- Soft ear pieces avoid pressure points
- Optimal wearing comfort and adaptation through soft, adjustable bridge
- Weight 25 g



Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
white/pink	clear, UV protection, anti-scratch, anti-fog	506U.03.02.00	**CNE8.1**	1 unit(s)	15,80
black/green	clear, UV protection, anti-scratch, anti-fog	506U.06.01.00	**CNE9.1**	1 unit(s)	15,80

Safety spectacles Tora CCS

3M.

Acc. to **EN 166, EN 170.** Lens made of PC. Ear protection attaches directly to the spectacles, ensuring that eye and ear protection are always joined and ready for use, without tangling. The ear protection cord doubles as a spectacle cord. Very lightweight, weight 22 g.



Delivery without ear protection and cord. Please order separately (ULTRAFIT TE80.1 ear plugs).

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch, anti-fog	**TE79.1**	1 unit(s)	14,00

UV-safety spectacles

Safety spectacles MAX Z8

HHW.

Acc. to **EN 166, EN 170**. Clear, anti-fog polycarbonate lens, also protects the eyebrow area. Metal arm. Earpieces are covered with a new, anti-slip soft PVC. Optimum fit and good all-round visibility. Weight 33 g.



Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-fog	**CY76.1**	1 unit(s)	13,35

Safety spectacles i-works

UVEX.

Acc. to **EN 166, EN 170.**

- UV protective lens made of PC. Anti-fog on the inside, scratch-resistant and resistant to chemicals on the outside
- Non-metallic
- Large field of view due to panoramic lens
- Soft arms, flat arm with opening for fastening the spectacle cord



Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
colourless	anthracite/blue	clear, UV protection, anti-fog, anti-scratch, chemical-resistant	9194-171	**HHX0.1**	1 unit(s)	17,00
colourless	anthracite/green	clear, UV protection, anti-fog, anti-scratch, chemical-resistant	9194-175	**HHX1.1**	1 unit(s)	16,95
grey	black/grey	tinted, UV protection, anti-fog, anti-scratch, chemical-resistant	9194-885	**HHX2.1**	1 unit(s)	32,70
yellow	black/yellow	tinted, UV protection, anti-fog, anti-scratch, chemical-resistant	9194-365	**HHX3.1**	1 unit(s)	21,50

Safety spectacles i-3

UVEX.

Acc. to **EN 166, EN 170, EN 172** (grey lenses).

- PC lenses – anti-fog on the inside, anti-scratch on the outside, resistant to chemicals
- Perfect vision downwards
- Adapts perfectly to any face shape, excellent wearer comfort
- Soft nose pads ensure perfect anti-slip fitting
- Metal-free construction for low weight and long life



Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
colourless	anthracite, blue	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	**NP27.1**	1 unit(s)	22,40

UV-safety spectacles

Safety spectacles PRISM

Bollé.

Acc. to **EN 166, 170** and **EN 172** (dark lens).

- 100% polycarbonate goggles
- Anti-scratch and anti-fog visor
- Straight arm
- Very lightweight spectacles
- Weight 23 g



Delivery incl. spectacle cord.

Lens colour	Lens design	Art. No.	Pack Qty.	€
grey	tinted glass, slightly dark, UV protection, anti-scratch, anti-fog	**KP04.1**	1 unit(s)	10,00
colourless	clear, UV protection, anti-scratch, anti-fog	**KP03.1**	1 unit(s)	10,00

Safety spectacles VIPER

Bollé.

Acc. to **EN 166** and **EN 170**.

- Very good adaptation thanks to shape and ultra-light design
- Lens made of PC
- Length-adjustable arms
- Additionally integrated protection at upper edge of goggles
- Weight 25 g



Delivery incl. adjustable glasses strap.

Lens colour	Lens design	Art. No.	Pack Qty.	€
yellow	tinted, UV protection, anti-scratch, anti-fog	**KP02.1**	1 unit(s)	12,90
colourless	clear, UV protection, anti-scratch	**KP01.1**	1 unit(s)	11,85

Safety spectacles TRYON

Bollé.

Acc. to **EN 166, EN 170**.

- UV lens made of PC. With Bollé platinum coating.
- Wrap-around frame in a sporty design
- Comfortable and secure fit thanks to flexible wrap-around 160° arms and anti-slip adjustable bridge
- Weight 26 g



Frame colour	Lens design	Art. No.	Pack Qty.	€
light blue, black	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	**HYL9.1**	1 unit(s)	15,40

UV-safety spectacles

Safety spectacles pheos

UVEX.

Acc. to **EN 166, EN 170** and **EN 172** (grey lenses).

- Wide, undistorted field of vision
- Inner lenses permanently non-fogging, outer lenses highly scratch- and chemical-resistant
- Duo-spherical lenses provide optimal eye coverage at the sides
- The tips of the arms are fitted with anti-slip components for extra comfort and slip resistance
- Excellent ventilation
- Metal-free arm mechanism with an easy action
- Compatible with ear muffs, hard hats and bump caps



Lenses made of PC.

Pic.	Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(1)	colourless	light grey, green	clear, UV protection, anti-scratch, long-lasting anti-fog, chemical-resistant	9192-215	**XC85.1**	1 unit(s)	18,45
(2)	colourless	black, green	clear, UV protection, anti-scratch, long-lasting anti-fog, chemical-resistant	9192-225	**EHT6.1**	1 unit(s)	20,25
(3)	grey	black, grey	tinted, UV protection, anti-scratch, long-lasting anti-fog, chemical-resistant	9192-285	**XC86.1**	1 unit(s)	19,75

Pheos blue

Eco friendly safety spectacles “Green Design“ based on natural raw materials. Made of bioplastic, which is a plastic based on organic raw materials. Fully functional safety spectacles which meet all requirements for safety and wearing comfort.

Pic.	Lens colour	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(4)	colourless	sand, blue	clear, UV protection, anti-scratch, long-lasting anti-fog, chemical-resistant	9192-765	**XC87.1**	1 unit(s)	20,90

Safety spectacles pheos s

UVEX.

Acc. to **EN 166, EN 170.** Smaller version of the pheos safety spectacles for smaller faces.

- Wide, borderless, undistorted field of vision
- Inner lenses permanently non-fogging, outer lenses highly scratch- and chemical-resistant
- Duo-spherical lenses provide optimal eye coverage at the sides
- The tips of the arms are fitted with anti-slip components for extra comfort and slip resistance
- Excellent ventilation
- Metal-free arm mechanism with an easy action
- Compatible with ear muffs, hard hats and bump caps



Pic.	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(1)	white, green	clear, UV protection, anti-scratch, long-lasting anti-fog, chemical-resistant	9192-725	**EHT7.1**	1 unit(s)	20,25
(2)	anthracite, grey	clear, UV protection, anti-scratch, long-lasting anti-fog, chemical-resistant	9192-785	**EHT8.1**	1 unit(s)	20,25

UV-safety spectacles

Safety spectacles pheos cx2

UVEX.

Acc. to **EN 166, EN 170.**

- Lens made of PC, anti-fog on the inside, anti-scratch and chemical resistant on the outside
- Wide, undistorted field of vision
- Comfortable protection with directly moulded forehead piece and bridge
- Excellent ventilation for healthy eyes
- Combinable with ear defenders, helmet and bump caps



Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
red, grey	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	9198-258	**HHT9.1**	1 unit(s)	18,05
blue, grey	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	9198-257	**HHT8.1**	1 unit(s)	18,05
black, light blue	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	9198-256	**HHT7.1**	1 unit(s)	18,05

Safety spectacles RUSH+

Bollé.

Acc. to **EN 166, EN 170**.

- PC lens with Bollé platinum coating.
- More comfortable fit thanks to very soft arms and slip-resistant adjustable bridge
- Weight 28 g



Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
red, black	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	RUSHPPSI	**HYL7.1**	1 unit(s)	12,15

Safety spectacles RUSH+ SMALL

Bollé.

Acc. to **EN 166, EN 170**.

- UV lens made of PC with Bollé platinum coating.
- Comfortable fit thanks to very soft arms and anti-slip adjustable bridge
- Extremely sporty design, ideal for narrower faces, young adults and children.
- Weight: 26 g



Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
white/light blue	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	RUSHPSPSI	**HYN0.1**	1 unit(s)	11,10

UV-safety spectacles

Safety spectacles uvex sportstyle

UVEX.

Acc. to **EN 166, EN 170**

- Polycarbonate lenses, inside permanently anti-fogging, outside highly scratch-resistant
- Soft, adjustable nose pads
- Soft, anti-slip earpieces
- UVEX lens geometry from optimum view and perfect protection
- Extremely lightweight, sporty design for excellent wearer comfort



Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
colourless	black/petrol	clear, UV protection, anti-scratch, long-lasting anti-fog	**EHN2.1**	1 unit(s)	17,15

Safety spectacles 5X1

Univet.

Acc. to **EN 166, EN 170.** Designed for optimum protection and individual adjustment. UV protective lenses made of polycarbonate.

- Distinctive „wrap-around“ lens with extra protection in the side eye area
- SoftPad™ arms, length and tilt-adjustable arms
- Soft, height-adjustable bridge, reduces pressure
- Suitable for long periods of wear



Pic.	Lens design	Art. No.	Pack Qty.	€
(1)	clear, UV protection, anti-scratch, anti-fog	**HAA7.1**	1 unit(s)	23,70

In/Out

In/Out lens with multi-layer, reflective coating on the outside, offers protection against glare and allows good visibility when switching between dark and bright environments

Pic.	Lens design	Art. No.	Pack Qty.	€
(2)	UV protection, anti-scratch	**HAA8.1**	1 unit(s)	22,55

Safety spectacles i-vo

UVEX.

Acc. to **EN 166, EN 170 and/or EN 172** (CH15.1). Polycarbonate lens. The nanotechnology coating enhances the anti-adhesion properties, allowing aqueous and oily staining to be removed effortlessly from the lens.

- Safety spectacles for maximum wear comfort
- Pressure-free and comfortable fit due to soft components at sensitive zone, such as nose, forehead and ears
- Length-adjustable side arms, 5-stage inclination



Pic.	Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
(1)	colourless	blue, orange	clear, UV protection, anti-scratch, chemical-resistant	**Y406.1**	1 unit(s)	22,45
(2)	colourless	black/grey	clear, UV protection, anti-scratch, anti-fog, chemical-resistant	**EHT5.1**	1 unit(s)	26,95
(3)	brown	blue, orange	tinted, UV protection, anti-scratch, chemical-resistant	**CH15.1**	1 unit(s)	22,50

UV-safety spectacles

Safety spectacles 5X3



Univet.

Acc. to **EN 166, EN 170**.
Highly-developed frame to minimise pressure points on the face, ideally fits any face without adjustment.

- SoftPad™ arms and an adjustable bridge for improved wearer comfort
- Distinctive „wrap-around“ PC lenses
- Ventilation system
- Orange lens offers protection against UV light and blue light up to 525 nm
- Weight 31 g

Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
colourless	black, green	clear, UV protection, anti-scratch	**APX7.1**	1 unit(s)	14,65
colourless	black, orange	clear, UV protection, anti-scratch, anti-fog	**APX8.1**	1 unit(s)	21,95
orange	black, orange	tinted, UV protection, anti-scratch, anti-fog	**CNH4.1**	1 unit(s)	21,95

Safety spectacles 5X6



Univet.

Acc. to **EN 166, EN 170**.
Clear UV protective lenses made of PC with anti-scratch/anti-fog coating. Light and comfortable model, ideal for long-duration wear. Sporty „wrap-around“ design, the lens is flexibly attached to the frame.

- Length-adjustable SoftPad™ arms
- Soft and anatomically shaped nose bridge
- Weight 26 g

Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
gunmetal, green	clear, UV protection, anti-scratch, anti-fog	5X6.03.11.00	**APX9.1**	1 unit(s)	20,65
white, blue	clear, UV protection, anti-scratch, anti-fog	5X6.03.22.00	**APY0.1**	1 unit(s)	21,15

Safety spectacles x-one



UVEX.

Acc. to **EN 166, EN 170, EN 172** (grey lenses). Sporty and lightweight, wide field of vision, unrestricted side vision, good coverage of the eyebrows and cheeks. Weight 27 g.

Pic.	Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
(1)	colourless	colourless	clear, UV protection	**NP24.1**	1 unit(s)	7,55
(2)	colourless	azure blue	clear, UV protection	**NP25.1**	1 unit(s)	7,90
(3)	grey	black	tinted, UV protection	**NP26.1**	1 unit(s)	10,80

Safety spectacles SecureFit 400



3M.

Acc. to **EN 166, EN 170, EN 172** (grey lenses).
Polycarbonate UV protective lenses with anti-scratch and anti-fog properties.

- Flexible frame, adapts easily to all head sizes and shapes
- Soft, adjustable bridge for a perfect and secure fit
- Padded ear pieces reduce pressure points and thus enhance wearing comfort
- Optimal compatibility with ear muffs and fine dust masks
- Extremely lightweight, 19 g

Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
colourless	black, green	clear, UV protection, anti-scratch, anti-fog	**CNE6.1**	1 unit(s)	14,95
grey	black, green	tinted, UV protection, anti-scratch, anti-fog	**CNE7.1**	1 unit(s)	14,95

UV-safety spectacles

Safety spectacles Virtua™

3M.

Acc. to **EN 166, EN 170** and **EN 172** (grey lenses).
100% polycarbonate spectacles, anti-scratch. Very good fit.
Weight 25 g.



Lens colour	Lens design	Art. No.	Pack Qty.	€
colourless	clear, UV protection, anti-scratch	**CY78.1**	1 unit(s)	8,45
grey	tinted, UV protection, anti-scratch	**CY80.1**	1 unit(s)	9,45

Safety spectacles Virtua™ Slim

3M.

Acc. to **EN 166, EN 170**. For small head sizes, children or adults with a small pupillary distance/narrow face. Polycarbonate spectacles, clear, anti-scratch lens.



Lens colour	Lens design	Art. No.	Pack Qty.	€
colourless	clear, UV protection, anti-scratch, anti-fog	**KA62.1**	1 unit(s)	9,25

Safety spectacles Millennia®

Honeywell Safety.

Acc. to **EN 166, EN 170** and **EN 172** (P763.1).

- Anti-scratch polycarbonate lens
- Ergonomic frame, adjusted to head shape
- Straight arms – no need to adjust arm length or angle, no pressure behind the ears
- Optimal lens curve – distortion-free vision
- Weight 34 g



Delivery incl. adjustable, flexible spectacle cord.

Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
colourless	blue	clear, UV protection, anti-scratch	**P758.1**	1 unit(s)	14,90
colourless	silver	clear, UV protection, anti-scratch	**P760.1**	1 unit(s)	15,35
yellow	black	tinted, UV protection, anti-scratch	**P761.1**	1 unit(s)	18,10
grey	black	tinted, UV protection, anti-scratch	**P763.1**	1 unit(s)	18,40

Safety spectacles Millennia® sport

Honeywell Safety.

Acc. to **EN 166, EN 170** and **EN 172** (grey lenses).

- Anti-scratch polycarbonate lens
- Ergonomic frame, adjusted to head shape
- Straight arms – no need to adjust arm length or angle, no pressure behind the ears
- Optimal lens curve – distortion-free vision
- Weight 34 g



Delivery incl. adjustable, flexible spectacle cord.

Frame colour	Lens design	Art. No.	Pack Qty.	€
blue	clear, UV protection, anti-scratch	**CA36.1**	1 unit(s)	13,95
black	tinted, UV protection, anti-scratch	**CA35.1**	1 unit(s)	12,50

UV-safety spectacles

Safety spectacles cybric

UVEX.

Acc. to **EN 166, EN 170** and **EN 172** (AA34.1). Sporty, modern, double lens with integrated side protectors.

- Anti-scratch and anti-fog polycarbonate lens
- Angle and length of side arms can be adjusted individually
- Comfortable, pressure-free fit, thanks to elastic earpieces
- Weight 29 g



Lens colour	Lens design	Art. No.	Pack Qty.	€
colourless	clear, UV protection, anti-scratch, anti-fog	**AA33.1**	1 unit(s)	19,00
grey	tinted, UV protection, anti-scratch, anti-fog	**AA34.1**	1 unit(s)	19,75

Safety spectacles 546

Univet.

Acc. to **EN 166, EN 170.** Very lightweight, modern safety spectacles with a sporty line. Clear UV protective lenses made of PC with anti-scratch/anti-fog coating.

- „Wrap-around" polycarbonate lens with integrated side protection
- Arms guarantee excellent fit and wear comfort
- Non-slip soft bridge
- Ideal for long periods of wear
- Orange lens: Protection against UV and light up to 525 nm



Lens colour	Frame colour	Lens design	Art. No.	Pack Qty.	€
colourless	black, green	clear, UV protection, anti-scratch, anti-fog	**CNH2.1**	1 unit(s)	16,70
orange	black, orange	tinted, UV protection, anti-scratch, anti-fog	**CNH3.1**	1 unit(s)	20,40

Safety spectacles 2840

3M.

Acc. to **EN 166, EN 170** and **EN 172** (KA83.1).

- Arm length adjustable to three settings
- Adjustable lens tilt for individual adjustment
- Strong polycarbonate lenses with anti-scratch and anti-fog coating
- Integrated eyebrow protection for increased protection
- Soft inner side of arms offers increased wearer comfort
- **KA83.1** safety spectacles, with grey lens for working outdoors, where additional protection is required against sunlight
- **NN25.1** safety spectacles with orange lens filters UV radiation and blue light up to 530 nm. Increases contrast and clarity of vision in weak lighting
- Weight 26 g



Pic.	Lens colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(1)	colourless	clear, UV protection, anti-scratch, anti-fog	2840	**KA82.1**	1 unit(s)	18,45
(2)	grey	tinted, UV protection, anti-scratch, anti-fog	2841	**KA83.1**	1 unit(s)	18,95
(3)	orange	tinted, UV protection, anti-scratch, anti-fog	2846	**NN25.1**	1 unit(s)	22,75

Special safety goggles

Autoclavable safety spectacles

UVEX. Autoclavable: Yes.

Acc. to **EN 166, EN 170**.
Clear lenses made of PC with UV protection, anti-fog inside, anti-scratch outside. Autoclavable for at least 10 cycles (20 min at 121 °C). Suitable as clean room spectacles or for critical areas.



A 121 °C

Ultrasonic CR full-vision spectacles

Exceptional wearer comfort even for wearers of prescription glasses. No pressure issues from continuous wear thanks to the combination of hard and soft components. Sporty design, wide panoramic field of vision and extensive side protection. Indirect ventilation, adjustable silicone headband. Replaceable lens.

Pic.	Lens design	Art. No.	Pack Qty.	€
(1)	clear, UV protection, anti-scratch, anti-fog	**ANL3.1**	1 unit(s)	39,65

Super OTG CR over-spectacles

Fits over prescription glasses. Perfect wear properties, unrestricted side vision. New arm-hinge concept with soft arms.

Pic.	Lens design	Art. No.	Pack Qty.	€
(2)	clear, UV protection, anti-scratch, anti-fog	**ANL4.1**	1 unit(s)	31,45

Super fit CR

Ultra-lightweight arm spectacles in a sporty design. Extremely thin lens made of clear PC offers excellent visual clarity. Optimum protection against mechanical risks, perfect fit without slipping.

Pic.	Lens design	Art. No.	Pack Qty.	€
(3)	clear, UV protection, anti-scratch, anti-fog	**ANL5.1**	1 unit(s)	30,75

Welding safety goggles 5X7

Univet.

Acc. to **EN 166, EN 170**. Protection against UV and IR radiation and glare, as often occurs during welding processes. Stage: 5.
Application: Soldering, gas welding.

- Innovative frame design prevents overlapping of the arms and offers absolute wear comfort
- PC lenses with anti-scratch and anti-fog coating, shatterproof
- 3x length adjustable arms
- SoftPad™ arms allow optimum adaptation to the face shape of the wearer
- Weight: 37 g



Lens design	Art. No.	Pack Qty.	€
UV protection, anti-scratch, anti-fog	**EYY9.1**	1 unit(s)	25,30

Special safety goggles

Safety spectacles 5X9

Univet.

Acc. to **EN 166, EN 170**. The two-lens structure enables a wide selection of lens materials and filters and can thus be used in many applications. The integrated flip-up system and the lens form a unique modular system for maximum flexibility.
Application: In chemistry labs and in environments with grinding dust

- Integrated side protection with ventilation system
- Weight: 52 g (glass), 35 g (polycarbonate)
- Can be combined with flip-ups with protective filters for specific requirements



With arms

Arm length and tilt can be adjusted, with SoftPad™ arms.
Version with glass lenses offers good protection against chemicals and scratches.

Pic.	Version	Lens design	Art. No.	Pack Qty.	€
(1)	Lens made of PC	clear, UV protection, anti-scratch	**HAA0.1**	1 unit(s)	21,45
(2)	Lens made of glass	clear	**HAA1.1**	1 unit(s)	42,40

With headband

Equipped with elastic headband and tight-fitting additional frame.

Pic.	Version	Lens design	Art. No.	Pack Qty.	€
(3)	Lens made of PC	clear, UV protection, anti-scratch, anti-fog	**HAA2.1**	1 unit(s)	25,20

Accessories for 5X9 safety spectacles Flip-up

Univet.

For use with 5X9 safety spectacles
Can be easily fitted onto the glasses frame, removed again and replaced with another filter. Can be flipped up.

PC, IR 3

Protection against UV and IR radiation and glare, as often occurs during welding processes.

Application: For use in areas where welding work is taking place and when soldering. Use only for preparatory welding work. Not for welding work or flame cutting.

Pic.	Lens colour	Art. No.	Pack Qty.	€
(4)	green	**HAA3.1**	1 unit(s)	27,00

PC, IR 5

Optimum protection against IR radiation, high VLT for good vision in dark environments, good colour recognition (TSR), sun protection.

Application: Glass work, quality control, foundries, artificial optical radiation (AOR).

Pic.	Lens colour	Art. No.	Pack Qty.	€
(5)	green	**HAA4.1**	1 unit(s)	27,00

Glass, IR 4–5

Protection against IR radiation. Absorbs yellow-orange radiation. Reduces distracting reflections caused by molten glass or metal.

Application: Glass work, metallurgy, foundries.

Pic.	Lens colour	Art. No.	Pack Qty.	€
(6)	blue	**HAA5.1**	1 unit(s)	46,85

Safety glasses accessories



Spectacle pouch

UVEX. Material: Nylon.

Made of Nylon. Suitable for all temple spectacles and full-vision spectacles.

Colour	Suitable for	Art. No.	Pack Qty.	€
black	Temple spectacles and full-vision spectacles	**T708.1**	1 unit(s)	7,15



Spectacle case with Velcro-type fastening

UVEX. Material: Nylon.

Flexible case made of robust nylon material. Individually adjustable Velcro-type fastening. With belt.

(1) For temple spectacles
Extendable using the zip attached on the side. Suitable for UVEX temple spectacles.

Pic.	Colour	Suitable for	Art. No.	Pack Qty.	€
(1)	black	Temple spectacles	**EHL7.1**	1 unit(s)	11,65

(2) For small full-vision spectacles
Suitable for small, full-vision spectacles such as u-sonic (Art. No. EEK3.1ff) and carbovision (Art. No.: PP31.1).

Pic.	Colour	Suitable for	Art. No.	Pack Qty.	€
(2)	black	small wide-vision safety spectacles	**EHL8.1**	1 unit(s)	12,60



Spectacle case hard shell

UVEX.

Innovative, fashionable design, specially adapted for models with pronounced curve (like the i-vo). With zip, buckle and practical snap hook.

Colour	Art. No.	Pack Qty.	€
black	**EHN0.1**	1 unit(s)	12,55



Spectacle case

UVEX.

Very robust case with reinforced zip and separate pocket for cleaning tissues or spare lens. With Velcro-type fastenings for belt.

(1) For temple spectacles
Suitable for all UVEX temple spectacles except for Super OTG.

Pic.	Colour	Suitable for	Art. No.	Pack Qty.	€
(1)	black	Temple spectacles	**AA00.1**	1 unit(s)	11,40

(2) For full-vision spectacles
Suitable for all temple and full-vision safety spectacles by UVEX.

Pic.	Colour	Suitable for	Art. No.	Pack Qty.	€
(2)	black	Wide-vision safety spectacles	**EHL9.1**	1 unit(s)	15,80



Spectacle cord

3M.

Suitable for most temple spectacles. Braided, with silicone rubber loops. Length approx. 45 cm.

Colour	Suitable for	Art. No.	Pack Qty.	€
black	most temple spectacles	**5844.1**	1 unit(s)	5,85

Safety glasses accessories



Spectacles box SEKUROKA®

ROTH SELECTION. Material: ABS.

- Made of impact-resistant plastic (ABS) with rounded corners, blue or transparent
- For safe storage of safety spectacles directly in the workplace
- Protects PPE against scratching, dust and moisture
- Can be mounted using screws or adhesive

For 1 pair of safety spectacles
Suitable for all standard safety spectacles.

Delivery incl. fixing material for wall mounting. Delivery excludes safety spectacles and mandatory sign (Art. No. NK21.1, please order separately).

Colour	W x D x H, external (mm)	Art. No.	Pack Qty.	€
blue	236 x 120 x 120	**N426.1**	1 unit(s)	18,05
colourless	236 x 120 x 120	**N427.1**	1 unit(s)	21,85

For 4 safety spectacles
Suitable for standard arm spectacles. Not suitable for very curved spectacles (e.g. Uvex i-vo).
Inner compartment dimensions: W 42 x D 64 x H 175 mm

Delivery incl. fixing material for wall mounting and „Wear eye protection" mandatory sign without safety spectacles.

Colour	W x D x H, external (mm)	Art. No.	Pack Qty.	€
blue	236 x 125 x 225	**TY59.1**	1 unit(s)	80,65
colourless	236 x 125 x 225	**TY60.1**	1 unit(s)	90,60

For 12 pairs of safety spectacles
Ideal for storing safety spectacles for visitors. Insert is removable, e.g. for cleaning.
inner dimensions: W 230 x D 192 x H 299 mm
Inner compartment: W 63 x D 174 x H 75 mm.

Delivery incl. fixing material for wall mounting and „Wear eye protection" mandatory sign without safety spectacles.

Colour	W x D x H, external (mm)	Art. No.	Pack Qty.	€
blue	236 x 200 x 315	**X465.1**	1 unit(s)	150,85
colourless	236 x 200 x 315	**CHL0.1**	1 unit(s)	156,55



Safety spectacles dispenser

Material: PMMA.

Store spectacles in a clean and safe place, ideal for visitor's spectacles. Made of acrylic glass. Either separate or attached to the wall. Spectacles can also be removed individually. Top with cover.
Withdrawal opening: W 17 x H 5.9 cm.

Delivery incl. fixing material for wall mounting, without safety spectacles.

Colour	W x D x H, external (mm)	Art. No.	Pack Qty.	€
colourless	170 x 75 x 390	**KN10.1**	1 unit(s)	112,90



Spectacles box Mobile

GEBRA. Material: ABS.

Made of sturdy plastic (ABS), blue. Portable spectacle box for the safe storage of safety spectacles on the go, e.g. when working away on a job, on industrial facilities, on construction sites. Protects against scratching, dust and moisture. Suitable for all standard safety spectacles.

Delivery without safety spectacles.

Colour	Suitable for	Art. No.	Pack Qty.	€
blue	Temple spectacles	**TY61.1**	1 unit(s)	15,60

Safety glasses accessories



Spectacle cleaning cloths SEKUROKA®

Carl ROTH.

for wet cleaning optical lenses, with active grease remover and alcohol. Cleans perfectly – anti-fog, anti-static and gentle – without needing to wipe dry. Individually packaged.

Danger H228-H319

Pack.	Art. No.	Pack Qty.	€
Individually packaged	**1678.1**	100 unit(s)	18,25



Microfibre cleaning cloth SEKUROKA®

ROTH SELECTION.

For streak-free cleaning of spectacles and optical devices. Washable and reusable. Dimensions: 150 x 150 mm.

Colour	Art. No.	Pack Qty.	€
white	**E172.1**	5 unit(s)	12,70



Glass lens cleaner Anti-fog

Univet.

Solution for cleaning spectacles and visors, prevents fogging. Contents: 17 ml.

Version	Art. No.	Pack Qty.	€
Anti-fog spectacle cleaner	**CNH5.1**	1 unit(s)	18,05



Face shield 699 with chin guard

Univet.

Acc. to **EN 166**.

- 1 mm polycarbonate visor with 90° hinge mechanism
- Height-adjustable head frame
- Adjustable head size using elastic headband
- Exchangeable foam headband
- Can be worn with safety spectacles and respirator

Lens design	Art. No.	Pack Qty.	€
clear	**ATP6.1**	1 unit(s)	23,60



Face shield 710

Univet.

Acc. to **EN 166**. Lightweight face protection against liquid droplets and splashes.

- Clear anti-fog visor made of acetate
- Interchangeable skin-friendly terry towel lining on forehead
- Adjustable elastic head strap
- Can be worn over corrective spectacles
- Weight 97 g

Lens design	Art. No.	Pack Qty.	€
clear, anti-fog	**APY9.1**	1 unit(s)	41,40



Face shield TUFFMASTER

3M.

Acc. to **EN 166**. Protects against medium-energy flying particles and fluid and liquid metal splashes. Pane made of 2 mm strong PC (230 x 370 mm), height-adjustable and can be locked. Continuously adjustable. Soft headband made of vinyl.

Lens design	Art. No.	Pack Qty.	€
clear	**T668.1**	1 unit(s)	46,35



Face visor Polysoft

Op-D-Op.

Ultra-lightweight, made of ABS. Flexible, anti-fog, can also be worn over respiratory masks and spectacles. With forehead padding and fastening cord. Headpiece adapts to the wearer using body heat. Smallest head circumference approx. 440 mm.

Delivery incl. headgear with cord, 3 face visors and 1 mini visor.

Colour	Lens design	Art. No.	Pack Qty.	€
white	clear	**C346.1**	1 unit(s)	64,00
blue	clear	**C347.1**	1 unit(s)	64,00
neon yellow	clear	**C348.1**	1 unit(s)	64,00
neon pink	clear	**C349.1**	1 unit(s)	64,00



Face shield SPHERE

Bollé.

Acc. to **EN 166, EN 170**. Also suitable for work with UV light.

- Lens made of PC (2.0 mm thick), frame made of PP
- Wide field of vision of 180°
- Adjustable headgear and headband
- Protection against chemical splashes
- Protection against medium-energy particles (120 m/s), tested at extremely high temperatures
- Protection against hot solids and molten metals

Weight 355 g. Visor size: H 205 x W 394 mm.

Lens design	Art. No.	Pack Qty.	€
clear, UV protection	**PT74.1**	1 unit(s)	30,60



Face shield

UVEX.

Acc. to EN 166 and EN 170. Robust headpiece made of PA with integrated forehead protection. Comfortable adjustment to individual head size via twist fastener. Continuously adjustable folding up mechanism. Visor made of cellulose acetate, 1 mm thickness. To protect against low-energy particles.
Dimensions: H 195 x W 540 mm. 227 g weight.

(1) 9705

Lens design	Art. No.	Pack Qty.	€
clear, UV protection	**EX08.1**	1 unit(s)	37,25

(2) 9706

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-fog	**HLN4.1**	1 unit(s)	46,30



Face shield RELRSI

Bollé.

Acc. to **EN 166, EN 170.** Also suitable for work with UV light.

- Ultra-light, flip-up visor
- Anti-fog acetate protective visor, thickness 1.5 mm
- Protection against chemical splashes, electrical arcs and short circuits
- Protection against flying particles, medium energy (120 m/s)
- Adjustable head strap
- Frame and headpiece made of polypropylene

200 g weight. Visor size: (H x W) 190 x 290 mm.

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-fog	**KP10.1**	1 unit(s)	42,30



Face shield Clearways

Honeywell Safety.

Acc. to **EN 166**. Very lightweight headgear. Replaceable visor made of PC, can be bended using the metal frame. Width of the padded headgear can be individually adjusted by a rotating ratchet mechanism. For protection against fluid splashes and low-energy flying particles. Visor dimensions: H 250 x W 205 mm. Height incl. 265 mm headpiece.

Lens design	Art. No.	Pack Qty.	€
clear	**E227.1**	1 unit(s)	39,70



Face shield Bionic

Honeywell Safety.

Acc. to **EN 166, EN 170**.

- Large visor allows for good visibility
- Polycarbonate visor for UV-protection and good colour recognition
- Anti-scratch and anti-fog
- Protection against chemical splashes
- Protection against medium-energy flying particles (120 m/s), tested at extremely high temperatures
- Visors are very easy to replace

- Can be set individually for a good fit
- Ratchet headpiece
- Frame made of robust ABS plastic
- All parts that come into contact with the head have soft padding
- Skin-friendly sweatband that can be replaced and washed
- Added protection for upper head and chin
- Can be combined with respirator or safety spectacles
- Very lightweight, weight 407 g
- Dimensions: H 31 x W 24 cm

Lens design	Art. No.	Pack Qty.	€
clear, UV protection, anti-scratch, anti-fog	**CA34.1**	1 unit(s)	91,90



Combined face and ear protection G500

3M.

Acc. to **EN 166, EN 352**. The combination consists of yellow headgear, a clear, anti-fog PC visor and Optime™ I earmuffs (insulation value 26 dB(A)). The headpiece can be set for head sizes of 54–62 cm. The visor protects against particles flying at a medium speed of 120 m/s.

- A practical and comfortable solution for all who need both face and ear protection
- Face shield and wide field of view
- Multiple combinations with safety spectacles and clear or mesh visors
- Stable construction, long service life and excellent wear comfort

Delivery incl. headpiece, PC visor, Optime™ I ear defenders.

Lens design	Art. No.	Pack Qty.	€
clear	**YT38.1**	1 unit(s)	80,55



Wall hook SEKUROKA®

ROTH SELECTION.

With information label made of rigid plastic, W 195 x L 215 mm, hook length 40 mm.

Version	Art. No.	Pack Qty.	€
for aprons	**1092.1**	1 unit(s)	15,60
for gas masks	**1091.1**	1 unit(s)	15,60
for face shields	**E174.1**	1 unit(s)	15,60



Face shield accessories 3M™

3M.

Can be combined with hard hats (NH14.1f). Visor mount (NH18.1) and helmet adapter (AKT9.1) are required to secure the visors. If ear defenders are attached, no helmet adapter is required.

(1) Polycarbonate visor
Material: PC. Clear and anti-fog. Includes replacement screen that can be used with G500 (YT38.1) combined face and ear protection.

Lens design	Art. No.	Pack Qty.	€
clear, anti-fog	**NH16.1**	1 unit(s)	21,20

(2) Stainless steel mesh visor
Light reduction: 24%, 54 g, suitable for use in agriculture, forestry and gardening.

Version	Art. No.	Pack Qty.	€
Stainless steel mesh visor	**NH17.1**	1 unit(s)	19,70

(3) Visor mount
For securing visors to NH14.1 f hard hats.

Version	Art. No.	Pack Qty.	€
Visor mount	**NH18.1**	1 unit(s)	16,10

Helmet adapter
Connector for helmets with 30 mm slot (NH14.1 f) for attaching the visor mount without ear defenders.

Version	Art. No.	Pack Qty.	€
Helmet adapter	**AKT9.1**	1 pair	12,65



Ear defenders Peltor™ OPTIME™

3M.

Acc. to EN 352-1. With safety attachment for all hard hats with 30 mm slot system and face/ear protection G500 (YT38.1). High wear comfort and low pressure inside ear even after extended wear

- Lightweight design, optimal ear protection
- Constant pressure, liquid-filled sealing ring
- 2-point mounting

Delivery without ear defenders (NH14.1, NH15.1) please order separately.

OPTIME™ I
Flat design.
Applications: Outdoor work, building trade, engineering, woodworking, metalworking, automobile industry, farming, chemical treatment.

SNR value (db)	Art. No.	Pack Qty.	€
26	**NH12.1**	1 pair	27,60

OPTIME™ II
For high-noise environments, provides excellent sound insulation even at extremely low frequencies.
Applications: Outdoor work, building trade, airports.

SNR value (db)	Art. No.	Pack Qty.	€
30	**NH13.1**	1 pair	35,40



Hard hat Uvicator™ sensor

3M. Material: ABS UV-stabilised.

Acc. to EN 397. Made of ABS, ventilated, with sweatband. Designed for use in harsh environments with high safety requirements.

- Compatible with other auxiliary safety gear, such as ear defenders, visors or safety spectacles.
- The Peltor™ Uvicator™ sensor indicates when the helmet requires replacing.
- Short face shield allows for excellent visibility
- Ratchet system for easy adjustment to head size
- Slender, rounded shape reduces the danger of getting caught on objects such as tree branches or similar obstacles
- Multiple ventilation slots make for excellent ventilation

Colour	Art. No.	Pack Qty.	€
white	**NH14.1**	1 unit(s)	30,55
yellow	**NH15.1**	1 unit(s)	30,55

Protective mouth masks



Disposable mouth and nose mask with activated carbon

ROTH SELECTION.

Includes an activated carbon fleece which binds unpleasant odours. Free of glass fibres and skin-friendly. With adjustable aluminium nose bridge and elastic bands. Comfortable to wear, with low breathing resistance.
Dimensions: L 175 x W 98 mm.

The mask is not a piece of personal protective equipment (PPE) or a medical product.

Pack.	Art. No.	Pack Qty.	€
individual	**8401.1**	10 unit(s)	26,90
individual	**8401.2**	50 unit(s)	108,90



Medical face masks SUAVEL® Antifluid with visor

Meditrade.

Acc. to EN 14683 type II R, (EU) 2017/745 Class 1.

- Filtration capacity: >99% BFE (bacteria filtration efficiency)
- Mouth and nose protection for highly contagious situations
- Splash and fluid protection for mouth, nose and eyes
- 4-layer skin friendly material with antifluid layer
- With reinforced, long nose bridge
- Extra long straps for tying together
- Latex-free, lint-free, non-sterile
- Colour: Blue
- For single use

Technical specifications:

Art. No.	CAL8.1
Standards	DIN EN 14683
Performance level	Type IIR
Bacteria filtration efficiency (BFE)	>98 %
Colour	blue

Medical device class I MDD

Colour	Art. No.	Pack Qty.	€
blue	**CAL8.1**	50 unit(s)	53,25



Medical face masks SUAVEL® Protec

Meditrade.

Acc. to EN 14683 type II, (EU) 2017/745 Class 1.

- Three-layer mouth and nose protection for single use
- With elasticated ear loops
- Good skin tolerance due to high-quality materials
- Ultrasonic sealing: no uncomfortable seams or threads coming loose
- Aluminium nose bridge, coated with PP, enables optimum adaptation to facial contours

Technical specifications:

Art. No.	1AN8.1
Standards	DIN EN 14683
Performance level	Type II
Bacteria filtration efficiency (BFE)	>98 %
Colour	blue

Medical device class I MDD

Colour	Art. No.	Pack Qty.	€
blue	**1AN8.1**	50 unit(s)	3,25



Dispensers for masks

Material: Stainless steel.

Made of high-quality stainless steel, polished appearance. Can be disinfected with surface disinfectant.
Suitable for wall mounting.

Delivery incl. mounting material.

W x D x H (mm)	Art. No.	Pack Qty.	€
260 x 135 x 110	**1CHX.1**	1 unit(s)	64,75

Protective mouth masks



NEW / +

Medical face masks SUAVEL® Protec Plus

Meditrade.

Acc. to EN 14683 type II, (EU) 2017/745 Class 1.

- Three-layer disposable surgical mask
- Highly effective and extremely comfortable
- Premium-quality materials ensure the masks are well tolerated by the skin
- With elasticated ear loops
- Ultrasonic sealing: No uncomfortable seams or threads coming loose
- Reinforced nose bridge enables optimum adaptation to facial contours
- Free of glass fibre and latex
- Extra-soft padded ear loops make the mask comfortable for extended periods of wear

Technical specifications:

Art. No.	**1H9A.1**
Standards	DIN EN 14683
Performance level	Type II
Bacteria filtration efficiency (BFE)	≥98 %
Colour	green

Medical device class I MDD

Colour	Art. No.	Pack Qty.	€
green	**1H9A.1**	50 unit(s)	9,70



Medical face masks type IIR

Franz Mensch.

Acc. to EN 14683 type II R, (EU) 2017/745 Class 1.

- 3-layer disposable mouth and nose protection made of polypropylene fleece
- Higher resistance to liquids and aerosols
- Lint-free and skin-friendly
- Integrated nose bridge, anatomically adjustable

Technical specifications:

Art. No.	**1C2Y.1**
Standards	DIN EN 14683
Performance level	Type IIR
Bacteria filtration efficiency (BFE)	>98 %
Colour	blue

Medical device class I

Colour	Art. No.	Pack Qty.	€
blue	**1C2Y.1**	50 unit(s)	7,55



Dispensers for masks and covers

Material: Stainless steel.

Made of high-quality stainless steel, polished appearance. Can be disinfected with surface disinfectant.
Combi dispenser made of two individual compartments, welded.
Mask dispenser dimensions: W 260 x D 135 x H 110 mm
Hairnet dispenser dimensions: W 260 x D 135 x H 268 mm
Suitable for wall mounting.

Delivery incl. mounting material.

W x D x H (mm)	Art. No.	Pack Qty.	€
260 x 135 x 378	**1CHT.1**	1 unit(s)	129,60

Particle filter masks



Cat. III

Particulate filter mask Air

Moldex.

Acc. to EN 149:2001 + A1:2009.

Protection against dust, aerosols and fumes:

- Anatomically preformed masks - adaptable to fit different face sizes
- DuraMesh®: Sturdy mask mesh keeps the mask in shape
- ActivForm®: No nose bridge required

- **Fluted filter technology: 260% more filtration area**, very low breathing resistance, high absorption capacity, long life
- All-round strap with adjustable clip for easy application, removal and adjustment
- Also available in **size S** (for small or narrow faces)

With Klimaventil®

For easy exhalation, the Klimaventil® opens at the lightest exhalation pressure and reduces heat and moisture under the mask.

Protection level	Size	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
FFP2 NR D	S	3155	individual	**XA32.1**	10 unit(s)	45,05
FFP2 NR D	M/L	3105	individual	**XA33.1**	10 unit(s)	45,05
FFP3 NR D	S	3255	individual	**XA34.1**	10 unit(s)	80,65
FFP3 NR D	M/L	3205	individual	**XA35.1**	10 unit(s)	80,65

Without Klimaventil®

Protection level	Size	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
FFP2 NR D	S	3150	individual	**XA28.1**	10 unit(s)	32,15
FFP2 NR D	M/L	3100	individual	**XA29.1**	10 unit(s)	32,15
FFP3 NR D	S	3250	individual	**XA30.1**	10 unit(s)	68,70
FFP3 NR D	M/L	3200	individual	**XA31.1**	10 unit(s)	68,70

Particulate filter mask Air Plus

Moldex.

Acc. to EN 149:2001+A1:2009.

Protection against dust, aerosols and fumes:

- Anatomically preformed masks - adaptable to fit different face sizes
- DuraMesh®: Sturdy mask mesh keeps the mask in shape
- ActivForm®: No nose bridge required
- Klimaventil®: Reduces heat and moisture build-up under the mask
- Special tight fit thanks to soft all-round sealing lip made of a skin-friendly, washable TPE material

- **Fluted filter technology: 260% more filtration area**, very low breathing resistance, high absorption capacity, long life
- All-round strap with adjustable clip for easy application, removal and adjustment
- With Klimaventil® for easy exhalation. The valve opens at the lightest exhalation pressure. Heat and moisture build-up under the mask are reduced.

Protection level	Size	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 R D	M/L	3305	**T761.1**	5 unit(s)	53,65
FFP3 R D	M/L	3405	**T763.1**	5 unit(s)	55,80



Particulate filter mask smart

Moldex.

Acc. to EN 149:2001 + A1:2009.

Protection against dust, aerosols and fumes:

- Anatomically preformed masks – adaptable to fit different face sizes
- DuraMesh®: Sturdy mask mesh keeps the mask in shape
- ActivForm®: No nose bridge required
- Klimaventil®: Reduces heat and moisture build-up under the mask

- With soft sealing lip
- All-round strap with clip for easy application, removal and adjustment
- Colour-coded straps: FFP1 blue, FFP2 white, FFP3 yellow

Without Klimaventil®

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP1 NR D	2380	**EE30.1**	20 unit(s)	34,40
FFP2 NR D	2480	**EE31.1**	20 unit(s)	67,75

With Klimaventil®

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP1 NR D	2385	**T758.1**	20 unit(s)	69,35
FFP2 NR D	2485	**T759.1**	20 unit(s)	91,95
FFP3 NR D	2505	**T760.2**	10 unit(s)	83,85

Particle filter masks



Particulate filter mask SoloBand®

Moldex.

Acc. to EN 149:2001 + A1:2009.

Protection against dust, aerosols and fumes:

- Anatomically preformed masks – adaptable to fit different face sizes
- DuraMesh®: Sturdy mask mesh keeps the mask in shape
- ActivForm®: No nose bridge required
- Klimaventil®: Reduces heat and moisture build-up under the mask

- FFP mask with special headband
- Easy and quick application and removal, even wearing gloves
- Soft sealing lip
- With Klimaventil®

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP1 NR D	2395	**CT75.1**	20 unit(s)	68,30
FFP2 NR D	2495	**CT77.1**	20 unit(s)	91,40



Particulate filter mask Smart Pocket

Moldex.

Acc. to EN 149:2001+ A1:2009.

Protection against dust, aerosols and fumes:

- **Ready to wear**
- Soft sealing lip
- DuraMesh®: Sturdy mask mesh keeps the mask in shape
- ActivForm®: Without nose bridge
- Loop strap with clip for simple on, off and adjustment
- **With Klimaventil®**

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
FFP2 NR D	2475	individually	**YP17.1**	10 unit(s)	45,15
FFP3 NR D	2575	individually	**YP18.1**	10 unit(s)	72,60



Particulate filter mask Mandil FFP2/V

EKASTU Safety.

Acc. to EN 149:2001+ A1:2009.

- Stable preformed mask body with high level of wear comfort
- A flexible, foam-lined nose bridge allows skin-friendly and comfortable sealing
- With colour-coded nose bridge and exhalation valve for instant identification of the protection class
- Cool Down exhalation valve makes exhaling easier and prevents build-up of heat under the mask

Technical specifications:

Art. No.	1EXT.1
Protection level	FFP2 NR
For protection against	Low-toxic or harmful particles up to ten times the limit
Standards	EN 149:2001+A1:2009

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR	411281	**1EXT.1**	12 unit(s)	78,95



Particulate filter mask cobra foldy FFP2/V

EKASTU Safety.

Acc. to EN 149:2001+ A1:2009.

- Foldable mask, with special 3D design and high level of wear comfort
- With colour-coded nose bridge and exhalation valve for instant identification of the protection class
- A flexible, foam-lined nose bridge allows skin-friendly and comfortable sealing
- Infinitely adjustable band with comfortable clip fastener
- Cool Down exhalation valve makes exhaling easier and prevents build-up of heat under the mask
- Very compatible with safety spectacles
- Hygienic handling, as masks are individually packed

Technical specifications:

Art. No.	1EXP.1
Protection level	FFP2 NR D
For protection against	Low-toxic or harmful particles up to ten times the limit
Exhalation valve	Yes
Standards	EN 149:2001+A1:2009

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR D	419281	**1EXP.1**	12 unit(s)	78,95

Particle filter masks



Particulate filter mask silv-Air e

UVEX.

Acc. to EN 149:2001 + A1:2009.

- Exhalation valve reduces respiratory resistance and heat and moisture under the mask
- Integrated nose clip
- All-round comfortable lip seal
- Four-point headband attachment on PP32.1 for comfortable and secure fit

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR D	7212	**XC91.1**	15 unit(s)	47,65
FFP3 R D	7312	**PP32.1**	5 unit(s)	35,30



Particulate filter mask silv-Air e

UVEX.

Acc. to EN 149:2001 + A1:2009.

- Shape-optimised design
- Four-point strap for a comfortable and secure fit
- Flexible, easily adjustable nose bridge
- Two additional filters with inhalation valves for lower breathing resistance
- Can be used for longer due to larger filter surface
- Dolomite dust test (D) passed
- Soft, all-round lip seal
- Temperature control via two suction valves and one exhalation valve

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 R D	7232	**XC92.1**	3 unit(s)	31,15
FFP3 R D	7330	**KX42.1**	3 unit(s)	38,30



Fold-flat particulate filter mask silv-Air classic

UVEX.

Acc. to EN 149:2001+A1:2009.

- Particulate-filtering fold-flat mask
- All-round headband and flexible-fit nose clip
- Comfortable sealing lip on the nose for reliable sealing
- NR: not reusable (use for one shift only)

(1) With exhalation valve

- Exhalation valve for reducing exhalation resistance and heat and moisture under the mask

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
FFP2 NR D	3210	individual	**1C98.1**	15 unit(s)	39,10

(2) With exhalation valve and activated carbon

- Exhalation valve for reducing exhalation resistance and heat and moisture under the mask
- Filter material contains additional activated carbon coating to keep unpleasant odours below the limit value

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
FFP2 NR D	3220	individual	**1C97.1**	15 unit(s)	49,30

(3) Without exhalation valve

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
FFP2 NR D	3200	individual	**1E5K.1**	30 unit(s)	72,95



Fold-flat particulate filter mask silv-Air lite

UVEX.

Acc. to EN 149:2001+A1:2009.

- Particulate-filtering fold-flat mask without exhalation valve
- Soft material edges for improved wearer comfort
- Rubber headband for comfortable and secure mask fit
- Integrated, flexible-fit nose clip for excellent wearer comfort and reliable sealing
- Highly compatible with safety spectacles
- Enlarged filter surface for low breathing resistance
- Large space inside the mask and optimised folded form prevents the mask from collapsing when breathing in

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR D	4200	**1E72.1**	30 unit(s)	34,80

Particle filter masks



Particulate filter mask silv-Air classic

UVEX.

Acc. to EN 149:2001+ A1:2009.

- Form-fitting particulate-filtering mask
- Flexibly adjustable nose clip for comfortable and secure mask fit
- FFP1 and FFP2 masks have an all-round headband and a comfortable sealing lip on the nose for reliable sealing
- FFP3 masks feature a four-point headband attachment and a soft, all-round sealing lip for optimum comfort and especially secure and reliable sealing
- NR: not reusable (use for one shift only)

With exhalation valve and activated carbon

- Exhalation valve for reducing exhalation resistance and heat and moisture under the mask
- Filter material contains additional activated carbon coating to keep unpleasant odours below the limit value

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR D	2220	**1C91.1**	15 unit(s)	46,10

With exhalation valve

- Exhalation valve for reducing exhalation resistance and heat and moisture under the mask

Protection level	Size	Manufacturer no.	Art. No.	Pack Qty.	€
FFP1 NR D	L	2110	**1C93.1**	15 unit(s)	37,10
FFP2 NR D	L	2210	**1C94.1**	15 unit(s)	37,85
FFP3 NR D	L	2310	**1C95.1**	15 unit(s)	129,30
FFP3 NR D	S/M	2312	**1C96.1**	15 unit(s)	129,30

Without exhalation valve

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR D	2200	**1C92.1**	20 unit(s)	42,95



Particulate filter mask Aura™ 9300+

3M.

Acc. to EN 149:2001 + A1:2009.

- Comfortable to wear thanks to soft material, low weight and flat design; does not impede speech
- Integrated nose bridge with perspiration absorbent padding
- Can be folded flat for easy carrying, individually packed
- Compatible with spectacles and eye protection
- Cool-Flow exhalation valves reduce breathing resistance and prevent build-up of heat under the mask
- Without natural rubber components
- **Colour-coded straps:** FFP1 yellow, FFP2 blue, FFP3 red

Without Cool-Flow exhalation valve

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
FFP1 NR D	9310+	individual	**N186.1**	20 unit(s)	34,80
FFP2 NR D	9320+	individual	**N187.1**	20 unit(s)	65,25
FFP3 NR D	9330+	individual	**TY71.1**	20 unit(s)	175,25

With Cool-Flow exhalation valve

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
FFP1 NR D	9312+	individual	**N188.1**	10 unit(s)	36,90
FFP2 NR D	9322+	individual	**N189.1**	10 unit(s)	45,45
FFP3 NR D	9332+	individual	**N190.1**	10 unit(s)	86,85

Particle filter masks



Particulate filter mask Aura™ 9400+

3M.

Acc. to EN 149:2001+ A1:2009.

Specially developed for food production and- processing requirements.

- Comfortable to wear thanks to soft material, low weight and flat design; does not impede speech
- Integrated nose bridge with perspiration absorbent padding

No small parts which can become detached:

- Clip-free: Minimises the risk of contamination
- Inner adjustable nose bridge: Securely integrated into the mask
- Can be folded flat for easy carrying, individually packed
- Compatible with spectacles and eye protection
- Cool-Flow exhalation valve reduces breathing resistance and prevents build-up of heat under the mask
- Without natural rubber components

Highly recognisable:

- Metal detector: Integrated metallic nose bridge
- Visual monitoring: Blue contrast colour stands out clearly from foodstuff colours

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
FFP2 NR D	9422+	individual	**YP12.1**	10 unit(s)	n. a.



Medical particulate filter mask Aura™ 1800+

3M.

Acc. to EN 149:2001 + A1:2009, type IIR, acc. to EN 14683:2005 (surgical masks) type IIR, acc. to 93/42/EEC, class 1.

- **Protects the user and the environment**
- Protects against particulates and aerosols
- Protects against ingress of chemical splashes, e.g. body fluid
- Suitable for lab technicians (e.g. **handling of cytostatic agents**), the pharmaceutical industry (manufacture of medicines), doctors, operating room-nurses, emergency room staff

- Three-piece design, mask adapts to many different face shapes and sizes
- Compatible with safety spectacles
- Folded flat and individually, hygienically packed for easy portability
- Integrated nose bridge with perspiration absorbent padding

Medical device class I MDD

Without exhalation valve

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR D	1862+	**CNE4.1**	20 unit(s)	70,55
FFP3 NR D	1863+	**CNE5.1**	20 unit(s)	187,05

With exhalation valve

Specially developed, covered Cool-Flow exhalation valve reduces heat build-up in the mask and breathing resistance while protecting surroundings from exhaled aerosols.

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP3 NR D	1883+	**HT23.1**	8 unit(s)	79,45



Particulate filter mask Classic, 8000 series

3M.

Acc. to EN 149:2001 + A1:2009.

- For protection against fine dust and liquid particles
- Shape-retaining mask body with flexible nose bridge
- **Cool-Flow exhalation valve** reduces breathing resistance and prevents build-up of heat under the mask

Without exhalation valve

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP1 NR D	8710E	**0265.1**	20 unit(s)	30,85
FFP2 NR D	8810	**L159.1**	20 unit(s)	52,70

With exhalation valve

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP1 NR D	8812	**C810.1**	10 unit(s)	26,55
FFP2 NR D	8822	**C811.1**	10 unit(s)	40,05

Particle filter masks



Particulate filter mask Comfort, 8300 series

3M.

Acc. to EN 149:2001 + A1:2009.

- For protection against fine dust and liquid particles
- Shape-retaining mask body with flexible nose bridge
- Soft padded fleece lining for wear comfort
- Secure tight fit even without foam insert
- **Cool-Flow exhalation valve** reduces breathing resistance and prevents build-up of heat under the mask

Without exhalation valve

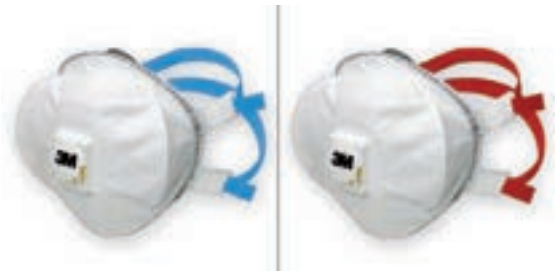
Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR D	8320	**CNE1.1**	10 unit(s)	n. a.

With exhalation valve

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR D	8322	**CNE3.1**	10 unit(s)	n. a.

With exhalation valve and all-round lip seal

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP3 R D	8833	**EH61.1**	10 unit(s)	77,85



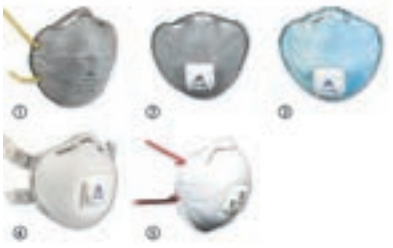
Particulate filter mask Premium

3M.

Acc. to EN 149:2001 + A1:2009; for filtering out fine dust and non-volatile liquid particles.

- 3M™ Advanced Electret Media (AEM) is a high-performance filter material to facilitate breathing
- Consistently high filtering power
- Masks have passed the **Dolomite dust test (D)** and have an all-round lip seal, allowing them to be worn for more than one shift
- **Cool-Flow exhalation valve** prevents heat from building up in the mask and makes breathing easier
- Reduces fogging of eye protection
- 3D preformed seal around the face makes the masks exceptionally comfortable to wear and extremely safe
- Flexible material with built-in nose profile allows the mask to adapt to any face shape
- Masks do not contain components made of latex, PVC or metal
- Held securely in place by a four-part fabric strap, which is adjustable and extra-wide
- Colour-coded according to protection factor (FFP = blue, FFP3 = red)

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 R D	8825+	**0266.1**	5 unit(s)	50,85
FFP3 R D	8835+	**8123.1**	5 unit(s)	59,85



Special particulate filter mask

3M.

Acc. to EN 149:2001 + A1:2009.

(1) FFP1 NR D odour-resistant mask without exhalation valve
For protecting against fine dust up to four times the limit and **unpleasant organic odours** below the limit.

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP1 NR D	9913	**0936.1**	20 unit(s)	122,85

(2) FFP1 NR D odour-resistant mask with exhalation valve
For protecting against fine dust up to four times the limit and **organic odours** below the limit.

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP1 NR D	9914	**EH58.1**	10 unit(s)	68,35

(4) FFP2 NR D special mask with exhalation valve
For protecting against fine dust up to ten times the limit and **against organic odours, HF gas and sulphur dioxide** below the limit.

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 NR D	9926	**EH59.1**	10 unit(s)	93,30

(5) FFP2 R D ozone mask with exhalation valve
For protecting **against harmful fine dust, metal fumes and ozone** up to ten times the limit. Ideal for welding.

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP2 R D	9928	**P842.1**	10 unit(s)	n. a.

(6) FFP3 R D special mask with exhalation valve
For protecting against fine dust up to 30 times the limit and **against acidic gases, HF gas and sulphur dioxide** below the limit.

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP3 R D	9936	**EH60.1**	10 unit(s)	n. a.

Full/half masks

Respiratory filter with standard thread

BartelsRieger Atemschutztechnik.

Acc. to EN 14387 (gas and combined filters) and EN 143 (particulate filters). With EN 148-1 standard thread. Filter casing made of aluminium. Can be combined with respiratory half masks and full-face masks with standard thread connection.
Max. storage life of unopened gas and combined filters is six years after production.
AX and NO-filters are only intended for single use.



Protection level	Colour code	Weight (g)	Art. No.	Pack Qty.	€
A2	brown	180	**1270.1**	1 unit(s)	12,55
B2	grey	200	**1271.1**	1 unit(s)	14,45
E2	yellow	250	**1277.1**	1 unit(s)	13,30
K2	green	225	**1275.1**	1 unit(s)	13,75
P3 R D	white	50	**1225.1**	1 unit(s)	9,20
AX	brown	265	**1550.1**	1 unit(s)	21,70
A2-P3 R D	brown, white	260	**A249.1**	1 unit(s)	20,75
B2-P3 R D	grey, white	270	**0029.1**	1 unit(s)	24,20
AX-P3	brown	290	**KP19.1**	1 unit(s)	22,65
HgP3 R D	red, white	265	**1274.1**	1 unit(s)	23,60
NO-P3	blue, white	370	**1224.1**	1 unit(s)	79,75
A2B2-P3 R D	brown, grey, white	295	**1E20.1**	1 unit(s)	22,35
A2B2E2K1	brown, grey, yellow, green	250	**1E22.1**	1 unit(s)	18,25
A2B2E2K1-P3 R D	brown, grey, yellow, green, white	295	**1E21.1**	1 unit(s)	22,55
A2B2E2K2-P3 R D	brown, grey, yellow, green, white	360	**0635.1**	1 unit(s)	25,80
A2B2E2K2Hg-P3 R D	brown, grey, yellow, green, white, red	360	**KP20.1**	1 unit(s)	27,90

Respiratory filter Pro2000

3M Scott.

Acc. to EN 14387 (gas and combined filters) and EN 143 (particulate filters). With EN 148-1 standard thread. Suitable for respiratory half masks and full-face masks with standard thread connection.
Half masks are only suitable for filters weighing up to 300 g.

- Low breathing resistance
- High capacity, long life



Technical specifications:

Art. No.	XK35.1	XK37.1	XK44.1	XK36.1	XK40.1	XK38.1	XK45.1	XK46.1	XK42.1
Protection level	A2	AX	P3 R	A2-P3	B2-P3	AX-P3	A2B2E2K2-P3 R D	A2B2E2K-2Hg-P3 R D	Reaktor-HgP3
For protection against	organic vapours and gases with a boiling point of over 65 °C up to a concentration of 5000 ppm	organic vapours/gases with a boiling point of under 65 °C	Particles from toxic substances	organic vapours and gases with a boiling point of over 65 °C up to a concentration of 5000 ppm and particles	Inorganic gases and vapours together with particles from toxic substances	organic vapours/ gases with a boiling point of below 65 °C and particles from toxic and highly toxic substances	Inorganic gases, sulphur dioxide and ammonia and organic gases and vapours with a boiling point of over 65 °C, as well as particles from toxic substances	Organic and inorganic gases and vapours, sulphur dioxide, ammonia and mercury vapours together with particles from toxic and highly toxic substances	Mercury vapours and compounds, radioactive iodine and its organic compounds, such as methyl iodide, harmful solid and liquid particles
Colour code	brown		white	brown, white	grey, white	brown, white	brown, grey, yellow, green, white	brown, grey, yellow, green, pink, white	red, white
Weight	190 g	268 g	90 g	230 g	265 g	310 g	370 g		307 g
Standards	EN 14387, EN 148-1		EN 143, EN 148-1	EN 14387, EN 148-1					

Protection level	Colour code	Weight (g)	Art. No.	Pack Qty.	€
A2	brown	190	**XK35.1**	1 unit(s)	20,35
P3 R	white	90	**XK44.1**	1 unit(s)	15,30
AX	brown	268	**XK37.1**	1 unit(s)	30,65
A2-P3	brown, white	230	**XK36.1**	1 unit(s)	31,10
B2-P3	grey, white	265	**XK40.1**	1 unit(s)	30,45
AX-P3	brown, white	310	**XK38.1**	1 unit(s)	44,10
A2B2E2K2-P3 R D	brown, grey, yellow, green, white	370	**XK45.1**	1 unit(s)	33,80
A2B2E2K2Hg-P3 R D	brown, grey, yellow, green, pink, white	370	**XK46.1**	1 unit(s)	33,95
Reaktor-HgP3	red, white	307	**XK42.1**	1 unit(s)	74,90

Full/half masks



Half mask respirator 620

BartelsRieger Atemschutztechnik.

Acc. to EN 140. With EN 148-1 standard thread. **Two exhalation valves** guarantee lower exhalation resistance which is optimal for physical work. Exchangeable components. Pull strap.

Delivery without filters, suitable respiratory filters with standard round thread acc. to EN 148-1 and 1270.1 ff, XK35.1 ff, please order separately.

Pic.	Version	Material	Art. No.	Pack Qty.	€
(1)	620N	Natural rubber	**1939.1**	1 unit(s)	75,95
(2)	620S	Silicone	**9799.1**	1 unit(s)	95,50



Half mask respirator AVIVA 40

3M Scott.

Acc. to EN 140. Single-filter half masks, can be combined with respiratory filters with standard thread acc. to EN148-1. Skin-friendly thermoplastic elastomer.

- Perfect fit due to flexible inner Hybrid Reflex Seal
- User-friendly leak test function
- Easily combinable with eye protection and other PPE
- Downwards-facing respiratory filter prevents fogging of the eye protection
- Improved intelligibility due to integrated voice channel
- Comfortable and robust head harness provides better grip and is ideal for use under headgear
- Simple rear fastening makes them easy to put on and take off

Delivery without filter, suitable filters: 1270.1ff, XK35.1ff, please order separately.

Size	Art. No.	Pack Qty.	€
S	**HHN8.1**	1 unit(s)	58,80
M	**HHN9.1**	1 unit(s)	58,80
L	**HHP0.1**	1 unit(s)	58,80



Full-face mask respirator Promask

3M Scott.

Acc. to EN 136. With EN 148-1 standard thread.

- Lightweight and anatomically shaped
- Special lip seal provides a comfortable and tight fit
- Clear inner mask
- Unrestricted field of vision thanks to large visor and left side fitting filter port
- With speech diaphragm
- Outstanding wear comfort
- Easy to use

Delivery without filter, suitable filters: 1270.1ff, XK35.1ff, please order separately.

Black
Material: Butyl rubber. Made of halobutyl rubber. High resistance to chemicals ensures long service life.
Suitable for applications with CBRN (chemical, biological, radiological or nuclear) contamination.

Material	Art. No.	Pack Qty.	€
Butyl rubber	**XK47.1**	1 unit(s)	251,55

SIL
Material: Silicone. Made of skin-friendly, soft yellow silicone.

Material	Art. No.	Pack Qty.	€
Silicone	**XK48.1**	1 unit(s)	209,95



Full-face mask respirator BRK 820

BartelsRieger Atemschutztechnik. Material: Rubber, Plastic, PC.

Acc. to EN 136 class 3. With EN 148-1 standard thread. Made of rubber and plastic, with speech diaphragm, replaceable front panel made of polycarbonate and **two exhalation valves**.
Two exhalation valves guarantee lower exhalation resistance which is optimal for physical work.
5-part strap with clamping buckles and carrying strap.
Weight approx. 610 g.

Delivery without filters, suitable respiratory filters with standard round thread acc. to EN 148-1 and 1270.1 ff, XK35.1 ff, please order separately.

Weight (g)	Material	Art. No.	Pack Qty.	€
610	Rubber, Plastic, PC	**1262.1**	1 unit(s)	149,45

Full/half masks



Full-face mask respirator Vision 2

3M Scott. Material: Silicone, PC.

Acc. to EN 136.

- Full face mask made of soft silicone rubber
- Wide field of view (98% field of vision)
- Speech diaphragm
- Five-point head strap with snap buckle and head padding
- Adjustable neck strap
- Full-face polycarbonate visor mask is shock-resistant and anti-scratch, as well as resistant to solvents, flames and heat

Delivery without filters, suitable respiratory filters with screw thread acc. to EN 148-1 (1270.1ff, XK35.1ff), please order separately.

Weight (g)	Material	Art. No.	Pack Qty.	€
630	Silicone, PC	**X541.1**	1 unit(s)	389,15



Combined filter 3M™

3M.

Acc. to EN 14387 (gas and combined filters). The filters are attached directly to the mask body. The filters' innovative design ensures good weight distribution and offers an excellent field of vision.

For 3M half masks and full-face masks
Fits 3M respiratory protection masks: L167.1ff/N168.1ff/PT45.1f/N182.1, HLL0.1 ff.

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
A1P3 R	6091	2 x 2	**HHY2.1**	4 unit(s)	64,70
A2P3 R	6095	2 x 2	**HHY4.1**	4 unit(s)	69,70
ABEK1P3 R +Formaldehyde	6092	2 x 2	**HHY3.1**	4 unit(s)	73,10

For 3M full-face masks
Fits the following 3M full-face masks: N168.1ff and N182.1.

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
AXP3 NR	6098	2 x 2	**N173.1**	4 unit(s)	108,70
ABEK2-HgP3 R+Form-aldehyde	6099	2 x 2	**N172.1**	4 unit(s)	96,25
AE1HgP3 R	6096	2 x 2	**P845.1**	4 unit(s)	115,60



Respiratory filter 3M™

3M.

(1) Gas filter
Acc. to EN 14387 (gas and combined filters). The filters are attached directly to the body of the mask using bayonet catches. The new design distributes the weight evenly on your face and offers an excellent field of view. Suitable for 3M respiratory protection masks: L167.1ff/N168.1ff/PT45.1f/N182.1, HLL0.1 ff.

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
A1	6051	4 x 2	**L170.1**	8 unit(s)	59,05
A2	6055	4 x 2	**L172.1**	8 unit(s)	70,00
A1+Form-aldehyde	6075	4 x 2	**L174.1**	8 unit(s)	69,10
K1	6054	4 x 2	**L171.1**	8 unit(s)	69,85
ABE1	6057	4 x 2	**L173.1**	8 unit(s)	68,60
ABEK1	6059	4 x 2	**N171.1**	8 unit(s)	73,00

(2) Particulate pre-filter
Acc. to EN 143 (particulate filters). Can only be used in combination with an L 170.1 ff gas filter and a L181.1 filter holder. Cannot be directly attached to masks.

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
P1	5911	15 x 2	**L175.1**	30 unit(s)	52,75
P2	5925	10 x 2	**L176.1**	20 unit(s)	86,25
P3	5935	10 x 2	**N174.1**	20 unit(s)	109,35

(3) Filter holder
For combining gas and particulate pre-filters.

Manufacturer no.	Art. No.	Pack Qty.	€
501	**L181.1**	2 unit(s)	6,75



Particulate filter in plastic case

3M.

Acc. to EN 143. Protects against solid and liquid particles in a robust plastic case. Suitable for demanding applications. P3 R with activated carbon provides additional protection against organic and acidic gases and vapours.
Suitable for the following 3M respiratory protection masks: L167.1ff, N168.1ff, N182.1ff, PT45.1ff and HLL0.1ff.

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
P3 R	6035	**TE83.1**	20 unit(s)	129,30
P3 R with activated carbon	6038	**TE84.1**	8 unit(s)	79,15

Full/half masks



Particulate filter 3M™

3M.

Acc. to EN 143 (particulate filters). The round shape makes assembly easier because the filters can be inserted into any position using the bayonet catches. The breathing resistance has been reduced by up to 30%, making it possible to work for longer without tiring.
Suitable for respiratory protection masks made by 3M: L167.1ff/N168.1ff/PT45.1f/N182.1/HLL0.1ff.

Protection level	Manufacturer no.	Pack.	Art. No.	Pack Qty.	€
P2 R	2125	10 x 2	**L177.1**	20 unit(s)	99,65
P2 R with activated carbon	2128	10 x 2	**L178.1**	20 unit(s)	115,40
P3 R	2135	10 x 2	**L179.1**	20 unit(s)	118,85
P3 R with activated carbon	2138	10 x 2	**L180.1**	20 unit(s)	136,20



Half mask respirator

3M.

Acc. to EN 140. Lightweight, robust and comfortable. Strong, stable mask body with a robust but soft face seal.

- Face seal made of elastic silicone offers an optimum and comfortable fit
- Robust and adjustable headband ensures an optimum fit and high wear comfort
- 3M™ Cool Flow™ exhalation valve reduces breathing resistance, making it easy to breathe
- The flat and compact design allows a wide field of vision and makes for easy cleaning of the smooth surface
- The design of the respiratory valve passes heat and moisture downwards and reduces fogging of the safety spectacles
- Bayonet click system, compatible with 3M respiratory filter for numerous applications
- The straps and exhalation valve are available as spare parts

Delivery without filters, suitable filters: L170.1ff, L177.1, HLK8.1, HHY2.1ff and TE83.1ff, please order separately.

6500QL series
„Quick release“ mechanism allows the mask to be removed quickly and easily when taking short breaks from work.

Size	Manufacturer no.	Art. No.	Pack Qty.	€
S	6501QL	**HLL3.1**	1 unit(s)	41,85
M	6502QL	**HLL4.1**	1 unit(s)	41,85
L	6503QL	**HLL5.1**	1 unit(s)	41,85



Respiratory protection mask 4000 Plus series

3M.

Acc. to EN 405:2001 + A1:2009. Ready-to-use half masks, maintenance-free, comfortable and high quality. Integrated filters enable long service life. With exhalation valve, wide field of vision and special headband for optimal weight distribution. Can be combined with safety spectacles and ear protection. Delivered in an airtight, resealable bag.

FFA1P2 RD
Protects against organic gases and vapours (boiling point >65 °C) up to 1000 ppm and against solid and liquid particles up to 10 times the limit.

Filter type	Manufacturer no.	Art. No.	Pack Qty.	€
FFA1P2 RD	4251	**9750.1**	1 unit(s)	30,80

FFA2P3 RD
Protects against organic gases and vapours (boiling point >65 °C) up to 5000 ppm and against solid and liquid particles of harmful substances up to 30 times the limit.

Filter type	Manufacturer no.	Art. No.	Pack Qty.	€
FFA2P3 RD	4255	**E347.1**	1 unit(s)	37,00

FFABE1P3 RD
Protects against organic and inorganic gases and vapours, as well as SO_2/HCl up to 1000 ppm and against solid and liquid particles of harmful substances up to 30 times the occupational exposure limit.

Filter type	Manufacturer no.	Art. No.	Pack Qty.	€
FFABE1 - P3 RD	4277	**C272.1**	1 unit(s)	40,15

FFABEK1P3 RD
Protects against organic and inorganic gases and vapours, as well as SO_2/HCl and ammonia up to 1000 ppm and against solid and liquid particles of harmful substances up to 30 times the limit.

Filter type	Manufacturer no.	Art. No.	Pack Qty.	€
FFABEK1 - P3	4279	**L162.1**	1 unit(s)	45,30



Particle prefilter for 4000 series masks

3M.

Protects against coarse particles and extends the useful life of the mask.

Manufacturer no.	Art. No.	Pack Qty.	€
400+	**AKX1.1**	10 unit(s)	17,85

Full/half masks



Half mask respirator 6000 series

3M.

Acc. to EN 140:1998.

- Made of elastomer material
- Easy to handle and robust
- Extremely light (82 g) for fatigue-free working
- Low maintenance (exhalation/inhalation valves are non-inter-changeable)
- Reduced breathing resistance thanks to double filter system
- Good weight distribution
- Easy filter assembly using bayonet connection
- Weight 82 g

Delivery without filters, suitable respiratory filters: L170.1ff, L177.1ff, HHY2.1ff, HLK8.1ff, TE83.1ff, please order separately.

Size	Manufacturer no.	Art. No.	Pack Qty.	€
S	6100	**L167.1**	1 unit(s)	27,10
M	6200	**L168.1**	1 unit(s)	27,10
L	6300	**L169.1**	1 unit(s)	27,10



Half mask respirator 7500 series

3M. Material: Silicone.

Acc. to EN 140:2001.

- Made of skin-friendly silicone
- Robust and extremely comfortable
- With drop-down strap for quick up and down adjustment and for wearing the mask around the neck during breaks
- Reduced breathing resistance thanks to Cool-Flow™ exhalation valve and double filter system
- Good weight distribution
- Easy filter assembly using bayonet connection
- Exchangeable components

Delivery without filters, suitable respiratory filters: Art. No. L170.1 ff/ L177.1 ff/L175.1 ff/HHY2.1 ff/HLK8.1 ff/TE83.1 ff.

Size	Material	Manufacturer no.	Art. No.	Pack Qty.	€
S	Silicone	7501	**PT45.1**	1 unit(s)	48,25
M	Silicone	7502	**Y393.1**	1 unit(s)	47,65
L	Silicone	7503	**Y394.1**	1 unit(s)	47,65



Full-face mask respirator 3M™ 6000 series

3M. Material: Silicone.

Acc. to EN 136. Class I: Full-face masks for applications with low demands.

- Mask body made of skin-friendly silicone
- Anti-scratch, large visor
- Compact design and extremely lightweight (400 g)
- Reduced breathing resistance thanks to double filter system
- Easy to use
- Filter assembly using bayonet- connection

Delivery without filters, suitable respiratory filters: Art. No. L170.1 ff/ L177.1 ff/HHY2.1 ff/HLK8.1 ff/TE83.1 ff.

Size	Weight (g)	Material	Manufac-turer no.	Art. No.	Pack Qty.	€
L	400	Silicone	6900L	**N170.1**	1 unit(s)	160,90
M	400	Silicone	6800M	**N169.1**	1 unit(s)	160,90
S	400	Silicone	6700S	**N168.1**	1 unit(s)	160,90



Full-face mask respirator 7907S

3M. Material: Silicone.

Acc. to EN 136. Class II: Full-face masks for normal applications.

- Mask body made of skin-friendly silicone
- Wide field of vision
- Scratch and impact resistant lens
- Lip seal ensures excellent fit
- With speech diaphragm
- Exchangeable components
- Reduced breathing resistance thanks to double filter system
- Easy filter assembly using bayonet connection

Delivery without filters, suitable respiratory filters: L170.1 ff/L177.1 ff/ L175.1 ff/HHY2.1 ff/HLK8.1 ff/TE83.1 ff.

Material	Manufacturer no.	Art. No.	Pack Qty.	€
Silicone	7907S	**N182.1**	1 unit(s)	310,70



Lightweight hood for Jupiter™ blower unit 3M™

3M.

Comfortable textile universal material. Protects the face and eyes in accordance with EN 166 (protection against droplets or splashes and minor impact).

(1) S133 disposable lightweight hood
Covers the head and face.

Size	Manufacturer no.	Art. No.	Pack Qty.	€
S	S133S	**KCK2.1**	1 unit(s)	73,00

(2) S333G disposable lightweight hood
Robust and very soft. Anti-static and low-lint. Covers the head and face.

Size	Manufacturer no.	Art. No.	Pack Qty.	€
S	S333SG	**KCK3.1**	1 unit(s)	133,45
L	S333LG	**KCK4.1**	1 unit(s)	133,45

(3) Premium S655 reusable lightweight hood
With flexible head support. Covers the head, face, neck and shoulders. One size fits all.

Manufacturer no.	Art. No.	Pack Qty.	€
S655	**KCK5.1**	1 unit(s)	135,05



Respiratory filter for blower unit 3M™ Jupiter™

3M.

Particulate and combination filter with filter cover, without prefilter.

Filter type	Manufacturer no.	Art. No.	Pack Qty.	€
P3	4500025P	**KCH7.1**	24 unit(s)	655,75
A2 - P	4530025P	**KCH8.1**	12 unit(s)	573,00
ABE-P	4561825P	**KCH9.1**	12 unit(s)	736,40
ABEK-P3	4530925P	**KCK0.1**	12 unit(s)	857,85
Prefilter	4610002P	**KCK1.1**	24 unit(s)	29,55



Escape hood

Dräger.

Acc. to EN403:2004 (fire escape hoods).
Protects eyes and airways.

- High-performance respiratory filter
- Easy to put on and safe to wear, enables a quick escape
- Wide field of vision for better orientation when escaping from a fire
- Also suitable for spectacle wearers and people with beards.
- Replacing the filter extends the shelf life by a further 8 years

Delivery incl. hard case packaging, box (IP 54) protected from dust and water spray by its protective seal.

Dräger PARAT® 5530 fire escape hood
Protects the wearer from toxic combustion gases, vapours and particles for at least 15 minutes while escaping. The filter is also approved for use against H2S (2500 ppm) according to DIN 58647-7.

Filter type	Weight (g)	Art. No.	Pack Qty.	€
CO-P2	720	**CHK3.1**	1 unit(s)	318,20

Dräger PARAT® 7530 fire and industry escape hood
Protects the wearer from toxic industrial gases, vapours, particles and fire gases for at least 15 minutes while escaping. The filter is also approved for use with gas and combined filters according to DIN 58647-7 and EN 14387:2004.

Filter type	Weight (g)	Art. No.	Pack Qty.	€
ABEK-CO-P3	830	**CHK6.1**	1 unit(s)	356,90

Wall mount for Dräger PARAT® hard Case escape hoods

Dräger.

Version	Art. No.	Pack Qty.	€
Wall mount for Dräger PARAT® Hard Case	**CHK5.1**	1 unit(s)	37,00

Respiratory protection accessories



Safety box SEKUROKA®

ROTH SELECTION. Material: ABS.

- Made of impact resistant plastic (ABS) with rounded corners, blue or transparent
- For safely storing personal protective equipment (PPE) directly at the workstation
- Protects PPE against scratches, dust and moisture
- PPE can be taken out quickly in an emergency
- Can be attached using glue or screws

Delivery incl. mounting parts (screws and dowels) and five small labelling cards. Please order warning signs (NK21.1 ff) separately.

Midi
Suitable for ear protection, face masks, FFP masks

Colour	W x D x H (mm)	Art. No.	Pack Qty.	€
blue	236 x 125 x 225	**N428.1**	1 unit(s)	40,40
colourless	236 x 125 x 225	**N429.1**	1 unit(s)	47,30

Maxi
Suitable for protecting the head, face and breathing

Colour	W x D x H (mm)	Art. No.	Pack Qty.	€
blue	236 x 200 x 315	**N430.1**	1 unit(s)	53,00
colourless	236 x 200 x 315	**CHL1.1**	1 unit(s)	60,75



Storage box for half masks

3M. Material: PE.

With lid and area for labelling. For storing 3M half masks.

Manufacturer no.	Art. No.	Pack Qty.	€
7400	**P846.1**	1 unit(s)	9,50



Mask cabinet mobile

ROTH SELECTION. Material: Plastic.

Made of impact-resistant plastic. With transparent door and two shelves.

- For storing respiratory protection masks hygienically and dust-free
- Specially designed for lightweight respiratory protective equipment to be used at different sites
- The robust, easy to install wall holder allows the cabinet to be removed from the wall for transportation quickly and easily
- Ideal for one vision mask and two filters or two half masks and four filters
- Weight: approx. 1.6 kg

Colour	W x D x H (mm)	Art. No.	Pack Qty.	€
green	270 x 140 x 410	**H994.1**	1 unit(s)	80,00



Wall container SEKUROKA®

ROTH SELECTION. Material: Plastic.

Made of plastic, with transparent, removable clip-on lid. For storing gas masks and filters or other personal protective equipment.
Weight 1.2 kg.

W x D x H (mm)	Art. No.	Pack Qty.	€
340 x 150 x 430	**2953.1**	1 unit(s)	96,05

Respiratory protection accessories



Storage and carry case SecuCase

GEBRA. Material: PP.

Made of PP. For individual personal protective equipment. Useful if changing workstations or carrying out assembly work.

- Clean and safe storage of equipment
- Protective apparatus can be removed quickly and easily
- Including four safety symbol labels (wear eye protection, ear protection, mask and gloves)

Delivery without capacity.

Version	W x D x H (mm)	Art. No.	Pack Qty.	€
Midi	340 x 84 x 280	**ALA7.1**	1 unit(s)	31,40
Mini	260 x 74 x 210	**ALA6.1**	1 unit(s)	21,30



Bag for full-face masks

3M.

Bag for carrying and storing full face masks.

Manufacturer no.	W x D x H (mm)	Art. No.	Pack Qty.	€
107	320 x 190 x 280	**AKX0.1**	1 unit(s)	64,75



Cleaning wipes for respiratory protection masks

3M.

For quick and easy cleaning of respiratory masks. Soaked with cleaning solution, individually packed.
Dimensions of wipes: L 198 x W 92 mm.

EUH210

Manufacturer no.	Art. No.	Pack Qty.	€
105	**TK43.1**	40 unit(s)	27,45

ROTH SELECTION



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Earplugs



Disposable ear plugs E.A.R.® Classic II

3M.

Acc. to EN 352-2. Comfortable fit, highly sound proof.

SNR value (db)	Art. No.	Pack Qty.	€
28	**0245.1**	5 pair	4,50



Disposable ear plugs Max®

Honeywell Safety.

Acc. to EN 352–2. Made of polyurethane.

- Bell-shaped for very comfortable fit and high protection
- Optimised shape for simple insertion and to prevent slipping out
- Soft, soil-resisting outer shell prevents dirt deposits and guarantees improved hygiene
- Packed in pairs
- High insulation values

Version	SNR value (db)	Art. No.	Pack Qty.	€
with safety strap	37	**KN22.1**	100 pair	62,70
without safety strap	37	**KN21.1**	200 pair	52,90



Disposable ear plugs xact-fit

UVEX.

Acc. to EN 352-2. These innovative plugs adapt perfectly to the ears. The design for the left and right ears is modelled on the anatomy of the ear canal. This noticeably reduces the pressure in the ear canal, even after long periods of wear.

- Convenient and easy to use
- Oval shape ensures optimal wear comfort
- Foam plugs are interchangeable for maximum economy and hygiene
- PVC-free

SNR value (db)	Art. No.	Pack Qty.	€
26	**XC88.1**	50 pair	112,25



Disposable ear plugs Bilsom 303L

Howard Leight by Honeywell.

Acc. to EN 352–2. Made of highly insulating, dermatologically tested PU–foamed material (PVC–free). Conical shape for optimum fit in ear canal. Nominal size: 5–12 mm. Weight approx. 0.5 g.

(1) Hand dispensers

SNR value (db)	Art. No.	Pack Qty.	€
33	**X556.1**	100 pair	27,55

(3) Refill pack for wall-mounted dispenser

SNR value (db)	Art. No.	Pack Qty.	€
33	**Y868.1**	200 pair	48,40



Disposable ear plugs Bilsom 304L with safety strap

Howard Leight by Honeywell.

Acc. to EN 352–2. Made of highly insulating, dermatologically tested PU–foamed material (PVC–free). Conical shape for optimum fit in ear canal. Nominal size: 5–12 mm. Weight approx. 0.5 g.

SNR value (db)	Art. No.	Pack Qty.	€
33	**C493.1**	20 pair	17,80



Disposable ear plugs No-Touch

3M.

Acc. to EN 352-2. Made of slowly expanding foam. Pre-shaped, soft plugs can be used immediately.

- No need to roll up the ear plugs.
- Comes with headband, practical and hygienic
- Can be combined with other personal protective equipment

SNR value (db)	Pack.	Art. No.	Pack Qty.	€
35	individual	**KA60.1**	100 pair	117,55

Earplugs



Disposable ear plugs LASER LITE®

Honeywell Safety.

Acc. to EN 352-2. Two-tone plugs made of PU. Made of very soft foam. Adapts to the ear canal itself.

Box
Packed in pairs in a practical box (not to be used to fill the Y862.1 ear plug dispenser)

SNR value (db)	Art. No.	Pack Qty.	€
35	**Y861.1**	200 pair	51,55

Refill pack for dispenser
Suitable for refilling the Y862.1 dispenser

SNR value (db)	Art. No.	Pack Qty.	€
35	**Y861.2**	500 pair	103,35

Dispenser for ear plugs LASER LITE®

Honeywell Safety.

Made of hard-wearing, anodised aluminium. Very robust, suitable for repeated strain. Plugs can be easily removed by turning the crank. Can be filled with Y861.2 (500 pairs) and Y868.1 (200 pairs) ear plugs.

Delivery incl. mounting material, no ear plugs.

Version	Art. No.	Pack Qty.	€
Ear plug dispenser	**Y862.1**	1 unit(s)	332,20



Detectable ear plugs LASER-TRAK

Honeywell Safety.

Acc. to EN 352-2. Sound-absorbing, **able to detect**. Adapt to the ear canal and do not cause any irritation or allergies. Also suitable for use in the food industry.

SNR value (db)	Art. No.	Pack Qty.	€
35	**P907.1**	100 pair	106,00



Single-use ear plugs

UVEX.

Acc. to EN 352-2. Ergonomically shaped **disposable ear plugs** for long-term, mobile ear protection. Made of allergy-free PU foam with a proportion of synthetic elastomer.

- Pleasantly soft
- X-emboss allows for a comfortable fit and a decrease in pressure in the ear canal
- Closed surface prevents foreign matter from entering

(1) X-fit

- For larger ear canals
- For high continuous noise exposure
- Very high sound absorption levels

SNR value (db)	Pack.	Art. No.	Pack Qty.	€
37	Mini box	**1E13.1**	15 pair	9,00
37	loose in the refill box	**HE98.2**	300 pair	60,65

(2) Com4–fit

- For smaller ear canals
- For lower noise exposure

SNR value (db)	Pack.	Art. No.	Pack Qty.	€
33	Mini box	**1E14.1**	15 pair	9,00
33	loose in the refill box	**HH00.2**	300 pair	60,65

Dispenser for ear plugs X-fit and Com4-fit

UVEX.

Robust, easy-to-use dispenser.

- Automatic dispenser guarantees plugs can be economically removed, with the plugs dropping out individually upon rotation
- Lightweight and can be refilled hygienically
- Max. quantity for filling: 600 pairs
- Suitable to be filled with X-fit, Com4-fit and standard ear plugs
- Suitable for wall mounting

Delivery incl. mounting material, no ear plugs.

Version	Art. No.	Pack Qty.	€
Ear plug dispenser	**HH01.1**	1 unit(s)	47,00



Disposable ear plugs

Moldex.

Acc. to EN 352-2. Comfortable PU foam ear plugs for work that requires continual ear protection. Soft to wear, easy to insert. Ear plugs, wall mount and packaging are completely PVC-free. Bright colours make using the plugs more appealing. Hygienic dispenser system, the station is replaced for refilling.

Delivery incl. 250 pairs in the disposable dispenser station to be suspended in the wall mount (please order separately).

(1) Spark Plugs

- Anatomically pre-shaped

Manufacturer no.	SNR value (db)	Pack.	Art. No.	Pack Qty.	€
7825	35	in pairs	**KP16.1**	500 unit(s)	64,00

(2) MelLows

- Provides improved awareness of surroundings and allows for improved communication
- Particularly suitable for use in low noise exposure

Manufacturer no.	SNR value (db)	Pack.	Art. No.	Pack Qty.	€
7625	22	in pairs	**KP17.1**	500 unit(s)	64,00

Wall mount for disposable ear plugs

Moldex.

Delivery incl. mounting material.

Manufacturer no.	Art. No.	Pack Qty.	€
7060	**KP18.1**	1 unit(s)	8,75



Detectable ear plugs Spark-Plug® Detect

Moldex.

Acc. to EN 352-2. **Detectable** disposable ear plugs made of soft PU foam. Ear plugs contain metal and are therefore fully detectable. Suitable for use in foodstuffs production. Available in hygienic dispenser station to be suspended in KP18.1 wall mount.

Delivery without wall mount, please order separately.

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
7859	32	**XA38.2**	1,000 unit(s)	155,50



Detectable ear plugs whisper+detec

UVEX.

Acc. to EN 352-2. Soft, **detectable, reusable ear plugs** with an excellent fit in the ear canal. Particularly suitable for dirty working conditions. The smooth surface prevents the accumulation of dirt particles which can cause injury.

- For the medium noise range
- Plugs are blue for better visibility in the production line

SNR value (db)	Art. No.	Pack Qty.	€
27	**HE94.1**	50 pair	117,05



Reusable ear plugs ULTRAFIT

3M.

Acc. to EN 352-2. Pre-moulded ear plugs made of thermoplastic. Thanks to their flat design, they are a perfect fit for any ear canal. Easy to wash the ear plugs using warm soapy water. **Reusable**. Suitable for sensitive working areas in the foodstuffs and chemicals industries.

Pic.	Version	Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
(1)	with safety cord	UF01000	32	**TE80.1**	50 pair	151,75
(2)	with storage box	UF01020	32	**TE81.1**	50 pair	152,35



Reusable ear plugs ClearE.A.R. 20

3M.

Acc. to EN 352-2. Pre-moulded ear plugs. Made of soft polymer, transparent. Almost invisible when worn. Ideal fit thanks to flat shape. Short stem for easy insertion and removal. Washable and **reusable**. SNR value: 20 dB.

Delivery incl. storage box.

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
UF01021	20	**TE82.1**	12 pair	73,35

Earplugs



Reusable ear plugs E.A.R. Express™

3M.

Acc. to EN 352-2. Very comfortable and provide the best fit. The foam material slowly expands and forms a complete seal – without excessive pressure. The patented grip allows the plugs to be inserted and removed in a quick and hygienic manner. The **reusable plugs** are easy to clean. The bright colours make using the plugs more appealing. Come in useful packaging that can be resealed.

SNR value (db)	Art. No.	Pack Qty.	€
28	**K130.1**	20 pair	22,00



Reusable ear plugs 3M™

3M.

Acc. to EN 352-2. Lamella design for improved fit in the ear canal and improved wear comfort. Soft material (monoprene) provides additional comfort and special recessed grips. Storage box with belt clip for clean and safe storage during breaks in and after completion of work.

Version	Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
with safety band	1271	25	**EH65.1**	50 pair	116,15
without safety band	1261	25	**EH64.1**	50 pair	108,60



Banded ear plugs E-A-R Caps™

3M.

Acc. to EN 352-2. With soft polyurethane plugs. Ideal for people working in varying levels of noise and for visitors. Comfortable to wear with very simple adjustment, can also be worn behind the neck. Weight approx. 7.6 g.

SNR value (db)	Art. No.	Pack Qty.	€
23	**A344.1**	1 unit(s)	10,20



Banded ear plugs WaveBand® 2K

Moldex.

Acc. to EN 352-2.

- Banded earplugs with anatomically adapted contour
- Freedom of movement without contact noise
- Two-component design with grip points
- Comfortable, low contact pressure (only 1.2 N)
- Feather light: Only 12 g

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
6800	27	**XA36.1**	1 unit(s)	9,70



Banded ear plugs

UVEX.

Acc. to EN 352-2. PU ear plugs. Lightweight alternative to ear protectors. Particularly suitable as ear protection for visitors or when on the move

- For temporary noise protection
- Specially designed earpiece, excellent shape retention
- Readily available, convenient and easy to use
- Comfortable fit, easy communication
- Very light, approx. 8 g
- Colour: Grey or blue

X-cap

SNR value (db)	Art. No.	Pack Qty.	€
24	**HE95.1**	1 unit(s)	8,65

X-fold

Can be folded, making it practical for when on the move.

SNR value (db)	Art. No.	Pack Qty.	€
23	**XC97.1**	1 unit(s)	8,35

Earmuffs



Earmuffs Clarity C2

Howard Leight by Honeywell.

Acc. to EN 352-1. The Sound Management Technology provides uniform sound insulation while allowing voices and signals to be heard with minimal distortion. Three-position universal headband offers the following positions for wearing: Over the head, behind the neck or under the chin. Can therefore be combined with further protective equipment. Dielectric design. Two-part headband with well-ventilated interior. Weight 208 g. Pressing force 11.6 N.

SNR value (db)	Art. No.	Pack Qty.	€
30	**CT24.1**	1 unit(s)	30,65



Earmuffs M1

Moldex.

Acc. to EN 352-1.

- High-quality earmuffs
- Soft coat material in metallic colour
- Six adjustments for perfect fit
- Soft padded metal headpiece for long wear comfort
- Collapsible: Space-saving and hygienic

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
6100	31	**NH61.1**	1 unit(s)	47,85



Earmuffs Clarity C1

Howard Leight by Honeywell.

Acc. to EN 352-1. Blocks out noise while allowing voices, signals and alarms to be heard with minimal distortion. No electronic components. Two-part headband with well-ventilated interior, soft sealing pads. Weight 194 g. Pressing force 10 N.

SNR value (db)	Art. No.	Pack Qty.	€
25	**CT07.1**	1 unit(s)	27,80



Earmuffs Clarity C1F, fold-able

Howard Leight by Honeywell.

Acc. to EN 352-1. The Sound Management Technology provides uniform sound insulation while allowing voices and signals to be heard with minimal distortion. Can be folded together to protect the earpieces from dust and moisture. The headband can be quickly adapted to the shape of the head using the quick-click adjustment feature. Dielectric design. Two-part headband with well-ventilated interior, soft sealing pads. Weight 194 g. Pressing force 11 N.

SNR value (db)	Art. No.	Pack Qty.	€
26	**CT25.1**	1 unit(s)	30,65



Earmuffs 3M™ OPTIME™

3M.

Acc. to EN 352-1. High wear comfort and low pressure inside ear even after long periods of wear.

- Lightweight design, optimal ear protection
- Constant pressure, liquid-filled sealing ring
- 2-point mounting

Peltor™ OPTIME™ I
Flat design. **Applications:** Outdoor work, building trade, engineering, woodworking, metalworking, automobile industry, farming, chemical treatment.

SNR value (db)	Art. No.	Pack Qty.	€
27	**NH19.1**	1 unit(s)	27,35

Peltor™ OPTIME™ II
For high-noise environments, provides excellent sound insulation even at extremely low frequencies. **Applications:** Outdoor work, building trade, airports

SNR value (db)	Art. No.	Pack Qty.	€
31	**NH20.1**	1 unit(s)	33,60

Earmuffs



Earmuffs 3M™

3M.

Acc. to EN 352-1.

- Modern and attractive slim design
- Double band design for better balance and greater comfort
- Low weight
- Soft, wide sealing rings reduce the pressure on the ears and enhance wear comfort
- Innovative new attenuating pads and intermediate rings ensure improved attenuation
- New, patented foam in the sealing rings for effective protection
- The cups offer abundant space inside to minimize heat and moisture
- The sealing rings and inserts are easy to replace, for easy cleaning of the cups
- The headband of the earmuffs is dielectric (electrically insulated). The metal parts of the headband are coated with a conductive material, which means that the hearing protection an also be used with a low electrical voltage (less than 440 V AC)

Peltor™ X1
For protection against low noise levels in industry, when lawn mowing, drilling, etc.

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
X1A	27	**HLN6.1**	1 unit(s)	34,85

Peltor™ X2
For protection against moderate to high sounds levels in industry, when carrying out roadworks or construction work, etc.

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
X2A	31	**HLN7.1**	1 unit(s)	42,25

Peltor™ X3
For protection against noise levels in the forestry industry, heavy industry, at airports, etc.

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
X3A	33	**HLN8.1**	1 unit(s)	48,15

Peltor™ X4
With narrow cups. For use against high noise levels in a wide range of industries.

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
X4A	33	**HLN9.1**	1 unit(s)	55,85



Ear defenders Peltor™ OPTIME™

3M.

Acc. to EN 352-1. With safety attachment for all hard hats with 30 mm slot system and face/ear protection G500 (YT38.1). High wear comfort and low pressure inside ear even after extended wear

- Lightweight design, optimal ear protection
- Constant pressure, liquid-filled sealing ring
- 2-point mounting

Delivery without ear defenders (NH14.1, NH15.1) please order separately.

OPTIME™ I
Flat design.
Applications: Outdoor work, building trade, engineering, woodworking, metalworking, automobile industry, farming, chemical treatment.

SNR value (db)	Art. No.	Pack Qty.	€
26	**NH12.1**	1 pair	27,60

OPTIME™ II
For high-noise environments, provides excellent sound insulation even at extremely low frequencies.
Applications: Outdoor work, building trade, airports.

SNR value (db)	Art. No.	Pack Qty.	€
30	**NH13.1**	1 pair	35,40

Hygiene kit for earmuffs 3M™

3M.

Hygiene kits allow hygienic and economic use of the earmuffs, since it is not necessary to replace the entire earmuff in the event of contamination. Quick and easy to assemble.
A kit contains two foam pads and two sealing rings.

Peltor™ X-series

Suitable for	Manufacturer no.	Art. No.	Pack Qty.	€
3M™ Peltor™ X1	HYX1	**HLP0.1**	1 unit(s)	15,40
3M™ Peltor™ X2	HYX2	**HLP1.1**	1 unit(s)	15,40
3M™ Peltor™ X3	HYX3	**HLP2.1**	1 unit(s)	15,40
3M™ Peltor™ X4	HYX4	**HLP3.1**	1 unit(s)	19,00

Peltor™ OPTIME™

Suitable for	Art. No.	Pack Qty.	€
OPTIME™ I earmuffs + ear defenders	**NH21.1**	1 unit(s)	14,60
OPTIME™ II earmuffs + ear defenders	**NH22.1**	1 unit(s)	15,30

Skin protection



Skin protection ROTIPROTECT® cream

Petrasch.

Simultaneously protects and cares for the skin. Creates a water-repellant protective film. Promotes the regeneration of skin cells and preserves the natural acidic mantle of the skin. Contains silicone, essential fatty acids, allantoin and dextrorotatory lactic acid (dLA), pH 4.

Pack.	Art. No.	Pack Qty.	€
55 g dispenser	**0543.2**	1 unit(s)	9,25



Skin protection Sineprint® cream

Physioderm.

Skin protection cream made from natural active substances. Protects the hands, does not leave fingerprints and improves finger grip. Non-greasy, silicone-free, paraben-free.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**2987.1**	1 unit(s)	7,85



Skin protection Dualin® cream

Physioderm.

Protects against **non-water soluble** and **water soluble** substances and is therefore ideal for workplaces with different working materials. Absorbs into the skin quickly, is slightly perfumed, very hypoallergenic. Free of paraffin, silicone and paraben.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**P332.1**	1 unit(s)	8,80



Skin protection HERWESAN ALL-IN-ONE cream

HERWE.

No marks left behind when handling changing work materials in metal-working, as well as in areas such as plastics engineering, precision engineering and electrical engineering.

- Easy to spread, quickly absorbed O/W skin protection emulsion
- With a new film formation system against water-soluble and hydrophobic working materials
- Non-greasing and therefore a particularly good, comfortable grip following absorption
- Cost-effective dosing system
- Silicone-free

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**KN04.1**	1 unit(s)	8,75



Skin protection HERWEDERM PROTECT SENSITIVE Gel

HERWE.

For imprint-free working and frequently changing work materials; also suitable for sensitive skin types. Universally applicable, for hands and face, recommended for extremely sensitive skin types.
Application in the food industry, hospitals, nursing and retirement homes and electrical engineering. Protection against colours, grease, damp/wet, resins, adhesives, paints, oil, tar-like substances, changing applications.
Easy to apply, absorbed quickly. pH-neutral, non-greasy, free from preservatives, parabens, silicone and dyes, unscented.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**YT47.1**	1 unit(s)	9,35

Skin protection



Skin protection HERWESAN ACQUA cream

HERWE.

Hydrophobic cream, emulsion type W/O. For handling aqueous substances such as water-based coolants, drilling emulsions, diluted bases, detergent solutions, alkali and acidic cleaners, cement, lime and mortar.

- Excellent protective effect
- High adhesive strength
- High oil content
- Slightly perfumed, silicone-free

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**KAL5.1**	1 unit(s)	6,35



Skin protection and skin care LINDESA® cream

Physioderm.

Oil-in-water emulsion containing natural beeswax and allantoin for care of the skin. For use in applications involving low stress on the skin or daily work in high humidity environments. Protects against skin damage and soothes irritated skin areas while smoothing and conditioning the skin. Suitable as an after work skin care cream or for conditioning stressed skin. Fast-absorbing, low-greasing, silicone-free, beeswax-scented or unscented.

Pack.	Art. No.	Pack Qty.	€
50 ml tube	**YY19.1**	1 unit(s)	5,50
100 ml tube	**YY19.2**	1 unit(s)	6,15



Skin protection and skin care LINDESA® PURE PROFESSIONAL cream

Physioderm.

Oil-in-water emulsion containing natural beeswax and allantoin for skin care. Suitable for everyday skincare. Protects against skin damage and soothes irritated skin areas while smoothing and conditioning the skin. Suitable as an after work skin care cream or for conditioning stressed skin. Contains paraben-free preservatives. Quickly absorbed by the skin, slightly oily, silicone and fragrance-free.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**KAX9.1**	1 unit(s)	6,90



Skin protection LINDESA® F PROFESSIONAL cream

Physioderm.

Oily skin protection cream, W/O emulsion with natural beeswax. Prevents skin damage when working with water and when handling diluted surfactant solutions and diluted alkalis, e.g. washing and cleaning solutions. Also suitable for skin care after working when skin is highly degreased and for protecting against cold and frost. Perfumed, silicone-free.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**KAL1.1**	1 unit(s)	8,30

Skin protection



Skin protection LINDESA® K with chamomile cream

Physioderm.

Oil-in-water emulsion that contains natural beeswax and chamomile. Particularly suitable for working environments where leaving grease marks on surfaces must be avoided, e.g. when painting, in electrical manufacturing or the final inspection. Also suitable for caring for stressed skin. Strengthens the skin's defensive function and prevents skin damage caused by external stresses. Has a normalising effect on irritated skin.
Non-greasy, fast-absorbing, scented, silicone-free.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**EEE5.1**	1 unit(s)	6,80



Skin protection physio UV 30 sun cream

Physioderm.

Skin protection cream for protection against exposure to UV-A, UV-B and UV-C radiation, with balanced protection factor UV-B 30/UVA 10.
Area of use: For protection against intensive natural UV radiation or artificial UV radiation sources.

- White, medium-moisturising W/O emulsion
- Waterproof, contains no fragrances, preservatives or petroleum
- With reflective titanium oxide UV filters (silicone coated)
- Vitamin E acetate combats ageing of the skin

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**P346.1**	1 unit(s)	10,00



Skin protection Saniwip® cream

Physioderm.

Skin protection cream that protects against skin damage caused by handling **water-soluble** working materials such as acids, bases, aqueous solvents and alcohols. Prevents the skin from becoming cracked. Suitable for use in foodstuffs processing. Also suitable for the care of highly stressed skin. Contains no fragrances or silicone.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**C785.1**	1 unit(s)	7,35



Skin protection Physioderm® PROGLOVE Gel

Physioderm.

Protects the skin against the effects of skin softening when wearing gloves and other occlusive protective clothing. Transparent fragrance- and grease-free gel containing alcohol. Hamamelis and chitin protect the upper layer of the skin while bisabolol and glycerine moisturise and soothe the skin. HACCP-compliant, perfume- and fragrance-free. Silicone- and grease-free.
Matching dispenser for AH81.2: YY16.1.

Pic.	Pack.	Art. No.	Pack Qty.	€
(1)	100 ml tube	**AH81.1**	1 unit(s)	13,45
(2)	1000 ml dispenser bottle	**AH81.2**	1 unit(s)	42,40

Skin protection



Skin protection PROTEXSAN cream

Physioderm.

Protection against water-soluble and water-miscible substances (e.g. water-mixed oils and cooling lubricants, diluted acids and alkalis, alcohol, washing-up liquids and detergents, disinfectants, salts, and cement) and against free radicals.

- Contains luteolin, co-enzyme Q10 and vitamin E, as well as skin-related lipids
- Does not contain any aluminium salts, preservatives or emulsifiers
- Free from mineral oils, silicone-free, unscented
- Fast-absorbing
- ECARF-certified

Pack.	Art. No.	Pack Qty.	€
50 ml tube	**EEE6.1**	1 unit(s)	13,05



Skin protection HERWESAN DRY EMULSION

HERWE.

Protects against skin softening caused by wearing airtight clothing and mechanical stress on the skin, e.g. when wearing gloves.
Applications: For microelectronic work and when handling cardboard boxes.

- Non-greasing O/W emulsion
- Hardens corneal layers
- Non-greasing cream
- Reduces perspiration and protects against softening of the skin
- Increases wearing comfort of protective clothing
- Slightly perfumed, silicone-free

Pack.	Art. No.	Pack Qty.	€
250 ml bottle	**KN05.1**	1 unit(s)	12,60



Skin protection HERWESAN UV emulsion

HERWE.

Sun protection factor 30 (International SPF Test Method, Colipa).
Area of use: For protection against strong UV radiation or exposure to artificial radiation sources.

- White, slightly greasing, weak-fragrance O/W emulsion
- Waterproof and easy to spread on the skin, easily absorbed
- Silicone-free
- Contains inorganic UV protective pigments and special sunscreens, thus protecting the skin against harmful UV-A, -B, -C radiation
- Skin care properties through cosmetic oils and shea butter

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**KN20.1**	1 unit(s)	12,30



Skin protection Baktolan® protect+ pure emulsion

BODE Chemie.

Water-in-oil-in-water emulsion, protects against aqueous solutions and revitalises cracked, hard-working skin. Protects the skin when performing tasks involving aqueous solutions. Can be used under gloves to counteract skin irritation due to occlusion. Suitable for use several times a day. Free of perfume, silicone and colourants.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**TE58.1**	1 unit(s)	11,25

Skin protection



Skin protection Marly Skin® foam

Marly Products.

Microfine foam penetrates the skin rapidly and forms a protective barrier against harmful and irritant substances. Protection for 4-6 hours. Suitable for use on the entire body, non-greasy, unnoticeable, economical in use. Ideal for use under gloves. Clinically tested.
Please note: The prescribed protective measures, e.g. wearing gloves, should still be taken.

Warning H229

Pack.	Art. No.	Pack Qty.	€
50 ml spray bottle	**2938.3**	1 unit(s)	12,85
100 ml spray bottle	**2938.1**	1 unit(s)	22,40



Skin protection SANSIBAL® cream

Physioderm.

White, slightly greasing, fast-absorbing cream; emulsion type: O/W. Water-soluble skin protection cream, the solid substances of which form a separating and protective film after application. Offers protection when working with hydrophobic substances (e.g. oils, certain organic solvents, non-aqueous coolants).
Scented, silicone-free, pH-neutral.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**KAL2.1**	1 unit(s)	8,85



Tube holder Tubenboy®

Hausmann-Vertrieb. Material: ABS, SAN.

Highly robust. For complete emptying of all plastic and metal tubes. The tube can be stored upright. The current tube contents can be seen at any time. For tube widths up to 66 mm.

Type	Art. No.	Pack Qty.	€
Tubenboy®	**AK63.1**	1 unit(s)	3,80



Skin protection Sansibon® cream

Physioderm.

White, slightly oily, fast absorbing cream, suspension with skin protection pigments. Water-soluble skin protection cream, which protects against strongly adherent dirt and facilitates gentle skin cleaning using special emulsifiers. Protects the skin against intensive dirt or strongly adherent working materials (e.g. used oil, adhesives, resins, varnishes and paints).

- Perfumed, silicone-free
- pH-neutral
- No mineral oil or parabens

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**KAL3.1**	1 unit(s)	7,85



Skin protection HERWESAN UV 50 SPRAY

HERWE.

Highly effective UV protection spray for OUTDOOR use.

- Waterproof, transparent, non-greasy
- High UVB sun protection factor 50, balanced UVA protection
- Protection against UV-A and UV-B radiation (SPF 50)
- Extremely light, fast absorbing formulation, therefore ideally suited to use on large areas and parts of the body covered in hair
- Supplies the skin with Panthenol and Vitamin E
- Handy pump spray to allow it to be used all over the body (e.g. including the back and legs)
- Slightly perfumed, silicone-free

Pack.	Art. No.	Pack Qty.	€
200 ml spray bottle	**KAL7.1**	1 unit(s)	28,65

Skin care



Skin care Cura Soft cream

Physioderm.

Fast-absorbing and low-grease skin care cream. 7% fat content. Suitable for regenerating and caring for skin subject to work-related stress. Water-in-oil emulsion. Slightly perfumed, silicone-free and paraben-free. Dermatologically tested.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**Y866.1**	1 unit(s)	7,35



Skin care cUrea soft cream

Physioderm.

Fast-absorbing skin care cream with naturally moisture-retaining urea. Cares for sensitive skin and skin subject to work-related stress. Can consistently encourage the skin to regenerate if afflicted by attrition dermatitis or eczema. Also suitable for nail care

- Contains urea, horsetail plant extract and high-quality bisabolol
- Smooths very dry, extremely stressed hands
- Slightly greasing cream, emulsion type O/W
- pH-neutral and scented
- Free of silicone, mineral oil and paraben

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**LP24.1**	1 unit(s)	8,05



Skin care ROTIDERM® cream

Petrasch.

Hand care cream for highly stressed and sensitive skin. Contains essential fatty acids, sorbitol, waxy high fatty acids and dextrorotatory lactic acid. Helps to regenerate cracked skin and rebuild its natural acidic mantle. pH 4, unscented.
Application: spread on clean, dry skin after your hands have been subjected to great stress. Absorbs completely without leaving a greasy film.

Pack.	Art. No.	Pack Qty.	€
55 g dispenser	**5535.2**	1 unit(s)	9,25



Skin care HERWE CURA cream

HERWE.

Easily absorbed skin care cream. Every time after washing hands and face; also during work in the company or office.

- Slightly greasing cream, emulsion type O/W
- Contains natural oils and beeswax
- Easily absorbed, ensures pleasant feeling on the skin
- For hands and face
- Regenerates the skin
- Slightly perfumed, silicone-free
- Suitable for all skin types

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**KN06.1**	1 unit(s)	6,35



Skin care HERWE MIELOSAN cream

HERWE.

High-quality hand and foot care cream for dry and stressed skin. To care for skin after intensive hand washing and other activities that particularly dehydrate the skin. Supports the skin's natural moisture retention capacity. Easy to apply, very little required. With honey, urea, glycerine and allantoin, silicon-free.

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**YT49.1**	1 unit(s)	8,00



Skin care HERWE QUREA CARE cream-gel

HERWE.

With highly active moisturising complex and intensive care effect.

- Fast absorbing cream-gel for work-related stressed skin
- With urea, lactic acid and hyaluronic acid
- Valuable cosmetic lipids as care components
- Coenzyme Q10 and vitamin E for antioxidant protection
- Silicone-free

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**KAL6.1**	1 unit(s)	7,05



Skin care Baktolan® lotion emulsion

BODE Chemie.

Moisturising care for normal skin, with plant-based oils and panthenol. Oil-in-water emulsion. Suitable for daily use on both the hands and the body. Simple and easy to apply, absorbs quickly without leaving a greasy film. Slightly perfumed, silicone-free. Ideal for desk work, laboratory use, etc.

Pack.	Art. No.	Pack Qty.	€
350 ml bottle	**L297.1**	1 unit(s)	9,05



Skin care Baktolan® lotion pure emulsion

BODE Chemie.

Fragrance-free O/W emulsion that cares for normal skin.
Areas of application: Can be used on the hands and body. This mild O/W emulsion has been adapted to the skin's physiological characteristics and is especially suited to daily use, as well as applications in which fragrance-free skincare is particularly sought-after.

- High skin tolerability
- Absorbs quickly without leaving a greasy film
- Significantly increases the skin's moisture

Pack.	Art. No.	Pack Qty.	€
350 ml bottle	**EKH7.1**	1 unit(s)	8,30



Skin care Baktolan® balm pure emulsion

BODE Chemie.

Fragrance-free W/O emulsion for dry, highly stressed and sensitive skin. Contains the skin care substances allantoin, vitamin E and panthenol. Soothes and moisturises the skin, stabilises the acidic mantle, pH 5.5. Easy to apply, can be used sparingly, absorbs quickly, does not form a greasy film.

Pack.	Art. No.	Pack Qty.	€
350 ml bottle	**ANY7.1**	1 unit(s)	12,70



Skin care Physioderm® cream

Physioderm.

Refatting skin care cream, improves the skin's water-binding capacity, helps restore the skin's hydrolipidic film, improves skin smoothness and can help to regenerate the skin in case of attrition dermatitis or eczema. Water-in-oil emulsion with high lipid content, scented, silicone-free.
Areas of application: Cares for skin that is subject to extreme work-related stress, particularly brittle and dry skin.

Pic.	Pack.	Art. No.	Pack Qty.	€
(1)	100 ml tube	**4671.1**	1 unit(s)	7,35
(2)	1000 ml dispenser bottle	**4671.2**	1 unit(s)	39,05



Skin care CARE PURE cream

Physioderm.

Intensive care cream with natural oils and sea buckthorn extract for extremely strained and dry skin. O/W emulsion, containing a balanced combination of natural oils that compensate for lipid loss in highly stressed skin. Reduces skin redness, smooths and cares for irritated skin. Equalises the water balance of the upper layer of skin, keeps the skin elastic and improves its mechanical resistance.

- Contains no synthetic perfumes, colourings or preservatives
- Silicone- and mineral oil-free
- Suitable for working in the food sector
- ECARF-certified

Pack.	Art. No.	Pack Qty.	€
50 ml tube	**KAL4.1**	1 unit(s)	5,95



Skin cream and washing lotion dispenser

Physioderm.

Suitable for Art. No. AH81.2 and 4671.2, all Physioderm Vario 1000 or 2000 ml bottles.

- Robust design
- Easy to operate and fill
- Optimal dispensing

Delivery incl. mounting material.

(1) VARIOMAT ECO
Made of impact-resistant plastic, with optimal dispensing and efficient emptying.

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
Physioderm Vario 1000 or 2000 ml bottles	126 x 130 x 351	**YY16.1**	1 unit(s)	64,80

(2) VARIOMAT M STAINLESS STEEL
Brushed stainless steel housing. Absolutely hygienic system since the product does not come into contact with the dispenser.

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
Physioderm Vario 1000 or 2000 ml bottles	134 x 128 x 316	**EEE7.1**	1 unit(s)	123,65



Hand cleansing, wet wipes plum wipes

Plum.

Gently and effectively remove all types of stains during everyday work. The PP wet wipes absorb and retain the dirt. They can be used multiple times, including for cleaning work materials or tools. Slightly scented and moisturising, due to the addition of glycerine.

(1) All-purpose
All-purpose wipes with a wide range of applications, for removing slight to medium stains.

Pack.	Art. No.	Pack Qty.	€
Dispenser with 100 wipes	**CK45.2**	1 unit(s)	18,75

(2) Heavy-duty
With extra exfoliating power for removing stubborn, heavy stains, such as oils, grease and lubricants.

Pack.	Art. No.	Pack Qty.	€
Dispenser with 75 wipes	**CK46.2**	1 unit(s)	21,00



Skin cleansing AZUDERM EXTRA MILD Gel

HERWE.

Soap-free cleaning gel for sensitive and highly stressed skin.

- Mild, colourless cleaning liquid
- No preservatives
- **Unscented**
- With skin-friendly sugar tensides
- For gentle cleansing of the hands and the whole body
- Corresponds to the pH-value of the skin

Pic.	Pack.	Art. No.	Pack Qty.	€
(1)	250 ml bottle	**PA94.1**	1 unit(s)	6,35
(2)	2000 ml pouch bottle	**PA95.1**	1 unit(s)	25,55



Skin cream and washing lotion dispenser HERWEMAT

HERWE.

Housing and wall mount made of impact-resistant plastic. Operating level made of stainless steel.
With adjusting screw to regulate pump volume. Suitable for Art. No. PA95.1 and YT48.2.

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
1000 ml and 2000 ml bottle bags	120 x 125 x 120	**PA96.1**	1 unit(s)	63,20



Hand cleansing Lotion soap cleansing lotion

JM-Metzger.

Mild lotion soap with pleasant scent. Skin-friendly substances guarantee no skin irritation even when used frequently. Economical in use. Colour: Pink.

Danger H318

Pic.	Pack.	Art. No.	Pack Qty.	€
(1)	950 ml bottle	**EYY3.1**	1 unit(s)	n. a.
(2)	10 l canister	**EYY4.1**	1 unit(s)	n. a.

Skin cleansing



Hand cleansing Baktolin® pure cleansing lotion

BODE Chemie.

Cleansing lotion for gentle cleaning.
Areas of application: Due to the lack of fragrance and colourants, Baktolin® pure is particularly suitable for sensitive skin. The pH value of 5.5 conserves the skin's natural acid-protection layer. At the same time, this makes the product ideal for use in food-processing fields, in which detrimental effects on the goods to be processed are to be avoided.

- Fragrance-free and colourant-free
- Free of alkali and soap
- Skin-neutral pH value of 5.5

Pack.	Art. No.	Pack Qty.	€
500 ml bottle	**EKH6.1**	1 unit(s)	3,70
1000 ml bottle	**EKH6.2**	1 unit(s)	6,05



Skin cleansing Gentle Med® with chamomile extract cleansing lotion

Meditrade.

For hands and body. Moisturises and protects against dry skin, anti-irritant and soothing effect. Economical in use. pH skin neutral, free of alkalis and soap, fresh fragrance.
Suitable for TE54.1 dispensers.

Pack.	Art. No.	Pack Qty.	€
1000 ml bottle	**NK81.1**	1 unit(s)	7,45



Skin cleansing Majola® ceansing lotion

Lysoform.

For hands and skin, free of alkalis. Strengthens and regenerates the skin's natural acidic mantle. Antibacterial and deodorising effect. Suitable for diseased, damaged and highly stressed skin, and skin that is sensitive to soap. Helps with treating acne.

Pack.	Art. No.	Pack Qty.	€
500 ml bottle	**1548.1**	1 unit(s)	11,45



Skin cleansing Baktolin® sensitive cleansing lotion

BODE Chemie.

For stressed skin. Conditioning and moisturising cleansing lotion for gentle cleansing of hands and skin. Contains the skin care substances allantoin and wheat protein. Regenerates and soothes the skin. Soap, alkali and colorant free, skin-neutral pH of 5.5, subtly scented.

Pack.	Art. No.	Pack Qty.	€
500 ml bottle	**X589.1**	1 unit(s)	6,10
1000 ml bottle	**X589.2**	1 unit(s)	9,45



Skin cleansing Stellisept® med antiseptic cleansing lotion

BODE Chemie.

Acc. to EN 1499, EN 13727. Antiseptic cleansing lotion with antibacterial effect for hands and body. Bactericidal and effective against MRSA. Skin and mucous membrane compatible, suitable for all skin types. Free of alcohol and colourants.

Pack.	Art. No.	Pack Qty.	€
500 ml bottle	**X668.1**	1 unit(s)	n. a.
1000 ml bottle	**X668.2**	1 unit(s)	n. a.

Skin cleansing



Skin cleansing HERWE FRESH shower gel

HERWE.

Skin-friendly and pleasantly mild cleaning gel for face, body and hair. Even suitable for extremely stressed and very sensitive skin, as well as frequent hand-washing.
Free from exfoliants, soap and parabens, pH-neutral, contains preservatives, discreetly scented.

Pack.	Art. No.	Pack Qty.	€
250 ml bottle	**YT48.1**	1 unit(s)	6,35
Dispenser bottle 2000 ml	**YT48.2**	1 unit(s)	25,40



Hand cleansing HERCULAN INTENSO GEL

HERWE.

Smooth hand cleaner gel with **corcbits®** natural exfoliating bodies for heavy industrial stains.

- With biodegradable, extremely soft ground cork **corcbits®**
- Intensive cleaning strength thanks to high content of detergent substances, with sugar surfactants
- Very gentle on the skin due to soft exfoliating bodies, with panthenol and green tea extract
- Non-greasy, solvent-free, with a natural fragrance

Pack.	Art. No.	Pack Qty.	€
250 ml bottle	**KAL8.1**	1 unit(s)	6,40
2000 ml dispenser bottle	**KAL9.1**	1 unit(s)	28,50



Hand cleansing Topscrub® NATURE with natural exfoliant

Physioderm.

Hand cleaner with natural exfoliant made of olive stone flour for tough dirt such as oils, soot, grease, graphite and metal dust. Dermatologically tested. Smooth paste containing no solvents or soaps. Skin-neutral pH value, scented. Tough on dirt, gentle on skin. A little goes a long way – highly economical.

Pack.	Art. No.	Pack Qty.	€
200 ml tube	**AH82.1**	1 unit(s)	8,00



Foam soap dispenser COSMOS

JM-Metzger. Material: ABS.

Colour: White. Lockable.
Removable wall bracket for flexible handling.
Can be used with EYX5.1 foam soap cartridge.

Delivery incl. Mounting material

Pic.	Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
(1)	EYX5.1 foam soap cartridge	105 x 120 x 240	**EYX4.1**	1 unit(s)	50,70

Hand cleansing Foam soap cartridges

JM-Metzger.

Foam soap with grapefruit scent.

Pic.	Pack.	Art. No.	Pack Qty.	€
		1H3T.1	1 unit(s)	9,60
(2)	1000 ml cartridge	**EYX5.1**	1 unit(s)	10,95

Skin disinfection



Hand sanitiser Sterillium®

BODE Chemie.

Propanol-based rub-in hand disinfectant. No need for a wash basin or water. For all hygiene-sensitive clinical and industrial applications. Protects against infection in public buildings and during travel.
Efficacy range: bactericidal, tuberculocidal, limited virucidal efficacy (HBV, HIV, HCV), effective against herpes simplex, influenza A, SARS coronavirus, adeno-associated viruses, polyoma viruses and rotavirus.
Listing: BfArM Approval No. 603.00.01. RKI list area A, VAH, IHO list for virucidal products.

Sterillium: Active substances: propan-2-ol, propan-1-ol, mecetronium ethyl sulphate. Ingredients: 100 g of solution contains: Active substances: propan-2-ol 45.0 g, propan-1-ol 30.0 g, mecetronium ethyl sulphate 0.2 g. Other Ingredients: glycerol 85 %, tetradecan-1-ol, fragrances, blue patent V 85 %, purified water. **Areas of application:** for hygienic and surgical hand disinfection. For skin disinfection prior to injections and punctures. **Contraindications:** unsuitable for the disinfection of mucus membranes. Do not use in close proximity to the eyes or open wounds. Hypersensitivity (allergy) to one of the ingredients. **Side effects:** slight dryness or irritation of the skin can occur occasionally. In such cases, more intensive general skin care is recommended. Allergic reactions are rare. **Warnings:** Sterillium should not be used on newly or prematurely born infants. Wait until dry before using electrical devices. Do not expose to naked flame. Do not use in the vicinity of ignition sources. Flash point: 23 °C, flammable. There are no fire or explosion hazards associated with the proper use of this product. After spillage of the disinfectant, the following steps should be taken: soak up the spilt liquid straight away, dilute with copious amounts of water, ventilate the room and remove ignition sources. Refrain from smoking. In the event of fire, extinguish with water, extinguishing powder, foam or CO_2. Refilling may only be performed under aseptic (clean bench) conditions.

Warning H226-H319-H336

Pack.	Art. No.	Pack Qty.	€
100 ml bottle	**L276.3**	1 unit(s)	n. a.
500 ml bottle	**L276.1**	1 unit(s)	n. a.
1000 ml bottle	**L276.2**	1 unit(s)	n. a.
5 l canister	**L276.4**	1 unit(s)	n. a.



Hand sanitiser Sterillium® classic pure

BODE Chemie.

Hygienic and surgical rub-in hand disinfectant. Ideal for users with sensitive skin (colorant and fragrance free). For all hygiene-sensitive clinical and industrial applications.
Efficacy range: bactericidal, tuberculocidal, limited virucidal efficacy (incl. HBV, HIV, HCV). Effective against herpes simplex, influenza A, SARS coronavirus, adeno-associated viruses, polyoma virus and rotavirus.
Listing: BfArM Approval No. 25918.00.00, RKI list area A, VAH certification, IHO list for virucidal products. Actual product not shown (similar).

Sterillium classic pure: Active substances : propan-2-ol, propan-1-ol, mecetronium ethyl sulphate. Composition: 100 g solution contains: Active substances: 45.0 g propane-2-ol, 30.0 g propane-1-ol, 0.2 g mecetronium ethyl sulphate. **Other ingredients:** 85 % glycerol, tetradecane-1-ol, purified water. **Areas of application:** for hygienic and surgical hand disinfection. For skin disinfection prior to injections and punctures. **Contraindications:** unsuitable for the disinfection of mucus membranes. Do not use in close proximity to the eyes or open wounds. Do not use in case of hypersensitivity (allergic reaction) to one of the active substances or other ingredients. **Side effects:** slight dryness or irritation of the skin may occasionally occur. In such cases, more intensive general skin care is recommended. Allergic reactions are rare. **Warnings:** hand disinfection helps prevent the transmission of infection, e.g. in nursing and health care. Sterillium classic pure should not be used on newly or prematurely born infants. Always consult a doctor prior to use on infants and small children. It is important to ensure that the solution does not come into contact with the eyes. After contact with the eyes, rinse the eyes under running water for several minutes holding the eyelids open. Avoid transferring the solution from one container into another in order to prevent contamination. If this is unavoidable, the solution should be transferred under aseptic conditions (e.g. using sterile containers under a laminar air flow hood). Wait until dry before using electrical devices. Do not expose to naked flame. Do not use in the vicinity of ignition sources. Flash point: 23 °C, flammable. There are no fire or explosion hazards associated with the proper use of this product. After spillage of the disinfectant, the following steps should be taken: soak up the spilt liquid straight away, dilute with copious amounts of water, ventilate the room and remove ignition sources. Refrain from smoking. In the event of fire, extinguish with water, extinguishing powder, foam or CO_2.

Warning H226-H319-H336

Pack.	Art. No.	Pack Qty.	€
100 ml bottle	**EH72.1**	1 unit(s)	n. a.
500 ml bottle	**EH72.2**	1 unit(s)	n. a.
1000 ml bottle	**EH72.3**	1 unit(s)	n. a.
5 l canister	**EH72.4**	1 unit(s)	n. a.

Skin disinfection



Hand sanitiser Sterillium® Virugard

BODE Chemie.

Ethanol-based rub-in hand disinfectant. Especially useful for all working areas with an increased infection hazard, such as clinics, laboratories, hospitals etc.
Efficacy range: bactericidal, fungicidal, tuberculocidal, limited virucidal efficacy (including HBV, HIV, HCV), virucidal. Effective against herpes simplex, adeno-associated viruses, polyoma viruses, polio and rotavirus.
Listing: BfArM Approval No. 13814.00.00. RKI list area A/B, VAH, IHO list for virucidal products.

Sterillium Virugard: Active substance: ethanol. **Ingredients:** 100 g solution contain: Active substance: ethanol 99 % 95.0 g. **Other ingredients:** butan-2-on, glycerol, tetradecan-1-ol, petroleum. **Areas of application:** hygienic and surgical hand disinfection. **Contraindications:** Do not apply to mucus membranes. Hypersensitivity to ingredients. **Side effects:** slight, diffuse reddening of the skin may occur rarely. In such cases, more intensive general skin care is recommended. **Warning:** do not expose to naked flame. Do not use in the vicinity of ignition sources. Close bottle after use. Flash point according to DIN 51755: 0 °C. Highly flammable. After spillage of the disinfectant, the following steps should be taken: soak up the spilt liquid straight away, dilute with copious amounts of water, ventilate the room and remove ignition sources. Refrain from smoking. Refilling may only be performed under aseptic (clean bench) conditions.

Danger H225-H319-H412

Pack.	Art. No.	Pack Qty.	€
100 ml bottle	**L313.3**	1 unit(s)	n. a.
500 ml bottle	**L313.1**	1 unit(s)	n. a.
1000 ml bottle	**L313.2**	1 unit(s)	n. a.



Metering pump - disposable

Hartmann. Material: Plastic.

Metering pump with long outlet. For hygienic removal of product from BODE original bottles, Sterillium®, Sterillium® classic pure and Sterillium® Virugard, as well as wash lotion and creams.

Not a medical device / Not an IVD product

Suitable for	Pack.	Art. No.	Pack Qty.	€
300/500 ml Bode bottles	5 x 1	**KKK4.2**	5 unit(s)	6,80
1000 ml Bode bottles	5 x 1	**KKK5.2**	5 unit(s)	6,80



Skin disinfectants Cutasept® F

BODE Chemie.

For skin disinfection, e.g. in the event of accident or minor injuries. Fast acting and comprehensive. Excellent skin tolerance. Ready-to use, colourless solution.
Spectrum of activity: Bactericidal (incl. MRSA), fungicidal, tuberculocidal, limited virucidal efficacy (incl. HBV, HIV, HCV), rotavirus. **Listing:** BfArM Approval No. 6281157.00.00, VAH.
Cutasept F active ingredient: Propane-2-ol. **Composition of** 100 g solution: **Active ingredient** 63.0 g propane-2-ol, corresponding to 72% vol. **Other ingredients:** Benzalkonium chloride, purified water. **Areas of application:** Skin disinfection before punctures, injections and surgical operations. Surgical and hygienic hand disinfection. **Where not to use:** Do not apply in the immediate proximity of the eyes. Intolerance to ingredients. If applied properly, Cutasept F can be used when pregnant or breastfeeding. **Side effects:** Slight, scattered skin irritations are common. May produce an allergic reaction. **Warning:** Has not been sufficiently tested as a treatment for infants and small children. In these cases, this product may only be applied after stringent diagnosis and under medical supervision. Benzalkonium chloride may cause skin irritation. Do not apply to the skin beneath exsanguination cuffs. Do not apply surgical film until dry. Wait until dry before using electrical devices. Avoid accumulation on patient beds/seats. Do not expose to naked flame. Keep clear of ignition sources. There are no fire or explosion hazards associated with the proper use of this product. If the solution comes into contact with eyes, hold the eyes open and rinse with running water for several minutes. After spillage of the disinfectant, the following steps should be taken: Soak up the spilt liquid straight away, dilute with copious amounts of water, ventilate the room and remove ignition sources. Flash point according to DIN 51755: 21 °C. Flammable. Refilling may only be performed under aseptic (clean bench) conditions.

Danger H225-H319-H336

Delivery incl. overhead sprayer for 50, 250 and 500 ml bottles. Please order the hand-held spray head for the 1000 ml bottle separately.

Pack.	Art. No.	Pack Qty.	€
50 ml spray bottle	**AK64.1**	1 unit(s)	n. a.
250 ml spray bottle	**AK64.2**	1 unit(s)	n. a.
1000 ml bottle	**AK64.4**	1 unit(s)	n. a.



Hand sanitiser Softa-Man®

B. Braun.

Ready-to-use, alcohol-based hand sanitiser.
Efficacy: effective against bacteria (including MRSA, TbB) and fungi. Limited virucidal efficacy (including HBV, HCV, HIV), effective against rota, influenza, adeno and noro viruses (surrogate virus MNV).
Listing: DGHM/VAH, RKI listed (efficacy range A) and in the IHO List of Virucidal Products.

- For rapid and long lasting skin disinfection
- Contains Panthenol (Provitamin B5), Bisabolol and Allantoin for hand care
- Dye-free, low-allergen fragrance
- Dermatologically tested
- Hygienic hand disinfection 30 sec, surgical hand disinfection 60 sec

Composition: 100 ml of solution contain: Active substances: ethanol (100 %) 45 g, 1-propanol (Ph. Eur.) 18 g. Other constituents: purified water, diisopropyl adipate, macrogol-6-glycerolcaprylocaprate (Ph.Eur.), dexpanthenol, (+/-)alpha-bisabolol, fragrances (contain lemons and linalool), allantoin.
Applications: hygienic and surgical hand disinfection. **Contraindications:** hypersensitivity (allergy) to ethanol or 1-propanol or one of the other constituents. **Side effects:** contact allergy. Skin irritations such as inflammation and redness and burning, particularly if used frequently.
Warnings: flammable. Keep container tightly closed. Keep clear of ignition sources. - Refrain from smoking! Avoid contact with the eyes. Do not apply to injured skin or mucus membranes. For external use only. 21-22 °C flash point according to DIN 51 755.

Danger H225-H318-H336

Pack.	Art. No.	Pack Qty.	€
100 ml bottle	**XP54.1**	1 unit(s)	n. a.
500 ml bottle	**XP54.2**	1 unit(s)	n. a.
1000 ml bottle	**XP54.3**	1 unit(s)	n. a.
5 l canister	**XP54.4**	1 unit(s)	n. a.



Hand sanitiser Softa-Man® ViscoRub

B. Braun.

Ready-to-use, gel-like, alcohol-based hand disinfectant.
Efficacy: effective against bacteria (including MRSA, TbB) and fungi. Limited virucidal efficacy (including HBV, HCV, HIV), effective against rota, influenza and noro viruses (surrogate virus MNV).
Listing: DGHM/VAH listed and included in the IHO List of Virucidal Products.

- Gel-like structure allows drip free dispensing
- Colorant and fragrance free, i.e. reduced allergenic potential
- Excellent skin compatibility - dermatologically tested
- Especially gentle to the skin
- Hygienic hand disinfection 30 sec, surgical hand disinfection 90 sec

Composition: 100 ml of solution contain: Active substances: ethanol (100 %) 45 g, 1-propanol (Ph. Eur.) 18 g. Other ingredients: purified water, butane-2-on, glycerol, isopropyl myristate (Ph. Eur.), (hexadecyl, octadecyl) [(RS)-2-ethyl hexanoate], (+/-)alpha-bisabolol. **Applications:** hygienic and surgical hand disinfection. **Contraindications:** hypersensitivity (allergy) to ethanol or 1-propanol or one of the other ingredients of Softa-Man® ViscoRub. **Side effects:** contact allergy. Skin irritations such as inflammation and redness and burning, particularly if used frequently. **Warnings:** flammable. Keep container tightly closed. Keep clear of ignition sources. - Refrain from smoking! Avoid contact with the eyes. Do not apply to injured skin or mucus membranes. For external use only. 52.3 % ethanol by weight, 20.9 % 1-propanol by weight. 21 °C flash point according to DIN 51 755.

Danger H225-H318-H336

Pack.	Art. No.	Pack Qty.	€
100 ml bottle	**XP55.1**	1 unit(s)	n. a.
500 ml bottle	**XP55.2**	1 unit(s)	n. a.
1000 ml bottle	**XP55.3**	1 unit(s)	n. a.
5 l canister	**XP55.4**	1 unit(s)	n. a.



Dosing pump for B. Braun bottles

B. Braun. Material: PP, PE.

For hygienic dispensing. Integrated non-return valve prevents leakage of contents, e.g. when tilting the bottle. 2 ml per stroke. Suitable for B. Braun bottles.

Not a medical device / Not an IVD product

Suitable for	Art. No.	Pack Qty.	€
500 ml bottles	**NK88.1**	1 unit(s)	7,85
1000 ml bottles	**NK89.1**	1 unit(s)	7,85

Skin disinfection



Hand sanitiser Sterillium-Tissue®

BODE Chemie.

For hand and skin disinfection. Based on propan-2-ol, propan-1-ol and mecetronium ethyl sulphate. **Efficacy range:** bactericidal, yasticidal, tuberculocidal, mycobactericidal, limited virucidal efficacy (including HBV, HIV, HCV). Effective against herpes simplex and rotavirus. **Listing:** BfArM Approval No. 603.00.00.VAH.

Sterillium® Tissue: Active substances: 2-propanol (Ph. Eur.), 1-propanol (Ph. Eur.), mecetronium ethyl sulphate. **Composition:** 1 fleece wet wipe contains: **Active substances:** 1.341 mg propan-2-ol , 894 mg propan-1-ol and 5.96 mg mecetronium ethyl sulphate. Other constituents: tetradecane-1-ol, glycerol 85 %, fragrances, purified water. **Applications:** for hygienic hand disinfection, for skin disinfection after injections and punctures in low-sebaceous areas of skin. **Contraindications:** Sterillium® Tissue must not be used in persons with an allergic hypersensitivity to 2-propanol (Ph. Eur.), 1-propanol (Ph. Eur.), mecetronium ethyl sulphate or any of the other constituents, in immediate proximity to the eyes or open wounds, in premature and new-born infants, and for disinfection of mucus membranes. **Side effects:** slight dryness or irritation of the skin may occasionally occur. In such cases, more intensive general skin care is recommended. Allergic reactions are rare. **Warnings:** always consult a doctor prior to use on infants and small children. Avoid contact with the eyes. In case of contact with the eyes, rinse immediately with flowing water for several minutes with the eyelid open. Do not use electrical equipment until the substance has dried.
Keep away from naked flame. Do not use in the vicinity of ignition sources. Flash point: 23.5 °C, flammable. In the event of fire, extinguish with water, fire extinguisher or CO_2.

Warning H226-H319

Pack.	Art. No.	Pack Qty.	€
10 wipes	**T037.1**	10 unit(s)	n. a.



NEW / +

Disinfectant dispenser RX5 Touchless

BODE Chemie.

- Non-contact dispenser made of sturdy plastic
- Slim and modern design with rounded surfaces
- Replaceable and durable plastic pump
- Reliable sensor-controlled dosing of 1.5 ml per stroke
- Adjustable stroke rate (1-3)
- Multifunctional: As a wall-mounted dispenser or for desktops
- Easy installation even in difficult space conditions
- Suitable for all commercially available 500 ml Euro bottles
- Removable front for easy bottle and pump replacement
- Drip pan can be clicked on (please order separately)

Delivery incl. batteries and mounting material, without drip pan or bottle (please order separately).

Not a medical device / Not an IVD product

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
500 ml Euro bottles	102 x 142 x 269	**1H49.1**	1 unit(s)	177,40

NEW / +

Drip pan for the RX5 touchless disinfectant dispenser

BODE Chemie. Material: Plastic.

Suitable for	Art. No.	Pack Qty.	€
RX5 Touchless	**1H4A.1**	1 unit(s)	17,45

Dosing dispenser for soaps, disinfectants



Column for hand sanitiser dispenser Hygiene tower

BODE Chemie. Material: Stainless steel.

Stable, powder-coated stainless steel column with base plate. Pre-installed holes for mounting BODE dispensers. Mobile, appealing solution for installing dispensers at locations where they cannot be mounted on a wall.

- Versatile use anywhere
- Solid and tilt-resistant design
- Appealing stainless steel finish
- Hygienic, easy-to-clean surface structure
- Cost-effective solution for changing applications
- Can be combined with BODE 1 plus and Touchless Eurodispensers

Delivery incl. mounting accessories for installing the back of the dispenser. Without dispenser or hand sanitiser, please order separately.

W x D x H (mm)	Art. No.	Pack Qty.	€
455 x 455 x 1400	**1EPE.1**	1 unit(s)	488,05



NEW/+

Accessories for disinfection column Hygiene Tower

BODE Chemie.

Flyer holder
Material: Stainless steel Acrylic glass viewing window. Made of matt powdered steel, with aluminium clip frame and acrylic glass viewing window.

Version	W x D x H (mm)	Art. No.	Pack Qty.	€
Flyer holder	245 x 40 x 365	**1EPC.1**	1 unit(s)	42,75

Tente castors
Material: Stainless steel Plastic castors. The set contains four castors, two of which have a braking system.

Version	Art. No.	Pack Qty.	€
Tente castors	**1EPH.1**	1 set	80,05



Column for sanitiser dispenser

Material: Stainless steel.

Column made of polished stainless steel with black powder-coated base plate, 4 mm thick.
Virtually all dispensers can be mounted on the column. Open at the back for easy dispenser mounting.

- Versatile use, anywhere where it is not possible to mount a dispenser on a wall
- Hygienic because it is easy to clean

Delivery incl. mounting instructions, without dispenser or hand sanitiser, please order separately.

W x D x H (mm)	Art. No.	Pack Qty.	€
450 x 450 x 1500	**1EP7.1**	1 unit(s)	307,45



NEW/+

Soap and disinfectant dispenser SARAYA ADS 500/1000 with sensor

SARAYA.

Contactless dispenser with sensor for hygienic drawing of hand sanitisers and liquid soap.
Due to the difference in viscosity between liquid soap and sanitiser, two different pumps are included:
1x spray pump for sanitiser and 1x drop pump for liquid soap and lotions. This makes it possible to convert the dispenser as required.

- Can be used free-standing or mounted on a wall
- Battery operation enables flexible use
- Suitable for 500 ml and 1000 ml standard bottles (Euro bottles)
- Quick and easy wall mounting via a mounting plate

Delivery incl. drip tray, shelf for 500 ml bottles, wall mounting plate, mounting material, without batteries (4 LR20) and bottle (please order separately).

Not a medical device / Not an IVD product

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
500/1000 ml Euro bottles	104 x 190 x 312	**1H26.1**	1 unit(s)	148,10

Dosing dispenser for soaps, disinfectants



Soap and disinfectant dispenser

B. Braun.

For hygienic and precise dispensing of washing lotions, disinfectants and skincare lotions. Lever-operated, aluminium housing, plastic pump. Adjustable dispensing volume of 0.7 to 1.5 ml per stroke.

Not a medical device / Not an IVD product

Type	Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
ELS plus	500 ml bottles	82 x 215 x 295	**NK86.1**	1 unit(s)	124,65
TLS plus	1000 ml bottles	92 x 225 x 340	**NK87.1**	1 unit(s)	124,65



Disinfectant dispenser plus Touchless

BODE Chemie.

Touchless dispenser for hand sanitiser

- Removable front for easy pump replacement
- Reliable and robust metal dispenser
- Easy installation even in difficult space conditions
- Easy and quick bottle replacement
- Easy to operate and clean
- Dispensing quantities are adjustable to approx. 0.75 to 1.5 ml per stroke

Delivery incl. batteries and mounting material, without bottle (please order separately).

Not a medical device / Not an IVD product

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
350/500 ml bottles	92 x 210 x 290	**CTC0.1**	1 unit(s)	251,55
1000 ml bottles	92 x 210 x 290	**CTC1.1**	1 unit(s)	266,60



Soap and disinfectant dispenser plus

BODE Chemie.

For application of hand sanitisers, washing and care lotions.

- Removable front for easy pump replacement
- Reliable and robust metal dispenser
- All removable parts are fully autoclavable
- Easy installation even in difficult space conditions
- Fits all commercially available bottles
- Easy and quick bottle replacement
- Easy to operate and clean
- Dispensing quantities are adjustable to approx. 0.75 ml to 1.5 ml per stroke

Delivery incl. mounting material, without bottle (please order separately).

Not a medical device / Not an IVD product

With long arm lever

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
350/500 ml bottles	82 x 215 x 295	**TE53.1**	1 unit(s)	104,35
1000 ml bottles	92 x 225 x 340	**TE54.1**	1 unit(s)	113,95

With short arm lever

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
350/500 ml bottles	82 x 160 x 315	**CTA8.1**	1 unit(s)	92,30
1000 ml bottles	92 x 160 x 360	**CTA9.1**	1 unit(s)	100,55

Drip pan with handle for soap and disinfectant dispenser

BODE Chemie.

Suitable for soap and disinfectant dispenser plus. The drip pans protect floors and other surfaces against products which can drip during dispensing.

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
350/500 ml bottles	150 x 260 x 360	**TE55.1**	1 unit(s)	78,40
1000 ml bottles	150 x 260 x 410	**TE56.1**	1 unit(s)	79,80



Soap dispensers SEKUROKA®

JM-Metzger. Material: Plastic, transparent.

For liquid hand wash, lotions, shampoos, shower gel and detergents. 500 ml capacity. Housing made of transparent plastic.
Suitable as stand-alone or wall-mounted dispenser.

Delivery incl. mounting material.

W x D x H (mm)	Art. No.	Pack Qty.	€
80 x 65 x 180	**T054.1**	1 unit(s)	26,45

Dosing dispenser for soaps, disinfectants



Dispensers Universal

JM-Metzger. Material: ABS, Operating lever made of stainless steel.

Suitable for liquid soap and disinfectant, optimally designed for the hygiene needs of a wide range of industries. With wall bracket, lockable closing plate and replaceable pump.

- 500 ml or 1000 ml capacity in one dispenser
- Suitable for all conventional bottle models
- Flexible stroke adjustments
- Convenient installation
- Removable drip tray and wall bracket
- Easy folding of the pump head for replacement of the pump
- Locking plate and key guarantee no unauthorised removal

Delivery incl. mounting material, empty 1000 ml bottle and adapter for 500 ml bottle. Drip tray optional, please order separately.

Not a medical device / Not an IVD product

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
500/1000 ml Euro bottles	105 x 222 x 350	**EYX7.1**	1 unit(s)	55,65

Accessories for universal dispenser

JM-Metzger.

Drip tray: Made of ABS, white.
Dimensions: W 185 x H 20 x D 105 mm.
Replacement pump: Made of plastic.

Type	Art. No.	Pack Qty.	€
Drip tray	**EYX8.1**	1 unit(s)	13,20
Replacement pump	**EYX9.1**	1 unit(s)	10,35



Dispensers for liquid soap

JM-Metzger. Material: ABS, Operating lever made of stainless steel.

Universal soap and disinfectant dispenser. Easily filled from canisters. Suitable for 1000 ml disposable Euro bottles. Lever length 70 mm.

Delivery incl. dispenser bottle and lockable cover plate.

Not a medical device / Not an IVD product

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
1000 ml Euro bottles	100 x 180 x 280	**EYX6.1**	1 unit(s)	53,35



Folded hand towel dispenser SEKUROKA®

ROTH SELECTION. Material: Steel (sheet metal).

With viewing window for fill level. Suitable for all standard folded hand towels.

W x D x H (mm)	Art. No.	Pack Qty.	€
275 x 125 x 350	**CY02.1**	1 unit(s)	74,40



Folded hand towel dispenser made of ABS

JM-Metzger. Material: ABS.

Colour white with blue viewing window.

Delivery incl. mounting material.

W x D x H (mm)	Art. No.	Pack Qty.	€
277 x 130 x 270	**EYT2.1**	1 unit(s)	34,45



Folded hand towel dispenser Midi

JM-Metzger. Material: ABS.

With viewing window. Suitable for all folded hand towels, lockable.

Delivery incl. mounting material and dispenser plate for using interfold paper.

W x D x H (mm)	Art. No.	Pack Qty.	€
255 x 120 x 250	**EYY1.1**	1 unit(s)	34,80

Dispenser for disposable towels

Disposable wipes TAD-quality

JM-Metzger.

Made of cellulose, TAD quality, 2-ply, interfold. Highly absorbent, soft and tear-proof when wet.
Suitable for dispensers: EYY1.1, CY02.1, EYT2.1.



Length (mm)	Width (mm)	Pack.	Art. No.	Pack Qty.	€
320	203	20 x 100 sheets	**EYY0.1**	2,000 sheet	59,25

Disposable wipes SEKUROKA®

ROTH SELECTION. Material: Paper.

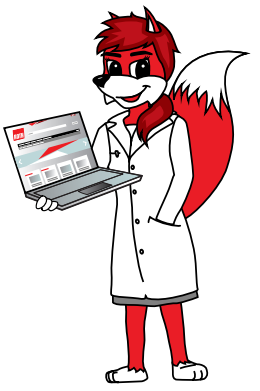
Made of 100% recycled paper, highly absorbent and tough.
Suitable for CY02.1, EYT2.1 and EYY1.1 folded hand towel dispensers.



Type	Colour	Length (cm)	Width (cm)	Pack.	Art. No.	Pack Qty.	€
2-ply, tissue, zigzag folding	natural	23.5	23	20 x 160 sheets	**CY03.1**	3,200 sheet	43,30
2-ply, tissue, zigzag folding	green	23.5	23	20 x 160 sheets	**CY04.1**	3,200 sheet	52,05
1-ply, crepe, layer folding	natural	25	31	24 x 152 sheets	**CY05.3**	3,648 sheet	63,75

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Dispenser for disposable towels

Folded hand towel dispenser AQUARIUS

Kimberly-Clark. Material: Plastic, impact-resistant.

White, with viewing window. For hygienic removal of single paper hand towels.
Suitable for disposable hand towels: KLEENEX® Art. No. X251.2, ECX6.1, ECX7.1 and SCOTT® Performance Art. No. X254.2.



Manufacturer no.	W x D x H (mm)	Art. No.	Pack Qty.	€
6945	265 x 136 x 399	**X252.1**	1 unit(s)	154,60

Disposable towels

NEW / +

Kimberly-Clark.

Disposable folded hand towels made of Airflex paper, interfold, white. Suitable for AQUARIUS hand towel dispensers and other folded hand towel dispensers.

SCOTT® Performance 1-ply

Manufacturer no.	Length (mm)	Width (mm)	Pack.	Art. No.	Pack Qty.	€
6663	315	215	15 x 212 sheets	**X254.2**	3,180 sheet	149,20

KLEENEX® ULTRA 2-ply

Outstanding quality, highly absorbent and tear-proof.

Manufacturer no.	Length (mm)	Width (mm)	Pack.	Art. No.	Pack Qty.	€
6789	215	215	15 x 186 sheets	**1H53.1**	2,790 sheet	120,10
6778	315	215	15 x 124 sheets	**ECX6.2**	1,860 sheet	133,75

KLEENEX® ULTRA 3-ply

Very soft, very gentle on the skin and absorbent.

Manufacturer no.	Length (mm)	Width (mm)	Pack.	Art. No.	Pack Qty.	€
6710	315	215	15 x 96 sheets	**ECX7.2**	1,440 sheet	109,55

Dispenser for disposable towels

Hand towel roll dispenser COSMOS

JM-Metzger. Material: ABS Plastic.

Colour: white. Lockable and secure. Cover opens upwards and remains open for convenient refilling. Removable wall bracket for flexible handling. Automatic remnant roll function.



(1) With lever
Push lever with slip clutch.

Delivery incl. mounting material.

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
Hand towel rolls with width max. 290 mm	320 x 210 x 430	**EYX0.1**	1 unit(s)	129,60

(2) With sensor
With length regulator. Setting options: Sensor or Auto mode as well as battery or mains operation.

Delivery incl. mounting material and 4 (Duracell D) 1.5 V batteries.

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
Hand towel rolls with width max. 290 mm	320 x 210 x 430	**EYX1.1**	1 unit(s)	187,05

JM-Metzger.

Type	Art. No.	Pack Qty.	€
Power suply	**EYX2.1**	1 unit(s)	22,65

Roll of disposable hand towels with external unrolling

JM-Metzger. Material: Cellulose.

2-ply. Suitable for COSMOS hand towel roll dispenser, for example.

Length (m)	Width (mm)	Art. No.	Pack Qty.	€
140	290	**EYX3.1**	6 roll(s)	57,85

Hand towel roll dispenser Maxi with pull-out unit

JM-Metzger. Material: ABS.

Colour white with blue viewing window. Lockable.



Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
Roll Ø max. 190 mm	207 x 220 x 321	**EYY2.1**	1 unit(s)	48,45

Roll of disposable hand towels with pull-out unit

ZVG. Material: Cellulose.

Premium quality, tearproof, 1-ply, unperforated, white.
Pull out the core, unroll the wipes from the inside.

Length (m)	Width (mm)	Suitable for	Art. No.	Pack Qty.	€
120	200	Dispenser with W x D max. 140 x 140 mm	**E184.1**	3 roll(s)	19,30
300	203	EYY2.1	**E185.1**	2 roll(s)	24,50

Disposable glove dispenser



Wall-mounted dispensers ROTILABO®

ROTH SELECTION. Material: Stainless steel.

Suitable for all ROTIPROTECT® glove packs and ROTIZELL® tissue dispensers. Other dispensers up to 7.5 cm wide can also be clamped in by gently pressing the two metal brackets together. With two eyelets for wall mounting.

Delivery incl. wall plugs and screws.

Type	W x D x H (mm)	Art. No.	Pack Qty.	€
for 3 boxes	245 x 100 x 477	**AC07.1**	1 unit(s)	42,50
for 1 box	180 x 85 x 135	**Y383.1**	1 unit(s)	31,90



Wall mount Dracula

ROTH SELECTION. Material: PS.

Colour: White. Adaptable wall mount for dispenser boxes in various sizes, ideal for disposable gloves, face masks, tissues or wipes. For doctor's surgeries, laboratories and hospitals.

- Spring-loaded clamp with teeth
- For boxes with a width of 100 to max. 130 mm, weight up to approx. 1 kg
- Can be attached with double-sided adhesive tape or screws

Delivery incl. double-sided adhesive tape for securing.

W x D x H (mm)	Art. No.	Pack Qty.	€
100 x 20 x 210	**CAL7.1**	1 unit(s)	8,15



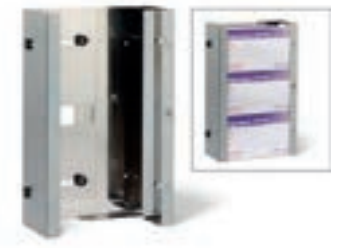
Glove dispenser SEKUROKA® Solo

ROTH SELECTION. Material: Stainless steel, matt-brushed.

Can be disinfected with surface disinfectant.
Flexible wall mounting options: Can be mounted vertically or horizontally thanks to the shelf support fitted on one side.
Highly adaptable: On the back of the dispenser is a tab that users can fold over in order to insert boxes of different sizes (between 60 and 90 mm) and secure them firmly in place. Flat boxes will not slip backwards.

Delivery incl. mounting material.

L x W x H (mm)	Suitable dispenser boxes	Art. No.	Pack Qty.	€
250 x 135 x 95	max. L x W x H: 250 x 132 x 90 mm	**EHC9.1**	1 unit(s)	46,15



Glove dispenser SEKUROKA® Multismart

ROTH SELECTION. Material: Stainless steel, high-quality.

Polished appearance. Triple dispenser, inner height and width can be variably adjusted. Clear vertical arrangement. To be filled from above. Can be disinfected with surface disinfectant.
Suitable for wall mounting.
Variable inner dimensions: Width 200–260 mm, depth 40–95 mm.

Delivery incl. mounting material.

Type	Art. No.	Pack Qty.	€
for 3 boxes	**KCT3.1**	1 unit(s)	102,75

Disposable glove dispenser



Glove dispenser SEKUROKA®

ROTH SELECTION. Material: Stainless steel, matt-brushed.

Can be disinfected with surface disinfectant.

(1) Flex
Variable height and placement, can be placed on a level surface or screwed to the wall. Suitable for dispensers with central dispensing opening. Also suitable for dispensing cosmetic wipes and cleaning wipes.

Delivery incl. four non-slip, self-adhesive mounting pads to protect the mounting surfaces and mounting material.

W x D x H (mm)	Suitable dispenser boxes	Art. No.	Pack Qty.	€
262 x 152 x 90	max. L x W x H: 259 x 136 x 60–90 mm	**NK95.1**	1 unit(s)	84,95

(2) Fixed
Keyhole system for fast installation, so it is quick and easy to remove from the wall without the need for tools.

Delivery incl. mounting material.

W x D x H (mm)	Suitable dispenser boxes	Art. No.	Pack Qty.	€
250 x 135 x 80	max. L x W x H: 250 x 132 x 75 mm	**NK96.1**	1 unit(s)	48,20

(3) Trio
Triple dispenser with clear vertical arrangement. Size label on the side: S, M or L. To be filled from above. Can be removed from the wall without tools.

Delivery incl. mounting material.

W x D x H (mm)	Suitable dispenser boxes	Art. No.	Pack Qty.	€
258 x 96 x 392	max. L x W x H: 250 x 132 x 90 mm	**NK97.1**	1 unit(s)	72,05



Wall mount for glove boxes made of acrylic

Meditrade. Material: PMMA, transparent.

Made of transparent acrylic. For boxes containing gloves or cleaning wipes. Can be wall-mounted.

Delivery without mounting material.

L x W x H (mm)	Art. No.	Pack Qty.	€
250 x 140 x 70	**EHX1.1**	1 unit(s)	15,70
250 x 145 x 100	**EHX2.1**	1 unit(s)	19,90



Finger stalls

WIROS. Material: Natural rubber. Non-sterile.

With rolled edge, **non-powdered**, natural colours. For single use. Wall thickness 0.1 mm.

Medical device class I MDD

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
68	3 (M)	natural	**X152.1**	500 unit(s)	14,15
68	4 (L)	natural	**X153.1**	500 unit(s)	14,15
68	5 (XL)	natural	**X154.1**	500 unit(s)	14,15



PE disposable gloves

Intermedica. Material: PE. Non-sterile.

Made of polyethylene, simple consumption quality.

Version	Pack.	Art. No.	Pack Qty.	€
Men's size	10 x 100	**1969.1**	1,000 unit(s)	30,05
Women size	10 x 100	**H706.1**	1,000 unit(s)	30,05



PE disposable gloves stretchy

GFL Punx. Material: PE. Non-sterile.

Made of strong polyethylene film in powdered stretchy material. Skin-friendly and abrasion-resistant, also suitable for precision work. In practical dispenser box with eyelet for hanging up.

Version	Art. No.	Pack Qty.	€
Men's size (9)	**1230.1**	100 unit(s)	12,70
Women's size (6–7)	**1517.1**	100 unit(s)	12,70

Disposable gloves



Cat. I

PE disposable gloves Softline

Franz Mensch. Material: LDPE. Non-sterile.

Very stretchy, waterproof. For single use. Ideal for short-term work. Extra-long for greater protection. Can be worn on either hand. Wall thickness 30 µm.

Length (mm)	Colour	Art. No.	Pack Qty.	€
380	blue	**AN63.1**	100 unit(s)	7,35



Cat. I

PE disposable gloves Softline extra-long

Franz Mensch. Material: LDPE. Non-sterile.

Very stretchy, waterproof. For single use. Ideal for short-term work. Extra-long for greater protection. Can be worn on either hand. Suitable for contact with foodstuffs.

Length (mm)	Colour	Art. No.	Pack Qty.	€
900	orange	**AN64.1**	50 unit(s)	10,25



Cat. III

Disposable gloves Semperclean MC

Semperit. Material: Natural rubber. Non-sterile.

Acc. to 93/42/EEC: medical product class I.
Acc. to EN 420, EN 374, EN 455. AQL 1.5.

- **Anatomic form**, ideal fit for fatigue-free work
- Highest wearing comfort and especially easy to put on due to special inner coating
- Excellent secure grip through micro-roughened surfaces
- Especially skin-friendly, since cleaned/washed intensively in the production process
- Thin rolled edge
- Colour: natural white
- Length: min. 270 mm
- Wall thickness: approx. 0.42 mm (measured double)
- 50 pairs in a dispenser carton

Medical device class I

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
270	S	natural	**HHN4.1**	50 pair	75,10
280	M	natural	**HHN5.1**	50 pair	75,10
285	L	natural	**HHN6.1**	50 pair	75,10



Cat. I

Undergloves without fingertips

Sänger. Material: Nylon 100 %.

Thin white fine knit. Fingertip-free fine knit undergloves for protection against sweaty hands. High wear comfort, good tactile sensitivity and can be worn on either hand. Machine-washable up to 30 °C, suitable for multiple use.

Version	Colour	Art. No.	Pack Qty.	€
One size fits all	white	**NK52.1**	10 pair	17,15

Disposable gloves



S Cat. III

Examination gloves Sempercare® Edition IC sterile

Semperit. Material: Natural rubber. **Sterile**.

Disposable gloves, non-powdered
Acc. to 93/42 EEC medical product class Is, EN 420, EN ISO 374-1 type C (KP), EN ISO 374-5 (virus), EN 455, ASTM-F 1671-97, AQL 1,5.
Acc. to EC Directive 1935/2004 – suitable for contact with foodstuffs.
Gamma-sterilised acc. to EN 552, EN 556

- Protection against infection for user and patient
- Fully textured for a safe grip
- High tensile strength (7 N) gives superior protection for use in critical environments
- Synthetic inner coating makes the gloves easy to put on
- Rolled edge
- Can be used on either side
- Colour: natural white
- Double wall thickness: 0.20 mm (palm), 0.24 mm (fingertips)
- Available in pairs, sterile, in a practical peel pouch in pocket format

Applications: Healthcare, medical and dental areas, simple laboratory applications, food sectors.

Medical device class I MDD

Length (mm)	Size	Art. No.	Pack Qty.	€
≥240	S (6–7)	**1H02.1**	40 pair	47,85
≥240	M (7–8)	**1H03.1**	40 pair	47,85
≥240	L (8–9)	**1H04.1**	40 pair	47,85



Cat. III

Disposable gloves ROTIPROTECT® Latex comfort

Carl ROTH. Material: Natural rubber. Non-sterile.

Acc. to EN 420, EN ISO 374-1/type C, EN ISO 374-5 (virus), ASTM-F 1671-97. AQL 1.5.
Acc. to 1935/2004 – suitable for contact with foodstuffs.

- **Textured surface for secure grip**
- **Synthetic inner coating makes the gloves easy to put on**
- Optimal wear comfort and optimum perspiration absorption
- Intensive washing processes ensure gloves contain low levels of protein and irritants
- Non-powdered
- Can be worn on either hand
- Rolled edge
- Colour: Natural (light)
- Double wall thickness: min. 0.22 mm
- Thiuram-free
- 100 or 90 per dispenser box

10% discount on orders of 10 boxes per size.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	S (6–7)	natural, light	**L949.1**	100 unit(s)	17,15
≥240	M (7–8)	natural, light	**L950.1**	100 unit(s)	17,15
≥240	L (8–9)	natural, light	**L951.1**	100 unit(s)	17,15
≥240	XL (9–10)	natural, light	**HE61.1**	90 unit(s)	17,15

ROTIPROTECT® nitrile disposable gloves

Recommendation for chemical resistance

The disposable protective gloves listed below have been tested in compliance with standard EN 374-3:2003 "Determination of resistance to permeation by chemicals" and EN 16523-1 "Determination of material resistance to permeation by chemicals".

Chemical	ROTIPROTECT®-Nitrile evo CPX6.1ff	ROTIPROTECT®-Nitrile eco TC12.1ff	ROTIPROTECT®-Nitrile light EYK7.1ff	ROTIPROTECT®-Nitrile green HXK1.1ff
Acetic acid (10%)	n.t.	5	3	3
Acetone (2-propanone, ketone propane)	n.r.	n.r.	n.r.	n.r.
Acetonitrile (methyl cyanide, ethane nitrile)	n.r.	n.r.	n.r.	n.r.
Acrylamide (40%)	6	6	6	6
Ammonia (25%)	1	1	A	n.t.
Benzine (heavy, bp 160-190 °C)	n.r.	n.r.	n.r.	n.r.
Chlorhexidine gluconate (0.5%)	n.t.	n.t.	6	n.t.
Chloroform (trichloromethane)	n.r.	n.r.	n.r.	n.r.
Dichloromethane (methylene dichloride, Freon 30)	n.r.	n.r.	n.r.	n.r.
Cyclohexanol (hexalin at 23 °C)	n.t.	n.t.	n.t.	3
Diethyl amine (DEA)	n.r.	n.r.	n.r.	n.r.
Diethyl ether (diethyl oxide, ethoxyethane)	n.r.	n.r.	n.r.	n.r.
Dimethyl sulphoxide DMSO	n.r.	n.r.	n.r.	n.r.
Ethanol (20%)	6	6	1	1
Ethanol (70%)	3	A	n.r.	n.t.
Ethidium bromide (1%)	6	6	6	6
Ethyl acetate	n.t.	n.r.	n.r.	n.t.
Formaldehyde (37%)	6	6	6	6
Formaldehyde (37%) in methanol (10%)	5	6	6	6
Glutaraldehyde (5%)	6	6	6	6
n-heptane	A	n.r.	n.r.	n.t.
n-hexane	A	A	n.r.	n.t.
Hydrochloric acid (10%)	6	n.t.	6	6
Hydrochloric acid (36%)	6	n.t.	A	n.t.
Hydrofluoric acid (40%) (hydrogen fluoride)	A	A	n.t.	n.t.
Hydrogen peroxide	6	6	6	6
Isopropyl alcohol (40%)	n.t.	n.t.	n.t.	1
Isopropyl alcohol (70%)	6	3	A	1
Methanol (5%)	n.t.	6	n.t.	n.t.
Methanol (99%)	n.r.	n.r.	n.r.	n.t.
Methyl methacrylate (MMA)	n.t.	n.t.	n.t.	n.t.
Ninhydrin (0.2%)	6	n.t.	n.t.	n.t.
Nitric acid (10%)	6	6	6	6
Nitric acid (36%)	n.t.	3	n.t.	n.t.
Phenol (10%)	2	n.t.	1	n.t.
Phenol (80%)	n.t.	n.t.	n.t.	n.t.
Phosphoric acid (10%)	n.t.	n.t.	n.t.	n.t.
Phosphoric acid (30%)	n.t.	n.t.	n.t.	n.t.
Potassium hydroxide (30%) (caustic potash)	n.t.	n.t.	n.t.	n.t.
Potassium hydroxide (50%) (caustic potash)	n.t.	n.t.	6	n.t.
Sodium hydroxide (40%) (caustic soda)	6	6	6	6
Sodium hypochlorite (10%)	n.t.	n.t.	n.t.	n.t.
Sulphuric acid (96%)	A	A	A	A
Toluene	n.r.	n.r.	n.r.	n.r.
Trichlorethane	n.r.	n.r.	n.r.	n.r.
Xylene	n.r.	n.r.	n.r.	n.r.

	Level/Permeation time	
A – recommended for splash protection only	Level 1 >10 min	Level 4 >120 min
n.r. = not recommended (ruptures immediately)	Level 2 >30 min	Level 5 >240 min
n.t. = not tested	Level 3 >60 min	Level 6 >480 min

Disposable gloves



Cat. III



Disposable gloves ROTIPROTECT® -Nitril evo

Carl ROTH. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN ISO 374-1/type B (KPT) and EN ISO 374-5 (virus), ASTM-F 1671-97. AQL 1.5.
Acc. to 1935/2004 – suitable for contact with foodstuffs

- **Textured fingers for secure grip**
- Higher durability thanks to special formulation
- High elasticity and good tactile sensitivity
- Non-powdered
- Free from phthalates/plasticisers and allergenic latex proteins
- Can be worn on both hands
- Beaded cuff
- Colour: blue
- Thickness: approx. 0.12 mm
- Length: min. 240 mm
- 100 or 90 per dispenser box

Ideal for general laboratory use, good resistance to many chemicals, greases and oils.

10% discount on orders of 10 boxes per size!

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	S (6–7)	blue	**CPX6.1**	100 unit(s)	21,20
≥240	M (7–8)	blue	**CPX7.1**	100 unit(s)	21,20
≥240	L (8–9)	blue	**CPX8.1**	100 unit(s)	21,20
≥240	XL (9–10)	blue	**CPX9.1**	90 unit(s)	21,20



Cat. III



Disposable gloves ROTIPROTECT® -Nitril eco

Carl ROTH. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN ISO 374-1/type B (KPT) and EN ISO 374-5 (virus), ASTM-F 1671-97. AQL 1.5.
Acc. to 1935/2004 – suitable for contact with foodstuffs

- **Textured fingers for secure grip**
- Extra thin and soft for maximum wearing comfort
- High tactile sensitivity
- Non-powdered
- Free from phthalates/plasticisers and allergenic latex proteins
- Can be worn on both hands
- Beaded cuff
- Colour: blue
- Thickness: approx. 0.10 mm
- Length: min. 240 mm
- 100 or 90 per dispenser box

The perfect disposable solution for splash protection against many chemicals and for handling greasy foodstuffs. The blue signal is suitable for areas which are subject to HACCP standards.

10% discount on orders of 10 boxes per size!

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	S (6–7)	blue	**TC12.1**	100 unit(s)	18,30
≥240	M (7–8)	blue	**TC13.1**	100 unit(s)	18,30
≥240	L (8–9)	blue	**TC14.1**	100 unit(s)	18,30
≥240	XL (9–10)	blue	**TC15.1**	90 unit(s)	18,30

Disposable gloves



Cat. III

Disposable gloves ROTIPROTECT® -Nitril light

Carl ROTH. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN ISO 374-1/type B (KPT) and EN ISO 374-5 (virus), ASTM-F 1671-97. AQL 1.5.
Acc. to 1935/2004 – suitable for contact with foodstuffs

- **Textured fingers for secure grip**
- Extra thin and elastic for maximum wearing comfort
- High tactile sensitivity
- Non-powdered
- Can be worn on both hands
- Free from phthalates/plasticisers and allergenic latex proteins
- Beaded cuff
- Colour: blue
- Thickness: approx. 0.07 mm
- Length: min. 240 mm
- 200 or 180 per dispenser box

The perfect alternative to latex gloves. An extremely thin nitrile glove with outstanding elasticity and maximum wearing comfort thanks to a specially developed formulation and innovative production technology.

10% discount on orders of 10 boxes per size!

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	XS (5–6)	blue	**EYK7.1**	200 unit(s)	32,50
≥240	S (6–7)	blue	**AYA6.1**	200 unit(s)	32,50
≥240	M (7–8)	blue	**AYA7.1**	200 unit(s)	32,50
≥240	L (8–9)	blue	**AYA8.1**	200 unit(s)	32,50
≥240	XL (9–10)	blue	**AYA9.1**	180 unit(s)	32,50



Cat. III

Disposable gloves ROTIPROTECT® -Nitril green

Carl ROTH. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN ISO 374-1/type B (KPT) and EN ISO 374-5 (virus), ASTM-F 1671-97. AQL 1.5.
Acc. to 1935/2004 – suitable for contact with foodstuffs

- **Textured finger tips for better grip during wet or dry use**
- Easy to put on thanks to special inner coating
- Non-powdered
- Accelerator-free, reduced risk of allergic skin reactions
- Can be worn on either hand
- Rolled edge
- Wall thickness: approx. 0.06 mm
- Colour: mint green
- 200 or 180 per dispenser box

The perfect alternative to latex gloves. An extremely thin nitrile glove with outstanding elasticity and maximum wearing comfort thanks to specially developed formulation and innovative production technology.
Skin-friendly formula: Free from latex proteins, manufactured without vulcanisation accelerators or chlorine.
Environmentally friendly manufacturing: Water- and energy saving, reduced CO_2 emissions.

10% discount on orders of 10 boxes per size.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	S (6–7)	mint green	**HXK1.1**	200 unit(s)	32,70
≥240	M (7–8)	mint green	**HXK2.1**	200 unit(s)	32,70
≥240	L (8–9)	mint green	**HXK3.1**	200 unit(s)	32,70
≥240	XL (9–10)	mint green	**HXK4.1**	180 unit(s)	32,70

Disposable gloves



Cat. III

Disposable gloves Semperguard® Nitrile Xenon

Semperit. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN 455, EN ISO 374-1/type B (KPT), EN ISO 374-5 (virus) ASTM F1671-97. AQL 1.5.
Acc. to 93/42/EEC Class I.
Acc. to EC Directive 1935/2004 – suitable for contact with foodstuffs.

- **Smooth exterior, textured fingers**
- Very soft, very thin with latex-like wear comfort and excellent tactile sensitivity
- Non-powdered
- Can be worn on either hand
- Thin rolled edge
- Kind to the skin: Free of phthalates and allergenic latex proteins
- Colour: white
- Wall thickness: approx. 0.05 mm
- 200 or 180 per dispenser, resulting in less packaging material

Applications: Foodstuffs production, catering, healthcare, examination gloves, medical areas, simple industrial applications.

10% discount on orders of 10 boxes per size.

Medical device class I

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
240	S (6–7)	white	**XP94.1**	200 unit(s)	21,30
240	M (7–8)	white	**XP95.1**	200 unit(s)	21,30
240	L (8–9)	white	**XP96.1**	200 unit(s)	21,30
240	XL (9–10)	white	**XP97.1**	180 unit(s)	21,30



S

Examination gloves Nitril® sterile

Meditrade. Material: Nitrile. **Sterile**.

Acc. to EN 420, EN 455, AQL 1.5
Acc. to 93/42/EEC medical product class Is.
Thin and soft material, fits the hand like a second skin after just a short time and therefore guarantees fatigue-free work.

- **Disposable gloves, non-powdered**
- Micro-rough surface
- With polymer inner coating making them easy to put on
- Can be worn on either hand
- Free from allergenic latex proteins
- With rolled edge
- Colour: white
- Wall thickness: approx. 0.06 mm
- In pairs in a peel pack

Applications: For all areas with sterile requirements and in sterile environments, in laboratories, in the pharmaceutical industry, cleaning industry, food industry, etc.

Medical device class I MDD

Length (mm)	Size	Art. No.	Pack Qty.	€
≥240	S (6–7)	**EYL4.1**	50 pair	15,60
≥240	M (7–8)	**EYL5.1**	50 pair	15,60
≥240	L (8–9)	**EYL6.1**	50 pair	15,60
≥240	XL (9–10)	**EYT3.1**	50 pair	15,60

Disposable gloves



Cat. III

Examination gloves Nitril® Magenta

Meditrade. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN 455, EN 374, AQL 1.5.
Acc. to 93/42/EEC medical product class I.
Acc. to 1935/2004 – suitable for contact with foodstuffs.

- **Disposable gloves, non-powdered**
- Micro-rough surface
- Patented inner coating, silk-sericin coating, gentle on the hands and ensures the gloves can be put on easily
- Excellent tactile sensitivity and flexibility
- Ideal for particularly dry and stressed skin
- Non-powdered
- Free from allergenic latex proteins
- Can be worn on either hand
- With rolled edge
- Colour: pink
- Wall thickness: approx. 0.07 mm

Applications: Use in laboratories, in the pharmaceutical industry, for patient care and for handling cleaning agents.

10% discount on orders of 10 boxes per size.

Medical device class I MDD

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	S	pink	**EYL1.1**	100 unit(s)	13,45
≥240	M	pink	**EYL2.1**	100 unit(s)	13,45
≥240	L	pink	**EYL3.1**	100 unit(s)	11,30



Cat. III

Disposable gloves MICROFLEX® 93-833

Ansell. Material: Nitrile.

Acc. to EN 420, EN 455, EN ISO 374-1/type B (KPT), EN ISO 374-5 (virus), AQL 0.65.
Acc. to 93/42/EEC medical product class I.
Antistatic acc. to EN 1149
Acc. to EC 1935/2004 and 2023/2006 – suitable for contact with foodstuffs.

- Examination gloves with ergonomics certificate. The low muscle force required and the resulting low hand fatigue minimise the risk factors for illnesses at the workplace caused by ergonomics (carpal tunnel syndrome)
- Protection against type-I allergy, irritation and dehydration of the skin, since powder-free and latex-free
- Non-powdered
- Can be worn on either hand
- Thin rolled edge
- Wall thickness: approx. 0.07 mm
- Length 240 mm

Applications: Laboratory analyses, food processing, manufacture and preparation of pharmaceuticals, assembly and inspection, storage work, maintenance and cleaning of devices and instruments, examination of patients.

10% discount on orders of 10 boxes per size.

Medical device class I MDD

Length (mm)	Size	Art. No.	Pack Qty.	€
240	XS (5,5–6)	**HLT3.1**	250 unit(s)	36,15
240	S (6,5–7)	**HLT4.1**	250 unit(s)	36,15
240	M (7,5–8)	**HLT5.1**	250 unit(s)	36,15
240	L (8,5–9)	**HLT6.1**	250 unit(s)	36,15
240	XL (9,5–10)	**HLT7.1**	230 unit(s)	36,15

Disposable gloves



Cat. III





Disposable gloves MICROFLEX® 93-856

Ansell. Material: Nitrile.

Acc. to EN 420, EN 455, EN ISO 374-1/type B (JKT), EN ISO 374-5 (virus), AQL 1.5.
Antistatic acc. to EN 1149

- High visibility of the hands at greater distances and therefore higher safety in the different work areas due to bright orange colour, also when lighting is poor
- Resistant to a wide range of industrial chemicals over a longer period than other disposable gloves made of nitrile
- Additional protection thanks to extended cuff
- Secure grip thanks to textured fingers
- Powder-free and latex-free for protection against type-I allergy
- Can be worn on either hand
- Thin rolled edge
- Length 270 mm
- Wall thickness: approx. 0.13 mm

Applications: Laboratory analyses, assembly and inspection, storage work, maintenance and cleaning of devices ad instruments, examination of patients.

10% discount on orders of 10 boxes per size.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
270	S (6,5–7)	orange	**HLP8.1**	100 unit(s)	39,20
270	M (7,5–8)	orange	**HLP9.1**	100 unit(s)	39,20
270	L (8,5–9)	orange	**HLT0.1**	100 unit(s)	39,20
270	XL (9,5–10)	orange	**HLT1.1**	100 unit(s)	39,20
270	XXL (10,5–11)	orange	**HLT2.1**	100 unit(s)	39,20



Cat. III







Disposable gloves MICROFLEX® 93-260

Ansell. Material: Neoprene, Nitrile. Non-sterile.

Acc. to EN 420, EN ISO 374-1:2016 type A (JKLOPST), EN ISO 374-5:2016 (virus), EN 388:2016 (2000x). AQL 0.65.
Antistatic acc. to EN 1149.

- Coating material neoprene and nitrile
- Excellent protection against chemicals, including acids, solvents and bases
- Thin-walled, therefore high tactile sensitivity and finger mobility
- Extra-soft material and anatomic fit, very good wear comfort, high flexibility
- Textured fingertips
- Silicone-free material formulation and processing
- Non-powdered
- Colour: Green outside, blue inside
- Rolled edge
- Length 300 mm
- Wall thickness 0.198 mm
- 50 pieces per dispenser box

Applications: Sampling and laboratory processing, handling of unexpected leaks, transport of liquids and solids, spillages or other releases, petrochemicals, paint and varnishing work, handling of spray guns and robots.

10% discount on orders of 10 boxes per size.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
300	XS (5,5–6)	green, blue	**HNT5.1**	50 unit(s)	37,60
300	S (6,5–7)	green, blue	**HNT6.1**	50 unit(s)	37,60
300	M (7,5–8)	green, blue	**HNT7.1**	50 unit(s)	37,60
300	L (8,5–9)	green, blue	**HNT8.1**	50 unit(s)	37,60
300	XL (9,5–10)	green, blue	**HNT9.1**	50 unit(s)	37,60
300	XXL (10,5–11)	green, blue	**HNX0.1**	50 unit(s)	37,60

Disposable gloves



Cat. III

Disposable gloves SHOWA C9905PF

SHOWA. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN ISO 374-1:2016/type C (K), EN ISO 374-5:2016 (virus). AQL 1.5.

- **Certified and suitable for use in clean room** class 100 (ISO 5)
- Rinsed with filtered and deionised water and packed in a clean room environment
- Wear comfort like a second skin, more pleasant texture and easy to put on
- Low-modulus formulation to improve fit and reduce fatigue
- Textured surface on finger tips for enhanced grip
- Protection against many chemicals and chemical splashes
- Can be worn on either hand
- Thin rolled edge
- Colour: white
- Length 300 mm
- Wall thickness approx. 0.12 mm
- 100 pieces in bag

Applications: Pharmaceutical manufacturing, biotechnology and biosciences, optics, microelectronics and semiconductor production, quality assurance.

10% discount on orders of 10 bags per size.

Length (mm)	Size	Art. No.	Pack Qty.	€
300	XS	**1A8L.1**	100 unit(s)	126,50
300	S	**1A8N.1**	100 unit(s)	126,50
300	M	**1A8P.1**	100 unit(s)	126,50
300	L	**1A8T.1**	100 unit(s)	126,50
300	XL	**1A8X.1**	100 unit(s)	126,50



Cat. III

Disposable gloves SHOWA 7502PF EBT

SHOWA. Material: Nitrile biodegradable. Non-sterile.

Acc. to EN 420, EN ISO 374-1:2016/type C (KT), EN ISO 374-5:2016 (virus). AQL 1.5.
Acc. to 1935/2004 suitable for contact with foodstuffs.

- **Accelerator-free formula**, suitable for particularly sensitive skin – reduces the risk of allergic skin reactions
- Low-modulus formulation to improve fit and reduce fatigue
- Wearing comfort like a second skin
- Easy to put on and take off
- Textured finger tips for better grip
- Short-term chemical-protection against a variety of hazardous substances
- 100% nitrile, free of allergenic latex proteins
- Non-powdered
- Manufactured without silicone
- Can be worn on either hand
- With rolled edge
- Colour: blue
- Wall thickness approx. 0.06 mm
- 200 gloves per dispenser box, 180 gloves in XXL size

Biodegradable: A specially developed formula and the innovative Eco Best Technology (EBT) have enabled the manufacture of an innovative disposable glove. EBT nitrile is biodegraded at biologically active (bacteria) landfills within one to five years. The biological degradation only starts after disposal. All the protective properties of a nitrile disposable glove are retained during use.
Applications: Laboratories, pharmaceutical and food companies, non-complex assembly work, hygiene applications, restaurants and farms.

10% discount on orders of 10 boxes per size.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	XS	blue	**1AT9.1**	200 unit(s)	46,45
≥240	S	blue	**1ATA.1**	200 unit(s)	46,45
≥240	M	blue	**1ATC.1**	200 unit(s)	46,45
≥240	L	blue	**1ATE.1**	200 unit(s)	46,45
≥240	XL	blue	**1ATH.1**	200 unit(s)	46,45
≥240	XXL	blue	**1ATK.1**	180 unit(s)	46,45

Disposable gloves



Cat. III

Disposable gloves SHOWA 7500PF EBT

SHOWA. Material: Nitrile biodegradable. Non-sterile.

Acc. to EN 420, EN ISO 374-1:2016/type B (JKPT), EN ISO 374-5:2016 (virus). AQL 1.0.
Acc. to 1935/2004 – suitable for contact with foodstuffs.

- Low-modulus formulation to improve fit and reduce fatigue
- Wearing comfort like a second skin
- Textured finger tips for better grip
- Short-term chemical protection against a variety of hazardous substances
- 100% nitrile, free of allergenic latex proteins
- Non-powdered
- Manufactured without silicone
- Can be worn on either hand
- With rolled edge
- Colour: blue
- Wall thickness approx. 0.10 mm
- 100 gloves per dispenser box, 90 gloves in XXL size

Biodegradable: A specially developed formula and the innovative Eco Best Technology (EBT) have enabled the manufacture of an innovative disposable glove. EBT nitrile is biodegraded at biologically active (bacteria) landfills within one to five years. The biological degradation only starts after disposal. All the protective properties of a nitrile disposable glove are retained during use.
Applications: Laboratories, pharmaceutical and food companies, non-complex assembly work, hygiene applications, restaurants and farms.

10% discount on orders of 10 boxes per size.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	XS	blue	**1A89.1**	100 unit(s)	27,75
≥240	S	blue	**1A8A.1**	100 unit(s)	27,75
≥240	M	blue	**1A8C.1**	100 unit(s)	27,75
≥240	L	blue	**1A8E.1**	100 unit(s)	27,75
≥240	XL	blue	**1A8H.1**	100 unit(s)	27,75
≥240	XXL	blue	**1A8K.1**	90 unit(s)	27,75



Cat. III

Disposable gloves SHOWA 6110PF EBT

SHOWA. Material: Nitrile biodegradable. Non-sterile.

Acc. to EN 420, EN ISO 374-1:2016/type B (KPT), EN ISO 374-5:2016 (virus). AQL 1.5.
Acc. to 1935/2004 suitable for contact with foodstuffs.

- Non-powdered
- Low-modulus formula for better fit and less fatigue
- Textured finger tips for better grip
- Free from allergenic latex proteins
- Manufactured without silicone
- Can be worn on either hand
- With rolled edge
- Colour: green
- Wall thickness approx. 0.10 mm
- 100 pieces per dispenser box

The world's first biodegradable disposable glove made of nitrile.
A specially developed formula and the innovative Eco Best Technology (EBT) have enabled the manufacture of an innovative disposable glove. EBT nitrile is only designed for biologically active (bacteria) landfills. The biological degradation only starts after disposal. All the protective properties of a nitrile disposable glove are retained during use.
Applications: Laboratories with limited chemical exposure, pharmaceutical and food companies, light assembly work, hygiene applications, restaurants and farms.

10% discount on orders of 10 boxes per size.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	S (6–7)	green	**KCY9.1**	100 unit(s)	29,20
≥240	M (7–8)	green	**KEA0.1**	100 unit(s)	29,20
≥240	L (8–9)	green	**KEA1.1**	100 unit(s)	29,20
≥240	XL (9–10)	green	**KEA2.1**	100 unit(s)	29,20
≥240	XXL (10–11)	green	**KEA3.1**	90 unit(s)	29,20

Disposable gloves



Cat. III



Disposable gloves SHOWA 6112PF EBT

SHOWA. Material: Nitrile biodegradable. Non-sterile.

Acc. to EN 420, EN ISO 374-1:2016/type B (KPT), EN ISO 374-5:2016 (virus). AQL 1.5.
Acc. to 1935/2004 – suitable for contact with foodstuffs.

- Antistatic effect: Surface resistance between 10^9 and 10^{10} Ω
- Low-modulus formulation to improve fit and reduce fatigue
- Wearing comfort like a second skin
- Easy to put on and take off
- Textured finger tips for better grip
- Short-term chemical-protection against a variety of hazardous substances
- 100% nitrile, free of allergenic latex proteins
- Non-powdered
- Manufactured without silicone
- Can be worn on either hand
- With rolled edge
- Colour: black
- Wall thickness approx. 0.10 mm
- 100 pieces per dispenser box

Biodegradable: A specially developed formula and the innovative Eco Best Technology (EBT) have enabled the manufacture of an innovative disposable glove. EBT nitrile is biodegraded at biologically active (bacteria) landfills within one to five years. The biological degradation only starts after disposal. All the protective properties of a nitrile disposable glove are retained during use.
Applications: Laboratories, pharmaceutical and food companies, non-complex assembly work, hygiene applications, restaurants and farms.

10% discount on orders of 10 boxes per size.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	XS	black	**1APY.1**	100 unit(s)	53,75
≥240	S	black	**1AT0.1**	100 unit(s)	35,60
≥240	M	black	**1AT1.1**	100 unit(s)	35,60
≥240	L	black	**1AT2.1**	100 unit(s)	35,60
≥240	XL	black	**1AT3.1**	100 unit(s)	35,60
≥240	XXL	black	**1AT4.1**	90 unit(s)	35,60



Cat. III



Disposable gloves Dermatril® P 743

KCL by Honeywell. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN ISO 374-1:2016 type A (JKLOPT), EN ISO 374-5:2016 (virus), EN 388:2016 (200xx). AQL 0.65.
RAL approved for use with foodstuffs.

- Snug fitting, very high tactile sensitivity
- Good chemical resistance
- Increased tear resistance
- Long cuff, rolled edge, textured fingertips
- Non-powdered
- Latex free, free of allergenic thiurames and rosin
- Colour: blue
- Non-powdered
- Wall thickness: 0.2 mm
- Length: 280 mm

Applications: Laboratory and research, chemical industry, food industry, electronics and computer industry, cleaning and maintenance work, product protection.

10% discount on orders of 10 boxes per size.

Medical device class I MDD

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
280	6	blue	**TX41.1**	50 unit(s)	37,60
280	7	blue	**TX42.1**	50 unit(s)	37,60
280	8	blue	**TX43.1**	50 unit(s)	37,60
280	9	blue	**TX44.1**	50 unit(s)	37,60
280	10	blue	**TX45.1**	50 unit(s)	37,60
280	11	blue	**TX46.1**	50 unit(s)	37,60

Disposable gloves



Cat. III

Disposable gloves Touch N Tuff®

Ansell. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN ISO 374-1/type B (JKT) and EN ISO 374-5 (virus). AQL 1.5.
Acc. to 1935/2004/EC – suitable for contact with foodstuffs.

- Non-powdered
- Textured fingertips
- With rolled edge
- Colour: light blue
- Wall thickness approx. 0.1 mm
- 100 per dispenser box

Offers optimal protection against splashes from chemicals.

10% discount on orders of 10 boxes per size.

92-670 Length 240 mm

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	S (6,5–7)	light blue	**P438.1**	100 unit(s)	33,50
≥240	M (7,5–8)	light blue	**P439.1**	100 unit(s)	33,50
≥240	L (8,5–9)	light blue	**P440.1**	100 unit(s)	33,50
≥240	XL (9,5–10)	light blue	**P441.1**	100 unit(s)	33,50

92-665 Length 300 mm

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
300	S (6,5–7)	light blue	**KE73.1**	100 unit(s)	31,35
300	M (7,5–8)	light blue	**KE74.1**	100 unit(s)	31,35
300	L (8,5–9)	light blue	**KE75.1**	100 unit(s)	31,35
300	XL (9,5–10)	light blue	**KE76.1**	100 unit(s)	31,35



Cat. III

Disposable gloves Touch N Tuff®

Ansell. Material: Nitrile. Non-sterile.

Acc. to EN 420, EN ISO 374-1/type B (JKPT) and EN ISO 374-5 (virus). AQL 1.5. Antistatic acc. to EN 1149-5.
Acc. to EC 1935/2004 – suitable for contact with foodstuffs.

- Silicone-free
- Can be worn on either hand
- With rolled edge
- Colour: green
- Wall thickness: 0.12 mm
- 100 gloves per dispenser

Offers optimal protection against chemical splashes.

10% discount on orders of 10 boxes per size.

92-500 lightly powdered, length 240 mm

Textured fingertips.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	6,5–7	green	**K416.1**	100 unit(s)	33,80
≥240	M (7,5–8)	green	**K417.1**	100 unit(s)	33,80
≥240	L (8,5–9)	green	**K418.1**	100 unit(s)	33,80
≥240	XL (9,5–10)	green	**K419.1**	100 unit(s)	33,80

92-600 non-powdered, length 240 mm

Smooth surface, suitable for foodstuffs.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	S (6,5–7)	green	**K966.1**	100 unit(s)	39,10
≥240	M (7,5–8)	green	**K967.1**	100 unit(s)	39,10
≥240	L (8,5–9)	green	**K968.1**	100 unit(s)	39,10
≥240	XL (9,5–10)	green	**K969.1**	100 unit(s)	39,10

92-605 non-powdered, length 300 mm

Acc. to EN 421. Textured fingertips, suitable for foodstuffs.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
300	S (6,5–7)	green	**PA90.1**	100 unit(s)	37,15
300	M (7,5–8)	green	**PA91.1**	100 unit(s)	37,15
300	L (8,5–9)	green	**PA92.1**	100 unit(s)	37,15
300	XL (9,5–10)	green	**PA93.1**	100 unit(s)	37,15

Disposable gloves



Cat. III





Disposable gloves MICROFLEX® NeoTouch

Ansell. Material: Neoprene. Non-sterile.

Acc. to EN 420, EN ISO 374-1/type B (KPT) and EN ISO 374-5 (Virus). AQL 1.5.

- Non-powdered
- Protect against Type I allergies
- The inner polyurethane coating enables gloves to be slipped on easily
- With structured fingertips for safer grip when dry or wet
- Turn-up cuff offers safe and firm hold
- Excellent stretching ability enables greater freedom of movement
- Good protection against chemical splashes but not suitable as complete protection against chemicals
- Thickness: 0.13 mm
- 100 gloves per dispenser box

Ideal for applications in the pharmaceutical and chemical industry; for laboratory work and analyses which require short-term protection against chemicals.

10 % discount on orders of 10 boxes per size!

25-101, length 240 mm

Length (mm)	Size	Art. No.	Pack Qty.	€
≥240	S (6,5–7)	**EN44.1**	100 unit(s)	39,95
≥240	M (7,5–8)	**EN45.1**	100 unit(s)	39,95
≥240	L (8,5–9)	**EN46.1**	100 unit(s)	39,95
≥240	XL (9,5–10)	**EN47.1**	100 unit(s)	39,95

25-201, length 285 mm
Acc. to EN 421.

Length (mm)	Size	Art. No.	Pack Qty.	€
285	S (6,5–7)	**LT51.1**	100 unit(s)	55,50
285	M (7,5–8)	**LT52.1**	100 unit(s)	55,50
285	L (8,5–9)	**LT53.1**	100 unit(s)	55,50
285	XL (9,5–10)	**LT54.1**	100 unit(s)	55,50



Disposable gloves DermaShield®

Ansell. Material: Neoprene.

Acc. to EN 420, EN ISO 374-1/type A (KLMNPT), EN 421. AQL 0.,65.

- Non-powdered, green
- High tech disposable gloves, available in **sterile** or non-sterile, suitable for use in controlled environments or **cleanrooms**
- Free of latex proteins and vulcanisation accelerants
- High wearing comfort and high flexibility
- Anti-slip rolled edge for increased protection
- Optimal product and user protection
- Fingertips with bisque finish for enhanced tactile sensitivity
- Length 310 mm, wall thickness 0,175 mm

Applications: drug production under aseptic conditions, biotechnology, production of medical equipment, handling cytostatic agents.

- Optimal contamination protection is provided by triple packaging
- PE bag printed with cleanroom-compatible IPA printing ink
- Easy-to-open PE packaging

73-711
Sterile. Acc. to EN ISO 374-5 (virus). For critical applications acc. to ISO 5 (class 100 and GMP AB).

- In pairs, 10 pairs in sealed PE master bag
- 5 PE master bags in separate PE protective cover
- 4 PE master bags per large bag, outer box

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
310	6	green	**XE44.1**	200 pair	717,05
310	7	green	**XE45.1**	200 pair	717,05
310	7,5	green	**XE46.1**	200 pair	717,05
310	8	green	**XE47.1**	200 pair	717,05
310	9	green	**XE48.1**	200 pair	717,05

73-721
Non-sterile. Acc. to EN ISO 374-5. For controlled working environments.

- 20 left-hand/right-hand gloves in separate chambers of a vacuum-sealed PE bag
- 2 PE bags in vacuum-sealed PE master bag
- 5 PE master bags per large bag, outer box

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
310	6	green	**XE49.1**	200 pair	622,45
310	7	green	**XE50.1**	200 pair	622,45
310	7,5	green	**XE51.1**	200 pair	622,45
310	8	green	**XE52.1**	200 pair	622,45
310	9	green	**XE53.1**	200 pair	622,45

Disposable gloves



Cat. I

Disposable gloves Semperguard® Vinyl non-powdered

Semperit. Material: PVC. Non-sterile.

Acc. to EN 420, AQL 1.5.
Acc. to 1935/2004 – suitable for contact with **non-greasy** foodstuffs.

- Excellent tactile sensitivity and wear comfort
- High-grade vinyl formula for exceptional quality
- Especially skin-friendly, free from latex proteins and accelerants
- DOP-free (DEHP/diethylhexyl phthalate)
- Colour: transparent
- Can be worn on either hand
- With rolled edge
- Wall thickness: approx. 0.065 mm
- Length: min. 240 mm

10% discount on orders of 10 boxes per size.

Size	Art. No.	Pack Qty.	€
S (6–7)	**KLH1.1**	100 unit(s)	9,30
M (7–8)	**KLH2.1**	100 unit(s)	9,30
L (8–9)	**KLH3.1**	100 unit(s)	9,30
XL (9–10)	**KLH4.1**	90 unit(s)	9,30

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Cat. III

Chemical protection gloves AlphaTec® 87-137 (formerly Marigold Featherweight)

Ansell. Material: Natural rubber.

Acc. to EN 420, EN ISO 374-1/type B (KLT), EN ISO 374-5, EN 388 (X010A), EN 421. AQL 0.65.
Made of natural rubber with rolled edge. Textured palms and fingers, smooth on inside. High flexibility, excellent finger mobility, high tactile sensitivity, highly tear resistant.
Length approx. 320 mm, wall thickness approx. 0.35 mm.

Length (mm)	Size	Art. No.	Pack Qty.	€
320	6,5	**YX54.1**	12 pair	42,70
320	7,5	**YX55.1**	12 pair	42,70
320	8,5	**YX56.1**	12 pair	42,70
320	9,5	**YX57.1**	12 pair	42,70



Cat. III

Chemical protection gloves AlphaTec® 87-900 (formerly Bi-Colour™)

Ansell. Material: Natural rubber, Neoprene.

Acc. to EN 420, EN ISO 374-1/type A (AKLNPT), EN ISO 374-5 (virus), EN 388 (2120A), EN 421. AQL 0.65.
Outside: Latex/neoprene double coating, inside: High-quality velour made of pure cotton. With protective cuff. Diamond-pattern grip profile for outstanding wet and dry grip. High resistance to salts and cleaning agents. Reliable protection against a wide range of chemicals.
Colour: green/yellow. Wall thickness 0.68 mm.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
320	7,5–8	green, yellow	**YA60.1**	12 pair	49,75
320	8,5–9	green, yellow	**YA61.1**	12 pair	49,75
320	9,5–10	green, yellow	**YA62.1**	12 pair	49,75
320	10,5–11	green, yellow	**YA63.1**	12 pair	49,75

Chemical protective gloves



Cat. III







Chemical protection gloves NitoPren® 717

KCL by Honeywell. Material: Chloroprene, Nitrile.

Acc. to EN 420, EN 388 (2001) and EN 374-3 (AJL). Made of two material layers, **chloroprene** top layer, **nitrile** inner, with slight velour. Anatomic fit. Very high resistance to a number of chemicals and many aggressive gases. Highly flexible, also enables intricate work. Secure grip of wet and oily objects. Excellent mechanical resistance. Free of natural latex. Length approx. 300–320 mm, wall thickness approx. 0.65 mm.

Suitable for the chemical and pharmaceutical industries, galvanic work.

Size	Art. No.	Pack Qty.	€
7	**ET40.1**	2 pair	17,95
8	**ET41.1**	2 pair	17,95
9	**ET42.1**	2 pair	18,65
10	**ET43.1**	2 pair	17,95
11	**ET44.1**	2 pair	17,95



Cat. III







Chemical protection gloves Lapren® 706

KCL by Honeywell. Material: Natural rubber, Chloroprene.

Acc. to EN 420, EN ISO 374-1/type A (KLMPST), EN ISO 374-5 (virus), EN 388 (1020X). AQL 0.65. Made of natural latex with a low chloroprene content. Profiled palms for secure grip even in wet areas. Cotton flock lining. Sleeve with elastic cuff. Anatomically shaped, elastic and flexible. Length approx. 300–320 mm, thickness 0.6 mm.

Size	Art. No.	Pack Qty.	€
7	**C940.1**	10 pair	50,10
8	**C941.1**	10 pair	50,10
9	**C942.1**	10 pair	50,10
10	**C943.1**	10 pair	50,10



Cat. III







Chemical protection gloves Camapren® 720

KCL by Honeywell. Material: Polychloroprene.

Acc. to EN 420, EN 388 (1111X), EN ISO 374-1/Typ A (AKLMOT), EN ISO 374-5. AQL 0.65. Made of polychloroprene with natural latex layer. Profiled palms for secure grip even when handling wet, greasy and oily parts. Cotton flock lining. Sleeve with elastic cuff. Highly elastic and flexible, even at low temperatures.
Resistant to diluted and semi-concentrated acids, diluted to concentrated bases, saturated saline solutions, glycol and glycerol, long-chained alcohols, vegetable and animal fats and oils.
Length 290-310 mm, total layer thickness approx. 0.65 mm.

Size	Art. No.	Pack Qty.	€
7	**K347.1**	2 pair	15,20
8	**K348.1**	2 pair	15,20
9	**K349.1**	2 pair	15,20
10	**K350.1**	2 pair	15,20
11	**K351.1**	2 pair	15,20

Chemical protective gloves



Cat. III



Chemical protection gloves Tricopren® 723

KCL by Honeywell. Material: Polychloroprene.

Acc. to EN 420, EN 388 (2121X), EN ISO 374-1/Typ A (AJKLMS), EN ISO 374-5 (Virus). AQL 0.65. Made of polychloroprene, with cotton lining, free from natural latex. High resistance to mechanical hazards, and a number of chemical hazards. Anatomic fit. Palm area with profiling for secure grip.
Suitable for diluted and semi-concentrated acids and diluted and concentrated bases, glycol and glycerol, long-chained alcohols, hydrogen peroxide, aliphatic and alicyclic hydrocarbons.
Length approx. 300 mm, total layer thickness approx. 1.3 mm.

Length (mm)	Size	Art. No.	Pack Qty.	€
300	8	**AA08.1**	1 pair	41,90
300	9	**AA09.1**	1 pair	41,90
300	10	**AA10.1**	1 pair	41,90
300	11	**AA11.1**	1 pair	41,90



Cat. III



Chemical protection gloves Tricotril® 736

J. Roetzmeier. Material: Nitrile.

Acc. to EN 420, EN 388 (3121X), EN ISO 374-1/Typ A (AJKLOPT), EN ISO 374-5 (Virus). AQL 0.65. Anatomic fit, profiling on the palm. Free of natural latex, approved for food processing and handling. Inside with cotton jersey. Length approx. 300 mm. Total layer thickness approx. 1.0 mm.

Suitable for diluted and semi-concentrated acids and bases, glycol and glycerol, long-chained alcohols, aliphatic and alicyclic hydrocarbons.

Length (mm)	Size	Art. No.	Pack Qty.	€
300	8	**CH44.1**	1 pair	32,05
300	9	**CH45.1**	1 pair	32,05
300	10	**CH46.1**	1 pair	32,05
300	11	**CH47.1**	1 pair	32,05



Cat. III



Chemical protection gloves AlphaTec® 09-924 (formerly Scorpio®)

Ansell. Material: Neoprene, Cotton.

Acc. to EN 420, EN ISO 374-1/type A (AKLMPT), EN ISO 374-5, EN 388 (3121B), EN 407 (X1XXXX). AQL 1.5. Black, neoprene-coated protective gloves with cotton jersey liner. For protection against a wide range of bases, acids, alcohols and diluted aqueous solvents. Good abrasion and cutting resistance. Smooth grip profile.

Applications: Handling chemicals and petrochemicals, for degreasing and coating, etc.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
350	10	black	**XY14.1**	1 pair	29,65



Cat. III



Chemical protection gloves AlphaTec® 09-022 (formerly Scorpio®)

Ansell. Material: Neoprene, Cotton.

Acc. to EN 420, EN ISO 374-1/type A (AJKLPT), EN ISO 374-5, EN 388 (3232C), EN 407 (32XXXX) and EN 511 (111). AQL 1.5.
Black, neoprene-coated protective gloves **with foam insulation**. For protection against a wide range of bases, acids, alcohols and diluted aqueous solvents.
Also suitable for working in hot and cold conditions. Suitable for short-time contact with liquids at temperatures from max. 180 °C to min. -25 °C. Not suitable for temperatures above 200 °C. Good abrasion-resistance and cut-resistance. Smooth grip profile.

Applications: Handling chemicals and petrochemicals, for degreasing and coating, etc.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
350	10	black	**XY15.1**	1 pair	59,45



Cat. III

Chemical protection gloves AlphaTec® (formerly Scorpio®)

Ansell. Material: Neoprene.

Acc. to EN 420, EN ISO 374-1/type A (AKLMPT), EN ISO 374-5:2016, EN 388 (3122B), EN 407 (32XX4X), EN 511 (121). AQL 1.0. Antistatic according to EN 1149. Black, neoprene-coated protective gloves with **foam insulation**.

- For protection against a wide range of bases, acids, alcohols and diluted aqueous solvents
- Also suitable for working in hot and cold conditions. Suitable for short-time contact with liquids at temperatures from max. 180 °C to min. -25 °C. Good abrasion resistance and cut resistance.
- Textured handle profile for enhanced grip

Please note: Gloves are not suitable for working above 200 °C. Do not use when working with or near to open flames.

Applications: Steam-jet and maintenance work, anodising. Working with water baths. Handling objects in hot or cold chemicals.

19-024

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
450	8	black	**HLP4.1**	1 pair	88,85
450	10	black	**HLP5.1**	1 pair	88,85

19-026

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
660	8	black	**HLP6.1**	1 pair	103,15
660	10	black	**HLP7.1**	1 pair	103,15



Cat. III

Chemical protection gloves AlphaTec® 79-700 (formerly Virtex™)

Ansell. Material: Nitrile Aquadri.

Acc. to EN 420, EN ISO 374-1/type B (JKT), EN ISO 374-5 (Virus), EN 388 (1001A), EN 421. Antistatic acc. to EN 1149.
Inside with new, extremely thin polymer composite coating – Aquadri™. Releases fewer particles, more moisture is absorbed. Outside not chlorinated and with diamond finish for secure grip. Good wear comfort and particular flexibility.
Thickness 0.225 mm, length approx. 310 mm.

Suitable for light assembly work and handling parts that require good dry, wet and oil grip: Light assembly in contact with chemicals, automotive industry, painting and spray painting, working with oil- and hydrocarbon-based solutions.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
310	7	blue	**HH73.1**	5 pair	15,60
310	8	blue	**HH74.1**	5 pair	15,60
310	9	blue	**HH75.1**	5 pair	15,60
310	10	blue	**HH76.1**	5 pair	15,60
310	11	blue	**HH77.1**	5 pair	n. a.

Chemical protective gloves



Cat. III



Chemical protection gloves SHOWA 708

SHOWA. Material: Nitrile.

Acc. to EN 420, EN ISO 374-1:2016/type B (JKOPT), EN ISO 374-5:2016 (virus) AQL 1.5.
Acc. to 1935/2004 suitable for contact with foodstuffs.

- Lightweight glove made of 100% nitrile
- Non-powdered, without natural latex
- Can be worn on either hand
- Excellent dexterity and tactile feel
- Secure grip thanks to the embossed fish scale pattern on the palm and back of the hand
- Long-lasting secure handling in a damp and oily environments
- Excellent chemical resistance
- Thickness: 0.23 mm

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
300	7 (S)	blue	**1ETT.1**	24 pair	64,40
300	8 (M)	blue	**1ETX.1**	24 pair	64,40
300	9 (L)	blue	**1ETY.1**	24 pair	64,40
300	10 (XL)	blue	**1EX0.1**	24 pair	64,40
300	11 (XXL)	blue	**1EX1.1**	24 pair	64,40



Cat. III



Chemical protection gloves SHOWA 707FL

SHOWA. Material: Nitrile.

Acc. to EN 420, EN ISO 374-1:2016/type A (JKLOPT), EN ISO 374-5:2016. AQL 1.0.
Acc. to 1935/2004 suitable for contact with foodstuffs.

- Thin and lightweight glove which feels like a second skin
- Anatomic form and design offer greater freedom of movement and extra comfort when worn for extended periods
- Non-powdered, slip-on design so that the gloves are easy to put on and take off, without flock fibres or dust
- Rolled cuffs prevent dirt from penetrating the glove
- Tractor tread surface on palm provides good long-lasting grip on wet substances
- Long shaft offers good protection for the wrist
- Protects against oils, hydrocarbons, grease and abrasion
- Thickness 0.28 mm

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
305	6 (XS)	blue	**1ETE.1**	12 pair	50,20
305	7 (S)	blue	**1ETH.1**	12 pair	50,20
305	8 (M)	blue	**1ETK.1**	12 pair	50,20
305	9 (L)	blue	**1ETL.1**	12 pair	50,20
305	10 (XL)	blue	**1ETN.1**	12 pair	50,20
305	11 (XXL)	blue	**1ETP.1**	12 pair	50,20

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Chemical protective gloves



Cat. III



Chemical protection gloves Solvex® 37-900

Ansell. Material: Nitrile.

Acc. to EN 420, EN ISO 374-1/type A (AJKLOPT), EN ISO 374-5 (virus), EN 388 (4101X). AQL 0.065.

- Excellent protection against abrasion and piercing
- Each glove is tested using compressed air
- Inner lining: With velour
- Outside: Textured palm
- Wall thickness 0.425 mm

Applications

Laboratory analyses, chemical applications, e.g. chemical processing, handling corrosive chemicals and chemical mixtures.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
380	7	red	**PA83.1**	2 pair	18,25
380	8	red	**PA84.1**	2 pair	18,25
380	9	red	**PA85.1**	2 pair	18,25
380	10	red	**PA86.1**	2 pair	18,25
380	11	red	**PA87.1**	2 pair	18,25



Cat. III



Chemical protection gloves Solvex® 37-675

Ansell. Material: Nitrile.

Acc. to EN 420, EN ISO 374-1/type A (JKLOPT), EN ISO 374-5 (virus), EN 388 (4101X). AQL 0.65.

- High abrasion resistance and excellent wear comfort
- Textured palm gives increased grip
- Lining with velour for greater wear comfort
- Wall thickness 0.38 mm

Applications

Chemical processes, refining oil and petroleum, metalworking, agrochemicals and printing industry. Ideal for dry and wet work environments where chemical protection and high abrasion resistance are crucial.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
330	7	green	**AXY9.1**	12 pair	52,90
330	8	green	**AXX0.1**	12 pair	52,90
330	9	green	**AXX1.1**	12 pair	52,90
330	10	green	**AXX2.1**	12 pair	52,90
330	11	green	**AXX3.1**	12 pair	52,90



Cat. III



Chemical protection gloves Solvex® 37-185

Ansell. Material: Nitrile.

Acc. to EN 420, EN ISO 374-1/type A (AGJKLPT), EN ISO 374-5, EN 388 (4102X). AQL 0.65.

- High abrasion resistance and excellent wear comfort
- Textured palm gives increased grip
- No flock lining – no contamination by flock fibres
- Wall thickness: 0.5 mm

Applications

Chemical processes, refining oil and petroleum, metalworking, agrochemicals and printing industry. Ideal for dry and wet work environments where chemical protection and high abrasion resistance are crucial.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
455	7	green	**XX07.1**	1 pair	12,35
455	8	green	**XX08.1**	1 pair	12,35
455	9	green	**XX09.1**	1 pair	12,35
455	10	green	**XX10.1**	1 pair	12,35
455	11	green	**XX11.1**	1 pair	12,35

Chemical protective gloves



Cat. III



Chemical protection gloves Camatril® 730

KCL by Honeywell. Material: Nitrile.

Acc. to EN 420, EN ISO 374-1/type A (JKLOPT), EN ISO 374-5, EN 388 (3001X). AQL 0.65. Acc. to EU 1935/2004 approved for food processing.

- High chemical resistance, in particular to oils, fats, solvents and fuels
- Good flexibility, anatomical form and optimal fit guarantee high dexterity
- Cotton flock lining for optimal wear comfort
- Napped surface
- Thickness approx. 0.4 mm
- Length 300-320 mm

Size	Art. No.	Pack Qty.	€
7	**Y452.1**	2 pair	13,15
8	**Y453.1**	2 pair	13,15
9	**Y454.1**	2 pair	13,15
10	**Y455.1**	2 pair	13,15
11	**Y456.1**	2 pair	13,15

Cat. III



Chemical protection gloves Camatril® 732

KCL by Honeywell. Material: Nitrile.

Acc. to EN 420, EN ISO 374-1/type A (AJKLOT), EN ISO 374-5, EN 388 (3000X). AQL 0.65. Acc. to EU 1935/2004 approved for food processing.

- High chemical resistance, in particular to oils, fats, solvents and fuels
- Good flexibility, anatomical form and optimal fit guarantee high dexterity
- Cotton flock lining for optimal wear comfort
- Napped surface
- Thickness approx. 0.4 mm
- Length 390-410 mm

Size	Art. No.	Pack Qty.	€
7	**T923.1**	2 pair	23,10
8	**A909.1**	2 pair	23,10
9	**A910.1**	2 pair	23,10
10	**A911.1**	2 pair	23,10
11	**T924.1**	2 pair	23,10

Cat. III



Chemical protection gloves Camatril® 733

KCL by Honeywell. Material: Nitrile.

Acc. to EN 420, EN ISO 374-1/type A (AJKLMO), EN ISO 374-5, EN 388 (3102X). AQL 0.65.

- High chemical resistance, in particular to oils, fats, solvents and fuels
- The long cuffs provide chemical protection beyond the forearm.
- Good flexibility, anatomical form and optimal fit guarantee high dexterity
- Cotton flock lining for optimal wear comfort
- Napped surface
- Thickness approx. 0.5 mm
- Length 575-625 mm

Size	Art. No.	Pack Qty.	€
8	**8197.1**	1 pair	48,30
9	**8198.1**	1 pair	48,30
10	**8199.1**	1 pair	48,30
11	**8200.1**	1 pair	48,30



Cat. III



Chemical protection gloves PROTECTOR CHEMICAL

J. Roetzmeier.

Acc. to EN 420, EN ISO 374-1/type A (JKNOPT) and EN 388 (4X44C). Made of cotton/polyethylene (HPPE)/glass with double full nitrile rubber coating

- Multi-layer technology provides optimal protection against chemicals and cuts
- Comfortable, anatomically shaped glove
- Coarse surface for secure grip

Suitable for chemical industry, machine and tool making, work involving cutting hazards and protection against chemicals.

NK2725B, 270 mm

Length (mm)	Size	Art. No.	Pack Qty.	€
270	9	**PT65.1**	1 pair	59,25
270	10	**PT66.1**	1 pair	59,25

NK4025B, 400 mm

Length (mm)	Size	Art. No.	Pack Qty.	€
400	9	**PT67.1**	1 pair	73,80
400	10	**PT68.1**	1 pair	73,80

Chemical protective gloves



Cat. III





Chemical protection gloves AlphaTec® 15-554 (formerly PVA™)

Ansell. Material: Polyvinyl alcohol.

Acc. to EN 420, EN ISO 374-1/type A (BCDFIJ), EN ISO 374-5, EN 388 (3121A). AQL 1.0. Antistatic acc. to EN 1149. With red polyvinyl alcohol coating and cotton lining. Resistant to aromatic (xylene), chlorinated (tri, per) and other organic solvents. Sensitive to high temperatures. **Dissolve in water and fluids containing water.**
Length 355 mm. Wall thickness 1.1 mm.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
355	9	red	**1681.1**	1 pair	48,05
355	10	red	**NH46.1**	1 pair	48,05



Cat. III




Chemical protection gloves AlphaTec® 02-100 (formerly Barrier®)

Ansell. Material: HDPE.

Acc. to EN 420, EN ISO 374-1/type A (ABCEFGHIMS), EN ISO 374-5 (Virus). AQL 0.065. Made of five-layer HPPE laminate. Anatomically fitting chemical-resistant PE gloves. For protection against a wide range of hazardous chemicals. Each glove is individually tested with compressed air. Film thickness approx. 0.062 mm. Length 380–410 mm.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
380	7	white	**P157.1**	1 pair	20,60
385	8	white	**LY64.1**	1 pair	20,60
390	9	white	**N964.1**	1 pair	20,60
395	10	white	**N965.1**	1 pair	20,60
410	11	white	**P158.1**	1 pair	20,60



Cat. III





Chemical protection gloves SHOWA NSK 26

SHOWA. Material: Nitrile.

Acc. to EN 420, EN ISO 374-1/type A (JKLOPT), EN ISO 374-5, EN 388 (4112X). Acc. to 1935/2004 – suitable for contact with foodstuffs. Cotton/polyester jersey lining with full nitrile outer coating.

- Anatomically shaped hand allows for greater freedom of movement and fatigue-free work
- Extended bonded sleeve, stitched with elasticated border means that it stays correctly adjusted
- Rough finish over entire surface for an effective and durable grip
- Flexible glove with excellent wear resistance
- Absorbs perspiration and can be worn for an extended period with no reduction in comfort
- Protects against oils, hydrocarbons and fats
- Impermeable; for working in a damp or oily environment

Areas of application: Food production, petrochemical and refinery, working with oils and fats.

Length (mm)	Size	Art. No.	Pack Qty.	€
620	8 (S)	**ECY4.1**	1 pair	18,95
630	9 (M)	**ECY5.1**	1 pair	18,95
640	10 (L)	**ECY6.1**	1 pair	18,95
650	11 (XL)	**ECY7.1**	1 pair	18,95

Chemical protective gloves



Cat. III



Chemical protection gloves SHOWA 772

SHOWA. Material: Nitrile.

Acc. to EN 420, EN ISO 371-1/type B (JKL), EN ISO 374-5, EN 388 (4111X). Cotton/polyester jersey lining with nitrile outer coating.
The additional coating over the entire hand offers improved protection against chemicals.

- Anatomically shaped hand
- Extended bonded sleeve, stitched with elasticated edging, means that it stays correctly adjusted
- Rough finish over entire surface for improved sense of touch and better grip
- Flexible, robust and abrasion-resistant
- Absorbs perspiration; comfortable even when worn for extended periods
- Protects against oils, hydrocarbons, fats and abrasion; offers effective, lasting grip
- Eyelet for airing and hanging up
- Colour: Yellow; wall thickness: approx. 0.8 mm

Applications: for working in damp or oily environments; for securely taking hold of objects. Petrochemical and refinery, etc.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
650	8 (M)	yellow	**ECY8.1**	1 pair	20,10
650	9 (L)	yellow	**ECY9.1**	1 pair	20,10
650	10 (XL)	yellow	**EEA0.1**	1 pair	20,10



Cat. III



Chemical protection gloves SHOWA 874R

SHOWA. Material: Butyl rubber.

Acc. to EN 420, EN 388 (0010X), EN ISO 374-1/Typ B (BIK), EN ISO 374-5 (Virus). Thin chemical protection glove with rough surface in the hand area to increase grip of smooth and wet parts. Good finger mobility and tactile sensitivity. Long cuff with rolled edge. Unlined. Wall thickness 0.35 mm.

Length (mm)	Size	Art. No.	Pack Qty.	€
350	7	**CE42.1**	1 pair	43,95
350	8	**CE43.1**	1 pair	43,95
350	9	**CE44.1**	1 pair	43,95
350	10	**CE45.1**	1 pair	43,95
350	11	**CE46.1**	1 pair	43,95



Cat. III



Chemical protection gloves Butoject® 897+

KCL by Honeywell. Material: Butyl rubber.

Acc. to EN 420, EN 388 (2000X) and EN ISO 374-1/type A (ABCIKL), EN ISO 374-5 (virus). AQL 0.65.
A highly flexible, extremely protective chemical-resistant glove suitable for work with esters and ketones, among other chemicals. Ideal for laboratory use. With rolled edge, powdered inside.
Wall thickness 0.3 mm.

- With special surface texturing for increased grip when handling wet objects
- Designed for a tight fit, and therefore also suitable for precision work or as undergloves
- Excellent mechanical resistance and gas-tightness
- Exceptional flexibility at low temperatures and good ozone resistance

Length (mm)	Size	Art. No.	Pack Qty.	€
350	7	**AXN0.1**	1 pair	70,05
350	8	**AXN1.1**	1 pair	70,05
350	9	**AXN2.1**	1 pair	70,05
350	10	**AXN3.1**	1 pair	70,05
350	11	**AXN4.1**	1 pair	70,05

Chemical protective gloves



Cat. III



Chemical protection gloves Butoject® 898

KCL by Honeywell. Material: Butyl rubber.

Acc. to EN 420, EN 421, EN 388 (2111X) and EN ISO 374-1/Typ A (BCIKLM), EN ISO 374-5 (Virus). AQL 0.65. For use in the chemical industry, in paint, varnish, adhesive and plastics manufacturing, and in the manufacture and use of pesticides. Suitable for short-chain esters, ketones and aldehydes, diluted to concentrated acids and bases, organic acids, saturated saline solutions, alcohols, plasticizers, etc. With rolled edge. Length approx. 350 mm, thickness approx. 0.7 mm.

Length (mm)	Size	Art. No.	Pack Qty.	€
350	9	**A621.1**	1 pair	39,85
350	10	**A622.1**	1 pair	39,85
350	11	**A623.1**	1 pair	39,85
350	8	**K626.1**	1 pair	39,85



Cat. III



Chemical protection gloves Vitoject® 890

KCL by Honeywell. Material: Fluorinated rubber.

Made of 100% fluorinated rubber (Viton®). Acc. to EN 420, EN 388 (3101X) and EN ISO 374-1/Typ A (DFGKLM), EN ISO 374-5 (Virus). AQL 0.65. Gas-tight. Fully anatomical shape, with rolled edge, smooth, powdered on the inside. Wide fit, enables use of undergloves. Thickness 0.7 mm.

For use when working with particularly aggressive chemicals, such as aliphatic, aromatic and chlorinated hydrocarbons, diluted to concentrated acids, saturated saline solutions, long-chained alcohols, glycol and glycerol, anilines, benzines, etc. **Observe resistant chart.** Not resistant to esters and ketones.

Length (mm)	Size	Art. No.	Pack Qty.	€
350	8	**LH87.1**	1 pair	244,05
350	9	**A398.1**	1 pair	244,05
350	10	**A399.1**	1 pair	244,05
350	11	**A400.1**	1 pair	244,05



Cat. III



Chemical protection gloves SHOWA 892

SHOWA. Material: Fluorinated rubber, Butyl rubber.

Acc. to EN 420, EN 388 (1010X), EN ISO 374-1/Typ B (DFL), EN ISO 374-5 (Virus). Thin chemical protection glove made with a Viton® top layer and butyl bottom layer, unlined. Very high flexibility and good tactile sensitivity. Anatomically formed, cuffs with rolled edge. Smooth surface, thickness 0.3 mm.

Suitable for handling aromatic, aliphatic and chlorinated hydrocarbons, organics and inorganic acids, bases, animal fats and oils.

Length (mm)	Size	Art. No.	Pack Qty.	€
300	7	**CY66.1**	1 pair	128,85
300	8	**CY67.1**	1 pair	128,85
300	9	**CY68.1**	1 pair	128,85
300	10	**CY69.1**	1 pair	128,85
300	11	**CY70.1**	1 pair	128,85

Chemical protective gloves



Cat. III



Glovebox protective gloves AlphaTec® 55-100

Ansell. Material: Natural rubber.

Acc. to EN 420, EN ISO 374-1/type A (KLNOPT), EN ISO 374-5 (virus), EN 388 (2020X), AQL 0.65.

- Made of natural rubber, without carrier material
- Enhanced finger mobility for improved handling of objects
- With rolled edge
- Smooth surface, natural colour
- Wall thickness 0.51 mm
- Port (shaft size) 150 mm (6 inches)

Applications: Biotechnology, chemical and pharmaceutical research, chemical processing, laboratory work and analyses, particularly when acid resistance is required, processing of chemical and biological products, product protection work.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
711	9	natural	**HLT8.1**	1 pair	148,65

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Cat. II



Multi-purpose gloves HyFlex® 48-105 (formerly SensiLite®)

Ansell. Material: Nylon.

Acc. to EN 420, EN 388 (003XA). Lightweight multi-purpose glove for work that sometimes requires abrasion resistance and grip.

- Made of seamless nylon, with knitted cuff and PU-coated fingertips
- Only the fingertips are coated, ensuring maximum breathability and good wear comfort
- Outstanding fit and good mobility allow precise handling of small objects
- For protection against skin abrasion
- Length 210–265 mm

Size	Art. No.	Pack Qty.	€
7	**LY23.1**	12 pair	40,45
8	**LY24.1**	12 pair	40,45
9	**LY25.1**	12 pair	40,45
10	**LY26.1**	12 pair	40,45



Cat. II



Cut-resistant gloves PolyTRIX® 911

KCL by Honeywell. Material: Polyamide, Cotton.

Acc. to EN 420, EN 388 (2140). Lightweight protective gloves made of 70% polyamide and 30% cotton, white. Can be worn on either hand. Breathable, seamless knit, adjusts to the skin. With elastic knitted cuff. Length: 230–270 mm. Washable.

Applications: Laboratory work, precision work, light assembly work.

Size	Colour	Art. No.	Pack Qty.	€
7	white	**CC05.1**	5 pair	25,85
8	white	**CC06.1**	5 pair	25,85
9	white	**CC07.1**	5 pair	25,85
10	white	**CC08.1**	5 pair	26,95

Cut resistant gloves



Cat. II

Multi-purpose gloves EDGE® 76-200 (formerly Stringknits™)

Ansell. Material: Nylon.

Acc. to EN 420, EN 388 (2140). Seamless knitted gloves made of lightweight nylon (soft, comfortable, flexible and low-fluff).
With knitted cuff. Breathable. Can be worn on either hand.
Colour: White. Length 190-235 mm. Washable up to max. 40 °C.

Applications: General work, precision work, precision assembly of dry components and packing work. Also suitable as undergloves

Size	Colour	Art. No.	Pack Qty.	€
7	white	**XY00.1**	12 pair	45,20
8	white	**XY01.1**	12 pair	45,20
9	white	**XY02.1**	12 pair	45,20
10	white	**XY03.1**	12 pair	45,20



Cat. II

Cut-resistant gloves with dimples

Fitzner Arbeitsschutz. Material: Polyamide, Cotton.

Acc. to EN 420 and EN 388 (224XX).
Double-layer finely knitted gloves, cotton inside, polyamide outside.
Seamless circular knit with knitted cuff. Palms with vinyl dimples.

- Skin-friendly and pleasant to wear
- Excellent fit and flexible
- Secure grip
- Excellent wear resistance for long service life
- Colour white/dimples green

Size	Colour	Art. No.	Pack Qty.	€
7	white, green	**HNC2.1**	6 pair	16,65
8	white, green	**HNC3.1**	6 pair	13,90
9	white, green	**HNC4.1**	6 pair	16,65
10	white, green	**HNC5.1**	6 pair	16,65



Cat. II

Multi-purpose gloves Pro-Fit 39122

Fitzner Arbeitsschutz. Material: Polyamide, PU.

Acc. to EN 420 and EN 388 (3131X). Seamless circular knit with elasticated knitted cuff. Palms and fingertips with polyurethane coating.
Colour: White.

- Breathable, comfortable to wear
- Excellent fit
- Secure grip with excellent dexterity
- High resistance to wear for a long service life

For protection against minor cuts and piercing injuries

Size	Colour	Art. No.	Pack Qty.	€
6	white	**HEN1.1**	12 pair	23,15
7	white	**HEN2.1**	12 pair	23,15
8	white	**HEN3.1**	12 pair	23,15
9	white	**HEN4.1**	12 pair	23,15
10	white	**HEN5.1**	12 pair	23,15



Cat. II

Multi-purpose gloves Pro-Fit S541

Fitzner Arbeitsschutz. Material: Polyamide, PU.

Acc. to EN 420 and EN 388 (4131X). Seamless circular knit with elasticated knitted cuff. Palms and fingertips with polyurethane coating.
Colour: grey/grey.

- Breathable, comfortable to wear
- Excellent fit
- Secure grip with excellent dexterity
- High resistance to wear for a long service life

For protection against minor cuts and piercing injuries.

Size	Art. No.	Pack Qty.	€
7	**HNA3.1**	12 pair	20,90
8	**HNA4.1**	12 pair	20,90
9	**HNA5.1**	12 pair	20,90
10	**HNA6.1**	12 pair	20,90

Cut resistant gloves



Cat. II

Multi-purpose gloves HyFlex® 48-101 (formerly SensiLite®)

Ansell. Material: Nylon.

Acc. to EN 420, EN 388 (4131A). Robust finely knitted gloves made of nylon, with kitted cuff and polyurethane-coated palm. Colour: black. Length 210–265 mm. For protection against skin abrasion.
Good mobility for handling small parts. Length 210–265 mm.

Applications: general work, assembly, inspection and packing of small components.

Size	Colour	Art. No.	Pack Qty.	€
6	black	**XY83.1**	12 pair	40,45
7	black	**XY84.1**	12 pair	40,45
8	black	**XY85.1**	12 pair	40,45
9	black	**XY86.1**	12 pair	40,45
10	black	**XY87.1**	12 pair	40,45
11	black	**XY88.1**	12 pair	40,45



Cat. II

Multi-purpose gloves Ninja Maxim NFT®

Fitzner Arbeitsschutz. Material: Polyamide.

Acc. to EN 420 and EN 388 (4141).
Finely knitted gloves made of polyamide/elastane, seamless circular knit with knitted cuff. Palms and fingertips with foamed NFT® nitrile coating.

- Excellent fit and flexible, therefore comfortable to wear
- Excellent tactile sensitivity, especially breathable
- Secure grip in dry, oily and moist environments
- Excellent wear resistance for long service life
- Colour grey/black

Size	Colour	Art. No.	Pack Qty.	€
7	grey, black	**HNA7.1**	2 pair	12,30
8	grey, black	**HNA8.1**	2 pair	12,30
9	grey, black	**HNA9.1**	2 pair	12,30
10	grey, black	**HNC0.1**	2 pair	12,30
11	grey, black	**HNC1.1**	2 pair	12,30



Cat. II

Multi-purpose gloves SHOWA 310 Grip Green

SHOWA. Material: Polyester, Cotton.

Acc. to EN 420, EN 388 (2142X).
Seamless polyester/cotton knitted fabric with latex-coated palm and elasticated cuff. A flexible and robust glove offering excellent dexterity and good resistance to tearing.

- Breathable back for reduced moisture
- Suitable for use in wet and moist environments
- Surface is specially treated for a more tactile feel and better grip
- Anatomically shaped for greater freedom of movement and extra comfort during extended periods of wear
- Length 220–270 mm

Applications: farming, gardening, construction, outdoor work.

Size	Art. No.	Pack Qty.	€
7	**CAN2.1**	10 pair	43,00
8	**CAN3.1**	10 pair	43,00
9	**CAN4.1**	10 pair	43,00
10	**CAN5.1**	10 pair	43,00
11	**CAN6.1**	10 pair	43,00

Cut resistant gloves



Cat. II

Cut-resistant gloves Camapur® Comfort 625+

KCL by Honeywell. Material: Polyamide.

Acc. to EN 420, EN 388 (3131), meets the requirements of EN 16350:2004 for protective gloves against electrostatic hazards. Resistance <1x10⁸ Ohm; test atmosphere: Air temperature (23 ± 1)°C, relative humidity (25 ± 5)%.
Made of seamless polyamide jersey with a copper thread. With knitted cuff and polyurethane coating on the palm and fingers. Can be washed without affecting the antistatic properties.

- High breathability
- Excellent fit and extremely high touch sensitivity
- Secure grip on oil-covered parts thanks to roughened PU coating
- Length: 220–260 mm

Can be used for precision and assembly tasks in the electrical industry, chip handling/processing and microelectronics.

Size	Art. No.	Pack Qty.	€
7	**HH29.1**	5 pair	52,90
8	**HH30.1**	5 pair	52,90
9	**HH31.1**	5 pair	52,90
10	**HH32.1**	5 pair	52,90



Cat. II

Cut-resistant gloves NevoCut® 923

KCL by Honeywell. Material: Polyamide, PE.

Acc. to EN 420, EN 388 (3540). Made of seamless jersey (polyamide and high-strength polyethylene HPPE fibre) with knitted cuff. **Very high level of protection against cutting (Level 5)**, without limiting mobility. Excellent tactile sensitivity and high wear comfort. Can be worn on both hands, washable. Length 230–270 mm.

Applications: Work which involves a high risk of cutting, e.g. work with scalpels or doctor blades. Suitable for contact with foodstuffs.

Size	Art. No.	Pack Qty.	€
7	**CYC0.1**	1 pair	30,45
8	**CYC1.1**	1 pair	30,45
9	**CYC2.1**	1 pair	30,45
10	**CYC3.1**	1 pair	30,45



Cat. II

Multi-purpose gloves HyFlex® 11-800

Ansell. Material: Nylon, Nitrile.

Acc. to EN 420, EN 388 (3131A). Seamless knit all-purpose protective gloves made of elastic nylon. Palm area coated with breathable nitrile foam.

- Excellent freedom of movement for fatigue-free work
- Secure grip
- For handling dry or slightly oiled components
- Light protection when working with mechanical parts
- High abrasion resistance
- Length: 220–265 mm

Applications: Light assembly work in the automotive, plastics, textile and consumer goods industries, warehouse and logistics operations.

Size	Art. No.	Pack Qty.	€
7	**EP06.1**	2 pair	13,45
8	**EP07.1**	2 pair	13,45
9	**EP08.1**	2 pair	13,45
10	**EP09.1**	2 pair	13,45

Cut resistant gloves



Cat. II



Cut-resistant gloves phynomic wet

UVEX.

Acc. to EN 420, EN 388 (3131X). Made of polyamide/elastane, palm and fingertips with aqua polymer foam coating. With knitted cuff.

- Absolute cleanliness – **uvex pure standard**, very gentle to skin
- Perfect fit, outstanding natural feel
- Maximum flexibility
- Outstanding dry and wet grip
- Oil/emulsions roll off, oil is absorbed
- High breathability ensures optimum wear comfort
- Length 210–250 mm

Suitable for precision work, assembly work, maintenance work, dry areas and moist/oily working conditions.

Size	Art. No.	Pack Qty.	€
7	**XC93.1**	2 pair	15,75
8	**XC94.1**	2 pair	15,75
9	**XC95.1**	2 pair	15,75
10	**XC96.1**	2 pair	15,75



Cat. II



Cut-resistant gloves Camapur® Cut 627

KCL by Honeywell.

Acc. to EN 420, EN 388 (4341). Seamless grey-flecked jersey made of HPPE fibres (polyethylene) with knitted cuff and black polyurethane coating on the palm and fingers

- High tactile sensitivity, mechanical resistance and wearing comfort
- Very good cut protection values
- Good grip, even of wet and slippery objects
- Layer thickness approx. 1.2 mm, length 220–260 mm

Applications: Assembly work with a medium risk of cutting, processing of metal and plastic profiles

Size	Art. No.	Pack Qty.	€
7	**KL18.1**	2 pair	44,95
8	**KL19.1**	2 pair	44,95
9	**KL20.1**	2 pair	44,95
10	**KL21.1**	2 pair	44,95

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Cut resistant gloves



Cat. II

Cut-resistant gloves K-TEX® 930

KCL by Honeywell. Material: Para-aramid, Natural latex.

Acc. to EN 420 and EN 388 (3444). Para-aramid jersey with knitted cuff and natural latex coating with wrinkle finish on the palm and fingers.

- The uncoated backs provide good breathability
- The anatomic fit enable enables fatigue-free work over long periods
- Excellent flexibility and grip
- Heavy-duty, but still gives high touch sensitivity
- Length 230–270 mm

Applications: Metalworking, glass industry, plastics industry, etc. Heavy-duty.

Size	Art. No.	Pack Qty.	€
7	**K961.1**	1 pair	33,90
8	**K962.1**	1 pair	33,90
9	**K963.1**	1 pair	33,90
10	**K964.1**	1 pair	33,90



Cat. II

Cut-resistant gloves SHOWA 8110

SHOWA.

Acc. to EN 420, EN 388 (2X43E). Acc. to 1935/2004 – suitable for contact with foodstuffs. Seamless knitted fabric made of high-performance polyethylene (HPPE, Spectra fibres). Uncoated, untreated. With elasticated cuff. Can be worn on either hand.

- Effective protection against cutting and a long service life
- Excellent dexterity and tactile feel
- Minimum allergy risk
- No skin irritation caused by stitching
- High freedom of movement for the wrist
- Length 240–320 mm

Applications: Work requiring a high level of protection against cutting and dexterity. Food processing.

Size	Art. No.	Pack Qty.	€
6	**ECT2.1**	1 pair	30,25
7	**ECT3.1**	1 pair	30,25
8	**ECT4.1**	1 pair	30,25
9	**ECT5.1**	1 pair	30,25
10	**ECT6.1**	1 pair	30,25



Cat. II

Cut-resistant gloves SHOWA 542X

SHOWA. Material: HPPE.

Acc. to EN 420 and EN 388 (2240A). Seamless knitted gloves made of polyethylene (HPPE). Without coating, thin and flexible, good protection against cutting. Washable at max. 40 °C with neutral detergent. (The performance level according to standard EN 388 is no longer guaranteed after washing). Length: 205–220 mm.

Ideal for precision work.

Size	Art. No.	Pack Qty.	€
7	**CA01.1**	1 pair	18,55
8	**CA02.1**	1 pair	15,05
9	**CA03.1**	1 pair	15,05

Cut resistant gloves



Cat. III





Cut-resistant gloves ActivArmr® 80-658 (formerly Powerflex®)

Ansell. Material: Steel, Nylon, Glass fibre, Cotton.

Acc. to EN 388 (XX43E), EN 407 (X2XXXX). Made of steel, nylon, glass fibre, cotton and Kevlar®, with ¾ coating made of natural rubber with wrinkle finish, water-repellent.

- Extremely high cut, abrasion and penetration resistance
- Rough coating provides secure grip
- Great protection against contact heat for secure handling of warm objects
- Extended knitted cuff for ideal forearm protection
- Length 260–295 mm

Size	Art. No.	Pack Qty.	€
6	**PA77.1**	1 pair	25,40
7	**PA78.1**	1 pair	25,40
8	**PA79.1**	1 pair	25,40
9	**PA80.1**	1 pair	25,40
10	**PA81.1**	1 pair	25,40
11	**PA82.1**	1 pair	25,40

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Pierce-resistant glove niroflex 2000

Friedrich Muensch. Material: Stainless steel.

Metal mesh gloves, tested according to DIN EN 1082-1/ISO 13999-1. Protects the hands against cutting and piercing injuries.

- High wear comfort and fatigue-free work
- Patented locking hook for simple, continuously adjustable locking
- Easy to use without spare parts such as press studs, clasps and spare straps
- Metal mesh end strap
- Exceptional fit thanks to ergonomic design without excess metal mesh at the fingertips
- Colour-coded cuff to quickly identify the size
- Flexible cuff makes the glove extremely comfortable to wear and prevents slipping
- Can be worn on the right or left hand
- Easy to clean without leaving residue
- Ring outer Ø 4.2 mm, wire thickness 0.55 mm

Without cuff

Size	Art. No.	Pack Qty.	€
S	**K173.1**	1 unit(s)	107,45
M	**K174.1**	1 unit(s)	107,45
L	**K175.1**	1 unit(s)	107,45

With cuff 190 mm

Size	Art. No.	Pack Qty.	€
S	**KAY7.1**	1 unit(s)	184,90
M	**KAY8.1**	1 unit(s)	184,90
L	**KAY9.1**	1 unit(s)	184,90

Accessories for gloves glove tensioner for pierce-resistant gloves

Friedrich Muensch.

Fixes the pierce-resistant gloves for an optimal, secure fit.

Colour	Art. No.	Pack Qty.	€
blue	**KCA0.1**	100 unit(s)	26,90



Cat. II

Safety gloves Power type

Köninger. Material: Leather.

Acc. to EN 420, EN 388 (2132). Made of grey split cowhide, not elasticated. Cuff and back made of drill.

Length (mm)	Size	Art. No.	Pack Qty.	€
260	10,5	**0024.1**	5 pair	18,45



Cat. II

Safety gloves RewoMech® 640

KCL by Honeywell. Material: Polyester, Polyamide, PU.

Acc. to EN 420, EN 388 (2121). An alternative to leather gloves.

- Breathable backing fabric made of 97% polyester with 3% elastane
- Palm reinforced with resistant synthetic leather (60% polyamide/40% polyurethane)
- Thumb back with cotton wool Terry cloth for sweat absorption
- Cuff with Velcro fastening system for secure fit
- Secure grip even of wet parts
- Good fit enables fatigue-free work over long periods
- Sensitive for working with delicate objects
- Ventilation holes between the fingers
- Flexible at low temperatures to approx. -20 °C max.
- Temperature stable up to max. 130 °C
- Colour: grey/black
- Length approx. 230–280 mm, layer thickness approx. 0.70 mm

Size	Colour	Art. No.	Pack Qty.	€
7	grey, black	**HE68.1**	2 pair	47,75
8	grey, black	**HE69.1**	2 pair	47,75
9	grey, black	**HE70.1**	2 pair	47,75
10	grey, black	**HE71.1**	2 pair	47,75
11	grey, black	**HE72.1**	2 pair	47,75



Cat. II

Safety gloves Sahara® 100

KCL by Honeywell. Material: Cotton, Nitrile.

Acc. to EN 420 and EN 388 (3111). The **high-quality nitrile coating** guarantees excellent physical properties. The lightweight, flexible and robust glove provides safe, comfortable protection against mechanical stress. For example, it protects against cuts and piercing wounds. First-class cotton jersey and coating-free back give the glove excellent dexterity and high wear comfort.

Size	Art. No.	Pack Qty.	€
7	**K290.1**	2 pair	17,50
8	**K291.1**	2 pair	17,50
9	**K292.1**	2 pair	17,50
10	**K293.1**	2 pair	17,50



Cat. II

Safety gloves made of Nappa leather

JAH. Material: Leather.

Acc. to EN 420, EN 388 (2111). Protection against moderate mechanical hazards. Soft, specially selected Nappa leather (goat or sheep). Good wear comfort, with leather finger walls.

Size	Art. No.	Pack Qty.	€
8	**1744.1**	2 pair	17,20
9	**1747.1**	2 pair	17,20
10	**1748.1**	2 pair	17,20

Working gloves



Cat. I

Cotton gloves

ROTH SELECTION. Material: Cotton 100%.

Jersey gloves with finger walls, anatomic thumb, lined. White, bleached. Öko Tex Standard 100. Suitable for foodstuffs. Breathable, wearing comfort, precise fit, excellent tactile sensitivity.

Application: Product protection or as underglove

Medium-duty length approx. 24 cm

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
240	7	natural	**ENC3.1**	12 pair	30,65
240	8	natural	**ENC4.1**	12 pair	30,65
240	9	natural	**ENC5.1**	12 pair	30,65
240	10	natural	**ENC6.1**	12 pair	34,10
240	11	natural	**ENC7.1**	12 pair	34,10

Heavy-duty length approx. 24 cm

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
240	7	natural	**0514.2**	12 pair	38,75
240	11	natural	**0557.2**	12 pair	42,20

Medium-duty extra-long approx. 35 cm

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
350	8	natural	**ENC8.1**	6 pair	26,15
350	10	natural	**ENC9.1**	6 pair	26,15



Cat. I

Undergloves of cotton

ROTH SELECTION. Material: Cotton 100 %.

Tricot gloves, ambidexterous, lined. Natural white, unbleached. Öko Tex standard 100. Breathable, wearing comfort, excellent tactile sensitivity.

Application: Product protection or as underglove.

Size	Colour	Art. No.	Pack Qty.	€
7	natural	**ENE0.1**	12 pair	30,95
8	natural	**ENE1.1**	12 pair	30,95
10	natural	**0068.2**	12 pair	18,95



Cat. I

Undergloves JACKSON SAFETY G35

Kimberly-Clark. Material: Nylon 100%.

Designed for working in segments with a high level of product and process protection.

- Seamless design – minimises skin irritation and offers improved breathability as well as wear comfort
- Can be worn on either hand
- Colour: White
- Colour-coded cuffs for the various sizes
- Silicone-free
- Packaged in a polybag

Applications: for general use, ideal for the automotive and aviation industries and for lint-free and silicone-free tasks in particular to avoid reworking.

Size	Colour	Art. No.	Pack Qty.	€
XS	white	**KAA9.1**	12 pair	23,45
S	white	**KAC0.1**	12 pair	23,45
M	white	**KAC1.1**	12 pair	23,45
L	white	**KAC2.1**	12 pair	23,45
XL	white	**KAC3.1**	12 pair	23,45

Cold resistant gloves



Cat. II



Cold protection gloves ActivArmr® 78-110 (formerly proFood®)

Ansell.

Acc. to EN 420, EN 388 (214XA), EN 511 (010) and EN 407 (X1XXXX). Seamless knit. With knitted cuff, contains natural latex.

- Special hollow fibres provide cold and heat protection
- Direct moisture away from the skin, form a heat insulation barrier between the skin and ambient air
- Lightweight and stretchy, can be worn on either hand
- Seamless design prevents chafing or skin irritation
- Made from materials for the food industry
- Machine-washable up to 40 °C
- Protection against contact heat up to 100 °C: 15 sec

Applications:

- As a stand-alone glove in cold and frosty conditions, e.g. non-sterile handling of dry foods
- As an inner glove when processing meat and fish

Size	Art. No.	Pack Qty.	€
7	**EA80.1**	2 pair	15,10
9	**EA81.1**	2 pair	15,10



NEW / +

Cat. II



Cold protection gloves Ice-Grip® 691

KCL by Honeywell. Material: Nylon, PVC.

Acc. to EN 420, EN 388 (2121), EN 511 (120). Acc. to EU 1935/2004 suitable for handling and processing foodstuffs.
The breathable, lightweight and well-insulated Thinsulate® material is used as lining. Palm with PVC coating, plus well sealed, insulating knitted cuff. Length 280–330 mm.

- High cold protection combined with touch sensitivity
- The lightweight materials and fit provide high wear comfort
- Secure grip even of wet parts
- Breathable without leaving moisture on the hands
- Resistant to cold down to -50 °C

Size	Colour	Art. No.	Pack Qty.	€
7	dark blue, grey	**CC00.1**	1 pair	21,95
8	dark blue, grey	**CC01.1**	1 pair	21,95
9	dark blue, grey	**CC02.1**	1 pair	21,95
10	dark blue, grey	**CC03.1**	1 pair	21,95



Cat. II



Cold protection gloves Cama Iso® 690+

KCL by Honeywell. Material: PVC, Cotton.

Acc. to EN 420, EN 388 (3221), EN 511 (121). Made of PVC, specially designed for working in cold environments. Excellent wear comfort, abrasion-resistant and highly flexible. With seamless warming cotton lining. Impervious to fluids. Textured surface for secure grip when handling wet parts. Length 290–310 mm, total layer thickness approx. 3.5 mm. Cold protection down to approx. -20 °C.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
300	9	brown	**K970.1**	1 pair	41,95
300	10	brown	**K971.1**	1 pair	41,95

Cold resistant gloves



NEW / +

Cat. III



Cold protection gloves Cryo-Gloves® water-repellent

Tempshield. Material: Nylon, Polyolefin, Polyester, Cotton.

Acc. to EN 420, EN 388 (1323) and EN 511 (32X).
Semi-permeable outer skin made of stitched nylon fabric. Seamless, laminated interior. Lightweight polyolefin/polyester lining in knitted cotton inner glove.

- Filling and decanting of large tank systems in cryogenic storage dewars
- Shock freezing and deep-freeze warehouses
- Filling of cold traps and measuring equipment
- Cryobanks, blood banks
- Deep-freeze preservation

Protection in the lowest temperature range down to -160 °C. Suitable for handling dry ice (-79 °C), operations in the gas phase of cryogenic liquefied media, such as **liquid nitrogen in the gas phase**.

Attention: Do not submerge in cryogenic liquids.

With knitted cuff, wrist length

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
290	S (8)	blue	**0922.1**	1 pair	212,85
290	S (8)	pink	**1H7X.1**	1 pair	212,85
320	M (9)	blue	**0923.1**	1 pair	212,85
320	M (9)	pink	**1H89.1**	1 pair	212,85
320	L (10)	blue	**0924.1**	1 pair	212,85
320	L (10)	pink	**1H88.1**	1 pair	212,85

With cuff, forearm length

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
345	S (8)	blue	**0926.1**	1 pair	218,25
345	S (8)	pink	**1H83.1**	1 pair	218,25
345	M (9)	blue	**0927.1**	1 pair	218,25
345	M (9)	pink	**1H87.1**	1 pair	218,25
390	L (10)	blue	**0928.1**	1 pair	218,25
390	L (10)	pink	**1H80.1**	1 pair	218,25
390	XL (11)	blue	**0929.1**	1 pair	230,05
390	XL (11)	pink	**1H7Y.1**	1 pair	230,05

With cuff, elbow length

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
440	S (8)	blue	**1H85.1**	1 pair	284,90
440	S (8)	pink	**1H84.1**	1 pair	284,90
440	M (9)	blue	**5462.1**	1 pair	284,90
440	M (9)	pink	**1H86.1**	1 pair	284,90
485	L (10)	blue	**5468.1**	1 pair	284,90
485	L (10)	pink	**1H82.1**	1 pair	284,90
485	XL (11)	blue	**5483.1**	1 pair	289,75
485	XL (11)	pink	**1H81.1**	1 pair	289,75

With cuff, shoulder length

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
625	M (9)	blue	**5506.1**	1 pair	332,20
685	L (10)	blue	**5508.1**	1 pair	332,20
685	XL (11)	blue	**5511.1**	1 pair	342,40



NEW / +

Cat. III



Cold protection gloves Cryo-Grip® Gloves, waterproof

Tempshield. Material: Nylon, Polyolefin, Polyester, Cotton.

Acc. to EN 420, EN 388 (2223X) and EN 511 (221). Semi-permeable outer skin made of stitched nylon fabric. Seamless, laminated interior. Lightweight polyolefin/polyester lining in knitted cotton inner glove. Increased grip on the palm for improved dexterity when handling smaller objects.
100 % waterproof design, with an additional seamless inner glove.

Protection in the lowest temperature range down to -160 °C. Suitable for handling dry ice (-79 °C), operations in the gas phase of cryogenic liquefied media, such as **liquid nitrogen in the gas phase**.
For long-term work in the gas phase and where there is a risk of wetting with liquids, or with **infectious** or **toxic** substances, for example. Penetration through the seams on the fingers is prevented.

Attention: Do not submerge in cryogenic liquids.

With knitted cuff, wrist length

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
290	S (8)	blue	**1H6P.1**	1 pair	279,50
290	S (8)	pink	**1H6T.1**	1 pair	279,50
320	M (9)	blue	**1H6X.1**	1 pair	279,50
320	M (9)	pink	**1H6Y.1**	1 pair	279,50
320	L (10)	blue	**1H70.1**	1 pair	279,50
320	L (10)	pink	**1H71.1**	1 pair	279,50
320	XL (11)	blue	**1H72.1**	1 pair	284,90
320	XL (11)	pink	**1H73.1**	1 pair	284,90
320	XXL (12)	blue	**1H74.1**	1 pair	298,85

With cuff, forearm length

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
345	S (8)	blue	**1H68.1**	1 pair	284,90
345	S (8)	pink	**1H69.1**	1 pair	284,90
345	M (9)	blue	**1H6A.1**	1 pair	284,90
345	M (9)	pink	**1H6C.1**	1 pair	284,90
390	L (10)	blue	**1H6E.1**	1 pair	284,90
390	L (10)	pink	**1H6H.1**	1 pair	284,90
390	XL (11)	blue	**1H6K.1**	1 pair	292,40
390	XL (11)	pink	**1H6L.1**	1 pair	292,40
390	XXL (12)	blue	**1H6N.1**	1 pair	308,55

Cold resistant gloves

With cuff, elbow length

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
440	S (8)	blue	**1H7A.1**	1 pair	349,40
440	S (8)	pink	**1H7C.1**	1 pair	349,40
440	M (9)	blue	**1H7E.1**	1 pair	349,40
440	M (9)	pink	**1H7H.1**	1 pair	349,40
485	L (10)	blue	**1H7K.1**	1 pair	349,40
485	L (10)	pink	**1H7L.1**	1 pair	349,40
485	XL (11)	blue	**1H7N.1**	1 pair	354,75
485	XL (11)	pink	**1H7P.1**	1 pair	354,75
485	XXL (12)	blue	**1H7T.1**	1 pair	374,10

With cuff, shoulder length

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
625	S (8)	blue	**1H75.1**	1 pair	427,35
625	M (9)	blue	**1H76.1**	1 pair	427,35
685	L (10)	blue	**1H77.1**	1 pair	427,35
685	XL (11)	blue	**1H78.1**	1 pair	435,40
685	XXL (12)	blue	**1H79.1**	1 pair	457,95



Cat. II





Heat-resistant gloves Jersey five-finger gloves

Fischer & CO. Material: Polyamide Nomex®.

Acc. to EN 420, EN 388 (1X1X) and EN 407 (X1XXXX). Made of Nomex polyamide fibre® from DuPont. Long service life, good dimensional stability, high wearing comfort, largely flame- and heat-resistant. The finely knitted jersey material is also suitable for more intricate work. Washable up to max. +95 °C.

Protection against contact heat up to:

- 100 °C: max. 33 sec
- 250 °C: max. 9 sec

Length (mm)	Size	Art. No.	Pack Qty.	€
260	6,5	**ALA1.1**	1 pair	43,05
260	7,5	**0138.1**	1 pair	43,05
260	8	**0141.1**	1 pair	43,05
260	8,5	**0143.1**	1 pair	43,05
260	9	**ALA2.1**	1 pair	43,05
350	6,5	**ALA3.1**	1 pair	55,10
350	7,5	**0145.1**	1 pair	55,10
350	8	**0147.1**	1 pair	55,10
350	8,5	**0148.1**	1 pair	55,10
350	9	**ALA4.1**	1 pair	55,10



Cat. II





Heat-resistant gloves 5-finger felt

Fischer & CO. Material: Polyamide Nomex®.

Acc. to EN 420, EN 388 (1x1x) and EN 407 (x2xxxx), made of 100% aramid felt (Nomex® from DuPont). Largely resistant to flames and heat.

Protection against contact heat up to:

- 100 °C: max 84 sec
- 250 °C: max 19 sec

Length (mm)	Size	Art. No.	Pack Qty.	€
270	10,5	**6584.1**	1 pair	56,25
350	10,5	**6599.1**	1 pair	60,90
400	10,5	**6604.1**	1 pair	65,75



Cat. II





Heat-resistant gloves Clavies™

Bel-Art Products. Material: Cotton.

Acc. to EN 420, EN 388 (2241) and EN 407 (X242XX). Made of 100% terry cotton. Anatomically shaped. Heat-resistant up to 232 °C. Ideal for handling dry autoclave material, for example. Machine-washable. Can be tumble-dried up to 70 °C. One size.

Length (mm)	Art. No.	Pack Qty.	€
330	**Y351.1**	1 pair	47,85
470	**Y352.1**	1 pair	66,15

Heat resistant gloves



Cat. III





Heat-resistant gloves KarboTECT®

KCL by Honeywell. Material: Para-aramid, Carbon, Cotton.

Acc. to EN 420, EN 388 (1340), EN 407 (4242XX), EU 1935/2004 suitable for handling foodstuffs. Heavy-duty seamless circular knit.

- Good thermal insulation
- High cutting resistance
- Good and tight fit for exact and precise handling
- Good wear comfort thanks to cotton inner glove
- Reduced static charging

Applications: Laboratories, heating and drying ovens, metal production and metalworking, commercial bakeries, retooling hot machines, refineries, all dry contact heat environments.

950 with knitted cuff
Good heat protection up to 250 °C. Washable up to 30 °C.
Length 240–260 mm.

Size	Art. No.	Pack Qty.	€
7	**Y431.1**	1 pair	56,10
9	**Y432.1**	1 pair	56,10
10	**Y433.1**	1 pair	58,50

L954 with leather cuffs
This combination enables work to be carried out at temperatures of up to 250 °C and protects large areas of the lower arm.
Length 380–400 mm.

Size	Art. No.	Pack Qty.	€
7	**TT84.1**	1 pair	83,00
9	**TT85.1**	1 pair	83,00
10	**TT86.1**	1 pair	83,00



Cat. II





Heat- and cut-resistant gloves SHOWA 240

SHOWA. Material: Glass fibre, Kevlar®, Modacryl, Neoprene.

Acc. to EN 420, EN 388 (3X31C), EN 407 (42212X). Seamless fine knit made of aramid (Kevlar®), modacrylic, glass fibre with foam neoprene coating on the palm.

- Flame-resistant materials
- Kevlar backing fabric provides high cut resistance
- Flat-dipped neoprene coating ensures extra-secure grip
- The ergonomic design matches the natural shape of the hand and therefore reduces user fatigue and improves fit and wearing comfort
- Protection against arcing: Arcing protection class 2
- Length 233–290 mm

Applications: Work requiring a high level of protection against cutting and heat. Building trade, metallurgy, oily working conditions.

Size	Art. No.	Pack Qty.	€
7 (S)	**ECP7.1**	1 pair	24,20
8 (M)	**ECP8.1**	1 pair	24,20
9 (L)	**ECP9.1**	1 pair	24,20
10 (XL)	**ECT0.1**	1 pair	24,20
11 (XXL)	**ECT1.1**	1 pair	24,20

Heat resistant gloves



Cat. II

Heat-resistant gloves SHOWA 8814 (formerly Charguard)

SHOWA. Material: Cotton, Polyester, Neoprene.

Acc. to EN 420, EN 388 (2242X), EN 407 (X2XXXX), (EC)1935/2004 suitable for contact with foodstuffs.

- Special heat insulation lining made of cotton and polyester with heat-resistant neoprene spray coating
- Textured surface
- Slip-on design so that the gloves are easy to put on and take off
- Heat resistant up to 260 °C
- Washable at max. 40 °C with neutral detergent

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
355	S	black	**LY89.1**	1 pair	23,05
355	M	black	**LY90.1**	1 pair	23,05
355	L	black	**LY91.1**	1 pair	23,05
355	XL	black	**LY92.1**	1 pair	23,05



Hand/finger heat protection

Funakoshi Co. Material: Silicone.

For touching hot or frozen objects. Temperature-stable from -60 to +230 °C. Slip-proof due to dimples. With hanger eyelet.
No personal protective equipment (PPE).

Finger version

Version	Art. No.	Pack Qty.	€
137 x 30 mm	**4694.1**	1 unit(s)	15,50

Hand version

Version	Art. No.	Pack Qty.	€
170 x 86 mm	**4693.1**	1 unit(s)	25,60



Cat. III

Heat-resistant gloves leather-aluminium

JUTEC. Material: Preox aramide, Leather, Aluminium.

Acc. to EN 420, EN 388 (4X4X), EN 407 (413444). Outer hand and cuff of flexible aluminium-coated preox-aramid fabric, palm made of heat-resistant Sebatan leather. Very soft and flexible.

- Protection against:
- Contact heat up to 100 °C for at least 15 sec.
- Contact heat (spatter) up to 250 °C for a limited time
- Radiated heat up to 1000 °C

Applications: Minor welding work, foundries, metalworking, ceramic furnaces.

Version	Length (mm)	Size	Art. No.	Pack Qty.	€
Mitten	380	10	**TT82.1**	1 pair	80,65

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Heat resistant gloves



Cat. III



Heat-resistant gloves up to 500 °C

JUTEC. Material: Para-aramid.

Acc. to EN 420, EN 388 (1541), EN 407 (43434X).
Made of aramid fabric. Cut-resistant, abrasion-resistant, double-insulated.
Good mechanical strength even at high temperatures.
Usable on both sides.

Protection against contact heat up to:

- 350 °C: max. 20 sec
- 500 °C: max. 12 sec

Version	Length (mm)	Size	Art. No.	Pack Qty.	€
Mitten	300	10	**TX89.1**	1 pair	48,40
Five-finger glove	300	10	**HE73.1**	1 pair	58,45



Cat. III

Heat-resistant gloves Aramid aluminium

JUTEC. Material: Aramid, Aluminium.

Acc. to EN 388 (1542), EN 407 (413444). Aluminised preox-aramid fabric outer hand and cuff, aramid palm. Cut- and abrasion-resistant with insulation.
Protection against:

- Contact heat up to 100 °C for at least 15 sec.
- Spatter up to 250 °C for a limited time
- Radiated heat up to 1000 °C

Applications: Foundries, welding shops, furnace construction, metalworking, container construction.

Version	Length (mm)	Size	Art. No.	Pack Qty.	€
Five-finger glove	380	9	**APX6.1**	1 pair	97,10
Five-finger glove	380	10	**TT81.1**	1 pair	97,10

Heat-resistant gloves Isotemp® R

Heinrich Vorndamme. Material: Leather.

Asbestos-free, acc. to EN 407, EN 420, palm area made of suede. Back and 15 cm long cuffs made of ISOTEMP®. Thick wool fur lining. Reliable protection of hands and forearms, excellent adhesiveness on smooth surfaces. Largely resistant to liquids and contact heat up to approx. +300 °C, radiation heat up to approx. +600 °C. Total length 35 cm.

Length (mm)	Art. No.	Pack Qty.	€
350	**0745.1**	1 pair	63,50



Cat. III

Heat-resistant gloves Preox-aramid aluminium

JUTEC. Material: Aluminium.

Acc. to EN 388 (3443), EN 407 (423444). Five-finger gloves. Outer shell and cuff made of preox-aramid fabric with aluminium, palm made of preox-aramid, carbon fibre reinforced. Cut- and abrasion-resistant with insulation. Soft aluminium coating, good handling. Universal size 10, length 380 mm.
Protection against:

- Radiated heat up to 1000 °C
- Min. 15 sec resistance to contact heat at 250 °C, short-term spatter resistance up to 600 °C

Applications: Foundries, furnace construction, glass processing, metalworking, etc.

Version	Length (mm)	Size	Art. No.	Pack Qty.	€
Five-finger glove	380	10	**CNH6.1**	1 pair	109,15

Heat resistant gloves



Cat. III

Heat-resistant gloves Preox-aramid

JUTEC. Material: Preox aramide.

Acc. to EN 420, EN 388 (3542), EN 407 (43434). Made of preox-aramid fabric, double-insulated. Able to withstand mechanical stress, high cut protection. Can be worn on both sides as a cost-saving factor.

Protection against contact heat up to:

- 350 °C, for max. 19 sec
- 500 °C, for max. 11 sec

Applications: Transportation of hot cast parts, glass industry operations, pressing facilities, hardening plants, etc. Ideal for working with hot parts that must not exceed a short-term temperature of 350 °C.

Version	Length (mm)	Size	Art. No.	Pack Qty.	€
Five-finger glove	300	10	**HE74.1**	1 pair	77,95
Five-finger glove	400	10	**HTH1.1**	1 pair	86,45
Five-finger glove	600	10	**HTH2.1**	1 pair	115,65



Cat. III

Heat-resistant gloves up to 900 °C

JUTEC.

Acc. to EN 420, EN 388 (23XX), EN 407 (44X224). Fabric mitten with special high-temperature coating, able to withstand mechanical stress, cut-resistant. Thumb at side, can be used on either hand.

Protection against contact heat up to:

- 500 °C: max. 16 sec
- 900 °C: max. thermal resistance of the material

Plus protection against small metal splashes and liquid iron and aluminium.

Version	Length (mm)	Size	Art. No.	Pack Qty.	€
Mitten	300	10	**HE75.1**	1 pair	93,75



Cat. III

Heat-resistant gloves up to 1100 °C

JUTEC.

Acc. to EN 388, EN 407, EN 420. Silicate fabric mitten, triple-layer special insulation. Able to withstand slight mechanical stress, highly flexible even at high temperatures, soft surface, does not stick to hot glass.

Protection against contact heat up to:

- 500 °C: max. 24 sec
- 1100 °C: max. thermal resistance of the material

Version	Length (mm)	Size	Art. No.	Pack Qty.	€
Mitten	400	10	**HE76.1**	1 pair	201,05



Cat. III

Heat- and cut-resistant gloves ActivArmr® 43-216 (formerly WorkGuard™)

Ansell.

Acc. to EN 420, EN 388 (3243B), EN 407 (413X4X). Robust leather glove with jersey lining, sewn seam made of Kevlar®. With protective cuff. Special-purpose glove for heavy-duty work with excellent protection against molten metal spatter. Also suitable for general thermal protection. Outstanding durability and excellent protection against cutting. Reinforced palm for even higher abrasion resistance.

For thermal protection in many types of work, e.g. welding work, machine operation and work in environments where there is a danger of molten metal spatter. Not suitable for heavy-duty cutting work.

Version	Length (mm)	Size	Art. No.	Pack Qty.	€
Five-finger glove	410	10	**XE56.1**	1 pair	18,90



Lab coat SEKUROKA®

ROTH SELECTION.

Made of mixed fabric (65% polyester, 35% cotton).

- **Concealed press stud buttons** – can be opened quickly if needed
- **Pocket for pens** – ensures that pens or scoops remain in the pocket when bending down
- **Sleeve ends can be adjusted in three different ways** – tighter cuffs make it easier to put on gloves. They also prevent the sleeves becoming caught on corners or objects
- 2 side pockets – right **double pocket, including one with a zip**
- Back seam with a practical slit, no back strap

Properties:

- Crease-resistant
- Comfortable to wear
- Easy care
- Can be washed at temperatures up to 60 °C, dry cleaning possible
- Fabric weight approx. 215 g/m²

For women length 114 cm

Women's size	Art. No.	Pack Qty.	€
36	**T410.1**	1 unit(s)	50,80
38	**T411.1**	1 unit(s)	50,80
40	**T412.1**	1 unit(s)	50,80
42	**T413.1**	1 unit(s)	50,80
44	**T414.1**	1 unit(s)	50,80
46	**T415.1**	1 unit(s)	50,80
48	**T416.1**	1 unit(s)	50,80

For men length 120 cm

Men's size	Art. No.	Pack Qty.	€
46	**T417.1**	1 unit(s)	54,00
48	**T418.1**	1 unit(s)	54,00
50	**T419.1**	1 unit(s)	54,00
52	**T420.1**	1 unit(s)	54,00
54	**T421.1**	1 unit(s)	54,00
56	**T422.1**	1 unit(s)	54,00
58	**T423.1**	1 unit(s)	54,00



Unisex lab coat with lapel

Bierbaum-Proenen.

Concealed buttons, long sleeve, 1 breast pocket, 2 side pockets, with a slit at the back. Length 103 cm. Öko-Tex Standard 100.

100% cotton
Fabric weight approx. 205 g/m². Easy-care, boil-proof, dry cleaning possible.

Size	Women's size	Men's size	Art. No.	Pack Qty.	€
XXS	–	38	**ELY1.1**	1 unit(s)	48,55
XS	32/34	40/42	**KT03.1**	1 unit(s)	48,55
S	36/38	44/46	**KT04.1**	1 unit(s)	48,55
M	40/42	48/50	**KT05.1**	1 unit(s)	48,55
L	44/46	52/54	**KT06.1**	1 unit(s)	48,55
XL	48/50	56/58	**KT07.1**	1 unit(s)	48,55
XXL	52/54	64/66	**KT08.1**	1 unit(s)	48,55
XXXL	56/58	64/66	**ELY2.1**	1 unit(s)	48,55

Made of mixed fabric of 65% polyester, 35% cotton
Fabric weight approx. 215 g/m². Robust, suitable for industrial washing, washable up to 95 °C.

Size	Women's size	Men's size	Art. No.	Pack Qty.	€
XS	32/34	40/42	**ELY3.1**	1 unit(s)	43,05
S	36/38	44/46	**ELY4.1**	1 unit(s)	43,05
M	40/42	48/50	**ELY5.1**	1 unit(s)	43,05
L	44/46	52/54	**ELY6.1**	1 unit(s)	43,05
XL	48/50	56/58	**ELY7.1**	1 unit(s)	43,05
XXL	52/54	60/62	**ELY8.1**	1 unit(s)	43,05



Unisex lab coat with stand-up collar

Bierbaum-Proenen.

Concealed buttons, long sleeve, 1 breast pocket, 2 side pockets, with a slit at the back. Length 103 cm. Öko-Tex Standard 100.

100% cotton
Fabric weight approx. 205 g/m². Easy-care, boil-proof, dry cleaning possible.

Size	Women's size	Men's size	Art. No.	Pack Qty.	€
XXS	–	38	**ELY9.1**	1 unit(s)	48,55
XS	32/34	40/42	**ENA0.1**	1 unit(s)	48,55
S	36/38	44/46	**ENA1.1**	1 unit(s)	48,55
M	40/42	48/50	**ENA2.1**	1 unit(s)	48,55
L	44/46	52/54	**ENA3.1**	1 unit(s)	48,55
XL	48/50	56/58	**ENA4.1**	1 unit(s)	48,55
XXL	52/54	60/62	**ENA5.1**	1 unit(s)	48,55
XXXL	56/58	64/66	**ENA6.1**	1 unit(s)	48,55

Made of mixed fabric of 65% polyester, 35% cotton
Fabric weight approx. 215 g/m². Robust, suitable for industrial washing, washable up to 95 °C.

Size	Women's size	Men's size	Art. No.	Pack Qty.	€
XS	32/34	40/42	**ENA7.1**	1 unit(s)	43,05
S	36/38	44/46	**ENA8.1**	1 unit(s)	43,05
M	40/42	48/50	**ENA9.1**	1 unit(s)	43,05
L	44/46	52/54	**ENC0.1**	1 unit(s)	43,05
XL	48/50	56/58	**ENC1.1**	1 unit(s)	43,05
XXL	52/54	60/62	**ENC2.1**	1 unit(s)	43,05



Work coat

UVEX.

Long sleeves, with lapel. Öko Tex Standard 100. Colour: cornflower blue.

(1) For women 100% cotton
Slightly fitted waist. Concealed metal stud fastenings. 2 sewn-on side pockets, left external breast pocket. Cuff width can be adjusted.

- Fabric weight approx. 210 g/m²
- Length approx. 105 cm
- Washable up to 60 °C

Women's size	Art. No.	Pack Qty.	€
36	**NN99.1**	1 unit(s)	54,15
38	**NP00.1**	1 unit(s)	54,15
40	**NP01.1**	1 unit(s)	54,15
42	**NP02.1**	1 unit(s)	54,15
44	**NP03.1**	1 unit(s)	54,15
46	**NP04.1**	1 unit(s)	54,15
48	**NP05.1**	1 unit(s)	61,90
50	**NP06.1**	1 unit(s)	61,90
52	**NP07.1**	1 unit(s)	61,90
54	**NP08.1**	1 unit(s)	61,90

(2) For men 65% polyester, 35% cotton
With short side vents. Concealed metal stud fastenings. 2 side pockets, 1 left external breast pocket, 1 right breast pocket. Cuff width can be adjusted.

- Fabric weight approx. 245 g/m²
- Length approx. 96 cm
- Washable up to 95 °C

Men's size	Art. No.	Pack Qty.	€
40/42	**NP09.1**	1 unit(s)	46,15
44/46	**NP10.1**	1 unit(s)	46,15
48/50	**NP11.1**	1 unit(s)	49,30
52/54	**NP12.1**	1 unit(s)	46,15
56/58	**NP13.1**	1 unit(s)	48,95
60/62	**NP14.1**	1 unit(s)	48,95
64/66	**NP15.1**	1 unit(s)	48,95



HACCP Unisex lab coat

Bierbaum-Proenen.

Acc. to DIN 10524:2004 (workwear according to HACCP for the food industry), risk class 1-3.
With inside pockets. Concealed press stud buttons, one inside breast pocket, two inside side pockets. The pockets can be sealed. Long sleeve, sleeve width can be adjusted using press studs.
Turn-down collar. Suitable for industrial washing acc. to ISO 15797 up to 60 °C.
Length 103 cm. Colour: white.

1673-500
Made from hard-wearing mixed fabric of 65% polyester, 35% cotton, fabric weight approx. 210 g/m².

Size	Women's size	Men's size	Art. No.	Pack Qty.	€
XS	32/34	40/42	**1AEH.1**	1 unit(s)	38,65
S	36/38	44/46	**1AEK.1**	1 unit(s)	38,65
M	40/42	48/50	**1AEL.1**	1 unit(s)	38,65
L	44/46	52/54	**1AEN.1**	1 unit(s)	38,65
XL	48/50	56/58	**1AEP.1**	1 unit(s)	38,65
XXL	52/54	60/62	**1AET.1**	1 unit(s)	38,65



Women's lab coat 4866

Bierbaum-Proenen.

- Stand-up collar with V-neck
- Body-fitting
- Hidden snap fasteners with one visible fastener
- 2 side pockets and 1 buzzer pocket
- Length 90 cm
- 100% cotton, Öko-Tex Standard 100
- Fabric weight approx. 205 g/m²
- **Suitable for industrial washing**, boil-washable and easy care

Women's size	Art. No.	Pack Qty.	€
36	**PE25.1**	1 unit(s)	54,35
38	**PE26.1**	1 unit(s)	54,35
40	**PE27.1**	1 unit(s)	54,35
42	**PE28.1**	1 unit(s)	54,35
44	**PE29.1**	1 unit(s)	54,35
46	**PE30.1**	1 unit(s)	54,35
48	**PE31.1**	1 unit(s)	54,35
50	**PE32.1**	1 unit(s)	54,35
52	**PE33.1**	1 unit(s)	54,35



Women’s lab coat 1699

Bierbaum-Proenen.

Regular fit. With lapel.

- Concealed stud fastenings
- One breast pocket, two side pockets
- Back with belt and slit
- Colour: White
- Length 105 cm

100% cotton
Very lightweight and breathable. Fabric weight 205 g/m². Washable at 95 °C.

Women's size	Art. No.	Pack Qty.	€
34	**1AEY.1**	1 unit(s)	38,90
36	**1AH0.1**	1 unit(s)	38,90
38	**1AH1.1**	1 unit(s)	38,90
40	**1AH2.1**	1 unit(s)	38,90
42	**1AH3.1**	1 unit(s)	38,90
44	**1AH4.1**	1 unit(s)	38,90
46	**1AH5.1**	1 unit(s)	38,90
48	**1AH6.1**	1 unit(s)	38,90
50	**1AH7.1**	1 unit(s)	38,90
52	**1AH8.1**	1 unit(s)	38,90

Mixed fabric
Made of 50% cotton, 50% polyester. Fabric weight: Approx. 215 g/m². **Suitable for industrial washing**, boil-washable and easy care.

Women's size	Art. No.	Pack Qty.	€
32	**PT46.1**	1 unit(s)	54,25
34	**PT47.1**	1 unit(s)	54,25
36	**PT48.1**	1 unit(s)	54,25
38	**PT49.1**	1 unit(s)	54,25
40	**PT50.1**	1 unit(s)	54,25
42	**PT51.1**	1 unit(s)	54,25
44	**PT52.1**	1 unit(s)	54,25
46	**PT53.1**	1 unit(s)	54,25
48	**PT54.1**	1 unit(s)	54,25
50	**PT55.1**	1 unit(s)	54,25
52	**PT56.1**	1 unit(s)	54,25
54	**PT57.1**	1 unit(s)	54,25



Women’s lab coat 1614

Bierbaum-Proenen.

With stand-up collar. Classic, professional, practical and functional. Standard fit. Öko-Tex Standard 100. Washable at 95 °C, suitable for industrial washing according to ISO 15797.

- Long sleeve
- Concealed stud fastenings
- One breast pocket, two side pockets
- Back with belt and slit

100% cotton
Very lightweight and breathable. Tissue weight: 205 g/m², Length: 108 cm.

Women's size	Art. No.	Pack Qty.	€
32	**1AAT.1**	1 unit(s)	38,90
34	**1AAX.1**	1 unit(s)	38,90
36	**1AAY.1**	1 unit(s)	38,90
38	**1AC0.1**	1 unit(s)	38,90
40	**1AC1.1**	1 unit(s)	38,90
42	**1AC2.1**	1 unit(s)	38,90
44	**1AC3.1**	1 unit(s)	38,90
46	**1AC4.1**	1 unit(s)	38,90
48	**1AC5.1**	1 unit(s)	38,90
50	**1AC6.1**	1 unit(s)	38,90
52	**1AC7.1**	1 unit(s)	38,90
54	**1AC8.1**	1 unit(s)	38,90

Mixed fabric, 50% cotton, 50% polyester
Cotton-soft on the inside, smooth on the outside and resistant. Tissue weight: 215 g/m², Length: 105 cm.

Women's size	Art. No.	Pack Qty.	€
32	**1AC9.1**	1 unit(s)	44,25
34	**1ACA.1**	1 unit(s)	44,25
36	**1ACC.1**	1 unit(s)	44,25
38	**1ACE.1**	1 unit(s)	44,25
40	**1ACH.1**	1 unit(s)	44,25
42	**1ACK.1**	1 unit(s)	44,25
44	**1ACL.1**	1 unit(s)	44,25
46	**1ACN.1**	1 unit(s)	44,25
48	**1ACP.1**	1 unit(s)	44,25
50	**1ACT.1**	1 unit(s)	44,25
52	**1ACX.1**	1 unit(s)	44,25



Women’s lab coat 1752

Bierbaum-Proenen.

Slim fit. With stand-up collar. Made of a light cotton fabric for pleasant wear comfort. 100% cotton, fabric weight 205 g/m².

- Long sleeve
- Concealed stud fastenings
- One breast pocket, two side pockets
- Silver inner collar for protection against discolouration
- Arm lift system for greater freedom of movement
- Back with slit
- Length 90 cm
- Washable at 95 °C

Women's size	Art. No.	Pack Qty.	€
34	**1AK1.1**	1 unit(s)	37,15
36	**1AK2.1**	1 unit(s)	37,15
38	**1AK3.1**	1 unit(s)	37,15
40	**1AK4.1**	1 unit(s)	37,15
42	**1AK5.1**	1 unit(s)	37,15
44	**1AK6.1**	1 unit(s)	37,15
46	**1AK7.1**	1 unit(s)	37,15
48	**1AK8.1**	1 unit(s)	37,15
50	**1AK9.1**	1 unit(s)	37,15
52	**1AKA.1**	1 unit(s)	37,15



Women’s lab coat 1754

Bierbaum-Proenen.

Slim fit. With lapel. Made of a light cotton fabric for pleasant wear comfort. 100% cotton, fabric weight 205 g/m².

- Long sleeve
- Concealed stud fastenings
- One breast pocket, two side pockets
- Silver inner collar for protection against discolouration
- Arm lift system for greater freedom of movement
- Back with slit
- Length 100 cm
- Washable at 95 °C

Women's size	Art. No.	Pack Qty.	€
34	**1AKC.1**	1 unit(s)	37,80
36	**1AKE.1**	1 unit(s)	37,80
38	**1AKH.1**	1 unit(s)	37,80
40	**1AKK.1**	1 unit(s)	37,80
42	**1AKL.1**	1 unit(s)	37,80
44	**1AKN.1**	1 unit(s)	37,80
46	**1AKP.1**	1 unit(s)	37,80
48	**1AKT.1**	1 unit(s)	37,80
50	**1AKX.1**	1 unit(s)	37,80
52	**1AKY.1**	1 unit(s)	37,80



Women’s lab coat 4874

Bierbaum-Proenen.

With lapel, body-fitting. High-quality, easy-care mixed fabric with stretch content and internal cotton for pleasant wear comfort. Made of 49 % cotton, 49 % polyester, 2 % elastolefin. Fabric weight 200 g/m².

- Long sleeve
- Concealed stud fastenings
- One breast pocket, two side pockets
- Discreet embroidery in metallic silver
- Back with slit
- Length 90 cm
- Washable at 95 °C

Women's size	Art. No.	Pack Qty.	€
36	**1AL3.1**	1 unit(s)	78,05
38	**1AL4.1**	1 unit(s)	78,05
40	**1AL5.1**	1 unit(s)	78,05
42	**1AL6.1**	1 unit(s)	78,05
44	**1AL7.1**	1 unit(s)	78,05
46	**1AL8.1**	1 unit(s)	78,05
48	**1AL9.1**	1 unit(s)	78,05

NEW / +

Men’s lab coat 1619

Bierbaum-Proenen.

Regular fit, classic, long and straight cut. The loose and comfortable fit gives wearers particularly high freedom of movement. Öko-Tex Standard 100.

- **With lapel**
- Long sleeve
- Concealed buttons
- One breast pocket, two side pockets
- Back with back strap and slit
- Length 110 cm

100% cotton
Very lightweight and breathable. Fabric weight 205 g/m².
Washable at 95 °C.

Men's size	Art. No.	Pack Qty.	€
46	**1H2A.1**	1 unit(s)	38,95
48	**1H2C.1**	1 unit(s)	38,95
50	**1H2E.1**	1 unit(s)	38,95
52	**1H2H.1**	1 unit(s)	38,95
54	**1H2K.1**	1 unit(s)	38,95
56	**1H2L.1**	1 unit(s)	38,95
58	**1H2N.1**	1 unit(s)	38,95
60	**1H2P.1**	1 unit(s)	38,95
62	**1H2T.1**	1 unit(s)	38,95
64	**1H2X.1**	1 unit(s)	38,95

Mixed fabric, 50% cotton, 50% polyester
Internal cotton for pleasant wear comfort, smooth on the outside and resistant. Fabric weight 215 g/m².
Washable at 95 °C and suitable for industrial washing according to ISO 15797.

Men's size	Art. No.	Pack Qty.	€
46	**1H2Y.1**	1 unit(s)	45,55
48	**1H30.1**	1 unit(s)	45,55
50	**1H31.1**	1 unit(s)	45,55
52	**1H32.1**	1 unit(s)	45,55
54	**1H33.1**	1 unit(s)	45,55
56	**1H34.1**	1 unit(s)	45,55
58	**1H35.1**	1 unit(s)	45,55
60	**1H36.1**	1 unit(s)	45,55
62	**1H37.1**	1 unit(s)	45,55
64	**1H38.1**	1 unit(s)	45,55



Men’s lab coat 1310

Bierbaum-Proenen.

Made of **100% cotton** Öko-Tex Standard 100. With concealed buttons, 1 breast pocket, 1 inner pocket and 2 side pockets (including a multi-purpose pocket). Length 96 cm. Fabric weight approx. 230 g/m².

Men’s lab coats

Pic.	Men's size	Art. No.	Pack Qty.	€
(2)	48/50	**PT58.1**	1 unit(s)	56,85
(2)	52/54	**PT59.1**	1 unit(s)	56,85
(2)	56/58	**PT60.1**	1 unit(s)	56,85
(2)	60/62	**PT61.1**	1 unit(s)	56,85



Men’s lab coat 1753

Bierbaum-Proenen.

Slim fit. 100% cotton. Light cotton fabric for pleasant wear comfort. Tissue weight: 205 g/m². Öko-Tex Standard 100.

- With lapel
- Long sleeve
- Concealed stud fastenings
- One breast pocket, two side pockets
- Silver inner collar for protection against discolouration
- Arm lift system for greater freedom of movement
- Back with slit
- Length 100 cm
- Washable at 95 °C

Men's size	Art. No.	Pack Qty.	€
44	**1AA6.1**	1 unit(s)	37,00
46	**1AA7.1**	1 unit(s)	37,00
48	**1AA8.1**	1 unit(s)	37,00
50	**1AA9.1**	1 unit(s)	37,00
52	**1AAA.1**	1 unit(s)	37,00
54	**1AAC.1**	1 unit(s)	37,00
56	**1AAE.1**	1 unit(s)	37,00
58	**1AAH.1**	1 unit(s)	37,00
60	**1AAK.1**	1 unit(s)	37,00
62	**1AAL.1**	1 unit(s)	37,00
64	**1AAN.1**	1 unit(s)	37,00



Ladies’ apron

Bierbaum-Proenen.

½ arm. With V-neck, without collar or back support. With snap fasteners. 1 breast pocket and 2 side pockets. Length 75 cm.
Made of **65% polyester, 35% cotton**, Öko-Tex Standard 100. Fabric weight approx. 215 g/m². Suitable for industrial washing, boil-washable and easy care.

Women's size	Art. No.	Pack Qty.	€
34	**PE14.1**	1 unit(s)	32,45
36	**PE15.1**	1 unit(s)	32,45
38	**PE16.1**	1 unit(s)	32,45
40	**PE17.1**	1 unit(s)	32,45
42	**PE18.1**	1 unit(s)	32,45
44	**PE19.1**	1 unit(s)	32,45
46	**PE20.1**	1 unit(s)	32,45
48	**PE21.1**	1 unit(s)	32,45
50	**PE22.1**	1 unit(s)	32,45
52	**PE23.1**	1 unit(s)	32,45
54	**PE24.1**	1 unit(s)	32,45



Men’s and women’s trousers

Bierbaum-Proenen.

Comfortable fit: Elasticised waistband with integrated drawstring and 2 side pockets. Inside length 82 cm.
Hard-wearing mixed fabric: 50% cotton, 50% polyester. Soft on the inside, smooth on the outside and resistant. Fabric weight approx. 215 g/m². **Suitable for industrial washing** at up to 95 °C.

Size	Art. No.	Pack Qty.	€
XS	**EE24.1**	1 unit(s)	34,90
S	**EE25.1**	1 unit(s)	34,90
M	**EE26.1**	1 unit(s)	34,90
L	**EE27.1**	1 unit(s)	34,90
XL	**EE28.1**	1 unit(s)	34,90
XXL	**EE29.1**	1 unit(s)	34,90

Protective suits, gowns, aprons



Disposable protective gown for visitors BeeSana®

Meditrade. Material: PP Non-woven.

Protects both personnel and visitors against germs.

Medical device class I MDD

- Gown with back closure
- With ties at the back of the neck and waist
- Elasticated cuffs
- Lightweight, breathable and moisture-repellent
- One size fits all

Colour	Length (cm)	Tissue weight (g/m²)	Art. No.	Pack Qty.	€
white	140	23	**CAN0.1**	10 unit(s)	10,25
green	140	23	**CAN1.1**	10 unit(s)	8,10



Disposable protective gown for visitors MaiMed Coat Protect

MaiMed. Material: PP Non-woven.

Acc. to (EU)2017/745.

Protection against germs and dirt. Suitable for personnel and visitors.

Medical device class I

- Gown with back closure
- With ties at the neck and waist
- Elasticated cuffs (latex-free)
- Lightweight and breathable
- Moisture repellent
- One size (120 x 140 cm)

Colour	Length (cm)	Tissue weight (g/m²)	Art. No.	Pack Qty.	€
green	140	21	**1CYX.1**	10 unit(s)	11,85



NEW / +

Cat. III



Overalls TYCHEM® 6000 F

DuPont Personal Protection. Material: TYCHEM® 6000 F (PE spun-bond), film-laminated.

Type 3, 4, 5 and 6 according to the European standards for chemical protection clothing.

- 100% particle-tight
- Lint-free, wear- and tear-resistant
- Antistatic acc. to EN 1149-1
- With hood and elastic at face, arms, legs and waist
- Taped double zip cover
- With special chin flap for optimal sealing of respiratory protection masks
- 100% tight seams

Protection against many organic chemicals and concentrated inorganic acids, bases and saline solutions. Fabric weight 120 g/m². Material thickness 206 µm.

Applications:

- Handling hazardous solid, liquid or gaseous substances
- Decontamination work
- Disposal of hazardous chemicals
- Working with pressurised hazardous substances
- Inspection and securing of accident sites in the event of leakages of unknown substances

Grey

Size	Body size (cm)	Colour	Art. No.	Pack Qty.	€
S	162-170	grey	**1HEX.1**	1 unit(s)	48,75
M	168–176	grey	**1HEY.1**	1 unit(s)	48,75
L	174–182	grey	**1HH0.1**	1 unit(s)	48,75
XL	180–188	grey	**1HH1.1**	1 unit(s)	48,75
XXL	186–194	grey	**1HH2.1**	1 unit(s)	48,75
XXXL	186-194	grey	**1HH3.1**	1 unit(s)	48,75

Orange

Size	Body size (cm)	Colour	Art. No.	Pack Qty.	€
M	168–176	orange	**AK33.1**	1 unit(s)	60,10
L	174–182	orange	**AK34.1**	1 unit(s)	60,10
XL	180–188	orange	**AK35.1**	1 unit(s)	60,10
XXL	186–194	orange	**AK36.1**	1 unit(s)	60,10

Protective suits, gowns, aprons



NEW / +

Cat. III



Overalls TYCHEM® 2000 C

DuPont Personal Protection. Material: TYCHEM® 2000 C (PE spunbond), Coated.

Type 3, 4, 5 and 6 according to the European standards for chemical protection clothing.

- 100% particle-tight
- Lint-free, wear- and tear-resistant
- Antistatic acc. to EN 1149-1
- With hood and elastic at face, arms, legs and waist
- Taped double zip cover
- With special chin flap for optimal sealing of respiratory protection masks
- 100% tight seams

Protection against many concentrated inorganic acids and bases, and saline solutions. Fabric weight 83.2 g/m². Material thickness 183 µm.

Applications:

- Handling powdery hazardous substances
- Working with inorganic acids and bases
- Protection against radioactive particles
- Handling blood (with blood-borne viruses such as hepatitis and HIV)
- Handling grains and plants by spraying pressurised agrochemicals

Size	Body size (cm)	Colour	Art. No.	Pack Qty.	€
M	168–176	yellow	**AK28.1**	1 unit(s)	41,50
L	174–182	yellow	**AK29.1**	1 unit(s)	41,50
XL	180–188	yellow	**AK30.1**	1 unit(s)	41,50
XXL	186–194	yellow	**AK31.1**	1 unit(s)	41,50
XXXL	186-194	yellow	**1HH9.1**	1 unit(s)	42,30



NEW / +

Cat. III



Overalls TYVEK® 500 Xpert

DuPont Personal Protection. Material: TYVEK® 500 (PE spunbond).

Type 5 and 6 acc. to the European standards for chemical protection clothing. Special PE spunbond with excellent wearing comfort. Overalls with hood, and elastic at face, arm, leg and waist, zip cover.

- Lint-free, suitable for clean-room classes ISO 7/8 (C/D acc. to GMP)
- Wear- and tear-resistant
- Lightweight and flexible
- Excellent protection against chemical splashes, aerosols and particles (>1 µm)
- Weight approx. 41 g/m², thickness 130 µm
- Antistatic acc. to EN 1149-1

Applications:

- Handling solid hazardous substances
- Laboratory work
- Food industry
- Pharmaceutical industry
- Agriculture
- Police investigations
- Decontamination work
- Pest and weed control
- Agrochemicals
- Clean-room
- Nuclear power plants

Size	Body size (cm)	Colour	Thickness (µm)	Art. No.	Pack Qty.	€
S	162–170	white	130	**AK17.1**	1 unit(s)	16,05
M	168–176	white	130	**AK18.1**	1 unit(s)	16,05
L	174–182	white	130	**AK19.1**	1 unit(s)	16,05
XL	180–188	white	130	**AK20.1**	1 unit(s)	16,05
XXL	186–194	white	130	**AK21.1**	1 unit(s)	16,05
XXXL	186–194	white	130	**1HHA.1**	1 unit(s)	16,05

EcoPack

Size	Body size (cm)	Colour	Thickness (µm)	Art. No.	Pack Qty.	€
M	168–176	white	130	**1HHC.1**	25 unit(s)	295,65
L	174–182	white	130	**1HHE.1**	25 unit(s)	295,65
XL	180–188	white	130	**1HHH.1**	25 unit(s)	295,65
XXL	186–194	white	130	**1HHK.1**	25 unit(s)	295,65

Protective suits, gowns, aprons



Cat. III



Overalls TYVEK® 600 Plus

DuPont Personal Protection. Material: TYVEK® 600 (PE spunbond).

Type 4, 5 and 6 according to the European standards for chemical protection clothing. With additional adhesive closure on the zip cover. With special chin flap for optimal sealing of respiratory protection masks. 100 % tight seams.

- Lint-free, suitable for clean-room classes ISO 7/8 (C/D acc. to GMP)
- Wear- and tear-resistant
- Lightweight and flexible
- Excellent protection against chemical splashes, aerosols and particles (>1 µm)
- Weight approx. 41 g/m², thickness 130 µm
- Antistatic acc. to EN 1149-1

For all applications that require increased protection from tight seams.

Size	Body size (cm)	Colour	Art. No.	Pack Qty.	€
M	168–170	white	**AK23.1**	1 unit(s)	16,25
L	174–182	white	**AK24.1**	1 unit(s)	16,25
XL	180–188	white	**AK25.1**	1 unit(s)	16,25
XXL	186–194	white	**AK26.1**	1 unit(s)	19,90



Cat. III



Protective overall Decontex® CONCEPT

Kind Arbeitssicherheit. Material: PVC Special.

Type 4. Acc. to EN 14605 (chemical-resistant). Antistatic acc. to EN 1149-1. Flame-retardant acc. to EN ISO 14116 (Index 1). Made of elastomerised special PVC. Lightweight, flexible, comfortable. Washable at 40 °C. Seams bonded to make it waterproof. Integrated hood, front zip with Velcro cover and protective bib, sleeve ends with inner safety fasteners, leg ends with Velcro straps.

Size	Art. No.	Pack Qty.	€
M (50/52)	**P787.1**	1 unit(s)	188,15
L (54/56)	**P788.1**	1 unit(s)	188,15
XL (58/60)	**P789.1**	1 unit(s)	196,75
XXL (62/64)	**P790.1**	1 unit(s)	204,25

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Protective suits, gowns, aprons



Cat. III

Overalls 3M™

3M.

Type 5/6, protection against non-hazardous dusts and limited spray-tightness. Made of soft spunbond polypropylene and a polyethylene film laminate.

- Antistatic on both sides acc. to EN 1149
- Elasticated at hips and ankles for comfort fit and improved mobility
- Two-way zip with taped flap
- Low-lint
- Colour: white

Series 4545
Knitted cuffs on the arms for improved comfort. Three-part hood for improved fit. Reinforced crotch.
Applications: Insulating work, cement production, grinding/sanding and polishing, light industrial cleaning, machine maintenance, work in the pharmaceutical industry.

Size	Manufacturer no.	Colour	Art. No.	Pack Qty.	€
XXXL	45453XL	white	**HAN1.1**	1 unit(s)	20,05
M	4545M	white	**HAL7.1**	1 unit(s)	18,05
L	4545L	white	**HAL8.1**	1 unit(s)	18,05
XL	4545XL	white	**HAL9.1**	1 unit(s)	18,05
XXL	45452XL	white	**HAN0.1**	1 unit(s)	18,05

Series 4510
Elasticated inserts at hips, arms and wrists, 2-ply hood.
Applications: Simple activities in industrial firms and craft enterprises, simple industrial cleaning, machine maintenance and inspection work.

Size	Manufacturer no.	Colour	Art. No.	Pack Qty.	€
S	4510S	white	**HAL0.1**	1 unit(s)	12,05
M	4510M	white	**HAL1.1**	1 unit(s)	12,05
L	4510L	white	**HAL2.1**	1 unit(s)	12,05
XL	4510XL	white	**HAL3.1**	1 unit(s)	12,05
XXL	45102XL	white	**HAL4.1**	1 unit(s)	12,05
XXXL	45103XL	white	**HAL5.1**	1 unit(s)	13,80



Cat. III

Overall

UVEX.

- Hood is highly compatible with protective face masks
- Middle finger loops prevent the sleeves from riding up, e.g. during overhead work
- Silicone-free
- Antistatic acc. to EN 1149-1
- **Suitable for clean rooms**
- For single use

(1) Uvex 9877 type 5/6, white/lime
Breathable PE laminate with air-permeable SMS back for excellent moisture management and breathability. With bound seams for effective protection against chemical splashes and particles.

Applications:
- Working with powdery chemicals
- Painting and lacquering
- Glass fibre production and processing
- General maintenance work

Size	Colour	Art. No.	Pack Qty.	€
M	white, lime	**PP20.1**	1 unit(s)	14,75
L	white, lime	**PP21.1**	1 unit(s)	14,75
XL	white, lime	**PP22.1**	1 unit(s)	14,75
XXL	white, lime	**PP23.1**	1 unit(s)	14,75

(2) Uvex 8959 type 4B, 5, 6, white/orange
Acc. to EN 14126 protection against infectious agents.
Made of breathable, lightweight and flexible material for wear comfort. Self-adhesive zip cover and bound seams provide protection against penetration of liquid aerosols and particles. Tested for **protection against pesticides** according to DIN 32781.

Applications:
- Handling of low-toxic inorganic chemicals
- Industrial cleaning work using low pressures (spray)
- Shipbuilding and automobile manufacturing
- Handling of paints and lacquers
- Agriculture and horticulture
- Electronics

Size	Colour	Art. No.	Pack Qty.	€
S	white, orange	**PP25.1**	1 unit(s)	15,30
M	white, orange	**PP26.1**	1 unit(s)	15,30
L	white, orange	**PP27.1**	1 unit(s)	15,30
XL	white, orange	**PP28.1**	1 unit(s)	15,30
XXL	white, orange	**PP29.1**	1 unit(s)	15,30
XXXL	white, orange	**PP30.1**	1 unit(s)	15,30

Protective suits, gowns, aprons



Cat. III

Overalls Kleenguard® A50

Kimberly-Clark.

Type 5 and 6. Protection against chemical splashes and particles.

- Low-lint with internal seams to protect against contamination from fibres
- Silicone-free, ideal for paint spraying operations
- Two-way zip for easier access to the clothing underneath
- Breathable material for reduced thermal load
- Special hood for use as a mask and good freedom of movement
- Robust triple overlock seams with high tear resistance
- Antistatic acc. to EN 1149-1

Applications: Chemical, pharmaceutical and processing industry, treatment and disposal, electronics, agriculture and paint spraying operations.

Size	Art. No.	Pack Qty.	€
M (46–50)	**0455.1**	1 unit(s)	25,75
L (50–54)	**0497.1**	1 unit(s)	25,75
XL (54–58)	**0498.1**	1 unit(s)	25,75



Protective gowns KIMTECH® SCIENCE® A7 Lab Coat

Kimberly-Clark.

Acc. to EN 13034 type PB [6], part-body protective clothing with limited splash protection. Antistatic acc. to EN 1149-1.
Made from breathable, textile-like SMS material. Triple-stitched seams. With attached pockets and press studs. Durable and tear-resistant, comfortable to wear. Silicone free.

Size	Art. No.	Pack Qty.	€
S	**2144.1**	5 unit(s)	94,55
M	**2145.1**	5 unit(s)	94,55
L	**2146.1**	5 unit(s)	94,55
XL	**2147.1**	5 unit(s)	94,55



Protective gown MaiMed Coat ViruGuard

MaiMed. Material: PP, PE Non-woven fabric.

Acc. to (EU)2017/745.
Gown with back closure made of non-woven polypropylene with polyethylene coating in the front and arm area. For single use. Suitable for personnel in fields of applications with high safety requirements to protect against germs.

- With ties at the neck and waist
- Small cotton cuffs (latex-free)
- Highly liquid and particle repellent
- Breathable back area
- One size (140 x 140 cm)

Medical device class I

Colour	Length (cm)	Tissue weight (g/m²)	Art. No.	Pack Qty.	€
yellow	140	30	**1CYT.1**	10 unit(s)	14,20



Disposable gowns made of PP

GM Equipement. Material: PP Non-woven.

40 g/m². With snap fasteners. Individually packed.

With pockets
Two pockets, straight cuffs

Size	Colour	Art. No.	Pack Qty.	€
L	white	**KE77.1**	10 unit(s)	20,70
XL	white	**KE78.1**	10 unit(s)	20,70
XXL	white	**KE79.1**	10 unit(s)	20,70

Without pockets
Elasticated cuffs

Size	Colour	Art. No.	Pack Qty.	€
L	white	**KE80.1**	10 unit(s)	20,90
XL	white	**KE81.1**	10 unit(s)	20,90
XXL	white	**KE82.1**	10 unit(s)	20,90

Protective suits, gowns, aprons

Disposable gowns made of non-woven PP Light

Franz Mensch. Material: PP Non-woven.

- With press studs and stand-up collar
- Without pockets, straight cuffs
- Lightweight, breathable and durable
- Very comfortable to wear
- Ideally suited for visitors



Cat. I



25 g/m², in ten-pack

Size	Colour	Length (cm)	Scope	Tissue weight (g/m²)	Art. No.	Pack Qty.	€
L	white	105	125 cm	25	**1E06.1**	10 unit(s)	18,85
XL	white	110	130 cm	25	**1E07.1**	10 unit(s)	18,85
XXL	white	110	140 cm	25	**1E08.1**	10 unit(s)	18,85

30 g/m², individually packed

Size	Colour	Length (cm)	Scope	Tissue weight (g/m²)	Pack.	Art. No.	Pack Qty.	€
L	white	105	125 cm	30	1	**1E09.2**	1 unit(s)	2,70
L	white	105	125 cm	30	10 x 1	**1E09.1**	10 unit(s)	21,00
XL	white	110	130 cm	30	1	**1E0A.2**	1 unit(s)	2,55
XL	white	110	130 cm	30	10 x 1	**1E0A.1**	10 unit(s)	19,55
XXL	white	110	140 cm	30	1	**1E0C.2**	1 unit(s)	2,55
XXL	white	110	140 cm	30	10 x 1	**1E0C.1**	10 unit(s)	19,55

Protective gown BeeSana® PP/PE, 26 g

Meditrade. Material: PP, PE.

Acc. to 93/42/EEC, medical product class I. Tested according to DIN EN ISO 14126 as protective clothing against infectious agents.

- Waterproof gown with back closure for single use
- Non-woven PP with partial PE lamination in the front and arm area
- With ties at the neck and waist
- Cotton jersey cuffs on the sleeves
- One size (136 x 136 cm)



NEW / +

Suitable for personnel in fields of applications with high safety requirements to protect against germs.

Medical device class I MDD

Colour	Length (cm)	Tissue weight (g/m²)	Art. No.	Pack Qty.	€
yellow	136	26	**1EPT.1**	10 unit(s)	10,70

Protective gowns BeeSana®

Meditrade. Material: PP - SMS (spunbond meltblown spunbond).

Acc. to 93/42/EEC, medical product class I. Disposable protective gown made of three-layer PP SMS (spunbond meltblown spunbond), 40 g/m². With jersey cuffs on the sleeves, ties at the back of the neck and waist. Colour blue, length 150 cm, size XL/XXL. Non-sterile.
For protection against liquids and particles. Breathable and comfortable, low-lint, tear- and pierce-resistant. Ideal for use in industry, laboratories, electronics and pharmaceuticals.



Medical device class I MDD

Size	Colour	Length (cm)	Tissue weight (g/m²)	Art. No.	Pack Qty.	€
XL/XXL	blue	150	40	**CAL9.1**	10 unit(s)	17,10

Protective suits, gowns, aprons



NEW / +

Cat. III



Lab coat TYVEK® 500

DuPont Personal Protection. Material: TYVEK® 500 PE spunbond.

Partial body protection, type PB [6-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on both sides. The TYVEK® material is permeable to air and water vapour and repellent to water-based liquids and spray mists. It provides an excellent barrier to particles and fibres with a size of >1 µm. Completely lint-free, without the addition of silicone.
With stand-up collar and internal seams.
Applications: Laboratory, handling objects in pharmaceuticals, chemical protection, disposal of lead and asbestos, general maintenance work, spray painting, general cleaning work, and much more.

PL30 model with press studs and pockets
With five press studs and three pockets, straight sleeve ends.

Size	Colour	Art. No.	Pack Qty.	€
M	white	**2142.2**	10 unit(s)	77,15
L	white	**NK08.1**	10 unit(s)	77,15
XL	white	**2143.2**	10 unit(s)	77,15
XXL	white	**NK09.1**	10 unit(s)	77,15

PL30NP model with press studs without pockets
With five press studs, straight sleeve ends.

Size	Colour	Art. No.	Pack Qty.	€
M	white	**1HXX.1**	50 unit(s)	319,30
L	white	**1HXY.1**	50 unit(s)	319,30
XL	white	**1HY0.1**	50 unit(s)	319,30
XXL	white	**1HY1.1**	50 unit(s)	319,30

PL309 model with zip and pockets
With zip, two pockets and elasticated cuffs at the sleeve ends.

Size	Colour	Art. No.	Pack Qty.	€
S	white	**NK10.1**	10 unit(s)	81,75
M	white	**NK11.1**	10 unit(s)	81,75
L	white	**NK12.1**	10 unit(s)	81,75
XL	white	**NK13.1**	10 unit(s)	81,75
XXL	white	**NK14.1**	10 unit(s)	81,75

PL309NP model with zip without pockets
With zip, elasticated cuffs at the sleeve ends.

Size	Colour	Art. No.	Pack Qty.	€
S	white	**1HY2.1**	50 unit(s)	339,70
M	white	**1HY3.1**	50 unit(s)	339,70
L	white	**1HY4.1**	50 unit(s)	339,70
XL	white	**1HY5.1**	50 unit(s)	339,70
XXL	white	**1HY6.1**	50 unit(s)	339,70



Disposable apron secutex® pro

ZVG. Material: PP with PE coating.

Water-repellent, limited spray-tightness. Antistatic, lint-free, tear-proof. Skin-friendly.

Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
98	96.5	**A246.1**	10 unit(s)	30,35



Cat. III



Disposable apron TYVEK® 500 PA30L0 model

DuPont Personal Protection. Material: TYVEK® 500 PE spunbond.

Partial body protection, type PB [6-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on both sides. Lint-free. Temperature stable up to max. 134 °C.

One size, colour white.

Applications: Handling pharmaceuticals, chemical protection, disposal of lead and asbestos, general maintenance work, spray painting, general cleaning work, and much more.

Colour	Length (cm)	Art. No.	Pack Qty.	€
white	108	**HY31.1**	25 unit(s)	96,45



Disposable apron made of PE in the dispenser box

BodyProducts.

Liquid-tight apron made of polyethylene (PE), surface hammered. With head strap for wearing around the neck and two straps for binding.

Colour	Thickness (µm)	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
white	16	80	125	**1CYP.1**	100 unit(s)	13,45

Protective suits, gowns, aprons



Laboratory and work apron made of PU

WIROS. Material: PU.

Apron and straps made of polyurethane.

- Durable and reusable
- Water-repellent
- Smooth, washable surface
- Metal lugs at connection points
- Strap length individually adjustable
- Adjustable click lock at straps
- Material thickness approx. 0.30 mm

Colour	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
blue	90	110	**HNE2.1**	1 unit(s)	20,50
white	90	130	**HNE3.1**	1 unit(s)	19,35
blue	90	130	**HNE4.1**	1 unit(s)	19,35



Hygiene work apron

WIROS. Material: Polyester, Cotton with PU coating.

Pinafore made of polyester/cotton blended fabric with polyurethane coating.

- Durable and reusable
- Water-resistant and liquid-resistant
- Smooth, washable surface
- Neck straps and ties in the waist made of PU
- Hygienic because washable up to 90 °C
- Fabric weight approx. 260 g/m²

Colour	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
red/white	75	110	**HNC9.1**	1 unit(s)	24,80
dark blue/white	75	110	**HNE0.1**	1 unit(s)	24,80



Laboratory and work apron made of PVC

Ansell. Material: PVC, flexible and resistant.

Acc. to EN 340 and EN 14605:2005. With neck and waist ties. Made of flexible and resistant PVC. Very resistant to a number of chemicals, fats and oils. High abrasion resistance. Welded-in PVC eyelets extend the usable life. Only made of FDA-approved materials and therefore suitable for use in the food industry. Waterproof.

Colour	Thickness (µm)	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
green	508	84	112	**L073.1**	3 unit(s)	35,45



Cat. III





Chemical protection apron

DuPont Personal Protection.

Partial body protection, type PB [3-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on the inside.

With neck and waist ties.
One size, width 70 cm, length 108 cm.

TYCHEM® 2000 C
Material: TYCHEM® 2000 C (PE spunbond), coated. Protection against many inorganic acids, bases and saline solutions.

Colour	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
yellow	70	108	**NK15.1**	5 unit(s)	36,15

TYCHEM® 6000 F
Material: TYCHEM® 6000 F (PE spunbond), film-laminated. Protection against many organic chemicals and many inorganic acids, bases and saline solutions.

Colour	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
grey	70	108	**NK16.1**	5 unit(s)	47,95

Protective suits, gowns, aprons



NEW / +

Cat. III

Chemical protection apron with sleeves

DuPont Personal Protection.

Partial body protection, type PB [3-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on the inside.

Gown with closure at the back. Protection of the front of the body and arms. Knitted cuffs with double sleeve system, stand-up collar. Tight, overtaped seams. Calf-length.

Protection against: dust and powdery hazardous substances, inorganic acids and bases, splashes of numerous organic chemicals, aerosols and spray mists of many mixtures, blood, or viruses transmitted through blood.

TYCHEM® 2000 C
Material: TYCHEM® 2000 C (PE spunbond), Coated.

Size	Body size (cm)	Colour	Art. No.	Pack Qty.	€
S/M	162–176	yellow	**K179.2**	4 unit(s)	94,50
L/XXL	176–194	yellow	**HY32.1**	4 unit(s)	94,50

TYCHEM® 6000 F
Material: TYCHEM® 6000 F (PE spunbond), Film-laminated.

Size	Body size (cm)	Colour	Art. No.	Pack Qty.	€
S/M	162–176	grey	**1HY8.1**	1 unit(s)	36,30
L/XXL	176–194	grey	**1HY9.1**	1 unit(s)	36,30



X-ray protective apron

Dr. Goos Suprema.

Acc. to DIN 6813 and the RöV (German X-Ray Ordinance). Lead value 0.5 mm Pb. Very lightweight apron with Velcro fastener and elastic. Fastens crosswise on the hip. The vinyl–exterior can be cleaned with a mild detergent at max 30 °C. Colour: royal blue.

Size	Colour	Length (cm)	Art. No.	Pack Qty.	€
S	royal blue	90	**X423.1**	1 unit(s)	503,45
M	royal blue	100	**X424.1**	1 unit(s)	556,50



Heat protection apron

JUTEC.

Acc. to DIN EN ISO 11612 (clothing for protection against heat and flames). Made of aluminised aramid fabric. For simple protection against radiated heat. Protection up to 1000 °C radiated heat.
Applications: extreme radiant heat, welding work, glass industry, etc.

- Flexible, lightweight, soft
- With adjustable neckband
- Dimensions: approx. L 1000 x W 800 mm

Colour	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
silver	80	100	**APX5.1**	1 unit(s)	154,75



Cold protection apron Cryogenic apron

Tempshield. Material: Nylon, Polyolefin/polyester lining.

Acc. to EN 340, for work in deep-freeze areas and **with liquid nitrogen in the gas phase** – also in clean rooms.
Can be worn on both sides, made of water-repellent nylon fabric with polyolefin/polyester lining. Temperature stable from -160 to +150 °C. Largely chemical-resistant. With adjustable straps for the waist and neck. Antistatic and washable.

Colour	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
blue	61	89	**0525.1**	1 unit(s)	261,25
blue	61	107	**0526.1**	1 unit(s)	274,15



Apron for protection against piercing niroflex

Friedrich Muensch. Material: Stainless steel, 100% rust-free.

Metal mesh apron, according to DIN ISO 13998:2003 (performance level 2).

- The perfect combination of safety and functionality
- Wide TPU-X straps ensure ideal weight distribution
- Best fit and extremely comfortable to wear thanks to the wide straps
- Easy to clean without leaving residue
- Metal mesh types with ring outer Ø of 4.2 or 7.0 mm
- Type 4.2 is recommended when extremely sharp knives are used.
- Aprons in metal mesh type 7.0 can be detected

Version	Width (cm)	Length (cm)	Weight (g)	Art. No.	Pack Qty.	€
Metal mesh 4.2 x 0.6 mm	45	75	1200	**KCH5.1**	1 unit(s)	223,60
Metal mesh 7.0 x 0.7 mm	45	75	830	**KCH3.1**	1 unit(s)	141,90
Metal mesh 7.0 x 0.7 mm	55	80	1000	**KCH4.1**	1 unit(s)	170,95

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NEW / +

Cat. III



Hood TYVEK® 500 PH30 model

DuPont Personal Protection. Material: TYVEK® 500 PE spunbond.

Partial body protection, type PB [6-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on both sides.

Internal seams. Elasticated at the neck and around the face opening. Large, extended collar. One size, colour white. Lint-free. Barrier to >1 µm particles and fibres.

Applications: Handling pharmaceuticals, chemical protection, disposal of lead and asbestos, general maintenance work, spray painting, general cleaning work, and much more.

Colour	Art. No.	Pack Qty.	€
white	**1HXK.1**	25 unit(s)	45,20



Surgeon hood made of non-woven PP

Franz Mensch. Material: PP Non-woven fabric.

Disposable cover with two latex-free elastic bands for securing behind the neck. One size.
Applications: hospitals and clinics, laboratories and the food industry.

Colour	Art. No.	Pack Qty.	€
white	**XL13.1**	100 unit(s)	28,50

Protective covers, sleeves



Disposable cover

Franz Mensch. Material: PP Non-woven fabric.

Applications: Hospitals and clinics, laboratories and the food industry.

(1) Detectable clip-on cover
Acc. to 2002/72/EC. Made of non-woven PP with integral metal strips. With latex-free elastic band. Size Ø 50 cm.

Ø (cm)	Colour	Art. No.	Pack Qty.	€
50	white	**XL10.1**	100 unit(s)	13,45
50	blue	**XL11.1**	100 unit(s)	14,55

(2) With screen
Made of non-woven PP, lightweight, breathable. With latex-free elastic band. Size Ø 48 mm.

Ø (cm)	Colour	Art. No.	Pack Qty.	€
48	white	**XL12.1**	100 unit(s)	13,90



Hairnet SUAVEL® Astrid

Meditrade. Material: PP Non-woven fabric.

Disposable covers made of extra-soft breathable non-woven polypropylene. With latex stretch band all the way round. Comfortable to wear and skin-friendly.

Medical device class I MDD

Ø (cm)	Colour	Art. No.	Pack Qty.	€
53	white	**EHY2.1**	100 unit(s)	11,80
53	blue	**EHY3.1**	100 unit(s)	11,80
53	green	**EHY4.1**	100 unit(s)	11,80
60	white	**EHY5.1**	100 unit(s)	11,80
60	green	**EHY6.1**	100 unit(s)	11,80



Cat. I

Disposable cover

Franz Mensch. Material: PP Non-woven fabric.

Lightweight. Protect the hair against dirt and dust, but also the product against contamination.
Applications: food industry, pharmaceuticals, electrical industry, etc.

(1) Clip-on cover non-woven PP
Acc. to HACCP. Lightweight and breathable. Latex-free elastic bands. Size Ø 50 cm.

Ø (cm)	Colour	Art. No.	Pack Qty.	€
50	white	**2089.1**	100 unit(s)	10,25

(2) Hairnet non-woven PP
Very lightweight. Latex-free all-round elastic. Size Ø 53 cm.

Ø (cm)	Colour	Art. No.	Pack Qty.	€
53	white	**L092.1**	100 unit(s)	13,35



Cat. I

Beard cover

Franz Mensch. Material: PP Non-woven fabric.

Made of polypropylene non-woven material, highly breathable and lightweight. With elastic band, latex-free. For single use.
Areas of application: food production, hospitals, biochemistry and in sensitive production environments.

Colour	Art. No.	Pack Qty.	€
white	**EHP3.1**	100 unit(s)	9,25

Protective covers, sleeves



Cat. I

Sleeves made of polyethylene

Franz Mensch. Material: PE.

Thickness 20 µm, length 40 cm. Elasticated ends. Impermeable to moisture, durable. Safe for use with foodstuffs.

Colour	Thickness (µm)	Length (cm)	Pack.	Art. No.	Pack Qty.	€
white, translucent	20	40	5 x 100	**KP24.1**	500 unit(s)	38,20



Sleeves made of secutex®

ZVG. Material: PP with PE coating.

Elasticated. Antistatic, lint-free, tear-proof, water-repellent. For protection against heavy contamination.

Version	Colour	Length (cm)	Art. No.	Pack Qty.	€
Elbow-length	white	38	**8193.1**	10 pair	15,00
Shoulder Long	white	58	**8202.2**	10 pair	19,90



NEW / +

Cat. III

Sleeves TYVEK® 500 PS32LA model

DuPont Personal Protection. Material: TYVEK® 500.

Partial body protection, type PB [6-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on both sides.

Internal seams. Upper arm seam in blue for better identification. Adjustable on the upper arm. One size, length 50 cm, colour white. Lint-free. Barrier to >1 µm particles and fibres.

Applications: Handling pharmaceuticals, chemical protection, disposal of lead and asbestos, general maintenance work, spray painting, general cleaning work, and much more.

Version	Colour	Length (cm)	Art. No.	Pack Qty.	€
One size	white	50	**1HXE.1**	20 unit(s)	22,95



Cat. I

Sleeves breathable

Franz Mensch.

For the food industry. Colour: White. Length 45 cm.

(1) Made of non-woven PP
Made of non-woven polypropylene, 25 g/m². Elastic on both ends. Breathable and moisture-repellent.

Colour	Length (cm)	Pack.	Art. No.	Pack Qty.	€
white	45	5x100	**LH96.1**	500 unit(s)	81,70

(2) Made of non-woven SMS
Non-woven polypropylene, inside coated with polyethylene, 55 g/m². Elastic at upper end, soft knitted cuff at lower end. Breathable and impermeable to moisture.

Colour	Length (cm)	Art. No.	Pack Qty.	€
white	45	**LH97.1**	100 unit(s)	47,85

Protective covers, sleeves



Cat. III

Sleeves TYCHEM®

DuPont Personal Protection.

Partial body protection, type PB [3-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on the inside.

Wide elasticated wrist band and upper arm for comfortable and secure fitting. Tight, overtaped seams. Length 50 cm.

2000 C
Material: TYCHEM® 2000 C (PE spunbond), Coated. Protection against many organic chemicals and inorganic acids, bases and saline solutions.

Colour	Length (cm)	Art. No.	Pack Qty.	€
yellow	50	**NK18.1**	10 unit(s)	27,15

6000 F
Material: TYCHEM® 6000 F (PE spunbond), Film-laminated. Protection against many organic chemicals and many inorganic acids, bases and saline solutions.

Colour	Length (cm)	Art. No.	Pack Qty.	€
grey	50	**NK19.1**	10 unit(s)	40,30



Cat. II

Protective sleeves ArMEX 961

KCL by Honeywell. Material: Para-aramid.

Acc. to EN 388 (1340). With thumb hole for good fit. Protects the forearm **against cuts** and **temperatures up to 100 °C**. Washable.

Length (mm)	Art. No.	Pack Qty.	€
360	**T084.1**	2 unit(s)	35,65
420	**TT10.1**	2 unit(s)	36,30



NEW / +

Cat. III

Overboots

DuPont Personal Protection.

Partial body protection, type PB [3-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on the inside.

High resistance to many concentrated chemicals. Knee-length overboots with anti-slip sole, fixing ties and elastic. Tight, overtaped seams. Double layer sole, partially stitched, splash proof but not completely impervious to fluids.
One size, height 48 cm, fits up to shoe size 45 (UK size 11).

TYCHEM® 2000 C
Material: TYCHEM® 2000 C (PE spunbond), Coated.

Colour	Length (cm)	Art. No.	Pack Qty.	€
yellow	42	**NK17.1**	10 unit(s)	48,00

TYCHEM® 6000 F
Material: TYCHEM® 6000 F (PE spunbond), Film-laminated.

Colour	Length (cm)	Art. No.	Pack Qty.	€
grey	42	**1HYA.1**	10 unit(s)	78,25



Cat. I

Overboots made of PE

Franz Mensch. Material: PE foil, transparent.

Very robust and impermeable to moisture. An integrated elastic ensures a good fit. Suitable for use in the meat and foodstuffs industry and for working in wet conditions. For single use.
Height: 47 cm.

Length (cm)	Art. No.	Pack Qty.	€
38	**NP38.1**	100 unit(s)	34,30

Foot protection



NEW / +

Cat. III

Overboots TYVEK® 500

DuPont Personal Protection. Material: TYVEK® 500 Spunbond.

Partial body protection, category III, type PB [6-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on both sides.

Internal seams. With elastic and fastening straps. Water-repellant, lint-free, antistatic. One size, height 48 cm, colour white.

Applications: handling pharmaceuticals, chemical protection, disposal of lead and asbestos, general maintenance work, spray painting, general cleaning work, and much more.

POBO model

Version	Colour	Length (cm)	Art. No.	Pack Qty.	€
One size	white	42	**2084.2**	20 unit(s)	46,85

POBA model with anti-slip sole

Version	Colour	Length (cm)	Art. No.	Pack Qty.	€
One size	white	42	**1HXT.1**	20 unit(s)	50,60



Overshoes made of secutex®

ZVG. Material: PP with PE coating.

Water-repellent, limited spray-tightness. Specially antistatic, tear-proof, no linting. Skin-friendly.

Colour	Length (cm)	Pack.	Art. No.	Pack Qty.	€
white	39	25 pairs	**A248.1**	1 pack(s)	31,10
white	39	100 pairs	**A248.3**	1 pack(s)	88,80



NEW / +

Cat. III

Overshoes TYVEK® 500

DuPont Personal Protection. Material: TYVEK® 500.

Partial body protection, type PB [6-B], EN 14126 (protective clothing against infective agents), antistatic clothing (EN 1149-1) on both sides.

Internal seams. With elastic and fastening straps. Water-repellant, lint-free, antistatic. One size, colour white.

Applications: Handling pharmaceuticals, chemical protection, disposal of lead and asbestos, general maintenance work, spray painting, general cleaning work, and much more.

POSO model

Version	Colour	Art. No.	Pack Qty.	€
One size	white	**1HXL.1**	400 unit(s)	305,30

POSA model with anti-slip sole

Version	Colour	Art. No.	Pack Qty.	€
Size 36-42	white	**1HXN.1**	200 unit(s)	254,80
Size 42-46	white	**1HXP.1**	200 unit(s)	254,80



Overshoes made of PE film

Material: PE Foil , textured.

Can be worn on either hand. For single use.

Version	Colour	Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
Regular	blue	150	360	**1258.1**	100 unit(s)	10,95
Large	blue	150	410	**PK96.1**	100 unit(s)	7,30



Overshoes non-woven PP with CPE sole

Franz Mensch. Material: PP Non-woven fabric, Outsole made of CPE (chlorinated polyethylene).

The CPE sole is very sturdy, tear-proof and **slip-resistant.** It is impermeable to moisture and therefore provides protection against liquids. Suitable for use in catering and medical environments.

Medical device class I MDD

Colour	Length (cm)	Art. No.	Pack Qty.	€
white, blue	41	**EHE4.1**	50 unit(s)	16,00



Cat. I

Overshoes snti-slip CPE with TPE coating

Franz Mensch. Material: CPE (chlorinated polyethylene).

Firmly welded and extremely hard-wearing TPE coating which makes the overshoes **extremely slip-resistant** and therefore gives the wearer secure footing even on smooth or slippery flooring. Suitable for wearing for extended periods, e.g. in catering or pharmaceutical environments, clinics and large kitchens.

Medical device class I

Colour	Thickness (µm)	Length (cm)	Art. No.	Pack Qty.	€
white	50	41	**EHE5.1**	50 unit(s)	17,10



Cat. I

Overshoes CPE

Franz Mensch. Material: CPE.

For single use. Hygienic prevention of dust and dirt entering sensitive production and work areas. Protection against humidity and wetness. Suitable for personnel and visitors.

Eco

Clipped welding on both sides. Suitable for wearing for short periods and under low stress.

Pic.	Colour	Thickness (µm)	Length (cm)	Art. No.	Pack Qty.	€
(1)	blue	25	41	**1CXH.1**	100 unit(s)	5,20
(2)	green	25	41	**1CXK.1**	100 unit(s)	5,50

Light

Light but nevertheless durable, for light to medium stress. Ideal for visitors.

Pic.	Colour	Thickness (µm)	Length (cm)	Art. No.	Pack Qty.	€
(3)	blue	25	41	**1CXE.1**	100 unit(s)	5,70

Standard

Very strong and durable, waterproof. Also withstands longer periods of wear.

Medical device class I

Pic.	Colour	Thickness (µm)	Length (cm)	Art. No.	Pack Qty.	€
(4)	blue	40	41	**1CXL.1**	100 unit(s)	5,95
(5)	white	40	41	**1CXN.1**	100 unit(s)	8,10

Extra

Extra strong and durable, waterproof. Suitable for wearing over work shoes.

Medical device class I

Pic.	Colour	Thickness (µm)	Length (cm)	Art. No.	Pack Qty.	€
(6)	blue	75	44	**1CXP.1**	50 unit(s)	21,40



Overshoes for Hygomat dispensers

Franz Mensch.

Suitable for use with Hygomat overshoe dispensers.

(1) CPE
Material: CPE. Hard-wearing and impermeable to moisture.

Colour	Thickness (µm)	Length (cm)	Art. No.	Pack Qty.	€
blue	60	47	**XA12.1**	110 unit(s)	30,65

(2) Non-woven PP with CPE sole
Upper made of non-woven fabric, bottom reinforced CPE sole. Robust and tear-resistant. Provides protection against liquids, breathable. Anti-slip, suitable for smooth floors.

Colour	Thickness (µm)	Length (cm)	Art. No.	Pack Qty.	€
white, blue	60	44	**XA13.1**	70 unit(s)	32,80

(3) Non-woven PP with CPE coating
Inside made of non-woven fabric, outside with CPE coating. Anti-slip, suitable for smooth surfaces.

Colour	Length (cm)	Art. No.	Pack Qty.	€
white	44	**XA14.1**	80 unit(s)	33,90

(4) Non-woven PP with slip-resistant sole
Material: PP. Hard wearing and extra slip-resistant.

Colour	Length (cm)	Art. No.	Pack Qty.	€
light blue	46	**XA15.1**	100 unit(s)	34,15

(5) Non-woven PP with antistatic strap
Material: PP Non-woven fabric, Antistatic. Dissipative due to black contact strap, which requires skin contact to earth the body.

Colour	Length (cm)	Art. No.	Pack Qty.	€
blue	46	**XA16.1**	100 unit(s)	96,65

(6) PE-eco
Material: PE Foil. Suitable for wearing for short periods and under low stress.

Colour	Thickness (µm)	Length (cm)	Art. No.	Pack Qty.	€
blue	20	41	**EHE6.1**	110 unit(s)	23,15



Overshoe dispenser Hygomat

Franz Mensch.

- Improves hygiene and cleanliness, reduces germs and infections
- Low-noise mechanical action – no electrical power required
- With different filling capacities and fill level viewing windows
- Reliable and robust
- Easy to operate and refill
- Overshoes adapt automatically to shoes

Applications: for employees of and visitors to laboratories, restaurants and canteens, hospitals, dairies, showrooms, production facilities, clean rooms and protected zones.
Note: The overshoe dispensers can only be fitted with suitable overshoes (Art. No. XA12.1 to XA16.1 and EHE6.1).

(1) Classic

- For product, factory and personal hygiene
- For mobile use
- Capacity: 110 overshoes

W x D x H (mm)	Art. No.	Pack Qty.	€
320 x 700 x 280	**XA09.1**	1 unit(s)	309,60

(2) Comfort

- With greater capacity for large numbers of employees and visitors
- With handle – for even more convenient fitting
- Capacity: 220 overshoes

W x D x H (mm)	Art. No.	Pack Qty.	€
320 x 740 x 900	**XA10.1**	1 unit(s)	476,25

(2) Clean room

- Specially designed for use in clean rooms and the pharmaceutical industry
- With handle – for even more convenient fitting
- Stainless steel rear and side panels for optimal hygiene
- Easy to clean and disinfect
- Two rollers on the back – allow fast and easy moving
- Capacity: Max. 220 overshoes

W x D x H (mm)	Art. No.	Pack Qty.	€
320 x 740 x 900	**XA11.1**	1 unit(s)	582,65



Adhesive mats for fine dust Nomad™

3M.

Multi-layered adhesive mat. White vinyl backing, adhesive surface layers of clear PE. Captures the finest dirt and dust particles on its self-adhesive surface.
1.99 mm thickness. Forty layers per mat.

- Excellent absorption of dirt and fine dust from soles of shoes and wheels
- All layers are numbered and the number of remaining layers is visible
- The mat is suitable for driving over as it frameless and flat. Can also be placed under doors

Suitable for use at cleanroom entrances, in the computer, semiconductor and electronics industry, in laboratories, hospitals and in the pharmaceuticals industry.

L x W (mm)	Art. No.	Pack Qty.	€
900 x 450	**PY75.2**	6 unit(s)	576,20
1150 x 450	**PY76.2**	6 unit(s)	704,15
1150 x 600	**PY77.2**	6 unit(s)	1.012,65
1150 x 900	**PY78.2**	6 unit(s)	1.508,25



Adhesive mats for fine dust SEKUROKA®

ROTH SELECTION.

Multi-layered, blue tacky mats for cleaning the soles of shoes before entering cleanroom areas in the fields of medicine, industry, food processing, electronics, etc.
Self-adhesive backing holds the mat securely in place. Used films can be removed hygienically and quickly. Mat comprises 30 self-adhesive, removable, numbered films.

L x W (cm)	Art. No.	Pack Qty.	€
90 x 45	**NK53.1**	10 unit(s)	125,80
90 x 60	**NK54.1**	10 unit(s)	138,70
114 x 66	**NK55.1**	10 unit(s)	167,70



Dispensers for single-use protective clothing

Suitable for loose gloves, covers, protective sleeves and overshoes. The top cover can be opened for refilling. Wall mounting possible.

(1) Stainless steel multi-dispensers
Made of stainless steel, front panel made of transparent acrylic glass and features a dispensing opening.

W x D x H (mm)	Art. No.	Pack Qty.	€
300 x 200 x 430	**EHE0.1**	1 unit(s)	197,80

(2) Acrylic glass multi-dispensers
Container and top cover made of acrylic glass. Features a dispensing opening.

W x D x H (mm)	Art. No.	Pack Qty.	€
155 x 210 x 395	**EHE1.1**	1 unit(s)	98,80



Dispensers for protective clothing large parts

Material: Stainless steel, rust-free.

Can be cleaned with disinfectant. Its depth makes it particularly well suited to storing large items.

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
Visitor smocks, lab coats and overalls	280 x 300 x 400	**EHE2.1**	1 unit(s)	222,55



Dispensers for protective covers

Material: Stainless steel, rust-free.

Can be cleaned with disinfectant. With wide rubber-clad removal slot. For storing all types of standard covers, caps, hairnets or disposable protectors.

W x D x H (mm)	Art. No.	Pack Qty.	€
300 x 160 x 312	**EHE3.1**	1 unit(s)	193,50

First aid



First-aid cabinet with contents

Söhngen. Material: Steel (sheet metal).

Stove-enamelled. Security lock with 2 keys. With contents acc. to **DIN 13157 or 13169**. With adjustable shelves and foldable storage tray.

Version	W x D x H (mm)	Colour	Art. No.	Pack Qty.	€
acc. to DIN 13157	302 x 140 x 362	white	**K931.1**	1 unit(s)	92,25
acc. to DIN 13169	402 x 112 x 462	white	**K932.1**	1 unit(s)	155,70



First-aid box

Söhngen.

(1) Small acc. to DIN 13157
Material: Plastic highly impact resistant. With contents acc. to DIN 13157.

With hinge and closing latches.

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
260 x 160 x 80	orange	**T295.1**	1 unit(s)	35,60

(2) Large acc. to DIN 13169
Material: Steel (sheet metal). With contents acc. to DIN 13169.

Rounded edges, profile seal. With clamp lock.

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
260 x 250 x 80	white	**K934.1**	1 unit(s)	132,40



Wall mount for first-aid kit

Söhngen.

Pic.	Designation	Colour	Art. No.	Pack Qty.	€
(1)	Small wall mount for first-aid kit	orange	**T296.1**	1 unit(s)	5,40
(2)	Large wall mount for first-aid kit	white	**T297.1**	1 unit(s)	21,45

Refill pack

Söhngen.

First-aid equipment acc. to DIN 13157 for mobile first-aid kit

Designation	Art. No.	Pack Qty.	€
Refill set acc. to DIN 13157	**NH88.1**	1 unit(s)	46,50

First-aid equipment acc. to DIN 13157 for first-aid box and first-aid cabinet

Designation	Art. No.	Pack Qty.	€
Refill set acc. to DIN 13157	**K166.1**	1 unit(s)	28,90

First-aid equipment acc. to DIN 13169 for mobile first-aid kit

Designation	Art. No.	Pack Qty.	€
Refill set acc. to DIN 13169	**NH89.1**	1 unit(s)	93,10

First-aid equipment acc. to DIN 13169 for first-aid box and first-aid cabinet

Designation	Art. No.	Pack Qty.	€
Refill set acc. to DIN 13169	**K165.1**	1 unit(s)	64,30

First-aid equipment acc. to DIN 13157 extended for laboratory and chemical industries

Designation	Art. No.	Pack Qty.	€
Refill set for Art. No. X292.1	**X298.1**	1 unit(s)	126,80

Specially put together first-aid equipment for chemical and general burns

Designation	Art. No.	Pack Qty.	€
Refill set for Art. No. 0515.1	**P098.1**	1 unit(s)	128,20

First-aid equipment acc. to DIN 13157 extended for science and research

Danger H222-H229

Designation	Art. No.	Pack Qty.	€
Refill set for Art. No. X293.1	**X299.1**	1 unit(s)	125,75



First-aid cabinet without contents

GRAMM medical healthcare.

Delivery without first-aid contents. Please order first-aid equipment separately.

(1) Made of plastic

- For first-aid kits & supplies acc. to DIN 13157
- Impact resistant, antistatic
- Subdivided into 10 compartments, with 4 removable compartments
- Security lock with key
- Weight approx. 2.2 kg

W x D x H (mm)	Colour	Art. No.	Pack Qty.	€
330 x 160 x 450	white	**XE80.1**	1 unit(s)	71,90

(2) Made of sheet steel

- **With poison compartment;** extra lock with 2 keys
- For first-aid kits & supplies acc. to DIN 13169
- With solid base, stove-enamelled
- Security lock with 2 keys
- Weight approx. 9.8 kg

W x D x H (mm)	Colour	Art. No.	Pack Qty.	€
455 x 175 x 550	white	**XE81.1**	1 unit(s)	165,55



Refill pack first aid

GRAMM medical healthcare.

Quality first-aid refill packs are in accordance with the latest accident prevention guidelines. All first-aid refill packs come illustrated and labelled in multiple languages for easy use.

Complete first-aid refill pack
Contains complete basic contents acc. to DIN.

Version	Art. No.	Pack Qty.	€
acc. to DIN 13157	**XH21.1**	1 set	22,85
acc. to DIN 13169	**XH22.1**	1 set	39,75

Sterile dressings replacement kit
Sterile. The kit allows all the sterile dressings in a DIN first-aid refill pack to be replaced easily.

Version	Art. No.	Pack Qty.	€
acc. to DIN 13157	**XH23.1**	1 set	10,15
acc. to DIN 13169	**XH24.1**	1 set	13,95
acc. to DIN 13164	**XH25.1**	1 set	8,30



First-aid kit MEZZO FOX®

Erich Voss.

Incl. contents acc. to DIN 13157. Arrangement of the internal compartments can be changed, with wall mount, carry handle.

- Translucent casing provides a good overview
- Robust and durable
- Easy to use: Can be used on the wall or can be removed from the mount for on-site aid
- Can be firmly attached, providing protection against theft
- Highest-quality first-aid equipment, printed in four languages
- Interior compartments can be moved and altered

Version	Art. No.	Pack Qty.	€
First-aid kit	**HA37.1**	1 unit(s)	51,50



First-aid kit mobile

Söhngen. Material: ABS Plastic.

All-round rubber seal protects against dust and splash water. Cases can be sealed. Wall mount with 90° stop lock allows the case to be opened and the contents to be removed when it is mounted on the wall.

Version	L x W x H (mm)	Art. No.	Pack Qty.	€
Contents acc. to DIN 13157	260 x 110 x 170	**0598.1**	1 unit(s)	94,15
Contents acc. to DIN 13169	400 x 150 x 300	**1721.1**	1 unit(s)	213,95



Emergency first-aid bag

Söhngen.

Your own personal first-aid kit for immediate first and self aid. Small and compact and can be taken everywhere – on excursions, on trips, to work or to sports activities. Bag with zip.
Contains: Compress, ready-to-use dressing, bandage, range of plasters, SIRIUS® rescue blanket.

W x L (mm)	Art. No.	Pack Qty.	€
140 x 210	**N531.1**	1 unit(s)	21,30



First-aid kit Special

Söhngen. Material: ABS.

Delivery incl. wall mount with 90° stop lock allows the case to be opened and its contents to be removed when it is mounted on the wall.

Laboratory and chemistry

Basic contents acc. to DIN 13157, extended to the risk assessment for the chemical industry and medical, technical and chemical laboratories.

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
400 x 150 x 300	orange	**X292.1**	1 unit(s)	220,40

Science and research

Basic contents acc. to DIN 13157, extended to the risk assessment for research further education colleges and universities, research institutes and laboratories.

Danger H222-H229

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
400 x 150 x 300	orange	**X293.1**	1 unit(s)	205,35

Chemical and general burns

Specially put together for the chemical and galvanic branches of industry. For chemical and general burns caused by acids, alkalis, vapours and liquids.

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
400 x 150 x 300	orange	**0515.1**	1 unit(s)	332,20



First-aid box motor vehicle

Söhngen. Material: Plastic, highly impact resistant.

Contents are compliant with DIN 13164 requirements. Box made of highly impact-resistant plastic, colour: Black. With hinge and closing latches. Interior with extra tray for a better view of the contents.

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
260 x 160 x 80	black	**KL96.1**	1 unit(s)	25,60



Safety vest

Material: Polyester 100%.

Acc. to EN ISO 20471:2013, class 2 (size S acc. to EN 1150).
With double Velcro fasteners for variable size fitting.
Use: For improved recognition of persons in traffic and handling zones, or as equipment for company vehicles.

Two reflective strips

Size	Colour	Art. No.	Pack Qty.	€
M–XL	orange	**TP39.1**	5 unit(s)	25,60
M–XL	yellow	**TP40.1**	5 unit(s)	25,60
S	yellow	**TP38.1**	5 unit(s)	25,50
XXL	orange	**TP41.1**	5 unit(s)	20,65
XXL	yellow	**TP42.1**	5 unit(s)	20,65

Two reflective strips and strips over the shoulders

Size	Colour	Art. No.	Pack Qty.	€
M–XL	orange	**EHP4.1**	1 unit(s)	7,20
M–XL	yellow	**EHP5.1**	1 unit(s)	7,20

Safety vest bag

100% polyester, with Velcro fastener.

Colour	Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
orange	220	180	**TP44.1**	5 unit(s)	11,20
yellow	220	180	**TP43.1**	5 unit(s)	11,20



First-aid kit Traveller

Söhngen.

„Softbag“ with first-aid supplies for use when travelling. Made of synthetic fibre. Two carrying straps, parallel zipper, flap with button, insertable straps.
Contains: rescue blanket, compresses, ready-to-use dressings, plasters for dressing wounds and fingers, silk adhesive plaster strips, wound disinfectant, bandages, scissors, tweezers, protective gloves.

L x W x H (mm)	Art. No.	Pack Qty.	€
230 x 115 x 55	**TL60.1**	1 unit(s)	36,25



First-aid kit Mini

Söhngen.

Bag made of coated nylon fabric with zip. Contains all most commonly required items: Plaster strips, dressings, compress, elastic bandage.

W x L (mm)	Art. No.	Pack Qty.	€
90 x 135	**T299.1**	1 unit(s)	5,35



Rescue blanket

Söhngen. Material: PE Foil, aluminised.

Reflects up to 85% of body heat, can prevent radiant heat loss and loss of body heat and hypothermia. Can also be used as a heat shield.

Medical device class I

W x L (cm)	Colour	Art. No.	Pack Qty.	€
160 x 210	silver, gold	**1846.1**	1 unit(s)	4,30



Ready-to-use cold compress

Söhngen.

Quick "ice bag" without the need to pre-cool. Activated when compressed, immediately producing a continuous intense cold temperature. For quick cooling of acute injuries, such as pulled muscles, sprains or acute inflammations. For single use only.

W x L (mm)	Art. No.	Pack Qty.	€
150 x 250	**AP17.1**	5 unit(s)	10,30
150 x 210	**KKH2.1**	4 unit(s)	11,10



Cold/warm compress

Söhngen.

Reusable compresses for local pain relief for bruises, pulled muscles, sprains, acute inflammation, insect bites, etc. Remains flexible and malleable at temperatures as low as -30 °C. Can also be used as a heat pad. Can be pre-cooled in a freezer compartment or pre-heated in a water bath (up to +60 °C). Contains environmentally friendly, non-toxic gel.

W x L (mm)	Art. No.	Pack Qty.	€
130 x 80	**AP13.1**	5 unit(s)	7,85
130 x 140	**AP14.1**	5 unit(s)	10,25
150 x 280	**AP15.1**	5 unit(s)	18,25



Quick dressing Actiomedic® AQUATIC

GRAMM medical healthcare.

Water-repellent, elastic first-aid dressing. Supple and easy to tear off, suitable for all minor finger injuries, even in awkward places.

- Sticks to itself and not to the wound, skin or hair
- Easy to remove
- Water-repellent and elastic
- Enables maximum mobility
- Keeps grease, water and oil away from the wound

Medical device class I MDD

Roll size: 3 cm x 7 m

Colour	Art. No.	Pack Qty.	€
blue	**XH08.1**	4 unit(s)	19,30
beige	**XH09.1**	4 unit(s)	19,30
white	**XH07.1**	4 unit(s)	19,30

Roll size: 5 cm x 7 m

Colour	Art. No.	Pack Qty.	€
blue	**XH11.1**	2 unit(s)	12,60
beige	**XH12.1**	2 unit(s)	12,60



Surgical tape Leukosilk®

BSN medical. Non-sterile.

Made of white cellulose acetate, very skin-friendly, easy to remove, tension-resistant, hypoallergenic, can be removed without causing pain, can be written on easily. Free of natural latex.

Medical device class I

W x L	Colour	Art. No.	Pack Qty.	€
25 mm x 5 m	white	**0631.1**	3 roll(s)	32,70



Surgical tape Leukoplast®

BSN medical. Non-sterile.

Particularly adhesive, air-permeable, water-repellent, tension-resistant, easy to tear off. Contains natural latex.

Medical device class I

W x L	Colour	Art. No.	Pack Qty.	€
12.5 mm x 5 m	beige	**N532.1**	3 roll(s)	14,20
25.0 mm x 5 m	beige	**N533.1**	3 roll(s)	22,35



Plaster Hansaplast®

Beiersdorf.

Sets of plasters contain strips of four different sizes.
Breathable and skin-friendly material, wound dressing does not stick and protects and pads the wound. The plasters adhere reliably and do not slip. Suitable for all types of small wounds and injuries.

Universal
Water-repellent

8 strips 19 x 72 mm

6 strips 30 x 72 mm

2 strips Ø 50 x 72 mm

4 strips 23 mm

Version	Art. No.	Pack Qty.	€
water-repellent, 20 strips	**0630.2**	1 pack(s)	6,90

Sensitive
Hypoallergenic for sensitive skin

20 strips 19 x 72 mm

10 strips 30 x 72 mm

2 strips Ø 50 x 72 mm

8 strips 23 mm

Version	Art. No.	Pack Qty.	€
hypoallergenic, 40 strips	**ENH9.1**	1 pack(s)	9,80



Plaster dispenser Salvequick®

Cederroth.

Dispenser box with special key for opening and refilling the dispenser. Filled with elastic and waterproof plaster strips. The plasters are easy to apply without requiring further assistance. When it is pulled out, half of the plaster is adhesive, ready to be applied.
Dispenser contains:

- 1 Salvequick fabric plaster refill set (X288.1). 40 elastic, skin-friendly plasters for immediate use: 24 strips 72 x 19 mm and 16 strips 72 x 25 mm;
- 1 Salvequick plastic plaster refill set (X289.1). 45 waterproof plasters for immediate use: 27 strips 72 x 19 mm and 18 strips 72 x 25 mm.

L x W x H (mm)	Art. No.	Pack Qty.	€
220 x 52 x 115	**X287.1**	1 set	42,75

Refill pack Salvequick® plaster

Cederroth.

Medical device class I

Textile, elastic 6444
40 elastic and skin-friendly plasters for immediate use.

Designation	Pack.	Art. No.	Pack Qty.	€
Refill Salvequick Textile, elastic 6444	24 strips 72x19 mm; 16 strips 72x25 mm	**X288.1**	1 set	11,95

Plastic, waterproof 6036
45 waterproof plasters for immediate use.

Designation	Pack.	Art. No.	Pack Qty.	€
Refill Salvequick Plastic, waterresistant 6036	27 strips 72x19 mm; 18 strips 72x25 mm	**X289.1**	1 set	10,25



Cellulose swabs

Meditrade. Material: Cellulose, bleached light. Non-sterile.

Acc. to DAB. Highly absorbent, non-fibrous. For skin cleansing or for use as an absorbent pad for minor injuries.

W x L (mm)	Pack.	Art. No.	Pack Qty.	€
50 x 40	Two rolls of 500	**NK84.1**	1,000 unit(s)	6,10

Dispensers for cellulose swabs

Meditrade.

For hygienic storage and removal of cellulose swabs. Suitable for 1 roll of 500.

Version	Art. No.	Pack Qty.	€
Cellulose swab dispenser	**NK85.1**	1 unit(s)	22,35



Plaster dispenser aluderm® -aluplast

Söhngen. Material: ABS.

Base section with three compartments for strips, fingertip and knuckle dressings, transparent lid with compartment for finger dressings. Can be mounted on walls.
Contents:

- 25 fingertip dressings
- 30 strips 72 x 25 mm
- 30 strips 72 x 19 mm
- 20 finger dressings 120 x 20 mm
- 10 knuckle dressings

All plaster dressings for wounds have been individually and hygienically sealed.
The aluminised wound pad does not stick to the wound. Breathable, water-repellent, hypoallergenic, skin-friendly and also suitable for use on sensitive skin or those with allergies to plasters.

L x W x H (mm)	Art. No.	Pack Qty.	€
122 x 57 x 160	**AH56.1**	1 unit(s)	26,35

Refill pack aluderm® plaster

Söhngen.

All plaster dressings for wounds have been individually and hygienically sealed.
The aluminised wound pad does not stick to the wound. Breathable, water-repellent, hypoallergenic, skin-friendly and also suitable for use on sensitive skin or those with allergies to plasters.

Medical device class I

Version	Designation	Art. No.	Pack Qty.	€
72 x 25 mm strip	72 x 25 mm strips refill pack	**AH58.1**	30 unit(s)	4,55
72 x 19 mm strip	72 x 19 mm strips refill pack	**AH59.1**	30 unit(s)	4,60
120 x 20 mm finger dressing	120 x 20 mm finger dressing refill pack	**AH60.1**	20 unit(s)	4,55
Knuckle dressing	Knuckle dressing refill pack	**TP45.1**	10 unit(s)	4,45
Fingertip dressing	Fingertip dressing refill pack	**AH57.1**	25 unit(s)	7,55



Plaster dispenser QuickFix

Plum.

- Plasters can be removed from the bottom of the dispenser housing, whereby one side of the adhesive is left uncovered. **The advantage** of this is that the plaster strip can be immediately applied to the wound using only one hand.
- Additional removable compartments for storing first-aid material in the dispenser
- System can be locked to protect against theft
- 90 individually packaged plaster strips 72 x 25 mm

Delivery incl. two refill packs, mounting material and key for protection against theft.

Detectable
Contains detectable blue plaster strips with integrated metal strips for detection by metal detectors in industries with sensitive hygienic requirements (e.g. **the food industry**).

W x D x H (mm)	Art. No.	Pack Qty.	€
232.5 x 33 x 133.4	**HC44.1**	1 unit(s)	48,95

Elastic
Contains plasters, made of elastic, perforated and air-permeable textile fabric. Very skin-friendly and breathable.

W x D x H (mm)	Art. No.	Pack Qty.	€
232.5 x 33 x 133.4	**LK67.1**	1 unit(s)	40,00

Water resistant
Contains waterproof, very skin-friendly plasters made of perforated, air-permeable, water-repellent textile fabric.

W x D x H (mm)	Art. No.	Pack Qty.	€
232.5 x 33 x 133.4	**HC43.1**	1 unit(s)	35,95

Refill pack

Plum.

Plaster QuickFix detectable
Detectable blue plaster strips with integrated metal strips.
Set with 45 plasters.

Medical device class I

Pack.	Art. No.	Pack Qty.	€
2 x 45	**HC46.1**	2 kit	25,05

Plaster QuickFix elastic
Elastic, breathable and skin-friendly plaster strips measuring 72 x 25 mm. Set with 45 plasters.

Medical device class I

Pack.	Art. No.	Pack Qty.	€
2 x 45 pieces	**LH94.1**	2 set	19,05

Plaster QuickFix water resistant
Water resistant, air-permeable and very skin-friendly.
Plaster size: 72 x 25 mm. Set with 45 plasters.

Medical device class I

Pack.	Art. No.	Pack Qty.	€
2 x 45	**HC45.1**	2 set	17,75

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Plaster Actiomedic® detectable

GRAMM medical healthcare.

Elastic, hypoallergenic and detectable plasters, individually sealed.

Medical device class I MDD

Elastic

Version	W x L (mm)	Art. No.	Pack Qty.	€
Plaster strips	19 x 72	**XH14.1**	100 unit(s)	10,40
Knuckle dressings	38 x 75	**XH15.1**	50 unit(s)	10,95
Finger dressings	120 x 20	**XH16.1**	100 unit(s)	15,50

Water-repellent

Version	W x L (mm)	Art. No.	Pack Qty.	€
Plaster strips	19 x 72	**XH17.1**	100 unit(s)	8,40
Finger dressings	120 x 20	**XH18.1**	100 unit(s)	11,30
Fingertip dressings	43 x 68	**XH19.1**	50 unit(s)	10,90



A 121 °C

Gauze swabs

Meditrade. Material: Cotton 100%. Autoclavable: Yes.

In acc. with EN 14079, type 20. Made of medical gauze. For absorbing blood and secretion, external wound care and hand disinfection. Highly absorptive. Swab size 20 x 20 cm, round, plum-sized, in PE bag.

Medical device class I

Version	Art. No.	Pack Qty.	€
Gauze swabs	**NK83.1**	250 unit(s)	21,00



Pocket mask for respiration

Radecker Notfallmedizin.

To be used by amateur first aiders. Air is simultaneously supplied through the mouth and nose without coming into contact with air exhaled by the patient. Transparent masks allow any excretions to be monitored visually.
Suitable for adults and children. Extendible semi-soft plastic dome with mouthpiece. Air-filled press-on rim made of soft plastic.
Easy to clean, can be reused. In a case with instructions.
Length 120 mm.

Version	Art. No.	Pack Qty.	€
Pocket mask for respiration	**4799.1**	1 unit(s)	23,25



Ampoule case

Söhngen. Material: Nylon fabric, coated.

For 55 ampoules in various standard sizes, can be individually configured. With all-round zip.

Delivery without ampoules.

Version	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
for 55 ampoules	310 x 320 x 30	red	**NH87.1**	1 unit(s)	40,10

First aid - wound care, accessories



Medical table SÖHNGEN®

Söhngen. Material: Stainless steel, Artificial leather.

Frame made of square profiled steel tubing, white powder-coated, sturdy and load bearing. Upholstery covering made of fabric reinforced synthetic leather, hard wearing, easy care, dirt repellent.

- Multi-position adjustable
- Sanitary paper reel holder integrated into frame

Medical device class I

Pic.	Version	L x W x H (mm)	Art. No.	Pack Qty.	€
(1)	Headrest can be adjusted, footrest is fixed	2000 x 700 x 500	**NH47.1**	1 unit(s)	413,90
(2)	Headrest and footrest can be adjusted	2000 x 700 x 500	**NH48.1**	1 unit(s)	466,55



Examination couch rolls

Meditrade. Material: Cellulose, Two-layers, recycled.

Tissue paper on a roll, absorbent, tear-resistant.

W x L	Colour	Art. No.	Pack Qty.	€
59 cm x 50 m	white	**NK82.1**	1 roll(s)	13,45



Fire blanket FLAME STOP

Mentrex.

Acc. to EN 1869: 1997, TÜV-certified. Made of impregnated glass fibre cloth (300 g/m²). Heat-resistant up to 1250 °C. Fast opening is enabled by two pull straps and a special fold configuration. Self-inflating.
For single use. For extinguishing small fires, for protection against fire. Does not release toxic fumes.

L x W (cm)	Art. No.	Pack Qty.	€
100 x 100	**AH78.1**	1 unit(s)	34,95
180 x 125	**AH79.1**	1 unit(s)	50,45



Fire blanket

Heinrich Vorndamme.

Made of Isotemp® glass fibre cloth, tested by BAM (German Federal Institute for Materials Research and Testing). Free of asbestos, highly heat-resistant, high extinguishing capability, can be used multiple times. With gripping loops.
In ready-to-use pack with wall mount.
Ready-to-use pack dimensions W 255 x D 130 x H 275 mm.

L x W (cm)	Art. No.	Pack Qty.	€
200 x 160	**0084.1**	1 unit(s)	108,85



Fire extinguisher Bavaria Colt P6

Acc. to DIN EN 3. To be used for **ABC fire classes** and **electrical equipment up to 1000 V.** High-quality extinguishing powder provides an increased extinguishing effect. All-purpose use in industry, commerce, public buildings and private homes. Contains: Ten extinguishing units acc. to BGR 133. Operating range -30 to +60 °C. With wall mount.

Warning H280

L x W x H (mm)	Art. No.	Pack Qty.	€
300 x 155 x 535	**T321.1**	1 unit(s)	129,00



Fire extinguisher - CO_2

For use on **class B fires**. Ideal for areas with sensitive electronic and electric equipment. Content 2 kg. With wall mount.

Warning H280

Ø x H (mm)	Art. No.	Pack Qty.	€
110 x 555	**1028.1**	1 unit(s)	167,70



Fire protection tub SEKUROKA®

JM-Metzger.

Tub and mesh made of chrome-nickel steel.

- Liquids are collected immediately and fire-safe in the mesh
- If the liquid ignites, the flame extinguishes autonomously due to lack of oxygen
- Resists heat and corrosion
- Liquids collected can be transferred for disposal or reuse
- The mesh can be removed and is easy to clean and reuse
- No glass or steel wool mats needed, so there is no material to dispose of
- Weight 12 kg

Note. The meshes may only be filled to 2/3 with flammable liquid. Maximum collection volume approx. 13 litres.

L x W x H	Art. No.	Pack Qty.	€
450 x 450 x 120	**1658.1**	1 unit(s)	1.419,00



Safety cabinet Q-CLASSIC-90

Asecos.

For the storage of flammable liquids.
Acc. to DIN EN 14470-1, 90 min fire resistance (FWF 90). Ceric-compliant, GS approved, acc. to DIN EN 14727 (laboratory furniture).

- **Highly rugged design**, scratchproof textured paint finish
- The panel doors lock in any position for easy storage and removal from storage
- **Automatic locking of doors in the event of fire** thanks to integrated thermal release system
- Forklift-accessible base – easy transport, high flexibility, lockable with optional plinth panel
- **Easy alignment** – adjusting aids to compensate for uneven floor
- **Quick commissioning** – air ducts ready for connection (NW 75) to a technical exhaust system

Version:
Anthracite grey body (similar to RAL 7016), light grey doors (RAL 7035), with panel doors.

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Delivery without ventilation unit, recirculating air filter system and plinth panel. Optional, please order separately.

2-door 3 shelves

Inner fittings: 3 shelves, perforated plate insert and bottom tray (33 l)

Door stop	W x D x H (mm)	Art. No.	Pack Qty.	€
left, right	1193 x 615 x 1953	**CCA0.1**	1 unit(s)	3.557,20

2-door 4 full-extension drawers

Inner fittings: 4 full-extension drawers (sheet steel, powder coated)

W x D x H (mm)	Art. No.	Pack Qty.	€
1193 x 615 x 1953	**CCA1.1**	1 unit(s)	4.225,85

2-door, 6 full-extension drawers

Inner fittings: 6 full extension drawers (sheet steel, powder coated)

Type	W x D x H (mm)	Art. No.	Pack Qty.	€
6 Full-extension drawers	1193 x 615 x 1953	**CCA2.1**	1 unit(s)	4.683,80

1-door, 3 shelves

Inner fittings: 3 shelves, perforated plate insert and bottom tray (22 l)

Door stop	W x D x H (mm)	Art. No.	Pack Qty.	€
left	599 x 615 x 1953	**CCA3.1**	1 unit(s)	2.766,00
right	599 x 615 x 1953	**CCA4.1**	1 unit(s)	2.766,00

1-door, 6 full-extension drawers

Inner fittings: 6 full extension drawers (sheet steel, powder coated)

Door stop	W x D x H (mm)	Art. No.	Pack Qty.	€
left	599 x 615 x 1953	**CCA5.1**	1 unit(s)	3.429,25
right	599 x 615 x 1953	**CCA6.1**	1 unit(s)	3.429,25

Accessories plinth panel for Q-CLASSIC-90 safety cabinet

Asecos.

1200 2-door

Designation	Art. No.	Pack Qty.	€
Plinth panel for 2-door cabinets	**CCA7.1**	1 unit(s)	33,85

600 1-door

Designation	Art. No.	Pack Qty.	€
Plinth panel for 1-door cabinets	**CCA8.1**	1 unit(s)	24,30



Accessories for safety cabinet

Asecos.

(1) Ventilation unit without exhaust monitor
Safe detection of vapour and gas emissions at the outlet or source. Housing made of powder-coated high-grade sheet steel.

- Plug ready – fast and easy assembly
- Extra low noise, ideal for use directly in the workspace
- NW 75 hose connection
- ATEX-compliant: Ceric II 3/-G Ex c IIC T4

Delivery incl. Connecting cable and mains plug.

W x D x H (mm)	Art. No.	Pack Qty.	€
200 x 400 x 200	**CCA9.1**	1 unit(s)	733,15

(2) Recirculating air filter system
Vents safety cabinets safely and economically without exhaust lines. Recirculating air filter housing made of powder-coated high-grade sheet steel.

- Installation without wall breakthroughs and exhaust lines
- Flexible selection of installation location
- Safe detection of hazardous vapours with retention in the filtration system
- Silent – only approx. 39 dB (A)
- ATEX-compliant: CE II 3/-G Ex ic nA IIB T4Gc"

Delivery incl. Multi-stage filter system, connection cable and mains plug, VDE-tested electronic monitoring system for monitoring exhaust air and filter, visual and audible alarm incl. potential-free alarm contact.

W x D x H (mm)	Art. No.	Pack Qty.	€
305 x 555 x 210	**CCC0.1**	1 unit(s)	1.827,50



Combi safety cabinet K-PHOENIX-90

Asecos.

Two in one – storage of flammable and aggressive hazardous substances in one cabinet.
Acc. to DIN EN 14470-1, 90 min fire resistance (FWF 90). Ceric-compliant, GS approved, acc. to DIN EN 14727 (laboratory furniture).

- **Rugged and durable** – safety elements assembled outside the storage compartment for increased protection against corrosion
- **Safely isolated** – storage chambers hermetically separated by central partition
- **Comfortable and safe** – doors lock in the standard stop position, safe storage and removal from storage of drums, all doors can be operated and locked separately
- **Easy alignment** – adjusting aids to compensate for uneven floor
- **Quick commissioning** – integrated air ducts ready for connection (NW 75) to a technical exhaust system

Version: Outer body made of epoxy resin coated high-grade sheet steel. Inner body made of highly resistant melamine resin coated special panels. Colour: Light grey (RAL 7035).

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Delivery without ventilation unit (Art. no. CCA9.1). Optional, please order separately.

(1) Inner fittings 3 shelves/4 pull-out shelves
Left side of cabinet, compartment for flammable liquids: with folding door, **3** shelves (75 kg load capacity), perforated sheet insert and 22 l bottom tray (powder-coated sheet steel).
Right side of cabinet, compartment for acids and bases: with panel doors, **4** pull-out shelves (25 kg load capacity) incl. removable plastic tray.

W x D x H (mm)	Art. No.	Pack Qty.	€
1200 x 615 x 1968	**CCC1.1**	1 unit(s)	4.102,20

(2) Inner fittings 6 full extension drawers/6 pull-out shelves
Left side of cabinet, compartment for flammable liquids: With folding door, **6** full extension drawers (powder-coated sheet steel).
Right side of cabinet, compartment for acids and bases: With panel doors, **6** pull-out shelves (25 kg load capacity) incl. removable plastic tray.

W x D x H (mm)	Art. No.	Pack Qty.	€
1200 x 615 x 1968	**CCC2.1**	1 unit(s)	5.003,05



Acids and bases cabinet SL-Classic

Asecos.

Safe and correct storage of aggressive, non-flammable hazardous substances in work zones. GS approved, acc. to DIN EN 14727 (laboratory furniture).

- **Rugged and durable** – epoxy resin coated high-grade sheet steel, locking mechanism is located outside the store room for increased protection against corrosion
- **Safely isolated** – two hermetically separated storage chambers
- **No unauthorised use** – doors are fitted with profile cylinder locks (master-key system compatible)
- **Easy alignment** – integrated adjusting aids to compensate for uneven floor
- **Quick commissioning** – air ducts ready for connection (NW 75) to a technical exhaust system
- **Clean ventilation** – corrosion-resistant, metal-free air ducts, separate ventilation of storage chambers, only one air vent in roof area

Equipment: pull-out shelves – high-quality, sturdy construction with liquid-tight, removable plastic tray (18 l), 25 kg load capacity. With panel doors, colour: Light grey (RAL 7035).

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Delivery without ventilation unit (Art. no. CCA9.1). Optional, please order separately.

(1) Width 1200
With vertical centre partition: Separate storage of acids and bases. Inner fittings: 12 pull-out shelves incl. plastic collecting tray

Door stop	W x D x H (mm)	Art. No.	Pack Qty.	€
left, right	1197 x 603 x 1965	**CCC8.1**	1 unit(s)	3.838,85

(2) Width 600
With horizontal centre partition: separate storage of acids and bases. Inner fittings: 6 pull-out shelves incl. plastic collecting tray

Door stop	W x D x H (mm)	Art. No.	Pack Qty.	€
left	597 x 603 x 1965	**CCC9.1**	1 unit(s)	2.456,40
right	597 x 603 x 1965	**CCE0.1**	1 unit(s)	2.456,40



Compressed gas cylinder cabinet G90

Asecos.

For safe indoor storage of pressurised gas cylinders (decentralised). Type-tested acc. to DIN EN 14470-2, 90 min fire resistance (FWF 90). Ceric-compliant, GS approved, acc. to DIN EN 14727 (laboratory furniture).

- **Easy assembly of fittings and pipework** – large inner height (1858 mm), 24 leadthroughs in the cabinet ceiling
- **No unauthorised use** – door is fitted with profile cylinder locks (master-key system compatible)
- **Easy alignment –** adjusting aids to compensate for uneven floor
- **Quick commissioning** – integrated air ducts ready for connection (NW 75) to a technical exhaust system, complete and even floor-to-ceiling ventilation inside cabinet

Version: With panel door, hinge on the left. Body and door light grey (RAL 7035)

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Delivery incl. standard inner fittings (mounting rails, roll-in flap, cylinder holder and suitable tensioning straps).

(1) For 2x50 litre gas cylinders

Pic.	Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
(1)	2 x 50 l/3 x 10 l	598 x 616 x 2050	**CCC3.1**	1 unit(s)	3.763,60

(2) For 1x50 litre gas cylinder

Pic.	Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
(2)	1 x 50 l/2 x 10 l	598 x 616 x 2050	**CCC4.1**	1 unit(s)	3.244,35

(3) For 10 litre gas cylinders

Pic.	Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
(3)	2 x 10 l	598 x 616 x 1450	**CCC5.1**	1 unit(s)	3.244,35

Accessories for G90 compressed gas cylinder cabinet

Asecos.

Cylinder holder set
2 cylinder holders with 2 tensioning straps for the additional securing of small 10 l compressed gas cylinders.

Designation	Art. No.	Pack Qty.	€
Cylinder holder set	**CCC6.1**	1 set	64,00

Gas cylinder trolley
For 1 x 50 l gas cylinder.

Designation	Art. No.	Pack Qty.	€
Gas cylinder trolley for 1 x 50 l gas cylinder	**CCC7.1**	1 unit(s)	348,30



Wall cupboard SEKUROKA®

ROTH SELECTION.

Made of sheet steel. Colour: Light grey (RAL 7035).

- With two fixed shelves (distance from top: 160 and 470 mm)
- Smooth surface with no ventilation slots
- Reinforced door, hinge on the right
- DOM cylinder cam lock with 2 keys

Delivery without warning symbols.

W x D x H (mm)	Art. No.	Pack Qty.	€
400 x 200 x 800	**5226.1**	1 unit(s)	413,90



Jumbo filter trolley

ULT Umwelt-Lufttechnik. Material: ABS, PC.

For absorbing and filtering gases and vapours directly where they arise.
Applications:
For glueing, lacquering, laminating and absorbing solvent vapours and undertaking cleaning work.

- With wheels to enable flexible operation at different workstations
- Extremely quiet
- Three articulated arms provide flexibility
- Range of the suction arm: 750 mm
- Low energy consumption
- Ultra-filter effect results in clean air
- The filtered air is filtered back into the working area
- Filter can be easily removed for changing
- Dimensions: Cover L 296 x W 248 mm,
  Trolley L 450 x W 340 x H 530 mm

Technical specifications:

Art. No.	Y928.1
Sound level	49 db
Power consumption	150 W
Weight	18 kg
Mains connection	230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
Filter trolley Jumbo complete	**Y928.1**	1 unit(s)	3.215,35



Glove bag SEKUROKA®

ROTH SELECTION. Material: PE.

With integrated gloves. For carrying out work in environments free of air or moisture.
Handling: Glove bags are fed through the opening with the working utensils, closed using a clip and filled with inert gas through the gas connector. Plastic coupling for gas connector, closing clips and inner gloves are also included.

With one opening for filling
With one hose connection for 1936.1 and K352.1, two hose connections for K353.1

L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
420 x 420 x 280	275	**1936.1**	1 unit(s)	66,65
690 x 690 x 380	565	**K352.1**	1 unit(s)	99,75
940 x 940 x 640	860	**K353.1**	1 unit(s)	115,15

With two openings for filling
Incl. two tube connections.

L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
490 x 490 x 290	2 x 300	**1937.1**	1 unit(s)	74,40

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Pharmacy workstation (pharmacy fume cupboards)

Asecos.

Hazardous material workstations according to DIN 12924-4: 2012 (Fume cupboards for pharmacies) – Does not replace a fume cupboard according to DIN EN 14175 (Fume cupboards).
Not suitable for working with high acid loads or for openly breaking down chemicals at high temperatures.

- Safe handling of chemicals, protection against harmful vapours and explosive atmospheres
- Easy to mount on bench top
- Sturdy design with made of fine steel sheets coated in plastic
- Each unit is tested with regards to ventilation by a recognised testing agency

Standard equipment:

- Monitoring electronics
- Two IP 54 safety plug sockets
- Work station energy-saving light bulb with on/off switch
- Continuously height-adjustable acrylic glass sliding window
- Supply air and exhaust fans
- Recommended exhaust air rate of 330 m³/h
- Pressure drop of 315 hPa
- Unit is fuse-protected to 4 A

Technical specifications:

Art. No.	CEH3.1	CEH4.1
Exhaust air connection	100 mm	
Sockets in the working area	2 unit(s)	
Media supply	Optional: drainage outlet, natural gas, water	
Wastewater connection	1.5	
W x D x H, total	750 x 600 x 1460 mm	900 x 600 x 1460 mm
W x D x H, interior	740 x 440 x 924 mm	890 x 440 x 924 mm
Weight	55 kg	65 kg
Mains connection	230 V, 50 Hz	

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Delivery without media (natural gas, waste water, cold water) and ventilation sets are not included, please order separately.

APA.145.075
Effective working area: W 745 x D 440 mm

Type	Art. No.	Pack Qty.	€
APA.145.075	**CEH3.1**	1 unit(s)	2.391,90

APA.145.090
Effective working area: W 895 x D 440 mm

Type	Art. No.	Pack Qty.	€
APA.145.090	**CEH4.1**	1 unit(s)	2.474,65

Accessories for pharmacy work stations

Asecos.

Ventilation set 1

- 1 m flexible hose DN100
- 2 hose clamps
- 1 wall duct

Suitable for	Art. No.	Pack Qty.	€
APA.145.075/APA.145.090	**CEK0.1**	1 unit(s)	188,15

Ventilation set 2

- 7.5 m flexible hose DN125
- 2 hose clamps
- 1 wall duct
- 1 reducer DN100/125

Suitable for	Art. No.	Pack Qty.	€
APA.145.075/APA.145.090	**CEK1.1**	1 unit(s)	318,20

Ventilation set 3

- 1 duct fan DN150
- 2 reducers DN150/125
- 7.5 m flexible hose DN125
- 2 hose clamps
- 6 drilling screws 4.2 x 16 mm

Suitable for	Art. No.	Pack Qty.	€
APA.145.075/APA.145.090	**CEK2.1**	1 unit(s)	709,50

Media supply Natural gas

Suitable for	Art. No.	Pack Qty.	€
APA.145.075/APA.145.090	**CEH9.1**	1 unit(s)	253,70

Media supply Natural gas/water for APA.145.075

Suitable for	Art. No.	Pack Qty.	€
APA.145.075	**CEH6.1**	1 unit(s)	447,20

Media supply Natural gas/water for APA.145.090

Suitable for	Art. No.	Pack Qty.	€
APA.145.090	**CEH8.1**	1 unit(s)	447,20

Media supply Water for APA.145.075

Suitable for	Art. No.	Pack Qty.	€
APA.145.075	**CEH5.1**	1 unit(s)	242,95

Media supply Water for APA.145.090

Suitable for	Art. No.	Pack Qty.	€
APA.145.090	**CEH7.1**	1 unit(s)	242,95



NEW/+

UV PCR chamber

Cleaver Scientific.

- This chamber offers a practical area for making PCR preparations in a decontaminated environment which is free from nucleic acid
- The powerful UV light denatures nucleic acid in 5-30 min.
- Efficient decontamination of the entire working area
- The duration of UV radiation can be set via a timer
- The white light ensures outstanding visibility while working
- Safety functions prevent users from being exposed to the UV light
- Safety switches on the doors automatically switch off the UV light when the chamber is opened
- Lighting: 4 x 15 W UV light tubes and 1 x 15 W white light lamp
- The chamber walls are impermeable to UV light and protect against ß radiation, meaning that it is also suitable for work with ^{32}P and other ß rays
- Can be used with protection trays and a protection tray insert (680 x 540 mm)

Technical specifications:

Art. No.	1H29.1	1H28.1	1H27.1
W x D x H, total	580 x 350 x 450 mm	580 x 420 x 620 mm	580 x 420 x 770 mm
W x D x H, interior	530 x 320 x 270 mm	530 x 390 x 425 mm	530 x 390 x 600 mm
Weight	12 kg	14,6 kg	19 kg
Mains connection	230 V		

Version	Art. No.	Pack Qty.	€
Mini	**1H29.1**	1 unit(s)	2.261,80
Midi	**1H28.1**	1 unit(s)	2.346,75
Maxi	**1H27.1**	1 unit(s)	2.563,90



Protective screen SEKUROKA® with side panels

ROTH SELECTION. Material: PMMA, transparent.

Folding, made of 8 mm thick colourless acrylic glass, for shielding against splinters and splashes. Three-part, can be spread to 120°.

Type 450

Main panel W 450 x H 450 mm, 2 side panels each measuring W 200 x H 450 mm.

Weight (kg)	Art. No.	Pack Qty.	€
3,7	**2967.1**	1 unit(s)	263,40

Type 750

Main panel W 450 x H 750 mm, 2 side panels each measuring W 200 x H 750 mm.

Weight (kg)	Art. No.	Pack Qty.	€
6,0	**2968.1**	1 unit(s)	349,40



Table mount SEKUROKA®

ROTH SELECTION. Material: PMMA.

Consisting of acrylic glass support and screw clamp with eye bolt. For stable attachment of the industrial safety markings to work tables up to a thickness of 38 mm.

Version	Art. No.	Pack Qty.	€
Table mount	**5099.1**	1 unit(s)	85,70

Shields/radiation protection



Radiation protection shield SEKUROKA®

ROTH SELECTION. Material: PMMA, transparent.

For protection during work with radioactive samples or solutions which emit beta radiation (^{32}P) or gamma radiation (^{125}J). Made of transparent acrylic glass for protection against beta radiation or of leaded acrylic glass for protection against gamma radiation. Inclination angle of 15° to reduce light reflections.
Screens with a bent base are suitable for use with protection trays.

With flat base

For protection against	W x D x H, total (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
β radiation	300 x 300 x 450	10	**E041.1**	1 unit(s)	230,05
γ radiation	300 x 300 x 450	12	**EXN7.1**	1 unit(s)	2.787,50

With bent base

For protection against	W x D x H, total (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
β radiation	300 x 150 x 450	10	**EXN8.1**	1 unit(s)	690,15
γ radiation	300 x 150 x 450	12	**E042.1**	1 unit(s)	2.033,90

Duo

Made of two layers, acrylic and leaded acrylic. 15° inclination angle. With bent base.

For protection against	W x D x H, total (mm)	Art. No.	Pack Qty.	€
β and γ radiation	300 x 150 x 450	**EXN9.1**	1 unit(s)	3.982,90



Radiation protection shield SEKUROKA® adjustable

ROTH SELECTION. Material: PMMA, transparent.

Made of transparent acrylic glass or acrylic glass containing lead. Protects against beta radiation or gamma radiation depending on the design. The tilt of the screen can be adjusted by up to 15°.

For protection against	W x D x H, total (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
β radiation	350 x 240 x 540	10	**E008.1**	1 unit(s)	250,50
γ radiation	350 x 240 x 540	12	**E009.1**	1 unit(s)	2.600,45



Radiation protection shield SEKUROKA® angled

ROTH SELECTION. Material: PMMA, transparent or containing lead.

For protection when working with radio-isotope solutions, available for protection against either beta (^{32}P) or gamma (^{125}J) radiation. Front section angled at 45°. With a curved base for use with protection trays.

For protection against	W x D x H, total (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
β radiation	300 x 150 x 450	10	**K562.1**	1 unit(s)	237,60
γ radiation	300 x 150 x 450	12	**K564.1**	1 unit(s)	2.410,15



Radiation protection shield SEKUROKA® bent

ROTH SELECTION. Material: PMMA, transparent.

Made of transparent acrylic glass, for working with radio isotopic solutions that emit beta–radiation, e.g. ^{32}P, ^{14}C or ^{35}S. With chamfered front section and rounded-off edges. Stability ensured by four rubber studs on the base plate. Bent from a single piece.

For protection against	W x D x H, total (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
β radiation	350 x 300 x 500	10	**9764.1**	1 unit(s)	176,30

Shields/radiation protection



Radiation protection shield SEKUROKA® hourglass shape

ROTH SELECTION. Material: PMMA, transparent or containing lead.

For protection against beta or gamma radiation.
Inclination angle of 15° to reduce light reflections.
For protection during work with radioactive samples and solutions which emit beta radiation (^{32}P) or gamma radiation (^{125}J).
Screens with a bent base are suitable for use with protection trays.
The bent shape with cut-outs at the sides allows for greater freedom of movement in order to eliminate fatigue when working.

With flat base

For protection against	W x D x H, total (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
β radiation	300 x 300 x 450	10	**EYN3.1**	1 unit(s)	683,70
γ radiation	300 x 300 x 450	12	**EYN4.1**	1 unit(s)	1.889,85

With bent base

For protection against	W x D x H, total (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
β radiation	300 x 150 x 450	10	**EYN5.1**	1 unit(s)	683,70
γ radiation	300 x 150 x 450	12	**EYN6.1**	1 unit(s)	2.090,90



Radiation protection box SEKUROKA®

ROTH SELECTION. Material: PMMA, transparent or containing lead.

For protection against beta or gamma radiation.
For storage and transportation of radioactive samples and solutions.
Each box has a hinged lid and slip-resistant feet.

Beta radiation protection

Type	L x W x H, external (mm)	L x W x H, interior (mm)	Art. No.	Pack Qty.	€
Mini	109 x 109 x 79	85 x 85 x 55	**EXT0.1**	1 unit(s)	908,40
Midi	185 x 105 x 80	165 x 85 x 60	**K565.1**	1 unit(s)	365,50
Maxi	300 x 185 x 160	280 x 165 x 140	**L424.1**	1 unit(s)	918,05

Gamma radiation protection

Type	L x W x H, external (mm)	L x W x H, interior (mm)	Art. No.	Pack Qty.	€
Mini	109 x 109 x 79	85 x 85 x 55	**EXT1.1**	1 unit(s)	2.216,65
Midi	189 x 109 x 84	165 x 85 x 60	**K566.1**	1 unit(s)	2.225,25
Maxi	304 x 189 x 164	280 x 165 x 140	**L425.1**	1 unit(s)	6.489,80

Reaction vial stands SEKUROKA®

ROTH SELECTION. Material: PMMA.
Maxi boxes can accommodate up to three midi stands.

For mini radiation protection box

Suitable for	No. of slots	Art. No.	Pack Qty.	€
0.5 ml reaction vials	20	**EXT2.1**	1 unit(s)	52,35
1.5 ml reaction vials	16	**EXT3.1**	1 unit(s)	52,35

For midi radiation protection box

Suitable for	No. of slots	Art. No.	Pack Qty.	€
0.5 ml reaction vials	40	**EXT4.1**	1 unit(s)	52,35
2 ml cryogenic vials	32	**EXT5.1**	1 unit(s)	52,35
1.5 ml reaction vials	32	**K568.1**	1 unit(s)	52,80

For maxi radiation protection box

Suitable for	No. of slots	Art. No.	Pack Qty.	€
5 ml scintillation vials	15	**EXT6.1**	1 unit(s)	52,35
20 ml scintillation vials	8	**EXT7.1**	1 unit(s)	52,35



Radiation protection waste container SEKUROKA®

ROTH SELECTION. Material: PMMA, Containing lead.

For protection against beta radiation. For collecting contaminated pipette tips, cannulae, reaction vials, etc.
Opening Ø 25 mm in lid. Additional hinged lid for closing this opening.
With four rubber studs on the base plate to prevent slipping.

L x W x H, external (mm)	Art. No.	Pack Qty.	€
150 x 150 x 150	**E267.1**	1 unit(s)	938,50

Waste bags SEKUROKA® for source containers

ROTH SELECTION. Material: PE, extra strong.

For E267.1 waste container. With double welded seams for increased leak protection and double drawstring closure for secure storage of the radioactive waste in the bag during disposal. The radioactive hazard symbol and a max. fill level line are printed on the container.

L x W x H (mm)	Art. No.	Pack Qty.	€
120 x 130 x 140	**K178.1**	25 unit(s)	184,00

Shields/radiation protection



Radiation protection waste containers SEKUROKA®

ROTH SELECTION. Material: PMMA, transparent.

For storage and transportation of radioactive samples and solutions. Made of transparent acrylic glass for protection against beta radiation or of leaded acrylic glass for protection against gamma radiation.
The 47 l container is equipped with rollers – for easy transportation.

Beta radiation protection

Vol. (l)	L x W x H, interior (mm)	Art. No.	Pack Qty.	€
1	100 x 80 x 130	**EYN7.1**	1 unit(s)	940,65
3.3	150 x 150 x 150	**C975.1**	1 unit(s)	968,60
10	200 x 200 x 250	**C976.1**	1 unit(s)	944,95
20	215 x 235 x 380	**EYN8.1**	1 unit(s)	940,65
47	285 x 270 x 580	**EYN9.1**	1 unit(s)	883,65
53	490 x 270 x 400	**C977.1**	1 unit(s)	981,50

Gamma radiation protection

Vol. (l)	L x W x H, interior (mm)	Art. No.	Pack Qty.	€
1	100 x 80 x 130	**EYP0.1**	1 unit(s)	1.823,20
3.3	150 x 150 x 150	**EYP1.1**	1 unit(s)	2.669,25

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Protection tray SEKUROKA®

ROTH SELECTION.

To protect the desk or laboratory bench against contamination from radioactive substances or spilt reagents. Easy to clean.
With stable edging. The trays should be used together with the anti-static inserts made of transparent PET.

Yellow

Material: PVC in signal colour. For work with radioactive substances.

L x W x H, external (mm)	Art. No.	Pack Qty.	€
460 x 260 x 20	**EXL3.1**	1 unit(s)	92,30
540 x 340 x 20	**EXL4.1**	1 unit(s)	102,40
570 x 540 x 20	**LN79.1**	1 unit(s)	141,05
680 x 540 x 20	**EXL5.1**	1 unit(s)	167,70
700 x 460 x 20	**EXL6.1**	1 unit(s)	167,70
1130 x 540 x 20	**LN78.1**	1 unit(s)	198,90

White

Material: PVC in signal colour. For general work.

L x W x H, external (mm)	Art. No.	Pack Qty.	€
460 x 260 x 20	**EXL7.1**	1 unit(s)	76,10
540 x 340 x 20	**EXL8.1**	1 unit(s)	82,40
570 x 540 x 20	**EXL9.1**	1 unit(s)	113,15
680 x 540 x 20	**EXN0.1**	1 unit(s)	141,05
700 x 460 x 20	**EXN1.1**	1 unit(s)	138,65
1130 x 540 x 20	**EXN2.1**	1 unit(s)	157,25

Protection tray inserts

Material: PET transparent.

The flexible anti-static inserts fit exactly into the trays provided and can be disposed of or reused as required.

L x W x H, external (mm)	Art. No.	Pack Qty.	€
460 x 260 x 20	**EXN3.1**	25 unit(s)	95,80
540 x 340 x 20	**EXN4.1**	25 unit(s)	130,05
570 x 540 x 20	**LN81.1**	25 unit(s)	148,15
680 x 540 x 20	**EXN5.1**	25 unit(s)	202,10
700 x 460 x 20	**EXN6.1**	25 unit(s)	202,10
1130 x 540 x 20	**LN80.1**	25 unit(s)	279,50

Marking tapes, signs



Warning sign danger of slipping

Contacto Bander. Material: PE.

Acc. to ASR A1.3/BGV A8/DIN 4844.
Warning sign „Danger of slipping“, in two languages – German and English. Coloured yellow, printed on both sides. Easy to fold and transport. Dimensions when folded up: W 31 mm x H 60 mm

Symbol	Art. No.	Pack Qty.	€
Warning, danger of slipping	**HLL6.1**	1 unit(s)	23,55





Signal tape

3M. Material: PVC Film.

Self-adhesive, abrasion resistant adhesive hazard warning tape for indoor use. Extremely stretchy and very supple, even on uneven surfaces. Ideal for marking hazards, bundling, holding and sealing.

Colour	W x L	Art. No.	Pack Qty.	€
red/white	50 mm x 33 m	**0744.2**	1 roll(s)	28,40
yellow/black	50 mm x 33 m	**NK94.1**	1 roll(s)	28,20



Signal barrier tape SEKUROKA®

ROTH SELECTION. Material: PE, Film, tearproof.

Red/white striped, simply printed, non-adhesive. For indicating, marking and warning against obstacles and hazards.

Colour	W x L	Art. No.	Pack Qty.	€
red/white	75 mm x 500 m	**NH42.1**	1 roll(s)	28,35



Magnetic sign SEKUROKA®

ROTH SELECTION. Material: Plastic, with white PVC coating.

On tape roll with magnetic finish, can be marked with pencil, ballpoint pen, typewriter, etc.

W x L	Art. No.	Pack Qty.	€
30 mm x 5 m	**0182.1**	1 roll(s)	31,20
50 mm x 5 m	**0181.1**	1 roll(s)	52,70



A 121 °C ❄❄❄

Adhesive tape temperature stable

Autoclavable: Yes.

Self-adhesive tape, ideal for use in extreme temperatures. For use in the cryo sector, in incubators, autoclaves, sterilisers, etc. The textile surface can be marked.
Temperature stability from -196 to +287 °C.

W x L	Art. No.	Pack Qty.	€
12.7 mm x 7.6 m	**L034.1**	1 roll(s)	42,90
19.0 mm x 7.6 m	**L035.1**	1 roll(s)	48,35
25.4 mm x 7.6 m	**L036.1**	1 roll(s)	74,40

Marking tapes, signs

Marking tape Labeltape original

Diversified Biotech. Material: Paper coated. Autoclavable: Yes.

Self-adhesive coloured marking tape. Long-lasting, abrasion-resistant and does not fade. Resistant to oils, dilute acids and water. Excellent adhesion to most surfaces such as glass, plastic and metal. Can be removed without leaving a residue.
Ideal for general identification and colour coding. Suitable for labelling with a ball-point pen, pencil, felt-tipped pen or permanent marker.
Temperature stability from -23 to +121 °C.



A 121 °C

Colour	W x L	ØCore (mm)	Art. No.	Pack Qty.	€
white	19 mm x 12.7 m	25.4	**KCL0.1**	1 roll(s)	14,85
yellow	19 mm x 12.7 m	25.4	**KCL1.1**	1 roll(s)	14,85
green	19 mm x 12.7 m	25.4	**KCL2.1**	1 roll(s)	14,85
blue	19 mm x 12.7 m	25.4	**KCL3.1**	1 roll(s)	14,85
red	19 mm x 12.7 m	25.4	**KCL4.1**	1 roll(s)	14,85

Duct tape SEKUROKA® Standard

ROTH SELECTION. Fabric tape, 80 mesh (threads/inch²), PE coated, with natural rubber adhesive.

High tear strength, good adhesive power, also adheres to rough surfaces. Hand tearable. Waterproof, highly UV and oil resistant. Wide variety of uses indoors and outdoors. Writable.
Temperature stability from -35 to +80 °C



Colour	W x L	Thickness (mm)	ØCore (mm)	Art. No.	Pack Qty.	€
white	19 mm x 50 m	0.30	76.1	**YX05.1**	1 roll(s)	20,75
yellow	19 mm x 50 m	0.30	76.1	**YX06.1**	1 roll(s)	20,75
red	19 mm x 50 m	0.30	76.1	**YX07.1**	1 roll(s)	20,75
blue	19 mm x 50 m	0.30	76.1	**YX08.1**	1 roll(s)	20,75
green	19 mm x 50 m	0.30	76.1	**YX09.1**	1 roll(s)	20,75
silver	19 mm x 50 m	0.30	76.1	**YX10.1**	1 roll(s)	20,75

Duct tape tesa® Premium

tesa. Fabric tape, 145 mesh (threads/inch²), Acrylic coated with natural rubber adhesive. Autoclavable: Yes.

Abrasion resistant, very high tear strength. Hand tearable. Waterproof, UV and oil resistant. Wide variety of uses indoors and outdoors. Writable. Temperature stability from -40 to +130 °C.



A 121 °C

Colour	W x L	Thickness (mm)	ØCore (mm)	Art. No.	Pack Qty.	€
white	19 mm x 50 m	0.31	76.1	**YX11.1**	1 roll(s)	35,75
yellow	19 mm x 50 m	0.31	76.1	**YX12.1**	1 roll(s)	35,75
red	19 mm x 50 m	0.31	76.1	**YX13.1**	1 roll(s)	35,75
blue	19 mm x 50 m	0.31	76.1	**YX14.1**	1 roll(s)	35,75
green	19 mm x 50 m	0.31	76.1	**YX15.1**	1 roll(s)	35,75
black	19 mm x 50 m	0.31	76.1	**YX18.1**	1 roll(s)	35,75

Marking tapes, signs

Marking tape ROTI®Tape

ROTH SELECTION. Autoclavable: Yes.

Self-adhesive, coloured marking tapes. Wide range of applications, e.g. labelling samples, laboratory glass and laboratory dishes.

- Can be marked with pencil, ballpoint pen, felt-tipped pen, permanent marker, ink, etc.
- Can be removed without leaving any residue
- Resistant to oil, water and acids
- Temperature stability from: -23 °C to +121 °C



A 121 °C

Core Ø 25.4 mm, width 13,00 mm

Colour	W x L	ØCore (mm)	Art. No.	Pack Qty.	€
red	13 mm x 12.7 m	25.4	**7982.1**	1 roll(s)	10,95
blue	13 mm x 12.7 m	25.4	**7983.1**	1 roll(s)	10,95
grey	13 mm x 12.7 m	25.4	**AL52.1**	1 roll(s)	10,95
pink	13 mm x 12.7 m	25.4	**AL31.1**	1 roll(s)	10,95
pink	13 mm x 12.7 m	25.4	**AL43.1**	1 roll(s)	10,95
beige	13 mm x 12.7 m	25.4	**AL34.1**	1 roll(s)	10,95
black	13 mm x 12.7 m	25.4	**AL55.1**	1 roll(s)	16,15
green	13 mm x 12.7 m	25.4	**7985.1**	1 roll(s)	10,95
white	13 mm x 12.7 m	25.4	**7981.1**	1 roll(s)	10,95
copper	13 mm x 12.7 m	25.4	**AL40.1**	1 roll(s)	10,95
orange	13 mm x 12.7 m	25.4	**7988.1**	1 roll(s)	10,95
salmon	13 mm x 12.7 m	25.4	**AL37.1**	1 roll(s)	10,95
violet	13 mm x 12.7 m	25.4	**AL46.1**	1 roll(s)	10,95
yellow	13 mm x 12.7 m	25.4	**7987.1**	1 roll(s)	10,95
lavender	13 mm x 12.7 m	25.4	**AL49.1**	1 roll(s)	10,95

Core Ø 25.4 mm, width 19,1 mm

Colour	W x L	ØCore (mm)	Art. No.	Pack Qty.	€
red	19.1 mm x 12.7 m	25.4	**8000.1**	1 roll(s)	13,15
blue	19.1 mm x 12.7 m	25.4	**8002.1**	1 roll(s)	13,15
grey	19.1 mm x 12.7 m	25.4	**AL53.1**	1 roll(s)	12,30
pink	19.1 mm x 12.7 m	25.4	**AL32.1**	1 roll(s)	12,30
pink	19.1 mm x 12.7 m	25.4	**AL44.1**	1 roll(s)	12,30
beige	19.1 mm x 12.7 m	25.4	**AL35.1**	1 roll(s)	12,30
black	19.1 mm x 12.7 m	25.4	**AL56.1**	1 roll(s)	13,15
green	19.1 mm x 12.7 m	25.4	**8003.1**	1 roll(s)	13,15
white	19.1 mm x 12.7 m	25.4	**7999.1**	1 roll(s)	13,15
copper	19.1 mm x 12.7 m	25.4	**AL41.1**	1 roll(s)	12,30
orange	19.1 mm x 12.7 m	25.4	**8014.1**	1 roll(s)	12,30
salmon	19.1 mm x 12.7 m	25.4	**AL38.1**	1 roll(s)	12,30
violet	19.1 mm x 12.7 m	25.4	**AL47.1**	1 roll(s)	12,30
yellow	19.1 mm x 12.7 m	25.4	**8008.1**	1 roll(s)	13,15
lavender	19.1 mm x 12.7 m	25.4	**AL50.1**	1 roll(s)	12,30

Core Ø 25.4 mm, width 25,4 mm

Colour	W x L	ØCore (mm)	Art. No.	Pack Qty.	€
red	25.4 mm x 12.7 m	25.4	**8037.1**	1 roll(s)	17,40
blue	25.4 mm x 12.7 m	25.4	**8041.1**	1 roll(s)	17,40
grey	25.4 mm x 12.7 m	25.4	**AL54.1**	1 roll(s)	17,40
pink	25.4 mm x 12.7 m	25.4	**AL33.1**	1 roll(s)	17,40
pink	25.4 mm x 12.7 m	25.4	**AL45.1**	1 roll(s)	17,40
beige	25.4 mm x 12.7 m	25.4	**AL36.1**	1 roll(s)	17,40
black	25.4 mm x 12.7 m	25.4	**AL57.1**	1 roll(s)	17,40
green	25.4 mm x 12.7 m	25.4	**8042.1**	1 roll(s)	17,40
white	25.4 mm x 12.7 m	25.4	**8036.1**	1 roll(s)	17,40
copper	25.4 mm x 12.7 m	25.4	**AL42.1**	1 roll(s)	17,40
orange	25.4 mm x 12.7 m	25.4	**8057.1**	1 roll(s)	17,40
salmon	25.4 mm x 12.7 m	25.4	**AL39.1**	1 roll(s)	17,40
violet	25.4 mm x 12.7 m	25.4	**AL48.1**	1 roll(s)	17,40
yellow	25.4 mm x 12.7 m	25.4	**8055.1**	1 roll(s)	17,40
lavender	25.4 mm x 12.7 m	25.4	**AL51.1**	1 roll(s)	17,40

Marking tapes, signs

Core Ø 76.2 mm, width 13,0 mm

Colour	W x L	ØCore (mm)	Art. No.	Pack Qty.	€
red	13 mm x 55 m	76.2	**7991.1**	1 roll(s)	23,25
blue	13 mm x 55 m	76.2	**7993.1**	1 roll(s)	23,25
grey	13 mm x 55 m	76.2	**AL79.1**	1 roll(s)	23,25
pink	13 mm x 55 m	76.2	**AL58.1**	1 roll(s)	23,25
pink	13 mm x 55 m	76.2	**AL70.1**	1 roll(s)	23,25
green	13 mm x 55 m	76.2	**7994.1**	1 roll(s)	23,25
white	13 mm x 55 m	76.2	**7990.1**	1 roll(s)	23,25
copper	13 mm x 55 m	76.2	**AL67.1**	1 roll(s)	23,25
orange	13 mm x 55 m	76.2	**7997.1**	1 roll(s)	23,25
salmon	13 mm x 55 m	76.2	**AL64.1**	1 roll(s)	23,25
violet	13 mm x 55 m	76.2	**AL73.1**	1 roll(s)	23,25
yellow	13 mm x 55 m	76.2	**7996.1**	1 roll(s)	23,25
lavender	13 mm x 55 m	76.2	**AL76.1**	1 roll(s)	23,25

Core Ø 76.2 mm, width 19,1 mm

Colour	W x L	ØCore (mm)	Art. No.	Pack Qty.	€
red	19.1 mm x 55 m	76.2	**8026.1**	1 roll(s)	30,30
blue	19.1 mm x 55 m	76.2	**8027.1**	1 roll(s)	30,30
grey	19.1 mm x 55 m	76.2	**AL80.1**	1 roll(s)	30,30
pink	19.1 mm x 55 m	76.2	**AL59.1**	1 roll(s)	30,30
pink	19.1 mm x 55 m	76.2	**AL71.1**	1 roll(s)	30,30
beige	19.1 mm x 55 m	76.2	**AL62.1**	1 roll(s)	30,30
black	19.1 mm x 55 m	76.2	**AL83.1**	1 roll(s)	30,30
green	19.1 mm x 55 m	76.2	**8033.1**	1 roll(s)	30,30
white	19.1 mm x 55 m	76.2	**8024.1**	1 roll(s)	30,30
copper	19.1 mm x 55 m	76.2	**AL68.1**	1 roll(s)	30,30
orange	19.1 mm x 55 m	76.2	**8035.1**	1 roll(s)	30,30
salmon	19.1 mm x 55 m	76.2	**AL65.1**	1 roll(s)	30,30
violet	19.1 mm x 55 m	76.2	**AL74.1**	1 roll(s)	30,30
yellow	19.1 mm x 55 m	76.2	**8034.1**	1 roll(s)	30,30
lavender	19.1 mm x 55 m	76.2	**AL77.1**	1 roll(s)	30,30

Core Ø 76.2 mm, width 25,4 mm

Colour	W x L	ØCore (mm)	Art. No.	Pack Qty.	€
red	25.4 mm x 55 m	76.2	**8061.1**	1 roll(s)	34,35
blue	25.4 mm x 55 m	76.2	**8062.1**	1 roll(s)	34,35
grey	25.4 mm x 55 m	76.2	**AL81.1**	1 roll(s)	64,50
pink	25.4 mm x 55 m	76.2	**AL60.1**	1 roll(s)	34,35
pink	25.4 mm x 55 m	76.2	**AL72.1**	1 roll(s)	34,35
green	25.4 mm x 55 m	76.2	**8064.1**	1 roll(s)	36,90
white	25.4 mm x 55 m	76.2	**8058.1**	1 roll(s)	34,35
orange	25.4 mm x 55 m	76.2	**8069.1**	1 roll(s)	34,35
salmon	25.4 mm x 55 m	76.2	**AL66.1**	1 roll(s)	34,35
violet	25.4 mm x 55 m	76.2	**AL75.1**	1 roll(s)	34,35
yellow	25.4 mm x 55 m	76.2	**8065.1**	1 roll(s)	34,35
lavender	25.4 mm x 55 m	76.2	**AL78.1**	1 roll(s)	40,15



121 °C

Marking tape ROTI®Tape set

ROTH SELECTION. Autoclavable: Yes.

Self-adhesive, coloured marking tapes. Wide range of applications, e.g. labelling samples, laboratory glass and laboratory dishes.

- Can be marked with pencil, ballpoint pen, felt-tipped pen, permanent marker, ink, etc.
- Can be removed without leaving any residue
- Resistant to oil, water and acids
- Temperature stable in the range -23 to +121 °C

Set contains five rolls, colours: white, red, blue, green and yellow.

Core Ø 25.4 mm

W x L	ØCore (mm)	Art. No.	Pack Qty.	€
13.0 mm x 12.7 m	25.4	**AK65.1**	1 set	59,30
19.1 mm x 12.7 m	25.4	**AK66.1**	1 set	67,85
25.4 mm x 12.7 m	25.4	**AK67.1**	1 set	85,75

Core Ø 76.2 mm

W x L	ØCore (mm)	Art. No.	Pack Qty.	€
13.0 mm x 55 m	76.2	**E287.1**	1 set	116,10
19.1 mm x 55 m	76.2	**E288.1**	1 set	140,75
25.4 mm x 55 m	76.2	**K325.1**	1 set	190,30



NEW / +

Desktop marking tape dispenser

Cleaver Scientific. Material: PMMA (Acrylic glass).

Practical desktop dispenser made of acrylic glass. For simultaneous use of tapes with a core Ø of 25.4 mm and 76.2 mm. The small rolls can be used directly on the spindle. Use the adapter supplied for the large tapes.
There is a sharp, serrated tear bar made of metal.

Usable internal width: 198 mm.

Delivery incl. five roll adapter for a core Ø of 76.2 mm, does not include marking tapes, please order separately.

L x W x H (mm)	Art. No.	Pack Qty.	€
168 x 208 x 118	**1H4K.1**	1 unit(s)	176,30

NEW / +

Accessories for desktop marking tape dispenser

Cleaver Scientific.

Type	Art. No.	Pack Qty.	€
Roll adapter for a core Ø of 76.2 mm	**1H4L.1**	5 unit(s)	29,10



Marking tape dispenser

ROTH SELECTION.

For Roti®Tape and other marking tapes and adhesive tapes. Portable or benchtop. Benchtop dispensers are equipped with a hinged lid and suction cups for secure positioning.

Delivery without marking tapes.

Hand-held dispenser
Material: Plastic. Usable internal width: 34 mm. Suitable for 1 to 2 rolls with a 25.4 mm core.

L x W x H (mm)	Art. No.	Pack Qty.	€
117 x 47 x 90	**CT05.1**	1 unit(s)	13,80

Desktop dispenser for rolls with a 25.4 mm core
Material: PMMA (Acrylic glass). Usable internal width: 220 mm.

L x W x H (mm)	Art. No.	Pack Qty.	€
125 x 251 x 92	**AL87.1**	1 unit(s)	124,95

Desktop dispenser for rolls with a 76.2 mm core
Material: PMMA. Usable internal width: 240 mm.

L x W x H (mm)	Art. No.	Pack Qty.	€
191 x 248 x 162	**AL88.1**	1 unit(s)	159,10

Hazard markings, labels

Labels on a roll

Diversified Biotech. Material: Polyester.

For manual labelling, can be marked with almost any pen. For 0.2/0.5/0.65 and 1.5/2 ml tubes and other containers. Adhere to any plastic without drying out and falling off. Depending on the temperature resistance, e.g. for steam sterilisation, in boiling water baths, in refrigerators, in stirrers and shakers, centrifuges, etc. Extremely close-fitting and do not hinder the removal or loading of tubes in stands or centrifuges, etc. Tearproof.
1000 pieces per roll (Art. No. K436.1 1500 pieces).



Tough Spots™ round

Temperature stability from: -196 °C to +80 °C.

Suitable for	Colour	LabelØ (mm)	Art. No.	Pack Qty.	€
0.5 ml vessels	white	9.5	**K164.1**	1 roll(s)	42,80
0.5 ml vessels	blue	9.5	**X612.1**	1 roll(s)	38,15
0.5 ml vessels	green	9.5	**X613.1**	1 roll(s)	38,15
0.5 ml vessels	red	9.5	**X614.1**	1 roll(s)	38,15
0.5 ml vessels	yellow	9.5	**X615.1**	1 roll(s)	38,15
1.5 ml vessels	white	11	**KCK7.1**	1 roll(s)	38,85
15 ml vessels	white	19	**KCK8.1**	1 roll(s)	46,25
50 ml vessels	white	25	**KCK9.1**	1 roll(s)	46,25
1,5/2 ml vessels	white	12.7	**N120.1**	1 roll(s)	38,85
1,5/2 ml vessels	red	12.7	**N121.1**	1 roll(s)	38,85
1,5/2 ml vessels	green	12.7	**N122.1**	1 roll(s)	38,85
1,5/2 ml vessels	yellow	12.7	**N123.1**	1 roll(s)	38,85
1,5/2 ml vessels	blue	12.7	**N124.1**	1 roll(s)	38,85

Tough Tags™ square

Autoclavable: Yes. Temperature stability from: -40 °C to +121 °C.

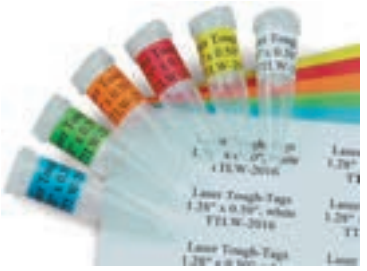
Suitable for	Colour	L x W (mm)	Art. No.	Pack Qty.	€
0.2 ml vessels	white	20.5 x 6.5	**K436.1**	1 roll(s)	45,75
0.5 ml vessels	blue	23 x 13	**K440.1**	1 roll(s)	45,75
0.5 ml vessels	yellow	23 x 13	**K441.1**	1 roll(s)	45,75
0.5 ml vessels	red	23 x 13	**K442.1**	1 roll(s)	45,75
0.5 ml vessels	colourless	23 x 13	**K443.1**	1 roll(s)	45,75
0.5 ml vessels	white	23 x 13	**K556.1**	1 roll(s)	38,85
0.5 ml vessels	green	23 x 13	**L666.1**	1 roll(s)	44,60
1,5/2 ml vessels	blue	32 x 13	**K444.1**	1 roll(s)	53,45
1,5/2 ml vessels	yellow	32 x 13	**K445.1**	1 roll(s)	53,45
1,5/2 ml vessels	red	32 x 13	**K446.1**	1 roll(s)	53,45
1,5/2 ml vessels	colourless	32 x 13	**K447.1**	1 roll(s)	53,45
1,5/2 ml vessels	white	32 x 13	**K557.1**	1 roll(s)	38,85
1,5/2 ml vessels	green	32 x 13	**L667.1**	1 roll(s)	51,85
test tubes	white	38 x 19	**L676.1**	1 roll(s)	70,45

Hazard markings, labels

Labels for laser printers

Diversified Biotech. Material: Polyester.

For 0.2/0.5/0.65 and 1.5/2 ml tubes and other containers. Adhere to any plastic without drying out and falling off. Depending on the temperature resistance, e.g. for steam sterilisation, in boiling water baths, in refrigerators, in stirrers and shakers, centrifuges, etc. Extremely close-fitting and do not hinder the removal or loading of tubes in stands or centrifuges, etc. Tearproof.
Sheet format US-Letter, 21,6 x 27,9 cm.



Tough Spots™ round

Temperature stability from: -196 °C to +100 °C.

Assorted colours: 4 sheets each of blue, green, orange, red and yellow.

Suitable for	Colour	LabelØ (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
1.5-2 ml vessels	white	11	234	**KP64.1**	20 sheet	76,40
1.5-2 ml vessels	white	13	192	**KP65.1**	20 sheet	76,40
1.5-2 ml vessels	assorted colours	13	192	**KP71.1**	20 sheet	76,40
0.5-0.65 ml vessels	white	9.5	192	**KP57.1**	20 sheet	76,40
0.5-0.65 ml vessels	assorted colours	9.5	192	**KP63.1**	20 sheet	76,40

Tough Tags™ square

Autoclavable: Yes. Temperature stability from: -40 °C to +121 °C.

Assorted colours: 5 sheets each of blue, green, orange, red and yellow.

Suitable for	Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	white	24 x 13	119	**TH53.1**	25 sheet	95,65
0.5 ml vessels	assorted colours	24 x 13	119	**TH54.1**	25 sheet	95,65
1.5/2 ml vessels	white	33 x 13	85	**TH55.1**	25 sheet	95,65
1.5/2 ml vessels	assorted colours	33 x 13	85	**TH56.1**	25 sheet	95,65
Test tubes	white	38 x 19	60	**TH57.1**	25 sheet	95,65
Test tubes	assorted colours	38 x 19	60	**TH58.1**	25 sheet	95,65
Microscope slides	white	22 x 22	96	**TH59.1**	25 sheet	95,65

Cryogenic labels

Diversified Biotech.

Acrylate-based. Adhere to plastic, glass and metal without drying out or flaking off. Care must be taken to ensure that glass and metallic surfaces are absolutely free of oil and grease. Can even be used in boiling water baths, refrigerators, and under cryo conditions (liquid nitrogen). Can be removed without leaving any residue.
Sheet formatUS-Letter, 21,6 x 27,9 cm, sheet can be laser-printed.
Temperature stability from: -196 °C to +79 °C.



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On a sheet white

Suitable for	Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	white	24 x 13	119	**X547.1**	20 sheet	84,30
1.5-2 ml vessels	white	33 x 13	85	**X548.1**	20 sheet	84,30
0.5-2 ml vessels	white	64 x 13	60	**EL07.1**	20 sheet	80,75
2 ml cryogenic vials	white	38 x 19	60	**X549.1**	20 sheet	84,30
2 ml cryogenic vials	white	43 x 19	52	**EL08.1**	20 sheet	80,75
Centrifuge tubes	white	29 x 44	42	**EL09.1**	20 sheet	80,75
Racks, boxes	white	67 x 25	30	**X550.1**	20 sheet	84,30
Bottles, glass beakers	white	76 x 51	12	**X551.1**	20 sheet	84,30
Microtiter plates	white	38 x 6	156	**X545.1**	20 sheet	84,30
Microscope slides	white	25 x 25	80	**EL06.1**	20 sheet	80,75

On a sheet blue

Suitable for	Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	blue	24 x 13	119	**HX32.1**	20 sheet	80,75
1.5-2 ml vessels	blue	33 x 13	85	**HX33.1**	20 sheet	80,75
2 ml cryogenic vials	blue	38 x 19	60	**HX34.1**	20 sheet	80,75
Racks, boxes	blue	67 x 25	30	**HX35.1**	20 sheet	80,75

Hazard markings, labels

On a sheet yellow

Suitable for	Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	yellow	24 x 13	119	**HX48.1**	20 sheet	80,75
1.5-2 ml vessels	yellow	33 x 13	85	**HX49.1**	20 sheet	80,75
2 ml cryogenic vials	yellow	38 x 19	60	**HX50.1**	20 sheet	80,75
Racks, boxes	yellow	67 x 25	30	**HX51.1**	20 sheet	80,75

On a sheet green

Suitable for	Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	green	24 x 13	119	**HX36.1**	20 sheet	80,75
1.5-2 ml vessels	green	33 x 13	85	**HX37.1**	20 sheet	80,75
2 ml cryogenic vials	green	38 x 19	60	**HX38.1**	20 sheet	80,75
Racks, boxes	green	67 x 25	30	**HX39.1**	20 sheet	80,75

On a sheet orange

Suitable for	Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	orange	24 x 13	119	**HX40.1**	20 sheet	80,75
1.5-2 ml vessels	orange	33 x 13	85	**HX41.1**	20 sheet	80,75
2 ml cryogenic vials	orange	38 x 19	60	**HX42.1**	20 sheet	80,75
Racks, boxes	orange	67 x 25	30	**HX43.1**	20 sheet	80,75

On a sheet red

Suitable for	Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	red	24 x 13	119	**HX44.1**	20 sheet	80,75
1.5-2 ml vessels	red	33 x 13	85	**HX45.1**	20 sheet	80,75
2 ml cryogenic vials	red	38 x 19	60	**HX46.1**	20 sheet	80,75
Racks, boxes	red	67 x 25	30	**HX47.1**	20 sheet	80,75

On a sheet assorted colours

4 sheets of each: blue, green, orange, red, yellow

Suitable for	Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	assorted colours	24 x 13	119	**HX52.1**	20 sheet	80,75
1.5-2 ml vessels	assorted colours	33 x 13	85	**HX53.1**	20 sheet	80,75
2 ml cryogenic vials	assorted colours	38 x 19	60	**HX54.1**	20 sheet	80,75
Racks, boxes	assorted colours	67 x 25	30	**HX55.1**	20 sheet	80,75

On a roll white

For manual labelling.

Suitable for	Colour	L x W (mm)	Art. No.	Pack Qty.	€
0.5 ml vessels	white	24 x 13	**HX56.1**	1 roll(s)	43,55
1.5-2 ml vessels	white	33 x 13	**L672.1**	1 roll(s)	44,00
2 ml cryogenic vial	white	38 x 19	**L673.1**	1 roll(s)	44,00

Hazard markings, labels

Cryogenic labels Cryo-Clear™

Diversified Biotech. Material: Vinyl, with acrylic adhesive.

Transparent labels. Surface of the label is specially coated for laser jet printing. Good chemical resistance compared with most organic solutions.
Sheet format US-Letter, 21,6 x 27,9 cm.
Temperature stability from: -196 °C to +70 °C.



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Suitable for	Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	translucent	24 x 13	119	**HT44.1**	20 sheet	85,05
1.5-2 ml vessels	translucent	33 x 13	85	**HT45.1**	20 sheet	85,05

Labels WetGrip™

Diversified Biotech. Material: Polyester, chemically inert.

Suitable for laser printers. Adhere to moist and frozen surfaces made of glass, plastic, metal and cardboard. Ensure that surfaces are free of grease and silicone.
Sheet format US-Letter, 21,6 x 27,9 cm.
Temperature stability from: -80 °C to +100 °C.



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Suitable for	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	24 x 13	119	**KP74.1**	20 sheet	88,70
1.5-2 ml vessels	33 x 13	85	**KP75.1**	20 sheet	88,70
Test tubes	38 x 19	60	**KP76.1**	20 sheet	88,70
Microscope slide	22 x 22	96	**KP77.1**	20 sheet	88,70

Thermal transfer labels

Diversified Biotech.

White, angular cornered labels with acrylate-based adhesive backing. Excellent adhesion to plastic, glass or metal at low temperatures without drying out or peeling off. Care must be taken to ensure that glass and metallic surfaces are absolutely free of oil and grease. Resistant to abrasion, chemicals and moisture.
Can be used for refrigerators and freezers and in cryo conditions (liquid nitrogen) (for Cryo Tags®).
Can be removed without leaving any residue. Coated for use with a resin ribbon. Designed for high resolution and very precise labelling, e.g. for barcode. Suitable for most thermal transfer printers.
Wound externally, 25.4 mm (1 inch) roll core, **2000 labels per roll**.



Cryo-Tags®
Temperature stability from: -196 °C to +80 °C.

Suitable for	L x W (mm)	ØCore (mm)	Art. No.	Pack Qty.	€
0.2 ml vessels	20.6 x 7	25.4	**NL05.1**	1 roll(s)	115,00
0.5 ml vessels	24 x 13	25.4	**NL06.1**	1 roll(s)	118,25
0.5 ml vessels	27 x 13	25.4	**NL07.1**	1 roll(s)	115,05
0.5-2 ml vessels	35 x 16	25.4	**NL09.1**	1 roll(s)	126,30
0.5-2 ml vessels	38 x 13	25.4	**NL10.1**	1 roll(s)	159,45
1.5-2 ml vessels	32 x 13	25.4	**NL08.1**	1 roll(s)	141,70
Racks, containers	38 x 19	25.4	**NL11.1**	1 roll(s)	197,80
Microtitration plates	51 x 6	25.4	**NL12.1**	1 roll(s)	108,70

Tough Tags™
Autoclavable: Yes. Temperature stability from: -40 °C to +150 °C.

Suitable for	L x W	ØCore (mm)	Art. No.	Pack Qty.	€
0.5 ml vessels	24 cm x 13 mm	25.4	**NL13.1**	1 roll(s)	108,95
0.5-2 ml vessels	35 x 16	25.4	**NL15.1**	1 roll(s)	112,30
1.5-2 ml vessels	32 x 13	25.4	**NL14.1**	1 roll(s)	112,30
Racks, containers	38 x 19	25.4	**NL16.1**	1 roll(s)	202,10
Microtitration plates	51 x 6	25.4	**NL17.1**	1 roll(s)	112,90

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Hazard markings, labels



A 121 °C ❄

Thermal transfer labels xylol resistant

Diversified Biotech. Material: Polyester. Autoclavable: Yes.

Excellent solvent resistance, specifically against xylene. Versatile – also suitable for use in boiling water baths. Surface coated for use with resin ribbon. Designed for high resolution and very precise labelling, e.g. for barcode. Suitable for most thermal transfer printers. Good adhesion to PP tubes; not for use on siliconised surfaces.
Wound externally, 25.4 mm (1 inch) roll core, **2000 labels per roll**.
Temperature stability from: -40 °C to +121 °C.

Suitable for	L x W (mm)	ØCore (mm)	Art. No.	Pack Qty.	€
Microscope slides	22 x 22	25.4	**ECH8.1**	1 roll(s)	92,35



A 121 °C ❄❄❄

Labels Bake Tags™ for high temperatures

Diversified Biotech. Autoclavable: Yes.

Acrylate-based, for manual labelling. For permanent labelling of plastic, glass and metal containers. Can be used in applications such as hot air sterilisation (180 °C) and for deactivating RNase, DNase and other enzymes. Ideal for use during sterilisation, autoclaving, in boiling water baths, in refrigerators and for storage in freezers (liquid nitrogen). Resistant to most organic solvents, acids and bases.
Thickness 0.008 mm.
Temperature stability from: -196 °C to +180 °C.
250 labels per roll.

Colour	L x W (mm)	Art. No.	Pack Qty.	€
white	38 x 19	**L675.1**	1 roll(s)	108,85



Labels Wash-off labels™

Diversified Biotech.

Washable labels **on sheets**. Labels and adhesive are completely removable within 30 seconds at any water temperature and without leaving any traces of adhesive. 100% biodegradable.
Temperature stability from: 0 °C to +21 °C.
Sheet format US-Letter, 21,6 x 27,9 cm.

Colour	L x W (mm)	Art. No.	Pack Qty.	€
white	67 x 25.4	**NL21.1**	750 unit(s)	162,35
white	102 x 25.4	**NL22.1**	500 unit(s)	162,35



Labels Tough Tags™ Removable

Diversified Biotech.

Easily removable, without leaving any residue. With rounded corners. For manual labelling.
Ideal for labelling reusable containers, laboratory equipment, racks and pipettes. Resistant to most solvents, including (for short periods) acetone and xylol.
1000 labels per roll.

Colour	L x W (mm)	Art. No.	Pack Qty.	€
white	32.5 x 12.7	**NL19.1**	1 roll(s)	47,60
white	38 x 19	**NL20.1**	1 roll(s)	46,20

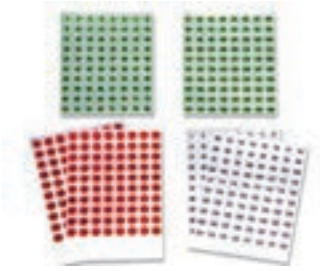


Hazard symbols SEKUROKA® Biohazard

ROTH SELECTION.

Self-adhesive. Adhere to any plastic without drying out and falling off, e.g. when freezing or in a boiling water bath. Chemically resistant against most organic solvents and corrosive substances.
1 roll of 1000 pieces.

Suitable for	LabelØ (mm)	Art. No.	Pack Qty.	€
0.5–2 ml tubes as well as other containers	9.5	**KL45.1**	1 roll(s)	38,85



Labels SEKUROKA® numbered

ROTH SELECTION. Material: Paper.

Numbered from 1–160 in red, green and blue. Self-adhesive, made of paper. Ø 8 mm. For marking reaction vessels, screw-cap containers, test tubes, etc. For use with numerical racks, to prevent any mix-up. Clear positioning of vessels even when handling large volumes of samples.

LabelØ (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
8	80	**N376.1**	6 sheet	3,80



A 121 °C ❄❄❄

Label protection film Write-Protect™

Diversified Biotech. Autoclavable: Yes.

Self-adhesive, perforated. Fits Cryo labels for 0.5, 1.5 and 2.0 ml tubes or other vessels. Protects the label against organic solvents and corrosive chemicals. Holds labels in place, and prevents labels from becoming detached or falling off. Adheres to most surfaces, plastics, glass and metals.
Temperature stability from: -196 °C to 150 °C. 1000 labels per roll.

Delivery incl. dispenser.

L x W (mm)	Art. No.	Pack Qty.	€
31.75 x 12.7	**ECH6.1**	1 roll(s)	44,55
40.65 x 16.0	**ECH7.1**	1 roll(s)	44,55



Label dispenser Tough-Tag Station

Diversified Biotech.

For the clear, convenient storage and unwinding of up to 6 rolls of Tough-Tags™, Tough-Spots®, Cryo-Tags® or Bake-Tags™ (not suitable for round labels Ø 25 mm). With ledge for writing labels, cutting edge and no-skid rubber feet.

Delivery without Labels, please order separately.

Suitable for	Art. No.	Pack Qty.	€
up to 6 Tough-Tags or Tough-Spots boxes	**NL18.1**	1 unit(s)	124,70



Labels SEKUROKA® blanc

ROTH SELECTION. Material: Paper, satin-finished, 80 g/m².

Multipurpose with permanent adhesive. For manual labelling or printing.
Sheet format A5.

Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
white	50 x 19	24	**5823.1**	200 sheet	47,25
white	50 x 100	4	**5831.1**	200 sheet	47,25

Hazard markings, labels

Fire safety symbol acc. to ISO 7010

Film, self-adhesive.

Acc. to ASR A1.3, DIN EN ISO 7010.
Suitable for indoor use. Adhere permanently to clean, grease-free and smooth surfaces. Resistant to many chemicals. Material thickness: 0.08 to 0.55 mm. Temperature stability from -40 °C to +80 °C. Minimum bonding temperature: +10 °C.



Adhesive film

Pic.	Symbol	Code	L x W (mm)	Art. No.	Pack Qty.	€
(1)	Fire alarm	F005	200 x 200	**YX24.1**	1 unit(s)	5,45
(2)	Fire emergency telephone	F006	200 x 200	**YX25.1**	1 unit(s)	5,45
(3)	Fire ladder	F003	200 x 200	**YX22.1**	1 unit(s)	5,45
(4)	Fire extinguisher	F001	148 x 148	**YX19.1**	1 unit(s)	3,85
(4)	Fire extinguisher	F001	200 x 200	**YX20.1**	1 unit(s)	5,95
(5)	Fire hose	F002	200 x 200	**YX21.1**	1 unit(s)	5,95
(6)	Firefighting media and apparatus	F004	200 x 200	**YX23.1**	1 unit(s)	4,95

Adhesive film, long-lasting luminescence

Exceeding DIN 67510 by 175%. Ideal during power outages or in darkness.

Pic.	Symbol	Code	L x W (mm)	Art. No.	Pack Qty.	€
(1)	Fire alarm	F005	200 x 200	**YX30.1**	1 unit(s)	9,85
(2)	Fire emergency telephone	F006	200 x 200	**YX31.1**	1 unit(s)	9,85
(3)	Fire ladder	F003	200 x 200	**YX28.1**	1 unit(s)	9,85
(4)	Fire extinguisher	F001	200 x 200	**YX26.1**	1 unit(s)	9,60
(5)	Fire hose	F002	200 x 200	**YX27.1**	1 unit(s)	9,60
(6)	Firefighting media and apparatus	F004	200 x 200	**YX29.1**	1 unit(s)	9,60

First aid and rescue signs acc. to ISO 7010

Acc. to ASR A1.3 and DIN EN ISO 7010.



Adhesive film

Material: PE Film, self-adhesive. Non-fading print. Resistant to water, oil and alkalis. Temperature stability from -40 °C to +80 °C.

Pic.	Symbol	Code	L x W (mm)	Art. No.	Pack Qty.	€
(1)	Doctor	E009	200 x 200	**NP70.1**	1 unit(s)	6,45
(2)	Eyewash unit	E011	200 x 200	**H497.1**	1 unit(s)	5,35
(3)	Defibrillator	E010	200 x 200	**NP72.1**	1 unit(s)	5,35
(4)	First aid	E003	200 x 200	**0232.1**	1 unit(s)	6,85
(4)	First aid	E003	100 x 100	**NP68.1**	1 unit(s)	3,80
(5)	Body safety shower	E012	200 x 200	**NP67.1**	1 unit(s)	5,45
(6)	Stretcher	E013	200 x 200	**NP71.1**	1 unit(s)	5,45
(7)	Emergency exit system	E008	100 x 100	**NP73.1**	1 unit(s)	4,25
(9)	Emergency call centre	E004	200 x 200	**NP69.1**	1 unit(s)	5,45
(10)	Emergency exit, left	E001 and left arrow	200 x 400	**NP74.1**	1 unit(s)	8,95
(11)	Emergency exit, right	E002 and right arrow	200 x 400	**NP75.1**	1 unit(s)	9,80

Adhesive film, long-lasting luminescence

Material: Film, self-adhesive. Long-lasting luminescence exceeding DIN 67510 by 175 %. Ideal during power outages or in darkness.

Pic.	Symbol	Code	L x W (mm)	Art. No.	Pack Qty.	€
(2)	Eyewash unit	E011	200 x 200	**H493.1**	1 unit(s)	11,70
(4)	First aid	E003	200 x 200	**H492.1**	1 unit(s)	11,70
(5)	Body safety shower	E012	200 x 200	**NP76.1**	1 unit(s)	9,85
(7)	Emergency exit system	E008	100 x 100	**NP77.1**	1 unit(s)	6,05
(8)	Emergency exit with escape ladder	E016	200 x 200	**NP78.1**	1 unit(s)	9,85
(10)	Emergency exit, left	E001 and left arrow	200 x 400	**NP79.1**	1 unit(s)	18,30
(11)	Emergency exit, right	E002 and right arrow	200 x 400	**NP80.1**	1 unit(s)	18,30

Hazard markings, labels

Plastic sign
Material: Plastic. For indoor and outdoor use. Resistant to moisture and weak acids, flame retardant. Temperature stability from -30 °C to +50 °C.

Pic.	Symbol	Code	L x W (mm)	Art. No.	Pack Qty.	€
(12)	Collection point	E007	400 x 400	**NP81.1**	1 unit(s)	23,55

Safety symbols acc. to ISO 7010

Material: PE Film, self-adhesive.
Acc. to ASR A1.3 and DIN EN ISO 7010.
Non-fading print. Resistant to water, oil and alkalis.
Temperature stability from -40 °C to +80 °C.



Pic.	Symbol	Code	SymbolØ (mm)	Art. No.	Pack Qty.	€
(1)	Follow instructions	M002	100	**NK47.1**	1 unit(s)	3,20
(2)	Wear respiratory protection	M017	100	**NK23.1**	1 unit(s)	3,20
(2)	Wear respiratory protection	M017	200	**NK24.1**	1 unit(s)	4,95
(3)	Wear eye protection	M004	100	**NK21.1**	1 unit(s)	3,20
(3)	Wear eye protection	M004	200	**NK22.1**	1 unit(s)	5,50
(4)	Use footpath	M024	200	**NK48.1**	1 unit(s)	5,95
(5)	Wear protective footwear	M008	100	**NK33.1**	1 unit(s)	3,20
(5)	Wear protective footwear	M008	200	**NK34.1**	1 unit(s)	4,95
(6)	Wear ear protection	M003	100	**NK26.1**	1 unit(s)	3,20
(6)	Wear ear protection	M003	200	**NK27.1**	1 unit(s)	5,50
(7)	Wear face shield	M013	100	**NK41.1**	1 unit(s)	3,20
(7)	Wear face shield	M013	200	**NK42.1**	1 unit(s)	5,95
(8)	Wash hands	M011	100	**NK39.1**	1 unit(s)	3,20
(8)	Wash hands	M011	200	**NK40.1**	1 unit(s)	5,95
(9)	Apply skin protection cream	M022	100	**NK46.1**	1 unit(s)	3,20
(10)	Wear protective headgear	M014	100	**NK28.1**	1 unit(s)	3,20
(10)	Wear protective headgear	M014	200	**NK29.1**	1 unit(s)	6,15
(11)	Wear mask	M016	100	**NK35.1**	1 unit(s)	3,20
(11)	Wear mask	M016	200	**NK36.1**	1 unit(s)	5,95
(12)	Wear protective gloves	M009	50	**NK30.1**	1 unit(s)	2,10
(12)	Wear protective gloves	M009	100	**NK31.1**	1 unit(s)	3,20
(12)	Wear protective gloves	M009	200	**NK32.1**	1 unit(s)	5,50
(13)	Wear protective clothing	M010	100	**NK37.1**	1 unit(s)	3,20
(13)	Wear protective clothing	M010	200	**NK38.1**	1 unit(s)	5,95
(14)	Wear protective apron	M026	100	**NK43.1**	1 unit(s)	3,20
(15)	Wear safety vest	M015	100	**NK45.1**	1 unit(s)	3,20

Safety symbols tried and tested in practice

Material: PVC Film, self-adhesive.
Tried and tested prohibition sign. With permanent adhesive, non-fading print. Material thickness: 0.1 mm.



Symbol	SymbolØ (mm)	Art. No.	Pack Qty.	€
Use the protective cover	200	**L252.1**	1 unit(s)	5,95
Use the protective cover	100	**N419.1**	1 unit(s)	3,50

Hazard markings, labels

Prohibition symbols tried and tested in practice

Material: PVC Film, self-adhesive.

Tried and tested safety markings. With permanent adhesive, non-fading print. Material thickness: 0.1 mm.



Pic.	Symbol	SymbolØ (mm)	Art. No.	Pack Qty.	€
(1)	No eating or drinking	200	**H486.1**	1 unit(s)	6,35
(2)	Unauthorized access is strictly prohibited	200	**H483.1**	1 unit(s)	5,50

Prohibition symbols acc. to ISO 7010

Film, self-adhesive.

Acc. to ASR A1.3, DIN EN ISO 7010.
Suitable for indoor use. Adheres permanently to clean, grease-free and smooth surfaces. Resistant to many chemicals. Minimum bonding temperature +10 °C. Material thickness: 0.08 to 0.55 mm. Temperature stability from -40 °C to +80 °C.



Adhesive film

Pic.	Symbol	Code	SymbolØ (mm)	Art. No.	Pack Qty.	€
(1)	No storage permitted	P023	200	**YX37.1**	1 unit(s)	5,95
(2)	Do not enter	P024	200	**YX39.1**	1 unit(s)	5,95
(3)	No mobile phones	P013	200	**X450.1**	1 unit(s)	5,95
(4)	No eating or drinking	P022	200	**YX35.1**	1 unit(s)	5,95
(5)	Fire, naked flame and smoking prohibited	P003	200	**0204.1**	1 unit(s)	6,15
(5)	Fire, naked flame and smoking prohibited	P003	400	**0205.1**	1 unit(s)	15,40
(6)	No photography	P029	200	**YX41.1**	1 unit(s)	5,95
(7)	No pedestrian access	P004	200	**YX36.1**	1 unit(s)	5,95
(8)	Do not touch	P015	200	**YX38.1**	1 unit(s)	5,95
(9)	Not drinking water	P005	100	**YX34.1**	1 unit(s)	3,20
(10)	No access for persons with pacemakers or implanted defibrillators	P007	200	**YX40.1**	1 unit(s)	5,95
(11)	No smoking	P002	100	**YX32.1**	1 unit(s)	3,20
(11)	No smoking	P002	200	**YX33.1**	1 unit(s)	6,15

Double-sided

For glass doors.

Pic.	Symbol	Code	SymbolØ (mm)	Art. No.	Pack Qty.	€
(3)	No mobile phones	P013	100	**YX42.1**	1 unit(s)	13,15
(11)	No smoking	P002	100	**YX43.1**	1 unit(s)	12,85

Warning symbols tried and tested in practice Single label

Material: PVC Film, self-adhesive.

Suitable for indoor use. Non-fading print. Permanent. Resistant to water, oil and alkalis. Temperature stability from -40 °C to +80 °C.



Pic.	Symbol	Version	Art. No.	Pack Qty.	€
(1)	explosive atmosphere	Side length 100 mm	**EYK5.1**	1 unit(s)	4,55
(1)	explosive atmosphere	Side length 200 mm	**XL27.1**	1 unit(s)	6,35
(2)	harmful substances or irritants	Side length 200 mm	**H490.1**	1 unit(s)	5,35
(3)	UV radiation	Side length 100 mm	**EYK6.1**	1 unit(s)	4,55

Hazard markings, labels

Warning symbols acc. to ISO 7010



Material: PE Film, self-adhesive.

Selection in accordance with ISO 7010, in accordance with ASR A1.3, or established through use in the industry.
Suitable for indoor use. Labels printed with non-fading ink. Permanently adhesive, resistant to water, oil and alkalis. Temperature stability from -40 °C to +80 °C.

Single label

Pic.	Symbol	Code	Version	Art. No.	Pack Qty.	€
(1)	Corrosive substances	W023	Side length 100 mm	**EYH2.1**	1 unit(s)	3,80
(1)	Corrosive substances	W023	Side length 200 mm	**EYH3.1**	1 unit(s)	5,35
(2)	Biohazard	W009	Side length 200 mm	**H489.1**	1 unit(s)	5,35
(2)	Biohazard	W009	Side length 100 mm	**XL29.1**	1 unit(s)	3,80
(3)	Oxidising substances	W028	Side length 200 mm	**EYH5.1**	1 unit(s)	5,35
(3)	Oxidising substances	W028	Side length 100 mm	**XL28.1**	1 unit(s)	3,80
(4)	Hazardous area	W001	Side length 100 mm	**XL23.1**	1 unit(s)	3,80
(4)	Hazardous area	W001	Side length 200 mm	**XL24.1**	1 unit(s)	5,35
(5)	Explosive substances	W002	Side length 200 mm	**XL16.1**	1 unit(s)	5,35
(6)	Flammable substances	W021	Side length 200 mm	**TA07.1**	1 unit(s)	6,05
(6)	Flammable substances	W021	Side length 100 mm	**XL15.1**	1 unit(s)	4,20
(7)	Gas cylinder	W029	Side length 100 mm	**EYH6.1**	1 unit(s)	3,80
(7)	Gas cylinder	W029	Side length 200 mm	**EYH7.1**	1 unit(s)	5,35
(8)	Battery hazard	W026	Side length 100 mm	**XL34.1**	1 unit(s)	3,80
(9)	Dangerous electrical voltage	W012	Side length 100 mm	**XL25.1**	1 unit(s)	3,80
(9)	Dangerous electrical voltage	W012	Side length 200 mm	**XL26.1**	1 unit(s)	6,35
(10)	Toxic substances	W016	Side length 200 mm	**EYH4.1**	1 unit(s)	5,35
(10)	Toxic substances	W016	Side length 100 mm	**XL19.1**	1 unit(s)	3,80
(11)	Hot surface	W017	Side length 200 mm	**K214.1**	1 unit(s)	6,10
(11)	Hot surface	W017	Side length 100 mm	**XL33.1**	1 unit(s)	3,80
(12)	Laser beam	W004	Side length 100 mm	**EYH8.1**	1 unit(s)	3,80
(12)	Laser beam	W004	Side length 200 mm	**XL31.1**	1 unit(s)	6,05
(13)	Magnetic field	W006	Side length 100 mm	**EYK2.1**	1 unit(s)	4,55
(13)	Magnetic field	W006	Side length 200 mm	**XL37.1**	1 unit(s)	5,35
(14)	Non-ionising radiation	W005	Side length 100 mm	**EYK1.1**	1 unit(s)	4,55
(14)	Non-ionising radiation	W005	Side length 200 mm	**XL36.1**	1 unit(s)	5,35
(15)	Low temperature/frost	W010	Side length 100 mm	**EYH9.1**	1 unit(s)	3,80
(15)	Low temperature/frost	W010	Side length 200 mm	**EYK0.1**	1 unit(s)	5,95
(16)	Optical radiation	W027	Side length 100 mm	**XL35.1**	1 unit(s)	3,80
(17)	Radioactive substances or ionising rays	W003	Side length 100 mm	**XL21.1**	1 unit(s)	3,80
(17)	Radioactive substances or ionising rays	W003	Side length 200 mm	**XL22.1**	1 unit(s)	5,35
(18)	Sudden onset of loud noise	W038	Side length 100 mm	**EYK3.1**	1 unit(s)	4,55

On a roll

500 pieces/roll.

Pic.	Symbol	Code	Version	Art. No.	Pack Qty.	€
(11)	Hot surface	W017	Side length 25 mm	**XL52.1**	1 roll(s)	57,00
(11)	Hot surface	W017	Side length 50 mm	**XL53.1**	1 roll(s)	77,40
(12)	Laser beam	W004	Side length 25 mm	**XL50.1**	1 roll(s)	57,00

On a sheet

Pic.	Symbol	Code	Version	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
(1)	Corrosive substances	W023	Side length 50mm	10	**XL40.1**	1 sheet	9,95
(4)	Hazardous area	W001	Side length 25 mm	10	**XL44.1**	1 sheet	8,75
(9)	Dangerous electrical voltage	W012	Side length 25 mm	10	**XL45.1**	1 sheet	7,20
(9)	Dangerous electrical voltage	W012	Side length 50 mm	10	**XL46.1**	1 sheet	8,50
(11)	Hot surface	W017	Side length 50 mm	10	**XL48.1**	1 sheet	8,50
(12)	Laser beam	W004	Side length 25 mm	10	**XL47.1**	1 sheet	8,50
(14)	Non-ionising radiation	W005	Side length 50 mm	10	**XL49.1**	1 sheet	8,75
(17)	Radioactive substances or ionising rays	W003	Side length 25 mm	10	**XL42.1**	1 sheet	7,55
(17)	Radioactive substances or ionising rays	W003	Side length 25 mm	10	**XL43.1**	1 sheet	8,75

Hazard markings, labels

Hazard symbols SEKUROKA® Radioactive

Carl ROTH.

Self-adhesive. For marking reaction vessels, screw-cap containers, test tubes, etc. from the dispenser box.
Rolls of 1000 pieces.



LabelØ (mm)	Art. No.	Pack Qty.	€
6	**E289.1**	1 roll(s)	64,15

GHS hazardous substance label

Carl ROTH. Material: PE Film, High-gloss.

Tried and tested safety markings. Non-fading print. Permanent adhesion, waterproof. Signal words in three languages: German, English, French. Material thickness: 0.1 mm.
Temperature stability from -20 °C to +80 °C.
250 pieces/roll in a practical dispenser box.



L 30 x W 22

Pic.	Symbol	Code	L x W (mm)	Art. No.	Pack Qty.	€
(1)	Exploding bomb/Caution	GHS01	30 x 22	**LN47.1**	1 roll(s)	12,85
(2)	Exploding bomb/Hazard	GHS01	30 x 22	**LN48.1**	1 roll(s)	12,85
(3)	Flame/Caution	GHS02	30 x 22	**LN49.1**	1 roll(s)	12,85
(4)	Flame/Hazard	GHS02	30 x 22	**LN50.1**	1 roll(s)	12,85
(5)	Flame over circle/Caution	GHS03	30 x 22	**LN51.1**	1 roll(s)	12,85
(6)	Flame over circle/Hazard	GHS03	30 x 22	**LN52.1**	1 roll(s)	12,85
(7)	Gas cylinder/Caution	GHS04	30 x 22	**LN53.1**	1 roll(s)	12,85
(8)	Burns/Caution	GHS05	30 x 22	**LN54.1**	1 roll(s)	12,85
(9)	Burns/Hazard	GHS05	30 x 22	**LN55.1**	1 roll(s)	12,85
(10)	Skull/Hazard	GHS06	30 x 22	**LN56.1**	1 roll(s)	12,85
(11)	Exclamation mark/Caution	GHS07	30 x 22	**LN57.1**	1 roll(s)	12,85
(12)	Health hazard/Caution	GHS08	30 x 22	**LN58.1**	1 roll(s)	12,85
(13)	Health hazard/Hazard	GHS08	30 x 22	**LN59.1**	1 roll(s)	12,85
(14)	Environment/Caution	GHS09	30 x 22	**LN60.1**	1 roll(s)	12,85

L 40 x W 27 mm

Pic.	Symbol	Code	L x W	Art. No.	Pack Qty.	€
(1)	Exploding bomb/Caution	GHS01	40 mm x 27 cm	**LN61.1**	1 roll(s)	17,95
(2)	Exploding bomb/Hazard	GHS01	40 mm x 27 cm	**LN62.1**	1 roll(s)	17,95
(3)	Flame/Caution	GHS02	40 mm x 27 cm	**LN63.1**	1 roll(s)	17,95
(4)	Flame/Hazard	GHS02	40 mm x 27 cm	**LN64.1**	1 roll(s)	17,95
(5)	Flame over circle/Caution	GHS03	40 mm x 27 cm	**LN65.1**	1 roll(s)	17,95
(6)	Flame over circle/Hazard	GHS03	40 mm x 27 cm	**LN66.1**	1 roll(s)	17,95
(7)	Gas cylinder/Caution	GHS04	40 mm x 27 cm	**LN67.1**	1 roll(s)	17,95
(8)	Burns/Caution	GHS05	40 mm x 27 cm	**LN68.1**	1 roll(s)	17,95
(9)	Burns/Hazard	GHS05	40 mm x 27 cm	**LN69.1**	1 roll(s)	17,95
(10)	Skull/Hazard	GHS06	40 mm x 27 cm	**LN70.1**	1 roll(s)	17,95
(11)	Exclamation mark/Caution	GHS07	40 mm x 27 cm	**LN71.1**	1 roll(s)	17,95
(12)	Health hazard/Caution	GHS08	40 mm x 27 cm	**LN72.1**	1 roll(s)	17,95
(13)	Health hazard/Hazard	GHS08	40 mm x 27 cm	**LN73.1**	1 roll(s)	17,95
(14)	Environment/Caution	GHS09	40 mm x 27 cm	**LN74.1**	1 roll(s)	17,95

GHS hazardous substances labels to combine

Carl ROTH. Material: PE Film, High-gloss.

Permanent adhesion, waterproof. Material thickness: 0.1 mm.
Temperature stability from -20 °C to +80 °C.
250 pieces/roll in a practical dispenser box.



Pictogram

Pic.	Symbol	Code	L x W (mm)	Art. No.	Pack Qty.	€
(1)	Exploding bomb	GHS01	22 x 22	**NP43.1**	250 unit(s)	14,00
(2)	Flame	GHS02	22 x 22	**NP44.1**	250 unit(s)	14,00
(3)	Flame over circle	GHS03	22 x 22	**NP45.1**	250 unit(s)	14,00
(4)	Gas bottle	GHS04	22 x 22	**NP46.1**	250 unit(s)	14,00
(5)	Burns	GHS05	22 x 22	**NP47.1**	250 unit(s)	14,00
(6)	Skull	GHS06	22 x 22	**NP48.1**	250 unit(s)	14,00
(7)	Exclamation mark	GHS07	22 x 22	**NP49.1**	250 unit(s)	14,00
(8)	Health hazard	GHS08	22 x 22	**NP50.1**	250 unit(s)	14,00
(9)	Environment	GHS09	22 x 22	**NP51.1**	250 unit(s)	14,00

Signal word

In three languages: German, English and French.

Pic.	Symbol	L x W (mm)	Art. No.	Pack Qty.	€
(10)	Warning	15 x 27	**NP52.1**	250 unit(s)	15,30
(11)	Danger	15 x 27	**NP53.1**	250 unit(s)	15,30

GHS hazardous substances labels product range

Carl ROTH. Material: PE Film, Self-adhesive, high gloss.

Permanent adhesion, waterproof. Material thickness: 0.1 mm.
Temperature stability from -20 °C to +80 °C
20 labels per sheet, sorted by frequency of use.



Symbol	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
GHS01–GHS09 Hazardous substances labels	22 x 22	20	**ATY6.1**	25 sheet	73,50
Signal words for caution/hazard	15 x 27	20	**ATY7.1**	25 sheet	114,20

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Hazard markings, labels



Chemical label SEKUROKA®

Carl ROTH. Material: PVC.

For spray bottles and reagent bottles for ordinary laboratory use.
With substance name and hazard symbols.
In three languages: German, English and French.

Version	L x W (mm)	Art. No.	Pack Qty.	€
Acetone	105 x 75	**8416.1**	10 unit(s)	13,45
Ethanol	105 x 75	**8419.1**	10 unit(s)	13,45
Isopropyl	105 x 75	**8430.1**	10 unit(s)	13,45
Distilled water	105 x 75	**8420.1**	10 unit(s)	13,45



Labels on DIN A4 sheets

Flexicom.

Rectangular labels, white, matt.

Paper labels
Material: Paper. With permanent adhesive. Suitable for laser, colour and inkjet printers, as well as copiers.

Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
white	50.8 x 70	15	**HY36.1**	100 sheet	23,70
white	74 x 105	8	**HY37.1**	100 sheet	23,70
white	148 x 105	4	**HY38.1**	100 sheet	23,70

Impregnated paper
Material: Paper wood-free. With high strength, rubber-based adhesive. Latex-impregnated surface is water repellent. Suitable for laser printers and copiers. Temperature stable from -5 to +80 °C.

Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
white	50.8 x 70	15	**NK99.1**	30 sheet	35,15
white	74 x 105	8	**NL00.1**	30 sheet	35,15
white	148 x 105	4	**NL01.1**	30 sheet	35,15

PET, chemical resistant
Material: PET. With permanent acrylic adhesive. Suitable for laser printers, copiers and inkjet printers (with solvent based inks only). Weather resistant and suitable for outdoor use. Saltwater resistant and resistant to many solvents, diluted acids and alkalis. Temperature stable from -20 to +100 °C.

Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
white	50.8 x 70	15	**NL02.1**	30 sheet	32,55
white	74 x 105	8	**NL03.1**	30 sheet	32,55
white	148 x 105	4	**NL04.1**	30 sheet	32,55



Document boxes

JUSTRITE. Material: HDPE.

Stable and weatherproof. Safe storage of safety datasheets, directives, manuals, and other documents at hand at the work place.

- Protection against moisture and dust
- With front flap
- Field for writing labels on the lid
- High visibility due to bright red colour
- Large box suitable for a narrow A4 folder
- Can be secured with a padlock (feed-through opening Ø 10 mm)
- Wall fastening through screws or adhesive tape

Delivery incl. double-sided adhesive tape for easy assembly.

Type	W x D x H (mm)	W x D x H, interior (mm)	Art. No.	Pack Qty.	€
Medium	279 x 54 x 368	219 x 25 x 311	**HNN3.1**	1 unit(s)	145,15
Large	333 x 90 x 400	273 x 57 x 337	**HNN4.1**	1 unit(s)	170,95



Neutralisation agent PYRACIDOSORB-ROTH®

Carl ROTH.

For neutralising acids. With colour indicator.
1 kg absorbs approx. 0.3 l conc. sulphuric acid, 0.6 l conc. nitric acid and 1 l conc. hydrochloric acid.

Warning H319

Pack.	Art. No.	Pack Qty.	€
square HDPE container	**0411.1**	5 kg	59,05

Neutralisation agent BASOSORB

Carl ROTH.

For neutralising alkali solutions. With colour indicator.
1 kg neutralises approx. 1 l ammonia solution (25%), 1 l potassium hydroxide solution (50%) or ¾ l sodium hydroxide solution (50%).

Warning H319

Pack.	Art. No.	Pack Qty.	€
square HDPE container	**3287.1**	5 kg	112,90

Universal absorber ROTISORB®

Carl ROTH.

For absorbing flammable, oily and aggressive liquids, such as organic and inorganic acids and alkalis, alcohols, aldehydes, amines, esters, aromatic, chlorinated and aliphatic hydrocarbons, substance compounds such as paints, heating and lubricating oils, fuels.

Pack.	Art. No.	Pack Qty.	€
PE flat bag	**1710.2**	25 kg	101,60
square HDPE container	**1710.1**	800 g	30,65



ROTH-absorber safety station SEKUROKA®

Carl ROTH. Material: Steel (sheet metal), galvanised.

Wall shelf equipped with three special absorbers for acids, alkalis and solvents. Colour: Yellow-orange (RAL 2000).
Dimensions: W x D x H: 530 x 220 x 300 mm.

Warning H319
Delivery incl. 5 kg Pyracidosorb-ROTH®, 5 kg Basosorb, 800 g Rotisorb®, plastic bags, dustpan and hand brush.

Version	Art. No.	Pack Qty.	€
Safety station	**1288.1**	1 unit(s)	402,05



Binding and neutralisation agent ENTSORGER-SET-ROTH®

Carl ROTH.

For absorbing and disposing of spilled chemicals.

Delivery incl. absorbent or neutraliser, safety spectacles, dustpan and brush, sponge, disposal bags with clips and labels.

Disposal mix
Included in the set: 1 kg Pyracidosorb-ROTH®, 1 kg Basosorb and 400 g Rotisorb®

Warning H319

Version	Art. No.	Pack Qty.	€
Disposal mix	**0055.1**	1 set	98,90

Organic solvent
Included in the set: 2 x 800 g Rotisorb® universal absorbers

Version	Art. No.	Pack Qty.	€
Organic solvent	**1803.1**	1 set	96,65

Acids and alkalis
Included in the set: 5 kg Pyracidosorb-ROTH®, 5 kg Basosorb

Warning H319

Version	Art. No.	Pack Qty.	€
Acids and alkalis	**1808.1**	1 set	134,40

Binding and neutralisation agent FLUOROSORB-ROTH®

Carl ROTH.

Two-component system for neutralising spilled hydrofluoric acid.

Set
Included in the set: Raw material to produce 1.5 l FLUOROSORB-ROTH® Component A as well as 1 l FLUOROSORB-ROTH® Component B with indicator, 800 g Rotisorb® universal absorber

Component A (Art. No. H066.1): WGK 1

Delivery incl. safety spectacles, dustpan and brush, sponge, disposal bags with clips and labels

Version	Art. No.	Pack Qty.	€
FLUOROSORB-ROTH® set	**1804.1**	1 set	124,70

Component A Refill pack
Raw material to produce 1.5 l FLUOROSORB-ROTH® Component A. WGK 1.

Version	Art. No.	Pack Qty.	€
FLUOROSORB-ROTH®, component A	**H066.1**	1 unit(s)	34,30

Component B Refill pack
1 l FLUOROSORB-ROTH® Component B with indicator.

Version	Art. No.	Pack Qty.	€
FLUOROSORB-ROTH®, component B	**H067.1**	1 unit(s)	41,40



MERCURISORB-ROTH®

Carl ROTH.

Contains silver nitrate. For quickly and easily absorbing mercury. Does not emit any vapours after absorption. Absorption capacity 1:1. Contained in set: 100 g Roth Mercurisorb®, scooper, Pasteur pipettes, empty collection container.

Danger H290-H314-H410

Pack.	Art. No.	Pack Qty.	€
Emergency set in a plastic case	**9461.1**	1 set	113,45
Emergency box set	**9461.4**	1 set	89,80
Refill pack, small	**9461.2**	250 g	145,15
Refill pack, large	**9461.3**	1 kg	564,40



Mercury collector

Bürkle.

Mercury is absorbed by a special foam insert secured by adhesive. When the cap is screwed on, the globules detach and fall through the perforated cutting disc into the container and can be reused.

Version	Art. No.	Pack Qty.	€
Mercury collector	**P941.1**	1 unit(s)	30,55

Spare foam insert

Version	Art. No.	Pack Qty.	€
Spare foamed insert	**P942.1**	1 unit(s)	5,75



Chemical and oil binder UNI-SAFE

Öko-Tec Umweltschutzsysteme.

All-in-one binder!

Polymer-based all-purpose chemical and oil binding agent. Suitable for absorbing and containing liquids such as acids, alkalis, oils, fuels, brake fluid, etc., as well as battery acid, coolant, oil-water mixtures, paints and lacquers. Also safe to use with strongly oxidising media, such as fuming nitric acid and peroxides.

- High absorption capacity
- No hazardous reactions
- Dam-forming

Absorption capacity of aqueous media of up to 1:75
Oil binder type III/R (suitable for road surfaces), 1 kg binds 0.56 l of fuel oil.

Applications

Laboratories, chemical and commercial businesses, transportation of hazardous goods, emergency vehicles, etc.

Pack.	Art. No.	Pack Qty.	€
Buckets	**EAA8.2**	5 kg	157,15

UNI-SAFE Plus

Fine granulate with reduced dust formation

Pack.	Art. No.	Pack Qty.	€
Buckets	**EYY5.2**	5 kg	168,80



Oil sorbent

3M.

Ideal for absorbing and stopping the spread of oil and organic liquids. Also oleophilic (hydrophobic) and water-repellent. Ideal for absorbing oil both on water and on land. Made of synthetic fibres (polypropylene and polyester) for use indoors and outdoors.

Mini tube T4

Manufacturer no.	Ø x L (cm)	Intake capacity (l)	Art. No.	Pack Qty.	€
T 4	7.5 x 120	3.8	**E186.1**	1 unit(s)	25,30

Wipes HP 255

Manufacturer no.	L x W (cm)	Intake capacity (l)	Art. No.	Pack Qty.	€
HP 255	47 x 43	2.0	**A377.1**	10 unit(s)	37,80



Oil sorbent Öcu-Sorb T-33 wipes

For quick and dust-free absorption of **oil and organic, non-aggressive liquids**. Water-repellent and can float, therefore also suitable for use in water.

L x W (cm)	Intake capacity (ml)	Art. No.	Pack Qty.	€
30 x 30	260	**5128.2**	50 unit(s)	42,10



Chemical sorbent pads laboratory emergency kit

3M.

For quickly and effectively containing and absorbing almost all liquids containing harmful substances.

Delivery incl. 10 chemical sorbent pads, one industrial sorbent pad, one disposal bag.

Manufacturer no.	Intake capacity (l)	Art. No.	Pack Qty.	€
SK 5	5	**AKX3.1**	1 unit(s)	77,20



Industrial sorbent wipes MF2001

3M.

For absorbing or containing **non-aggressive** liquids, such as oil, coolants/lubricants and emulsions. Highly absorbent. Readily disposable. It is possible to recover the absorbed liquid. When fully rolled up, the wipes act as a tube. When unfolded once, they act as a pad and when unfolded again, they can be used as a wipe. In a dispensing box, perforated every 40 cm.

Manufacturer no.	L x W (cm)	Intake capacity (l)	Art. No.	Pack Qty.	€
MF2001	1520 x 12	40	**E391.1**	1 unit(s)	96,25



Chemicals absorbant fleece

3M.

For absorbing or containing **aggressive** liquids, such as acids, alkalis, ketones, alcohols, aromatic products, glycols, hydrocarbons. **High absorption capacity** (the information in the ordering table relates to each unit).

Mini tube P200

Manufacturer no.	L x W (cm)	Intake capacity (l)	Art. No.	Pack Qty.	€
P200	120 x 7.5	3.75	**2930.1**	1 unit(s)	14,80

Wipes P110

Manufacturer no.	L x W (cm)	Intake capacity (l)	Art. No.	Pack Qty.	€
P110	33.0 x 33	0.25	**2920.1**	50 unit(s)	86,90

Pad P300

Manufacturer no.	L x W (cm)	Intake capacity (l)	Art. No.	Pack Qty.	€
P300	38.0 x 38	2.0	**2888.1**	4 unit(s)	87,00



Binder container Go-Box

Cemo. Material: PE, chemical-resistant.

100 % recyclable. For grit, sand, binders, etc.

- For inside and outside use and storage
- Good impact strength down to -40 °C
- Sturdy rubber wheels
- Angled lid for water drainage
- Easy-to-use, ergonomic handle
- Side handles for pushing and central handle for pulling
- Can be filled/emptied when the lid is locked in the vertical position
- Easy to use and easy to clean
- Rubber seal and locking mechanism for optimal weather resistance
- Lockable with a padlock (not supplied)

Vol. (l)	L x W x H (cm)	Weight (kg)	Art. No.	Pack Qty.	€
70	59 x 39 x 107	11	**1EPP.1**	1 unit(s)	324,65

Disposal containers, stations, accessories



Waste containers Benchtop

Heathrow Scientific.

Practical and space-saving. Ergonomic design with large opening for easy disposal of items.

- Slip-resistant rubber feet for secure positioning on the laboratory bench
- Lid can be secured in open position
- Extra-large lid rim for easy opening
- The divider can be removed from the green waste container as required
- Suitable for wall mounting

Delivery incl. assembly materials.

Number of compart-ments	Vol. (l)	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
1	4	155 x 155 x 170	blue	**AXL3.1**	1 unit(s)	93,80
2	5	180 x 180 x 165	green	**AXL4.1**	1 unit(s)	93,60



Needle collector KONTAMED-chen

Söhngen. Material: PP.

Acc. to BGR 250/TRBA 250: Biological Agents in Healthcare and Welfare Facilities. With sealing lid and removal slot for needles/syringes. For use off-site, fits in all doctor's bags, emergency kits or coat pockets. Reinforced base prevents needles from piercing.

Vol. (ml)	Ø x H (mm)	Colour	Art. No.	Pack Qty.	€
180	50 x 115	yellow	**HA52.1**	10 unit(s)	19,75



Waste disposal containers Sharpsafe®

Msh/Hospidex. Material: PP.

Acc. to DIN EN ISO 23907, TRBA 250, AFNOR NX30-500, BS 7320. Impact- and perforation-resistant. Ideal for safe collection and disposal of sharp, dangerous or infected waste such as needles, Petri dishes, syringes, scalpels, etc.

- Waterproof when vertical
- Carrying handle for safe transportation
- Large opening with transparent inner chamber and automatic closure which prevents vapours from leaking into the ambient air
- Two closure positions: Temporary or permanent locking
- Distinct maximum fill level mark
- Label is permanently stamped onto the container

1 l container

Extractor for: Insulin pens, Luer Lock and Luer Slip needles.

Label in German/French/Italian/Spanish/English.

Vol. (l)	L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
1	108 x 90 x 180	55 x 35	**YK90.1**	10 unit(s)	35,40

2 to 7 l containers

Extractors for: All needle types, insulin pens, scalpel blades.

Label in German/French/Italian/Spanish/English.

Vol. (l)	L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
2	195 x 120 x 180	55 x 50	**PA88.1**	5 unit(s)	21,95
4	175 x 175 x 245	55 x 50	**E812.1**	5 unit(s)	28,55
4	175 x 175 x 245	55 x 50	**E812.2**	50 unit(s)	249,40
7	175 x 175 x 380	55 x 50	**E813.1**	5 unit(s)	39,55
7	175 x 175 x 380	55 x 50	**E813.2**	50 unit(s)	337,55

9 to 13 l containers

Extractor for: All needle types, scalpel blades. Wide opening for large quantities of waste, e.g. Petri dishes with Ø 60 or 90 mm.

Label in French/Dutch.

Vol. (l)	L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
9	292 x 195 x 291	210 x 60	**HT25.1**	5 unit(s)	53,80
9	292 x 195 x 291	210 x 60	**HT25.2**	20 unit(s)	194,60
13	292 x 195 x 353	210 x 60	**HT26.1**	5 unit(s)	71,15
13	292 x 195 x 353	210 x 60	**HT26.2**	20 unit(s)	255,85

9 l container, tall form

Tall container ideal for pipettes and long instruments.

Vol. (l)	L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
9	175 x 175 x 498	55 x 50	**YK91.1**	5 unit(s)	53,80

Disposal containers, stations, accessories

Large volume
With scalpel and universal extractor and wide non-return flap for the disposal of bulky waste.

Label in English.

Vol. (l)	L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
24	450 x 230 x 335	365 x 95	**YK92.1**	1 unit(s)	24,90
24	450 x 230 x 335	365 x 95	**YK92.2**	15 unit(s)	248,35
30	450 x 230 x 415	365 x 95	**YK93.1**	1 unit(s)	30,40
30	450 x 230 x 415	365 x 95	**YK93.2**	15 unit(s)	299,95

Accessories for Sharpsafe® waste disposal containers

Msh/Hospidex.

Foot
Material: PP. Self-adhesive. For safe mounting of the waste disposal containers on a level surface.

Suitable for	Art. No.	Pack Qty.	€
1 l container	**YK94.1**	1 unit(s)	10,65

Laminar flow stand
Material: Stainless steel. Stand for use of the waste disposal containers under laminar flow.

Suitable for	Art. No.	Pack Qty.	€
4 l, 7 l and 9 l containers	**YK98.1**	1 unit(s)	28,15

Tray
Material: PP. With compartments(s).
Suitable for 1- and 2-litre containers.

Version	L x W x H (mm)	Art. No.	Pack Qty.	€
with 1 storage comp.	280 x 260 x 45	**YK95.1**	1 unit(s)	13,15
with 2 storage comp.	355 x 290 x 45	**YK96.1**	1 unit(s)	10,60



A 121 °C

Waste disposal containers Biohazard

Nalgene. Material: PP. Autoclavable: Yes.

To collect and store biohazardous waste. Enables convenient sterilisation in one step. The autoclavable bag does not need to be taken out. The opening in the lid enables safe disposal. The wall and base of the container are **leak-proof**.

Vol. (l)	Ø x H (mm)	Art. No.	Pack Qty.	€
5.5	198 x 277	**APL8.1**	1 unit(s)	207,50
19	323 x 432	**APL9.1**	1 unit(s)	335,40
67	399 x 744	**APN0.1**	1 unit(s)	405,30



NEW / +

Waste disposal containers Multi-Safe twin

Sarstedt. Material: PP.

Complies with the requirements of: TRBA 250, DIN EN ISO 23907.
With UN approval number.

- Universal extractor for the disposal of needles, scalpels, disposable syringes, tubing, etc.
- All-round sealing rim and double lid
- Lid can always be reopened by closing the lid as far as the first locking position
- A secure final seal is obtained by pushing the lid through to the second locking position
- Filling capacity: Max. 85 %

(1) Without label

- The size of the opening can be gradually enlarged by breaking out the flaps
- Oval 55 x 106 mm opening

Vol. (l)	Ø Outer lower (mm)	Ø x H (mm)	Art. No.	Pack Qty.	€
1.8	112	143 x 162	**E330.1**	20 unit(s)	37,45
2.1	112	143 x 186	**E331.1**	10 unit(s)	25,95
3.0	112	143 x 259	**T709.1**	5 unit(s)	17,90

(2) Plus 500

- With a label in German and English
- Integrated piston in the lid for easy disconnection of insulin pens
- Clear marking for the maximum fill level
- QR code enables online access to operating instructions
- Oval 45 x 25 mm opening

Vol. (l)	Ø Outer lower (mm)	Ø x H (mm)	Art. No.	Pack Qty.	€
0.5	57	89 x 162	**1LTN.1**	21 unit(s)	26,95

Disposal containers, stations, accessories



Waste disposal containers Multi-Safe

Sarstedt. Material: PP.

Complies with the requirements of:
TRBA 250, AFNOR, DIN EN ISO 23907. With UN approval number.
For the disposal of sharp and pointed objects (needles, scalpels, broken glass, etc.).

- With self-opening automatic lid
- With extractors, e.g. for scalpels
- Single-handed operation: Lid opens automatically at the push of a button and can be opened and closed repeatedly. Only after final sealing is the opening permanently sealed tight. A holding ring then moves up automatically and becomes a carrying handle.
- Oval-shaped opening 110 x 60 mm
- Standing area: 132 x 132 mm
- Filling capacity: Max. 85%

Vol. (l)	L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
3.0	173 x 173 x 185	110 x 60	**EL18.1**	5 unit(s)	31,70
4.0	173 x 173 x 245	110 x 60	**EL19.1**	5 unit(s)	32,25
6.0	173 x 173 x 330	110 x 60	**EL20.1**	5 unit(s)	39,40
7.0	173 x 173 x 390	110 x 60	**EL21.1**	5 unit(s)	42,90



Safety waste system

Nalgene. Material: HDPE, 4 l HDPE container, 10 l FLPE container, HDPE funnel and lid; break-proof.

For temporary interim storage of chemical, biological and solvent waste. Consists of waste container and removable safety funnel with lid.

- Reduces emissions of volatile substances in the laboratory
- Easy-snap safety lock on lid minimises spillages if the system is accidentally knocked over
- Integrated ventilation valve with PTFE syringe filter on cover adapter accelerates the flow of chemicals and prevents overflow
- Funnel with large diameter for easy filling (top funnel Ø (EL99.1/ EN00.1): 140/254 mm)
- Funnel pipe length: 254 mm
- Removable sieve insert (PP) at base of funnel to catch particles

Vol. (l)	Art. No.	Pack Qty.	€
4	**EL99.1**	1 unit(s)	107,40
10	**EN00.1**	1 unit(s)	158,70



Waste disposal containers for broken glass

Bel-Art Products. Material: Cardboard.

For safe collection and disposal of broken glass items.

- Made of extra-strength cardboard, with a 50 µm thick PE insert bag to prevent residual fluid from escaping
- Large flap in lid for simple filling
- Seal safety lid for disposal when box is full
- Printed in four languages (German, English, French and Spanish)
- Folded flat for space-saving storage
- Small container suitable for the laboratory bench

Version	L x W x H (mm)	Art. No.	Pack Qty.	€
small	200 x 200 x 250	**KN69.1**	6 unit(s)	71,50
large	300 x 300 x 690	**KN70.1**	6 unit(s)	117,20

Disposal containers, stations, accessories

Waste disposal containers Medibox®

B. Braun. Material: PP.

Acc. to TRBA 250. Certified acc. to ADR 2015, 2008/68/EC and ISO 23907. Waste container for the disposal of needles and sharp objects in medical environments and laboratories.



- Break-proof, impermeable and sturdy when used as intended
- Maximum fill level indicated on the lid or directly on the box
- Temporarily or permanently closed
- Polypropylene container and lid
- Autoclavable at 134 °C for up to 18 minutes

Vol. (l)	Filling capacity (l)	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
0.8	0.67	98 x 98 x 180	yellow	**1EN5.1**	18 unit(s)	87,40
2.4	2.0	151 x 151 x 200	yellow	**1EN6.1**	27 unit(s)	120,55
4.7	3.9	190 x 190 x 205	yellow	**1EN7.1**	25 unit(s)	158,35
5.7	4.8	190 x 190 x 257	yellow	**1EN8.1**	25 unit(s)	190,30
6.8	5.7	167 x 167 x 500	yellow	**1EN9.1**	22 unit(s)	223,60
9.1	7.7	215 x 215 x 325	yellow	**1ENA.1**	13 unit(s)	167,70

Wide-neck barrel

CurTec. Material: HDPE with rubber seal.

UN approval (X approval) for storage and transportation of solid materials and pastes. Suitable for foodstuffs and chemical and pharmaceutical products. Resistant to air, water and steam. Maximum filling temperature 70 °C. Sealable.



Without handles

Vol. (l)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
3.6	198	136	171	1H2/X12/S	**K280.1**	1 unit(s)	19,25
6	198	136	263	1H2/X20/S	**0788.1**	1 unit(s)	23,35
10	274	203	238	1H2/X22/S	**L958.1**	1 unit(s)	36,55
15	274	203	327	1H2/X22/S	**0789.1**	1 unit(s)	41,25
20	274	203	417	1H2/X27/S	**L959.1**	1 unit(s)	46,75
26	316	203	425	1H2/X33/S	**0790.1**	1 unit(s)	52,80

With handles

Vol. (l)	Ø ext. (mm)	Ø Inner neck (mm)	Height (mm)	UN approval	Art. No.	Pack Qty.	€
42	410	282	418	1H2/X51/S	**CY90.1**	1 unit(s)	75,75
55	410	282	520	1H2/X66/S	**CY91.1**	1 unit(s)	81,15
68	410	282	634	1H2/X81/S	**5459.1**	1 unit(s)	86,20

Safety funnel

Nalgene. Material: HDPE.

With lid.

- Funnel with large diameter for easy filling
- Easy-Snap safety lock on the lid minimises spillage in case the canister accidentally tips
- Integrated ventilation valve with PTFE syringe filter on the lock adapter accelerates the flow of the chemicals and prevents overflow
- Removable sieve insert (PP) at the bottom of the funnel serves as a particle trap
- Locking adapter can be removed for cleaning



Please order suitable bottles separately:
4 l bottle (Art. No. C475.1) suitable for the small funnel
10 l bottle (Art. No. C476.1) suitable for the large funnel.

Ø Upper (mm)	Tube length (mm)	Suitable for	Art. No.	Pack Qty.	€
140	254	4-l narrow necked bottle Art. No. C475.1	**EN01.1**	1 unit(s)	76,85
254	254	10-l carboy Art No. C476.1	**EN02.1**	1 unit(s)	81,30

Disposal containers, stations, accessories



Safety can SEKUROKA®

ROTH SELECTION.

For storing and transporting aggressive waste in the laboratory.

- High stability
- Insert made of borosilicate 3.3 glass, resistant to almost all chemicals. Acc. to DIN 12111, 12116, 52322, the glass meets the requirements of hydrological class 1, acid class 1 and caustic class 2
- With screw closure, overpressure protection and carrying handle
- Red-coated casing
- Hazardous goods label
- Neck inner Ø: 87 mm

Vol. (l)	Ø x H (mm)	Art. No.	Pack Qty.	€
4	230 x 360	**1397.1**	1 unit(s)	624,60
8	265 x 420	**1398.1**	1 unit(s)	664,35



Safety collecting can Safety Can

JUSTRITE. Material: HDPE, Stainless steel lid, handle and flame protection.

For safe collection and storage of flammable liquids.

- Extra-strong walls make this container extremely robust
- Lid with spring, vents at overpressure (between 0.2 and 0.35 bar)
- Snap-in system holds the cover flap in the open position when filling
- The large opening makes filling easy
- **Carbon Insert** – a patented system connects the flame protection on the inside with the earth connection on the outside
- Can be earthed using an earthing cable
- Secure stand through round compact form
- Shape: Round

Vol. (l)	Ø x H (mm)	Colour	Art. No.	Pack Qty.	€
7.5	305 x 375	red	**HNP3.1**	1 unit(s)	353,70
19	305 x 508	red	**HNP4.1**	1 unit(s)	385,95



Safety collection containers for flammable liquids

Rötzmeier. Material: Stainless steel 1.4571 (V4a), unpolished.

For safe collection of flammable liquids.

- Wall thickness: 0.8 mm
- High stability
- Closure size: IG2″ fine pitch thread, with PTFE seal, without flame protection
- Suitable for use with SEKUROKA® stainless steel funnel K345.1
- With fill level indicator for ATA3.1

Delivery without accessories, please order separately.

Pic.	Version	Vol. (l)	Ø x H (mm)	Art. No.	Pack Qty.	€
(1)	without fill level indicator	10	260 x 330	**ATA2.1**	1 unit(s)	284,90
(2)	with fill level indicator	10	260 x 330	**ATA3.1**	1 unit(s)	510,65

Accessories for 10 l safety collection container

Rötzmeier. Material: Stainless steel 1.4301 (V2a).

For safe filling and draining of containers. Fits 10 l safety collection container, Rotitainer® and other drums with cap with 2″-fine pitch thread.

- Pouring spout: H 180 mm, tube Ø: 40 mm
- Flame protection: Length 150 mm

Version	Art. No.	Pack Qty.	€
Pouring spouts 2″	**ATA5.1**	1 unit(s)	58,05
Replacement flame protection	**ATA4.1**	1 unit(s)	70,95



Safety can Poly Can

JUSTRITE. Material: HDPE, Stainless steel lid and flame protection.

- Safe storage and distribution of flammable fluids
- Extra-strong walls make this container extremely robust
- Self-closing lid
- Operation via lever on handle
- Automatic pressure compensation
- **Carbon Insert** – a patented system connects the flame protection on the inside with the earth connection on the outside
- Can be earthed using an earthing cable
- Space-saving, oval shape

Vol. (l)	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
2	194 x 117 x 241	red	**HNP1.1**	1 unit(s)	138,70
4	194 x 117 x 324	red	**HNP2.1**	1 unit(s)	149,45

Disposal containers, stations, accessories



Safety funnels for barrels

Rötzmeier. Material: Stainless steel, Sealing ring made of PE.

Screw-on safety funnels for safe filling of all containers with a 2-inch female fine thread. With lid, overfill protection, flame arrester and earth connection.

- The flame arrester, which reaches far into the container (approx. 150 mm long), prevents the ingress of sparks and can be unscrewed for cleaning or replacement.
- For conductive containers, earthing is realised by the thread (direct contact); an additional earth connection is provided for other containers.
- The flap lid reduces the emission of volatile, harmful vapours and needs to be closed manually.

Tall form
Height above thread: 125 mm

Ø Outer upper (mm)	Suitable for	Art. No.	Pack Qty.	€
140	2″ Trisure® inner thread	**K345.1**	1 unit(s)	198,90

Flat form
Height above thread: 70 mm

Ø Outer upper (mm)	Suitable for	Art. No.	Pack Qty.	€
190	2″ Trisure® inner thread	**1C8K.1**	1 unit(s)	298,85



Safety funnels for combi-barrels

Rötzmeier. Material: Stainless steel, Sealing ring made of PE.

Screw onto combi-barrels with a 2″ coarse thread (female buttress thread S56 x 4). With lid, overfill protection, flame arrester and earth connection.

- The flame arrester, which reaches far into the container (approx. 150 mm long), prevents the ingress of sparks and can be unscrewed for cleaning or replacement.
- For conductive containers, earthing is realised by the thread (direct contact); an additional earth connection is provided for other containers.
- The flap lid reduces the emission of volatile, harmful vapours and needs to be closed manually.

High form
Height above thread: 125 mm

Ø Outer upper (mm)	Suitable for	Art. No.	Pack Qty.	€
140	2″ coarse thread	**1CCH.1**	1 unit(s)	199,95

Flat form
Height above thread: 70 mm

Ø Outer upper (mm)	Suitable for	Art. No.	Pack Qty.	€
190	2″ coarse thread	**1C8L.1**	1 unit(s)	299,95



Safety funnels for a plastic canister

Rötzmeier. Material: Stainless steel, unpolished. Seal made of Alveocel (polyolefin foam).

Can be screwed onto plastic canisters. With lid, overfill protection, flame arrester and earth connection.

- The flame arrester, which reaches far into the container (approx. 150 mm long), prevents the ingress of sparks and can be unscrewed for cleaning or replacement.
- For conductive containers, earthing is realised by the thread (direct contact); an additional earth connection is provided for other containers.
- The flap lid reduces the emission of volatile, harmful vapours and needs to be closed manually.

Delivery without sieve insert, please order separately.

Flat form
Height above thread: 70 mm

Thread	Ø Outer upper (mm)	Art. No.	Pack Qty.	€
DIN 50	190	**1C8C.1**	1 unit(s)	310,70
DIN 51	190	**1C8E.1**	1 unit(s)	310,70
DIN 61	190	**1C8H.1**	1 unit(s)	295,65

High form
Height above thread: 125 mm

Thread	Ø Outer upper (mm)	Art. No.	Pack Qty.	€
DIN 50	140	**ATA6.1**	1 unit(s)	196,75
DIN 51	140	**1CCK.1**	1 unit(s)	196,75
DIN 61	140	**ATA7.1**	1 unit(s)	196,75

Sieve insert

ROTH SELECTION.

Suitable for safety funnels: K345.1, 1CCH.1, ATA6.1, 1CCK.1, ATA7.1 as well as for insertable funnels PC04.1 and PC13.1.

Suitable for	Art. No.	Pack Qty.	€
for safety funnel and plug-in funnel	**ATA8.1**	1 unit(s)	12,15

Disposal containers, stations, accessories



Waste disposal station SEKUROKA®

ROTH SELECTION. Material: HDPE (Canister), PP collecting tray.

For collecting chemical waste. Different-coloured canisters for easy differentiation of waste. The funnels have a sieve inside to catch solids and a level indicator. (Specification of dimensions with lids open.)

1-station
One canister (10 l) incl. filling funnel (Ø 120 mm) and collecting tray.

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
240 x 370 x 610	natural	**5084.1**	1 unit(s)	293,50
240 x 370 x 610	yellow	**5087.1**	1 unit(s)	293,50
240 x 370 x 610	green	**5090.1**	1 unit(s)	293,50
240 x 370 x 610	blue	**5096.1**	1 unit(s)	293,50

4-station
Four canisters (10 l) incl. four filling funnels (Ø 120 mm) and collecting tray.

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
870 x 370 x 610	assorted colours	**5074.1**	1 unit(s)	718,10



Canister waste disposal station SEKUROKA®

ROTH SELECTION. Material: HDPE.

With carrying handle and additional ventilation screw. Neck diameter 42 mm.

Vol. (l)	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
10	280 x 180 x 325	natural	**A251.1**	1 unit(s)	57,70
10	280 x 180 x 325	yellow	**A252.1**	1 unit(s)	57,70
10	280 x 180 x 325	green	**A253.1**	1 unit(s)	57,70
10	280 x 180 x 325	blue	**A254.1**	1 unit(s)	57,70



Collecting tray for waste disposal station SEKUROKA®

ROTH SELECTION.

Version	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
1-place	240 x 370 x 165	grey	**P318.1**	1 unit(s)	223,60
4-places	870 x 370 x 165	grey	**P319.1**	1 unit(s)	266,60



Funnel for the disposal station SEKUROKA®

ROTH SELECTION.

Material: PP. With integrated screw connection, collecting sieve, level indicator and self-closing lid. Diameter 120 mm.

Ø (mm)	Art. No.	Pack Qty.	€
120	**5083.1**	1 unit(s)	141,40

Accessory adapter for filler funnel

ROTH SELECTION.

With 2″ fine thread, therefore suitable for Roth-Rotitainer® canisters. For filler funnel 5083.1.

Suitable for	Art. No.	Pack Qty.	€
2″ Trisure® inner thread, fine	**9070.1**	1 unit(s)	127,40



Disposal canisters electrically conductive

Bürkle. Material: HDPE, electrically conductive.

Surface resistance <10^9 Ohm.

- With carrying handle and screw cap
- Stackable
- With UN approval
- Closure size DIN 61

Vol. (l)	L x W x H (mm)	UN approval	Art. No.	Pack Qty.	€
10	300 x 200 x 258	3H1/Y1.5/200	**HNC6.1**	1 unit(s)	41,95
20	300 x 200 x 495	3H1/Y1.5/150	**HNC7.1**	1 unit(s)	54,45
30	364 x 240 x 455	3H1/Y1.5/150	**HNC8.1**	1 unit(s)	65,00



Waste disposal unit electrically conductive

Semadeni. Material: HDPE, electrically conductive/dissipative.

Specifically for the disposal of highly flammable liquids. All components electrically conductive/dissipative, cannot become electrically charged.

- 10 l canister, with tight screw closure and carrying handle. UN approval (Y) for the transport of hazardous substances.
- With screw-on funnel with patented self-closing ball float valve. This prevents vapours or odours from escaping from the waste disposal container. Additional overfill protection and splash guard.
- Robust collecting tray, can hold 100% of the canister contents in case of emergency

Delivery incl. disposal funnel, 10 l canister with metal ring (to connect the earthing cable), collecting tray and three earthing cables.

Version	Art. No.	Pack Qty.	€
Station	**HE62.1**	1 unit(s)	481,60

Spare part for waste disposal unit

Semadeni.

Version	Art. No.	Pack Qty.	€
Canister 10 l, electro-conductive	**HE64.1**	1 unit(s)	83,80
Grounding cable	**HE67.1**	1 unit(s)	56,50
Funnel, electro-conductive	**HE63.1**	1 unit(s)	148,10
Grounding tension clip, Cr-Ni-Steel	**HE66.1**	1 unit(s)	88,35
Spillage tubs, electro-conductive	**HE65.1**	1 unit(s)	204,25



Drip pan SEKUROKA®

Cemo. Material: PE, acid-resistant.

Acid-, chemical-, oil- and petrol-resistant. Four-chamber system for safe transport and emptying via the four pouring edges with raised lip to prevent spillage of contents.

Vol. (l)	L x W x H (mm)	Art. No.	Pack Qty.	€
20	690 x 440 x 105	**NH64.1**	1 unit(s)	127,95



Folding tray 30 l

Cemo.

Made of PVC and with built-in reinforcement plates, the folding collecting tray can be transported in any vehicle thanks to its flat design. Absolutely impervious to liquid; leaking chemicals or oils are collected safely.

- Requires little space, only 2.5 cm high when folded
- Quick assembly with Velcro fasteners
- Resistant to many chemicals and oils
- It is ideally suited for transporting hazardous materials and for use on construction, agricultural and forestry machines

Vol. (l)	L x W x H (cm)	Weight (kg)	Art. No.	Pack Qty.	€
30	60 x 40 x 25	1,2	**KAN0.1**	1 unit(s)	112,90



Collecting tray SEKUROKA® for chemicals

Cemo. Material: PE (Collecting tray), Grate made of galvanised steel.

Suitable for small drums. Can also be used for storage shelves and chemical storage cabinets. Can be lined with non-woven fabric for absorbing chemicals. Load-bearing capacity of tray with grate: 50 kg.

Version	Vol. (l)	L x W x H (mm)	Weight (kg)	Art. No.	Pack Qty.	€
without grate	30	980 x 600 x 85	4	**NH66.1**	1 unit(s)	201,05
with grate	30	980 x 600 x 85	10	**NH67.1**	1 unit(s)	326,80

Disposal containers, stations, accessories

Laboratory collecting tray

Cemo. Material: PE recyclable.

Z-40.22-548 and Z-40.22-549 technical approval.

- Grate made of PE with anti-slip plate surface
- Can be stacked, minimising storage and transport space
- Designed for Euro pallets
- Trays can be connected to protect surfaces
- Suitable for small containers such as bottles and canisters



Vol. (l)	L x W x H (cm)	Weight (kg)	Load capacity (kg)	Art. No.	Pack Qty.	€
25	60 x 40 x 18	3,7	125	**KAN4.1**	1 unit(s)	157,70
35	80 x 40 x 18	4,8	160	**KAN5.1**	1 unit(s)	201,05
60	80 x 60 x 18	6,8	250	**KAN6.1**	1 unit(s)	223,60
120	120 x 80 x 18	12,8	500	**KAN7.1**	1 unit(s)	296,70

Collecting tray GRP 65 l

Cemo. Material: Plastic (GRP), glass-fibre reinforced, Grate made of galvanised steel.

Z-40.12-227 technical approval.
GRP combines the properties of steel and plastic and is therefore a material that can be used universally for storing hazardous materials correctly. The collecting trays demonstrate good fire behaviour and high chemical resistance. Due to their absolute corrosion resistance, GRP collecting tray can be placed directly on the ground. The low installation height facilitates easy handling in factories. Long-lasting, UV-resistant, recyclable. Suitable for small containers such as bottles and canisters. 65 l retention capacity. Carrying capacity of tray with grate: 40 kg.



Version	L x W x H (cm)	Weight (kg)	Art. No.	Pack Qty.	€
without grate	82 x 41 x 23	4	**KAN2.1**	1 unit(s)	138,70
with grate	82 x 42 x 24	9,5	**KAN3.1**	1 unit(s)	223,60

Collecting tray SEKUROKA®

Cemo. Material: Plastic, glass fibre reinforced.

With general construction inspection approval Z-40.12-227 granted by DIBt Berlin. For the proper storage of extremely water-polluting substances. High chemical resistance, corrosion-resistant, durable, UV-resistant, recyclable. Suitable for drums, plastic carboys, small containers, canisters, etc.



With galvanised steel grate
Max. 800 kg surface load.

Vol. (l)	L x W x H (mm)	Weight (kg)	Art. No.	Pack Qty.	€
220	1280 x 850 x 270	33	**X426.1**	1 unit(s)	503,10

Without grate, with locking cams
Locking cams on the bottom of the tray to secure onto 800 x 1200 mm Euro pallets (only stable in combination with pallet).

Vol. (l)	L x W x H (mm)	Weight (kg)	Art. No.	Pack Qty.	€
150	1200 x 800 x 165	9	**2915.1**	1 unit(s)	310,70

Without grate, without locking cams
Can be placed directly on the floor.

Vol. (l)	L x W x H (mm)	Weight (kg)	Art. No.	Pack Qty.	€
150	1200 x 800 x 165	9	**N530.1**	1 unit(s)	278,45

Disposal containers, stations, accessories



Solvent collecting vessel SEKUROKA®

ROTH SELECTION. Material: Steel, Plastic (painted sheet metal).

Lined with Lupolen®. Suitable for interim storage of liquid waste – mainly used solvents. 60 mm filler neck, with plastic screw plug. Stackable.

Delivery incl. pouring aid, 2″ coarse thread.

6 l container
Carrying handle at the top.

Ø x H (mm)	Weight (kg)	UN approval	Art. No.	Pack Qty.	€
235 x 200	1,3	6HA1/X2.0/300/	**CHK8.1**	1 unit(s)	41,05

12 l container
One carrying handle at the top.

Ø x H (mm)	Weight (kg)	UN approval	Art. No.	Pack Qty.	€
235 x 350	1,8	6HA1/X2.0/300/	**0750.1**	1 unit(s)	46,85

30 l container
Two carrying handles at the side.

Ø x H (mm)	Weight (kg)	UN approval	Art. No.	Pack Qty.	€
270 x 570	3,5	6HA1/X1.6/300/	**0751.1**	1 unit(s)	53,45



Funnel SEKUROKA®

ROTH SELECTION. Material: PP.

Suitable for Sekuroka® solvent collector.
With integrated screw connection, collecting sieve for retaining solids, floating indicator to show fill level and lid. Incl. adapter suitable for 2″ coarse thread.

Ø Upper (mm)	Suitable for	Art. No.	Pack Qty.	€
120	2″ Trisure® inner thread, coarse	**9081.1**	1 unit(s)	275,20



Waste disposal containers SEKUROKA® Combined

ROTH SELECTION. Material: Steel, Plastic (painted sheet metal), 0.5 mm.

For collecting used solvents. With lid, galvanised clamping ring and rubber seal. With one drop handle on the side.
Adjustable narrow mouth container made of Lupolen®, with 2″-coarse thread closure. Inner Ø 230 mm.
Use: Primarily as collection container. Once full, the container is taken to a disposal centre. Here, the filled Lupolen® insert is tipped out.
The sheet metal container is then reused with a new Lupolen® insert.

Delivery incl. with Lupolen® insert.

Vol. (l)	Ø x H (mm)	UN approval	Art. No.	Pack Qty.	€
12	310 x 384	6HA1/X1.6/250	**1393.1**	1 unit(s)	48,90

Accessories for SEKUROKA® combi waste disposal bins

ROTH SELECTION.

Lupolen® insert

Version	Art. No.	Pack Qty.	€
Lupolen®-insert	**1394.1**	1 unit(s)	23,80



Waste disposal containers WIVA Container

Material: PP, Rubber seals.

For collecting non-liquid waste from laboratories and clinics. Tapered container with a carrying handle on each side and a yellow click lid in the same material with rubber seal. The lid cannot be taken off again after the final close. The container and lid are both completely metal-free and can therefore be incinerated with no residue.

Vol. (l)	L x W x H (mm)	Weight (kg)	UN approval	Art. No.	Pack Qty.	€
30	404 x 334 x 315	1.05	1H2/Y15/S	**A854.1**	1 unit(s)	17,75
60	404 x 335 x 646	1.65	1H2/Y15/S	**1066.1**	1 unit(s)	22,50

Disposal containers, stations, accessories



Collection containers for corrosive waste

JUSTRITE. Material: HDPE.

Safe collection and disposal of corrosive, non-solvent-based waste. Use directly at the workplace. Reduces leakage of vapours. Self-closing lid. Safe opening using foot pedal.

Vol. (l)	L x W x H (mm)	Colour	Weight (kg)	Art. No.	Pack Qty.	€
23	419 x 343 x 406	red	4.1	**CEH0.1**	1 unit(s)	138,70
38	559 x 457 x 457	red	6.4	**CEH1.1**	1 unit(s)	160,20
53	559 x 457 x 533	red	7.3	**CEH2.1**	1 unit(s)	170,95



Collection containers for cleaning cloths

JUSTRITE. Material: Steel (sheet metal), galvanised.

Rags and cloths soaked with solvent, thinner, linseed oil, flammable adhesives and other flammable liquids represent a serious fire hazard if they are not disposed of correctly.

- With robust, chemically highly resistant powder coating
- The opening angle of the lid does not exceed 60°
- The lid is self-closing when not in use
- Protects contents against sparks, heat sources and spontaneous combustion
- With foot pedal

Vol. (l)	Ø x H (mm)	Colour	Art. No.	Pack Qty.	€
20	302 x 403	red	**CAX1.1**	1 unit(s)	112,90
34	354 x 464	red	**CAX2.1**	1 unit(s)	127,95
52	408 x 514	red	**CAX3.1**	1 unit(s)	138,70



Disposal bags SEKUROKA®

ROTH SELECTION.

For collecting laboratory waste, such as used pipette tips, test tubes, sample bottles.

Made of PP, 40 µm

Material: PP. Autoclavable: Yes. Leave the bag open during autoclaving. 100 pieces in the dispenser.

W x L (mm)	Pack.	Art. No.	Pack Qty.	€
200 x 300	1 x 100 pieces	**E706.1**	100 unit(s)	11,45

Made of PE, 30 µm

Material: PE. Autoclavable: No. 100 pieces, tear-off perforated, on a roll.

W x L (mm)	Pack.	Art. No.	Pack Qty.	€
200 x 300	5 x 100 pieces	**H736.1**	500 unit(s)	35,40



A 121 °C

Table stand SEKUROKA® for refuse bags

ROTH SELECTION. Autoclavable: Yes.

Wire frame with white powder coating and anti-slip rubber feet. Ideal for every laboratory bench.

25 cm height

Version	Suitable for	Art. No.	Pack Qty.	€
Table stand	Disposal bags, 200 x 300 mm	**H508.1**	1 unit(s)	17,90
Table Stand incl. 100 PP bags (E706.1)	Disposal bags, 200 x 300 mm	**E705.1**	1 unit(s)	24,70

35 cm height

Version	Suitable for	Art. No.	Pack Qty.	€
Table stand	Disposal bags, 300 x 500 mm	**1CEA.1**	1 unit(s)	24,40

Disposal bags, accessories



A 121 °C

Disposal bags SEKUROKA® Biohazard

ROTH SELECTION. Material: PE. Autoclavable: Yes.

For the collection and disposal of contaminated waste such as pipette tips, reaction vessels and sample bottles at the workstation.
Red colour for easy recognition and identification.
With BIOHAZARD label and indicator patch; colour change indicates completed autoclaving process. Leave the bag open during autoclaving.
Safety imprint in German, English, French and Spanish.
Suitable for SEKKUROKA® H508.1 table stand.

Colour	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
red	210 x 290	20	**EPY0.1**	1,000 unit(s)	173,75



A 121 °C

Disposal bags SEKUROKA®

ROTH SELECTION. Material: PP, crystal clear transparent.
Autoclavable: Yes.

For steam sterilisation at up to +134 °C. With **„Biohazard“ imprint**.
Suitable for the safe disposal of laboratory waste such as used Petri dishes, test tubes, sample containers. Leave the bag open during autoclaving.

W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
305 x 660	38	**A195.1**	100 unit(s)	54,85
420 x 600	38	**A194.1**	100 unit(s)	57,85
600 x 780	38	**A192.1**	100 unit(s)	100,75



A 121 °C

Disposal bags Biohazard Bench-Top

Bel-Art Products. Material: HDPE. Autoclavable: Yes.

- Material acc. to ASTMD 1922 (propagation tear resistance) and ASTMD 1709 (puncture resistance)
- With printed „Biohazard“ warning symbol
- **With sterilisation indicator patch**

Colour	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
red	220 x 280	18	**YA55.1**	100 unit(s)	33,00

Accessories for disposal bags

Bel-Art Products.

Suitable for disposal bags in sizes W 200 x L 300 and W 220 x L 280 mm. For laboratory benches, fume cupboards and examination rooms.

Table stand

Material: Stainless steel, Epoxid. Autoclavable: Yes.
Epoxy-coated stainless steel wire frame.

L x W x H (mm)	Art. No.	Pack Qty.	€
127 x 85 x 216	**YA56.1**	1 unit(s)	46,15

Table stand lid

Material: PP. Can be cleaned by hand or in the dishwasher.

L x W x H (mm)	Art. No.	Pack Qty.	€
127 x 89 x 16	**YA57.1**	1 unit(s)	20,45



Sealing tape SEKUROKA®

ROTH SELECTION. Material: Metal.

Made of plastic coated wire. To close all kinds of bag. Length 300 mm.

Version	Art. No.	Pack Qty.	€
Sealing tape	**C790.1**	1,000 unit(s)	32,80

Disposal bags, accessories

Disposal bags SEKUROKA®

ROTH SELECTION. Autoclavable: Yes.

Designed for hygienic disposal of contaminated laboratory articles.
Seal bag loosely during sterilisation!



A 121 °C

(1) PP, 50 µm
Material: PP. For steam sterilisation at up to +134 °C.

Total volume (l)	Filling capacity (l)	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
8	6	300 x 500	50	**0384.1**	500 unit(s)	100,10
38	22	400 x 780	50	**L371.1**	500 unit(s)	183,85
60	32	600 x 800	50	**0385.1**	500 unit(s)	204,25
60	32	600 x 800	50	**0385.2**	100 unit(s)	54,80
110	72	700 x 1100	50	**L372.1**	350 unit(s)	220,40
110	72	700 x 1100	50	**L372.2**	75 unit(s)	63,95

(1) PP, extra strong 100 µm
Material: PP. For steam sterilisation at up to +134 °C.

Total volume (l)	Filling capacity (l)	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
60	32	600 x 800	100	**XP67.1**	125 unit(s)	189,65
110	72	700 x 1100	100	**XP68.1**	75 unit(s)	163,00

(1) PA, 50 µm
Material: PA. For hot air sterilisation at temperatures up to +160 °C.

Total volume (l)	Filling capacity (l)	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
10	6	300 x 500	50	**L373.1**	500 unit(s)	353,70
30	22	400 x 780	50	**L374.1**	500 unit(s)	682,65
65	32	600 x 780	50	**L375.1**	300 unit(s)	532,15

(2) Biohazard PP, 50 µm
Material: PP. For steam sterilisation at up to +134 °C.

With printed **Biohazard symbol** and adhesive sterilisation indicator patch. Safety imprint in German, English and French. With extra strong bottom seam.

Total volume (l)	Filling capacity (l)	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
8	6	300 x 500	50	**ATY2.1**	100 unit(s)	52,65
38	22	400 x 780	50	**ATY3.1**	100 unit(s)	85,50
60	32	600 x 800	50	**ATY4.1**	100 unit(s)	105,85
110	72	700 x 1100	50	**ATY5.1**	100 unit(s)	182,75

Disposal bags BIOHAZARD yellow

ROTH SELECTION. Material: HDPE. Autoclavable: Yes.

Autoclavable single-use waste bags made of extremely strong poly-ethylene film with a wide bottom seam for disposing of contaminated material.

- White indication area shows that autoclaving has been carried out by dark colouration
- With BIOHAZARD symbol and safety information in German, English and French
- Marking for maximum fill, except 110 l bags
- Autoclavable at 121 °C, 20 mins
- The bag must not be fully closed for autoclaving



A 121 °C

Colour	Total volume (l)	Filling capacity (l)	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
yellow	8	6	300 x 500	50	**KAA4.1**	500 unit(s)	205,85
yellow	38	22	400 x 780	50	**1CE9.1**	500 unit(s)	278,95
yellow	60	32	600 x 800	50	**KAA5.1**	500 unit(s)	373,20
yellow	110	72	700 x 1100	50	**1CHK.1**	350 unit(s)	354,80

Disposal bags, accessories

Disposal bags BIOHAZARD Red

ROTH SELECTION. Material: PP. Autoclavable: Yes.

Autoclavable single-use waste disposal bags for disposing of contaminated material. In striking red for easy identification.

- White indication area shows that autoclaving has been carried out by dark colouration
- With BIOHAZARD symbol and safety information in German, English and French
- Marking for maximum fill, except 110 l bags
- Autoclavable at 134 °C, 20 mins
- The bag must not be fully closed for autoclaving



A 121 °C

Colour	Total volume (l)	Filling capacity (l)	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
red	8	6	300 x 500	50	**1CE5.1**	500 unit(s)	247,30
red	38	22	400 x 780	50	**1CE6.1**	500 unit(s)	315,30
red	60	32	600 x 800	50	**1CE7.1**	500 unit(s)	379,70
red	110	72	700 x 1100	50	**1CE8.1**	350 unit(s)	429,90

Disposal bags BIOHAZARD with indicator patch

Material: PP. Autoclavable: Yes.

- For steam sterilisation at 135 °C
- Material acc. to ASTMD 1922 (propagation tear resistance) and ASTMD 1709 (puncture resistance)
- **With sterilisation indicator patch, turns dark when autoclaved**
- With printed “Biohazard” warning symbol
- Labelled in German, English, French and Spanish
- Compatible with disposal bag stand KN74.1.1ff



A 121 °C

Total volume (l)	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
11.5	300 x 610	38	**KN71.1**	100 unit(s)	97,85
45.4	610 x 760	38	**KN72.1**	100 unit(s)	238,65
75.7	610 x 910	38	**KN73.1**	100 unit(s)	258,00

Disposal bags BIOHAZARD with indicator patch, extra strong

Bel-Art Products. Material: HDPE. Autoclavable: Yes.

- For steam sterilisation at 135 °C
- **With sterility indicator field, turns dark colour after autoclaving**
- With printed „Biohazard“ warning symbol
- Labelled in German, English, French and Spanish
- Red colour



A 121 °C

Colour	Total volume (l)	W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
red	15.1	360 x 480	50	**KN77.1**	200 unit(s)	299,95
red	34.1	480 x 580	50	**KN78.1**	200 unit(s)	418,20
red	45.4	640 x 890	50	**KN79.1**	200 unit(s)	839,60
red	113.6	790 x 960	50	**KN80.1**	200 unit(s)	940,65
red	189.3	940 x 1220	50	**KN81.1**	100 unit(s)	719,20

Disposal bags, accessories



121 °C

Disposal bag stand

Bel-Art Products. Material: Stainless steel, PP. Autoclavable: Yes.

Suitable for disposal bags with sterilisation indicator KN71.1ff. Stainless steel frame, keeps the bag permanently open. Bottom made of PP, serves as a receptacle for leaking bags. Small stand, ideal for laboratory benches.
Lid for stand sizes M and L is optional; please order separately.

Type	Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
Small	KN71.1	356 x 185 x 470	**KN74.1**	1 unit(s)	74,15
Medium	KN72.1	356 x 356 x 546	**KN75.1**	1 unit(s)	107,25
Large	KN73.1	356 x 356 x 696	**KN76.1**	1 unit(s)	112,90

121 °C

Accessories lid for disposal bag stand

Bel-Art Products. Material: PP. Autoclavable: Yes.

Made of PP, with labelling space.
Suitable for KN75.1 and KN76.1 disposal bag stands.
Dishwasher-safe.

Type	Art. No.	Pack Qty.	€
Lid	**YA64.1**	1 unit(s)	48,05



121 °C

Disposal bags with adhesive strip

Bel-Art Products. Material: PE HMHD (High Molecular Weight High Density). Autoclavable: Yes.

Material acc. to ASTM D1922 (propagation tear resistance) and ASTM D1709 (puncture resistance). For disposal of laboratory waste at the workplace, e.g. lab bench. Space-saving. Load capacity max. 1.36 kg.

W x L (mm)	Wall thickness (µm)	Art. No.	Pack Qty.	€
305 x 406	25,4	**YA65.1**	50 unit(s)	55,90



Waste bags eco

ROTH SELECTION. Material: LDPE.

Colour grey. Thickness 50 µm. 25 pieces on a roll.

Colour	Total volume (l)	W x L (mm)	Art. No.	Pack Qty.	€
grey	60	600 x 800	**HYX9.1**	250 unit(s)	52,15



Waste bags

ROTH SELECTION. Material: HDPE.

Strong quality. Thickness 30 µm. 50 pieces on the roll.

Colour	Total volume (l)	W x L (mm)	Art. No.	Pack Qty.	€
blue	70	575 x 1000	**HYY6.1**	50 unit(s)	13,45
red	70	575 x 1000	**HYY7.1**	50 unit(s)	13,45
yellow	70	575 x 1000	**HYY8.1**	50 unit(s)	13,45
grey	70	575 x 1000	**HYY9.1**	50 unit(s)	13,45
blue	120	700 x 1100	**KAA0.1**	50 unit(s)	16,15
red	120	700 x 1100	**KAA1.1**	50 unit(s)	16,15
yellow	120	700 x 1100	**KAA2.1**	50 unit(s)	16,15
grey	120	700 x 1100	**KAA3.1**	50 unit(s)	16,15



Waste bags extra strong

ROTH SELECTION. Material: LDPE.

Especially tearproof and tensile. Thickness 60 µm.
25 pieces per roll.

Colour	Total volume (l)	W x L (mm)	Art. No.	Pack Qty.	€
red	120	700 x 1100	**HYX4.1**	25 unit(s)	15,30
yellow	120	700 x 1100	**HYX6.1**	25 unit(s)	15,30
green	120	700 x 1100	**HYX7.1**	25 unit(s)	15,30
black	120	700 x 1100	**HYX8.1**	25 unit(s)	15,30

Disposal bags, accessories



Waste bags

ROTH SELECTION.

For 12 l bin
Material: LDPE. Dimensions: 450 x 520 mm.
50 bags on a roll.

Colour	Total volume (l)	Pack.	Art. No.	Pack Qty.	€
white	16	5 x 50 pieces	**P388.1**	250 unit(s)	9,60

For 18 l bin
Material: LDPE. Dimensions: 540 x 550 mm.
50 bags on a roll.

Colour	Total volume (l)	Pack.	Art. No.	Pack Qty.	€
natural	24	10 x 50 pcs	**P389.2**	500 unit(s)	23,65

For 20–40 l bin
Material: PE. Super strong quality.
Dimensions: 550 x 650 mm.
50 bags on a roll.

Colour	Total volume (l)	Wall thickness (µm)	Pack.	Art. No.	Pack Qty.	€
blue	40	30	4 x 50 pcs	**Y386.1**	200 unit(s)	27,45

For 30–60 l bin
Material: PE. Dimensions: 370/260 x 850 mm.
40 bags on a roll.

Colour	Total volume (l)	Wall thickness (µm)	Pack.	Art. No.	Pack Qty.	€
natural	60	30	5 x 40 pcs	**Y405.1**	200 unit(s)	39,25



Waste bags Paper

ROTH SELECTION. Material: Paper.

2 x 70 g. Neutral, no imprint.

- **HYY4.1:** Width 550 + 230 mm, length 850 mm
- **HYY5.1:** Width 700 + 250 mm, length 950 mm

Colour	Total volume (l)	Art. No.	Pack Qty.	€
brown	70	**HYY4.1**	25 unit(s)	31,20
brown	120	**HYY5.1**	25 unit(s)	37,10



Waste bags BIO compostable

ROTH SELECTION. Material: Maize starch, 100%.

Acc. to EN 13432 (biodegradable materials).
Based on renewable raw materials.

- Practical and hygienic, odour blocking
- Fit any container due to their softness
- Biodegradable
- Last for years if stored properly (kept out of UV light and stored at room temperature)
- Waterproof
- Easy to handle as the bags are on a roll

Colour	Total volume (l)	W x L (mm)	Art. No.	Pack Qty.	€
white	10	420 x 450	**HYY0.1**	26 unit(s)	9,50
white	35	500 x 600	**HYY1.1**	20 unit(s)	14,55
white	80	810 x 1100	**HYY2.1**	10 unit(s)	16,25



Waste bags SEKUROKA® with adhesive strip

ROTH SELECTION. Material: PE with adhesive strip.

To attach to all smooth, clean surfaces such as walls, tables, trolleys, etc. Can be removed without leaving residue. If required, bags can be closed using the adhesive strip.

W x L (mm)	Art. No.	Pack Qty.	€
200 x 300	**Y104.1**	100 unit(s)	15,05
300 x 300	**Y105.1**	100 unit(s)	18,10
300 x 450	**Y106.1**	100 unit(s)	18,10



A 121 °C

Sealing clips

Bel-Art Products. Material: PP. Autoclavable: Yes.

For keeping disposal bags sealed during transportation and sterilisation. Can be opened and closed with one hand. For single use. Suitable for bags in sizes W 300 x L 610 and W 480 x L 580 mm.

Version	Art. No.	Pack Qty.	€
Sealing clips	**YA58.1**	100 unit(s)	27,95

Disposal bags, accessories



Laundry bags water soluble

Franz Mensch.

Based on polyvinyl alcohol (PVA). With sealing strip.

- Safe collection and handling of soiled, contaminated, infectious laundry
- Prevents personnel from coming into direct contact with the bag's contents and therefore avoids cross-contamination of germs
- Can be added directly to a washing machine without having to be emptied
- Soluble in water from 60 °C, wash at 60-90 °C for at least 30 min
- The bag and sealing strip automatically dissolve in a water bath without leaving any residue
- The material is non-toxic and fully biodegradable

Colour	Total volume (l)	W x L (mm)	Art. No.	Pack Qty.	€
red	60	660 x 840	**KCT1.1**	25 unit(s)	26,50
red	100	710 x 990	**KCT2.1**	25 unit(s)	39,80



Waste collector Clappy

Regalit. Material: Stainless steel, Base made of plastic (ABS), wheels made of solid rubber.

The clamping ring for the waste disposal bag also forms the seal. Can be opened by pressing on the pedal. Integrated braking system stops it from rolling away.

Vol. (l)	L x W x H (mm)	Weight (kg)	Art. No.	Pack Qty.	€
40	585 x 490 x 825	6,5	**X441.1**	1 unit(s)	404,20
70	585 x 490 x 975	7,5	**X442.1**	1 unit(s)	422,50



Waste collector ProfiLine WS 120

Hailo. Material: Aluminium -Tubular frame, Lid frame and base made of plastic (ABS).

- Holder for 120 l waste disposal bags
- With holder for disposal bags
- Hinged lid
- Integrated frame with rubber ring for easy attachment of bags
- Includes a set of labels for separating waste

Version	W x D x H (mm)	Art. No.	Pack Qty.	€
with rollers	430 x 450 x 1030	**KL40.1**	1 unit(s)	121,30
without rollers	430 x 450 x 970	**KL39.1**	1 unit(s)	119,40



Waste bags

ROTH SELECTION. Material: PE.

For 70 l bin
Extremely tear-resistant and flexible.
Dimensions: 575 x 1000 mm. 25 bags on one roll.

Colour	Total volume (l)	Wall thickness (µm)	Pack.	Art. No.	Pack Qty.	€
light blue	70	60	4 x 25 pieces	**Y387.1**	100 unit(s)	32,05

For 120 l bin
Especially tearproof and tensile.

Dimensions: 700 x 1100 mm. 25 bags on a roll.

Colour	Total volume (l)	Wall thickness (µm)	Pack.	Art. No.	Pack Qty.	€
blue	120	40	1 x 25 pieces	**5382.2**	25 unit(s)	11,40



Waste disposal bin with swinging lid

Curver Luxembourg. Material: PP.

Swinging lid clicks into place when pushed backwards.

Vol. (l)	Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
25	silver, anthracite	330 x 270 x 510	**K522.1**	1 unit(s)	36,55
50	silver, anthracite	406 x 340 x 668	**K524.1**	1 unit(s)	42,90



Pedal bin with pedal NewIcon

Brabantia. Material: Stainless steel (sheet metal).

Made of sheet steel with polyethylene insert or with fire-resistant zinc insert. Silent closing lid, odour-proof.

With polyethylene insert

Vol. (l)	Colour	Ø x H (mm)	Art. No.	Pack Qty.	€
12	chrome	250 x 400	**N434.1**	1 unit(s)	53,70

With fire-resistant zinc insert

Vol. (l)	Colour	Ø x H (mm)	Art. No.	Pack Qty.	€
12	chrome	250 x 400	**N435.1**	1 unit(s)	75,20
12	white	250 x 400	**N436.1**	1 unit(s)	67,70
20	chrome	290 x 460	**N437.1**	1 unit(s)	96,70
20	white	290 x 460	**1873.1**	1 unit(s)	89,20
30	chrome	300 x 675	**N438.1**	1 unit(s)	123,60
30	white	300 x 675	**N439.1**	1 unit(s)	107,45



Waste disposal bin Push bin

Brabantia. Material: Stainless steel, Base made of plastic.

Functional design. Detachable lid with extra wide 210 x 210 mm opening.

Vol. (l)	Ø x H (mm)	Art. No.	Pack Qty.	€
60	400 x 820	**Y404.1**	1 unit(s)	231,10



Pedal bin Bo

Brabantia. Material: Steel.

- Two compartments - ideal for waste separation
- Gentle closing lid and ultra-lightweight pedal operation
- Lid can be locked - for replacing waste disposal bags
- Large opening for easy disposal of waste - without spilling
- Easy cleaning - removable plastic inner inserts
- Space-saving - thanks to flat design
- Slip-resistant base underside - protects the floor and ensures high stability
- Easy repositioning - side recessed grips

Two compartments: 11 + 23 L

Colour	W x D x H (mm)	Art. No.	Pack Qty.	€
black	540 x 365 x 440	**1E77.1**	1 unit(s)	182,70
white	540 x 365 x 440	**1E76.1**	1 unit(s)	182,70

Two compartments: 2 x 30 L

Colour	W x D x H (mm)	Art. No.	Pack Qty.	€
black	540 x 365 x 652	**1E75.1**	1 unit(s)	231,10
white	540 x 365 x 652	**1E74.1**	1 unit(s)	231,10



Pedal bin FlatBack+

Brabantia. Material: Steel.

- Space-saving thanks to flat back
- Quietly closing lid and simple pedal operation
- Lid remains open when manually opened by hand
- Open lid does not touch the wall
- Easy to clean - removable plastic insert with grips
- Easy to move the bin - soft strap handle at the back
- Slip-resistant floor edging protects the floor
- Height with lid open 920 mm

Vol. (l)	Colour	W x D x H (mm)	Art. No.	Pack Qty.	€
40	white	430 x 335 x 660	**1E78.1**	1 unit(s)	225,70
40	chrome	430 x 335 x 660	**1E79.1**	1 unit(s)	225,70

Waste collectors



Waste disposal bin "Sort & Go"

Brabantia. Material: Plastic.

- Compact and space-saving
- Ideal for separate collection of waste
- Can be mounted on the wall or positioned free-standing
- Easy to mount
- The small 6-l container is ideal for the disposal of waste directly from the worktop
- The lid is not self-closing, ideal for longer work
- Stable handle and recessed grip on the base for emptying

Delivery incl. wall mount, mounting material and instructions.

Vol. (l)	Colour	W x D x H (mm)	Art. No.	Pack Qty.	€
6	white	200 x 249 x 181	**HLX8.1**	1 unit(s)	27,90
6	grey	200 x 249 x 181	**HLX9.1**	1 unit(s)	30,05
12	white	200 x 249 x 351	**HLY1.1**	1 unit(s)	34,35
12	grey	200 x 249 x 351	**HLY2.1**	1 unit(s)	35,45
16	white	220 x 279 x 401	**HLY4.1**	1 unit(s)	38,20
16	grey	220 x 279 x 401	**HLY5.1**	1 unit(s)	42,95



Waste container SEKUROKA® wire mesh

ROTH SELECTION. Material: Metal, robust with plastic coating.

Suitable for use as a waste basket, e.g. for paper towels or towels.

L x W x H (mm)	Art. No.	Pack Qty.	€
360 x 260 x 610	**AC06.1**	1 unit(s)	48,70



Waste paper bin Flame Guard self-extinguishing

Brabantia. Material: Stainless steel, chrome-plated.

With removable fire-resistant zinc insert. TÜV certified. The ring of the waste paper bin is shaped such a way that the oxygen supply is stopped by the rising smoke and the fire will therefore go out.
Insertion opening Ø 100 mm.

Vol. (l)	Colour	Ø x H (mm)	Art. No.	Pack Qty.	€
30	chrome	295 x 685	**KAY5.1**	1 unit(s)	123,60



Waste paper bin

Brabantia. Material: Steel (sheet metal), galvanised, rustproof.

Upper edge is folded back outwards.

Vol. (l)	Colour	Ø x H (mm)	Art. No.	Pack Qty.	€
15	black	251 x 320	**L909.1**	1 unit(s)	34,35



Waste collector for used batteries

ROTH SELECTION. Material: Plastic, recycled.

One opening each for normal batteries and button cells.

Vol. (l)	Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
9	grey	300 x 200 x 230	**P345.1**	1 unit(s)	52,85

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Chairs, stools and standing aids



Office chair standard model

ROTH SELECTION.

According to DIN 68877.

- Backrest adjustment and continuously variable seat height adjustment
- Seat depth adjustment
- Safety gas spring with depth spring
- All dual castors are braked depending on load and are suitable for hard and soft bases
- Max. load: 120 kg

PU foam

Material: PU (Seat and backrest), Plastic base. <STEPCOND DA="1"

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	black	400 to 600	**Y708.1**	1 unit(s)	231,15
Rollers	black	420 to 620	**Y709.1**	1 unit(s)	246,20

Beech

Material: Wood (Seat and backrest), Plastic base. <STEPCOND DA="1"

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	natural	400 to 600	**Y710.1**	1 unit(s)	181,70
Rollers	natural	420 to 620	**Y711.1**	1 unit(s)	198,90



Office chair

ROTH SELECTION. Material: PU (Seat and backrest), Plastic base.

According to DIN 68877.

- Continuously variable seat and backrest adjustment
- 12° seat inclination adjustment
- Base with concealed safety gas spring
- Large, non-slip floor glides or load-responsive braked double castors
- Max. load: 120 kg

Pic.	Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
(1)	Glides	black	440 to 630	**ALC5.1**	1 unit(s)	396,70
(2)	Rollers	black	460 to 650	**ALC6.1**	1 unit(s)	407,45

With ring base

Height of the ring base can be adjusted independently of the height of the seat.

Pic.	Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
(3)	Glides	black	510 to 700	**ALC7.1**	1 unit(s)	471,95



Office chair high

ROTH SELECTION.

According to DIN 68877.

- Tilting backrest can be adjusted in height and inclination
- Continuously variable seat height adjustment
- Extremely stable tubular steel feet
- Three integrated footrests at different heights
- Safety gas spring
- Max. load: 120 kg

PU foam

Material: PU (Seat and backrest), Tubular steel base. <STEPCOND

Pic.	Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
(1)	Glides	black	480 to 880	**Y712.1**	1 unit(s)	456,90

PU foam, adjustable seat inclination

Material: PU (Seat and backrest), Tubular steel base.
Seat inclination adjustable by 12°.

Pic.	Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
(2)	Glides	black	480 to 880	**ALC8.1**	1 unit(s)	418,20

Beech

Material: Wood (Seat and backrest), Tubular steel base. <STEP-

Pic.	Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
(1)	Glides	natural	480 to 880	**Y713.1**	1 unit(s)	375,20



Office chair XXL

ROTH SELECTION. Material: Artificial leather (Cover).

- Especially large, comfortable seat and backrest width
- Continuously adjustable seat inclination
- Reinforced synchronized mechanics with hand wheel to adjust the weight
- Height adjustment via gas spring
- Large, non-slip floor glides or load-responsive braked double castors
- Max. load: 160 kg

Version	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	480 to 660	**HKT1.1**	1 unit(s)	826,70
Rollers	425 to 555	**HKT2.1**	1 unit(s)	854,65



Laboratory chair Labster

bimos. Material: Artificial leather (Seat and backrest).

GMP-compatible and suitable for use in clean rooms, ideal for laboratories with safety classes S1 to S3.

- High level of seating comfort through Skai artificial leather and soft upholstery
- Fully washable and can be disinfected
- Seamless design concept
- Mechanics and soft-cover lining with control panel
- Excellent ergonomics, height-adjustable backrest
- Auto-motion technology adapts the inclination of the seat and backrest automatically to the working posture
- Compact design, small space requirement
- Space-saving star base
- Load-dependent limited dual casters for hard floor surfaces
- Max. load: 120 kg

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Rollers	black	400 to 510	**HHA2.1**	1 unit(s)	586,95
Rollers	grey	400 to 510	**HHA3.1**	1 unit(s)	586,95
Rollers	red	400 to 510	**HHA4.1**	1 unit(s)	586,95
Rollers	mint green	400 to 510	**HHA5.1**	1 unit(s)	586,95
Rollers	black	450 to 650	**HHA6.1**	1 unit(s)	618,15
Rollers	grey	450 to 650	**HHA7.1**	1 unit(s)	618,15
Rollers	red	450 to 650	**HHA8.1**	1 unit(s)	618,15
Rollers	mint green	450 to 650	**HHA9.1**	1 unit(s)	618,15

With ring base

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	black	550 to 800	**HHC0.1**	1 unit(s)	711,65
Glides	grey	550 to 800	**HHC1.1**	1 unit(s)	711,65
Glides	red	550 to 800	**HHC2.1**	1 unit(s)	711,65
Glides	mint green	550 to 800	**HHC3.1**	1 unit(s)	711,65



Stools stainless steel

ROTH SELECTION. Material: PU (Seat), with stainless steel insert, Stainless steel base and safety gas spring.

- Easy to clean
- Rust-free
- Available to order separately: Footrest, can be folded upwards flexibly
- Max. load: 120 kg

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	black	440 to 630	**ALE1.1**	1 unit(s)	547,20
Rollers	black	500 to 690	**ALE2.1**	1 unit(s)	607,40



Laboratory stools Labster

bimos. Material: Artificial leather (Seat).

GMP-compatible and suitable for use in clean rooms, ideal for laboratories with safety classes S1 to S3.

- High level of seating comfort through Skai artificial leather and soft upholstery
- Fully washable and can be disinfected
- Seamless design concept
- Mechanics and soft-cover lining with control panel
- Adjustable seat height with ring-release gas elevation
- Extra-large seat surface with Ø 380 mm
- Compact design, small space requirement
- Load-dependent limited dual casters for hard floor surfaces
- Max. load: 120 kg

Version	Colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
Rollers	black	450 to 650	380	**HHC5.1**	1 unit(s)	326,80
Rollers	grey	450 to 650	380	**HHC6.1**	1 unit(s)	326,80
Rollers	red	450 to 650	380	**HHC7.1**	1 unit(s)	326,80
Rollers	mint green	450 to 650	380	**HHC8.1**	1 unit(s)	326,80



Stools comfort model

ROTH SELECTION.

- Continuously variable seat height adjustment
- Safety gas spring for quick seat height adjustment
- LGA approved
- Max. load: 120 kg

PU foam, standard
Material: PU (Seat), Plastic base. <STEPCOND DA="1" RA="1"

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	black	440 to 630	**Y706.1**	1 unit(s)	188,15

Beech, release ring
Material: Wood (Seat), Plastic base. <STEPCOND DA="1" RA="1"

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	natural	440 to 630	**Y707.1**	1 unit(s)	170,95

Chairs, stools and standing aids



Stools

ROTH SELECTION.

- Continuously variable seat height adjustment
- Safety gas spring for quick seat height adjustment
- LGA approved
- Max. load: 120 kg

PU foam
Material: PU (Seat), Plastic base. <STEPCOND DA="1" RA="1"

Version	Colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
Glides	black	400 to 600	350	**Y702.1**	1 unit(s)	188,15
Rollers	black	420 to 620	350	**Y703.1**	1 unit(s)	203,20

PU foam release ring
Material: PU (Seat), Plastic base. <STEPCOND DA="1" RA="1"

Version	Colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
Glides	black	400 to 590	350	**CXA5.1**	1 unit(s)	188,15
Rollers	black	430 to 620	350	**CXA6.1**	1 unit(s)	198,90

PU foam release ring, with ring base
Material: PU (Seat), Plastic base. <STEPCOND DA="1" RA="1"

Version	Colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
Glides	black	540 to 800	350	**CXA7.1**	1 unit(s)	231,15

Beech
Material: Wood (Seat), Plastic base. <STEPCOND DA="1" RA="1"

Version	Colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
Glides	natural	400 to 600	350	**Y704.1**	1 unit(s)	177,40
Rollers	natural	420 to 620	350	**Y705.1**	1 unit(s)	181,70



Stools with all-round footrest

ROTH SELECTION. Material: PU (Seat), Steel base.

- Safety gas spring
- All-round footrest for excellent support
- Max. load: 120 kg

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	black	540 to 740	**ALH5.1**	1 unit(s)	252,65



Stools padded

ROTH SELECTION. Material: Artificial leather (Seat), Plastic base.

- Seat thickness 90 mm, padded
- Release ring
- Base Ø 630 mm
- Load-responsive braked double castors
- Safety gas spring for quick seat height adjustment
- Max. load: 120 kg

Version	Colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
Castors	red	480 to 680	360	**ALH2.1**	1 unit(s)	220,40
Castors	blue	480 to 680	360	**ALH3.1**	1 unit(s)	220,40
Castors	black	480 to 680	360	**ALH4.1**	1 unit(s)	220,40



Stools XL

ROTH SELECTION.

- Continuously variable seat height adjustment
- Safety gas spring
- Base Ø 610 mm
- Load-responsive braked double castors
- Max. load: 150 kg

Padded
Material: Artificial leather (Seat), Aluminium base. <STEPCOND DA="1"

Version	Colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
Castors	black	560 to 740	360	**HKP9.1**	1 unit(s)	284,90
Rollers	black	560 to 740	400	**HKP7.1**	1 unit(s)	327,90

Beech
Material: Wood (Seat), Aluminium base. <STEPCOND DA="1" RA="1"

Version	Colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
Rollers	natural	560 to 740	400	**HKP8.1**	1 unit(s)	267,70
Rollers	natural	560 to 740	360	**HKT0.1**	1 unit(s)	220,40



Stackable stool stainless steel

ROTH SELECTION. Material: PU (Seat), Stainless steel tubular base frame.

- Easy to clean
- Rust-free
- Max. load: 120 kg

Colour	Seat height (mm)	Art. No.	Pack Qty.	€
blue	500 to 500	**ALE3.1**	1 unit(s)	295,65
blue	580 to 580	**ALE4.1**	1 unit(s)	299,95
black	500 to 500	**ALE5.1**	1 unit(s)	295,65
black	580 to 580	**ALE6.1**	1 unit(s)	299,95



Stackable stool

ROTH SELECTION.

- Seat Ø 350 mm
- Ready to hand and can be stacked to save space
- Max. load: 120 kg

PU foam
Material: PU (Seat), Tubular steel frame. <STEPCOND DA="1" RA="1"

Colour	Frame colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
black	black	500 to 500	350	**CXA8.1**	1 unit(s)	145,15
black	light grey	500 to 500	350	**CXA9.1**	1 unit(s)	145,15
black	black	580 to 580	350	**CXC1.1**	1 unit(s)	145,15
black	light grey	580 to 580	350	**CXC2.1**	1 unit(s)	145,15

Beech
Material: Wood (Seat), Tubular steel frame. <STEPCOND DA="1"

Colour	Frame colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.	€
natural	light grey	500 to 500	350	**CXC0.1**	1 unit(s)	117,20
natural	light grey	580 to 580	350	**CXC3.1**	1 unit(s)	117,20



Stools

ROTH SELECTION.

- Continuously variable seat height adjustment by means of gas spring
- Large seat area, width 370 mm
- Front/back seat angle adjustment: 7.5°
- High backrest for upright seating
- Max. load: 120 kg

PP
Material: PP (Seat), Plastic base. <STEPCOND DA="1" RA="1"

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	black	490 to 680	**CXA1.1**	1 unit(s)	267,70
Rollers	black	520 to 710	**CXA2.1**	1 unit(s)	278,45

PU foam
Material: PU (Seat), Plastic base. <STEPCOND DA="1" RA="1"

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	blue	490 to 680	**CTY9.1**	1 unit(s)	317,15
Rollers	blue	520 to 710	**CXA0.1**	1 unit(s)	338,65



Stools/standing supports with ring base

ROTH SELECTION.

Flexible use as a standing support or stool possible: Tilt the seat forwards to stand, set it straight to sit on it.

- Continuously variable seat height adjustment by means of gas spring
- Large seat area, width 370 mm
- Front/back seat angle adjustment: 7.5°
- High backrest for upright seating
- With ring base
- Max. load: 120 kg

PP
Material: PP (Seat), Plastic base. <STEPCOND DA="1" RA="1"

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	black	600 to 860	**CXA4.1**	1 unit(s)	338,65

PU foam
Material: PU (Seat), Plastic base. <STEPCOND DA="1" RA="1"

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	blue	600 to 860	**CXA3.1**	1 unit(s)	375,20

Chairs, stools and standing aids



Standing support with comfort seat

ROTH SELECTION.

- Seat width: 420 mm
- Seat surface with distinct air-conditioning ducts
- Handle on rear of the seat for easy change of location
- Foot rest with transport castors
- Non-rotative gas-pressure spring
- Optionally available with foldable foot rest (please order separately)

Seat height (mm)	Art. No.	Pack Qty.	€
650 to 850	**HTA2.1**	1 unit(s)	348,30

Footrest for standing support with comfort seat

ROTH SELECTION.

Designation	Art. No.	Pack Qty.	€
Footrest, foldable	**HTA3.1**	1 unit(s)	106,45



Standing support

ROTH SELECTION. Material: PU (Seat), Tubular steel frame.

To take the load off users when standing. Seat and foot stand can be folded in.

Colour	Seat height (mm)	Art. No.	Pack Qty.	€
red	650 to 850	**AH92.1**	1 unit(s)	188,15
black	650 to 850	**AH91.1**	1 unit(s)	252,65



Standing support

ROTH SELECTION. Material: Artificial leather padded (seat and backrest), Steel frame, plastic-coated.

Foldable. To take the load off the feet and spine when working standing up. Height is continuously adjustable.

Colour	Seat height (mm)	Art. No.	Pack Qty.	€
red	550 to 900	**9042.1**	1 unit(s)	267,70
black	550 to 900	**9045.1**	1 unit(s)	267,70
silver	550 to 900	**9050.1**	1 unit(s)	267,70



Roller stools

ROTH SELECTION.

According to DIN 4569. TÜV- and BG-tested. Can be moved thanks to three spring-mounted castors (insertable). With thick plastic ring base. Unshakably secure hold with a load of 5 kg and above.

Technical specifications:

Art. No.	X429.1	X430.1	X431.1	X432.1
Ø Upper	290 mm			
Ø Lower	435 mm		445 mm	
Load capacity	150 kg			
Weight	4.9 kg		2.8 kg	

Plastic
Material: PP break-proof.

Colour	Height (mm)	Art. No.	Pack Qty.	€
white	425	**X431.1**	1 unit(s)	57,50
light grey	425	**X432.1**	1 unit(s)	57,50

Metal
Material: Metal powder-coated. Steps with slip-resistant rubber covering.

Colour	Height (mm)	Art. No.	Pack Qty.	€
blue	430	**X429.1**	1 unit(s)	102,60
light grey	430	**X430.1**	1 unit(s)	102,60



Stepladder

ROTH SELECTION. Material: PP.

Sturdy, with two levels, foldable. Anti-slip feet and steps. Easy to clean.

Technical specifications:

Art. No.	T224.1
Load capacity	150 kg

Colour	Total height (mm)	Platform height (mm)	Width (mm)	Art. No.	Pack Qty.	€
anthracite, red	630	430	486	**T224.1**	1 unit(s)	55,90

Climbing aids and ladders



Stepladder mobile

ROTH SELECTION. Material: Aluminium.

According to DIN 4569. TÜV- and BG-tested. Freely movable thanks to spring-mounted castors. Two anti-slip steps. Unshakably secure hold when loaded. Dimensions when folded up: 440 x 230 mm, height 485 mm.

Technical specifications:

Art. No.	Y645.1
Load capacity	150 kg
Weight	2.2 kg

Height (mm)	Width (mm)	Art. No.	Pack Qty.	€
445	440	**Y645.1**	1 unit(s)	85,95



Stepladder with handle

Hailo. Material: Steel, Aluminium safety handrail.

With soft-grip base for optimal stability on various floor surfaces. Arched safety handrail for holding on to and leaning on, with storage tray. Extra-large, slip-resistant steps for optimal comfort while standing up.

Technical specifications:

Art. No.	ACP5.1	ACP6.1
Load capacity	150 kg	
Weight	4.9 kg	6.6 kg

Steps	Total height (mm)	Platform height (mm)	Width (mm)	Art. No.	Pack Qty.	€
2	1,200	490	520	**ACP5.1**	1 unit(s)	155,20
3	1,440	740	550	**ACP6.1**	1 unit(s)	206,40



Safety ladder

Hailo. Material: Aluminium.

With anti-slip surface. Secure, high-tech riveted step and rail connection and slip-resistant feet.

Technical specifications:

Art. No.	LT12.1	LT09.1
Load capacity	150 kg	
Weight	4.6 kg	3.9 kg

(1) Steel platform
Height of platform: 840 mm.

Steps	Height (mm)	Width (mm)	Art. No.	Pack Qty.	€
4	1,580	450	**LT09.1**	1 unit(s)	128,95

(2) Aluminium platform
Height of platform: 1060 mm.

Steps	Height (mm)	Width (mm)	Art. No.	Pack Qty.	€
5	1,820	480	**LT12.1**	1 unit(s)	140,45



Gas bottle rack

ROTH SELECTION. Material: Steel, galvanised.

For wall mounting of a gas bottle.

Delivery incl. safety chain.

Suitable for	Art. No.	Pack Qty.	€
Bottle Ø 140 mm	**CTC5.1**	1 unit(s)	39,40
Bottle Ø 230 mm	**CTC6.1**	1 unit(s)	46,05
Bottle Ø 320 mm	**CTC7.1**	1 unit(s)	54,85

Storage/transport of gas cylinders



Gas bottle rack

Usbeck. Material: Aluminium powder-coated.

Bottle rack for compressed gas bottles, for fixing to tables. For benchtops up to 65 mm thick. Wall mounting possible by means of cross holes (Ø 6.5 mm). Flexible fastening belt with snap buckle.

Delivery incl. belt.

Suitable for	Art. No.	Pack Qty.	€
Ø 230 mm bottles	**1A0A.1**	1 unit(s)	60,05



Gas cylinder trolley

ROTH SELECTION. Material: PE.

For safely transporting a single gas cylinder, Ø max. 320 mm.

- With handle
- Large surface area provides excellent stability
- Solid rubber tyres, wheel Ø 200 mm

Technical specifications:

Art. No.	CTC3.1	CTC4.1
Load capacity	80 kg	

Delivery incl. lashing strap for securing the cylinder.

Version	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
With support wheel	495	800	1,110	**CTC4.1**	1 unit(s)	360,15
Without support wheel	495	630	1,110	**CTC3.1**	1 unit(s)	323,60



Transport trolley foldable

ROTH SELECTION.

- Extremely space-saving when folded
- Quickly ready to use
- Low net weight - high load-bearing capacity
- With Spannfix system for securing loads

Technical specifications:

Art. No.	9305.1	1C3H.1	1C3K.1
Scoop width	490 mm		495 mm
Scoop depth	250 mm	410 mm	420 mm
Load capacity	125 kg		100 kg

Aluminium

Material: Aluminium, Steel, Plastic. Polymer wheels (Ø 185 x W 40 mm), plastic rims, roller bearings.

Dimensions when folded up: W 490 x H 685 mm.

Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
490	1,030	**9305.1**	1 unit(s)	173,10

Stainless steel

Material: Stainless steel, Plastic. Polymer wheels (Ø 185 x W 40 mm), plastic rims, roller bearings.

Dimensions when folded up: W 490 x H 735 mm.

Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
490	1,130	**1C3H.1**	1 unit(s)	254,80

Cross

Material: Steel (pipe, chrome-plated), Plastic. Extra wide polymer wheels (Ø 180 x W 95 mm), plastic rims, ball bearings.

Dimensions when folded up: W 495 x H 740 mm.

- Special tyres for uneven terrain

Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
495	1,120	**1C3K.1**	1 unit(s)	238,65



Transport trolley

ROTH SELECTION. Material: Steel.

Colour: Black/silver. Pneumatic/lugged tyres. Wheels with roller bearings.

Technical specifications:

Art. No.	X828.1
Scoop width	260 mm
Scoop depth	280 mm
Load capacity	250 kg

Height (mm)	Art. No.	Pack Qty.	€
1,100	**X828.1**	1 unit(s)	254,80

Transport trolleys



Drum-tipping cradle

Material: Steel (plastic-coated), Polyamide rollers.

Support rollers: Ø 50 mm, steering and fixed wheels: Ø 125 mm.

- With removable lever handle

For drum size 50-60 litres

Version	Length (mm)	Total length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Standard	720	1,710	510	625	**1C48.1**	1 unit(s)	466,55
With drip tray	720	1,710	510	625	**1C45.1**	1 unit(s)	548,25

For drum size 200 litres

Version	Length (mm)	Total length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Standard	1,010	2,005	555	625	**1C49.1**	1 unit(s)	485,90
With drip tray	1,010	2,005	555	625	**1C46.1**	1 unit(s)	566,55



Drum trolley with stabiliser wheel

ROTH SELECTION. Material: Steel (plastic-coated).

With adjustable drum gripper (drum rest with claws).
Stabiliser wheel: Swivel roller, Ø 200 mm, made of solid rubber.

Technical specifications:

Art. No.	1C47.1	1C44.1
Load capacity	250 kg	

Solid rubber tyres

Wheel Ø 250 mm, width 60 mm.

Width (mm)	Total height (mm)	Height (mm)	Art. No.	Pack Qty.	€
600	1,600	700	**1C47.1**	1 unit(s)	394,55

Pneumatic tyres

Wheel Ø 260 mm, width 85 mm.

Width (mm)	Total height (mm)	Height (mm)	Art. No.	Pack Qty.	€
600	1,600	700	**1C44.1**	1 unit(s)	394,55



Platform trolley with handle

ROTH SELECTION. Material: Steel welded, powder-coated.

TPE tyres, two swivel castors and two fixed castors, lockable swivel castors.

Technical specifications:

Art. No.	HTX7.1	HTX6.1
Length	890 mm	
Width	500 mm	
Height	860 mm	
Platform height	195 mm	
Roller Ø	125 mm	
Load capacity	250 kg	
Weight	14 kg	12 kg

Wood

Material: Wooden platform, surface in beech finish. <STEPCOND

Number of bases	Platform (mm)	Colour	Art. No.	Pack Qty.	€
1	600 x 500	blue, natural	**HTX6.1**	1 unit(s)	229,00

Steel sheet

Material: Steel sheet platform, powder-coated. <STEPCOND DA="1"

Number of bases	Platform (mm)	Colour	Art. No.	Pack Qty.	€
1	600 x 500	blue	**HTX7.1**	1 unit(s)	254,80

Platform trolleys





Platform trolley

ROTH SELECTION.

With handlebar, folds onto platform.
Two swivel castors and two fixed castors, lockable swivel castors.

Technical specifications:

Art. No.	HTX8.1	HTY0.1	HTX9.1	HTY1.1
Length	815 mm		995 mm	
Width	470 mm		620 mm	
Height	930 mm		965 mm	
Roller Ø	125 mm		160 mm	
Load capacity	250 kg	200 kg	250 kg	200 kg
Weight	16 kg	11 kg	25 kg	18 kg

Wood
Material: Steel powder-coated, Wooden platform material, surface in beech finish.

Number of bases	Platform (mm)	Colour	Art. No.	Pack Qty.	€
1	720 x 450	blue, natural	**HTX8.1**	1 unit(s)	256,95
1	900 x 600	blue, natural	**HTX9.1**	1 unit(s)	316,05

Aluminium
Material: Aluminium.

Number of bases	Platform (mm)	Colour	Art. No.	Pack Qty.	€
1	720 x 450	silver	**HTY0.1**	1 unit(s)	405,30
1	900 x 600	silver	**HTY1.1**	1 unit(s)	518,15



Platform trolley

ROTH SELECTION. Material: Steel powder-coated, Wooden platform, surface in beech finish.

- Removable push handle
- Two swivel castors and two fixed castors, lockable steering wheels

Technical specifications:

Art. No.	HTY2.1	HTY3.1	HTY4.1	HTY5.1
Length	970 mm	1,120 mm		1,325 mm
Width	509 mm	609 mm	709 mm	809 mm
Height	948 mm	990 mm		
Roller Ø	160 mm	200 mm		
Load capacity	500 kg	600 kg		
Weight	23 kg	27 kg	30 kg	35 kg

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
1	850 x 500	**HTY2.1**	1 unit(s)	278,45
1	1000 x 600	**HTY3.1**	1 unit(s)	302,10
1	1000 x 700	**HTY4.1**	1 unit(s)	302,10
1	1200 x 800	**HTY5.1**	1 unit(s)	330,05



Platform trolley ROTILABO®

ROTH SELECTION. Material: Steel powder-coated, Panels made of beech plywood, surface-treated, castors made of solid rubber.

Two swivel castors and two fixed castors.

Technical specifications:

Art. No.	N176.1	N177.1
Total height	975 mm	980 mm
Platform height	270 mm	
Roller Ø	200 mm	
Load capacity	500 kg	

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
1	850 x 500	**N176.1**	1 unit(s)	381,65
1	1200 x 700	**N177.1**	1 unit(s)	459,05



Platform trolley ROTILABO® stainless steel

ROTH SELECTION. Material: Stainless steel.

- Smooth platform underlaid with sound-insulating material, 80 mm folded edges, with safety crimping on the inside
- Curved push handle consisting of square tubes, Ø 25 mm, securely welded on
- Four swivel castors with rubber tyres; two of these castors are lockable
- Two solid bumpers protect against damage

Technical specifications:

Art. No.	N136.1	N137.1
Length	740 mm	1,000 mm
Width	600 mm	
Height	1,020 mm	
Platform height	243 mm	
Roller Ø	125 mm	
Load capacity	120 kg	
Weight	16 kg	20 kg

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
1	545 x 545	**N136.1**	1 unit(s)	748,20
1	820 x 545	**N137.1**	1 unit(s)	788,00

Platform trolleys



Platform trolley ROTILABO® stainless steel

ROTH SELECTION. Material: Stainless steel.

- Welded frame structure consisting of round tubes, Ø 25 mm
- With welded-on tray 1.5 mm thick
- Curved push handle, height 450 mm, with grid design
- Four securely welded-on mounting plates for fastening the castors with rubber tyres
- With two fixed castors and two lockable swivel castors

Technical specifications:

Art. No.	N138.1	N139.1
Length	970 mm	1,120 mm
Width	500 mm	700 mm
Height	940 mm	
Platform height	270 mm	
Roller Ø	200 mm	
Load capacity	500 kg	
Weight	27 kg	34 kg

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
1	850 x 500	**N138.1**	1 unit(s)	1.384,60
1	1000 x 700	**N139.1**	1 unit(s)	1.674,85



Platform trolley with mesh panels

ROTH SELECTION. Material: Steel powder-coated, Wooden platform, surface in beech finish.

Front and side panels made of wire mesh 50 x 50 x 4 mm, panel height 500 mm, one side panel is removable. Two swivel castors and two fixed castors, lockable swivel castors.

Technical specifications:

Art. No.	HTY6.1	HTY7.1	HTY8.1	HTY9.1
Length	1,030 mm	1,180 mm		1,380 mm
Width	509 mm	609 mm	709 mm	809 mm
Height	958 mm	990 mm		
Roller Ø	160 mm	200 mm		
Load capacity	500 kg	600 kg		
Weight	38 kg	47 kg	51 kg	59 kg

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
1	850 x 500	**HTY6.1**	1 unit(s)	479,45
1	1000 x 600	**HTY7.1**	1 unit(s)	506,35
1	1000 x 700	**HTY8.1**	1 unit(s)	508,50
1	1200 x 800	**HTY9.1**	1 unit(s)	543,95



Shelf trolley wood

ROTH SELECTION. Material: Metal, powder-coated, panels made of multi-ply beech plywood.

Two steering wheels and two fixed wheels, solid rubber smooth-running wheels with ball bearings.

Technical specifications:

Art. No.	5390.1
Length	1,040 mm
Width	620 mm
Height	810 mm
Total height	900 mm
Floor clearance	520 mm
Roller Ø	125 mm
Load capacity	200 kg
Weight	33 kg

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
2	1000 x 600	**5390.1**	1 unit(s)	548,25



Shelf trolley plastic

ROTH SELECTION. Material: PE (Shelves).

- Shelves with folded edge all the way round
- On trolleys with three shelves, the height of the middle shelf can be adjusted by 25 mm
- Load-bearing capacity per shelf 30 kg

Technical specifications:

Art. No.	K492.1	K493.1	K494.1	K495.1
Length	535 mm		686 mm	
Width	857 mm		1,003 mm	
Height	890 mm			
Total height	940 mm			
Floor clearance	550 mm	250 mm	550 mm	250 mm
Load capacity	60 kg	90 kg	60 kg	90 kg

Delivery incl. four swivel castors with rubber tyres, not assembled.

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
2	475 x 735	**K492.1**	1 unit(s)	591,25
2	620 x 880	**K494.1**	1 unit(s)	639,65
3	475 x 735	**K493.1**	1 unit(s)	686,95
3	620 x 880	**K495.1**	1 unit(s)	736,40

Platform trolleys



Shelf trolley plastic with tray shelves

ROTH SELECTION. Material: PE (Tray shelves).

- Shelves in the form of trays
- Tray depth 70 mm
- On trolleys with three shelves, the height of the middle shelf can be adjusted by 25 mm
- Load-bearing capacity per shelf 65 kg

Technical specifications:

Art. No.	X446.1	X447.1	X448.1	X449.1
Length	540 mm		690 mm	
Width	840 mm		995 mm	
Height	1,060 mm			
Floor clearance	610 mm	280 mm	610 mm	280 mm
Load capacity	130 kg	195 kg	130 kg	195 kg

Delivery incl. four swivel castors with rubber tyres, not assembled.

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
2	480 x 730	**X446.1**	1 unit(s)	686,95
2	625 x 885	**X448.1**	1 unit(s)	660,05
3	480 x 730	**X447.1**	1 unit(s)	711,65
3	625 x 885	**X449.1**	1 unit(s)	720,25



Shelf trolley ESD

ROTH SELECTION. Material: Steel powder-coated, Shelves made of wooden composite board, wheels with TPE-ESD tyres (thermoplastic elastomer).

- Electrically conductive design
- Two swivel castors and two fixed castors, lockable steering wheels
- Load-bearing capacity of top loading surface 80 kg

Technical specifications:

Art. No.	HXA0.1	HXA2.1	HXA1.1	HXA3.1
Length	980 mm		1,130 mm	
Width	509 mm		609 mm	
Height	1,020 mm			
Floor clearance	620 mm	310 mm	620 mm	310 mm
Roller Ø	125 mm			
Load capacity	250 kg			
Weight	30 kg	39 kg		54 kg

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
2	850 x 500	**HXA0.1**	1 unit(s)	555,80
2	1000 x 600	**HXA1.1**	1 unit(s)	605,25
3	850 x 500	**HXA2.1**	1 unit(s)	712,75
3	1000 x 600	**HXA3.1**	1 unit(s)	825,60



Shelf trolley CLAX®

ROTH SELECTION. Material: Aluminium, Plastic.

Foldable. Stable hard rubber, also with footbrake for safe loading and unloading. Folding box on top transport floor can be fixed using securing straps. Top floor folds up easily to accommodate bulky objects. Can be built up and dismantled in a matter of seconds simply by pressing one button.
Dimensions when folded up: L 670 x W 470 x H 170 mm.
Load-bearing capacity of top shelf 20 kg, bottom shelf 40 kg.

Technical specifications:

Art. No.	HNX7.1
Length	890 mm
Width	550 mm
Height	1,030 mm
Load capacity	60 kg
Weight	8,5 kg

Delivery incl. one CLAX® transport box.

Number of bases	Colour	Art. No.	Pack Qty.	€
2	grey	**HNX7.1**	1 unit(s)	217,15



Shelf trolley with wire baskets

ROTH SELECTION. Material: Steel, Baskets covered with soft plastic.

With two baskets, volume of 65 and 24 litres, load-bearing capacity per basket 30 kg. Castors rotate all the way round.

Technical specifications:

Art. No.	1927.1
Length	730 mm
Width	410 mm
Height	850 mm
Total height	970 mm
Roller Ø	100 mm
Load capacity	60 kg
Weight	13.5 kg

Number of bases	Art. No.	Pack Qty.	€
2	**1927.1**	1 unit(s)	585,90

Platform trolleys



Shelf trolley

ROTH SELECTION. Material: Stainless steel 18/10.

Price plus transport costs of €35.00 within Germany.

With welded-in shelves, load-bearing capacity per shelf 40 kg. Four castors with wall deflectors, including two with wheel brakes. No protruding edges or screws, thereby largely preventing accidents and making it easy to clean. Anti-static tyres.

Technical specifications:

Art. No.	0033.1	A206.1	Y497.1
Length	895 mm		
Width	595 mm		
Height	949 mm		1,264 mm
Floor clearance	591 mm	278 mm	
Roller Ø	125 mm		
Load capacity	80 kg	120 kg	150 kg
Weight	15,63 kg	19,1 kg	23,62 kg

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
2	800 x 500	**0033.1**	1 unit(s)	456,90
3	800 x 500	**A206.1**	1 unit(s)	500,95
4	800 x 500	**Y497.1**	1 unit(s)	743,90



Shelf trolley ROTILABO® for self-assembly

ROTH SELECTION. Material: Stainless steel 18/10.

- Stable support surfaces, thickness 0.8 mm
- Load-bearing capacity of each shelf 40 kg
- Bases are coated with sound-insulating material

Technical specifications:

Art. No.	YE87.1	YE88.1
Length	860 mm	
Width	560 mm	
Height	950 mm	
Floor clearance	570 mm	260 mm
Roller Ø	125 mm	
Load capacity	80 kg	120 kg
Weight	13 kg	17 kg

Delivery incl. four swivel castors, two of which are lockable. Fully disassembled.

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
2	760 x 440	**YE87.1**	1 unit(s)	252,65
3	760 x 440	**YE88.1**	1 unit(s)	313,90



Shelf trolley with tray shelves

ROTH SELECTION. Material: Stainless steel, stainless steel wheel housing, solid rubber rollers, plastic grip.

Tray depth 40 mm. Roller Ø 160 mm, 2 steering rollers and 2 fixed rollers, steering rollers with brake.

Technical specifications:

Art. No.	1C3L.1	1C3N.1
Length	940 mm	
Width	500 mm	
Height	915 mm	
Floor clearance	653 mm	312 mm
Load capacity	250 kg	350 kg

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
2	900 x 500	**1C3L.1**	1 unit(s)	1.202,95
3	900 x 500	**1C3N.1**	1 unit(s)	1.525,45



Shelf trolley mini

ROTH SELECTION. Material: Stainless steel 1.4301.

Price plus transport costs of €35.00 within Germany.

- Sturdy and hygienic design
- Four swivel castors, including two with full locking brake
- Castors are not electrically conductive
- Smooth shelves, underlaid with sound-insulating material
- Shelves rigidly welded with four round tubes, Ø 25 mm

Technical specifications:

Art. No.	AXL5.1
Length	450 mm
Width	450 mm
Height	510 mm
Roller Ø	125 mm
Load capacity	120 kg

Number of bases	Art. No.	Pack Qty.	€
2	**AXL5.1**	1 unit(s)	646,10

Transport trolleys

Shelf trolley

ROTH SELECTION. Material: Stainless steel (material 1.4301), galvanised steel wheel housing.

Roller Ø 200 mm, 2 steering rollers and 2 fixed rollers, steering rollers with brake. C-shaped loading surfaces, folded. Push handle made of a pipe, Ø 27 mm.



Technical specifications:

Art. No.	1C3P.1	1C3T.1	1C3X.1	1C3Y.1	1C40.1	1C41.1	1C42.1	1C43.1
Total height	890 mm							
Platform height	890 mm							
Floor clearance	570 mm		265 mm		570 mm		265 mm	
Load capacity	600 kg							

TPE tyres

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
2	1000 x 700	**1C3P.1**	1 unit(s)	1.544,80
2	1200 x 800	**1C3T.1**	1 unit(s)	1.775,90
3	1000 x 700	**1C3X.1**	1 unit(s)	2.013,50
3	1200 x 800	**1C3Y.1**	1 unit(s)	2.295,15

PUR tyres

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
2	1000 x 700	**1C40.1**	1 unit(s)	1.780,20
2	1200 x 800	**1C41.1**	1 unit(s)	2.013,50
3	1000 x 700	**1C42.1**	1 unit(s)	2.013,50
3	1200 x 800	**1C43.1**	1 unit(s)	2.516,60

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Transport trolleys



Shelf trolley frame

ROTH SELECTION. Material: Stainless steel 1.4301, solid rubber swivel castors.

Technical specifications:

Art. No.	TC09.1
Length	620 mm
Width	460 mm
Height	1,200 mm
Floor clearance	300 mm
Roller Ø	125 mm
Load capacity	200 kg

Delivery without removable shelves and transport containers.

Number of bases	Art. No.	Pack Qty.	€
3	**TC09.1**	1 unit(s)	725,65



Tub trolley frame

ROTH SELECTION. Material: Steel plastic-coated, Solid rubber castors.

Transport trolley for tubs.

- Four swivel castors
- Overall height (trolley plus tub): 800 mm

Technical specifications:

Art. No.	K625.1
Roller Ø	75 mm
Weight	8,2 kg

Delivery without tub.

Suitable for	Colour	Art. No.	Pack Qty.	€
4524.1 tub	black	**K625.1**	1 unit(s)	268,75

Tub

ROTH SELECTION. Material: LDPE.

Temperature stable from -40 to +120 °C.

Technical specifications:

Art. No.	4524.1
L x W x H, interior	480 x 480 x 400 mm
Weight	2.8 kg

Delivery without chassis and lid.

Not a medical device / Not an IVD product

Vol. (l)	Colour	Art. No.	Pack Qty.	€
85	white	**4524.1**	1 unit(s)	52,55



Tub trolley frame

ROTH SELECTION. Material: Steel, plastic-coated.

Transport trolley for removable tubs. Four fully rotating swivel castors with solid rubber tyres and thread guard. Stability thanks to two lockable swivel castors with double stop. Height of tub support surface 430 mm.

Technical specifications:

Art. No.	C972.1
Length	730 mm
Width	490 mm
Height	580 mm
Roller Ø	75 mm
Load capacity	200 kg

Delivery without tub.

Suitable for	Colour	Art. No.	Pack Qty.	€
C973.1 tub	black	**C972.1**	1 unit(s)	268,75



Tub

ROTH SELECTION. Material: HDPE.

- Impact-resistant and break-proof
- Resistant to most acids and bases
- Temperature stability: -40 to +110 °C

Not a medical device / Not an IVD product

Vol. (l)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
85	800 x 550 x 300	red	**C973.1**	1 unit(s)	73,65
100	900 x 550 x 360	white	**E285.1**	1 unit(s)	137,00

Transport containers



Transport castors

ROTH SELECTION. Material: Stainless steel 18/10, Rubber castors.

With five swivel castors, one of which is lockable. For transporting round containers safely.

Technical specifications:

Art. No.	EET7.1	EET8.1	EET9.1	EEX0.1	EEX1.1
Roller Ø	100 mm				

Suitable for	Art. No.	Pack Qty.	€
Ø 300 mm	**EET7.1**	1 unit(s)	189,20
Ø 350 mm	**EET8.1**	1 unit(s)	204,25
Ø 400 mm	**EET9.1**	1 unit(s)	284,90
Ø 445 mm	**EEX0.1**	1 unit(s)	313,90
Ø 550 mm	**EEX1.1**	1 unit(s)	391,30



Transport container Aluminium

ROTH SELECTION. Material: Aluminium.

- Corrosion-resistant, weather-resistant and temperature stable
- Dimensionally stable
- Strong lever clamp seals with holes for padlock or seal lock and for fitting cylinder locks
- Plastic-coated safety folding handles
- Circumferential rubber seal to protect against external influences, such as dust and splash water
- Retaining bands on folding lid prevent hinges from pulling out

Technical specifications:

Art. No.	EPL0.1	EPL1.1	EPL2.1
L x W x H, interior	300 x 400 x 248 mm	350 x 550 x 381 mm	350 x 750 x 350 mm
Material thickness	1.0 mm		
Weight	3.01 kg	4.85 kg	5.96 kg

Not a medical device / Not an IVD product

Vol. (l)	L x W x H, external (mm)	Load capacity (kg)	Colour	Art. No.	Pack Qty.	€
30	335 x 430 x 273	30	silver	**EPL0.1**	1 unit(s)	128,65
73	385 x 580 x 398	45	silver	**EPL1.1**	1 unit(s)	190,30
92	385 x 780 x 367	45	silver	**EPL2.1**	1 unit(s)	244,05



Transport container

ROTH SELECTION. Material: Plastic, impact-resistant.

Not a medical device / Not an IVD product

Vol. (l)	L x W x H, external (mm)	Art. No.	Pack Qty.	€
20	400 x 300 x 220	**TC10.1**	1 unit(s)	40,55
40	600 x 400 x 220	**TC11.1**	1 unit(s)	67,25



Case ROTILABO® Aluminium

ROTH SELECTION. Material: Aluminium.

Very sturdy, with stabilising aluminium frame profile. Protection in case of impact, through removable convoluted foam cushion in the lid and diced foam insert in the base. Lockable.

Technical specifications:

Art. No.	Y377.1	Y378.1
L x W x H, interior	320 x 125 x 245 mm	440 x 140 x 330 mm
Weight	2 kg	3 kg

Delivery incl. key.

Not a medical device / Not an IVD product

L x W x H, external (mm)	Art. No.	Pack Qty.	€
340 x 145 x 270	**Y377.1**	1 unit(s)	94,60
460 x 155 x 360	**Y378.1**	1 unit(s)	122,30

Transport containers

Euro container

ROTH SELECTION. Material: PP.

With 2 handles (without opening) or open grips, ideal for transport and storage.

- Stackable, even with lid
- Closed base and side walls
- Dimensions compliant with Euro pallet (120 x 80 cm)



Technical specifications:

Art. No.	EPK1.1	EPK2.1	EPK3.1	EPK4.1	EPK5.1	EPK6.1
L x W x H, interior	268 x 367 x 117 mm	268 x 367 x 217 mm	268 x 367 x 317 mm	367 x 567 x 117 mm	367 x 567 x 267 mm	367 x 567 x 416 mm
Weight	0.69 kg	1.02 kg	1.46 kg	1.13 kg	1.96 kg	3.20 kg

Delivery without non-hinged lid.

Not a medical device / Not an IVD product

Version	Vol. (l)	L x W x H, external (mm)	Art. No.	Pack Qty.	€
Handle	11.2	300 x 400 x 120	**EPK1.1**	1 unit(s)	16,35
Pass-through handle	20.8	300 x 400 x 220	**EPK2.1**	1 unit(s)	23,10
Pass-through handle	30	300 x 400 x 320	**EPK3.1**	1 unit(s)	31,65
Handle	23.9	400 x 600 x 120	**EPK4.1**	1 unit(s)	22,95
Pass-through handle	54.5	400 x 600 x 270	**EPK5.1**	1 unit(s)	45,80
Pass-through handle	80.0	400 x 600 x 420	**EPK6.1**	1 unit(s)	72,10

Case ROTILABO® plastic

ROTH SELECTION. Material: PP.

Robust design. Can be stacked on top of one another, slip-proof. With handle and sealable snap locks.



Technical specifications:

Art. No.	C236.1	C237.1	C238.1	H310.1	C239.1	H311.1
L x W x H, interior	358 x 258 x 114 mm	358 x 258 x 165 mm	555 x 355 x 114 mm	353 x 253 x 268 mm	552 x 352 x 215 mm	358 x 258 x 320 mm

Delivery incl. lid.

Not a medical device / Not an IVD product

Version	Vol. (l)	L x W x H, external (mm)	Art. No.	Pack Qty.	€
1 central handle	10	400 x 300 x 133	**C236.1**	1 unit(s)	44,95
1 central handle	15	400 x 300 x 183	**C237.1**	1 unit(s)	49,70
1 central handle	20	600 x 400 x 135	**C238.1**	1 unit(s)	65,55
1 central handle + 2 side handles	32	400 x 300 x 282	**H310.1**	1 unit(s)	64,30
1 central handle	40	600 x 400 x 235	**C239.1**	1 unit(s)	77,30
1 central handle + 2 side handles	40	400 x 300 x 338	**H311.1**	1 unit(s)	64,45

Transport containers



NEW / +

Transport container Droplet™

ROTH SELECTION. Material: ABS, PS (Insert).

Lightweight and spacious transport container enables easy organisation. Transport container includes a drawer, side compartments and a folding carrying handle with rubber coating. Disposable inserts have an extra-deep compartment, e.g. for waste disposal containers.

With frame for 13 mm tubes

Delivery incl. 2x disposable inserts and frame for 36 x 13 mm tubes.

L x W x H, external (mm)	Art. No.	Pack Qty.	€
429 x 265 x 172	**1L99.1**	1 unit(s)	119,25

With frame for 16 mm tubes

Delivery incl. 2x disposable inserts and frame for 36 x 16 mm tubes.

L x W x H, external (mm)	Art. No.	Pack Qty.	€
429 x 265 x 172	**1L9A.1**	1 unit(s)	119,25



NEW / +

Accessories for Droplet™ transport container

ROTH SELECTION.

Disposable insert
Material: PS. Eight compartments incl. one extra-deep compartment (e.g. for waste disposal containers).

Suitable for	Art. No.	Pack Qty.	€
36 x 13 mm tube frame	**1LC3.1**	4 unit(s)	39,60
36 x 16 mm tube frame	**1LC4.1**	4 unit(s)	39,60



A 121 °C

Safety containers DuraPorter™

ROTH SELECTION. Material: PC, Silicone seal. Autoclavable: Yes.

Ideal for in-house transportation of biological and chemical samples, instruments or for storage. Transparent box with hinged lid, three snap locks and carry handle, stackable. Partitions for smaller samples can be removed to make use of the entire interior. Lid can be fully opened for easy filling and cleaning.

Technical specifications:

Art. No.	AAA0.1	AAA1.1	AAA2.1
L x W x H, interior	335 x 155 x 135 mm		

Not a medical device / Not an IVD product

L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
380 x 196 x 160	translucent	**AAA0.1**	1 unit(s)	120,45
380 x 196 x 160	red	**AAA1.1**	1 unit(s)	120,45
380 x 196 x 160	yellow	**AAA2.1**	1 unit(s)	120,45



A 121 °C

Safety containers ROTILABO®

Kartell. Material: PC, Stainless steel carrying handle. Autoclavable: Yes.

For dust-tight storage of samples and reagents or for the transport of test tube racks and other vessels. With a tightly fitting lid and four locking clips, two side grips and carry handle. Breakage- and leak-resistant.

Purpose: For transporting test tubes, containers, bottles, plastic bags and ready-to-use syringes for which a tight seal is required.

Technical specifications:

Art. No.	8331.1
L x W x H, interior	300 x 125 x 160 mm

In vitro diagnostic medical device according to IVDD

L x W x H, external (mm)	Art. No.	Pack Qty.	€
330 x 175 x 180	**8331.1**	1 unit(s)	124,55

Transport containers



Transport container ROTILABO®

ROTH SELECTION. Material: Plastic.

With sturdy fold-away carry handle; removable compartment and 2 removable small parts magazines in the lid. For transporting measuring devices, tools and small parts.

Not a medical device / Not an IVD product

L x W x H, external (mm)	Art. No.	Pack Qty.	€
580 x 290 x 300	**CYX1.1**	1 unit(s)	55,90



Transport container

ROTH SELECTION. Material: PP.

With spacious compartment for storing small parts and carrying tray.

- Lid and removable carrying tray each with flush handle
- Hinges with galvanised metal axles
- Eyelet for attachment of a padlock

Not a medical device / Not an IVD product

Vol. (l)	L x W x H, external (mm)	Art. No.	Pack Qty.	€
9	410 x 225 x 185	**EPL4.1**	1 unit(s)	26,90
15	485 x 260 x 230	**EPL5.1**	1 unit(s)	31,65



Hand basket ROTILABO®

ROTH SELECTION. Material: Metal PU-coated.

Wire grid, 10 x 10 x 1.5 mm. Foldable, snap-in handle. Base reinforced with two rods.

Not a medical device / Not an IVD product

L x W x H, external (mm)	Art. No.	Pack Qty.	€
400 x 300 x 200	**L048.1**	1 unit(s)	189,20



Transport basket

ROTH SELECTION.

Can be stacked inside one another when empty.

Not a medical device / Not an IVD product

Plastic

Material: PP. With double handle.

Vol. (l)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
22	430 x 300 x 230	red	**TC06.1**	1 unit(s)	29,95

Metal

Material: Metal zinc-plated/chrome-plated, handle with plastic

Vol. (l)	L x W x H, external (mm)	Art. No.	Pack Qty.	€
7	365 x 250 x 120	**TC07.1**	1 unit(s)	69,10
20	470 x 310 x 210	**TC08.1**	1 unit(s)	75,15



Transport box ROTILABO®

ROTH SELECTION. Material: PP.

Foldable.

Not a medical device / Not an IVD product

Vol. (l)	L x W x H, external (mm)	Load capacity (kg)	Art. No.	Pack Qty.	€
30	470 x 340 x 240	10	**X857.1**	1 unit(s)	16,15



Transport box CLAX®

ROTH SELECTION. Material: Plastic.

Foldable.

Not a medical device / Not an IVD product

Vol. (l)	L x W x H, external (mm)	Load capacity (kg)	Colour	Art. No.	Pack Qty.	€
46	530 x 370 x 270	30	grey	**HNX8.1**	1 unit(s)	22,80

Transport containers



Transport container ROTILABO® for bottles

ROTH SELECTION. Material: PP.

For safe bottle transport. Compartment divisions can be easily removed. The containers are sturdy, anti-scratch and easy to clean.

Not a medical device / Not an IVD product

Number of compartments	Compartment size (mm)	L x W x H, external (mm)	Art. No.	Pack Qty.	€
8	97 x 97	400 x 300 x 270	**C014.1**	1 unit(s)	56,50
12	85 x 85	400 x 300 x 220	**C013.1**	1 unit(s)	54,65



Transport container

Nalgene.

For transport of glassware, samples, tools. Moulded partition.

Not a medical device / Not an IVD product

HDPE

Material: HDPE.

Compartment size (mm)	L x W x H, external (mm)	Art. No.	Pack Qty.	€
340 x 89	378 x 241 x 114	**K571.1**	1 unit(s)	38,35

PP

Material: PP. Autoclavable: Yes.

- Certification/conformity: OSHA standard 29CFR1910

Compartment size (mm)	L x W x H, external (mm)	Art. No.	Pack Qty.	€
340 x 89	378 x 241 x 114	**K572.1**	1 unit(s)	41,25



A 121 °C

Transport container

ROTH SELECTION. Material: TPE. Autoclavable: Yes.

Suitable for shock-proof transport of glass bottles or goods for cooling.

- Resistant to most aqueous solvents, acids and bases
- Tensile load capacity up to 50 kg
- Temperature stability: -45 to +110 °C

For 0.5 to 1 l bottles

Ø Internal (mm)	Ø ext. (mm)	Height (mm)	Total height (mm)	Colour	Art. No.	Pack Qty.	€
100	114	165	254	red	**ATC1.1**	1 unit(s)	52,35

For 2.5 to 4 l bottles

Ø Internal (mm)	Ø ext. (mm)	Height (mm)	Total height (mm)	Colour	Art. No.	Pack Qty.	€
175	190	267	406	red	**C804.1**	1 unit(s)	107,70
175	190	267	406	black	**C806.1**	1 unit(s)	107,70



Transport container for bottles

Nalgene. Material: LDPE, PC lid.

For transport and storage of 2.5 l narrow neck bottles (e.g. Art. No. T503.1). A removable cap allows the bottle to stay in the container when pouring.

Ø ext. (mm)	Colour	Art. No.	Pack Qty.	€
165	white	**P333.1**	1 unit(s)	107,00

Transport containers



Bottle basket

ROTH SELECTION. Material: Steel (Wire), plastic-coated.
Carry handles with slight suspension effect.

2 x 2.5 litres

Compartment size (mm)	L x W x H, external (mm)	Total height (mm)	Art. No.	Pack Qty.	€
160 x 160	340 x 180 x 130	320	**0130.1**	1 unit(s)	51,95

4 x 1 litre

Compartment size (mm)	L x W x H, external (mm)	Total height (mm)	Art. No.	Pack Qty.	€
105 x 105	235 x 235 x 130	300	**0869.1**	1 unit(s)	57,35



Bottle carriers

ROTH SELECTION. Material: Metal (Wire) with PE coating.
With feet and carrying handle.

Number of compartments	Compartment size (mm)	Total height (mm)	Art. No.	Pack Qty.	€
12	Ø 80	320	**N146.1**	1 unit(s)	206,40
4	Ø 100	330	**L431.1**	1 unit(s)	135,70
6	Ø 100	330	**L432.1**	1 unit(s)	184,90
8	Ø 100	330	**L433.1**	1 unit(s)	219,30
10	Ø 100	330	**L434.1**	1 unit(s)	263,40
4	Ø 130	370	**L435.1**	1 unit(s)	149,80
6	Ø 130	370	**L436.1**	1 unit(s)	173,10
8	Ø 130	370	**L437.1**	1 unit(s)	210,70



Bottle carriers

Kartell. Material: PP.
With ergonomic carry handle. Stackable.

Number of compart-ments	Compart-ment size (mm)	L x W x H, external (mm)	Total height (mm)	Art. No.	Pack Qty.	€
4	Ø 110	300 x 260 x 150	310	**EPA6.1**	5 unit(s)	59,40
6	90 x 90	295 x 200 x 150	320	**EPA5.1**	5 unit(s)	51,45

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Storage containers

Storage containers MultiStore

ROTH SELECTION. Material: PS.

- Storage systems with transparent tip-out drawers
- For small parts and accessories, versatile
- Dust-free and clean storage of contents
- Can be combined in a variety of ways to provide customised storage solutions



Number of compartments	Compartment size (mm)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
2	265 x 221 x 241	601 x 310.5 x 353	white	**EPL7.1**	1 unit(s)	134,35
3	176 x 149 x 161	601 x 198 x 238	white	**ANP7.1**	1 unit(s)	77,85
5	99,5 x 97 x 107,5	601 x 136 x 163	white	**EPL6.1**	1 unit(s)	39,10
6	80 x 67 x 69	601 x 94 x 113	white	**ANP6.1**	1 unit(s)	24,60
9	49 x 45 x 46	601 x 65 x 77	white	**ANP5.1**	1 unit(s)	19,40

Assortment box

ROTH SELECTION. Material: PP.

With fixed compartments and sturdy hinges and closures.



Large

Number of compartments	Compartment size (mm)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
8	52 x 52 (4x), 105 x 52 (2x), 105 x 105 (1x), 105 x 325 (1x)	335 x 225 x 55	red	**H355.1**	1 unit(s)	14,35
12	105 x 52 (12x)	335 x 225 x 55	yellow	**EPH8.1**	1 unit(s)	14,75
24	52 x 52 (24x)	335 x 225 x 55	blue	**EPH9.1**	1 unit(s)	14,75

Small

Number of compartments	Compartment size (mm)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
8	48 x 38 (4x), 98 x 38 (2x), 98 x 90 (1x), 65 x 242 (1x)	250 x 170 x 46	red	**H354.1**	1 unit(s)	11,10
12	82 x 38 (12x)	250 x 170 x 46	translucent	**EPH6.1**	1 unit(s)	12,70
18	48 x 38 (12x) 65 x 38 (6x)	250 x 170 x 46	translucent	**EPH7.1**	1 unit(s)	12,70

Assortment box ROTILABO®

ROTH SELECTION. Material: PS.

- Food-safe
- Temperature stable: -20 to +70 °C

Small

Number of compartments	Compartment size (mm)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
10	50 x 32	170 x 105 x 32	translucent	**K159.1**	1 unit(s)	8,55

Medium

Number of compartments	Compartment size (mm)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
7	32 x 57 (6 x) 203 x 57 (1 x)	210 x 120 x 36	red	**8544.1**	1 unit(s)	8,05
9	36 x 67	210 x 120 x 36	translucent	**K156.1**	1 unit(s)	10,30
12	56 x 32	210 x 120 x 36	translucent	**K157.1**	1 unit(s)	9,90

Large

Number of compartments	Compartment size (mm)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
12	82 x 38	250 x 170 x 46	translucent	**K154.1**	1 unit(s)	13,35
18	48 x 38 (12 x) 65 x 38 (6 x)	250 x 170 x 46	translucent	**K155.1**	1 unit(s)	13,35

Storage containers



Storage box

ROTH SELECTION. Material: PP.

With hinged lid, stackable.

Mini

With label holder on the lid.

L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
136 x 87 x 35	grey	**YC76.1**	1 unit(s)	6,30

Small

With label holder on the lid.

L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
136 x 87 x 55	grey	**YC77.1**	1 unit(s)	7,15

Medium

L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
185 x 140 x 80	grey	**YC78.1**	1 unit(s)	10,40

Large

L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
228 x 130 x 60	grey	**YC79.1**	1 unit(s)	11,10



Storage bin

ROTH SELECTION. Material: PP.

- Good chemical resistance against fats, resins, bases, oils and acids
- Break-proof, stackable
- Food-safe
- Temperature stability: -20 to +70 °C

L x W x H, external (mm)	Load capacity (kg)	Colour	Art. No.	Pack Qty.	€
115 x 102 x 74	1.4	blue	**Y388.1**	6 unit(s)	8,40
164 x 102 x 74	2.3	blue	**Y389.1**	4 unit(s)	7,15
242 x 146 x 127	10	blue	**Y390.1**	2 unit(s)	7,45
332 x 207 x 155	20	red	**EPH3.1**	2 unit(s)	15,55
332 x 207 x 155	20	yellow	**EPH4.1**	2 unit(s)	15,55
332 x 207 x 155	20	green	**EPH5.1**	2 unit(s)	15,55
332 x 207 x 155	20	blue	**Y391.1**	2 unit(s)	15,55
489 x 312 x 184	30	blue	**Y392.1**	2 unit(s)	26,85



Storage containers for small parts

ROTH SELECTION. Material: PMMA.

Easy to fill from above. Pipette tips, reaction vials and other small parts can easily be removed through the second opening. With non-slip rubber feet.

Number of compart-ments	L x W x H, external (mm)	Art. No.	Pack Qty.	€
1	180 x 175 x 235	**AXE0.1**	1 unit(s)	91,25
2	139 x 160 x 368	**AXE1.1**	1 unit(s)	103,65
3	210 x 155 x 212	**AXE2.1**	1 unit(s)	115,25
4	278 x 158 x 217	**AXE3.1**	1 unit(s)	121,15



Storage box

ROTH SELECTION. Material: PP, Lid housing made of SAN.

- With hinged lid
- Stackable
- Max. filling capacity 3.7 l

Delivery incl. connectors for side connection.

Vol. (l)	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
2.5	232 x 146 x 158	red, translucent	**EPH1.1**	4 unit(s)	56,95

Dust cover

Kartell. Material: PMMA.

Transparent cover with square base for protecting microscopes and other delicate instruments against dust and contamination. Also suitable as draft shield for balances.

L x W x H, external (mm)	Art. No.	Pack Qty.	€
300 x 307 x 400	**CPX2.1**	1 unit(s)	137,35



Wall holders magnetic

ROTH SELECTION. Material: ABS.

With four magnets. For fastening to clean benches, vents or other metallic surfaces.

Delivery incl. metal plate for fastening, self-adhesive.

For tissue boxes
Suitable for 213 x 114 mm tissue boxes (AA64.1).

Pic.	L x W x H, external (mm)	Art. No.	Pack Qty.	€
(1)	130 x 91 x 98	**ACL3.1**	1 unit(s)	28,90

For 2 microlitre pipettes

Pic.	L x W x H, external (mm)	Art. No.	Pack Qty.	€
(3)	131 x 112 x 76	**ACL5.1**	1 unit(s)	28,90

For small parts

Pic.	L x W x H, external (mm)	Art. No.	Pack Qty.	€
(4)	130 x 78 x 102	**ACL6.1**	1 unit(s)	30,30



Drawer insert ROTILABO®

Kartell. Material: PVC.

For small parts. Compartment size 87 x 87 mm.

Number of compart-ments	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
12	300	410	65	**8110.1**	1 unit(s)	65,70



Drawer insert ROTILABO®

Kartell. Material: PVC.

With compartments for pipettes, thermometers, small parts, etc.

Compartment sizes:

- 1 compartment L 380 x W 96 mm
- 2 compartments L 187 x W 100 mm
- 2 compartments L 187 x W 66 mm

Number of compart-ments	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	300	410	70	**9521.1**	1 unit(s)	66,80



Drawer insert ROTILABO® 9-way

Kartell. Material: PVC.

Longitudinal partitioning. For pipettes, thermometers, columns, etc. Compartment size: L 345 x W 27 mm.

Number of compart-ments	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
9	300	355	45	**8111.1**	1 unit(s)	61,05



Pipette repository ROTILABO®

Kartell. Material: PVC.

Drawer-ready. Four longitudinal partitions.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
420	300	40	**7230.1**	1 unit(s)	39,90

Anti-slip mats/lab pads



121 °C

Laboratory mat

ROTH SELECTION. Material: Silicone. Autoclavable: Yes.

Reduce vibration noise from devices. Raised edge as protection for spilled liquids.

- Slip-resistant
- Usable on both sides
- Washable
- Dishwasher-safe
- Temperature-stable up to +200 °C

Standard

Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
379	325	2	blue	**KLC9.1**	1 unit(s)	64,45
379	325	2	violet	**KLE0.1**	1 unit(s)	64,45

With metal inserts
Metal inserts in the mat hold magnetic rods in position.

Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
600	325	2	yellow	**HNH0.1**	1 unit(s)	75,75
600	325	2	violet	**HNH1.1**	1 unit(s)	75,75
600	325	2	blue	**HYN8.1**	1 unit(s)	75,75



121 °C

Laboratory pad ROTILABO®

ROTH SELECTION. Material: Silicone. Autoclavable: Yes.

Slip-resistant. Temperature stability: -60 to +260 °C.

Technical specifications:

Art. No.	EE86.1	EE87.1	EE88.1	EE89.1
Material thickness	3.5 mm			

Length (mm)	Width (mm)	Colour	Art. No.	Pack Qty.	€
250	250	red	**EE86.1**	1 unit(s)	27,80
250	250	black	**EE87.1**	1 unit(s)	27,80
350	350	red	**EE88.1**	1 unit(s)	43,50
350	350	black	**EE89.1**	1 unit(s)	43,50



Lab sink mat

ROTH SELECTION. Material: PVC.

To prevent glass breakage when cleaning laboratory glassware. Round profiles prevent splash-back from running water. The smooth surface of the profiles prevents the accumulation of dirt particles. The weight of the mat ensures that it remains secure even under flowing water. Additional advantage: Standard sized magnetic rods cannot easily slip into the drain. Profile width 8 mm. Web width 40 mm.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
750	450	15	**C374.1**	1 unit(s)	93,70



Adhesion mat ROTILABO®

ROTH SELECTION. Material: PVC.

Slip-resistant and padded. Effective on both sides, washable, durable.

Technical specifications:

Art. No.	0668.1
Material thickness	1 mm

Length (mm)	Width (mm)	Colour	Art. No.	Pack Qty.	€
1,000	400	red	**0668.1**	1 roll(s)	38,25



Adhesive film Rocker tape

ROTH SELECTION. Material: Polyester.

For shakers. Adhesive on both sides, provides a secure hold for different laboratory vessels on agitators or in incubators. Suitable for gentle shaking movements, dependent on load and contact area. Washable, reusable.

Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
30.5	30.5	**TX33.1**	3 unit(s)	61,40

Anti-slip mats/lab pads



Laboratory pad Anti-vibration

ROTH SELECTION. Material: Neoprene.

For absorbing vibration produced by laboratory equipment. Suitable for a large number of vortexers, shakers, rotators, microscopes and other equipment. Slip-resistant, creates a stable surface. Stackable for bearing heavy equipment, place side by side to produce a larger surface area.

Technical specifications:

Art. No.	AXC1.1	AXC2.1
Material thickness	8 mm	

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
178	216	**AXC1.1**	2 unit(s)	52,05
216	279	**AXC2.1**	2 unit(s)	60,75



Elastic buffer ROTILABO®

ROTH SELECTION. Material: Plastic.

Self-adhesive. To prevent slippage, vibration or rattling of devices, machines, lids, etc.

Ø (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
13	3	colourless	**5352.1**	112 unit(s)	29,60



Cutting mat

ROTH SELECTION. Material: PVC.

With white grid imprint. In 3 layers with special inner core and self-closing surface.

Technical specifications:

Art. No.	KN07.1	PK51.1
Material thickness	3 mm	

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
450	300	**KN07.1**	1 unit(s)	17,80
600	450	**PK51.1**	1 unit(s)	30,85



Cutting boards

ROTH SELECTION. Material: PE.

Temperature-resistant up to +90 °C.

With recessed grip

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
300	200	10	**N115.1**	1 unit(s)	11,60

With rubber feet

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
350	250	20	**N116.1**	1 unit(s)	29,20



Cutting boards

ROTH SELECTION. Material: Plastic.

Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
400	300	20	red	**HEC8.1**	1 unit(s)	49,70
400	300	20	blue	**HEC9.1**	1 unit(s)	49,70
400	300	20	green	**HEE0.1**	1 unit(s)	49,70
400	300	20	white	**HEE1.1**	1 unit(s)	49,70



Safety cutting machine

ROTH SELECTION.

With ground, rotating round knife, self-sharpening, in closed plastic head. Automatic contact pressure of the cutting material at the cutting point. Transparent straight-edge. Two angle systems with cm and inch scales, graduation and format markings. Cutting height up to max. 1 mm.

Length of cut (mm)	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
320	430	210	70	**X860.1**	1 unit(s)	52,25
460	570	210	70	**X861.1**	1 unit(s)	65,50



Safety knife SECUNORM 300

Martor. Material: Plastic (Glass fibre reinforced).

- Automatic blade retraction for a high level of occupational safety
- Ergonomic grip, soft grip
- Slider on both sides for left and right-handed users
- Easy and safe blade replacement without the need for tools

Technical specifications:

Art. No.	**1A7Y.1**
Weight	52 g

Delivery incl. blade (trapezoid blade, fitted).

Total length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
143	16	36	**1A7Y.1**	1 unit(s)	17,20



Safety knife MARTego

Martor. Material: Aluminium.

With automatic blade retractor. Operating lever can be locked to prevent accidental opening. Ergonomic pincer grip with soft 2K handle for anti-slip, non-fatiguing work. For left and right handed users. Easy blade replacement without tools. Application advantage: blade is usable on 4 sides. Suitable for all routine cutting work, ideal for opening boxes.

Technical specifications:

Art. No.	**XK02.1**
Weight	105 g

Total length (mm)	Art. No.	Pack Qty.	€
155	**XK02.1**	1 unit(s)	44,40



Cutter 2-in-1

ROTH SELECTION.

With automatic blade retractor and auto-lock feature. Metal handle with rubberised grip zone and integrated break-off device. Usable as a standard cutter or safety knife. Spring-loaded blade retracts automatically when the blade slips off the cutting object. The standard break-off blade can, however, also be pushed forwards in the conventional fashion using the auto-lock feature.
Blade width 18 mm.

Delivery incl. blade.

Total length (mm)	Width (mm)	Art. No.	Pack Qty.	€
186	38	**PK49.1**	1 unit(s)	16,60



Folding knife

ROTH SELECTION.

With fixable, corrosion-free blade and rubber-type nipple tray for secure handling. Length of knife, closed approx. 105 mm.

Technical specifications:

Art. No.	**1036.1**
Weight	78 g

Blade length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
70	175	**1036.1**	1 unit(s)	16,10



Knives

ROTH SELECTION. Material: Stainless steel 1.4034, Plastic handle.

Strong, rounded blade. Safety handle reduces the risk of injury.

Blade length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
90	225	**PX19.1**	1 unit(s)	22,05



Knife ceramic

ROTH SELECTION. Material: Ceramic, Plastic handle.

With extremely hard, corrosion-free and anti-magnetic blade. Very light. Ergonomically shaped handle. No re-sharpening required.

Blade length (mm)	Art. No.	Pack Qty.	€
90	**T752.1**	1 unit(s)	31,15
120	**T753.1**	1 unit(s)	53,70
150	**T754.1**	1 unit(s)	53,25



Knives

ROTH SELECTION. Material: Stainless steel, ice hardened and hand-polished.

For cutting hoses, foils, insulation panels, etc. Blade made of ice-hardened, hand-polished and corrosion-free special stainless steel. Dishwasher safe.

Blade length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
75	180	**A572.1**	1 unit(s)	47,95
90	190	**A573.1**	1 unit(s)	47,95
120	225	**A574.1**	1 unit(s)	49,85
160	270	**A575.1**	1 unit(s)	57,00
200	330	**A577.1**	1 unit(s)	79,30



Knives

ROTH SELECTION. Material: Stainless steel alloyed (chrome molybdenum steel), Plastic handle.

Coloured handle for colour assignment, slip-resistant for secure grip.

Cutter type
With smooth cutting edge.

Blade length (mm)	Total length (mm)	Colour	Art. No.	Pack Qty.	€
130	270	red	**HEE2.1**	1 unit(s)	18,90
130	270	blue	**HEE3.1**	1 unit(s)	18,90
130	270	green	**HEE4.1**	1 unit(s)	18,90

Serrated edge type
For cutting material with hard shells or crusts.

Blade length (mm)	Total length (mm)	Colour	Art. No.	Pack Qty.	€
110	220	orange	**HEE5.1**	1 unit(s)	7,55
110	220	light blue	**HEE6.1**	1 unit(s)	7,55
110	220	lime green	**HEE7.1**	1 unit(s)	7,55

Scissors



Scissors

ROTH SELECTION. Material: Stainless steel, Plastic (impact-resistant).

Can be readjusted and reground.

Standard, right-handed
For paper, fabric, foil and much more.

Pic.	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(1)	164	66	**9674.1**	1 unit(s)	19,35
(4)	260	130	**0821.1**	1 unit(s)	23,45

Standard, left-handed
For paper, fabric, foil and much more.

Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
164	66	**9676.1**	1 unit(s)	19,95

Right-handed
For cardboard, leather, plastic.

Pic.	Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
(2)	170	41	**5489.1**	1 unit(s)	15,10
(3)	212	93	**9677.1**	1 unit(s)	20,95

Robust, left-handed
For cardboard, leather, plastic.

Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
212	93	**9678.1**	1 unit(s)	23,40



Scissors universal

ROTH SELECTION.

- Cutting principle Amboss
- Precision-ground upper blade, non-stick
- Ergonomic handle, non-slip
- Integrated spring
- One-handed safety lock
- Maximum cutting thickness 23 mm
- Length 200 mm

Length (mm)	Art. No.	Pack Qty.	€
215	**1259.1**	1 unit(s)	31,85



Scissors combined

ROTH SELECTION. Material: Stainless steel (blade), Plastic handle with soft insert.

Cuts wire, sheet metal, cardboard, fabric, leather and plastic. Lockable.

Length (mm)	Length of cut (mm)	Art. No.	Pack Qty.	€
190	40	**1901.1**	1 unit(s)	21,55



Ampoule opener

ROTH SELECTION.

Opens ampoules from 1 to 10 ml easily and safely. Single-handed opening of up to three ampoules at the same time.

Delivery incl. one ampoule box and four inserts for opening 1 ml, 2 ml, 5 ml and 10 ml ampoules.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
95	76	83	**CXT2.1**	1 unit(s)	62,15



Glass tube cutter ROTILABO®

Usbeck. Material: Die-cast zinc nickel-plated, Carbide cutter wheels.

Suitable for	Art. No.	Pack Qty.	€
Tube Ø of 3 to 30 mm	**YT66.1**	1 unit(s)	15,80

Glass cutters/engravers



Capillary tube cutter

ROTH SELECTION.

Prevents sharp or warped edges when cutting. Depth of cut can be adjusted. Also suitable for clean cuts on PTFE tubes or electrical wires. Can be used approx. 2000 times.

Suitable for	Art. No.	Pack Qty.	€
Ø up to 1/16" (1.59 mm) outer and 0.1 mm inner	**5116.1**	1 unit(s)	63,30



Glass cutter

Usbeck.

With replaceable carbide blade.

Length (mm)	Art. No.	Pack Qty.	€
185	**8209.1**	1 unit(s)	56,20



Glass cutter ROTILABO®

ROTH SELECTION. Material: Metal (Alloy), Plastic handle.

Standard format with Toplife cutting wheel, non-replaceable.

- Very fine, smooth cut
- Cutting angle 135°
- Straight edge stand-off distance 2.5 mm

Suitable for	Art. No.	Pack Qty.	€
Glass thickness 2 to 12 mm	**L124.1**	1 unit(s)	29,65



Glass scraper

ROTH SELECTION. Material: Stainless steel.

Delivery incl. blade (mounted).

Total length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
135	46	17	**1A3C.1**	1 unit(s)	12,55



Diamond engraving pen

ROTH SELECTION.

With wooden handle. For permanent marking of glass.

Version	Art. No.	Pack Qty.	€
Octahedron Tip	**1530.1**	1 unit(s)	28,30



Glass scriber ROTILABO®

ROTH SELECTION. Material: Aluminium, Plastic handle, carbide scriber.

For permanent marking of glass or metal. Tip can be retracted into the pen body for safe storage.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	11	**CHN4.1**	1 unit(s)	31,10

Glass cutters/engravers



Engraving device Signograph

ROTH SELECTION.

For marking or decorating metal, stone, plastic, glass or porcelain according to the vibration principle, using AC frequency. Infinitely adjustable intensity.

Technical specifications:

Art. No.	**1951.1**
Mains connection	220 V
Cable length	1.75 m
Weight	320 g

Delivery incl. adapter and steel tip.

Type	Art. No.	Pack Qty.	€
Signograph 25	**1951.1**	1 unit(s)	47,50



Engraving device

ROTH SELECTION.

Ideal for engraving, frosting or signing glass, ceramic, acrylic or metal. Approximate dimensions: L 300 x W 200 x H 60 mm.

- Diamond grinding pens for scribing and line work
- Silicon carbide grinding pens for frosting

Technical specifications:

Art. No.	**N411.1**
Mains connection	230 V

Delivery incl. 2 spherical diamond grinding pens (Ø 1.0 and 1.8 mm), 2 silicon carbide grinding pens (cone and bullet-shaped), test glass, sample and instruction manual, power supply unit, plastic case.

Version	Art. No.	Pack Qty.	€
Engraving set, complete	**N411.1**	1 unit(s)	69,85



Handheld cork borer set

Bochem. Material: Brass.

For drilling into or punching cork, rubber, leather, Styropor®.

Ø Internal (mm):
5/6.25/7.5/8.75/10/11.25/12.5/13.75/15/16.25/17.5/18.75/20/21.25/22.5/23.75/25/26.25

Version	Art. No.	Pack Qty.	€
Cork borer set, 18-piece	**0581.1**	1 set	800,90



Hole punch

ROTH SELECTION.

For cardboard, plastic film, leather.

- With 6 punches from Ø 2 to 5 mm
- Lockable

Technical specifications:

Art. No.	**0837.1**
Weight	250 g

Total length (mm)	Art. No.	Pack Qty.	€
220	**0837.1**	1 unit(s)	23,15



Diamond steel saw

ROTH SELECTION.

With tungsten carbide cutting blade. For cutting wood, plastic, rubber, ceramic, soft metal, clay pipes and glass pipes without jamming. Length when folded up 255 mm.

Technical specifications:

Art. No.	**1857.1**
Weight	150 g

Total length (mm)	Blade length (mm)	Art. No.	Pack Qty.	€
400	210	**1857.1**	1 unit(s)	25,70



A 121 °C

Ruler

Hammacher. Material: Metal rust-free. Autoclavable: Yes.

Technical specifications:

Art. No.	HCN1.1
Measuring range	150 mm, 6"

Total length (mm)	Art. No.	Pack Qty.	€
167	**HCN1.1**	1 unit(s)	9,85



Calliper

ROTH SELECTION. Material: Stainless steel, cured.

With round scale under acrylic glass cover. Adjusted and set using knurled screws. Measuring accuracy according to DIN 862.

Technical specifications:

Art. No.	0813.1
Measuring range	0–160 mm
Scaling	0.02 mm

Delivery incl. case.

Version	Art. No.	Pack Qty.	€
analogue	**0813.1**	1 unit(s)	68,70



Calliper digital

ROTH SELECTION. Material: Steel rust-free, completely cured.

Suitable for internal and external measurements.

- Operating temperature 5 to 40 °C
- Locking screw
- Power supply via 1.5 V button cell
- Automatic shutdown and switching between millimetres/inches

Technical specifications:

Art. No.	L826.1
Measuring range	0–150 mm
Scaling	0.01 mm
Tolerance	±0,03 mm
Max. travel speed	1.5 m/s

Version	Art. No.	Pack Qty.	€
digital	**L826.1**	1 unit(s)	105,35



Vernier calliper digital short shape

Hammacher. Material: Steel rust-free.

- With cross tips and depth measuring stick
- Narrow calliper tips
- Jaw length 20 mm
- Extra-large display
- Measuring accuracy according to DIN 862

Technical specifications:

Art. No.	HCN3.1
Measuring range	0–70 mm, 0–2.75 ⍰
Scaling	0.01 mm, 0.0005 ⍰

Delivery incl. case.

Version	Art. No.	Pack Qty.	€
digital	**HCN3.1**	1 unit(s)	157,55



Telescopic rod

ROTH SELECTION.

chrome-plated. In the shape and size of a propelling pencil. With pocket clip.

Magnet

Length (mm)	Art. No.	Pack Qty.	€
600	**0407.1**	1 unit(s)	19,65

Mirror
Rotatable.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
610	32	**0408.1**	1 unit(s)	18,20



Fastening tool

ROTH SELECTION. Material: Metal.

For fastening and cutting cable ties. Corrugated cable ties or fasteners can be tightened in a single operation and then cut when lifted for the last time. The tension can be set individually. Colour: Blue or red.

Delivery without fasteners.

Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
130	160	**H977.1**	1 unit(s)	115,55

Accessories fasteners for fastening tool

ROTH SELECTION. Material: PA.

Temperature range: -40 to +85 °C.

Width (mm)	Length (mm)	Suitable for	Art. No.	Pack Qty.	€
2.5	102	Bindings up to Ø 22 mm	**1735.1**	100 unit(s)	5,50
4.5	180	Bindings up to Ø 50 mm	**1729.1**	100 unit(s)	12,55



Multi-function tool set PocketStar®

ROTH SELECTION. Material: Chromium-vanadium steel, Glass-fibre-reinforced housing.

Fold-out holder for hexagon, slotted, Philips and TORX® screws. Eject button for simple selection of the required key.

- Slot: 4.5 mm
- Cross: PH2
- TORX®: T10, T15, T20
- Hexagon: 3, 4, 5, 6 mm

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
120	32	39	**HE15.1**	1 unit(s)	36,05



Screwdriver set

ROTH SELECTION.

- Kraftform handle for fast, careful work
- Marking on the handle for finding tools more easily
- Hexagonal shape prevents tools from rolling away

Contents:
Slot:
2.5 x 80 mm
3.5 x 100 mm
4.0 x 100 mm
5.5 x 125 mm
Cross:
PH 1/80 mm
PH 2/100 mm
Voltage tester:
3 x 65 mm

Individually tested for safe work at voltages up to 1000 V (according to IEC 60900).

Version	Art. No.	Pack Qty.	€
Screwdriver set, 7 pieces	**Y258.1**	1 set	54,50



Socket wrench set

ROTH SELECTION. Material: Chromium-vanadium steel.

47-piece.

Contents:

Socket wrench inserts (¼″, hexagonal):
4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm
Socket wrench inserts (¼″, long):
8; 10; 11; 13 mm
Inserts for slotted screws (¼″):
4; 5.5; 6.5 mm
Inserts for Philips screws (¼″):
PH 1, 2, 3, PZ 1, 2, 3
Inserts for Allen screws (¼″):
3, 4, 5, 6, 7, 8 mm
Inserts for inner TORX screws (¼″):
TX10; TX15; TX20; TX25; TX30; TX40
Handle with sliding block (¼″)
Lever wrench (¼″, 72 teeth 140 mm)
Drive handle with square drive (¼″)
Cardan joint (¼″)
extensions 50 + 105 mm (¼″)
Hexagon pin wrench 1.5“; 2“; 2.5“

Technical specifications:

Art. No.	**L148.1**
Weight	1050 g

Delivery incl. case (plastic, L 230 x W 160 x H 40 mm).

Version	Art. No.	Pack Qty.	€
Socket wrench set	**L148.1**	1 set	65,50



Tool bag

ROTH SELECTION. Material: Chromium-vanadium steel (Tools), Imitation leather bag.

Contents:

- 1 painted hammer 250 g
- 1 pump pliers 235 mm
- 1 combination pliers 180 mm with side cutter
- 3 screwdrivers 125 x 6, 150 x 5, 75 x 4 mm
- 1 Philips screwdriver 100 x 2 mm
- 1 voltage tester 150–250 V in the form of a screwdriver
- 8 chrome-plated open-end wrenches with width of 6 to 22

Dimensions of open bag: W 400 x L 400 mm.

Technical specifications:

Art. No.	**1829.1**
Weight	2.1 kg

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
400	150	70	**1829.1**	1 unit(s)	184,00



Toolboxes Expert

Heyco. Material: ABS, Aluminium frame.

Double frame can be loaded with up to 30 kg, tipping cylinder lock. High-quality foam insert for secure tool holding during transit.

Contents:

- 1 removable socket wrench set ¼″, 17-piece
- 1 lever wrench ½″ + 5 accessories
- 12 socket wrench inserts ½″ from 10 to 24 mm (hexagonal)
- 1 pipe and water pump wrench 240 mm
- 13 combination wrenches from 6 to 24 mm
- 1 combination pliers 180 mm
- 1 side cutter 160 mm
- 8 offset screwdrivers from 2 to 10 mm (hexagonal)
- 8 offset screwdrivers T9 to T40 (TORX®)
- 1 voltage tester, insulated
- 1 engineer’s hammer
- 1 boxcutter
- 1 torch (LED, 1 W, L 100 mm)
- 1 tape measure, 5 m, with belt clip
- 2 Phillips screwdriver (75 mm, No. 1/100 mm, No. 2)
- 2 screwdrivers (100 x 5.5 mm/150 x 8.0 mm)

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
480	320	150	**NH23.1**	1 unit(s)	1.044,10



Precision gripper

ROTH SELECTION. Material: Chromium-vanadium steel, Plastic handle.

Smooth, polished gripping surfaces for precise work. Smooth-running double spring for soft, steady opening.

Technical specifications:

Art. No.	**ETY7.1**
Weight	61 g

Total length (mm)	Art. No.	Pack Qty.	€
130	**ETY7.1**	1 unit(s)	62,25



Pliers

ROTH SELECTION. Material: Steel chrome-plated, polished.

With protective covering for handles.

Technical specifications:

Art. No.	X191.1	X192.1	X193.1	X194.1
Weight	270 g	180 g		190 g

Combined

Pic.	Total length (mm)	Art. No.	Pack Qty.	€
(1)	160	**X191.1**	1 unit(s)	9,05

Pointed straight

Pic.	Total length (mm)	Art. No.	Pack Qty.	€
(2)	200	**X192.1**	1 unit(s)	9,90

Pointed angled at 45°

Pic.	Total length (mm)	Art. No.	Pack Qty.	€
(3)	200	**X193.1**	1 unit(s)	11,95

For cutting (Side cutter)

Pic.	Total length (mm)	Art. No.	Pack Qty.	€
(4)	160	**X194.1**	1 unit(s)	8,85



Pliers wrench

ROTH SELECTION. Material: Chromium-vanadium steel.

Pipe wrench and socket wrench set in one. Jaw parts are always parallel and can be continuously adjusted to 13 different settings. Extremely high clamping force.

Total length (mm)	Jaw width (mm)	Art. No.	Pack Qty.	€
180	35	**K965.1**	1 unit(s)	65,20
250	42	**K336.1**	1 unit(s)	72,60



Opening key

ROTH SELECTION.

For plastic canisters and bottles with DIN thread.

One-sided

Version	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
DIN 51	195	80	**CNC9.1**	1 unit(s)	5,00
DIN 61	200	85	**TX61.1**	1 unit(s)	7,90

Two-sided

Dimensions: L 220 x W 70/55 mm. Opener with notching, not for universal application.

Version	Art. No.	Pack Qty.	€
DIN 45/32	**X457.1**	1 unit(s)	9,10



Strap spanner

ROTH SELECTION.

For easily loosening connections.

Technical specifications:

Art. No.	X190.1
Weight	15 g

Length (mm)	Span (mm)	Art. No.	Pack Qty.	€
200	140	**X190.1**	1 unit(s)	8,50



All-in-one opener

ROTH SELECTION.

For twist-action closures from the tube cap to the wide-neck-screw closure. Five year factory guarantee.

Technical specifications:

Art. No.	0506.1
Weight	200 g

Length (mm)	Art. No.	Pack Qty.	€
260	**0506.1**	1 unit(s)	12,85



NEW / +

Barrel and keg key Tri-Sure®

ROTH SELECTION.

For taking off tin sealing caps and for unscrewing the screw plugs of Tri-Sure® threads. Suitable for ROTITAINER®.
Dimensions: Narrow side 15 mm, wide side 45 mm.

Technical specifications:

Art. No.	0398.1	1L9H.1
Weight	380 g	

Material: Steel galvanised.

Length (mm)	Art. No.	Pack Qty.	€
260	**0398.1**	1 unit(s)	38,75

Non-sparking
Material: Aluminium, Bronze. Made of non-sparking material, for use in areas with potential fire and explosion risks.

Length (mm)	Art. No.	Pack Qty.	€
260	**1L9H.1**	1 unit(s)	497,75



Tin openers

ROTH SELECTION.

Open all conventional tins without leaving sharp corners and chips. Easy to clean, dishwasher safe. Five year factory guarantee.

Technical specifications:

Art. No.	0505.1
Weight	210 g

Length (mm)	Art. No.	Pack Qty.	€
200	**0505.1**	1 unit(s)	15,00



Universal clamps ROTILABO®

ROTH SELECTION. Material: Metal powder-coated, nickel-plated.

With strong spiral spring. For storing, binding, pressing or glueing, large clamping width. Also suitable for hanging up.

Width (mm)	Span (mm)	Art. No.	Pack Qty.	€
75	20	**AEA0.1**	10 unit(s)	50,00
125	30	**AEA1.1**	10 unit(s)	57,55



Universal spring clamp

ROTH SELECTION. Material: PA.

For a powerful hold with constant clamping force. With anti-slip handle and flexible, moveable soft pads, suitable for sensitive materials such as glass panes, wood and plastics. Light and compact with highest stability.

Length (mm)	Span (mm)	Art. No.	Pack Qty.	€
60	20	**LK35.1**	1 unit(s)	5,05
90	34	**LK36.1**	1 unit(s)	5,90
120	44	**LK37.1**	1 unit(s)	9,25
160	60	**LK38.1**	1 unit(s)	12,10



Fixing clips ROTILABO®

ROTH SELECTION. Material: Steel (spring steel).

For DC–plates, X-ray films, paper stacks and similar. Also suitable for hanging up.

Width (mm)	Span (mm)	Art. No.	Pack Qty.	€
19	7	**ACY9.1**	12 unit(s)	5,50
25	10	**0826.1**	12 unit(s)	6,35
41	18	**0827.1**	6 unit(s)	8,10
51	28	**0850.1**	6 unit(s)	12,80



Hand tape dispenser tesa® Comfort

tesa.

For sealing packages. The blade is protected for special protection against injury. Manually adjustable brake for the roll of tape. Core Ø 76.2 mm, roll Ø max. 140 mm, width of roll max. 50 mm.

Technical specifications:

Art. No.	X163.1
Weight	500 g

L x W (mm)	Art. No.	Pack Qty.	€
220 x 60	**X163.1**	1 unit(s)	42,65



Adhesive tape tesapack® PVC

tesa. Material: PVC (film).

Can be used universally for sealing moderately heavy to heavy shipping boxes.

- Rolls evenly and quietly
- Extremely high tear resistance
- Elongation at tear 60%, tensile strength 60 N/cm

Technical specifications:

Art. No.	6111.1
Material thickness	65 µm

Type	Colour	Suitable for	L x W	Art. No.	Pack Qty.	€
4124	brown		66 m x 50 mm	**6111.1**	3 roll(s)	33,45



Adhesive tape tesapack® paper

tesa. Material: Paper with silicone-free impregnated surface, Synthetic rubber adhesive compound.

Can be used universally for sealing moderately heavy shipping boxes.

- High initial adhesive strength for immediate sealing
- Easy to roll
- Tensile strength 50 N/cm, elongation at tear 8%

Technical specifications:

Art. No.	8574.1
Material thickness	107 µm

Type	Suitable for	L x W	Art. No.	Pack Qty.	€
4313	X163.1 hand tape dispenser	50 m x 50 mm	**8574.1**	3 roll(s)	26,75



Table dispenser tesa Easy Cut®

tesa.

Non-slip base and heavy weight for extra stability.

Technical specifications:

Art. No.	1731.1	4918.1
Weight	1500 g	900 g

Pic.	Suitable for	L x W x H (mm)	Art. No.	Pack Qty.	€
(1)	Length of roll: 66 m, max. width of tape: 25 mm	240 x 70 x 130	**1731.1**	1 unit(s)	58,20
(2)	Length of roll: 33 m, max. width of tape: 19 mm	155 x 55 x 80	**4918.1**	1 unit(s)	44,65



Adhesive tape tesafilm®

tesa. Material: PP (film), Acrylate dispersion adhesive compound.

Transparent universal adhesive tape for packaging, e.g. for sealing small boxes, tins and bags.

- Extremely high resistance to UV, ageing and temperature for a longer storage life
- Can be used with all common table dispensers

Technical specifications:

Art. No.	CPY6.1	CPY7.1
Material thickness	52 µm	

Type	Suitable for	L x W	Art. No.	Pack Qty.	€
4204	1731.1 dispenser	66 m x 19 mm	**CPY6.1**	1 unit(s)	5,15
4204	4918.1 dispenser	33 m x 19 mm	**CPY7.1**	1 unit(s)	4,50



Business card box

ROTH SELECTION. Material: Plastic.

With sliding lid and eight plastic dividers.

Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
black, blue	235 x 135 x 65	**8194.1**	1 unit(s)	36,55



Magazine file A4

ROTH SELECTION.

For magazines, catalogues, books and documents. Corners are protected thanks to the grid design in the direction in which documents are placed in the file.

Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
blue	251 x 75 x 293	**X008.1**	1 unit(s)	6,50
green	251 x 75 x 293	**X007.1**	1 unit(s)	6,70



Writing pad support

ROTH SELECTION. Material: Plastic.

Suitable for formats up to DIN A4. Rubber lip holds the paper securely in place. Clamping width: Approx. 9 mm. Also suitable for hanging up.

L x W x H (mm)	Art. No.	Pack Qty.	€
330 x 220 x 15	**0382.1**	1 unit(s)	19,60



Laboratory notebook

ROTH SELECTION.

For the documentation of research findings, experiment logs, important notes and data. Numbered, acid-free pages, gridded, with preprinted fields for project names, project number, date and signature. With waterproof cover.

Colour	Number of pages	L x W (mm)	Art. No.	Pack Qty.	€
blue	200	281 x 218	**YY90.1**	1 unit(s)	38,85
black	100	281 x 218	**YY89.1**	1 unit(s)	33,65
black	100	281 x 218	**YY89.2**	12 unit(s)	349,40



2-in-1 touch pen

ROTH SELECTION.

Conductive stylus with ballpoint pen. Soft rubber tip for precise navigation on all smartphone and tablet computer touchscreens. Makes it possible to accurately write messages and enables convenient navigation and scrolling without leaving fingerprints on the display. Also works through protective film and anti-glare film. Ballpoint pen with turn mechanism and large-capacity refill (blue). Length 130 mm.

Colour	Art. No.	Pack Qty.	€
black	**ANY5.1**	1 unit(s)	15,80



Fineliner 1700 VARIO

edding.

For fine and precise writing on paper surfaces.

- Metal-mounted round tip
- Water-based ink

Rubber grip, flexible and slip-resistant for a comfortable writing experience. The cap can be stored at the end of the barrel to avoid the risk of loss. The practical clip prevents the pen from rolling away and can be attached to clothing and objects.

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
1700 VARIO	black	0.5	**1AE2.1**	10 unit(s)	28,15
1700 VARIO	red	0.5	**1AE3.1**	10 unit(s)	28,15
1700 VARIO	blue	0.5	**1AE4.1**	10 unit(s)	28,15



Laboratory markers Securline®

Permanent marker for writing on virtually all surfaces made of glass, metal and most plastics. Length 135 mm.

- Even writes on wet or cold surfaces
- Waterproof, even during autoclaving
- Fast-drying
- Can be wiped off high-gloss surfaces

Colour	Line width (mm)	Art. No.	Pack Qty.	€
black	1	**3083.2**	10 unit(s)	32,10
blue	1	**3084.2**	10 unit(s)	32,10
red	1	**3085.2**	10 unit(s)	32,10

Set
4 × black, 4 × blue, 4 × red

Colour	Line width (mm)	Art. No.	Pack Qty.	€
assorted colours	1	**1701.1**	12 unit(s)	36,70



Laboratory markers Sharpie®

ROTH SELECTION.

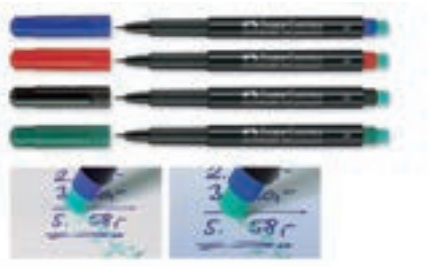
Waterproof permanent marker for glass, metal, porcelain or similar surfaces. Fast-drying.

Colour	Version	Line width (mm)	Art. No.	Pack Qty.	€
black	Single tip	1	**KN09.1**	12 unit(s)	52,70

Set
Assorted colours (black, blue, purple, bordeaux, light blue, light green, turquoise, orange).

Colour	Version	Line width (mm)	Art. No.	Pack Qty.	€
assorted colours	Double tip	1 / 0,5	**XT85.1**	8 unit(s)	44,25

Colour	Line width (mm)	Art. No.	Pack Qty.	€
black	0,7	**CET9.1**	12 unit(s)	52,70



Laboratory markers ink pen set

Faber-Castell.

Permanent, waterproof, fast-drying. With special rubber.
For writing on virtually all surfaces.

Assorted colours (2 × black, 2 × green, 2 × blue, 2 × red).

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
Multimark 1523	assorted colours	0,4	**0883.1**	1 set	13,25



Laboratory markers stericlin® sterilisation-resistant

ROTH SELECTION.

For labelling disposable items such as sterile barrier systems, adhesive tapes and labels. Only label transparent packaging on the film side and outside the area of the filling material.

Colour	Line width (mm)	Art. No.	Pack Qty.	€
black	0,6	**HXE3.1**	10 unit(s)	39,55
blue	0,6	**HXE4.1**	10 unit(s)	39,55



Clean room marker

edding.

For permanent markings in clean-room and dust-free environments. Writes reliably on smooth surfaces, such as special clean-room paper, laminated paper and foil. Tip and shaft have been developed specially to prevent contamination with dust; this is why it contains no metallic parts and has no label or lettering.

- Round tip
- Wipe and water-proof
- Markings can be removed from all smooth surfaces with isopropyl alcohol
- Applications: Semi-conductor production, nano technology and optics/laser technology

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
8011	black	0,6	**HTE1.1**	10 unit(s)	28,20
8011	blue	0,6	**HTE2.1**	10 unit(s)	28,20



Permanent marker

edding.

For permanent marking and labelling on almost all conventional materials, e.g. metal, plastic and glass.

- Round tip
- Waterproof, odourless ink
- Fast-drying, abrasion and light-resistant

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
3000	black	1,5 – 3	**HPE9.1**	10 unit(s)	28,20
3000	blue	1,5 – 3	**HPH0.1**	10 unit(s)	28,20
3000	red	1,5 – 3	**HPH1.1**	10 unit(s)	28,20
3000	green	1,5 – 3	**HPH2.1**	10 unit(s)	28,20
400	black	1	**HPH3.1**	10 unit(s)	27,85
400	blue	1	**HPH4.1**	10 unit(s)	27,85
400	red	1	**HPH5.1**	10 unit(s)	27,85
400	green	1	**HPH6.1**	10 unit(s)	27,85
404	black	0,75	**HPH7.1**	10 unit(s)	27,85
404	blue	0,75	**HPH8.1**	10 unit(s)	27,85
404	red	0,75	**HPH9.1**	10 unit(s)	27,85
404	green	0,75	**HTE0.1**	10 unit(s)	27,85



Highlighter 24 EcoLine

edding.

Highlighter for bright markings and emphasis of texts and notes on virtually all paper surfaces.

- Bright water-based neon ink, high colour brilliance
- Awarded the "Blue Angel" environmental seal
- Cap and barrel made of ≥90% renewable raw material

The cap can be stored at the end of the barrel to avoid the risk of loss.

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
24 EcoLine	yellow	2-5	**1AE5.1**	10 unit(s)	14,20
24 EcoLine	orange	2-5	**1AE6.1**	10 unit(s)	14,20
24 EcoLine	pink	2-5	**1AE7.1**	10 unit(s)	14,20
24 EcoLine	blue	2-5	**1AE8.1**	10 unit(s)	14,20
24 EcoLine	green	2-5	**1AE9.1**	10 unit(s)	14,20



Laboratory markers

edding.

Suitable for fine, precise labelling of smooth and transparent surfaces, such as slides, reaction vials, Petri and laboratory dishes.

- Round tip
- Extremely fast-drying, abrasion-resistant, waterproof, light-resistant and odourless tint (without the addition of toluene/xylene)
- Permanent on plastic
- Removable from glass with acetone, ethanol, isopropanol and methyl ethyl ketone
- Temperature stable from -183 to +500 °C on aluminium

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
8014	black	1	**HPE1.1**	10 unit(s)	29,40
8015F	black	0,75	**HPE2.1**	10 unit(s)	29,40



Textile marker 8040

edding.

Textile marker for washable and boil-resistant marking of almost all textiles and fabrics. The ink is waterproof, smudge-proof, fast-drying, odourless and wash-resistant up to 95 °C.

- For permanent labelling
- Waterproof
- Smudge-proof
- Light-resistant
- Fast-drying
- Odourless

The cap can be stored at the end of the barrel to avoid the risk of loss. The practical clip prevents the pen from rolling away and can be attached to clothing and objects.

Setting the ink: Iron clothes once without steam.

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
8040	black	1	**1AEA.1**	10 unit(s)	32,60
8040	red	1	**1AEC.1**	10 unit(s)	32,60



Paint marker

edding.

For highly opaque markings and permanent labelling on virtually all surfaces, e.g. plastic and glass. Ideal for dark and transparent materials.

- Opaque finish
- Waterproof and odourless
- Resistant to ethanol, most disinfectants and isopropanol
- Colours white and copper, additionally resistant to acetone
- Temperature stable up to 400 °C (white 1000 °C)
- Weather- and extremely light-resistant, abrasion-resistant
- Application: Shake the pen vigorously with the cap closed, then open, position the tip of the pen on a piece of test paper and carefully push it up and down

Type 750

- Round tip

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
750	black	2-4	**1ACY.1**	10 unit(s)	39,25
750	white	2-4	**1AE0.1**	10 unit(s)	39,25
750	copper	2-4	**1AE1.1**	10 unit(s)	39,25

Type 751

- Round tip

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
751	black	1 – 2	**HPE3.1**	10 unit(s)	33,65
751	white	1 – 2	**HPE4.1**	10 unit(s)	33,65
751	copper	1 – 2	**HPE5.1**	10 unit(s)	33,65

Type 780

- Metal-mounted plastic tip, extra-fine

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
780	black	0,8	**HPE6.1**	10 unit(s)	36,55
780	white	0,8	**HPE7.1**	10 unit(s)	36,55
780	copper	0,8	**HPE8.1**	10 unit(s)	36,55



Optical Instruments & Lamps

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Stereo microscope

Eschenbach.

Optional accessories (please order separately):

- Widefield eyepieces and attachment lenses for modulating the total magnification

Technical specifications:

Art. No.	X822.1	X823.1
Type	Model 33213	Model 33263
Tube	Binocular	
Total magnification	10x/20x – can be expanded up to 40x as an option	
Magnification type	Revolving turret	
Ocular magnification	Widefield 10x	
Lens arrangement	coaxial	
Lens magnification	1x/2x	
Field of view	19 mm	
Dioptre compensation	±5 dpt on the left ocular tube	
Angular observation	45 °	
Head	Can be rotated 360°	
Distance between eyepieces	54–74 mm	
Working distance	83 mm	
Light source	LED	
Type of lighting	Incident light	
Image focusing	Coarse focus	
Power supply	Mains-powered	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. eyepiece cups and dust cover.

Model 33213
With robust metal stand. Ø 20 mm stand rod. 200 x 150 mm bottle stand with plastic plate (black/white) for reflected illumination.

Type	Art. No.	Pack Qty.	€
Model 33213	**X822.1**	1 unit(s)	719,20

Model 33263
Stable and long metal hinged arm with three locking screws in the spring joints, fully adjustable. With stable table clamp suitable for tabletop thicknesses up to 70 mm.

Type	Art. No.	Pack Qty.	€
Model 33263	**X823.1**	1 unit(s)	987,95



Stereo zoom microscope SMZ-161

Motic.

Compact design, high-quality optics and robust mechanism. With LED lighting.

- Continuously variable zoom with lock positions for reproducible magnification
- Increased working distance allows sufficient space for sample handling
- Reflected light and transmitted light can be controlled separately

Technical specifications:

Art. No.	ATP9.1	ATT0.1
Type	SMZ-161-BLED (R2LED)	SMZ-161-TLED (R2LED)
Tube	Binocular	Trinocular
Total magnification	7.5x to 45x	
Magnification type	Zoom	
Ocular magnification	Widefield 10x	
Lens magnification	0.75x–4.5x, zoom ratio 1:6	
Field of view	20 mm	
Dioptre compensation	±5 dpt on both ocular tubes	
Angular observation	45 °	
Head	Can be rotated 360°	
Distance between eyepieces	50–75 mm	
Working distance	110 mm	
Light source	LED	
Type of lighting	Incident light and transmitted light	
Image focusing	Coarse focus	
Power supply	Mains-powered	
Mains connection	100–240 V, 50 Hz	

Delivery incl. stage inserts (black/white and matte glass) and dust cover.

Binocular

Pic.	Type	Art. No.	Pack Qty.	€
(1)	SMZ-161-BLED (R2LED)	**ATP9.1**	1 unit(s)	843,90

Trinocular
With trinocular head for mounting a microscope camera on the photo-tube using C-mount adapter. Please order C-mount adapter separately.

Pic.	Type	Art. No.	Pack Qty.	€
(2)	SMZ-161-TLED (R2LED)	**ATT0.1**	1 unit(s)	907,30

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Stereo microscope SMZ-168

Motic.

High-quality stereo microscopes for science, research and quality control.

- Larger field of view and working distance
- Sturdy transmitted light stand with wide base plate
- Continuously variable zoom with lock positions for reproducible magnification
- Reflected light and transmitted light can be controlled separately

Optional accessories (please order separately):

- Widefield eyepieces and auxiliary objective lenses for modulating the total magnification.

Technical specifications:

Art. No.	KA17.1	KA18.1
Type	SMZ-168 BL	SMZ-168 TL
Tube	Binocular	Trinocular
Total magnification	7.5x/50x – can be expanded up to 200x as an option	
Magnification type	Zoom	
Ocular magnification	Widefield 10x	
Lens magnification	0.75x–5x, zoom ratio 1:6.7	
Field of view	23 mm	
Dioptre compensation	±5 dpt on both ocular tubes	
Angular observation	35 °	
Head	Can be rotated 360°	
Distance between eyepieces	52,5–75 mm	
Working distance	113 mm	
Light source	Halogen	
Type of lighting	Incident light and transmitted light	
Image focusing	Coarse focus	
Power supply	Mains-powered	
Mains connection	100–240 V, 50 Hz	

Delivery incl. stage inserts (black/white and matte glass), blue filter and dust cover.

Binocular

Pic.	Type	Art. No.	Pack Qty.	€
(1)	SMZ-168 BL	**KA17.1**	1 unit(s)	1.107,25

Trinocular

With trinocular head for mounting a microscope camera on the photo-tube using C-mount adapter. Please order C-mount adapter separately.

Pic.	Type	Art. No.	Pack Qty.	€
(2)	SMZ-168 TL	**KA18.1**	1 unit(s)	1.204,00



Stereo microscope OSE-417

Kern.

Robust, rigid and easy to operate stereo microscope for schools, workshops and training organisations. For preparations with focus on spatial impression, e.g. insects and seeds.

- Good optical characteristics for sharp images over a wide field of vision
- Interchangeable lens with two pre-defined magnifications
- Eyepiece fixed securely in the tube
- Stable and precisely adjustable mechanics of the microscope stand

Optional accessories (please order separately):

- Widefield eyepieces and attachment lenses for modulating the total magnification

Technical specifications:

Art. No.	HNA2.1
Type	OSE-417
Tube	Binocular
Total magnification	20x, 40x
Magnification type	Turret
Ocular magnification	Widefield 10x
Lens magnification	2x/4x
Field of view	20 mm
Dioptre compensation	left
Angular observation	45 °
Distance between eyepieces	55–75 mm
Working distance	57 mm
Light source	LED
Type of lighting	Incident light and transmitted light
Image focusing	Coarse focus
Power supply	Mains-powered
Mains connection	100–240 V, 50/60 Hz

Total magnification when combining different eyepieces/lenses:

Eyepiece	Lens		
	Magnification	**2x**[1]	**4x**[1]
WF 5x	Total magnification (x-times)	10	20
	Visual field Ø (mm)	10	5
WF 10x[1]	Total magnification (x-times)	20	40
	Visual field Ø (mm)	10	5
WF 20x	Total magnification (x-times)	40	80
	Visual field Ø (mm)	6.5	3.2

[1] Included with delivery

Delivery incl. stage inserts (black/white and matte glass), eyecups and dust cover.

Type	Art. No.	Pack Qty.	€
OSE-417	**HNA2.1**	1 unit(s)	265,00



Stereo zoom microscope OZL-445

Kern.

Easy-to-operate, stable stereo-zoom microscope for laboratories, test institutes and quality checks.

- Zoom lens allows magnification of the specimen to be continuously adjusted
- Large working area for improved comfort, column stands allow greater flexibility
- Eyepiece fixed securely in the tube
- Reflected light and transmitted light can be controlled separately

Optional accessories (please order separately):

- Protective lens element
- Widefield eyepieces and attachment lenses for modulating the total magnification

Technical specifications:

Art. No.	**HHE1.1**
Type	OZL-445
Tube	Binocular
Total magnification	7.5x to 36x – can be expanded up to 144x as an option
Magnification type	Zoom
Ocular magnification	Widefield 10x
Lens magnification	0.75–3.6x
Field of view	20 mm
Dioptre compensation	±5 dpt on both ocular tubes
Angular observation	45 °
Head	Can be rotated 360°
Distance between eyepieces	55–75 mm
Working distance	86 mm
Light source	LED
Type of lighting	Incident light and transmitted light
Image focusing	Coarse focus
Power supply	Mains-powered
Mains connection	100–240 V, 50/60 Hz

Total magnification when combining different eyepieces/lenses:

Eyepiece		**Lens**		
	Magnification	**Standard 1x**[1]	**0.5x ancillary**	**2.0x ancillary**
WF 5x	Total magnification (x-times) Visual field Ø (mm)	3.5–18 26–6	1.875–9 60–13	7.5–36 12.5–3
WF 10x[1]	Total magnification (x-times) Visual field Ø (mm)	7.5–36 26.7–5.6	3.75–18 53.3–11.1	15–72 13.3–2.8
WF 20x	Total magnification (x-times) Visual field Ø (mm)	15–72 12.5–3	7.5–36 28–6	30–144 6–1.5

[1] Included with delivery

Delivery incl. stage inserts (black/white and matte glass), eyecups and dust cover.

Type	Art. No.	Pack Qty.	€
OZL-445	**HHE1.1**	1 unit(s)	550,00



Stereo microscope OSF-439

Kern.

Practical and sterile stereo microscope for training and laboratory. With integrated handle and stable stand.

- Ergonomically designed working surface for high level of comfort
- Interchangeable lens with three pre-defined magnifications for fast and effective work
- Eyepiece fixed securely in the tube
- Reflected light and transmitted light can be controlled separately

Technical specifications:

Art. No.	**HHC9.1**
Type	OSF-439
Tube	Binocular
Total magnification	10x, 20x, 40x
Magnification type	Turret
Ocular magnification	Widefield 10x
Lens magnification	1x, 2x, 4x
Field of view	20 mm
Dioptre compensation	±5 dpt on the left eyepiece
Angular observation	45 °
Head	fixed
Distance between eyepieces	55 – 75 mm
Working distance	57 mm
Light source	LED
Type of lighting	Incident light and transmitted light
Image focusing	Coarse focus
Power supply	Mains-powered
Mains connection	100–240 V, 50/60 Hz

Delivery incl. stage inserts (black/white and matte glass), eyecups and dust cover.

Type	Art. No.	Pack Qty.	€
OSF-439	**HHC9.1**	1 unit(s)	410,00



Stereo zoom microscope OZL-46 series

Kern.

All-round stereo microscope with zoom function for schools, training workshops and laboratories.

- With extra-wide field eyepieces for greater vision angle, thereby ideal for people who wear glasses
- Reflected light and transmitted light can be controlled separately

Optional accessories (please order separately):

- Widefield eyepieces and attachment lenses for modulating the total magnification

Technical specifications:

Art. No.	HHE7.1	HHE8.1
Type	OZL 463	OZL 464
Tube	Binocular	Trinocular
Total magnification	7x to 45x – can be expanded up to 180x as an option	
Magnification type	Zoom	
Ocular magnification	Super wide angle (HWF) 10x	
Lens magnification	0.7–4.5x	
Field of view	20 mm	
Dioptre compensation	±5 dpt on both ocular tubes	
Angular observation	45 °	
Head	Can be rotated 360°	
Distance between eyepieces	55–75 mm	
Working distance	105 mm	
Light source	LED	
Type of lighting	Incident light and transmitted light	
Image focusing	Coarse focus	
Power supply	Mains-powered	
Mains connection	100–240 V, 50/60 Hz	

Total magnification when combining different eyepieces/lenses:

Eyepiece	Lens			
	Magnification	Standard 1x[1]	0.5x ancillary	2.0x ancillary
WF 10x[1]	Total magnification (x-fold)	7–45	3.5–22.5	14–90
	Visual field Ø (mm)	28.6–4.4	57.1–8.9	14.3–2.2
WF 20x	Total magnification (x-fold)	14–90	7–45	28–180
	Visual field Ø (mm)	14.3–2.2	28.6–4.4	7.1–1.1

[1] Included with delivery

Delivery incl. stage inserts (black/white and matte glass), eyecups and dust cover.

OZL 463 binocular

Type	Art. No.	Pack Qty.	€
OZL 463	**HHE7.1**	1 unit(s)	600,00

OZL 464 trinocular

With trinocular head for mounting a microscope camera on the phototube using C-mount adapter. Please order C-mount adapter separately.

Type	Art. No.	Pack Qty.	€
OZL 464	**HHE8.1**	1 unit(s)	670,00



Stereo zoom microscope OZL-456

Kern.

Stereo microscope with large zoom range.

- Integrated LED ring light in the lens housing for uniform illumination of the specimen without shadows
- Visual field and working distance magnified through high super-widefield lenses
- The greater viewing angle of the HSWF eyepieces is particularly suitable for people who wear glasses
- Reflected light and transmitted light can be controlled separately

Optional accessories (please order separately):

- Widefield eyepieces and attachment lenses for modulating the total magnification

Technical specifications:

Art. No.	HHH3.1
Type	OZL-456
Tube	Binocular
Total magnification	7.5x to 50x - can be expanded up to 100x as an option
Magnification type	Zoom
Ocular magnification	High super-widefield 10x
Lens magnification	0.75–5x
Field of view	23 mm
Dioptre compensation	±5 dpt on both eyepiece tubes
Angular observation	45 °
Head	Can be rotated 360°
Distance between eyepieces	55–75 mm
Working distance	113 mm
Light source	LED
Type of lighting	Incident light and transmitted light
Image focusing	Coarse focus
Power supply	Mains-powered
Mains connection	100–240 V, 50/60 Hz

Total magnification when combining different eyepieces/lenses:

Eyepiece	Lens	
	Magnification	Standard 1x[1]
HWF 5x	Total magnification (x-times) Visual fieldØ (mm)	3.75–25 31–4.6
HSWF 10x[1]	Total magnification (x-times) Visual field Ø (mm)	7.5–50 33–5
HSWF 20x	Total magnification (x-times) Visual field Ø (mm)	15–100 20–3.5

[1] Included with delivery

Delivery incl. Stage inserts (black/white and matte glass), eyecups and dust cover.

Type	Art. No.	Pack Qty.	€
OZL-456	**HHH3.1**	1 unit(s)	870,00



Transmitted light microscope OBS-106

Kern.

Simple microscope with clear operating elements for school and training. For translucent, thin, high-contrast and non-demanding preparations.

- Height-adjustable, focusable 1.25 Abbe condenser for optimum light concentration
- Mechanical cross table for fast working and moving of the preparation
- Mobile use possible through rechargeable batteries
- With infinitely dimmable 0.5 W LED for optimum illumination of the preparations
- Can be powered by the mains or batteries

Technical specifications:

Art. No.	**HNA1.1**
Type	OBS-106
Tube	Binocular
Total magnification	40x, 100x, 400x
Magnification type	Turret
Ocular magnification	Widefield 10x
Lens arrangement	4-way, tilted forwards
Lens magnification	– 4x/N.A. 0.10, W.D. 18.0 mm – 10x/N.A. 0.25, W.D. 7.0 mm – 40x/N.A. 0.65 (spring), W.D. 0.53 mm
Field of view	18 mm
Dioptre compensation	on both sides
Angular observation	30 °
Head	Can be rotated 360°
Distance between eyepieces	55–75 mm
Condenser	Focusable Abbe condenser N.A. 1.25 with aperture diaphragm
Light source	LED
Type of lighting	Transmitted light
Image focusing	Coarse and fine focus
Optics	infinity
Microscope stage	115 x 125 mm area, Coaxial x/y travel range of 75 x 18 mm
Power supply	Powered by the mains and batteries
Mains connection	100–240 V, 50/60 Hz

Delivery incl. colour filter (blue, fitted), batteries and dust cover.

Type	Art. No.	Pack Qty.	€
OBS-106	**HNA1.1**	1 unit(s)	350,00



Transmitted light microscope OBE series

Kern.

Fully-equipped transmitted light microscope (brightfield) for training and lab use.

- Very easy to operate, robust and sturdy
- For translucent and thin, high-contrast specimens (e.g. plant tissue, stained cells, parasites)
- With strong 3 W LED that can be infinitely dimmed to optimally illuminate the specimens

Optional accessories (please order separately):

- Dark field use for 4x to 40x lenses; to increase contrast of small, unstained structures
- 100x lens (planachromatic, spring) with water immersion

Technical specifications:

Art. No.	**EYP2.1**	**EYP3.1**
Type	OBE 112	OBE 114
Tube	Binocular	Trinocular
Total magnification	40x, 100x, 400x, 1000x	
Magnification type	Turret	
Ocular magnification	Widefield 10x	
Lenses	achromatic	
Lens arrangement	4-way, tilted forwards	
Lens magnification	- 4x/N.A. 0.10, W.D. 18.6 mm - 10x/N.A. 0.25, W.D. 6.5 mm - 40x (spring)/N.A. 0.65, W.D. 0.47 mm - 100x (spring, oil)/N.A. 1.25, W.D. 0.07 mm	
Field of view	18 mm	
Dioptre compensation	±5 dpt on the left ocular tube	
Angular observation	30 °	
Head	Can be rotated 360°	
Distance between eyepieces	50–75 mm	
Light source	LED	
Type of lighting	Transmitted light	
Image focusing	Coaxial coarse and fine focus with scale: 2 µm	
Optics	infinity	
Microscope stage	125 x 115 mm area coaxial x/y travel ranges of 50 x 70 mm	
Power supply	Mains-powered	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. eyecups and dust cover.

OBE 112 binocular

Pic.	Type	Art. No.	Pack Qty.	€
(1)	OBE 112	**EYP2.1**	1 unit(s)	590,00

OBE 114 trinocular

With trinocular head for mounting a microscope camera on the photo-tube using C-mount adapter. Please order C-mount adapter separately.

Pic.	Type	Art. No.	Pack Qty.	€
(2)	OBE 114	**EYP3.1**	1 unit(s)	710,00



Transmitted light microscope OBL series

Kern.

Versatile transmitted light microscope (brightfield) for translucent, low-contrast, demanding preparations (e.g. living mammal cells, bacteria, tissue).

- With simplified Köhler illumination (fixed pre-centred)
- Infinity optics for optimum image quality
- With strong, 3 W LED that can be infinitely dimmed to optimally illuminate the specimens

Optional accessories (please order separately):

- Dark field condenser to increase contrast of small, unstained structures
- 100x lens (planachromatic, spring) with water immersion

Technical specifications:

Art. No.	EYP7.1	EYP8.1
Type	OBL 127	OBL 137
Tube	Binocular	Trinocular
Total magnification	40x, 100x, 400x, 1000x	
Magnification type	Turret	
Ocular magnification	Widefield 10x	
Lens arrangement	4-way, tilted backwards	
Lens magnification	- 4x/N.A. 0.10, W.D. 12.1 mm - 10x/N.A. 0.25, W.D. 2.1 mm - 40x (spring)/N.A. 0.65, W.D. 0.58 mm - 100x (spring, oil)/N.A. 1.25, W.D. 0.19 mm	
Field of view	20 mm	
Dioptre compensation	±5 dpt on the left ocular tube	
Angular observation	30 °	
Head	can be rotated 360°	
Distance between eyepieces	50–75 mm	
Condenser	Fixed pre-centred, focusable Abbe condenser N.A. 1.25 with aperture and field diaphragm	
Köhler illumination	Yes	
Light source	LED	
Type of lighting	Transmitted light	
Image focusing	Coaxial coarse and fine focus with scale: 2 µm	
Optics	infinity	
Microscope stage	145 x 130 mm area coaxial x/y travel range 76 x 52 mm Holder for two slides	
Power supply	Mains-powered	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. colour filter (blue, fitted), eyecups and dust cover.

OBL 127 binocular

Pic.	Type	Art. No.	Pack Qty.	€
(1)	OBL 127	**EYP7.1**	1 unit(s)	1.060,00

OBL 137 trinocular

With trinocular head for mounting a microscope camera on the photo-tube using C-mount adapter. Please order C-mount adapter separately.

Pic.	Type	Art. No.	Pack Qty.	€
(2)	OBL 137	**EYP8.1**	1 unit(s)	1.200,00



Phase contrast microscope OBL series

Kern.

Sturdy phase contrast microscope for very translucent, low-contrast and demanding preparations (e.g. living mammal cells, bacteria, tissue).

- With simplified Köhler illumination (fixed pre-centred)
- Infinity optics for optimum image quality
- With powerful, continuously adjustable 20 W halogen light for optimum illumination of specimens

Optional accessories (please order separately):

- Dark field condenser to increase contrast of small, unstained structures
- 100x lens (planachromatic, spring) with water immersion

Technical specifications:

Art. No.	EYT6.1	EYT7.1
Type	OBL 145	OBL 155
Tube	Binocular	Trinocular
Total magnification	40x, 100x, 400x, 1000x	
Magnification type	Turret	
Ocular magnification	Widefield 10x	
Lenses	Brightfield: Semi-plan achromatic Phase contrast: Plan achromatic	
Lens arrangement	4-way, tilted backwards	
Lens magnification	Brightfield: - 4x/N.A. 0.10, W.D. 12.1 mm - 100x (spring, oil)/N.A. 1.25, W.D. 0.19 mm Phase contrast: - Ph 10x/N.A. 0.25, W.D. 4.64 mm - Ph 40x (spring)/N.A. 0.66, W.D. 0.65 mm	
Field of view	20 mm	
Dioptre compensation	±5 dpt on the left ocular tube	
Angular observation	30 °	
Head	Can be rotated 360°	
Distance between eyepieces	50–75 mm	
Condenser	Fixed pre-centred, focusable Abbe condenser N.A. 1.25 with aperture and field diaphragm	
Köhler illumination	Yes	
Light source	Halogen	
Image focusing	Coaxial coarse and fine focus with scale: 2 µm	
Optics	infinity	
Microscope stage	145 x 130 mm area coaxial x/y travel range 76 x 52 mm Container for two slides	
Power supply	Mains-powered	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. colour filter (blue, fitted and green), eyecups and dust cover.

OBL 145 binocular

Type	Art. No.	Pack Qty.	€
OBL 145	**EYT6.1**	1 unit(s)	1.390,00

OBL 155 trinocular

With trinocular head for mounting a microscope camera on the photo-tube using C-mount adapter. Please order C-mount adapter separately.

Type	Art. No.	Pack Qty.	€
OBL 155	**EYT7.1**	1 unit(s)	1.490,00



Transmitted light microscope SFC-100F LED monocular

Motic.

Robust microscope suitable for pupils and students

- With LED light (can be continuously adjusted)
- With pointer and eyepiece retainer
- Can be powered by the mains or batteries

Technical specifications:

Art. No.	**ATT2.1**
Type	SFC-100F LED
Tube	Monocular
Total magnification	40x, 100x, 400x
Magnification type	Turret
Ocular magnification	Widefield 10x
Lenses	achromatic
Lens arrangement	3-way, tilted forwards
Lens magnification	- 4x/N.A. 0.10 - 10x/N.A. 0.25 - 40x (spring)/N.A. 0.65
Field of view	18 mm
Angular observation	45 °
Head	Can be rotated 360°
Condenser	N.A. 0.65 with iris diaphragm and filter holder
Light source	LED
Image focusing	Coarse and fine focus
Optics	infinity
Microscope stage	120 x 110 mm, with 2 spring clamps
Power supply	Powered by the mains and batteries
Mains connection	100–240 V

Delivery incl. charger, batteries and dust cover.

Type	Art. No.	Pack Qty.	€
SFC-100F LED	**ATT2.1**	1 unit(s)	207,50

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Transmitted light microscope SHB 45

Motic.

Rugged microscope for pupils and students. With adjustable halogen light and adaptation of light intensity.

Optional accessories (please order separately):

- Lenses for modulating the total magnification

Technical specifications:

Art. No.	**Y421.1**
Type	SHB 45
Tube	Binocular
Total magnification	40x, 100x, 400x – can be expanded up to 1000x
Magnification type	Turret
Ocular magnification	Widefield 10x
Lenses	achromatic
Lens arrangement	4-way, tilted forwards
Lens magnification	4x/N.A. 0.10 10x/N.A. 0.25 40x (spring)/N.A. 0.65
Field of view	18 mm
Dioptre compensation	±5 dpt on both eyepieces
Angular observation	45 °
Head	Can be rotated 360°
Condenser	N.A. 1.25 focusable with iris diaphragm and filter holder
Light source	Halogen
Image focusing	Coaxial coarse and fine focus
Optics	infinity
Microscope stage	120 x 120 mm with X-Y stage that can be fitted
Power supply	Mains-powered
Mains connection	230 V, 50 Hz

Delivery incl. blue filter, dark field diaphragm and dust cover.

Type	Art. No.	Pack Qty.	€
SHB 45	**Y421.1**	1 unit(s)	470,85



Transmitted light microscope B3 Professional series

Motic.

Brightfield microscope for analysing high-contrast, stained samples.

Optional accessories (please order separately):

- Widefield eyepieces and attachment lenses for modulating the total magnification
- Measuring eyepiece for determination and reference measurement of the preparation

Technical specifications:

Art. No.	CH56.1	CH57.1
Type	B3-220ASC	B3-223ASC
Tube	Binocular	Trinocular
Total magnification	40x, 100x, 400x, 1000x	
Magnification type	Turret	
Ocular magnification	Widefield 10x	
Lens arrangement	5x, inclined backward, with four achromatic super contrast lenses	
Lens magnification	- 4x/N.A. 0.10, W.D. 17.0 mm - 10x/N.A. 0.25, W.D. 6.4 mm - 40x (spring)/N.A. 0.65, W.D. 0.45 mm - 100x (spring, oil)/N.A. 1.25, W.D. 0.14 mm	
Field of view	20 mm	
Dioptre compensation	±5 dpt on the left ocular tube	
Angular observation	30 °	
Head	Can be rotated 360°	
Distance between eyepieces	55–75 mm	
Condenser	Focusable Abbe condenser N.A. 1.25 with iris diaphragm and filter holder	
Köhler illumination	Yes	
Light source	Halogen	
Image focusing	Coaxial coarse and fine focus	
Optics	infinity	
Microscope stage	140 x 135 mm, height-adjustable coaxial x/y travel range of 78 x 50 mm	
Power supply	Mains-powered	
Mains connection	100–240 V, 50 Hz	

Delivery incl. colour filter set (blue, yellow, green), immersion oil and dust cover.

B3-220ASC binocular

Type	Art. No.	Pack Qty.	€
B3-220ASC	**CH56.1**	1 unit(s)	858,95

B3-223ASC trinocular

With trinocular head for mounting a microscope camera on the photo-tube using C-mount adapter. Please order C-mount adapter separately.

Type	Art. No.	Pack Qty.	€
B3-223ASC	**CH57.1**	1 unit(s)	1.036,30



Brightfield microscope BA210 series

Motic.

Brightfield microscope for analysing high-contrast, stained samples. Lenses supplied: 4x, 10x, 40x and 100x. With LED lighting and infinite optics for optimum image quality.

Technical specifications:

Art. No.	ATT7.1	ATT8.1
Type	BA210 LED binocular	BA210 LED trinocular
Tube	Binocular	Trinocular
Total magnification	40x, 100x, 400x, 1000x	
Magnification type	Turret	
Ocular magnification	Widefield 10x	
Lenses	plan achromatic	
Lens magnification	- 4x/N.A. 0.10, W.D. 15.9 mm - 10x/N.A. 0.25, W.D. 17.4 mm - 40x S/N.A. 0.65, W.D. 0.5 mm - 100x S-Oil/N.A. 1.25, W.D. 0.13 mm	
Field of view	20 mm	
Dioptre compensation	±5 dpt on both eyepieces	
Angular observation	30 °	
Head	can be rotated 360°	
Distance between eyepieces	55–75 mm	
Condenser	Focusable Abbe condenser N.A. 1.25 with iris diaphragm and slider slot	
Light source	LED	
Image focusing	Coarse and fine focus	
Optics	infinity	
Microscope stage	140 x 135 mm area coaxial x/y travel range of 76 x 50 mm	
Power supply	Mains-powered	
Mains connection	230 V, 50 Hz	

Delivery incl. immersion oil and dust cover.

Binocular

Pic.	Type	Art. No.	Pack Qty.	€
(1)	BA210 LED binocular	**ATT7.1**	1 unit(s)	1.006,20

Trinocular

With trinocular head for mounting a microscope camera on the photo-tube using C-mount adapter. Please order C-mount adapter separately.

Pic.	Type	Art. No.	Pack Qty.	€
(2)	BA210 LED trinocular	**ATT8.1**	1 unit(s)	1.208,30



Inverted microscope AE2000

Motic.

During inverse microscopy, the lenses are positioned under the benchtop. This results in a larger gap between the benchtop and condenser, allowing analysis of thicker preparations such as living cells in culture vessels/microtiter plates.

- With infinite optics for optimum image quality
- Light can be controlled with sleep mode

Optional accessories (please order separately):

- LED light

Technical specifications:

Art. No.	ATT4.1	ATT5.1
Type	AE2000	
Tube	Binocular	Trinocular
Total magnification	40x, 100x, 200x, 400x	
Magnification type	Turret	
Ocular magnification	Widefield 10x	
Lenses	Plan achromatic brightfield	
Lens arrangement	4-way, tilted sideways	
Lens magnification	Brightfield: - PL 4x/N.A. 0.10, W.D. 12.6 mm - LWD PL 40x/N.A. 0.50, W.D. 3.0 mm Phase contrast: - PL Ph 10x/N.A. 0.25, W.D. 4.1 mm - LWD PL Ph 20x/N.A. 0.30, W.D. 4.7 mm	
Field of view	20 mm	
Dioptre compensation	±5 dpt on both eyepieces	
Angular observation	45 °	
Head	Can be rotated 360°	
Distance between eyepieces	48–75 mm	
Condenser	ELWD N.A. 0.30 with (Ph1, BF) W.D. phase shifter with 72 mm condenser	
Light source	Halogen	
Image focusing	Coaxial coarse and fine focus	
Optics	infinity	
Microscope stage	200 x 239 mm area With glass/metal stage insert	
Power supply	Mains-powered	
Mains connection	100–240 V, 50 Hz	

Delivery incl. blue filter, interference filter (green), neutral filter with slider, centring telescope and dust cover.

Binocular

Pic.	Type	Art. No.	Pack Qty.	€
(1)	AE2000	**ATT4.1**	1 unit(s)	2.829,40

Trinocular

With trinocular head for mounting a microscope camera on the phototube using C-mount adapter. Please order C-mount adapter separately.

Pic.	Type	Art. No.	Pack Qty.	€
(2)	AE2000	**ATT5.1**	1 unit(s)	3.252,95



Protective sleeve for microscope

ROTH SELECTION. Material: Vinyl Vikem®.

Protects high-end devices and instruments against dust and liquids.

Size	Scope	Height (mm)	Art. No.	Pack Qty.	€
M	660 mm bottom x 460 mm top	420	**XY16.1**	1 unit(s)	24,20
L	820 mm bottom x 560 mm top	460	**XY17.1**	1 unit(s)	32,80
XL	920 mm bottom x 760 mm top	560	**XY18.1**	1 unit(s)	38,60



Digital USB manual microscope ODC 895

Kern.

For fast and easy pre-examination, for example of plants, insects or skin samples. Strong and effective illumination of the samples with eight LEDs arranged in a ring. Multilingual software supplied. With the streaming, photo snapshot and video functions. Supports the following operating systems: Win XP, Vista, 7, 8, 10.

Technical specifications:

Art. No.	HNH2.1
Type	ODC 895
Total magnification	10x, 200x
Working distance	60 mm
Light source	LED
Type of lighting	Incident light
Image focusing	Coarse focus
Microscope stage	150 x 80 mm
Port	USB 2.0
Number of pixels	2 (MP)
CMOS colour sensor	1/3,2″
Images per second	15–30
Power supply	via USB connection (fixed cable, length 1.4 m)

Type	Art. No.	Pack Qty.	€
ODC 895	**HNH2.1**	1 unit(s)	220,00

Microscope cameras

Microscope camera ODC series

Kern.

For conventional microscope use, and for demanding applications (e.g. darkfield, phase contrast and fluorescence).

- Fast and clear image transmission with proven CMOS technology
- USB 2.0 data transmission adequate for static samples. USB 3.0 version recommended for living samples (faster transmission without stalling)
- Multilingual software available. With the streaming, photo snapshot and video functions. Various measuring functions such as distance, surface and angular measurement, as well as manual counting possible. Image processing and documentation functions included
- Mounting possible either via C-mount connection on the third tube of the microscope or via the eyepiece.
- Suitable C-mount adapter is provided by the microscope manufacturer. Eyepiece adapter (Ø 23.2 mm) and adapter rings (Ø 30.0 mm and 30.5 mm) are also supplied
- Supports the following operating systems: Win XP, Vista, 7, 8, 10



Technical specifications:

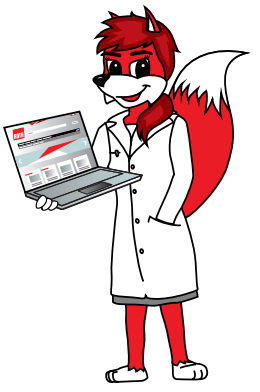
Art. No.	HNH5.1	HNH6.1	HNH7.1	HNH8.1
Type	ODC 824	ODC 825	ODC 831	ODC 832
Sensor type	CMOS			
Sensor format	½″	½,5″	⅓″	½,5″
Number of pixels	3.1 (MP)	5.1 (MP)	3.1 (MP)	5.1 (MP)
Pixel Size	3.2 x 3.2 µm	2.2 x 2.2 µm		
Images per second	11,5 fps @ 2048 x 1536, 32 fps @ 1024 x 768, 45 fps @ 680 x 510	6,8 fps @ 2592 x 1944, 18 fps @ 1280 x 960, 55 fps @ 640 x 480	27,3 fps @ 2048 x 1536, 53,3 fps @ 1024 x 770	14,2 fps @ 2560 x 1922, 38,3 fps @ 1280 x 960, 101,2 fps @ 640 x 480
Application	Bright field, dark field, phase contrast, polarisation, simple fluorescence			
Port	USB 2.0		USB 3.0	
Cable length	2 m			

Delivery incl. USB cable, eyepiece adapter, rings and stage micrometer for calibrating the software. Please download the software free of charge.

Type	Art. No.	Pack Qty.	€
ODC 824	**HNH5.1**	1 unit(s)	410,00
ODC 825	**HNH6.1**	1 unit(s)	430,00
ODC 831	**HNH7.1**	1 unit(s)	570,00
ODC 832	**HNH8.1**	1 unit(s)	590,00

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Microscope camera Moticam S series



Motic.

For diverse applications in day-to-day microscopic work in which data processing is carried out directly on the PC.

- Can be mounted via C-mount connection on the third tube of the microscope; the microscope manufacturer provides appropriate C-mount adapters
- New sCMOS technology for high frame rates and optimal image quality; maximum sensitivity for applications with low light output
- Faster data reading for recording rapid phenomena via USB 3.1 gen.1 connection; USB 2.0 compatibility for older computers ensured
- Supported operating systems: Windows XP and later versions, Apple Mac OSX and Linux
- Minimum system requirements: 2 GHz dual-core, 2 GB RAM, min. 512 MB video memory
- Software functions: Still image and video, live and still image measurements, image enhancement, white balance, automatic and manual exposure time, individual calibration

Technical specifications:

Art. No.	**1C35.1**	**1C36.1**	**1C37.1**	**1C38.1**	**1C39.1**
Type	Moticam S1	Moticam S3	Moticam S6	Moticam S12	Moticam Pro S5 Lite
Sensor type	sCMOS				
Sensor format	1/3″	1/2,8″	1/1,8″	1/1,7″	2/3″
Number of pixels	1.2 (MP)	3 (MP)	6 (MP)	12 (MP)	5 (MP)
Pixel Size	3.75 x 3.75 µm	2.5 x 2.5 µm	2.4 x 2.4 µm	1.85 x 1.85 µm	3.45 x 3.45 µm
Resolution	1280 x 960 pixels (live image display)	2048 x 1536 pixels (live image display)	3072 x 2048 pixels (live image display)	4000 x 3000 pixels (live image display)	2448 x 2048 pixels (live image display)
Images per second	120 fps @ 1280 x 960, 240 fps @ 640 x 480	60 fps @ 2048 x 1536, 60 fps @ 1920 x 1080	30 fps @ 3072 x 2048, 50 fps @ 1536 x 1024	25 fps @ 4000 x 3000, 50 fps @ 2048 x 1080	37.5 fps @ 2448 x 2048, 88.4 fps @ 1224 x 1024
Application	Bright-field, dark-field, polarisation				Bright-field, dark-field, polarisation, fluorescence
Port	USB 3.1				

Delivery incl. CS ring, USB 3.1 cable, Motic 4-point calibration, Motic Images Plus 3.0 software.

Type	Art. No.	Pack Qty.	€
Moticam S1	**1C35.1**	1 unit(s)	442,90
Moticam S3	**1C36.1**	1 unit(s)	555,80
Moticam S6	**1C37.1**	1 unit(s)	696,60
Moticam S12	**1C38.1**	1 unit(s)	926,65
Moticam Pro S5 Lite	**1C39.1**	1 unit(s)	1.201,85

Microscope accessories



Pocket microscope

ROTH SELECTION.

With focusing device and swivel illumination of the viewing area.

Technical specifications:

Art. No.	P387.1
Type	Pocket microscope
Magnification	30-way
L x W x H	45 x 20 x 140 mm
Power supply	2 x 1.5 V AA batteries

Delivery without batteries, please order separately.

Type	Art. No.	Pack Qty.	€
Pocket microscope	**P387.1**	1 unit(s)	33,90



Bellows with cleaning brush

ROTH SELECTION. Material: Rubber.

With attachable brush. For non-contact removal of dust and/or loose dirt particles on optical surfaces and other sensitive surfaces. Easy to handle. Large elastic rubber bellows for strong blowing action. Sturdy air nozzle at the front and air inlet valve at the back.

Ø x L (mm)	Art. No.	Pack Qty.	€
60 x 180	**KP30.1**	1 unit(s)	14,50



Lens paper MN 13 B

Macherey-Nagel.

Lint-free tissue paper for cleaning optical glasses and cuvettes, and as protective paper for metallographic specimens. 50-sheet block.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
80	100	**1068.1**	10 unit(s)	59,90



Lens paper

Motic.

For trace-free cleaning, also removes dust and oil. 500 sheets per pack.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
100	45	**LH30.1**	500 sheet	18,50



Cold light source Dual goose neck LED

Kern.

External lighting unit (reflected) for microscope. For maximum flexibility and maximum comfort. With excellent light quality at constant intensity on the object.

Technical specifications:

Art. No.	HNH3.1
Type	OZB A515
Colour temperature	5600–6300 K
L x W x H	300 x 250 x 250 mm
Weight	1500 g
Light source	6 W LED, dimmable
Service life	approx. 50,000 hours
Mains connection	100–240 V, 50/60 Hz

Delivery incl. dual arm gooseneck light guide.

Type	Art. No.	Pack Qty.	€
OZB A515	**HNH3.1**	1 unit(s)	165,00

Cold light sources



Cold light source Halogen

Krüss.

With a connection for gooseneck light guide.

- Integrated halogen reflector bulb 8 V, 20 W
- With continuous electronic brightness control
- Suitable for, e.g. lighting objects under microscopes

Technical specifications:

Art. No.	C018.1
Version	Cold light source: Halogen
Colour temperature	3200 K
L x W x H	150 x 175 x 90 mm
Light source	Halogen
Mains connection	110–240 V, 50/60 Hz

Delivery without gooseneck light guide, please order separately.

Version	Art. No.	Pack Qty.	€
Cold light source: Halogen	**C018.1**	1 unit(s)	590,20



Accessories Gooseneck light guide

Krüss.

Single arm for halogen cold light source

Designation	Art. No.	Pack Qty.	€
Gooseneck light guide, single arm, with glass fibre cable. Fully flexible, with metallic casing. Front Ø 4.5 mm. Outside Ø 10 mm. Length: 500 mm.	**C019.1**	1 unit(s)	221,45

Dual arm for halogen cold light source

Designation	Art. No.	Pack Qty.	€
Gooseneck light guide, dual arm, with glass fibre cable. Fully flexible, with metallic casing. Front Ø 4.5 mm. Outside Ø 10 mm. Length: 500 mm.	**C020.1**	1 unit(s)	334,35



Spotlight IL 11 LED

Perfect incident lighting for microscopes.

- Flexible lighting thanks to semi-rigid arm
- Small dimensions of the luminaire heads
- Flicker-free light for photos and videos
- Very high colour rendering index (CRI)
- Precise brightness control (0–100%) with memory function

Technical specifications:

Art. No.	KLX4.1	KLX5.1
Arm length	450 mm	600 mm
Luminosity	400,000 lx	
Luminous flux	730 lm	
Colour temperature	5600 K	
Colour rendering index	95 CRI	
Power consumption	10 W	
L x W x H	80 x 40 x 37 mm	
Weight	600 g	
Light source	LED	
Service life	Approx. 50,000 hours	
Mains connection	120–240 V, 50/60 Hz	

Delivery incl. bulb.
Without mounting material, please order separately.

Arm length (mm)	Art. No.	Pack Qty.	€
450	**KLX4.1**	1 unit(s)	267,70
600	**KLX5.1**	1 unit(s)	289,20

Accessories for IL 11 LED spotlight

X-foot with stand rod (Ø 12 mm, L 100 mm)

Designation	Art. No.	Pack Qty.	€
X-foot with stand rod (Ø 12 mm, L 100 mm)	**KLX6.1**	1 unit(s)	113,95

Stand plate with rod (Ø 12 mm, L 200 mm)

Designation	Art. No.	Pack Qty.	€
Stand plate with rod (Ø 12 mm, L 200 mm)	**KLX7.1**	1 unit(s)	117,20

Microscope column attachment (25 mm)

Designation	Art. No.	Pack Qty.	€
Microscope column attachment (25 mm)	**KLX8.1**	1 unit(s)	88,15

Microscope column attachment (32 mm)

Designation	Art. No.	Pack Qty.	€
Microscope column attachment (32 mm)	**KLX9.1**	1 unit(s)	88,15

Cold light sources



Cold light source LED series

Starlight Opto-Electronics.

Modern cold light source with robust aluminium housing and premium-quality finish. LED technology makes it extremely efficient and maintenance-free. Flicker-free and uniform illumination.

Technical specifications:

Art. No.	HAX2.1	KLY1.1	KLY2.1
Type	LED 3	LED8	LED.70
Version	Passive cooling	Active cooling	Passive cooling
Luminous flux	730 lm	1,600 lm	1,500 lm
Colour temperature	5700 K	6900 K	
Colour rendering index	70 CRI	75 CRI	
Power consumption	36 W	110 W	100 W
Fibre-optic cable connection	Ø 15 mm		
L x W x H	259 x 174 x 81 mm	273 x 200 x 116 mm	283 x 230 x 160 mm
Weight	3700 g	2300 g	5200 g
Light source	LED		
Service life	approx. 50,000 hours		
Mains connection	120–240 V, 50/60 Hz		

Delivery without cable and ring light, please order separately.

LED 3

- Passive cooling without a fan for silent and vibration-free working, making it perfect for use in cleanrooms
- More powerful than a 150 W halogen light source
- Stackable. Can be positioned both horizontally and vertically

Pic.	Type	Version	Art. No.	Pack Qty.	€
(1)	LED 3	Passive cooling	**HAX2.1**	1 unit(s)	741,75

LED8

- Actively cooled cold light source, temperature-controlled for minimum noise generation
- Very high luminosity, ideal for high-speed recordings
- Glare protection provided by fibre-optic cable detection

Pic.	Type	Version	Art. No.	Pack Qty.	€
(2)	LED8	Active cooling	**KLY1.1**	1 unit(s)	1.177,15

LED.70

- Passive cooling without a fan for silent and vibration-free working, making it perfect for use in cleanrooms
- Very high luminosity, ideal for high-speed recordings
- Glare protection provided by fibre-optic cable detection

Pic.	Type	Version	Art. No.	Pack Qty.	€
(3)	LED.70	Passive cooling	**KLY2.1**	1 unit(s)	1.494,25



Accessories for LED series cold light source

Starlight Opto-Electronics.

Fibre-optic cable

Pic.	Version	Art. No.	Pack Qty.	€
	Single arm flexible light guide. L: 1000 mm, active-Ø 4.5 mm	**HAX6.1**	1 unit(s)	149,45
(1)	Dual arm gooseneck light guide. L: 450 mm, active-Ø 4.5 mm	**HAX5.1**	1 unit(s)	242,95
(2)	Dual arm flexible light guide. L: 1000 mm, active-Ø 4.5 mm	**HAX7.1**	1 unit(s)	267,70
(3)	Fibre-optic split-ring light 66. L: 1000 mm, active-Ø: 9 mm	**HAX8.1**	1 unit(s)	579,45

LED ring light

Pic.	Version	Art. No.	Pack Qty.	€
(4)	LED-ring light RL4-66-NW, Ø 66 mm, approx. 5000 K	**HAX9.1**	1 unit(s)	402,05
(5)	LED-segment-ring light RL4-66-S4, Ø 66 mm, approx. 5000 K, four segments	**HAY0.1**	1 unit(s)	563,30

Diffuser disc for LED ring light

Pic.	Version	Art. No.	Pack Qty.	€
(6)	Diffuser disc for RL4-66 series	**HAY1.1**	1 unit(s)	64,50

Polarizing filter set for LED ring light

Pic.	Version	Art. No.	Pack Qty.	€
(7)	Polarizing filter set for RL4-66- series	**HAY2.1**	1 unit(s)	247,25

(8) Reducing ring for LED ring lights

Version	Art. No.	Pack Qty.	€
Ø 66 mm to Ø 64 mm	**HAY3.1**	1 unit(s)	33,35
Ø 66 mm to Ø 62 mm	**HAY4.1**	1 unit(s)	33,35
Ø 66 mm to Ø 60 mm	**HAY5.1**	1 unit(s)	33,35
Ø 66 mm to Ø 58 mm	**HAY6.1**	1 unit(s)	33,35
Ø 66 mm to Ø 56 mm	**HAY7.1**	1 unit(s)	33,35
Ø 66 mm to Ø 54 mm	**HAY8.1**	1 unit(s)	33,35
Ø 66 mm to Ø 52 mm	**HAY9.1**	1 unit(s)	33,35
Ø 66 mm to Ø 50 mm	**HCA0.1**	1 unit(s)	33,35

Illuminated magnifiers



Stand magnifier

ROTH SELECTION.

With swivelling plastic lens. Can be used with mini light panel NL24.1.

Technical specifications:

Art. No.	NL23.1
Magnification	1.75x
Dimensions	Lens: L 140 x W 100 mm
Height	185 mm

Magnification	Art. No.	Pack Qty.	€
1.75x	**NL23.1**	1 unit(s)	123,50



Tabletop magnifier LED

ROTH SELECTION. Material: Plastic.

With frameless plastic lens, two-times magnification, with integrated smaller lens with four-times magnification. Separate LED bulb with four LEDs. With removable clamp for attaching to edge of table.

Technical specifications:

Art. No.	PK48.1
Magnification	2-times, 4-times
Field of view	Ø 102 mm
Light source	LED
Performance	0,06 W
Power supply	2 x 1.5 V AAA batteries

Light contains integrated LEDs which cannot be changed.

Delivery incl. batteries.

Version	Magnification	Art. No.	Pack Qty.	€
Tabletop magnifier	2-times, 4-times	**PK48.1**	1 unit(s)	36,90



Magnifier lamp MAULviso

MAUL.

Easy-to-use, robust magnifier lamp.

- Glass lens (144 cm^2)
- Uniform illumination thanks to LEDs arranged in a ring (56 SMD LEDs)
- Colour temperature: Daylight white
- Lamp head can be adjusted upwards and downwards
- Stable metal arm, variable adjustment
- Arm length: Bottom 410 mm, top 410 mm, height in normal working position 420 mm
- Clamp base for clamping widths of up to 63 mm

Technical specifications:

Art. No.	KLX1.1
Type	MAULviso
Colour	white
Magnification	1.75x
Dioptres	3 dpt
Stand length	750 mm
Field of view	Ø 127 mm
Light source	LED
Service life	20,000 hours
Performance	8 W
Energy efficiency class	A
Luminosity	2,120 lx
Luminous flux	660 lm
Colour temperature	6500 K
Cable length	1.60 m
Mains connection	230 V, 50 Hz

Delivery incl. protective cap.

Colour	Magnification	Stand length (mm)	Art. No.	Pack Qty.	€
white	1.75x	750	**KLX1.1**	1 unit(s)	127,95

Illuminated magnifiers



Magnifier lamp LED compact

ROTH SELECTION. Material: Glass, Plastic stand.

- Glass lens with three dioptres, field of vision Ø 100 mm
- Embedded 12-dioptre lens, field of vision Ø 25 mm
- Infinitely dimmable
- 40 LEDs
- Colour temperature: Daylight white
- Head can be tilted upwards and downwards, and pivoted to the side
- Arm length: 260 mm
- Height in normal working position: 340 mm
- Sturdy base with ballasting, 170 x 180 mm
- With compartment in the base for small utensils

Technical specifications:

Art. No.	NK01.1	NK02.1
Type	LED compact	
Colour	white	black
Magnification	1.75-times, 4-times	
Dioptres	3 dpt, 12 dpt	
Stand length	260 mm	
Field of view	Ø 100 mm, Ø 25 mm	
Light source	LED	
Service life	20,000 hours, maintenance-free	
Performance	7 W	
Energy efficiency class	A	
Luminosity	2,160 lx	
Luminous flux	470 lm	
Colour temperature	6500 K	
Cable length	1.40 m	
Mains connection	230 V, 50 Hz	

Delivery incl. protective cap.

Version	Colour	Magnification	Stand length (mm)	Art. No.	Pack Qty.	€
Tabletop magnifier	white	1.75-times, 4-times	260	**NK01.1**	1 unit(s)	112,90
Tabletop magnifier	black	1.75-times, 4-times	260	**NK02.1**	1 unit(s)	112,90

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Magnifier lamp LED

MAUL.

Ideal for precision work in laboratories, workshops and engineering offices.

- Glass lenses, metal stand
- Uniform illumination thanks to LEDs arranged in a ring (56 SMD LEDs, non-replaceable)
- Colour temperature: Daylight white
- Ball-and-socket joint allows three-dimensional head rest adjustment
- Stable metal arm in a plastic trim, can be rotated by 360° and tilted
- Arm length bottom 400 mm, top 390 mm, height in normal working position 440 mm
- Clamp base for clamping widths of up to 65 mm

Technical specifications:

Art. No.	KHE1.1
Colour	white
Magnification	1.75x
Dioptres	3 dpt
Stand length	720 mm
Field of view	Ø 127 mm
Light source	LED
Service life	20,000 hours, maintenance-free
Performance	8 W
Energy efficiency class	A
Luminosity	2,220 lx
Luminous flux	580 lm
Colour temperature	6500 K
Cable length	1.70 m
Mains connection	230 V, 50 Hz

La lampe contient des LED intégrées qui ne peuvent pas être remplacées.

Delivery incl. protective cap.

Colour	Magnification	Stand length (mm)	Art. No.	Pack Qty.	€
white	1.75x	720	**KHE1.1**	1 unit(s)	170,95

Illuminated magnifiers



Magnifier lamp MAULcrystal

MAUL.

Ideal for precision work in laboratories, workshops and engineering offices.

- Large glass lens (234 cm²)
- Infinitely dimmable
- With segmented lighting (42 LEDs on the left, 42 LEDs on the right or all 84 LEDs)
- Colour temperature: Daylight white
- Ball-and-socket joint allows three-dimensional head rest adjustment
- Stable metal arm in a plastic trim, can be rotated by 360° and tilted
- Arm length: bottom 390 mm, top 440 mm, height in normal working position 420 mm
- Clamp base for clamping widths of up to 63 mm

Technical specifications:

Art. No.	**KLX2.1**
Type	MAULcrystal
Colour	white
Magnification	1.75x
Dioptres	3 dpt
Stand length	800 mm
Field of view	178 x 132 mm
Light source	LED
Service life	20,000 hours
Performance	17 W
Energy efficiency class	A
Luminosity	2,840 lx
Luminous flux	1,250 lm
Colour temperature	6300 K
Cable length	1.5 m
Mains connection	230 V, 50 Hz

Delivery incl. protective cap.

Colour	Magnification	Stand length (mm)	Art. No.	Pack Qty.	€
white	1.75x	800	**KLX2.1**	1 unit(s)	299,95



Magnifier lamp varioLEDflex

Eschenbach. Material: PXM®.

With shadow-free ring illumination and structure-accentuating segment illumination. A flexible gooseneck stand with a smooth action and the lens which also tilts in two directions ensures precise adjustment of the magnifier head to suit individual requirements.

- Aspheric PXM® lightweight lens, cera-tec® hard-coated
- Good edge definition
- 63 LEDs
- Illumination level: approx. 6000 lx at only 5 W (ring illumination)

Technical specifications:

Art. No.	**AEA3.1**
Type	varioLEDflex
Magnification	2.5x
Dioptres	6 dpt
Stand length	410 mm
Field of view	Ø 76 mm
Light source	LED
Service life	50,000 hours, maintenance-free
Performance	5 W
Luminosity	6,000 lx
Colour temperature	6000 K
Cable length	2.5 m
Mains connection	110–230 V, 50/60 Hz

Light contains integrated LEDs which cannot be changed.

Delivery incl. mains adapter (EU/GB/US) and sturdy steel table clamp (clamp opens to max. 60 mm).

Version	Magnification	Stand length (mm)	Art. No.	Pack Qty.	€
Tabletop magnifier with clamping base	2.5x	410	**AEA3.1**	1 unit(s)	514,95

Illuminated magnifiers



Illuminated ring magnifier LED

Waldmann. Material: Plastic, Housing made of anodised aluminium and black plastic.

Very sturdy and rugged, resistant to vibration. Excellent colour rendering and homogeneous light distribution.

- Anti-scratch plastic lens
- Distortion-free field of vision
- 63 x Low Power LEDs
- Colour temperature: Neutral-white
- Comfortable switching on/off using sensor button on lamp head

Technical specifications:

Art. No.	**CCE1.1**
Magnification	2.5x
Dioptres	6 dpt
Stand length	730 mm
Field of view	Ø 72 mm
Light source	LED
Performance	6 W
Energy efficiency class	A
Luminosity	2,660 lx
Colour temperature	3700–4300 K
Colour rendering (Ra)	85 Ra
Cable length	2.3 m
Mains connection	100–240 V, 50/60 Hz

Light contains integrated LEDs which cannot be changed.

Delivery incl. base and protective lens casing.

Version	Magnification	Stand length (mm)	Art. No.	Pack Qty.	€
Tabletop device	2.5x	730	**CCE1.1**	1 unit(s)	528,90



Magnifier lamp Tevisio

Waldmann. Material: Glass, Housing made of anodised aluminium and black plastic.

For demanding applications in research, manufacturing, quality assurance and assembly.

- Large, distortion-free field of vision
- Anti-scratch glass lens
- Lens removal without tools for cleaning or replacement
- 48 LEDs
- Various light segments can be switched on and off to create structure-accentuating effects
- Continuously variable dimming to 10%
- Colour temperature: Neutral-white
- 40 % energy saving compared to standard magnifier lamps
- 3D head joint for individual adjustments

Technical specifications:

Art. No.	**1EC4.1**	**1EC5.1**
Type	Tevisio	
Magnification	1.9x	
Dioptres	3,5 dpt	
Stand length	784 mm	984 mm
Field of view	Ø 160 mm	
Light source	LED	
Service life	50,000 hours, maintenance-free	
Performance	13 W	
Energy efficiency class	A	
Luminosity	6,000 lx	
Colour temperature	4000 K	
Weight	2.5 kg	3 kg
Cable length	3.6 m	3.4 m
Mains connection	100–240 V, 50/60 Hz	

Light contains integrated LEDs which cannot be changed.

Delivery incl. base and protective cap.

Magnification	Stand length (mm)	Art. No.	Pack Qty.	€
1.9x	784	**1EC4.1**	1 unit(s)	857,85
1.9x	984	**1EC5.1**	1 unit(s)	891,20

Illuminated magnifiers



Magnifier lamp LL6 UV

Starlight Opto-Electronics.

LED magnifier light for daily use in business and industry.

- Glass lens
- Infinitely dimmable
- Can be switched between pure white and UV
- Robust, easily attachable hinged arm
- All-metal design for the most demanding conditions, can be disinfected
- Flicker-free light thanks to optimised, low-loss electronics
- Very powerful and uniform illumination
- Arm length: Bottom 450 mm, top 400 mm
- Clamp base for clamping widths of up to 50 mm

Technical specifications:

Art. No.	**KLX3.1**
Type	LL6 UV
Colour	grey
Magnification	3x
Dioptres	6 dpt
Stand length	850 mm
Field of view	Ø 120 mm
Light source	LED
Service life	50,000 hours
Performance	20 W
Colour temperature	6000 K
Wavelength	365 nm
Weight	2,65 kg
Cable length	1.5 m
Mains connection	120–240 V, 50/60 Hz

Delivery incl. protective hood.

Colour	Magnification	Stand length (mm)	Art. No.	Pack Qty.	€
grey	3x	850	**KLX3.1**	1 unit(s)	796,60



Magnifying glasses MaxDetail

Eschenbach.

2-times magnification. Universal magnifying glasses for all kinds of work, when you need your hands free.

- Adjustable arms for a snug fit
- Large field of vision (~150 mm at 400 mm working distance)
- Dioptre compensation of ±3 dpt possible

Technical specifications:

Art. No.	**HE06.1**
Type	MaxDetail
Magnification	2x
Dioptres	3 dpt
Field of view	150 mm
Working distance	400 mm
Weight	49 g

Version	Magnification	Art. No.	Pack Qty.	€
Magnifying glasses	2x	**HE06.1**	1 unit(s)	124,90



Headband magnifiers

Eschenbach.

Enables good spatial vision from both eyes with the binocular lens divisions. Suitable for glasses wearers. Lens is sheltered on all sides to protect against flare. Lenses can be flipped up when not in use.

Technical specifications:

Art. No.	**P106.1**	**P107.1**	**P108.1**	**P109.1**
Magnification	1.7x	2x	2.5x	3x
Working distance	400 mm	250 mm	180 mm	130 mm

Version	Magnification	Art. No.	Pack Qty.	€
Magnifying glasses	1.7x	**P106.1**	1 unit(s)	128,45
Magnifying glasses	2x	**P107.1**	1 unit(s)	128,45
Magnifying glasses	2.5x	**P108.1**	1 unit(s)	128,45
Magnifying glasses	3x	**P109.1**	1 unit(s)	128,45

Illuminated magnifiers



Headlight LED

Eschenbach.

High-performance LED light for shadow-free, ergonomic and fatigue-free working at near-constant illumination levels. Light swivels vertically into the desired position. For attachment to headband magnifiers (P106.1 ff.) and the MaxDetail magnifying glasses (HE06.1).

- 2 high-performance LEDs
- Light strength: Approx. 3200 lx in 250 mm, approx. 1200 lx in 400 mm
- Weight: Lamp housing 11 g, battery housing (without batteries) 60 g

Technical specifications:

Art. No.	CPT7.1
Type	Headlight LED
Light source	LED
Service life	Approx. 8 hours (normal operation), approx. 14 hours (eco mode)
Dimensions	Lamp housing: 32 x 20 x 34 mm. Battery housing (incl.clip) 90 x 55 x 40 mm
Cable length	1 m
Power supply	3 x 1.5 V AA batteries

Light contains integrated LEDs which cannot be changed.

Delivery incl. adapter for headband magnifiers and MaxDetail magnifying glasses, hard foam case and batteries.

Version	Art. No.	Pack Qty.	€
LED light	**CPT7.1**	1 unit(s)	123,00



Magnifiers for glasses binocular

Eschenbach.

Simple and effective magnifying aid for users with glasses.

- Clip easily onto almost any glasses frame
- The field of vision is not reduced
- Leaves both hands free to work

Technical specifications:

Art. No.	P103.1	P104.1	P105.1	H577.1
Magnification	1.7x	2x	2.5x	3x
Working distance	400 mm	250 mm	180 mm	160 mm

Version	Magnification	Art. No.	Pack Qty.	€
Magnifying glasses	1.7x	**P103.1**	1 unit(s)	78,05
Magnifying glasses	2x	**P104.1**	1 unit(s)	78,05
Magnifying glasses	2.5x	**P105.1**	1 unit(s)	78,05
Magnifying glasses	3x	**H577.1**	1 unit(s)	78,05



NEW / +

Pocket illuminated magnifying glass white-light LED

Eschenbach. Material: PXM®.

- Ergonomically shaped handle
- Large, easy-to-operate light switch
- Aspheric PXM® lightweight lens
- Lenses are hard coated on both sides
- Easy battery replacement

Technical specifications:

Art. No.	1HEN.1	1HEP.1	1HET.1	PT98.1	PT99.1
Magnification	3x	5x	7x	10x	12.5x
Dioptres	12 dpt	20 dpt	28 dpt	38 dpt	50 dpt
Field of view	Ø 58 mm		Ø 35 mm		
Working distance	49 mm	36 mm	29 mm	20 mm	15 mm
Light source	LED				
Weight	97 g	105 g	77 g	78 g	75 g
Power supply	2 x 1.5 V AA batteries				

With attachable filters for different light colours.

Delivery incl. batteries and dust cap (can be folded back).

Version	Magnification	Art. No.	Pack Qty.	€
Hand magnifier	3x	**1HEN.1**	1 unit(s)	81,35
Hand magnifier	5x	**1HEP.1**	1 unit(s)	83,85
Hand magnifier	7x	**1HET.1**	1 unit(s)	74,35
Hand magnifier	10x	**PT98.1**	1 unit(s)	79,75
Hand magnifier	12.5x	**PT99.1**	1 unit(s)	82,25

Illuminated magnifiers



Precision illuminated magnifying glass

Eschenbach. Material: PXM®.

With removable measuring scale. 10-times magnification, (38 dpt) thanks to the aspherical PXM® lightweight lens. The measuring scale is divided in intervals of 0.5 mm and 1/64 inch.

Technical specifications:

Art. No.	H568.1
Magnification	10x
Dioptres	38 dpt
Field of view	Ø 35 mm
Power supply	2 x 1.5 V Baby C batteries

Delivery without batteries, please order separately.

Version	Magnification	Art. No.	Pack Qty.	€
Hand magnifier	10x	**H568.1**	1 unit(s)	102,45



Precision measuring magnifier

Eschenbach.

With a distortion-free, high-quality, achromatic lens. Lens-Ø 23 mm. Handy focus ring for focusing. Removable scale with 20 mm measuring range and 0.1 mm graduation. Glass-fibre strengthened polyamide housing.

Technical specifications:

Art. No.	H570.1	H571.1
Magnification	7x	10x
Field of view	Ø 23 mm	

Version	Magnification	Art. No.	Pack Qty.	€
Handheld magnifying glass	7x	**H570.1**	1 unit(s)	124,90
Handheld magnifying glass	10x	**H571.1**	1 unit(s)	148,85



Accessories LED lighting for precision measuring magnifier

Eschenbach.

Technical specifications:

Art. No.	H572.1
Light source	LED
Power supply	2 x 1.5 V Baby C batteries

Delivery without batteries, please order separately.

Version	Art. No.	Pack Qty.	€
Built-in lighting	**H572.1**	1 unit(s)	94,65



Pocket illuminated magnifying glass easyPOCKET

Eschenbach.

- Aspheric lens
- Ultra-flat
- With LED lighting
- Switch on and off by simply pulling the magnifying glass out of its protective case
- Glass-fibre reinforced plastic case to protect the lens

Technical specifications:

Art. No.	KC50.1	KC51.1
Type	easyPOCKET	
Colour	silver	black
Magnification	3x	
Light source	LED	
Dimensions	Lens: L 50 x W 46 x H 3 mm, Plastic case: L 85 x W 55 x H 6 mm	
Power supply	3 V CR 2025 batteries	

Delivery incl. battery.

Version	Colour	Magnification	Art. No.	Pack Qty.	€
Handheld magnifying glass	silver	3x	**KC50.1**	1 unit(s)	73,30
Handheld magnifying glass	black	3x	**KC51.1**	1 unit(s)	73,30

Magnifiers



Folding magnifier with PXM® lens

Eschenbach. Material: PXM®, Plastic casing.

With PXM® lightweight lens (Ø 23 mm). Aplanatic, distortion-free image with good edge definition.

Technical specifications:

Art. No.	PX00.1
Magnification	10x
Field of view	Ø 23 mm

Magnification	Art. No.	Pack Qty.	€
10x	**PX00.1**	1 unit(s)	40,10



Handheld magnifying glass with spare lens

Eschenbach. Material: PXM®.

Suitable for use when a large field of vision is required with low level magnification.

- Biconvex PXM® lightweight lens
- Plano-convex spare lens with 5x magnification integrated in the handle
- Eyelet in the handle for round-the-neck carry cord

Technical specifications:

Art. No.	AXL7.1	AXL6.1
Magnification	2.25x	2.5x
Dioptres	5 dpt	6,4 dpt
Field of view	Ø 80 mm	Ø 60 mm

Version	Magnification	Art. No.	Pack Qty.	€
Handheld magnifying glass	2.5x	**AXL6.1**	1 unit(s)	21,20
Handheld magnifying glass	2.25x	**AXL7.1**	1 unit(s)	30,05



Stand magnifier

ROTH SELECTION. Material: PMMA, Plastic, glass.

Magnifying glass made from impact-resistant plastic for universal application. PMMA lenses. Crystal clear bottom part. With an aspherical lens. Model (2) also has a colour-correcting lens and dioptric compensation.

Technical specifications:

Art. No.	X294.1	KP29.1
Magnification	8x	10x
Field of view	Ø 24 mm	Ø 26 mm
Height	45 mm	38 mm

Mini

Pic.	Version	Magnification	Art. No.	Pack Qty.	€
(1)	Stand magnifier	8x	**X294.1**	1 unit(s)	22,60
(2)	Stand magnifier	10x	**KP29.1**	1 unit(s)	24,95



Measuring magnifying glass

ROTH SELECTION.

With eight-times magnification, freely adjustable measuring scale, length 10 mm.

Technical specifications:

Art. No.	1285.1
Magnification	8x
Graduation	0,1 mm
Ø ext.	32 mm

Version	Magnification	Art. No.	Pack Qty.	€
Stand magnifier	8x	**1285.1**	1 unit(s)	139,30



Linen tester

Eschenbach. Material: Plastic.

8-times magnification. Aperture 20 x 20 mm. With a scale on the side with 1 mm graduations. Collapsible.

Technical specifications:

Art. No.	H576.1
Magnification	8x
Graduation	1 mm
Dimensions	Aperture 20 x 20 mm
Height	35 mm

Version	Magnification	Art. No.	Pack Qty.	€
Stand magnifier	8x	**H576.1**	1 unit(s)	30,50



Precision linen tester

Eschenbach.

Semi-matt, chrome-plated, brass housing. Biconvex lens made from optically ground silicate glass. Foldable.

Technical specifications:

Art. No.	H573.1	H574.1
Magnification	10x	5x
Dimensions	Aperture 15 x 15 mm	Aperture 30 x 30 mm
Height	27 mm	53 mm

Version	Magnification	Art. No.	Pack Qty.	€
Stand magnifier	10x	**H573.1**	1 unit(s)	56,90
Stand magnifier	5x	**H574.1**	1 unit(s)	75,15



Infrared lamp IL21

ROTH SELECTION.

Pressed glass bulb for intensive infrared light. Five angle settings.

Technical specifications:

Art. No.	X435.1
Type	IL21
Version	Desk lamp
Performance	150 W
Tilt angle	0–45 °
Mains connection	230 V, 50/60 Hz

Performance (W)	Art. No.	Pack Qty.	€
150	**X435.1**	1 unit(s)	82,25



Desk lamp MAULseven colour vario

MAUL.

Mobile lights for small spaces, ideal for changing workstations or for on-the-go use.

- Battery operation without mains connection (battery runtime approx. two hours, charging time approx. four hours)
- Can be folded to save space (263 x 50 x 62 mm)
- Adjustable colour temperature: Five warm white and ten daylight white LEDs
- Tiltable lamp head (217 x 5 mm)
- Base (62 x 50 mm) with padding to protect benches

Technical specifications:

Art. No.	KLT9.1
Type	MAULseven colour vario
Colour	grey
Light source	LED
Service life	20,000 hours
Performance	4 W
Energy efficiency class	A+
Luminosity	15,600 lx
Luminous flux	210 lm
Colour temperature	3000 / 6500 K
Height	272 mm
Arm length	253 mm
Cable length	0.94 m
Port	Mini-B USB
Power supply	Lithium-ion battery

Delivery incl. lamp and USB cable with Mini-B connector. Without standard USB mains adapter (1 A).

Colour	Performance (W)	Art. No.	Pack Qty.	€
grey	4	**KLT9.1**	1 unit(s)	44,00



Desk lamp Study

ROTH SELECTION. Material: Metal.

- Upper and lower arm length, approx. 35 cm each (height-adjustable)
- Movable reflector
- Lamp head Ø 17 cm
- Clamping base width: up to 55 mm
- Turns by 360°

Technical specifications:

Art. No.	**EP57.1**	**EP58.1**
Type	Study	
Colour	silver	black
Arm length	700 mm	
Cable length	1.75 m	
Mains connection	230 V, 50/60 Hz	

Delivery without bulb, please order separately.

Colour	Art. No.	Pack Qty.	€
black	**EP58.1**	1 unit(s)	38,70
silver	**EP57.1**	1 unit(s)	38,70



Desk lamp Office

ROTH SELECTION. Material: Aluminium, Metal clamping base.

- Adjustable aluminium arm (max. 82 cm)
- Turns by 360°
- Movable arm and reflector (length 21 cm)
- Lamp head with glare protection
- Turning base, alternatively available with metal clamping base (clamp opens up to 55 mm)

Technical specifications:

Art. No.	**AH77.1**
Type	Office
Version	Desk lamp
Performance	20 W
Arm length	820 mm
Cable length	2 m
Mains connection	230 V, 50/60 Hz

Delivery incl. bulb, base and table clamp.

Performance (W)	Art. No.	Pack Qty.	€
20	**AH77.1**	1 unit(s)	98,40



Work light

ROTH SELECTION. Material: Metal.

Ideal for laboratories, workshops and engineering offices. With electronic ballast for flicker-free start, flicker-free light, low current consumption and longer bulb life.

- Colour temperature: Daylight-white
- Lamp head with aluminumised parabolic louvre for glare-free working
- Switch on lamp head for convenient switching on and off
- Robust metal arm, rotatable through 360°
- Arm length at bottom and top 400 mm
- Height in normal working position 400 mm
- Metal clamping base (plastic coated), for clamping widths up to 65 mm

Technical specifications:

Art. No.	**NK58.1**
Colour	white
Version	Desk lamp
Energy efficiency class	A
Luminosity	2,800 lx
Luminous flux	1,250 lm
Colour temperature	6500 K
Arm length	800 mm
Cable length	1.50 m
Mains connection	230 V, 50 Hz

Delivery incl. bulb.

Colour	Art. No.	Pack Qty.	€
white	**NK58.1**	1 unit(s)	160,20



Work light MAULcraft

MAUL.

Powerful light with low energy consumption. Ideal for laboratories, workshops and engineering offices.

- Infinitely dimmable
- 90 daylight white LEDs
- Three-dimensional adjustable lamp head
- Button on the lamp head makes it easy to switch on and off
- Robust metal arm, rotates through 360° and tilts by 110°
- Arm length: Bottom 400 mm, top 440 mm
- Height in normal working position 470 mm. Height can be adjusted from -23 cm (below edge of bench) to +76 cm (above edge of bench)
- Clamp base for clamping widths of up to 63 mm

Technical specifications:

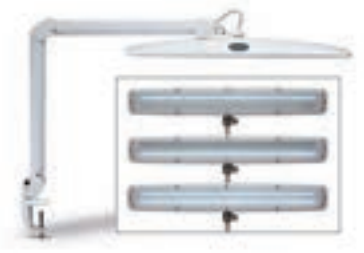
Art. No.	**KLT7.1**
Type	MAULcraft
Colour	white
Light source	LED
Service life	20,000 hours
Performance	14 W
Energy efficiency class	A+
Luminosity	2,960 lx
Luminous flux	970 lm
Colour temperature	6500 K
Cable length	1.70 m
Mains connection	230 V, 50 Hz

Delivery incl. bulb.

Colour	Performance (W)	Art. No.	Pack Qty.	€
white	14	**KLT7.1**	1 unit(s)	224,70

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Work light MAULwork

MAUL.

Powerful lights with high luminosity. Ideal for laboratories, workshops and engineering offices.

- Infinitely dimmable
- With segmented lighting (42 LEDs at the front, 42 LEDs at the rear or all 84 LEDs)
- Colour temperature: Daylight white
- Freely adjustable lamp head
- Button on the lamp head makes it easy to switch on and off
- Robust metal arm, rotatable through 360°
- Arm length: bottom 390 mm, top 440 mm
- Height in normal working position 500 mm
- Clamp base for clamping widths of up to 63 mm

Technical specifications:

Art. No.	**KLT8.1**
Type	MAULwork
Colour	white
Light source	LED
Service life	20,000 hours
Performance	21 W
Energy efficiency class	A
Luminosity	3,120 lx
Luminous flux	1,180 lm
Colour temperature	6500 K
Arm length	830 mm
Cable length	1.50 m
Mains connection	230 V, 50 Hz

Delivery incl. bulb.

Colour	Performance (W)	Art. No.	Pack Qty.	€
white	21	**KLT8.1**	1 unit(s)	267,70



Workstation lights TANEO

Waldmann. Material: Aluminium, Plastic.

For homogeneous wide area illumination of the workplace without glare or shadows. Good contrast vision and excellent colour detection.

- 30% energy saving compared to standard work lights
- Variable dimming down to 10%, with memory function
- Colour temperature: Neutral-white
- Glare suppression is provided by cone prism aperture
- Flicker-free light without IR and UV content
- Housing made of colourless anodised aluminium and black fibre-reinforced plastic

Technical specifications:

Art. No.	NK90.1	NK91.1	NK92.1	NK93.1
Type	TANEO			
Light source	LED			
Version	For fixing to tables		Swivel arm	Fixed connection
Service life	50,000 hours, maintenance-free			
Performance	31 W	47 W	15 W	31 W
Em/Emax	958/2603 lx	1425/3596 lx	479/1394 lx	958/2603 lx
Colour temperature	5000 K			
Arm length	1,036 mm		431 mm	

Em = medium illuminance, Emax = max. illuminance, measuring field 100 x 100 cm, measuring distance 50 cm

For fixing to tables
Model (1) and (2) for fixing to tables. With frame and 3D head joint.

Delivery incl. screw-on base.

Pic.	Performance (W)	Art. No.	Pack Qty.	€
(1)	31	**NK90.1**	1 unit(s)	763,25
(2)	47	**NK91.1**	1 unit(s)	879,35

Base mounts
Models (3) and (4) with space-saving base mounts. Rotating head joint.

Delivery incl. angle.

Pic.	Performance (W)	Art. No.	Pack Qty.	€
(3)	15	**NK92.1**	1 unit(s)	337,55
(4)	31	**NK93.1**	1 unit(s)	482,70



Laser pointer

ROTH SELECTION. Material: Metal.

All-metal casing with push-on clip. Class two laser.
Power output ≤1 mW.

Technical specifications:

Art. No.	AH29.1
Type	Laser pointer
Range	150 m
Length	140 mm
Ø	10 mm
Wavelength	635–670 nm
Power supply	2 x 1.5 V AAA batteries

Delivery incl. case and batteries.

Type	Art. No.	Pack Qty.	€
Laser pointer	**AH29.1**	1 unit(s)	32,55



Torch Solitaire®

MAG. Material: Aluminium.

Can be adjusted from spot to flood beam by rotating. With battery and spare bulb in the end cap. Torch has ultra-long service life and low energy consumption.

Technical specifications:

Art. No.	N257.1
Type	Solitaire®
Colour	black
Light source	Light bulb
Length	80 mm
Power supply	1.5 V AAA battery

Delivery incl. case, battery, spare bulb and keychain loop.

Type	Art. No.	Pack Qty.	€
Solitaire®	**N257.1**	1 unit(s)	28,35



Torch LED

TFA-Dostmann. Material: Aluminium.

With zoom for stray light/focusing. Rugged aluminium housing with carry strap.

Technical specifications:

Art. No.	YK82.1
Type	LED torch
Light source	LED
Performance	3 W
Range	120 m
Service life	100,000 hours
Length	115 mm
Ø	34 mm
Weight	160 g
Power supply	3 x 1.5 V AAA batteries

Delivery incl. batteries.

Type	Art. No.	Pack Qty.	€
LED torch	**YK82.1**	1 unit(s)	19,25



Torch

MAG. Material: Aluminium.

Can be adjusted from spot to flood beam. Anodised on the inside and outside for optimum corrosion protection.

Technical specifications:

Art. No.	N258.1	N259.1
Type	Micro-Mag	Mini-Mag
Colour	black	
Light source	Light bulb	
Length	125 mm	145 mm
Power supply	2 x 1.5 V AAA batteries	2 x 1.5 V AA batteries

Delivery incl. case, spare bulb and batteries.

Micro-Mag

Type	Art. No.	Pack Qty.	€
Micro-Mag	**N258.1**	1 unit(s)	44,20

Mini-Mag

Type	Art. No.	Pack Qty.	€
Mini-Mag	**N259.1**	1 unit(s)	53,55



Torch LED 3-Cell D

MAG. Material: Aluminium.

Continuous adjustment from spot to flood beam. Anodised surfaces for enhanced corrosion protection. Splash-proof and shockproof.

Technical specifications:

Art. No.	HLC2.1
Type	3-Cell D
Light source	LED
Range	364 m
Luminous flux	168 lm
Service life	80 hours
Length	315 mm
Ø	56 mm
Weight	446 g
Power supply	3 x Mono D 1.5 V batteries

Torch contains integrated LED light that cannot be replaced.

Delivery without batteries, please order separately.

Type	Art. No.	Pack Qty.	€
3-Cell D	**HLC2.1**	1 unit(s)	131,40

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Torches ex-proof



Torch eLED® PEN Intrinsically safe

Ecom.

Pen-sized light for zone 1/21 hazardous areas (areas in which an explosive atmosphere is likely to be present intermittently). Wide beam with powerful, evenly distributed light.

Ex marking:

- Suitable for use in gas atmosphere: II 2G Ex ib IIB T4 Gb
- Suitable for use in dust atmosphere: II 2D Ex ib IIIC T60 °C IP6X Db

Technical specifications:

Art. No.	NT20.1
Type	eLED®PEN
Light source	LED
Performance	0,5 W
Luminosity	1,000 lx
Service life	3 hours (when used continuously)
Ambient temperature	-20 – +40 °C
IP rating	67
Length	135 mm
Width	22 mm
Height	25 mm
Weight	100 g
Power supply	2 x LR03 AAA batteries (type-tested)

Note: Please only use type-tested replacement batteries (see operating instructions).

Delivery incl. batteries.

Type	Art. No.	Pack Qty.	€
eLED®PEN	**NT20.1**	1 unit(s)	64,50



Torch eLED® CPO TS Intrinsically safe

Ecom.

For zone 1/21 hazardous areas (areas in which an explosive atmosphere is likely to be present intermittently).

Ex marking:

- Suitable for use in gas atmosphere: II 2G Ex e ib IIC T6
- Suitable for use in dust atmosphere: II 2D Ex ibD 21 T61 °C

Technical specifications:

Art. No.	NT21.1
Type	eLED®CPO TS
Light source	LED
Performance	2 W
Luminosity	2,000 lx
Service life	6–8 hours (when used continuously)
Ambient temperature	-20 – +40 °C
IP rating	67
Length	134 mm
Width	35 mm
Height	41 mm
Weight	150 g
Power supply	3 x LR06 AA batteries (type-tested)

Note: Please only use type-tested replacement batteries (see operating instructions).

Delivery incl. batteries.

Type	Art. No.	Pack Qty.	€
eLED®CPO TS	**NT21.1**	1 unit(s)	134,40

Torches ex-proof



Torch Lite-Ex PL 10e Intrinsically safe

Ecom.

For zone 0/20 hazardous areas (areas in which an explosive atmosphere is likely to be present continuously for long periods or frequently). With ring switch and coated, anti-scratch protective glass.

Ex marking:

- Suitable for use in gas atmosphere: II 1G Ex ia op is IIC T4 Ga
- Suitable for use in dust atmosphere: II 1D Ex ia IIIC T130 °C Da

Technical specifications:

Art. No.	NT19.1
Type	Lite-Ex PL 10e
Light source	LED
Luminosity	3,000 lx
Service life	55 hours
Ambient temperature	-20 – +50 °C
IP rating	65, 67
Length	147 mm
Width	36 mm
Height	36 mm
Weight	120 g
Power supply	3 x LR03 AAA batteries (type-tested)

Note: Please only use type-tested replacement batteries (see operating instructions).

Delivery incl. batteries, belt clip and wrist strap.

Type	Art. No.	Pack Qty.	€
Lite-Ex PL 10e	**NT19.1**	1 unit(s)	165,55



LED lighting plate slimlite plano

ROTH SELECTION.

With 8 mm high, very flat lighting plates. For an even and true-colour illumination when viewing transparent images. LED lighting in daylight quality, dimmable. Charge time, battery: Five hours.

- Touch-sensitive switch for On/Off and brightness control
- Selectable mains or battery operation
- Different units beside the illuminated area (cm and inch)

Technical specifications:

Art. No.	HNK0.1	HNK1.1	HNK2.1
Type	S	M	L
L x W x H	290 x 200 x 8 mm	390 x 270 x 8 mm	499 x 350 x 8 mm
Illuminated area	220 x 160 mm	320 x 228 mm	429 x 309 mm
Colour temperature	5000 K		
Light density	750 cd/m²	600 cd/m²	650 cd/m²
Colour rendering index	95 CRI		
Performance	3,6 W	4,1 W	6,6 W
Service life	5 hours	3.5 hours	1.5 hours
Weight	570 g	1010 g	1690 g
Mains connection	100–240 V, 50/60 Hz		

Delivery incl. power supply unit, USB cable (length 2 m), lithium-ion battery.

Type	L x W x H (mm)	Art. No.	Pack Qty.	€
S	290 x 200 x 8	**HNK0.1**	1 unit(s)	142,30
M	390 x 270 x 8	**HNK1.1**	1 unit(s)	230,05
L	499 x 350 x 8	**HNK2.1**	1 unit(s)	270,90



Light panel Mini

ROTH SELECTION.

Battery-operated. Can be used with NL23.1 stand magnifier.

Technical specifications:

Art. No.	NL24.1
L x W x H	161 x 135 x 44 mm
Illuminated area	127 x 100 mm
Power supply	6 x 1.5 V AAA batteries

Delivery incl. batteries.

L x W x H (mm)	Art. No.	Pack Qty.	€
161 x 135 x 44	**NL24.1**	1 unit(s)	174,15

Light panels, autoradiography



Lighting plate

Rex.

For inspection and precise colour evaluation of slides, for assessing large-format films and foils, lighting radiographs, selecting and evaluating images or for comparing overlaid curves or chromatograms, etc.

- Especially flat design
- Opal disc made of flat and anti-scratch plastic
- **Flicker-free light**, for fatigue-free observation
- High-quality, borderless illumination
- Only minimal surface heating during continuous operation

With fluorescent tubes
Material: Steel Powder-coated (coloured white). Integrated wall mount.

Technical specifications:

Art. No.	P268.1
Type	Size 3 RE
L x W x H	600 x 550 x 60 mm
Illuminated area	580 x 530 mm
Colour temperature	5000 K
Light density	2,000 cd/m²
Performance	5 x 13 W
Cable length	2 m
Mains connection	230 V, 50/60 Hz

Type	L x W x H (mm)	Art. No.	Pack Qty.	€
Size 3 RE	600 x 550 x 60	**P268.1**	1 unit(s)	489,15

With LED
Material: Plastic Housing, (light-grey colour).

Technical specifications:

Art. No.	KKL1.1	KKK8.1	KKK9.1	KKL0.1
Type	Size 2-LED	Size 6-LED	Size 1-LED (2000)	Size 1-LED (3500)
L x W x H	550 x 378 x 58 mm	316 x 250 x 58 mm	416 x 270 x 58 mm	
Illuminated area	530 x 355 mm	298 x 230 mm	395 x 248 mm	
Colour temperature	6500 K			
Light density	2,000 cd/m²			3,500 cd/m²
Performance	18 W	7 W	10 W	20 W
Cable length	2 m			
Mains connection	230 V, 50/60 Hz			

Type	L x W x H (mm)	Art. No.	Pack Qty.	€
Size 2-LED	550 x 378 x 58	**KKL1.1**	1 unit(s)	358,00
Size 6-LED	316 x 250 x 58	**KKK8.1**	1 unit(s)	222,55
Size 1-LED (2000)	416 x 270 x 58	**KKK9.1**	1 unit(s)	235,45
Size 1-LED (3500)	416 x 270 x 58	**KKL0.1**	1 unit(s)	324,65



X-ray-cassettes ROTILABO®

ROTH SELECTION. Material: Aluminium.

Light, stable aluminium cassette. Optimal film screen contact. With safety catch for easy opening. Press to close. High cold stability to -70 °C.

Format	Art. No.	Pack Qty.	€
18 x 24 cm	**X265.1**	1 unit(s)	132,45

Accessories intensifying screen for ROTILABO® X-ray cassettes

ROTH SELECTION.

Suitable for ^{32}P isotopes.

Delivery incl. one set of screens (for front and back).

Universal (sensitivity 100)
Combines relatively high sensitivity with excellent detail recognition. Luminous substance: Calcium tungstate. For blue-sensitized films.

Format	Art. No.	Pack Qty.	€
18 x 24 cm	**X274.1**	1 unit(s)	64,40

Special/Rapid (sensitivity 200)
The Special screen sensitivity is almost twice as high as that of the regular Universal screen. Luminous substance: Calcium tungstate. Blue-emitting.

Format	Art. No.	Pack Qty.	€
18 x 24 cm	**X279.1**	1 unit(s)	77,20

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- Links to related products and accessories
- Product relevant downloads
- Application-specific subject areas and special product compilations

Transilluminators



UV hand-held lamp

Herolab.

Suitable for fluorescence excitation in microbiology, material technology, mineralogy, botany, etc. The lamps have two wavebands (254 nm/365 nm) and each lamp is switchable. Complete with power cord, on and off switches and handle.

Optional accessories (please order separately):

- Table tripod made of metal

Technical specifications:

Art. No.	H466.1	H467.1	H468.1	H469.1
Type	Model I	Model II	Model III	Model IV
L x W x H	195 x 70 x 65 mm	260 x 70 x 65 mm	335 x 70 x 65 mm	485 x 85 x 80 mm
Filter size	100 x 50 mm	150 x 50 mm	200 x 50 mm	300 x 70 mm
Wavelength	254/365 nm			
Performance	2 x 4 W	2 x 6 W	2 x 8 W	2 x 15 W
Weight	700 g	800 g	900 g	1650 g
Mains connection	220 V, 50 Hz			

Delivery without table tripod, please order separately.

Type	Art. No.	Pack Qty.	€
Model I	**H466.1**	1 unit(s)	457,95
Model II	**H467.1**	1 unit(s)	514,95
Model III	**H468.1**	1 unit(s)	525,70
Model IV	**H469.1**	1 unit(s)	705,20



UV–/white light–transilluminator

Herolab.

Multifunction device with 100/75% intensity switch.

- Stainless steel filter cover, plastic coated housing, recessed switch
- Special reflectors made of ultra-pure aluminium for homogeneous illumination with high utilisation of tube UV intensity

Technical specifications:

Art. No.	LY09.1
Type	UVT-20 M/W
L x W x H	470 x 340 x 135 mm
Filter size	200 x 200 mm
Wavelength	312 nm
Performance	6 x 8 / 3 x 6 W
Intensity setting	100/75 %

Delivery incl. UV protective screen.

Type	Art. No.	Pack Qty.	€
UVT-20 M/W	**LY09.1**	1 unit(s)	2.287,60



UV transilluminator

Herolab.

For use in all areas (standard gel analysis, preparation of nucleic acids, etc.).

- Stainless steel filter cover
- Special reflectors made of ultra-pure aluminium for homogeneous illumination with high utilisation of tube UV intensity
- Flicker-free quick starting
- Low thermal output

Technical specifications:

Art. No.	NK03.1	NK04.1	NK05.1
Type	UVT-14 SE	UVT-14 ME	UVT-14 LE
L x W x H	266 x 186 x 80 mm		
Filter size	110 x 140 mm		
Wavelength	254 nm	312/302 nm	365 nm
Performance	4 x 6 W		
Weight	3000 g		

Delivery without UV protective screen – please order separately.

Type	Art. No.	Pack Qty.	€
UVT-14 SE	**NK03.1**	1 unit(s)	1.061,05
UVT-14 ME	**NK04.1**	1 unit(s)	1.061,05
UVT-14 LE	**NK05.1**	1 unit(s)	977,20



LED blue light transilluminator

Herolab.

For gentle excitation of fluorescent DNA bands in gel. No damage to DNA by UV radiation. Specially designed for SYBR dyes (excitation at 420-500 nm, emission above 520 nm).

Optional accessories (please order separately):

- UV safety spectacles with orange lens for recognising the bands

Technical specifications:

Art. No.	NN23.1	NN24.1
Type	UVT-14-BE-LED	UVT-22-BE-LED
L x W x H	266 x 186 x 80 mm	
Filter size	110 x 140 mm	140 x 220 mm
Wavelength	470 nm	

Type	Art. No.	Pack Qty.	€
UVT-14-BE-LED	**NN23.1**	1 unit(s)	903,00
UVT-22-BE-LED	**NN24.1**	1 unit(s)	908,40

Refractometers

Handheld refractometer analogue



Kern.

For measuring the refractive index of transparent substances in a liquid state.

- Eyepiece with dioptre compensation
- Scale is precisely calculated and checked, with very thin and clear lines
- Without or with automatic temperature compensation (ATC)
  Measuring temperature with ATC: 10 to 30 °C
  Measuring temperature without ATC: 20 °C

Delivery incl. calibration solution and storage box.

Application area: laboratory

Type	Scale/measuring range	Resolution	Temp. compensation	Art. No.	Pack Qty.	€
ORA 4RR	Refractive index/1.440–1.520 nD	0.001 nD	No	**CEX9.1**	1 unit(s)	95,00
ORA 1RE	Refractive index/1.333–1.517 nD	0.005 nD	No	**CEY0.1**	1 unit(s)	360,00

Usage: food industry/quality control

Type	Scale/measuring range	Resolution	Art. No.	Pack Qty.	€
ORA 10BA	Brix/0–10%	0.1%	**CEY1.1**	1 unit(s)	95,00
ORA 20BA	Brix/0–20%	0.1%	**CEY2.1**	1 unit(s)	95,00
ORA 32BA	Brix/0–32%	0.2%	**CEY3.1**	1 unit(s)	95,00
ORA 80BB	Brix/0–80%	0.5%	**CEY4.1**	1 unit(s)	90,00

Usage: food industry/wine making

Type	Scale/measuring range	Resolution	Art. No.	Pack Qty.	€
ORA 3WA	Brix/0–32%, Oechsle/30–140 °Oe	0.2%, 1 °Oe	**CEY5.1**	1 unit(s)	95,00
ORA 1WA	Brix/0–32%, Oechsle/0–140 °Oe, KMW (Babo)/0–25 °KMW	0.2%, 1 °Oe, 0.25 °KMW	**CEY6.1**	1 unit(s)	95,00
ORA 2AB	Volume (weight)/0–80% Vol	1% Vol (0–50% Vol), 2.5% Vol (50–80% Vol)	**CEY7.1**	1 unit(s)	90,00

Usage: food industry/fishkeeping

Type	Scale/measuring range	Resolution	Temp. compensation	Art. No.	Pack Qty.	€
ORA 1SA	Salinity/0–100 ‰, spec. weight/1.000–1.070 sg	1 ‰, 0.001 sg	Yes	**CEY8.1**	1 unit(s)	95,00
ORA 3SA	Salt (NaCl)/0–28%, Brix/0–32%	0.2% (Salt), 0.2% (Brix)	Yes	**CEY9.1**	1 unit(s)	95,00

Usage: industry/automotive

For analysing glycol concentrations (ethylene: EG and propylene: PG) of battery fluid (BF), and for measuring the freezing point of windscreen washer fluid (CW).

Type	Scale/measuring range	Resolution	Temp. compensation	Art. No.	Pack Qty.	€
ORA 4FA	EG (G13)/-50–0 °C, PG (G11/12)/-50–0 °C, CW/-40–0 °C, BF/1.10–1.40 kg/l	1 °C (EG), 1 °C (PG), 5 °C (CW), 0.01 kg/l (BF)	Yes	**CYN3.1**	1 unit(s)	95,00

Handheld refractometer digital DR series

Krüss.

Digital refractometer for determining the concentration and refractive index of the liquids. Fully automatic measuring, temperature compensation and calibration.



Technical specifications:

Art. No.	HH60.1	EP62.1
Short designation	DR 201-95	DR 301-95
W x D x H	80 x 130 x 40 mm	100 x 180 x 60 mm
Weight	150 g	900 g
Power supply	1.5 V AA battery	E-Block 9 V battery

DR-201-95

Delivery incl. batteries.

Pic.	Type	Scale/measuring range	Resolution	Accuracy	Temp. compensation	Art. No.	Pack Qty.	€
(1)	DR 201-95	Brix/0–95%, Refractive index/1.3330–1.5320	0.1%, 0.0001 nD	± 0.2%, ±0.0003 nD	Yes	**HH60.1**	1 unit(s)	570,85

DR-301-95

The DR301-95 model also includes a tolerance alarm, serial port, data transfer cable and evaluation software.

Delivery incl. batteries and cable for data transfer.

Pic.	Type	Scale/measuring range	Resolution	Accuracy	Temp. compensation	Art. No.	Pack Qty.	€
(2)	DR 301-95	Brix/0–95%, Salt (NaCl)/0–30%, Refractive index/1.3330–1.5318 nD	0.1% (Brix), 0.1% (Salt), 0.0001 nD	± 0.1% (Brix), ±0.1% (Salt), ±0.00015 nD	Yes	**EP62.1**	1 unit(s)	1.113,70

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Refractometers

Handheld refractometer digital ORF series



Kern.

Digital refractive index measuring instrument for laboratories and industry.

- Compact, rugged design
- Dust and splash-proof according to protection class IP 65
- With automatic temperature compensation (ATC)
- Measuring temperature with ATC: +5 to +40 °C (Accuracy ±0.5 °C)
- Depending on model, measured value is output on different measurement scales
- Auto-off function after 90 seconds

Technical specifications:

Art. No.	ECL0.1	ECL1.1	ECL2.1	ECL3.1
Minimum sample volume	approx. 2–3 droplets			
Service life	battery: approx. 3750 measurements			
W x D x H	145 x 67 x 40 mm			
Weight	560 g			
Power supply	2 x 1.5 V AAA batteries			

Delivery incl. calibration solution, leather case, storage box and batteries.

Usage: laboratory
For refractive index measurement, with extra-large measuring range.

Type	Scale/measuring range	Resolution	Accuracy	Temp. compensation	Art. No.	Pack Qty.	€
ORF 1RS	Refractive index/1.3330–1.5400 nD	0.0001 nD	±0.0005 nD	Yes	**ECL0.1**	1 unit(s)	470,00

Usage: food industry/quality control
For calculating the Brix value (refractive index) for the quantification of sugar content in foodstuffs (e.g. fruit, vegetables, juices and beverages containing sugar). Also suitable for monitoring industrial processes (monitoring of cooling lubricants, oils and greases). Refractive index display is optional.

Type	Scale/measuring range	Resolution	Accuracy	Temp. compensation	Art. No.	Pack Qty.	€
ORF 45BM	Brix/0–45%, Refractive index/1.3330–1.4098 nD	0.1%, 0.0001 nD	±0.2%, ±0.0003 nD	Yes	**ECL1.1**	1 unit(s)	370,00
ORF 85BM	Brix/0–85%, Refractive index/1.3330–1.5100 nD	0.1%, 0.0001 nD	±0.2%, ±0.0003 nD	Yes	**ECL2.1**	1 unit(s)	430,00

Usage: food industry/fishkeeping
For determining the Brix value and the sodium chloride content in water. Refractive index display is optional.

Type	Scale/measuring range	Resolution	Accuracy	Temp. compensation	Art. No.	Pack Qty.	€
ORF 3SM	Brix/0–45%, Salt (NaCl)/0–28%, Refractive index/1.3330–1.4100 nD	0.1% (Brix), 0.1% (Salt), 0.0001 nD	±0.2% (Brix), ±0.2% (Salt), ±0.0003 nD	Yes	**ECL3.1**	1 unit(s)	370,00

Abbe refractometer ORT 1RS



Kern.

For determining the refraction index of transparent liquids, solids and paste-like samples. Usage: Laboratory/industry/pharmaceuticals.

- Easy-to-use, rugged design
- Eyepiece with dioptre adjustment
- Scale refers to +20 °C
- Includes thermometer for reading the measuring temperature
- Calibrated with distilled water or calibration block and special contact fluid
- Can be connected to a water circulation system for temperature control of measurement prism and illumination prism (outer diameter of connecting piece: 9.5 mm)

Optional accessories (please order separately):

- Transport and storage box made from aluminium

Technical specifications:

Art. No.	ECK5.1
W x D x H	90 x 180 x 240 mm
Weight	1950 g

Delivery incl. thermometer (incl. battery), calibration block and contact fluid.

Type	Scale/measuring range	Resolution	Accuracy	Temp. compensation	Art. No.	Pack Qty.	€
ORT 1RS	Brix/0–95%, Refractive index/1.3000–1.7000 nD	0.25%, 0.0005 nD	±0.1% Brix, ±0.0002 nD	No	**ECK5.1**	1 unit(s)	820,00

Accessories for Abbe refractometer ORT 1RS

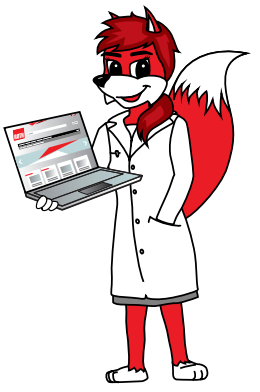
Kern.

Aluminium case

Version	Art. No.	Pack Qty.	€
Dimensions: L 310 x H 120 x T 240 mm Weight: 1300 g	**ECK6.1**	1 unit(s)	95,00

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Batteries



Dry cell battery High Energy

Varta.

Technical specifications:

Art. No.	CH38.1	1021.2	1022.2	1023.2	1024.2	1025.1
Rechargeable	No					

Pic.	Type	System	Voltage (V)	Capacity (mAh)	Art. No.	Pack Qty.	€
(1)	Lady/ LR 1	Alkaline manga-nese	1,5	800	**CH38.1**	1 unit(s)	3,80
(2)	Micro/ AAA	Alkaline manga-nese	1,5	1,200	**1021.2**	4 unit(s)	6,40
(3)	AA	Alkaline manga-nese	1,5	2,600	**1022.2**	4 unit(s)	6,15
(4)	Baby/C	Alkaline manga-nese	1,5	7,800	**1023.2**	2 unit(s)	4,95
(5)	Mono/D	Alkaline manga-nese	1,5	16,500	**1024.2**	2 unit(s)	6,35
(6)	E-Block	Alkaline manga-nese	9,0	550	**1025.1**	1 unit(s)	4,95



Button cell

Varta

Type	System	Voltage (V)	Capacity (mAh)	Art. No.	Pack Qty.	€
CR 1220	Lithium	3,0	35	**CH41.1**	1 unit(s)	5,35
CR 1225	Lithium	3,0	48	**AEC3.1**	1 unit(s)	5,35
CR 1616	Lithium	3,0	55	**KE59.1**	1 unit(s)	5,35
CR 1620	Lithium	3,0	60	**CH42.1**	1 unit(s)	5,35
CR 2016	Lithium	3,0	90	**CH43.1**	1 unit(s)	5,35
CR 2025	Lithium	3,0	170	**CH14.1**	1 unit(s)	5,35
CR 2032	Lithium	3,0	230	**P858.1**	1 unit(s)	5,35
CR 2430	Lithium	3,0	280	**EY56.1**	1 unit(s)	5,35
CR 2450	Lithium	3,0	570	**CXC6.1**	1 unit(s)	5,35
V 10 GA	Alkaline manga-nese	1,5	50	**CH39.1**	1 unit(s)	5,35
V 13 GA	Alkaline manga-nese	1,5	125	**1938.1**	1 unit(s)	4,95
V301	Silver	1,55	115	**CH40.1**	1 unit(s)	5,35
V357	Silver	1,55	143	**1AN1.1**	1 unit(s)	5,35

Rayovac

Type	System	Voltage (V)	Capacity (mAh)	Art. No.	Pack Qty.	€
V 675 AT	Zinc-air	1,4	630	**9800.2**	6 unit(s)	8,55



Battery rechargeable

Varta.

Environmentally friendly Ni-MH batteries. No memory effect. Constant, consistently recurring capacity level.

Technical specifications:

Art. No.	T409.2	1301.2	HT32.1	1302.2	X228.2	1304.1
Rechargeable	Yes					

Pic.	Type	Voltage (V)	Capacity (mAh)	Art. No.	Pack Qty.	€
(1)	Micro/AAA	1,2	800	**T409.2**	4 unit(s)	16,10
(2)	Mignon/AA	1,2	2,100	**1301.2**	4 unit(s)	16,10
(3)	Mignon/AA	1,2	2,400	**HT32.1**	4 unit(s)	21,50
(4)	Baby/C	1,2	3,000	**1302.2**	2 unit(s)	18,25
(5)	Mono/D	1,2	3,000	**X228.2**	2 unit(s)	17,20
(6)	E-Block	8,4	200	**1304.1**	1 unit(s)	15,00



Battery charger LCD Universal charger

Varta.

Suitable for two or four Ni-MH batteries of sizes AA, AAA, C, D (charging in pairs), 1 x 9 V.

- LCD indicator (blue) for charge status
- Safety features: Minus Delta U-shut-off, timer, alkaline detection
- Charging times: Rechargeable batteries 4 hours, external devices 1.5–5 hours
- Four charging bays for charging batteries

Delivery incl. external mains adapter (100–240 V). Supplied without rechargeable batteries, please order separately.

W x D x H (mm)	Art. No.	Pack Qty.	€
111 x 70 x 187	**EXP0.1**	1 unit(s)	24,70



Measuring Instruments

Airflow measuring devices 1194
Air quality measuring devices 1138
Balances, analytical and precision balances 1200
Counters 1198
Data loggers
(humidity, temperature, pressure) 1113
Densimeters 1140
Hygrometers 1227
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(pH, conductivity, etc.) 1188
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sound level meter, tachometer) 1197
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Thermometers, analogue 1087
Thermometers, digital 1095
Turbidimeters 1154
Watches
(time switches, timers, stopwatches, wall clocks) . . 1234
Weather stations 1136

Temperature measurement



Colour-change chalk irreversible

ROTH SELECTION.

For temperature monitoring by colour change on devices and apparatus. Adhere to paper, rubber, textiles, plastic, glass, iron and steel. Can also be used in processing aluminium, enamel processing and smelting. Colour changes when the temperature is reached within 1–2 seconds.

Temperature (°C)	Temperature accuracy	Art. No.	Pack Qty.	€
120	±5 °C	**9307.1**	1 unit(s)	22,10
245	±5 °C	**9312.1**	1 unit(s)	22,10
600	±5 °C	**9547.1**	1 unit(s)	22,10



Temperature measuring strips irreversible

ROTH SELECTION.

Self-adhesive. Show that the specific temperature value has been reached on surfaces. The light indicator points become dark as soon as the required temperature value is reached. Dimensions per measuring strip: L 48 x 18 mm. Packaged in bags with 10 strips each.

Temperature (°C)	Temperature accuracy	Art. No.	Pack Qty.	€
40-43-46-49-54-60-66-71	±1 °C	**1890.1**	10 unit(s)	19,90
77-82-88-93-99-104-110-116	±1 °C (77–99 °C), ±1.5 °C (100–116 °C)	**2077.1**	10 unit(s)	19,90
121-127-132-138-143-149-154-160	±1.5 °C (121–154 °C), ±2.6 °C (160 °C)	**2079.1**	10 unit(s)	19,90
166-171-177-182-188-193-199-204	±(1 °C + 1 % of the measured value)	**5231.1**	10 unit(s)	21,05
210-216-224-232-241-249-254-260	±(1 °C + 1 % of the measured value)	**5232.1**	10 unit(s)	21,05



Temperature measuring point irreversible

ROTH SELECTION.

Self-adhesive, temperature stable foil with heat-sensitive elements for temperature monitoring and testing. Irreversible colour change of light grey or yellow field to black occurs within one second as soon as the required temperature is reached. Dimensions per measuring point: L 15 x W 14 mm.
1 sheet with 50 measuring points.

Temperature (°C)	Temperature accuracy	Art. No.	Pack Qty.	€
65	±1,5 °C	**N276.1**	50 unit(s)	31,10
77	±1,5 °C	**N278.1**	50 unit(s)	31,10
82	±1,5 °C	**N279.1**	50 unit(s)	31,10
121	±1,5 °C	**N286.1**	50 unit(s)	31,10



Temperature indicators mini irreversible

ROTH SELECTION.

Self-adhesive, temperature stable foil with heat-sensitive elements for temperature monitoring and testing. Particularly suited to temperature checking on small objects. An irreversible colour change takes place within two seconds as soon as the required temperature is reached.
One sheet with 10 indicators (ø 15 mm per measuring point).

Temperature (°C)	Temperature accuracy	Art. No.	Pack Qty.	€
88-93-99-104-110	±1,5 °C	**AY04.1**	10 unit(s)	41,10
116-121-127-132-138	±1,5 °C	**AY05.1**	10 unit(s)	41,10
143-149-154-160-166	±2 °C (143 – 154 °C), ±(1 °C + 1 % of reading) from 160 °C	**AY06.1**	10 unit(s)	41,10

Thermometers, analogue

Low temperature thermometer

ROTH SELECTION.

With bimetallic pointer. With hanger eyelet.



Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Ø (mm)	Art. No.	Pack Qty.	€
-50 to +50	1	±2	70	**H717.1**	1 unit(s)	7,70

Soil thermometer

ROTH SELECTION.

With sharp sensor. Suitable for determining the temperature in lower layers. Sensor ø 3 mm, Sensor length 200 mm. ø Head 40 mm.



Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Art. No.	Pack Qty.	€
-20 to +60	1	±2	**E755.1**	1 unit(s)	18,60

Maximum/minimum thermometer bimetal

ROTH SELECTION.

Plastic housing. Adjustable red markers indicate the Max/Min temperatures. Reset by turning the dial. With hanger eyelet.



Temperature measuring range (°C)	Graduation (°C)	Depth (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
-50 to +50	1	35	95	135	**LX81.1**	1 unit(s)	16,85

Maximum/minimum thermometer environmentally friendly

ROTH SELECTION.

With mercury-free thermometer fluid (red). Metal markers indicate the max./min. temperatures. Reset by push-button. With hanger eyelet.



Pic.	Temperature measuring range (°C)	Graduation (°C)	Housing material	Fill fluid	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
(1)	-30 to +50	1	Plastic	red	79	230	**KA34.1**	1 unit(s)	11,65
(2)	-30 to +50	1	Aluminium	red	50	220	**CK40.1**	1 unit(s)	18,30

Thermometers, analogue

Thermometers for autoclaves

ROTH SELECTION. Autoclavable: Yes.

For monitoring the temperature during autoclaving.

- Max. temperature is indicated by the moving red marker
- Manual resetting by turn screw
- Bimetallic thermometer with housing and removable base made of stainless steel, dust cap made of silicone rubber
- Waterproof glass window, pressure resistant



A 121 °C

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Housing material	Ø (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
-20 to +150	2	±1,5	Stainless steel	81	85	95	**CXP0.1**	1 unit(s)	66,55

Plastic thermometer

ROTH SELECTION. Material: Plastic.

Fill fluid: Special filling. Calibrated fully immersed: Yes



Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-50 to +50	1	±2	200	20	blue	**H718.1**	1 unit(s)	7,10

All-purpose thermometer

ROTH SELECTION.

- Rod type
- Fill fluid: Special filling
- Capillary form: Coated, white
- In yellow plastic sleeve with clip.



Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-10 to +100	1	±2	165	10	red	**Y932.1**	1 unit(s)	8,50
-30 to +50	1	±2	165	10	red	**Y931.1**	1 unit(s)	8,50

Stirring thermometer

ROTH SELECTION.

- With reinforced vessel base for stirring in beakers, etc.
- Fill fluid: Special filling, biodegradable
- Capillary form: Uncoated
- Calibrated fully immersed: Yes



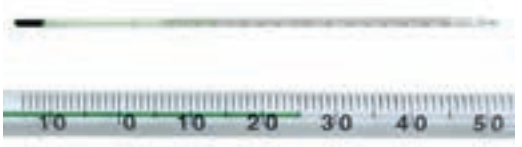
Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-35 to +50	1	±3 – 4	260	7 – 8	red	**PE82.1**	1 unit(s)	15,90
-20 to +110	1	±3 – 4	260	7 – 8	red	**PE85.1**	1 unit(s)	14,25
-10 to +60	1	±3 – 4	200	7 – 8	red	**PE83.1**	1 unit(s)	13,30
-10 to +110	1	±3 – 4	260	7 – 8	red	**PE84.1**	1 unit(s)	14,25
-10 to +150	1	±3 – 4	260	7 – 8	red	**PE86.1**	1 unit(s)	14,85
-10 to +200	1	±3 – 4	300	7 – 8	red	**PE87.1**	1 unit(s)	19,85

Thermometers, analogue

Glass thermometer with green special filling

ROTH SELECTION.

- Rod type, upper with ring
- Fill fluid: Special filling, biodegradable
- Capillary form: Coated, white



Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Immersion depth (mm)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-10 to +110	1	±3	76	300	5,5 – 7	green	**ET02.1**	1 unit(s)	19,20
-10 to +150	1	±3	76	300	5,5 – 7	green	**ET04.1**	1 unit(s)	21,15
-10 to +250	2	±3	76	300	5,5 – 7	green	**ET05.1**	1 unit(s)	30,60
-10 to +360	2	±3	76	300	5,5 – 7	green	**ET06.1**	1 unit(s)	34,75
-10 to +110	0,5	±3	76	300	5,5 – 7	green	**ET03.1**	1 unit(s)	21,15

Glass thermometer with temperature limiter

ROTH SELECTION.

For monitoring cooling units and temperature control units.

- Fill fluid: Special filling
- With safety coating (PTFE/FEP)
- Supplied in plastic bottle containing filling medium for precise temperature determination
- Can be mounted using magnets (exception: YE26.1)



Bottle filling medium: Sand

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
-90 to +20	1,0	±2,0	180	red	**YE17.1**	1 unit(s)	91,45

Bottle fill medium: Ethylene glycol mixture

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
-25 to -5	0,1	±0,2	235	blue	**YE18.1**	1 unit(s)	115,80
-30 to 0	0,5	±1,0	130	red	**YE19.1**	1 unit(s)	77,90
-2 to +10	0,1	±0,2	230	blue	**YE20.1**	1 unit(s)	97,40
-5 to +15	0,5	±1,0	130	red	**YE21.1**	1 unit(s)	69,55
+15 to +30	0,1	±0,2	180	blue	**YE22.1**	1 unit(s)	105,05
+18 to +50	0,5	±1,0	130	red	**YE23.1**	1 unit(s)	74,95
+25 to +45	0,1	±0,2	190	blue	**YE24.1**	1 unit(s)	111,65

Bottle filling medium: Vermiculite

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
+20 to +130	1,0	±2,0	135	red	**YE25.1**	1 unit(s)	78,60
+35 to +200	1,0	±2,0 °C (>100 °C ±3,0)	180	red	**YE26.1**	1 unit(s)	219,30

Thermometers, analogue

Glass thermometer standard

ROTH SELECTION.

For day-to-day laboratory use.

- Rod type
- Fill fluid: Special filling
- Calibrated fully immersed: Yes



Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-35 to +50	1	±3	300	5,5 – 7	red	**E740.1**	1 unit(s)	13,75
-20 to +110	1	±3	300	5,5 – 7	red	**E742.1**	1 unit(s)	13,75
-20 to +150	1	±3	300	5,5 – 7	red	**E743.1**	1 unit(s)	13,80
-10 to +60	1	±3	200	5,5 – 7	red	**E741.1**	1 unit(s)	13,80
-10 to +200	1	±3	300	5,5 – 7	red	**E744.1**	1 unit(s)	13,80
-10 to +250	1	±3	300	5,5 – 7	blue	**E745.1**	1 unit(s)	36,20

Precision thermometer with high accuracy

ROTH SELECTION.

- Enclosed type
- Fill fluid: Special filling
- Capillary form: Uncoated, prismatic
- Calibrated fully immersed: Yes



Standard

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-10 to +50	0,5	±0,5	220	8 – 10	blue	**HKX4.1**	1 unit(s)	65,80
-10 to +100	0,5	±0,5	270	8 – 10	blue	**HKX5.1**	1 unit(s)	74,80
-10 to +150	0,5	±0,5	350	8 – 10	blue	**HKX6.1**	1 unit(s)	89,40
-10 to +200	0,5	±0,5	450	8 – 10	blue	**HKX7.1**	1 unit(s)	97,95
-5 to +50	0,2	±0,3	350	8 – 10	blue	**HKX8.1**	1 unit(s)	75,90
-5 to +100	0,2	±0,3	420	8 – 10	blue	**HKX9.1**	1 unit(s)	105,35
-5 to +201	0,2	±0,4	550	8 – 10	blue	**HKY0.1**	1 unit(s)	191,35
-10 to +50	0,1	±0,2	420	8 – 10	blue	**HKY1.1**	1 unit(s)	111,75
0 to +100	0,1	±0,2	550	8 – 10	blue	**HKY2.1**	1 unit(s)	181,70

With FEP safety coating

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-10 to +50	0,5	±0,5	220	8 – 10	blue	**HKY3.1**	1 unit(s)	92,50
-10 to +100	0,5	±0,5	270	8 – 10	blue	**HKY4.1**	1 unit(s)	113,95
-10 to +150	0,5	±0,5	350	8 – 10	blue	**HKY5.1**	1 unit(s)	135,10
-10 to +200	0,5	±0,5	450	8 – 10	blue	**HKY6.1**	1 unit(s)	148,20
-5 to +50	0,2	±0,3	350	8 – 10	blue	**HKY7.1**	1 unit(s)	121,45
-5 to +100	0,2	±0,3	420	8 – 10	blue	**HKY8.1**	1 unit(s)	156,25
-5 to +201	0,2	±0,4	550	8 – 10	blue	**HKY9.1**	1 unit(s)	248,35
-10 to +50	0,1	±0,2	420	8 – 10	blue	**HLA0.1**	1 unit(s)	160,45
0 to +100	0,1	±0,2	550	8 – 10	blue	**HLA1.1**	1 unit(s)	241,90

Thermometers, analogue

Glass thermometer calibrated

ROTH SELECTION.

With official calibration certificate.

- Enclosed type
- Fill fluid: Special filling
- Capillary form: Uncoated, prismatic
- Calibrated fully immersed: Yes



Temperature measuring range (°C)	Graduation (°C)	Total length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
0 to 200	1	300	8 – 9	red	**HXC3.1**	1 unit(s)	255,85
0 to +50	0,5	220	8 – 9	red	**HXC1.1**	1 unit(s)	193,50
0 to +100	0,5	240	8 – 9	red	**HXC2.1**	1 unit(s)	204,25

Low-temperature thermometer

ROTH SELECTION.

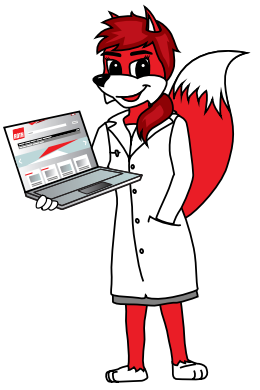
Enclosed type. Calibrated fully immersed: Yes



Version	Temperature measuring range (°C)	Graduation (°C)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
Capillary form: Blue luminous, prismatic	-150 to +30	1	300	Pentane	**X576.1**	1 unit(s)	71,00
Capillary form: Uncoated, prismatic	-100 to +30	1	300	Alcohol	**X578.1**	1 unit(s)	51,25
Capillary form: Uncoated, prismatic	-100 to +100	1	300	Alcohol	**X577.1**	1 unit(s)	69,80

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Thermometers, analogue

Glass thermometer with red special filling

ROTH SELECTION.

Calibrated fully immersed: Yes



Rod type

Capillary form: Coated, round, yellow

Temperature measuring range (°C)	Graduation (°C)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-10 to +100	1	305	5 – 7	red	**ALH6.1**	1 unit(s)	26,50
-10 to +150	1	305	5 – 7	red	**ALH7.1**	1 unit(s)	29,00
-10 to +200	1	350	5 – 7	red	**ALH8.1**	1 unit(s)	39,85
-10 to +50	0,5	220	5 – 7	red	**ALH9.1**	1 unit(s)	29,75
-10 to +100	0,5	270	5 – 7	red	**ALK0.1**	1 unit(s)	32,30
-10 to +150	0,5	350	5 – 7	red	**ALK1.1**	1 unit(s)	55,40
-5 to +50	0,2	350	5 – 7	red	**ALK2.1**	1 unit(s)	35,00
-5 to +100	0,2	420	5 – 7	red	**ALK3.1**	1 unit(s)	42,85
-1 to +200	0,2	610	5 – 7	red	**ALK4.1**	1 unit(s)	130,05
-10 to +30	0,1	300	5 – 7	red	**ALK5.1**	1 unit(s)	68,30
-10 to +50	0,1	420	5 – 7	red	**ALK6.1**	1 unit(s)	51,50
-1 to +101	0,1	610	5 – 7	red	**ALK7.1**	1 unit(s)	122,50

Enclosed type, with factory test certificate

Capillary form: Uncoated, prismatic

Temperature measuring range (°C)	Graduation (°C)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-10 to +100	1	305	8 – 10	red	**ALK8.1**	1 unit(s)	179,55
-10 to +150	1	305	8 – 10	red	**ALK9.1**	1 unit(s)	183,85
-10 to +200	1	350	8 – 10	red	**ALL0.1**	1 unit(s)	196,75
-10 to +50	0,5	220	8 – 10	red	**ALL1.1**	1 unit(s)	182,75
-10 to +100	0,5	270	8 – 10	red	**ALL2.1**	1 unit(s)	195,65
-10 to +150	0,5	350	8 – 10	red	**ALL3.1**	1 unit(s)	204,25
-10 to +200	0,5	450	8 – 10	red	**ALL4.1**	1 unit(s)	218,25
-5 to +50	0,2	350	8 – 10	red	**ALL5.1**	1 unit(s)	190,30
-5 to +100	0,2	420	8 – 10	red	**ALL6.1**	1 unit(s)	218,25
-10 to +30	0,1	300	8 – 10	red	**ALL7.1**	1 unit(s)	218,25
-10 to +50	0,1	420	8 – 10	red	**ALL8.1**	1 unit(s)	218,25
0 to +100	0,1	550	8 – 10	red	**ALL9.1**	1 unit(s)	280,60

Glass thermometer with DAkkS calibration certificate

ROTH SELECTION.

- Enclosed type
- Fill fluid: red
- Capillary form: Uncoated, prismatic
- Calibrated fully immersed: Yes



Temperature measuring range (°C)	Graduation (°C)	Length (mm)	ThermometerØ (mm)	Fill fluid	Art. No.	Pack Qty.	€
-10 to +100	1	305	8 – 10	red	**CKX9.1**	1 unit(s)	256,95
-10 to +150	1	305	8 – 10	red	**CKY0.1**	1 unit(s)	241,90
-10 to +200	1	350	8 – 10	red	**CKY1.1**	1 unit(s)	258,00
-10 to +50	0,5	220	8 – 10	red	**CKX7.1**	1 unit(s)	246,20
-10 to +100	0,5	270	8 – 10	red	**CKX8.1**	1 unit(s)	316,05

Thermometers, analogue

Precision thermometer extremely high accuracy

ROTH SELECTION.

- Rod type
- Fill fluid: Special filling
- Capillary form: Coated, white, round



Standard. Calibrated fully immersed: Yes

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
-38 to +2	0,1	±0,1	401	blue	**ANK4.1**	1 unit(s)	191,35
-20 to +102	0,2	±0,2	435	blue	**ANK5.1**	1 unit(s)	191,35
-7 to +105	0,5	±0,5	300	blue	**ANK7.1**	1 unit(s)	103,40
+20 to +100	0,2	±0,2	325	blue	**ANK8.1**	1 unit(s)	135,10
+30 to +200	0,5	±0,3	415	blue	**ANK9.1**	1 unit(s)	147,15

Standard, with immersion depth

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Immersion depth (mm)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
-20 to +150	1,0	±0,5	76	335	blue	**ANK6.1**	1 unit(s)	105,35

With DAkkS calibration certificate. Calibrated fully immersed: Yes

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
-20 to +102	0,2	±0,2	435	blue	**ANL0.1**	1 unit(s)	398,85
+30 to +200	0,5	±0,3	415	blue	**ANL2.1**	1 unit(s)	377,35

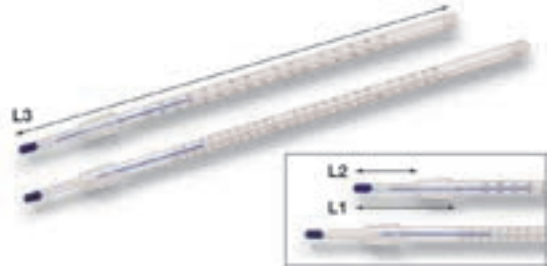
With DAkkS calibration certificate and immersion depth

Temperature measuring range (°C)	Graduation (°C)	Accuracy (°C)	Immersion depth (mm)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
-20 to +150	1,0	±0,5	76	335	blue	**ANL1.1**	1 unit(s)	332,20

Ground joint thermometers compliant with DIN 12784

ROTH SELECTION.

- With ground glass joint NS 14.5/23
- Enclosed type
- Fill fluid: Special filling
- Capillary form: Uncoated, prismatic
- ø Upper 11 mm ±0.5 mm.



L1: Installation length
L2: Insertion length
L3: Length

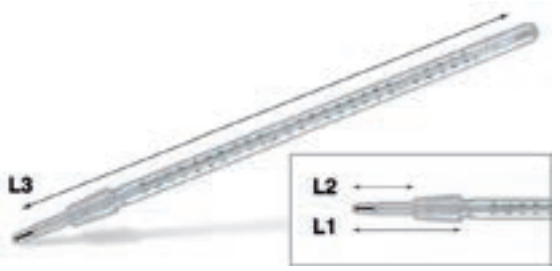
Temperature measuring range (°C)	Graduation (°C)	Installed length (mm)	Immersion depth (mm)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
-10 to +150	1	68	45	318	blue	**ALN0.1**	1 unit(s)	57,35
-10 to +150	1	75	52	325	blue	**ALN1.1**	1 unit(s)	57,65
-10 to +150	1	95	72	345	blue	**ALN2.1**	1 unit(s)	58,10
-10 to +150	1	125	102	375	blue	**ALN3.1**	1 unit(s)	63,20
-10 to +250	1	68	45	368	blue	**ALN4.1**	1 unit(s)	69,35
-10 to +250	1	75	52	375	blue	**ALN5.1**	1 unit(s)	70,00
-10 to +250	1	95	72	395	blue	**ALN6.1**	1 unit(s)	82,65
-10 to +250	1	125	102	425	blue	**ALN7.1**	1 unit(s)	84,85

Thermometers, analogue

Ground joint thermometers

ROTH SELECTION.

With ground glass joint NS 14/23



L1: Installation length
L2: Insertion length
L3: Length

Temperature measuring range (°C)	Graduation (°C)	Installed length (mm)	Immersion depth (mm)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
0 to +250	1	55	32	355	red	**EPY4.1**	1 unit(s)	91,40
0 to +250	1	70	47	370	red	**EPY5.1**	1 unit(s)	91,40
0 to +250	1	85	62	385	red	**EPY6.1**	1 unit(s)	91,40
0 to +150	0,5	55	32	355	red	**EPY1.1**	1 unit(s)	86,55
0 to +150	0,5	70	47	370	red	**EPY2.1**	1 unit(s)	86,55
0 to +150	0,5	85	62	385	red	**EPY3.1**	1 unit(s)	86,55

Straight stem thermometers compliant with DIN 12781

ROTH SELECTION.

- Enclosed type
- Fill fluid: Special filling
- Capillary form: Uncoated, prismatic
- ø Upper 11 mm±0.5 mm, ø Lower 8 mm ±0.5 mm



L1: Installation length
L2: Insertion length
L3: Length

Temperature measuring range (°C)	Graduation (°C)	Installed length (mm)	Immersion depth (mm)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
-30 to +50	1	100	80	375	red	**ALP0.1**	1 unit(s)	64,65
-20 to +150	1	150	130	425	blue	**ALP1.1**	1 unit(s)	72,70
-20 to +150	1	250	230	525	blue	**ALP2.1**	1 unit(s)	65,95
-20 to +150	1	300	280	575	blue	**ALP3.1**	1 unit(s)	87,20
-20 to +150	1	400	380	675	blue	**ALP4.1**	1 unit(s)	92,35
-20 to +250	1	100	80	375	blue	**ALP5.1**	1 unit(s)	78,00
-20 to +250	1	150	130	425	blue	**ALP6.1**	1 unit(s)	79,05
-20 to +250	1	200	180	475	blue	**ALP7.1**	1 unit(s)	80,70
-20 to +250	1	300	280	575	blue	**ALP8.1**	1 unit(s)	90,55
-20 to +250	1	400	380	675	blue	**ALP9.1**	1 unit(s)	94,95

Straight stem thermometers

ROTH SELECTION.

- Similar to DIN 16178
- With flat scale
- Fill fluid: Special filling
- Capillary form: Uncoated, prismatic
- ø Upper 20.5 mm ±1 mm, ø Lower 8 mm ±0.5 mm



L1: Installation length
L2: Insertion length
L3: Length

Temperature measuring range (°C)	Graduation (°C)	Installed length (mm)	Immersion depth (mm)	Length (mm)	Fill fluid	Art. No.	Pack Qty.	€
-30 to +50	1	105	89	340	red	**ALT0.1**	1 unit(s)	56,50
0 to +160	2	165	149	400	red	**ALT1.1**	1 unit(s)	45,80
0 to +160	2	255	239	490	red	**ALT2.1**	1 unit(s)	53,00
0 to +200	2	105	89	340	red	**ALT3.1**	1 unit(s)	57,30

Thermometers, digital



Remote thermometer Ratio

TFA-Dostmann.

Cordless transfer of outside temperature from up to three different transmitters. Displays inside temperature. Also with radio-controlled clock.

Technical specifications:

Art. No.	LP27.1
Type	Ratio
Parameters	Temperature
Temperature measuring range	-40 to +65 °C
Temperature measuring range, internal	0 to +60 °C
Ext. temp. measuring range	-40 to +65 °C
Resolution	0.1 °C
Accuracy	±1 °C
Radio range outdoors	100 m
Min./max. function	Yes
L x W x H	67 x 28 x 113 mm
Power supply	Receiver: 2x battery Mignon/AA 1.5 V, Transmitter: 2x battery Micro/AAA 1.5 V

Delivery incl. 1 receiver and one transmitter (L 32 x W 15 x H 86 mm). Without batteries, please order separately.

Version	Art. No.	Pack Qty.	€
Remote thermometer	**LP27.1**	1 unit(s)	23,40



Thermometers solar Eco, basic

TFA-Dostmann.

For displaying the current inside temperature, with save function for the min./max. value. With integrated, replaceable back-up battery in case the power supply from the solar panel is not sufficient. With stands and system for hanging.

Technical specifications:

Art. No.	KT83.1
Type	Eco, basic
Parameters	Temperature
Temperature measuring range	-10 to +50 °C
Resolution	0.1 °C
Accuracy	±1 °C
Min./max. function	Yes
L x W x H	90 x 20 x 90 mm
Weight	100 g
Power supply	Solar panel and 1.5 V, V 13 GA button cell battery

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Thermomètre solaire	**KT83.1**	1 unit(s)	13,95

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Thermometers, digital



Inside/outside thermometer ROTILABO®

ROTH SELECTION.

With min./max. function. Outside sensor with approx. 1.5 m cable.

Technical specifications:

Art. No.	**YE41.1**
Type	ROTILABO®
Parameters	Temperature
Temperature measuring range	-40 to +70 °C
Temperature measuring range, internal	-10 to +50 °C
Ext. temp. measuring range	-40 to +70 °C
Resolution	0.1 °C
Accuracy	±1.0 °C (0 to +50 °C) ±2 °C (outside)
Min./max. function	Yes
Cable length	1.5 m
L x W x H	58 x 12 x 68 mm
Weight	37 g
Power supply	Button cell battery CR 2032 (3 V)

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Inside/outside thermometer	**YE41.1**	1 unit(s)	13,60



Inside/outside thermometer Thermo

TFA-Dostmann.

- Simultaneously displays inside and outside temperature
- Memory function for min./max. temperature values (inside and outside)
- Reset button for memory function
- Outside sensor with 3 m cable
- Table-top support, wall mount

Technical specifications:

Art. No.	**AN34.1**
Type	Thermo
Parameters	Temperature
Temperature measuring range	-50 to +60 °C
Temperature measuring range, internal	-10 to +50 °C
Ext. temp. measuring range	-50 to +60 °C
Resolution	0.1 °C
Accuracy	±1 °C
Min./max. function	Yes
Cable length	3 m
Weight	105 g
Power supply	1.5 V AA battery

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Inside/outside thermometer	**AN34.1**	1 unit(s)	16,05

Thermometers, digital



Inside/outside thermometer with limit alarm and min./max. function

TFA-Dostmann.

- Simultaneous display of inside and outside temperature
- Save function for min./max. value
- **Outside temperature alarm with adjustable upper and lower value**(interval alarm sounds as long as the set temperature is exceeded or not met)
- Outside sensor with 2.9 m cable
- Can be wall-mounted or used on desk

Technical specifications:

Art. No.	**HA34.1**
Parameters	Temperature
Temperature measuring range	-50 to +70 °C
Temperature measuring range, internal	-10 to +50 °C
Ext. temp. measuring range	-50 to +70 °C
Resolution	0.1 °C
Accuracy	±1 °C (0 to +50 °C) ±2 °C (outside)
Min./max. function	Yes
Cable length	2.9 m
L x W x H	70 x 20 x 110 mm
Weight	130 g
Power supply	Battery Micro/AAA 1.5 V

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Inside/outside thermometer	**HA34.1**	1 unit(s)	16,90



Inside/outside thermometer standard

TFA-Dostmann.

With large display and min./max. function. Can be wall- or table-mounted. Outside sensor with approx. 3 m cable.

Technical specifications:

Art. No.	**CH86.1**
Parameters	Temperature
Temperature measuring range	-50 to +70 °C
Temperature measuring range, internal	-10 to +50 °C
Ext. temp. measuring range	-50 to +70 °C
Resolution	0.1 °C
Accuracy	±1 °C
Min./max. function	Yes
Cable length	3 m
L x W x H	95 x 20 x 110 mm
Weight	180 g
Power supply	Battery Micro/AAA 1.5 V

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Inside/outside thermometer	**CH86.1**	1 unit(s)	21,00



Inside/outside thermometer with min./max. function

TFA-Dostmann.

- For displaying current, maximum and minimum temperatures
- For inside and outside, splash-proof
- With reset button to reset the max./min. value
- For wall mounting

Technical specifications:

Art. No.	**CK39.1**
Parameters	Temperature
Temperature measuring range	-20 to +50 °C
Resolution	0.1 °C
Accuracy	±1 °C
Min./max. function	Yes
L x W x H	75 x 44 x 115 mm
Weight	161 g
Power supply	Battery Mignon/AA 1.5 V

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Inside/outside thermometer	**CK39.1**	1 unit(s)	20,55

Thermometers, digital



Thermometers Thermo-Timer

TFA-Dostmann.

For measuring temperature. **Alarm when a specific temperature is reached** (upper and lower threshold value can be set).

- Timer function (up to 24 hours), audible signal at “zero”
- Stainless steel probe (L 160 x Ø 4 mm) with 1 m heat resistant cable
- Clock with 12- or 24-hour display
- Display can be used on desktop

Technical specifications:

Art. No.	X256.1
Type	Thermo-Timer
Parameters	Temperature
Temperature measuring range	-10 to +200 °C
Resolution	1 °C
Accuracy	±1 °C
Min./max. function	Yes
Cable length	1 m
L x W x H	68 x 22 x 121 mm
Power supply	Battery Micro/AAA 1.5 V

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Thermometers	**X256.1**	1 unit(s)	28,30



Thermometers for fridges

Dostmann.

For indication of current temperature in rooms, refrigerators etc. With fold-out holder for attaching to grids etc. Includes magnet for affixing. Refrigerator symbol is displayed at temperatures between +4 and +8 °C.

Technical specifications:

Art. No.	TA56.1
Parameters	Temperature
Temperature measuring range	-20 to +50 °C
Resolution	0.1 °C
Accuracy	±1 °C
L x W x H	68 x 14 x 43 mm
Power supply	CR 2025 button cell battery (3 V)

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Thermometers for refrigerators	**TA56.1**	1 unit(s)	9,90



Thermometers for refrigerators and freezers

TFA-Dostmann.

For displaying current, maximum and minimum temperatures. With stand and frame for attachment to surfaces or behind glass (display cabinet etc.) by means of self-adhesive film.

Technical specifications:

Art. No.	PE75.1
Parameters	Temperature
Temperature measuring range	-30 to +50 °C
Resolution	0.1 °C
Accuracy	±1 °C
Min./max. function	Yes
L x W x H	91 x 13 x 72 mm
Weight	66 g
Power supply	Button cell battery CR 2032 (3 V)

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Thermometer for refrigerators and freezers	**PE75.1**	1 unit(s)	16,25



Inside/outside thermometer officially calibrated

Amarell.

With temperature warning and min/max value monitoring. Simultaneous display of current temperature and min/max values. Outdoor sensor with approx. 3 m of cable. Use as a desktop unit or mount to wall using fastening magnets.

Technical specifications:

Art. No.	KEC6.1
Parameters	Temperature
Temperature measuring range	-50.0 to +70.0 °C
Temperature measuring range, internal	0.0 to +50.0 °C
Ext. temp. measuring range	-50.0 to +70.0 °C
Resolution	0.1 °C
Accuracy	±1 °C (-20 to +70 °C)
Min./max. function	Yes
L x W x H	65 x 23 x 67 mm
Power supply	V 13 GA (1.5 V) button cell battery

Delivery incl. official calibration certificate with a test point at +4 °C and 1.5 V cell battery.

Version	Art. No.	Pack Qty.	€
Inside/outside thermometer	**KEC6.1**	1 unit(s)	241,90

Thermometers, digital



Temperature limiter for thermometers

Dostmann.

Reference bodies for constant temperature measurement in fridges. Prevents large temperature variations, e.g. due to frequent opening of the fridge door. The sensor is inserted into one of the custom-fitting holes and fixed with a screw. The reference object acts as a buffer and provides a homogeneous temperature distribution, because mass (and not air) is measured.
Suitable for sensors with Ø 3.5 mm, 4.2 mm and 5.0 mm.

Technical specifications:

Art. No.	PT43.1
L x W x H	60 x 25 x 25 mm

Version	Art. No.	Pack Qty.	€
Temperature limiter	**PT43.1**	1 unit(s)	24,05



Thermometers with factory certificate

Ludwig Schneider.

- Calibrated at -10 °C and +40 °C
- High measuring precision
- Min./max. measured value storage with real time and date
- Limit alarm, audible and visual
- Storage of last threshold violation
- External temperature sensor, cable length 3 m
- For exact temperature measurements with temperature limiter (plastic bottle (Ø 19.5 x H 40 mm) filled with ethylene glycol)

Technical specifications:

Art. No.	HAN2.1
Parameters	Temperature
Temperature measuring range	-50 to +70 °C
Resolution	0.1 °C
Accuracy	±0,3 °C
Min./max. function	Yes
Cable length	3 m
L x W x H	75 x 19 x 124 mm
Weight	170 g
Power supply	2 x AAA 1.5 V batteries

Delivery incl. temperature limiter, factory certificate and batteries.

Version	Calibration	Art. No.	Pack Qty.	€
Thermometers	With factory certificate	**HAN2.1**	1 unit(s)	212,85



Thermometers Lab series

Dostmann.

Areas of application: Measuring in fridges and freezers, storage of food and many more.

- Waterproof housing
- Min/max and hold function
- Audio and visual alarms warn when freely adjustable temperature limits are exceeded or not met
- Magnet for attachment to metal surfaces

Technical specifications:

Art. No.	KA32.1	PY66.1	KA33.1
Type	Lab Basic		Lab Pro
Parameters	Temperature		
Temperature measuring range	-40 to +70 °C		-40 to +200 °C
Resolution	0.1 °C		
Accuracy	±0.5 °C (-20 to +25 °C) ±1.0 °C (outside)		±1.0 °C (-40 to 0 °C) ±0.5 °C (0 to +50 °C) ±1.0 (+50 to +100 °C) ±1.5 °C (outside)
IP rating	65		
Cable length	3 m		1 m
Sensor: Ø x L	5 x 20 mm		3.5 x 100 mm
L x W x H	86 x 30 x 57 mm		
Weight	40 g		
Power supply	Button cell battery CR 2032 (3 V)		

Delivery incl. battery.

(1) Lab Basic

Version	Calibration	Art. No.	Pack Qty.	€
Thermometers	without	**KA32.1**	1 unit(s)	22,70
Thermometers	with factory certificate (test point at +5 °C)	**PY66.1**	1 unit(s)	34,40

(2) Lab Pro

Version	Calibration	Art. No.	Pack Qty.	€
Thermometers	without	**KA33.1**	1 unit(s)	28,90

Thermometers, digital



Penetration probe thermometer

Dostmann.

Ideal for easy temperature measurements in liquids, powdery and plastic materials. HOLD, MAX., and MIN. function. Automatic shut-off after 10 minutes.

Technical specifications:

Art. No.	**T332.1**
Parameters	Temperature
Temperature measuring range	-40 to +200 °C
Resolution	0.1 °C
Accuracy	±1 °C (-20 to +100 °C) ±1.5 °C (outside)
Min./max. function	Yes
Sensor: Ø x L	3.5 x 125 mm
L x W x H	205 x 20 x 16 mm
Power supply	V 13 GA (1.5 V) button cell battery

Delivery incl. protective case (for the sensor) and batteries.

Version	Art. No.	Pack Qty.	€
Penetration probe thermometer	**T332.1**	1 unit(s)	22,95



Penetration thermometer digital

TFA-Dostmann. Material: Plastic, Stainless steel.

For temperature measurements of liquid, paste-like and semi-solid materials. Including factory calibration certificate. According to HACCP for measuring the temperature in food. Backlit display, rotatable through 180°. Automatic shut-off after ten minutes (deactivatable).

Technical specifications:

Art. No.	**1EN2.1**
Temperature measuring range	-40 to +250 °C
Resolution	0,1 °C
Accuracy	±0.5 °C (-20 to +150 °C) ±1 °C (outside)
Min./max. function	Yes
IP rating	67
Sensor: Ø x L	1.5 x 116 mm
L x W x H	206 x 31 x 18 mm
Weight	43 g
Power supply	CR 2032 button cell battery (3 V)

Delivery incl. protective cover, factory calibration certificate and battery.

Version	Calibration	Art. No.	Pack Qty.	€
Penetration thermo-meter	with factory calibration certificate (test points at +0 °C/100 °C/150 °C)	**1EN2.1**	1 unit(s)	38,70



NEW / +

Penetration probe thermometer LABTHERM

Dostmann.

With robust penetration tip, ideal for measuring in liquids, food, etc. **Water and dust proof acc. to IP 67.** Hold, max. and min. function. Auto-Off function, switches off after 15 minutes to prolong battery life, can be deactivated. 0 °C calibration function.

Technical specifications:

Art. No.	**LN45.1**	**1LC6.1**
Type	LABTHERM	LABTHERM XL
Parameters	Temperature	
Temperature measuring range	-40 to +250 °C	
Resolution	0.1 °C	
Accuracy	±0.5 °C (-10 to +100 °C) ±1.0 °C or ±1% (outside)	
Min./max. function	Yes	
IP rating	67	
Sensor: Ø x L	3.5 x 106 mm	3.5 x 300 mm
L x W x H	220 x 25 x 20 mm	414 x 25 x 20 mm
Power supply	V13GA (1.5 V) button cell battery	

Delivery incl. protective case (for the sensor), fastening clip and batteries.

Version	Art. No.	Pack Qty.	€
Insertion thermometer	**LN45.1**	1 unit(s)	25,65
Insertion thermometer	**1LC6.1**	1 unit(s)	29,40

Thermometers, digital



Penetration probe thermometer Pro DigiTemp

Dostmann.

With display rotatable through 180° for easy readability. MAX., MIN. and HOLD function. Automatic shut-off after 5 min.

Technical specifications:

Art. No.	AK16.1
Type	Pro DigiTemp
Parameters	Temperature
Temperature measuring range	-40 to +200 °C
Resolution	0.1 °C
Accuracy	±1 °C (0 to +100 °C) ±2 °C (outside)
Min./max. function	Yes
Sensor: Ø x L	3.5 x 180 mm
Ø x L	50 x 240 mm
Power supply	V 13 GA (1.5 V) button cell battery

Delivery incl. protective case (for the sensor) and batteries.

Version	Art. No.	Pack Qty.	€
Penetration probe thermometer	**AK16.1**	1 unit(s)	23,45



Penetration probe thermometer

Amarell.

With stainless steel penetration tip. For temperature measurements in liquid and semi-solid media and solid bodies. Plastic case can be used as a clip or handle. With hold function for saving the current display.

Technical specifications:

Art. No.	A321.1
Parameters	Temperature
Temperature measuring range	-50 to +200 °C
Resolution	0.1 °C
Accuracy	±1 °C (-20 to +100 °C)
Sensor: Ø x L	3.5 x 120 mm
L x W x H	150 x 58 x 22 mm
Power supply	V 13 GA (1.5 V) button cell battery

Delivery incl. protective case (for the sensor) and batteries.

Version	Art. No.	Pack Qty.	€
Penetration probe thermometer	**A321.1**	1 unit(s)	28,35



Penetration probe thermometer ThermoJack foldable

Dostmann.

For core temperature and random measurements. Suitable for food acc. to EN 13485. Tip of the sensor is tapered to Ø 1.7 mm.

Technical specifications:

Art. No.	TA94.1
Type	ThermoJack
Parameters	Temperature
Temperature measuring range	-40 to +250 °C
Resolution	0.1 °C
Accuracy	±0.5 °C (-20 to +150 °C) ±1% or ±1 °C (outside)
IP rating	65
Sensor: Ø x L	3.5 x 70 mm
L x W x H	190 x 38 x 20 mm
Weight	43 g
Power supply	Button cell battery CR 2032 (3 V)

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Penetration probe thermometer	**TA94.1**	1 unit(s)	27,90



Fever thermometer electronic

TFA-Dostmann.

For quickly and precisely measuring body temperature. An audio alarm sounds once the measurement is complete.

Technical specifications:

Art. No.	1C5T.1
Parameters	Temperature
Temperature measuring range	+32 to +44 °C
Resolution	0.1 °C
Accuracy	±0.1 °C (+35 to +39 °C) ±0.2 °C (outside)
L x W x H	19 x 10 x 129 mm
Weight	10 g
Power supply	LR 41 button cell battery

Delivery incl. protective cover and battery.

Version	Art. No.	Pack Qty.	€
Maximum thermometer	**1C5T.1**	1 unit(s)	8,10

Thermometers, digital



Penetration probe thermometer foldable

Testo.

For core temperature and random measurements.
On/Off via folding mechanism (approx. 30°). Auto Off after 60 min.
Testo 104, also with auto-hold, hold and min./max. function.

Technical specifications:

Art. No.	PE63.1	PE64.1
Type	testo 103	testo 104
Parameters	Temperature	
Temperature measuring range	-30 to +220 °C	-50 to +250 °C
Resolution	0.1 °C	
Accuracy	±0.5 °C (-30.0 to +99.9 °C) ±1% (+100.0 to +222.0 °C)	±1.0 °C (-50.0 to -30.1 °C) ±0.5% (-30.0 to +99.9 °C) ±1% (+100.0 to +250.0 °C)
Min./max. function		Yes
IP rating	55	65
Sensor: Ø x L	3 x 75 mm	3 x 106 mm
L x W x H	189 x 35 x 19 mm	265 x 35 x 20 mm
Weight	49 g	165 g
Power supply	2 x 3 V button cell batteries CR 2032	2 x AAA 1.5 V batteries

Delivery incl. batteries.

Testo 103
Material: ABS.

Version	Art. No.	Pack Qty.	€
Penetration probe thermometer	**PE63.1**	1 unit(s)	55,90

Testo 104
Material: ABS, TPE, PC, Die-cast zinc, Stainless steel.

Version	Art. No.	Pack Qty.	€
Penetration probe thermometer	**PE64.1**	1 unit(s)	96,75



Temperature measuring device Mini-K

Dostmann.

For easy temperature measurements.
For connecting Type K thermoelement sensors with a miniature plug.

- Waterproof housing
- Auto-off function after 15 minutes to prolong battery life
- Hold display
- With magnet for attachment to metal surfaces

Technical specifications:

Art. No.	KL30.1
Type	Mini-K
Parameters	Temperature
Temperature measuring range	-64 to +1370 °C
Resolution	0.1 °C
Accuracy	±1% or 1 °C (the largest value applies)
Temperature sensor	TE type K
Connection	Miniature thermoelement
IP rating	65
L x W x H	20 x 43 x 78 mm
Weight	41 g
Power supply	Button cell battery CR 2032 (3 V)

Delivery incl. battery. Without measuring probe, please order separately.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**KL30.1**	1 unit(s)	50,00

Thermometers, digital

Temperature gauge type K with miniature thermoelement connection Testo

Dostmann.

Technical specifications:

Art. No.	KL31.1	KL32.1	KL33.1	X196.1	KL34.1	KL35.1
Parameters	Temperature					
Temperature measuring range	-40 to +400 °C	-60 to +550 °C	-100 to +1100 °C		-200 to +900 °C	-65 to +260 °C
Temperature accuracy	Class 2	Class 1				
Temperature sensor	TE type K					
Connection	Miniature thermoelement					
Ø x L	3.5 x 120 mm	1.5 x 130 mm	1.5 x 300 mm	3.0 x 300 mm	3 x 220 mm	1 x 1000 mm
Cable length	1 m					

Immersion/penetration probe

With centred tip.

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-40 to +400	1	**KL31.1**	1 unit(s)	32,85
-60 to +550	1	**KL32.1**	1 unit(s)	45,05

Immersion sensors

For measuring liquid, gaseous and powdery media.

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-100 to +1100	1	**KL33.1**	1 unit(s)	64,40
-100 to +1100	1	**X196.1**	1 unit(s)	73,30

Immersion sensor without handle

Flexible.

Delivery without handle and connection cable.

Temperature measuring range (°C)	Art. No.	Pack Qty.	€
-200 to +900	**KL34.1**	1 unit(s)	32,85

PTFE insulated thermocouple wire

Delivery without handle and connection cable.

Temperature measuring range (°C)	Art. No.	Pack Qty.	€
-65 to +260	**KL35.1**	1 unit(s)	21,50



Infrared thermometer Bodytemp 478

Dostmann.

Contactless forehead infrared thermometer for quick and precise measurement of body temperature (+32 to +42.5 °C). In Surface Mode, general surface measurements in the range of 0 to 60 °C are possible.

- Large, illuminated LCD display which simultaneously displays the measured values and stored values
- Short response time of <0.5 seconds
- Measurement distance of 5–15 cm
- Audio limit alarm (freely selectable values)
- Switchable between body and surface measurement
- Small measurement data memory
- Hold/Auto Off function

Technical specifications:

Art. No.	1C6C.1
Type	Bodytemp 478
Parameters	Temperature
Infrared measuring range	0 to +60 °C
Resolution	1 °C
Accuracy	±0.3 °C
Measuring distance : measuring spot ratio	8 : 1
Operating temperature	0 to +50 °C
L x W x H	149 x 77 x 43 mm
Weight	172 g
Power supply	2x battery Mignon/AA 1.5 V

Delivery incl. batteries.

Type	Art. No.	Pack Qty.	€
Bodytemp 478	**1C6C.1**	1 unit(s)	52,70



Temperature measuring device testo 108

Testo.

For fast, simple and precise temperature measurement, above all in the food industry (transport, storage, production, quality testing). Simple operation and handling through two self-explanatory key and a large display. Device and sensor, waterproof.

Technical specifications:

Art. No.	HHY1.1
Type	testo 108
Parameters	Temperature
Temperature measuring range	-50 to +300 °C
Resolution	0.1 °C
Accuracy	Device: ±0.5 °C (-30.0 - +70.0 °C), ±0.5 °C ±0.5% of m.v. (outside) Probe (Delivery incl.): ±0.5 °C (-40 to -20 °C), ±0.2 °C (-20 to +70 °C), ±0.5 °C (+70 to +125 °C), ±0.4 % of m.v. (+125 to +300 °C)
Temperature sensor	TE type K + T
Connection	Miniature thermoelement
Measuring cycle	2 measurements per second
IP rating	67
Sensor: Ø x L	4 x 85 mm
L x W x H	140 x 60 x 24.5 mm
Weight	150 g
Power supply	3x battery Micro/AAA 1.5 V

Delivery incl. type T standard penetration probe thermoelement, protective cover, calibration protocol and batteries.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**HHY1.1**	1 unit(s)	108,60



Temperature gauge type T for testo 108

Testo.

Technical specifications:

Art. No.	HKA0.1	HKA1.1	HKA2.1	HKA3.1
Parameters	Temperature			
Temperature measuring range	-50 to +300 °C	-50 to +250 °C	-50 to +350 °C	-50 to +250 °C
Temperature accuracy	±0.2 °C (-20 to +70 °C), Class 1 (outside)	Class 1	±0.2 °C (-20 to +70 °C), Class 1 (outside)	
Temperature sensor	TE type T			
Connection	Miniature thermoelement			
Ø x L	4 x 85 mm	1.5 x 2000 mm	4 x 125 mm	1.4 x 60 mm
Cable length	1 m	2 m	1.5 m	1.25 m

(1) Standard penetration probe

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +300	1	**HKA0.1**	1 unit(s)	36,55

(2) Air probe
With PTFE connection cable (heat resistant up to +250 °C)

Delivery incl. connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +250	2	**HKA1.1**	1 unit(s)	47,30

(3) Stainless steel penetration probe (IP 67), robust
With FEP connection cable (heat resistant up to +200 °C)

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +350	1.5	**HKA2.1**	1 unit(s)	129,00

(4) Stainless steel penetration probe, thin
With connection cable (heat resistant up to 250 °C)

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +250	1.25	**HKA3.1**	1 unit(s)	110,75

Thermometers, digital



Temperature measuring device testo 110

Testo.

Highly accurate control thermometer for connecting to NTC sensors.

- Audible alarm (threshold value freely adjustable)
- Display of min./max. values
- Display lighting
- Auto-hold automatically recognises the end value

Technical specifications:

Art. No.	EL54.1	EL59.1
Type	testo 110	
Parameters	Temperature	
Temperature measuring range	-50 to +150 °C	
Resolution	0.1 °C	
Accuracy	±0.2 °C (-25 to +150 °C) ±0.5% of m.v. (+100 to +150 °C) ±0.4 °C (outside)	
Temperature sensor	NTC	
Connection	specific	
Min./max. function	Yes	
Operating temperature	-20 to +50 °C	
Operating temperature	-50 to +150 °C	
L x W x H	64 x 40 x 182 mm	
Weight	171 g	
Power supply	Battery: E-Block 9 V	

Standard design

Delivery incl. calibration protocol and batteries. Without measuring probe (please order separately).

Version	Calibration	Art. No.	Pack Qty.	€
Temperature measuring device	without	**EL54.1**	1 unit(s)	120,40

Measuring device kit with certificate

Delivery incl. immersion/penetration probe (Art. No. EL57.1), ISO calibration certificate with three calibration points (-18 °C, 0 °C, +60 °C) and batteries.

Version	Calibration	Art. No.	Pack Qty.	€
Temperature measuring device	with ISO calibration certificate	**EL59.1**	1 unit(s)	345,10

Temperature gauge NTC for testo 110

Testo.

Technical specifications:

Art. No.	EL55.1	EL56.1	EL57.1	EL58.1
Parameters	Temperature			
Temperature measuring range	-50 to +150 °C			
Temperature accuracy	±0.2 °C (-25 to +80 °C), ±0.4 °C (outside)	±0.5% of m.v. (+100 to +150 °C), ±0.2 °C (-25 to +74.9 °C), ±0.4 °C (outside)		
Temperature sensor	NTC			
Connection	specific			
Ø x L	5 x 115 mm			4 x 125 mm
Cable length	1.2 m			

Delivery incl. handle and connection cable.

Air probe

Robust and waterproof.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +150	1.2	**EL55.1**	1 unit(s)	81,70

Surface probe

Waterproof. For flat surfaces. Widened measurement tip (Ø 6 mm).

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +150	1.2	**EL56.1**	1 unit(s)	90,30

Immersion/penetration probe

Waterproof. With bevelled tip.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +150	1.2	**EL57.1**	1 unit(s)	79,55

Food probes

Material: Stainless steel. Waterproof (IP 67), sharp, robust.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +150	1.2	**EL58.1**	1 unit(s)	141,90



Temperature measuring device testo 720

Testo.

For demanding measuring in the laboratory and in industry.

- Audible alarm (threshold value freely adjustable)
- Display of min./max. values
- Light-up display
- Ideal for laboratory work, as glass-coated temperature sensors can be connected

Technical specifications:

Art. No.	EH87.1
Type	testo 720
Parameters	Temperature
Temperature measuring range	-100 to +800 °C
Resolution	0.1 °C
Accuracy	±0.2% of m.v. (+200 to +800 °C) ±0.2 °C (outside)
Temperature sensor	NTC and Pt 100
Connection	specific
Min./max. function	Yes
Operating temperature	-20 to +50
L x W x H	64 x 40 x 182 mm
Weight	171 g
Power supply	Battery: E-Block 9 V

Delivery incl. calibration protocol and batteries. Without measuring probe (please order separately).

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**EH87.1**	1 unit(s)	196,75

Temperature gauge Pt 100 for testo 720

Testo.

Technical specifications:

Art. No.	EH88.1	EH89.1	EH90.1	EH91.1
Parameters	Temperature			
Temperature measuring range	-50 to +400 °C			
Temperature accuracy	Class A			Class B
Temperature sensor	Pt 100			
Connection	specific			
Ø x L	6 x 200 mm	4 x 125 mm	5 x 114 mm	
Cable length	1.2 m			

Delivery incl. handle and connection cable.

Laboratory probe, glass-coated
Replaceable glass tube. Resistant to aggressive media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +400	1.2	**EH88.1**	1 unit(s)	126,85

Food probes
Material: Stainless steel. Sharp, robust. Waterproof (IP 65).

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +400	1.2	**EH89.1**	1 unit(s)	153,75

Immersion/penetration probe
With bevelled tip. Waterproof.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +400	1.2	**EH90.1**	1 unit(s)	87,10

Surface probe
Widened measurement tip (Ø 9 mm). Waterproof.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +400	1.2	**EH91.1**	1 unit(s)	123,65

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Thermometers, digital



Temperature measuring device testo 925

Testo.

Robust thermometer for day-to-day measuring tasks.

- For connecting a Type K thermoelement sensor
- Audible alarm when the set value is exceeded or not met
- Display of min./max. values, hold button
- Light-up display
- **Wireless measuring data transfer possible with optional wireless sensor and wireless module**

Technical specifications:

Art. No.	**EH73.1**
Type	testo 925
Parameters	Temperature
Temperature measuring range	-50 to +1000 °C
Resolution	0.1 °C (-50 to +199.9 °C), 1 °C (outside)
Accuracy	±0.5 °C or 0.3% of m.v. (-40 to +900 °C) ±0.7 °C or 0.5% of m.v. (outside)
Temperature sensor	TE type K
Connection	Miniature thermoelement
Min./max. function	Yes
Operating temperature	-20 to +50 °C
L x W x H	64 x 40 x 182 mm
Weight	171 g
Power supply	Battery: E-Block 9 V

Delivery incl. calibration protocol and batteries. Without measuring probe (please order separately).

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**EH73.1**	1 unit(s)	107,50



Temperature measuring device testo 112 with proof of conformity

Testo.

Applications:

- For official measuring by authorities, institutions and expert assessments
- For measuring the product temperature in food production facilities
- For routine measurements in day-to-day work
- For test measurements during chilled transportation

Properties:

- PTB type test
- Integrated self-testing
- If the adjustable limit values are exceeded or not met, there is an immediate audible alarm from the measuring device
- Light-up display
- Min./max. values
- Declaration of conformity for device and sensor

Note:
A new calibration law (MessEG) and new calibration regulations (MessEV) came into force in Germany on 1st January 2015. The previous initial calibration procedure has been be replaced by a new procedure, the so-called conformity assessment procedure. Instead of the certificate of calibration, a declaration of conformity is now issued by the equipment manufacturer and checked by a conformity assessment agency (e.g. Office of Weights and Measures).
Equipment can, as before, be recalibrated after two years through any Office of Weights and Measures.

Technical specifications:

Art. No.	**EH93.1**
Type	testo 112
Parameters	Temperature
Temperature measuring range	-50 to +300 °C
Resolution	0.1 °C
Accuracy	±0.2 °C (-50 to +200 °C) ±0.3 °C (outside)
Temperature sensor	NTC and Pt 100
Connection	specific
Min./max. function	Yes
Operating temperature	-20 to +50
Cable length	1.2 m
Sensor: Ø x L	5 x 115 mm
L x W x H	64 x 40 x 182 mm
Weight	171 g
Power supply	Battery: E-Block 9 V

Delivery incl. Pt 100 immersion/penetration probe with fixed cable, conformity certificate and batteries.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**EH93.1**	1 unit(s)	613,85

Thermometers, digital

Temperature gauge type K with miniature thermo-element connection Testo

Testo.

Technical specifications:

Art. No.	EH79.1	EH78.1	EH82.1	EH77.1	EH80.1	EH81.1
Parameters	Temperature					
Temperature measuring range	-60 to +400 °C		-200 to +1000 °C	-60 to +1000 °C	-60 to +400 °C	-60 to +300 °C
Temperature accuracy	Class 2		Class 1		Class 2	
Temperature sensor	TE type K					
Connection	Miniature thermoelement					
Ø x L	4 x 125 mm	5 x 114 mm	1.5 x 500 mm	1.5 x 300 mm	5 x 115 mm	
Cable length	1.2 m			1.5 m	1.2 m	

Food probes

Material: Stainless steel. Sharp, robust. Waterproof (IP 65).

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-60 to +400	1.2	**EH79.1**	1 unit(s)	86,00

Surface probe for uneven surfaces

With spring thermoelement ribbon (measuring tip: Ø 12 mm). Fast-reacting and waterproof.

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-60 to +300	1.2	**EH81.1**	1 unit(s)	135,45

Surface probe for flat surfaces

Widened measurement tip (Ø 6 mm). Waterproof.

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-60 to +400	1.2	**EH80.1**	1 unit(s)	67,75

Immersion/penetration probe

With bevelled tip. Waterproof.

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-60 to +400	1.2	**EH78.1**	1 unit(s)	48,40

Immersion sensors

Flexible. Precise and fast. Waterproof.

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-60 to +1000	1.5	**EH77.1**	1 unit(s)	106,45

Immersion measuring tip

Filament-like measuring tip, pliable.

Delivery without handle and connection cable.

Temperature measuring range (°C)	Art. No.	Pack Qty.	€
-200 to +1000	**EH82.1**	1 unit(s)	32,25



Temperature measuring device P200

Dostmann.

For measuring air, gas, liquids, and plastic materials.

- **Fixed NTC penetration probe** with handle
- Large display
- Min/max and hold function
- Plastic housing, food-safe and waterproof
- Integrated sensor holder for single-hand operation

Technical specifications:

Art. No.	HNN8.1
Type	P200
Parameters	Temperature
Temperature measuring range	-40 to +200 °C
Resolution	0.1 °C
Accuracy	±1.0 °C (-25 to 150 °C) ±1.5 °C (outside)
Temperature sensor	NTC
Connection	non-adjustable
Min./max. function	Yes
Measuring cycle	1 sec
IP rating	65
Cable length	600 mm
Sensor: Ø x L	3.5 x 110 mm
L x W x H	95 x 60 x 18 mm
Weight	150 g
Power supply	2x Batterie Micro/AAA 1,5 V

Delivery incl. fastening clip, table stand and batteries.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**HNN8.1**	1 unit(s)	53,65

Thermometers, digital



Temperature measuring device P300

Dostmann.

For measuring in liquid, paste-like and semi-solid media.

- **Fixed NTC penetration probe** with handle
- Large backlit display
- Min/Max and Hold functions.
- Integrated sensor holder for single-hand operation
- Plastic housing, food-safe and splash-proof

Technical specifications:

Art. No.	**N359.1**	**HT78.1**
Type	P300	
Parameters	Temperature	
Temperature measuring range	-40 to +200 °C	
Resolution	0.1 °C	
Accuracy	±0.5 °C (0 to 100 °C) ±1.5 °C (outside)	
Temperature sensor	NTC	
Connection	non-adjustable	
Min./max. function	Yes	
IP rating	54	
Cable length	1.2 m	
Sensor: Ø x L	3.5 x 120 mm	
L x W x H	65 x 25 x 130 mm	
Weight	240 g	
Power supply	2x Mignon/AA battery 1.5 V	

Delivery incl. batteries.

Version	Calibration	Art. No.	Pack Qty.	€
Temperature measuring device	without	**N359.1**	1 unit(s)	74,05
Temperature measuring device	with ISO calibration certificate (0 °C, +60 °C)	**HT78.1**	1 unit(s)	101,80



Temperature measuring device P4000

Dostmann.

For measuring liquid, gaseous and powdery media.
With Pt 100 four-conductor sensor technology.

- Plastic splash-proof and washable housing
- Stores min, max, hold and average values
- 1-point adjustment possible
- 2-line LCD display

Optional accessories (please order separately):
Windows software DE graph and USB cable for online documentation.

Technical specifications:

Art. No.	**HNN5.1**
Type	P4000
Parameters	Temperature
Temperature measuring range	-200 to +850 °C
Resolution	0.1 °C (-99.9 to +399.9), 1 °C (outside)
Accuracy	±0,3 °C
Temperature sensor	Pt 100
Connection	specific
Min./max. function	Yes
Data memory	20 measured values
Port	USB
IP rating	54
L x W x H	150 x 74 x 32 mm
Weight	217 g
Power supply	2x Mignon/AA battery 1.5 V

Delivery incl. batteries and test protocol. Without measuring probe, please order separately.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**HNN5.1**	1 unit(s)	135,10

Thermometers, digital

Temperature gauge Pt 100 for P4000

Dostmann.

Technical specifications:

Art. No.	AY95.1	AY91.1	AY92.1	AY96.1	AY97.1	AY93.1	AY94.1
Parameters	Temperature						
Temperature measuring range	-50 to +250 °C	-50 to +350 °C		-200 to +450 °C		-50 to +350 °C	-40 to +300 °C
Temperature accuracy	Class B			Class B 1/3 DIN		Class B	
Temperature sensor	Pt 100						
Connection	specific						
Ø x L	4 x 250 mm	3 x 150 mm	3 x 300 mm	3 x 150 mm	3 x 300 mm	4 x 150 mm	6 x 150 mm
Cable length	1 m						

Delivery incl. handle and connection cable.

Penetration probe

For measuring in hard and powdery media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +350	1	**AY93.1**	1 unit(s)	79,25

Air probe

For quickly measuring air and gas temperatures.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +250	1	**AY95.1**	1 unit(s)	103,10

Surface probe

With spring-loaded contact area.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-40 to +300	1	**AY94.1**	1 unit(s)	187,05

Immersion sensor, standard

For measuring liquid, gaseous and powdery media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +350	1	**AY91.1**	1 unit(s)	79,25
-50 to +350	1	**AY92.1**	1 unit(s)	85,25

Immersion sensor, precise

For measuring liquid, gaseous and powdery media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-200 to +450	1	**AY96.1**	1 unit(s)	136,50
-200 to +450	1	**AY97.1**	1 unit(s)	142,95



Temperature measuring device P4010

Dostmann.

For measuring liquid, gaseous and powdery media.

- **With replaceable type K thermoelement probe class 2:** Measuring range -40 to +400 °C; with handle.
- 2-line LCD display
- Stores min, max, hold and average values
- 1-point adjustment possible
- Plastic splash-proof and washable housing

Technical specifications:

Art. No.	HNN9.1	HNP0.1
Type	P4010	
Parameters	Temperature	
Temperature measuring range	-200 to +1370 °C	
Resolution	0.1 °C (-99.9 to +399.9 °C), 1 °C (outside)	
Accuracy	±0,5 °C	
Temperature sensor	TE type K	
Connection	Miniature thermoelement	
Min./max. function	Yes	
Data memory	20 measured values	
Port	USB	
IP rating	54	
Cable length	1 m	
Sensor: Ø x L	3.5 x 120 mm	
L x W x H	150 x 74 x 32 mm	
Weight	217 g	
Power supply	2x battery Mignon/AA 1.5 V	

Set 1

Standard design

Delivery incl. type K cl. 2 immersion/penetration probe, test protocol and batteries.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**HNN9.1**	1 unit(s)	157,15

Set 2

For graphic and tabular documentation with software and USB cable

Delivery incl. type K cl. 2 immersion/penetration probe, DE graph software, USB cable, test protocol and batteries.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**HNP0.1**	1 unit(s)	276,30

Thermometers, digital



Temperature measuring device P700 series

Dostmann.

With integrated calibration function for easy compensation of sensor tolerances.

- Measuring probe can be connected:
  Pt 100 (Measuring range up to max. +850 °C) or
  Type K, J, L, N, R, S, T thermoelements (measuring range up to max. +1760 °C)
- Stores the max., min., hold and average value
- USB/online/PC port
- Integrated sensor holder
- Foldable bracket for standing

Technical specifications:

Art. No.	X717.1	X718.1	X719.1	X721.1	X720.1
Parameters	Temperature				
Temperature measuring range	-200 to +1760 °C				
Resolution	0.1 °C		0.01 (-200 to +200 °C), 0.1% (outside)		
Accuracy	Pt 100: ±0.1 °C (-100 to +200 °C) ±0.1% of m.v. (outside) Type K: ±0.2 °C (0 to +200 °C) ±0.5 °C (+200 to +1000 °C) ±1.0 °C (outside)		Pt 100: ±0.03 °C (-50 to +199.99 °C) ±0.05 °C (-200 to +200) ±0.1% of m.v. (outside) Type K: ±0.2 °C (0 to +200 °C) ±0.5 °C (+200 to +1000 °C) ±1.0 °C (outside)		
Temperature sensor	TE type K and Pt 100				
Connection	specific				
Min./max. function	Yes				
Port	USB/online/PC				
L x W x H	93 x 44 x 200 mm				
Power supply	Batteries, 9 V E-Block and mains powered				

P700
Single-channel device

Delivery incl. battery. Without measuring probe and mains connectors, please order separately.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**X717.1**	1 unit(s)	274,15

P705
Two-channel device. For connecting two temperature gauges, with simultaneous display of two measured values or differential temperature.

Delivery incl. battery. Without measuring probe and mains connectors, please order separately.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**X718.1**	1 unit(s)	327,90

P750
Single-channel device. Highest accuracy of ±0.03 °C. Ideal reference device for testing secondary measuring devices. Humidity sensor and flow sensor can be connected.

Delivery incl. battery. Without measuring probe and mains connectors, please order separately.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**X719.1**	1 unit(s)	516,00

P750 service case set
Contains: Single-channel temperature measuring device P750 (Art. No. X719.1), immersion sensor (Art. No. X726,1), 9 V block battery with charging device, transport case, mains connector, 9 V block battery, PC adapter cable and software.

Delivery incl. immersion sensor (Art. No. X726.1), 9 V block battery with charging device, transport case, mains connector, 9 V block battery, PC adapter cable and software.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**X721.1**	1 unit(s)	961,05

P755
Two-channel device. For connecting two temperature gauges, with simultaneous display of two measured values or differential temperature.

Delivery incl. battery. Without measuring probe and mains connectors, please order separately.

Version	Art. No.	Pack Qty.	€
Temperature measuring device	**X720.1**	1 unit(s)	580,50

Temperature gauge Pt 100 for P700 series

Dostmann.

With four-conductor technology.

Technical specifications:

Art. No.	X724.1	X722.1	X723.1	X726.1	AY99.1
Parameters	Temperature				
Temperature measuring range	-50 to +350 °C			-200 to +450 °C	
Temperature accuracy	Class B			Class B 1/3 DIN	Class B 1/10 DIN
Temperature sensor	Pt 100				
Connection	specific				
Ø x L	4 x 150 mm	3 x 150 mm	3 x 300 mm		
Cable length	1 m				

Delivery incl. handle and connection cable.

Penetration probe
For measuring in hard and powdery media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +350	1	**X724.1**	1 unit(s)	81,70

Immersion sensor, standard
For measuring liquid, gaseous and powdery media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +350	1	**X722.1**	1 unit(s)	83,85
-50 to +350	1	**X723.1**	1 unit(s)	89,25

Immersion sensor, precise
For measuring liquid, gaseous and powdery media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-200 to +450	1	**X726.1**	1 unit(s)	140,10

Immersion sensor, highly precise
For measuring liquid, gaseous and powdery media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-200 to +450	1	**AY99.1**	1 unit(s)	201,05

Thermometers, digital

Temperature gauge type K for P700 series

Dostmann.

Technical specifications:

Art. No.	X730.1	X727.1	X728.1	X729.1
Parameters	Temperature			
Temperature measuring range	-40 to +200 °C	-40 to +400 °C	-100 to +1100 °C	
Temperature accuracy	Class 2		Class 1	
Temperature sensor	TE type K			
Connection	specific			
Ø x L		3.5 x 120 mm	1.5 x 300 mm	3.0 x 500 mm
Cable length	1 m			

Delivery incl. handle and connection cable.

Immersion/penetration probe

For measuring in liquid and gaseous media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-40 to +400	1	**X727.1**	1 unit(s)	39,80

Immersion sensors

For measuring in liquid and gaseous media.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-100 to +1100	1	**X728.1**	1 unit(s)	70,95
-100 to +1100	1	**X729.1**	1 unit(s)	79,55

Clip-on probe

For measurements in piping up to ø 35 mm.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-40 to +200	1	**X730.1**	1 unit(s)	64,50

Combination probe for P750/P755/P770

Dostmann.

For temperature and humidity.

Technical specifications:

Art. No.	X825.1
Parameters	Humidity, Temperature
Temperature measuring range	-30 to +80 °C
Rel. humidity measuring range	0 to 100 %
Temperature sensor	Pt 100
Connection	specific
Ø x L	20 x 120 mm
Cable length	1 m

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Rel. humidity measuring range (%)	Cable length (m)	Art. No.	Pack Qty.	€
-30 to +80	0 to 100	1	**X825.1**	1 unit(s)	179,55

Flow sensor for P750/P755/P770

Dostmann.

For air and gases. Measuring range: 0.3 to 20 m/s.

Technical specifications:

Art. No.	X731.1
Measuring range	0.3 to 20 m/s
Cable length	1 m
Ø x L	22 x 175 mm

Delivery incl. handle and connection cable (length: 1 m).

Version	Art. No.	Pack Qty.	€
Flow sensor	**X731.1**	1 unit(s)	941,70

Data loggers

Data logger LOG32 series

Dostmann.

For measurement data monitoring, e.g. storage and transport conditions, production facilities, greenhouses and refrigerators.

- Pre-programmed data logger (measuring interval: 5 min), ready for immediate use
- Automatic data output as PDF file, no driver installation required
- Integrated USB port
- Windows-compatible software is available for programming the logger (e.g. measuring cycle, alarm limits, start and end times for recording), please download free of charge
- Status and alarm LEDs with audible signal



Technical specifications:

Art. No.	CCE2.1	CCE3.1
Type	LOG32T	LOG32TH
Parameters	Temperature	Temperature, Humidity
Temperature measuring range	-40 to +70 °C	
Temperature accuracy	±0.5 °C (-10 to +40 °C), ±1 °C (outside)	
Rel. humidity measuring range		0 to 100 %
Rel. humidity accuracy		±3% (40–60%), ±3.5% (20–40%, 60–80%), ±5% (outside)
Resolution	0,1 °C	0,1 °C, 0,1 %
Display	No	
Data memory	60000 datasets	
Measuring cycle	30 s to 24 h	
Port	USB	
L x W x H	100 x 19 x 19 mm	
Weight	70 g	
Power supply	3.6 V / ½ AA lithium battery	

Delivery incl. ISO calibration certificate, wall mount and battery.

Type	Art. No.	Pack Qty.	€
LOG32T	**CCE2.1**	1 unit(s)	59,15
LOG32TH	**CCE3.1**	1 unit(s)	84,95

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Data loggers

Data logger

Dostmann.

For monitoring and documentation of measured values during transportation and storage.

- Pre-programmed data logger (measuring interval LOG200, LOG200E: 15 min and LOG210, LOG220, LOG220E: 5 min)
- Automatic data output as PDF file, no driver installation required
- Status and alarm LEDs with audible signal
- Windows-compatible software for logger programming (e.g. measuring cycle, alarm limits); please download free of charge
- Motion sensor detects and documents vibrations (e.g. changing location or opening of windows and doors)
- Network operation possible, please order USB cable separately



NEW / +

Technical specifications:

Art. No.	EHX3.1	EHX4.1	EHX5.1	1ENC.1	1ENE.1
Type	LOG200	LOG210	LOG220	LOG200E	LOG220E
Parameters	Temperature	Temperature, Humidity	Temperature, Humidity, Pressure	Temperature	Temperature, Humidity, Pressure, Carbon dioxide
Temperature measuring range	-40 to +70 °C			-200 to +850 °C	
Temperature measuring range, internal	-40 to +70 °C				
Ext. temp. measuring range				-200 to +850 °C	
Temperature accuracy	±0.5 °C (-10 to +40 °C), ±1.0 °C (outside)			±0.5 °C (0 to +60 °C), ±1.0 °C (outside)	
Rel. humidity measuring range		0 to 100 %			0 to 100 %
Rel. humidity accuracy		±3.5% (20–80%), ±5% (outside)			±3.5% (20 to 80%), ±5% (outside)
Air pressure measuring range			300–1100 hPa		300–1100 hPa
Air pressure accuracy			±1 hPa (900–1100 hPa), 0.5% of end value (outside)		±1.0 hPa (900 to 1100 hPa), ±5.5 hPa (outside)
Carbon dioxide measuring range (external)					0 to 10000 ppm
Carbon dioxide accuracy					±30 ppm +3% of measured value (23 °C)
Resolution	0,1 °C	0,1 °C, 0,1 %	0,1 °C, 0,1 %, 0,1 hPa	0,1 °C	0,1 °C, 0,1 %, 0,1 hPa, 1 ppm
Display	Yes				
Data memory	150 000 measured values	100 000 measured values	60000 measured values	100000 measured values	60000 measured values
Measuring cycle	10 s to 24 h				
Port	USB				
Min./max. function	Yes				
L x W x D	91.5 x 42 x 20 mm				
Weight	83 g				
Power supply	3.6 V/½ AA lithium battery				
Mains connection	100–240 V, 50/60 Hz				

LOG200 series

Delivery incl. ISO calibration certificate, wall mount and battery.

Type	Art. No.	Pack Qty.	€
LOG200	**EHX3.1**	1 unit(s)	67,75
LOG210	**EHX4.1**	1 unit(s)	82,80
LOG220	**EHX5.1**	1 unit(s)	102,15

LOG200E series

Also includes a connection for external sensor.

Delivery incl. ISO calibration certificate, wall mount and battery. External sensor not included, please order separately.

Type	Art. No.	Pack Qty.	€
LOG200E	**1ENC.1**	1 unit(s)	94,60
LOG220E	**1ENE.1**	1 unit(s)	137,60

External sensor for LOG200E series

Dostmann.



NEW/+

Technical specifications:

Art. No.	1ENT.1	1ENX.1	1ENY.1	1ENN.1	1ENP.1
Parameters	Temperature			Temperature, Humidity	Carbon dioxide
Temperature measuring range	-50 to +100 °C	-200 to +200 °C		-40 to +70 °C	
Temperature accuracy	Class B 1/3 DIN			±0.5 °C (0 to +60 °C), ±1.0 °C (outside)	
Rel. humidity measuring range				0 to 100 %	
Rel. humidity accuracy				±3.5% (20 to 80%), ±5% (outside)	
Carbon dioxide measuring range					0 - 5000 ppm
Carbon dioxide accuracy					±30 ppm +3% (23 °C ambient temperature)
Temperature sensor	Pt 100				
Connection	specific				
Ø x L	4 x 30 mm			15 x 43 mm	
L x W x H					75 x 35 x 17 mm
Cable length	3 m		8 m	1.8 m	

(1) Temperature gauge Pt 100
With four-conductor technology.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +100	3	**1ENT.1**	1 unit(s)	53,75
-200 to +200	3	**1ENX.1**	1 unit(s)	64,50
-200 to +200	8	**1ENY.1**	1 unit(s)	75,25

(2) Combination measuring probe

Temperature measuring range (°C)	Rel. humidity measuring range (%)	Cable length (m)	Art. No.	Pack Qty.	€
-40 to +70	0 to 100	1.8	**1ENN.1**	1 unit(s)	75,25

(3) CO_2 sensor
Due to the increased power consumption, it is recommended to operate the LOG220E data logger with mains power. Please order USB cable with mains adapter separately.

Carbon dioxide measuring range	Cable length (m)	Art. No.	Pack Qty.	€
0 - 5000 ppm	1.8	**1ENP.1**	1 unit(s)	102,15

Accessories USB cable with mains adapter for LOG200 and LOG200E series

NEW/+

Dostmann.
Cable length 1 m.

Suitable for	Art. No.	Pack Qty.	€
LOG200 and LOG200E series	**1H24.1**	1 unit(s)	21,50

Data logger testo 184 series

Testo.

For monitoring sensitive products.

- With alarm management:
  adjustable min/max function and cumulative alarm
- The configuration file for logger programming is stored directly on the data logger (no software installation required)
- Automatic data output as PDF file via USB port
- Mobile readout via NFC



NEW / +

Technical specifications:

Art. No.	CXC4.1	CXC5.1	1HX9.1
Type	testo 184 T3	testo 184 T4	testo 184 H1
Parameters	Temperature		Temperature, Humidity
Temperature measuring range	-35 to +70 °C	-80 to +70 °C	-20 to +70 °C
Temperature accuracy	±0.5 °C	±0.8 °C (-80 to -35.1 °C), ±0.5 °C (-35 to +70 °C)	±0.8 °C (-20 to 0 °C), ±0.5 °C (0 to +70 °C)
Rel. humidity measuring range			0 to 100 %
Rel. humidity accuracy			±1.8%, ±3.3% (5 to 80% at 25 °C)
Resolution	0,1 °C		0,1 °C, 0,1 %
Sensor type	NTC	Pt 1000	
Display	Yes	No	Yes
Data memory	40,000 measured values		64,000 measured values
Measuring cycle	1 min to 24 h		
Port	USB, NFC		
IP rating	67		30
Min./max. function	Yes		
W x D x H	44 x 12 x 97 mm		
Weight	45 g		
Power supply	CR 2450 coin cell battery (3 V)	ER 2450 coin cell battery (3 V)	CR 2450 coin cell battery (3 V)

Delivery incl. battery and test protocol stored on logger.

Testo 184 T3

For standard applications.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	testo 184 T3	**CXC4.1**	1 unit(s)	122,55

Testo 184 T4

Specially designed for low temperatures (down to -80 °C).

Pic.	Type	Art. No.	Pack Qty.	€
(2)	testo 184 T4	**CXC5.1**	1 unit(s)	207,50

Testo 184 H1

For simultaneous monitoring of temperature and humidity.

Pic.	Type	Art. No.	Pack Qty.	€
(3)	testo 184 H1	**1HX9.1**	1 unit(s)	165,55

Data loggers



Data logger testo 174 mini series

Testo.

For monitoring climatic conditions, for example in storage, in offices and in production areas.

- With LCD display for current measured value (on the testo 174H model, the current temperature or humidity value is displayed), battery status as well as min/max values
- Optical limit alarm (freely selectable values)
- Please download windows-compatible software (logger programming, reading data, graphic and tabular representation, for printing data) free of charge.
  USB interface is required for communication between the software and logger.

Technical specifications:

Art. No.	NA06.1	NA07.1
Type	testo 174T	testo 174H
Parameters	Temperature	Temperature, Humidity
Temperature measuring range	-30 to +70 °C	-20 to +70 °C
Temperature accuracy	±0.5 °C	
Rel. humidity measuring range		0 to 100 %
Rel. humidity accuracy		±3% (2–98%)
Resolution	0,1 °C	0,1 °C, 0,1 %
Display	Yes	
Data memory	16000 measured values	
Measuring cycle	1 min to 24 h	
Port	USB	
IP rating	65	20
Min./max. function	Yes	
L x W x D	60 x 40 x 20 mm	
Power supply	2x battery button CR 2032 (3 V)	

Delivery incl. wall mount, calibration protocol and batteries. USB interface is not included, please order separately.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	testo 174T	**NA06.1**	1 unit(s)	60,20
(2)	testo 174H	**NA07.1**	1 unit(s)	98,90



Data logger testo 175 series

Testo.

Temperature monitoring of cooling and refrigeration rooms as well as long-term monitoring of working and storage areas.

- With LCD display for showing the current measured value, battery status and min/max values
- Optical limit alarm (freely selectable values)
- Please download windows-compatible software (for logger programming, reading data, graphic and tabular representation and for printing data) free of charge.
  A USB cable is required for communication between the software and logger.
- Data can also be read easily using the SD card, please order separately.
  Note: The SD card is only able to collect data (reprogramming is not possible).
- Long battery life using standard batteries

Technical specifications:

Art. No.	PH31.1	PH32.1
Type	testo 175 T1	testo 175 H1
Parameters	Temperature	Temperature, Humidity
Temperature measuring range	-35 to +55 °C	-20 to +55 °C
Temperature accuracy	±0.5 °C	±0.4 °C
Rel. humidity measuring range		0 to 100 %
Rel. humidity accuracy		±2% (2–98%)
Resolution	0,1 °C	0,1 °C, 1 %
Display	Yes	
Data memory	1000000 measured values	
Measuring cycle	10 s to 24 h	
Port	Mini USB, SD card slot	
IP rating	65	54
Min./max. function	Yes	
W x D x H	53 x 27 x 89 mm	53 x 27 x 149 mm
Power supply	3x battery Micro/AAA 1.5 V	

Delivery incl. wall mount, lock, calibration protocol and batteries. Software and USB cable are not included, please order separately.

Type	Art. No.	Pack Qty.	€
testo 175 T1	**PH31.1**	1 unit(s)	158,05
testo 175 H1	**PH32.1**	1 unit(s)	318,20

Data loggers

Data logger LOG100 series



Dostmann.

For quality control in the lab and in production, as well as for monitoring storage and transport conditions.

- LCD display for showing the current measured value, battery status, min/max and average values
- Limit alarm, audible and visual
- Integrated USB port
- Please order windows-compatible software (logger programming, data transfer, graphic and tabular representation of data) and external temperature sensor (for measuring outside temperature) separately

Technical specifications:

Art. No.	NA22.1	NK56.1	NA23.1
Type	LOG100	LOG100Cryo	LOG110
Parameters	Temperature		Temperature, Humidity
Temperature measuring range	-50 to +125 °C	-200 to +250 °C	-50 to +125 °C
Temperature measuring range, internal	-30 to +70 °C	-10 to +70 °C	-30 to +70 °C
Ext. temp. measuring range	-50 to +125 °C	-200 to +250 °C	-50 to +125 °C
Temperature accuracy	±0,5 °C (-20 to +50 °C), ±0,7 °C (outside)	±0.3 °C (-20 to +50 °C), ±0.7 °C (outside)	±0.5 °C (-10 to +40 °C), ±1.0 °C (outside)
Rel. humidity measuring range			0.1 to 99.0 %
Resolution	0,1 °C		0,1 °C, 0,1 %
Display	Yes		
Data memory	60000 measured values		
Measuring cycle	1 s to 24 h		
Port	USB		
Min./max. function	Yes		
L x W x D	88 x 55 x 20 mm		
Weight	95 g		
Power supply	Battery Button CR 2032 (3 V)		

Delivery incl. battery. Without external temperature sensor and software, please order separately.

Type	Art. No.	Pack Qty.	€
LOG100	**NA22.1**	1 unit(s)	109,05
LOG100Cryo	**NK56.1**	1 unit(s)	152,90
LOG110	**NA23.1**	1 unit(s)	164,50

Temperature gauge

Dostmann.

Technical specifications:

Art. No.	NA25.1	NK57.1
Parameters	Temperature	
Temperature measuring range	-50 to +125 °C	-200 to +250 °C
Temperature accuracy	±0.5 °C (0 to +50 °C), ±1.0 °C (outside)	±0.5 °C
Temperature sensor	NTC	Pt 1000
Connection	specific	
Ø x L	3 x 40 mm	
Cable length	3 m	

Delivery incl. connection cable.

For LOG100 and LOG110

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-50 to +125	3	**NA25.1**	1 unit(s)	59,15

For LOG100Cryo

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-200 to +250	3	**NK57.1**	1 unit(s)	73,65



Wireless data logger KlimaLogg Pro

Dostmann.

For monitoring temperature and humidity.

- Gateway with internal temperature and humidity sensor
- Simultaneous display of humidity and temperature values
- Max/Min display with time of day
- **Connection to up to 8 wireless transmitters is possible** via the gateway connection; please order wireless transmitters separately
- Text display with fixed serial number or individual name allocation for stored transmitters
- Custom alarm limits can be set for all channels with audio or visual alarm indication
- Datasets can be retrieved directly on the device and via PC
- Data transfer via USB wireless transceiver (range: up to 10 m)
- Windows-compatible data transfer software is available for download free of charge. Measured values can also be exported as a text file.
- Radio clock with date display
- Battery charge level indicator

Technical specifications:

Art. No.	PL21.1
Type	KlimaLogg Pro
Parameters	Temperature, Humidity
Temperature measuring range	-20 to +60 °C
Temperature accuracy	±1 °C
Rel. humidity measuring range	0 to 99 %
Rel. humidity accuracy	±3% (35 to 75%)
Resolution	0,1 °C, 1 %
Display	Yes
Measuring cycle	Adjustable in increments of 1/5/10/15/30 min or 1/2/3/6 h
Port	USB
Min./max. function	Yes
W x D x H	137 x 26 x 98 mm
Weight	147 g
Power supply	3x battery Mignon/AA 1.5 V

Delivery incl. USB wireless transceiver and batteries. Wireless transmitter not included, please order separately.

Type	Art. No.	Pack Qty.	€
KlimaLogg Pro	**PL21.1**	1 unit(s)	96,35



Accessories for KlimaLogg Pro

Dostmann.

Technical specifications:

Art. No.	PL22.1	PL23.1
Version	with internal temperature/ RH sensor	with external temperature sensor
Parameters	Temperature, Humidity	Temperature
Temperature measuring range	-40 to +60 °C	
Temperature accuracy	±1 °C	
Rel. humidity measuring range	1 to 99 %	
Rel. humidity accuracy	±3% (30–75%)	
Resolution	0,1 °C, 1 %	0,1 °C
Display	Yes	
Radio range outdoors	100 m	
Cable length		3 m
W x D x H	44 x 23 x 160 mm	40 x 23 x 128 mm
Power supply	2x battery Mignon/AA 1.5 V	2x battery Micro/AAA 1.5 V

Delivery incl. batteries.

FS1 wireless transmitter

Pic.	Version	Art. No.	Pack Qty.	€
(1)	with internal temperature/RH sensor	**PL22.1**	1 unit(s)	26,55

FS2 wireless transmitter

Pic.	Version	Art. No.	Pack Qty.	€
(2)	with external temperature sensor	**PL23.1**	1 unit(s)	25,10

Data loggers



Wireless data logger for smartphones

Dostmann.

For simple monitoring of temperature/humidity at any time, any where. For calling up data via Internet-enabled smartphones.

- For operation in a cable-based network (LAN) with Internet connection
- Data storage on a cloud
- Data access via free app (iOS 7.0 or Android™ 3.2 and later)
- **Connection to up to 50 wireless transmitters is possible via the gateway connection**; please order wireless transmitters separately
- Gateway not equipped with internal sensors
- Smartphone with camera required to scan the QR code at the transmitters
- Individual assignment of transmitter names possible
- Reception range for transmitters max. 100 m (free field)
- Freely settable alarm limit with notification in the case of an alarm
- Gateway dimensions: L 104 x W 40 x D 28 mm

Technical specifications:

Art. No.	ENN0.1
Version	Starter kit
Parameters	Temperature
Temperature measuring range	-30 to +60 °C
Temperature accuracy	±1 °C
Resolution	0,1 °C
Display	No
Data memory	90 days
Radio range outdoors	100 m
Port	LAN
Cable length	1 m
Power supply	Mains adapter for gateway, 2 x 1.5 V AAA batteries for wireless transmitters

The temperature can be monitored with the starter kit.

If the humidity also needs to be measured, please order the Profi wireless transmitter separately.

Delivery incl. Gateway unit with mains adapter, standard wireless transmitter with external temperature sensor and network cable (RAJAH).

Version	Art. No.	Pack Qty.	€
Starter kit	**ENN0.1**	1 unit(s)	75,25



Accessories for wireless data logger for smartphones

Dostmann.

Technical specifications:

Art. No.	ENN1.1	ENN2.1
Version	with external temperature sensor	with internal °C-/RH sensor and external °C sensor
Parameters	Temperature	Temperature, Humidity
Temperature measuring range	-30 to +60 °C	-50 to +110 °C
Temperature measuring range, internal		-40 to +60 °C
Ext. temp. measuring range	-30 to +60 °C	-50 to +110 °C
Temperature accuracy	±1 °C	±1 °C (inside), ±0.5 °C (outside)
Rel. humidity measuring range		0 to 99 %
Rel. humidity accuracy		±3% (30 - 80%)
Resolution	0,1 °C	0,1 °C, 0,1 %
Display	No	Yes
Data memory	90 days	18 months
Radio range outdoors	100 m	
Cable length	1 m	1.5 m
L x W x D	87 x 33 x 22 mm	
Power supply	2x battery Micro/AAA 1.5 V	

Delivery without batteries, please order separately.

Standard wireless transmitter

Pic.	Version	Art. No.	Pack Qty.	€
(1)	with external temperature sensor	**ENN1.1**	1 unit(s)	21,40

Professional wireless transmitter

Pic.	Version	Art. No.	Pack Qty.	€
(2)	with internal °C-/RH sensor and external °C sensor	**ENN2.1**	1 unit(s)	74,75

Data loggers

Wireless data logger

Testo.

Modern solution for temperature measurement and monitoring in storage, cold-storage and work rooms.

- Data transfer via WiFi
- Online data storage directly to cloud
- Measured values can be retrieved and evaluated via Internet-compatible smartphones, tablets or PCs
- Logger configuration via the testo basic cloud (free access), no software installation required
- An e-mail alert is generated if limits are exceeded



NEW/+

Technical specifications:

Art. No.	1H20.1	1H1Y.1	ECK0.1	ECK1.1	1H21.1	1H1X.1
Type	testo 160 TH	Saveris 2-H1	Saveris 2-T1	Saveris 2-T3	testo 160 IAQ	Saveris 2-set
Parameters	Temperature, Humidity		Temperature		Temperature, Humidity, Carbon dioxide, Pressure	Temperature
Temperature measuring range	-10 to +50 °C	-30 to +50 °C		-200 to +1350 °C	0 to +50 °C	-50 to +150 °C
Temperature measuring range, internal	-10 to +50 °C	-30 to +50 °C			0 to +50 °C	
Ext. temp. measuring range				-200 to +1350 °C		-50 to +150 °C
Temperature accuracy	±0.5 °C			±(0.5 + 0.5% of measured value) °C	±0.5 °C	
Rel. humidity measuring range	0 to 100 %				0 to 100 %	
Rel. humidity accuracy	±2% (20 to 80%), ±3% (outside)	±2%			±2% (20 to 80%), ±3% (outside)	
Air pressure measuring range					600 to 1100 mbar	
Air pressure accuracy					±3 mbar	
Carbon dioxide measuring range (external)					0–5000 ppm	
Carbon dioxide accuracy					±(50 ppm + 3% of measured value)	
Resolution	0,1 °C, 0,1 %		0,1 °C		0,1 °C, 0,1 %, 1 ppm, 1 mbar	0,1 °C
Display	No	Yes				
Data memory	16,000 per channel	10,000 per channel			8000 per channel	10,000 per channel
Measuring cycle	15 min – 24 h					
Port	WiFi					
IP rating	20	30	65	54	20	65
Reports	manual (.pdf/.csv)					
L x W x D	76 x 64 x 22 mm	115 x 83 x 31 mm	95 x 75 x 30.5 mm		117 x 82 x 32 mm	95 x 75 x 30.5 mm
Weight	94 g	250 g	240 g		260 g	240 g
Power supply	4x battery Micro/AAA 1.5 V	4x battery Mignon/AA 1.5 V				
Mains connection					100–240 V, 50/60 Hz	

Saveris 2-T1

With integrated NTC temperature sensor.

Delivery incl. basic cloud access, micro USB cable, wall mount with lock, calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
Saveris 2-T1	**ECK0.1**	1 unit(s)	164,50

Saveris 2-T3

With two connections for external TE temperature sensors.

Delivery incl. basic cloud access, micro USB cable, wall mount with lock, calibration protocol and batteries. External temperature sensor is not included, please order separately.

Type	Art. No.	Pack Qty.	€
Saveris 2-T3	**ECK1.1**	1 unit(s)	264,45

Data loggers

Saveris 2-set
For temperature monitoring in fridges and freezers: Safe and convenient.

- With 2 external NTC temperature sensors
- Special ribbon cables prevent damage to door seals
- Included vials can be filled with glycol. If the sensors are immersed, they act as a temperature limiter and compensate for brief temperature fluctuations

Delivery incl. 2x NTC temperature sensors, 2x vials, basic cloud access, micro USB cable, wall mount with lock, calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
Saveris 2-set	**1H1X.1**	1 unit(s)	399,90

Saveris 2-H1
With integrated temperature and humidity sensor.

Delivery incl. basic cloud access, micro USB cable, wall mount with lock, calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
Saveris 2-H1	**1H1Y.1**	1 unit(s)	327,90

Testo 160 TH
Small shape, unobtrusive design. With integrated temperature and humidity sensor.

Delivery incl. basic cloud access, micro USB cable, wall mount with lock, calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
testo 160 TH	**1H20.1**	1 unit(s)	263,40

Testo 160 IAQ
Ideal for monitoring room air quality. Integrated sensors for temperature, air humidity, CO_2 and atmospheric pressure precisely determine the climate conditions in any room.

- Air quality shown with coloured LEDs on the data logger (traffic light system).
- Custom CO_2 limit values can be defined.
- Can be powered by the mains and batteries.

Delivery incl. basic cloud access, micro USB cable with mains adapter, wall mount with lock, calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
testo 160 IAQ	**1H21.1**	1 unit(s)	605,25

Temperature gauge type K for Saveris 2-T3

Testo.
With ribbon cable.

Technical specifications:

Art. No.	ECK3.1	ECK2.1
Parameters	Temperature	
Temperature measuring range	-200 to +40 °C	-40 to +220 °C
Temperature accuracy	Class 3	Class 1
Temperature sensor	TE type K	
Connection	Miniature thermoelement	
Ø x L	5 x 90 mm	5 x 60 mm
Cable length	2 m	

Delivery incl. connection cable.

Penetration probe
For temperature measurements in climatic chambers, incubators and fridges.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-40 to +220	2	**ECK2.1**	1 unit(s)	67,75

Low temperature gauge
For temperature measurements in liquid nitrogen, blast freezers and freezers.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
-200 to +40	2	**ECK3.1**	1 unit(s)	175,25



Data logger SterilDisk

Dostmann.

For monitoring and recording temperature data in the pharmaceutical and medical fields and in laboratories and food production plants (e.g. for sterilisation and pasteurisation).

- High temperature range
- Waterproof and pressure-tight
- Housing made of food-grade steel AISI316L
- Please download windows-compatible software (logger programming, reading data, graphic and tabular representation, printing data) free of charge.
  Please order the required disk interface with USB cable separately.
  Automatic calculation of F0, Z and N values possible

Technical specifications:

Art. No.	ENE3.1
Type	SterilDisk
Parameters	Temperature
Temperature measuring range	-20 to +140 °C
Temperature accuracy	±0.2 °C (+25 to +140 °C)
Resolution	0,01 °C
Max. pressure	10 bar
Display	No
Measuring cycle	freely adjustable
Port	HS disk interface
IP rating	68
Weight	80 g
Power supply	BR 1632A coin cell battery

Delivery incl. calibration certificate and battery. Disk interface and USB cable are not included, please order separately.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	SterilDisk	**ENE3.1**	1 unit(s)	532,15

Accessories for SterilDisk

Dostmann.

Battery

Designation	Art. No.	Pack Qty.	€
Replacement battery with seal	**ENE5.1**	1 unit(s)	56,65

Interface

Designation	Art. No.	Pack Qty.	€
Disk interface with USB cable for SterilDisk	**ENE4.1**	1 unit(s)	310,70



Infrared thermometer testo 826 series

Testo.

- For non-contact measuring without damaging the packaging
- For monitoring upper **or** lower limits with an visual alarm
- **Laser spot marker** for marking the measuring point
- **Audible alarm** for when limits are exceeded/fallen below

Additional features for Quicktemp 826-T4 with core temperature measurement:

- Contact side with penetration sensor
- Measures core temperatures using the thin and robust measuring tip
- Includes drill for frozen goods

Technical specifications:

Art. No.	P855.1	P857.1
Type	testo 826-T2	testo 826-T4
Parameters	Temperature	
Infrared measuring range	-50 to +300 °C	
Penetration probe measuring range		-50 to +230 °C
Resolution	0,1 °C	
Accuracy	Infrared: ±1.5 °C (-20 to +100 °C) ±2 °C (outside)	Infrared: ±1.5 °C (-20 to +100 °C) ±2 °C (outside) Penetration sensor: ±0.5 °C (-20 to +99 °C) ±1 °C or ±1% of m.v. (outside), largest value applies
Measuring distance : measuring spot ratio	6 : 1	
Emissivity	0,95	
L x W x H	148 x 34.4 x 19 mm	
Weight	80 g	
Power supply	2x battery Micro AAA 1.5 V	

Delivery incl. batteries, belt/wall holder and waterproof Top Safe (IP 67) protective case.

Type	Art. No.	Pack Qty.	€
testo 826-T2	**P855.1**	1 unit(s)	108,60
testo 826-T4	**P857.1**	1 unit(s)	169,85

Infrared thermometers



Penetration/infrared thermometer testo 104-IR

Testo.

Penetration thermometer combined with an infrared sensor for core and surface temperature measurements.

- Penetration sensor: L 106 mm, can be folded away; NTC sensor
- Two-point laser mark for indicating the actual measurement spot
- Large LCD display for easy reading of measurement results

Technical specifications:

Art. No.	**XK00.1**
Type	testo 104-IR
Parameters	Temperature
Infrared measuring range	-30 to +250 °C
Penetration probe measuring range	-50 to +250 °C
Resolution	0,1 °C
Accuracy	Infrared: ±2.5 °C (-30 to -20.1 °C) ±2.0 °C (-20 to -0.1 °C) ±1.0 °C or 1.5% of m.v. (outside) Penetration sensor: ±1 °C (-50 to -30.1 °C) ±0.5 °C (-30 to +99.9 °C) ±1% of m.v. (outside)
Measuring cycle	0.5 s
Measuring distance : measuring spot ratio	10 : 1
Emissivity	0,10–1,00
IP rating	65
L x W x H	48 x 21 x 178 mm
Weight	197 g
Power supply	2x battery Micro/AAA 1.5 V

Delivery incl. batteries and calibration protocol.

Type	Art. No.	Pack Qty.	€
testo 104-IR	**XK00.1**	1 unit(s)	141,90



Infrared thermometer Scantemp 385

Dostmann.

For non-contact surface temperature measurement. **With spot laser for marking the measurement zone**. Backlit display. Lock function for continuous operation.

Technical specifications:

Art. No.	**LY46.1**
Type	Scantemp 385
Parameters	Temperature
Infrared measuring range	-35 to +365 °C
Resolution	0.1 °C (-35 to +199.9 °C), 1.0 °C (outside)
Accuracy	±2 °C or ±2% (largest value applies)
Measuring distance : measuring spot ratio	12 : 1
Emissivity	0,95 / 0,70
W x D x H	64 x 34 x 167 mm
Weight	150 g
Power supply	2x battery Micro/AAA 1.5 V

Delivery incl. batteries.

Type	Art. No.	Pack Qty.	€
Scantemp 385	**LY46.1**	1 unit(s)	53,65

Infrared thermometers



Infrared thermometer with thermocouple input

Dostmann.

- Infrared measuring range of up to +500 °C
- **Mini TE input for NiCr-Ni (type K) thermocouple sensor available**
- Min/max/hold function
- Storage of differential and mean values
- Visual and audible alarm when limits are exceeded
- LCD display for simultaneous display of measured value and min/max or limit values
- Emission level can be adjusted from 0.10 to 1.00
- With backlit display

Technical specifications:

Art. No.	KA38.1	EHP6.1
Type	Scantemp 490	Scantemp Pro 450
Parameters	Temperature	
Infrared measuring range	-60 to +1000 °C	-60 to +500 °C
Thermocouple input measuring range	-64 to +1370 °C	
Resolution	0.1 °C (up to +999.9 °C), 1 °C (from 1000 °C)	0.1 °C (up to +199.9 °C), 1 °C (from 200 °C)
Accuracy	Infrared: ±2 °C or 2% (largest value applies) Thermocouple input: ±1 °C or 1% (largest value applies)	
Measuring distance : measuring spot ratio	50 : 1	12 : 1
Emissivity	0,10–1,00	
W x D x H	45 x 145 x 215 mm	39 x 82 x 182 mm
Weight	380 g	180 g
Power supply	2x battery Micro/AAA 1.5 V	

Delivery incl. batteries. No temperature sensor is included, please order separately if required.

(1) Scantemp Pro 450
With circular laser for marking the measuring point

Type	Art. No.	Pack Qty.	€
Scantemp Pro 450	**EHP6.1**	1 unit(s)	107,30

(2) Scantemp 490
With double spot laser for indicating the actual measurement area in each measuring distance.

Type	Art. No.	Pack Qty.	€
Scantemp 490	**KA38.1**	1 unit(s)	227,90



Infrared thermometer Mini flash

Dostmann.

For non-contact measuring of surface temperatures. Automatic hold function for approximately 15 s. Lock function for continuous operation.

Technical specifications:

Art. No.	Y400.1
Type	Mini flash
Parameters	Temperature
Infrared measuring range	-33 to +220 °C
Resolution	0,1 °C
Accuracy	±1.5 °C (0 to +50 °C) ±2.0 °C or 2% (outside)
Measuring distance : measuring spot ratio	1,3 : 1
Emissivity	0,95
Operating temperature	0 to +50 °C
L x W x H	37 x 17 x 68 mm
Weight	25 g
Power supply	1x battery button CR 2032 (3 V)

Delivery incl. battery.

Type	Art. No.	Pack Qty.	€
Mini flash	**Y400.1**	1 unit(s)	35,45

Infrared thermometers



Infrared thermometer testo 835-T1 with thermo-couple input

Testo.

Non-contact measurement from a safe distance.

- Reliable IR measurement up to +600 °C with display of min/max values
- **Mini TE input for NiCr-Ni (type K) thermocouple sensor available**
- Four-point laser indicates the exact measuring range, and thus prevents incorrect measurements
- 50:1 lens allows precise measurements at a great distance (5 m distance = 10 cm measured surface)
- Adjustable emission level (0.10 to 1.00) allows the measurement of a variety of surfaces
- Integrated emission level table (stores 20 values) allows the fast selection of the correct emission level for the relevant surface
- With freely adjustable alarm management upper and lower levels; acoustic and visual signals indicate if a limit value is exceeded
- Stores up to 200 measurement values, evaluation using software supplied
- Illuminated display for measurements in dark environments

Technical specifications:

Art. No.	**HTX0.1**
Type	testo 835-T1
Parameters	Temperature
Infrared measuring range	-30 to +600 °C
Thermocouple input measuring range	-50 to +600 °C
Resolution	0,1 °C
Accuracy	Infrared: ±2.5 °C (-30 to -20.1 °C) and ±1 digit ±1.5 °C (-20 to -0.1 °C) ±1 digit ±1.0 °C (0 to +99.9 °C) and ±1 digit ±1% (outside) and ±1 digit Thermocouple: ±(0.5 °C + 0.5%) and ±1 digit
Measuring distance : measuring spot ratio	50:1
W x D x H	63 x 166 x 193 mm
Weight	514 g
Power supply	3x battery Mignon/AA 1.5 V

Delivery incl. PC software, calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
testo 835-T1	**HTX0.1**	1 unit(s)	241,90



Thermohygrometer analogue

ROTH SELECTION.

Hygrometer and thermometer. For determining steam pressure, dew point and saturation steam pressure, etc.

Technical specifications:

Art. No.	**1908.1**
Parameters	Temperature, Humidity
Temperature measuring range	-30 to +50 °C
Rel. humidity measuring range	0 to 100 %
Ø x H	100 x 250 mm
Weight	192 g

Version	Art. No.	Pack Qty.	€
Analogue	**1908.1**	1 unit(s)	116,10



Thermohygrometer Ultra-flat

TFA-Dostmann.

Very flat design with glossy surface.

- With smiley as comfort zone indicator (dry/comfortable/wet)
- Can be wall-mounted or used on desk

Technical specifications:

Art. No.	**1AX6.1**
Parameters	Temperature, Humidity
Temperature measuring range, internal	0 to +50 °C
Rel. humidity measuring range	20 to 95 %
Resolution	0,1 °C, 1 %
Temperature accuracy	±1 °C (0 to 40 °C), ±2 °C (outside)
Rel. humidity accuracy	±5% (40 to 80%), ±8% (outside)
Min./max. function	Yes
Alarm	No
L x W x H	100 x 48 x 82 mm
Weight	70 g
Power supply	1 x CR 2025 button cell battery (3 V)

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
Ultra-flat	**1AX6.1**	1 unit(s)	11,65

Thermohygrometers



Thermohygrometer EXACTO

TFA-Dostmann.

For monitoring the room climate. Coloured comfort zones specify whether the values are optimal, too wet or too dry. Trend arrows inform you of changes in temperature and humidity values.

- With backlit display and stainless steel frame
- Display of the daily highest and lowest values with automatic reset after 24 hours
- Additional min./max. function with manual reset
- Integrated magnetic holder
- Can be wall-mounted or used on desk

Technical specifications:

Art. No.	**1AX5.1**
Type	EXACTO
Parameters	Temperature, Humidity
Temperature measuring range, internal	-20 to +70 °C
Rel. humidity measuring range	1 to 99 %
Resolution	1 °C, 1 %
Temperature accuracy	±1 °C
Rel. humidity accuracy	±3% (35 to 75%), ±5% (outside)
Min./max. function	Yes
Alarm	No
L x W x H	74 x 48 x 90 mm
Weight	120 g
Power supply	2x battery Micro/AAA 1.5 V

Delivery without batteries, please order separately.

Type	Art. No.	Pack Qty.	€
EXACTO	**1AX5.1**	1 unit(s)	19,35



Thermohygrometer with cable sensor

For monitoring inside temperature and humidity for a good room climate. Additionally with waterproof cable sensor for measuring outside temperature, e.g. of refrigerators or freezers.

- Simultaneous display of room climate, outside temperature and time
- Min./max. function with manual and automatic reset
- Can be wall-mounted or used on desk

Technical specifications:

Art. No.	**1AX3.1**
Parameters	Temperature, Humidity
Temperature measuring range, internal	0 to +50 °C
Ext. temp. measuring range	-30 to +60 °C
Rel. humidity measuring range	20 to 90 %
Resolution	0,1 °C, 1 %
Temperature accuracy	±1 °C (0 to 50 °C)
Rel. humidity accuracy	±5% (30 to 80%)
Min./max. function	Yes
Alarm	No
L x W x H	72 x 49 x 121 mm
Weight	94 g
Power supply	2x battery Micro/AAA 1.5 V

Delivery without batteries, please order separately.

Version	Art. No.	Pack Qty.	€
With cable sensor	**1AX3.1**	1 unit(s)	14,20

Thermohygrometers



Wireless thermal hygrometer INFO

TFA-Dostmann.

For the simultaneous monitoring of room climate (inside temperature and humidity) and outside temperature.

- Cordless transmitting of the outside temperature via wireless transmitter
- Display of the daily highest and lowest values with automatic reset after 24 hours
- Additional min./max. function with manual reset
- Can be wall-mounted or used on desk

Technical specifications:

Art. No.	**1AX7.1**
Type	INFO
Parameters	Temperature, Humidity
Temperature measuring range, internal	-10 to +60 °C
Ext. temp. measuring range	-40 to +60 °C
Rel. humidity measuring range	10 to 99 %
Resolution	0,1 °C, 1 %
Temperature accuracy	±1 °C
Rel. humidity accuracy	±3 % (35 to 75 %)
Min./max. function	Yes
Alarm	No
Radio range outdoors	80 m
L x W x D	86 x 77 x 22 mm
Weight	104 g
Power supply	2x AA 1.5 V batteries (1x base station, 1x transmitter)

Delivery incl. 1 transmitter.
Without batteries, please order separately.

Type	Art. No.	Pack Qty.	€
INFO	**1AX7.1**	1 unit(s)	24,95



Thermohygrometer STYLE

TFA-Dostmann.

Max/min value monitoring. Can be wall- or table-mounted.

Technical specifications:

Art. No.	**NA63.1**
Type	STYLE
Parameters	Temperature, Humidity
Temperature measuring range	-20 to +50 °C
Rel. humidity measuring range	20 to 99 %
Resolution	0,1 °C, 1 %
Temperature accuracy	±1 °C (0 to +40 °C), ±1.5 °C (outside)
Rel. humidity accuracy	±4% (35 to 75%), ±5% (outside)
Min./max. function	Yes
L x W x D	104 x 104 x 13 mm
Weight	50 g
Power supply	CR 2032 (3V) button cell battery

Delivery incl. battery.

Type	Art. No.	Pack Qty.	€
STYLE	**NA63.1**	1 unit(s)	22,05



Thermohygrometer

TFA-Dostmann.

Max/min value monitoring. Can be wall- or table-mounted.

Technical specifications:

Art. No.	**Y401.1**
Parameters	Temperature, Humidity
Temperature measuring range	-10 to +60 °C
Rel. humidity measuring range	10 to 99 %
Resolution	0,1 °C, 1 %
Temperature accuracy	±1 °C
Rel. humidity accuracy	±5%
Min./max. function	Yes
L x W x D	110 x 95 x 20 mm
Weight	171 g
Power supply	Battery Micro/AAA 1.5 V

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
digital	**Y401.1**	1 unit(s)	26,05

Thermohygrometers



Thermohygrometer With alarm LED

Dostmann.

Robust measuring device for measuring the room climate in laboratories, production and storage facilities, etc.

- Fast-reacting, capacitive humidity sensor
- **Alarm gives a visual and audible notification when threshold value has been exceeded**
- Battery life approx. 1000 hours in continuous operation

Technical specifications:

Art. No.	**CK97.1**
Temperature measuring range	-40 to +70 °C
Rel. humidity measuring range	0 to 99 %
Resolution	0,1 °C, 0,1 %
Temperature accuracy	±0.5 °C
Rel. humidity accuracy	±3.5% (20 to 80%), ±4% (outside)
Dew point	Yes
Min./max. function	Yes
Alarm	Yes
L x W x D	105 x 105 x 44 mm
Weight	125 g
Power supply	2 x AAA 1.5 V batteries

Delivery incl. batteries.

Version	Art. No.	Pack Qty.	€
With alarm LED	**CK97.1**	1 unit(s)	50,65



Thermohygrometer inside/outside

TFA-Dostmann.

With outside sensor for °C and RH (cable length approx. 1.5 m). Simultaneous display of °C and RH values for inside and outside. Can be used on desktop or wall-mounted.

Technical specifications:

Art. No.	**HH28.1**
Parameters	Temperature, Humidity
Temperature measuring range	-10 to +60 °C
Rel. humidity measuring range	10 to 99 %
Resolution	0,1 °C, 1 %
Temperature accuracy	±0.5 °C
Rel. humidity accuracy	±5%
Min./max. function	Yes
L x W x D	110 x 101 x 20 mm
Weight	185 g
Power supply	Battery Micro/AAA 1.5 V

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
for inside/outside measurements	**HH28.1**	1 unit(s)	41,70

ROTH SELECTION



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Thermohygrometers



Thermohygrometer with extra-large display

Amarell.

Large display (W 79 x H 66 mm) for air humidity, temperature and time (24-hour display with alarm clock).

- Daily memory reset
- Freezing point alarm can be activated (alarm when outside temperature reaches ≤0 °C)
- Removable outdoor temperature sensor, cable length 3 ml
- Can be used on desktop or wall-mounted

Technical specifications:

Art. No.	**AY02.1**
Parameters	Temperature, Humidity
Temperature measuring range	-50 to +70 °C
Temperature measuring range, internal	0 to 50 °C
Ext. temp. measuring range	-50 to +70 °C
Rel. humidity measuring range	20 to 99 %
Resolution	0,1 °C, 1 %
Temperature accuracy	±1 °C
Rel. humidity accuracy	±5% (40 to 80% RH)
Min./max. function	Yes
Alarm	Yes
L x W x D	110 x 98 x 21 mm
Power supply	Battery Micro/AAA 1.5 V

Delivery incl. battery.

Version	Art. No.	Pack Qty.	€
with extra-large display	**AY02.1**	1 unit(s)	50,15



Thermohygrometer testo 623

Testo.

With history function.

- The large display shows the current and past temperature and humidity values as well as the date and time
- Selection option for temperature or humidity histogram
- Bar graph display of measured values over the last hour (for 5 min measuring cycle), 2 hours (for 10 min measuring cycle), 12 hours (for 1 h measuring cycle), 24 hours (for 2 h measuring cycle) or 12 days (for 24 h measuring cycle)
- Optical alarm (limit freely selectable)
- Use as desktop or wall-mount unit

Technical specifications:

Art. No.	**LY99.1**
Type	testo 623
Parameters	Temperature, Humidity
Temperature measuring range	-10 to +60 °C
Rel. humidity measuring range	0 to 100 %
Resolution	0,1 °C, 0,1 %
Temperature accuracy	±0.4 °C
Rel. humidity accuracy	±2% at +25 °C (10 to 90%), ±3% (outside)
Min./max. function	Yes
Alarm	Yes
L x W x D	185 x 105 x 36 mm
Weight	240 g
Power supply	4x battery Mignon/AA 1.5 V

Delivery incl. calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
testo 623	**LY99.1**	1 unit(s)	184,90

Thermohygrometers



Thermohygrometer testo 608 series

Testo.

For monitoring room climate and dew point, for example, in laboratories, storage and clean-rooms.

- Simultaneously displays humidity and temperature
- Humidity sensor is not sensitive to condensation
- Use as desktop or wall-mount unit

Technical specifications:

Art. No.	X226.1	X227.1
Type	testo 608-H1	testo 608-H2
Parameters	Temperature, Humidity	
Temperature measuring range	0 to +50 °C	-10 to +70 °C
Rel. humidity measuring range	10 to 95 %	2 to 98 %
Resolution	0,1 °C, 0,1 %	
Temperature accuracy	±0.5 °C	
Rel. humidity accuracy	±3 %	±2 %
Dew point	Yes	
Min./max. function	Yes	
Alarm	No	Yes
L x W x D	120 x 89 x 40 mm	
Weight	168 g	
Power supply	E-Block 9 V battery	

Testo 608-H1

- Dew point calculation: -20.0 to +50.0 °Ctd

Delivery incl. battery.

Type	Art. No.	Pack Qty.	€
testo 608-H1	**X226.1**	1 unit(s)	84,95

Testo 608-H2 with alarm

With additional LED alarm to notify when the threshold value has been exceeded.

- Dew point calculation: -40.0 to +70.0 °Ctd

Delivery incl. calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
testo 608-H2	**X227.1**	1 unit(s)	122,55



Thermohygrometer testo 610

Testo.

- With light-up display
- AUTO-OFF function to conserve battery, can be switched off
- Min./max. and hold function
- Calculation of dew point and wet bulb temperature

Technical specifications:

Art. No.	HY44.1
Type	testo 610
Parameters	Temperature, Humidity
Temperature measuring range	-10 to +50 °C
Rel. humidity measuring range	0 to 100 %
Resolution	0,1 °C, 0,1 %
Temperature accuracy	±0.5 °C
Rel. humidity accuracy	±2.5% (5 to 95%)
Dew point	Yes
Min./max. function	Yes
L x W x D	119 x 46 x 25 mm
Weight	250 g
Power supply	2x battery Micro/AAA 1.5 V

Delivery incl. hand strap, belt bag, protective cap, calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
testo 610	**HY44.1**	1 unit(s)	146,20

Thermohygrometers



Thermohygrometer testo 605-H1

Testo.

Long-term stabile moisture sensor. With dew point calculation (-20 to +50 °Ctd). Sensor not sensitive to condensation. AUTO-OFF function (10 min). Pivoting display.

Technical specifications:

Art. No.	P302.1	P303.1
Type	testo 605-H1	
Parameters	Temperature, Humidity	
Temperature measuring range	0 to +50 °C	
Rel. humidity measuring range	5 to 95 %	
Resolution	0,1 °C, 0,1 %	
Temperature accuracy	±0.5 °C	
Rel. humidity accuracy	±3%	
Dew point	Yes	
L x W x D	180 x 37 x 36 mm	
Weight	75 g	
Power supply	3x battery Micro/AAA 1.5 V	

Delivery incl. attachment clip and batteries.

Type	Version	Art. No.	Pack Qty.	€
testo 605-H1	Standard	**P302.1**	1 unit(s)	108,60
testo 605-H1	With ISO calibration certificate, 75.3% RH	**P303.1**	1 unit(s)	215,00



Thermohygrometer Dewpoint Pro

Dostmann.

Robust measuring device for measuring the room climate in laboratories, buildings, etc.

- Quick-reacting capacitive humidity sensor (measuring cycle: 1 s)
- Min./max. and hold function
- IP54 splash-proof
- Battery life approx. 1000 hours in continuous operation

Technical specifications:

Art. No.	CK09.1
Type	Dewpoint Pro
Parameters	Temperature, Humidity
Temperature measuring range	-40 to +70 °C
Rel. humidity measuring range	0 to 99 %
Resolution	0,1 °C, 0,1 %
Temperature accuracy	±0.5 °C
Rel. humidity accuracy	±3% (10 to 90%), ±4% (outside)
Dew point	Yes
Min./max. function	Yes
IP rating	54
L x W x D	170 x 50 x 17 mm
Weight	100 g
Power supply	2 x AAA 1.5 V batteries

Delivery incl. batteries.

Type	Art. No.	Pack Qty.	€
Dewpoint Pro	**CK09.1**	1 unit(s)	72,65

Thermohygrometers



Thermohygrometer set

ROTH SELECTION.

Precise, compact measuring device which simultaneously displays humidity and temperature. Delivery includes two humidity reference cells, 33 and 75% RH, to enable testing and calibration. Automatic switch-off.

Technical specifications:

Art. No.	**L895.1**
Parameters	Temperature, Humidity
Temperature measuring range	-16 to +50 °C
Rel. humidity measuring range	0 to 99.8 %
Resolution	0,1 °C, 0,1 %
Temperature accuracy	±1 °C
Rel. humidity accuracy	±3%
Min./max. function	Yes
L x W x D	175 x 42 x 16 mm
Weight	70 g
Power supply	CR 2032 (3V) button cell battery

Delivery incl. stable carrying case, two reference cells and batteries.

Version	Art. No.	Pack Qty.	€
Thermohygrometer	**L895.1**	1 unit(s)	276,55



Thermohygrometer P770

Dostmann.

For determining **relative** and **absolute humidity, temperature, dew point and flow**.

- Integrated calibration function for easy compensation of sensor tolerances
- **Two measuring probe connections**
- Stores the max., min., hold and average value
- With USB/online/PC interface
- Suitable for battery and mains operation

Technical specifications:

Art. No.	**X732.1**
Type	P770
Parameters	Temperature, Humidity, Current
Temperature measuring range	-200 to +850 °C
Rel. humidity measuring range	0 to 100 %
Flow measuring range	0 to 40 m/s
Resolution	0,1 °C, 0,1 %, 0,01 m/s
Temperature accuracy	for Pt 100:, ±0.1 °C (-100 to +200 °C), ±0.1% from measured value (outside)
Rel. humidity accuracy	±1.5 %
Flow accuracy	±1% from end value
Dew point	Yes
Min./max. function	Yes
L x W x D	200 x 93 x 44 mm
Power supply	Can be powered using 9 V E-Block battery or mains connection

Delivery incl. battery. Without measuring probe and mains connectors, please order separately.

Type	Art. No.	Pack Qty.	€
P770	**X732.1**	1 unit(s)	387,00

Thermohygrometers



Thermohygrometer P330

Dostmann.

Robust hand-held measuring device for determining temperature and humidity.

- Capacitive humidity sensor
- Min./max. and hold function
- Integrated sensor holder
- Backlit display

Technical specifications:

Art. No.	AH55.1
Type	P330
Parameters	Temperature, Humidity
Temperature measuring range	-40 to +70 °C
Rel. humidity measuring range	0 to 99 %
Resolution	0,1 °C, 1 %
Temperature accuracy	±0.5 °C
Rel. humidity accuracy	±3%
Min./max. function	Yes
L x W x D	130 x 70 x 25 mm
Weight	130 g
Power supply	2 x 1.5 V AA batteries

Delivery incl. batteries.

Type	Art. No.	Pack Qty.	€
P330	**AH55.1**	1 unit(s)	114,10



Thermohygrometer testo 625

Testo.

Two-line display for displaying relative humidity or dew point, as well as temperature. With integrated capacitive humidity sensor head for measuring air humidity and temperature. When measuring in hard-to-reach positions, the humidity sensor head can be removed and plugged into the handle with the sensor cable (please order separately).
Wireless transfer of the measured value to the measuring device is also made possible by the remote handle and wireless module (please order separately).

- Hold button for recording the measured values
- Light-up display
- Auto-Off function

Technical specifications:

Art. No.	EH97.1
Type	testo 625
Parameters	Temperature, Humidity
Temperature measuring range	-10 to +60 °C
Rel. humidity measuring range	0 to 100 %
Resolution	0,1 °C, 0,1 %
Temperature accuracy	±0.5 °C
Rel. humidity accuracy	±2.5% (5 to 95%)
Dew point	Yes
Min./max. function	Yes
L x W x D	182 x 64 x 40 mm
Weight	195 g
Power supply	E-Block 9 V battery

Delivery incl. plug-in humidity sensor head, batteries and calibration protocol.

Type	Art. No.	Pack Qty.	€
testo 625	**EH97.1**	1 unit(s)	242,95

Radio accessories for testo 925/625

Testo.

For wireless measuring data transfer

Radio module
Radio frequency 869.85 MHz FSK

Delivery without remote handle, please order separately.

Designation	Art. No.	Pack Qty.	€
Radio module	**EH84.1**	1 unit(s)	49,45

Remote handle
For insertable sensor heads.

- Measuring cycle 0.5 or 10 s, can be set on handle
- Radio range up to 20 m (in open space)
- Operating temperature -20 °C to +50 °C
- Power supply: 2 x 1.5 V AAA batteries

Delivery incl. batteries. Without radio module, please order separately.

Designation	Art. No.	Pack Qty.	€
Remote handle	**EH85.1**	1 unit(s)	107,50

Thermohygrometers



Thermohygrometer HygroPalm 32

Rotronic.

For determining relative humidity and temperature. Psychrometric calculations possible.

- Can also be used for measuring relative humidity and temperature in powders and granulates (only with Pro insertion probe)
- Functions: Point recording, programmable recording interval
- Graphical display of measured values for up to four values
- Freely adjustable visual and audible alarm for every value
- Memory for 64,000 data points
- Data transfer and battery charging via Micro USB cable
- Long battery life (up to 48 hours with a recording internal of 30 s)
- Housing material: ABS, TPR
- Windows-compatible software (for configuring the device and reading the data); please download free of charge. Requisite licence key (for up to three devices) included in the delivery.

Technical specifications:

Art. No.	KHL1.1
Type	HygroPalm 32
Parameters	Temperature, Humidity
Temperature measuring range	-50 to +100 °C
Rel. humidity measuring range	0 to 100 %
Resolution	0,1 %, 0,1 °C
Temperature accuracy	±0.3 K
Rel. humidity accuracy	±1.5%
Min./max. function	Yes
L x W x D	160 x 63 x 30 mm
Weight	185 g
Power supply	Lithium polymer battery, 3.7 V

Delivery incl. soft case, Micro USB cable, licence key.
Without measuring probe, calibration device and humidity standard. Please order separately.

Type	Art. No.	Pack Qty.	€
HygroPalm 32	**KHL1.1**	1 unit(s)	428,95

Combination probe for HygroPalm 32

Rotronic.

Technical specifications:

Art. No.	KX05.1	KX06.1	KX07.1
Parameters	Humidity, Temperature		
Temperature measuring range	-50 to +100 °C	-40 to +85 °C	
Rel. humidity measuring range	0 to 100 %		
Temperature sensor	Pt 100		
Connection	specific		
Ø x L	15 x 108 mm	5 x 200 mm	10 x 280 mm
Cable length		2 m	

Climate sensor HC2A-S

For room climate monitoring and climate control in storage facilities, etc. With polyethylene filter to protect the sensors.

Temperature measuring range (°C)	Rel. humidity measuring range (%)	Art. No.	Pack Qty.	€
-50 to +100	0 to 100	**KX05.1**	1 unit(s)	316,05

Insertion probe, basic

For measuring in dust-free bulk materials and building materials like concrete, brick, etc. Also for maize, wheat, and granulate. Not suitable for powder-like materials.

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Rel. humidity measuring range (%)	Cable length (m)	Art. No.	Pack Qty.	€
-40 to +85	0 to 100	2	**KX06.1**	1 unit(s)	784,50

Insertion probe, pro

Robust probe for measuring in dusty bulk materials like flour and sugar and building materials like concrete, bricks, etc. With steel sinter filter.

Delivery incl. handle and connection cable.

Temperature measuring range (°C)	Rel. humidity measuring range (%)	Cable length (m)	Art. No.	Pack Qty.	€
-40 to +85	0 to 100	2	**KX07.1**	1 unit(s)	869,15

Thermohygrometers



Material hygrometer HumidCheck mini

Dostmann.

With measuring scale for building materials and wood. With temperature display. Automatic shut down.
Easy to use: Remove protective cap and insert the measuring electrode into the object being measured.

Technical specifications:

Art. No.	**KT96.1**	
Type	HumidCheck	
Parameters	Temperature, Humidity	
L x W x D	80 x 40 x 20 mm	
Weight	50 g	
Power supply	4 x 1.5 V button cell batteries V 13 GA	
Rel. humidity measuring range	wood	6 to 42%
	Building materials	0.2 to 2.0%
Resolution	wood	1%
	Building materials	0.1%
Rel. humidity accuracy	wood	±2% (<30%) ±4% (>30%)
	Building materials	±0.1% (<1.4%) ±0.2% (>1.4%)

Delivery incl. hand-strap and batteries.

Type	Art. No.	Pack Qty.	€
HumidCheck	**KT96.1**	1 unit(s)	30,45



Weather station analogue

TFA-Dostmann. Material: Stainless steel.

For inside and outside. With hygrometer, barometer and thermometer.

Technical specifications:

Art. No.	**X257.1**
Type	Weather station
W x D x H	95 x 18 x 280 mm
Ø	70 mm
Weight	380 g

Type	Art. No.	Pack Qty.	€
Weather station	**X257.1**	1 unit(s)	52,80



Material hygrometer

Dostmann.

For wood and building material humidity measurements, e.g. for wood materials, veneers, plaster, screed, cardboard, etc. With graphic measuring scale for both parameters.
Easy to use: Remove protective cap and insert the measuring electrode into the object being measured.

Technical specifications:

Art. No.	**EX62.1**	
Parameters	Humidity	
W x D x H	40 x 20 x 130 mm	
Weight	100 g	
Power supply	3 x 3 V button cell batteries CR 2032	
Rel. humidity measuring range	wood	6 to 44%
	building materials	0.2 to 2.0%
Resolution	wood	1%
	building materials	0.1%
Rel. humidity accuracy	wood	±1%
	building materials	±0.05%

Delivery incl. batteries.

Version	Art. No.	Pack Qty.	€
Material hygrometer	**EX62.1**	1 unit(s)	67,50



Weather station analogue black

ROTH SELECTION. Material: Plastic.

Suitable for inside use only. With thermometer, hygrometer and barometer.

Technical specifications:

Art. No.	**A889.1**
Type	Weather station
Temperature accuracy	±1 °C
Rel. humidity accuracy	±5% rel. hum.
Air pressure accuracy	±5-10%
Ø	160 mm
Weight	180 g

Type	Art. No.	Pack Qty.	€
Weather station	**A889.1**	1 unit(s)	37,90

Weather stations, barometers



Weather station analogue silver

TFA-Dostmann. Material: Stainless steel.

For inside and outside. With barometer, hygrometer and thermometer.

Technical specifications:

Art. No.	Y246.1
Type	Weather station
Temperature accuracy	±1 °C
Rel. humidity accuracy	±5% rel. hum.
Air pressure accuracy	±5-10%
Ø	160 mm
Weight	440 g

Type	Art. No.	Pack Qty.	€
Weather station	**Y246.1**	1 unit(s)	74,00



Wireless rain gauge Monsoon

TFA-Dostmann.

For wireless transmission of precipitation amount (up to 9999 mm) and ambient temperature (max. 30 m range in open air).

- Display of precipitation during the previous hour, 24 hours and total precipitation (since last reset), including time and date of storage
- Display of precipitation amount in a bar chart, the previous 7 days, 7 weeks or 7 months can be successively displayed
- Audible and visual alarms at onset of rainfall
- Max./min. function for indoor and outdoor temperature
- Programmable temperature alarm for interior and exterior
- Trend arrow for ambient temperature
- Self-draining rainwater tank
- Wall- or table-mountable receiver
- Transmitter dimensions: Ø 132 x H 160 mm

Technical specifications:

Art. No.	XA41.1
Deposit	0–9999 mm
Ext. temp. measuring range	-50 to +70 °C
Temperature measuring range, internal	-10 to +50 °C
W x D x H	94 x 25 x 122 mm
Power supply	Receiver: 3 x 1.5 V batteries Transmitter: 2 x 1.5 V batteries

Delivery incl. rainwater tank (transmitter) and batteries.

Type	Art. No.	Pack Qty.	€
Monsoon	**XA41.1**	1 unit(s)	48,15



Radio weather station METEO SENS

TFA-Dostmann.

Based on air pressure changes, the weather symbol (sun, clouds or raindrops) in conjunction with tendency arrows give a weather forecast.

- Integrated barometer for air pressure measurement
- Bar chart with the air pressure history of the last 24 hours
- Measuring outside temperature and humidity via wireless transmitter
- Can be extended to up to three wireless transmitters
- Radio clock with date
- To place

Technical specifications:

Art. No.	1AX4.1
Type	METEO SENS
Temperature measuring range, internal	0 to +50 °C
Ext. temp. measuring range	-40 to +60 °C
Rel. humidity measuring range	1 to 99 %
Resolution	0,1 °C, 1 %
Temperature accuracy	±1 °C (0 to 50 °C)
Rel. humidity accuracy	±5% (30 to 80%)
Radio range outdoors	80 m
W x D x H	157 x 43 x 117 mm
Weight	217 g
Power supply	4x AA 1.5 V batteries (2x base stations, 2x transmitters)

Delivery incl. 1 transmitter.
Without batteries, please order separately.

Type	Art. No.	Pack Qty.	€
METEO SENS	**1AX4.1**	1 unit(s)	45,15

Accessories transmitter for METEO SENS

TFA-Dostmann.

Delivery without batteries, please order separately.

Version	Art. No.	Pack Qty.	€
Additional transmitter	**1E15.1**	1 unit(s)	9,70



Differential pressure gauge testo 510 Pocket

Testo.

For measuring small differential pressures (e.g. testing filter permeability), measuring gas flow pressure, etc.

- With display illumination
- AUTO-OFF function to prolong battery life, can be switched off
- With temperature compensation
- Min/max function, hold function
- Magnets on the back enable hands-free working
- Tube connections for ID 4 or 6 mm

Technical specifications:

Art. No.	**HY42.1**
Type	testo 510
Parameters	Pressure
Air pressure measuring range	0–100 hPa
Resolution	0,01 hPa
Air pressure accuracy	±0.03 hPa (0–0.30 hPa), ±0.05 hPa (0.31–1.00 hPa), ±(0.1 hPa + 1.5% of m.v.) (1.01 to 100 hPa)
Units	hPa, mbar, Pa, mmH_2O, mmHg, inH_20, inHg, psi
Operating temperature	0 to +50 °C
Display	Yes
Min./max. function	Yes
Weight	255 g
L x W x D	119 x 46 x 25 mm
Power supply	2x battery Micro/AAA 1.5 V

Delivery incl. silicone connector tubes (2 x 20 cm), wrist strap, belt bag, protective cover, calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
testo 510	**HY42.1**	1 unit(s)	156,95



Absolute pressure meter testo 511 Pocket

Testo.

- Display illumination
- AUTO-OFF function to prolong battery life, can be switched off
- With barometric height measuring
- Min/max function
- Tube connections for ID 4 or 6 mm

Technical specifications:

Art. No.	**HY43.1**
Type	testo 511
Parameters	Pressure
Air pressure measuring range	300–1200 hPa
Resolution	0,1 hPa
Air pressure accuracy	±3 hPa
Units	hPa, mbar, Pa, mmH_2O, mmHg, inH_2O, inHg, psi, m, ft
Operating temperature	0 to +50 °C
Display	Yes
Min./max. function	Yes
Auto Off function	Yes
Weight	225 g
L x W x D	119 x 46 x 25 mm
Power supply	2x battery Micro/AAA 1.5 V

Delivery incl. wrist strap, belt bag, protective cover, calibration protocol and batteries.

Type	Art. No.	Pack Qty.	€
testo 511	**HY43.1**	1 unit(s)	180,60

Air quality measuring devices



Carbon dioxide meter Air CO_2ntrol 5000

Dostmann.

For monitoring the CO_2 concentration in buildings where people are present. With data logging function.

- Large backlit display with history function
- Traffic light display: LEDs (green, yellow, red) signalise CO_2 pollution
- Additionally with acoustic alarm signal as soon as the individually set limit is exceeded
- Logger function saves data as a CSV file on a Micro SD card; evaluation via Microsoft Excel®
- For table and wall mounting

Technical specifications:

Art. No.	**1EN4.1**
Type	Air CO_2ntrol 5000
Parameters	Temperature, Humidity, Carbon dioxide
Temperature measuring range	0 to +50 °C
Carbon dioxide measuring range	0 - 5000 ppm
Rel. humidity measuring range	5 to 95 %
Resolution	0.1 °C, 1 % rel. hum., 1 ppm (0–1000 ppm) 5 ppm (1001–2000 ppm) 10 ppm (2001–5000 ppm)
Temperature accuracy	±0.5 °C
Carbon dioxide accuracy	±50 ppm or 5 %, the largest value applies (0–3000 ppm), ±7 % (from 3000 ppm)
Rel. humidity accuracy	±5 % rel. hum.
Measurement data memory	Yes
Measuring cycle	5/30/60/300/600 s
L x W x D	120 x 66 x 33 mm
Power supply	Mains-powered
Mains connection	100–240 V, 50/60 Hz
Weight	103 g

Delivery incl. micro SD card and mains adapter.

Type	Art. No.	Pack Qty.	€
Air CO_2ntrol 5000	**1EN4.1**	1 unit(s)	170,95



Carbon dioxide meter CP11

Rotronic.

Monitors CO_2 concentration, relative humidity and temperature.

- Integrated data logger and real-time clock:
  18,000 values with time stamp, automatic recording
  (ppm, % RH, °C)
  99 individual values with time stamp, manual recording
  (ppm, % RH, °C, DWPT, WBT)
- Audible CO_2 alarm
- Maximum, minimum and average value display
- Calculates the dewpoint (DP) and wet bulb temperature (WBT)
- Large backlit display
- Adjustable auto power off function
- Logger programming, data transfer and data display with Windows-compatible software
- Mini USB interface

Technical specifications:

Art. No.	**NL25.1**
Type	CP11
Parameters	Temperature, Carbon dioxide, Humidity
Temperature measuring range	-20 to +60 °C
Carbon dioxide measuring range	0–5000 ppm
Rel. humidity measuring range	0.1 to 99.95 %
Resolution	1 °C, 1 ppm, 0.01 %
Temperature accuracy	±0.3 K
Carbon dioxide accuracy	±30 ppm, plus ±5% of the value displayed
Rel. humidity accuracy	<2.5% (10–90%)
Measurement data memory	Yes
Dew point	Yes
L x W x D	234 x 77 x 42 mm
Power supply	Mains- and battery-powered using 4 x 1.5 V AA batteries
Weight	290 g

Delivery incl. SW2.1 software, mini USB data cable, storage bag and batteries. Please order power supply unit separately.

Type	Art. No.	Pack Qty.	€
CP11	**NL25.1**	1 unit(s)	378,15

Density meters

Hydrometer standard

Greiner-Glasinstrumente. Material: Glass.
Without thermometer. Body Ø 16 mm, stem Ø approx. 7–10 mm.



Measuring range (g/cm³)	Graduation (g/cm³)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
0.700 to 1.000	0,005	300	20	**PY81.1**	1 unit(s)	14,45
1.000 to 1.500	0,005	300	20	**PY82.1**	1 unit(s)	15,70
1.500 to 2.000	0,005	300	20	**PY83.1**	1 unit(s)	17,95

Hydrometer search spindle with twin scales

Greiner-Glasinstrumente. Material: Glass.
Without thermometer. Body Ø 18 mm, stem Ø 9 mm.
Graduations (°Bé) 0.01 and 1. measuring range (°Bé) 0 to 72.



Measuring range (g/cm³)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
1.00 to 2.00	350	20	**PY84.1**	1 unit(s)	24,25

Hydrometer precision

Greiner-Glasinstrumente. Material: Glass.
Without thermometer. Body Ø 16 mm, stem Ø 6.25 mm.



Measuring range (g/cm³)	Graduation (g/cm³)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
0.600 to 0.700	0,001	300	20	**HH87.1**	1 unit(s)	14,35
0.700 to 0.800	0,001	300	20	**HH88.1**	1 unit(s)	14,35
0.800 to 0.900	0,001	300	20	**HH89.1**	1 unit(s)	14,35
0.900 to 1.000	0,001	300	20	**HH90.1**	1 unit(s)	14,35
1.000 to 1.100	0,001	300	20	**HH91.1**	1 unit(s)	15,75
1.100 to 1.200	0,001	300	20	**HH92.1**	1 unit(s)	15,75
1.200 to 1.300	0,001	300	20	**HH93.1**	1 unit(s)	15,75
1.300 to 1.400	0,001	300	20	**HH94.1**	1 unit(s)	17,15
1.400 to 1.500	0,001	300	20	**HH95.1**	1 unit(s)	17,15
1.500 to 1.600	0,001	300	20	**HH96.1**	1 unit(s)	17,60
1.600 to 1.700	0,001	300	20	**HH97.1**	1 unit(s)	17,60
1.700 to 1.800	0,001	300	20	**HH98.1**	1 unit(s)	17,60
1.800 to 1.900	0,001	300	20	**HH99.1**	1 unit(s)	17,60
1.900 to 2.000	0,001	300	20	**HK03.1**	1 unit(s)	17,60

Density meters

Alcoholometer

ROTH SELECTION. Material: Glass.
Without thermometer.



Standard

Measuring range (vol. %)	Graduation (vol. %)	Limit of error (vol. %)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
0 to 100	1	±1	250	20	**HKX3.1**	1 unit(s)	34,35

Precision

Measuring range (vol. %)	Graduation (vol. %)	Limit of error (vol. %)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
10 to 20	0,1	±0,1	320	20	**HKX0.1**	1 unit(s)	47,70
30 to 40	0,1	±0,1	320	20	**HKX1.1**	1 unit(s)	47,70
40 to 50	0,1	±0,1	320	20	**HKX2.1**	1 unit(s)	56,75

Alcoholometer standard with thermometer

ROTH SELECTION. Material: Glass.
With thermometer.
Measuring range from 0 to 30 °C with 1 °C graduation.



Measuring range (vol. %)	Graduation (vol. %)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
0 to 100	1	340	20	**AT55.1**	1 unit(s)	52,25

Hydrometer Baumé

Greiner-Glasinstrumente. Material: Glass.
Without thermometer. Body Ø 16 mm, stem Ø 5.25 mm.



Measuring range (°Bé)	Graduation (°Bé)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
0.0 to 10.0	0,1	280	15	**HH80.1**	1 unit(s)	14,20
10.0 to 20.0	0,1	280	15	**HH81.1**	1 unit(s)	14,20
20.0 to 30.0	0,1	280	15	**HH82.1**	1 unit(s)	14,20
30.0 to 40.0	0,1	280	15	**HH83.1**	1 unit(s)	15,95
40.0 to 50.0	0,1	280	15	**HH84.1**	1 unit(s)	15,95
50.0 to 60.0	0,1	280	15	**HH85.1**	1 unit(s)	15,75
60.0 to 70.0	0,1	280	15	**HH86.1**	1 unit(s)	15,75

Density meters

Hydrometer made from polycarbonate

ROTH SELECTION. Material: PC.

Shatterproof. Without thermometer. Ideal for applications in the food and pharmaceutical industries.



For measuring density

Measuring range (g/cm³)	Graduation (g/cm³)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
1.020 to 1.220	0,002	300	20	**HKT3.1**	1 unit(s)	94,30
1.200 to 1.420	0,002	300	20	**HKT4.1**	1 unit(s)	94,30
1.400 to 1.620	0,002	300	20	**HKT5.1**	1 unit(s)	94,30

For measuring according to Baumé

Measuring range (°Bé)	Graduation (°Bé)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
0 to 25	0,2	300	15	**HKT7.1**	1 unit(s)	94,30
0 to 12	0,2	250	15	**HKT8.1**	1 unit(s)	94,30
19 to 31	0,2	250	15	**HKT9.1**	1 unit(s)	94,30

For measuring sodium chloride (saline solution)

Measuring range (%mas.)	Graduation (%mas.)	Length (mm)	Reference temperature (°C)	Art. No.	Pack Qty.	€
0 to 26	0,2	300	20	**HKT6.1**	1 unit(s)	94,30

Hydrometer cylinder

DWK Life Sciences. Material: DURAN® glass. Autoclavable: Yes.

Without graduations. With a round base and roughly ground edge.



A 121 °C

DURAN WHEATON KIMBLE

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
380	40	400	**KE08.1**	1 unit(s)	23,50
770	50	500	**KE09.1**	1 unit(s)	37,75

Test systems



Colour fan for standard colours RAL K5

ROTH SELECTION.

With **213 colour cards**, matt finish. Contains RAL 840-HR, RAL F 14 colour codes and RAL-F 81 traffic colours.
To precisely describe the colour shades in both paper and thin-layer chromatography and to determine the colour of chemicals, crystalline solids and natural dyes in textile and food colouring.

Type	Art. No.	Pack Qty.	€
Colour fan for standard colours	**0426.1**	1 unit(s)	66,55



Odour strips ROTILABO®

ROTH SELECTION.

For liquids. Made of filter cardboard 240 g/m².
Dimensions: W 6 x L 135 mm, in blocks of 60 strips.

Type	Pack.	Art. No.	Pack Qty.	€
Odour strips	5 x 60 strips	**1679.1**	300 unit(s)	28,50



Test swabs Ozone

ROTH SELECTION.

A simple test to determine the level of ozone in the air.

Application:
The test strip is placed at a location that is sheltered from the wind. Ten minutes later, its colour is then compared to a colour scale.

Verification of	Gradation (µg/m³)	Colour conversion	Art. No.	Pack Qty.	€
O_3	<90, 90–150, 150–210, >210	from white to brown	**L828.1**	12 unit(s)	19,90



Test swabs Aquadur®

ROTH SELECTION.

Quick test to guide semi-quantitative determination of **water hardness (total hardness)**.
Measuring range of 0 °d to more than 25 °d.
Conversion: 1 °d = 1.8 °f = 1.25 °e = 17.8 mg/l $CaCO_3$.
One box contains 100 test strips W 6 x L 95 mm.

Application:
The test strip is briefly dipped into the water to be measured. After approximately one minute, the colouring that has appeared can be compared to a colour scale and the hardness range can be determined.
Caution: The test paper must not come into contact with fingers.

Verification of	Gradation	Art. No.	Pack Qty.	€
Water hardness (total hardness)	<3 °d, >5 °d, >10 °d, >15 °d, >20 °d, >25 °d	**C725.1**	100 unit(s)	27,95



Test paper oil

Macherey-Nagel.

For rapidly detecting the presence of oil in water and/or soil. When the pale blue paper comes into contact with hydrocarbons, specifically gasoline, fuel oil, lubricating oil, etc., it turns a dark blue colour.

Technical specifications:

Substance	Colour reaction can be seen immediately (mg/l water)	Colour reaction can be seen clearly (mg/l water)
Petroleum ether (Kp. 40–80 °C)	250	400
Carburettor fuel (Super)	10	25
EL fuel oil	5	10
Lubricating oil	1	5

Verification of	Colour conversion	Art. No.	Pack Qty.	€
Oil	pale blue to dark blue	**L832.1**	100 unit(s)	28,50

Test systems



Test paper

Macherey-Nagel.

For qualitative determination of ions and chemical compounds. The test paper changes colour above a specific detection limit.

Lead acetate paper
On the reel, L 5 m x W 7 mm.

Danger H360D-H412

Verification of	Sensitivity limit	Colour conversion	Art. No.	Pack Qty.	€
Hydrogen sulphide (H_2S), Sulphide ions (S^{2-})	5 mg/l S^{2-}	from white to brown/black	**AXT4.1**	1 roll(s)	14,20

Potassium iodide starch paper
On the reel, L 5 m x W 7 mm.

Verification of	Sensitivity limit	Colour conversion	Art. No.	Pack Qty.	€
Nitrite ions (NO_2), free chlorine (Cl_2)	1 mg/l NO_2^-	from white to blue-violet	**AXT3.1**	1 roll(s)	13,95

Phosphatesmo KM
Paper strips, L 30 x W 15 mm.

Verification of	Sensitivity limit	Colour conversion	Art. No.	Pack Qty.	€
Sperm, acid phosphatase	in trace amounts	from white to violet	**AXT5.1**	25 unit(s)	142,00

Plumbtesmo
Paper strips, L 40 x W 25 mm.

Verification of	Sensitivity limit	Colour conversion	Art. No.	Pack Qty.	€
Lead (Pb), Lead ions(Pb^{2+})	5 mg/l Pb^{2+}	from white-yellow to pink-red	**1252.1**	40 unit(s)	57,10

Watesmo
On the reel, L 5 m x W 10 mm.

Verification of	Sensitivity limit	Colour conversion	Art. No.	Pack Qty.	€
Water (e.g. water in organic solvents)	in trace amounts	from light blue to dark blue	**AXT6.1**	1 roll(s)	35,50



Test kit water hardness

ROTH SELECTION.

A 5 ml water sample is added drop by drop as a test reagent until there is a change in colour. Each drop corresponds to 1° dGH.

Warning H290-H319
Delivery incl. sample container.

Verification of	Pack.	Art. No.	Pack Qty.	€
Water hardness	2 x 15 ml	**0519.1**	1 unit(s)	32,45

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Test systems



Test swabs QUANTOFIX®

Macherey-Nagel.

For semi-quantitive determination of various substances. The test swabs consist of a 0.2 mm-thick plastic strip with testing paper affixed to the lower end. After the test strip has been moistened, the colouration that appears is compared to a colour scale on the side of the can. The concentration value can be read or a concentration range can be estimated. Dimensions: W 6 x L 95 mm.

Aluminium

Test strips with additional reagent

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Aluminium Al^{3+}	0-5-20-50-200-500	**L865.1**	100 unit(s)	50,40

Ammonium

Test strips with additional reagent

Danger H290-H314

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Ammonium NH_4^+	0-10-25-50-100-200-400	**H920.1**	100 unit(s)	45,90

Ascorbic acid

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Ascorbic acid $C_6H_8O_6$	0-50-100-200-300-500-1000-2000	**LT42.1**	100 unit(s)	31,70

Benzalkonium chloride

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Benzalkonium chloride	0-10-25-50-100-250-500-1000	**HNY9.1**	100 unit(s)	30,50

Carbonate hardness

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Carbonate hardness CO_3^{2-}	0-3-6-10-15-20	**L863.1**	100 unit(s)	30,50

Chlorine

Test strips with additional reagent

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Chlorine Cl_2	0-1-3-10-30-100	**H921.1**	100 unit(s)	59,50

Chlorine 500

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Chlorine Cl_2	0-25-50-100-250-500	**1EL0.1**	100 unit(s)	30,95

Chlorine sensitive

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Chlorine sensitive Cl_2	0-0,1-0,5-1-3-10	**HPA0.1**	100 unit(s)	27,50

Chloride

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Chloride Cl^-	0-500-1000-1500-2000 ≥3000	**H922.1**	100 unit(s)	34,50

Cyanide

Test strips with additional reagent

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Cyanide CN^-	0-1-3-10-30	**L864.1**	100 unit(s)	61,30

EDTA

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
EDTA	0-100-200-300-400	**LT47.1**	100 unit(s)	31,20

Iron 100

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Iron 100 Fe^{2+}/Fe^{3+}	0-2-5-10-25-50-100	**L830.1**	100 unit(s)	26,30

Formaldehyde

Test strips with additional reagent

Danger H290-H314

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Formaldehyde HCHO	0-10-20-40-60-100-200	**HPA1.1**	100 unit(s)	54,50

Potassium

Test strips with additional reagent

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Potassium K^+	0-200-400-700-1000-1500	**LT48.1**	100 unit(s)	49,40

Copper

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Copper Cu^+/Cu^{2+}	0-10-30-100-300	**L831.1**	100 unit(s)	25,90

Molybdenum

Test strips with additional reagent

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Molybdenum Mo^{6+}	0-5-20-50-100-250	**P921.1**	100 unit(s)	68,80

Nickel

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Nickel Ni^{2+}	0-10-25-50-100-250-500-1000	**LT49.1**	100 unit(s)	30,90

Nitrate/nitrite I

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Nitrate NO_3^- / nitrite NO_2^-	NO_3^-: 0-5-10-25-50-75-100 mg/l NO_2^-: 0-0,5-2-5-10-25-50	**HPA2.1**	100 unit(s)	33,90

Nitrate/nitrite II

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Nitrate NO_3^- / nitrite NO_2^-	NO_3^-: 0-10-25-50-100-250-500 mg/l NO_2^-: 0-1-5-10-20-40-80	**C733.1**	100 unit(s)	28,90

Nitrite I

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Nitrite NO_2^-	0-1-5-10-20-40-80	**C734.1**	100 unit(s)	28,40

Nitrite II

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Nitrite NO_2^-	0-100-300-600-1000-2000-3000	**LT43.1**	100 unit(s)	28,50

Test systems

Nitrite/pH

Verification of	Gradation	Art. No.	Pack Qty.	€
Nitrite NO_2/pH	NO_2: 0-1-5-10-20-40-80 mg/l pH: 6,0-6,4-6,7-7,0-7,3-7,6-7,9-8,2-8,4-8,6-8,8-9,0-9,3-9,6	**HL20.1**	100 unit(s)	36,50

Peracetic acid I

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Peracetic acid $C_2H_4O_3$	0-5-10-20-30-50	**LT44.1**	100 unit(s)	34,10

Peracetic acid II

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Peracetic acid $C_2H_4O_3$	0-50-100-200-300-400-500	**LT45.1**	100 unit(s)	34,10

Peracetic acid III

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Peracetic acid $C_2H_4O_3$	0-500-1000-1500-2000	**LT46.1**	100 unit(s)	37,10

Peroxide I

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Peroxide H_2O_2	0-0,5-2-5-10-25	**L829.1**	100 unit(s)	26,90

Peroxide II

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Peroxide H_2O_2	0-1-3-10-30-100	**C735.1**	100 unit(s)	25,95

Peroxide III

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Peroxide H_2O_2	0-50-150-300-500-800-1000	**HPA3.1**	100 unit(s)	27,50

Phosphate
Test strips with additional reagent

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Phosphate PO_4^{3-}	0-3-10-25-50-100	**H923.1**	100 unit(s)	43,50

Sulphate

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Sulphate SO_4^{2-}	0->400->800->1200->1600	**P922.1**	100 unit(s)	29,80

Sulphite

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Sulphite SO_3^{2-}	0-10-25-50-100-250-500-1000	**C736.1**	100 unit(s)	28,50

Zinc
Test strips with additional reagent

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Zinc Zn^{2+}	0-2-5-10-25-50-100	**HPA4.1**	100 unit(s)	46,90

Tin

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Tin Sn^{2+}	0-10-25-50-100-250-500	**L866.1**	100 unit(s)	44,80



Test kit VISOCOLOR® *alpha*

Macherey-Nagel.

The product line covers colorimetric, as well as titrimetric procedures. Using **multicomponent reagents** ensures that **only one reagent is required to determine the presence of a chemical** (two reagents for Cl_2).

Delivery incl. sample container with 5 ml ring marking, dropper bottles or powder flasks with the required reagents, dosing spoon for powder reagents and colour chart.

Ammonium

Danger H290-H314

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Ammonium NH_4^+	0-0,2-0,5-1-2-3	50	**X319.1**	1 unit(s)	40,50

Carbonate hardness
1 drop = 1 °dGH (corresponds to 18 mg/l $CaCO_3$)

Warning H226-H319

Verification of	Gradation	No. measurements	Art. No.	Pack Qty.	€
Carbonate hardness	1 °dH	100	**T361.1**	1 unit(s)	21,90

Chlorine

Warning H315-H319

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Chlorine Cl_2	0,25-0,5-1,0-1,5-2,0	150	**T362.1**	1 unit(s)	23,40

Total hardness
1 drop = 1 °dGH (corresponds to 18 mg/l $CaCO_3$)

Warning H226-H319-H336

Verification of	Gradation	No. measurements	Art. No.	Pack Qty.	€
Total hardness	1 °dH	50	**T363.1**	1 unit(s)	25,50

Nitrate

Warning H315-H317-H319-H412

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nitrate NO_3^-	2-8-15-30-50	100	**X320.1**	1 unit(s)	38,10

Nitrite

Warning H315

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nitrite NO_2^-	0,05-0,10-0,25-0,5-1,0	200	**T364.1**	1 unit(s)	26,70

Test systems

pH 5.0–9.0

Danger H225

Verification of	Gradation	No. measure-ments	Art. No.	Pack Qty.	€
pH 5.0–9.0	pH 5,0-5,5-6,0-6,5-7,0-7,5-8,0-8,5-9,0	200	**T365.1**	1 unit(s)	30,95

Phosphate

Danger H315-H318

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Phosphate PO_4^{3-}	2-5-10-15-20	70	**X321.1**	1 unit(s)	36,80

Residual hardness

Warning H226-H315-H319

Verification of	Gradation	No. measure-ments	Art. No.	Pack Qty.	€
Residual hardness	0,00-0,04-0,08-0,15-0,30 °dH	200	**X322.1**	1 unit(s)	42,95



Test kit VISOCOLOR® HE

Macherey-Nagel.

This highly sensitive colorimetric measuring method detects even the smallest concentrations of substances. In conjunction with the use of highly sensitive substances and an optical illusion (double irradiation), there is in an **increase in their sensitivity by a factor of between 10 and 100 when compared to other VISOCOLOR® test kits**.

Delivery incl. robust plastic box, the required reagents, a comparator box to hold the ten colour comparison disc and two measuring tubes.

Ammonium

Danger H290-H314

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Ammonium NH_4	0-0,02-0,04-0,07-0,10-0,15-0,20-0,30-0,40-0,50	110	**T379.1**	1 unit(s)	107,00

Free + total chlorine

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Free + total chlorine Cl_2	0-0,02-0,04-0,06-0,10-0,15-0,20-0,30-0,40-0,60	160	**T380.1**	1 unit(s)	107,00

Cyanide

Danger H226-H314-H332-H334-EUH031

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Cyanide CN.	0-0,002-0,004-0,007-0,010-0,015-0,020-0,025-0,030-0,040	55	**T381.1**	1 unit(s)	105,00

Iron

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Iron Fe	0-0,01-0,02-0,03-0,04-0,05-0,07-0,10-0,15-0,20	300	**T382.1**	1 unit(s)	107,00

Copper

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Copper Cu^{2+}	0-0,04-0,07-0,10-0,15-0,20-0,25-0,30-0,40-0,50	150	**T383.1**	1 unit(s)	107,00

Manganese

Danger H226-H290-H302+H312+H332-H314-H317-H335-H336-H351-H371-H373-H400

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Manganese Mn	0-0,03-0,06-0,10-0,15-0,20-0,25-0,30-0,40-0,50	100	**T384.1**	1 unit(s)	105,00

Nitrite

Warning H290

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Nitrite NO_2^-	0-0,005-0,010-0,015-0,02-0,03-0,04-0,06-0,08-0,10	150	**T385.1**	1 unit(s)	107,00

Phosphate

Danger H290-H314-EUH031

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Phosphate PO_4^{3-}	0-0,05-0,10-0,15-0,20-0,3-0,4-0,6-0,8-1,0	300	**T388.1**	1 unit(s)	107,00

Phosphate (DEV)

Method according to the chemical basis of the German standard methods for testing water, waste water and sludge (DEV).

Danger H314

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Phosphate PO_4^{3-}	0-0,01-0,02-0,03-0,05-0,07-0,10-0,15-0,20-0,25	100	**T387.1**	1 unit(s)	105,00

Silicon

Danger H315-H318-EUH031

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Silicon Si	0-0,01-0,02-0,03-0,05-0,07-0,10-0,15-0,20-0,30	120	**T389.1**	1 unit(s)	107,00



Test kit VISOCOLOR® ECO

Macherey-Nagel.

The product line covers colorimetric, as well as titrimetric procedures. ECO test kits are suitable for **analysing substances in the water with low limit values, whereby environmentally hazardous and toxic substances are largely eliminated**. Very easy to operate using the pictograms.

Delivery incl. two 20 mm measuring tubes with screw cap, moveable comparator to hold the measuring tubes, colour chart, 5 ml plastic syringe, bottles with the reagents and dosing spoon.

Ammonium

Colorimetric procedure. Suitable for use with PF12 photometer.

Danger H226-H290-H314-H412

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Ammonium NH_{4+}	0-0,2-0,3-0,5-0,7-1-2-3	50	**T366.1**	1 unit(s)	57,00

Calcium

Titrimetric procedure.

1 drop = 5 mg/l

Danger H226-H290-H314-H336

Verification of	Gradation	No. measurements	Art. No.	Pack Qty.	€
Calcium Ca^{2+}	5 mg/l	100	**X323.1**	1 unit(s)	35,80

Carbonate hardness

Titrimetric procedure.

1 drop = 1 °dGH (corresponds to 18 mg/l $CaCO_3$)

Danger H225

Verification of	Gradation	No. measurements	Art. No.	Pack Qty.	€
Carbonate hardness	1 °dH	100	**T367.1**	1 unit(s)	46,50

Chlorine

Colorimetric procedure. Suitable for use with PF12 photometer.

Warning H315-H319

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Chlorine Cl_2	<0,1-0,1-0,2-0,3-0,4-0,6-0,9-1,2-2,0	150	**T368.1**	1 unit(s)	49,90

Chloride

Colorimetric procedure. Suitable for use with PF12 photometer.

Danger H225-H290-H301+H311+H331-H314-H370-H373-H413

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Chloride Cl^-	1-2-4-7-12-20-40-60	90	**T369.1**	1 unit(s)	58,60

Chromium

Colorimetric procedure. Suitable for use with PF12 photometer.

Danger H314

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Chromium (VI) Cr	0,02-0,05-0,10-0,15-0,20-0,30-0,40-0,50	140	**T370.1**	1 unit(s)	59,70

Cyanide

Colorimetric procedure. Suitable for use with PF12 photometer.

Danger H290-H314-H334-EUH031

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Cyanide CN^-	0-0,01-0,02-0,03-0,05-0,07-0,10-0,15-0,20	100	**X324.1**	1 unit(s)	76,90

Cyanuric acid

Colorimetric procedure. Suitable for use with PF12 photometer.

Warning H302-H315-H319

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Cyanuric acid	10-15-20-30-40-60-80-100	100	**X325.1**	1 unit(s)	95,70

Iron

Colorimetric procedure. Suitable for use with PF12 photometer.

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Iron Fe	0-0,04-0,07-0,10-0,15-0,20-0,30-0,50-1,0	100	**T371.1**	1 unit(s)	51,80

Total hardness

Titrimetric procedure.

1 drop = 1 °dGH (corresponds to 18 mg/l $CaCO_3$)

Warning H226-H315-H319

Verification of	Gradation	No. measurements	Art. No.	Pack Qty.	€
Total hardness	1 °dH	100	**T372.1**	1 unit(s)	46,50

Potassium

Colorimetric procedure. Suitable for use with PF12 photometer.

Warning H290-H302-H315-H319

Verification of	Gradation (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Potassium K^+	2-3-4-6-8-10-15	60	**Y556.1**	1 unit(s)	115,00

Test systems

Silica
Colorimetric procedure. Suitable for use with PF12 photometer.

Danger H315-H318-EUH031

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Silica SiO_2	0-0,2-0,4-0,6-1,0-1,5-2,0-2,5-3,0	80	**Y557.1**	1 unit(s)	66,70

Copper
Colorimetric procedure. Suitable for use with PF12 photometer.

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Copper Cu^{2+}	0-0,1-0,2-0,3-0,5-0,7-1,0-1,5	100	**T373.1**	1 unit(s)	57,10

Manganese
Colorimetric procedure. Suitable for use with PF12 photometer.

Danger H290-H302+H312-H314-H317-H335-H351-H373-H400

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Manganese Mn	0-0,1-0,2-0,3-0,5-0,7-0,9-1,2-1,5	70	**Y558.1**	1 unit(s)	68,70

Nickel
Colorimetric procedure. Suitable for use with PF12 photometer.

Danger H272-H290-H302-H314-H317-H334-H335

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Nickel Ni^{2+}	0-0,1-0,2-0,3-0,5-0,7-0,9-1,2-1,5	150	**X326.1**	1 unit(s)	86,60

Nitrate
Colorimetric procedure. Suitable for use with PF12 photometer.

H411

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Nitrate NO_3^-	0-4-10-20-30-50-70-90-120	120	**T374.1**	1 unit(s)	49,10

Nitrite
Colorimetric procedure. Suitable for use with PF12 photometer.

Warning H290

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Nitrite NO_2^-	0-0,02-0,03-0,05-0,07-0,1-0,2-0,3-0,5	150	**T375.1**	1 unit(s)	49,90

pH 4.0 – 9.0
Titrimetric procedure.

Danger H225

Verification of	Gradation	No. measure-ments	Art. No.	Pack Qty.	€
pH 4.0–9.0	pH 4,0-5,0-6,0-6,5-7,0-7,5-8,0-8,5-9,0	400	**T376.1**	1 unit(s)	49,90

Phosphate
Colorimetric procedure. Suitable for use with PF12 photometer.

Danger H315-H318

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Phosphate PO_4^{3-}	0-0,2-0,3-0,5-0,7-1-2-3-5	80	**T377.1**	1 unit(s)	49,10

Swimming pool (chlorine + pH value)
Titrimetric procedure.

Warning H315-H319

Verification of	Gradation	No. measure-ments	Art. No.	Pack Qty.	€
chlorine/pH	Cl_2: 0,1-0,2-0,3-0,4-0,6-0,9-1,2-2,0 mg/l pH: 6,9-7,2-7,4-7,6-7,8-8,2	150	**T378.1**	1 unit(s)	67,10

Sulphide
Colorimetric procedure. Suitable for use with PF12 photometer.

Danger H314-H412

Verification of	Gradation (mg/l)	No. measure-ments	Art. No.	Pack Qty.	€
Sulphide S^{2-}	0-0,1-0,2-0,3-0,4-0,5-0,6-0,7-0,8	90	**Y560.1**	1 unit(s)	67,20

Sulphite
Titrimetric procedure.
1 drop = 1 mg/l

Warning H315-H319

Verification of	Gradation	No. measure-ments	Art. No.	Pack Qty.	€
Sulphite SO_3^{2-}	1 mg/l	60	**Y559.1**	1 unit(s)	49,90



Round cuvette test NANOCOLOR®

Macherey-Nagel.

Quick tests for photometric analysis. Reagents and additional reagents are precisely pre-dosed for optimum accuracy and correctness of measured results. Convenient, safe removal of round cuvettes (external diameter 16 mm) from the stable box with coloured pictograms providing step-by-step instructions on the cover. Batch-specific information can be accessed via a 2D bar code on the reverse of the packaging.
For example, NANOCOLOR® round cuvette tests are suitable for use with the PF12^{Plus} photometer.

Ammonium 3

Warning H302

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Ammonium NH_4/NH_4-N	NH_4^+: 0,05-3,00, NH_4-N: 0,04-2,30	20	**KEK4.1**	1 unit(s)	84,50

Ammonium 10

Warning H302

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Ammonium NH_4/NH_4-N	NH_4^+: 0,2-10,0, NH_4-N: 0,2-8,0	20	**KEK5.1**	1 unit(s)	84,50

Ammonium 50

Warning H302

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Ammonium NH_4/NH_4-N	NH_4^+: 1,0-50,0, NH_4-N: 1,0-40,0	20	**KEK6.1**	1 unit(s)	84,50

Ammonium 100

Warning H302-H315-H319

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Ammonium NH_4/NH_4-N	NH_4^+: 5-100, NH_4-N: 4-80	20	**KEK7.1**	1 unit(s)	84,50

Ammonium 200

Warning H302-H315-H319

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Ammonium NH_4/NH_4-N	NH_4^+: 40-200, NH_4-N: 30-160	20	**KEK8.1**	1 unit(s)	84,50

Carbonate hardness 15

Verification of	Measuring range	No. measurements	Art. No.	Pack Qty.	€
Carbonate hardness	1.0-15 °d, 0.4-5.4 mmol/l H^+	20	**KEK9.1**	1 unit(s)	77,00

Chloride 50

Danger H225-H290-H301+H311+H331-H314-H370-H373-H413

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Chloride Cl^-	Cl^-: 0,5-50,0	20	**KEL0.1**	1 unit(s)	63,80

Chloride 200

Danger H225-H290-H301+H311+H331-H314-H370-H373-H413

Verification of	Measuring range (g/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Chloride Cl^-	Cl^-: 0,10-1,00, Cl^-: 5-200	20	**KEL1.1**	1 unit(s)	63,80

Chlorine/ozone 2

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Chlorine Cl_2/ Ozone O_3	O_3: 0,05-2,00, Cl_2: 0,05-2,50	20	**KEL2.1**	1 unit(s)	36,50

Chromate 5

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Chromate Cr (VI)	Cr: 0.05-2.00	20	**KEL3.1**	1 unit(s)	68,50

Chromium 2 total

Danger H272-H302-H315-H317-H319-H334-H335

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Chromium Cr	Cr: 0.05-2.00	20	**KEL4.1**	1 unit(s)	90,40

CSB 60

Required for determining block thermostat (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H302+H312+H332-H314-H317-H373-H412

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
CSB	O_2: 5-60	20	**KEL5.1**	1 unit(s)	81,50

CSB 160

Required for determining block thermostat (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H302+H312+H332-H314-H317-H373-H412

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
CSB	O_2: 15–160	20	**KEL6.1**	1 unit(s)	81,50

CSB 600

Required for determining block thermostat (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H302+H312+H332-H314-H317-H340-H350-H373-H412

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
CSB	SO_2: 50–600	20	**KEL7.1**	1 unit(s)	81,50

Test systems

CSB 1500
Required for determining block thermostat (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H302+H312+H332-H314-H317-H340-H350-H360Df-H373-H412

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
CSB	O_2: 100–1500	20	**KEL8.1**	1 unit(s)	81,50

CSB 4000
Required for determining block thermostat (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H302+H312+H332-H314-H317-H340-H350-H373-H412

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
CSB	O_2: 400–4000	20	**KEL9.1**	1 unit(s)	81,50

CSB 10000
Required for determining block thermostat (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H302+H312+H332-H314-H317-H340-H350-H360Df-H373-H412

Verification of	Measuring range (g/l)	No. measurements	Art. No.	Pack Qty.	€
CSB	O_2: 1.0–10.0	20	**KEN0.1**	1 unit(s)	81,50

Iron 3 + total
Required for determining total metal, digestion reagent NanOx metal (Art. No. KEX2.1).

Danger H314

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Iron Fe	Fe: 0.10–3.00	20	**KEN1.1**	1 unit(s)	69,60

Hardness 20

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Total hardness, Magnesium Mg_{2+}, Calcium Ca^{2+}	1,0-20,0 °d, Mg^{2+}: 5-50, Ca^{2+}: 10-100	20	**KEN2.1**	1 unit(s)	68,50

Copper 5 + total
Required for determining total metal, digestion reagent NanOx metal (Art. No. KEX2.1).

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Copper Cu^{2+}	Cu^{2+}: 0,10-7,00	20	**KEN3.1**	1 unit(s)	86,50

Nickel 4 + total
Required for determining total metal, digestion reagent NanOx metal (Art. No. KEX2.1).

Danger H272-H290-H314-H317-H334-H335

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nickel Ni^{2+}	Ni^{2+}: 0.10–7.00	20	**KEN5.1**	1 unit(s)	83,50

Nitrate 50

Danger H226-H290-H302-H314-H336

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nitrate NO_3^-/ NO_3-N	NO_3^-: 2-100, NO_3-N: 0,3-22,0	20	**KEN6.1**	1 unit(s)	91,50

Nitrate 250

Danger H226-H290-H302-H314-H336

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nitrate NO_3^-/ NO_3-N	NO_3^-: 20-250, NO_3-N: 4-60	20	**KEN7.1**	1 unit(s)	91,50

Nitrite 2

Warning H319

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nitrite NO_2^-/ NO_2-N	NO_2^-: 0,02-1,50, NO_2-N: 0,003-0,460	20	**KEN8.1**	1 unit(s)	69,00

Nitrite 4

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nitrite NO_2^-/ NO_2-N	NO_2^-: 0,3-13,0, NO_2-N: 0,1-4,0	20	**KEN9.1**	1 unit(s)	69,00

Peroxide 2

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Peroxide H_2O_2	H_2O_2: 0.03–2.00	10–19	**KEP0.1**	1 unit(s)	66,40

Phosphate 1 ortho + total
Block thermostat required for determining total phosphate (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H272-H302-H315-H317-H319-H334-H335

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Phosphate PO_4^{3-}/PO_4-P	PO_4^{3-}: 0,2-5,0, P (PO_4-P): 0,05-1,50	20	**KEP1.1**	1 unit(s)	88,90

Phosphate 5 ortho + total
Block thermostat required for determining total phosphate (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H272-H302-H315-H317-H319-H334-H335

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Phosphate PO_4^{3-}/PO_4-P	PO_4^{3-}: 0,5-15,0, P (PO_4-P): 0,20-5,00	20	**KEP2.1**	1 unit(s)	88,90

Test systems

Phosphate 15 ortho + total
Block thermostat required for determining total phosphate (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H272-H302-H315-H317-H319-H334-H335

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Phosphate PO_4^{3-}/PO_4-P	PO_4^{3-}: 1,0-45,0, P (PO_4-P): 0,30-15,00	20	**KEP3.1**	1 unit(s)	88,90

Phosphate 45 ortho + total
Block thermostat required for determining total phosphate (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H272-H302-H315-H317-H319-H334-H335

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Phosphate PO_4^{3-}/PO_4-P	PO_4^{3-}: 15-150, P (PO_4-P): 5,0-50,0	20	**KEP4.1**	1 unit(s)	88,90

Residual hardness 1

Verification of	Measuring range	No. measurements	Art. No.	Pack Qty.	€
Residual hardness	0.02–1.00 °d, 0.004–0.180 mmol/l	20	**KEP5.1**	1 unit(s)	73,70

Total nitrogen TN_b22
Required for determining block thermostat (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H226-H272-H290-H302-H314-H317-H334-H335-H336

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nitrogen N	N: 0.5–22.0	20	**KEP6.1**	1 unit(s)	103,00

Total nitrogen TN_b60
Required for determining block thermostat (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H226-H272-H290-H302-H314-H317-H334-H335-H336

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nitrogen N	N: 3–60	20	**KEP7.1**	1 unit(s)	103,00

Total nitrogen TN_b220
Required for determining block thermostat (e.g. NANOCOLOR® VARIO Mini, Art. No. KEX3.1).

Danger H226-H272-H290-H302-H314-H317-H334-H335-H336

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Nitrogen N	N: 5–220	20	**KEP8.1**	1 unit(s)	103,00

Sulphate LR 200

Warning H302+H332-H373-H412

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Sulphate SO_4^{2-}	SO_4^{2-}: 20–200	20	**KEP9.1**	1 unit(s)	77,00

Sulphate MR 400

Warning H302+H332-H373-H412

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Sulphate SO_4^{2-}	SO_4^{2-}: 40–400	20	**KET0.1**	1 unit(s)	77,00

Sulphate HR 1000

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Sulphate SO_4^{2-}	SO_4^{2-}: 200-1000	20	**1CA5.1**	1 unit(s)	77,00

Sulphide 3

Danger H314-H412

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Sulphide S^{2-}	S^{2-}: 0.05–3.00	20	**KET2.1**	1 unit(s)	88,90

Sulphite 10

Warning H302-H373

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Sulphite SO_3^{2-}	SO_3^{2-}: 0.2-10.0	20	**KET3.1**	1 unit(s)	83,50

Sulphite 100

Danger H314

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Sulphite SO_3^{2-}	SO_3^{2-}: 5-100	19	**KET4.1**	1 unit(s)	74,60

Surfactant 4, anionic

Danger H226-H302+H312-H315-H319-H331-H336-H351-H361-H371-H373

Verification of	Measuring range (mg/l, mg/l)	No. measurements	Art. No.	Pack Qty.	€
Surfactant, anionic	SDS: 0.20–3.5, MBAS: 0.20-4.00	20	**KET5.1**	1 unit(s)	102,00

Surfactant 4, cationic

Danger H226-H302+H312-H315-H319-H331-H336-H351-H361-H371-H373

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Surfactant, cationic	CTAB: 0.20-4.00	20	**KET6.1**	1 unit(s)	102,00

Surfactant 15, non-ionic

Warning H226-H302+H312+H332-H315-H319-H336-H351-H371

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Surfactant ,non-ionic	Triton®X-100: 0.3-15.0	20	**KET7.1**	1 unit(s)	102,00

Zinc 4 + total (with CN)
Required for determining total metal, digestion reagent NanOx metal (Art. No. KEX2.1).

Danger H272-H300+H310+H330-H315-H318-H335-H360FD-H410-EUH032

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Zinc Zn^{2+}	Zn^{2+}: 0.10-4.00	20	**KET8.1**	1 unit(s)	87,40

Zinc 6 + total Zinc (CN-free)
Required for determining total metal, digestion reagent NanOx metal (Art. No. KEX2.1).

Warning H302-H315-H319

Verification of	Measuring range (mg/l)	No. measurements	Art. No.	Pack Qty.	€
Zinc Zn^{2+}	Zn^{2+}: 0.20-6.00	20	**KET9.1**	1 unit(s)	87,40

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Photometer PF-12^{Plus} for water experiments

Macherey-Nagel.

Portable photometer for use in the laboratory and the field, with pre-programmed Visocolor® ECO and Nanocolor® round cuvette tests. Nephelometric turbidity measurement possible (1-1000 NTU).

- Illuminated graphic display
- Automatic wave length setting
- Cuvette rack for round cuvettes, with 16 mm OD
- USB port for data transfer and power supply
- Dust and waterproof casing acc. to IP 68

Technical specifications:

Art. No.	**LP73.1**
Type	PF-12^{Plus}
Optics	Automatic filter wheel with seven interference filters
Light source	Wolfram lamp
Wavelength	345/436/470/540/585/620/690 nm
Accuracy	±2 nm
Photometric range	±3 E
Photometric correctness	±1 %
IP rating	68
Data memory	1000 measured values, GLP-compliant
Port	USB 2.0
L x W x D	215 x 100 x 65 mm
Power supply	Batteries: 4 x 1.5 V AA

Delivery incl. Software DVD, batteries, 4 empty cuvettes, funnel, beaker, syringe, USB cable, calibration cuvette and transport case. If required, please order USB connector separately.

Type	Art. No.	Pack Qty.	€
PF-12^{Plus}	**LP73.1**	1 unit(s)	1.110,00



Photometer MD100 for chlorine

Tintometer.

For free, bound and total chlorine.

- Internal ring buffer for 16 datasets with real-time clock and date
- Auto-Off function
- Countdown function to maintain reaction time

Determination of chlorine content using reagent tablets.

- For measuring free chlorine with DPD No. 1
- For measuring total chlorine with DPD No. 1 + DPD No. 3

For checking the degree of accuracy and reproducibility of measured results with a reference standard kit (please order separately).

Technical specifications:

Art. No.	**YE08.1**
Type	MD100
Measuring range	0.01 to 6 mg/l
Resolution	0.01 mg/l
Optics	LEDs, interference filter and photosensor
Light source	LED
Wavelength	530 nm
Accuracy	±0.05 mg/l (0 to 1 mg/l) ±0.10 mg/l (1.01 to 2 mg/l) ±0.20 mg/l (2.01 to 3 mg/l) ±0.30 mg/l (3.01 to 4 mg/l) ±0.40 mg/l (4.01 to 6 mg/l)
Photometric correctness	FS 3 %
IP rating	68
Operating temperature	+5 to +40 °C
L x W x D	155 x 75 x 35 mm
Weight	260 g
Power supply	Batteries: 4 x 1.5 V AAA

Delivery incl. three glass round cuvettes with lids, 1 stirring rod, 1 brush, DPD No. 1 + No. 3 reagent tablets, plastic case and batteries.

Type	Art. No.	Pack Qty.	€
MD100	**YE08.1**	1 unit(s)	513,00



Turbidimeter TB 211 IR

Tintometer.

The wide measuring range from 0.01 to 1100 NTU (= TE/F = FNU) with a detection limit of 0.01 NTU gives this device a versatile range of applications, from waste water to drinking water. For coloured and colourless water.

- Backlit LCD display
- AUTO-OFF function after 10 minutes to prolong battery life
- Internal ring buffer for 16 datasets with real-time clock and date
- Membrane keyboard
- With USB interface for direct transfer of measured values to a PC

Technical specifications:

Art. No.	**LP38.1**
Type	TB 211 IR
Measuring range	0.01 to 1100 NTU
Resolution	0.01 NTU (0.01 to 9.99 NTU), 0.1 NTU (10 to 99.9 NTU), 1 NTU (100 to 1100 NTU)
Optics	Temperature-compensated LED (Wave length: 860 nm)
Light source	Infrared
Accuracy	±2.5% of measured value or 0.01 NTU (0 to 500 NTU) ±5% of measured value (500 to 1100 NTU)
Data memory	Internal ring buffer for 16 datasets
Operating temperature	+5 to +40 °C
L x W x D	190 x 110 x 55 mm
Weight	400 g
Power supply	Battery: E-Block 9 V

Delivery incl. four turbidimeter standards (<0.1, 20, 200, 800 NTU), batteries, 2 cuvettes, USB cable and transport case.

Type	Art. No.	Pack Qty.	€
TB 211 IR	**LP38.1**	1 unit(s)	884,75

pH-papers



pH indicator paper ROTILABO® Eco

ROTH SELECTION.

For fast and accurate measurement of the pH value of liquids. pH indicator paper treated with coloured indicator solutions. Dip in the solution being tested, then compare the colour change with the colour scale. Dispenser with notched rim and small tear-off edge for easier handling. By roll, 8 mm width and 5 m length.

Delivery incl. dispenser with indicator paper and colour chart.

pH 1–11

pH measuring range	Gradation	Art. No.	Pack Qty.	€
0 to 11	0-1-2-3-4-5-6-7-8-9-10-11	**KEE1.1**	1 roll(s)	7,10

pH 1–14

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1 to 14	1-2-3-4-5-6-7-8-9-10-12-14	**KEE2.1**	1 roll(s)	7,10

pH 0.5–5.5

pH measuring range	Gradation	Art. No.	Pack Qty.	€
0.5 to 5.0	0,5-1,0-1,5-2,0-2,5-3,0-3,5-4,0-4,5-5,0-5,5	**KEE3.1**	1 roll(s)	7,10

pH 5.5–9.0

pH measuring range	Gradation	Art. No.	Pack Qty.	€
5.5 to 9.0	5,5-6,0-6,5-7,0-7,5-8,0-8,5-9,0	**KEE4.1**	1 roll(s)	7,10

pH 6.5–10.0

pH measuring range	Gradation	Art. No.	Pack Qty.	€
6.5 to 10.0	6,5-7,0-7,5-8,0-8,5-9,0-9,5-10,0	**KEE5.1**	1 roll(s)	7,10

pH 9.5–13.0

pH measuring range	Gradation	Art. No.	Pack Qty.	€
9.5 to 13.0	9,5-10,0-10,5-11,0-11,5-12,0-12,5-13,0	**KEE6.1**	1 roll(s)	7,10



Litmus paper

Macherey-Nagel.

Litmus paper is one of the most well-known and oldest indicator papers. Litmus is a natural product, derived from lichens. By roll, 7 mm length and 5 m width.

Delivery incl. dispenser.

Blue

Colour change when entering the acid range.

pH measuring range	Transition	Colour conversion	Art. No.	Pack Qty.	€
8.0 to 5.0	Alkali → acid	Blue → red	**8222.1**	1 roll(s)	11,95

Neutral

Colour change occurs when moving from neutral to the acid or base range.

pH measuring range	Transition	Colour conversion	Art. No.	Pack Qty.	€
5.0 to 8.0	Acid → neutral → alkali	Red → violet → blue	**8223.1**	1 roll(s)	11,95

Red

Colour change when entering the alkali range.

pH measuring range	Transition	Colour conversion	Art. No.	Pack Qty.	€
5.0 to 8.0	Acid → alkali	Red → blue	**8224.1**	1 roll(s)	11,95



pH indicator paper single-zoned

Macherey-Nagel.

For easy determination of the pH value. The reaction colour of the paper can be compared with the colour chart on the dispenser.
By roll, 5 m length and 7 mm width.

Delivery incl. dispenser with colour chart.

Type (1) pH 1–11

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1 to 11	1-2-3-4-5-6-7-8-9-10-11	**L861.1**	1 roll(s)	13,90

Type (2) pH 1–14

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1 to 14	1-2-3-5-6-7-8-9-10-12-14	**N360.1**	1 roll(s)	12,80



pH indicator paper, three-zone

Macherey-Nagel.

With three indicator zones (one main and two sub-indicator zones) for better estimation of intermediate values.

Delivery incl. two dispensers with indicator paper and a colour chart.

TRITEST

By roll, 10 mm length and 5 m width.

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1 to 11	1-2-3-4-5-6-7-8-9-10-11	**C726.1**	2 roll(s)	31,90

TRITEST L

By roll, 14 mm length and 6 m width.

With two hydrophobic zones for better reading of the alkali range.

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1 to 11	1-2-3-4-5-6-7-8-9-10-11	**C728.1**	2 roll(s)	40,95



pH indicator rod pH-Fix

ROTH SELECTION.

With test fields made from colour-drenched cellulose. Reliable, **doesn't bleed**. Rod dimensions: Length 85 x Width 6 mm.

Delivery incl. colour comparison chart.

(1) pH 0–14 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
0 to 14	1-2-3-4-5-6-7-8-9-10-11-12-13-14	**0549.2**	100 unit(s)	14,90

(2) pH 0–14 in round dispenser

Advantage: Snap-on lid can be opened and closed with one hand, just using the thumb.

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
0 to 14	1-2-3-4-5-6-7-8-9-10-11-12-13-14	**KH69.1**	100 unit(s)	14,90

(1) pH 0.0–6.0 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
0.0 to 6.0	0-0,5-1,0-1,5-2,0-2,5-3,0-3,5-4,0-4,5-5,0-5,5-6,0	**C730.2**	100 unit(s)	14,90

(1) pH 2.0–9.0 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
2.0 to 9.0	2,0-2,5-3,0-3,5-4,0-4,5-5,0-5,5-6,0-6,5-7,0-7,5-8,0-8,5	**H913.2**	100 unit(s)	14,90

(1) pH 4.5–10.0 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
4.5 to 10.0	4,5-5,0-5,5-6,0-6,5-7,0-7,5-8,0-8,5-9,0-9,5-10,0	**C731.2**	100 unit(s)	14,90

(1) pH 7.0–14.0 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
7.0 to 14.0	7,0-7,5-8,0-8,5-9,0-9,5-10,0-10,5-11,0-11,5-12,0-12,5-13,0-13,5-14,0	**C732.2**	100 unit(s)	14,90

(1) pH 0.3–2.3 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
0.3 to 2.3	0,3-0,7-1,0-1,3-1,6-1,9-2,3	**H914.2**	100 unit(s)	13,95

pH-papers

(1) pH 1.7–3.8 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1.7 to 3.8	1,7-2,0-2,3-2,6-2,9-3,2-3,5-3,8	**H915.2**	100 unit(s)	13,95

(1) pH 3.6–6.1 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
3.6 to 6.1	3,6-4,1-4,4-4,7-5,0-5,3-5,6-6,1	**H916.2**	100 unit(s)	14,90

(2) pH 3.6–6.1 in round dispenser

Advantage: Snap-on lid can be opened and closed with one hand, just using the thumb.

Purpose: pH in vaginal secretion

In vitro diagnostic medical device according to IVDD

pH measuring range	Gradation	Art. No.	Pack Qty.	€
3.6 to 6.1	3,6-4,1-4,4-4,7-5,0-5,3-5,6-6,1	**LH91.1**	100 unit(s)	14,30

(1) pH 5.1–7.2 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
5.1 to 7.2	5,1-5,4-5,7-6,0-6,3-6,6-6,9-7,2	**H917.2**	100 unit(s)	13,95

(1) pH 6.0–7.7 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
6.0 to 7.7	6,0-6,4-6,7-7,0-7,3-7,7	**H918.2**	100 unit(s)	13,95

(1) pH 7.5–9.5 in square packaging

Not a medical device / Not an IVD product

pH measuring range	Gradation	Art. No.	Pack Qty.	€
7.5 to 9.5	7,5-7,9-8,2-8,4-8,6-8,8-9,1-9,5	**H919.2**	100 unit(s)	13,95



Indicator paper PEHANON®

Macherey-Nagel.

With colour comparison chart on every test strip. Ideal for coloured solutions and suspensions, since the colour shift shows equally on the indicator and comparison colours. The individual colour zones are separated by hydrophobic barriers.
One dispenser contains 200 strips (W 11 x L 100 mm).

pH 1.0–12.0

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1.0 to 12.0	1-2-3-4-5-6-7-8-9-10-11-12	**EA47.1**	200 unit(s)	18,50

pH 0–1.8

pH measuring range	Gradation	Art. No.	Pack Qty.	€
0.0 to 1.8	0-0,3-0,6-0,8-1,0-1,2-1,5-1,8	**AXT7.1**	200 unit(s)	16,50

pH 1.0–2.8

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1.0 to 2.8	1,0-1,3-1,6-1,8-2,0-2,2-2,5-2,8	**EA48.1**	200 unit(s)	17,20

pH 1.8–3.8

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1.8 to 3.8	1,8-2,1-2,4-2,7-3,0-3,2-3,5-3,8	**AXT8.1**	200 unit(s)	15,90

pH 2.8–4.6

pH measuring range	Gradation	Art. No.	Pack Qty.	€
2.8 to 4.6	2,8-3,1-3,4-3,6-3,8-4,0-4,3-4,6	**AXT9.1**	200 unit(s)	15,90

pH 3.8–5.5

pH measuring range	Gradation	Art. No.	Pack Qty.	€
3.8 to 5.5	3,8-4,0-4,2-4,4-4,6-4,9-5,2-5,5	**EA49.1**	200 unit(s)	16,30

pH 4.0–9.0

pH measuring range	Gradation	Art. No.	Pack Qty.	€
4.0 to 9.0	4,0-4,5-5,0-5,5-6,0-6,5-7,0-7,5-8,0-8,5-9,0	**AYA0.1**	200 unit(s)	15,90

pH 5.2–6.8

pH measuring range	Gradation	Art. No.	Pack Qty.	€
5.2 to 6.8	5,2-5,5-5,7-5,9-6,1-6,3-6,5-6,8	**AYA1.1**	200 unit(s)	15,90

pH-papers

pH 6.0–8.1

pH measuring range	Gradation	Art. No.	Pack Qty.	€
6.0 to 8.1	6,0-6,3-6,6-6,9-7,2-7,5-7,8-8,1	**EA50.1**	200 unit(s)	16,30

pH 7.2–8.8

pH measuring range	Gradation	Art. No.	Pack Qty.	€
7.2 to 8.8	7,2-7,4-7,6-7,8-8,0-8,2-8,5-8,8	**AYA2.1**	200 unit(s)	15,90

pH 8.0–9.7

pH measuring range	Gradation	Art. No.	Pack Qty.	€
8.0 to 9.7	8,0-8,2-8,4-8,6-8,8-9,1-9,4-9,7	**EA51.1**	200 unit(s)	16,30

pH 9.5–12.0

pH measuring range	Gradation	Art. No.	Pack Qty.	€
9.5 to 12.0	9,5-10,0-10,5-11,0-11,5-12,0	**AYA3.1**	200 unit(s)	15,90

pH 10.5–13.0

pH measuring range	Gradation	Art. No.	Pack Qty.	€
10.5 to 13.0	10,5-11,0-11,5-12,0-12,5-13,0	**AYA4.1**	200 unit(s)	16,50

pH 12.0–14.0

pH measuring range	Gradation	Art. No.	Pack Qty.	€
12.0 to 14.0	12,0-12,5-13,0-13,5-14,0	**AYA5.1**	200 unit(s)	15,90



Indicator solution UNISOL

Macherey-Nagel.

For pH measurement in weak buffered solutions, in pure water, in surface water and in highly diluted acids or alkalis. Droplets of an indicator solution are added to the sample and the reaction colour is compared to a colour chart.

Danger H225

Delivery incl. 100 ml dropper bottle containing reagent (sufficient for approx. 500 pH measurements), colour chart and one type 13/72 measuring cuvette.

UNISOL 410

pH measuring range	Gradation	Art. No.	Pack Qty.	€
4.0 to 10.0	4,0-4,5-5,0-5,5-6,0-6,5-7,0-7,5-8,0-8,5-9,0-9,5-10,0	**TK45.1**	1 unit(s)	32,90

UNISOL 113

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1 to 13	1-2-3-4-5-6-7-8-9-10-11-12-13	**TK46.1**	1 unit(s)	32,10

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Calibration and maintenance solutions



pH buffer tablets

ROTH SELECTION.

For pH tester.

Application:

Dissolve one pH buffer tablet in 20 ml of deionised/distilled water.

pH 4

pH value	pH accuracy	Art. No.	Pack Qty.	€
4	±0.05	**YT50.1**	100 unit(s)	25,95

pH 7

pH value	pH accuracy	Art. No.	Pack Qty.	€
7	±0.05	**YT51.1**	100 unit(s)	25,95

pH10

pH value	pH accuracy	Art. No.	Pack Qty.	€
10	±0.05	**YT52.1**	100 unit(s)	25,95



pH buffer solution ROTILABO® in sachets

ROTH SELECTION.

The quantity of reagent contained in a sachet (25 ml) is sufficient for a single calibration.

- Traceable thanks to comparison with standard references from the National Institute of Standards and Technology (NIST) and the National Metrology Institute of Germany (PTB)
- With certificate of analysis for documenting the quality, traceability and accuracy

pH 4,01

pH value	pH accuracy	Art. No.	Pack Qty.	€
4,01	± 0.01	**KAY0.1**	20 unit(s)	32,20

pH 7,00

pH value	pH accuracy	Art. No.	Pack Qty.	€
7,00	± 0.01	**KAY1.1**	20 unit(s)	32,20

pH 10,01

pH value	pH accuracy	Art. No.	Pack Qty.	€
10,01	± 0.02	**KAY2.1**	20 unit(s)	32,20



Standard conductivity in sachets

ROTH SELECTION.

The quantity of reagent contained in a sachet (25 ml) is sufficient for a single calibration.

- Traceable thanks to comparison with standard references from the National Institute of Standards and Technology (NIST)
- With certificate of analysis for documenting the quality, traceability and accuracy

Delivery incl. certificate of analysis.

1413 µS/cm

Conductivity (µS/cm)	Conductivity accuracy	Art. No.	Pack Qty.	€
1413	±1%	**KCX3.1**	20 unit(s)	32,20

12,880 µS/cm

Conductivity (µS/cm)	Conductivity accuracy	Art. No.	Pack Qty.	€
12880	±1%	**KCX4.1**	20 unit(s)	32,20



Electrolyte

Mettler-Toledo.

KCl 3 mol/l

Suitable for	Art. No.	Pack Qty.	€
pH single-rod measuring cells	**A926.1**	250 ml	25,75

KCl 3 mol/l saturated with AgCl

Suitable for	Art. No.	Pack Qty.	€
pH single-rod measuring cells	**A925.1**	250 ml	26,30



Cleaning solution

Mettler-Toledo.

Pepsin/HCl
To remove protein contaminations.

Danger H314-EUH208

Suitable for	Art. No.	Pack Qty.	€
pH single-rod measuring cells	**HTE4.1**	250 ml	31,00

Thiourea/HCl
For cleaning diaphragms with silver-sulphide contaminations.

Warning H351-H361d-H412

Suitable for	Art. No.	Pack Qty.	€
pH single-rod measuring cells	**HTE5.1**	250 ml	31,00



Regeneration solution ammonium bifluoride

Mettler-Toledo.
To regenerate the pH-sensitive glass membrane.

Warning H315-H319

Suitable for	Art. No.	Pack Qty.	€
pH single-rod measuring cells	**HTE6.1**	25 ml	27,90



pH testers CHECK series

Dostmann.
Handy digital-pH tester for measuring the pH value of small liquid quantities in narrow vessels.

- Fixed rod electrode
- Automatic calibration and temperature compensation
- HOLD function
- Battery status display

Technical specifications:

Art. No.	HPC7.1	KLH9.1	KLK0.1	KLK1.1
Parameters	pH, Temperature			
pH measuring range	0 to 14		2 to 12	
pH resolution	0,01			
pH accuracy	±0.1			
pH temp. compensation	yes			
Temperature measuring range	0 to +50 °C			
Temperature resolution	0.5 °C			
Temperature accuracy	±1 °C			
Calibration points	1/2/3			
IP rating	65			
Replaceable electrode	No			
Storage solution	3 M KCl			
Shaft length	120 mm			
Ø Shaft	12 mm			
Shaft material	Plastic	Glass	Plastic	Glass
Weight	70 g		60 g	
Power supply	2 x button CR 2032 (3 V)			

Delivery incl. batteries.
Without storage solution and buffer solutions, please order separately.

pH CHECK
With standard electrode for aqueous solutions.

Type	Art. No.	Pack Qty.	€
pH CHECK	**HPC7.1**	1 unit(s)	46,15

pH CHECK G
With glass electrode for measuring in aggressive media.

Type	Art. No.	Pack Qty.	€
pH CHECK G	**KLH9.1**	1 unit(s)	88,15

pH CHECK S
With insertion electrode for measuring in cheese, meat and semi-solid to solid media.

Type	Art. No.	Pack Qty.	€
pH CHECK S	**KLK0.1**	1 unit(s)	90,30

pH CHECK F
With flat electrode for measuring on surfaces (food, leather, paper, skin, agar dishes, etc.) and for small sample sizes.

Type	Art. No.	Pack Qty.	€
pH CHECK F	**KLK1.1**	1 unit(s)	62,35

pH-testers



pH testers pH series

Dostmann.

- Large LCD display
- Waterproof and dust-proof
- Automatic temperature compensation from 0 to +50 °C
- Confirmation when a stable measured value is reached
- Automatic calibration with display of the calibrated ranges
- Multicolour back lighting for status display of measurement mode, calibration and alarm

Technical specifications:

Art. No.	EHX6.1	EHX7.1	EHX8.1
Parameters	pH	pH, Temperature	
pH measuring range	0 to 14	-2 to 16	
pH resolution	0,01		
pH accuracy	±0,1	±0,01	
Voltage measuring range		-1000 to +1000 mV	
Voltage resolution		1 mV	
Voltage accuracy		±1 mV	
pH temp. compensation	yes		
Temperature measuring range		0 to +50 °C	
Temperature resolution		0.1 °C	
Temperature accuracy		±0,5 °C	
Calibration points	1/2	1/2/3	
IP rating	67		
Replaceable electrode	No	Yes	
Storage solution	3 M KCl		
Ø x L	35 x 175 mm		35 x 210 mm
Power supply	2 x 1.5 V AAA batteries		

Delivery incl. buffer solutions (pH 4.01 and 7.00), storage solution, storage case and batteries.

(1) PH 1
With fixed standard electrode. For aqueous solutions.

Type	Art. No.	Pack Qty.	€
PH 1	**EHX6.1**	1 unit(s)	90,30

(2) PH 5
With replaceable standard electrode. For aqueous solutions.

Type	Art. No.	Pack Qty.	€
PH 5	**EHX7.1**	1 unit(s)	143,00

(3) PH 5 Food
With replaceable immersion electrode. For solid and semi-solid samples like meat, butter, cheese, yoghurt, pastry, cream.

Type	Art. No.	Pack Qty.	€
PH 5 Food	**EHX8.1**	1 unit(s)	301,00



pH testers SD 50

Tintometer.

- Robust, waterproof housing
- Automatic calibration and temperature compensation
- Auto Off after 8 min
- Memory with storage space for 25 datasets incl. time and date

Technical specifications:

Art. No.	YP28.1
Parameters	pH, Temperature
pH measuring range	0 to 14
pH resolution	0,01
pH accuracy	±0.05
Voltage measuring range	-1800 to +1800 mV
Voltage resolution	1 mV
Voltage accuracy	±3 mV
pH temp. compensation	yes
Temperature measuring range	0 to +60 °C
Temperature resolution	0.1 °C
Temperature accuracy	±1 °C
Calibration points	1/2/3
Data memory	25 datasets
IP rating	67
Replaceable electrode	Yes
Storage solution	3 M KCl
L x W x D	177 x 43 x 29 mm
Weight	128 g
Power supply	2 x 1.5 V AAA batteries

Delivery incl. buffer tablets (pH 4, 7 and 10, 10 pieces each), carrying strap, plastic box and batteries.

Type	Art. No.	Pack Qty.	€
SD 50	**YP28.1**	1 unit(s)	167,30

pH-electrodes and accessories



pH single-rod measuring cell standard

Dostmann.

Technical specifications:

Art. No.	HAE4.1	HAH3.1	HAH4.1
Type	201T	GEL	2PoreT
pH range	0 to 14		
Operating temperature	0 to +60 °C		
Diaphragm	Ceramic	Double	Perforated
Reference system	Ag/AgCl		Ag-coated
Electrolyte	Gel		Polymer
Maintenance-free	Yes		
Storage solution	3 mol/l KCl		
Shaft length	120 mm		35 mm
Ø Shaft	12 mm		6 mm
Shaft material	Epoxid		POM
Temperature sensor	NTC 30 kΩ	ohne	NTC 30 kΩ
Connection	BNC (pH), Cinch (°C)	BNC (pH)	BNC (pH), Cinch (°C)

Delivery incl. fixed cable (length 1 m).

For aqueous solutions in general

Pic.	Type	Art. No.	Pack Qty.	€
(1)	201T	**HAE4.1**	1 unit(s)	112,90
(2)	GEL	**HAH3.1**	1 unit(s)	85,50

For solid to semi-solid samples
e.g. meat, fruit, butter.

Pic.	Type	Art. No.	Pack Qty.	€
(3)	2PoreT	**HAH4.1**	1 unit(s)	181,70



NEW / +

pH single-rod measuring cell LE series

Mettler-Toledo.

Affordable pH single-rod cells for various applications.

Delivery incl. fixed cable (length 1 m).

(1) LE407
Tough with plastic shaft and gel electrolyte, suitable for simple applications and straightforward samples such as water.

Technical specifications:

Art. No.	TC47.1
Type	LE407
pH range	0 to 14
Operating temperature	0 to +80 °C
Diaphragm	Nylon
Reference system	Ag/AgCl
Electrolyte	Gel
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	POM
Temperature sensor	without
ISM Technology	No
Connection	BNC (pH)

Type	Art. No.	Pack Qty.	€
LE407	**TC47.1**	1 unit(s)	101,00

(2) LE409
With glass shaft and liquid electrolyte for simple and quick measurements in the laboratory, suitable for aqueous samples such as acids, bases, etc.

Technical specifications:

Art. No.	HY58.1
Type	LE409
pH range	0 to 14
Operating temperature	0 to +80 °C
Diaphragm	Ceramic
Reference system	Ag/AgCl
Electrolyte	3 mol/l KCl + AgCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	Glass
Temperature sensor	without
ISM Technology	No
Connection	BNC (pH)

Type	Art. No.	Pack Qty.	€
LE409	**HY58.1**	1 unit(s)	123,50

(3) LE410
With glass shaft, liquid electrolyte and integrated temperature gauge for quick, easy measurements in the lab. Suitable for aqueous samples (e.g. acids, bases, etc.) with changing temperatures.

Technical specifications:

Art. No.	1L80.1
Type	LE410
pH range	0 to 14
Operating temperature	0 to +80 °C
Diaphragm	Ceramic
Reference system	Ag/AgCl
Electrolyte	3 mol/l KCl + AgCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	No
Connection	BNC (pH), Cinch (°C)

Type	Art. No.	Pack Qty.	€
LE410	**1L80.1**	1 unit(s)	212,00

(4) LE438
With plastic shaft and integrated temperature gauge for field applications and samples with variable temperatures.

Technical specifications:

Art. No.	HY59.1
Type	LE438
pH range	0 to 14
Operating temperature	0 to +80 °C
Diaphragm	Nylon
Reference system	Ag/AgCl
Electrolyte	Gel
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	POM
Temperature sensor	NTC 30 kΩ
ISM Technology	No
Connection	BNC (pH), Cinch (°C)

Type	Art. No.	Pack Qty.	€
LE438	**HY59.1**	1 unit(s)	196,50

(5) LE420
With glass shaft and PTFE sliding sleeve for demanding or contaminated samples such as wastewater, suspensions, emulsions, viscous samples, low-ion media, TRIS buffers.

Technical specifications:

Art. No.	NP41.1
Type	LE420
pH range	0 to 14
Operating temperature	0 to +80 °C
Diaphragm	Ground joint
Reference system	Ag/AgCl
Electrolyte	3 mol/l KCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	Glass
Temperature sensor	without
ISM Technology	No
Connection	BNC (pH)

Type	Art. No.	Pack Qty.	€
LE420	**NP41.1**	1 unit(s)	184,00

(6) LE422
Micro-pH single-rod measuring cell with gel electrolyte, suitable for small samples in sample tubes and test tubes.

Technical specifications:

Art. No.	NP42.1
Type	LE422
pH range	0 to 14
Operating temperature	0 to +80 °C
Diaphragm	Ceramic
Reference system	Ag/AgCl
Electrolyte	Gel
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	90 mm
Ø Shaft	4.3 mm
Shaft material	Glass
Temperature sensor	without
ISM Technology	No
Connection	BNC (pH)

Type	Art. No.	Pack Qty.	€
LE422	**NP42.1**	1 unit(s)	210,00

(7) LE427
Thanks to its pointed diaphragm, this product is ideally suited to solid samples such as meat, fruit, cheese, soil samples and many more.

Technical specifications:

Art. No.	TH61.1
Type	LE427
pH range	0 to 11
Operating temperature	0 to +50 °C
Diaphragm	Ceramic
Reference system	Ag/AgCl
Electrolyte	Gel
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	17 mm
Ø Shaft	6 mm
Shaft material	Glass
Temperature sensor	without
ISM Technology	No
Connection	BNC (pH)

Type	Art. No.	Pack Qty.	€
LE427	**TH61.1**	1 unit(s)	223,00

pH-electrodes and accessories

pH single-rod measuring cell InLab®

Mettler-Toledo.

High-quality pH single-rod cells for various applications.
With S7 connector.



NEW / +

Technical specifications:

Art. No.	H948.1	A915.1	A916.1	A917.1	A918.1	KL07.1	1L2X.1
Type	InLab® Easy	InLab® Routine	InLab® Semi-Micro	InLab® Science	InLab® Solids	InLab® Surface	Inlab® Viscous
pH range	0 to 14		0 to 12		0 to 11		0 to 14
Operating temperature	0 to +80 °C	0 to +100 °C			0 to +80 °C	0 to +50 °C	0 to +130 °C
Diaphragm	Ceramic		Perforated	Ground joint	Perforated	Ceramic ring	Ceramic
Reference system	ARGENTHAL™ with Ag^+ ion trap						SteadyForce™
Electrolyte	Gel	3 mol/l KCl	Polymer	3 mol/l KCl	Polymer	3 mol/l KCl	FRISCOLYT-C®
Maintenance-free	Yes	No	Yes	No	Yes	No	Yes
Storage solution	3 mol/l KCl						
Shaft length	120 mm		100 mm	120 mm	25 mm	110 mm	40 mm
Ø Shaft	12 mm		6 mm	12 mm	6 mm	12 mm	6 mm
Shaft material	PSU	Glass				PSU	Glass
Temperature sensor	without						
ISM Technology	No						
Connection	S7 connector						

Delivery without connecting cable, please order separately.

(1) Easy

For general applications in the laboratory and outdoors. With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Type	Art. No.	Pack Qty.	€
InLab® Easy	**H948.1**	1 unit(s)	126,50

(2) Routine

For aqueous solutions in general; quick and extremely resistant to chemicals.

Tough HA diaphragm glass, specially designed for use at high pH values, reduces alkali errors to a minimum. With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Type	Art. No.	Pack Qty.	€
InLab® Routine	**A915.1**	1 unit(s)	212,00

(3) Semi-Micro

For measurements in small or narrow vessels or for small sample volumes. With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Type	Art. No.	Pack Qty.	€
InLab® Semi-Micro	**A916.1**	1 unit(s)	315,00

pH-electrodes and accessories

(4) Science
For difficult applications such as low-ion media, organic solvents, emulsions, suspensions, viscous samples and media containing proteins. With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Type	Art. No.	Pack Qty.	€
InLab® Science	**A917.1**	1 unit(s)	305,00

(5) Solids
For semi-solid and solid samples such as creams, yoghurt, butter, dough, cheese, meat, fish, fruit and vegetables. With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Type	Art. No.	Pack Qty.	€
InLab® Solids	**A918.1**	1 unit(s)	351,00

(6) Surface
For surfaces such as skin, leather, textiles, paper and agar plates, and droplet-size samples. With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Type	Art. No.	Pack Qty.	€
InLab® Surface	**KL07.1**	1 unit(s)	297,00

(7) Viscous
For emulsions and viscous samples such as cosmetics, paints and adhesives.

With SteadyForce™ reference system for reliable and repeatable results: Electrolyte is under pressure (3 bar) and thereby protects the diaphragm against blockages.

Type	Art. No.	Pack Qty.	€
Inlab® Viscous	**1L2X.1**	1 unit(s)	479,00

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pH single-rod measuring cell InLab® with integrated temperature gauge

Mettler-Toledo.

High-quality pH single-rod measuring cells for temperature-compensated measurements.



With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	X571.1	A920.1	N504.1	TA11.1
Type	InLab® ExpertNTC30	InLab® Expert Pt 1000	InLab® RoutinePro	InLab® VersatilePro
pH range	0 to 14			
Operating temperature	0 to 100 °C			
Diaphragm	Perforated		Ceramic	
Reference system	ARGENTHAL™ with Ag^+ ion trap			
Electrolyte	Polymer		3 mol/l KCl	
Maintenance-free	Yes		No	
Storage solution	3 mol/l KCl			
Shaft length	120 mm			
Ø Shaft	12 mm			
Shaft material	PEEK		Glass	PSU
Temperature sensor	NTC 30 kΩ	Pt 1000	NTC 30 kΩ	
ISM Technology	No			
Connection	MultiPin™			BNC (pH), Cinch (°C)

(1) Expert NTC30

Wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.
PEEK shaft with excellent chemical and mechanical resistance for extreme strain.
The use of a solid polymer as a reference electrolyte means that there is no need for a diaphragm which could become clogged.

Delivery without connecting cable, please order separately.

Type	Art. No.	Pack Qty.	€
InLab® ExpertNTC30	**X571.1**	1 unit(s)	274,00

(2) Expert Pt 1000

Wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.
PEEK shaft with excellent chemical and mechanical resistance for extreme strain.
The use of a solid polymer as a reference electrolyte means that there is no need for a diaphragm which could become clogged.

Delivery without connecting cable, please order separately.

Type	Art. No.	Pack Qty.	€
InLab® Expert Pt 1000	**A920.1**	1 unit(s)	274,00

(3) RoutinePro

For aqueous solutions in general; quick and extremely resistant to chemicals.
Tough HA diaphragm glass, specially designed for use at high pH values, reduces alkali errors to a minimum.

Delivery without connecting cable, please order separately.

Type	Art. No.	Pack Qty.	€
InLab® RoutinePro	**N504.1**	1 unit(s)	309,00

(4) VersatilePro

For aqueous solutions in general, tough and quick.

Delivery incl. fixed cable.

Type	Art. No.	Pack Qty.	€
InLab® VersatilePro	**TA11.1**	1 unit(s)	286,00

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NEW / +

pH single-rod measuring cell InLab® with ISM® technology

Mettler-Toledo.

High-quality pH single-rod measuring cells for temperature-compensated measurements.

Thanks to the Intelligent Sensor Management (ISM®) system, all important data is stored in the sensor and automatically sent to ISM®-compatible measuring devices.

(1) Expert Go-ISM®

Wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.

With IP67 protection for waterproof measurements with FiveGo™, Seven2Go™ and SevenGo Duo™ measuring devices.

PEEK shaft with excellent chemical and mechanical resistance for extreme strain.

The use of a solid polymer as a reference electrolyte means that there is no diaphragm which could become clogged.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	LN43.1
Type	InLab® Expert Go-ISM®
pH range	0 to 14
Operating temperature	0 to +100 °C
Diaphragm	Perforated
Reference system	ARGENTHAL™ with Ag^+ ion trap
Electrolyte	Polymer
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	PEEK
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
IP rating	67
Connection	BNC (pH), Cinch (°C)

Delivery incl. fixed cable (length 1.8 m).

Type	Art. No.	Pack Qty.	€
InLab® Expert Go-ISM®	**LN43.1**	1 unit(s)	456,00

(2) Expert Pro-ISM®

Wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.

PEEK shaft with excellent chemical and mechanical resistance for extreme strain.

The use of a solid polymer as a reference electrolyte means that there is no diaphragm which could become clogged.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	YX49.1
Type	InLab® Expert Pro-ISM®
pH range	0 to 14
Operating temperature	0 to +100 °C
Diaphragm	Perforated
Reference system	ARGENTHAL™ with Ag^+ ion trap
Electrolyte	Polymer
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	PEEK
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	BNC (pH), Cinch (°C)

Delivery incl. fixed cable (length 1.2 m).

Type	Art. No.	Pack Qty.	€
InLab® Expert Pro-ISM®	**YX49.1**	1 unit(s)	356,00

(3) Routine Pro-ISM®

For aqueous solutions in general; quick and extremely resistant to chemicals.

Tough HA diaphragm glass, specially designed for use at high pH values, reduces alkali errors to a minimum.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	YX50.1
Type	InLab® Routine Pro-ISM®
pH range	0 to 14
Operating temperature	0 to +100 °C
Diaphragm	Ceramic
Reference system	ARGENTHAL™ with Ag^+ ion trap
Electrolyte	3 mol/l KCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately.

Type	Art. No.	Pack Qty.	€
InLab® Routine Pro-ISM®	**YX50.1**	1 unit(s)	380,00

pH-electrodes and accessories

(4) Science Pro-ISM®
For difficult applications such as organic solvents, emulsions and samples containing protein.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	1L31.1
Type	InLab® Science Pro-ISM®
pH range	0 to 12
Operating temperature	0 to +100 °C
Diaphragm	Movable ground-joint diaphragm
Reference system	ARGENTHAL™ with Ag^+ ion trap
Electrolyte	3 mol/l KCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	170 mm
Ø Shaft	12 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately.

Type	Art. No.	Pack Qty.	€
InLab® Science Pro-ISM®	**1L31.1**	1 unit(s)	530,00

(5) Solids Pro-ISM®
For semi-solid and solid samples such as creams, yoghurt, butter, dough, cheese, meat, fish, fruit and vegetables.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	1L30.1
Type	InLab® Solids Pro-ISM®
pH range	1 to 11
Operating temperature	0 to +80 °C
Diaphragm	Hole
Reference system	ARGENTHAL™ with Ag^+ ion trap
Electrolyte	Polymer
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	25 mm
Ø Shaft	6 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately.

Type	Art. No.	Pack Qty.	€
InLab® Solids Pro-ISM®	**1L30.1**	1 unit(s)	470,00

(6) Micro Pro-ISM®
For measurements in small or narrow vessels (such as test tubes, vials and cuvettes) or for small sample volumes.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	1L33.1
Type	InLab® Micro Pro-ISM®
pH range	0 to 14
Operating temperature	0 to +100 °C
Diaphragm	Ceramic
Reference system	ARGENTHAL™ with Ag^+ ion trap
Electrolyte	3 mol/l KCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	130 mm
Ø Shaft	5 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately.

Type	Art. No.	Pack Qty.	€
InLab® Micro Pro-ISM®	**1L33.1**	1 unit(s)	570,00

(7) Ultra-Micro-ISM®
For measurements in extremely small or narrow vessels (such as vials, microtiter plates and cuvettes) or for small sample volumes.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	1LAT.1
Type	InLab® Ultra-Micro-ISM®
pH range	1 to 11
Operating temperature	0 to +80 °C
Diaphragm	Ceramic
Reference system	ARGENTHAL™ with Ag^+ ion trap
Electrolyte	3 mol/l KCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	40 mm
Ø Shaft	3 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately

Type	Art. No.	Pack Qty.	€
InLab® Ultra-Micro-ISM®	**1LAT.1**	1 unit(s)	417,00

(8) Viscous Pro-ISM®

For emulsions and viscous samples such as cosmetics, paints and adhesives.

With SteadyForce™ reference system for reliable and repeatable results: Electrolyte is under pressure (3 bar) and thereby protects the diaphragm against blockages.

Technical specifications:

Art. No.	1L32.1
Type	InLab® Viscous Pro-ISM®
pH range	0 to 14
Operating temperature	0 to +130 °C
Diaphragm	Ceramic
Reference system	SteadyForce™
Electrolyte	FRISCOLYT-C®
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	40 mm
Ø Shaft	6 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately.

Type	Art. No.	Pack Qty.	€
InLab® Viscous Pro-ISM®	**1L32.1**	1 unit(s)	640,00

(9) Pure Pro-ISM®

For samples with a low ion concentration such as ultrapure water and deionised water.

Fixed ground-joint diaphragm enables high electrolyte outflow; this results in reduced potential at the diaphragm and therefore more stable measurements.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions.

Technical specifications:

Art. No.	1LAP.1
Type	InLab® Pure Pro-ISM®
pH range	1 to 11
Operating temperature	0 to +80 °C
Diaphragm	Ground joint (fixed)
Reference system	ARGENTHAL™ with Ag^+ ion trap
Electrolyte	3 mol/l KCl (internal electrolyte), 1 mol/l KCl (external bridge electrolyte)
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	170 mm
Ø Shaft	12 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately.

Type	Art. No.	Pack Qty.	€
InLab® Pure Pro-ISM®	**1LAP.1**	1 unit(s)	540,00



pH single-rod measuring cell with IP67 protection

Mettler-Toledo.

For waterproof measurements.

Technical specifications:

Art. No.	EEP6.1	EEP7.1	CY88.1
Type	LE438-IP67	LE427-IP67	InLab® ExpertGo IP67
pH range	0 to 14	0 to 11	0 to 14
Operating temperature	0 to +80 °C	0 to +50 °C	0 to +100 °C
Diaphragm	Nylon	Ceramic	Perforated
Reference system	Ag/AgCl		ARGENTHAL™ with Ag^+ ion trap
Electrolyte	Gel		Polymer
Maintenance-free	Yes		
Storage solution	3 mol/l KCl		
Shaft length	120 mm	17 mm	120 mm
Ø Shaft	12 mm	6 mm	12 mm
Shaft material	POM	Glass	PEEK
Temperature sensor	NTC 30 kΩ	ohne	NTC 30 kΩ
ISM Technology	No		
IP rating	67		
Connection	BNC-IP67 (pH), Cinch-IP67 (°C)	BNC-IP67 (pH)	BNC-IP67 (pH), Cinch-IP67 (°C)

Delivery incl. fixed cable (length 2 m).

(1) LE438-IP67

pH single-rod measuring cell with plastic shaft and integrated temperature gauge for field applications and samples with variable temperatures.

Type	Art. No.	Pack Qty.	€
LE438-IP67	**EEP6.1**	1 unit(s)	222,00

(2) LE427-IP67

Thanks to its pointed diaphragm, this product is ideally suited to solid samples such as meat, fruit, cheese, soil samples and many more.

Type	Art. No.	Pack Qty.	€
LE427-IP67	**EEP7.1**	1 unit(s)	223,00

(3) InLab® ExpertGo IP67

Wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.

PEEK shaft with excellent chemical and mechanical resistance for extreme strain.

The use of a solid polymer as a reference electrolyte means that there is no need for a diaphragm which could become clogged.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Type	Art. No.	Pack Qty.	€
InLab® ExpertGo IP67	**CY88.1**	1 unit(s)	356,00

pH-electrodes and accessories

pH single-rod measuring cell BlueLine

SI Analytics.



Technical specifications:

Art. No.	N525.1	N523.1	N524.1	H772.1	N520.1	N521.1	N522.1
Type	22 pH	23 pH	25 pH	28 pH	12 pH	14 pH	15 pH
pH range	0 to 14						
Operating temperature	-5 to +80 °C				-5 to +100 °C		
Diaphragm	Fibre				Platinum		
Reference system	Ag/AgCl						
Electrolyte	Gel				3 mol/l KCl		
Maintenance-free	Yes				No		
Storage solution	3 mol/l KCl						
Shaft length	120 mm						
Ø Shaft	12 mm						
Shaft material	Noryl				Glass		
Temperature sensor	ohne			Pt 1000	ohne	NTC 30 kΩ	
Connection	Schott connector	DIN 19262 (pH)	BNC (pH)	DIN 19262 (pH), 1 x 4 mm banana plug (°C)	DIN 19262 (pH)	DIN 19262 (pH), Banana 1 x 4 mm (°C)	BNC (pH), 1 x 4 mm banana plug (°C)

22 pH

For general measurements. Tough with gel electrolyte and plastic shaft.

Delivery without connecting cable, please order separately.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	22 pH	**N525.1**	1 unit(s)	136,55

23 pH

For general measurements. Tough with gel electrolyte and plastic shaft.

Delivery incl. fixed cable (length 1 m).

Pic.	Type	Art. No.	Pack Qty.	€
(2)	23 pH	**N523.1**	1 unit(s)	174,15

25 pH

For general measurements. Tough with gel electrolyte and plastic shaft.

Delivery incl. fixed cable (length 1 m).

Pic.	Type	Art. No.	Pack Qty.	€
(3)	25 pH	**N524.1**	1 unit(s)	174,15

28 pH

For general measurements. Tough with gel electrolyte, plastic shaft and integrated temperature gauge.

Delivery incl. fixed cable (length 1 m).

Pic.	Type	Art. No.	Pack Qty.	€
(4)	28 pH	**H772.1**	1 unit(s)	269,85

12 pH

For demanding measurements. With liquid electrolytes and glass shaft.

Delivery incl. fixed cable (length 1 m).

Pic.	Type	Art. No.	Pack Qty.	€
(5)	12 pH	**N520.1**	1 unit(s)	198,90

pH-electrodes and accessories

14 pH
For demanding measurements. With liquid electrolytes, glass shaft and integrated temperature gauge.

Delivery incl. fixed cable (length 1 m).

Pic.	Type	Art. No.	Pack Qty.	€
(6)	14 pH	**N521.1**	1 unit(s)	301,00

15 pH
For demanding measurements. With liquid electrolytes, glass shaft and integrated temperature gauge.

Delivery incl. fixed cable (length 1 m).

Pic.	Type	Art. No.	Pack Qty.	€
(7)	15 pH	**N522.1**	1 unit(s)	305,30

pH single-rod measuring cell ScienceLine

SI Analytics.

High-performance electrodes for demanding measurements. The Silamid® reference system enables quicker and more stable measured values and increased service life.



Technical specifications:

Art. No.	C887.1	C894.1	C889.1	C892.1	C899.1
Type	N 42 A	N 52 BNC	N 1042 A	N 6000 A	N 6000 BNC
pH range	0 to 14				
Operating temperature	-5 to +100 °C				
Diaphragm	Ceramic	Platinum	Ceramic	Platinum	
Reference system	Silamid®				
Electrolyte	3 mol/l KCl				
Maintenance-free	No				
Storage solution	3 mol/l KCl				
Shaft length	120 mm			96 mm	
Ø Shaft	12 mm			3 mm	
Shaft material	Glass				
Temperature sensor	ohne		Pt 1000	ohne	
Connection	DIN 19262 (pH)	BNC (pH)	DIN 19262 (pH), 1 x 4 mm banana plug (°C)	DIN 19262 (pH)	BNC (pH)

Delivery incl. fixed cable (length 1 m).

(1) N 42 A
Includes glass shaft with ceramic diaphragm for aqueous solutions.

Type	Art. No.	Pack Qty.	€
N 42 A	**C887.1**	1 unit(s)	281,65

(2) N 52 BNC
Includes glass shaft with ceramic diaphragm for aqueous solutions.

Type	Art. No.	Pack Qty.	€
N 52 BNC	**C894.1**	1 unit(s)	291,35

(3) N 1042 A
For temperature-compensated measurements.

Type	Art. No.	Pack Qty.	€
N 1042 A	**C889.1**	1 unit(s)	438,60

(4) N 6000 series
For low quantities of fluid (0.1 ml or higher) or narrow vessels.

Type	Art. No.	Pack Qty.	€
N 6000 A	**C892.1**	1 unit(s)	370,90
N 6000 BNC	**C899.1**	1 unit(s)	370,90

pH-electrodes and accessories





pH single-rod measuring cell SenTix®

WTW.

Technical specifications:

Art. No.	X174.1	X173.1	ETC4.1
Type	SenTix® 21	SenTix® 41	SenTix® 81
pH range	0 to 14		
Operating temperature	0 to +80 °C		0 to +100 °C
Diaphragm	Fibre		Platinum
Electrolyte	Gel		3 mol/l KCl
Maintenance-free	Yes		No
Storage solution	3 mol/l KCl		
Shaft length	120 mm		
Ø Shaft	12 mm		
Shaft material	PPE, PS		Glass
Temperature sensor	without	NTC 30 kΩ	
Connection	DIN 19262 (pH)	DIN 19262 (pH), Banana 1 x 4 mm (°C)	DIN 19262 (pH), 1 x 4 mm banana plug (°C)

Delivery incl. fixed cable (length 1 m).

Standard
With gel electrolyte for mobile pH measurements as well as routine measurement in the laboratory.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	SenTix® 21	**X174.1**	1 unit(s)	164,50
(2)	SenTix® 41	**X173.1**	1 unit(s)	249,40

Precision SenTix® 81
With liquid electrolyte for demanding measurement applications. Glass shaft and platinum diaphragm are easy to clean. Can be used even with difficult samples.

Pic.	Type	Art. No.	Pack Qty.	€
(3)	SenTix® 81	**ETC4.1**	1 unit(s)	292,40

ACCESSORIES & SPARE PARTS in the ROTH webshop
Detailed product accessories & spare parts in the complete ROTH product world in the shop ... **www.carlroth.com**

Metal single-rod measuring cell ScienceLine

SI Analytics.

For measuring the redox potential.

Technical specifications:

Art. No.	C893.1	C900.1
Type	Pt 42 A	Pt 6280
Operating temperature	0 to +100 °C	
Sensor type	Platinum, pin, Ø 1 mm	
Diaphragm	Ceramic	
Reference system	Silamid®	
Electrolyte	3 mol/l KCl	
Shaft length	120 mm	
Ø Shaft	12 mm	
Shaft material	Glass	
Temperature sensor	ohne	
Connection	DIN 19262 (pH)	BNC (pH)

Delivery incl. fixed cable (length 1 m).

Type	Art. No.	Pack Qty.	€
Pt 42 A	**C893.1**	1 unit(s)	307,45
Pt 6280	**C900.1**	1 unit(s)	385,95

NEW / +

Adapter for pH single-rod measuring cells

Mettler-Toledo.

Suitable for	Art. No.	Pack Qty.	€
pH single-rod measuring cells with BNC connector and pH meter with DIN 19262 socket	**1EP5.1**	1 unit(s)	32,10
pH single-rod measuring cells with BNC + Cinch connector and pH meter with DIN 19262 + 4 mm banana plug socket	**1EP6.1**	1 unit(s)	46,90

pH-electrodes and accessories



Electrode holder with cable duct

ROTH SELECTION.

For three electrodes, opening Ø 16 mm. One additional opening with Ø 11 mm. Three joints enable a high degree of adjustment flexibility. Base plate: 110 x 130 mm. Base plate weight: 0.6 kg. Arm weight: 0.1 kg. Max. arm height: 32 cm.

Version	Art. No.	Pack Qty.	€
Electrode holder	**EHY1.1**	1 unit(s)	88,15



Storage set for electrodes

ROTH SELECTION.

For safe storage of electrodes with shaft Ø 12 mm so that they are ready for use at all times.

Set 1

Delivery incl. GL 45 screw cap and 5x seals with hole. Without screw top bottle and storage solution, please order separately.

Version	Art. No.	Pack Qty.	€
Set 1	**KH88.1**	1 unit(s)	41,10

Set 2

Delivery incl. GL 45 screw cap, 5x seals with hole, 100 ml screw top bottle and 250 ml storage solution.

Version	Art. No.	Pack Qty.	€
Set 2	**KCN1.1**	1 unit(s)	39,25



Portable pH meters SensoDirect pH 110

Tintometer.

- Splash-proof membrane keyboard
- Protective cover for measuring in difficult conditions
- Manual single-point or double-point calibration via trimmer

Technical specifications:

Art. No.	YP68.1
Type	SensoDirect pH 110
Parameters	pH
pH measuring range	0 to 14
pH resolution	0,01
pH accuracy	±0.1 (pH 4.0–10.0), ±0.2 (pH 1.1–3.9 and pH 10.0–13.0), ±0.3 (pH 0.1–1.0 and pH 13.1–14.0)
pH temp. compensation	without
Calibration points	1/2 (pH)
Calibration memory	Current calibration
Connection	BNC (pH)
L x W x H	208 x 110 x 34 mm
Power supply	E-Block 9 V battery

Delivery incl. pH plastic electrode with gel electrolyte, buffer solutions (pH 4.01 and pH 7.00, each 90 ml), protective armouring, case and batteries.

Type	Art. No.	Pack Qty.	€
SensoDirect pH 110	**YP68.1**	1 unit(s)	217,15

Pocket pH meters



Portable pH meters pH 7 Vio

Dostmann.

- Large screen with simultaneous display of pH or mV value and temperature
- Automatic or manual temperature compensation
- Confirmation when a stable measured value is reached
- Automatic or manual calibration
- Can be manually calibrated with two user-defined buffer solutions
- Storage of current calibration and display of the electrode status
- Automatic switch-off after 20 min

Technical specifications:

Art. No.	HAH0.1	HAH1.1	HAH2.1
Type	pH 7 Vio, set 1	pH 7 Vio, set 2	pH 7 Vio Food, Set 3
Parameters	pH, Redox, Temperature		
pH measuring range	0 to 14		
pH resolution	0,01		
pH accuracy	±0.01		
Voltage measuring range	-1000 to +1000 mV		
Voltage resolution	1 mV		
Voltage accuracy	±1 mV		
Temperature measuring range	0 to +100 °C		
Temperature resolution	0.1 °C		
Temperature accuracy	±0.5 °C		
Temperature sensor	NTC 30 kΩ		
Calibration points	1/2/3 (pH)		
Calibration memory	Current calibration		
Connection	BNC (pH), Cinch (°C)		
L x W x H	196 x 86 x 33 mm		
Power supply	3 x 1.5 V AA batteries		

Set 1
For common aqueous samples.

201T pH single-rod measuring cell **with integrated temperature gauge**. pH range: 0 to 14. Operating temperature: 0 to +60 °C. Ceramic diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. 201T pH single-rod measuring cell, buffer solutions (pH 4.01 and 7.00, each 75 ml), storage solution (35 ml), empty container for water, 100 ml measuring beaker, transport case and batteries.

Type	Art. No.	Pack Qty.	€
pH 7 Vio, set 1	**HAH0.1**	1 unit(s)	381,65

Set 2
For common aqueous samples.

GEL pH single-rod measuring cell **without integrated temperature gauge**. pH range: 0 to 14. Operating temperature: 0 to +60 °C. Double diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. GEL pH single-rod measuring cell, NT55 external temperature gauge, buffer solutions (pH 4.01 and 7.00, each 75 ml), storage solution (35 ml), empty container for water, 100 ml measuring beaker, transport case and batteries.

Type	Art. No.	Pack Qty.	€
pH 7 Vio, set 2	**HAH1.1**	1 unit(s)	435,40

Food, set 3
For solid and semi-solid samples such as meat, fruit and butter.

2PoreT pH single-rod measuring cell with integrated temperature gauge. pH range: 0 to 14. Operating temperature: 0 to +60 °C. Perforated diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. 2PoreT pH single-rod measuring cell, buffer solutions (pH 4.01 and 7.00, each 75 ml), storage solution (35 ml), empty container for water, 100 ml measuring beaker, transport case and batteries.

Type	Art. No.	Pack Qty.	€
pH 7 Vio Food, Set 3	**HAH2.1**	1 unit(s)	456,90



Portable pH meters FiveGo™

Mettler-Toledo.

- Waterproof and dust-proof
- Ergonomic design for comfortable handling
- Simple, user-friendly menu
- Automatic or manual temperature compensation
- Automatically or manually end a measurement; with acoustic and visual endpoint signal
- Automatic calibration with four predefined buffer groups
- Displays the current calibration and has data memory for 200 measurements

Technical specifications:

Art. No.	HY66.1	HY67.1	HY68.1	EEP5.1
Type	FiveGo™ F2 Basic	FiveGo™ F2-Standard	FiveGo™ F2-Field	FiveGo™ F2-Food
Parameters	pH, Redox, Temperature			
pH measuring range	0 to 14			
pH resolution	0,01			
pH accuracy	±0.01			
Voltage measuring range	-1999 to +1999 mV			
Voltage resolution	1 mV			
Voltage accuracy	±1 mV			
Temperature measuring range	0 to +100 °C			
Temperature resolution	0.1 °C			
Temperature accuracy	±0.5 °C			
Temperature sensor	NTC 30 kΩ			
Calibration points	1/2/3 (pH)			
Calibration memory	Current calibration			
Data memory	200 measured values			
ISM Technology	No			
IP rating	67			
Connection	BNC (pH), Cinch (°C)			
L x W x H	169 x 82 x 36 mm			
Power supply	4 x 1.5 V AAA batteries			

F2 Basic

Delivery incl. buffer solutions (pH 4.01, 7.00 and 9.21), electrode clip, carrying strap and batteries.

Without pH single-rod measuring cell, please order separately.

Type	Art. No.	Pack Qty.	€
FiveGo™ F2 Basic	**HY66.1**	1 unit(s)	437,00

Pocket pH meters

F2 Standard
For aqueous samples, including emulsions and suspensions.

LE438-IP67 pH single-rod measuring cell with integrated temperature gauge. pH range: 0 to 14. Operating temperature: 0 to +80 °C. Protection rating: IP67. Nylon diaphragms, gel-electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. LE438-IP67 pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00 and 9.21), electrode clip, carrying strap and batteries.

Type	Art. No.	Pack Qty.	€
FiveGo™ F2-Standard	**HY67.1**	1 unit(s)	640,00

F2 Field
With transport case. For aqueous samples, including emulsions and suspensions.

LE438-IP67 pH single-rod measuring cell with integrated temperature gauge. pH range: 0 to 14. Operating temperature: 0 to +80 °C. Protection rating: IP67. Nylon diaphragms, gel-electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. LE438-IP67 pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00 and 9.21), electrode clip, carrying strap, transport case and batteries.

Type	Art. No.	Pack Qty.	€
FiveGo™ F2-Field	**HY68.1**	1 unit(s)	730,00

F2 Food
For insertion measurements in solid and semi-solid samples such as meat, fruit, butter, yoghurt or cheese.

LE427-IP67 pH single-rod measuring cell without temperature gauge. pH range: 0 to 11. Operating temperature: 0 to +50 °C. Protection rating: IP67. Ceramic diaphragms, gel-electrolyte, glass shaft. Shaft length/Ø: 17/6 mm.

For automatic temperature compensation please order NTC 30 kΩ (Art. No. Y734.1) temperature gauge separately.

Delivery incl. LE427-IP67 pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00 and 9.21), electrode clip, carrying strap and batteries.

Type	Art. No.	Pack Qty.	€
FiveGo™ F2-Food	**EEP5.1**	1 unit(s)	675,00



Portable pH meters Seven2Go™

Mettler-Toledo.

Rugged pH meter designed to withstand the harshest environments. Water- and dust-proof, with impact protection.

- Automatic and manual temperature compensation
- Automatic, manual and timer-controlled endpoint determination
- Can be calibrated with user-defined buffer groups
- User-defined intermittent measurement possible (max. operating time 1 h)
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data

InLab® ExpertGo-ISM® pH single-rod measuring cell with integrated temperature gauge for aqueous samples, including emulsions, suspensions and solutions with proteins. pH range: 0 to 14. Operating temperature: 0 to +100 °C. Protection rating: IP67. Perforated diaphragms, polymer-electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm

Technical specifications:

Art. No.	CAL2.1	CAL3.1
Type	pH S2 – standard kit	Seven2Go™ pro pH/Ion S8 – Standard kit
Parameters	pH, Redox, Temperature	
pH measuring range	-2 to +20	
pH resolution	0,01	0,001
pH accuracy	±0.01	±0.002
Voltage measuring range	-1999 to +1999 mV	-2000 to +2000 mV
Voltage resolution	1 mV	0,1 mV
Voltage accuracy	±1 mV	±0,1 mV
Temperature measuring range	-5 to +105 °C	-5 to +130 °C
Temperature resolution	0.1 °C	
Temperature accuracy	±0.5 °C	±0.2 (0 to +105 °C), ±0.5 °C (outside)
Temperature sensor	NTC 30 kΩ	
Calibration points	1/2/3/4/5 (pH)	
Calibration memory	Current calibration	Current calibration (incl. date and time)
Data memory	200 measured values	2000 datasets
Port		Micro USB (for PC)
ISM Technology	Yes	
IP rating	67	
Connection	BNC (pH), Cinch (°C)	
L x W x H	220 x 70 x 35 mm	
Power supply	4 x 1.5 V AA batteries	

pH/mV S2 – standard kit

Delivery incl. InLab® ExpertGo-ISM® pH single-rod measuring cell, buffer solutions (4.01, 7.00 and 9.21, each 2 x 30 ml), electrode clip and batteries.

Type	Version	Art. No.	Pack Qty.	€
pH S2 – standard kit	with ISM	**CAL2.1**	1 unit(s)	815,00

Pocket pH meters

Pro pH/Ion S8 – standard kit

- Menu structure with full-text display in 12 languages
- Graphical LCD display
- Memory capacity for 2000 datasets incl. date and time (GLP-compliant)
- Data readout via Micro USB port

Delivery incl. InLab® ExpertGo-ISM® pH single-rod measuring cell, buffer solutions (4.01, 7.00 and 9.21, each 2 x 30 ml), electrode clip, software, data cable and batteries.

Type	Version	Art. No.	Pack Qty.	€
Seven2Go™ pro pH/Ion S8 – Standard kit	with ISM	**CAL3.1**	1 unit(s)	1.275,00



Portable pH meters ProfiLine

WTW.

Measuring device in a professional case with integrated measuring space and separate pockets for accessories.

- Dust- and waterproof
- Large, clear display
- Integrated calibration timer

Technical specifications:

Art. No.	KT20.1	KT21.1	KT25.1	KT26.1
Type	pH 3110 Basic	pH 3110 set 1	pH 3310 Basic	pH 3310 set 2
Parameters	pH, Redox, Temperature			
pH measuring range	-2 to +19			
pH resolution	0,001			
pH accuracy	±0.005			
Voltage measuring range	-2000 to +2000 mV			
Voltage resolution	1 mV			
Voltage accuracy	±1 mV			
Temperature measuring range	-5 to +105 °C			
Temperature resolution	0.1 °C			
Temperature accuracy	±0.1 °C			
Temperature sensor	NTC 30 kΩ, Pt 1000			
Calibration points	1/2/3 (pH)		1/2/3/4/5 (pH)	
Calibration memory	Current calibration		Five calibrations	
Data memory			Manual, 200 data sets, Time-delayed, 5000 data sets	
Port	without		Mini USB	
IP rating	67			
Connection	DIN 19262 (pH), Banana, 2 x 4 mm (°C)			
L x W x H	180 x 80 x 55 mm			
Power supply	4 x 1.5 V AA batteries			

pH 3110 Basic
Easy to use and robust measuring device for routine measurements on the go.

Clear keyboard and automatic AutoRead function for reproducible measured values.

Delivery incl. buffer solutions (pH 4 and 7, each 50 ml), professional case, tripod, beaker and batteries.

Without pH single-rod measuring cell, please order separately.

Type	Art. No.	Pack Qty.	€
pH 3110 Basic	**KT20.1**	1 unit(s)	635,35

pH 3110 set 1
Easy to use and robust measuring device for routine measurements on the go.

Clear keyboard and automatic AutoRead function for reproducible measured values.

SenTix® 41 pH single-rod measuring cell with integrated temperature gauge. pH range: 0 to 14. Operating temperature: 0 to +80 °C. Fibre diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. Sentix® 41 pH single-rod measuring cell, buffer solutions (pH 4 and 7, 50 ml of each), professional case, tripod, beaker and batteries.

Type	Art. No.	Pack Qty.	€
pH 3110 set 1	**KT21.1**	1 unit(s)	794,45

pH 3310 Basic
Professional measuring device with built-in data logging function (GLP-compliant) and mini-USB port.

Interval measurements possible, optimum utilisation of the measuring range thanks to the CMC function.

Delivery incl. buffer solutions (pH 4 and 7, each 50 ml), professional case, tripod, beaker and batteries.

Without pH single-rod measuring cell, please order separately.

Type	Art. No.	Pack Qty.	€
pH 3310 Basic	**KT25.1**	1 unit(s)	786,90

pH 3310 set 2
Professional measuring device with built-in data logging function (GLP-compliant) and mini-USB port.

Interval measurements possible, optimum utilisation of the measuring range thanks to the CMC function.

SenTix® 41 pH single-rod measuring cell with integrated temperature gauge. pH range: 0 to 14. Operating temperature: 0 to +80 °C. Fibre diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. Sentix® 41 pH single-rod measuring cell, buffer solutions (pH 4 and 7, 50 ml of each), driver software for USB, USB cable (length 1 m), professional case, tripod, beaker and batteries.

Type	Art. No.	Pack Qty.	€
pH 3310 set 2	**KT26.1**	1 unit(s)	1.018,05

Table pH meters



Benchtop pH meters pH 50 VioLab

Dostmann.

- Large screen with simultaneous display of pH or mV value and temperature
- Automatic or manual temperature compensation
- Automatic calibration
- Saves the current calibration
- Confirmation when a stable measured value is reached

Technical specifications:

Art. No.	HAE2.1	HAE3.1
Type	pH 50 VioLab Basic	pH 50 VioLab set
Parameters	pH, Redox, Temperature	
pH measuring range	0 to 14	
pH resolution	0,01 pH	
pH accuracy	±0.01	
Voltage measuring range	-1999 to +1999 mV	
Voltage resolution	1 mV	
Voltage accuracy	±1 mV	
Temperature measuring range	0 to +100 °C	
Temperature resolution	0.1 °C	
Temperature accuracy	±0.5 °C (+5 to +60 °C), ±1 °C (outside)	
Temperature sensor	NTC 30 kΩ	
Calibration points	1/2/3 (pH)	
Calibration memory	Current calibration	
Data memory	25 measurements	
Port	without	
Connection	BNC (pH), Cinch (°C)	
L x W x H	160 x 190 x 70 mm	
Power supply	Mains adapter	
Mains connection	100–240 V, 50/60 Hz	

Basic

Delivery incl. NT55 external temperature gauge, buffer solutions (pH 4.01 and 7.00, each 50 ml), electrode holder and mains adapter.

Without pH single-rod measuring cell, please order separately.

Type	Art. No.	Pack Qty.	€
pH 50 VioLab Basic	**HAE2.1**	1 unit(s)	387,00

Set

For common aqueous samples.

201T pH single-rod measuring cell with integrated temperature gauge. pH range: 0 to 14. Operating temperature: 0 to +60 °C, ceramic diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. 201T pH single-rod measuring cell, buffer solutions (pH 4.01 and 7.00, each 50 ml), electrode holder and mains adapter.

Type	Art. No.	Pack Qty.	€
pH 50 VioLab set	**HAE3.1**	1 unit(s)	440,75



Benchtop pH meters Lab 855

SI Analytics.

- Large easy-to-use LCD screen and clearly laid out keypad
- Simultaneous display of pH or mV value and temperature
- Can analyse and store current calibration data
- Adjustable calibration interval
- Stability control for identifying stable measured values
- Automatic or manual temperature compensation
- Suitable for battery and mains operation
- Can be set to switch off automatically when battery-operated

BlueLine 14 pH single-rod measuring cell with integrated temperature gauge. pH range: 0 to 14. Operating temperature: -5 to +100 °C. Platinum diaphragms, liquid electrolyte, plastic shaft, shaft length/Ø: 120/12 mm.

Technical specifications:

Art. No.	EPH2.1
Type	Lab 855
Parameters	pH, Redox, Temperature
pH measuring range	-2 to +19
pH resolution	0,001
pH accuracy	±0.005
Voltage measuring range	-2000 to +2000 mV
Voltage resolution	0,1 mV, 1 mV
Voltage accuracy	±0,3 mV, ±1 mV
Temperature measuring range	-5 to +105 °C
Temperature resolution	0.1 °C
Temperature accuracy	±0.1 °C
Temperature sensor	NTC 30 kΩ, Pt 1000
Calibration points	1/2/3 (pH)
Calibration memory	Current calibration
Connection	DIN 19262 (pH), Banana, 2 x 4 mm (°C)
L x W x H	230 x 190 x 80 mm
Power supply	Mains adapter or 4 x 1.5 V AA batteries
Mains connection	100–240 V, 50/60 Hz

Delivery incl. BlueLine 14 pH single-rod measuring cell, buffer solutions (pH 4.00 and 7.00), electrolyte solution (3 mol/l KCl), tripod, universal mains connector and batteries.

Type	Art. No.	Pack Qty.	€
Lab 855	**EPH2.1**	1 unit(s)	1.072,85

Table pH meters



Benchtop pH meters

Mettler-Toledo.

- Space-saving design with large display
- Simple, user-friendly menu
- Automatic or manual temperature compensation
- Automatically or manually end a measurement; with acoustic and visual endpoint signal
- Automatic calibration with four predefined buffer groups
- Displays the current calibration

Technical specifications:

Art. No.	HY56.1	PE70.1	TE49.1	TE50.1
Type	FiveEasy™ F20 – Basic	FiveEasy™ F20 – Standard	FiveEasyPlus™ FP20-Basic	FiveEasyPlus™ FP20-Standard
Parameters	pH, Redox, Temperature			
pH measuring range	0 to 14		-2 to +16	
pH resolution	0,01			
pH accuracy	±0.01			
Voltage measuring range	-2000 to +2000 mV			
Voltage resolution	1 mV			
Voltage accuracy	±1 mV			
Temperature measuring range	0 to +100 °C		-5 to +105 °C	
Temperature resolution	0.1 °C			
Temperature accuracy	±0.5 °C		±0.3 °C	
Temperature sensor	NTC 30 kΩ			
Calibration points	1/2/3 (pH)		1/2/3/4/5 (pH)	
Calibration memory	Current calibration			
Data memory			200 measured values	
Port	without		RS 232 (for printers), USB-B (for PC)	
ISM Technology	No			
Connection	BNC (pH), Cinch (°C)			
L x W x H	227 x 147 x 70 mm			
Power supply	Mains adapter			
Mains connection	100–240 V, 50/60 Hz			

FiveEasy™ F20 – Basic

Delivery incl. buffer solutions (pH 4.01, 7.00 and 9.21), electrode holder and 12 V mains adapter.

Without pH single-rod measuring cell, please order separately.

Type	Art. No.	Pack Qty.	€
FiveEasy™ F20 – Basic	**HY56.1**	1 unit(s)	545,00

FiveEasy™ F20 – Standard

For aqueous samples, including emulsions and suspensions.

LE438 pH single-rod measuring cell with integrated temperature gauge. pH range: 0 to 14. Operating temperature: 0 to +80 °C. Nylon diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. LE438 pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00 and 9.21), electrode holder and 12 V mains adapter.

Type	Art. No.	Pack Qty.	€
FiveEasy™ F20 – Standard	**PE70.1**	1 unit(s)	715,00

FiveEasyPlus™ FP20-Basic

Delivery incl. buffer solutions (pH 4.01, 7.00 and 9.21), electrode holder and 12 V mains adapter.

Without pH single-rod measuring cell, please order separately.

Type	Art. No.	Pack Qty.	€
FiveEasyPlus™ FP20-Basic	**TE49.1**	1 unit(s)	775,00

FiveEasyPlus™ FP20-Standard

For aqueous samples, including emulsions and suspensions.

LE438 pH single-rod measuring cell with integrated temperature gauge. pH range: 0 to 14. Operating temperature: 0 to +80 °C. Nylon diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.

Delivery incl. LE438 pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00 and 9.21), electrode holder and 12 V mains adapter.

Type	Art. No.	Pack Qty.	€
FiveEasyPlus™ FP20-Standard	**TE50.1**	1 unit(s)	965,00



NEW / +

Benchtop pH meters SevenCompact™ S220

Mettler-Toledo.

- All important data at a glance, thanks to the high-resolution colour display (4.3″) with large digits and clear symbols.
- Simple and intuitive to use; menus with complete sentences in 12 languages.
- Electrode arm is easy to operate with one hand; electrode can be positioned securely by moving it up and down.
- Calibration with predefined and user-specific buffers and buffer groups is possible; calibration memory with optional sensor lock setting available; quality of the most recent sensor calibration shown directly via pH sensor symbol.
- Comprehensive safety functions both for routine measurements and measurements under strict GLP specifications.
- With two operating modes: In Routine mode, it is not possible to delete data or change settings; in Expert mode (secured with PIN code), all functions can be used by an authorised user.
- Internal measured value memory: Saving by pressing key or timed (intermittent) saving (interval can be set between 1 s and 40 min).
- USB ports for exporting data via USB stick (datasets are exported as a text (.txt) file) or for connecting a USB keyboard.
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data.
- Sustainable with highest Energy Star rating for the power supply (low energy loss, low heat generation) and environmentally friendly packaging.

Table pH meters

Technical specifications:

Art. No.	TA09.1	1LAL.1	TA10.1	1LAN.1	1LAK.1
Type	S220 Basic	S220 Bio kit	S220 Uni kit	S220 Micro kit	S220 Standard kit
Sensor	without	InLab® Routine Pro-ISM®	InLab® Versatile Pro	InLab® Ultra-Micro-ISM®	InLab® Expert Pro ISM®
Parameters	pH, Redox, Ions, Temperature				
pH measuring range	-2 to +20				
pH resolution	0,001 / 0,01 / 0,1 pH				
pH accuracy	±0.002 pH				
Voltage measuring range	-2000 to +2000 mV				
Voltage resolution	0,1 / 1 mV				
Voltage accuracy	±0,2 mV				
Temperature measuring range	-5 to +105 °C				
Temperature resolution	0.1 °C				
Temperature accuracy	±0.1 °C				
Temperature sensor	NTC 30 kΩ, Pt 1000				
Calibration points	1/2/3/4/5 (pH)				
Calibration memory	current calibration (incl. date and time)				
Data memory	1000 data sets				
Port	RS 232, USB-A (printer), USB-B (PC)				
ISM Technology	Yes				
IP rating	54				
Connection	BNC (pH), Cinch (°C)				
L x W x H	204 x 174 x 74 mm				
Power supply	Mains adapter				
Mains connection	100–240 V, 50/60 Hz				

Basic

Delivery incl. electrode holder and protective casing.

Without pH single-rod measuring cell, please order separately.

Type	Art. No.	Pack Qty.	€
S220 Basic	**TA09.1**	1 unit(s)	1.095,00

Uni kit version

For general applications.

InLab® Versatile Pro pH single-rod measuring cell with integrated temperature sensor, quick and robust, but with no ISM support.

Delivery incl. InLab® Versatile Pro pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00, 2 x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
S220 Uni kit	**TA10.1**	1 unit(s)	1.280,00

Standard kit

Wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.

InLab® Expert Pro-ISM® pH single-rod measuring cell with integrated temperature gauge. PEEK shaft with excellent chemical and mechanical resistance for extreme strain. The use of a solid polymer as a reference electrolyte means that there is no diaphragm which could become clogged.

Delivery incl. InLab® Expert Pro-ISM® pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00, 2x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
S220 Standard kit	**1LAK.1**	1 unit(s)	1.410,00

Bio kit

For general aqueous solutions, high ionic strengths, hot samples, TRIS buffer.

InLab® Routine Pro-ISM® pH single-rod measuring cell with integrated temperature sensor, quick and extremely chemical-resistant. Tough HA diaphragm glass, specially designed for use at high pH values, reduces alkali errors to a minimum.

Delivery incl. InLab® Routine Pro-ISM® pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00, 2x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
S220 Bio kit	**1LAL.1**	1 unit(s)	1.500,00

Micro kit

For measurements in small or narrow vessels (such as test tubes, vials and cuvettes) or for small sample volumes.

InLab® Ultra-Micro-ISM® pH single-rod measuring cell without integrated temperature sensor, with small shaft diameter.

Delivery incl. InLab® Ultra-Micro-ISM® pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00, 2x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
S220 Micro kit	**1LAN.1**	1 unit(s)	1.460,00

ROTH SELECTION



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Conductivity testers



Conductivity testers

Dostmann.

- Large LCD display
- Waterproof and dust-proof
- Automatic calibration with display of the calibrated ranges
- Automatic temperature correction from 0 to +50 °C
- Confirmation when a stable measured value is reached

Technical specifications:

Art. No.	HPC8.1	HPC9.1
Type	COND 1	COND 5
Parameters	Conductivity, TDS	Conductivity, TDS, Salinity, Temperature
Conductivity measuring range	0 µS/cm to 20 mS/cm	
Conductivity resolution	automatic (1 µS/cm – 1 mS/cm)	
Conductivity accuracy	±20 µS/cm (0 to 1999 µS/cm), ±0.2 mS/cm (2.0 to 20.0 mS/cm)	±2 µS/cm (0 to 199.9 µS/cm), ±20 µS/cm (200 to 1999 µS/cm), ±0.2 mS/cm (2.0 to 20.0 mS/cm)
Calibration points	1/2 (standard)	1/2/3 (standard)
Reference temperature	+25 °C	+20 / +25 °C
TDS measuring range	0 ppm to 10 ppt	
TDS resolution	automatic (0.1 ppm – 0.01 ppt)	
TDS accuracy	±2 ppm (0.1 to 199.9 ppm), ±20 ppm (200 to 1999 ppm), ±0.1 ppt (2.00 to 10.00 ppt)	±2 ppm (0.1 to 199.9 ppm), ±20 ppm (200 to 1999 ppm), ±0.1 ppt (2.00 to 10.00 ppt)
Salinity measuring range		0 mg/l to 10 g/l
Salinity resolution		automatic (0.1 mg/l – 0.01 g/l)
Salinity accuracy		±2 mg/l (0.1 to 199.9 mg/l), ±20 mg/l (200 to 1999 mg/l), ±0.1 g/l (2.00 to 10.00 g/l)
Temperature measuring range		0 to +50 °C
Temperature resolution		0.1 °C
Temperature accuracy		±0.2 °C
IP rating	67	
Replaceable electrode	No	Yes
Ø x L	35 x 175 mm	
Weight	130 g	
Power supply	2x battery Micro/AAA 1.5 V	

Delivery incl. test solutions (1413 µS/cm and 12.88 mS/cm), storage case and batteries.

(1) COND 1

Type	Art. No.	Pack Qty.	€
COND 1	**HPC8.1**	1 unit(s)	96,15

(2) COND 5

Multicolour back lighting for status display of measurement mode, calibration and alarm.

Type	Art. No.	Pack Qty.	€
COND 5	**HPC9.1**	1 unit(s)	149,45



Conductivity testers SD 70

Tintometer.

- Robust, waterproof housing
- Automatic calibration (1413 µS/cm, 12.88 mS/cm) and manual calibration (freely selectable calibration standards)
- Automatic temperature compensation
- Automatic change-over from µS/cm to mS/cm
- Small memory
- Auto Off after 8 min

Technical specifications:

Art. No.	YP30.1
Type	SD 70
Parameters	Conductivity, Temperature
Conductivity measuring range	0 µS/cm to 20 mS/cm
Conductivity resolution	automatic (1 µS/cm – 0.01 mS/cm)
Conductivity accuracy	±60 µS/cm (0 to 1999 µS/cm), ±0.6 mS/cm (2.00 to 20.00 mS/cm)
Calibration points	1/2 (standard and user-defined)
Reference temperature	+25 °C
Temperature measuring range	0 to +60 °C
Temperature resolution	0.1 °C
Temperature accuracy	±1 °C
Data memory	25 data sets
IP rating	67
Replaceable electrode	Yes
L x W x H	177 x 43 x 29 mm
Weight	126 g
Power supply	2x battery Micro/AAA 1.5 V

Delivery incl. conductivity measuring cells, carrying strap, plastic box and batteries. Without solutions, please order separately.

Type	Art. No.	Pack Qty.	€
SD 70	**YP30.1**	1 unit(s)	150,00

Conductivity meters



Portable conductivity meters COND 7 Vio

Dostmann.

- Large LCD display with simultaneous display of conductivity and temperature
- Automatic calibration with display of the calibrated ranges
- Temperature correction: automatic from 0 to +100 °C, manual 0 to +80 °C
- Confirmation when a stable measured value is reached
- Reference temperature, adjustable cell constant and temperature coefficient

Technical specifications:

Art. No.	HPL7.1	HPL8.1
Type	COND 7 Vio Basic	COND 7 Vio Set
Parameters	Conductivity, TDS, Temperature	
Conductivity measuring range	0 µS/cm to 200 mS/cm	
Conductivity resolution	automatic (0.01 µS/cm – 0.1 mS/cm)	
Conductivity accuracy	±0.4 µS/cm (0 to 19.99 µS/cm), ±4 µS/cm (20.0 to 199.9 µS/cm), ±40 µS/cm (200 to 1999 µS/cm), ±0.4 mS/cm (2.00 to 19.99 mS/cm), ±4 mS/cm (20.0 to 200.0 mS/cm)	
Calibration points	automatic: 1/2/3/4 (standard) manual: 1 (user-defined)	
Reference temperature	+15 – +30 °C	
Cell constant	0,1 / 1,0 / 10 cm^{-1}	
Temperature coefficient	0 – 10,00 %/°C	
TDS measuring range	0 mg/l to 100 g/l	
TDS resolution	automatic (0.01 mg/l – 0.1 g/l)	
TDS accuracy	±0.2 mg/l (0 to 19.99 mg/l), ±2 mg/l (20.0 to 199.9 mg/l), ±20 mg/l (200 to 1999 mg/l), ±0.2 g/l (2.00 to 19.99 g/l), ±1 g/l (20.0 to 100.0 g/l)	
Temperature measuring range	0 to +100 °C	
Temperature resolution	0.1 °C	
Temperature accuracy	±0.5 °C	
Connection	BNC (EC), Cinch (°C)	
L x W x H	196 x 86 x 33 mm	
Weight	300 g	
Power supply	3x battery Mignon/AA 1.5 V	

Basic

Delivery incl. test solutions (1413 µS/cm and 12.88 mS/cm), measuring beaker, storage case and batteries. Without conductivity sensor, please order separately.

Type	Art. No.	Pack Qty.	€
COND 7 Vio Basic	**HPL7.1**	1 unit(s)	306,40

Set

2301T conductivity sensor with integrated temperature gauge. Measuring range: 10 µS to 200 mS/cm. Steel shaft, length/Ø: 120/12 mm. Operating range: 0 to +60 °C.

Delivery incl. 2301T conductivity sensor, test solutions (1413 µS/cm and 12,88 mS/cm), measuring beaker, storage case and batteries.

Type	Art. No.	Pack Qty.	€
COND 7 Vio Set	**HPL8.1**	1 unit(s)	424,65



Conductivity sensor with BNC/Cinch

Dostmann.

With BNC/Cinch connection for measuring devices from Dostmann.

Technical specifications:

Art. No.	HPL9.1	HPN0.1
Type	2301T	VPT 51/01
Conductivity measuring range	10 µS/cm to 200 mS/cm	0.1 µS/cm to 1 mS/cm
Operating temperature	0 to +60 °C	
Cell constant	1	0,1
Shaft length	120 mm	
Ø Shaft	12 mm	
Shaft material	Steel, PVC	
Temperature sensor	NTC 30 kΩ	
Connection	BNC (EC), Cinch (°C)	

Pic.	Type	Art. No.	Pack Qty.	€
(1)	2301T	**HPL9.1**	1 unit(s)	151,10
(2)	VPT 51/01	**HPN0.1**	1 unit(s)	272,00

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Conductivity meters



Portable conductivity meters FiveGo™

Mettler-Toledo.

- Waterproof and dust-proof
- Ergonomic design for comfortable handling
- Simple, user-friendly menu
- Automatic calibration with three predefined standards
- Displays the current calibration and data memory
- Automatic or manual temperature correction
- Automatically or manually end a measurement; with acoustic and visual endpoint signal
- Selectable reference temperature

With robust conductivity sensor for medium to very high conductivity: LE703-IP67 with integrated temperature gauge.
Measuring range: 0.01 to 200 S/cm. Plastic shaft, L/Ø: 120/12 mm.
Operating range: 0 to +80 °C.

Technical specifications:

Art. No.	HY63.1	HY64.1
Type	FiveGo™ F3 standard	FiveGo™ F3 field
Parameters	Conductivity, TDS, Temperature	
Conductivity measuring range	0 µS/cm to 200 mS/cm	
Conductivity resolution	automatic (0.01 µS/cm – 0.1 mS/cm)	
Conductivity accuracy	±0.5% of the measured value	
Calibration points	One (standard)	
Reference temperature	+20 / +25 °C	
TDS measuring range	0 mg/l to 200 g/l	
TDS resolution	automatic (0.01 mg/l – 0.1 g/l)	
TDS accuracy	±0.5% of the measured value	
Temperature measuring range	0 to +100 °C	
Temperature resolution	0.1 °C	
Temperature accuracy	±0.5 °C	
Data memory	200 measured values	
Connection	LTW 7-pin (IP 67)	
ISM Technology	No	
IP rating	67	
L x W x H	188 x 77 x 33 mm	
Power supply	4x battery Micro/AAA 1.5 V	

F3 standard kit

Delivery incl. LE703-IP67 conductivity sensor, test solutions (1413 µS/cm and 12.88 mS/cm, each 1 x 20 ml), electrode clip, carrying strap and batteries.

Type	Art. No.	Pack Qty.	€
FiveGo™ F3 standard	**HY63.1**	1 unit(s)	690,00

F3 field kit

Delivery incl. transport case, LE703-IP67 conductivity sensor, test solutions (1413 µS/cm and 12.88 mS/cm, each 1 x 20 ml), electrode clip, carrying strap and batteries.

Type	Art. No.	Pack Qty.	€
FiveGo™ F3 field	**HY64.1**	1 unit(s)	755,00



Portable conductivity meters Seven2Go™

Mettler-Toledo.

Robust conductivity meter designed to withstand the harshest environments.

- Water and dust-proof, casing with impact protection
- Automatic and manual temperature correction
- Automatic, manual and timer-controlled endpoint determination
- User-defined intermittent measurement possible (max. operating time 1 h)
- Selectable reference temperature
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data

With robust conductivity sensor for medium to very high conductivity: InLab® 738-ISM® (IP67) with integrated temperature gauge.
Measuring range: 0.01 to 1000 S/cm. Plastic shaft, L/Ø: 120/12 mm.
Operating range: 0 to +100 °C.

Technical specifications:

Art. No.	CAL4.1	CAL5.1
Type	Seven2Go™ S3 Standard	Seven2Go™ S7 Standard
Parameters	Conductivity, TDS, Salinity, Temperature	
Conductivity measuring range	0 µS/cm to 500 mS/cm	0 µS/cm to 1000 mS/cm
Conductivity resolution	automatic (0.01 µS/cm – 1 mS/cm)	
Conductivity accuracy	±0.5% of the measured value	
Calibration points	One (standard and user-defined)	
Reference temperature	+20 / +25 °C	
TDS measuring range	0 mg/l to 300 g/l	0 mg/l to 600 g/l
TDS resolution	automatic (0.01 mg/l – 1 g/l)	
TDS accuracy	±0.5% of the measured value	
Salinity measuring range	0 to 42 psu	
Salinity resolution	automatic (0.01 psu – 0.1 psu)	
Temperature measuring range	-5 to +105 °C	
Temperature resolution	0.1 °C	
Temperature accuracy	±0,2 °C	±0,1 °C
Data memory	200 measured values	2000 data sets
Port		Micro USB (PC)
Connection	LTW 7-pin (IP 67)	
ISM Technology	Yes	
IP rating	67	
L x W x H	220 x 70 x 35 mm	
Weight	270 g	290 g
Power supply	4 x 1.5 V AA batteries	4x battery Micro/AAA 1.5 V

S3 Standard Kit

Delivery incl. InLab® 738-ISM® (IP 67) conductivity sensor, test solutions (1413 µS/cm and 12.88 mS/cm, each with 2 x 20 ml sachets), electrode clip and batteries.

Type	Art. No.	Pack Qty.	€
Seven2Go™ S3 Standard	**CAL4.1**	1 unit(s)	1.035,00

Conductivity meters

S7 Standard Kit

- Menu structure with full-text display in 12 languages
- Graphical LCD display
- Memory capacity for 2000 data sets incl. date and time (GLP-compliant)
- Data readout via micro USB port

Delivery incl. InLab® 738-ISM® (IP 67) conductivity sensor, test solutions (1413 µS/cm and 12.88 mS/cm, each with 2 x 20 ml sachets), software, data cable, electrode clip and batteries.

Type	Art. No.	Pack Qty.	€
Seven2Go™ S7 Standard	**CAL5.1**	1 unit(s)	1.485,00



Conductivity sensor with LTW

Mettler-Toledo.

With LTW connection for handheld measuring devices from Mettler Toledo.

Technical specifications:

Art. No.	EEP9.1	CY95.1	LN44.1
Type	LE703-IP67	InLab® 738	InLab® 738-ISM®
Conductivity measuring range	0.01 to 200 mS/cm	0.01 to 1000 mS/cm	
Operating temperature	0 to +80 °C	0 to +100 °C	
Cell type	Four graphite pins		
Cell constant	0,55 cm^{-1}	0,57 cm^{-1}	
Shaft length	120 mm		
Ø Shaft	12 mm		
Shaft material	Epoxid		
Temperature sensor	NTC 30 kΩ		
ISM Technology	No		Yes
IP rating	67		
Connection	LTW, 7-pin (IP67)		

Delivery incl. fixed cable (length 1.8 m).

InLab® without ISM®

Pic.	Type	Art. No.	Pack Qty.	€
(1)	LE703-IP67	**EEP9.1**	1 unit(s)	193,50
(2)	InLab® 738	**CY95.1**	1 unit(s)	545,00

InLab® with ISM®

Thanks to the Intelligent Sensor Management (ISM®) system, all important data is stored in the sensor and automatically sent to ISM®-compatible measuring devices.

Pic.	Type	Art. No.	Pack Qty.	€
(3)	InLab® 738-ISM®	**LN44.1**	1 unit(s)	610,00



Portable conductivity meters ProfiLine

WTW.

Robust and waterproof conductivity meter with parallel temperature display.

- 1-point calibration (freely adjustable calibration standard)
- Non-linear function for high-purity water and natural water (nLF)
- Selectable reference temperature

Technical specifications:

Art. No.	KT27.1	KT28.1
Type	Cond 3110-set	Cond 3310-set
Parameters	Conductivity, Salinity, Temperature	Conductivity, TDS, Salinity, Temperature
Conductivity measuring range	0 µS/cm to 1000 mS/cm	
Conductivity resolution	automatic (0.1 µS/cm – 1 mS/cm)	automatic (0.001 µS/cm – 1 mS/cm)
Conductivity accuracy	±0.5% of the measured value	
Calibration points	1 (standard and user-defined)	
Reference temperature	+20 / +25 °C	
TDS measuring range		0 mg/l to 199 g/l
TDS resolution		automatic (1 mg/l – 0.1 g/l)
Salinity measuring range	0 to 70	
Salinity resolution	0.1	
Temperature measuring range	-5 to +105 °C	
Temperature resolution	0.1 °C	
Temperature accuracy	±0.1 °C	
Data memory		Manual, 200 data sets, Time-delayed, 5000 data sets
Port		Mini-USB
L x W x H	180 x 80 x 55 mm	
Power supply	4x battery Mignon/AA 1.5 V	

Cond 3110 set

Delivery incl. TetraCon® 325 four-pole conductivity measuring cell, professional case with integrated measuring space and separate pockets for accessories, tripod, measuring beaker, test solutions (1413 µS/cm) and batteries.

Type	Art. No.	Pack Qty.	€
Cond 3110-set	**KT27.1**	1 unit(s)	1.284,65

Cond 3310 set

- Integrated data logger
- Temperature compensation can be switched off
- Back-lit graphics display

Delivery incl. TetraCon® 325 four-pole conductivity measuring cell, professional case with integrated measuring space and separate pockets for accessories, tripod, measuring beaker, test solutions (1413 µS/cm), software, data cable and batteries.

Type	Art. No.	Pack Qty.	€
Cond 3310-set	**KT28.1**	1 unit(s)	1.440,50



Benchtop conductivity meters COND 50 VioLab

Dostmann.

- Large LCD display, backlit with simultaneous display of conductivity and temperature
- Automatic calibration with display of the calibrated ranges, stores the current calibration
- Automatic and manual temperature correction
- Confirmation when a stable measured value is reached
- Reference temperature, adjustable cell constant and temperature coefficient

Technical specifications:

Art. No.	HXA8.1	HXA9.1
Type	COND 50 VioLab Basic	COND 50 VioLab Set
Parameters	Conductivity, TDS, Temperature	
Conductivity measuring range	0 µS/cm to 200 mS/cm	
Conductivity resolution	automatic (0.01 µS/cm – 0.1 mS/cm)	
Conductivity accuracy	±0.4 µS/cm (0 to 19.99 µS/cm), ±4 µS/cm (20.0 to 199.9 µS/cm), ±40 µS/cm (200 to 1999 µS/cm), ±0.4 mS/cm (2.00 to 19.99 mS/cm), ±4 mS/cm (2.00 to 200.0 mS/cm)	
Calibration points	automatic: 1/2/3/4 (standard) manual: 1 (user-defined)	
Reference temperature	+15 – +30 °C	
Cell constant	0,1 / 1,0 / 10 cm^{-1}	
Temperature coefficient	0 – 10,00 %/°C	
TDS measuring range	0 mg/l to 100 g/l	
TDS resolution	automatic (0.01 mg/l – 0.1 g/l)	
TDS accuracy	±0.2 mg/l (0 to 19.99 mg/l), ±2 mg/l (20.0 to 199.9 mg/l), ±20 mg/l (200 to 1999 mg/l), ±0.2 g/l (2.00 to 19.99 g/l), ±1 g/l (20.0 to 100.0 g/l)	
Temperature measuring range	0 to +100 °C	
Temperature resolution	0.1 °C	
Temperature accuracy	±0.5 °C	
Connection	BNC (EC), Cinch (°C)	
L x W x H	160 x 185 x 70 mm	
Weight	550 g	
Power supply	Mains adapter	

Basic

Delivery incl. test solutions (1413 µS/cm and 12.88 mS/cm), electrode holder and mains adapter.

Without conductivity sensor, please order separately.

Type	Art. No.	Pack Qty.	€
COND 50 VioLab Basic	**HXA8.1**	1 unit(s)	473,00

Set

2301T conductivity sensor with integrated temperature gauge. Measuring range: 10 µS to 200 mS/cm.
Steel shaft, length/Ø: 120/12 mm. Operating range: 0 to +60 °C.

Delivery incl. 2301T conductivity sensor, test solutions (1413 µS/cm and 12.88 mS/cm), electrode holder and mains adapter.

Type	Art. No.	Pack Qty.	€
COND 50 VioLab Set	**HXA9.1**	1 unit(s)	569,75



Benchtop conductivity meters SevenCompact™ S230

Mettler-Toledo.

- Large colour display (4.3″) with Routine or Expert mode (e.g. for disabling Delete data or Edit data function)
- Menu navigation in 10 languages (DE, GB, FR, ES, IT, PT, CN, JP, KR, RU)
- 1-point calibration with 5 predefined groups and 1 user-defined group incl. temperature chart
- Automatic and manual temperature correction
- Selection of compensation methods: Linear, non-linear, high-purity water, off
- Manual cell constant input
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data
- Internal measured value memory: Saving by pressing key or timed (intermittent) saving (interval is variable from 1 s to 40 min)
- USB ports for exporting data via USB stick (data sets are exported as a text (.txt) file) or for connecting a USB keyboard

Technical specifications:

Art. No.	TA12.1	TA13.1
Type	SevenCompact™ S230 standard	SevenCompact™ S230-USP/EP
Parameters	Conductivity, TDS, Salinity, Temperature	
Conductivity measuring range	0 µS/cm to 1000 mS/cm	
Conductivity resolution	automatic (0.001 µS/cm – 1 mS/cm)	
Conductivity accuracy	±0.5% of the measured value	
Calibration points	One (standard and user-defined)	
Reference temperature	+20 / +25 °C	
TDS measuring range	0 mg/l to 1000 g/l	
TDS resolution	automatic (0.1 mg/l – 1 g/l)	
TDS accuracy	±0.5% of the measured value	
Salinity measuring range	0 to 80 psu	
Salinity resolution	automatic (0.01 psu – 0.1 psu)	
Salinity accuracy	±0.5% of the measured value	
Temperature measuring range	-5 to +105 °C	
Temperature resolution	0.1 °C	
Temperature accuracy	±0.1 °C	
Data memory	1000 data sets	
Port	RS 232, USB-A (printer), USB-B (PC)	
Connection	Mini-DIN	
ISM Technology	Yes	
L x W x H	204 x 174 x 74 mm	
Power supply	Mains adapter	
Mains connection	100–240 V, 50/60 Hz	

S230 Standard kit

With conductivity sensor for medium to very high conductivity: InLab® 731-ISM® with integrated temperature gauge. Measuring range: 0.01 to 1000 S/cm. Plastic shaft, L/Ø: 120/12 mm. Operating range: 0 to +100 °C.

Delivery incl. InLab® 731-ISM® conductivity sensor, buffer solutions (1413 µS/cm and 12.88 mS/cm, each 2 x 20 ml), electrode holder and protective case.

Type	Art. No.	Pack Qty.	€
SevenCompact™ S230 standard	**TA12.1**	1 unit(s)	1.800,00

Conductivity meters

USP/EP kit
With conductivity sensor for samples with low conductivity, such as pure and high-purity water. InLab® 741-ISM® with integrated temperature gauge. Measuring range: 0.001 to 500 µS/cm. Stainless steel shaft, L/Ø: 120/12 mm.
Operating range: 0 to +100 °C.

Delivery incl. InLab® 741-ISM® conductivity sensor, test solutions (1413 µS/cm, 2 x 20 ml), electrode holder and protective case.

Type	Art. No.	Pack Qty.	€
SevenCompact™ S230-USP/EP	**TA13.1**	1 unit(s)	2.000,00



Benchtop conductivity meters FiveEasy™ F30 Standard Kit

Mettler-Toledo.

- Space-saving design with large display
- Simple, user-friendly menu
- Automatic calibration with three predefined standards
- Automatic or manual temperature correction
- Automatically or manually end a measurement; with acoustic and visual endpoint signal
- Saves the current calibration
- Selectable reference temperature

With robust conductivity sensor for medium to very high conductivity: LE703 with integrated temperature gauge. Measuring range: 0.01 to 200 S/cm. Plastic shaft, L/Ø: 120/12 mm. Operating range: 0 to +80 °C.

Technical specifications:

Art. No.	HY61.1
Type	FiveEasy™ F30 Standard
Parameters	Conductivity, TDS, Temperature
Conductivity measuring range	0 µS/cm to 200 mS/cm
Conductivity resolution	automatic (0.01 µS/cm – 0.1 mS/cm)
Conductivity accuracy	±0.5% of the measured value
Calibration points	One (standard)
Reference temperature	+20 / +25 °C
TDS measuring range	0 mg/l to 200 g/l
TDS resolution	automatic (0.1 mg/l – 0.1 g/l)
TDS accuracy	±0.5% of the measured value
Temperature measuring range	0 to +100 °C
Temperature resolution	0.1 °C
Temperature accuracy	±0.5 °C
Connection	Mini-DIN
ISM Technology	No
L x W x H	227 x 147 x 70 mm
Power supply	Mains adapter
Mains connection	100–240 V, 50/60 Hz

Delivery incl. conductivity electrode type LE703, test solutions (1413 µS/cm and 12.88 mS/cm, each with 2 x 20 ml sachets), electrode arm and mains adapter.

Type	Art. No.	Pack Qty.	€
FiveEasy™ F30 Standard	**HY61.1**	1 unit(s)	1.120,00



Conductivity sensor with Mini-DIN

Mettler-Toledo.

With Mini-DIN connection for tabletop measuring devices from Mettler Toledo.

Technical specifications:

Art. No.	PP35.1	PP36.1	HY62.1	TA15.1	TA14.1
Type	InLab® 720	InLab® 751-4 mm	LE703	InLab® 741-ISM®	InLab® 731-ISM®
Conductivity measuring range	0.1 to 500 µS/cm	0.01 to 100 mS/cm	0.01 to 200 mS/cm	0.001 to 500 µS/cm	0.01 to 1000 mS/cm
Operating temperature	0 to +100 °C				
Cell type	Two platinum poles	Two platinum pins	Four graphite poles	Two steel pins	Four graphite poles
Cell constant	0,06 cm^{-1}	1,0 cm^{-1}	0,55 cm^{-1}	0,105 cm^{-1}	0,57 cm^{-1}
Shaft length	120 mm				
Ø Shaft	12 mm	4 mm	12 mm		
Shaft material	Glass		Epoxid	Stainless steel	Epoxid
Temperature sensor	NTC 30 kΩ				
ISM Technology	No			Yes	
Connection	Mini-DIN				

Delivery incl. fixed cable (length 1 m).

Without ISM®

Pic.	Type	Art. No.	Pack Qty.	€
(1)	InLab® 720	**PP35.1**	1 unit(s)	430,00
(2)	InLab® 751-4 mm	**PP36.1**	1 unit(s)	655,00
(3)	LE703	**HY62.1**	1 unit(s)	183,50

With ISM®
Thanks to the Intelligent Sensor Management (ISM®) system, all important data is stored in the sensor and automatically sent to ISM®-compatible measuring devices.

Pic.	Type	Art. No.	Pack Qty.	€
(4)	InLab® 741-ISM®	**TA15.1**	1 unit(s)	755,00
(5)	InLab® 731-ISM®	**TA14.1**	1 unit(s)	540,00

Oxygen meters



Oxygen meter OXY 7

Dostmann.

For determining dissolved oxygen in liquids. Large LCD display which simultaneously displays the measured value and temperature.

- Automatic calibration with display of the calibrated ranges
- Confirmation when a stable measured value is reached
- Automatic and manual temperature compensation
- Automatic compressed air compensation
- Manual salinity compensation of 0 to 50 ppt
- Auto Off after 20 minutes

Technical specifications:

Art. No.	HPK6.1
Type	OXY 7
Parameters	Oxygen
O_2 concentration measuring range	0 to 50 mg/l
O_2 saturation concentration	±0.30 mg/l (0.00 to 19.99 mg/l), ±0.75 mg/l (20.0 to 50.0 mg/l)
O_2 saturation measuring range	0 to 400%
O_2 saturation accuracy	±20% (0.0 to 199.9%), ±40% (200 to 400%)
O_2 resolution	Automatic
Partial pressure measuring range	0 to 1100 mbar
Partial pressure resolution	1 mbar
Partial pressure accuracy	±0.55 mbar
Temperature measuring range	0 to +60 °C
Temperature resolution	0.1 °C
Temperature accuracy	±0.5 °C
W x D x H	86 x 33 x 196 mm
Power supply	3x battery Mignon/AA 1.5 V

Delivery incl. polarographic oxygen sensor OXY DO7 with integrated temperature sensor, electrolyte solution (30 ml), standard zero calibration solution (30 ml), replaceable membrane, storage case and batteries.

Type	Art. No.	Pack Qty.	€
OXY 7	**HPK6.1**	1 unit(s)	757,90



Oxygen meter ProfiLine Oxi 3310

WTW.

Robust and waterproof portable meter.

- Integrated data logger
- Installed air pressure compensation sensor
- Backlit graphics display
- With calibration memory – five calibrations can be retrieved

Technical specifications:

Art. No.	KT29.1
Type	Oxi 3310
Parameters	Oxygen
O_2 concentration measuring range	0.01 to 90.9 mg/l
O_2 saturation concentration	±0.5 % of the measured value
O_2 saturation measuring range	0.1 to 600 %
O_2 saturation accuracy	±0.5 % of the measured value
O_2 resolution	0.01 mg/l (0.01 to 19.9 mg/l), 0.1 mg/l (0 to 90.9 mg/l), 0.1 % (0.1 to 199.9 %), 1 % (0 to 600 %)
Partial pressure measuring range	0.1 to 1250 hPa
Partial pressure resolution	0.1 hPa (0.1 to 199.9 hPa), 1 hPa (0 to 1250 hPa)
Partial pressure accuracy	±0.5 % of the measured value
Temperature measuring range	-5 to +50 °C
Temperature resolution	0.1 °C
Temperature accuracy	±0.1 °C
Data memory	200 datasets can be entered manually, 5000 datasets can be entered at a scheduled time
Port	Mini USB
W x D x H	80 x 55 x 180 mm
Power supply	4x battery Mignon/AA 1.5 V

Delivery incl. CellOx® 325 galvanic oxygen sensor with 1.5 m fixed cable, professional case with integrated measuring station, cleaning and electrolyte solution, three replaceable membrane caps, stand, beaker, software, USB cable and batteries.

Type	Art. No.	Pack Qty.	€
Oxi 3310	**KT29.1**	1 unit(s)	1.897,40

NEW / +

Accessories for Oxi 3310 set

WTW.

CellOx® 325 oxygen sensor
With 1.5 m fixed cable.

Delivery incl. 30 ml cleaning solution, 50 ml electrolyte solution, abrasive film and 3 replaceable membrane caps.

Art. No.	Pack Qty.	€
1L2P.1	1 unit(s)	1.255,60

Cleaning and electrolyte solution
30 ml cleaning solution and 50 ml electrolyte solution.

Warning H290-H315-H319

Delivery incl. abrasive film and 3 replaceable membrane caps.

Art. No.	Pack Qty.	€
1L2T.1	1 unit(s)	353,70

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Combi tester PC 5

Dostmann.

For measuring pH, conductivity, TDS, salinity and temperature.

- Large LCD display
- Waterproof and dust-proof
- Automatic temperature compensation/correction
- Confirmation when a stable measured value is reached
- Automatic calibration with display of the calibrated ranges
- Multicolour back lighting for status display of measurement mode, calibration and alarm

Technical specifications:

Art. No.	HPK4.1
Type	PC 5
Parameters	pH, Conductivity, Salinity, TDS, Temperature
pH measuring range	-2 to +16
pH resolution	0,01 pH
pH accuracy	±0.01 pH
Voltage measuring range	-1000 to +1000 mV
Voltage resolution	0,1 mV, 1 mV
Voltage accuracy	±1 mV
Conductivity measuring range	0 µS/cm to 20 mS/cm
Conductivity resolution	automatic (0.1 µS/cm – 0.1 mS/cm)
Conductivity accuracy	±2 µS/cm (0 to 199.9 µS/cm), ±20 µS/cm (200 to 1999 µS/cm), ±0.2 mS/cm (2.0 to 20.0 mS/cm)
Reference temperature	+20 / +25 °C
TDS measuring range	0 to 10 ppt
TDS resolution	automatic (0.1 ppm – 0.01 ppt)
TDS accuracy	±2 ppm (0.1 to 199.9 ppm), ±20 ppm (200 to 1999 ppm), ±0.1 ppt (2.00 to 10.00 ppt)
Salinity measuring range	0 mg/l to 10 g/l
Salinity resolution	automatic (0.1 mg/l – 0.01 g/l)
Salinity accuracy	±2 mg/l (0.1 to 199.9 mg/l), ±20 mg/l (200 to 1999 mg/l), ±0.1 g/l (2.00 to 10.00 g/l)
Temperature measuring range	0 to +50 °C
Temperature resolution	0.1 °C
Temperature accuracy	±0.2 °C
Calibration points	1/2/3 (pH/EC)
IP rating	67
Ø x L	35 x 175 mm
Weight	130 g
Power supply	2x battery Micro/AAA 1.5 V

Delivery incl. buffer solutions (pH 4.01/7.00; EC 1413 µS/cm), storage solution, two measuring beakers, storage case and batteries.

Type	Art. No.	Pack Qty.	€
PC 5	HPK4.1	1 unit(s)	198,90

Combined measuring instruments



Combi hand-held measuring device PM 2000 set

ROTH SELECTION.

For measuring pH, Redox, conductivity and temperature.

- Automatic sensor detection
- Robust, coated aluminium housing
- Automatic pH-calibration
- Zero-point can be set separately for Redox electrodes

Technical specifications:

Art. No.	HT24.1
Type	PM 200 set
Parameters	pH, Conductivity, Temperature
pH measuring range	0 to 14
pH resolution	0,01 pH
pH accuracy	±0.01 pH
pH temp. compensation	automatic: 0 to +100 °C
Voltage measuring range	-1000 to +1000 mV
Voltage resolution	1 mV
Conductivity measuring range	0 µS/cm to 500 mS/cm
Conductivity resolution	0.01 µS/cm, 1.0 mS/cm
Conductivity accuracy	±2% (up to 200 mS), ±4% (up to 500 mS)
Reference temperature	20 / 25 °C
Temperature coefficient	0 – 3,9 %
Temperature measuring range	-50 to +150 °C
Temperature resolution	0.1 °C
Temperature accuracy	±0.2 °C
IP rating	65
L x W x H	138 x 85 x 35 mm
Weight	350 g
Power supply	3x lithium batteries Mignon 1.5 V

Delivery incl. pH/Redox pre-amplifier with temperature gauge, pH single-rod measuring cell pH 62/A7, conductivity probe with an integrated temperature gauge, batteries. Without Redox single-rod measuring cell, please order separately.

Type	Art. No.	Pack Qty.	€
PM 200 set	**HT24.1**	1 unit(s)	646,10



Combi hand-held measuring device PC 7 Vio

Dostmann.

For measuring pH, Redox, conductivity, TDS and temperature.

- Large LCD display with simultaneous display of measured value and temperature
- Automatic and manual temperature compensation
- Confirmation when a stable measured value is reached
- Automatic calibration with display of the calibrated ranges, storage of current calibration
- Manual calibration possible with user-defined buffer
- Reference temperature, adjustable cell constant and temperature coefficient
- 201T pH single-rod measuring cell with integrated temperature gauge for common aqueous samples. pH range: 0 to 14. Operating temperature 0 to +60 °C. Ceramic diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.
- 2301T conductivity sensor with integrated temperature gauge. Measuring range: 10 µS to 200 mS/cm. Operating temperature: 0 to +60 °C. Steel shaft, length/Ø: 120/12 mm.

Technical specifications:

Art. No.	HTE8.1
Type	PC 7 Vio
Parameters	pH, Redox, Conductivity, TDS, Temperature
pH measuring range	0 to 14
pH resolution	0,1 / 0,01 pH
pH accuracy	±0.01 pH
Voltage measuring range	-1000 to +1000 mV
Voltage resolution	1 mV
Voltage accuracy	±1 mV
Conductivity measuring range	0 µS/cm to 200 mS/cm
Conductivity resolution	automatic (0.01 µS/cm – 0.1 mS/cm)
Conductivity accuracy	±0.4 µmS/cm (0 to 19.99 µmS/cm), ±4 µmS/cm (20.0 to 199.9 µmS/cm), ±40 µS/cm (200 to 1999 µS/cm), ±0.4 mS/cm (2.00 to 19.99 mS/cm), ±4 mS/cm (20.0 to 200.0 mS/cm)
Reference temperature	+15 – +30 °C
Temperature coefficient	0 – 10,00 % / °C
Cell constant	0,1 / 1,0 / 10 cm^{-1}
TDS measuring range	0 mg/l to 100 g/l
TDS resolution	automatic (0.01 mg/l – 0.1 g/l)
TDS accuracy	±0.2 mg/l (0 to 19.99 mg/l), ±2 mg/l (20.0 to 199.9 mg/l), ±20 mg/l (200 to 1999 mg/l), ±0.2 g/l (2.00 to 19.99 g/l), ±1 g/l (20.0 to 100.0 g/l)
Temperature measuring range	0 to +100 °C
Temperature resolution	0.1 °C
Temperature accuracy	±0.5 °C
Calibration points	1/2/3 (pH), 1/2/3/4 (EC)
Connection	BNC (pH), BNC (EC), Cinch (°C)
L x W x H	196 x 86 x 33 mm
Weight	300 g
Power supply	3x battery Mignon/AA 1,5 V

Delivery incl. 201T pH single-rod measuring cell, 2301T conductivity sensor, buffer solutions (pH 4.01/7.00; EC 1413 µS/cm / 12.88 mS/cm), storage solution, measuring beaker, transport case and batteries.

Type	Art. No.	Pack Qty.	€
PC 7 Vio	**HTE8.1**	1 unit(s)	736,40

Combined measuring instruments



Combi hand-held measuring device SensoDirect 150

Tintometer.

For measuring pH, Redox, conductivity, TDS, oxygen and temperature.

- Automatic/manual temperature compensation
- Min/Max and Hold functions
- Saves up to 16,000 data sets automatically/manually
- Auto Off after 10 min

Technical specifications:

Art. No.	YT94.1
Type	SensoDirect 150
Parameters	pH, Redox, Conductivity, TDS, Oxygen, Temperature
pH measuring range	0 to 14
pH resolution	0,01 pH
pH accuracy	±0.02 pH
pH temp. compensation	automatic: 0 to +65 °C, manual: 0 to +100 °C
Voltage measuring range	-1999 to +1999 mV
Voltage resolution	1 mV
Voltage accuracy	±1 mV
Conductivity measuring range	0.2 to 200 mS/cm
Conductivity resolution	automatic (0.001 S/cm – 0.1 mS/cm)
Conductivity accuracy	±0.01 mS/cm (0.200 to 2.000 mS), ±0.1 mS/cm (2.01 to 20.00 mS), ±1 mS/cm (20.1 to 200.0 mS)
Temperature compensation conductivity	Automatic: 0 to +60 °C
TDS measuring range	0 to 132000 ppm
TDS resolution	0.1 ppm (0 to 132 ppm), 1 ppm (132 to 1320 ppm), 10 ppm (1320 to 13,200 ppm), 100 ppm (13,200 to 132,000 ppm)
TDS accuracy	2.64 ppm (0 to 132 ppm), 26.4 ppm (132 to 1320 ppm), 264 ppm (1320 to 13,200 ppm), 2640 ppm (13,200 to 132,000 ppm)
O_2 concentration measuring range	0 to 20 mg/l
O_2 saturation concentration	±0.4 mg/l
O_2 saturation measuring range	0 to 100%
O_2 saturation accuracy	±0.7 %
O_2 resolution	0.1 mg/l, 0.1 %
O_2 temp. compensation	automatic: 0 to +50 °C
Salt correction	0 – 39 %
Air pressure compensation	0 – 8900 m
Calibration points	1/2/3 (pH, EC), 1 (Redox)
Data memory	16000 data sets
Connection	BNC (pH)
L x W x H	220 x 120 x 40 mm
Weight	625 g
Power supply	4x battery Mignon/AA 1.5 V

Delivery incl. pH plastic electrode with gel electrolyte, external temperature gauge, conductivity probe, buffer solutions (pH 4/7), plastic case and batteries. Without oxygen sensor and Redox electrode; please order separately.

Type	Art. No.	Pack Qty.	€
SensoDirect 150	**YT94.1**	1 unit(s)	699,40



Combi table-top multimeter PC 50 VioLab

Dostmann.

For measuring pH, Redox, conductivity, TDS and temperature.

- Large LCD display, backlit with simultaneous display of measured value and temperature
- Automatic and manual temperature compensation
- Automatic calibration with display of the calibrated ranges, storage of current calibration
- Manual calibration possible with user-defined buffer
- Confirmation when a stable measured value is reached
- Adjustable reference temperature, cell constant and temperature coefficient
- 201T pH single-rod measuring cell with integrated temperature gauge for common aqueous samples. pH range: 0 to 14. Operating temperature 0 to +60 °C. Ceramic diaphragms, gel electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.
- 2301T conductivity sensor with integrated temperature gauge. Measuring range: 10 µS to 200 mS/cm. Operating temperature: 0 to +60 °C. Steel shaft, length/Ø: 120/12 mm.

Technical specifications:

Art. No.	HXC0.1
Type	PC 50 VioLab
Parameters	pH, Redox, Conductivity, TDS, Temperature
pH measuring range	0 to 14
pH resolution	0,01 pH
pH accuracy	±0.01 pH
Voltage measuring range	-1000 to +1000 mV
Voltage resolution	1 mV
Voltage accuracy	±1 mV
Conductivity measuring range	0 µS/cm to 200 mS/cm
Conductivity resolution	automatic (0.01 µS/cm – 0.1 mS/cm)
Conductivity accuracy	±0.4 µmS/cm (0 to 19.99 µmS/cm), ±4 µmS/cm (20.0 to 199.9 µmS/cm), ±40 µS/cm (200 to 1999 µS/cm), ±0.4 mS/cm (2.00 to 19.99 mS/cm), ±4 mS/cm (20.0 to 200.0 mS/cm)
Reference temperature	+15 – +30 °C
Temperature coefficient	0 – 10,00 % / °C
Cell constant	0,1 / 1,0 / 10 cm^{-1}
TDS measuring range	0 mg/l to 100 g/l
TDS resolution	automatic (0.01 mg/l – 0.1 g/l)
TDS accuracy	±0.2 mg/l (0 to 19.99 mg/l), ±2 mg/l (20.0 to 199.9 mg/l), ±20 mg/l (200 to 1999 mg/l), ±0.2 g/l (2.00 to 19.99 g/l), ±1 g/l (20.0 to 100.0 g/l)
Temperature measuring range	0 to +100 °C
Temperature resolution	0.1 °C
Temperature accuracy	±0.5 °C
Calibration points	1/2/3 (pH), 1/2/3/4 (EC)
Connection	BNC (pH), BNC (EC), Cinch (°C)
L x W x H	160 x 185 x 70 mm
Weight	550 g
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 201T pH single-rod measuring cell, 2301T conductivity sensor, buffer solutions (pH 4.01/7.00; EC 1413 µS/cm / 12.88 mS/cm), storage solution, electrode holder and mains adapter.

Type	Art. No.	Pack Qty.	€
PC 50 VioLab	**HXC0.1**	1 unit(s)	827,75

Combined measuring instruments



Combi hand-held measuring device SevenGo Duo™

Mettler-Toledo.

For measuring pH, Redox, conductivity, TDS, salinity and temperature.

- Robust, waterproof housing
- Data memory for 99 GLP data sets
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data

pH measurement:

- Automatic 1-/2-/3-point pH-calibration from four pre-defined points and a user-defined buffer set
- Automatic end point recognition, automatic buffer recognition and temperature compensation give reproducible results
- InLab® ExpertGo-ISM® pH single-rod measuring cell with integrated temperature gauge for aqueous samples, including emulsions, suspensions and solutions with proteins. PH-range: 0 to 14. Operating temperature: 0 to +100 °C. Protection rating: IP67. Perforated diaphragms, polymer-electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm

Conductivity measurement:

- Single-point calibration with calibration standards (84/1413/12880 µS/cm)
- Linear temperature compensation
- Selectable reference temperature
- With robust conductivity sensor for medium to very high conductivity: InLab® 738-ISM® (IP67) with integrated temperature gauge. Measuring range: 0.01 to 1000 mS/cm. Plastic shaft, length/Ø: 120/12 mm. Operating range: 0 to +100 °C

Technical specifications:

Art. No.	LN42.1	LN41.1
Type	SG23-FK5	SG23-ELK
Parameters	pH, Redox, Conductivity, Temperature	
pH measuring range	0 to 14	
pH resolution	0,01 pH	
pH accuracy	±0.01 pH	
pH temp. compensation	automatic	
Voltage measuring range	-1999 to +1999 mV	
Voltage resolution	1 mV	
Voltage accuracy	±1 mV	
Conductivity measuring range	0 µS/cm to 500 mS/cm	
Conductivity resolution	Automatic (0.01 µS/cm – 1 mS/cm)	
Conductivity accuracy	±0.5% of the measured value	
Temperature compensation conductivity	linear	
Reference temperature	20 / 25 °C	
TDS measuring range	0 mg/l to 300 g/l	
TDS resolution	Automatic (0.1 mg/l – 1 g/l)	
Salinity measuring range	0 to 80 ppt	
Salinity resolution	0.01 ppt	
Temperature measuring range	-5 to +105 °C	
Temperature resolution	0.1 °C	
Temperature accuracy	±0.5 °C	
Calibration points	1/2/3 (pH), 1 (EC)	
Data memory	99 data sets	
Port	Infrared adapter (PC)	
ISM Technology	Yes	
IP rating	67	
L x W x H	220 x 90 x 45 mm	
Power supply	4x battery Mignon/AA 1.5 V	

Note: For ORP measurements, please order Redox electrodes separately.

SG23-ELK

Delivery incl. InLab® ExpertGo-ISM® pH single-rod measuring cell, InLab® 738-ISM® conductivity sensor, batteries and wrist straps.

Type	Art. No.	Pack Qty.	€
SG23-ELK	**LN41.1**	1 unit(s)	1.655,00

SG23-FK5

Delivery incl. InLab® Expert Go-ISM®pH single-rod measuring cell, InLab® 738-ISM® conductivity sensor, rubber-elastic protective case, buffer solutions (pH 4.01/7.00; EC 1413/12.88 mS/cm), sample bottles, carrying case, wrist strap and batteries.

Type	Art. No.	Pack Qty.	€
SG23-FK5	**LN42.1**	1 unit(s)	1.895,00

Combined measuring instruments



NEW / +

Combi table-top multimeter SevenCompact™ Duo S213

Mettler-Toledo.

- All important data at a glance, thanks to the high-resolution colour display (4.3″) with large digits and clear symbols.
- Simultaneous measurement and display of pH value and conductivity is possible.
- Simple and intuitive to use; menus with complete sentences in 12 languages.
- Electrode arm is easy to operate with one hand; electrode can be positioned securely by moving it up and down.
- Calibration with predefined and user-specific buffers and buffer groups is possible; calibration memory with optional sensor lock setting available; quality of the most recent sensor calibration shown directly via pH sensor symbol.
- Comprehensive safety functions both for routine measurements and measurements under strict GLP specifications.
- With two operating modes: In Routine mode, it is not possible to delete data or change settings; in Expert mode (secured with PIN code), all functions can be used by an authorised user.
- Internal measured value memory: Saving by pressing key or timed (intermittent) saving (interval can be set between 1 s and 40 min).
- USB ports for exporting data via USB stick (datasets are exported as a text (.txt) file) or for connecting a USB keyboard.
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data.
- Sustainable with highest Energy Star rating for the power supply (low energy loss, low heat generation) and environmentally friendly packaging.

Technical specifications:

Art. No.	1LE3.1	1LE4.1	1LE5.1
Type	S213 Basic	S213 Standard kit	S213 Water kit
Sensor	without	InLab® Expert-Pro-ISM®, InLab® 731-ISM®	InLab® Pure-Pro-ISM®, InLab® 741-ISM®
Parameters	pH, Redox, Conductivity, TDS, Salinity, Temperature		
pH measuring range	-2 to +20		
pH resolution	0,001 / 0,01 / 0,1 pH		
pH accuracy	±0.002 pH		
Voltage measuring range	-2000 to +2000 mV		
Voltage resolution	0,1 / 1 mV		
Voltage accuracy	±0,2 mV		
Conductivity measuring range	0 µS/cm to 1000 mS/cm		
Conductivity resolution	Automatic (0.001 µS/cm – 1 mS/cm)		
Conductivity accuracy	±0.5% of the measured value		
Reference temperature	+20 / +25 °C		
TDS measuring range	0 mg/l to 1000 g/l		
TDS resolution	Automatic (0.01 mg/l – 1 g/l)		
TDS accuracy	±0.5% of the measured value		
Salinity measuring range	0 to 80 psu		
Salinity resolution	Automatic (0.01 / 0.1 psu)		
Salinity accuracy	±0.5% of the measured value		
Temperature measuring range	-5 to +105 °C		
Temperature resolution	0.1 °C		
Temperature accuracy	±0.1 °C		
Calibration points	1/2/3/4/5 (pH), 1 (EC)		
Data memory	2000 datasets		
Port	RS 232, USB-A (printer), USB-B (PC)		
Connection	BNC (pH), Mini-DIN (EC), Cinch (°C)		
ISM Technology	Yes		
IP rating	54		
L x W x H	204 x 174 x 74 mm		
Power supply	Mains adapter		
Mains connection	100–240 V, 50/60 Hz		

Basic

Delivery incl. electrode holder and protective cover.

Without sensors, please order separately.

Type	Art. No.	Pack Qty.	€
S213 Basic	**1LE3.1**	1 unit(s)	2.000,00

Standard kit

For a wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.

Delivery incl. InLab® Expert Pro-ISM® pH single-rod measuring cell, InLab® 731-ISM® conductivity sensor, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00 / 1413 µS/cm and 12.88 mS/cm, 2x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
S213 Standard kit	**1LE4.1**	1 unit(s)	2.515,00

Water kit

For samples with a low ion concentration such as ultrapure water and deionised water.

Delivery incl. InLab® Pure Pro-ISM® pH single-rod measuring cell, InLab® 741-ISM® conductivity sensor, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00 / 1413 µS/cm and 12.88 mS/cm, 2x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
S213 Water kit	**1LE5.1**	1 unit(s)	2.770,00

Combined measuring instruments

Combi table-top multimeter SevenExcellence™



Mettler-Toledo.

Modular professional system for measuring various parameters. Up to three modules can in be connected to a basic unit in variable configurations. This means that up to three parameters can be measured in one or more samples.

- High-resolution 7-inch colour display with touchscreen control
- Intuitive menu structure with full-text display (in 10 languages)
- 4-level user management hierarchy with different access rights
- Automatic calibration
- Flexible buffer selection and make-up; pH buffers from various groups can be combined with one another
- Automatic and manual temperature compensation
- Direct measurement or individual analysis methods (for standard conditions)
- Individual, intermittent or series measurement
- Automatic calculation of statistical data (mean values, standard deviation)
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data
- GLP support (PIN protection, GLP-compliant printouts containing all relevant data and monitoring of measurement limits)
- Radio clock for precise display of time and date
- Data storage (20,000 measuring values, 250 analyses)
- Data export with USB stick or LabX®direct PC software

Technical specifications:

Art. No.	**YX44.1**	**YX45.1**	**YX46.1**
Type	pH kit version S400	EC kit version S700	pH/EC kit version S470
Parameters	pH, Redox, Temperature	Conductivity, Salinity, TDS, Temperature	pH, Redox, Conductivity, Salinity, TDS, Temperature
pH measuring range	-2 to +20		-2 to +20
pH resolution	0,001 pH		0,001 pH
pH accuracy	±0.002 pH		±0.002 pH
Voltage measuring range	-2000 to +2000 mV		-2000 to +2000 mV
Voltage resolution	0,1 mV		0,1 mV
Voltage accuracy	±0,1 mV		±0,1 mV
Conductivity measuring range		0 µS/cm to 2000 mS/cm	
Conductivity resolution		automatic (0.001 µS/cm – 1 mS/cm)	
Conductivity accuracy		±0.5% of the measured value	
TDS measuring range		0 mg/l to 1000 g/l	
TDS resolution		automatic (0.01 mg/l – 1 g/l)	
TDS accuracy		±0.5% of the measured value	
Salinity measuring range		0 to 80 psu	
Salinity resolution		0.01 psu	
Salinity accuracy		±0.5% of the measured value	
Temperature measuring range	-30 to +130 °C		
Temperature resolution	0.1 °C		
Temperature accuracy	±0.1 °C		
Calibration points	1/2/3/4/5 (pH)	1 (EC)	1/2/3/4/5 (pH), 1 (EC)
Data memory	20,000 measuring values, 250 analyses		
Port	RS 232, USB-A (printer), USB-B (PC)		
Connection	BNC (pH), Cinch (°C)	Mini-DIN (EC), Cinch (°C)	BNC (pH), Mini-DIN (EC), Cinch (°C)
ISM Technology	Yes		
L x W x H	235 x 188 x 75 mm		
Weight	1120 g		
Mains connection	100–240 V, 50/60 Hz		

Combined measuring instruments

pH set S400
For measuring pH, Redox and temperature.

- InLab® RoutinePro-ISM® pH single-rod measuring cell with integrated temperature gauge for common aqueous solutions. pH-range: 0 to 14. Operating temperature 0 to +100 °C. Ceramic diaphragms, liquid electrolyte, glass shaft. Shaft length/Ø: 120/12 mm

Delivery incl. base unit with a pH module, InLab® Routine Pro-ISM® pH single-rod measuring cell, buffer solutions (pH 4.01/7.00/9.21/10.00), electrode holder, LabX®direct PC software and mains adapter.

Type	Art. No.	Pack Qty.	€
pH kit version S400	**YX44.1**	1 unit(s)	2.950,00

EC set S700
For measuring conductivity, TDS, salinity and temperature.

- InLab® 731-ISM® conductivity sensor with integrated temperature gauge for medium to very high conductivity. Measuring range: 0.01 to 1000 mS/cm. Operating temperature: 0 to +100 °C. Plastic shaft, length/Ø: 120/12 mm.

Delivery incl. base unit with a conductivity module, InLab® 731-ISM® conductivity sensor, buffer solutions (pH 1413/12.88 mS/cm), electrode holder, LabX®direct PC software and mains adapter.

Type	Art. No.	Pack Qty.	€
EC kit version S700	**YX45.1**	1 unit(s)	3.140,00

pH/EC set S470
For measuring pH, Redox, conductivity, TDS, salinity and temperature.

- InLab® ExpertGo-ISM® pH single-rod measuring cell with integrated temperature gauge for aqueous samples, including emulsions, suspensions and solutions with proteins. PH-range: 0 to 14. Operating temperature: 0 to +100 °C. Perforated diaphragms, polymer-electrolyte, plastic shaft. Shaft length/Ø: 120/12 mm.
- InLab® 731-ISM® conductivity sensor with integrated temperature gauge for medium to very high conductivity. Measuring range: 0.01 to 1000 mS/cm. Operating temperature: 0 to +100 °C. Plastic shaft, length/Ø: 120/12 mm.

Delivery incl. base unit with a pH-module, a conductivity-module, inLab® Expert Pro-ISM® pH single-rod measuring cell, InLab®731-ISM® conductivity sensor, buffer solutions (pH 4.01/7.00/9.21/10.00; EC 1413 µS/cm / 12.88 mS/cm), electrode holder, LabX®direct PC software and mains adapter.

Type	Art. No.	Pack Qty.	€
pH/EC kit version S470	**YX46.1**	1 unit(s)	3.745,00

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Flow stick testo 405-V1

Testo.

Mini-anemometer with air current and volume flow measurement. Pivoting display. Extendable telescope (Max. L 300 mm x Ø 12 to 16 mm).

Technical specifications:

Art. No.	P304.1	P305.1
Type	Testo 405-V1	
Parameters	Current, Temperature	
Flow measuring range	0 to 10 m/s	
Temperature measuring range	-20 to +50 °C	
Flow rate measuring range	0 to 099,990 m^3/h	
Resolution	0.01 m/s	
Temperature resolution	0.1 °C	
Accuracy	±(0.1 m/s +5% of the measured value) (0 to +2 m/s) ±(0.3 m/s +5% of the measured value) (outside)	
Operating temperature	0 to +50 °C	
L x W x H	490 x 37 x 36 mm	
Weight	115 g	
Power supply	3x battery Micro AAA 1.5 V	

Delivery incl. batteries and attachment clip.

Type	Version	Art. No.	Pack Qty.	€
Testo 405-V1	without calibration certificate	**P304.1**	1 unit(s)	139,75
Testo 405-V1	with ISO calibration certificate (5 and 10 m/s)	**P305.1**	1 unit(s)	268,75



Air-flow measuring device testo 425

Testo.

Anemometer with attached thermal current probe incl. telescopic pipe (max. L 820 mm x Ø 7.5 mm). Calculates volume flow when channel area is input.

- Measures temperature, current and volume flow
- Point-by-point, chronological calculation of average
- Min./max. values
- Hold button for recording the measured values
- Light-up display

Technical specifications:

Art. No.	EH95.1
Type	testo 425
Parameters	Current, Temperature
Flow measuring range	0 to 20 m/s
Temperature measuring range	-20 to +70 °C
Resolution	0.01 m/s
Temperature resolution	0.1 °C
Flow accuracy	±0.03 m/s or 5% of the measured value
Temperature accuracy	±0.5 °C (0 to +60 °C), ±0.7 °C (outside)
Operating temperature	-20 to +50 °C
Auto Off function	Yes
L x W x H	182 x 64 x 40 mm
Cable length	1.2 m
Weight	285 g
Power supply	Battery E block 9 V

Delivery incl. Air-flow measuring device with attached current probe, incl. telescopic pipe, batteries and calibration protocol.

Type	Art. No.	Pack Qty.	€
testo 425	**EH95.1**	1 unit(s)	493,45

Luxmeters



Luxmeter Mini

Dostmann.

For monitoring the lighting conditions in the workplace, warehouses etc.

- Automatic zero calibration
- Max Hold display
- Backlit display

Technical specifications:

Art. No.	**PK79.1**
Parameters	Illuminance
Measuring range	0–40,000 lx
Resolution	automatic (0.1–100 lx)
Accuracy	±5%
Photosensor	Silicon photodiode with filter
Auto Off function	Yes
L x W x H	165 x 54 x 34 mm
Weight	180 g
Power supply	Battery E block 9 V

Delivery incl. battery.

Type	Art. No.	Pack Qty.	€
Mini	**PK79.1**	1 unit(s)	58,20



Luxmeter LM37

Dostmann.

For measuring illuminance.

- Switch between lx and fc units (fc = foot candelas; 1 fc = 10.764 lx)
- Switch between ranges automatically or manually
- With automatic zero adjustment
- Change battery display and Auto-Off function (can be switched off)
- Hold function

Technical specifications:

Art. No.	**KP25.1**
Parameters	Illuminance
Measuring range	39.99 – 39,990 lx, 3.999 – 3999 fc
Resolution	automatic (0.01–10 lx), automatic (0.001–1 fc)
Accuracy	±3%
Photosensor	Silicon photodiode
Auto Off function	Yes
L x W x H	196 x 54 x 33 mm
Weight	180 g
Power supply	Battery E block 9 V

Delivery incl. battery.

Type	Art. No.	Pack Qty.	€
LM37	**KP25.1**	1 unit(s)	100,05

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Luxmeter RO 1332

Rotronic.

For measuring illuminance.

- With large 3½ digit LCD display and data-hold function
- Compact, robust and easy to use
- High accuracy and quick display
- With automatic zero-point adjustment

Technical specifications:

Art. No.	**E513.1**
Parameters	Illuminance
Measuring range	0–200,000 lx
Resolution	automatic (0.1–100 lx)
Accuracy	±3% of the measured value ±4% of the measured value ±10 digits> 1000 Lux
Repeat accuracy	±2 %
Photosensor	Silicon photodiode
Operating temperature	0–40 °C at 80% RH
Service life	200 hours
L x W x H	135 x 72 x 33 mm
Cable length	1.5 m
Weight	250 g
Power supply	Battery E block 9 V

Delivery incl. battery.

Type	Art. No.	Pack Qty.	€
RO 1332	**E513.1**	1 unit(s)	118,25



Luxmeter TES 1335

Rotronic.

For measuring illuminance.

- With bar-graph display
- Switch between lx and fc units (fc = foot candelas; 1 fc = 10.764 lx)
- With overall range display
- Cosine-adjusted angle
- Min/max value and hold function

Technical specifications:

Art. No.	**EN32.1**
Parameters	Illuminance
Measuring range	0–400,000 lx, 0–40,000 fc
Resolution	automatic (0–100 lx), automatic (0–10 fc)
Accuracy	±3%
Photosensor	Silicon photodiode
Operating temperature	0–40 °C at 80% RH
Auto Off function	Yes
L x W x H	150 x 72 x 29 mm
Cable length	1.5 m
Weight	320 g
Power supply	6x battery Micro AAA 1.5 V

Delivery incl. case and batteries.

Type	Art. No.	Pack Qty.	€
TES 1335	**EN32.1**	1 unit(s)	145,65

Other measuring instruments



UVA meter

Rotronic.

For measuring lighting performance on the go, for example, taking environmental measurements when cultivating plants, etc.

- With three measuring ranges
- Low-battery display
- Hold function and maximum measurement data memory
- UV sensor spectrum: 320–400 nm
- Overall range display

Technical specifications:

Art. No.	EN33.1
Parameters	Illuminance
Measuring range	0 µW/cm² – 19,99 mW/cm²
Resolution	automatic (0.1 µW/cm² – 0,01 mW/cm²)
Accuracy	±4%
Operating temperature	0–50 °C at 75% RH
L x W x H	155 x 48 x 24 mm
Weight	85 g
Power supply	3x battery Micro AAA 1.5 V

Delivery incl. belt holster and batteries.

Type	Art. No.	Pack Qty.	€
UVA meter	**EN33.1**	1 unit(s)	130,10



Sound level meter Mini

Dostmann.

For monitoring permissible noise pollution levels in the workplace, e.g. assessment of office equipment (copiers, printers etc.), and for measuring industrial and environmental noise. Backlit display.

Technical specifications:

Art. No.	PK80.1
Parameters	Sound
Measuring range	40 – 130 dB
Resolution	0.1 dB
Accuracy	±3 dB
Auto Off function	Yes
Min./max. function	Yes
L x W x H	157 x 54 x 34 mm
Weight	131 g
Power supply	Battery E block 9 V

Delivery incl. battery and wind protection screen.

Type	Art. No.	Pack Qty.	€
Mini	**PK80.1**	1 unit(s)	47,55



Sound level meter SL328

Dostmann.

For monitoring permissible noise pollution levels in the workplace and for measuring industrial and environmental noise, e.g. measuring noise produced by machines or equipment.

- Automatic range selection
- With sub- and over-range display
- Max Hold function to detect the maximum sound level or the maximum volume
- Electronic calibration via the integrated oscillator (94 dB, 1 kHz)

Technical specifications:

Art. No.	EY76.1
Parameters	Sound
Measuring range	32 – 130 dB
Resolution	0.1 dB
Accuracy	±1.5 dB
L x W x H	206 x 42 x 25 mm
Weight	100 g
Power supply	2x battery Micro AAA 1.5 V

Delivery incl. batteries and wind protection screen.

Type	Art. No.	Pack Qty.	€
SL328	**EY76.1**	1 unit(s)	110,75



Tachometer testo 465

Testo.

Optical and contact-free tachometer using reflective marks.

Technical specifications:

Art. No.	P306.1
Parameters	Speed
Measuring range	0 – 99999 rpm
Distance from object being measured	350 mm
Auto Off function	Yes
Min./max. function	Yes
L x W x H	144 x 58 x 20 mm
Weight	145 g
Power supply	2x battery Mignon AA 1.5 V

Delivery incl. meter, reflective marks, batteries and carrying case.

Type	Art. No.	Pack Qty.	€
testo 465	**P306.1**	1 unit(s)	230,05



Multi-position counters

ROTH SELECTION.

Mechanical table counter for counting blood cells, bacterial colonies or for other applications in which different samples are be counted repeatedly. Counts individual points up to 999. With summary window to show the total count and an audible signal after total counts of 100. Rotary knob to reset to 0.

Delivery incl. with annotated labels for blood cell count.

Number of counting stations	Counting range	L x W x H	Art. No.	Pack Qty.	€
6	0 – 999	250 x 76 x 56	**ENK8.1**	1 unit(s)	308,55
9	0 – 999	320 x 76 x 56	**ENK9.1**	1 unit(s)	419,25



Hand-held counter

ROTH SELECTION. Material: Metal, chrome-plated.

For mechanical counting up to 9999. The counter adds 1 every time a button is pressed. Rotary knob to reset to 0. With holding ring. Weight 66 g.

Number of counting stations	Counting range	Ø Housing (mm)	Art. No.	Pack Qty.	€
1	1 – 9999	46	**EE53.1**	1 unit(s)	16,10



Flow indicator with impeller

Bürkle.

With two hose nozzles (L 25 mm, Ø 6–11 mm). Minimum flow rate 150 ml/min.

Technical specifications:

Art. No.	1736.1	E486.1	E487.1	E488.1	1737.1	E489.1
Parameters	Current					
Material	SAN			PMP		
Temperature stability up to	30 °C			60 °C		
Max. pressure	2 bar					
L x W x H	90 x 40 x 15 mm					
Weight	12 g					

Made from styrene-acrylonitrile
Material: SAN.

Suitable for water and similar liquids.

Colour	Art. No.	Pack Qty.	€
blue	**1736.1**	1 unit(s)	13,50
red	**E486.1**	1 unit(s)	14,25
black	**E487.1**	1 unit(s)	14,25

Made of polymethylpentene
Material: PMP.

Can be sterilised. Highly chemical-resistant.

Colour	Art. No.	Pack Qty.	€
blue	**E488.1**	1 unit(s)	16,70
red	**1737.1**	1 unit(s)	16,70
black	**E489.1**	1 unit(s)	16,70



Flow indicator with ball

ROTH SELECTION. Material: SAN.

For easy visual monitoring of flow rates. With ball and two hose connectors. Minimum flow rate of 140 ml/min for fluids and 8 l/min for gases. Connectors for hose internal Ø 6.5–10 mm.

Technical specifications:

Art. No.	TT47.1
Parameters	Current
Material	SAN
Temperature stability up to	+50 °C
L x W x H	102 x 57 x 14 mm
Weight	16 g

Colour	Art. No.	Pack Qty.	€
translucent	**TT47.1**	1 unit(s)	17,95



Laboratory cooling water monitor AQUASTOP® II

ROTH SELECTION.

For monitoring cooling water flow and temperature in the laboratory. For installation in apparatus that runs without permanent supervision. Power supply and water supply are cut off in case of irregularities or when the preset temperature limit is exceeded.

Application:

- If the flow rate drops below the preset minimum level, the solenoid valve shuts off the coolant supply and connected electrical device (e.g. heating mantle) is de-energised.
- If the maximum temperature is exceeded, the solenoid valve stays open, the apparatus continues to be cooled and the electrical device is de-energised.

The temperature at the coolant outlet is recorded by the internal NTC sensor integrated in the flow sensor. As an option, an external Pt 100 temperature sensor which automatically deactivates the internal sensor can be installed in a freely selectable position on the test set-up (if required, please order separately).

Features:

- 2-line LED display for simultaneous display of flow rate and temperature
- LED for switching status and alarm indication
- Freely selectable alarm limits
- Acoustic pre-alarm alerts user before final deactivation
- With Schuko socket on the back

Technical specifications:

Art. No.	CKY2.1
Type	AQUASTOP® II
Flow measuring range	2 – 99 l/h
Temperature measuring range, internal	0 to 80 °C
Ext. temp. measuring range	0 to 250 °C
Setting accuracy	±1 l/h, ±1 °C
Fuse	16 A mT (load) 0.5 A mT (solenoid valve) 0.2 A mT (control unit)
Solenoid valve	Connection to tap: ¾″ IG, Connection to apparatus: ¾″ AG or hose connector Ø 10 mm
L x W x H	205 x 175 x 78 mm
Weight	1300 g
Rated power	35,500 W
Rated current	15 A
Mains connection	230 V, 50 Hz

Delivery incl. solenoid valve, flow sensor with internal NTC sensor and hose connector (for hose internal Ø 10 mm).

Type	Art. No.	Pack Qty.	€
AQUASTOP® II	**CKY2.1**	1 unit(s)	1.770,55



Temperature gauge Pt 100 for AQUASTOP® II

ROTH SELECTION. Material: Stainless steel 1.4571.

External temperature gauge Pt 100 with LEMO connector.

Technical specifications:

Art. No.	CKY3.1
Parameters	Temperature
Temperature measuring range	0 to +250 °C
Temperature sensor	Pt 100
Connection	Lemo
Ø x L	4 x 200 mm
Cable length	2 m

Delivery incl. connection cable.

Temperature measuring range (°C)	Cable length (m)	Art. No.	Pack Qty.	€
0 to +250	2	**CKY3.1**	1 unit(s)	150,10



Leakage monitor

ROTH SELECTION.

For monitoring all equipment powered by water. Reliably prevents flooding by automatically cutting off the water using the solenoid valve. When the highly sensitive moisture sensor detects a water film of 0.5 mm, it will set off an audible alarm and close the solenoid valve. Plug housing with earthed plug connection and earthed socket.

Technical specifications:

Art. No.	H481.1	H482.1
Type	Model I	Model II
Solenoid valve	with ¾″ ports and 12 V safety extra-low voltage	
Min. pressure difference (inlet/outlet)	0,5 bar	
Cable length	2 m	
Mains connection	220–240 V, 50/60 Hz	

Delivery incl. moisture sensor, solenoid valve and alarm buzzer.

Model I

Type	Art. No.	Pack Qty.	€
Model I	**H481.1**	1 unit(s)	190,30

Model II

With additional machine switch-off function in the event of an alarm (up to 16 A, 220 V, 50 Hz).

Type	Art. No.	Pack Qty.	€
Model II	**H482.1**	1 unit(s)	208,55

Balances - Basic, Beginners

Hanging balances HDB series electronic

Kern.

With data-hold function to “freeze” the weight display for 5 seconds. Stainless steel hooks, can be folded away. AUTO-OFF function after the load does not change for 5 minutes. Dimensions: W 70 x D 25 x H 105 mm (with hooks, 195 mm). Weight approx. 150 g.



Delivery incl. 2 x 1.5 V AAA batteries.

Type	Weighing range (kg)	Readability (g)	Art. No.	Pack Qty.	€
HDB 5K5N	5	5	**HK43.1**	1 unit(s)	65,00
HDB 10K10N	10	10	**HK44.1**	1 unit(s)	65,00

Pocket balance TEE 150-1

Kern.

- Blue backlit LCD display
- AUTO-OFF function after the load does not change for 2 minutes, can be deactivated
- Weighing plate dimensions: W 60 x D 64 mm
- Dimensions of entire balance: W 67 x D 100 x H 22 mm
- Weight approx. 100 g



Delivery incl. plastic cover and 2 x 1.5 V AAA batteries.

Type	Weighing range (g)	Readability (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
TEE 150-1	150	0.1	60 x 64	**HL50.1**	1 unit(s)	49,00

Compact balances CX series

Ohaus.

- ABS housing with stainless steel weighing plate
- Backlit LCD display
- External calibration function
- Overload protection
- Battery change indicator
- Automatic switch-off after 4 minutes when battery-powered
- Suitable for battery and mains operation
- Dimensions W 135 x D 201 x H 41 mm, weight 700 g



Delivery incl. 3x batteries Mignon 1.5 V. Without connector, please order separately if required.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
CX221	220	0.1	±0,1	±0,1	128 x 142	**KEX4.1**	1 unit(s)	69,00
CX621	620	0.1	±0,1	±0,1	128 x 142	**KEX5.1**	1 unit(s)	69,00
CX1201	1200	0.1	±0,2	±0,2	128 x 142	**KEX6.1**	1 unit(s)	86,00
CX2200	2200	1	±1	±1	128 x 142	**KEX7.1**	1 unit(s)	69,00
CX5200	5200	1	±1	±1	128 x 142	**KEX8.1**	1 unit(s)	74,00

Balances - Basic, Beginners

Precision balance EHA series

Kern.

- External calibration
- Stainless steel weighing plate
- Backlit LCD display
- Suitable for battery and mains operation
- Level indicator and levelling feet for levelling the balance
- Overall dimensions:
  Width 160 mm x Depth 225 mm x Height 20 mm



Delivery incl. mains adapter. Please order batteries separately. Two 1.5 V AA batteries are required.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EHA 500-2	500	0.01	0,03	±0,02	Ø 105	**1A4A.1**	1 unit(s)	95,00
EHA 500-1	500	0.1	0,3	±0,2	Ø 105	**1A4C.1**	1 unit(s)	70,00
EHA 1000-1	1000	0.1	0,3	±0,2	Ø 105	**1A4E.1**	1 unit(s)	75,00
EHA 3000-1	3000	0.1	0,3	±0,3	120 x 120	**1A4H.1**	1 unit(s)	95,00
EHA 3000-0	3000	1	3	±2	120 x 120	**1A4K.1**	1 unit(s)	70,00

Pocket balance CM series

Kern.

With a hinged lid. The balance in its case is perfectly protected from any kind of pressure by the hinged lid.
With TARE function, recipe program, automatic switch-off to prolong battery life and integrated calculator as standard. Dimensions: Balance W 85 x D 130 x H 25 mm, weight 150 g.



Delivery incl. 2 x 1.5 V AAA batteries in a soft case.

Type	Weighing range (g)	Readability (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
CM 150-1N	150	0,1	80 x 70	**P961.1**	1 unit(s)	60,00
CM 320-1N	320	0,1	80 x 70	**P923.1**	1 unit(s)	63,00
CM 1 K1N	1000	1	80 x 70	**P924.1**	1 unit(s)	60,00

Compact balances EMB series

Kern.

- Large LCD display with 15 mm high digits
- AUTO-OFF function after 3 minutes to prolong battery life, can be deactivated
- External calibration
- Adding function
- Dimensions of entire balance: W 170 x D 240 x H 39 mm
- Suitable for battery and mains operation



Delivery incl. batteries: EMB 2200-0 incl. 2 x 1.5 V AA batteries. All other models: Incl. 9 V block battery. **Without mains connector (if required, please order separately).**

Type	Weighing range (g)	Readability (g)	Linearity (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EMB 100-3	100	0,001	±0,003	Ø 82	**KX09.1**	1 unit(s)	240,00
EMB 200-2	200	0,01	±0,02	Ø 105	**CT06.1**	1 unit(s)	150,00
EMB 200-3	200	0,001	±0,003	Ø 82	**LY69.1**	1 unit(s)	260,00
EMB 500-1	500	0,1	±0,2	Ø 150	**ET20.1**	1 unit(s)	63,00
EMB 600-2	600	0,01	±0,03	Ø 105	**ET19.1**	1 unit(s)	190,00
EMB 1000-2	1000	0,01	±0,03	Ø 150	**KX10.1**	1 unit(s)	235,00
EMB 1200-1	1200	0,1	±0,3	Ø 150	**ET21.1**	1 unit(s)	85,00
EMB 2000-2	2000	0,01	±0,03	Ø 150	**LY70.1**	1 unit(s)	250,00
EMB 2200-0	2200	1	±2	Ø 150	**X415.1**	1 unit(s)	60,00
EMB 3000-1	3000	0,1	±0,3	Ø 150	**TA62.1**	1 unit(s)	150,00
EMB 5.2 K 1	5200	1	±3	Ø 150	**ET22.1**	1 unit(s)	63,00
EMB 6000-1	6000	0,1	±0,3	Ø 150	**LY71.1**	1 unit(s)	190,00
EMB 5.2 K 5	5200	5	±10	Ø 150	**X416.1**	1 unit(s)	60,00

Balances - Basic, Beginners

Table balances

Kern.



Features:

- LCD display with 25 mm high digits
- External calibration
- Mains- or battery-powered
- Dimensions of entire balance: B 270 x D 345 x H 106 mm
- Automatic switch-off after the load does not change for 3 minutes to prolong battery life

Delivery incl. power supply unit and protective hood.
Without battery, please order separately. 1 E-Block 9 V battery is required.

FCE series with weighing plate made of plastic (ABS)

Type	Weighing range (g)	Readability (g)	Linearity (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
FCE 3K1N	3000	1	±2	252 x 228	**PA30.1**	1 unit(s)	145,00
FCE 6K2N	6000	2	±4	252 x 228	**PA31.1**	1 unit(s)	145,00
FCE 15K5N	15000	5	±10	252 x 228	**PA32.1**	1 unit(s)	145,00
FCE 30K10N	30000	10	±20	252 x 228	**PA33.1**	1 unit(s)	145,00

FCB series with stainless steel weighing plate

Type	Weighing range (g)	Readability (g)	Linearity (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
FCB 3K0.1	3000	0,1	±0,3	252 x 228	**PA34.1**	1 unit(s)	270,00
FCB 12K1	12000	1	±3	252 x 228	**PA36.1**	1 unit(s)	230,00
FCB 30K1	30000	1	±3	252 x 228	**PA37.1**	1 unit(s)	275,00
FCB 6K0.5	6000	0,5	±1,5	252 x 228	**PA35.1**	1 unit(s)	250,00

Platform balances DE series

Kern.



Features:

- Backlit LCD display with 25 mm high digits
- Function programs for number of items, recipe, percentage weighing and animal weighing
- RS 232 port
- External calibration
- Mains- or battery-powered
- Dimensions of display unit: W 225 x D 110 x H 45 mm

Delivery incl. power supply unit. Without battery, please order separately. 1 E-Block 9 V battery is required.

Standard balances DE-A series

Type	Weighing range (g)	Readability (g)	Linearity (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
DE 12K1A	12000	1	±3	315 x 305	**PA39.1**	1 unit(s)	260,00
DE 24K2A	24000	2	±6	315 x 305	**PA40.1**	1 unit(s)	260,00
DE 6K0.5A	6000	0,5	±1,5	315 x 305	**PA38.1**	1 unit(s)	260,00
DE 60K5A	60000	5	±15	315 x 305	**PA41.1**	1 unit(s)	260,00
DE 120K10A	120000	10	±30	315 x 305	**PA42.1**	1 unit(s)	260,00

Dual range balances DE-D series

Automatic changeover.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
DE 6K1D	3000 / 6000	1 / 2	±2 / 4	315 x 305	**PA43.1**	1 unit(s)	230,00
DE 15K2D	6000 / 15000	2 / 5	±4 / 10	315 x 305	**PA44.1**	1 unit(s)	230,00
DE 35K5D	15000 / 35000	5 / 10	±10 / 20	315 x 305	**PA45.1**	1 unit(s)	230,00
DE 60K10D	30000 / 60000	10 / 20	±20 / 40	315 x 305	**PA46.1**	1 unit(s)	230,00
DE 150K20D	60000 / 150000	20 / 50	±40 / 100	315 x 305	**PA47.1**	1 unit(s)	230,00

Platform balances Ranger® 3000 series battery-powered



Ohaus.

Application:

- Item counting, percentage weighing, dynamic weighing (animal weighing), check weighing and totalling
- Display memory function – display of last stable value, can be initiated manually or automatically
- Adjustable weighing units: kg or g

Features:

- External calibration
- Backlit LCD display
- Stainless steel weighing platform
- **Battery operation possible, up to 210 h runtime, approx. 12 h charging time**
- Integrated hook for below-balance weighing
- Adjustable levelling feet and level indicator on the front
- Stability indicator
- Battery charge level indicator
- Automatic deactivation during battery operation (can be switched off)
- RS 232 port

Delivery incl. universal mains adapter (100–240 V, 50/60 Hz).

Models cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
R31P3	3000	0,1	±0,2	300 x 225	**YY33.1**	1 unit(s)	480,00
R31P30	30000	1	±2	300 x 225	**YY36.1**	1 unit(s)	480,00
R31P6	6000	0,2	±0,5	300 x 225	**YY34.1**	1 unit(s)	480,00
R31P1502	1500	0,05	±0,1	300 x 225	**YY32.1**	1 unit(s)	480,00
R31P15	15000	0,5	±1	300 x 225	**YY35.1**	1 unit(s)	480,00

Models calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
R31P3-M	3000	1	±0,2	300 x 225	**YY38.1**	1 unit(s)	565,00
R31P6-M	6000	2	±0,5	300 x 225	**YY39.1**	1 unit(s)	565,00
R31P1502-M	1500	0,5	±0,1	300 x 225	**YY37.1**	1 unit(s)	565,00
R31P15-M	15000	5	±1	300 x 225	**YY40.1**	1 unit(s)	565,00
R31P30-M	30000	10	±2	300 x 225	**YY41.1**	1 unit(s)	565,00

Table balances FKB series



Kern.

Features:

- External calibration
- Functions: Item counting, formulation, percentage weighing and animal weighing
- Backlit display
- Suitable for battery and mains operation
- AUTO-OFF function after 3 minutes to prolong battery life, can be deactivated
- RS 232 data port
- Stainless steel weighing plate

Delivery incl. power supply unit. Please order batteries separately. An extra 6 x Baby/C batteries are required.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
FKB 16K0.1	16000	0,1	±0,3	±0,1	340 x 240	**YC95.1**	1 unit(s)	520,00
FKB 36K0.1	36000	0,1	±0,5	±0,1	340 x 240	**YC96.1**	1 unit(s)	600,00
FKB 36K0.2	36000	0,2	±0,6	±0,2	340 x 240	**YC97.1**	1 unit(s)	560,00
FKB 65K0.2	65000	0,2	±1	±0,2	340 x 240	**YC98.1**	1 unit(s)	600,00
FKB 6K0.02	6000	0,03	±0,1	±0,02	340 x 240	**YC92.1**	1 unit(s)	570,00
FKB 8K0.05	8000	0,05	±0,15	±0,05	340 x 240	**YC93.1**	1 unit(s)	480,00
FKB 16K0.05	16000	0,05	±0,25	±0,05	340 x 240	**YC94.1**	1 unit(s)	630,00
FKB 65K0.5	65000	0,5	±1,5	±0,5	340 x 240	**YC99.1**	1 unit(s)	510,00

Balances - Basic, Beginners

Precision balances Navigator™

Ohaus.

Application:

- Various weighing units are adjustable
- Function programs: Item counting, percentage weighing and check weighing



Features:

- Weighing pan made of stainless steel
- External calibration
- Backlit LCD display
- Level indicator
- Overload/underload protection
- Can be upgraded with RS 232, USB or Ethernet port (please order separately)
- Suitable for battery and mains operation

Delivery incl. mains adapter. Without batteries (please order separately, 4 x Baby/C 1.5 V batteries are required).

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
NV222	220	0.01	±0,02	±0,01	Ø 145	**KEH1.1**	1 unit(s)	279,00
NV422	420	0.01	±0,02	±0,02	Ø 145	**KEH2.1**	1 unit(s)	291,00
NV622	620	0.01	±0,02	±0,02	Ø 145	**KEH3.1**	1 unit(s)	305,00
NV221	220	0.1	±0,2	±0,1	190 x 144	**KEH4.1**	1 unit(s)	152,00
NV621	620	0.1	±0,2	±0,1	190x 144	**KEH5.1**	1 unit(s)	191,00
NV1201	1200	0.1	±0,2	±0,1	190 x 144	**KEH6.1**	1 unit(s)	228,00
NVT2201	2200	0.1	±0,2	±0,1	230 x 174	**KEH7.1**	1 unit(s)	276,00
NVT4201	4200	0.1	±0,2	±0,1	230 x 174	**KEH8.1**	1 unit(s)	287,00
NVT6201	6200	0.1	±0,2	±0,1	230 x 174	**KEH9.1**	1 unit(s)	300,00
NVT2200	2200	1	±2	±1	230 x 174	**KEK0.1**	1 unit(s)	152,00
NVT6200	6200	1	±2	±1	230 x 174	**KEK1.1**	1 unit(s)	166,00
NVT12000	12000	1	±2	±1	230 x 174	**KEK2.1**	1 unit(s)	255,00
NVT22000	22000	1	±2	±1	230 x 174	**KEK3.1**	1 unit(s)	276,00

Accessories for Navigator™ precision balances

Ohaus.

Designation	Art. No.	Pack Qty.	€
RS 232 port, installation kit with cable	**Y609.1**	1 unit(s)	43,50
USB port, installation kit with cable	**Y610.1**	1 unit(s)	43,50
Ethernet port, installation kit with cable	**PH78.1**	1 unit(s)	89,30

Precision balances BTG series

Phönix Instrument.

Application:

- Percent and counting
- Select from 21 weight units: g, ct, kg, lb, etc.



Features:

- Stainless steel weighing platform
- Backlit display showing the capacity
- With external calibration
- Three-door glass draft shield on the BTG-303 model (internal height 150 mm); (W) = incl. draft shield
- RS 232 data port
- Integrated battery operation for mobile use (up to 40 hrs runtime and approx. 12 hrs charging time)

Delivery incl. mains adapter, external additional test weight (class M1) and protective hood (BTG-2002 and BTG-6001 models only).

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
BTG-303 (W)	300	0,001	±0,003	±0,001	Ø 118	**EEH4.1**	1 unit(s)	446,15
BTG-2002	2000	0,01	±0,03	±0,01	188 x 148	**EEH5.1**	1 unit(s)	370,90
BTG-6001	6000	0,1	±0,2	±0,1	188 x 148	**EEH6.1**	1 unit(s)	317,15

Balances - Basic, Beginners

Precision balances PCD series



Kern.

Features:

- With separate platform for working in glove bags or fume cupboards
- External calibration
- Functions: Item counting, formulation, percentage weighing and animal weighing
- Backlit display
- Various weighing units can be set, e.g. g, ct, free value, etc.
- With level indicator and levelling feet
- Draft shield for model PCD 250-3 and PCD 300-3: Dimensions of weighing space: W 146 x D 146 x H 80 mm
- Mains or battery operation
- Auto-Off function, switches balance off after 3 minutes to prolong battery life, can be deactivated
- (W) = incl. draft shield

Delivery incl. power supply unit. Please order batteries separately. One E-Block 9 V battery is required.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PCD 250-3 (W)	250	0,001	±0,005	±0,002	Ø 105	**YC31.1**	1 unit(s)	385,00
PCD 300-3 (W)	350	0,001	±0,005	±0,002	Ø105	**HEH0.1**	1 unit(s)	415,00
PCD 2500-2	2500	0,01	±0,05	±0,02	160 x 160	**YC32.1**	1 unit(s)	370,00
PCD 3000-2	3500	0,01	±0,05	±0,02	160 x 160	**HEH1.1**	1 unit(s)	410,00
PCD 6K-4	6000	0,1	±0,3	±0,1	160 x 160	**HEH2.1**	1 unit(s)	295,00
PCD 10K0.1	10000	0,1	±0,3	±0,1	160 x 160	**YC33.1**	1 unit(s)	300,00
PCD 10K-3	10000	1	±3	±1	160 x 160	**HEH3.1**	1 unit(s)	215,00

Precision balances PCB series



Kern.

Features:

- Backlit LCD display
- Stainless steel platform (ABS plastic platform with models with the Ø 81 mm weighing dish)
- External calibration
- Functions: Item counting, formulation, percentage weighing and animal weighing
- RS 232 port
- Draft shield ring with models with 0.001 g readability
- Suitable for battery and mains operation
- AUTO-OFF function, switches balance off after 3 minutes to prolong battery life, can be deactivated

Delivery incl. power supply unit and protective hood for keyboard and housing. Please order batteries separately. An E-Block 9 V battery is required.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PCB 100-3	100	0,001	±0,003	±0,001	Ø 81	**HK92.1**	1 unit(s)	345,00
PCB 200-2	200	0,01	±0,02	±0,01	Ø 105	**HK93.1**	1 unit(s)	300,00
PCB 250-3	250	0,001	±0,005	±0,001	Ø 81	**KX11.1**	1 unit(s)	365,00
PCB 350-3	350	0,001	±0,005	±0,001	Ø 81	**LY67.1**	1 unit(s)	390,00
PCB 1000-1	1000	0,1	±0,2	±0,1	130 x 130	**HK99.1**	1 unit(s)	235,00
PCB 1000-2	1000	0,01	±0,03	±0,01	130 x 130	**HK97.1**	1 unit(s)	355,00
PCB 2000-1	2000	0,1	±0,2	±0,1	130 x 130	**HL00.1**	1 unit(s)	275,00
PCB 2500-1	2500	0,01	±0,05	±0,01	130 x 130	**KX12.1**	1 unit(s)	360,00
PCB 3500-2	3500	0,01	±0,05	±0,01	130 x 130	**LY68.1**	1 unit(s)	380,00
PCB 6000-0	6000	1	±2	±1	150 x 170	**HL05.1**	1 unit(s)	210,00
PCB 6000-1	6000	0,1	±0,3	±0,1	150 x 170	**HL02.1**	1 unit(s)	300,00

Balances - Basic, Beginners

Precision balances Scout™ series

Ohaus.

General features of all models:

- With external calibration
- Draft shield for models with 0.001 g readability (internal height 45 mm); (W) = incl. draft shield
- Battery and mains operation
- Connection options for data logging (please order separately)



Delivery incl. M1 test weight included in models up to 620 g and mains adapter. Without batteries, please order separately. Four 1.5 V AA batteries are required.

(1) SKX series

- Application: Determining density
- Background-lit LCD display

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
SKX123 (W)	120	0,001	±0,003	±0,002	Ø 93	**EHE8.1**	1 unit(s)	505,00
SKX222	220	0,01	±0,01	±0,01	Ø 120	**EHE9.1**	1 unit(s)	368,00
SKX421	420	0,1	±0,1	±0,1	Ø 120	**EHH4.1**	1 unit(s)	216,00
SKX422	420	0,01	±0,01	±0,01	Ø 120	**EHH0.1**	1 unit(s)	439,00
SKX621	620	0,1	±0,1	±0,1	170 x 140	**EHH5.1**	1 unit(s)	243,00
SKX622	620	0,01	±0,02	±0,01	Ø 120	**EHH1.1**	1 unit(s)	476,00
SKX1202	1200	0,01	±0,03	±0,02	170 x 140	**EHH2.1**	1 unit(s)	565,00
SKX2201	2200	0,1	±0,1	±0,1	170 x 140	**EHH6.1**	1 unit(s)	362,00
SKX2202	2200	0,01	±0,03	±0,02	170 x 140	**EHH3.1**	1 unit(s)	605,00
SKX6201	6200	0,1	±0,2	±0,1	170 x 140	**EHH7.1**	1 unit(s)	489,00
SKX8200	8200	1	±1	±1	170 x 140	**EHH8.1**	1 unit(s)	296,00

(2) STX series with touchscreen and additional features

- Application: Percentage weighing, item counting, check weighing, dynamic weighing, totalling and determining density
- Full-colour touchscreen with WQVGA graphic LCD (4.3″ diagonal)
- QWERTY keyboard and numerical keyboard
- 9 different menu language options can be selected
- Front level display and levelling feet

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
STX123 (W)	120	0,001	±0,003	±0,002	Ø 93	**EHH9.1**	1 unit(s)	810,00
STX222	220	0,01	±0,01	±0,01	Ø 120	**EHK1.1**	1 unit(s)	615,00
STX223 (W)	220	0,001	±0,003	±0,002	Ø 93	**EHK0.1**	1 unit(s)	930,00
STX421	420	0,1	±0,1	±0,1	Ø 120	**EHK6.1**	1 unit(s)	338,00
STX422	420	0,01	±0,01	±0,01	Ø 120	**EHK2.1**	1 unit(s)	745,00
STX621	620	0,1	±0,1	±0,1	170 x 140	**EHK7.1**	1 unit(s)	401,00
STX622	620	0,01	±0,02	±0,01	Ø 120	**EHK3.1**	1 unit(s)	810,00
STX1202	1200	0,01	±0,03	±0,02	170 x 140	**EHK4.1**	1 unit(s)	895,00
STX2201	2200	0,1	±0,1	±0,1	170 x 140	**EHK8.1**	1 unit(s)	615,00
STX2202	2200	0,01	±0,03	±0,02	170 x 140	**EHK5.1**	1 unit(s)	930,00
STX6201	6200	0,1	±0,2	±0,1	170 x 140	**EHK9.1**	1 unit(s)	790,00
STX8200	8200	1	±1	±1	170 x 140	**EHL0.1**	1 unit(s)	590,00

Accessories interface installation kit for SKX and STX series precision balances

Ohaus.

Designation	Art. No.	Pack Qty.	€
RS 232 interface kit	**EHL1.1**	1 unit(s)	79,00
USB host interface kit	**EHL2.1**	1 unit(s)	121,00
USB device interface kit	**EHL3.1**	1 unit(s)	88,60
Bluetooth interface kit	**EHL4.1**	1 unit(s)	149,50

Balances - Basic, Beginners

Precision balances 440 series

Kern.

Application:

- Function programs for number of items, recipe, percentage weighing and animal weighing



Features:

- Stainless steel weighing platform
- With external calibration
- With RS 232 data port
- A draft shield ring is also supplied with Art. No. LY72.1
- Suitable for battery and mains operation
- AUTO-OFF after 3 minutes to prolong battery life

Delivery incl. power supply unit and protective hood. Please order batteries separately. An E-Block 9 V battery is required.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
440-21A	60	0,001	±0,003	Ø 81	**LY72.1**	1 unit(s)	395,00
440-33N	200	0,01	±0,02	Ø 105	**H723.1**	1 unit(s)	315,00
440-35N	400	0,01	±0,03	Ø 105	**AK49.1**	1 unit(s)	365,00
440-43N	400	0,1	±0,2	130 x 130	**P936.1**	1 unit(s)	235,00
440-35A	600	0,01	±0,03	Ø 105	**LY73.1**	1 unit(s)	395,00
440-45N	1000	0,1	±0,2	130 x 130	**H724.1**	1 unit(s)	265,00
440-47N	2000	0,1	±0,2	130 x 130	**H725.1**	1 unit(s)	315,00
440-49N	4000	0,1	±0,3	170 x 150	**Y530.1**	1 unit(s)	365,00
440-51N	4000	1	±2	170 x 150	**P937.1**	1 unit(s)	175,00
440-53N	6000	1	±2	170 x 150	**P938.1**	1 unit(s)	240,00

Table balances GAB, calibrated

Kern.

Application examples: Dispensing balance for pharmacies, hand mixing of tea, coffee, etc.

- Functions: Item counting and percentage weighing
- Weighing with tolerance range: Entry of upper/lower limits. A visual signal aids dosing and sorting.
- RS 232 port
- Overall dimensions: W 320 x D 330 x H 125 mm
- Min. load 20 g
- Stainless steel weighing platform



Delivery incl. mains adapter.

Type	Weighing range (kg)	Readability (g)	Linearity (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
GAB	3 / 6	1/2	±1 / 2	294 x 225	**PX18.1**	1 unit(s)	390,00

Balances - Basic, Beginners

Precision balances 572 series

Kern.

Application:

- Function programs: Item counting, recipes and percentage weighing



Features:

- **Robust metal case**
- With external calibration
- RS 232 data port
- Easy to operate following the yes/no questions in the display
- With below balance weighing device
- Dimensions: W 180 x D 310 x H 90 mm
- A draft shield ring (Ø 160 mm, H 60 mm) is supplied with Art. No. HT19.1 and HT20.1

Delivery incl. protective hood for keyboard, housing and the mains adapter.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
572-31	300	0,001	±0,003	±0,001	Ø 105	**HT19.1**	1 unit(s)	650,00
572-32	420	0,001	±0,005	±0,002	Ø 105	**HT20.1**	1 unit(s)	680,00
572-33	1600	0,01	±0,03	±0,01	Ø 150	**L961.1**	1 unit(s)	600,00
572-35	2400	0,01	±0,03	±0,01	Ø 150	**L962.1**	1 unit(s)	640,00
572-37	3000	0,01	±0,05	±0,02	Ø 150	**HT21.1**	1 unit(s)	650,00
572-39	4200	0,01	±0,05	±0,02	Ø 150	**KX14.1**	1 unit(s)	680,00
572-49	16000	0,1	±0,3	±0,1	200 x 160	**L964.1**	1 unit(s)	640,00
572-57	24000	0,1	±0,3	±0,1	200 x 160	**L966.1**	1 unit(s)	660,00
572-45	12000	0,05	±0,15	±0,05	200 x 160	**L963.1**	1 unit(s)	650,00

Precision balances EWJ series

Kern.

Application:

- Item counting and percentage weighing



Features:

- Time-controlled automatic internal calibration
- Capacity indication – LED strip indicates available weighing range
- Draft shield comprising four side parts (H = 90 mm) for models up to ≤600 g; (W) = including draft shield
- Spirit level
- RS 232 data port

Delivery incl. protective hood and mains adapter (230 V, 50 Hz).

Models not calibratable

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EWJ 300-3 (W)	300	0,001	±0,003	±0,001	Ø 80	**CHH7.1**	1 unit(s)	600,00
EWJ 600-2M (W)	600	0,01	±0,03	±0,01	Ø 135	**CHH8.1**	1 unit(s)	510,00
EWJ 3000-2	3000	0,01	±0,03	±0,01	Ø 135	**CHH9.1**	1 unit(s)	560,00
EWJ 6000-1M	6000	0,1	±0,3	±0,1	155 x 145	**CHK0.1**	1 unit(s)	490,00

Models calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EWJ 600-2M (W)	600	0,01	±0,03	±0,01	Ø 135	**CHK1.1**	1 unit(s)	590,00
EWJ 6000-1M	6000	0,1	±0,3	±0,1	155 x 145	**CHK2.1**	1 unit(s)	583,00

Balances - Basic, Beginners

Precision balances



Kern.

Application:

- Item counting, percentage weighing, weighing with a tolerance range (above or below the programmable limit value; option to input in g, items or %)
- Capacity indicator
- Various weighing units (e.g. g, ct, oz, etc.) can be set
- LCD display with 16 mm high digits

Features:

- Stainless steel weighing platform
- **EW models with external calibration, EG models with internal calibration switch via a rotary knob on the side**
- Spirit level
- Bidirectional RS 232 data port
- Draft shield as standard on all 0.001-g models, with removable lid and an opening for pipetting (Weighing space W 158 x D 130 x H 78 mm); (W) = incl. draft shield
- Dimensions of entire balance:
  with weighing plates Ø 118 and 170 x 142 mm: W 180 x D 235 x H 75 mm,
  with weighing plate 180 x 160 mm: W 190 x D 265 x H 90 mm

Delivery incl. protective hood and mains adapter.

EW series, external calibration

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EW 220-3 NM (W)	220	0,001	±0,002	±0,001	Ø 118	**AX07.1**	1 unit(s)	840,00
EW 420-3 NM (W)	420	0,001	±0,003	±0,001	Ø 118	**AX08.1**	1 unit(s)	970,00
EW 620-3 NM (W)	620	0,001	±0,004	±0,001	Ø 118	**AX09.1**	1 unit(s)	1.080,00
EW 820-2 NM	820	0,01	±0,01	±0,01	170 x 142	**AX10.1**	1 unit(s)	760,00
EW 2200-2 NM	2200	0,01	±0,01	±0,01	180 x 160	**AX11.1**	1 unit(s)	930,00
EW 4200-2 NM	4200	0,01	±0,02	±0,01	180 x 160	**AX12.1**	1 unit(s)	1.030,00
EW 6200-2 NM	6200	0,01	±0,03	±0,01	180 x 160	**CT72.1**	1 unit(s)	1.120,00
EW 12000-1 NM	12000	0,1	±0,2	±0,1	180 x 160	**CT73.1**	1 unit(s)	880,00

EG series, internal calibration

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EG 220-3 NM (W)	220	0,001	±0,002	±0,001	Ø 118	**AX13.1**	1 unit(s)	1.060,00
EG 420-3 NM (W)	420	0,001	±0,003	±0,001	Ø 118	**AX14.1**	1 unit(s)	1.160,00
EG 620-3 NM (W)	620	0,001	±0,004	±0,001	Ø 118	**AX15.1**	1 unit(s)	1.300,00
EG 2200-2 NM	2200	0,01	±0,01	±0,01	180 x 160	**AX16.1**	1 unit(s)	1.110,00
EG 4200-2 NM	4200	0,01	±0,02	±0,01	180 x 160	**AX17.1**	1 unit(s)	1.220,00

Balances - Basic, Beginners

Precision balances PNJ series

Kern.

Application:

- Item counting, percentage weighing and check weighing.



Features:

- With internal calibration
- Capacity indication – LED strip indicates available weighing range
- Glass draft shield with 3 sliding doors for model with 0.001 g readability (internal height 160 mm); (W) = incl. draft shield
- Spirit level
- RS 232 data port

Delivery incl. protective hood and mains adapter.

Models not calibratable

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PNJ 600-3M (W)	620	0,001	±0,004	±0,001	Ø 140	**ENH3.1**	1 unit(s)	950,00
PNJ 3000-2M	3200	0,01	±0,02	±0,01	190 x 190	**ENH4.1**	1 unit(s)	890,00
PNJ 12000-1M	12000	0,1	±0,2	±0,1	190 x 190	**ENH5.1**	1 unit(s)	870,00

Models calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PNJ 600-3M (W)	620	0,001	±0,004	±0,001	Ø 140	**ENH6.1**	1 unit(s)	1.030,00
PNJ 3000-2M	3200	0,01	±0,02	±0,01	190 x 190	**ENH7.1**	1 unit(s)	970,00
PNJ 12000-1M	12000	0,1	±0,2	±0,1	190 x 190	**ENH8.1**	1 unit(s)	963,00

Precision balances PLJ-A series

Kern.

Application:

- Item counter, percentage weighing and weighing with a tolerance range
- Recipe database: 99 recipes with up to 20 recipe components each, including name and set value, can be stored



NEW / +

Features:

- With internal adjustment
- Backlit LCD graphic display,
- Plain text operator guidance in the display, available in different languages
- Dosing aid: High-stability mode and other filter settings can be selected
- Spirit level
- Draft shield on the model with 0.001 g readability (interior height 60 mm) except for model PLJ 2000-3A (large square draft shield with interior height 225 mm); (W) = incl. draft shield
- RS-232 data port

Delivery incl. protective hood and mains adapter.

Models not calibratable

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PLJ 720-3A (W)	720	0.001	0,002	0,001	110	**1LH9.1**	1 unit(s)	1.490,00
PLJ 1200-3A (W)	1200	0.001	0,003	0,001	110	**1LHA.1**	1 unit(s)	1.530,00
PLJ 2000-3A (W)	2100	0.001	0,004	0,002	110	**1LHC.1**	1 unit(s)	2.100,00
PLJ 6200-2A	6200	0.01	0,03	0,01	160	**1LHE.1**	1 unit(s)	1.480,00

Models calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PLJ 720-3AM (W)	720	0.001	0,002	0,001	110	**1LHH.1**	1 unit(s)	1.610,00
PLJ 6200-2AM	6200	0.01	0,03	0,01	160	**1LHK.1**	1 unit(s)	1.623,00

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Balances - Standard

Precision balances

A & D.

Application:

- Percent, counting and animal weighing
- Selectable weight units: g, ct, etc.



Features:

- FX-i models have external calibration
- FZ-i models have internal calibration
- All models with additional WP: Dust and water protection acc. to IP 65
- Draft shield for models with 0.001 g readability (internal height 85 mm); (W) = incl. draft shield
- With RS 232 data port
- Overload protection
- Four-year warranty

Delivery incl. mains adapter.

FX series models with external calibration

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
FX-120i (W)	122	0,001	±0,002	±0,001	Ø 130	**CTH4.1**	1 unit(s)	769,70
FX-200i (W)	220	0,001	±0,002	±0,001	Ø 130	**CTH6.1**	1 unit(s)	828,85
FX-300i (W)	320	0,001	±0,002	±0,001	Ø 130	**CTH8.1**	1 unit(s)	880,45
FX-1200i	1220	0,01	±0,02	±0,01	Ø 150	**CTK0.1**	1 unit(s)	769,70
FX-2000i	2200	0,01	±0,02	±0,01	Ø 150	**CTK2.1**	1 unit(s)	828,85
FX-3000i	3200	0,01	±0,02	±0,01	Ø 150	**CTK4.1**	1 unit(s)	880,45

FZ series models with internal calibration

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
FZ-120i (W)	122	0,001	±0,002	±0,001	Ø 130	**EHP8.1**	1 unit(s)	982,55
FZ-200i (W)	220	0,001	±0,002	±0,001	Ø 130	**EHP9.1**	1 unit(s)	1.051,35
FZ-300i (W)	320	0,001	±0,002	±0,001	Ø 130	**EHT0.1**	1 unit(s)	1.051,35
FZ-1200i	1220	0,01	±0,02	±0,01	Ø 150	**EHT1.1**	1 unit(s)	982,55
FZ-2000i	2200	0,01	±0,02	±0,01	Ø 150	**EHT2.1**	1 unit(s)	1.051,35
FZ-3000i	3200	0,01	±0,02	±0,01	Ø 150	**EHT3.1**	1 unit(s)	1.051,35

FX series models with external calibration, dust and water protection acc. to IP 65

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
FX-120i-WP (W)	122	0,001	±0,002	±0,001	Ø 130	**CTH5.1**	1 unit(s)	1.265,30
FX-200i-WP (W)	220	0,001	±0,002	±0,001	Ø 130	**CTH7.1**	1 unit(s)	1.333,00
FX-300i-WP (W)	320	0,001	±0,002	±0,001	Ø 130	**CTH9.1**	1 unit(s)	1.399,65
FX-1200i-WP	1220	0,01	±0,02	±0,01	Ø 150	**CTK1.1**	1 unit(s)	1.785,60
FX-2000i-WP	2200	0,01	±0,02	±0,01	Ø 150	**CTK3.1**	1 unit(s)	1.333,00
FX-3000i-WP	3200	0,01	±0,02	±0,01	Ø 150	**CTK5.1**	1 unit(s)	1.399,65

FX series models with internal calibration, dust and water protection acc. to IP 65

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
FZ-120i-WP (W)	122	0,001	±0,002	±0,001	Ø 130	**CTK6.1**	1 unit(s)	1.392,15
FZ-200i-WP (W)	220	0,001	±0,002	±0,001	Ø 130	**CTK7.1**	1 unit(s)	1.465,25
FZ-300i-WP (W)	320	0,001	±0,002	±0,001	Ø 130	**CTK8.1**	1 unit(s)	1.524,35
FZ-1200i-WP	1220	0,01	±0,02	±0,01	Ø 150	**CTK9.1**	1 unit(s)	1.392,15
FZ-2000i-WP	2200	0,01	±0,02	±0,01	Ø 150	**CTL0.1**	1 unit(s)	1.465,25
FZ-3000i-WP	3200	0,01	±0,02	±0,01	Ø 150	**CTL1.1**	1 unit(s)	1.524,35

Balances - Standard

Precision balances, explosion protected EK series



A & D.

For explosive areas in zones 0.1 and 2.

Application:

- Item counting and percentage weighing
- Acc. to ATEX: II 1G ia IIB T3 Ga
- With external calibration

Features:

- Backlit display, can be deactivated
- Auto power OFF to prolong battery life (battery life approx. 250 h with backlight off)
- Weighing pan made of stainless steel
- Anti-theft lug, level indicator, levelling feet

Delivery incl. 4 x 1.5 V AA batteries. Please note: Use only type-tested replacement batteries (see operating instructions).

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EK-300AEP	300	0,01	±0,02	±0,01	Ø 110	**EXC0.1**	1 unit(s)	1.613,60
EK-3000AEP	3000	0,1	±0,02	±0,01	133 x 170	**EXC1.1**	1 unit(s)	1.613,60
EK-12KAEP	12000	1	±1	±1	133 x 170	**EXC2.1**	1 unit(s)	1.613,60

Analytical balances ADB/ADJ series



Kern.

Application:
Item counting and percentage weighing

Features:

- Stainless steel weighing platform
- With RS 232 data port
- Dimensions of entire balance incl. draft shield (W):
  W 230 x D 310 x H 330 mm
- Weighing space dimensions: W 170 x D 160 x H 205 mm

Delivery incl. mains adapter.

ADB series with external calibration function

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (%)	Weighing pan (mm)	Art. No.	Pack Qty.	€
ADB 100-4 (W)	120	0.0001	±0,0004	±0,0002	Ø 90	**HPP9.1**	1 unit(s)	820,00
ADB 200-4 (W)	210	0.0001	±0,0004	±0,0002	Ø 90	**HPT0.1**	1 unit(s)	910,00

ADJ series with internal automatic calibration, either after a change of temperature ≥2 °C or time-controlled

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (%)	Weighing pan (mm)	Art. No.	Pack Qty.	€
ADJ 100-4 (W)	120	0.0001	±0,0004	±0,0002	Ø 90	**KHE3.1**	1 unit(s)	980,00
ADJ 200-4 (W)	210	0.0001	±0,0004	±0,0002	Ø 90	**KHE4.1**	1 unit(s)	1.070,00

Balances - Standard

Analytical balances

Kern.

Application:

- Item counting, percentage weighing and batching
- High stability mode and other filter settings are selectable



Features:

- ABS-N models with external calibration
- ABJ-NM models have internal automatic calibration, either after a change of temperature >2 °C or time-controlled every 4 hours
- Spirit level
- Dimensions of entire balance incl. draft shield: W 210 x D 340 x H 325 mm
- Dimensions of weighing space: W 174 x D 162 x H 227 mm; (W) = incl. draft shield

ABS-N series models with external calibration

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
ABS 80-4N (W)	80	0.0001	±0,0003	±0,0002	Ø 91	**TA63.1**	1 unit(s)	1.270,00
ABS 120-4N (W)	120	0.0001	±0,0003	±0,0002	Ø 91	**TA64.1**	1 unit(s)	1.370,00
ABS 220-4N (W)	220	0.0001	±0,0003	±0,0002	Ø 91	**TA65.1**	1 unit(s)	1.470,00
ABS 320-4N (W)	320	0.0001	±0,0003	±0,0002	Ø 91	**TA66.1**	1 unit(s)	1.670,00

ABJ-NM series models with internal calibration, cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
ABJ 120-4NM (W)	120	0.0001	±0,0003	±0,0002	Ø 91	**TA67.1**	1 unit(s)	1.470,00
ABJ 220-4NM (W)	220	0.0001	±0,0003	±0,0002	Ø 91	**TA68.1**	1 unit(s)	1.570,00
ABJ 320-4NM (W)	320	0.0001	±0,0003	±0,0002	Ø 91	**TA69.1**	1 unit(s)	1.820,00

Balances - Standard

Semi-micro and analytical balances ALJ series



Kern.

Application:
Function programs: Item counting, percentage weighing, weighing with a tolerance range, animal weighing function and recipe

Features:

- With internal automatic calibration if temperature changes by ≥1.2 °C and time-controlled every 3 hours
- Available with or without an ionizer:
  Ionizer to neutralise electrostatic charge.
  The ionizing blower is activated by pressing a button.
- RS 232 data port
- Dimensions of weighing space with draft shield:
  W 160 x D 140 x H 205 mm; (W) = incl. draft shield
- Overall dimensions (incl. draft shield) W 210 x D 340 x H 330 mm

NEW / +

Delivery incl. protective hood.

(1) Standard version

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
ALJ 200-5DA (W)	80/220	0.00001/0.0001	±0,0001/ 0,0002	±0,00004/0,0001	Ø 80	**HPT1.1**	1 unit(s)	2.470,00
ALJ 250-4A (W)	250	0.0001	±0,0003	±0,0001	Ø 80	**HPT2.1**	1 unit(s)	1.690,00
ALJ 310-4A (W)	310	0.0001	±0,0003	±0,0001	Ø 80	**HPT3.1**	1 unit(s)	1.750,00
ALJ 500-4A (W)	510	0.0001	±0,0004	±0,0002	Ø 80	**HPT4.1**	1 unit(s)	2.470,00

(1) Standard version, calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
ALJ250-4AM (W)	250	0.0001	±0,0003	±0,0002	Ø 80	**1H25.1**	1 unit(s)	1.866,00

(2) Comfort design with ionizer

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
ALJ 200-5DA (W)	80/220	0.00001/0.0001	±0,0001/0,0002	±0,00004/0,0001	Ø 80	**HPT5.1**	1 unit(s)	2.820,00
ALJ 250-4A (W)	250	0.0001	±0,0003	±0,0001	Ø 80	**HPT6.1**	1 unit(s)	2.020,00
ALJ 310-4A (W)	310	0.0001	±0,0003	±0,0001	Ø 80	**HPT7.1**	1 unit(s)	2.050,00
ALJ 500-4A (W)	510	0.0001	±0,0004	±0,0002	Ø 80	**HPT8.1**	1 unit(s)	2.900,00

Semi-micro, analytical and precision balances Pioneer® series



Ohaus.

Application: item counting, percentage weighing and dynamic weighing

Features:

- Backlit LCD display
- Glass draft shield with 3 sliding doors for models with 0.00001, 0.0001 and 0.001 g readability (internal height 200 mm); (W) = incl. draft shield
- Models with draft shield are fitted with an antistatic rod for grounding (made from permanent static, electrically conductive ABS)
- Spirit level, safety lug
- USB and RS 232 data port

Delivery incl. industrial protective cover and mains adapter.

Models with external calibration, cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PX124 (W)	120	0.0001	±0,0002	±0,0001	Ø 90	**KAC6.1**	1 unit(s)	1.455,00
PX224 (W)	220	0.0001	±0,0002	±0,0001	Ø 90	**KAC7.1**	1 unit(s)	1.600,00
PX323 (W)	320	0.001	±0,002	±0,001	Ø 120	**KAC8.1**	1 unit(s)	1.025,00
PX523 (W)	520	0.001	±0,002	±0,001	Ø 120	**KAC9.1**	1 unit(s)	955,00
PX3202	3200	0.01	±0,02	±0,01	Ø 180	**KAE0.1**	1 unit(s)	1.040,00
PX5202	5200	0.01	±0,02	±0,01	Ø 180	**KAE1.1**	1 unit(s)	990,00
PX4201	4200	0.1	±0,2	±0,1	Ø 180	**KAE2.1**	1 unit(s)	985,00

Balances - Standard

Models with internal calibration, cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PX125D (W)	52/120	0.00001/0.0001	±0,0001 /0,0001	±0,00002/0,0001	Ø 80	**KAE3.1**	1 unit(s)	3.315,00
PX85 (W)	82	0.00001	±0,0001	±0,00002	Ø 80	**KAE4.1**	1 unit(s)	3.425,00
PX225D (W)	82/220	0.00001/0.0001	±0,0001/0,0001	±0,00002/0,0001	Ø 80	**KAE5.1**	1 unit(s)	3.555,00
PX124 (W)	120	0.0001	±0,0002	±0,0001	Ø 90	**KAE6.1**	1 unit(s)	1.680,00
PX224 (W)	220	0.0001	±0,0002	±0,0001	Ø 90	**KAE7.1**	1 unit(s)	1.810,00
PX323 (W)	320	0.001	±0,002	±0,001	Ø 120	**KAE8.1**	1 unit(s)	1.275,00
PX523 (W)	520	0.001	±0,002	±0,001	Ø 120	**KAE9.1**	1 unit(s)	1.165,00
PX3202	3200	0.01	±0,02	±0,01	Ø 180	**KAH0.1**	1 unit(s)	1.295,00
PX5202	5200	0.01	±0,02	±0,01	Ø 180	**KAH1.1**	1 unit(s)	1.190,00
PX4201	4200	0.1	±0,2	±0,1	Ø 180	**KAH2.1**	1 unit(s)	1.230,00

Models with internal calibration, calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PX125D (W)	52/120	0.00001/0.0001	±0,0001/0,0001	±0,00002/0,0001	Ø 80	**KAH3.1**	1 unit(s)	3.560,00
PX85 (W)	82	0.00001	±0,0001	±0,00002	Ø 80	**KAH4.1**	1 unit(s)	3.690,00
PX225D (W)	82/220	0.00001/0.0001	±0,0001/0,0001	±0,00002/0,0001	Ø 80	**KAH5.1**	1 unit(s)	3.810,00
PX124 (W)	120	0.0001	±0,0002	±0,0001	Ø 90	**KAH6.1**	1 unit(s)	1.920,00
PX224 (W)	220	0.0001	±0,0002	±0,0001	Ø 90	**KAH7.1**	1 unit(s)	2.065,00
PX323 (W)	320	0.001	±0,002	±0,001	Ø 120	**KAH8.1**	1 unit(s)	1.485,00
PX523 (W)	520	0.001	±0,002	±0,001	Ø 120	**KAH9.1**	1 unit(s)	1.340,00
PX3202	3200	0.01	±0,02	±0,01	Ø 180	**KAK0.1**	1 unit(s)	1.530,00
PX5202	5200	0.01	±0,02	±0,01	Ø 180	**KAK1.1**	1 unit(s)	1.390,00
PX4201	4200	0.1	±0,2	±0,1	Ø 180	**KAK2.1**	1 unit(s)	1.425,00

Analytical and precision balances PR series

Ohaus.

Application

Item counter, percentage weighing

Features:

- With internal adjustment
- Background LCD
- Stainless steel weighing pan
- Glass draft shield (W) with three sliding doors for models with 0.0001 g and 0.001 g readability (interior height 170 mm); (W) = incl. draft shield
- Safety lug, stability indicator
- RS-232 data port



Models with internal calibration, cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PR224 (W)	220	0.0001	±0,0002	±0,0001	Ø 90	**KHH9.1**	1 unit(s)	1.380,00
PR523 (W)	520	0.001	±0,002	±0,001	Ø 120	**KHK0.1**	1 unit(s)	1.020,00
PR2202	2200	0.01	±0,02	±0,01	Ø 180	**KHK1.1**	1 unit(s)	1.005,00
PR4202	4200	0.01	±0,02	±0,01	Ø 180	**KHK2.1**	1 unit(s)	1.060,00
PR4201	4200	0.1	±0,2	±0,1	Ø 180	**KHK3.1**	1 unit(s)	925,00
PR6201	6200	0.1	±0,2	±0,1	Ø 180	**KHK4.1**	1 unit(s)	955,00

Models with internal calibration, calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
PR224M (W)	220	0.0001	±0,0002	±0,0001	Ø 90	**KHK5.1**	1 unit(s)	1.560,00
PR523M (W)	520	0.001	±0,002	±0,001	Ø 120	**KHK6.1**	1 unit(s)	1.175,00
PR2202M	2200	0.01	±0,02	±0,01	Ø 180	**KHK7.1**	1 unit(s)	1.175,00
PR4202M	4200	0.01	±0,02	±0,01	Ø 180	**KHK8.1**	1 unit(s)	1.220,00
PR4201M	4200	0.1	±0,2	±0,1	Ø 180	**KHK9.1**	1 unit(s)	1.085,00
PR6201M	6200	0.1	±0,2	±0,1	Ø 180	**KHL0.1**	1 unit(s)	1.110,00

Balances - Standard

Analytical balances HR series

A & D.

Application:

- Percent, counting, animal weighing
- Selectable weight units: g, mg, ct, etc.



Features:

- HR-A model with external calibration
- HR-AZ models with internal calibration
- Backlit LCD display
- Removable, round full-sized draft shield (internal height 198 mm); (W) = incl. draft shield
- The sliding doors of the draft shield tilt back to minimise space requirements
- With RS 232 data port
- Level indicator on the front
- Solid metal housing
- Overload protection
- Four-year warranty

Delivery incl. mains adapter.

Models with external calibration

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
HR-251A	62 / 252	0,0001 / 0,001	±0,0003 / 0,001	±0,0001 / 0,001	Ø 90	**CTE2.1**	1 unit(s)	1.200,80
HR-100A	102	0,0001	±0,0002	±0,0001	Ø 90	**CTE3.1**	1 unit(s)	1.200,80
HR-150A	152	0,0001	±0,0002	±0,0001	Ø 90	**CTE4.1**	1 unit(s)	1.310,45
HR-250A	252	0,0001	±0,0003	±0,0002	Ø 90	**CTE5.1**	1 unit(s)	1.538,35

Models with internal calibration

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
HR-251AZ (W)	62 / 252	0,0001 / 0,001	±0,0003/0,001	±0,0001/0,001	Ø 90	**CTE6.1**	1 unit(s)	1.465,25
HR-100AZ (W)	102	0,0001	±0,0002	±0,0001	Ø 90	**CTE7.1**	1 unit(s)	1.458,80
HR-150AZ (W)	152	0.0001	±0,0002	±0,0001	Ø 90	**CTE8.1**	1 unit(s)	1.532,95
HR-250AZ (W)	252	0.0001	±0,0003	±0,0002	Ø 90	**CTE9.1**	1 unit(s)	1.840,40

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Balances - Premium

Analytical and precision balances Entris® II series

Sartorius.

Application:

- Item counter, percentage weighing, dynamic weighing (weighing animals), check weighing, components/totalling and maximum value



Features:

- Hybrid display with combined LED and touchscreen technology
- All balances are available with external adjustment or with a fully automatic, internal temperature and time-controlled adjustment function
- Glass draft shield with three sliding doors for models with 0.0001/0.001 g readability (interior height 240 mm); (W) = incl. draft shield
- Eight different menu language options can be selected
- USB-C port with “PC direct” function which makes connecting to a PC easy, for transferring weighing data directly to tables or documents, like Microsoft® Excel or Word
- With RS-232 port
- **Monolithic weighing technology**

Delivery incl. mains adapter.

Models with external calibration, cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility	Weighing pan (mm)	Art. No.	Pack Qty.	€
BCE64-1S (W)	60	0.0001	0,0002	0,0001	90	**KLK2.1**	1 unit(s)	1.890,00
BCE124-1S (W)	120	0.0001	0,0002	0,0001	90	**KLK3.1**	1 unit(s)	2.010,00
BCE224-1S (W)	220	0.0001	0,0002	0,0001	90	**KLK4.1**	1 unit(s)	2.150,00
BCE223-1S (W)	220	0.001	0,002	0,001	120	**KLK5.1**	1 unit(s)	1.160,00
BCE323-1S (W)	320	0.001	0,002	0,001	120	**KLK6.1**	1 unit(s)	1.280,00
BCE423-1S (W)	420	0.001	0,002	0,001	120	**KLK7.1**	1 unit(s)	1.410,00
BCE623-1S (W)	620	0.001	0,002	0,001	120	**KLK8.1**	1 unit(s)	1.650,00
BCE822-1S	820	0.01	0,02	0,01	182 x 182	**KLK9.1**	1 unit(s)	1.160,00
BCE1202-1S	1200	0.01	0,02	0,01	182 x 182	**KLL0.1**	1 unit(s)	1.280,00
BCE2202-1S	2200	0.01	0,02	0,01	182 x 182	**KLL1.1**	1 unit(s)	1.410,00
BCE3202-1S	3200	0.01	0,02	0,01	182 x 182	**KLL2.1**	1 unit(s)	1.530,00
BCE4202-1S	4200	0.01	0,02	0,01	182 x 182	**KLL3.1**	1 unit(s)	1.650,00
BCE6202-1S	6200	0.01	0,02	0,01	182 x 182	**KLL4.1**	1 unit(s)	1.890,00
BCE2201-1S	2200	0.1	0,1	0,1	182 x 182	**KLL5.1**	1 unit(s)	1.160,00
BCE8201-1S	8200	0.1	0,3	0,1	182 x 182	**KLL6.1**	1 unit(s)	1.410,00

Models with internal calibration, cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility	Weighing pan (mm)	Art. No.	Pack Qty.	€
BCE64i-1S (W)	60	0.0001	0,0002	0,0001	90	**KLL7.1**	1 unit(s)	2.100,00
BCE124i-1S (W)	120	0.0001	0,0002	0,0001	90	**KLL8.1**	1 unit(s)	2.220,00
BCE224i-1S (W)	220	0.0001	0,0002	0,0001	90	**KLL9.1**	1 unit(s)	2.330,00
BCE223i-1S (W)	220	0.001	0,002	0,001	120	**KLN0.1**	1 unit(s)	1.400,00
BCE323i-1S (W)	320	0.001	0,002	0,001	120	**KLN1.1**	1 unit(s)	1.520,00
BCE423i-1S (W)	420	0.001	0,002	0,001	120	**KLN2.1**	1 unit(s)	1.630,00
BCE623i-1S (W)	620	0.001	0,002	0,001	120	**KLN3.1**	1 unit(s)	1.860,00
BCE822i-1S	820	0.01	0,02	0,01	182 x 182	**KLN4.1**	1 unit(s)	1.400,00
BCE1202i-1S	1200	0.01	0,02	0,01	182 x 182	**KLN5.1**	1 unit(s)	1.520,00
BCE2202i-1S	2200	0.01	0,02	0,01	182 x 182	**KLN6.1**	1 unit(s)	1.630,00
BCE3202i-1S	3200	0.01	0,02	0,01	182 x 182	**KLN7.1**	1 unit(s)	1.750,00
BCE4202i-1S	4200	0.01	0,02	0,01	182 x 182	**KLN8.1**	1 unit(s)	1.860,00
BCE6202i-1S	6200	0.01	0,02	0,01	182 x 182	**KLN9.1**	1 unit(s)	2.100,00
BCE2201i-1S	2200	0.1	0,1	0,1	182 x 182	**KLP0.1**	1 unit(s)	1.400,00
BCE8201i-1S	8200	0.1	0,3	0,1	182 x 182	**KLP1.1**	1 unit(s)	1.630,00

Balances - Premium

Models with internal calibration, calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility	Weighing pan (mm)	Art. No.	Pack Qty.	€
BCE64i-1CEU (W)	60	0.0001	0,0002	0,0001	90	**KLP2.1**	1 unit(s)	2.570,00
BCE124i-1CEU (W)	120	0.0001	0,0002	0,0001	90	**KLP3.1**	1 unit(s)	2.690,00
BCE224i-1CEU (W)	220	0.0001	0,0002	0,0001	90	**KLP4.1**	1 unit(s)	2.800,00
BCE223i-1CEU (W)	220	0.001	0,002	0,001	120	**KLP5.1**	1 unit(s)	1.860,00
BCE323i-1CEU (W)	320	0.001	0,002	0,001	120	**KLP6.1**	1 unit(s)	1.980,00
BCE423i-1CEU (W)	420	0.001	0,002	0,001	120	**KLP7.1**	1 unit(s)	2.100,00
BCE623i-1CEU (W)	620	0.001	0,002	0,001	120	**KLP8.1**	1 unit(s)	2.330,00
BCE822i-1CEU	820	0.01	0,02	0,01	182 x 182	**KLP9.1**	1 unit(s)	1.860,00
BCE1202i-1CEU	1200	0.01	0,02	0,01	182 x 182	**KLT0.1**	1 unit(s)	1.980,00
BCE2202i-1CEU	2200	0.01	0,02	0,01	182 x 182	**KLT1.1**	1 unit(s)	2.100,00
BCE3202i-1CEU	3200	0.01	0,02	0,01	182 x 182	**KLT2.1**	1 unit(s)	2.220,00
BCE4202i-1CEU	4200	0.01	0,02	0,01	182 x 182	**KLT3.1**	1 unit(s)	2.330,00
BCE6202i-1CEU	6200	0.01	0,02	0,01	182 x 182	**KLT4.1**	1 unit(s)	2.570,00
BCE2201i-1CEU	2200	0.1	0,1	0,1	182 x 182	**KLT5.1**	1 unit(s)	1.860,00
BCE8201i-1CEU	8200	0.1	0,3	0,1	182 x 182	**KLT6.1**	1 unit(s)	2.100,00

Analytical and precision balances Practum® series

Sartorius.

Application:

- Percent, checking, maximum value, counting, animal weighing
- Selectable weight units: g, kg, mg, ct, etc.
- Made in Germany



Features:

- With external calibration function
- Touchscreen operation
- 10 different menu language options can be selected
- Full-sized draft shield for models with 0.0001 g/0.001 g readability (internal height 209 mm); (W) = incl. draft shield
- Mini USB port for automatic detection of YDP40 Sartorius standard printer (please order separately) or direct data transfer, e.g. to Microsoft® Excel, without additional software. Programmable interval for data output.
- Menu lock for protection against accidental manipulation
- Levelling feet and glass level indicator on the front
- Anti-theft loop for chain or cable
- Models with 0.01 g, 0.1 g and 1 g readability incl. protective cover for operation

Delivery incl. universal mains adapter (100–240 V).

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
64-1S (W)	60	0,0001	±0,0002	±0,0001	Ø 90	**AHC2.1**	1 unit(s)	2.480,00
124-1S (W)	120	0,0001	±0,0003	±0,0001	Ø 90	**NN46.1**	1 unit(s)	2.610,00
213-1S (W)	210	0,001	±0,003	±0,001	Ø 120	**NN48.1**	1 unit(s)	1.700,00
224-1S (W)	220	0,0001	±0,0003	±0,0001	Ø 90	**NN45.1**	1 unit(s)	2.770,00
313-1S (W)	310	0,001	±0,003	±0,001	Ø 120	**NN47.1**	1 unit(s)	1.940,00
412-1S	410	0,01	±0,03	±0,01	Ø 180	**AHC4.1**	1 unit(s)	1.310,00
513-1S (W)	510	0,001	±0,002	±0,001	Ø 120	**AHC3.1**	1 unit(s)	2.330,00
612-1S	610	0,01	±0,03	±0,01	Ø 180	**NN51.1**	1 unit(s)	1.520,00
1102-1S	1100	0,01	±0,03	±0,01	Ø 180	**NN50.1**	1 unit(s)	1.640,00
2101-1S	2100	0,1	±0,3	±0,1	Ø 180	**AHC6.1**	1 unit(s)	1.380,00
2102-1S	2100	0,01	±0,03	±0,01	Ø 180	**NN49.1**	1 unit(s)	1.960,00
3102-1S	3100	0,01	±0,03	±0,01	Ø 180	**AHC5.1**	1 unit(s)	2.200,00
5100-1S	5100	1	±1	±1	Ø 180	**NN53.1**	1 unit(s)	1.240,00
5101-1S	5100	0,1	±0,3	±0,1	Ø 180	**NN52.1**	1 unit(s)	1.640,00
6100-1S	6100	1	±1	±1	Ø 180	**AHC8.1**	1 unit(s)	1.380,00
6101-1S	6100	0,1	±0,3	±0,1	Ø 180	**AHC7.1**	1 unit(s)	1.790,00

Balances - Premium

Analytical and precision balances Adventurer® series

Ohaus.

Application:

- Percent, counting, animal weighing, check weighing, density measurement, batching, display-hold function and totalling
- Selectable weight units



Features:

- All balances are available with external calibration or with AutoCal™ – automatic time- and temperature-controlled internal calibration
- Colour touchscreen with graphical LCD display and additional mechanical buttons for tare, calibration etc.
- Removable stainless steel weighing plate
- Language selection (nine languages)
- Analytical full-sized draft shield for models with 0.0001 g/0.001 g readability (internal height 230 mm); (W) = incl. draft shield
- Minimum sample weight function – a warning is displayed if the current sample weight is below the defined minimum sample weight
- **Two USB ports – one USB host port on the front for saving weighing data directly to a USB stick (not supplied) and an additional USB port on the back for connecting to a PC**
- RS 232 port
- Integrated hook for below-balance weighing

Models with external calibration, cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
AX124 (W)	120	0,0001	±0,0002	±0,0001	Ø 90	**CCE5.1**	1 unit(s)	2.355,00
AX223 (W)	220	0,001	±0,002	±0,001	Ø 130	**CCE7.1**	1 unit(s)	1.510,00
AX224 (W)	220	0,0001	±0,0002	±0,0001	Ø 90	**CCE6.1**	1 unit(s)	2.475,00
AX422	420	0,01	±0,02	±0,01	175 x 195	**EKH8.1**	1 unit(s)	1.155,00
AX423 (W)	420	0,001	±0,002	±0,001	Ø 130	**CCE8.1**	1 unit(s)	1.785,00
AX523 (W)	520	0,001	±0,002	±0,001	Ø 130	**CCE9.1**	1 unit(s)	2.055,00
AX822	820	0,01	±0,02	±0,01	175 x 195	**EKH9.1**	1 unit(s)	1.320,00
AX1502	1520	0,01	±0,02	±0,01	175 x 195	**CCH1.1**	1 unit(s)	1.505,00
AX2201	2200	0,1	±0,2	±0,1	175 x 195	**EKK0.1**	1 unit(s)	1.095,00
AX2202	2200	0,01	±0,02	±0,01	175 x 195	**CCH2.1**	1 unit(s)	1.530,00
AX4201	4200	0,1	±0,2	±0,1	175 x 195	**EKK1.1**	1 unit(s)	1.325,00
AX4202	4200	0,01	±0,02	±0,01	175 x 195	**CCH3.1**	1 unit(s)	1.780,00
AX8201	8200	0,1	±0,2	±0,1	175 x 195	**EKK2.1**	1 unit(s)	1.475,00

Models with internal calibration, cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
AX422	420	0.01	±0,02	±0,01	175 x 195	**EKK3.1**	1 unit(s)	1.525,00
AX822	820	0.01	±0,02	±0,01	175 x 195	**EKK4.1**	1 unit(s)	1.685,00
AX1502	1520	0.01	±0,02	±0,01	175 x 195	**CCK1.1**	1 unit(s)	1.860,00
AX2202	2200	0.01	±0,02	±0,01	175 x 195	**CCK2.1**	1 unit(s)	1.890,00
AX4202	4200	0.01	±0,02	±0,01	175 x 195	**CCK3.1**	1 unit(s)	2.120,00
AX5202	5200	0.01	±0,02	±0,01	175 x 195	**CCK4.1**	1 unit(s)	2.420,00
AX124 (W)	120	0,0001	±0,0002	±0,0001	Ø 90	**CCH4.1**	1 unit(s)	2.685,00
AX223 (W)	220	0,001	±0,002	±0,001	Ø 130	**CCH7.1**	1 unit(s)	1.895,00
AX224 (W)	220	0,0001	±0,0002	±0,0001	Ø 90	**CCH5.1**	1 unit(s)	2.795,00
AX324 (W)	320	0,0001	±0,0002	±0,0001	Ø 90	**CCH6.1**	1 unit(s)	2.970,00
AX423 (W)	420	0,001	±0,002	±0,001	Ø 130	**CCH8.1**	1 unit(s)	2.145,00
AX523 (W)	520	0,001	±0,002	±0,001	Ø 130	**CCH9.1**	1 unit(s)	2.420,00
AX2201	2200	0,1	±0,2	±0,1	175 x 195	**EKK5.1**	1 unit(s)	1.455,00
AX4201	4200	0,1	±0,2	±0,1	175 x 195	**EKK6.1**	1 unit(s)	1.695,00
AX8201	8200	0,1	±0,2	±0,1	175 x 195	**EKK7.1**	1 unit(s)	1.820,00

Balances - Premium

Models with internal calibration, calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
AX124 (W)	120	0,0001	±0,0002	±0,0001	Ø 90	**EKK8.1**	1 unit(s)	2.970,00
AX223 (W)	220	0,001	±0,002	±0,001	Ø 130	**EKL1.1**	1 unit(s)	2.165,00
AX224 (W)	220	0,0001	±0,0002	±0,0001	Ø 90	**EKK9.1**	1 unit(s)	3.090,00
AX324 (W)	320	0,0001	±0,0002	±0,0001	Ø 90	**EKL0.1**	1 unit(s)	3.250,00
AX423 (W)	420	0,001	±0,002	±0,001	Ø 130	**EKL2.1**	1 unit(s)	2.415,00
AX523 (W)	520	0,001	±0,002	±0,001	Ø 130	**EKL3.1**	1 unit(s)	2.685,00
AX1502	1520	0,01	±0,02	±0,01	175 x 195	**EKL4.1**	1 unit(s)	2.130,00
AX2202	2200	0,01	±0,02	±0,01	175 x 195	**EKL5.1**	1 unit(s)	2.155,00
AX4202	4200	0,01	±0,02	±0,01	175 x 195	**EKL6.1**	1 unit(s)	2.410,00
AX5202	5200	0,01	±0,02	±0,01	175 x 195	**EKL7.1**	1 unit(s)	2.685,00
AX8201	8200	0,1	±0,2	±0,1	175 x 195	**EKL8.1**	1 unit(s)	2.090,00

Semi-micro balances ABT series

Kern.



Application:

- Function programs: Item counting, percentage weighing and recipe
- Different selectable filter settings
- LCD display capacity indicator
- Various weighing units (e.g. mg, g, ct, etc.) can be set

Features:

- Monolithic weighing technology
- With internal automatic calibration: Time or temperature dependant, or set individually by key stroke
- RS 232 data port
- Stainless steel weighing platform
- Dimensions of balance incl. draft shield: W 217 x D 356 x H 338 mm
- Full-sized glass draft shield (internal height 223 mm); (W) = incl. draft shield

Delivery incl. industrial protective cover for the display.

Models not calibratable

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
ABT 120-5DNM (W)	42 / 120	0.00001/0.0001	±0,00003 / 0,0002	±0,00002 / 0,0001	Ø 80	**HL85.1**	1 unit(s)	2.570,00

Models calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
ABT 120-5DNM (W)	42 / 120	0,00001/0,0001	±0,00003/0,0002	±0,00002/0,0001	Ø 80	**HL86.1**	1 unit(s)	2.706,00

Balances - Premium

Semi-micro, analytical and precision balances Quintix® series

Sartorius.

Application:

- Mixing, components, statistics, conversion, percentage weighing, checking, maximum value, counting, animal weighing
- Made in Germany



Features:

- With isoCAL – fully automatic, temperature- and time-controlled internal calibration
- Touchscreen with easy menu navigation
- 10 different menu language options can be selected
- Full-sized draft shield for models with 0.0001 g/0.001 g readability (internal height 209 mm); (W) = incl. draft shield
- Mini USB port for automatic detection of YDP40 Sartorius standard printer (please order separately) or direct data transfer, e.g. to Microsoft® Excel, without additional software. Programmable data output interval
- Password protection – menu lock for protection against accidental manipulation
- Levelling feet and glass level indicator on the front
- Anti-theft loop for chain or cable
- Models with 0.01 g, 0.1 g and 1 g readability incl. protective cover for operation

Delivery incl. universal mains adapter (100–240 V).

Semi-micro balances, models cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
35-1S (W)	30	0,00001	±0,0001	±0,00003	Ø 80	**CNH8.1**	1 unit(s)	6.243,00
65-1S (W)	40 / 60	0,00001/0,00001	±0,0001/0,0001	±0,0002/0,00004	Ø 90	**CNK0.1**	1 unit(s)	6.390,00
125D-1S (W)	40 / 60 / 120				Ø 80	**CNK2.1**	1 unit(s)	7.493,00

Semi-micro balances, models calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
125D-1CEU (W)	40 / 60 / 120				Ø 80	**CNK3.1**	1 unit(s)	8.269,00

Standard models, cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
64-1S	60	0,0001	±0,0002	±0,0001	Ø 90	**AHC9.1**	1 unit(s)	3.640,00
124-1S (W)	120	0,0001	±0,0002	±0,0001	Ø 90	**NN59.1**	1 unit(s)	3.890,00
213-1S (W)	210	0,001	±0,002	±0,001	Ø 120	**NN65.1**	1 unit(s)	2.840,00
224-1S (W)	220	0,0001	±0,0002	±0,0001	Ø 90	**NN57.1**	1 unit(s)	4.340,00
313-1S (W)	310	0,001	±0,002	±0,001	Ø 120	**NN63.1**	1 unit(s)	3.050,00
412-1S	410	0,01	±0,03	±0,01	Ø 180	**AHE3.1**	1 unit(s)	2.040,00
513-1S (W)	510	0,001	±0,002	±0,001	Ø 120	**NN61.1**	1 unit(s)	3.640,00
612-1S	610	0,01	±0,03	±0,01	Ø 180	**NN75.1**	1 unit(s)	2.260,00
613-1S (W)	610	0,001	±0,002	±0,001	Ø 120	**AHE1.1**	1 unit(s)	3.810,00
1102-1S	1100	0,01	±0,03	±0,01	Ø 180	**NN73.1**	1 unit(s)	2.540,00
2101-1S	2100	0,1	±0,3	±0,1	Ø 180	**AHE7.1**	1 unit(s)	2.330,00
2102-1S	2100	0,01	±0,03	±0,01	Ø 180	**NN71.1**	1 unit(s)	2.840,00
3102-1S	3100	0,01	±0,02	±0,01	Ø 180	**NN69.1**	1 unit(s)	2.999,00
5100-1S	5100	1	±1	±1	Ø 180	**NN79.1**	1 unit(s)	2.110,00
5101-1S	5100	0,1	±0,3	±0,1	Ø 180	**NN77.1**	1 unit(s)	2.600,00
5102-1S	5100	0,01	±0,02	±0,01	Ø 180	**NN67.1**	1 unit(s)	3.840,00
6100-1S	6100	1	±1	±1	Ø 180	**AHH1.1**	1 unit(s)	2.330,00
6101-1S	6100	0,1	±0,3	±0,1	Ø 180	**AHE9.1**	1 unit(s)	2.740,00
6102-1S	6100	0,01	±0,02	±0,01	Ø 180	**AHE5.1**	1 unit(s)	4.140,00

Balances - Premium

Standard models, calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
64-1CEU (W)	60	0,0001	±0,0002	±0,0001	Ø 90	**AHE0.1**	1 unit(s)	3.980,00
124 -1CEU (W)	120	0,0001	±0,0002	±0,0001	Ø 90	**NN60.1**	1 unit(s)	4.290,00
213-1CEU (W)	210	0,001	±0,002	±0,001	Ø 120	**NN66.1**	1 unit(s)	3.110,00
224-1CEU (W)	220	0,0001	±0,0002	±0,0001	Ø 90	**NN58.1**	1 unit(s)	4.690,00
313-1CEU (W)	310	0,001	±0,002	±0,001	Ø 120	**NN64.1**	1 unit(s)	3.330,00
513-1CEU (W)	510	0,001	±0,002	±0,001	Ø 120	**NN62.1**	1 unit(s)	3.950,00
612-1CEU	610	0,01	±0,03	±0,01	Ø 180	**NN76.1**	1 unit(s)	2.530,00
613-1CEU (W)	610	0,001	±0,002	±0,001	Ø 120	**AHE2.1**	1 unit(s)	4.090,00
1102-1CEU	1100	0,01	±0,03	±0,01	Ø 180	**NN74.1**	1 unit(s)	2.820,00
2102-1CEU	2100	0,01	±0,03	±0,01	Ø 180	**NN72.1**	1 unit(s)	3.110,00
3102-1CEU	3100	0,01	±0,02	±0,01	Ø 180	**NN70.1**	1 unit(s)	3.240,00
5100-1CEU	5100	1	±1	±1	Ø 180	**NN80.1**	1 unit(s)	2.400,00
5101-1CEU	5100	0,1	±0,3	±0,1	Ø 180	**NN78.1**	1 unit(s)	2.890,00
5102-1CEU	5100	0,01	±0,02	±0,01	Ø 180	**NN68.1**	1 unit(s)	4.130,00
6100-1CEU	6100	1	±1	±1	Ø 180	**AHH2.1**	1 unit(s)	2.600,00
6101-1CEU	6100	0,1	±0,3	±0,1	Ø 180	**AHH0.1**	1 unit(s)	3.030,00
6102-1CEU	6100	0,01	±0,02	±0,01	Ø 180	**AHE6.1**	1 unit(s)	4.400,00

Semi-micro and analytical balances GR series

A & D.

Application:

- Percent, counting
- Selectable weight units: g, mg, ct



Features:

- With internal automatic calibration function which adapts to changes in temperature
- Automatic adaptation to ambient conditions
- **Door opening system** allows the user to open the left- or right-hand side of the weighing chamber from the front of the balance. For easy access if you have only one hand free.
- Full-sized draft shield (internal height 215 mm); (W) = incl. draft shield
- Data storage function for storing 200 units of weighing data for output to PC. Windows-compatible software (for direct readout of data, e.g. in Excel), available for download free of charge.
- Interval storage mode (measuring cycle: 2 s, 5 s, 10 s, 30 s, 1 min, 2 min, 5 min or 10 min
- With RS 232 data port
- Level indicator on the front

Delivery incl. mains adapter.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
GR-202 (W)	42 / 210	0,00001/0,0001	±0,00003 / 0,0001	±0,00002 / 0,0001	Ø 85	**CTH0.1**	1 unit(s)	3.295,95
GR-120 (W)	120	0,0001	±0,0002	±0,0001	Ø 85	**CTH1.1**	1 unit(s)	2.244,60
GR-200 (W)	210	0,0001	±0,0002	±0,0001	Ø 85	**CTH2.1**	1 unit(s)	2.313,40
GR-300 (W)	310	0,0001	±0,0003	±0,0001	Ø 85	**CTH3.1**	1 unit(s)	2.946,60

Balances - Premium

Semi-micro, analytical and precision balances Explorer™ series

Ohaus.



Application:

- Numerous balance applications (item counting, percentage weighing, animal weighing, check weighing, batching etc.) and additional library for saving personal settings
- Various weighing units (e.g. g, mg, ct, etc.) can be set.
- High-resolution colour VGA touchscreen (145 mm diagonal) with QWERTY and number pad keyboards
- Touchscreen display can be detached from the weighing platform (cable length 1.5 m)

Features:

- Metal housing, ABS upper housing shell and stainless steel weighing pan
- All models have a fully automatic time- and temperature-controlled internal calibration system (AutoCal)
- Full-sized draft shield for models with 0.0001 g/0.001 g readability (internal height 230 mm); (W) = incl. draft shield
- Multifunctional sensors for non-contact operation, e.g. contactless control of the zero/tare function to avoid specimen residues on the keypad. Two sensors on the platform and two on the display are independently adjustable.
- With USB and RS 232 communication ports
- Integrated weighing hook on underside of balance and illuminated level indicator on the front

Delivery incl. mains connector and industrial protective cover for display.

Semi-micro balance models, cannot be calibrated

With ionizer and automatic doors installed.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EX225D/AD	120 / 220	0.00001/0.0001	±0,0001 / 0,0001	0,00002 / 0,0001	Ø 80	**HPC4.1**	1 unit(s)	9.730,00

Semi-micro balances, models calibrated ex works

With ionizer and automatic doors installed.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility	Weighing pan (mm)	Art. No.	Pack Qty.	€
EX225DM/AD	120 / 220	0.00001/0.0001	0,0001 / 0,0001	0,00002 / 0,0001	Ø 80	**HPC5.1**	1 unit(s)	10.160,00

Standard models cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EX224 (W)	220	0,0001	±0,0002	±0,0001	Ø 90	**PX41.1**	1 unit(s)	4.885,00
EX324 (W)	320	0,0001	±0,0002	±0,0001	Ø 90	**PX42.1**	1 unit(s)	5.565,00
EX423 (W)	420	0,001	±0,002	±0,001	Ø 130	**PX43.1**	1 unit(s)	4.045,00
EX1103 (W)	1100	0,001	±0,002	±0,001	Ø 130	**PX44.1**	1 unit(s)	5.895,00
EX4202	4200	0,01	±0,02	±0,01	190 x 200	**PX45.1**	1 unit(s)	4.010,00
EX10201	10200	0,1	±0,1	±0,1	190 x 200	**PX47.1**	1 unit(s)	3.655,00
EX10202	10200	0,01	±0,02	±0,01	190 x 200	**PX46.1**	1 unit(s)	5.510,00

Standard models, calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EX224M (W)	220	0,0001	±0,0002	±0,0001	Ø 90	**PX48.1**	1 unit(s)	5.220,00
EX324M (W)	320	0,0001	±0,0002	±0,0001	Ø 90	**PX49.1**	1 unit(s)	5.895,00
EX423M (W)	420	0,001	±0,002	±0,001	Ø 130	**PX50.1**	1 unit(s)	4.340,00
EX1103M (W)	1100	0,001	±0,002	±0,001	Ø 130	**PX51.1**	1 unit(s)	6.195,00
EX4202M	4200	0,01	±0,02	±0,01	190 x 200	**PX52.1**	1 unit(s)	4.305,00
EX10201M	10200	0,1	±0,1	±0,1	190 x 200	**PX54.1**	1 unit(s)	3.950,00
EX10202M	10200	0,01	±0,02	±0,01	190 x 200	**PX53.1**	1 unit(s)	5.805,00

Balances - Premium

Standard models with auto-door function, cannot be calibrated
Including automatic, side-opening doors. Can be controlled by means of a non-contact sensor. Draft shield cover, folding or sliding.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
EX124/AD (W)	120	0.0001	±0,0002	±0,0001	Ø 90	**APA8.1**	1 unit(s)	5.485,00
EX224/AD (W)	220	0.0001	±0,0002	±0,0001	Ø 90	**APA9.1**	1 unit(s)	6.030,00
EX324/AD (W)	320	0.0001	±0,0002	±0,0001	Ø 90	**APC0.1**	1 unit(s)	6.705,00

Standard models with auto door function, calibrated ex works
Including automatic, side-opening doors. Can be controlled by means of a non-contact sensor. Draft shield cover, folding or sliding.

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility	Weighing pan (mm)	Art. No.	Pack Qty.	€
EX224M/AD (W)	220	0.0001	0,0002	0,0001	Ø 90	**APC2.1**	1 unit(s)	6.360,00
EX324M/AD (W)	320	0.0001	0,0002	0,0001	Ø 90	**APC3.1**	1 unit(s)	7.045,00

Semi-micro, analytical and precision balances Secura® series

Sartorius.

Application:

- Mixing, components, statistics, conversion, percentage weighing, checking, maximum value, counting, animal weighing
- Made in Germany



Features:

- With isoCAL, internal calibration is performed automatically in a time or temperature controlled manner and after levelling
- Touchscreen optimised for users in the pharmaceuticals laboratory
- **Optoelectronic levelling sensor with interactive user guidance** (if the sensor detects deviations, the risk is indicated immediately and a specific help text is displayed)
- 10 different menu language options can be selected
- Full-sized draft shield for models with 0.0001 g/0.001 g readability (internal height 209 mm); (W) = incl. draft shield
- Three configurable safety levels
- Mini USB port for automatic detection of YDP40 Sartorius standard printer (please order separately) or direct data transfer, e.g. to Microsoft® Excel, without additional software. Programmable interval for data output.
- Storage of completed calibration cycles incl. detected deviation
- Models with 0.01 g, 0.1 g and 1 g readability incl. protective cover for operation

APC functions (Advanced Pharma Compliance) are possible:

- Monitoring of minimum sample weight according to USP
- Blocking of data transfer to printer or computer in case of uncertain weighing results e.g. non-level balance, etc.
- **Please note:** APC functions are activated by a separate service. If this activation service is required, additional costs apply. Please check with our Sales Department.

Delivery incl. universal mains adapter (100–240 V).

Semi-micro balances, models cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
125-1S	60/120	0.00001/0.00001	0,0001/0,0001	0,00002/0,00004	Ø 80	**CNK4.1**	1 unit(s)	7.820,00
225D-1S	60/120/220	0.00001/0.00001/ 0.0001	0,0001/0,0001/0,0002	0,00002/0,00004/ 0,00007	Ø 80	**CNK6.1**	1 unit(s)	8.249,00

Semi-micro balances, models calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
125-1CEU	60/120	0.00001/0.00001	0,0001/0,0001	0,00002/0,00004	Ø 80	**CNK5.1**	1 unit(s)	8.560,00
225D-1CEU	60/120/220	0.00001/0.00001/ 0.0001	0,0001/0,0001/0,0002	0,00002/0,00004/ 0,00007	Ø 80	**CNK7.1**	1 unit(s)	9.010,00

Balances - Premium

Series Standard models, not calibrated

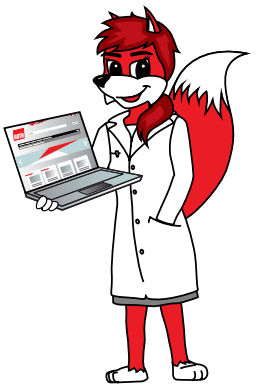
Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
124-1S (W)	120	0,0001	±0,0002	±0,0001	Ø 90	**NN83.1**	1 unit(s)	4.550,00
213-1S (W)	210	0,001	±0,002	±0,001	Ø 120	**NN89.1**	1 unit(s)	3.300,00
224-1S (W)	220	0,0001	±0,0002	±0,0001	Ø 90	**NN81.1**	1 unit(s)	5.060,00
313-1S (W)	310	0,001	±0,002	±0,001	Ø 120	**NN87.1**	1 unit(s)	3.500,00
513-1S (W)	510	0,001	±0,002	±0,001	Ø 120	**NN85.1**	1 unit(s)	4.250,00
613-1S (W)	610	0,001	±0,002	±0,001	Ø 120	**AHH3.1**	1 unit(s)	4.390,00
612-1S / -1CEU	610	0,01	±0,02	±0,01	Ø 180	**AHH5.1**	1 unit(s)	2.720,00
1102-1S	1100	0,01	±0,02	±0,01	Ø 180	**NN97.1**	1 unit(s)	2.960,00
2102-1S	2100	0,01	±0,02	±0,01	Ø 180	**NN95.1**	1 unit(s)	3.210,00
3102-1S	3100	0,01	±0,02	±0,01	Ø 180	**NN93.1**	1 unit(s)	3.430,00
5102-1S	5100	0,01	±0,02	±0,01	Ø 180	**NN91.1**	1 unit(s)	4.420,00
6102-1S	6100	0,01	±0,02	±0,01	Ø 180	**AHH7.1**	1 unit(s)	4.710,00

Standard models, calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
124-1CEU (W)	120	0,0001	±0,0002	±0,0001	Ø 90	**NN84.1**	1 unit(s)	4.890,00
213-1CEU (W)	210	0,001	±0,002	±0,001	Ø 120	**NN90.1**	1 unit(s)	3.610,00
224-1CEU (W)	220	0,0001	±0,0002	±0,0001	Ø 90	**NN82.1**	1 unit(s)	5.380,00
313-1CEU (W)	310	0,001	±0,002	±0,001	Ø 120	**NN88.1**	1 unit(s)	3.750,00
513-1CEU (W)	510	0,001	±0,002	±0,001	Ø 120	**NN86.1**	1 unit(s)	4.490,00
612-1CEU	610	0,01	±0,02	±0,01	Ø 180	**AHH6.1**	1 unit(s)	2.970,00
613-1CEU (W)	610	0,001	±0,002	±0,001	Ø 120	**AHH4.1**	1 unit(s)	4.730,00
1102-1CEU	1100	0,01	±0,02	±0,01	Ø 180	**NN98.1**	1 unit(s)	3.200,00
2102-1CEU	2100	0,01	±0,02	±0,01	Ø 180	**NN96.1**	1 unit(s)	3.480,00
3102-1CEU	3100	0,01	±0,02	±0,01	Ø 180	**NN94.1**	1 unit(s)	3.690,00
5102-1CEU	5100	0,01	±0,02	±0,01	Ø 180	**NN92.1**	1 unit(s)	4.690,00
6102-1CEU	6100	0,01	±0,02	±0,01	Ø 180	**AHH8.1**	1 unit(s)	4.960,00

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Moisture analyzer



Moisture analysers MB Basic series

Ohaus.

Specification for all models:

- Backlit display
- RS 232 interface
- Two optional shut-down criteria: Automatic or timed shut-down
- Display screen: % moisture or weight value, as well as temperature and time

Technical specifications:

Art. No.	KT40.1	KT41.1
Type	MB23	MB25
Weighing range	110 g	
Temperature range	+50 to +160 °C	
Additional data	can be selected in 5 °C increments	
Readability	0,1 % / 0,01 g	0,05 % / 0,005 g
Reproducibility	0,3 % (3 g) 0,2 % (10 g)	0,2 % (3 g) 0,05 % (10 g)
Heating technology	Infrared (no glass)	Halogen
Timer	1 to 99 mins (30-second increments up to 60 mins)	
Sample size	Typisch 3 bis 20 g, min. 0,5 g	Typical 3 to 20 g, min. 0.5 g
Weighing pan	Ø 90 mm	
W x D x H	165 x 283 x 132 mm	
Weight	2.3 kg	
Mains connection	100–240 V, 50/60 Hz	

Model MB 23
Heat source: Infrared heating system

Delivery incl. work protection cover. If a sample pan holder is required, please order separately.

Type	Weighing range (g)	Readability (g)	Art. No.	Pack Qty.	€
MB23	110	0,1 % / 0,01	**KT40.1**	1 unit(s)	1.285,00

Model MB 25
Heat source: Halogen heating system

Delivery incl. work safety cover and sample pan holder.

Type	Weighing range (g)	Readability (g)	Art. No.	Pack Qty.	€
MB25	110	0,05 % / 0,005	**KT41.1**	1 unit(s)	1.850,00

Accessories for MB Basic series hygrometer

Ohaus.

Type	Art. No.	Pack Qty.	€
Sample tray holder for model MB 23	**KT42.1**	1 unit(s)	56,20
Temperature calibration set	**X840.1**	1 unit(s)	414,00



Moisture analysers DAB series

Kern.

Features:

- Backlit display: % humidity, % dry matter or weight loss in g
- Heat source: Halogen quartz glass heater
- Switch-off criteria:
  – Automatic switch-off (2 mg weight loss in 45 s)
  – Scheduled switch-off (3 mins up to 99 hrs 59 mins at 10 s intervals)
  – Manual switch-off by pressing a button
- Drying modes: Standard, gentle and quick drying
- Internal memory for automatic execution of 15 drying processes and five memory spaces for test results
- RS 232 data port
- Sample viewing window

Technical specifications:

Art. No.	EEK2.1	KHE2.1
Type	DAB 100-3	DAB 200-2
Weighing range	110 g	200 g
Temperature range	40 to 160 °C	40 to 199 °C
Additional data	can be selected in 1 °C increments	
Readability	0.01 % / 0.001 g	0.05 % / 0.01 g
Reproducibility	0,15 % (2 g) 0,02 % (10 g)	1,5 % (2 g) 0,3 % (10 g)
Heating technology	Halogen quartz glass heater	
Time setting from	3 min	
Time setting up to	99:59 h	
Weighing pan	Ø 92 mm	
W x D x H	240 x 365 x 180 mm	
Weight	4.82 kg	
Mains connection	220 V, 50 Hz	

Model DAB 100-3

Type	Weighing range (g)	Readability (g)	Art. No.	Pack Qty.	€
DAB 100-3	110	0.01 % / 0.001	**EEK2.1**	1 unit(s)	1.290,00

Model DAB 200-2
With low resolution, meaning that the switch-off criteria are met more quickly. Suitable for quick tests and samples.

Type	Weighing range (g)	Readability (g)	Art. No.	Pack Qty.	€
DAB 200-2	200	0.05 % / 0.01	**KHE2.1**	1 unit(s)	1.240,00

Moisture analyzer



Moisture analysers DBS 60-3

Kern.

Features:

- Displays: % humidity, % dry matter, ATRO % or weight loss in g
- Heat source: Halogen quartz glass heater
- Switch-off criteria:
  AUTO = drying stops if the set weight loss remains constant for 30 s
  TIME = drying stops on expiration of the set time
  Manual = stop button
- Drying modes: Standard drying, phase drying, gentle drying and quick drying
- Internal memory for automatic execution of 10 drying programs and 100 drying processes carried out
- RS 232 data port
- Sample code for up to 99 samples, 2-digit, freely programmable
- Date and time display
- Sample viewing window

Technical specifications:

Art. No.	**TE06.1**
Type	DBS 60-3
Weighing range	60 g
Temperature range	+50 to +200 °C
Additional data	can be selected in 1 °C increments
Readability	0.01 % / 0.001 g
Reproducibility	0,15 % (2 g) 0,02 % (10 g)
Heating technology	Halogen quartz glass heater
Time setting from	1 min
Time setting up to	12 h
Weighing pan	Ø 95 mm
W x D x H	202 x 336 x 157 mm
Weight	4.2 kg
Mains connection	220–240 V, 50/60 Hz

Type	Weighing range (g)	Readability (g)	Art. No.	Pack Qty.	€
DBS 60-3	60	0.01 % / 0.001	**TE06.1**	1 unit(s)	1.750,00



Moisture analysers MA35M

Sartorius.

For the determination of moisture content in organic and inorganic substances, e.g. in greases, oils, foodstuffs, building materials, wood or paper. For use in chemistry, pharmaceutics, medicine, environmental analytics or in sewage treatment plants.

Features:

- Heat source: Infrared lamp
- RS 232 data port
- Display: % moisture content, % dry matter (residue), ATRO % or in weight values
- 2 selectable switch-off criteria: Time controlled and automatic switch-off options (moisture determination ends if no significant weight loss is detected)
- A 30 g calibration weight is required for calibration of the moisture analyser (please order separately)
- **With window for observation of the sample material**

Technical specifications:

Art. No.	**NT00.1**
Type	MA35M
Weighing range	35 g
Temperature range	+40 to +160 °C
Additional data	can be selected in 1 °C increments
Readability	0.01%/0.001 g
Reproducibility	0,20 % (1 g); 0,05 % (5 g)
Heating technology	Infrared
Time setting from	0.1 min
Time setting up to	99 min
Weighing pan	Ø 90 mm
W x D x H	224 x 366 x 191 mm
Weight	5.8 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. sample tray holder.

Type	Weighing range (g)	Readability (g)	Art. No.	Pack Qty.	€
MA35M	35	0.01%/0.001	**NT00.1**	1 unit(s)	2.880,00

Moisture analyzer



Moisture analysers MB-series

Ohaus.

Specification for all models:

- Halogen heating technology
- 4.3″, QVGA, TFT touchscreen and four mechanical buttons
- Display results: % moisture, % solids, % moisture absorption, time, temperature, weight, method name
- 13 operating languages
- RS 232, USB host, USB device

Technical specifications:

Art. No.	HAP1.1	HAP2.1
Type	MB90	MB120
Weighing range	90 g	120 g
Temperature range	+40 to +200 °C	+40 to +230 °C
Additional data	can be selected in 1 °C increments	
Readability	0.01%/0.001 g	
Reproducibility	0,18 % (3 g); 0,02 % (10 g)	0,05 % (3 g) 0,015 % (10 g)
Heating technology	Halogen	
Time setting up to	48 h	
Weighing pan	Ø 90 mm	
W x D x H	210 x 180 x 350 mm	
Weight	5.23 kg	
Mains connection	120/240 V, 50/60 Hz	

Delivery incl. work protection cover and stainless steel sample tray holder.

Model MB 90

- 3 switch-off criteria (manual, time-controlled or automatic)
- Storage of up to 2 methods and 100 test results for each method
- 2 heating profiles (standard and fast)

Type	Weighing range (g)	Readability (g)	Art. No.	Pack Qty.	€
MB90	90	0.01%/0.001	**HAP1.1**	1 unit(s)	3.140,00

Model MB 120

- 7 switch-off criteria (manual, time-controlled, AutoFree selectable %/s, AutoFree selectable mg/s, A30, A60 and A90)
- Storage of up to 100 methods and 1000 test results for each method
- 4 heating profiles (standard, fast, gentle/ramp and gradual)

Type	Weighing range (g)	Readability (g)	Art. No.	Pack Qty.	€
MB120	120	0.01%/0.001	**HAP2.1**	1 unit(s)	4.745,00



NEW / +

Accessories for moisture analyser disposable aluminium sample pans, Ø 90 x H 7 mm

Ohaus.

Type	Art. No.	Pack Qty.	€
Aluminium disposable sample trays, Ø 90 x H 7 mm	**X837.2**	50 unit(s)	19,80



Ionizer for balances

Kern.

Suitable for neutralising static charge. Non-conductive samples, e.g. plastic, porcelain, glass, etc. is often statically charged. The resultant electromagnetic field between the sample and balance can falsify the weighing result .

- For weighing in the milligram range or more accurate
- Blower can be switched on and off

Technical specifications:

Art. No.	CET5.1
Type	Ionizer
Distance from object being measured	5–40 mm
Discharge time	9 s/5 cm, 13 s/10 cm, 100 s/40 cm (with the blower switched on)
Width	110 mm
Depth	105 mm
Height	60 mm
Weight	310 g
Mains connection	110–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
Ionizer	**CET5.1**	1 unit(s)	1.050,00

Test weights



Balance table

Kern.

For analytical laboratories. Absorbs oscillations and vibrations which would otherwise falsify weighing results. Workbench with aluminium profile frame and height-adjustable feet. Polished marble slab (36 kg) as integrated worktop, mounted on absorbent rubber elements. Weighing plate dimensions: W 267 x D 405 x H 120 mm.

Technical specifications:

Art. No.	AEP0.1
Type	Balance table
Width	770 mm
Depth	650 mm
Height	815 mm
Weight	55 kg

Delivery times may apply to this product. Please check with our Sales Department. Price plus transport costs of €67.00 per piece within Germany. Delivery to behind first lockable door.

Type	Art. No.	Pack Qty.	€
Balance table	**AEP0.1**	1 unit(s)	1.060,00



Test weight OIML class M1

Kern. Material: Stainless steel.

With or without DAkkS calibration certificate.

Delivery incl. case.

Without certificate

Weight (g)	Tolerance (mg)	Art. No.	Pack Qty.	€
50	±3	**EX28.1**	1 unit(s)	19,20
100	±5	**EX29.1**	1 unit(s)	22,70
200	±10	**EX30.1**	1 unit(s)	27,80
500	±25	**EX31.1**	1 unit(s)	47,90
1000	±50	**EX32.1**	1 unit(s)	71,90
2000	±100	**EX33.1**	1 unit(s)	135,00
5000	±250	**EX34.1**	1 unit(s)	281,00

With certificate

Weight (g)	Tolerance (mg)	Art. No.	Pack Qty.	€
50	±3	**EX35.1**	1 unit(s)	38,00
100	±5	**EX36.1**	1 unit(s)	43,00
200	±10	**EX37.1**	1 unit(s)	50,00
500	±25	**EX38.1**	1 unit(s)	66,00
1000	±50	**EX39.1**	1 unit(s)	95,00
2000	±100	**EX40.1**	1 unit(s)	145,00
5000	±250	**EX41.1**	1 unit(s)	325,00



Set of weights OIML class M1

Kern. Material: Stainless steel.

With or without DAkkS calibration certificate.

Delivery incl. wooden case.

Without certificate

Additional info	Art. No.	Pack Qty.	€
9 weights from 1 to 100 g	**Y121.1**	1 set	176,00
12 weights from 1 to 500 g	**Y123.1**	1 set	275,00
15 weights from 1 to 2000 g	**Y125.1**	1 set	630,00

With certificate

Additional info	Art. No.	Pack Qty.	€
9 weights from 1 to 100 g	**Y122.1**	1 set	231,00
12 weights from 1 to 500 g	**Y124.1**	1 set	351,00
15 weights from 1 to 2000 g	**Y126.1**	1 set	730,00

Set of weights OIML class M2

Kern. Material: Stainless steel.

With or without DAkkS calibration certificate.

Delivery incl. wooden case.

Without certificate

Additional info	Art. No.	Pack Qty.	€
8 weights from 1 to 50 g	**Y127.1**	1 set	108,00
9 weights from 1 to 100 g	**Y129.1**	1 set	138,00
12 weights from 1 to 500 g	**Y131.1**	1 set	240,00
13 weights from 1 to 1000 g	**Y133.1**	1 set	380,00
15 weights from 1 to 2000 g	**Y135.1**	1 set	600,00

With certificate

Additional info	Art. No.	Pack Qty.	€
8 weights from 1 to 50 g	**Y128.1**	1 set	155,00
9 weights from 1 to 100 g	**Y130.1**	1 set	193,00
12 weights from 1 to 500 g	**Y132.1**	1 set	316,00
13 weights from 1 to 1000 g	**Y134.1**	1 set	463,00
15 weights from 1 to 2000 g	**Y136.1**	1 set	700,00

Test weights



Test weight OIML class F1

Kern. Material: Stainless steel, polished.

For test equipment monitoring according to ISO 9000. Polished stainless steel. For adjusting (= calibrating) and testing laboratory balances. Delivery with or without DAkkS calibration certificate.

Delivery incl. case.

Without certificate

Weight (g)	Tolerance (mg)	Art. No.	Pack Qty.	€
1	±0,10	**N001.1**	1 unit(s)	39,00
2	±0,12	**N002.1**	1 unit(s)	39,00
5	±0,15	**N003.1**	1 unit(s)	42,00
10	±0,2	**N004.1**	1 unit(s)	45,00
20	±0,25	**N005.1**	1 unit(s)	52,00
50	±0,3	**N006.1**	1 unit(s)	58,00
100	±0,5	**N007.1**	1 unit(s)	65,00
200	±1,0	**N008.1**	1 unit(s)	86,00
500	±2,5	**N009.1**	1 unit(s)	139,00
1000	±5	**N010.1**	1 unit(s)	175,00
2000	±10	**N011.1**	1 unit(s)	275,00

With certificate

Weight (g)	Tolerance (mg)	Art. No.	Pack Qty.	€
1	±0,10	**N151.1**	1 unit(s)	59,00
2	±0,12	**N152.1**	1 unit(s)	59,00
5	±0,15	**N153.1**	1 unit(s)	60,00
10	±0,2	**N154.1**	1 unit(s)	65,00
20	±0,25	**N155.1**	1 unit(s)	70,00
50	±0,3	**N156.1**	1 unit(s)	78,00
100	±0,5	**N157.1**	1 unit(s)	86,00
200	±1,0	**N158.1**	1 unit(s)	108,00
500	±2,5	**N159.1**	1 unit(s)	161,00
1000	±5	**N160.1**	1 unit(s)	187,00
2000	±10	**N161.1**	1 unit(s)	292,00



Set of weights OIML class E2

Kern.

All milligram weights are in wafer form. 1 to 5 mg made of aluminium, 10 to 500 mg made of nickel silver. Delivery with or without DAkkS calibration certificate.

Delivery incl. plastic case.

Without certificate

Additional info	Art. No.	Pack Qty.	€
12 weights from 1 to 500 mg	**YP75.1**	1 set	365,00

With certificate

Additional info	Art. No.	Pack Qty.	€
12 weights from 1 to 500 mg	**YP76.1**	1 set	575,00



Set of weights OIML class F1

Kern. Material: Stainless steel, polished.

With or without DAkkS calibration certificate.

Delivery incl. wooden case.

Without certificate

Additional info	Art. No.	Pack Qty.	€
1 to 50 g with 8 weights	**YP77.1**	1 set	480,00
1 to 100 g with 9 weights	**YP78.1**	1 set	560,00
1 to 200 g with 11 weights	**YP79.1**	1 set	720,00
1 to 500 g with 12 weights	**YP80.1**	1 set	930,00
1 to 1000 g with 13 weights	**YP81.1**	1 set	1.130,00

With certificate

Additional info	Art. No.	Pack Qty.	€
1 to 50 g with 8 weights	**YP82.1**	1 set	555,00
1 to 100 g with 9 weights	**YP83.1**	1 set	647,00
1 to 200 g with 11 weights	**YP84.1**	1 set	830,00
1 to 500 g with 12 weights	**YP85.1**	1 set	1.052,00
1 to 1000 g with 13 weights	**YP86.1**	1 set	1.264,00



Test weight OIML class E2

Kern. Material: Stainless steel, corrosion-resistant and anti-magnetic.

Mirror finished. For adjusting analytical balances. Delivery with or without DAkkS calibration certificate.

Delivery incl. velvet cushioned wooden case.

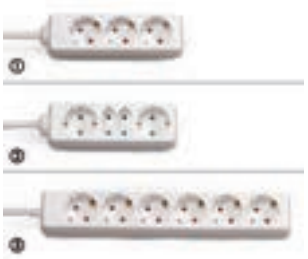
Without certificate

Weight (g)	Tolerance (mg)	Art. No.	Pack Qty.	€
20	±0,08	**Y113.1**	1 unit(s)	107,00
50	±0,10	**Y115.1**	1 unit(s)	111,00
100	±0,15	**Y117.1**	1 unit(s)	121,00
200	±0,30	**Y119.1**	1 unit(s)	145,00

With certificate

Weight (g)	Tolerance (mg)	Art. No.	Pack Qty.	€
20	±0,08	**Y114.1**	1 unit(s)	136,00
50	±0,10	**Y116.1**	1 unit(s)	142,00
100	±0,15	**Y118.1**	1 unit(s)	160,00
200	±0,30	**Y120.1**	1 unit(s)	184,00

Multiple sockets



Socket strip Eco series

Power supply 250 V~, max. 3600 W, 16 A.

(1) 3-way socket strip model
With rotated sockets.
Dimensions: W 100 mm x H 60 mm x L 200 mm.

Version	Bar length (mm)	Cable length (m)	Art. No.	Pack Qty.	€
3-way	200	1.4	**XK32.1**	1 unit(s)	16,60

(2) 2+2-way socket strip model
With 2 Euro sockets and 2 safety sockets.
Dimensions: W 70 mm x H 50 mm x L 200 mm.

Version	Bar length (mm)	Cable length (m)	Art. No.	Pack Qty.	€
2 +2-way	200	1.4	**XK33.1**	1 unit(s)	16,60

(3) 6-way socket strip model
With rotated sockets. Dimensions: W 75 mm x H 60 mm x L 345 mm.

Version	Bar length (mm)	Cable length (m)	Art. No.	Pack Qty.	€
6-way	345	1.4	**XK34.1**	1 unit(s)	22,25



Socket strip Eco line, 3-way with switch

Brennenstuhl.

Inclined socket arrangement. Illuminated safety switch, 2-pole on/off switch.
Dimensions: W 240 mm x H 65 mm x D 100 mm. Max. 3500 W, 16 A.
Power supply 230 V.

Version	Cable length (m)	Art. No.	Pack Qty.	€
3-way	3	**HHN0.1**	1 unit(s)	15,35
3-way	5	**HHN1.1**	1 unit(s)	22,05



Socket strip

Brennenstuhl.

Made of special, highly break-resistant plastic. The ideal diagonal arrangement of the plug contacts allows easy simultaneous connection of 4/6 angle plugs. The integrated on/off switch indicates readiness for operation. With practical cable holder to store the cable after use. Can also be wall-mounted; hanging device is provided. 2 m connecting cable 2 m on 4-way strip, 3 m on 6-way strip. Colour: Anthracite/bordeaux.

Version	Colour	Bar length (mm)	Art. No.	Pack Qty.	€
4-fold	anthracite, bordeaux red	320	**E757.1**	1 unit(s)	19,00
6-fold	anthracite, bordeaux red	410	**E758.1**	1 unit(s)	27,45



Socket strip 6-way

Brennenstuhl.

With overvoltage and lightning protection.
Protects connected devices from damage in the event of overvoltage through indirect lightning strikes or from voltage peaks in the mains supply up to 4500 A; for example, through inductive load switching. Diagonal arrangement of sockets for up to 6 central or angle plugs. Suitable for devices up to 16 A and 3680 W power consumption. Two-pole isolating mains switch with function indicator light. H05 VV-F 3G1.0 1.5 m connection cable. 16 A, 230 V safety plug.

Version	Colour	Art. No.	Pack Qty.	€
6-way	black	**P685.1**	1 unit(s)	28,85
6-way	light grey	**P686.1**	1 unit(s)	28,85

Multiple sockets



Socket strip IP44, 4-way

Brennenstuhl.

Also for use outdoors. With self-closing lids, protection class IP 44. Approx. 2 m rubber/neoprene connection cable. Screw hole for fastening. H 50 mm x W 410 mm x D 100 mm. Max. 3680 W, 16 A. Power supply 250 V.

Type	Version	Cable length (m)	Art. No.	Pack Qty.	€
Socket strip, 4-way, IP44	4-way	2	**HHN7.1**	1 unit(s)	22,60



Socket strip IP54, 5-way

Brennenstuhl.

For rugged use and outdoor applications. Splashproof (IP 54). Impact and break-resistant plastic housing. Connection-cable with **FI plug (fault-current circuit breaker)** 30 mA protects against hazardous electrical accidents. Illuminated 2-pole On/Off switch with protective hood. 5 splash-proof sockets with sealing ring and self-closing hinged lids to protect against contamination, according to VDE. Sockets in 45° arrangement. Cable length 5 m. Dimensions: L 480 mm x W 80 mm x H 62 mm.

Type	Version	Bar length (mm)	Art. No.	Pack Qty.	€
Socket block, 5-way, IP54	5-way	480	**KP32.1**	1 unit(s)	65,45



Socket outlet distributor with 4-way socket

Brennenstuhl.

With safety plug. Housing made of special, highly break-resistant plastic. 3 m connection cable (can be rolled up into housing). Very flat (height 60 mm), Ø 180 mm. Colour: Black/white.

Version	Colour	Cable length (m)	Art. No.	Pack Qty.	€
4 way	black, white	3	**E759.1**	1 unit(s)	23,85



Safety cable reel

Brennenstuhl.

With automatic overheating and accident prevention function. If the temperature reaches +55 °C, current passage is interrupted and the red indicator light lights up. Connected load 220 V/4 A. Rating up to 3500 W when cable is unwound. Four Schuko plug sockets and cable with Schuko plug. Dimensions: H 230 mm x D 105 mm, Ø 190 mm.

Version	Cable length (m)	Art. No.	Pack Qty.	€
4-way	5	**HHN3.1**	1 unit(s)	29,20
4-way	10	**4687.1**	1 unit(s)	41,55



Extension cable

PVC-hose line. With safety-plug.

Cable length (m)	Art. No.	Pack Qty.	€
3	**Y203.1**	1 unit(s)	24,00
5	**Y204.1**	1 unit(s)	36,05



NEW / +

Timer MZ 20-1

Brennenstuhl.

Mechanical, with 96 switch on/switch off times per day. Minimum switching interval 15 min. With LED function display. Max. switching capacity 3500 W. Dimensions W 80 x D 70 x H 120 mm. Weight 160 g. Mains power 230 V.

Type	Art. No.	Pack Qty.	€
MZ 20-1 timer	**1K64.1**	1 unit(s)	9,20



Timer with temperature sensor

Allows time-controlled or temperature-controlled switching, or both combined. In **Time mode** there are three possible On/Off time pairs in a 24 hour cycle. In **Temperature mode**, the device switches itself on/off when the value falls below a freely-set temperature. Maximum load capacity 3500 W. Sensor cable length 1 m.

Technical specifications:

Art. No.	**C012.1**
Operating temperature	0 to +40 °C
Accuracy	1 °C
Width	55 mm
Depth	55 mm
Height	130 mm
Weight	250 g

Delivery incl. micro 1.5 V battery.

Version	Art. No.	Pack Qty.	€
Timer with sensor	**C012.1**	1 unit(s)	50,50



One-hour signal timer

In plastic housing. With spring drive. After the set time has expired, a subtle yet clearly audible ringing signal sounds.
Dimensions: W 70 x D 40 x H 70 mm. Weight approx. 108 g.

Colour	Art. No.	Pack Qty.	€
red	**KN86.1**	1 unit(s)	10,35
black	**KN87.1**	1 unit(s)	10,35
white	**KN85.1**	1 unit(s)	10,35
yellow	**KN88.1**	1 unit(s)	10,35



One-hour signal timer

Stainless steel housing, plastic coating. Shows remaining time in colour. Ringing signal once the time has elapsed. Metal winding movement. Magnetic fastener. Dimensions: Ø 79 x T 32 mm. Weight 118 g.

Type	Art. No.	Pack Qty.	€
One-hour signal timer	**EEC7.1**	1 unit(s)	11,30



Two-hour signal timer

With spring drive. Made of plastic. A clear ringing signal is heard at the end of the cycle. Can be wall-mounted.
Dimensions: W 69 x D 40 x H 69 mm.

Type	Art. No.	Pack Qty.	€
Two-hour signal timer	**N022.1**	1 unit(s)	12,95

Signal clocks



Timers ROTILABO® with count-down/count-up

Carl ROTH.

4-digit LCD display for minutes and seconds. Programmable for 99 min, 59 s. Timer memory function. Alarm triggered when "0" is reached. With magnetic fastener. Rubberised coating. Dimensions: Ø 55 x D 15 mm. Weight 80 g.

Delivery incl. 1.5 V button cell battery.

Colour	Art. No.	Pack Qty.	€
red	**LY66.1**	1 unit(s)	12,20
white	**LY65.1**	1 unit(s)	12,20



Timers ROTILABO® with count-down

Carl ROTH.

4-digit LCD display for minutes and seconds. Programmable for 99 min, 59 s. Alarm triggered when "0" is reached. Timer memory function. Magnet for attachment to metal surfaces.
Dimensions: 88 x 46 x 12 mm, weight 30 g.

Delivery incl. 1.5 V button cell battery.

Type	Art. No.	Pack Qty.	€
Count-down timer	**X396.1**	1 unit(s)	23,55



Timers ROTILABO® with count-down

Carl ROTH.

4-digit LCD display for minutes and seconds. Programmable for 99 min, 59 s. Alarm triggered when "0" is reached. Timer memory function. Clip for hanging and magnet for placing.
Dimensions: W 66 x D 56 x H 18 mm, weight 45 g.

Delivery incl. 1.5 V AAA battery.

Type	Art. No.	Pack Qty.	€
Count-down timer	**X398.1**	1 unit(s)	29,00



Timers count-down/count-up

Direct numerical input via numerical keypad. Maximum operating time 99 h, 99 min and 99 s. With on/off switch to conserve the battery and folding stand. Audio signal at “zero”. Dimensions: W 66 x D 20 x H 108 mm. Weight 67 g.

Delivery incl. 2 x 1.5 V AAA batteries.

Type	Art. No.	Pack Qty.	€
Count-down/count-up timer	**TY87.1**	1 unit(s)	12,60



Timers count-down/count-up with rapid entry

4-digit LCD display for minutes and seconds. Programmable for 99 min, 50 s. Easy **direct time input with 10, 5 and 1 min button, as well as 10 s button**. Deactivatable alarm. With magnetic fastener, stand and mounting ring.
Dimensions: L 90 x W 90 x D 17 mm. Weight: 66 g.

Delivery incl. CR 2032 button cell battery, 3 V.

Type	Art. No.	Pack Qty.	€
Count-down/count-up timer	**HPX7.1**	1 unit(s)	14,20



Timers with count-down/count-up

With large display. Count-down/count-up. Direct numerical input via numerical keypad. Maximum operating time 10 hours. Audio signal at "zero". Dimensions: W 60 x H 70 x D 25 mm. With attachment magnet, stand, clip and hanger. Weight 95 g.

Delivery incl. 1.5 V AAA battery.

Type	Art. No.	Pack Qty.	€
Electronic signal timer	**X253.1**	1 unit(s)	16,15



Timers ROTILABO®

Carl ROTH.

Count-down/count-up function. With clock, 24-hour quartz clock, with second increments. To prop up, fix with magnets and for attaching to the chest pocket. Intense intermittent beeping.
Dimensions: W 60 x H 60 mm.

Delivery incl. 1.5 V button cell battery.

Type	Art. No.	Pack Qty.	€
Signal timer	**0773.1**	1 unit(s)	25,60



Timers ROTILABO®

Carl ROTH.

Count-down/count-up. Maximum operating time 99 min, 59 s. Start/stop button with visual timer status display (green = time counting down; red = preset time expired). After the countdown stops, an acoustic signal sounds for 1 min and is accompanied by a visual signal. Two different volumes or mute mode can selected. **Timer memory function for 3 times.** Includes stand, magnet for fixing to metal surfaces and hanging attachment. Dimensions: L 90 x W 60 x D 20 mm.

Delivery incl. 2 x 1.5 V AAA batteries.

Type	Art. No.	Pack Qty.	€
Short period timer	**TA16.1**	1 unit(s)	21,75



Timers count-down Cube

Cube with 4 preset expiry times.
Simple time entry: The required duration is selected by turning the corresponding side upwards. **Choose from: 5, 15, 30 or 60 min.** The count-down display counts backwards in second intervals. Pulsating LED signals operation (can be deactivated). Adjustable alarm tone (off/quiet/loud). Pre-alarm can be activated (10 s before time expires). Dimensions: W 60 x D 60 x H 60 mm. Weight 70 g.

Delivery without batteries. Requires 2 x AAA 1.5 V batteries for operation.

Type	Art. No.	Pack Qty.	€
One-hour signal timer	**HPC6.1**	1 unit(s)	16,60



Timers Shake Awake

- Count-down/count-up
- **With alarm sound, light signal or vibrating alarm. All signal settings can be activated separately or together.**
- Four-digit LCD display, showing hours/min or min/seconds
- Operating time: 19 h, 59 min or 99 min, 59 s
- With magnetic fastener and clip to attach and prop-up
- Dimensions: W 48 x D 31 x H 75 mm, weight 110 g

Delivery incl. 2 x 1.5 V AAA batteries.

Type	Art. No.	Pack Qty.	€
Shake Awake short period timer	**EE51.1**	1 unit(s)	22,25



Timers 2-channel

Count-down/count-up. With two independent channels for separate time measurement. Maximum operating tome 99 h, 59 min and 59 s.. Start/stop button with visual timer status display (green = time counting down; red = preset time expired).
After the count-down, a deep sounds for 1 minute accompanied by a visual display. Two different volumes or mute mode can selected. Includes stand, magnet for fixing to metal surfaces and hanging attachment. Dimensions: L 88 x W 75 x D 20 mm.

Delivery without batteries. Requires 2 x AAA 1.5 V batteries for operation.

Type	Art. No.	Pack Qty.	€
2-channel short period timer	**TA55.1**	1 unit(s)	19,05

Signal clocks



Timers ROTILABO® with clock

Carl ROTH.

Count-down/Count-up. With two independent channels for separate time measurement. Time displayed when function keys are switched. Adjustable to 99 h, 59 min and 59 s. Large LCD display. Alarm sound lasts 1 min. With clamp stands and magnet for metal surfaces. Automatically counts up as soon as the timer has reached zero. Dimensions: H 65 x W 75 x D 15 mm, weight approx. 65 g.

Delivery incl. 1.5 V AAA battery.

Type	Art. No.	Pack Qty.	€
Signal timer with clock	**A802.1**	1 unit(s)	26,75



Timers ROTILABO® 3-line

Carl ROTH.

All three displays have a **count-down/count-up** and memory function. Large 3-line LCD display. **Three separate timers in one device.**Adjustable to 99 h, 59 min and 59 s. Alarm sounds when “zero” is reached. Clock can be switched from 12 to 24-hour display. Clip for hanging and magnet for placing. Dimensions: W 83 x H 70 x D 22 mm. Weight 80 g.

Delivery incl. 1.5 V button cell battery.

Type	Art. No.	Pack Qty.	€
Short period measurer, 3-line	**P874.1**	1 unit(s)	36,80



Timers Triple XL 3-line

All three displays have a count-down function. Count-up function for display with 1/100 second display.
With large display (80 x 60 mm) and clock. Three separate timers in one device. Max. operating time 19 h, 59 min and 59 s. After the count-down is complete, a beep sounds for 1 min and the timer begins to count up. Memory function. With magnetic fastener, wall hanger and foldable stand. Dimensions: W 103 x D 121 x H 20 mm.

Delivery incl. 2 x 1.5 V AAA batteries.

Type	Art. No.	Pack Qty.	€
Triple XL Timer	**PT76.1**	1 unit(s)	19,35



Timers with large LCD display

With 24-hour timer and calender. Count-down/count-up function.
Extra large LCD display (L 140 x W 40 mm).
Programmable to 23 h, 59 min and 59 s. Alarm triggered when „0“ is reached. Timer memory function. Dimensions: L 160 x W 90 x D 68 mm.

Delivery incl. Baby 1.5 V battery.

Type	Art. No.	Pack Qty.	€
Laboratory timer	**Y224.1**	1 unit(s)	104,05

Stopwatches



Stopwatch ROTILABO®

Carl ROTH.

Splash-proof. With 24 h operating time. 1/100 second display over 30 min. Viewable intervals. Additional functions: Time, calender and alarm. Snooze function. Dimensions: H 69 mm x W 59 mm x D 19 mm.

Delivery incl. 1.5 V button cell.

Type	Art. No.	Pack Qty.	€
Stopwatch	**L423.1**	1 unit(s)	26,80



Stopwatch with calibration certificate

Hanhart.

Waterproof ABS housing. Max. operating time: 9 h, 59 min, 59 s. 1/100 second display. Interval recording.
Dimensions: H 82 mm x W 61 mm x D 28 mm.

Delivery incl. 1.5 V AA battery and calibration certificate.

Version	Art. No.	Pack Qty.	€
Stopwatch with certificate	**LK76.1**	1 unit(s)	117,20



Winding stopwatch

Wound by hand. Chrome-plated, brass housing. Start/stop: Winder. Ø 50 mm. Weight 100 g.

(1) Basic model
Max. measuring range: 15 min, resolution 1/10 s. Reset: Winder.

Type	Art. No.	Pack Qty.	€
Basic	**HA62.1**	1 unit(s)	70,45

(2) Classic model
Max. measuring range: 30 min, resolution 1/5 s. Reset: Zero-position. With pause button.

Type	Art. No.	Pack Qty.	€
Classic	**HA63.1**	1 unit(s)	77,45



Addition stopwatch

Hanhart.

In pocket watch format. To be wound up. Shockproof, dust- and waterproof plastic housing. Unbreakable tension spring.
Resolution $\frac{1}{10}$ s. Weight approximately 60 g.

Type	Art. No.	Pack Qty.	€
Addition stopwatch	**2050.1**	1 unit(s)	123,65



Desktop timer

Hanhart.

Large, easy-to-read LCD display. Max. operating time 9 h, 5 min, 59 s or 999 min. Two timers which can be started and stopped together or separately. Count-up or count-down.
Adjustable volume, max. 90 dB. Time resolution $\frac{1}{10}$ s or $\frac{1}{100}$ min.
Dimensions: H 170 mm x W 130 mm x D 97 mm.

Delivery incl. 1.5 V AA battery.

Type	Art. No.	Pack Qty.	€
Desktop timer	**N317.1**	1 unit(s)	118,25



Desktop stopwatch Analogue

Hanhart.

Measuring range: 0 - 60 s / 0 - 60 min, internal scale: $\frac{1}{100}$ Display. Quartz-controlled. Ergonomically designed with optimum stability. Functions: Start/stop/reset and also addition (as often as required). Dial: Ø 110 mm. Dimensions: H 175 mm x W 130 mm x D 95 mm. Weight: 375 g

Delivery incl. 1.5 V AA battery.

Type	Art. No.	Pack Qty.	€
Analogue desktop stopwatch	**H735.1**	1 unit(s)	145,15

Wall clocks



Wall clock

With additional inside temperature and relative humidity display. Ø 265 mm, plastic housing and plastic cover.

Delivery incl. 1.5 V AA battery.

Type	Ø (mm)	Art. No.	Pack Qty.	€
Wall clock	265	**KT37.1**	1 unit(s)	16,60



Quartz wall clocks

With plastic housing. Ø 245 mm, D 40 mm.

Delivery without battery. One 1.5 V battery is required.

Colour	Ø (mm)	Art. No.	Pack Qty.	€
black	245	**C334.1**	1 unit(s)	17,35
white	245	**C333.1**	1 unit(s)	17,35



Wall clock

Bushed aluminium housing. Glass cover. Ø 300 mm, D 41 mm.

Delivery incl. 1.5 V AA battery.

Colour	Ø (mm)	Art. No.	Pack Qty.	€
white	300	**KN89.1**	1 unit(s)	23,15



Radio-controlled wall clock

Automatic time setting and changeover to summer/winter time. Art. No. KN68.1 also with digital date display.

Delivery incl. 1.5 V AA battery.

Pic.	Ø (mm)	Art. No.	Pack Qty.	€
(1)	246	**KN66.1**	1 unit(s)	28,95
(2)	300	**KN68.1**	1 unit(s)	44,60



Radio-controlled wall clock

Automatic time setting and changeover to summer/winter time.

(1) Sweep model
Quiet Sweep movement with no ticking. Plastic housing. Dimensions: Ø 302 x D 47 mm, weight 434 g.

Delivery without battery. One 1.5 V AA battery is required.

Pic.	Type	Ø (mm)	Art. No.	Pack Qty.	€
(1)	Sweep	302	**EEC8.1**	1 unit(s)	34,70

(2) Corona model
LED-illuminated dial that uses a light sensor to switch on and off automatically, or alternatively, can be switched on and off manually. Dimensions: Ø 308 x D 43 mm, weight 509 g. Separate battery slot for clock and lighting. Lighting battery life approx. 100 days when used for 8 h/day (in "auto" position).

Delivery without battery. 4 x 1.5 V AA batteries are required.

Pic.	Type	Ø (mm)	Art. No.	Pack Qty.	€
(2)	Corona	308	**EEC9.1**	1 unit(s)	43,45

Wall clocks



Radio-controlled wall clock

Automatic time setting and changeover to summer/winter time.
Ø 300 mm, depth 45 mm. Glass cover. Station clock face.
Plastic housing available in either black or with chromed edges.

Delivery without battery. One 1.5 V AA battery is required.

Colour	Ø (mm)	Art. No.	Pack Qty.	€
black	300	**L486.1**	1 unit(s)	37,75
chrome	300	**Y227.1**	1 unit(s)	37,40



Radio-controlled wall clock with room climate display

With analogue LCD clock and revolving second hand. Display of date and day of the week (7 languages), inside temperature (measuring range -10 to +50 °C) and relative humidity (5 to 99% RH), calendar week or digital clock. Selected via sensor buttons. Dimensions:
W 220 x D 31 x H 265 mm. Weight: 580 g.

Delivery incl. 4 x 1.5 V AA batteries.

Type	Art. No.	Pack Qty.	€
Radio-controlled wall clock	**XX18.1**	1 unit(s)	69,90



Radio-controlled alarm clock XXL

Automatic time setting and changeover to summer/winter time.
With large display. Display of inside temperature (-10 to +60 °C), day of the week and date. Wake-up alarm with snooze function. Can be wall- or table-mounted. Dimensions: W 235 x H 195 x D 28 mm. Weight: 400 g.

Delivery without batteries. Two 1.5 V AA batteries are required.

Type	Art. No.	Pack Qty.	€
Radio-controlled alarm clock XXL	**PY80.1**	1 unit(s)	26,25



Solar-powered pocket calculator EL-243S

Sharp.

8-digit LCD display. Solar- and battery-powered. With function for calculating roots and percentages. Memory. Swivelling protective cover (can be folded by 180°).
Dimensions (opened): 11 x 104 x 64 mm, weight approx. 51 g.

Delivery incl. backup battery.

Type	Art. No.	Pack Qty.	€
EL-243S	**LN02.1**	1 unit(s)	10,40



Solar-powered pocket calculator LCD 1000P

Olympia.

Water and dust-repellent housing acc. to IP 54. With shock absorbing rubber edging. 12-digit LCD display. Solar- and battery-powered. Square root/percentage calculation. Memory.
Dimensions: L 158 x W 106 x H 40 mm. Weight approx. 146 g.

Delivery incl. backup battery.

Type	Art. No.	Pack Qty.	€
LCD 1000P	**LN01.1**	1 unit(s)	33,70



Solar-powered pocket calculator Sharp EL-340W

Sharp.

12-digit display, movable. Solar- and battery-powered.
Number of decimal places (F-3-2-0-A) can be selected.
Four-key memory. "00" button. Correction button. Tax calculation.
With function for calculating roots and percentages.
Dimensions W 127 x L 185 x H 17 mm, weight 199 g.

Delivery incl. backup battery CR 2032.

Type	Art. No.	Pack Qty.	€
Sharp EL-340W	**KCT4.1**	1 unit(s)	23,30

Calculators



Chemistry/life sciences calculator Chemcode®

Features:

- Keyboard with periodic table and numerical keyboard
- Buttons for DNA (A, T, G, C) and RNA (A, U, G, C) nucleotides
- Two-line display with scroll function
- Functions for scientific calculations
- Dimensions: L 136 x W 110 x D 14 mm

Stoichiometric functions
Displays: Molar mass, ideal gas volumes, mass to be weighed in g, amount of substance in moles
Calculates: Molecular formulas, proportion of individual elements or element groups in % or g, mass of substances in g. Converts from molar concentration (mol/l; molarity) into mass concentration (g/l) and vice versa, mass-% into molarity. When diluting, determines the volumes to be input in litres and calculates the amount of substance in mmol when performing titrations.

Molecular biological functions for the PCR®
Displays: Protein codes, %-proportion of guanine and cytosine, molar mass of the nucleotide sequence and protein sequence, amount of substance in nmol, optical density, amount of substance in a DNA segment in ng, melting temperature of the oligonucleotide.

Lexical functions:

- Conversion between °C, F and Kelvin
- Recalls different constants (Avogadro, Faraday, etc.)
- Functions for recalling chemical, physical and biological characteristics of elements and other information such as melting point, boiling point, electro-negativity, year of discovery, etc.

Delivery incl. four CR 2025 button cell batteries.

Type	Art. No.	Pack Qty.	€
Chemcode® calculator	**CE95.1**	1 unit(s)	128,40



Scientific solar-powered calculator TI-30 X II S

Texas Instruments.

2-line display for statistical and scientific functions. **11-digit, scroll-through input line** and 10-digit result line. **Combined solar and battery power.** With various functions, like fractions with automatic simplification, trigonometric functions, five memory variables, random number generator and many more. Dimensions: W 82 x D 155 x H 19 mm.

Delivery incl. protective bag and backup battery.

Type	Art. No.	Pack Qty.	€
TX-1210E	**KT82.1**	1 unit(s)	34,45



Scientific solar-powered calculator EL-W531TG

Sharp.

Dot matrix display, 96 x 32 dot resolution. 422 functions.
Nine memory variables. Three freely assignable keys for frequently used functions. Maths functions, statistical functions and trigonometric functions.
WriteView™ displays vinicula, roots, Pi and other functions in mathematical notation style. **Combined solar and battery power.**
Dimensions W 80 x D 166 x H 15 mm, weight 108 g.

Delivery incl. backup battery.

Type	Art. No.	Pack Qty.	€
EL-W531TG	**1C90.1**	1 unit(s)	35,50



Laboratory Equipment

Autoclaves and accessories 1244
Barrel heaters 1354
Block thermostats 1314
Burners / lighters 1270
Cell disruptors / homogenizers 1420
Centrifuges and accessories 1476
Cooling incubators 1337
Dispersing / homogenizing systems 1416
Drying and heating cabinets 1342
Flocculators 1415
Hot air blowers 1287
Hot air sterilizers 1282
Heating and magnetic stirrers 1382
Heating mantles and heating leads 1355
Hotplates and cookers 1365
Histology and pathology equipment 1362
Ice makers 1267
Immersion heaters 1285
Incubators 1328
Incubation shakers 1454
Kettles 1288
Magnetic stirrers 1371
Magnetic bars 1394
Melting point measuring units 1362
Microwave ovens 1286
Mills, mixers 1426
Muffle furnaces 1352
Overheadmixer 1468
Pressure digestion vessels 1256
Recirculating coolers 1298
Refrigerating thermostats 1300
Refrigerators / freezers, freezer chests 1257
Rocker 1464
Rotary evaporators 1324
Roller mixers, mixers 1461
Shakers, mixers 1437
Steam sterilizers 1253
Stirrers and accessories 1401
Thermoshakers 1318
Thermostats 1290
Thermostat cabinets 1265
Tripod and quadrupod stands / heating tiles 1283
Ultrasonic disintegators 1420
Vacuum drying cabinets 1353
Vortexer 1430
Water baths 1304



High-pressure laboratory autoclaves model 0

Carl ROTH. Material: Stainless steel 1.4571 (V4A).

50 ml/100 bar

Model 0 is the smallest autoclave in the ROTH range. Initially it was developed for preliminary tests at room temperature. **It is the steel test tube for all preliminary tests where work is carried out under high pressure. It is the ideal and cost-effective alternative for situations where glass carius tubes may present a danger.** Model 0 has a screw-on head with a threaded opening for fitting to equipment. The opening can be closed with a screw stopper. Sealed with PTFE gaskets (max. 180 °C) or pure silver gaskets (max. 300 °C).
Depending on the scope of the autoclave system, delivery times may apply!

Technical specifications:

Empty space	75 ml
Working volume	50 ml
Height	135 mm
Weight	835 g
Material	Stainless steel 1.4571 (V4A)
Operating temperature	-60 to 300 °C
Max. working pressure	100 bar
Test pressure	300 bar
Additional data	Test pressure at 20 °C
Outer beaker Ø	40 mm
Outer head Ø	54 mm
Inner beaker Ø	30 mm
Bottom shape	flat outside and inside
Connection opening in head	G ¼″

Basic equipment

Pic.	Designation	Art. No.	Pack Qty.	€
(1)	Model 0, 50 ml beaker and head	**2970.1**	1 unit(s)	969,65
(2)	Adapter I	**2207.1**	1 unit(s)	1.531,90
(3)	Fine control valve and check valve	**H745.1**	1 unit(s)	659,00
(4)	Display pressure gauge up to 160 bar	**2031.1**	1 unit(s)	246,20
	Bursting disc type 8.100 E, 100 bar	**2199.1**	1 unit(s)	150,00
	PTFE gasket set I (with silver gasket for bursting disc)	**2067.1**	1 unit(s)	65,65
	Pure silver gasket set I	**2065.1**	1 unit(s)	211,80
	Wrench set I, Size No.. 14 - 17 - 19 - 22 - 27 - 41	**2071.1**	1 set	45,35

Accessories for gas injection

Accessories:

Designation	Art. No.	Pack Qty.	
PTFE high-pressure hose with NPT inner thread ¼″	**H996.1**	1 unit(s)	559,00
Reducer union of direct connection to gas cylinders (please specify type of gas)	**2066.1**	1 unit(s)	247,25

Option

Accessories:

Designation	Art. No.	Pack Qty.	
Glass sleeve for 50 ml beaker, height 104 mm, Ø 28 mm	**H976.1**	1 unit(s)	24,75
Base plate 41, as mount for screwing autoclave models 0 and I	**2072.1**	1 unit(s)	669,75
Tablet stirring magnet Ø 22 mm, H 15 mm	**3003.1**	1 unit(s)	12,60
Screw stopper type A for ¼″ connection opening	**2052.1**	1 unit(s)	125,55

Replacement seals

Accessories:

Designation	Art. No.	Pack Qty.	
PTFE seal 12 - for connections to head, valve and reducer	**2160.1**	1 unit(s)	6,30
PTFE seal 20 - for pressure gauge	**2161.1**	1 unit(s)	6,70
PTFE seal 42 - for autoclave beaker/head (models 0 and I) or head opening for sampling (models II and IV)	**2163.1**	1 unit(s)	7,60
Silver gasket 12 - for connections to head, valve and reducer union	**2170.1**	1 unit(s)	52,45
Silver gasket 18 - for pressure gauge	**2172.1**	1 unit(s)	45,55
Silver gasket 40 - for autoclave beaker/head (models 0 and I), for bursting disc holder at the top of the autoclave head II/IV and for adapter with immersion tubes 2, 3 and 4	**2174.1**	1 unit(s)	50,50
Silver gasket 15 - for bursting disc type 8.100 E, 100 bar	**2173.1**	1 unit(s)	45,40



High-pressure laboratory autoclaves model I

Carl ROTH. Material: Stainless steel 1.4571 (V4A).

100 ml/100 bar

Model I is the standard model in the ROTH range. It is used primarily for preliminary testing. Model I consists of a cylindrical autoclave beaker and a threaded autoclave head. The head has a threaded opening on top for attachment of adapter I (to fit bursting disc, pressure gauge and valve). The opening can be closed with a screw stopper. Sealed with PTFE gaskets (max. 180 °C) or pure silver gaskets (max. 300 °C).
Depending on the scope of the autoclave system, delivery times may apply!

Technical specifications:

Empty space	135 ml
Working volume	100 ml
Height	220 mm
Weight	1210 g
Material	Stainless steel 1.4571 (V4A)
Operating temperature	-60 to +300 °C
Max. working pressure	100 bar
Test pressure	300 bar
Outer beaker Ø	40 mm
Outer head Ø	54 mm
Inner beaker Ø	30 mm
Connection opening in head	G ¼″
Adapter (T-piece), with bursting disc protection	
Material	V4A stainless steel 1.4571 (adapter to accommodate the bursting disc, valve and pressure gauge)
Connectionopenings	G½″ for pressure gauge G¼″ for valve

Basic equipment

Pic.	Designation	Art. No.	Pack Qty.	€
(1)	Model I, 100 ml beaker and head	**2001.1**	1 unit(s)	1.220,15
(2)	Adapter I	**2207.1**	1 unit(s)	1.531,90
(3)	Fine control valve and check valve	**H745.1**	1 unit(s)	659,00
(4)	Display pressure gauge up to 160 bar	**2031.1**	1 unit(s)	246,20
	Bursting disc type 8.100 E, 100 bar	**2199.1**	1 unit(s)	150,00
	PTFE gasket set I (with silver gasket for bursting disc)	**2067.1**	1 unit(s)	65,65
	Pure silver gasket set I	**2065.1**	1 unit(s)	211,80
	Tablet stirring magnet Ø 22 mm, H 15 mm	**3003.1**	1 unit(s)	12,60
	Wrench set I, Size No.. 14 - 17 - 19 - 22 - 27 - 41	**2071.1**	1 set	45,35
	Heating mantle 10 S for 100 ml, with magnetic stirrer	**KCX5.1**	1 unit(s)	2.654,20

Accessories for gas injection

Designation	Art. No.	Pack Qty.	
PTFE high-pressure hose with NPT inner thread ¼″	**H996.1**	1 unit(s)	559,00
Reducer union of direct connection to gas cylinders (please specify type of gas)	**2066.1**	1 unit(s)	247,25

Accessories for assembly/option

Designation	Art. No.	Pack Qty.	
Base plate 41, as mount for screwing autoclave models 0 and I	**2072.1**	1 unit(s)	669,75
Screw stopper type A for ¼″ connection opening	**2052.1**	1 unit(s)	125,55
Glass sleeve for 100 ml beaker, height 185 mm, Ø 28 mm	**2196.1**	1 unit(s)	26,90
Tube connection fitting AD 6.35 mm	**H746.1**	1 unit(s)	41,00

Replacement seals

Designation	Art. No.	Pack Qty.	
PTFE seal 12 - for connections to head, valve and reducer	**2160.1**	1 unit(s)	6,30
PTFE seal 20 - for pressure gauge	**2161.1**	1 unit(s)	6,70
PTFE seal 42 - for autoclave beaker/head (models 0 and I) or head opening for sampling (models II and IV)	**2163.1**	1 unit(s)	7,60
Silver gasket 12 - for connections to head, valve and reducer union	**2170.1**	1 unit(s)	52,45
Silver gasket 15 - for bursting disc type 8.100 E, 100 bar	**2173.1**	1 unit(s)	45,40
Silver gasket 18 - for pressure gauge	**2172.1**	1 unit(s)	45,55
Silver gasket 40 - for autoclave beaker/head (models 0 and I), for bursting disc holder at the top of the autoclave head II/IV and for adapter with immersion tubes 2, 3 and 4	**2174.1**	1 unit(s)	50,50



High-pressure laboratory autoclaves model II

Carl ROTH. Material: Stainless steel 1.4571 (V4A).

200/300 ml/100 bar, 250 ml/200 bar

Model II encompasses devices for all reactions where spontaneous gas development and a quick increase in pressure are to be expected. The devices are operated with a large bursting disc, that is incorporated in the autoclave head. They thus offer maximum operational safety.
The enlarged autoclave head is screwed directly onto the cylindrical autoclave beaker. It contains the bursting disc holder at the top and three threaded openings at the side.
For connections with: valves, reducers for pressure gauges and temperature sensors or burst disc safety device II (when using magnetic stirrer head MRK 10).
Threaded openings can be closed with screw stoppers. Sealed with PTFE gaskets (max. 180 °C) or pure silver gaskets (max. 300 °C).
Depending on the scope of the autoclave system, delivery times may apply!

Autoclaves

Autoclave beakers	200 mm	300 ml	250 ml
Empty space (ml)	265	350	320
Working capacity (ml)	200	300	250
Height (mm)	220	300	300
Weight (g)	1375	1900	2250
Max. working pressure (bar)	100	100	200
Test pressure at +20 °C (bar)	300	300	400
Outside Ø (mm)	50	50	50
Inside Ø (mm)	40	40	37
Bottom shape	**flat outside and inside**		
Material	V4A stainless steel 1.4571		
Working temperature	–60 to +300 °C		

Basic equipment

Technical specifications:

Material	Stainless steel 1.4571 (V4A)
Outer beaker Ø Additional data	69 mm top head opening for bursting disc 28.100/28.200 or magnetic stirrer head MRK 10
Connection opening in head	G ¼″
Weight	1250 g

Pic.	Designation	Art. No.	Pack Qty.	€
(1)	200 ml autoclave beaker/100 bar	**2098.1**	1 unit(s)	1.118,00
	300 ml autoclave beaker/100 bar	**2108.1**	1 unit(s)	1.555,55
	250 ml autoclave beaker/200 bar	**2094.1**	1 unit(s)	1.143,80
(2)	Autoclave head II	**2126.1**	1 unit(s)	805,20
	Bursting disc type 28.100 E, 100 bar	**2203.1**	1 unit(s)	146,55
	Bursting disc type 28.200 E, 200 bar	**2204.1**	1 unit(s)	146,55
(3)	Fine control valve and check valve	**H745.1**	1 unit(s)	659,00
(4)	Display pressure gauge up to 160 bar	**2031.1**	1 unit(s)	246,20
	Display pressure gauge up to 250 bar	**2036.1**	1 unit(s)	264,45
(5)	Reducer for pressure gauge	**2033.1**	1 unit(s)	183,85
	Screw stopper type A for ¼″ connection opening	**2052.1**	1 unit(s)	125,55
	PTFE gasket set with silver gasket	**2082.1**	1 unit(s)	74,20
	Pure silver gasket set II	**2102.1**	1 unit(s)	276,30
	Tablet stirring magnet Ø 30 mm, H 12 mm	**4490.1**	1 unit(s)	13,65
	Wrench set II, Size No. 14 - 17 - 19 - 22 - 27 - 50 - 2 x 55	**2078.1**	1 set	147,85
	Heating mantle 20 S for 200 ml beaker with magnetic stirrer	**KCX6.1**	1 unit(s)	2.654,20
	Heating mantle 30 S for 250/300 ml beaker, with magnetic stirrer	**KCX7.1**	1 unit(s)	2.654,20

Accessories for gas injection

Designation	Art. No.	Pack Qty.	
PTFE high-pressure hose with NPT inner thread ¼″	**H996.1**	1 unit(s)	559,00
Reducer union of direct connection to gas cylinders (please specify type of gas)	**2066.1**	1 unit(s)	247,25

Special accessories for temperature measurement in autoclaves

Designation	Art. No.	Pack Qty.	
Temperature sensor for model II (200 ml), L 220 mm	**2115.1**	1 unit(s)	461,20
Temperature sensor for model II (250/300 ml), L 280 mm	**A880.1**	1 unit(s)	461,20
Connection cable between heating mantle/sensor, L 1.5 m	**KCX9.1**	1 unit(s)	160,20

Special accessories for insertion or removal of gaseous or liquid samples

Designation	Art. No.	Pack Qty.	
Adapter with immersion tube 2 for 200 ml autoclave beaker	**2043.1**	1 unit(s)	1.072,85
Adapter with immersion tube 3 for 250/300 ml autoclave beaker	**2044.1**	1 unit(s)	1.072,85
Fine control valve and check valve	**H745.1**	1 unit(s)	659,00
PTFE seal 12 - for connections to head, valve and reducer	**2160.1**	1 unit(s)	6,30
Silver gasket 40 - for autoclave beaker/head (models 0 and I), for bursting disc holder at the top of the autoclave head II/IV and for adapter with immersion tubes 2, 3 and 4	**2174.1**	1 unit(s)	50,50
PTFE seal 42 - for autoclave beaker/head (models 0 and I) or head opening for sampling (models II and IV)	**2163.1**	1 unit(s)	7,60

Special accessories for stirring

Designation	Art. No.	Pack Qty.	
Magnetic stirrer head MRK 10	**2359.1**	1 unit(s)	3.374,45
Adapter for magnetic stirrer head M 42 to M 30	**2358.1**	1 unit(s)	496,65
Bursting disc safety device II	**3167.1**	1 unit(s)	1.323,35
Bursting disc type 8.100 E, 100 bar	**2199.1**	1 unit(s)	150,00
Silver gasket 15 - for bursting disc type 8.100 E, 100 bar	**2173.1**	1 unit(s)	45,40
Gas treatment stirrer type 2 for 200 ml beaker, L 220 mm	**3184.1**	1 unit(s)	1.059,95
Gas treatment stirrer type 3 for 250/300 ml beaker, L 299 mm	**3189.1**	1 unit(s)	1.341,60

Special accessories for assembly/option

Designation	Art. No.	Pack Qty.	
Base plate 55, as mount for screwing autoclave model II	**2074.1**	1 unit(s)	752,50
Tube connection fitting AD 6.35 mm	**H746.1**	1 unit(s)	41,00
Glass sleeve for 200 ml beaker, height 205 mm, Ø 38 mm	**2197.1**	1 unit(s)	31,10
Glass sleeve for 300 ml beaker, height 285 mm, Ø 38 mm	**2198.1**	1 unit(s)	33,90
Glass sleeve for 250 ml beaker, height 285 mm, Ø 38 mm	**2192.1**	1 unit(s)	31,75

Replacement seals

Designation	Art. No.	Pack Qty.	
PTFE seal 12 - for connections to head, valve and reducer	**2160.1**	1 unit(s)	6,30
PTFE seal 20 - for pressure gauge	**2161.1**	1 unit(s)	6,70
PTFE seal 51 - for autoclave beaker/head (model II)	**2164.1**	1 unit(s)	14,25
Silver gasket 12 - for connections to head, valve and reducer union	**2170.1**	1 unit(s)	52,45
Silver gasket 18 - for pressure gauge	**2172.1**	1 unit(s)	45,55
Silver gasket 40 - for autoclave beaker/head (models 0 and I), for bursting disc holder at the top of the autoclave head II/IV and for adapter with immersion tubes 2, 3 and 4	**2174.1**	1 unit(s)	50,50
Silver gasket 50 - for autoclave beaker/head (model II)	**2175.1**	1 unit(s)	58,80



High-pressure laboratory autoclaves model IV

Carl ROTH. Material: Stainless steel 1.4571 (V4A).

500 ml/100 bar

Model IV is the largest autoclave in the ROTH range. It is an enhanced version of the original from which all other models were developed. Model IV consists of a stainless steel beaker with flange. The solid stainless steel lid is screwed onto the flange using eight screws.
The autoclave head is intended for a large busting disc as standard. It thus provides enhanced operational safety in the case of spontaneous gas development and a quick increase in pressure.
The enlarged autoclave head is screwed directly onto the cylindrical autoclave beaker. It contains the bursting disc holder at the top and three threaded openings at the side.
For connections with: valves, reducers for pressure gauges and temperature sensors or bursting disc safety device II (when using the magnetic stirrer head).
Threaded openings can be closed with screw stoppers. Sealed with PTFE gaskets (max. 180 °C) or with pure silver gaskets (max. 300 °C).
The beaker and head combination consists of 8 hexagon bolts and nuts for simple assembly.
Depending on the scope of the autoclave system, delivery times may apply!

Technical specifications:

Empty space	700 ml
Working volume	500 ml
Height	425 mm
Material	Stainless steel 1.4571 (V4A)
Operating temperature	-60 to +300 °C
Max. working pressure	100 bar
Test pressure	300 bar
Additional data	Test pressure at 20 °C
Outer beaker Ø	60 mm
Inner beaker Ø	50 mm
Outer lid Ø	125 mm
Bottom shape	flat outside and inside

Autoclave head II	
Material	V4A stainless steel (1.4571)
Outside Ø	64 mm, top head opening for bursting disc 28.100 or Magnetic stirrer head MRK 10
Three lateral connection openings in the head	G¼″ for valve, reducer for pressure gauge and temperature sensor or bursting disc safety device II for use with magnetic stirrer head MRK 10

Basic equipment

Designation		Art. No.	Pack Qty.	€
500 ml beaker and head		**K172.1**	1 unit(s)	2.583,25
	Bursting disc type 28.100 E, 100 bar	**2203.1**	1 unit(s)	146,55
(3)	Fine control valve and check valve	**H745.1**	1 unit(s)	659,00
(4)	Display pressure gauge up to 160 bar	**2031.1**	1 unit(s)	246,20
	Locking piece for reducer	**2034.1**	1 unit(s)	409,60
(5)	Reducer for pressure gauge	**2033.1**	1 unit(s)	183,85
	Screw stopper type A for ¼″ connection opening	**2052.1**	1 unit(s)	125,55
	PTFE gasket set with pure silver gasket	**K454.1**	1 set	64,40
	Pure silver gasket set IV	**K459.1**	1 unit(s)	229,00
	Wrench set II, Size No. 14 - 17 - 19 - 22 - 27 - 50 - 55 x	**K455.1**	1 set	106,40
	Tablet stirring magnet Ø 40 mm, H 14 mm	**4517.1**	1 unit(s)	26,10
	Heating mantle 50 S for 500 ml beaker, with magnetic stirrer	**KCX8.1**	1 unit(s)	2.654,20

Special accessories for gas injection

Designation	Art. No.	Pack Qty.	
PTFE high-pressure hose with NPT inner thread ¼″	**H996.1**	1 unit(s)	559,00
Reducer union of direct connection to gas cylinders (please specify type of gas)	**2066.1**	1 unit(s)	247,25

Special accessories for temperature measurement

Designation	Art. No.	Pack Qty.	
Temperature sensor for model IV (500 ml), L 330 mm	**K456.1**	1 unit(s)	461,20
Connection cable between heating mantle/sensor, L 1.5 m	**KCX9.1**	1 unit(s)	160,20

Special accessories for insertion and removal of gaseous or liquid samples

Designation	Art. No.	Pack Qty.	
Adapter with immersion tube 4 for 500 ml autoclave beaker	**K457.1**	1 unit(s)	1.072,85
Fine control valve and check valve	**H745.1**	1 unit(s)	659,00
PTFE seal 12 - for connections to head, valve and reducer	**2160.1**	1 unit(s)	6,30
Silver gasket 40 - for autoclave beaker/head (models 0 and I), for bursting disc holder at the top of the autoclave head II/IV and for adapter with immersion tubes 2, 3 and 4	**2174.1**	1 unit(s)	50,50
PTFE seal 42 - for autoclave beaker/head (models 0 and I) or head opening for sampling (models II and IV)	**2163.1**	1 unit(s)	7,60
Wrench 55	**2187.1**	1 unit(s)	68,55

Special accessories for stirring

Designation	Art. No.	Pack Qty.	
Magnetic stirrer head MRK 10	**2359.1**	1 unit(s)	3.374,45
Adapter for magnetic stirrer head M 42 to M 30	**2358.1**	1 unit(s)	496,65
Bursting disc safety device II	**3167.1**	1 unit(s)	1.323,35
Bursting disc type 8.100 E, 100 bar	**2199.1**	1 unit(s)	150,00
Silver gasket 15 - for bursting disc type 8.100 E, 100 bar	**2173.1**	1 unit(s)	45,40
Gas treatment stirrer type 4 for 500 ml beaker	**K458.1**	1 unit(s)	1.341,60

Assembly/option

Designation	Art. No.	Pack Qty.	
Tube connection fitting AD 6.35 mm	**H746.1**	1 unit(s)	41,00
Glass sleeve for 500 ml beaker, height 320 mm, Ø 48 mm	**2099.1**	1 unit(s)	38,70
Tablet stirring magnet Ø 40 mm, H 14 mm	**4517.1**	1 unit(s)	26,10

Replacement seals

Designation	Art. No.	Pack Qty.	
PTFE seal 12 - for connections to head, valve and reducer	**2160.1**	1 unit(s)	6,30
PTFE seal 20 - for pressure gauge	**2161.1**	1 unit(s)	6,70
PTFE seal 60 - for autoclave beaker/head (model IV)	**2165.1**	1 unit(s)	14,25
Silver gasket 12 - for connections to head, valve and reducer union	**2170.1**	1 unit(s)	52,45
Silver gasket 18 - for pressure gauge	**2172.1**	1 unit(s)	45,55
Silver gasket 40 - for autoclave beaker/head (models 0 and I), for bursting disc holder at the top of the autoclave head II/IV and for adapter with immersion tubes 2, 3 and 4	**2174.1**	1 unit(s)	50,50
Seal 60 - for autoclave beaker/head (model IV)	**2176.1**	1 unit(s)	60,80



Accessories seal made of PTFE

Carl ROTH.

Dimensions = outside Ø in mm.

Seal 60 – for autoclave beaker/head (model IV)

Type	Art. No.	Pack Qty.	€
PTFE seal 12 - for connections to head, valve and reducer	**2160.1**	1 unit(s)	6,30
PTFE seal 20 - for pressure gauge	**2161.1**	1 unit(s)	6,70
PTFE seal 42 - for autoclave beaker/head (models 0 and I) or head opening for sampling (models II and IV)	**2163.1**	1 unit(s)	7,60
PTFE seal 51 - for autoclave beaker/head (model II)	**2164.1**	1 unit(s)	14,25
PTFE seal 60 - for autoclave beaker/head (model IV)	**2165.1**	1 unit(s)	14,25



Accessories wrench set

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Wrench set I, size No. 14 - 17 - 19 - 22 - 27 - 41	**2071.1**	1 set	45,35
Wrench set II, size No. 14 - 17 - 19 - 22 - 27 - 50 - 2 x 55	**2078.1**	1 set	147,85
Wrench set II, size No. 14 - 17 - 19 - 22 - 27 - 50 - 55 x	**K455.1**	1 set	106,40



Accessories seal made of pure silver

Carl ROTH.

Dimensions = outside Ø in mm.

Type	Art. No.	Pack Qty.	€
Silver gasket 12 - for connections to head, valve and reducer union	**2170.1**	1 unit(s)	52,45
Silver gasket 15 - for bursting disc type 8.100 E, 100 bar	**2173.1**	1 unit(s)	45,40
Silver gasket 18 - for pressure gauge	**2172.1**	1 unit(s)	45,55
Silver gasket 40 - for autoclave beaker/head (models 0 and I), for bursting disc holder at the top of the autoclave head II/IV and adapter with immersion tubes 2, 3 and 4	**2174.1**	1 unit(s)	50,50
Silver gasket 50 - for autoclave beaker/head (model II)	**2175.1**	1 unit(s)	58,80
Seal 60 - for autoclave beaker/head (model IV)	**2176.1**	1 unit(s)	60,80



Accessories glass sleeve

Carl ROTH.

It has proved useful to place highly viscous materials or strong contaminants into laboratory autoclaves in glass sleeves. These special vessels are designed for the high pressure and temperatures in autoclaves.

Type	Art. No.	Pack Qty.	€
Glass sleeve for 50 ml beaker, height 104 mm, Ø 28 mm	**H976.1**	1 unit(s)	24,75
Glass sleeve for 300 ml beaker, height 285 mm, Ø 38 mm	**2198.1**	1 unit(s)	33,90
Glass sleeve for 100 ml beaker, height 185 mm, Ø 28 mm	**2196.1**	1 unit(s)	26,90
Glass sleeve for 200 ml beaker, height 205 mm, Ø 38 mm	**2197.1**	1 unit(s)	31,10
Glass sleeve for 250 ml beaker, height 285 mm, Ø 38 mm	**2192.1**	1 unit(s)	31,75
Glass sleeve for 500 ml beaker, height 320 mm, Ø 48 mm	**2099.1**	1 unit(s)	38,70

Autoclaves accessories



Accessories fine control and check valve

ROTH SELECTION.

Made of stainless steel. For high-pressure laboratory autoclaves. With 6 mm swagelock tube connection on both sides. Multi-positioning range. Pressure range up to max. 210 bar, temperature range up to max. +205 °C.

Delivery incl. valve with thread adapter made of stainless steel (6 mm pipe to ¼″).

Pic.	Type	Art. No.	Pack Qty.	€
(3)	Fine control valve and check valve	**H745.1**	1 unit(s)	659,00

Accessories

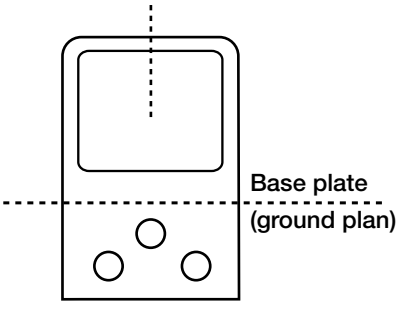
Carl ROTH.

Tube connector fitting for fine control and check valve
Made of stainless steel. For fine control and check valve (output side). Matches hose inner diameter ¼″.

Type	Art. No.	Pack Qty.	€
Tube connection fitting AD 6.35 mm	**H746.1**	1 unit(s)	41,00

Thread adapter for fine control and check valve
Made of stainless steel. (6 mm pipe to ¼″).

Type	Art. No.	Pack Qty.	€
Thread adapter 6 mm pipe to ¼″	**P437.1**	1 unit(s)	201,05



Accessories retaining plate

Carl ROTH.

Type	Art. No.	Pack Qty.	€
Base plate 41, as mount for screwing autoclave models 0 and I	**2072.1**	1 unit(s)	669,75
Base plate 55, as mount for screwing autoclave model II	**2074.1**	1 unit(s)	752,50



Accessories pressure gauge

ROTH SELECTION.

The parts that have contact with the medium (thread adapter and spring pipe) are made of stainless steel. The white face has black numbers. Spring pipe measuring system. With composite glass pane (safety glass). For a maximum medium temperature up to +100 °C. Thread adapter G½″, at radial bottom. Outer Ø 100 mm.

Pic.	Type	Art. No.	Pack Qty.	€
(4)	Display pressure gauge up to 160 bar	**2031.1**	1 unit(s)	246,20
	Display pressure gauge up to 250 bar	**2036.1**	1 unit(s)	264,45



Accessories bursting disc

Carl ROTH.

Use to seal the bursting disc **pure silver gaskets**!
Working temperature up to +300 °C. Made of stainless steel.

Technical specifications:

Art. No.	2199.1	2203.1	8135.1	2204.1
Ø Internal	8 mm	28 mm		
Ø ext.	14 mm	40 mm		

Type	Response pressure (bar)	Art. No.	Pack Qty.	€
8.100 E	100	**2199.1**	1 unit(s)	150,00
28.100 E	100	**2203.1**	1 unit(s)	146,55
28.060 E	60	**8135.1**	1 unit(s)	146,55
28.200 E	200	**2204.1**	1 unit(s)	146,55

Autoclaves accessories





Accessories sampling

Carl ROTH.

Adapter with welded supply pipe. For inserting or removing gaseous or liquid samples.

- Material: V4A stainless steel 1.4571
- Working temperature: max. +300 °C
- Working pressure: max. 200 bar

Type	Art. No.	Pack Qty.	€
Adapter with immersion tube 2 for 200 ml autoclave beaker	**2043.1**	1 unit(s)	1.072,85
Adapter with immersion tube 3 for 250/300 ml autoclave beaker	**2044.1**	1 unit(s)	1.072,85
Adapter with immersion tube 4 for 500 ml autoclave beaker	**K457.1**	1 unit(s)	1.072,85



Accessories screw stopper

Carl ROTH.

For closing a connection opening G¼″ or G½″ (e.g. adapter 2207.1).

Type	Art. No.	Pack Qty.	€
Screw stopper type A for ¼″ connection opening	**2052.1**	1 unit(s)	125,55
Screw stopper type C for ½″ connection opening	**2038.1**	1 unit(s)	346,15

Accessories temperature measurement

Carl ROTH.

The temperature sensor consist of a thermoelement with iron-copper thermocouple. The thermoelement is sealed in a protective pipe made of stainless steel 1.4541. It records the temperature directly inside the autoclave and transfers the values to the WRT 2000x temperature controller. The unit displays the relevant temperature value and controls the performance of the heating mantle.
Only the pure silver gaskets offered should be used for sealing, as too frequent insertion and removal of the seals could unduly reduce the service life of the sensor.
Temperature sensor Fe-Cu-Ni, with pure silver gasket, Ø 1.5 mm

Type	Art. No.	Pack Qty.	€
Temperature sensor for model II (200 ml), L 220 mm	**2115.1**	1 unit(s)	461,20
Temperature sensor for model II (250/300 ml), L 280 mm	**A880.1**	1 unit(s)	461,20
Temperature sensor for model IV (500 ml), L 330 mm	**K456.1**	1 unit(s)	461,20

Accessories connection cable between heating mantle/sensor

Carl ROTH.

Type	Art. No.	Pack Qty.	€
Connection cable between heating mantle/sensor, L 1.5 m	**KCX9.1**	1 unit(s)	160,20

Autoclaves accessories





Accessories gas injection

Carl ROTH.

Stainless steel-coated PTFE hose for possible connection to a pressure reducer and/or direct combination to the high-pressure hose of a gas cylinder, in combination with the gas cylinder connection (Art. No. 2066.1, please order separately).

Technical specifications:

Art. No.	H996.1	N246.1
Additional data	The operating pressure applies for working temperatures from +20 to +50 °C	
Ø Internal	4.8 mm	
Ø ext.	8 mm	
Min. burst pressure	825 bar	
Operating pressure	205 bar	
Temperature range	-55 to +235 °C	
Min. bend radius	51 mm	
Length	1.5 mm	
Wall thickness	1 mm	

PTFE hose with NPT inner thread ¼″
On 6 mm pipe adapter, for gas cylinder connection (Art. No. 2066.1, please order separately).

Type	Art. No.	Pack Qty.	€
PTFE high-pressure hose with NPT inner thread ¼″	**H996.1**	1 unit(s)	559,00

PTFE hose with NPT outer thread ¼″
On 6 mm pipe adapters.

Type	Art. No.	Pack Qty.	€
PTFE high-pressure hose with NPT outer thread ¼″	**N246.1**	1 unit(s)	402,05



Accessories gas cylinder connection

Carl ROTH.

Type	Art. No.	Pack Qty.	€
For **direct connection** of the high-pressure hose to the gas cylinder (max. bursting disc 200 bar). **Please specify type of gas.**	**2066.1**	1 unit(s)	247,25

Accessories stirrer head with permanent magnetic coupling, type MRK 10

ROTH SELECTION. Material: Stainless steel V4A 1.4435.
Absolutely gas tight. Vacuum-tight.

Technical specifications:

Art. No.	2359.1
Max. working pressure	200 bar
Operating temperature	max. 300 °C
Maximum speed	5,000 rpm
Max. temperature	300 °C
Max. viscosity	1,500 mPas
Ø ext.	44 mm
Additional data	Torque 20 N · cm
Height	172 mm

Delivery without adapter and gas treatment stirrer. Please order separately.

Type	Art. No.	Pack Qty.	€
Magnetic stirrer head MRK 10	**2359.1**	1 unit(s)	3.374,45

Accessories

Carl ROTH.

Adapter M 42 - M 30 for stirrer head with magnetic coupling
Adapter for connection of autoclave head II to magnetic stirrer head.

Type	Art. No.	Pack Qty.	€
Adapter for magnetic stirrer head M 42 to M 30	**2358.1**	1 unit(s)	496,65

Gas treatment stirrer for stirrer head with magnetic coupling
For use with stirrer head MRK 10. Made of stainless steel 1.4435 and PTFE. Ø 25 mm. Working temperature: max. +150 °C.

Type	Art. No.	Pack Qty.	€
Gas treatment stirrer type 2 for 200 ml beaker, L 220 mm	**3184.1**	1 unit(s)	1.059,95
Gas treatment stirrer type 3 for 250/300 ml beaker, L 299 mm	**3189.1**	1 unit(s)	1.341,60
Gas treatment stirrer 4 for 500 ml beaker, L 380 mm	**K458.1**	1 unit(s)	1.341,60

Autoclaves accessories



Type	Heating output (W)	Suitable for	Art. No.	Pack Qty.	€
10 S	200	Model I, 100 ml	**KCX5.1**	1 unit(s)	2.654,20
20 S	300	Model II, 200 ml	**KCX6.1**	1 unit(s)	2.654,20
30 S	400	Model II, 250/300 ml	**KCX7.1**	1 unit(s)	2.654,20
50 S	600	Model IV, 500 ml	**KCX8.1**	1 unit(s)	2.654,20

Accessories heating mantle with magnetic stirrer

Carl ROTH.

Specially designed for ROTH's high-pressure laboratory autoclaves. To ensure optimum distribution and use of heat, the heating mantles are precisely adapted to the dimensions of the individual autoclave beaker.

Features:

- High temperature stability
- Integrated magnetic stirrer with continuous speed adjustment without direct drive
- Heating and stirrer can be activated separately
- Temperature adjustment using the digital display and display of the actual temperature of the heating mantles
- **Integrated contact thermometer with full functionality. Option to directly connect the medium temperature sensor thermo-couple type J/Fe-Cu-Ni (please order temperature measuring sensor and connection cable separately)**
- Due to the high working temperature range of up to 300 °C, temperatures of over 240 °C can be reached, depending on the medium and application
- Additional safety: Temperature limiter for the internal and external temperature sensors

Technical specifications:

Art. No.	KCX5.1	KCX6.1	KCX7.1	KCX8.1
Speed range	850 to 1500 rpm			
Operating temperature	+8 °C **above** room temperature up to 300 °C, continuously adjustable			
Setting accuracy	±1 K			
Control accuracy	±8 K			
Control accuracy with sensor	±3 K			
Control	Internally via heating mantle, externally via separate temperature gauge (available as an option)			
Width	220 mm			
Depth	250 mm			
Height	319 mm	334 mm	414 mm	455 mm
Mains connection	230 V, 50/60 Hz			

Delivery without temperature measuring sensor and connecting cable (please order separately).

Accessories:

Designation	Art. No.	Pack Qty.	€
Temperature sensor for model II (200 ml), L 220 mm	**2115.1**	1 unit(s)	461,20
Temperature sensor for model II (250/300 ml), L 280 mm	**A880.1**	1 unit(s)	461,20
Temperature sensor for model IV (500 ml), L 330 mm	**K456.1**	1 unit(s)	461,20
Connection cable between heating mantle/sensor, L 1.5 m	**KCX9.1**	1 unit(s)	160,20



Benchtop steam steriliser CertoClav EL series

CertoClav.

With aluminium chamber. For steam heating of substances and use in research & development.
Applications: preparation of nutrient media, as well as sterilisation of waste, utensils, bottles and instruments.

Features:

- Bayonet lock for lid lock
- Quadruple pressure safety: safety lock to prevent opening under pressure, antilock safety valve, pressure relief valve and pressure relief vent
- Pressure regulation by control valve
- Alternate versions with different temperature / pressure levels 125/140 °C or 115/121 °C are available

Technical specifications:

Art. No.	TL61.1	TL62.1	TL63.1	TL64.1
Type	EL 12L		EL 18L	
Vol.	12 l		18 l	
Temperature stage	125/140 °C	115/121 °C	125/140 °C	115/121 °C
Pressure level	1,4/2,7 bar	0,7/1,2 bar	1,4/2,7 bar	0,7/1,2 bar
Test pressure	4.1 bar			
Ventilation method	Flow method			
Inner height	230 mm		360 mm	
Ø Internal	240 mm			
Outer height	535 mm		665 mm	
Ø ext.	250 mm			
Diagonal	350 mm		465 mm	
Max. wire basket capacity	1 unit(s)		2 unit(s)	
Temperature measuring range	0 to +160 °C			
Temperature resolution	2 °C			
Pressure measuring range	0 to 4 bar			
Graduation	0,1 bar			
Exhaust steam valve outflow	Ø 10 mm			
Power consumption	1,900 W			
Weight	7 kg		9 kg	
Mains connection	230 V, 50/60 Hz			

Delivery incl. precision pressure gauge with maximum drag pointer, precision thermometer, one wire basket (for Order No. TL63.1 and TL64.1, 2 wire baskets can be incorporated, please order separately if required) and aluminium Instrument plate (Ø 225 mm, H 40 mm) with three feet as baseplate above the water.

Type	Vol. (l)	Tempera-ture stage (°C)	Pressure level (bar)	Art. No.	Pack Qty.	€
EL 12L	12	125/140	1,4/2,7	**TL61.1**	1 unit(s)	2.687,50
EL 12L	12	115/121	0,7/1,2	**TL62.1**	1 unit(s)	2.687,50
EL 18L	18	125/140	1,4/2,7	**TL63.1**	1 unit(s)	3.214,25
EL 18L	18	115/121	0,7/1,2	**TL64.1**	1 unit(s)	3.214,25

Accessories for benchtop steam sterilizers, CertoClav EL series

CertoClav.

Additional wire basket
For simple filling with sterilisable material. Inside Ø 225 mm, H 170 mm. Mesh width: ¼ inch. 2. wire basket for model EL 18L or replacement-wire basket for model EL 12L.

Designation	Art. No.	Pack Qty.	€
Wire basket	**TL65.1**	1 unit(s)	239,75

Seal service set
With cover and valve seal as well as seal for steam outlet cock, pressure gauge, steam outlet valve.

Designation	Art. No.	Pack Qty.	€
Seal service set for EL series	**TL66.1**	1 unit(s)	61,30

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Benchtop steam steriliser

CertoClav.

With stainless steel chamber. For culture media processing, as well as sterilisation of equipment and waste. No water connection required. Complementary to the large autoclaves. Space-saving positioning on the laboratory bench.

- Quadruple pressure safety: safety lock to prevent opening under pressure, antilock safety valve, pressure relief valve and pressure relief vent
- Lock the lid with one hand movement

Technical specifications:

Art. No.	CYH3.1	CYH4.1	CYH5.1
Type	Classic		Multicontrol 2
Vol.	18 l		
Temperature stage	125/140 °C	115/121 °C	RT–140 °C
Pressure level	1,4/2,7 bar	0,7/1,2 bar	max. 2,7 bar
Operation	Manual		LCD display
Timer	analogue (0 to 60 min or continuous operation)		digital (1 min to 14 d)
Process logging			PC-Software
Port			USB
Test pressure	4.1 bar		
Inner height	300 mm		
Ø Internal	260 mm		
Outer height	550 mm		
Ø ext.	270 mm		
Diagonal	424 mm		
Max. wire basket capacity	1 unit(s)		
Temperature measuring range	0 to +160 °C		+30 to +140 °C
Temperature resolution	2 °C		via LCD display
Pressure measuring range	0 to 4 bar		
Graduation	0,1 bar		
Exhaust steam valve outflow	Ø 10 mm		
Power consumption	1,300 W		
Weight	13 kg		
Mains connection	230 V, 50/60 Hz		

Model CertoClav Classic
Controlled by precision valves and thermostat. With timer. Models available with sterilisation temperature of 125/140 °C or 115/121 °C.

Delivery incl. steam outlet cock, precision thermometer and pressure gauge. Wire basket, please order separately.

Type	Vol. (l)	Temperature stage (°C)	Pressure level (bar)	Art. No.	Pack Qty.	€
Classic	18	125/140	1,4/2,7	**CYH3.1**	1 unit(s)	2.891,75
Classic	18	115/121	0,7/1,2	**CYH4.1**	1 unit(s)	2.891,75

Model CertoClav MultiControl 2
With freely programmable control system (room temperature to 140 °C). Standard sterilisation programs preinstalled. USB port for connectivity to PC incl. basic software (to display process data).

Delivery incl. electronic control, precision pressure gauge, steam outlet cock and PC software. Please order wire basket separately.

Type	Vol. (l)	Temperature stage (°C)	Pressure level (bar)	Art. No.	Pack Qty.	€
Multicontrol 2	18	RT–140	max. 2,7	**CYH5.1**	1 unit(s)	3.546,45

Accessories for Benchtop steam steriliser CertoClav Classic and MultiControl 2

CertoClav.

Wire basket
For loading items to be autoclaved. Inside-Ø 250 mm, H 230 mm. Mesh width: ¼ inch.

Designation	Art. No.	Pack Qty.	€
Wire basket	**CYH6.1**	1 unit(s)	239,75

Seal service set
With cover and safety valve seal as well as seal for steam outlet cock, pressure gauge, steam outlet valve and control valve.

Designation	Art. No.	Pack Qty.	€
Seal service set	**CYH7.1**	1 unit(s)	84,95

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Horizontal benchtop autoclave CertoClav Vacuum Pro series

CertoClav.

For the sterilisation of liquids, solids and waste, e.g. instruments, hollow bodies, porous materials, textiles, plastics, etc.

- Chamber material: Stainless steel 1.4301
- Sterilisation temperature 105 to 134 °C, sterilisation pressure 0.2 to 2.1 bar
- 7″ Touch-screen user interface
- 12 sterilisation programs
- Video step-by-step guide can be activated directly on the steriliser
- Integrated steam generator separated from the chamber
- Integrated water tank for distilled water (approx. 4 litres)
- Connections for report generation: USB, SD card, RS 232 and RS 485
- Network-enabled with Ethernet, LAN and Wi-Fi
- Flexible Pt1000 media temperature sensor to measure and regulate the temperature directly in the medium
- Loading capacity of bottles: 14 x 100 ml, 10 x 250 ml or 6 x 500 ml
- Tray set: middle drawer W 220 x L 430 mm, upper/lower drawer W 170 x L 430 mm

Technical specifications:

Art. No.	KAA6.1
Type	Vacuum Pro
Vol.	22 l
Temperature stage	105 - 134 °C
Pressure level	0,2 - 2,1 bar
Port	USB, SD card, RS 232 and RS 485
Ø Internal	250 mm
Inner depth	450 mm
Outer length	650 mm
Outer width	500 mm
Outer height	430 mm
Weight	63 kg
Mains connection	220 V, 50/60 Hz

Delivery incl. 3 drawers, drawer enclosure, handle, quick connect waste water hose and CertoCloud basic license. Please order base plate for bottles and flasks separately.

Type	Vol. (l)	Tempera-ture stage (°C)	Pressure level (bar)	Art. No.	Pack Qty.	€
Vacuum Pro	22	105 - 134	0,2 - 2,1	**KAA6.1**	1 unit(s)	5.579,25



Accessories base plate for benchtop autoclave CertoClav Vacuum Pro series

CertoClav.

For flasks and bottles.

Designation	Art. No.	Pack Qty.	€
Base plate	**KAA7.1**	1 unit(s)	282,75



Hydrolyses and digestion vessel without insert ROTILABO®

ROTH SELECTION.

The energy of the microwave is virtually predestined for the digestion of small sample quantities. If affects only the contents of the vessel, not the container itself interactively. The liquid contents hereby heat up within seconds up to far above the boiling point.

ROTILABO® digestion vessels are made of isostatically compressed ultrapure TFM. TFM is a modified PTFE from Hoechst and it contains thermoplastic fluoroplastic components. A homogeneous, pore-free surface is produced. Disturbing residues from earlier digestions are thus avoided.

For samples up to max. 0.5 g, high dimension stability under pressure (max. 25 bar) and temperature loading (max. 160 °C). The sealing film prevents loss of volatile elements from the steam room; bursting film provides protection against impermissible high pressure. To protect the microwave, optional collection containers and a hose are available. If the sealing and rupture membrane bursts, collecting vessels can be used to drain and collect gases and fluids. Please order hose and collecting vessels separately.

Technical specifications:

Art. No.	E138.1	E139.1	E140.1	E141.1	E142.1
Vol.	5 ml	10 ml	20 ml	50 ml	100 ml
Inner height	32 mm	52 mm	60 mm	62 mm	110 mm
Ø Internal	15 mm	16 mm	22 mm	33 mm	35 mm
Temperature range	to +160 °C		to +150 °C		to +140 °C

Delivery incl. 10 clear foils made of PFA and 10 rupture membranes made of PTFE.

Vol. (ml)	Pressure (bar)	Art. No.	Pack Qty.	€
5	25	**E138.1**	1 unit(s)	459,05
10	25	**E139.1**	1 unit(s)	665,45
20	20	**E140.1**	1 unit(s)	517,10
50	20	**E141.1**	1 unit(s)	754,65
100	15	**E142.1**	1 unit(s)	725,65

Pressure digestion vessels





Digestion vessel ROTILABO® with inserts

ROTH SELECTION.

The energy of the microwave is virtually predestined for the digestion of small sample quantities. It affects only the contents of the vessel, not the container itself interactively. The liquid contents hereby heat up within seconds up to far above the boiling point.

With inserts (inliners) made of TFM. The easily replaceable inliners allow precise weighting of samples taken. The complete vessel is usually too heavy for the existing scales in many cases. Furthermore, it is possible to use a variety of inliners to perform various digestions with one single digestion vessel. To protect the microwave, optional collection containers and a hose are available. If the sealing and rupture membrane bursts, collecting vessels can be used to drain and collect gases and fluids. Please order hose and collecting vessels separately.

Delivery incl. 10 sealing membranes made of PFA and 10 rupture membranes made of PTFE.

Vol. (ml)	Art. No.	Pack Qty.	€
10	**E143.1**	1 unit(s)	801,95
20	**E144.1**	1 unit(s)	789,05
50	**E145.1**	1 unit(s)	765,40

Accessories for digestion vessels

ROTH SELECTION.

Inserts (Inliner), separate

Suitable for	Art. No.	Pack Qty.	€
Tubes 20 ml	**E147.1**	1 unit(s)	107,35
Vessels 10 ml	**E146.1**	1 unit(s)	96,65
Vessels 50 ml	**E148.1**	1 unit(s)	132,00

Sealing and rupture membranes for digestion vessels

Suitable for	Art. No.	Pack Qty.	€
Tubes 5 ml	**E149.1**	10 unit(s)	33,20
Tubes 10/20 ml	**E150.1**	10 unit(s)	39,95
Vessels 50/100 ml	**E151.1**	10 unit(s)	57,50

Collecting vessel

ROTH SELECTION.

Made of PFA. Suitable for ROTILABO® digestion vessels. Collecting vessels can be used to collect gases and fluids for protection of the microwave (if the sealing and rupture membrane bursts). Transparent and pore-free. With two connections for hose outside Ø 6.35 mm (¼″) in screw cap.

Technical specifications:

Art. No.	LT39.1	LT40.1
Vol.	120 ml	240 ml
Ø Internal	60 mm	
Outer height	74 mm	116 mm
Ø ext.	66 mm	

Delivery without FEP hose, please order separately.

Vol. (ml)	Art. No.	Pack Qty.	€
120	**LT39.1**	1 unit(s)	311,75
240	**LT40.1**	1 unit(s)	371,95

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Household cooling box

Severin.

- Energy efficiency class (year): E (80 kWh)
- Cooling temperature adjustable from +3 to +7 °C
- Temperature selection range:
  1 (= lowest cooling capacity) to 7 (= highest cooling capacity)
- With additional **froster compartment 5 l** (for temperatures of approx. 0 to -5 °C; not controllable), compartment dimensions W 180 x D 270 x H 100 mm
- Height-adjustable feet
- Interior dimensions
  top: W 355 x D 320 x H 235 mm
  bottom: W 355 x D 170 x H 175 mm

Technical specifications:

Art. No.	KP21.1
Type	Household cooling box
Cooling capacity	45 l
Refrigeration temperature from	+3 °C
Refrigeration temperature up to	+7 °C
Number of grates	1
Outer width	480 mm
Outer depth	445 mm
Outer height	500 mm
Thawing method	manual
Energy consumption (24 h)	0.222 kWh
Weight	18 kg

Type	Art. No.	Pack Qty.	€
Household cooling box	**KP21.1**	1 unit(s)	336,50



Household refrigerating box

Severin.

- Energy efficiency class (year): E (148 kWh)
- Cooling temperature adjustable from -18 to -24 °C
- Temperature selection range:
  1 (= lowest cooling capacity) to 5 (= highest cooling capacity)
- Height-adjustable feet
- Interior dimensions
  top: W 360 x D 295 x H 162 mm
  bottom: W 360 x D 155 x H 202 mm

Technical specifications:

Art. No.	KP22.1
Type	Household refrigerating box
Cooling capacity	32 l
Freezing temperature from	-18 °C
Freezing temperature up to	-24 °C
Number of grates	1
Outer width	445 mm
Outer depth	480 mm
Outer height	500 mm
Thawing method	manual
Energy consumption (24 h)	0.411 kWh
Weight	20 kg

Type	Art. No.	Pack Qty.	€
Household refrigerating box	**KP22.1**	1 unit(s)	324,65

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NEW / +

Household fridge KS 9788

Severin.

- Cooling temperature is adjustable from 1 to +7 °C (mechanical control)
- Temperature selection range:
  1 (= lowest cooling capacity) to 7 (= highest cooling capacity)
- One variable refrigeration circuit
- LED interior lighting
- Two adjustable feet height at the front, two transport castors at the rear
- Automatic defrosting
- Energy efficiency class (year/24 h): A++ (104/0.285 kWh)

Technical specifications:

Art. No.	**1K0X.1**
Type	KS 9788
Cooling capacity	267 l
Refrigeration temperature from	1 °C
Refrigeration temperature up to	7 °C
Number of bases	5
Additional data	Base made of glass (four adjustable)
Outer width	600 mm
Outer depth	650 mm
Outer height	1,450 mm
Thawing method	Automatic
Energy consumption (24 h)	0.285 kWh
Weight	54 kg
Mains connection	230 V, 50 Hz

Delivery incl. five glass shelves and one drawer.

Type	Art. No.	Pack Qty.	€
KS 9788	**1K0X.1**	1 unit(s)	771,85



Refrigerator FKU 1800-21

Liebherr.

- Cooling temperature is adjustable from +2 to +10 °C
- With static cooling
- Mechanical control unit
- Lockable door
- With digital temperature display outside on the door

Technical specifications:

Art. No.	**NP82.1**
Type	FKU 1800-21
Cooling capacity	160 l
Refrigeration temperature from	+2 °C
Refrigeration temperature up to	+10 °C
Number of grates	3
Performance	100 W
Outer width	600 mm
Outer depth	600 mm
Outer height	850 mm
Inner width	513 mm
Inner depth	441 mm
Inner height	702 mm
Thawing method	Automatic
Energy consumption (24 h)	0.560 kWh
Weight	37 kg
Mains connection	220–240 V

Delivery incl. height-adjustable grids. Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Type	Art. No.	Pack Qty.	€
FKU 1800-21	**NP82.1**	1 unit(s)	729,95

Refrigerators/freezers



NEW/+

Refrigerator with circulation cooling MRFvc series

Liebherr.

General information for all models:

- Temperature range: +2 to +9 °C
- Mechanical control with stages
- Dynamic cooling system for fast cool-down and even cooling temperature via fans
- Automatic defrost system
- Lockable door
- Analogue thermometer in the interior
- Steel casing, plastic interior container

Technical specifications:

Art. No.	1K19.1	1K1A.1	1K1C.1
Type	MRFvc 3501	MRFvc 4001	MRFvc 5501
Cooling capacity	250 l	286 l	432 l
Refrigeration temperature from	+2 °C		
Refrigeration temperature up to	+9 °C		
Number of grates	4	5	4
Outer width	597 mm		747 mm
Outer depth	654 mm		769 mm
Outer height	1,684 mm	1,884 mm	1,684 mm
Inner width	475 mm		625 mm
Inner depth	423 mm		539 mm
Inner height	1,459 mm	1,659 mm	1,459 mm
Thawing method	Automatic		
Energy consumption (24 h)	1.005 kWh	1.068 kWh	1.051 kWh
Weight	63 kg	67 kg	81 kg
Mains connection	220–240 V, 50 Hz		

Delivery incl. height-adjustable grates. There are additional transport costs for delivery to the point of use. We are happy to provide you with these on requestion.

Type	Art. No.	Pack Qty.	€
MRFvc 3501	**1K19.1**	1 unit(s)	944,95
MRFvc 4001	**1K1A.1**	1 unit(s)	1.041,70
MRFvc 5501	**1K1C.1**	1 unit(s)	1.192,20



NEW/+

Refrigerator with MRFvd series circulation cooling

Liebherr.

General information for all models:

- Temperature range: +1 to +15 °C
- **Exterior digital temperature display**
- Mechanical control with stages
- Dynamic cooling system for fast cool-down and even cooling temperature via fans
- Automatic defrost system
- **LED cover lighting**
- Lockable door
- Steel casing, colour grey, plastic interior container

Technical specifications:

Art. No.	1KKX.1	1KKY.1	1KL0.1
Type	MRFvd 3501	MRFvd 4001	MRFvd 5501
Cooling capacity	250 l	286 l	432 l
Refrigeration temperature from	+1 °C		
Refrigeration temperature up to	+15 °C		
Number of grates	4	5	4
Outer width	597 mm		747 mm
Outer depth	654 mm		769 mm
Outer height	1,684 mm	1,884 mm	1,684 mm
Inner width	475 mm		625 mm
Inner depth	423 mm		539 mm
Inner height	1,459 mm	1,659 mm	1,459 mm
Thawing method	Automatic		
Energy consumption (24 h)	1.021 kWh	1.085 kWh	1.064 kWh
Weight	63 kg	67 kg	81 kg
Mains connection	220–240 V, 50 Hz		

Delivery incl. height-adjustable grates. There are additional transport costs for delivery to the point of use. We are happy to provide you with these on request.

Type	Art. No.	Pack Qty.	€
MRFvd 3501	**1KKX.1**	1 unit(s)	1.041,70
MRFvd 4001	**1KKY.1**	1 unit(s)	1.149,20
MRFvd 5501	**1KL0.1**	1 unit(s)	1.439,45



Refrigerator FKUv series

Liebherr.

General information for all models:

- Cooling temperature is adjustable from +1 to +15 °C
- With dynamic cooling system (switchable fan, for even temperature distribution)
- Digital temperature display (resolution 1 °C)
- Outer design: sheet steel, white, powder coated
- Door opening alarm - if the door is opened for longer than 60 s (can be deactivated)

Technical specifications:

Art. No.	YP21.1	YP22.1
Type	FKUv 1610-24 with insulating door	FKUv 1613-22 with glass door
Cooling capacity	130 l	
Refrigeration temperature from	+1 °C	
Refrigeration temperature up to	+15 °C	
Number of grates	3	
Outer width	600 mm	
Outer depth	611 mm	
Outer height	830 mm	
Inner width	440 mm	
Inner depth	435 mm	
Inner height	670 mm	
Thawing method	Automatic	
Energy consumption (24 h)	0.616 kWh	0.968 kWh
Weight	37 kg	43 kg
Mains connection	220–240 V, 50 Hz	

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Model FKUv 1610-24 - with insulated door
With insulated door and powder-coated sheet steel.

Type	Art. No.	Pack Qty.	€
FKUv 1610-24 with insulating door	**YP21.1**	1 unit(s)	880,45

Model FKUv 1613-22 - with glass door
With glass door. Additional LED top light can be switched separately.

Type	Art. No.	Pack Qty.	€
FKUv 1613-22 with glass door	**YP22.1**	1 unit(s)	1.041,70



Refrigerator LK series with insulated glass door

Liebherr.

General information for all models:

- Cooling temperature adjustable from +3 to +16 °C
- With convection cooling
- Exterior digital temperature display (resolution 0.1 °C)
- Acoustic and optical temperature alarm (adjustable limits) and door-opening alarm
- Saving the min./max. interior temperature that occurs
- Saving the last three temperature alarms and power outage with time, date and duration of the alarm
- **LED lighting, can be switched separately**
- With lockable door
- **Insulated glass door**

Technical specifications:

Art. No.	1APP.1	1APT.1
Type	LKUv 1613	LKv 3913
Cooling capacity	132 l	332 l
Refrigeration temperature from	+3 °C	
Refrigeration temperature up to	+16 °C	
Number of bases	3	5
Removable shelves	Grate	
Additional data	Plastic-coated grates	
Outer width	601 mm	
Outer depth	618 mm	
Outer height	820 mm	1,840 mm
Inner width	440 mm	
Inner depth	435 mm	
Inner height	670 mm	1,635 mm
Thawing method	Automatic	
Energy consumption (24 h)	1.010 kWh	1.315 kWh
Weight	46 kg	88 kg
Mains connection	220–240 V, 50 Hz	

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Type	Art. No.	Pack Qty.	€
LKUv 1613	**1APP.1**	1 unit(s)	1.804,95
LKv 3913	**1APT.1**	1 unit(s)	2.568,20



NEW / +

Household freezer GS 8866

Severin.

- Cooling temperature adjustable from -14 to -28 °C
- Temperature controller on the top door edge - mechanical
- 4 x freezer drawers and 2 x freezer flaps
- One variable refrigeration circuit
- Energy efficiency class (year/24 h): E (186/0.510 kWh)

Technical specifications:

Art. No.	1K16.1
Type	GS 8866
Cooling capacity	155 l
Freezing temperature from	-14 °C
Freezing temperature up to	-28 °C
Drawers	4 unit(s)
Additional data	Two freezer flaps
Outer width	580 mm
Outer depth	550 mm
Outer height	1,430 mm
Thawing method	manual
Energy consumption (24 h)	0.510 kWh
Weight	48 kg
Mains connection	230 V, 50 Hz

Delivery incl. four freezer drawers and two freezer flaps.

Type	Art. No.	Pack Qty.	€
GS 8866	**1K16.1**	1 unit(s)	543,95



Freezer

Liebherr.

General information for all models:

- Housing made of stainless steel
- Power fail indicator
- Door opening alarm
- With lockable door

Technical specifications:

Art. No.	NH36.1	NH37.1
Type	GGU 1550-21	GGv 5860
Cooling capacity	133 l	490 l
Freezing temperature from	-9 °C	-14 °C
Freezing temperature up to	-26 °C	-28 °C
Basket	4 (pull-out)	
Number of grates		5
Base grid		1
Outer width	600 mm	750 mm
Outer depth	615 mm	750 mm
Outer height	830 mm	2,064 mm
Inner width	474 mm	610 mm
Inner depth	443 mm	500 mm
Inner height	676 mm	1,395 mm
Thawing method	manual	Automatic
Energy consumption (24 h)	0.724 kWh	3.701 kWh
Weight	41 kg	121 kg
Mains connection	220–240 V, 50 Hz	

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Model GGU 1550-21

- **With static cooling**
- Digital temperature display (resolution 1 °C)
- Temperature constancy ±5 °C
- 4 shelves/evaporator plates

Type	Art. No.	Pack Qty.	€
GGU 1550-21	**NH36.1**	1 unit(s)	987,95

Model GGv 5860

- **With convection cooling**
- NoFrost technology - products are frozen with cooled recirculated air and moisture is discharged into the open
- Digital temperature display (resolution 1 °C)
- Temperature constancy ±2 °C
- Height of adjustable feet: 150 to 180 mm
- Height-adjustable carrier grids with stop and pull-out stopper

Type	Art. No.	Pack Qty.	€
GGv 5860	**NH37.1**	1 unit(s)	2.933,70



NEW/+

Freezer GG 4010

Liebherr.

- Temperature range: -14 to -28 °C
- Static cooling system
- Exterior digital temperature display and setting (resolution 1 °C)
- With door opening alarm and grid failure display
- Compartment height 6 x 224 mm, 1 x 240 mm
- Lockable door
- Manual thawing

Technical specifications:

Art. No.	1LKH.1
Type	GG 4010
Cooling capacity	348 l
Freezing temperature from	-14 °C
Freezing temperature up to	-28 °C
Basket	3 (max. 6)
Additional data	Seven shelves
Outer width	597 mm
Outer depth	680 mm
Outer height	1,900 mm
Inner width	457 mm
Inner depth	480 mm
Inner height	1,686 mm
Thawing method	manual
Energy consumption (24 h)	1.178 kWh
Weight	87 kg
Mains connection	220–240 V, 50 Hz

Delivery incl. three baskets. There are additional transport costs for delivery to the point of use. We are happy to provide you with these on request.

Type	Art. No.	Pack Qty.	€
GG 4010	**1LKH.1**	1 unit(s)	1.912,45

NEW/+

Accessories additional wire basket for GG 4010 freezer

Liebherr.

Plastic-coated (Rilsan-coated).
Dimensions: W 455 x D 430 x H 198 mm.

Type	Art. No.	Pack Qty.	€
Additional wire basket for GG 4010 freezer	**1LKK.1**	1 unit(s)	32,80



NEW/+

Deep freezer MediLine LGv 5010

Liebherr.

- Digital temperature display
  resolution: 0.1 °C (to -19.9 °C) and/or 1 °C (from -20 °C)
- Memory for Min/Max temperatures
- Memory function for storing last three temperature alarms and power failures with date/time/duration of alarm
- **Circulation cooling with NoFrost technology**
- With lockable door
- Audible and visual with alarms
- Audible and visual door opening alarms
- Dimensions of drawer: W 301 x D 504 x H 190 mm
  Dimensions of basket: W 255 x D 371 x H 219 mm
- Steering rollers with front holding brake, rear fixed rollers

Technical specifications:

Art. No.	1LKT.1
Type	LGv 5010
Cooling capacity	337 l
Freezing temperature from	-9 °C
Freezing temperature up to	-35 °C
Basket	2 pieces
Drawers	8 unit(s)
Outer width	751 mm
Outer depth	750 mm
Outer height	1,844 mm
Inner width	602 mm
Inner depth	520 mm
Inner height	1,224 mm
Thawing method	Automatic
Energy consumption (24 h)	3.410 kWh
Weight	124 kg
Mains connection	220–240 V, 50 Hz

Delivery incl. 8 drawers and 2 baskets. There are additional transport costs for delivery to the point of use. We are happy to provide you with these on request.

Type	Art. No.	Pack Qty.	€
LGv 5010	**1LKT.1**	1 unit(s)	3.707,70



Laboratory freezer Froster-Labo 330

Kirsch.

- Cooling temperature adjustable from -5 to -30 °C
- Digital temperature display (resolution 1 °C)
- With re-circulating air cooling for even temperature control when opening the door)
- A rapid defrosting system through temporary, automatic reversal of the coolant circuit
- Condensate evaporation is carried out in the refrigerator room
- Min/Max temperature storage
- Audible and visual with alarms
- Outer cabinet made of galvanized sheet steel, powder-coated
- Adjustable feet to compensate for uneven floors
- With lockable door

Technical specifications:

Art. No.	**KL29.1**
Type	Froster-Labo 330
Cooling capacity	300 l
Freezing temperature from	-5 °C
Freezing temperature up to	-30 °C
Number of grates	4
Performance	500 W
Outer width	740 mm
Outer depth	770 mm
Outer height	1,490 mm
Inner width	595 mm
Inner depth	530 mm
Inner height	950 mm
Energy consumption (24 h)	4.58 kWh
Weight	125 kg

Type	Art. No.	Pack Qty.	€
Froster-Labo 330	**KL29.1**	1 unit(s)	7.416,45



NEW / +

Household refrigerator and freezer unit KGK 8913

Severin.

- One variable refrigeration circuit:
  cooling temperature is adjustable from 2 to +8 °C (electrical control at the light in the interior)
  Freezer compartment: Average temperature -18 °C (non-adjustable)
- Temperature selection range: Can be adjusted in stages (2, 4, 6 and 8)
- Refrigerator compartment with LED interior lighting, freezer compartment without lighting
- Height-adjustable front feet
- No-frost technology
- 2 x height-adjustable glass storage surfaces in the fridge unit, 3 x drawers in the freezer area
- Energy efficiency class (year/24 h): E (219/0.6 kWh)

Technical specifications:

Art. No.	**1K0A.1**
Type	KGK 8913
Fridge unit cooling capacity	180 l
Freezer unit cooling capacity	70 l
Removable shelves in the fridge unit	Glass stage
Removable shelves in the freezer unit	Drawer
Number of shelves in the fridge unit	2
Number of shelves in the freezer unit	3
Outer width	590 mm
Outer depth	545 mm
Outer height	1,800 mm
Energy consumption (24 h)	0.6 kWh
Weight	63 kg
Mains connection	230 V, 50 Hz

Delivery incl. two glass shelves with three drawers.

Type	Art. No.	Pack Qty.	€
KGK 8913	**1K0A.1**	1 unit(s)	1.011,60



Laboratory fridge-freezer unit 263C-AEV-TS

Thermo.

- **Adjustable cooling temperature from:**
  Fridge unit: 4 to 6 °C; 5 °C is preset
  Freezer unit: -20 °C (non-adjustable)
- **Max. temperature range**
  Fridge unit: 1 to 10 °C
  Freezer unit: -18 to -25 °C
- **Digital temperature display (resolution 1 °C)**
- Alarm function for high and low temperature limits (alarm limits have fixed settings; 1 and 11 °C or -15 and -30 °C)
- Standard entries (Ø 16 mm), e.g. for external temperature sensors
- With lockable door

Technical specifications:

Art. No.	NN38.1
Type	263C-AEV-TS
Fridge unit cooling capacity	159 l
Freezer unit cooling capacity	109 l
Removable shelves in the fridge unit	Grate/drawer
Removable shelves in the freezer unit	Grate/drawer
Number of shelves in the fridge unit	3
Number of shelves in the freezer unit	1
Additional data	Number of baskets: Fridge unit: 2 basket halves; Freezer unit: 2 baskets
Inner fridge unit width	457 mm
Inner fridge unit depth	450 mm
Inner fridge unit height	725 mm
Inner freezer unit width	408 mm
Inner freezer unit depth	415 mm
Inner freezer unit height	670 mm
Outer width	540 mm
Outer depth	600 mm
Outer height	1,680 mm
Thawing method	Automatic cooling compartment, manual freezer compartment
Energy consumption (24 h)	0.9 kWh
Weight	95 kg
Mains connection	230 V, 50 Hz

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Type	Art. No.	Pack Qty.	€
263C-AEV-TS	**NN38.1**	1 unit(s)	2.191,00



Laboratory fridge-freezer combination LCv 4010 and LCexv 4010, explosion protected

Liebherr.

- Adjustable cooling temperature (2 separately adjustable refrigeration circuits)
  Fridge unit: +3 to +16 °C
  Freezer unit: -9 to -30 °C
- Fridge unit with recirculated-air ventilation system, freezer unit with static cooling system
- Digital temperature display
  fridge unit resolution: 0.1 °C
  freezer unit resolution: 0.1 °C (to -19,9 °C) and/or 1 °C (from -20 °C)
- Temperature consistency
  fridge unit: ±2.0 K
  freezer unit: ±3.5 K
- With lockable door
- Memory for Min/Max temperatures
- Memory function for storing last three temperature alarms and power failures with date/time/duration of alarm
- Audible and visual limit alarms
- Audible and visual door opening alarms
- Feedthrough for external temperature sensor (Ø 10 mm)

Technical specifications:

Art. No.	TP33.1	AET2.1
Type	LCv 4010	LCexv 4010, explosion protected
Fridge unit cooling capacity	240 l	
Freezer unit cooling capacity	105 l	
Removable shelves in the fridge unit	Grate	Glass stage
Removable shelves in the freezer unit	Drawer	
Number of shelves in the fridge unit	4	
Number of shelves in the freezer unit	3	
Inner fridge unit width	440 mm	
Inner fridge unit depth	435 mm	
Inner fridge unit height	1,105 mm	
Inner freezer unit width	431 mm	
Inner freezer unit depth	435 mm	
Inner freezer unit height	597 mm	
Outer width	600 mm	
Outer depth	615 mm	
Outer height	2,000 mm	
Thawing method	Automatic cooling compartment, manual freezer compartment	
Energy consumption (24 h)	1.800 kWh	
Weight	91 kg	
Mains connection	220–240 V, 50/60 Hz	

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Model LCv 4010, standard version

Type	Art. No.	Pack Qty.	€
LCv 4010	**TP33.1**	1 unit(s)	2.933,70

Refrigerator and freezer vending machines

Model LCexv 4010, explosion protected
With explosion protected interior in compliance with the safety requirements of EU Directive 94/9/EC (ATEX 95) for the storage of explosive and highly flammable substances in enclosed containers.

Type	Art. No.	Pack Qty.	€
LCexv 4010, explosion protected	**AET2.1**	1 unit(s)	2.933,70



Ultra-low temperature freezer -86 °C HERAfreeze™ HFC390TV

Thermo.

- Cooling temperature is adjustable from -50 to -86 °C
- Outer housing made of robust steel with powder-baked finish
- Stainless steel interior
- Alphanumeric LED display shows thresholds, system status and alarm messages
- Set-up adjustable for high-temperature and low-temperature alarm
- Backup battery (NiCd Gel battery 12 V) to preserve the display and alarm functions for 48 hours in the event of a power failure
- Access code to protect the setpoint defined
- Lockable door handle
- RS 232 interface and 4 mA up to 20 mA analogue outputs

Technical specifications:

Art. No.	HPA6.1
Type	HERAfreeze™ HFC390TV
Operating temperature	-50 to -86 °C
Cooling capacity	85 l
Outer width	724 mm
Outer depth	759 mm
Outer height	1,133 mm
Inner width	470 mm
Inner depth	470 mm
Inner height	417 mm
Energy consumption (24 h)	5.3 kWh
Weight	196 kg
Mains connection	230 V, 50 Hz

Type	Art. No.	€
HERAfreeze™ HFC390TV	**HPA6.1**	9.829,00



Thermostat cabinet TCS series

Tintometer.

For continuous temperature control in different applications, e.g. microbiological research, BSB requirements etc.

- Temperature range +2 to +40 °C, infinitely adjustable in 0.1 °C increments
- Illuminated LED temperature display for actual/nominal values
- Temperature constancy ±1.0 °C
- With internal sockets for devices which require a power supply, e.g. magnetic stirrer
- Built-in cooling and heating units
- Lockable door
- With height-adjustable grids

Technical specifications:

Art. No.	AKX5.1	AKX9.1	AKX7.1	AKY0.1	AKX8.1
Type	TC 135 S	TC 140 G	TC 255 S	TC 256 G	TC 455 S
Cooling capacity	135 l	140 l	255 l		445 l
Base grid	1				
Number of grates	3		4		
Outer width	600 mm				750 mm
Outer depth	600 mm		610 mm		730 mm
Outer height	850 mm		1,640 mm		
Inner width	513 mm		470 mm		600 mm
Inner depth	441 mm		440 mm		560 mm
Inner height	702 mm		1,452 mm		
Sockets in the working area	4 unit(s)		7 unit(s)		9 unit(s)
Energy consumption (24 h)	1.35 kWh	1.77 kWh	1.54 kWh	1.56 kWh	1.42 kWh
Weight	39 kg	50 kg	61 kg	77 kg	78.5 kg
Mains connection	220–240 V, 50 Hz				

With standard door

Type	Art. No.	Pack Qty.	€
TC 135 S	**AKX5.1**	1 unit(s)	2.234,95
TC 255 S	**AKX7.1**	1 unit(s)	3.064,85
TC 455 S	**AKX8.1**	1 unit(s)	3.621,70

With glass door, double insulating glass with ABS frame

Type	Art. No.	Pack Qty.	€
TC 140 G	**AKX9.1**	1 unit(s)	2.528,40
TC 256 G	**AKY0.1**	1 unit(s)	3.169,10

Refrigerators/freezers, Ex-protected



Laboratory fridge, explosion-proof

Tintometer.

Explosion-proof acc. to directive for “safe working in laboratories DGUV Information 213-850 of BG RCI”. Enclosed spaces in which hazardous, explosive atmospheres can develop, e.g. rooms where flammable liquids are stored, must be explosion-proof.

- Cooling temperature is infinitely variable from +1 to +15 °C
- Temperature selection range:
  1 (= lowest cooling capacity) to 5 (= highest cooling capacity)
- Mechanical control unit
- Digital temperature display (resolution 1 °C)
- Sheet steel housing with impact resistant powder coating
- With lockable door and height-adjustable glass base
- Dynamic cooling system (with forced air ventilation)
- Models EX 220, EX 300 and EX 490 have a fan stop function which switches off the fan when the door is opened
- Automatic condensation drainage into inner catch tank

Technical specifications:

Art. No.	AKY7.1	AKY8.1	AKY9.1	ALA0.1
Type	EX 160	EX 220	EX 300	EX 490
Cooling capacity	160 l	221 l	307 l	520 l
Refrigeration temperature from	+1 °C			
Refrigeration temperature up to	+15 °C			
Number of bases	3	4	5	
Additional data	Shelves made of glass			
Outer width	600 mm			750 mm
Outer depth	600 mm	610 mm		730 mm
Outer height	860 mm	1,250 mm	1,640 mm	
Inner width	513 mm	470 mm		600 mm
Inner depth	441 mm	440 mm		560 mm
Inner height	702 mm	1,062 mm	1,452 mm	
Energy consumption (24 h)	0.898 kWh	0.786 kWh	0.947 kWh	0.983 kWh
Weight	40 kg	53 kg	64 kg	84 kg
Mains connection	220–240 V, 50 Hz			

Delivery incl. height-adjustable glass shelf.

Type	Art. No.	Pack Qty.	€
EX 160	**AKY7.1**	1 unit(s)	1.360,95
EX 220	**AKY8.1**	1 unit(s)	1.479,20
EX 300	**AKY9.1**	1 unit(s)	1.751,20
EX 490	**ALA0.1**	1 unit(s)	1.982,30



Fridge, explosion-proof MediLine type LK series

Liebherr.

With explosion-proof interior acc. to EU Directive 94/9/EG (ATEX 95).

General information for all models:

- Cooling temperature adjustable from +3 to +16 °C
- With convection cooling
- Digital temperature display (resolution 0.1 °C)
- Temperature constancy ±2,0 K
- Memory for Min/Max temperatures
- Memory function for storing last three temperature alarms and power failures with date/time/duration of alarm
- With lockable door
- Audible and visual with alarms
- Audible and visual door opening alarms

Technical specifications:

Art. No.	LL34.1	LL33.1
Type	LKUexv 1610	LKexv 3910
Cooling capacity	130 l	344 l
Refrigeration temperature from	+3 °C	
Refrigeration temperature up to	+16 °C	
Number of bases	3	5
Additional data	Shelves made of glass	
Outer width	600 mm	
Outer depth	615 mm	
Outer height	820 mm	1,840 mm
Inner width	455 mm	
Inner depth	435 mm	
Inner height	669 mm	1,650 mm
Thawing method	Automatic	
Energy consumption (24 h)	0.747 kWh	0.865 kWh
Weight	42 kg	70 kg

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Type	Art. No.	Pack Qty.	€
LKUexv 1610	**LL34.1**	1 unit(s)	1.718,95
LKexv 3910	**LL33.1**	1 unit(s)	2.331,70

Refrigerators/freezers, Ex-protected



Freezer, explosion-proof MediLine type LG series

Liebherr.

With explosion-proof interior acc. to EU Directive 94/9/EG (ATEX 95).

General information for all models:

- Static cooling
- Digital temperature display resolution: 0.1 °C (to -19.9 °C) and/or 1 °C (from -20 °C)
- Temperature constancy ±2 K
- Memory for Min/Max temperatures
- Memory function for storing last three temperature alarms and power failures with date/time/duration of alarm
- With lockable door
- Audible and visual with alarms
- Audible and visual door opening alarms

Technical specifications:

Art. No.	LL36.1	LL35.1
Type	LGUex 1500	LGex 3410
Cooling capacity	129 l	284 l
Freezing temperature from	-9 °C	
Freezing temperature up to	-26 °C	-30 °C
Basket	1	
Drawers	3 unit(s)	8 unit(s)
Outer width	600 mm	
Outer depth	615 mm	
Outer height	820 mm	1,840 mm
Inner width	454 mm	420 mm
Inner depth	450 mm	400 mm
Inner height	663 mm	1,587 mm
Thawing method	manual	
Energy consumption (24 h)	0.926 kWh	1.309 kWh
Weight	46 kg	89 kg

Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Type	Art. No.	Pack Qty.	€
LGUex 1500	**LL36.1**	1 unit(s)	1.783,45
LGex 3410	**LL35.1**	1 unit(s)	2.460,70



Cone ice makers SCOTSMAN® B-series

Scotsman.

For making solid and crystal clear cone ice. Applications: Laboratories and industry.

- Stainless steel version, air-cooled
- Integrated reservoir
- Insulated removal flap for reduced condensation
- Ice cone size: Approx. H 30.5 x Ø 34 mm (20 g)
- Suitable for use with drinking water and demineralised water

Technical specifications:

Art. No.	NH38.1	NH39.1
Type	B 2508	B 3015
Max. output in 24 h	25 kg	31 kg
Storage capacity	8 kg	15 kg
Width	390 mm	467 mm
Depth	515 mm	570 mm
Height	640 mm	690 mm
Operating limits	Ambient temperature: Min. 10 °C/max. 43 °C Water temperature: Min. 5 °C/max. 38 °C Water pressure: Min. 0.8 bar/max. 5 bar	
Weight	31 kg	34 kg
Mains connection	230 V, 50 Hz	

Delivery incl. one ice shovel, 1 supply hose ¾″ (length 1.5 m), drainage hose (Ø 20 mm, length 1.5 m).

Type	Storage capacity (kg)	Art. No.	Pack Qty.	€
B 2508	8	**NH38.1**	1 unit(s)	1.231,95
B 3015	15	**NH39.1**	1 unit(s)	1.536,20

Flake ice maker





Flake ice maker with ice storage tank UFP-series Manitowoc Ice

Manitowoc.

Applications: Laboratories, research institutes and industry. To produce ice flakes or crushed ice, with a temperature of -0.5 °C. The ice is crystalline-shaped and suitable for pouring.

- With free water drainage
- With an integrated storage tank
- Outer housing made of stainless steel
- Air-cooled
- Separate On/Off switch
- Suitable for use with drinking water and demineralised water
- Adjustable feet height (110 to 150 mm)

Technical specifications:

Art. No.	LP30.1	LP31.1	LP32.1	LP33.1
Type	UFP 0244 A	UFP 0200 A	UFP 0388 A	UFP 0399 A
Max. output in 24 h	113 kg		153 kg	
Storage capacity	20 kg	30 kg	40 kg	55 kg
Power consumption	470 W		700 W	
Width	500 mm		738 mm	780 mm
Depth	660 mm		690 mm	
Height	843 mm	953 mm	1,070 mm	1,173 mm
Operating temperature from	10 °C			
Operating temperature up to	43 °C			
Weight	67 kg	76 kg	102 kg	105 kg
Mains connection	230 V, 50 Hz			

Delivery incl. one ice shovel and set of attachments (supply and drainage hose with ¾″-thread, each 1.5 m).

Type	Storage capacity (kg)	Art. No.	Pack Qty.	€
UFP 0244 A	20	**LP30.1**	1 unit(s)	3.255,10
UFP 0200 A	30	**LP31.1**	1 unit(s)	3.370,25
UFP 0388 A	40	**LP32.1**	1 unit(s)	3.749,85
UFP 0399 A	55	**LP33.1**	1 unit(s)	3.841,85

Flake ice machines with ice storage tank SCOTSMAN®

Scotsman.

Applications: Laboratories, research institutes and industry.

- Stainless steel version, air-cooled
- Environmentally friendly safety refrigerant

The ice flakes have a temperature of -0.5 °C; the irregular, large surface delivers a very good cooling effect. Each flake is saturated and firm and they do not stick together.

All models can be modified for operation with demineralised water (conductivity ≤30 µS) for an additional charge. Please check with our Sales Department.

Technical specifications:

Art. No.	CK94.1	CK95.1
Type	AF 80 AS	EF 103 AS
Max. output in 24 h	70 kg	105 kg
Storage capacity	25 kg	30 kg
Power consumption	330 W	470 W
Width	535 mm	592 mm
Depth	626 mm	622 mm
Height	933 mm	1,126 mm
Operating limits	Ambient temperature: Min. 10 °C/max. 40 °C Water temperature: Min. 5 °C/max. 35 °C Water pressure: Min. 1 bar/max. 5 bar	
Weight	51 kg	63 kg
Mains connection	230 V, 50 Hz	

Delivery incl. one scoop, 1 supply hose ¾″ (length 1.5 m), 1 drainage hose (Ø 20 mm, length 1.5 m).

Standard version

Type	Storage capacity (kg)	Art. No.	Pack Qty.	€
AF 80 AS	25	**CK94.1**	1 unit(s)	4.189,30

With waste water pump

With additional waste water pump (waste water can be pumped up to a height of 1.7 m or up to a distance of 15 m)

Type	Storage capacity (kg)	Art. No.	Pack Qty.	€
EF 103 AS	30	**CK95.1**	1 unit(s)	4.867,60

Flake ice maker



Flake ice maker with separate store RFP-series Manitowoc Ice

Manitowoc.

(1) General dimensions: Flake ice maker

- For large production quantities
- Stainless steel design (inside/outside), air-cooled
- Separate On/Off switch
- HACCP-compliant
- Suitable for use with drinking water and demineralised water

(2) General details of base ice store

- Easy removal of ice due to flap with locking mechanism
- Constant cooling temperature through PE insulation
- Ice shovel holder
- Adjustable feet height (110 to 150 mm)

Technical specifications:

Art. No.	HPK0.1	HPK1.1	HPK2.1	HPK3.1
Type	RFP 0320 A with store D 320	RFP 0320 A with store D 420	RFP 0620 A with store D 320	RFP 0620 A with store D 420
Max. output in 24 h	157 kg		280 kg	
Storage capacity	95 kg	141 kg	95 kg	141 kg
Power consumption	830 W		1,100 W	
Width	559 mm			
Depth	864 mm			
Height	1,625 mm	1,930 mm	1,625 mm	1,930 mm
Operating temperature from	10 °C			
Operating temperature up to	43 °C			
Weight	108 kg	123 kg	138 kg	153 kg
Mains connection	230 V, 50 Hz			

Delivery incl. set of attachments (supply and drainage hose with ¾″ thread, each 1.5 m) and ice shovel 180 ml.

RFP 0320 A

Type	Storage capacity (kg)	Art. No.	Pack Qty.	€
RFP 0320 A with store D 320	95	**HPK0.1**	1 unit(s)	4.934,60
RFP 0320 A with store D 420	141	**HPK1.1**	1 unit(s)	5.003,60

RFP 0620 A

Type	Storage capacity (kg)	Art. No.	Pack Qty.	€
RFP 0620 A with store D 320	95	**HPK2.1**	1 unit(s)	6.798,00
RFP 0620 A with store D 420	141	**HPK3.1**	1 unit(s)	6.867,00



Ice scraper ROTILABO® for refrigerators and freezers

ROTH SELECTION. Material: PP.

Robust design. Practical short handle for cleaning iced refrigerators, freezer cabinets and freezers. Overall length 250 mm.
Handle length 130 mm. Scraper width 110 mm, thickness 4 mm.

Type	Art. No.	Pack Qty.	€
Ice scraper	**HNH9.1**	5 unit(s)	35,50



Ice crusher

Chrome housing. Ice tank volume approx. 900 ml. With hand crank.
Grinder made of stainless steel.
Dimensions: W 160 mm x D 135 mm x H 270 mm.

Delivery incl. ice shovel made of PP.

Type	Storage capacity (ml)	Art. No.	Pack Qty.	€
Ice crusher	900	**LT26.1**	1 unit(s)	82,15

Gas burners

Gas burners acc. to Bunsen

Usbeck.

Suitable for propane gas or natural gas. Made of die-cast zinc.
Connection for hose with inside Ø 9.5 mm.



Technical specifications:

Art. No.	CHP1.1	C634.1	CHP0.1	C633.1
Gas type	Natural gas		Propane gas	
Temperature	1500 °C		1550 °C	1520 °C
Consumption	110 l/h	100 l/h	55 l/h	
Pilot flame	No	Yes	No	Yes
Ø Head	17 mm			

(1) With needle valve and air regulation

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	220	**CHP1.1**	1 unit(s)	39,95
Propane gas	155	220	**CHP0.1**	1 unit(s)	39,95

(2) With needle valve, pilot flame and air control

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	245	**C634.1**	1 unit(s)	59,15
Propane gas	155	245	**C633.1**	1 unit(s)	59,15

Gas burners acc. to Bunsen and DIN

Usbeck.

Acc. to DIN. Suitable for propane gas or natural gas. Connection for hose with inside Ø 9.5 mm. Made of die-cast zinc.



Technical specifications:

Art. No.	Y562.1	Y564.1	CHT3.1	CHT5.1	Y561.1	Y563.1	CHT2.1	CHT4.1
Gas type	Natural gas				Propane gas			
Temperature	1500 °C				1540 °C	1550 °C	1520 °C	
Consumption	110 l/h	115 l/h	110 l/h		55 l/h			50 l/h
Ø Head	17 mm							

(1) Basic version with air control

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	210	**Y562.1**	1 unit(s)	36,55
Propane gas	155	210	**Y561.1**	1 unit(s)	36,55

(2) With needle valve and air regulation

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	210	**Y564.1**	1 unit(s)	46,85
Propane gas	155	210	**Y563.1**	1 unit(s)	46,85

(3) With needle valve, pilot flame and air control

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	220	**CHT3.1**	1 unit(s)	54,50
Propane gas	155	220	**CHT2.1**	1 unit(s)	54,50

(4) With stop cock, pilot flame and air control

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	225	**CHT5.1**	1 unit(s)	57,20
Propane gas	155	225	**CHT4.1**	1 unit(s)	57,20

Gas burners



Teclu burners

Usbeck.

Suitable for propane gas or natural gas. Made of die-cast zinc. Connection for hose with inside Ø 9.5 mm.

Technical specifications:

Art. No.	CHP5.1	CHP9.1	CHT1.1	CHP4.1	CHP8.1	CHT0.1
Gas type	Natural gas			Propane gas		
Temperature	1520 °C	1530 °C	1520 °C	1560 °C	1550 °C	1600 °C
Consumption	125 l/h	110 l/h		65 l/h	55 l/h	85 l/h
Pilot flame	No	Yes	No		Yes	No
Ø Head	17 mm		32 mm	17 mm		32 mm

(1) With needle valve and air regulation

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	260	**CHP5.1**	1 unit(s)	53,40
Propane gas	155	260	**CHP4.1**	1 unit(s)	53,40

(2) Wth stop cock, pilot flame and air control

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	265	**CHP9.1**	1 unit(s)	64,65
Propane gas	155	265	**CHP8.1**	1 unit(s)	64,65

(3) With needle valve, enhanced heat output and air control

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	165	330	**CHT1.1**	1 unit(s)	92,95
Propane gas	165	330	**CHT0.1**	1 unit(s)	92,95



Teclu burners

Usbeck.

Acc. to DIN. Suitable for propane gas or natural gas. Connection for hose with inside Ø 9.5 mm. Made of die-cast zinc.

Technical specifications:

Art. No.	CHT7.1	Y566.1	CHT9.1	CHT6.1	Y565.1
Gas type	Natural gas			Propane gas	
Temperature	1520 °C	1530 °C	1550 °C	1560 °C	1550 °C
Consumption	125 l/h	110 l/h	220 l/h	65 l/h	55 l/h
Pilot flame	No	Yes	No		Yes
Ø Head	17 mm		32 mm	17 mm	

(1) With needle valve and air regulation

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	260	**CHT7.1**	1 unit(s)	60,85
Propane gas	155	260	**CHT6.1**	1 unit(s)	60,85

(2) With stop cock, pilot flame and air control

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	265	**Y566.1**	1 unit(s)	76,80
Propane gas	155	265	**Y565.1**	1 unit(s)	76,80

(3) With needle valve, enhance heating output and air regulation

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	165	330	**CHT9.1**	1 unit(s)	93,80

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Gas burners with suction foot

Usbeck.

Acc. to DIN. Connection for hose with-Ø 9.5 mm. Suitable for propane gas or natural gas With suction foot:

- For stability on all smooth surfaces
- Accidental movement of the burner is largely avoided
- No metal in contact with the standing area

Technical specifications:

Art. No.	CK29.1	CK31.1	CK33.1	CK28.1	CK30.1	CK32.1
Gas type	Natural gas			Propane gas		
Temperature	1500 °C		1520 °C	1550 °C	1520 °C	1560 °C
Consumption	115 l/h	110 l/h	125 l/h	55 l/h	50 l/h	65 l/h
Pilot flame	No	Yes	No		Yes	No
Ø Head	17 mm					

(1) With needle valve and air control - Bunsen gas burner

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	220	**CK29.1**	1 unit(s)	52,15
Propane gas	155	220	**CK28.1**	1 unit(s)	52,15

(2) With stopcock, pilot flame and air control - Bunsen gas burner

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	225	**CK31.1**	1 unit(s)	62,65
Propane gas	155	225	**CK30.1**	1 unit(s)	62,65

(3) With needle valve and air control - Teclu gas burner

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	155	260	**CK33.1**	1 unit(s)	66,30
Propane gas	155	260	**CK32.1**	1 unit(s)	66,30



Gas burners with double lever stop cock

Usbeck.

Acc. to DIN. Connection for hose with inside Ø 10 mm. Suitable for propane gas or natural gas. With double lever stopcock, pilot flame and air regulation.

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	150	290	**CX72.1**	1 unit(s)	70,40
Propane gas	150	290	**CX71.1**	1 unit(s)	70,40



Gas burners

For propane or natural gas. A non-tilting stand and a low centre of gravity ensure high stability. The burner can be remove from the stand The tilt angle can be set via a resolution to 60°/90°/120 °. With separate chimney for low flame and control value to switchover between main and pilot flame. A regulation mechanism for the air supply allows finest settings for the flame temperature. Installation height depends on the angle setting 100/107 mm, weight 530 g. Suitable for continuous operation

Gas type	Art. No.	Pack Qty.	€
Natural gas	**H613.1**	1 unit(s)	188,50
Propane gas	**H612.1**	1 unit(s)	188,50



Safety laboratory burners acc. to Teclu

With thermo sensor safety valve (if the flame extinguishes of the gas supply is interrupted, the safety valve closes automatically). Solid round base. With air regulation and needle valve.

Gas type	Total height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Natural gas	180	300	**NA05.1**	1 unit(s)	157,15
Propane gas	180	300	**NA04.1**	1 unit(s)	157,15



Horizontal burner

For soldering, melting, burning-off etc. With piezo ignition. Flame temperature up to 1300 °C. Sturdy metal construction with slip-resistant piston for one-handed operation.
Safety switch Dimensions: Ø 30 mm x H 150 mm. Fillable with lighter gas.

Delivery without filling, refillable gas please order separately.

Type	Art. No.	Pack Qty.	€
Horizontal burner	**YE28.1**	1 unit(s)	42,25

Gas burners



Micro horizontal burners GB 2001

For soldering, welding, stoving and melting glass, made of chrome and camera-plastic. Pieozo-electric ignition and fine flame produces temperatures up to 1300 °C. Tank for liquid butane in handle, sufficient for two hours normal operation. Height 145 mm, weight empty 200 g. Complete with removable stand, without filling for safety reasons.

Delivery without filling, refillable gas please order separately.

Type	Art. No.	Pack Qty.	€
GB 2001	**0386.1**	1 unit(s)	100,35



Universal refillable gas

With 250 ml liquid butane and 5 different injection nozzles.

Danger H220-H280

Designation	Vol. (ml)	Art. No.	Pack Qty.	€
Universal refillable gas 250 with liquid butane	250	**1652.1**	1 unit(s)	3,80



Gas burners Labogaz® 206

Camping Gaz.

For operation with cartridge C 206 D Super. With Clip & Go mounting system for simple cartridge change. With cartridge bell made of plastic Flame temperature approx. 1100 °C. Dimensions without cartridge: height 130 mm, Ø 90 mm.

Delivery without stand and cartridge, please order separately.

Designation	Art. No.	Pack Qty.	€
LABOGAZ® 206	**0802.1**	1 unit(s)	92,25

Accessories stand foot for LABOGAZ 206

Camping Gaz.

Designation	Art. No.	Pack Qty.	€
Stand for Bunsen burner laboratory gas 206	**X711.1**	1 unit(s)	9,25



Gas burners Labogaz® 470

Camping Gaz.

For operation with cartridge CV 470 plus.
Dimensions without cartridge: Ø 22 mm, height 59 mm.

Delivery without cartridge, please order separately.

Designation	Art. No.	Pack Qty.	€
LABOGAZ® 470	**Y650.1**	1 unit(s)	95,15



Gas cooker Twister® Plus OZ

Camping Gaz.

Easy Clic®-Connection for easy fitting of valve cartridges.
With 3 container holders. **Piezo ignition.** Operation with gas cartridges CV 470 plus. Continuous operation of cartridge: approx. 2 h with CV 470 plus. Dimensions (without cartridge): L 105 x W 70 mm, pot rest Ø 140 mm. Weight (without cartridge) 285 g.

Delivery without gas cartridge, please order separately.

Designation	Art. No.	Pack Qty.	€
Twister® Plus OZ	**EL22.1**	1 unit(s)	59,75



Fine soldering unit Spotflam

Camping Gaz.

Network-independent multi-purpose unit with micro burner and fine soldering iron for attachment Flame adjusts directly adjusting the air supply setting. Burning duration approx. 4 hours. Applications: heating of test tubes, sterilisation of instruments, hard and soft soldering.

Danger H220-H280
Delivery incl. cartridge CV 360.

Designation	Art. No.	Pack Qty.	€
Spotflam	**T926.1**	1 unit(s)	43,50



Soldering blow torch Soudogaz® X series

Camping Gaz.

Flame temperature approx. +1800 °C. Weight with cartridge approx. 800 g. Flame adjustment. Gas consumption 120 l/h.

Delivery without cartridge, please order separately.

(1) Model X 2000

Type	Art. No.	Pack Qty.	€
X 2000	**0777.1**	1 unit(s)	55,70

(2) Model X 2000 OZ with automatic piezo-electric ignition

Type	Art. No.	Pack Qty.	€
X 2000 OZ	**N183.1**	1 unit(s)	61,80



Mobile hand-held laboratory gas burner powerjet

WLD-TEC.

For all flame-protection sterilisations in microbiological or biotechnological field.

- **Flame temperature approx. 1350 °C**
- Automatic ignition through piezo effect
- The burner ignites when the button is pressed; the flame extinguishes when the button is released
- Continuous adjustment of the flame size
- Operation with gas cartridge CG 1750, optimal for laboratories without central gas supply
- Dimensions: W 150 x H 180 mm

Delivery incl. gas cartridge adapter for cartridge CG 1750.
Without cartridge CG 1750, please order separately.

Type	Art. No.	Pack Qty.	€
powerjet	**EL35.1**	1 unit(s)	252,65



Mobile hand-held laboratory gas burner powerjet 2

WLD-TEC.

For connecting the central gas supply (propane, butane and natural gas) and for operation with gas cartridge CV 360.

- Flame temperature: approx. 1350 °C for liquid gas and 1300 °C for natural gas
- Automatic ignition through piezo effect
- Gas supply only when the button is pressed
- The burner ignites when the button is pressed; the flame extinguishes when the button is released
- With lock to set the flame for mobile continuous flaming
- Continuous adjustment of the flame size
- Dimensions: W 150 x H 210 mm

Delivery incl. gas cartridge adapter for cartridge CV 360, nozzle for propane/butane gas and natural gas, hose nozzle with union nut, nozzle socket wrench, wrench and stainless steel holder.
Gas cartridge CV 360, please order separately.

Designation	Art. No.	Pack Qty.	€
powerjet 2	**EP56.1**	1 unit(s)	447,20

Gas burners



Gas cartridges

Camping Gaz.

Technical specifications:

Art. No.	T927.1	EL36.2	0191.2	Y652.1	Y652.2
Type	CV 360	CG 1750	C 206 GLS	CV 470 plus	
Height	140 mm		90 mm	135 mm	
Ø ext.	38 mm	60 mm	90 mm	109 mm	

Danger H220-H280

(1) Valve cartridge CV 360
Space-saving butane cartridges can be removed from the unit, even when they are not completely empty. The valve ensures that the gas does not escape.

Type	Designation	Art. No.	Pack Qty.	€
CV 360	Valve cartridge CV 360, 52 g	**T927.1**	6 unit(s)	71,95

(2) Screw valve cartridge CG 1750
Special mixture 70/30 butane/propane. Self-sealing safety valve, removable and re-attachable even if the cartridge is not yet empty.

Type	Designation	Art. No.	Pack Qty.	€
CG 1750	Screw valve cartridge CG 1750, 170 g	**EL36.2**	8 unit(s)	79,05

(3) Pierce-through cartridge C 206 GLS
Butane/propane mixture 80/20 %. If pierce-through cartridges are fitted to the unit, they may only be removed when they are completely empty. With gas lock system acc. to EN 417:2012. The system extensively retains the gas in the cartridge it the unit and cartridge are disconnected unintentionally.

Type	Designation	Art. No.	Pack Qty.	€
C 206 GLS	Pierce-through cartridge C 206 GLS, 190 g	**0191.2**	8 unit(s)	37,75

(4) CV 470 plus Valve cartridge CV 470 plus
Butane/propane mixture (80/20 %). Valve cartridges can be removed from the unit, even when they are not completely empty. The valve ensures that the gas does not escape.

Type	Designation	Art. No.	Pack Qty.	€
CV 470 plus	Valve cartridge CV 470 plus, 450 g	**Y652.1**	2 unit(s)	29,75
CV 470 plus	Valve cartridge CV 470 plus, 450 g	**Y652.2**	12 unit(s)	159,40



DURAN
WHEATON
KIMBLE

Spirits burner

DWK Life Sciences.

Delivery incl. wick.

(1) Made of stainless steel
With wick regulating facility and sealing cover. Volume approx. 85 ml. Dimensions: Ø 100 mm, H 65 mm. Weight 105 g.

Type	Art. No.	Pack Qty.	€
Spirit burner made of stainless steel	**AL28.1**	1 unit(s)	27,50

(2) Made of calcium soda glass
With ground sealing cover. Volume approx. 100 ml. Dimensions: Ø 76 mm, H 102 mm. Weight 190 g.

Type	Art. No.	Pack Qty.	€
Spirits burner made of calcium soda glass	**AL29.1**	1 unit(s)	20,90

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Gas safety burners



Gas safety burner Flame 100

WLD-TEC.

Ideal for sterilization of microbiological instruments and graduated heating of dental tools.

- Housing and burner tube made of stainless steel
- With key function:
  Flame is started and stopped by pressing the function button. Operation also via optional foot-switch (with foot pedal depressed) or external IR motion sensor (flame as long as the hand is in the detection zone of the sensor).
- With ignition and flame control, clogging monitor, as well as overtemperature protection
- Continuous cartridge operation: 65 min with CV 360, 230 min with C 206, 550 min with CV 470 plus, 210 min with CG 1750
- Suitable for stationary natural gas and propane/butane gas.
  If cartridges are required, please order gas adapter and cartridge separately

Technical specifications:

Art. No.	NA00.1
Type	Flame 100
Foot switch operation is possible	Yes
IR sensor operation is possible	Yes
Width	89 mm
Depth	88 mm
Height	34 mm
Weight	385 g

Delivery incl. variable power supply (100 to 240 V, 50/60 Hz), hose nozzle and injectors for natural gas, propane / butane gas. Without foot pedal or IR motion sensor (if required, please order separately).

Type	Art. No.	Pack Qty.	€
Flame 100	**NA00.1**	1 unit(s)	308,55

Accessories

WLD-TEC.

Standard foot switch for gas safety burners
Standard foot pedal made of stainless steel. Cable length 3 m.

Type	Art. No.	Pack Qty.	€
Standard foot switch	**AN88.1**	1 unit(s)	56,15

External IR motion sensor for gas safety burners
Cable length 0.4 m.

Type	Art. No.	Pack Qty.	€
External IR motion sensor	**NA01.1**	1 unit(s)	107,95

Accessories gas safety adapter for cartridges

WLD-TEC.

With integrated pressure reducer, stop cock and DVGW hose, length 0.5 m.

Suitable for	Art. No.	Pack Qty.	€
Cartridge C 206 GLS	**AN84.1**	1 unit(s)	131,90
Cartridge CV 470 plus	**AN85.1**	1 unit(s)	138,25
Cartridge CG 1750	**EX07.1**	1 unit(s)	91,05

For cartridge CV 360
Gas safety adapter for cartridge CV 360

Suitable for	Art. No.	Pack Qty.	€
Cartridge CV 360	**NA02.1**	1 unit(s)	107,45

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Gas safety burners



Gas safety burner Fuego SCS basic

WLD-TEC.

Ideal for heating, burning-off and annealing as well as for use in microbiological safety workbenches.

- Foot-switch control: Flame burns until the foot-switch is pressed or start/stop with automatic switch-off (up to 60 min)
- Additionally with button function: flame is started and stopped by pressing the function button
- Casing/control elements made of stainless steel and glass, UV and solvent proof
- Removable and dismountable burner head
- Can be tilted left or right
- Continuous cartridge operation: 40 min with CV 360, 170 min with C 206, 370 min with CV 470, 150 min with CG 1750
- Safety equipment with gas safety shutoff: ignition, flame and temperature monitoring, contamination and installation monitoring, automatic unit switch-off and residual heat display
- Ideal for natural, propane or butane gas. If cartridges are required, please order gas adapter and cartridge separately.

Technical specifications:

Art. No.	**HA64.1**
Type	SCS basic
Foot switch operation is possible	Yes
Width	103 mm
Depth	130 mm
Height	49 mm
Weight	700 g

Delivery incl. foot-switch, variable power supply (100 to 240 V, 50/60 Hz), hose nozzle with union nut, inoculation loop holder and nozzles for natural gas, propane / butane gas.

Type	Art. No.	Pack Qty.	€
SCS basic	**HA64.1**	1 unit(s)	506,35

With integrated pressure reducer, stop cock and DVGW hose, length 0.5 m.

Suitable for	Art. No.	Pack Qty.	€
Cartridge C 206 GLS	**AN84.1**	1 unit(s)	131,90
Cartridge CV 470 plus	**AN85.1**	1 unit(s)	138,25
Cartridge CG 1750	**EX07.1**	1 unit(s)	91,05

Accessories gas safety adapter for cartridge CV 360

WLD-TEC.

With integrated pressure reducer.

Suitable for	Art. No.	Pack Qty.	€
Cartridge CV 360	**HC48.1**	1 unit(s)	106,05



Gas safety burner Fuego series

WLD-TEC.

Ideal for heating, burning-off and annealing as well as for use in microbiological safety workbenches.

- Animated graphic display with buzzer: installation and operating instructions with symbols, user ID, gas consumption display and cooling time reminder
- Casing/control elements made of stainless steel and glass, UV and solvent proof
- Programme with firing time display for double-click IR sensor (switchable), button, foot pedal and temperature control for precise heating of media.
  Operating modes:
  Key function: Flame is started and stopped by actuating the function button, or the flame extinguishes after a preselected time
  IR sensor: Contactless On/Off of the flame via IR sensor or the flame extinguishes after a preselected time(1 s to 120 min) or auto-off with teach function (1 s to 120 min)
  Foot-switch control: Flame burns until the foot-switch is pressed or start/stop with automatic switch-off (1 s to 120 min)
- Safety equipment with gas safety shutoff: ignition, flame and temperature monitoring, contamination and installation monitoring, automatic unit switch-off and residual heat display
- Zero-pressure shutoff: for releasing residual gas pressure after use
- Angle adjustment and removable burner head
- Ideal for natural, propane or butane gas. If cartridges are required, please order gas adapter and cartridge separately

Technical specifications:

Art. No.	**EX06.1**	**LE17.1**
Type	Fuego SCS	Fuego SCS pro
Foot switch operation is possible	Yes	
IR sensor operation is possible	Yes	
Detection range of IR sensor	5-100 mm	
Width	103 mm	
Depth	130 mm	
Height	49 mm	

Model Fuego SCS

Delivery incl. IR sensor, inoculation loop holder plug-in power supply and nozzles for natural gas, propane / butane gas. Without foot switch (if required, please order separately).

Type	Art. No.	Pack Qty.	€
Fuego SCS	**EX06.1**	1 unit(s)	616,00

Gas safety burners

Model Fuego SCS pro

- **Mains-independent operation using rechargeable batteries**
- Additional tilt sensor with gas safety shutoff

Delivery incl. two Mignon 1.2 V rechargeable batteries (battery time up to 9 h for continuous operation, charging time approx. 3 h), IR sensor, inoculation loop holder, plug-in power supply, hose sleeve with union nut and nozzles for natural gas, propane/butane gas. Without foot switch (if required, please order separately).

Type	Art. No.	Pack Qty.	€
Fuego SCS pro	**LE17.1**	1 unit(s)	724,55

Standard foot switch for gas safety burners
Standard foot pedal made of stainless steel. Cable length 3 m.

Type	Art. No.	Pack Qty.	€
Standard foot switch	**AN88.1**	1 unit(s)	56,15

Accessories wireless foot-switch set for Fuego SCS

WLD-TEC.

Allows foot pedal operation without disturbing cable. Range 2 to 5 m. Frequency 2.4 GHz. Remote control foot-switch made of stainless steel.

Delivery incl. RF stick, remote control foot pedal and 2 Mignon 1.5 V batteries.

Designation	Art. No.	Pack Qty.	€
Wireless foot-switch set	**KA26.1**	1 unit(s)	140,00

Accessories gas safety adapter for cartridge CV 360

WLD-TEC.

With integrated pressure reducer.

Suitable for	Art. No.	Pack Qty.	€
Cartridge CV 360	**HC48.1**	1 unit(s)	106,05

With integrated pressure reducer, stop cock and DVGW hose, length 0.5 m.

Suitable for	Art. No.	Pack Qty.	€
Cartridge C 206 GLS	**AN84.1**	1 unit(s)	131,90
Cartridge CV 470 plus	**AN85.1**	1 unit(s)	138,25
Cartridge CG 1750	**EX07.1**	1 unit(s)	91,05



Gas safety burner Gasprofi 1 SCS *micro*

WLD-TEC.

Space-saving laboratory gas burner for microbiology, cell biology and biotechnology.

Features:

- ***5 operating modes***:
  Key function: Flame is started and stopped by actuating the function button, or the flame extinguishes after a preselected time
  IR sensor: Contactless On/Off of the flame via IR sensor or the flame extinguishes after a preselected time (1 s to 60 min) or auto-off with teach function (1 s to 60 min)
  Foot-switch control: Flame burns until the foot-switch is pressed or start/stop with automatic switch-off (1 s to 60 min)
- Stainless steel housing and operating elements
- Operation either with natural gas or propane/butane gas
- Tilt adjustment left/right
- Continuous cartridge operation: 45 min with CV 360, 170 min with C 206, 345 min with CV 470 plus
- Removable burner head

Technical specifications:

Art. No.	AN82.1
Type	Gasprofi 1 SCS micro
Foot switch operation is possible	Yes
IR sensor operation is possible	Yes
Detection range of IR sensor	5-50 mm
Width	85 mm
Depth	86 mm
Height	49 mm
Weight	930 g

Delivery incl. stainless steel foot-switch, IR sensor, nozzles for natural gas, propane/butane gas, hose connector with union nut and plug-in power supply. If cartridges are required, please order gas adapter and cartridge separately.

Type	Art. No.	Pack Qty.	€
Gasprofi 1 SCS micro	**AN82.1**	1 unit(s)	567,60

Accessories gas safety adapter for cartridges

WLD-TEC.

With integrated pressure reducer, stop cock and DVGW hose, length 0.5 m.

Suitable for	Art. No.	Pack Qty.	€
Cartridge C 206 GLS	**AN84.1**	1 unit(s)	131,90
Cartridge CV 470 plus	**AN85.1**	1 unit(s)	138,25
Cartridge CG 1750	**EX07.1**	1 unit(s)	91,05

Accessories gas safety adapter for cartridge CV 360

WLD-TEC.

With integrated pressure reducer.

Suitable for	Art. No.	Pack Qty.	€
Cartridge CV 360	**HC48.1**	1 unit(s)	106,05

Gas safety burners



Fully automatic inoculation loop carousel auto*loop*PRO

WLD-TEC.

Allows removal of the **safety laboratory burner from the Fuego SCS series** for sterilisation stations. The microprocessor-controlled carousel detects removed and returned inoculation loops, rotates and control the sterilisation fully automatically For up to 4 inoculation loop.

Features:

- Fully graphic DOT matrix display to show the pone of removal of cool inoculation loops, the remaining cooling time, residual heating and flame sterilisation time
- Settable annealing time: 1 to 15 s, adjustable cooling time: 1 to 45 s
- Completely made of stainless steel and anodised aluminium. The display is protected with special glass
- With sterilisation monitor for monitoring the safe sterilisation of the inoculation loops. A symbol indicates whether he inoculation loops have been annealed properly. Sensor intensity adjustable on 3 levels (low to high annealing intensity selectable for thin to thick inoculation loop wires)
- Overtemperature protection and residual heat indicator
- Dimensions: W 135 mm x H 305 mm x D 180 mmm
- Voltage supply via the foot pedal of the burner

Delivery incl. 4 inoculation loop holders, 4 inoculation loops and stand. To operate the carousel for inoculation loops, the safety laboratory gas burner from the Fuego SCS series is requirement if not present, order separately).

Type	Art. No.	Pack Qty.	€
auto*loop*PRO	**LH88.1**	1 unit(s)	1.280,35

Accessories splash guard for auto*loop*PRO

WLD-TEC.

For safe handling of pathogenic material, protected.

Designation	Art. No.	Pack Qty.	€
Splash guard	**HY19.1**	1 unit(s)	63,75



Gas safety burner phoenix II

schuett biotec.

For use in microbiological safety work benches.

- LED colour display with choice of languages
- Plain text menu navigation and display of burning time left
- UV-resistant, can be flamed (stainless steel housing, special glass display)
- Can be tilted left or right
- ***5 operating modes***:
  Key function: Flame is started and stopped by actuating the function button, or the flame extinguishes after a preselected time
  IR sensor: Contactless On/Off of the flame via IR- sensor or the flame extinguishes after a preselected time (1 s to min) or auto-off with teach function (s to 120 min)
  Foot-switch control: Flame burns until the foot-switch is pressed or start/stop with automatic switch-off (1 s to 120 min)
- Flame, ignition and contamination monitoring
- Ideal for natural, propane or butane gas. Can be operated with gas cartridges CV 360, C 206 and CV 470 plus (please order the required gas adapter separately) or from the central gas supply

Technical specifications:

Art. No.	TA01.1
Type	phoenix II
Foot switch operation is possible	Yes
IR sensor operation is possible	Yes
Detection range of IR sensor	30 mm / 80 mm
Width	125 mm
Depth	160 mm
Height	85 mm

Delivery incl. IR sensor, stainless steel foot-operated push-button/foot switch and power unit (100 to 240 V, 50/60 Hz), hose fitting, natural gas and propane /butane nozzles.

Type	Art. No.	Pack Qty.	€
phoenix II	**TA01.1**	1 unit(s)	643,95

Accessories gas safety adapter for cartridges

schuett biotec.

With integrated pressure reducer and 0.5 m safety gas hose.

Suitable for	Art. No.	Pack Qty.	€
Cartridge C 206 GLS	**TA03.1**	1 unit(s)	144,55
Cartridge CV 470	**TA04.1**	1 unit(s)	144,55

For cartridge CV 360

Suitable for	Art. No.	Pack Qty.	€
Cartridge CV 360	**TA02.1**	1 unit(s)	145,15



Overhead gas burners Flame 110

WLD-TEC.

Heats dental tools, sterilises microbiological instruments or flame deburred/flame polished plastic and rubber mouldings in an industrial environment.

- **Variable flame from any direction – even upside down (depending on positioning)**
- ***Operating modes***:
  Key function: Flame is started and stopped by actuating the function button
  IR sensor Contactless On/Off of the flame via IR sensor or the flame extinguishes after a preselected time (1 s to min) or auto-off with teach function (s to 120 min)
  Foot-switch control: Flame burns until the foot-switch is pressed or start/stop with automatic switch-off(1 s to 120 min)
- With gas safety shutoff and overtemperature protection
- Can be operated using optional foot-switch or external IR motion sensor. If required, please order separately.

Technical specifications:

Art. No.	YP70.1
Type	Flame
Foot switch operation is possible	Yes
IR sensor operation is possible	Yes
Height	135 mm
Ø ext.	88 mm
Weight	580 g

Delivery incl. fixing plate for overhead attachment and 100 to 240 V power supply, 50/60 Hz. Without gas adapter and cartridge (please order separately).

Type	Art. No.	Pack Qty.	€
Flame	**YP70.1**	1 unit(s)	569,75

Accessories

WLD-TEC.

Standard foot switch for gas safety burners
Standard foot pedal made of stainless steel. Cable length 3 m.

Type	Art. No.	Pack Qty.	€
Standard foot switch	**AN88.1**	1 unit(s)	56,15

External IR motion sensor for gas safety burners
Cable length 0.4 m.

Type	Art. No.	Pack Qty.	€
External IR motion sensor	**NA01.1**	1 unit(s)	107,95



Accessories holders for overhead gas burners

WLD-TEC.

(1) Stainless steel lateral bracket

Designation	Art. No.	Pack Qty.	€
Lateral brackets	**YP71.1**	1 unit(s)	47,95

(2) Stainless steel horizontal bracket

Designation	Art. No.	Pack Qty.	€
Horizontal bracket	**YP72.1**	1 unit(s)	38,95

Accessories gas safety adapter for Flame 110

WLD-TEC.

For cartridge C 206 and CV 470 plus with pressure reducer stop cock and DVGW hose (length 0.5 m).

Suitable for	Art. No.	Pack Qty.	€
Cartridge C206 GLS	**YP73.1**	1 unit(s)	176,85
Cartridge CV 470 plus	**YP74.1**	1 unit(s)	178,60

Inoculation loop sterilisers



Infrared sterilising station SteriMax series

WLD-TEC.

For annealing inoculation loops, needles and instruments. For laboratories and safety work benches, in which gas and naked flames are not allowed to be used. The inoculation loop is held in the quartz glass annealing tube for annealing. The inoculation loop is sterilised after approx. five to seven seconds.

- Made of stainless steel
- Residual heat display warns users of high temperatures
- With adjustment at seven angles
- Integrated splash guard
- Storage for three instruments

Technical specifications:

Art. No.	KL88.1	LH89.1
Type	SteriMax 15	SteriMax 21
Temperature range	900 to 950 °C	
Ø Internal	15 mm	21 mm
Inner length	118 mm	161 mm
Warm-up period	7–9 min	
Performance	160 W	225 W
Width	175 mm	
Depth	139 mm	169 mm
Height	129 mm	
Weight	960 g	1060 g
Mains connection	230 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
SteriMax 15	**KL88.1**	1 unit(s)	599,85
SteriMax 21	**LH89.1**	1 unit(s)	664,35



Infrared inoculation loop steriliser SteriMax smart

WLD-TEC.

Specially focussed infrared light creates an IR hotspot and sterilises inoculation loops at a temperature from 750 to 1000 °C within 5–10 s.

- Auto start by non-contact IR sensor technology
- Adjustable sterilisation and cool-down timer for two users via touch operation
- Ready for use straight from the box without heat-up phase
- Dynamic Thermocontrol sterilisation timer for the utilisation of residual heat to speed up subsequent sterilisation cycles
- Housing made of special toughened glass and stainless steel
- With removable quartz glass annealing tube

Technical specifications:

Art. No.	ACN7.1
Type	SteriMax smart
Temperature range	750 to 1000 °C
Ø ext.	19 mm
Ø Internal	16 mm
Inner length	112 mm
Timer function	Sterilisation timer: 5–10 s Inoculation loop cool-down timer: 0–25 s
Safety devices	Residual heat indicator, overtemperature protection and autom. unit switch-off
Performance	600 W
Heat source	IR halogen spotlamp
Width	110 mm
Depth	200 mm
Height	170 mm
Weight	1800 g
Mains connection	220–240 V, 50/60 Hz

Delivery incl. quartz glass annealing tube, inoculation loop holder with inoculation loop Ø 3 mm and holders for three inoculation loop holders.

Type	Art. No.	Pack Qty.	€
SteriMax smart	**ACN7.1**	1 unit(s)	957,85

Hot air sterilisers



Hot air sterilisers

Suitable for dry sterilisation of instruments. The units are filled with approx. 310 g glass beads and reach a temperature of approx. 240 °C. Sterilisation time: 10-30 seconds. Glass beads are included in the scope of supply.

Small version, 70 W
Power 70 W. Heating time 15 min. Inside-Ø 50 mm.
Outside dimensions: L 140 x W 120 x H 140 mm.

Type	Art. No.	Pack Qty.	€
without timer	**E996.1**	1 unit(s)	449,35
with timer (30 s)	**E997.1**	1 unit(s)	533,20

Large version, 100 W
Power 100 W. Heating time 30 min. Inside Ø 70 mm.
Outside dimensions: L 195 x W 145 x H 154 mm.

Type	Art. No.	Pack Qty.	€
without timer	**E998.1**	1 unit(s)	476,25
with timer (30 s)	**E999.1**	1 unit(s)	600,95



Electrical Bunsen burners BA6101

Electrothermal.

Suitable for laboratories in which no gas and naked flames are allowed to be used. Ideal for heating test tubes, crucibles, small bottles and beakers. Max. temperature of 800 °C. The ceramic heating element is located in the upper part of the stainless steel cylinder. 80 % of max. temperature is reached in approx. 4 min and maximum temperature is reached in approx. 12 min.
Heating element: Inner dimensions (Ø x H): 60 x 45 mm,
Chimney: Outer dimensions (Ø x H): 120 x 180 mm
Heat output regulator MC5: With special sleeve for attaching a stand rod (max. Ø. 12.5 mm) and indicator lights for „Power On“ and „Output regulator operation“.
Dimensions of heat output regulator (W x D x H): 95 x 130 x 105 mm.

Technical specifications:

Art. No.	**YL73.1**
Temperature range	to +800 °C
Performance	480 W
Mains connection	220 V, 50/60 Hz

Delivery incl. heat output regulator MC5.

Type	Art. No.	Pack Qty.	€
BA6101	**YL73.1**	1 unit(s)	999,00



Infrared burner IRB 1

Edmund Bühler.

Compact and highly efficient thanks to IR emitter technology. Ideal for fast, contactless heating tasks in laboratories, factories and schools. On/off switch with indicator light. Housing remains cool. Infrared emitter element has a long service life. Additional output regulator available. Max. temperature of the **heating surface is 750 °C.** Connection values: 250 W, 230 V. Dimensions: L 100 mm x W 100 mm x H 100 mm, weight 850 g.

Type	Art. No.	Pack Qty.	€
IRB 1	**L487.1**	1 unit(s)	371,95

Accessories for IRB series infrared burners

Edmund Bühler.

Output regulator

Designation	Art. No.	Pack Qty.	€
Output regulator	**L488.1**	1 unit(s)	327,90

Stand rod for IRB 1 & 2

Designation	Art. No.	Pack Qty.	€
Stand rod for IRB 1 & 2	**L489.1**	1 unit(s)	23,90



Infrared burner IRB 2

Edmund Bühler.

Infrared heater for high temperatures up to **900 °C**. **With integrated output control**, for variable adjustment between 0 and 100 %. Fast and even heating **with no open flame**. Electronic parts are protected against overflowing liquids. Additional side protection of the burner. With ceramic heating element and protection against overheating. Safe-to-touch housing. **Integrated handholds** for safe transport. Connection values: 800 W/230 V. Dimensions: W 150 mm x D 150 mm x H 170 mm, weight approx. 2250 g.

Delivery incl. cross recess enables flat vessels to be laid directly on the heating element.

Type	Art. No.	Pack Qty.	€
IRB 1	**P910.1**	1 unit(s)	681,55

Accessories for IRB series infrared burners

Edmund Bühler.

Stand rod for IRB 1 & 2

Designation	Art. No.	Pack Qty.	€
Stand rod for IRB 1 & 2	**L489.1**	1 unit(s)	23,90

Burner accessories and lighters



Gas lighter

Material: Plastic, Metal.

Ignition sparks triggered by piezoelectronic device. Made from coloured plastic and stainless metal. Total length 220 mm, weight 85 g.

Type	Art. No.	Pack Qty.	€
Gas lighter	**1949.1**	1 unit(s)	19,50



Lighter with flame

Handy lighter with hanging loop. Size of flame can be controlled. Refillable. With safety device. Length of gas lighter 256 mm, length of stainless steel ignition gun 110 mm. Weight approx. 67 g.

Danger H220-H280

Type	Art. No.	Pack Qty.	€
Lighter with flame	**P960.1**	1 unit(s)	13,80



Universal refillable gas

With 250 ml liquid butane and 5 different injection nozzles.

Danger H220-H280

Designation	Vol. (ml)	Art. No.	Pack Qty.	€
Universal refillable gas 250 with liquid butane	250	**1652.1**	1 unit(s)	3,80



Tripod

Material: Malleable cast iron, galvanised.

Feet can be unscrewed.

Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	180	**KC15.1**	1 unit(s)	26,55
120	210	**KC16.1**	1 unit(s)	29,20
140	210	**KC17.1**	1 unit(s)	33,40
150	240	**KC18.1**	1 unit(s)	35,95



Tripod

Material: Stainless steel Remanit 4301.

Can be taken apart.

Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	210	**9167.1**	1 unit(s)	30,05
120	210	**9170.1**	1 unit(s)	29,30
140	210	**9171.1**	1 unit(s)	32,05
160	210	**9172.1**	1 unit(s)	34,65
180	210	**9175.1**	1 unit(s)	38,40

Accessories extension tube for tripods

Fits all tripods (Art. No. 9167.1 to 9175.1). With knurled screws. Can be extended up to a total length of 370 mm.

Type	Art. No.	Pack Qty.	€
Extension legs	**9179.1**	3 unit(s)	42,40

Burner accessories and lighters



DURAN WHEATON KIMBLE

Quadrupod stand

DWK Life Sciences. Material: Chrome-nickel steel.

For glass ceramic protective tiles. Made from temperature-resistant chrome-nickel steel, with four feet and sturdy design for excellent stability. Please order matching glass ceramic protective tiles separately.

Lab quadrupod stands

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
135	135	210	**HH18.1**	1 unit(s)	40,60
155	155	210	**HH19.1**	1 unit(s)	44,50
175	175	220	**HH20.1**	1 unit(s)	52,10



Tile holders

DWK Life Sciences. Material: Chrome-nickel steel.

For glass ceramic protective tiles.
Please order matching glass ceramic protective tiles separately.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
135	135	**HH21.1**	1 unit(s)	35,45
155	155	**HH22.1**	1 unit(s)	41,45
175	175	**HH23.1**	1 unit(s)	48,95



Wire supports

Material: Steel Wire mesh, galvanised with a special ceramic fibre coating.

Asbestos-free. With non-hazardous special coating (ceramic fibre). Excellent heat conduction. Long service life.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
120	120	**1861.1**	1 unit(s)	6,45
160	160	**1862.1**	1 unit(s)	7,60



DURAN WHEATON KIMBLE

Glass ceramic protective tile

DWK Life Sciences.

Temperature-resistant from –200 to +700 °C. 4 mm thick.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
135	135	**A385.1**	1 unit(s)	25,15
155	155	**0619.1**	1 unit(s)	27,75
175	175	**A386.1**	1 unit(s)	31,70



Triangle ROTILABO® for melting crucibles

ROTH SELECTION. Material: Steel, galvanised.

With smooth clay pipes.

Additional info	Suitable for	Art. No.	Pack Qty.	€
Daypipe length 40 mm	Fits tripods with ring Ø 120 mm	**KN11.1**	5 unit(s)	16,40
Daypipe length 50 mm	Fits tripods with ring Ø 130 mm	**KN12.1**	5 unit(s)	17,25
Daypipe length 60 mm	Fits tripods with ring Ø 140 mm	**KN13.1**	5 unit(s)	17,35
Daypipe length 80 mm	Fits tripods with ring Ø 160 mm	**KN15.1**	5 unit(s)	18,65

Immersion heater



Safety lab immersion heater

For 220 V ~. With automatic shut-off. Lab immersion heaters do not become defective through improper handling (overheating due to lack of water, if the water has boiled away or operation without any water). The control unit can be reset. Shut-off occurs at approx. 120 °C. **Both models are suitable for water only.**

Model	Small model	Large model
Power	1000 W	2000 W
Immersion depth	min. 70 mm, max. 200 mm	min. 120 mm, max. 280 mm
Dimensions	L 300 mm × Ø 46 mm	L 380 mm × Ø 53 mm
Connecting cord	750 mm, with right-angle plug	900 mm, with right-angle plug
Weight, without cord	150 g	280 g
Heating element material	Nickel-plated brass	
Probe material	Nickel-plated copper	

Type	Art. No.	Pack Qty.	€
Small model	**0116.1**	1 unit(s)	64,50
Large model	**0117.1**	1 unit(s)	66,65



Simple immersion coil heater

With melting point protection. Power 1000 W. Immersion depth 160 mm. Cable approx. 750 mm long.

Type	Art. No.	Pack Qty.	€
Simple immersion coil heater	**1002.1**	1 unit(s)	26,90



Microwave oven

Severin.

- Highly heat-resistant housing
- Interior space approx. 20 l
- Microwave power approx. 700 W
- 5 power stages are infinitely adjustable
- 35 min timer with acoustic signal
- Removable turntable (Ø approx. 254 mm)
- Internal dimensions: W 305 x D 290 x H 165 mm
- External dimensions: W 435 x D 345 x H 254 mm
- Mains connection 230 V, 50 Hz



Microwave oven with grill

Severin.

- Brushed stainless steel housing
- Interior approx. 23 l, painted
- Microwave power approx. 900 W; can be set to 9 power stages incl. defrosting and grilling
- Separate grill approx. 1000 W, with additional rack
- Microwave and grill can be combined
- Removable turntable (Ø 270 mm)
- 30-min-timer with acoustic signal
- Internal dimensions: L 335 x D 320 x H 190 mm
- External dimensions: L 483 x D 400 x H 281 mm
- Mains connection 230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
Microwave with grill	**AT41.1**	1 unit(s)	197,80

Microwave ovens



Microwave oven with grill and hot air functions

Severin.

- Housing heat-resistant coating
- Interior space approx. 30 l
- Microwave power approx. 900 W; can be set to 5 power stages
- With separate grill approx. 1100 W and hot air function approx. 2500 W
- Microwave, grill and hot air can be switched on separately or combined
- Removable turntable (Ø 315 mm)
- Digital multifunction display
- Quick button for immediate start at full power
- 99-min-timer with acoustic signal
- Internal dimensions: L 335 x D 340 x H 200 mm
- External dimensions: L 520 x D 510 x H 335 mm
- Mains connection 230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
Microwave with grill and hot air	**AT40.1**	1 unit(s)	327,90



Microwave oven

Bosch.

- Interior space approx. 17 l
- Microwave output 800 W
- 5 adjustable output stages (800/600/360/180/90 W)
- Digital display for time of day or countdown
- 30 min timer with acoustic signal
- Removable glass turntable (Ø approx. 245 mm)
- Memory function stores 1 parameter combination of time and microwave power
- Dimensions, inside: W 290 x D 300 x H 184 mm
- Dimensions, outside: W 462 x D 320 x H 280 mm
- Power supply 220–230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
Microwave oven	**KN83.1**	1 unit(s)	251,55



Large-capacity microwave oven with grill and hot air functions

Sharp.

- Housing made of stainless steel
- Interior approx. 40 l, stainless steel
- **Optimum interior space, e.g. for heating 1 litre lab screw top bottle, etc.**
- Microwave power approx. 1050 W; can be set to 5 power stages
- Quarz grill approx. 1300 W
- Hot air function approx. 1450 W (10 stages: 40 to 250 °C)
- Microwave, grill and hot air can be switched on separately or combined
- Ceramic turntable (Ø 362 mm)
- Time settings up to 90 min
- Internal dimensions: W 375 x D 395 x H 272 mm
- External dimensions: W 550 x D 535 x H 368 mm
- Weight approx. 21 kg
- Mains connection 230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
Large-capacity microwave oven	**HX94.1**	1 unit(s)	676,20



NEW / +

Fan heater HL 300

Fakir.

- Continuous temperature adjustment from 10-30 °C
- Touch display
- 3 heat levels with additional fan function (cold setting)
- Integrated swivel function (75° oscillating)
- 24-hour timer with Auto On and Auto Off functions in 1-hour increments
- Frost protection function

Technical specifications:

Art. No.	1LEN.1
Type	HL 300
Performance	600/1200/1800 W
W x D x H	160 x 140 x 254 mm
Weight	1,7 kg
Mains connection	220–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
HL 300	**1LEN.1**	1 unit(s)	125,75

Hot air blowers



Hot air dryer

Braun.

With connectable concentration nozzle. Two heat levels and one blowing level. **Heating output 1200 W**. With fold-down handle and hanging loop. Power cord 1.5 m. Connection value 120/230 V, 50 Hz.

Type	Art. No.	Pack Qty.	€
Hot air dryer 1200 W	**P096.1**	1 unit(s)	60,20



Hot air dryer

Braun.

For warm and cold air. With three heat levels and two blowing levels. **Heating output 2200 W.** Filter is removable for easy cleaning. Power cord 2 m. Voltage 230 V, 50/60 Hz.

Delivery incl. hanging loop and attachable nozzle.

Type	Art. No.	Pack Qty.	€
Hot-air dryer 2200 W	**Y399.1**	1 unit(s)	106,65



Hot air gun HL 1920 E

Steinel.

With temperature and air flow control. Nine-step temperature adjustment using adjustment wheel. Blower control via three-step operating switch. Level 1: Air volume 150 l/min, temperature 50 °C, level 2: Air volume 150-300 l/min, temperature 50-600 °C and level 3: Air volume 300-500 l/min, temperature 50-600 °C.

Technical specifications:

Art. No.	AKN4.1
Type	HL 1920 E
Performance	2000 W
Weight	850 g
Mains connection	220–230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
HL 1920 E	**AKN4.1**	1 unit(s)	93,75



Hot air gun with LCD HG 2320 E

Steinel.

Electronically controlled with continuously variable air flow rate and temperature control. Optical display of temperature and speed (resolution in 10 °C-increments) via LCD. Residual heat display. Four stored programs for temperature and air flow. Level 1: Air volume 150 l/min, temperature 80 °C, level 2: Air volume 150-500 l/min, temperature 80-650 °C. With soft grip.

Technical specifications:

Art. No.	ALN9.1
Type	HG 2320 E
Performance	2300 W
Weight	960 g
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
HG 2320 E	**ALN9.1**	1 unit(s)	179,55



Hot air gun HG 2220 E

Steinel.

Temperature adjustment from 80 to 630 °C in 9 increments by adjusting wheel. Two operating levels. Level 1: Air volume 150-300 l/min, temperature 80-630 °C, level 2: Air volume 300-500 l/min, temperature 80-630 °C.

Technical specifications:

Art. No.	CEP4.1
Type	HG 2200 E
Performance	2200 W
Weight	610 g
Mains connection	220–230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
HG 2200 E	**CEP4.1**	1 unit(s)	182,75

Accessories for hot air guns HL 1920 E, HG 2320 E and HG 2220 E

Steinel.

Wide spray nozzle
To be plugged on, ensures flat air distribution. Width 50 mm.

Designation	Art. No.	Pack Qty.	€
Wide spray nozzle	**1946.1**	1 unit(s)	14,50

Reducing nozzle
For plug-on, for targeted heat beam. Ø 14 mm.

Designation	Art. No.	Pack Qty.	€
Reducing nozzle	**1947.1**	1 unit(s)	14,50

Hot water heater



Coffee machines

Severin.

Power: 1000 watt. For up to eight cups. 1-litre Thermos flask with screw cap. Fresh water thermometer. With cable storage compartment. On/off switch with indicator light. Swivel filter 1 x 4 with anti-drip closure.

Colour	Art. No.	Pack Qty.	€
black	**KN84.1**	1 unit(s)	69,70
white	**AT37.1**	1 unit(s)	68,65



Kettle

Severin.

Powerful, transportable kettle. Heating output approx. 2200 W. **Capacity up to 1.5 l**. Cordless with separate device charging stand. **Automatic steam stop**. On/off switch with indicator light. Transparent water level display on both sides. Spout with sieve. With over-heating prevention (the heating element switches off automatically when there is no water in the kettle or the vessel is too covered in limescale) and over-temperature cut-out. Power supply 220 V/50 Hz.

Colour	Art. No.	Pack Qty.	€
black	**KT58.1**	1 unit(s)	42,60
white	**Y527.1**	1 unit(s)	45,50



Kettle

Bosch.

1.7 l capacity. Heating power approx. 2400 W. Stainless steel base – covered heating element. Removable limescale filter made of stainless steel. Locking lid. Boil-dry and overheating protection. 360° cordless system (can be placed on base at any angle). Cordless kettle automatically switches off as soon as it is removed from the base. Illuminated on/off switch. Automatic steam stop: Device automatically switches off when the boiling point is reached. Cord retractor. Weight 1.2 kg. Power supply 220–240 V, 50/60 Hz.

Type	Art. No.	Pack Qty.	€
Kettle, 2400 W	**KNE9.1**	1 unit(s)	89,15



Kettle

Severin.

For 1.7 l water. Heating power approx. 2200 W. Stainless-steel housing and heating element covered by stainless-steel plate. Removable limescale filter. 360° cordless system (can be placed on base at any angle). Overheating protection. Automatic steam stop: Device automatically switches off when the boiling point is reached. Cord retractor. Illuminated on/off switch. Weight 1.2 kg. Power supply: 230 V, 50 Hz.

Type	Art. No.	Pack Qty.	€
Kettle, 2200 W	**1A01.1**	1 unit(s)	39,35

Hot water heater



Kettle with temperature adjustment

Severin. Material: Stainless steel, Glass.

Made of stainless steel and glass. Volume 1.7 l. Adjustable temperature from 40 to 100 °C in 5 °C increments. Automatic switch-off after the set temperature has been reached. Separate keep-hot function for approx. 30 mins (selectable only in the temperature range from 40 to 95 °C). With LCD- display. Detachable lid for easier cleaning, large opening. Concealed heating element. Overheating protection. Power 2200 W. Dimensions: W 240 x D 150 x H 260 mm. Mains connection: 220–240 V, 50/60 Hz.

Type	Art. No.	Pack Qty.	€
Kettle 2200 W	**HHY9.1**	1 unit(s)	80,00



Thermos flask Columbus 2000

Leifheit.

With practical quick closure. High-quality, double-walled vacuum-flasks. Aroma-button for single-handed pouring. Capacity 1 l.

Pic.	Colour	Art. No.	Pack Qty.	€
(1)	black	**X232.1**	1 unit(s)	24,70
(2)	blue	**X233.1**	1 unit(s)	24,70
(3)	white	**X231.1**	1 unit(s)	24,70



Thermos flask ROTILABO®

ROTH SELECTION.

With insulating body made of stainless steel. Pump mechanism for easy pouring. Carry handle. Capacity 3 l. Dimensions: H 360 x Ø 150 mm. Weight approx. 1.6 kg.

Type	Art. No.	Pack Qty.	€
Stainless steel thermos flask	**YE85.1**	1 unit(s)	66,95

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Immersion circulator

Thermo.

Technical specifications:

Art. No.	LP51.1	LP52.1	LP53.1
Type	SC 100	SC 150	AC 200
Operating temperature	+25 to +100 °C	+25 to +150 °C	+25 to +200 °C
Temperature constancy	±0,02 K		±0,01 K
Heating output	2000 W		
Max. pump pressure	300 mbar		475 mbar
Max. flow	17 l/min		20 l/min
Max. pump suction			330 mbar
Outer width	165 mm		
Outer depth	195 mm		
Outer height	333 mm		368 mm
Safety class	I (NFL)	III (FL)	

(1) SC series standard thermostat

- Simultaneous display of setpoint and actual temperature
- Display resolution 0.1 or 0.01 °C can be selected
- Pumps with 2-stage turbulence reduction system
- USB port (except SC 100)
- Head can be turned in 90° increments on the bath
- Submersion depth 90 to 145 mm
- Excess temperature warning
- **With screw clamp for bath tubs up to 26 mm thick**
- I (NFL) = non-flammable liquids
  III (FL) = flammable liquids

Type	Art. No.	Pack Qty.	€
SC 100	**LP51.1**	1 unit(s)	1.203,00
SC 150	**LP52.1**	1 unit(s)	1.660,00

(2) Advanced Thermostat AC 200
as for SC 100 and SC 150, but also comes with:

- Simultaneous display of setpoint and actual temperature
- Display resolution 0.1 or 0.01 °C can be selected
- Pumps with 3-stage turbulence reduction system
- **With screw clamp for bath tubs up to 26 mm thick**
- Programmable application temperature alarm with signal that can be selected by the user (On/Off), safe temperature state or switch-off function
- Ramp programming with the option to alter the ramp during operation
- Timer with real-time clock for critical applications
- **With bath bridge for attaching to bath tubs (adjustable from 300 to 800 mm)**
- I (NFL) = non-flammable liquids
  III (FL) = flammable liquids

Type	Art. No.	Pack Qty.	€
AC 200	**LP53.1**	1 unit(s)	2.293,00

Accessories for immersion circulators

Thermo.

Tap water cooling coils for SC 100 and SC 150

Designation	Art. No.	Pack Qty.	€
Tap water cooling coils for SC 100 and SC 150	**PE43.1**	1 unit(s)	201,00

Tap water cooling coils for SC 100-S14P, SC 100-S21P, SC 150-S13, SC 150-S21 and AC 200

Designation	Art. No.	Pack Qty.	€
Water cooling coils for cooling. Can be connected to the water supply	**LP55.1**	1 unit(s)	201,00



Circulating thermostat with integrated bath

Thermo.

- With pump circulation set for temperature control of external sealed applications
- Simultaneous display of setpoint and actual temperature
- Display resolution 0.1 or 0.01 °C can be selected
- Polyphenylene oxide (PPO) bath tanks
- Thermostat heads can be turned in 90° increments on the bath if required (except SC 100-S5P)
- Pumps with 2-stage turbulence reduction system
- Hose connectors for tubes with 8 and 12 mm inside Ø
- Integrated handles
- I (NFL) = non-flammable liquids

Technical specifications:

Art. No.	LP57.1	LP58.1	LP59.1
Type	SC 100-S5P	SC 100-S14P	SC 100-S21P
Operating temperature	From +13 °C above room temperature to +100 °C		
Temperature constancy	±0,02 K		
Display resolution	0,1/0,01 °C		
Heating output	2000 W		
Max. pump pressure	300 mbar		
Max. flow	17 l/min		
Bath volume	3-5 l	8-14 l	13-21 l
Bath opening	130 x 135 mm	300 x 190 mm	300 x 375 mm
Inner depth	160 mm		
Safety class	I (NFL)		

Delivery without bath cover or cooling coil. If required, please order separately.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	SC 100-S5P	**LP57.1**	1 unit(s)	1.487,00
	SC 100-S14P	**LP58.1**	1 unit(s)	1.624,00
	SC 100-S21P	**LP59.1**	1 unit(s)	1.640,00

Accessories water cooling coil for SC 100-S5P

Thermo.

Designation	Art. No.	Pack Qty.	€
tap water cooling coil for SC 100-S5P	**PE44.1**	1 unit(s)	433,00

Tap water cooling coils for SC 100-S14P, SC 100-S21P, SC 150-S13, SC 150-S21 and AC 200

Designation	Art. No.	Pack Qty.	€
Water cooling coils for cooling. Can be connected to the water supply	**LP55.1**	1 unit(s)	201,00



Immersion circulator CORIO™ C series

Julabo.

For internal standard applications. Flexible application, e.g. when changing bath tubs.

I (NFL) = non-flammable liquids
III (FL) = flammable liquids

Technical specifications:

Art. No.	CXX7.1	CXX8.1
Type	CORIO™ C	CORIO™ CD
Operating temperature	+20 to +100 °C	+20 to +150 °C
Temperature constancy	±0,03 K	
Display resolution	0,1 °C	
Setting resolution	0.1 °C	
Heating output	2000 W	
Max. pump pressure	100 mbar	350 mbar
Max. flow	6 l/min	15 l/min
Outer width	132 mm	
Outer depth	160 mm	
Outer height	362 mm	
Safety class	I (NFL)	III (FL)

Delivery incl. bath clamps for walls up to 30 mm thick.

Type	Art. No.	Pack Qty.	€
CORIO™ C	**CXX7.1**	1 unit(s)	790,00
CORIO™ CD	**CXX8.1**	1 unit(s)	915,00

Accessories bath tubs made of stainless steel

Julabo.

For CORIO™ C series immersion circulators.

Technical specifications:

Art. No.	CXY0.1	CXY1.1	CXY2.1	CXY3.1	CXY4.1
Operating temperature	to +150 °C				
Bath volume	5 l	13 l	17 l	19 l	27 l
Inner width	150 mm	300 mm			
Inner length	300 mm	330 mm		500 mm	
Inner depth	150 mm		200 mm	150 mm	200 mm
Outer length	350 mm	380 mm		560 mm	
Outer width	190 mm	330 mm			
Outer depth	180 mm		230 mm	180 mm	230 mm

Designation	Art. No.	Pack Qty.	€
5 l stainless steel bath tank	**CXY0.1**	1 unit(s)	274,00
13 l stainless steel bath tank	**CXY1.1**	1 unit(s)	470,00
17 l stainless steel bath tank	**CXY2.1**	1 unit(s)	550,00
19 l stainless steel bath tank	**CXY3.1**	1 unit(s)	546,00
27 l stainless steel bath tank	**CXY4.1**	1 unit(s)	697,00



Immersion circulator CORIO™ CP

Julabo.

For internal applications.

- LED temperature display
- Setting/display resolution 0.01 °C (to 99.99 °C), 0.1 °C (from 100 °C)
- With timer (range: 0 to 999 min)
- Continuously adjustable pump
- USB and RS-232 port
- Early warning system for low liquid level
- Protection against excess temperature and low liquid level for flammable liquids (FL), safety class III
- Can be fitted with pump circulation set (1) for temperature control of external sealed applications (please order separately)
- Water cooling coil (2) for counter-cooling with cooling water, please order separately

Technical specifications:

Art. No.	KKH0.1
Type	CORIO™ CP
Operating temperature	+20 to +200 °C
Temperature constancy	±0,02 K
Heating output	2000 W
Max. pump pressure	700 mbar
Max. flow	8–27 l/min
Outer width	132 mm
Outer depth	160 mm
Outer height	362 mm
Mains connection	200–230 V, 50/60 Hz

Delivery incl. bath attachment clamps for max. 30 mm-thick bath tubs.

Type	Art. No.	Pack Qty.	€
CORIO™ CP	**KKH0.1**	1 unit(s)	1.647,00

Accessories pump circulation set for CORIO™ CP immersion thermostat

Julabo.

Pic.	Designation	Art. No.	Pack Qty.	€
(1)	Pump circulation set	**KKH1.1**	1 unit(s)	168,00

Accessories water pipe cooling coil for C- and CP-series

Julabo.

For CORIO™ C series circulators. Suitable for work at near ambient temperature. Attachable cooling coil for counter-cooling with cooling water.

Designation	Art. No.	Pack Qty.	€
Water cooling coils for C and CP series	**CXX9.1**	1 unit(s)	118,00



Immersion circulator

Lauda.

Technical specifications:

Art. No.	KP35.1	LX94.1	LX95.1
Type	Alpha	Silver	Gold
Operating temperature	+25 to +100 °C	+20 to +200 °C	
Temperature constancy	±0,05 K	±0,01 K	
Display resolution	0,1 °C	0,01 °C	
Heating output	1,5 W	2,0 W	2,6 W
Max. pump pressure	200 mbar	550 mbar	
Max. flow	15 l/min	22 l/min	
Safety class	I (NFL)	III (FL)	

(1) Model: Alpha

- Three-button operation
- LED display with 0.1 °C display resolution
- Display of actual and setpoint values
- With timer function (max. operating time 99 h, 59 mins)
- Heating and malfunction indicator lamps
- With screw clamp for bath tubs up to 25 mm thick
- I (NFL) = non-flammable liquids

Type	Art. No.	Pack Qty.	€
Alpha	**KP35.1**	1 unit(s)	892,00

(2) Model: Silver

- LCD display with 0.01 °C display resolution
- Operation by means of cursor keys and softkeys
- Simultaneous display of setpoint and actual values
- Pump with six adjustable output levels
- With screw clamp for bath tubs up to 25 mm thick
- USB port
- III (FL) = flammable liquids

Type	Art. No.	Pack Qty.	€
Silver	**LX94.1**	1 unit(s)	1.730,00

(3) Model: Gold

- Colour TFT display with 0.01 °C display resolution
- Operation by means of cursor keys and softkeys
- Simultaneous display of setpoint and actual values
- Graphical display of temperature characteristics
- Ramp function
- Timer
- Programmer with five programs and 150 segments
- Pump with six adjustable output levels
- With screw clamp for bath tubs up to 25 mm thick
- USB port
- III (FL) = flammable liquids

Type	Art. No.	Pack Qty.	€
Gold	**LX95.1**	1 unit(s)	2.240,00

Accessories for immersion circulators Alpha, Silver and Gold

Lauda.

Water cooling coil for Alpha and Alpha A

Designation	Art. No.	Pack Qty.	€
Water cooling coil for Alpha and Alpha A	**KP44.1**	1 unit(s)	74,40

Water cooling coil Silver and Gold

Designation	Art. No.	Pack Qty.	€
Water cooling coil for Silver and Gold	**LX96.1**	1 unit(s)	163,00



Accessories bath tank

Lauda.

Suitable for immersion circulator models Alpha, Silver and Gold.

Polycarbonate tanks

Transparent.

Technical specifications:

Art. No.	LY03.1	LY04.1	LY05.1	LY06.1
Operating temperature	to +100 °C			
Bath volume	6 l	12 l	15 l	20 l
Inner width	130 mm	300 mm	416 mm	300 mm
Inner length	420 mm	315 mm	130 mm	490 mm
Inner height	160 mm		310 mm	160 mm

Designation	Art. No.	Pack Qty.	€
6 l bath tank	**LY03.1**	1 unit(s)	326,00
12 l bath tank	**LY04.1**	1 unit(s)	484,00
15 l bath tank	**LY05.1**	1 unit(s)	484,00
20 l bath tank	**LY06.1**	1 unit(s)	643,00

Stainless steel bath tanks

With drain outlet.

Technical specifications:

Art. No.	LX97.1	LX98.1	LY00.1	LY01.1	LY02.1
Operating temperature	to +200 °C				
Bath volume	3.5 l	11 l	19 l	25 l	40 l
Inner width	135 mm	300 mm			
Inner length	240 mm	329 mm	505 mm		750 mm
Inner height	150 mm			200 mm	

Designation	Art. No.	Pack Qty.	€
3.5 l bath tank	**LX97.1**	1 unit(s)	375,00
11 l bath tank	**LX98.1**	1 unit(s)	531,00
19 l bath tank	**LY00.1**	1 unit(s)	678,00
25 l bath tank	**LY01.1**	1 unit(s)	756,00
40 l bath tank	**LY02.1**	1 unit(s)	1.720,00



Immersion circulator with Alpha A-series bath tubs

Lauda.

For temperature control of liquids up to +85 °C in open tubs.

- 3-button operation
- LED display with 0.1 °C display resolution
- Display of actual and setpoint values
- With timer function (max. operating time 99 h, 59 mins)
- Heating and malfunction indicator lamp
- Pump capacity can be reduced to 5 l/min
- Thermostats are fixed using a fixing clamp, therefore also suitable for other similar standard bath tubs (min. bath depth 150 mm)
- Can be fitted with pump circulation set for temperature control of external sealed applications (please order separately)
- I (NFL) = non-flammable liquids

Technical specifications:

Art. No.	KP36.1	KP37.1	KP38.1
Type	Alpha A 6	Alpha A 12	Alpha A 24
Operating temperature	+25 to +100 °C		
Temperature constancy	±0,05 K		
Display resolution	0,1 °C		
Heating output	1500 W		
Max. pump pressure	200 mbar		
Max. flow	15 l/min		
Bath volume	2,5–5,5 l	8–12 l	18–25 l
Bath opening	145 x 161 mm	235 x 161 mm	295 x 374 mm
Inner depth	150 mm	200 mm	
Safety class	I (NFL)		

Delivery incl. stainless steel bath tub.

Pic.	Type	Art. No.	Pack Qty.	€
	Alpha A 6	**KP36.1**	1 unit(s)	1.320,00
(1)	Alpha A 12	**KP37.1**	1 unit(s)	1.405,00
	Alpha A 24	**KP38.1**	1 unit(s)	1.650,00

Water cooling coil for Alpha and Alpha A

Designation	Art. No.	Pack Qty.	€
Water cooling coil for Alpha and Alpha A	**KP44.1**	1 unit(s)	74,40

Circulation set for Alpha A series immersion circulators

Lauda.

Designation	Art. No.	Pack Qty.	€
Pump circulation set	**KP39.1**	1 unit(s)	74,40



Open heating bath circulator CORIO™ C-BT series

Julabo.

Applications: Sample temperature control, sample preparation for serology and clinical chemistry, analysis and materials testing.
I (NFL) = non-flammable liquids.

Technical specifications:

Art. No.	CXY5.1	CXY6.1	CXY7.1
Type	C-BT5	C-BT19	C-BT27
Operating temperature	+20 to +100 °C		
Temperature constancy	±0,03 K		
Display resolution	0,1 °C		
Setting resolution	0.1 °C		
Heating output	2000 W		
Max. pump pressure	100 mbar		
Max. flow	6 l/min		
Bath volume	3-5 l	14-19 l	20-27 l
Bath opening	150 x 150 mm	300 x 350 mm	
Inner depth	150 mm		200 mm
Outer width	230 mm	380 mm	
Outer depth	380 mm	580 mm	
Outer height	380 mm		430 mm
Safety class	I (NFL)		

Delivery incl. transparent Makrolon bath tank.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	C-BT5	**CXY5.1**	1 unit(s)	982,00
(2)	C-BT19	**CXY6.1**	1 unit(s)	1.100,00
(3)	C-BT27	**CXY7.1**	1 unit(s)	1.146,00

Accessories water pipe cooling coil for C- and CP-series

Julabo.

For CORIO™ C series circulators. Suitable for work at near ambient temperature. Attachable cooling coil for counter-cooling with cooling water.

Designation	Art. No.	Pack Qty.	€
Water cooling coils for C and CP series	**CXX9.1**	1 unit(s)	118,00

Circulating bath thermostats



Circulating thermostat E5 series

Option for temperature control in the stainless steel bath. Small, external, sealed vessels can be temperature controlled using pressure pumps.

Delivery incl. bath cover, pump outlets and cooling coil.

Model: E5 standard, up to 100 °C

- For working temperatures up to **+100 °C**
- Programmable timer function (up to 99.99 mins)
- LCD display with 0.1 °C display resolution
- Actual or setpoint value display (call up setpoint value display by pressing a button, actual value is permanently visible)
- Adjustable button locking
- Visual and/or audible limit alarm
- Adjustable setpoint value limit and alarm circuit
- Excess temperature and sub-level protection for non-flammable liquids (FL)

Technical specifications:

Art. No.	KA69.1	KA70.1	KA71.1	KA72.1
Type	E5-B4	E5-B6	E5-B12	E5-B16
Operating temperature	+25 to +100 °C			
Temperature constancy	±0,1 K			
Display resolution	0,1 °C			
Heating output	1000 W			
Max. pump pressure	120 mbar			
Max. flow	5 l/min			
Bath volume	4 l	6 l	12 l	16 l
Bath opening	115 x 115 mm	230 x 75 mm	230 x 270 mm	
Inner depth	150 mm			200 mm

Type	Art. No.	Pack Qty.	€
E5-B4	**KA69.1**	1 unit(s)	1.548,00
E5-B6	**KA70.1**	1 unit(s)	1.607,15
E5-B12	**KA71.1**	1 unit(s)	1.682,40
E5-B16	**KA72.1**	1 unit(s)	1.720,00

Model: E5s, up to 150 °C

- For working temperatures up to **+150 °C**
- Programmable timer function (up to 99.99 mins)
- LCD display with 0.1 °C display resolution
- Actual or setpoint value display (call up setpoint value display by pressing a button, actual value is permanently visible)
- Adjustable button locking
- Visual and/or audible limit alarm
- Adjustable setpoint value limit and alarm circuit
- Excess temperature and sub-level protection for non-flammable liquids (FL)

Technical specifications:

Art. No.	KA73.1	KA74.1	KA75.1	KA76.1	KA77.1
Type	E5s-B4	E5s-B6	E5s-B12	E5s-B16	E5s-B22
Operating temperature	+25 to +150 °C				
Temperature constancy	±0,1 K				
Display resolution	0,1 °C				
Heating output	1800 W				
Max. pump pressure	120 mbar				
Max. flow	5 l/min				
Bath volume	4 l	6 l	12 l	16 l	22 l
Bath opening	115 x 115 mm	230 x 75 mm	230 x 270 mm		
Inner depth	150 mm			200 mm	250 mm

Type	Art. No.	Pack Qty.	€
E5s-B4	**KA73.1**	1 unit(s)	1.569,50
E5s-B6	**KA74.1**	1 unit(s)	1.671,65
E5s-B12	**KA75.1**	1 unit(s)	1.736,15
E5s-B16	**KA76.1**	1 unit(s)	1.784,50
E5s-B22	**KA77.1**	1 unit(s)	1.822,15

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Circulating bath thermostats



Bath/circulation thermostat CORIO™ CD-B series

Julabo.

For internal standard applications. Flexible use, e.g. when changing bath tanks.

- External pump connections each with 2 hose connectors for hoses with inside Ø of 8 and 12 mm
- Simple changeover between internal and external circulation
- USB port
- Integrated drain screw (except in model CD-B5)
- III (FL) = flammable liquids

Technical specifications:

Art. No.	CXY8.1	CXY9.1	CYA0.1
Type	CORIO™ CD-B5	CORIO™ CD-B13	CORIO™ CD-B27
Operating temperature	+20 to +150 °C		
Temperature constancy	±0,03 K		
Display resolution	0,1 °C		
Setting resolution	0.1 °C		
Heating output	2000 W		
Max. pump pressure	350 mbar		
Max. flow	15 l/min		
Bath volume	3–5 l	9–13 l	17–27 l
Bath opening	150 x 150 mm	300 x 180 mm	300 x 350 mm
Inner depth	150 mm		200 mm
Outer width	230 mm	380 mm	
Outer depth	380 mm	400 mm	580 mm
Outer height	410 mm	420 mm	470 mm
Safety class	III (FL)		

Delivery incl. stainless steel bath tub. **Without** bath cover (please order separately).

Pic.	Type	Art. No.	Pack Qty.	€
	CORIO™ CD-B5	**CXY8.1**	1 unit(s)	1.443,00
(1)	CORIO™ CD-B13	**CXY9.1**	1 unit(s)	1.664,00
(2)	CORIO™ CD-B27	**CYA0.1**	1 unit(s)	1.891,00

Accessories bath cover for CORIO™ CD-B series

Julabo.

Designation	Art. No.	Pack Qty.	€
Bath cover for CORIO™ CD-B5	**CYA2.1**	1 unit(s)	117,00
Bath cover for CORIO™ CD-B13	**CYA3.1**	1 unit(s)	163,00
Bath cover for CORIO™ CD-B27	**CYA4.1**	1 unit(s)	185,00

Accessories water cooling coil

Julabo.

For CORIO™ CD series circulators. Suitable for work at near ambient temperature. Integrated cooling coil for counter-cooling with cooling water.

Designation	Art. No.	Pack Qty.	€
Water cooling coil	**CYA1.1**	1 unit(s)	116,00



Heating thermostat E series

Lauda.

- With bath tubs suitable for up to 200 °C
- Stainless steel inner basin
- Outer shell made of powder-coated sheet steel
- LCD display with 0.01 °C display resolution
- Operation by means of cursor keys and softkeys
- Simultaneous display of setpoint and actual values
- USB port
- III (FL) = flammable liquids
- With cooling coil

Technical specifications:

Art. No.	LX90.1	LX89.1
Type	E 20 S	E 4 S
Operating temperature	+20 to +200 °C	
Temperature constancy	±0,01 K	
Display resolution	0,01 °C	
Heating output	2000 W	
Max. pump pressure	550 mbar	
Max. flow	22 l/min	
Bath volume	19 l	3,5 l
Bath opening	300 x 365 mm	135 x 105 mm
Inner depth	150 mm	
Safety class	III (FL)	

Model: Circulating thermostat E 4 S

- **For temperature control of external closed circuits and with the option for simultaneous temperature control in the thermostatic bath**
- Pump connections with 13 mm plastic hose connector as standard
- **Delivery incl.** bath cover

Type	Art. No.	Pack Qty.	€
E 4 S	**LX89.1**	1 unit(s)	2.390,00

Model: Heating thermostat E 20 S

- **For internal temperature control of liquids in a bath tank**
- **Delivery without** bath cover (please order separately).

Type	Art. No.	Pack Qty.	€
E 20 S	**LX90.1**	1 unit(s)	2.720,00

Accessories bath cover for heating thermostat E 20 S

Lauda.

Designation	Art. No.	Pack Qty.	€
Bath cover, made of stainless steel, two-part for E 20 S	**LX91.1**	1 unit(s)	243,00

Circulating bath thermostats



Circulating thermostat with stainless steel bath

Thermo.

For temperature control of external sealed circuits, for example, density measuring instruments, viscosity meters, photometers, refractometers, etc. Simultaneous temperature control possible in the thermostatic bath.

- Simultaneous display of setpoint and actual temperature
- Display resolution 0.1 or 0.01 °C can be selected
- Stainless-steel bath for oil baths
- Thermostat heads can be turned invariably in 90° increments on the bath
- Pumps with 2-stage turbulence reduction system
- Drain opening (on the front)
- Bath with handles
- Hose connectors for tubes with 8 and 12 mm inside Ø
- A water cooling coil is also available if required (please order separately)
- III (FL) = flammable liquids

Technical specifications:

Art. No.	LP64.1	LP65.1
Type	SC 150-S13	SC 150-S21
Operating temperature	From +13 °C above room temperature to +150 °C	
Temperature constancy	±0,02 K	
Display resolution	0,1/0,01 °C	
Heating output	2000 W	
Max. pump pressure	300 mbar	
Max. flow	17 l/min	
Bath volume	8–13 l	9–21 l
Bath opening	239 x 110 mm	296 x 310 mm
Inner depth	200 mm	150 mm
Safety class	III (FL)	

Delivery incl. circulation set for external circulation and bath cover.

Type	Art. No.	Pack Qty.	€
SC 150-S13	**LP64.1**	1 unit(s)	2.563,00
SC 150-S21	**LP65.1**	1 unit(s)	2.761,00

Tap water cooling coils for SC 100-S14P, SC 100-S21P, SC 150-S13, SC 150-S21 and AC 200

Designation	Art. No.	Pack Qty.	€
Water cooling coils for cooling. Can be connected to the water supply	**LP55.1**	1 unit(s)	201,00



Bath/circulation thermostat CP series

Julabo.

Temperature control either in the internal bath or in a connected external application such as measuring devices, measuring cells and many more.

- Simple changeover between internal and external circulation
- LED temperature display
- Setting/display resolution 0.01 °C (to 99.99 °C), 0.1 °C (from 100 °C)
- Early warning system for low liquid level
- Continuously adjustable pressure pump
- With USB and RS-232 port
- With timer (range: 0 to 999 min)
- Protection against excess temperature and low liquid level for flammable liquids (FL), safety class III

Technical specifications:

Art. No.	KKE9.1	KKE8.1
Type	(2) CP-BC26	(1) CP-BC12
Operating temperature	+20 to +200 °C	
Temperature constancy	±0,02 K	
Heating output	2000 W	
Max. pump pressure	700 bar	
Max. flow	8–27 l/min	
Bath volume	19–26 l	8,5–12 l
Bath opening	260 x 350 mm	200 x 150 mm
Inner depth	200 mm	
Outer width	390 mm	330 mm
Outer depth	620 mm	490 mm
Outer height	480 mm	470 mm
Mains connection	200–230 V, 50/60 Hz	

Delivery incl. stainless steel bath tank with lid, draining tap, integrated cooling coil for counter-cooling and hose connectors suitable for hoses with ID 8 and 12 mm.

Type	Art. No.	Pack Qty.	€
(2) CP-BC26	**KKE9.1**	1 unit(s)	3.316,00
(1) CP-BC12	**KKE8.1**	1 unit(s)	2.991,00

Circulating bath thermostats



Circulating thermostat PC300-S7

Thermo.

For temperature control in bath or external open and closed circuits.

- 8-language full text display and numerical input via 10 keys in large colour display
- Powerful pressure and suction pump for external open and closed applications
- Pump with 5-stage turbulence reduction system
- 5-ramp programming with 10 segments; options for ramp processing during operation
- Programmable application temperature alarm with signal that can be selected by the user (On/Off) or switch-off function
- Timer with real-time clock for critical applications
- USB port
- With stainless steel bath
- Thermostat heads can be turned invariably in 90° increments on the bath
- Drain orifice (on the front) and handles
- Hose connectors for tubes with 8 and 12 mm inside Ø
- III (FL) = flammable liquids

Technical specifications:

Art. No.	PE45.1
Type	PC300-S7
Operating temperature	+20 to +300 °C
Temperature constancy	±0,01 K
Heating output	3000 W
Max. pump pressure	560 mbar
Max. flow	24 l/min
Max. pump suction	380 mbar
Bath volume	7 l
Bath opening	239 x 110 mm
Inner depth	200 mm
Safety class	III (FL)

Delivery incl. circulation set for external circulation and bath cover.

Type	Art. No.	Pack Qty.	€
PC300-S7	**PE45.1**	1 unit(s)	4.324,00

Accessories water cooling coil for circulating bath thermostat PC300-S7

Thermo.

Attachable cooling coil for PC300-S7

Designation	Art. No.	Pack Qty.	€
Attachable cooling coil for PC300-S7	**PE47.1**	1 unit(s)	394,00



Recirculating coolers LAUDA LOOP

Lauda.

Applications: Temperature control for refractometers, polarimeters, electrophoresis chambers or small bioreactors.

- Refrigerant-free temperature control with Pertier technology
- Power-controlled fans
- 3-key operation with OLED display, display resolution 0.1 °C
- RS 232 interface

Technical specifications:

Art. No.	HHY7.1	HHY8.1
Type	Loop L 100	Loop L 250
Operating temperature	+4 to +80 °C	
Temperature constancy	±0,1 K	
Display resolution	0,1 °C	
Heating output	200 W	400 W
Cooling capacity	20 °C: 120 W 10 °C: 60 W	20 °C: 250 W 10 °C: 130 W
Max. pump pressure	800 mbar	
Max. flow	2.6 l/min	
Bath volume	0.3 l	
Outer length	301 mm	368 mm
Outer width	175 mm	261 mm
Outer height	266 mm	312 mm
Weight	6,9 kg	11,9 kg
Mains connection	230 V, 50/60 Hz	

Delivery incl. pump connectors for hoses with ID 6.4 mm.

Type	Art. No.	Pack Qty.	€
Loop L 100	**HHY7.1**	1 unit(s)	2.360,00
Loop L 250	**HHY8.1**	1 unit(s)	3.610,00

Recirculation cooler



NEW / +

Recirculating coolers RC 2 lite

IKA.

Application

Cooling of rotary evaporators, return condensers or as a cooling source for devices which dissipate heat by means of a heat exchanger (e.g. double-walled grinding containers, cooled incubators, laboratory reactors, cooling coils).

- With pressure and suction pump
- Illuminated window to show fill level
- Discharge nozzle for easy drainage
- USB/RS 232 interface
- I (NFL) = non-flammable liquids

Technical specifications:

Art. No.	1LHL.1
Type	RC 2 lite
Operating temperature	-10 to +40 °C
Temperature constancy	±0,5 K
Display resolution	0,1 °C
Heating output	0 W
Cooling capacity	20 °C: 400 W 10 °C: 350 W 0 °C: 250 W -10 °C: 140 W
Max. pump pressure	350 mbar
Max. flow	18 l/min
Max. pump suction	150 mbar
Bath volume	1-3,5 l
Outer width	225 mm
Outer depth	430 mm
Outer height	385 mm
Safety class	I (NFL)
Weight	24,5 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. hose connectors suitable for hoses with internal Ø 8 mm.

Type	Art. No.	Pack Qty.	€
RC 2 lite	**1LHL.1**	1 unit(s)	2.408,00



Recirculating coolers Accel series

Thermo.

For external, closed applications with water as a tempering medium, for example for cooling electrophoresis equipment. The integrated stainless steel bath design minimises the volume and evaporation of tempering medium, however it does not allow access to the bath for direct tempering of samples.

Features:

- Digital temperature display
- LCD-Display with multi-lingual text menu control (German, English, French)
- 5 user-defined set temperatures
- Energy savings feature
- Liquid level indicator
- 2.8 litres internal volume of bath
- Pump speed control - allows the user to set the pump speed at either 50 or 100 % for tighter control
- Pump for hoses with 12 mm inner-Ø
- With discharge nozzle on the front for convenient changing of water
- USB-port
- Low-level alarm

Technical specifications:

Art. No.	PE51.1	APT5.1
Type	Accel 250	Accel 500
Operating temperature	-10 to +80 °C	
Temperature constancy	±0,1 K	
Heating output	2000 W	
Cooling capacity	20 °C: 250 W	20 °C: 500 W
Max. pump pressure	300 mbar	
Max. flow	15 l/min	
Outer width	232 mm	
Outer depth	620 mm	
Outer height	487 mm	
Weight	30 kg	

Type	Art. No.	Pack Qty.	€
Accel 250	**PE51.1**	1 unit(s)	3.061,00
Accel 500	**APT5.1**	1 unit(s)	3.732,00

Recirculation cooler





Recirculating chiller F series

Julabo.

Applications: Rotary evaporators, soxhlet apparatuses, distillation plants, gas chromatographs etc. For external, closed applications.

Features:

- LED temperature display, display resolution 0.1 °C
- PID temperature control
- Drain tap for easy emptying
- Fill level indicator

Technical specifications:

Art. No.	AXX4.1	AXX5.1	HHK6.1
Type	F250	F500	F1000
Operating temperature	-10 to +40 °C	0 to +40 °C	
Temperature constancy	±0,5 K		
Display resolution	0,1 °C		
Heating output	0 W		
Cooling capacity	20 °C: 250 W 10 °C: 220 W 5 °C: 210 W 0 °C: 180 W	20 °C: 500 W 10 °C: 400 W 5 °C: 300 W 0 °C: 250 W	20 °C: 1000 W 10 °C: 700 W 5 °C: 550 W 0 °C: 250 W
Max. pump pressure	350 mbar	500 mbar	1,000 mbar
Max. flow	15 l/min	24 l/min	23 l/min
Bath volume	1,7 l–2,6 l	5–7,5 l	7–9,5 l
Outer width	240 mm	375 mm	
Outer depth	400 mm	440 mm	490 mm
Outer height	520 mm	590 mm	640 mm
Weight	27 kg	34 kg	45 kg
Mains connection	230 V, 50 Hz		

Delivery incl. 2 hose olives suitable for hoses with 8 and 10 mm inner-Ø (model F250) or hoses with 8 and 12 inner-Ø (model F500).

Type	Art. No.	Pack Qty.	€
F250	**AXX4.1**	1 unit(s)	2.373,00
F500	**AXX5.1**	1 unit(s)	3.383,00
F1000	**HHK6.1**	1 unit(s)	4.226,00

Recirculating coolers Microcool

Lauda.

Applications: cooling of rotary evaporators, distillation systems and analytical apparatus, as well as supply of cold traps.

- LED temperature display, display resolution 0.1 °C
- Time-controlled starting and shutdown of the circulation chiller (Auto-Start or Auto-Shut-Down-Timer)
- Illuminated sight glass for checking the thermostating liquid level
- Filler neck on top of apparatus at front
- Removable front grid for cleaning the condenser
- RS 232 interface

Technical specifications:

Art. No.	AEP2.1	AEP3.1	AEP4.1
Type	MC 250	MC 600	MC 1200
Operating temperature	-10 to +40 °C		
Temperature constancy	±0,5 K		
Display resolution	0,1 °C		
Heating output	0 W		
Cooling capacity	20 °C: 250 W 10 °C: 200 W 0 °C: 150 W -10 °C: 90 W	20 °C: 600 W 10 °C: 500 W 0 °C: 360 W -10 °C: 150 W	20 °C: 1200 W 10 °C: 1050 W 0 °C: 750 W -10 °C: 400 W
Max. pump pressure	350 mbar	1,300 mbar	
Max. flow	16 l/min	35 l/min	
Bath volume	2–4 l	4–8 l	7–14 l
Outer width	200 mm	350 mm	450 mm
Outer depth	350 mm	480 mm	550 mm
Outer height	465 mm	595 mm	650 mm
Timer	1 min to 99 h, 59 min		
Weight	26 kg	51 kg	64 kg
Mains connection	230 V, 50 Hz		

Delivery incl. pump connection socket 10 mm (model MC 250). For the models MC 600 and MC 1200, two 10 mm hose fittings with union nut G $^{3}/_{4}$″ are still required. Please order separately.

Model: MC 250

Pic.	Type	Art. No.	Pack Qty.	€
(1)	MC 250	**AEP2.1**	1 unit(s)	2.710,00

Model: MC series plus
With additional features:

- Bypass adjusting wheel for regulating the pump pressure
- Pressure gauge for displaying the pump pressure
- Four rollers with holding brakes

Pic.	Type	Art. No.	Pack Qty.	€
(2)	MC 600	**AEP3.1**	1 unit(s)	3.690,00
	MC 1200	**AEP4.1**	1 unit(s)	4.550,00

Cooling thermostats



Refrigerating circulating thermostat

Thermo.

For temperature control in baths or for open and closed external circuits.

- Simultaneous display of target and actual temperature
- Display resolution 0.1 or 0.01 °C can be selected
- Stainless steel bath
- Thermostat heads can be turned to any position in 90° increments on the bath
- Draincock (on the front)
- With integrated handles
- Hose connectors for hoses with 8 and 12 mm inside Ø
- I (NFL) = non-flammable liquids
  III (FL) = flammable liquids

Technical specifications:

Art. No.	PC14.1	PC15.1
Type	SC 100-A10	SC 150-A25
Cooling capacity	20 °C: 240 W	20 °C: 500 W
Bath volume	6 l	12 l
Operating temperature	-10 to +100 °C	-25 to +150 °C
Temperature constancy	±0,02 K	
Display resolution	0,1/0,01 °C	
Heating output	2000 W	
Max. pump pressure	300 mbar	
Max. flow	17 l/min	
Bath opening	137 x 124 mm	173 x 183 mm
Inner depth	150 mm	200 mm
Safety class	I (NFL)	III (NFL)

Delivery incl. bath cover and circulation set for circulation.

Type	Art. No.	Pack Qty.	€
SC 100-A10	**PC14.1**	1 unit(s)	3.414,00
SC 150-A25	**PC15.1**	1 unit(s)	4.746,00



Refrigerating circulating thermostat CORIO™ CD-F series

Julabo.

For temperature control of samples in baths or for enclosed external instruments such as refractometers, polarimeters, photometers, viscosimeters, electrophoresis chambers, chromatography columns and rotary evaporators.

- External pump connections each with 2 hose connectors for hoses with inside Ø of 8 and 12 mm
- With draincock
- Handles (front and back) for easy transportation
- USB port
- III (FL) = flammable liquids

Technical specifications:

Art. No.	CYA5.1	CYA6.1	HHK5.1
Type	CORIO™ CD-200F	CORIO™ CD-600F	CORIO™ CD-300F
Operating temperature	-20 to +150 °C	-35 to +150 °C	-25 to +150 °C
Temperature constancy	±0,03 K		
Display resolution	0,1 °C		
Setting resolution	0.1 °C		
Heating output	2000 W		
Cooling capacity	20 °C: 220 W 0 °C: 170 W -20 °C: 60 W	20 °C: 600 W 0 °C: 530 W -20 °C: 220 W	20 °C: 310 W 0 °C: 280 W -20 °C: 110 W
Max. pump pressure	350 mbar		
Max. flow	15 l/min		
Bath volume	3–4 l	5–7,5 l	3–4 l
Bath opening	130 x 150 mm	220 x 150 mm	130 x 150 mm
Inner depth	150 mm		
Outer width	230 mm	330 mm	240 mm
Outer depth	390 mm	470 mm	420 mm
Outer height	650 mm	690 mm	660 mm
Safety class	III (FL)		
Mains connection	230 V, 50 Hz		

Delivery incl. bath cover.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	CORIO™ CD-200F	**CYA5.1**	1 unit(s)	3.491,00
	CORIO™ CD-600F	**CYA6.1**	1 unit(s)	5.095,00
(2)	CORIO™ CD-300F	**HHK5.1**	1 unit(s)	4.058,00

Cooling thermostats



Cooling circulation thermostat Alpha RA series

Lauda.

For controlling temperature of external, closed electric loads. Simultaneous internal temperature control possible.

- 3-key operation
- LCD display, display resolution 0.1 °C
- Actual or set value
- With timer function (max. runtime 99 h, 59 min)
- Control lamp for heating, cooling and breakdown.
- Front panel can be removed to clean the condenser
- With drain outlet on the back to empty tempering liquid
- Bath tubs made of stainless steel
- I (NFL) = non-flammable liquids

Technical specifications:

Art. No.	KP41.1	KP42.1	KP43.1
Cooling capacity	20 °C: 225 W	20 °C: 325 W	20 °C: 425 W
Bath volume	5–7,5 l	9,5–14,5 l	14–22 l
Type	Alpha RA 8	Alpha RA 12	Alpha RA 24
Operating temperature	-25 to +100 °C		
Temperature constancy	±0,05 K		
Display resolution	0,1 °C		
Heating output	1500 W		
Max. pump pressure	200 mbar		
Max. flow	15 l/min		
Bath opening	165 x 190 mm	300 x 190 mm	350 x 290 mm
Inner depth	160 mm		
Safety class	I (NFL)		

Delivery incl. bath cover and pump circulation set.

Type	Art. No.	Pack Qty.	€
Alpha RA 8	**KP41.1**	1 unit(s)	3.320,00
Alpha RA 12	**KP42.1**	1 unit(s)	3.940,00
Alpha RA 24	**KP43.1**	1 unit(s)	4.890,00



Cooling circulation thermostat RE series

Lauda.

For temperature control of external consumers. Simultaneous internal temperature control. Small external dimensions.

- Operation by means of cursor keys and softkeys
- Simultaneous display of set and actual temperature
- USB port
- Hose connectors for hoses with 10 mm inside Ø
- III (FL) = flammable liquids

Technical specifications:

Art. No.	LX92.1	LX93.1
Type	RE 415 S	RE 415 G
Operating temperature	-15 to +200 °C	
Temperature constancy	±0,02 K	
Display resolution	0,01 °C	
Setting resolution	0.01 °C	
Heating output	2000 W	2600 W
Cooling capacity	20 °C: 180 W	
Max. pump pressure	550 mbar	
Max. flow	22 l/min	
Bath volume	4 l	
Bath opening	130 x 105 mm	
Inner depth	160 mm	
Safety class	III (FL)	

Delivery incl. thermostat with drain cock, recessed grip and bath lid.

Model: RE 415 S

- LCD display with 0.01 °C display resolution

Pic.	Type	Art. No.	Pack Qty.	€
(1)	RE 415 S	**LX92.1**	1 unit(s)	4.430,00

Model: RE 415 G

- Colour TFT display with 0.01 °C display resolution
- Graphical display of temperature characteristics
- Ramp function
- Timer

Pic.	Type	Art. No.	Pack Qty.	€
(2)	RE 415 G	**LX93.1**	1 unit(s)	4.940,00

Cooling thermostats



Refrigerating circulating thermostat CP-200F

Julabo.

Temperature control either in the internal bath or in a connected external application such as a photometer, refractometer, viscometer and others.

- Simple changeover between internal and external circulation
- LED temperature display
- Setting/display resolution 0.01 °C (to 99.99 °C), 0.1 °C (from 100 °C)
- Early warning system for low liquid level
- Continuously adjustable pressure pump
- With USB and RS-232 port
- With timer (range: 0 to 999 min)
- Protection against excess temperature and low liquid level for flammable liquids (FL), safety class III

Technical specifications:

Art. No.	KKH3.1
Type	CP-200F
Operating temperature	-20 to +200 °C
Temperature constancy	±0,03 K
Heating output	2000 W
Cooling capacity	20 °C: 200 W 10 °C: 170 W 0 °C: 150 W -10 °C: 100 W -20 °C: 20 W
Max. pump pressure	700 mbar
Max. flow	8–27 l/min
Bath volume	3–4 l
Bath opening	130 x 150 mm
Inner depth	150 mm
Outer width	230 mm
Outer depth	390 mm
Outer height	650 mm
Mains connection	230 V, 50/60 Hz

Delivery incl. stainless steel bath with lid, draining tap and hose connectors suitable for hoses with ID 8 and 12 mm.

Type	Art. No.	Pack Qty.	€
CP-200F	**KKH3.1**	1 unit(s)	4.223,00



Cold circulation thermostat AC series

Thermo.

For temperature control in bath or for open and closed external circuits.

- Simultaneous display of set and actual temperature
- Display resolution 0.1 or 0.01 °C can be selected
- Stainless steel bath
- Thermostat heads can be turned invariably in 90° steps on the bath
- Drain cock (on the front)
- With integrated handles
- Connectors for tubes with 8 and 12 mm inner-Ø
- III (FL) = flammable liquids

Technical specifications:

Art. No.	LP68.1	LP69.1
Type	AC 150-A10B	AC 150-A25B
Operating temperature	-10 to +100 °C	-25 to +150 °C
Temperature constancy	±0,01 K	
Display resolution	0,1/0,01 °C	
Heating output	2000 W	
Cooling capacity	20 °C: 250 W	20 °C: 500 W
Max. pump pressure	475 mbar	
Max. flow	20 l/min	
Max. pump suction	330 mbar	
Bath volume	18–30 l	13–20 l
Bath opening	295 x 375 mm	220 x 243 mm
Inner depth	200 mm	230 mm
Safety class	III (FL)	

Delivery incl. circulation set for external circulation. Not including bath cover. If required, please order separately.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	AC 150-A10B	**LP68.1**	1 unit(s)	5.135,00
	AC 150-A25B	**LP69.1**	1 unit(s)	5.298,00

Accessories bath cover for AC 150-A10B refrigerating circulating thermostat

Thermo.

Designation	Art. No.	Pack Qty.	€
Bath cover for AC 150-A10B	**LP71.1**	1 unit(s)	178,00

Cooling thermostats



Refrigerated circulation thermostat VersaCool 7

Thermo.

For heating and cooling. For external closed-circuit temperature control tasks or direct use in circulating baths.

- Languages: German, English, French and four others
- Intuitively operated colour touchscreen (screen size 14.4 cm)
- Electronically adjustable pump output levels (40 to 100 %)
- Graphical display of temperature profile
- Programmable with 30 program steps for up to 10 different programs (max. process time per program step 999 h, max. 10 repetitions per step)
- Integrated data logger incl. 4 GB SD card
- USB port for reading out the data logger and storing ramp profiles. Ramp profiles can be used for various baths by using the download and upload functions of the USB flash drive
- Overtemperature protection
- RS 232, RS 485 and Micro USB port
- Bluetooth communication port - for remote control and monitoring via iOS or Android smartphone
- Timer function
- Pt 100 external sensor connection for measurement and control in external system. Please order temperature sensor Pt 100 separately
- III (FL) = flammable liquids

Technical specifications:

Art. No.	CAY7.1
Type	VersaCool 7
Operating temperature	-20 to +150 °C
Temperature constancy	±0,02 K
Heating output	2000 W
Cooling capacity	20 °C: 425 W 0 °C: 200 W -10 °C: 100 W -20 °C: 50 W
Max. pump pressure	1,200 mbar
Max. flow	14.6 l/min
Bath volume	7 l
Bath opening	173 x 297 mm
Inner depth	150 mm
Outer width	258 mm
Outer depth	585 mm
Outer height	474 mm
Safety class	III (FL)
Weight	36 kg
Mains connection	200–240 / 100–120 V, 50/60 Hz

Delivery incl. bath cover (this can be attached on the right or left side or can lie loose), 2 hose olives for hoses with 8 and 12 mm inner-Ø and 4 GB SSD card.

Type	Art. No.	Pack Qty.	€
VersaCool 7	**CAY7.1**	1 unit(s)	9.294,00



Water bath

Phönix Instrument.

- Stainless steel inner tank
- LCD display for displaying setpoint/actual temperature values
- Integrated digital clock (1 min to 99 h, 59 mins or continuous)
- Overheating protection
- Heater exposed on floor

Technical specifications:

Art. No.	EEA3.1	EEA4.1	EEA5.1
Type	WB-12	WB-22	WB-22-P
Bath volume	12 l	22 l	
Inner length	290 mm	470 mm	
Inner width	230 mm	290 mm	
Inner height	150 mm		
Outer length	480 mm	680 mm	
Outer width	310 mm	365 mm	
Outer height	375 mm	395 mm	
Temperature constancy	±0,5 K		±0,2 K
Heating output	900 W	1100 W	
Max. loading of	4 test tube racks	8 test tube racks	
Weight	12 kg	18 kg	19 kg
Mains connection	230 V, 50 Hz		

Delivery incl. removable bottom and stainless steel cover.

WB series standard model
Operating temperature range from 5 °C above room temperature to 99 °C (temperature adjustment range from 10 to 99 °C).

Type	Bath volume (l)	Art. No.	Pack Qty.	€
WB-12	12	**EEA3.1**	1 unit(s)	607,40
WB-22	22	**EEA4.1**	1 unit(s)	987,95

WB-22-P model with pump
Operating temperature range from 5 °C above room temperature to 85 °C (temperature adjustment range from 10 to 85 °C).

With built-in circulation pump for faster and more even heat distribution within the bath.

Type	Bath volume (l)	Art. No.	Pack Qty.	€
WB-22-P	22	**EEA5.1**	1 unit(s)	1.091,15

Accessories test tube racks for WB series water baths

Phönix Instrument.

Suitable for	Art. No.	Pack Qty.	€
20 test tubes Ø 13 mm	**EEA6.1**	1 unit(s)	77,40
20 test tubes Ø 18 mm	**EEA7.1**	1 unit(s)	77,40
5 test tubes Ø 31 mm	**EEA8.1**	1 unit(s)	77,40



Water bath WBT series

For a working temperature range from 25 to 100 °C.

- Stainless steel inner tank
- Microprocessor-controlled temperature controller
- Digital temperature display
- Adjustable upper and lower setpoint value limit
- Visual and/or audible limit alarm (adjustable)
- With dry run protection
- Memory function saves three combinations of setpoint temperature and time parameters
- Bath is emptied via a floor drain with a locking screw. A drain cock is also available as an option (please order separately)
- WBT 1 water bath supplied with round, flat cover, all other models have a slanting cover
- Heater exposed on floor

Technical specifications:

Art. No.	EA02.1	EA03.1	EA04.1	EA05.1
Type	WBT1	WBT6	WBT12	WBT22
Bath volume	1–2 l	2–6 l	4–12 l	6–22 l
Inner length		215 mm	390 mm	455 mm
Inner width		230 mm		
Inner height	120 mm			170 mm
Inner Ø x H	130 x 120 mm			
Outer length	230 mm	320 mm	490 mm	570 mm
Outer width	240 mm	340 mm		
Outer height	220 mm	260 mm		310 mm
Operating temperature	+25 to +100 °C			
Temperature constancy	±0,25 K	±0,60 K		
Heating output	700 W	1000 W	1600 W	2000 W
Weight	5.0 kg	7.5 kg	10.5 kg	12.5 kg
Mains connection	230 V, 50/60 Hz			

Delivery incl. removable bottom.

Round bath opening

Type	Bath volume (l)	Art. No.	Pack Qty.	€
WBT1	1–2	**EA02.1**	1 unit(s)	849,25

Square bath opening

Type	Bath volume (l)	Art. No.	Pack Qty.	€
WBT6	2–6	**EA03.1**	1 unit(s)	994,40
WBT12	4–12	**EA04.1**	1 unit(s)	1.118,00
WBT22	6–22	**EA05.1**	1 unit(s)	1.236,25

Accessories for WBT series water baths

Round test tube rack for WBT 1 water bath
Made of stainless steel. Water bath holding capacity: 1 piece

Suitable for	Ø Hole (mm)	Art. No.	Pack Qty.	€
36 test tubes Ø 10.5 mm	10.5	**EA07.1**	1 unit(s)	120,40
36 test tubes Ø 11.5 mm	11.5	**EA08.1**	1 unit(s)	120,40
24 test tubes Ø 14.5 mm	14.5	**EA09.1**	1 unit(s)	120,40
16 test tubes Ø 18.5 mm	18.5	**EA10.1**	1 unit(s)	120,40
6 test tubes Ø 32 mm	32.0	**EA11.1**	1 unit(s)	120,40

Test tube racks for water baths WBT 6 to WBT 22
Made of stainless steel. Water bath holding capacity:
WBT 6 = 3 pieces, WBT 12 = 5 pieces, WBT 22 = 6 pieces.

Suitable for	Ø Hole (mm)	Art. No.	Pack Qty.	€
56 test tubes Ø 10.5 mm	10.5	**EA12.1**	1 unit(s)	79,55
56 test tubes Ø 11.5 mm	11.5	**EA13.1**	1 unit(s)	79,55
33 test tubes Ø 14.5 mm	14.5	**EA14.1**	1 unit(s)	79,55
18 test tubes Ø 18.5 mm	18.5	**EA15.1**	1 unit(s)	79,55
6 test tubes Ø 32 mm	32.0	**EA16.1**	1 unit(s)	79,55

Drain cock for water baths WBT 1 to WBT 22

Designation	Art. No.	Pack Qty.	€
Drain cock, complete	**EA17.1**	1 unit(s)	86,00

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Water baths

Water bath Hydro-series



Lauda.

For an operating temperature range from 25 to 100 °C.

- TFT display showing all process data
- Adjustment and display of temperature values at increments of 0.1 °C
- With timer function, max. 999 hrs, 59 mins
- Adjustable trigger points for overheating and insufficient temperature alarm up to max. ±10 K
- Visual and audible alarm in the event of lack of water, overheating, insufficient temperature and gauge break or short circuit
- Three application-specific timer functions
- Bath unit, cover frame, sieve plate, lid and heater made of stainless steel
- With a drain valve

Technical specifications:

Art. No.	1A81.1	1A82.1	1A87.1	1A83.1	1A88.1	1A84.1	1A85.1	1A86.1
Type	H 4	H 8	H 8 A	H 16	H 16 A	H 22	H 24	H 41
Bath volume	4 l	8 l		16 l		22 l	24 l	41 l
Inner length	245 mm			400 mm			600 mm	410 mm
Inner width	100 mm	200 mm		245 mm				296 mm
Inner height	115 mm					180 mm	115 mm	285 mm
Outer length	340 mm			500 mm			700 mm	510 mm
Outer width	290 mm	395 mm		440 mm				490 mm
Outer height	275 mm		345 mm	275 mm	345 mm		275 mm	476 mm
Operating temperature	25 to 100 °C							
Temperature constancy	0,1 K							
Heating output	500 W	1000 W		1500 W				
Mains connection	230 V, 50/60 Hz							

Delivery incl. stainless steel lid.

Standard version

Type	Bath volume (l)	Art. No.	Pack Qty.	€
H 4	4	**1A81.1**	1 unit(s)	808,00
H 8	8	**1A82.1**	1 unit(s)	1.040,00
H 16	16	**1A83.1**	1 unit(s)	1.120,00
H 22	22	**1A84.1**	1 unit(s)	1.260,00
H 24	24	**1A85.1**	1 unit(s)	1.290,00
H 41	41	**1A86.1**	1 unit(s)	1.420,00

Design with a circulation system

Type	Bath volume (l)	Art. No.	Pack Qty.	€
H 8 A	8	**1A87.1**	1 unit(s)	1.310,00
H 16 A	16	**1A88.1**	1 unit(s)	1.500,00

Water baths

Water bath WTB series

Memmert.

For temperature control of ointments, emulsions, samples, plates and nutrient solutions in the laboratory, as well as warm storage and calibration in industrial applications.

- For an operating temperature range from 5 °C above ambient temperature to +100 °C
- Intuitive 3.5″ colour graphic display with touchscreen
- Integrated digital clock from 1 min to 99.59 h
- Independent temperature limiter for heater switch-off in the event of a fault
- Corrosion-protected heating outside of the working area
- Stainless steel tray with no corners or edges for ease of cleaning, incl. central drain (no obstructing fittings)
- Bath drainage by drain valve



NEW / +

With slanting cover

Technical specifications:

Art. No.	1EYA.1	1EYC.1	1EYE.1	1EYH.1	1EYK.1	1EYL.1
Type	WTB 6	WTB 11	WTB 15	WTB 24	WTB 35	WTB 50
Bath volume	7 l	10 l	17 l	23 l	37 l	51 l
Inner length	277 mm	267 mm	482 mm	472 mm	602 mm	592 mm
Inner width	217 mm	207 mm	277 mm	267 mm	482 mm	472 mm
Inner height	150 mm	200 mm	150 mm	200 mm	150 mm	200 mm
Outer length	349 mm		554 mm		674 mm	
Outer width	289 mm		349 mm		554 mm	
Outer height	245 mm	295 mm	245 mm	295 mm	245 mm	295 mm
Height with slanting cover	348 mm	398 mm	348 mm	398 mm	348 mm	398 mm
Operating temperature	From 5 °C **above** room temperature to 100 °C					
Set temperature range	+10 to +100 °C					
Setting accuracy	0,1 °C					
Temporal temp. variance	±0,1 K					
Spatial temp. deviation	±0,3 K					
Heating output	1000 W		1420 W		2800 W	
Weight	10 kg	12 kg	14 kg	16 kg	20 kg	23 kg
Mains connection	230 V, 50/60 Hz					

Delivery incl. stainless steel slanting cover and drain valve.

Type	Bath volume (l)	Art. No.	Pack Qty.	€
WTB 6	7	**1EYA.1**	1 unit(s)	871,00
WTB 11	10	**1EYC.1**	1 unit(s)	937,00
WTB 15	17	**1EYE.1**	1 unit(s)	1.025,00
WTB 24	23	**1EYH.1**	1 unit(s)	1.129,00
WTB 35	37	**1EYK.1**	1 unit(s)	1.375,00
WTB 50	51	**1EYL.1**	1 unit(s)	1.637,00

Water baths

With flat cover and sets of rings

Technical specifications:

Art. No.	1EXX.1	1EXY.1	1EY0.1	1EY1.1	1EY2.1	1EY3.1
Type	WTB 6	WTB 11	WTB 15	WTB 24	WTB 35	WTB 50
Bath volume	7 l	10 l	17 l	23 l	37 l	51 l
Inner length	277 mm	267 mm	482 mm	472 mm	602 mm	592 mm
Inner width	217 mm	207 mm	277 mm	267 mm	482 mm	472 mm
Inner height	150 mm	200 mm	150 mm	200 mm	150 mm	200 mm
Outer length	349 mm		554 mm		674 mm	
Outer width	289 mm		349 mm		554 mm	
Outer height	245 mm	295 mm	245 mm	295 mm	245 mm	295 mm
Height with flat cover	245 mm	295 mm	245 mm	295 mm	245 mm	295 mm
Ring set openings	3		6		8	
Ø Flat cover opening	87 mm		107 mm			
Operating temperature	From 5 °C **above** room temperature to 100 °C					
Set temperature range	+10 to +100 °C					
Setting accuracy	0,1 °C					
Temporal temp. variance	±0,1 K					
Spatial temp. deviation	±0,3 K					
Heating output	1000 W		1420 W		2800 W	
Weight	10 kg	12 kg	14 kg	16 kg	20 kg	23 kg
Mains connection	230 V, 50/60 Hz					

Delivery incl. flat cover with sets of rings and drain valve.

Type	Bath volume (l)	Art. No.	Pack Qty.	€
WTB 6	7	**1EXX.1**	1 unit(s)	986,00
WTB 11	10	**1EXY.1**	1 unit(s)	1.052,00
WTB 15	17	**1EY0.1**	1 unit(s)	1.217,00
WTB 24	23	**1EY1.1**	1 unit(s)	1.321,00
WTB 35	37	**1EY2.1**	1 unit(s)	1.770,00
WTB 50	51	**1EY3.1**	1 unit(s)	2.032,00

Accessories floor grids for water baths WTB series

Memmert.

Usable on both sides. Height: 30 mm or 60 mm.



NEW/+

Suitable for	Art. No.	Pack Qty.	€
WTB 6/11	**1EYN.1**	1 unit(s)	47,00
WTB 15/24	**1EYP.1**	1 unit(s)	57,00
WTB 35/50	**1EYT.1**	1 unit(s)	130,00

Water bath Precision series

Thermo.

- **For a working temperature range of 30 to 100 °C**
  (except for the GP 02 model which can only be used up to 90 °C)
- Microprocessor-controlled temperature controller
- Digital temperature display
- Integrated timer for programming on/off times, timer function
  (1 to 99 mins) or continuous operation-
- Memory function can save up to four setpoint temperatures
- Equipped with protection against overheating
- Heating elements under the bath tank (no fittings in bath tank)
- Internal water drainage tube with integrated quick-release coupling
  (only with models GP 10, GP 20, GP 28 and GP 15 Dual)



Technical specifications:

Art. No.	HAC0.1	HAC1.1	HAC2.1	HAC3.1	HAC4.1	HAC5.1
Type	GP 02	GP 05	GP 10	GP 20	GP 28	GP 15 Dual
Bath volume	2 l	5 l	10 l	20 l	28 l	5/10 l
Inner length	155 mm	300 mm	330 mm	500 mm		
Inner width	138 mm	154 mm	301 mm	297 mm		
Inner height	150 mm				200 mm	
Outer length	199 mm	355 mm	383 mm	555 mm		587 mm
Outer width	230 mm	246 mm	393 mm	392 mm		
Outer height	344 mm	363 mm			412 mm	363 mm
Operating temperature	30 to 90 °C	30 to 100 °C				
Temperature constancy	±0,2 K					
Heating output	200 W	300 W	800 W	1200 W		300/800 W
Mains connection	100–155 / 200–230 V, 50/60 Hz					

Delivery incl. transparent cover.

Standard

Pic.	Type	Bath volume (l)	Art. No.	Pack Qty.	€
	GP 02	2	**HAC0.1**	1 unit(s)	735,00
(1)	GP 05	5	**HAC1.1**	1 unit(s)	814,00
	GP 10	10	**HAC2.1**	1 unit(s)	980,00
(2)	GP 20	20	**HAC3.1**	1 unit(s)	1.114,00
	GP 28	28	**HAC4.1**	1 unit(s)	1.239,00

Dual bath

Two independently controllable baths in one device. A different temperature can be set for each bath.
Bath 1: Volume 5 l; L x W x H internal: 300 x 154 x 150 mm
Bath 2: Volume 10 l; L x W x H internal: 330 x 301 x 150 mm

Pic.	Type	Bath volume (l)	Art. No.	Pack Qty.	€
(3)	GP 15 Dual	5/10	**HAC5.1**	1 unit(s)	1.666,00

Water bath PURA™ PURA™ series

Julabo.

For a temperature range up to 99.9 °C.



- Digital temperature display
- Internal timer function (max. 99 h, 59 mins in 1-min increments), with signal after expiry of the time, optionally with or without heating switch-off
- Integrated drain screw (except PURA™ 4)
- Easy to clean as there are no fittings in the bath
- Integrated run-dry protection and recessed grips
- **Foldable bath cover available as accessory, please order separately**

Technical specifications:

Art. No.	HCH1.1	HCH2.1	HCH3.1	HCH4.1	HCH5.1
Type	Pura™ 4	Pura™ 10	Pura™ 14	Pura™ 22	Pura™ 30
Bath volume	0,8–4,5 l	1,4–9,5 l	2–14 l	3,4–25,5 l	4,8–36 l
Inner length	120 mm	220 mm	330 mm	550 mm	770 mm
Inner width	270 mm				
Inner height	140 mm			180 mm	
Outer length	210 mm	310 mm	420 mm	640 mm	860 mm
Outer width	350 mm				
Outer height	220 mm			260 mm	
Height with lid	360 mm			400 mm	
Display resolution	0,1 °C				
Temperature constancy	0,15 K				
Heating output	500 W	1200 W	1800 W	2000 W	
Weight	4,9 kg	7 kg	8,5 kg	11,5 kg	14,5 kg
Mains connection	230 V, 50/60 Hz				

Pic.	Type	Bath volume (l)	Art. No.	Pack Qty.	€
(1)	Pura™ 4	0,8–4,5	**HCH1.1**	1 unit(s)	815,00
(2)	Pura™ 10	1,4–9,5	**HCH2.1**	1 unit(s)	934,00
	Pura™ 14	2–14	**HCH3.1**	1 unit(s)	967,00
(3)	Pura™ 22	3,4–25,5	**HCH4.1**	1 unit(s)	1.062,00
	Pura™ 30	4,8–36	**HCH5.1**	1 unit(s)	1.276,00

Accessories bath cover folds back, transparent for PURA™ series

Julabo.

Suitable for	Art. No.	Pack Qty.	€
for Pura™ 4	**HCH6.1**	1 unit(s)	143,00
for Pura™ 10	**HCH7.1**	1 unit(s)	180,00
for Pura™ 14	**HCH8.1**	1 unit(s)	191,00
for Pura™ 22	**HCH9.1**	1 unit(s)	233,00
for Pura™ 30	**HCK0.1**	1 unit(s)	282,00

Water bath with circulation pump WTB series

Memmert.

With pump device for continuous circulation of the temperature control medium.

- For an operating temperature range from 5 °C above ambient temperature to +100 °C
- Pump can be switched on and off
- Intuitive 3.5″ colour graphic display with touchscreen
- Integrated digital clock from 1 min to 99.59 h
- Independent temperature limiter for heater switch-off in the event of a fault
- Corrosion-protected heating outside of the working area
- Stainless steel tray with no corners or edges for ease of cleaning, incl. central drain (no obstructing fittings)
- Bath drainage by drain valve



NEW / +

Technical specifications:

Art. No.	1EY4.1	1EY5.1	1EY6.1	1EY7.1	1EY8.1	1EY9.1
Type	WTB 6	WTB 11	WTB 15	WTB 24	WTB 35	WTB 50
Bath volume	7 l	10 l	17 l	23 l	37 l	51 l
Inner length	277 mm	267 mm	482 mm	472 mm	602 mm	592 mm
Inner width	217 mm	207 mm	277 mm	267 mm	482 mm	472 mm
Inner height	150 mm	200 mm	150 mm	200 mm	150 mm	200 mm
Outer length	349 mm		554 mm		674 mm	
Outer width	289 mm		349 mm		554 mm	
Outer height	245 mm	295 mm	245 mm	295 mm	245 mm	295 mm
Height with slanting cover	348 mm	398 mm	348 mm	398 mm	348 mm	398 mm
Operating temperature	From 5 °C above room temperature to 100 °C					
Set temperature range	+10 to +100 °C					
Setting accuracy	0,1 °C					
Temporal temp. variance	±0,1 K					
Spatial temp. deviation	±0,3 K					
Heating output	1000 W		1420 W		2800 W	
Weight	10 kg	12 kg	14 kg	16 kg	20 kg	23 kg
Mains connection	230 V, 50/60 Hz					

Delivery incl. stainless steel slanting cover and pump device.

Type	Bath volume (l)	Art. No.	Pack Qty.	€
WTB 6	7	**1EY4.1**	1 unit(s)	1.648,00
WTB 11	10	**1EY5.1**	1 unit(s)	1.714,00
WTB 15	17	**1EY6.1**	1 unit(s)	1.824,00
WTB 24	23	**1EY7.1**	1 unit(s)	1.928,00
WTB 35	37	**1EY8.1**	1 unit(s)	2.280,00
WTB 50	51	**1EY9.1**	1 unit(s)	2.542,00

Accessories floor grids for water baths WTB series

Memmert.

Usable on both sides. Height: 30 mm or 60 mm.



NEW / +

Suitable for	Art. No.	Pack Qty.	€
WTB 6/11	**1EYN.1**	1 unit(s)	47,00
WTB 15/24	**1EYP.1**	1 unit(s)	57,00
WTB 35/50	**1EYT.1**	1 unit(s)	130,00



Heating bath with magnetic drive, HBR 4 control

IKA.

Effective volume 4 l. Interior free of heating coils (no components in the bath tub). Made of stainless steel. Available with low viscosity oil (50 mPas) or water as a heat conductor. Digital display for setpoint, actual and safety temperature as well as the speed. **Integrated magnetic drive for rotating the heating medium,** creating a better heat distribution in the bath. Heating element under the bath tank (no fittings in bath tank). With RS 232 port. Two handles.

Technical specifications:

Art. No.	LN86.1
Type	HBR 4
Bath volume	4 l
Speed range	100 to 800 rpm
Inner height	160 mm
Inner Ø x H	200 x 160 mm
Outer height	250 mm
Operating temperature	Room temperature up to +200 °C
Setting accuracy	±1 K
Control deviation	±1 K
Heating output	1000 W
Weight	4.4 kg
Mains connection	230 V, 50/60 Hz

Type	Bath volume (l)	Art. No.	Pack Qty.	€
HBR 4	4	**LN86.1**	1 unit(s)	4.355,00



Accessories set of rings for HBR 4 control heating bath

IKA.

For covering, comprises 10 rings with a Ø of 25 to 185 mm. Prevents dust gathering, heat radiation, intake of water and formation of oil mist when working with oil.

Designation	Art. No.	Pack Qty.	€
Set of rings	**9700.1**	1 unit(s)	611,00



Accessories intermediate bottom HBR 4 control

IKA.

Made of stainless steel. For achieving a better heat distribution without disrupting the movement of the rotating stirring bar.

Type	Art. No.	Pack Qty.	€
Intermediate bottom	**9689.1**	1 unit(s)	280,00



NEW/+

Serial water baths Hydro H-V series

Lauda.

For an operating temperature range from 5 °C above room temperature to 100 °C. Special baths for gentle exhaust steam applications from columns, Erlenmeyer flasks or beakers. For unsupervised continuous operation based on water lever controllers and a low-water safety device. Bath unit, cover frame with openings and split sieve plate over the tubular heating element, made of stainless steel. Bath clearance 150 mm.

Technical specifications:

Art. No.	1H1P.1	1H1N.1
Type	Hydro H 9 V	Hydro H 6 V
Bath volume	9 l	5,3 l
Inner height	90 mm	
Outer length	982 mm	682 mm
Outer width	232 mm	
Outer height	190 mm	
Ring set openings	6	4
Ø Flat cover opening	131 mm	
Operating temperature	25 to 100 °C	
Temperature constancy	±3 K	
Heating output	1500 W	1000 W
Weight	20 kg	15 kg
Mains connection	230 V, 50/60 Hz	

Delivery incl. removable flat/perforated lids with multi-part set of rings and stand rods (L 600 x Ø 12 mm).

Type	Bath volume (l)	Art. No.	Pack Qty.	€
Hydro H 9 V	9	**1H1P.1**	1 unit(s)	1.320,00
Hydro H 6 V	5,3	**1H1N.1**	1 unit(s)	1.120,00

Shaking water baths





Shaking water bath Hydro H-20 series

Lauda.

- Digital LED display
- Adjustment and display of temperature values at increments of 0.1 °C
- Overheating protection for operation with non-flammable liquids and the low-water safety device
- The speed is continuously adjustable
- Bath tank with drain valve
- Lid, bath unit, cover frame, shaking basket, sieve plate and heater made of stainless steel
- Shaking basket is easy to remove for cleaning

Technical specifications:

Art. No.	1A93.1	1A94.1	1A95.1
Type	H 20 S	H 20 SW	H 20 SOW
Bath volume	20 l		
Movement type	Back and forward		Circular
Inner length	450 mm		
Inner width	300 mm		
Inner height	115 mm		110 mm
Outer length	715 mm		632 mm
Outer width	520 mm		500 mm
Outer height	330 mm		390 mm
Operating temperature	25 to 100 °C		25 to 80 °C
Temperature constancy	±0,1 K		
Shaking frequency	10–250 rpm		
Shaking amplitude (stroke)	22 mm		14 mm
Weight	32 kg	34 kg	40 kg
Mains connection	230 V, 50/60 Hz		

Delivery incl. lid and shaking basket.

H 20 S

Standard design. Back and forward movement.

Type	Bath volume (l)	Art. No.	Pack Qty.	€
H 20 S	20	**1A93.1**	1 unit(s)	2.740,00

H 20 SW

Back and forward movement. With a cooling coil for connecting an external cooling unit. Depending on the cooling capacity, temperatures as low as 10 °C can be achieved. Also includes an actual speed display for the shaking frequency.

Type	Bath volume (l)	Art. No.	Pack Qty.	€
H 20 SW	20	**1A94.1**	1 unit(s)	3.560,00

H 20 SOW

Circular movement. With a cooling coil for connecting an external cooling unit. Depending on the cooling capacity, temperatures as low as 10 °C can be achieved. Also includes an actual speed display for the shaking frequency.

Type	Bath volume (l)	Art. No.	Pack Qty.	€
H 20 SOW	20	**1A95.1**	1 unit(s)	4.740,00

NEW / +

Accessories shaking tray for the Hydro H-20 series

Lauda.

For shaking Erlenmeyer flasks.
With a hole gird for fastening Erlenmeyer flask spring clips.

Max. number per board:
52 fixing clips for 25 ml flasks or
33 fixing clips for 50 ml flasks or
22 fixing clips for 100 ml flasks or
15 fixing clips for 200 ml flasks or
13 fixing clips for 250/300 ml flasks or
10 fixing clips for 500 ml flasks or
6 fixing clips for 1000 ml flasks

Please note: 1000 ml Erlenmeyer flasks require a raised lid. Only possible with shaking water bath models H 20 S and H 20 SW.

Delivery without spring clips, please order separately.

Designation	Art. No.	Pack Qty.	€
Shaking tray	**1H98.1**	1 unit(s)	163,00

NEW / +

Accessories raised lid suitable for shaking water bath models H 20 S and H 20 SW

Lauda.

For 1000 ml Erlenmeyer flasks. Suitable for shaking water bath models H 20 S and H 20 SW.

Designation	Art. No.	Pack Qty.	€
Raised lid	**1H99.1**	1 unit(s)	369,00

Shaking water baths



NEW / +

Shaking water bath WTB series

Memmert.

With horizontal back and forward shaking strokes. Continuously variable frequency adjustment (35 to 160 strokes per min).

- For an operating temperature range from 5 °C above ambient temperature to +100 °C
- Intuitive 3.5″ colour graphic display with touchscreen
- Integrated digital clock from 1 min to 99.59 h
- Independent temperature limiter for heater switch-off in the event of a fault
- Corrosion-protected heating outside of the working area
- Stainless steel tray with no corners or edges for ease of cleaning, incl. central drain (no obstructing fittings)
- Bath drainage by draincock
- **The collection tray supplied is sufficient for general operation. If desired, fixing clips for flasks can be ordered as an option and attached to the perforated mounting plate.**

Technical specifications:

Art. No.	1EYX.1	1EYY.1	1H00.1	1H01.1
Type	WTB 15	WTB 24	WTB 35	WTB 50
Bath volume	17 l	23 l	37 l	51 l
Movement type	Back and forward			
Inner length	482 mm	472 mm	602 mm	592 mm
Inner width	277 mm	267 mm	482 mm	472 mm
Inner height	150 mm	200 mm	150 mm	200 mm
Outer length	554 mm		674 mm	
Outer width	349 mm		554 mm	
Outer height	245 mm	295 mm	245 mm	295 mm
Height with slanting cover	348 mm	398 mm	348 mm	398 mm
Operating temperature	From 5 °C above room temperature to 100 °C			
Set temperature range	+10 to +100 °C			
Setting accuracy	0,1 °C			
Temporal temp. variance	±0,1 K			
Spatial temp. deviation	±0,3 K			
Shaking frequency	35–160 rpm			
Heating output	1420 W		2800 W	
Max. loading of	Fixing clips 14 x 100 ml flasks 10 x 200 ml flasks 8 x 300 ml flasks 5 x 500 ml flasks		Fixing clips 33 x 100 ml flasks 24 x 200 ml flasks 24 x 300 ml flasks 16 x 500 ml flasks	
Weight	14 kg	16 kg	20 kg	23 kg
Mains connection	230 V, 50/60 Hz			

Delivery incl. stainless steel slanting cover for diverting condensation, shaker with mounting frame and collection tray with perforated mounting plate (stainless steel) for mounting fixing clips for Erlenmeyer flasks (fixing clips for flasks can be ordered separately if required).

Type	Bath volume (l)	Art. No.	Pack Qty.	€
WTB 15	17	**1EYX.1**	1 unit(s)	2.081,00
WTB 24	23	**1EYY.1**	1 unit(s)	2.185,00
WTB 35	37	**1H00.1**	1 unit(s)	3.228,00
WTB 50	51	**1H01.1**	1 unit(s)	3.490,00



Shaking water bath SBS40

Stuart.

- Optionally available with tray for back and forth shaking strokes (type SBS40/1) or tray for circular movements (type SBS40/2)
- The shaking movement is generated by inserting the tray
- Loading configurations per tray:
  e.g. 8 x 250 ml or 6 x 500 ml, 6 x 500 ml or 4 x 1000 ml Erlenmeyer flasks
- Each tray includes 15 springs for attaching bottles, beakers and flasks in different sizes
- Digital temperature display (resolution 0.1 °C)
- With overheating protection and drain cock

Technical specifications:

Art. No.	AK06.1
Type	SBS 40
Bath volume	24 l
Inner length	500 mm
Inner width	300 mm
Inner height	200 mm
Outer length	580 mm
Outer width	335 mm
Outer height	320 mm
Operating temperature	10 °C above room temperature up to 95 °C
Set temperature range	+19 to +95 °C
Temperature constancy	±0,25 °C
Shaking frequency	20–130 min^{-1}
Shaking amplitude (stroke)	20 mm
Weight	17 kg
Mains connection	230 V, 50 Hz

Delivery without stainless steel cover, shaking tray and test tube racks, please order separately.

Type	Bath volume (l)	Art. No.	Pack Qty.	€
SBS 40	24	**AK06.1**	1 unit(s)	3.366,00

Accessories shaking trays for SBS40 shaking water bath

Stuart.

Designation	Art. No.	Pack Qty.	€
SBS40/1 shaking tray for back and forth movement	**AK07.1**	1 unit(s)	661,00
SBS40/2 shaking tray for circular movement	**AK08.1**	1 unit(s)	701,00

Shaking water baths

Accessories test tube racks for SBS40 shaking water bath

Stuart.

Made of stainless steel. Max. capacity of a shaking tray: 2 pieces.

Suitable for	Art. No.	Pack Qty.	€
143 Reaction vessels 1.5/2.0 ml	**XY08.1**	1 unit(s)	293,00
120 Culture tubes Ø 13 mm	**XY09.1**	1 unit(s)	293,00
72 Culture tubes Ø 16 mm	**XY10.1**	1 unit(s)	293,00
30 culture tubes Ø 26 mm	**XY11.1**	1 unit(s)	293,00
56 Centrifuge tubes 15 ml	**XY12.1**	1 unit(s)	293,00
25 centrifuge tubes 50 ml	**XY13.1**	1 unit(s)	289,00

Accessories slanting cover made of stainless steel with insulated handle

Stuart.

Designation	Art. No.	Pack Qty.	€
Stainless steel slanted cover with insulated handle	**AK09.1**	1 unit(s)	350,00



Block thermostat single Accublock™ Mini

Labnet International.

For precision temperature control of 12 1.5 ml reaction vials.

- Temperature adjustment via digital display
- Digital display of actual temperature
- Acoustic timer adjustable from 1 min to 19 h, 59 min (has no effect on heater performance; no shutdown upon expiration of the timer)
- Integrated aluminium block; ports have been adapted to fit 1.5 ml reaction vials

Technical specifications:

Art. No.	PE74.1
Type	Accublock™ Mini
Operating temperature	From +5 °C above room temperature to +100 °C
Temperature adjustment range	20-101 °C
Accuracy	±0,2 K
Resolution	0,1 °C
Warm-up period	20 min (100 °C)
W x D x H	110 x 140 x 55 mm
Weight	1.4 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. AccuRack™ for rapid filling and emptying of reaction vials.

Type	Art. No.	Pack Qty.	€
Accublock™ Mini	**PE74.1**	1 unit(s)	450,45



Block thermostat

Labnet International.

For precision heating of reaction vials, test tubes, type Falcon® centrifuge tubes and 96 well PCR trays.

- Stainless steel housing
- With LED temperature display
- Integrated timer function
- Suitable for one or two interchangeable blocks depending on model

Technical specifications:

Art. No.	PY25.1	YC47.1
Type	Single block thermostats	Dual block thermostats
Max. exchange blocks	1	2
Operating temperature	From +5 °C above room temperature to +150 °C	
Temperature adjustment range	0 - 150 °C	
Accuracy	±0,3 K	
Resolution	0,1 °C	
Timer	1 to 99 h 59 min in 1 min increments or continuous operation	
Warm-up period	35 min (100 °C)	
W x D x H	210 x 290 x 120 mm	
Mains connection	230 V, 50/60 Hz	

Delivery incl. removal rod for changing the blocks and removable cover for microlitre tubes.
Without interchangeable blocks, please order separately.

Type	Max. exchange blocks	Art. No.	Pack Qty.	€
Single block thermostats	1	**PY25.1**	1 unit(s)	473,00
Dual block thermostats	2	**YC47.1**	1 unit(s)	567,60

Block thermostats



Accessories interchangeable block for single/dual block thermostats

Labnet International. Material: Aluminium.

For reaction vials

Dimensions: W 90 mm x D 76 mm x H 51 mm,
can be used for Single/dual

Suitable for	Art. No.	Pack Qty.	€
48 reaction vessels 0.2 ml	**PY26.1**	1 unit(s)	165,55
24 reaction vessels 0.5 ml	**PY27.1**	1 unit(s)	165,55
24 reaction vessels 1.5 ml	**PY28.1**	1 unit(s)	165,55
20 reaction vessels 2.0 ml	**PY29.1**	1 unit(s)	165,55

For sample tubes/vials

Dimensions: W 90 mm x D 76 mm x H 51 mm,
can be used for Single/dual

Suitable for	Art. No.	Pack Qty.	€
20 tubes Ø 12 mm	**PY30.1**	1 unit(s)	165,55
12 tubes Ø 16 mm	**PY31.1**	1 unit(s)	165,55
6 tubes Ø 20 mm	**YC48.1**	1 unit(s)	128,80
6 tubes Ø 25 mm	**YC49.1**	1 unit(s)	128,80

For centrifuge tubes (Falcon®)

Dimensions: W 90 mm x D 76 mm x H 83 mm,
can be used for Single/dual

Suitable for	Art. No.	Pack Qty.	€
12 centrifuge tubes 15 ml	**PY32.1**	1 unit(s)	165,55
5 centrifuge tubes 50 ml	**PY33.1**	1 unit(s)	165,55

For individual processing

Dimensions: W 90 mm x D 76 mm x H 51 mm,
can be used for Single/dual

Type	Art. No.	Pack Qty.	€
Without hole	**YC50.1**	1 unit(s)	128,80

For 96-well PCR trays and microtiter plates

Please note: Only a PCR or microtiter plate block can be used in a dual-block thermostat (due to block dimensions).

Suitable for	Art. No.	Pack Qty.	€
96-well PCR tray (with/without frame), can be used forSingle	**PY34.1**	1 unit(s)	352,60
96-well PCR tray (with/without frame), can be used forDual	**YC51.1**	1 unit(s)	333,25
Microtiter plate, can be used for Dual	**YC52.1**	1 unit(s)	252,65



Block thermostats with touchscreen

Thermo.

For precision temperature control of reaction vials, test tubes and centrifuge vials of the type Falcon®.

- 4.3″ touchscreen display with time and temperature display
- PID thermostat
- Integrated timer function
- 10 user-definable programs for up to 5 successive steps with different temperature and operating time
- Connectivity for external Pt 1000 temperature gauge (please order separately); in this case, temperature is controlled and displayed using the external sensor instead of the built-in temperature sensor

Technical specifications:

Art. No.	CTN8.1	CTN9.1	CTP0.1
Type	1-block thermostat	2-block thermostat	4-block thermostat
Max. exchange blocks	1	2	4
Operating temperature	From +5 °C above room temperature to +130 °C		
Temperature adjustment range	0 - +135 °C		
Accuracy	±0,1 K		
Resolution	0,1 °C		
Timer	0 to 99 h 59 min in 1 min increments or continuous operation		
Warm-up period	20 min (130 °C)		25 min (130 °C)
W x D x H	200 x 373 x 100 mm	200 x 403 x 100 mm	200 x 535 x 100 mm
Weight	3.4 kg	3.7 kg	5.1 kg
Mains connection	220–240 V, 50/60 Hz		

Delivery incl. removal rod for changing the blocks.
Without interchangeable blocks, please order separately.

Type	Max. exchange blocks	Art. No.	Pack Qty.	€
1-block thermostat	1	**CTN8.1**	1 unit(s)	629,00
2-block thermostat	2	**CTN9.1**	1 unit(s)	713,00
4-block thermostat	4	**CTP0.1**	1 unit(s)	871,00



Accessories interchangeable block for touchscreen block thermostats

Thermo.

(1) For reaction vials
Dimensions W 124 mm x D 76 mm x H 39 mm

Suitable for	Art. No.	Pack Qty.	€
28 reaction vessels 1.5 ml	**CTP1.1**	1 unit(s)	77,80
28 reaction vessels 2.0 ml	**CTP2.1**	1 unit(s)	77,80

(2) Combined interchangeable blocks for reaction vials
Dimensions W 124 mm x D 76 mm x H 39 mm

Suitable for	Art. No.	Pack Qty.	€
30/20 reaction vessels 0.5/0.2 ml	**CTP3.1**	1 unit(s)	150,00
18/10 Reaction vessels 1.5/2.0 ml	**CTP4.1**	1 unit(s)	110,00

(3) For centrifuge tubes Falcon®
Dimensions W 124 mm x D 76 mm x H 113 mm

Suitable for	Art. No.	Pack Qty.	€
15 x 15 ml centrifuge tubes	**CTP5.1**	1 unit(s)	365,00
4 x 50 ml centrifuge tubes	**CTP6.1**	1 unit(s)	365,00

(4) For sample tubes
Dimensions W 124 mm x D 76 mm x H 39 mm

Suitable for	Art. No.	Pack Qty.	€
15 tubes Ø 16 mm	**CTP7.1**	1 unit(s)	104,00
12 tubes Ø 18 mm	**CTP8.1**	1 unit(s)	104,00
8 tubes Ø 20 mm	**CTP9.1**	1 unit(s)	84,50

Accessories external temperature gauge for the touchscreen block thermostat

Thermo.

Designation	Art. No.	Pack Qty.	€
External Pt 1000 temperature sensor	**CTT0.1**	1 unit(s)	34,05



Block thermostat SBH200D

Stuart.

For precise heating of test tubes and reaction vials.

- Digital temperature display
- Uniform and stable temperature distribution

Technical specifications:

Art. No.	**1A7H.1**
Type	SBH200D
Max. exchange blocks	2
Operating temperature	8 °C above room temperature up to 200 °C
Accuracy	37 °C: ±0,1 °C; 130 °C: ±1 °C
Resolution	0,1 °C
W x D x H	235 x 280 x 115 mm
Weight	2,3 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. removal rod for changing the blocks. Without interchangeable blocks (please order separately).

Type	Max. exchange blocks	Art. No.	Pack Qty.	€
SBH200D	2	**1A7H.1**	1 unit(s)	1.313,00



Accessories interchangeable block for SBH200D

Stuart.

Dimensions: W 75 x D 95 x H 50 mm.

For reaction vials

Suitable for	Art. No.	Pack Qty.	€
20 reaction vials 1.5 ml	**1A7K.1**	1 unit(s)	197,00
20 x reaction vials 2.0 ml	**1A7L.1**	1 unit(s)	202,00

For sample tubes

Suitable for	Art. No.	Pack Qty.	€
12 tubes Ø 16 mm tubes	**1A7N.1**	1 unit(s)	197,00
8 tubes Ø 19 mm tubes	**1A7P.1**	1 unit(s)	202,00
4 tubes Ø 30 mm tubes	**1A7T.1**	1 unit(s)	180,00

For individual processing

Suitable for	Art. No.	Pack Qty.	€
Without hole	**1A7X.1**	1 unit(s)	183,00

Block thermostats



Cooling/heating block thermostat TK 23

Hettich Benelux.

For dry, clean and fast **cooling and heating.** For reaction vials, test tubes and microtiter plates.

Features:

- **Cooling function up to 16 °C below room temperature, heating up to +90 °C**
- Active counter cooling with Peltier elements
- Background LCD display for all set and actual values
- **Direct input of temperature curves**

Programmable control:
Programmable with 30 program steps for up to 9 different programs. Program parameters: Set temperature, process time (max. 99 h/ continuous), expansion time (time in which the set temperature is to be reached), etc.

Technical specifications:

Art. No.	**HA03.1**
Type	Cooling/heating block thermostat TK 23
Max. exchange blocks	2
Operating temperature	From +16 °C below room temperature up to +90 °C
Temperature adjustment range	-10 - +90 °C
Accuracy	±0,1 K
Resolution	0,1 °C
Average heating rate	approx. 4 °C/min from +41 °C min
Medium cooling rate	approx. 5 °C/min below +20 °C min approx. 2 °C/min up to +20 °C min
W x D x H	220 x 345 x 195 mm

Delivery without interchangeable block, please order required interchangeable block separately.

Type	Max. exchange blocks	Art. No.	Pack Qty.	€
Cooling/heating block thermostat TK 23	2	**HA03.1**	1 unit(s)	2.326,30

For reaction vials

Suitable for	Art. No.	Pack Qty.	€
96 reaction vessels 0.2 ml conical	**AY21.1**	1 unit(s)	323,60
38 reaction vessels 0.5 ml conical	**AY22.1**	1 unit(s)	323,60
24 reaction vessels 1.5 ml conical	**AY23.1**	1 unit(s)	323,60
24 reaction vessels 2.0 ml cylindrical	**AY24.1**	1 unit(s)	323,60
24 x 0.5 and 1.5 ml reaction vials (combined block)	**ANN7.1**	1 unit(s)	440,25



Heating thermoshaker

Thermo.

For heating and mixing in 0.5/1.5 ml reaction vials, 50 ml test tubes or 96-well plates. With circular shaking action. Applications: Cultivating bacteria and yeast, enzyme reactions, denaturation of DNA, RNA and proteins, etc.

- VFD display
- PID controller for constant shaking action and precise temperature control
- Programmable with 10 programming steps for up to 7 different programs (program parameters: Nominal temperature, process time per programming step and shaking frequency)
- Two timer function modes (1 min to 99 h, 59 mins):
  - Process time does not begin to elapse until nominal temperature is reached
  - Timer starts immediately after setting the required process time
- Max. recommended shaking frequency:
  Block for 96-well plates: 150 to 1500 rpm
  Block for 0.5 ml vessels: 150 to 1200 rpm
  Block for 1.5 ml vessels: 150 to 1200 rpm
  Block for 50 ml tubes: 150 to 800 rpm

Technical specifications:

Art. No.	**ATX7.1**
Operating temperature	From +5 °C above room temperature to +100 °C
Temperature adjustment range	0 - +100 °C
Accuracy	±0,5 °C
Resolution	0,1 °C
Average heating rate	approx. 5 °C/min from +41 °C
Timer	1 min to 99 h, 59 mins/continuous operation
Shaking amplitude (stroke)	2 mm
W x D x H	249 x 325 x 120 mm
Weight	8,3 kg
Mains connection	230 V, 50/60 Hz

Delivery without interchangeable block, please order separately.

Version	Shaking motion	Max. exchange blocks	Art. No.	Pack Qty.	€
Heating	rund	1	**ATX7.1**	1 unit(s)	1.419,00

Accessories interchangeable block for heating thermoshakers

Thermo.

For conical reaction vials
Dimensions: W 98 mm x D 76.5 mm x H 30/40 mm

Suitable for	Art. No.	Pack Qty.	€
48 x 0.5 ml reaction vials	**ATX8.1**	1 unit(s)	179,00
24 x 1.5/2.0 ml reaction vials	**ATX9.1**	1 unit(s)	309,00

For 50 ml test tubes (Ø 30 mm)
Dimensions: W 98 mm x D 76.5 mm x H 51 mm

Suitable for	Art. No.	Pack Qty.	€
6 x 50 ml test tubes (Ø 30 mm)	**ATY1.1**	1 unit(s)	309,00

For 96-well plates
Dimensions: W 111 mm x D 76.5 mm x H 15 mm

Suitable for	Art. No.	Pack Qty.	€
96-well PCR plate	**ATY0.1**	1 unit(s)	356,00

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Cooling and heating thermoshaker

CellMedia.

Applications: Enzyme reactions, transformations, denaturation of DNA and RNA, isolation of DNA fragments from agarose gels, proteins, protein purification and cultivation of bacteria or yeasts.

Features:

- Two-line plain text display with backlit LCD display
- Simultaneous display of setpoint and actual values
- Timer operation: 1 min to 99 h, 59 mins; adjustable in 1 min increments or continuous operation
- Short mix function
- Shaking frequency can be set in 10° increments

Technical specifications:

Art. No.	CPL7.1	CPL8.1
Type	Basic	Pro
Operating temperature	from 5 °C above room temperature up to +100 °C	from 20 °C below room temperature up to 100 °C
Temperature adjustment range	4 to +100 °C	
Accuracy	<±0,5 K	
Resolution	0,1 °C	
Average heating rate	from 20 to 100 °C in approx. 13 mins	
Medium cooling rate		from 100 to 20 °C in approx. 14 mins, from 20 to 4 °C in approx. 13 min
Timer	1 min to 99 h, 59 mins/continuous operation	
Shaking frequency	200–1500 rpm	
Shaking amplitude (stroke)	2 mm	
W x D x H	220 x 280 x 170 mm	
Weight	9 kg	
Mains connection	230 V, 50 Hz	

Delivery without interchangeable blocks, please order separately.

Model: Basic – Heating and shaking

- For rapid heating and mixing
- Memory function saves five combinations of speed and time parameters

Type	Version	Max. exchange blocks	Art. No.	Pack Qty.	€
Basic	Heating	1	**CPL7.1**	1 unit(s)	1.494,25

Model Pro – Heating, cooling and shaking

- For cooling, heating and mixing
- Five individually adjustable program segments with an option for combining segments to create a ramp or to activate each segment individually

Type	Version	Max. exchange blocks	Art. No.	Pack Qty.	€
Pro	Heating and cooling	1	**CPL8.1**	1 unit(s)	2.128,50

Thermoshakers



Accessories interchangeable block for cooling and heating thermoshakers, Basic and Pro versions

CellMedia.

For reaction vials

Delivery incl. lid.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	96 PCR® vials 0.2 ml	**CPL9.1**	1 unit(s)	317,15
(2)	54 reaction vials 0,5 ml	**CPN0.1**	1 unit(s)	317,15
(3)	35 reaction vials 1,5 ml	**CPN1.1**	1 unit(s)	317,15
(4)	35 reaction vials 2,0 ml	**CPN2.1**	1 unit(s)	317,15
(5)	15 reaction vials 0,5/20x1,5 ml	**CPN3.1**	1 unit(s)	317,15
(13)	15 x 5 ml reaction vials (max. 1200 rpm)	**CPN4.1**	1 unit(s)	317,15

For sample tubes and vials

Pic.	Suitable for	Art. No.	Pack Qty.	€
(6)	24 sample vials Ø 12 mm (max. 1200 rpm)	**CPN5.1**	1 unit(s)	317,15
(11)	24 sample tubes Ø 14 mm (max. 1200 rpm)	**CPN6.1**	1 unit(s)	317,15

For centrifuge tubes

Pic.	Suitable for	Art. No.	Pack Qty.	€
(7)	12 x 15 ml centrifuge tubes (Falcon®) (max. 750 rpm)	**CPN7.1**	1 unit(s)	317,15
(8)	6 x 50 ml centrifuge tubes (Falcon®) (max. 750 rpm)	**CPN8.1**	1 unit(s)	317,15

Water bath block

Dimensions W 103 mm x 67 mm D x H 29 mm

Delivery incl. lid.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(9)	Water bath block	**CPN9.1**	1 unit(s)	317,15

For microtiter plates

Delivery incl. lid.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(10)	Microtiter plates 96	**CPP0.1**	1 unit(s)	317,15

For Deepwell plate

Delivery incl. lid.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(12)	96-well Deepwell plate (max. 900 rpm, up to max. 80 °C)	**CPP1.1**	1 unit(s)	317,15



Cooling and heating Thermoshaker Thermal mixer

Thermo.

Applications: Genetic analysis, DNA and RNA extraction, sample preparation and many more.

Features:

- Heating/cooling and shaking can be performed independently
- LCD display shows setpoint and actual values for operating time, shaking frequency and temperature
- Digital timer function with alarm signal
- Short heating and cooling times, and shaking frequency reached quickly
- Shaking frequency can be adjusted in 10° increments

Technical specifications:

Art. No.	HEH6.1
Operating temperature	15 °C below room temperature up to +100 °C
Temperature adjustment range	4 to +100 °C
Accuracy	±0.6 K at 4 °C ±0.1 K at 37 °C ±0.3 K at 100 °C
Resolution	0,1 °C
Average heating rate	5 °C/min
Medium cooling rate	from 100 to 25 °C in approx. 15 mins (5 °C/min) from 25 to 4 °C in approx. 8 mins (1.8 °C/min)
Timer	1 min to 96 h (in 1-min increments)
Shaking frequency	250–1400 rpm
Shaking amplitude (stroke)	2 mm
W x D x H	205 x 230 x 130 mm
Weight	4 kg
Mains connection	120–240 V, 50/60 Hz

Delivery without interchangeable blocks (please order separately, see Interchangeable blocks for cooling and heating thermoshaker, thermal mixer).

Version	Max. exchange blocks	Art. No.	Pack Qty.	€
Heating and cooling	1	**HEH6.1**	1 unit(s)	2.018,00



Accessories interchangeable block for cooling and heating thermoshaker Thermal mixer

Thermo.

For reaction vials

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	24 x 1.5 ml reaction vials	**HEH7.1**	1 unit(s)	1.070,00
	24 x 2.0 ml reaction vials	**HEH8.1**	1 unit(s)	1.070,00
(2)	20 x 0.2 ml and 12 x 1.5 ml reaction vials	**HEH9.1**	1 unit(s)	1.070,00
(3)	20 x 0.5 ml and 12 x 1.5 ml reaction vials	**HEK0.1**	1 unit(s)	1.070,00

For 96-well plates

Pic.	Suitable for	Art. No.	Pack Qty.	€
(4)	96-well plates or 0.2 ml tube strips for rimless plates and plates with mid-height rim and round indentations	**HEK1.1**	1 unit(s)	1.070,00



Heating thermoshaker Matrix Orbital Delta series

IKA.

Mixes and heats reaction vials and microtiter plates with round/circular motions.

Features:

- TFT display with convenient menu layout
- Automatically performs mixing and heating tasks with five programmable ramps with five increments each consisting of temperature, speed and time
- Diecast-aluminium housing for stability
- USB and RS 232 interfaces
- Shaking frequency can be adjusted in 10° increments

Technical specifications:

Art. No.	1A32.1	1A2Y.1	1A30.1	1A31.1
Operating temperature	5 °C above room temperature up to +100 °C			
Temperature adjustment range	1 to +100 °C			
Accuracy	±0.5 K at 20–45 °C ±1.5 K >45 °C			
Resolution	1 °C			
Average heating rate	5 °C/min			
Timer	1 s to 100 h (in 1 min increments) or continuous operation			
Shaking frequency	300–2000 rpm		300–1500 rpm	
Shaking amplitude (stroke)	1,5 mm			
W x D x H	220 x 350 x 150 mm			
Weight	9,5 kg			
Mains connection	120–240 V, 50/60 Hz			

Model Delta F0.5

Delivery incl. insert for 24 x 0.5 ml reaction vials. Block cannot be changed.

Version	Max. exchange blocks	Art. No.	Pack Qty.	€
Heating	1	**1A2Y.1**	1 unit(s)	2.299,00

Model Delta F1.5

Delivery incl. insert for 24 x 1.5 ml reaction vials. Block cannot be changed.

Version	Max. exchange blocks	Art. No.	Pack Qty.	€
Heating	1	**1A30.1**	1 unit(s)	2.299,00

Model Delta F2.0

Delivery incl. insert for 24 x 2.0 ml reaction vials. Block cannot be changed.

Version	Max. exchange blocks	Art. No.	Pack Qty.	€
Heating	1	**1A31.1**	1 unit(s)	2.299,00

Model Delta FP

Delivery incl. insert for microtiter plates. Block cannot be changed.

Version	Max. exchange blocks	Art. No.	Pack Qty.	€
Heating	1	**1A32.1**	1 unit(s)	2.299,00

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NEW / +

Cooling and heating thermoshaker Matrix Orbital Delta Plus

IKA.

For cooling, heating and mixing in circular motions.

Applications: Temperature control/mixing of samples, synthesis of cDNA, enzyme-catalysed joining RNA or DNA (ligation), lysis reactions and structural changes to DNA, RNA and proteins (denaturation).

Features:

- TFT display with convenient menu structure
- Snap-lock mechanism for changing attachments and automatic attachment detection
- For mixing liquids at up to 3000 rpm and with a 3 mm shaking stroke (depending on the attachment used)
- It has two different speed modes for controlling temperature according to the sample
- Automatically performs mixing and heating tasks with five programmable ramps with five increments each consisting of temperature speed and time
- Die-cast aluminium housing ensures stability
- USB and RS 232 interfaces
- Shaking frequency can be adjusted in 10° increments

Technical specifications:

Art. No.	**1H67.1**
Type	Matrix Orbital Delta Plus
Operating temperature	15 °C below room temperature up to 100 °C
Temperature adjustment range	+1 to +100 °C
Accuracy	0,5 K
Resolution	1 °C
Average heating rate	6 °C/min
Medium cooling rate	0.8 °C/min
Timer	1 sec to 100 h, (in 1 min increments) or continuous operation
Shaking frequency	300–3000 rpm
Shaking amplitude (stroke)	3 mm
W x D x H	216 x 351 x 127 mm
Weight	10 kg
Mains connection	100–240 V, 50/60 Hz

Delivery without interchangeable block (please order separately).

Type	Version	Max. exchange blocks	Art. No.	Pack Qty.	€
Matrix Orbital Delta Plus	Heating and cooling	1	**1H67.1**	1 unit(s)	2.499,00



NEW / +

Accessories interchangeable block for Matrix Orbital Delta Plus thermoshaker

IKA.

For reaction vials
Max. shaking frequency of 2000 rpm for 0.5/1.5/2.0 ml reaction vials, max. 1000 rpm for 5 ml reaction vials (max. Ø 17 mm).

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	24 x 0.5 ml conical reaction vials	**1H8A.1**	1 unit(s)	534,00
(2)	24 x 1.5 ml conical reaction vials	**1H8C.1**	1 unit(s)	499,00
(3)	24 x 2.0 ml cylindrical reaction vials	**1H8E.1**	1 unit(s)	499,00
(4)	8 x 5.0 ml conical reaction vials	**1H8H.1**	1 unit(s)	534,00

For centrifuge tubes
Max. shaking frequency 1000 rpm.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(5)	8 x 15 ml centrifuge tubes (Falcon®)	**1H8K.1**	1 unit(s)	534,00
(6)	4 x 50 ml centrifuge tubes (Falcon®)	**1H8L.1**	1 unit(s)	499,00

For trays
Max. shaking frequency of 3000 rpm for microtiter plates/384-well PCR trays, max. 2000 rpm for 96-well PCR trays and max. 1000 rpm for deep-well trays.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(7)	Microtiter plate or deep-well tray	**1H8N.1**	1 unit(s)	599,00
(8)	96-well PCR tray	**1H8P.1**	1 unit(s)	599,00
(9)	384-well PCR tray	**1H8T.1**	1 unit(s)	641,00



NEW / +

Accessories cover for blocks which are suitable for the Matrix Orbital Delta Plus thermoshaker

IKA.

Suitable for blocks for 96-/384-well PCR trays and blocks for 0.5/1.5/2.0 ml reaction vials.

(1) Cover
For uniform temperature control and to protect the samples against unwanted light exposure.

Type	Art. No.	Pack Qty.	€
Cover	**1H8X.1**	1 unit(s)	106,00

(2) Thermocover
Prevents condensation from forming on container walls or covers.

Type	Art. No.	Pack Qty.	€
Thermocover	**1H8Y.1**	1 unit(s)	499,00



Heating thermoshaker type MH series

Hettich Benelux.

For dry, clean and fast **heating and mixing.** For reaction vials, tubes and microtiter plates.

Equipment features of all models:

- With timer, short-mix function (e.g. for vortexing) and interval shaking with snipping effect
- Background LCD display for all setpoint and actual values
- **Direct input of temperature curves with different shaking frequencies**
- Removable control panel for connecting to an extension cable

Programmable control:
Programmable with 30 programming steps for up to 9 different programs. Program parameters: Nominal temperature, process time (max. 99 h/continuous), expansion time (time in which the nominal temperature is to be reached), shaking frequency, interval shaking, pause, etc.

Technical specifications:

Art. No.	HA05.1	EY98.1	EY99.1
Type	MHR 13	MHR 23	MHL 23
Operating temperature	From 3 °C above room temperature to +130 °C		
Temperature adjustment range	0 - 140 °C		
Accuracy	±0,1 K		
Resolution	0,1 °C		
Average heating rate	approx. 4 °C/min from +41 °C approx. 5 °C/min up to +40 °C		
Shaking frequency	200–1500 rpm		200–1300 rpm
Shaking amplitude (stroke)	3 mm		
W x D x H	220 x 345 x 160 mm		
Mains connection	110/240 V, 50/60 Hz		

Delivery incl. control panel. Without interchangeable blocks, please order separately (see Interchangeable blocks for cooling and heating thermoshakers).

Model: MHR 13
Circular shaking motion for dissolving critical DNA pellets from conical tips in conical reaction vials.

Type	Version	Shaking motion	Max. exchange blocks	Art. No.	Pack Qty.	€
MHR 13	Heating	round	1	**HA05.1**	1 unit(s)	2.558,50

Model: MHR 23
Double heating thermoshaker with circular shaking motion for dissolving critical DNA pellets from conical tips in conical reaction vials. Suitable for two insertion blocks. Same position when stopped.

Type	Version	Shaking motion	Max. exchange blocks	Art. No.	Pack Qty.	€
MHR 23	Heating	round	2	**EY98.1**	1 unit(s)	2.907,90

Model: MHL 23
Double heating thermoshaker with linear shaking motion creates a jerky motion for better mixing of small sample volumes in the µl range. Suitable for two insertion blocks. Same position when stopped.

Type	Version	Shaking motion	Max. exchange blocks	Art. No.	Pack Qty.	€
MHL 23	Heating	linear	2	**EY99.1**	1 unit(s)	2.907,90

Thermoshakers





Cooling and heating Thermoshaker MKR 13 and MKR 23

Hettich Benelux.

For dry, clean and fast **cooling, heating and mixing**. For reaction vials, tubes and microtiter plates.
Circular shaking motion: Ideal for dissolving critical DNA pellets from conical tips in conical reaction vials.

Features:

- **Cooling function up to 16/10 °C below room temperature, heating up to +100/75 °C**
- Active counter cooling with Peltier elements
- Coolers with speed-controlled fans direct heat or cold air to the outside
- With timer, short-mix function (e.g. for vortexing) and interval shaking with snipping effect
- Background LCD display for all setpoint and actual values
- **Direct input of temperature curves with different shaking frequencies**

Programmable control:
Programmable with 30 programming steps for up to 9 different programs. Program parameters: Nominal temperature, process time (max. 99 h/continuous), expansion time (time in which the nominal temperature is to be reached), shaking frequency, interval shaking, pause, etc.

Technical specifications:

Art. No.	HA02.1	KA68.1
Type	MKR 13	MKR 23
Operating temperature	From 16 °C below room temperature up to +100 °C	From 13 °C below room temperature up to +75 °C
Temperature adjustment range	-10 to +105 °C	0 to +75 °C
Accuracy	±0,1 °C	±0,3 °C
Resolution	0,1 °C	
Average heating rate	approx. 5 °C/min from +41 °C approx. 6 °C/min up to +40 °C	
Medium cooling rate	approx. 3 °C/min below +20 °C approx. 7 °C/min up to +20 °C	
Shaking frequency	200–1500 rpm	200–1200 rpm
Shaking amplitude (stroke)	3 mm	
W x D x H	220 x 345 x 195 mm	
Mains connection	110/240 V, 50/60 Hz	

Delivery incl. control panel. Not including insert block (please order separately, see Insert blocks for cooling and heating thermoshaker).

Type	Version	Shaking motion	Max. exchange blocks	Art. No.	Pack Qty.	€
MKR 13	Heating and cooling	round	1	**HA02.1**	1 unit(s)	2.769,20
MKR 23	Heating and cooling	round	2	**KA68.1**	1 unit(s)	3.502,35

Accessories interchangeable block for cooling and heating thermoshaker

Hettich Benelux. Material: Aluminium.

Suitable for models: MHR 13, MHR 23, MHL 23, MKR 13, MKR 23 and TK 23.

For reaction vials

Suitable for	Art. No.	Pack Qty.	€
96 reaction vessels 0.2 ml conical	**AY21.1**	1 unit(s)	323,60
38 reaction vessels 0.5 ml conical	**AY22.1**	1 unit(s)	323,60
24 reaction vessels 1.5 ml conical	**AY23.1**	1 unit(s)	323,60
24 reaction vessels 2.0 ml cylindrical	**AY24.1**	1 unit(s)	323,60
24 x 0.5 and 1.5 ml reaction vials (combined block)	**ANN7.1**	1 unit(s)	440,25

For sample tubes

Suitable for	Art. No.	Pack Qty.	€
24 sample tubes Ø 10.3 mm x D 46 mm, round bottom	**AY25.1**	1 unit(s)	440,25
24 sample tubes Ø 16.5 mm x D 46 mm, round bottom	**AY26.1**	1 unit(s)	440,25
24 sample tubes Ø 12.0 mm x D 20 mm, flat bottom	**TA95.1**	1 unit(s)	323,60
24 sample tubes Ø 15.0 mm x D 30 mm, flat bottom	**TA96.1**	1 unit(s)	323,60
24 sample tubes Ø 17.0 mm x D 30 mm, flat bottom	**TA97.1**	1 unit(s)	323,60
24 sample tubes Ø 19.0 mm x D 25 mm, flat bottom	**TA98.1**	1 unit(s)	323,60
12 sample tubes Ø 23.0 mm x D 56 mm, flat bottom	**TA99.1**	1 unit(s)	323,60
8 sample tubes Ø 28.0 mm x D 40 mm, flat bottom	**TC00.1**	1 unit(s)	440,25

For centrifuge tubes with cover (for block insulation)

Suitable for	Art. No.	Pack Qty.	€
14 x 15 ml centrifuge tubes (Falcon®)	**AY27.1**	1 unit(s)	440,25
6 x 50 ml centrifuge tubes (Falcon®)	**AY28.1**	1 unit(s)	440,25

For cells

Suitable for	Art. No.	Pack Qty.	€
36 rectangular cells, 12.5 mm outer width	**TC01.1**	1 unit(s)	440,25

For Deepwell plate

Suitable for	Art. No.	Pack Qty.	€
96-well Deepwell plate	**TC02.1**	1 unit(s)	440,25

For individual processing

Suitable for	Art. No.	Pack Qty.	€
Without hole, H 37 mm	**TC04.1**	1 unit(s)	323,60
Without hole, H 50 mm	**TC05.1**	1 unit(s)	323,60

For microtiter plates

Suitable for	Art. No.	Pack Qty.	€
U-/V-profile	**AY29.1**	1 unit(s)	440,25
Flat profile	**AY30.1**	1 unit(s)	440,25

Thermoshakers

For PCR® trays

Suitable for	Art. No.	Pack Qty.	€
PCR® trays 96, V-profile	**AY31.1**	1 unit(s)	440,25
PCR® trays 384	**AY32.1**	1 unit(s)	440,25

For DURAN® flasks

Suitable for	Art. No.	Pack Qty.	€
1 x 250 ml DURAN® flask, Ø 71.5 mm, D 74 mm	**ANN9.1**	1 unit(s)	582,65
2 x 50 ml DURAN® flasks, Ø 47 mm, D 60 mm	**ANN8.1**	1 unit(s)	516,00

For cryogenic vials

Suitable for	Art. No.	Pack Qty.	€
24 cryogenic vials, Ø 13 mm, D 30 mm, flat bottom	**ANP0.1**	1 unit(s)	440,25
24 cryogenic vials, Ø 13 mm, D 40 mm, round bottom	**ANP1.1**	1 unit(s)	440,25



Rotary evaporators RV 3 series

IKA.

Usable in the chemical, pharmaceutical and bio-industry, in the fields of research and development, production and quality assurance, in laboratories and in plant engineering.

- 4 l water heating bath with digital temperature display and handles
- Mechanical end stop for lift
- Manual lift
- Adjustable insertion angle
- Continuous speed adjustment via rotary knob and display scale
- Piston fixture with integrated push-off mechanism for easy changing of evaporating flasks

Technical specifications:

Art. No.	KAX8.1	HTX5.1
Type	RV 3 V	RV 3 V-C
Speed range	20 to 300 rpm	
Temperature range	to 99 °C	
Heating output	1350 W	
Setting accuracy	1 K	
Control deviation	±1 K	
Bath volume	4 l	
Heating bath width	330 mm	
Heating bath length	190 mm	
Heating bath height	325 mm	
Hose connectors	For hoses ID 8 mm (water and vacuum hose)	
L x W x H, total	440 x 330 x 530 mm	
Weight	8 kg	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. heating bath and vertical glassware. With PTFE inlet tube and 1000 ml evaporating flask (NS 29/32) and 1000 ml receiving flask (KS 35/20).

Type	Version	Glassware	Art. No.	Pack Qty.	€
RV 3 V	Vertical cooler	Uncoated	**KAX8.1**	1 unit(s)	2.694,00
RV 3 V-C	Vertical cooler	Coated	**HTX5.1**	1 unit(s)	2.872,00



Rotary evaporators RV 8 series

IKA.

General properties:

- Manual lift with integrated safety lift function (single-hand operation, suitable for left and right handed users)
- Digital displays for rotation speed and heating bath temperature
- Adjustable immersion angle and height
- Piston fixture with integral push-off mechanism for easier changing of evaporating flasks
- Available in two versions: With standard glassware or coated glassware (condenser and receiving flask are coated for shatter protection).

HB 10 digital heating bath:

- Universal water/oil heating bath with integrated carrying handles
- Locking function prevents accidental changing of heating bath settings
- Run-dry monitoring
- Adjustable safety temperature

Technical specifications:

Art. No.	NH24.1	NH25.1
Type	RV 8 V	RV 8V-C
Speed range	5 to 300 rpm	
Operating temperature	Ambient temperature to +180 °C	
Heating output	1300 W	
Setting accuracy	1 °C	
Control deviation	±1 K	
Bath volume	4 l	
Heating bath width	330 mm	
Heating bath length	190 mm	
Heating bath height	325 mm	
Adjustable head angle	0–45 °	
Hose connectors	For hoses ID 8 mm (water and vacuum hose)	
L x W x H, total	630 x 345 x 760 mm	
Weight	17.2 kg	
Mains connection	220–240 V, 50/60 Hz	

Delivery incl. heating bath and vertical glassware. With PTFE inlet tube and 1000 ml evaporating flask (NS 29/32) and 1000 ml receiving flask (KS 35/20).

Type	Version	Glassware	Art. No.	Pack Qty.	€
RV 8 V	Vertical cooler	Non-coated	**NH24.1**	1 unit(s)	3.355,00
RV 8V-C	Vertical cooler	Coated	**NH25.1**	1 unit(s)	3.543,00

Rotary evaporators



Rotary evaporators RV 10 series

IKA.

General features of all models:

- **Motorised lift (stroke displacement 140 mm) with adjustable height limit**
- Digital speed display
- Rotates intermittently clockwise and anticlockwise for drying processes (interval cycle for direction reversal is adjustable from 1 to 60 sec)
- Timer function for time lapse controls (1 to 199 min)
- Water/oil heating bath with integrated carry handles
- Heating bath with adjustable safety circuit
- Push-off mechanism to loosen tightly fitting flasks
- Includes Woulff bottle
- Available in two versions: With standard glassware or coated glassware (condenser and receiving flask are coated for shatter protection).

Technical specifications:

Art. No.	PE52.1	PE53.1	PE54.1	PE55.1
Type	RV 10 digital V	RV 10 digital V-C	RV 10 auto V	RV 10 auto V-C
Speed range	20 to 280 rpm			
Operating temperature	Ambient temperature to +180 °C			
Heating output	1300 W			
Setting accuracy	1 K			
Control deviation	±1 K			
Bath volume	4 l			
Heating bath width	330 mm			
Heating bath length	190 mm			
Heating bath height	325 mm			
Adjustable head angle	0–45 °			
Integrated vacuum controller	No		Yes	
Hose connectors	For hoses ID 8 mm (water and vacuum hose)			
L x W x H, total	680 x 410 x 990 mm			
Weight	28 kg			
Mains connection	220–240 V, 50/60 Hz			

RV 10 digital model

- Heating bath with digital temperature display
- Control deviation ±1 K
- Infrared interface for data transfer between the heating bath and drive unit
- RS 232 interface

Delivery incl. heating bath and vertical glassware. With PTFE inlet tube and 1000 ml evaporating flask (NS 29/32) and 1000 ml receiving flask (KS 35/20).

Type	Version	Glassware	Art. No.	Pack Qty.	€
RV 10 digital V	Vertical cooler	Non-coated	**PE52.1**	1 unit(s)	5.060,00
RV 10 digital V-C	Vertical cooler	Coated	**PE53.1**	1 unit(s)	5.484,00

(1) RV 10 auto model
Model with integrated vacuum controller for automatic distillation, for volume-based processes or full drying, depending on the application.

- Integrated solvent library with stored distillation-specific
- Parameters for standard distillations; can be extended by the customer
- Programmable volume-controlled distillation processes
- Colour graphic display shows distillation curves
- Ramp programming (speed/time and vacuum/time)
- Automatic ventilation and switch-off of heating bath after test

Delivery incl. heating bath and vertical glassware. With PTFE inlet tube and 1000 ml evaporating flask (NS 29/32) and 1000 ml receiving flask (KS 35/20). Also with RV 10.4002 magnetic valve lab vacuum (integrated check valve eliminates external influence on the operating pressure of the vacuum chamber). Hose connectors for ID 10 mm hoses.

Type	Version	Glassware	Art. No.	Pack Qty.	€
RV 10 auto V	Vertical cooler	Non-coated	**PE54.1**	1 unit(s)	8.617,00
RV 10 auto V-C	Vertical cooler	Coated	**PE55.1**	1 unit(s)	9.128,00



Rotary evaporators Hei-VAP Core

Heidolph.

- With manual and motorised lifting
- Clear 3.5″ digital LCD display for viewing current values and key for showing the set values
- Direct access to rotation and heating bath via separate rotary pressure controller with LED light activity indicator
- Locking function for values in order to prevent unintentional adjustment or overheating
- Residual heat warning at >50 °C
- Standby key stops all functions and, for motorised lift models, moves the evaporating flask out of the heating bath
- All models are available as a space-saving version with a vertical cooler (type G3) or as a normal version with a diagonal cooler (G1)
- XL cooler for higher evaporation rates thanks to improved tightness and expanded cooling surface (standard 1400 cm^2, XL model 2200 cm^2)

Delivery incl. device with heating bath and glassware. The glassware consists of a glass hollow shaft, cooler, inlet tube, 1000 ml evaporating flask (NS 29/32) and 1000 ml receiving flask (S 35/20).

Rotary evaporators

Models with manual lifting

Technical specifications:

Art. No.	KEA4.1	KEA5.1	KEA6.1	KEA7.1	KEA8.1	KEA9.1
Speed range	10 to 280 rpm					
Temperature range	+20 to +210 °C					
Heating output	1300 W					
Setting accuracy	±1 °C					
Control deviation	±1 K					
Bath volume	4,5 l					
Ø Internal	255 mm					
Evaporation rate	at 20/40 °C Acetone: 2.4/4.7 l/h Ethanol: 1.6/3.2 l/h Water: 0.5/1.0 l/h					
L x W x H, total	739 x 477 x 845 mm				739 x 477 x 920 mm	
Mains connection	230 V, 50/60 Hz					

Version	Glassware	Art. No.	Pack Qty.	€
Diagonal cooler G1	Non-coated	**KEA4.1**	1 unit(s)	3.477,00
Diagonal cooler G1B	Coated	**KEA5.1**	1 unit(s)	3.695,00
Vertical cooler G3	Non-coated	**KEA6.1**	1 unit(s)	3.681,00
Vertical cooler G3B	Coated	**KEA7.1**	1 unit(s)	3.899,00
Vertical cooler G3 XL	Non-coated	**KEA8.1**	1 unit(s)	3.944,00
Vertical cooler G3B XL	Coated	**KEA9.1**	1 unit(s)	4.162,00

Models with motorised lifting

Technical specifications:

Art. No.	KEC0.1	KEC1.1	KEC2.1	KEC3.1	KEC4.1	KEC5.1
Speed range	10 to 280 rpm					
Temperature range	+20 to +210 °C					
Heating output	1300 W					
Setting accuracy	±1 °C					
Control deviation	±1 K					
Bath volume	4,5 l					
Ø Internal	255 mm					
Evaporation rate	at 20/40 °C Acetone: 2.4/4.7 l/h Ethanol: 1.6/3.2 l/h Water: 0.5/1.0 l/h					
L x W x H, total	739 x 407 x 845 mm				739 x 407 x 920 mm	
Mains connection	230 V, 50/60 Hz					

Version	Glassware	Art. No.	Pack Qty.	€
Diagonal cooler G1	Non-coated	**KEC0.1**	1 unit(s)	3.804,00
Diagonal cooler G1B	Coated	**KEC1.1**	1 unit(s)	4.022,00
Vertical cooler G3	Non-coated	**KEC2.1**	1 unit(s)	4.008,00
Vertical cooler G3B	Coated	**KEC3.1**	1 unit(s)	4.226,00
Vertical cooler G3 XL	Non-coated	**KEC4.1**	1 unit(s)	4.271,00
Vertical cooler G3B XL	Coated	**KEC5.1**	1 unit(s)	4.489,00



Rotary evaporators Hei-VAP Expert

Heidolph.

- With manual or motorised lifting
- 5″ touch display with clear display of all values (Basic/Advanced modes)
- Timer (max. 99 hrs, 99 mins)
- Limitation of heating temperature
- Multilingual menu with warning message
- Optional display of boiling temperature (if required, please order boiling temperature sensor separately)
- Direct access to rotation and heating bath via separate rotary pressure controller with LED light activity indicator
- Locking function for values in order to prevent unintentional adjustment or overheating
- Residual heat warning at >50 °C
- Standby key stops all functions and, for motorised lift models, moves the evaporating flask out of the heating bath
- All models are available as a space-saving version with a vertical cooler (type G3) or as a normal version with a diagonal cooler (G1)
- XL cooler for higher evaporation rate thanks to improved tightness and expanded cooling area (standard 1400 cm^2, XL models 2200 cm^2)

Delivery incl. device with heating bath and glassware. The glassware consists of a glass hollow shaft, cooler, inlet tube, 1000 ml evaporating flask (NS 29/32) and 1000 ml receiving flask (S 35/20).

Models with manual lifting

Technical specifications:

Art. No.	KHE7.1	KHE8.1	KHE9.1	KHH0.1	KHH1.1	KHH2.1
Speed range	10 to 280 rpm					
Temperature range	+20 to +210 °C					
Heating output	1300 W					
Setting accuracy	±1 °C					
Control deviation	±1 ° K					
Bath volume	4,5 l					
Ø Internal	255 mm					
Evaporation rate	at 20/40 °C: Acetone: 2.4/4.7 l/h Ethanol: 1.6/3.2 l/h Water: 0.5/1.0 l/h					
L x W x H, total	739 x 477 x 845 mm				739 x 477 x 920 mm	
Mains connection	230 V, 50/60 Hz					

Version	Glassware	Art. No.	Pack Qty.	€
Diagonal cooler G1	Non-coated	**KHE7.1**	1 unit(s)	3.979,00
Vertical cooler G3	Non-coated	**KHE9.1**	1 unit(s)	4.182,00
Vertical cooler G3 XL	Non-coated	**KHH1.1**	1 unit(s)	4.445,00
Diagonal cooler G1B	Coated	**KHE8.1**	1 unit(s)	4.197,00
Vertical cooler G3B	Coated	**KHH0.1**	1 unit(s)	4.400,00
Vertical cooler G3B XL	Coated	**KHH2.1**	1 unit(s)	4.663,00

Rotary evaporators

Models with motorised lifting

Technical specifications:

Art. No.	KHH3.1	KHH4.1	KHH5.1	KHH6.1	KHH7.1	KHH8.1
Speed range	10 to 280 rpm					
Temperature range	+20 to +210 °C					
Heating output	1300 W					
Setting accuracy	±1 °C					
Control deviation	±1 ° K					
Bath volume	4,5 l					
Ø Internal	255 mm					
Evaporation rate	at 20/40 °C: Acetone: 2.4/4.7 l/h Ethanol: 1.6/3.2 l/h Water: 0.5/1.0 l/h					
L x W x H, total	739 x 407 x 845 mm				739 x 407 x 920 mm	
Mains connection	230 V, 50/60 Hz					

Version	Glassware	Art. No.	Pack Qty.	€
Diagonal cooler G1	Non-coated	**KHH3.1**	1 unit(s)	4.306,00
Vertical cooler G3	Non-coated	**KHH5.1**	1 unit(s)	4.509,00
Vertical cooler G3 XL	Non-coated	**KHH7.1**	1 unit(s)	4.772,00
Diagonal cooler G1B	Coated	**KHH4.1**	1 unit(s)	4.524,00
Vertical cooler G3B	Coated	**KHH6.1**	1 unit(s)	4.727,00
Vertical cooler G3B XL	Coated	**KHH8.1**	1 unit(s)	4.990,00



Accessories for Hei-VAP series rotary evaporator

Heidolph.

(1) Protective screen
For fastening to the edge of a bath

Designation	Art. No.	Pack Qty.	€
Protective screen	**LH20.1**	1 unit(s)	134,00

(2) Protective hood

Designation	Art. No.	Pack Qty.	€
Protective hood	**LH21.1**	1 unit(s)	328,00

(3) Boiling temperature sensor
For digital display of steam temperature.
For Hei-VAP Advantage HL/ML only.

Designation	Art. No.	Pack Qty.	€
Boiling temperature sensor	**X818.1**	1 unit(s)	233,00



N°ICE ice bath

TECHNE.

Space-saving sample chiller with general-purpose heat treatment bath for various vial types and sizes. Ceramic beads are used instead of ice as a chilling medium. This allows unlimited cooling times and avoids the problem of floating samples in thawing ice as well as contamination by coolants. As a time saving option, the ice box with beads can be pre-incubated in the fridge and simply inserted into the unit as and when required.

- Peltier cooling technology
- Max. capacity approx. 60 x1.5 ml reaction vials
- Ceramic beads are autoclavable and suitable for multiple use

Technical specifications:

Art. No.	AKN5.1
Type	N°ICE
Operating temperature	0.0 to 40.0 °C
Accuracy	±1 K
Resolution	0,1 °C
Medium cooling rate	from 20 to 4 °C in approx. 60 mins from 20 to 0 °C in approx. 3–4 hours
W x D x H, interior	155 x 108 x 70 mm
W x D x H	190 x 240 x 225 mm
Weight	4.5 kg
Mains connection	100–230 V, 50/60 Hz

Delivery incl. aluminium heat treatment bath and 1.7 kg ceramic beads (Ø 1.5–2.5 mm).

Type	Art. No.	Pack Qty.	€
N°ICE	**AKN5.1**	1 unit(s)	1.663,00



DipSlide incubator EM4 EM4

Laboratories Humeau.

Lightweight, small incubator specially designed for DipSlides. With transparent, easily removable cover for quick insertion and removal of DipSlides. Easy to operate, even for inexperienced users.
A stand insert and a thermometer are also supplied. Also usable without a stand for incubation of Petri dishes and contact plates.

Technical specifications:

Art. No.	KK43.1
Type	DipSlide incubator EM4
Suitable for	23 DipSlides
Operating temperature	Room temperature up to +44 °C
Vol.	4 l
Inner width	180 mm
Inner depth	180 mm
Inner height	125 mm
Outer width	230 mm
Outer depth	230 mm
Outer height	180 mm
Weight	1,5 kg
Mains connection	200 V

Type	Suitable for	Vol. (l)	Art. No.	Pack Qty.	€
DipSlide incubator EM4	23 DipSlides	4	**KK43.1**	1 unit(s)	526,75

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Small incubator Cultura® M

For incubating 18 dip slides (e.g. ROTI® DipSlides culture medium) or 12 Petri dishes and other small vessels for verifying bacteria, fungi and yeasts.

- **Operating temperature range from +5 °C above room temperature to 45 °C; temperature adjustment range from 25 to 45 °C**
- Thermometer in tube with special petroleum filling.
  Measuring range 7 to 60 °C. Graduations 1 °C. Accuracy ±1 °C.
  Dimensions: H 95 x Ø 25 mm.
- Transparent full-vision door for visual inspection
- Minimal footprint, i.e. space-saving

Technical specifications:

Art. No.	AHH9.1
Type	Cultura® M
Operating temperature	From +5 °C above room temperature to +45 °C
Set temperature from	+25 °C
Set temperature up to	+45 °C
Vol.	4 l
Inner width	220 mm
Inner depth	150 mm
Inner height	120 mm
Outer width	310 mm
Outer depth	168 mm
Outer height	155 mm
Temperature variance	±1 K
Weight	1.1 kg
Mains connection	230 V, 50 Hz

Delivery incl. control thermometer in the tube and shelf.

Type	Vol. (l)	Art. No.	Pack Qty.	€
Cultura® M	4	**AHH9.1**	1 unit(s)	494,50



Multirack for Cultura® M small incubator

Suitable for Cultura® M mini incubator. Made of ABS. For 18 tubes (Ø 25 to 30 mm). Dimensions: W 213 mm x D 142 mm x H 50 mm.

Designation	Art. No.	Pack Qty.	€
Multirack	**AHK0.1**	1 unit(s)	38,00



Small incubator

Labnet International.

Space-saving unit for incubating culture bottles, petri dishes, micro-titration plates and other small-volume vessels.

- **Operating temperature range from + 5 °C above ambient temperature to 60 °C; temperature adjustment range from 20 to 60 °C**
- Cable conduit (Ø 55 mm) at the rear
- Loading options, e.g. 48 petri dishes or 28 microtitration plates in 96 well format
- Thermometer holder (Ø 7 mm) on the top allows the inner temperature to be monitored

Technical specifications:

Art. No.	YC53.1
Type	Small incubator
Operating temperature	From +5 °C above room temperature to +60 °C
Set temperature from	+20 °C
Set temperature up to	+60 °C
Vol.	9.2 l
Inner width	230 mm
Inner depth	200 mm
Inner height	200 mm
Outer width	285 mm
Outer depth	280 mm
Outer height	335 mm
Max. removable shelves	3
Temperature variance	±0,7 K
Weight	8.3 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. 1 shelf (L 220 x W 180 mm). Please order thermometer separately.

Type	Vol. (l)	Art. No.	Pack Qty.	€
Small incubator	9.2	**YC53.1**	1 unit(s)	631,05



Small incubator Heratherm™ IMC18

Thermo.

- Operating temperature range from 17 to 40 °C
- With Peltier cooling
- Minimal footprint for space-restricted lab areas
- Microprocessor control
- Round edges make it easy to clean
- Interior lighting facilitates sample monitoring
- Fan for air circulation; runs permanently and is not adjustable

Technical specifications:

Art. No.	HAP4.1	PL74.1
Type	Darkened front panel	Standard model – glass front
Operating temperature	Operating temperature range from 17 to 40 °C	
Vol.	18 l	
Resolution	1 °C	
Inner width	180 mm	
Inner depth	310 mm	
Inner height	290 mm	
Outer width	260 mm	
Outer depth	470 mm	
Outer height	415 mm	
Max. removable shelves	3	
Temporal temp. variance	±0,2 K	
Spatial temp. deviation	±1,2 K	
Weight	7.2 kg	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. two removable shelves.

With glass front – standard model

Type	Vol. (l)	Art. No.	Pack Qty.	€
Standard model – glass front	18	**PL74.1**	1 unit(s)	855,00

With darkened front panel – IMC18 bio model

For incubation without the influence of light, cool long-term storage in the dark, light-sensitive micro-organisms and much more.

Type	Vol. (l)	Art. No.	Pack Qty.	€
Darkened front panel	18	**HAP4.1**	1 unit(s)	919,00

Accessories additional tray for IMC18

Thermo.

Designation	Art. No.	Pack Qty.	€
Additional shelf for IMC18	**PL75.1**	1 unit(s)	40,90



Small incubator TIN series

Phönix Instrument.

- **Operating temperature range from +5 °C above room temperature to 70 °C; temperature adjustment range from 20 to 70 °C**
- Digital timer (adjustable from 1 min to 99 hrs or continuous run)
- Glass window in the door for monitoring the samples
- Natural air flow (convection)
- Stainless steel interior
- Test opening (Ø 5 mm) on top, e.g. for introducing sensors

Technical specifications:

Art. No.	EEH0.1	EEH1.1
Type	TIN-IN16B	TIN-IN35B
Operating temperature	From +5 °C above room temperature to +70 °C	
Set temperature from	+20 °C	
Set temperature up to	+70 °C	
Vol.	16 l	35 l
Inner width	270 mm	360 mm
Inner depth	230 mm	300 mm
Inner height	255 mm	320 mm
Outer width	505 mm	595 mm
Outer depth	370 mm	440 mm
Outer height	400 mm	460 mm
Max. removable shelves	6	
Rated power	85 W	125 W
Warm-up period	18 min (37 °C)	22 min (37 °C)
Temperature variance	±0,4 K	
Weight	23 kg	33 kg
Mains connection	230 V, 50/60 Hz	

Delivery incl. 2 removable shelves.

Type	Vol. (l)	Art. No.	Pack Qty.	€
TIN-IN16B	16	**EEH0.1**	1 unit(s)	900,85
TIN-IN35B	35	**EEH1.1**	1 unit(s)	1.040,60

Accessories grate made of stainless steel for TIN series incubators

Phönix Instrument.

Suitable for	Art. No.	Pack Qty.	€
for TIN-IN16B	**EEH2.1**	1 unit(s)	64,65
for TIN-IN35B	**EEH3.1**	1 unit(s)	74,40



Incubator BD-S Solid.Line

Binder.

- **Operating temperature range from +5 °C above room temperature to 70 °C**
- APT.line™ pre-heating chamber technology
- Natural convection
- Adjustable exhaust air flap
- Controller with timer function (1 min to 99 h)
- Inner door made of safety glass
- Integrated Class 3.1 temperature safety device (DIN 12880) with visual alarm

Technical specifications:

Art. No.	KCT5.1	KCT6.1
Type	BD-S 056	BD-S 115
Operating temperature	From +5 °C above room temperature to 70 °C	
Vol.	62 l	118 l
Resolution	1 °C	
Inner width	400 mm	550 mm
Inner depth	350 mm	390 mm
Inner height	440 mm	550 mm
Outer width	614 mm	764 mm
Outer depth	580 mm	662 mm
Outer height	625 mm	735 mm
Max. removable shelves	4	5
Temporal temp. variance	±0,1 °C	±0,2 °C
Spatial temp. deviation	±0,7 °C	±0,5 °C
Weight	41 kg	57 kg
Mains connection	230 V, 50 Hz	

Delivery incl. two chrome-plated insertable grates.

Type	Vol. (l)	Art. No.	Pack Qty.	€
BD-S 056	62	**KCT5.1**	1 unit(s)	1.360,95
BD-S 115	118	**KCT6.1**	1 unit(s)	1.847,95

Accessories racks, chrome-plated for Solid.Line incubators and drying ovens

Binder.

Suitable for	Art. No.	Pack Qty.	€
for BD-S 056/ED-S 056/FD-S 056	**KCT7.1**	1 unit(s)	49,75
for BD-S 115/ED-S 115/FD-S 115	**KCT8.1**	1 unit(s)	70,10

Incubators



Incubator Heratherm™ Protocol series

Thermo.

General features:

- Housing interior with round edges make it easy to clean
- With additional inner glass door
- RS 232 port
- Natural convection minimises dessication of samples; air circulation achieves more accurate temperatures
- Handle and display (65 mm) not included in depth; adjustable feet (35 mm) not included in height
- Mains connection 230 V, 50 Hz

Technical specifications:

Art. No.	PL96.1	PL97.1	PL98.1	PL99.1	PP00.1	PP01.1
Type	IGS60	IGS100	IGS180	IMH60	IMH100	IMH180
Operating temperature	From +5 °C above room temperature to +75 °C			From +5 °C above room temperature to +105 °C		
Vol.	75 l	117 l	194 l	66 l	104 l	178 l
Inner width	354 mm	464 mm		354 mm	464 mm	
Inner depth	414 mm		589 mm	368 mm		543 mm
Inner height	508 mm	608 mm	708 mm	508 mm	608 mm	708 mm
Outer width	530 mm	640 mm		530 mm	640 mm	
Outer depth	565 mm		738 mm	565 mm		738 mm
Outer height	720 mm	820 mm	920 mm	720 mm	820 mm	920 mm
Max. removable shelves	13	16	19	13	16	19
Rated power	300 W	520 W	710 W	850 W	1,100 W	1,300 W
Temporal temp. variance	±0,2 °C			±0,1 °C		
Spatial temp. deviation	±0,6 °C			±0,2 °C	±0,3 °C	±0,4 °C
Weight	40 kg	51 kg	65 kg	45 kg	56 kg	70 kg
Mains connection	230 V, 50 Hz					

Delivery incl. two removable shelves. Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

General Protocol with natural convection

- **Operating temperature range: From +5 °C above room temperature to 75 °C**
- Stainless steel interior (1.4016)
- Integrated timer (1 min to 99 h, 59 min)
- Microprocessor control
- Actual temperature display
- Setting accuracy ±0.1 K
- Automatic overheating alarm

Type	Vol. (l)	Art. No.	Pack Qty.	€
IGS60	75	**PL96.1**	1 unit(s)	1.578,00
IGS100	117	**PL97.1**	1 unit(s)	2.226,00
IGS180	194	**PL98.1**	1 unit(s)	3.099,00

Advanced Protocol with air-circulation fan

- **Operating temperature range: From +5 °C above room temperature to 105 °C**
- Stainless steel interior (1.4301)
- Digital timer for daily/weekly on/off cycles
- Setting accuracy ±0.1 K
- Automatic overheating alarm
- Cable conduit (Ø 50 mm) at the rear
- With varnished housing
- With air-circulation fan: Dual convection with adjustable fan speed from 0 (corresponds to natural convection) to 100%

Type	Vol. (l)	Art. No.	Pack Qty.	€
IMH60	66	**PL99.1**	1 unit(s)	2.460,00
IMH100	104	**PP00.1**	1 unit(s)	3.275,00
IMH180	178	**PP01.1**	1 unit(s)	4.681,00

Accessories shelf kit for Heratherm® incubators

Thermo.

Shelf kit: One shelf with two mounting clips.

Designation	Art. No.	Pack Qty.	€
for IGS60	**PP02.1**	1 unit(s)	126,00
for IGS100	**PP03.1**	1 unit(s)	155,00
for IGS180	**PP04.1**	1 unit(s)	169,00
for IMH60	**PP05.1**	1 unit(s)	126,00
for IMH100	**PP06.1**	1 unit(s)	155,00
Insert kit for IMH180 and IMP180	**PP07.1**	1 unit(s)	169,00

Incubator IN/INplus series



Memmert.

General features:

- **Operating temperature range from 5 °C above room temperature to 80 °C**
  Set temperatures from 20 to 80 °C
  Adjustment accuracy 0.1 K
- Stainless steel interior (1.4301)
- Fully insulated stainless steel door (two-wing from size 450 upwards)
- **With additional inner glass door**
- Fresh air supply by electronically adjustable exhaust air flap
- Textured stainless steel housing
- Model sizes 450 and 750, with moveable and lockable rollers
- Depth plus door handle: 56 mm
- Incl. factory calibration certificate valid for +37 °C

Other features:

- **With natural air circulation (convection)**
- German, English, French and Spanish language options
- Digital timer (adjustable from 1 min to 99 d, 23 h) or continuous operation
- "SetpointWAIT" function – process time does not start until the target temperature is reached

Delivery incl. stainless steel grating (models 30 and 55: One grate, models 75 to 750: Two grates). Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

IN series models

- Graphical single TFT display with touch screen for operation and displaying temperature, program runtime and air flap position
- Integrated data logger with 10-year memory
- With Ethernet communication port for reading out log data
- Protection against overheating

Technical specifications:

Art. No.	TY30.1	TY31.1	TY32.1	TY33.1	TY34.1	TY35.1	TY36.1	TY37.1
Type	IN 30	IN 55	IN 75	IN 110	IN 160	IN 260	IN 450	IN 750
Operating temperature	From +5 °C above room temperature to +80 °C							
Vol.	32 l	53 l	74 l	108 l	161 l	256 l	449 l	749 l
Inner width	400 mm			560 mm		640 mm	1,040 mm	
Inner depth	250 mm	330 mm		400 mm		500 mm	600 mm	
Inner height	320 mm	400 mm	560 mm	480 mm	720 mm	800 mm	720 mm	1,200 mm
Outer width	585 mm			745 mm		824 mm	1,224 mm	
Outer depth	434 mm	514 mm		584 mm		684 mm	784 mm	
Outer height	707 mm	787 mm	947 mm	867 mm	1,107 mm	1,186 mm	1,247 mm	1,726 mm
Max. removable shelves	3	4	6	5	8	9	8	14
Rated power	800 W	1,000 W	1,250 W	1,400 W	1,600 W	1,700 W	1,800 W	2,000 W
Temporal temp. variance	<±0,2 °C							
Spatial temp. deviation	<±0,7 °C							
Weight	44 kg	55 kg	65 kg	74 kg	96 kg	110 kg	170 kg	215 kg
Mains connection	230 V, 50/60 Hz							

Type	Vol. (l)	Art. No.	Pack Qty.	€
IN 30	32	**TY30.1**	1 unit(s)	1.230,00
IN 55	53	**TY31.1**	1 unit(s)	1.518,00
IN 75	74	**TY32.1**	1 unit(s)	1.798,00
IN 110	108	**TY33.1**	1 unit(s)	2.120,00
IN 160	161	**TY34.1**	1 unit(s)	2.823,00
IN 260	256	**TY35.1**	1 unit(s)	3.729,00
IN 450	449	**TY36.1**	1 unit(s)	4.966,00
IN 750	749	**TY37.1**	1 unit(s)	6.590,00

Incubators

INplus series models

- Two graphical TFT displays with touchscreen for operation and displaying temperature, program runtime, air damper position and graphical display of temperature distribution
- Integrated data logger with 10-year memory
- **Display of recorded log data (max. 10,000 values correspond to approx. one week) directly on the device**
- Application-specific correction of the heat output distribution between the upper and lower heating groups within an adjustment range from -50 % to +50 %
- With Ethernet communication port for log data readout as well as for transmitting and launching programs and online logging
- With sterilisation program: Four-hour program at 160 °C for sterilisation of the interior, incl. all fittings and sensors
- **USB port for installing programs and reading out the data logger incl. software (to create ramp programs and weekly programs)**
- Definition of individual min./max. values for protection against excessive/insufficient temperatures

Technical specifications:

Art. No.	TY38.1	TY39.1	TY40.1	TY41.1	TY42.1	TY43.1	TY44.1	TY45.1
Type	INplus 30	INplus 55	INplus 75	INplus 110	INplus 160	INplus 260	INplus 450	INplus 750
Operating temperature	From +5 °C above room temperature to +80 °C							
Vol.	32 l	53 l	74 l	108 l	161 l	256 l	449 l	749 l
Inner width	400 mm			560 mm		640 mm	1,040 mm	
Inner depth	250 mm	330 mm		400 mm		500 mm	600 mm	
Inner height	320 mm	400 mm	560 mm	480 mm	720 mm	800 mm	720 mm	1,200 mm
Outer width	585 mm			745 mm		824 mm	1,224 mm	
Outer depth	434 mm	514 mm		584 mm		684 mm	784 mm	
Outer height	707 mm	787 mm	947 mm	867 mm	1,107 mm	1,186 mm	1,247 mm	1,726 mm
Max. removable shelves	3	4	6	5	8	9	8	14
Rated power	800 W	1,000 W	1,250 W	1,400 W	1,600 W	1,700 W	1,800 W	2,000 W
Temporal temp. variance	<±0,05 °C							
Spatial temp. deviation	<±0,7 °C							
Weight	44 kg	55 kg	65 kg	74 kg	96 kg	110 kg	170 kg	215 kg
Mains connection	230 V, 50/60 Hz							

Type	Vol. (l)	Art. No.	Pack Qty.	€
INplus 30	32	**TY38.1**	1 unit(s)	2.053,00
INplus 55	53	**TY39.1**	1 unit(s)	2.315,00
INplus 75	74	**TY40.1**	1 unit(s)	2.613,00
INplus 110	108	**TY41.1**	1 unit(s)	2.934,00
INplus 160	161	**TY42.1**	1 unit(s)	3.660,00
INplus 260	256	**TY43.1**	1 unit(s)	4.458,00
INplus 450	449	**TY44.1**	1 unit(s)	5.796,00
INplus 750	749	**TY45.1**	1 unit(s)	7.457,00

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Incubator BD/BF series

Binder.



General features:

- **Operating temperature range from 7 °C through room temperature right up to 100 °C**
  Setting temperatures from 30 to 100 °C
  Setting accuracy: ±0.1 °C
- Models with volumes of 400 l or more come with a double-leaf door
- With integrated timer with range from 0 to 99 h
- With additional inner door of safety glass
- 100 °C disinfection routine for reduced cross-contamination
- Adjustable air exchange and rear exhaust air pipe Ø 50 mm
- Class 3.1 temperature safety device (DIN 12880) with visual alarm
- Depth, incl. door handle and exhaust
- Mains connection 230 V, 50/60 Hz

Delivery incl. two chrome-plated grates.

BD series with natural air circulation (convection)

- Models BD 56, BD 115 and BD 260 also have a USB port for recording data (time, actual temperature value, set temperature value, etc.)

Technical specifications:

Art. No.	CKE6.1	CKE7.1	CKE8.1	CKE9.1	CKH0.1	CKH1.1
Type	BD 23	BD 56	BD 115	BD 260	BD 400	BD 720
Operating temperature	From +7 °C above room temperature to +100 °C					
Set temperature from	+30 °C					
Set temperature up to	+100 °C					
Vol.	20 l	57 l	112 l	253 l	400 l	737 l
Inner width	222 mm	360 mm	510 mm	610 mm	1,000 mm	960 mm
Inner depth	277 mm	380 mm	420 mm	545 mm	500 mm	600 mm
Inner height	330 mm	420 mm	530 mm	760 mm	800 mm	1,280 mm
Outer width	435 mm	560 mm	710 mm	810 mm	1,235 mm	1,165 mm
Outer depth	620 mm	640 mm	680 mm	815 mm	860 mm	910 mm
Outer height	495 mm	625 mm	735 mm	965 mm	1,025 mm	1,590 mm
Max. removable shelves	3	4	5	7	10	15
Rated power	200 W	300 W	350 W	850 W		1,250 W
Temporal temp. variance	±0,2 °C	±0,1 °C		±0,2 °C	±0,1 °C	
Spatial temp. deviation	±0,5 °C	±0,3 °C			±0,5 °C	
Weight	27 kg	39 kg	54 kg	85 kg	135 kg	170 kg
Mains connection	230 V, 50/60 Hz					

Type	Vol. (l)	Art. No.	Pack Qty.	€
BD 23	20	**CKE6.1**	1 unit(s)	2.002,75
BD 56	57	**CKE7.1**	1 unit(s)	1.736,15
BD 115	112	**CKE8.1**	1 unit(s)	2.337,05
BD 260	253	**CKE9.1**	1 unit(s)	3.958,15
BD 400	400	**CKH0.1**	1 unit(s)	5.662,05
BD 720	737	**CKH1.1**	1 unit(s)	7.698,10

Incubators

BF series with forced air circulation (fan)

- Fan speed cannot be regulated or switched off
- Timer function selection:
  – Heater is switched off when the set time expires
  – The set timer does not start until the actual value reaches the selected set value. The heater is switched off when the time expires.
  – Heater is switched on after set time expires and stays in continuous operation.
- Models BF 56, BF 115 and BF 260 also have a USB port for recording data (time, actual temperature value, set temperature value, etc.)

Technical specifications:

Art. No.	CKH2.1	CKH3.1	CKH4.1	CKH5.1	CKH6.1
Type	BF 56	BF 115	BF 260	BF 400	BF 720
Operating temperature	From +7 °C above room temperature to +100 °C				
Set temperature from	+30 °C				
Set temperature up to	+100 °C				
Vol.	59 l	114 l	257 l	400 l	734 l
Inner width	400 mm	550 mm	650 mm	1,000 mm	
Inner depth	340 mm	380 mm	510 mm	500 mm	565 mm
Inner height	440 mm	550 mm	780 mm	800 mm	1,300 mm
Outer width	560 mm	710 mm	810 mm	1,235 mm	1,165 mm
Outer depth	640 mm	680 mm	815 mm	875 mm	910 mm
Outer height	625 mm	735 mm	965 mm	1,025 mm	1,590 mm
Max. removable shelves	4	5	7	10	15
Rated power	400 W		900 W	850 W	1,250 W
Temporal temp. variance	±0,1 °C				
Spatial temp. deviation	±0,2 °C	±0,3 °C	±0,2 °C	±0,4 °C	
Weight	38 kg	54 kg	85 kg	145 kg	165 kg
Mains connection	230 V, 50/60 Hz				

Type	Vol. (l)	Art. No.	Pack Qty.	€
BF 56	59	**CKH2.1**	1 unit(s)	2.358,55
BF 115	114	**CKH3.1**	1 unit(s)	3.078,80
BF 260	257	**CKH4.1**	1 unit(s)	4.793,45
BF 400	400	**CKH5.1**	1 unit(s)	5.991,00
BF 720	734	**CKH6.1**	1 unit(s)	8.001,25

Accessories grate for incubators and drying ovens for the BD, BF, ED, FD and FED series

Binder.

Grids, chrome plated

Suitable for	Art. No.	Pack Qty.	€
for BD 23, ED 23 and FD 23	**CKE0.1**	1 unit(s)	62,55
for BD 56 and ED 56	**CKE1.1**	1 unit(s)	100,15
for BF 56, FD 56 and FED 56	**ECY1.1**	1 unit(s)	100,15
for BD 115 and ED 115	**CKE2.1**	1 unit(s)	155,25
for BF 115, FD 115 and FED 115	**ECY2.1**	1 unit(s)	155,25
for BD 260 and ED 260	**CKE3.1**	1 unit(s)	290,25
for BF 260, FD 260 and FED 260	**ECY3.1**	1 unit(s)	290,25
for BD 400, BF 400, ED 400 and FED 400	**CKE4.1**	1 unit(s)	320,35
for BD 720 and ED 720	**CKE5.1**	1 unit(s)	348,30
for BF 720 and FED 720	**HPA7.1**	1 unit(s)	348,30

High-capacity incubators Heratherm™

Thermo.



General features:

- Free-standing devices with fixed rollers
- With internal glass door
- Stainless steel interior
- RS 232 port
- Not including depth of handle and display (65 mm) and height of rollers (108 mm)
- Mains connection 230 V, 50 Hz

Technical specifications:

Art. No.	XH26.1	XH27.1	XH28.1	XH29.1
Type	IGS400	IGS750	IMH400-S	IMH750-S
Operating temperature	From +5 °C above room temperature to +75 °C		From +5 °C above room temperature to +105 °C	
Vol.	405 l	747 l	381 l	702 l
Inner width	544 mm	1,004 mm	544 mm	1,004 mm
Inner depth	569 mm		524 mm	
Inner height	1,307 mm		1,335 mm	
Outer width	778 mm	1,261 mm	778 mm	1,261 mm
Outer depth	770 mm			
Outer height	1,545 mm			
Max. removable shelves	39			
Rated power	1,200 W	1,500 W	1,400 W	1,600 W
Temporal temp. variance	±0,4 °C		±0,2 °C	
Spatial temp. deviation	±0,5 °C	±1,3 °C	±0,2 °C	±0,3 °C
Weight	145 kg	201 kg	144 kg	205 kg
Mains connection	230 V, 50 Hz			

Delivery incl. two stainless steel perforated sheets. Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

General Protocol

- **Operating temperature range from +5 °C above room temperature to 75 °C**
- With natural convection
- Integrated timer (1 min to 99 h, 59 min)
- Actual temperature display; setting accuracy ±0.1 K

Type	Vol. (l)	Art. No.	Pack Qty.	€
IGS400	405	**XH26.1**	1 unit(s)	5.429,00
IGS750	747	**XH27.1**	1 unit(s)	7.359,00

Advanced Protocol

- **Operating temperature range from +5 °C above room temperature to 105 °C**
- Setting accuracy ±0.1 K
- Mechanical convection – two-stage fan: Can run fast or slow, but cannot be switched off
- Cable conduit (Ø 19 mm), e.g. for fitting sensors
- An audible alarm sounds if the door is accidentally left open
- Switch on/off after a preset time
- Weekly time setting or real-time control
- Programmable control for temperature ramps and dwell times (memory for 10 programs each with 10 individual steps)

Type	Vol. (l)	Art. No.	Pack Qty.	€
IMH400-S	381	**XH28.1**	1 unit(s)	6.847,00
IMH750-S	702	**XH29.1**	1 unit(s)	8.649,00

Accessories perforated sheet kit for Heratherm® high-capacity incubators

Thermo.

Perforated shelf kit: One shelf with two supports.

Designation	Art. No.	Pack Qty.	€
Insert kit for IGS400, IMH400-S and IMP400	**XH30.1**	1 unit(s)	262,00
Insert kit for IGS750, IMH750-S	**XH31.1**	1 unit(s)	349,00

Incubators



Incubator inserts

Made of PP, stackable. For easy organisation of Petri dishes and convenient transfer to other incubation or storage systems.
With 16 ventilation holes and two labelling areas.
Outer dimensions: W 251 mm x D 237 mm x H 35 mm.
Loading options: E.g. Five Petri dishes Ø 100 mm
or 15 Petri dishes Ø 60 mm or 21 culture bottles of 25 cm².

Type	Art. No.	Pack Qty.	€
Incubator inserts	**YC19.1**	3 unit(s)	72,60

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Peltier cooling incubator KT series

Binder.

General features:

- **Operating temperature range: From 4 to 100 °C**
  Setting accuracy: ±0.1 °C
- 5.7-inch LCD monitor and turn/push button for input
- Variable time and weekday programming
  – Storage capacity for up to 60 programs (for KT 53) or 100 programs (for KT 115)
  – Measurement data can be saved to internal memory
  – Readout of programs and data via USB port
  – Adjustable fan speed (min. speed 30%)
- With additional inner door of safety glass
- Ethernet interface
- Class 3.1 temperature safety device (DIN 12880) with visual and audible alarms

Technical specifications:

Art. No.	**CKK0.1**	**CKK1.1**
Type	KT 53	KT 115
Vol.	53 l	102 l
Inner width	400 mm	600 mm
Inner depth	334 mm	355 mm
Inner height	400 mm	455 mm
Outer width	660 mm	860 mm
Outer depth	695 mm	815 mm
Outer height	635 mm	715 mm
Max. removable shelves	5	6
Rated power	400 W	700 W
Temporal temp. variance	±0,1 K	
Spatial temp. deviation	±0,3 K	
Weight	63 kg	83 kg
Mains connection	200–240 V, 50/60 Hz	

Delivery incl. two stainless steel grids.

Type	Vol. (l)	Art. No.	Pack Qty.	€
KT 53	53	**CKK0.1**	1 unit(s)	5.040,70
KT 115	102	**CKK1.1**	1 unit(s)	6.185,55

Cooled incubators



Cooling incubator KB series

Binder.

General features:

- **Operating temperature range:**
  KB 23: From 0 to 100 °C
  KB 53 and KB 115: From -5 to 100 °C
  Setting accuracy: ±0.1 °C
- **Cooling using a compression refrigerator**
- Controller with two programs, each with 10 individual steps
  – Integrated seven-day programmable timer with real-time function
  – Adjustable ramp function via program editor
  – Adjustable fan speed (min. speed 30%)
- With additional inner door of safety glass
- Class 3.1 temperature safety device (DIN 12880) with visual and audible alarms
- Mains connection 230 V, 50 Hz

Technical specifications:

Art. No.	CKH7.1	CKH8.1	CKH9.1
Type	KB 23	KB 53	KB 115
Operating temperature	From 0 to +100 °C	From -5 to +100 °C	
Vol.	20 l	53 l	115 l
Inner width	222 mm	400 mm	600 mm
Inner depth	277 mm	330 mm	400 mm
Inner height	330 mm	400 mm	480 mm
Outer width	435 mm	635 mm	835 mm
Outer depth	595 mm	660 mm	700 mm
Outer height	620 mm	835 mm	1,025 mm
Max. removable shelves	3	4	5
Rated power	340 W	460 W	
Temporal temp. variance	K K	±0,1 K	
Spatial temp. deviation	±0,3 K	±0,2 K	
Weight	44 kg	72 kg	106 kg
Mains connection	230 V, 50 Hz		

Delivery incl. two stainless steel grids.

Type	Vol. (l)	Art. No.	Pack Qty.	€
KB 23	20	**CKH7.1**	1 unit(s)	5.397,60
KB 53	53	**CKH8.1**	1 unit(s)	6.007,10
KB 115	115	**CKH9.1**	1 unit(s)	7.181,00



Peltier cooling incubator

Memmert.

General features:

- **Operating temperature range of 0 to 70 °C (devices with inner socket have a limited temperature range of max. 60 °C)**
  Set temperature of 0 to 70 °C
  Setting accuracy 0.1 K
- Stainless steel interior (1.4301)
- Fully insulated stainless steel door (two-wing from size 450 upwards)
- **With additional inner glass door**
- Textured stainless steel housing
- **Incl.** factory calibration certificate valid for +10 °C and +37 °C

Other features:

- German, English, French and Spanish language options
- Digital timer (adjustable from 1 min to 99 d, 23 h) or continuous operation
- "SetpointWAIT" function – process time does not start until the target temperature is reached

Delivery incl. stainless steel grating (models 30 and 55: One grate; models 110 and 260: Two grates). Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

IPP standard models with single TFT display

- Graphical single TFT display with touchscreen for operation and displaying temperature and timer runtime
- Integrated data logger with a memory capacity of up to 10 years
- With Ethernet communication port
- Protection against overheating

Technical specifications:

Art. No.	TY46.1	TY47.1	TY48.1	TY49.1
Type	IPP 30	IPP 55	IPP 110eco	IPP 260eco
Operating temperature	From 0 to 70 °C			
Vol.	32 l	53 l	108 l	256 l
Inner width	400 mm		560 mm	640 mm
Inner depth	240 mm	320 mm	368 mm	468 mm
Inner height	320 mm	400 mm	480 mm	800 mm
Outer width	585 mm		745 mm	824 mm
Outer depth	562 mm	642 mm	722 mm	822 mm
Outer height	704 mm	784 mm	864 mm	1,183 mm
Peltier elements	1		2	3
Max. removable shelves	3	4	5	9
Rated power	140 W	275 W	320 W	600 W
Temporal temp. variance	±0,1 °C			
Spatial temp. deviation	±0,4 °C			
Weight	40 kg	52 kg	78 kg	114 kg
Mains connection	230 V, 50/60 Hz			

Type	Vol. (l)	Art. No.	Pack Qty.	€
IPP 30	32	**TY46.1**	1 unit(s)	3.121,00
IPP 55	53	**TY47.1**	1 unit(s)	3.398,00
IPP 110eco	108	**TY48.1**	1 unit(s)	5.066,00
IPP 260eco	256	**TY49.1**	1 unit(s)	7.086,00

Cooled incubators

IPP-Soc models with inner socket

- **Version with inner socket** (current capacity 220 V/2.2 A) can be switched off via the master switch and is not separately switchable. Due to the socket, the temperature range is limited to max. +60 °C.
- Graphical single TFT display with touchscreen for operation and displaying temperature and timer runtime
- Integrated data logger with up to 10-year memory
- With Ethernet communication port
- Overheating protection

Technical specifications:

Art. No.	TY50.1	TY51.1	TY52.1	TY53.1
Type	IPP-Soc 30	IPP-Soc 55	IPP-Soc 110eco	IPP-Soc 260eco
Operating temperature	From 0 to 60 °C			
Vol.	32 l	53 l	108 l	256 l
Inner width	400 mm		560 mm	640 mm
Inner depth	240 mm	320 mm	368 mm	468 mm
Inner height	320 mm	400 mm	480 mm	800 mm
Outer width	585 mm		745 mm	824 mm
Outer depth	562 mm	642 mm	722 mm	822 mm
Outer height	704 mm	784 mm	864 mm	1,183 mm
Peltier elements	1		2	3
Max. removable shelves	3	4	5	9
Rated power	140 W	275 W	320 W	600 W
Temporal temp. variance	±0,1 °C			
Spatial temp. deviation	±0,4 °C			
Weight	40 kg	52 kg	78 kg	114 kg
Mains connection	230 V, 50/60 Hz			

Type	Vol. (l)	Art. No.	Pack Qty.	€
IPP-Soc 30	32	**TY50.1**	1 unit(s)	3.683,00
IPP-Soc 55	53	**TY51.1**	1 unit(s)	3.960,00
IPP-Soc 110eco	108	**TY52.1**	1 unit(s)	5.628,00
IPP-Soc 260eco	256	**TY53.1**	1 unit(s)	7.648,00

IPPplus models with two graphical TFT displays

- Two graphical TFT displays with touchscreen for operation and displaying temperature, program runtime and graphical display of program flow
- Integrated data logger with a memory capacity of up to 10 years
- **Display of recorded log data (max. 10,000 values correspond to approx. one week) directly on the device**
- Application-specific correction of the heat output distribution between the upper and lower heating groups within an adjustment range from -50 to +50 %
- With Ethernet communication port for reading out log data as well as for transmitting and launching programs and online logging
- **USB port for installing programs and reading out the data logger incl. software (to create ramp programs and weekly programs)**
- Definition of individual min./max. values for protection against excessive/insufficient temperatures

Technical specifications:

Art. No.	TY54.1	TY55.1	TY56.1	TY57.1
Type	IPPplus 30	IPPplus 55	IPPplus 110eco	IPPplus 260eco
Operating temperature	From 0 to 70 °C			
Vol.	32 l	53 l	108 l	256 l
Inner width	400 mm		560 mm	640 mm
Inner depth	240 mm	320 mm	368 mm	468 mm
Inner height	320 mm	400 mm	480 mm	800 mm
Outer width	585 mm		745 mm	824 mm
Outer depth	562 mm	642 mm	722 mm	822 mm
Outer height	704 mm	784 mm	864 mm	1,183 mm
Peltier elements	1		2	3
Max. removable shelves	3	4	5	9
Rated power	140 W	275 W	320 W	600 W
Temporal temp. variance	±0,1 °C			
Spatial temp. deviation	±0,4 °C			
Weight	40 kg	52 kg	78 kg	114 kg
Mains connection	230 V, 50/60 Hz			

Type	Vol. (l)	Art. No.	Pack Qty.	€
IPPplus 30	32	**TY54.1**	1 unit(s)	3.512,00
IPPplus 55	53	**TY55.1**	1 unit(s)	3.786,00
IPPplus 110eco	108	**TY56.1**	1 unit(s)	5.402,00
IPPplus 260eco	256	**TY57.1**	1 unit(s)	7.564,00

Cooled incubators



Cooling incubator Heratherm™ IMP series

Thermo.

Applications: Development processes for new products, quality assurance in the food, beverage and cosmetics industries, water analysis, and cell culture and microbiological analyses.

General features:

- **Operating temperature range: from 5 to 70 °C**, setting accuracy: ±0.1 °C
- Peltier technology
- Heated door minimises condensation
- Timer with weekly/daily or real-time mode
- Programming option for defined temperature ramps, with cooling and dwell time: Storage of up to 10 programs with 10 temperature stages, loop program and selection mode at end of cycle
- Adjustable over-temperature shut-down
- Fan speeds adapt for power optimization
- Inside glass door for sample monitoring
- **Cable conduit for data monitoring (42 mm) on rear side**
- RS 232 port
- Stainless steel interior (1.4301/ASTM 304)
- IMP180 tabletop device: Handle/display not included in depth (65 mm) and adjustable feet not included in height (35 mm) IMP400 standing device: Handle/display not included in depth (65 mm) and rollers not included in height (180 mm)

Technical specifications:

Art. No.	HCE7.1	HCE9.1	HCE8.1	HCH0.1
Type	IMP180 desktop unit		IMP400 floor standing unit	
Operating temperature	From 5 to 70 °C			
Vol.	178 l		381 l	
Inner width	464 mm		544 mm	
Inner depth	543 mm		524 mm	
Inner height	708 mm		1,335 mm	
Outer width	640 mm		778 mm	
Outer depth	738 mm		770 mm	
Outer height	920 mm		1,545 mm	
Max. removable shelves	9		17	
Rated power	80 W		150 W	
Temporal temp. variance	±0,1 K			
Spatial temp. deviation	±0,2/±0,5 K (20/37 °C)		±0,3/±0,7 K (20/37 °C)	
Weight	97 kg		216 kg	
Mains connection	100–230 V, 50/60 Hz			

Delivery incl. two stainless steel perforated sheet removable shelves (IMP180: W 439 x D 505 mm; IMP400: W 528 x D 468 mm). Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Standard version

Type	Vol. (l)	Art. No.	Pack Qty.	€
IMP180 desktop unit	178	**HCE7.1**	1 unit(s)	7.308,00
IMP400 floor standing unit	381	**HCE8.1**	1 unit(s)	10.151,00

With inside socket – not switchable

Type	Vol. (l)	Art. No.	Pack Qty.	€
IMP180 desktop unit	178	**HCE9.1**	1 unit(s)	8.121,00
IMP400 floor standing unit	381	**HCH0.1**	1 unit(s)	10.829,00

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CO_2 incubators





CO_2 incubator Midi 40

Thermo.

For users in cell culture who wish to breed small cultures or have only limited space in the laboratory.

- **Operating temperature range from +5 °C above room temperature to 60 °C (in 0.1 °C increments) and CO_2 concentrations up to 20 % (in 0.1% increments)**
- Digital display for easy input of °C, CO_2 content and alarm limits
- Setpoints can be secured using a key-operated switch to prevent unwanted alteration of the operating parameters
- Seam-free interior made of stainless steel (non-corrosive stainless steel, type 304) with four extractable shelves
- Removable water container for a relative humidity of up to 95 %
- Inside door made of safety glass is heated by the outside door to avoid condensation
- To supply the incubator with CO_2, a separate gas cylinder or a central compressed-gas tank is required
- Conditioned water (demineralised/distilled and autoclaved or fully desalinated/distilled and autoclaved) is required for humidification

Technical specifications:

Art. No.	ETT3.1
Type	Midi 40
Operating temperature	From +5 °C above room temperature to +60 °C
Vol.	40 l
Inner width	305 mm
Inner depth	355 mm
Inner height	355 mm
Outer width	470 mm
Outer depth	597 mm
Outer height	465 mm
Required input pressure	1.0 bar, 99.5 % by volume medical CO_2 quality
Intake-air filtration	CO_2 filter, PTFE filter 0.3 µm
Temperature variance	±0,4 K
CO2 constancy	±0,10 %
Weight	32 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. four perforated stainless steel trays (W 343 x D 292 mm), water container (Ø 12.7 mm), CO_2 filter and hose set (ID 1.59 mm, OD 6.35 mm, approx. L 0.5 m). Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Type	Vol. (l)	Art. No.	Pack Qty.	€
Midi 40	40	**ETT3.1**	1 unit(s)	6.484,00

CO_2 incubator BB 15

Thermo.

With air jacket heating for constant temperature as well as a second control circuit that assumes control of the set temperature in the case of a fault. The chamber floor is used as water reservoir (an electric suction pump is included in the scope of delivery for changing the water). The large water surface and direct heat transfer from the heated base achieve a faster humidity recovery time.

- **Operating temperature range from 3 °C above room temperature to 55 °C (in 0.1-°C-increments) and CO_2-concentrations up to 20 % (in 0.1-%-increments)**
- Digital display for °C and CO_2 content
- Tube penetration 42 mm in the rear wall allows operation of additional devices
- Stainless steel interior
- Constant moisture at 37 °C approx. 95 % RH
- Additional inside door made of glass, heated outside door
- To supply the incubator with CO_2, a separate gas cylinder or a central compressed-gas tank is required
- Conditioned water (demineralised/distilled and autoclaved or fully desalinated/distilled and autoclaved) is required for humidification

Technical specifications:

Art. No.	ETT4.1
Type	BB 15
Operating temperature	From +3 °C above room temperature to +55 °C
Vol.	151 l
Inner width	470 mm
Inner depth	530 mm
Inner height	607 mm
Outer width	637 mm
Outer depth	766 mm
Outer height	867 mm
Required input pressure	0.8–1.0 bar, 99.5 % by volume medical CO_2 quality
Intake-air filtration	CO_2 filter, PTFE filter 0.3 µm, PP filter housing
Max. removable shelves	10
Temporal temp. variance	±0,1 K
Spatial temp. deviation	±0,5 K
CO2 constancy	±0,3 %
Weight	70 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. three perforated sheet inserts (W 423 x D 455 mm), hose set (ID 4 mm, OD 10 mm, approx. L 3 m), CO_2 filter and electric immersion pump. Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Type	Vol. (l)	Art. No.	Pack Qty.	€
BB 15	151	**ETT4.1**	1 unit(s)	6.541,00

Drying and heating cabinets

Drying cabinet Solid.Line

Binder.

- APT.line™ pre-heating chamber technology
- Adjustable exhaust air flap
- Controller with timer function (1 min to 99 h)
- Integrated Class 2 temperature limiter (DIN 12880) with visual alarm



Technical specifications:

Art. No.	KCT9.1	KCX1.1	KCX0.1	KCX2.1
Type	ED-S 056	ED-S 115	FD-S 056	FD-S 115
Operating temperature	From +7 °C above room temperature to 250 °C		From +10 °C above room temperature to 250 °C	
Vol.	62 l	118 l	55 l	106 l
Inner width	400 mm	550 mm	400 mm	550 mm
Inner height	440 mm	550 mm	440 mm	550 mm
Inner depth	350 mm	390 mm	310 mm	350 mm
Outer width	614 mm	764 mm	614 mm	764 mm
Outer height	625 mm	735 mm	625 mm	735 mm
Outer depth	580 mm	630 mm	580 mm	630 mm
Max. removable shelves	4	5	4	5
Temporal temp. variance	±0,8 °C		±0,5 °C	
Spatial temp. deviation	±2,8 °C		±2,6 °C	
Weight	41 kg	57 kg	41 kg	57 kg
Mains connection	230 V, 50 Hz			

Delivery incl. 1 chrome-plated insertable grate.

Models: ED-S with natural air circulation

- With natural air circulation (convection)
- **Operating temperature range from +7 °C above room temperature to 250 °C**

Type	Vol. (l)	Art. No.	Pack Qty.	€
ED-S 056	62	**KCT9.1**	1 unit(s)	1.323,35
ED-S 115	118	**KCX1.1**	1 unit(s)	1.651,20

Models: FD-S with ventilation

- With ventilation (fan speed cannot be regulated or switched off)
- **Operating temperature range from +10 °C above room temperature to 250 °C**

Type	Vol. (l)	Art. No.	Pack Qty.	€
FD-S 056	55	**KCX0.1**	1 unit(s)	1.613,60
FD-S 115	106	**KCX2.1**	1 unit(s)	2.104,85

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Drying and heating cabinets

Drying cabinet



Memmert.

Models: UN, UNplus, UF and UFplus

General features:

- Stainless steel interior (1.4301)
- Fully insulated stainless steel door (two-wing from size 450 upwards)
- Fresh air supply by electronically adjustable exhaust air flap
- Textured stainless steel housing
- Model sizes 450 and 750 with moveable and lockable rollers
- Interior depth minus 39 mm for devices with forced air circulation
- Depth plus door handle 56 mm
- Incl. factory calibration certificate valid for +160 °C
- Power supply for models 30 to 260: 230 V, 50/60 Hz, power supply for models 450 and 750: 400 V and 3 x 220 V, n/a 50/60 Hz

Other features:

- German, English, French and Spanish language options
- Digital timer (adjustable from 1 min to 99 d, 23 h) or continuous operation
- “SetpointWAIT” function – process time does not start until the target temperature is reached

Delivery incl. stainless steel grating (models 30 and 55: 1 grate, models 75 to 750: 2 grates). Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Models: UN with natural air circulation (convection)

- **Operating temperature range from 5 °C above room temperature to 300 °C**
  Setting temperature from 20 to 300 °C
  Setting accuracy up to 99.9 °C: 0.1 K, from 100 °C: 0.5
- Graphical single TFT display with touch screen for operation and displaying temperature, program runtime and air flap position
- Integrated data logger with 10-year memory
- With Ethernet communication port for reading out log data
- Protection against overheating

Technical specifications:

Art. No.	TX98.1	TX99.1	TY00.1	TY01.1	TY02.1	TY03.1	TY04.1	TY05.1
Type	UN 30	UN 55	UN 75	UN 110	UN 160	UN 260	UN 450	UN 750
Operating temperature	From 5 °C above room temperature to 300 °C							
Vol.	32 l	53 l	74 l	108 l	161 l	256 l	449 l	749 l
Inner width	400 mm			560 mm		640 mm	1,040 mm	
Inner height	320 mm	400 mm	560 mm	480 mm	720 mm	800 mm	720 mm	1,200 mm
Inner depth	250 mm	330 mm		400 mm		500 mm	600 mm	
Outer width	585 mm			745 mm		824 mm	1,224 mm	
Outer height	707 mm	787 mm	947 mm	867 mm	1,107 mm	1,186 mm	1,247 mm	1,726 mm
Outer depth	434 mm	541 mm		584 mm		684 mm	784 mm	
Max. removable shelves	3	4	6	5	8	9	8	14
Power consumption	1,600 W	2,000 W	2,500 W	2,800 W	3,200 W	3,400 W	5,800 W	7,000 W
Temporal temp. variance	<±0,5 °C							
Spatial temp. deviation	<±2,7 °C							
Weight	44 kg	55 kg	65 kg	74 kg	96 kg	110 kg	170 kg	215 kg
Mains connection	230 V, 50/60 Hz						400 V, 3 phases, 50 Hz	

Type	Vol. (l)	Art. No.	Pack Qty.	€
UN 30	32	**TX98.1**	1 unit(s)	1.197,00
UN 55	53	**TX99.1**	1 unit(s)	1.387,00
UN 75	74	**TY00.1**	1 unit(s)	1.690,00
UN 110	108	**TY01.1**	1 unit(s)	1.962,00
UN 160	161	**TY02.1**	1 unit(s)	2.611,00
UN 260	256	**TY03.1**	1 unit(s)	3.457,00
UN 450	449	**TY04.1**	1 unit(s)	4.575,00
UN 750	749	**TY05.1**	1 unit(s)	6.102,00

Drying and heating cabinets

Models: UF with forced air circulation (fan)

- **Operating temperature range from 10 °C above room temperature to 300 °C**
  Setting temperature from 20 to 300 °C
  Setting accuracy up to 99.9 °C: 0.1 K, from 100 °C: 0.5
- Graphical single TFT display with touch screen for operation and displaying temperature, program runtime and air flap position
- Integrated data logger with 10-year memory
- With Ethernet communication port for reading out log data
- Protection against overheating
- Quiet air turbine for air circulation mode (air turbine can be controlled and switched off)

Technical specifications:

Art. No.	TY06.1	TY07.1	TY08.1	TY09.1	TY10.1	TY11.1	TY12.1	TY13.1
Type	UF 30	UF 55	UF 75	UF 110	UF 160	UF 260	UF 450	UF 750
Operating temperature	From 10 °C above room temperature to 300 °C							
Vol.	32 l	53 l	74 l	108 l	161 l	256 l	449 l	
Inner width	400 mm			560 mm		640 mm	1,040 mm	
Inner height	320 mm	400 mm	560 mm	480 mm	720 mm	800 mm	720 mm	1,200 mm
Inner depth	250 mm	330 mm		400 mm		500 mm	600 mm	
Outer width	585 mm			745 mm		824 mm	1,224 mm	
Outer height	707 mm	787 mm	947 mm	867 mm	1,107 mm	1,186 mm	1,247 mm	1,726 mm
Outer depth	434 mm	541 mm		584 mm		684 mm	784 mm	
Max. removable shelves	3	4	6	5	8	9	8	14
Power consumption	1,600 W	2,000 W	2,500 W	2,800 W	3,200 W	3,400 W	5,800 W	7,000 W
Temporal temp. variance	<±0,5 °C							
Spatial temp. deviation	<±2,7 °C							
Weight	44 kg	55 kg	65 kg	74 kg	96 kg	110 kg	170 kg	215 kg
Mains connection	230 V, 50/60 Hz						400 V, 3 phases, 50 Hz	

Type	Vol. (l)	Art. No.	Pack Qty.	€
UF 30	32	**TY06.1**	1 unit(s)	1.422,00
UF 55	53	**TY07.1**	1 unit(s)	1.714,00
UF 75	74	**TY08.1**	1 unit(s)	2.028,00
UF 110	108	**TY09.1**	1 unit(s)	2.368,00
UF 160	161	**TY10.1**	1 unit(s)	3.117,00
UF 260	256	**TY11.1**	1 unit(s)	3.974,00
UF 450	449	**TY12.1**	1 unit(s)	5.204,00
UF 750	449	**TY13.1**	1 unit(s)	6.896,00

Drying and heating cabinets

Models: UNplus with natural air circulation (convection)

- **Operating temperature range from 5 °C above room temperature to 300 °C**
  Setting temperature from 20 to 300 °C
  Setting accuracy up to 99.9 °C: 0.1 K, from 100 °C: 0.5
- Two graphical TFT displays with touchscreen for operation and displaying temperature, program runtime, air damper position and graphical display of programme flow
- Integrated data logger with 10-year memory
- **Display of recorded log data (max. 10,000 values correspond to approx. 1 week) directly on the device**
- Application-specific correction of the heat output distribution between the upper and lower heating groups within an adjustment range from -50 % to +50 %
- With Ethernet communication port for reading out log data as well as for transmitting and launching programs and online logging
- Definition of individual min./max. values for protection against excessive/insufficient temperatures
- **USB port for installing programs and reading out the data logger incl. software (to create ramp programs and weekly programs)**

Technical specifications:

Art. No.	**TY14.1**	**TY15.1**	**TY16.1**	**TY17.1**	**TY18.1**	**TY19.1**	**TY20.1**	**TY21.1**
Type	UNplus 30	UNplus 55	UNplus 75	UNplus 110	UNplus 160	UNplus 260	UNplus 450	UNplus 750
Operating temperature	From 5 °C above room temperature to 300 °C							
Vol.	32 l	53 l	74 l	108 l	161 l	256 l	449 l	749 l
Inner width	400 mm			560 mm		640 mm	1,040 mm	
Inner height	320 mm	400 mm	560 mm	480 mm	720 mm	800 mm	720 mm	1,200 mm
Inner depth	250 mm	330 mm		400 mm		500 mm	600 mm	
Outer width	585 mm			745 mm		824 mm	1,224 mm	
Outer height	707 mm	787 mm	947 mm	867 mm	1,107 mm	1,186 mm	1,247 mm	1,726 mm
Outer depth	434 mm	541 mm		584 mm		684 mm	784 mm	
Max. removable shelves	3	4	6	5	8	9	8	14
Power consumption	1,600 W	2,000 W	2,500 W	2,800 W	3,200 W	3,400 W	5,800 W	7,000 W
Temporal temp. variance	<±0,25 °C							
Spatial temp. deviation	<±2,2 °C							
Weight	44 kg	55 kg	65 kg	74 kg	96 kg	110 kg	170 kg	215 kg
Mains connection	230 V, 50/60 Hz						400 V, 3 phases, 50 Hz	

Type	Vol. (l)	Art. No.	Pack Qty.	€
UNplus 30	32	**TY14.1**	1 unit(s)	1.992,00
UNplus 55	53	**TY15.1**	1 unit(s)	2.174,00
UNplus 75	74	**TY16.1**	1 unit(s)	2.419,00
UNplus 110	108	**TY17.1**	1 unit(s)	2.773,00
UNplus 160	161	**TY18.1**	1 unit(s)	3.453,00
UNplus 260	256	**TY19.1**	1 unit(s)	4.130,00
UNplus 450	449	**TY20.1**	1 unit(s)	5.325,00
UNplus 750	749	**TY21.1**	1 unit(s)	6.857,00

Drying and heating cabinets

Models: UFplus with forced air circulation (fan)

- **Operating temperature range from 10 °C above room temperature to 300 °C**
  Setting temperature from 20 to 300 °C
  Setting accuracy up to 99.9 °C: 0.1 K, from 100 °C: 0.5
- Two graphical TFT displays with touchscreen for operation and displaying temperature, program runtime, air damper position and graphical display of programme flow
- Integrated data logger with 10-year memory
- **Display of recorded log data (max. 10,000 values correspond to approx. 1 week) directly on the device**
- Application-specific correction of the heat output distribution between the upper and lower heating groups within an adjustment range from -50 % to +50 %
- With Ethernet communication port for reading out log data as well as for transmitting and launching programs and online logging
- Definition of individual min./max. values for protection against excessive/insufficient temperatures
- **USB port for installing programs and reading out the data logger incl. software (to create ramp programs and weekly programs)**
- Quiet air turbine for air circulation mode (air turbine can be controlled and switched off)

Technical specifications:

Art. No.	**TY22.1**	**TY23.1**	**TY24.1**	**TY25.1**	**TY26.1**	**TY27.1**	**TY28.1**	**TY29.1**
Type	UFplus 30	UFplus 55	UFplus 75	UFplus 110	UFplus 160	UFplus 260	UFplus 450	UFplus 750
Operating temperature	From 10 °C above room temperature to 300 °C							
Vol.	32 l	53 l	74 l	108 l	161 l	256 l	449 l	749 l
Inner width	400 mm			560 mm		640 mm	1,040 mm	
Inner height	320 mm	400 mm	560 mm	480 mm	720 mm	800 mm	720 mm	1,200 mm
Inner depth	250 mm	330 mm		400 mm		500 mm	600 mm	
Outer width	585 mm			745 mm		824 mm	1,224 mm	
Outer height	707 mm	787 mm	947 mm	867 mm	1,107 mm	1,186 mm	1,247 mm	1,726 mm
Outer depth	434 mm	541 mm		584 mm		684 mm	784 mm	
Max. removable shelves	3	4	6	5	8	9	8	14
Power consumption	1,600 W	2,000 W	2,500 W	2,800 W	3,200 W	3,400 W	5,800 W	7,000 W
Temporal temp. variance	<±0,25 °C							
Spatial temp. deviation	<±2,2 °C							
Weight	44 kg	55 kg	65 kg	74 kg	96 kg	110 kg	170 kg	215 kg
Mains connection	230 V, 50/60 Hz						400 V, 3 phases, 50 Hz	

Type	Vol. (l)	Art. No.	Pack Qty.	€
UFplus 30	32	**TY22.1**	1 unit(s)	2.103,00
UFplus 55	53	**TY23.1**	1 unit(s)	2.495,00
UFplus 75	74	**TY24.1**	1 unit(s)	2.750,00
UFplus 110	108	**TY25.1**	1 unit(s)	3.173,00
UFplus 160	161	**TY26.1**	1 unit(s)	3.953,00
UFplus 260	256	**TY27.1**	1 unit(s)	4.687,00
UFplus 450	449	**TY28.1**	1 unit(s)	5.981,00
UFplus 750	749	**TY29.1**	1 unit(s)	7.688,00

Drying and heating cabinets



Drying cabinet Heratherm™ protocol series

Thermo.

General features:

- Smooth inner housing and round edges make it easy to clean
- Automatic overheating alarm
- Microprocessor control
- Setting accuracy ±1 K
- RS 232 port
- **Natural convection** for gentle drying and heating with low air turbulence (e.g. powder or film) or **air circulating mode** for rapid drying and heating
- Depth of handle and display (65 mm) not included in depth; adjustable feet (35 mm) not included in height
- Mains connection 230 V, 50 Hz

Delivery incl. 2 removable shelves. Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

General Protocol with natural convection

- **Temperature range: 50 to 250 °C**
- Stainless steel interior (1.4016)
- Integrated timer (1 min to 99 h, 59 min)
- Actual temperature display

Technical specifications:

Art. No.	PL56.1	PL57.1	PL58.1
Type	OGS60	OGS100	OGS180
Operating temperature	50 to 250 °C		
Vol.	65 l	105 l	176 l
Inner width	328 mm	438 mm	
Inner height	480 mm	580 mm	680 mm
Inner depth	415 mm	414 mm	589 mm
Outer width	530 mm	640 mm	
Outer height	720 mm	820 mm	920 mm
Outer depth	565 mm		738 mm
Max. removable shelves	13	16	19
Rated power	1,800 W	3,100 W	
Temporal temp. variance	±0,4 °C		
Spatial temp. deviation	±4,4 °C	±4,0 °C	
Weight	42 kg	53 kg	66 kg
Mains connection	230 V, 50 Hz		

Type	Vol. (l)	Art. No.	Pack Qty.	€
OGS60	65	**PL56.1**	1 unit(s)	1.391,00
OGS100	105	**PL57.1**	1 unit(s)	2.011,00
OGS180	176	**PL58.1**	1 unit(s)	2.742,00

General Protocol with air-circulation fan

- **Temperature range: 50 to 250 °C**
- Stainless steel interior (1.4016)
- Integrated timer (1 min to 99 h, 59 min)
- Actual temperature display
- Air-circulation fan: Air turbine cannot be adjusted or switched off

Technical specifications:

Art. No.	PL59.1	PL60.1	PL61.1
Type	OMS60	OMS100	OMS180
Operating temperature	50 to 250 °C		
Vol.	66 l	104 l	179 l
Inner width	354 mm	464 mm	
Inner height	508 mm	608 mm	708 mm
Inner depth	368 mm		543 mm
Outer width	530 mm	640 mm	
Outer height	720 mm	820 mm	920 mm
Outer depth	565 mm		738 mm
Max. removable shelves	13	16	19
Rated power	1,400 W	3,060 W	
Temporal temp. variance	±0,3 °C		
Spatial temp. deviation	±2,8 °C	±2,5 °C	±2,8 °C
Weight	42 kg	53 kg	66 kg
Mains connection	230 V, 50 Hz		

Type	Vol. (l)	Art. No.	Pack Qty.	€
OMS60	66	**PL59.1**	1 unit(s)	1.831,00
OMS100	104	**PL60.1**	1 unit(s)	2.510,00
OMS180	179	**PL61.1**	1 unit(s)	3.453,00

Advanced Protocol with natural convection

- **Temperature range: 50 to 330 °C**
- Stainless steel interior (1.4301)
- Switch on/off after a preset time
- Weekly time setting or real-time control
- Programmable control for temperature ramps and dwell times (memory for 10 programs each with 10 individual steps)
- Bushing (Ø 19 mm) at the back enables sensors to be inserted, e.g. for independent data monitoring
- With varnished outer housing

Technical specifications:

Art. No.	PL62.1	PL63.1	PL64.1
Type	OGH60	OGH100	OGH180
Operating temperature	50 to 330 °C		
Vol.	61 l	99 l	168 l
Inner width	328 mm	438 mm	
Inner height	480 mm	580 mm	680 mm
Inner depth	389 mm		564 mm
Outer width	530 mm	640 mm	
Outer height	720 mm	820 mm	920 mm
Outer depth	565 mm		738 mm
Max. removable shelves	13	16	19
Rated power	1,800 W	3,100 W	
Temporal temp. variance	±0,3 °C		
Spatial temp. deviation	±2,5 °C	±3,0 °C	±2,5 °C
Weight	44 kg	55 kg	69 kg
Mains connection	230 V, 50 Hz		

Type	Vol. (l)	Art. No.	Pack Qty.	€
OGH60	61	**PL62.1**	1 unit(s)	2.114,00
OGH100	99	**PL63.1**	1 unit(s)	2.756,00
OGH180	168	**PL64.1**	1 unit(s)	3.485,00

Drying and heating cabinets

Advanced Protocol with air-circulation fan

- **Temperature range: 50 to 330 °C**
- Stainless steel interior (1.4301)
- Switch on/off after a preset time
- Weekly time setting or real-time control
- Programmable control for temperature ramps and dwell times (memory for 10 programs each with 10 individual steps)
- Bushing (Ø 19 mm) at the back enables sensors to be inserted, e.g. for independent data monitoring
- With varnished outer housing
- Air-circulation fan: Controllable fan speed for application-specific air flow rates (cannot be switched off completely)

Technical specifications:

Art. No.	PL65.1	PL66.1	PL67.1
Type	OMH60	OMH100	OMH180
Operating temperature	50 to 330 °C		
Vol.	62 l	97 l	170 l
Inner width	354 mm	464 mm	
Inner height	508 mm	608 mm	708 mm
Inner depth	343 mm		518 mm
Outer width	530 mm	640 mm	
Outer height	720 mm	820 mm	920 mm
Outer depth	565 mm		738 mm
Max. removable shelves	13	16	19
Rated power	1,400 W	3,060 W	
Temporal temp. variance	±0,2 °C		
Spatial temp. deviation	±1,8 °C	±1,3 °C	±1,8 °C
Weight	44 kg	55 kg	69 kg
Mains connection	230 V, 50 Hz		

Type	Vol. (l)	Art. No.	Pack Qty.	€
OMH60	62	**PL65.1**	1 unit(s)	2.619,00
OMH100	97	**PL66.1**	1 unit(s)	3.476,00
OMH180	170	**PL67.1**	1 unit(s)	4.502,00

Accessories removable shelf kit for Heratherm™ drying cabinets

Thermo.

Removable shelf kit: 1 removable shelf with 2 mounting clips

Suitable for	Art. No.	Pack Qty.	€
OGS60, OGH60	**PL68.1**	1 unit(s)	84,10
OGS100, OGH100	**PL69.1**	1 unit(s)	112,00
OGS180, OGH180	**PL70.1**	1 unit(s)	141,00
OMS60, OMH60	**PL71.1**	1 unit(s)	84,20
OMS100, OMH100	**PL72.1**	1 unit(s)	112,00
OMS180, OMH180	**PL73.1**	1 unit(s)	141,00

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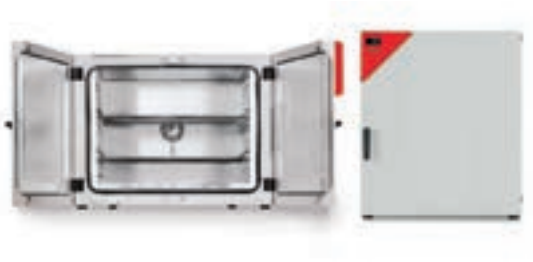
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Drying and heating cabinets

Drying cabinet

Binder.

- **Operating temperature from 15 °C above room temperature to 300 °C**
  Setting temperature from 30 to 300 °C; setting accuracy: ±1 °C
- Adjustable air exchange and rear exhaust air pipe Ø 50 mm
- Models with volumes of 400 l or more come with a double-leaf door
- With integrated timer with range from 0 to 99 h
- **Power supply for models 23 to 260: 230 V, 50/60 Hz**
  Power supply for models 400 and 720: 400 V, 50/60 Hz.3 N ~



Delivery incl. 2 chrome-plated grates.

Models: ED with natural convection
With natural air circulation (convection).
Additional USB port for recording data with models ED 56, ED 115 and ED 260.

Technical specifications:

Art. No.	CKA5.1	CKA6.1	CKA7.1	CKA8.1	CKA9.1	CKC0.1
Type	ED 23	ED 56	ED 115	ED 260	ED 400	ED 720
Operating temperature	From +15 °C above room temperature to +300 °C					
Vol.	20 l	57 l	114 l	255 l	400 l	743 l
Inner width	222 mm	360 mm	510 mm	610 mm	1,000 mm	960 mm
Inner height	330 mm	420 mm	530 mm	760 mm	800 mm	1,280 mm
Inner depth	300 mm	380 mm	425 mm	550 mm	520 mm	605 mm
Outer width	435 mm	560 mm	710 mm	810 mm	1,235 mm	1,165 mm
Outer height	495 mm	625 mm	735 mm	965 mm	1,025 mm	1,590 mm
Outer depth	620 mm	640 mm	680 mm	815 mm	860 mm	910 mm
Max. removable shelves	3	4	5	7	10	15
Rated power	800 W	1,050 W	1,250 W	2,250 W	3,400 W	5,000 W
Temporal temp. variance	±0,5 °C	±0,4 °C		±0,8 °C	±0,5 °C	
Spatial temp. deviation	±2,8 °C	±2,3 °C	±1,5 °C	±1,8 °C	±3,0 °C	±3,6 °C
Weight	27 kg	39 kg	54 kg	85 kg	125 kg	161 kg
Mains connection	230 V, 50/60 Hz				400 V, 50/60 Hz	

Type	Vol. (l)	Art. No.	Pack Qty.	€
ED 23	20	**CKA5.1**	1 unit(s)	1.900,60
ED 56	57	**CKA6.1**	1 unit(s)	1.521,15
ED 115	114	**CKA7.1**	1 unit(s)	2.241,40
ED 260	255	**CKA8.1**	1 unit(s)	4.188,20
ED 400	400	**CKA9.1**	1 unit(s)	5.424,45
ED 720	743	**CKC0.1**	1 unit(s)	7.442,25

Models: FD with ventilator
With forced air circulation (fan).
Fan speed cannot be controlled or switched off.
Additional USB port for recording data with models FD 56, FD 115 and FD 260.

Technical specifications:

Art. No.	CKC1.1	CKC2.1	CKC3.1	CKC4.1
Type	FD 23	FD 56	FD 115	FD 260
Operating temperature	From +15 °C above room temperature to +300 °C			
Vol.	20 l	60 l	116 l	259 l
Inner width	222 mm	400 mm	550 mm	650 mm
Inner height	330 mm	440 mm	550 mm	780 mm
Inner depth	300 mm	345 mm	385 mm	515 mm
Outer width	435 mm	560 mm	710 mm	810 mm
Outer height	495 mm	625 mm	735 mm	965 mm
Outer depth	605 mm	640 mm	680 mm	815 mm
Max. removable shelves	3	4	5	7
Rated power	800 W	1,100 W	1,300 W	2,300 W
Temporal temp. variance	±0,3 °C			±0,4 °C
Spatial temp. deviation	±2,5 °C	±1,7 °C		±1,9 °C
Weight	27 kg	39 kg	54 kg	85 kg
Mains connection	230 V, 50/60 Hz			

Type	Vol. (l)	Art. No.	Pack Qty.	€
FD 23	20	**CKC1.1**	1 unit(s)	2.354,25
FD 56	60	**CKC2.1**	1 unit(s)	2.016,70

Drying and heating cabinets

Type	Vol. (l)	Art. No.	Pack Qty.	€
FD 115	116	**CKC3.1**	1 unit(s)	2.776,75
FD 260	259	**CKC4.1**	1 unit(s)	4.595,65

Models: FED with ventilator
With forced air circulation (fan).

- Adjustable fan speed (min. speed 30 %)
- 1 programmable temperature ramp
- RS 422 interface
- Timer function selection:
  – The heater is switched off when the set time expires
  – The set time does not start until the actual value equals the selected target value. The heater is switched off when the time expires.
  - The heater is switched on after the set time expires and remains in continuous operation
- Additional USB port for recording data with models FED 56, FED 115 and FED 260.

Technical specifications:

Art. No.	CKC5.1	CKC6.1	CKC7.1	CKC8.1	CKC9.1
Type	FED 56	FED 115	FED 260	FED 400	FED 720
Operating temperature	From +15 °C above room temperature to +300 °C				
Vol.	60 l	116 l	259 l	400 l	741 l
Inner width	400 mm	550 mm	650 mm	1,000 mm	
Inner height	440 mm	550 mm	780 mm	800 mm	1,200 mm
Inner depth	345 mm	385 mm	515 mm	510 mm	610 mm
Outer width	560 mm	710 mm	810 mm	1,235 mm	1,165 mm
Outer height	625 mm	735 mm	965 mm	1,025 mm	1,590 mm
Outer depth	640 mm	680 mm	815 mm	875 mm	910 mm
Max. removable shelves	4	5	7	10	15
Rated power	1,100 W	1,300 W	2,300 W	3,400 W	5,000 W
Temporal temp. variance	±0,3 °C		±0,4 °C	±0,7 °C	±0,3 °C
Spatial temp. deviation	±1,4 °C	±1,2 °C	±1,6 °C	±3,8 °C	±3,0 °C
Weight	39 kg	54 kg	85 kg	145 kg	162 kg
Mains connection	230 V, 50/60 Hz			400 V, 50/60 Hz	

Type	Vol. (l)	Art. No.	Pack Qty.	€
FED 56	60	**CKC5.1**	1 unit(s)	2.738,05
FED 115	116	**CKC6.1**	1 unit(s)	3.646,40
FED 260	259	**CKC7.1**	1 unit(s)	5.320,20
FED 400	400	**CKC8.1**	1 unit(s)	6.825,20
FED 720	741	**CKC9.1**	1 unit(s)	9.146,10

Accessories grate for incubators and drying ovens for the BD, BF, ED, FD and FED series

Binder.

Grids, chrome plated

Suitable for	Art. No.	Pack Qty.	€
for BD 23, ED 23 and FD 23	**CKE0.1**	1 unit(s)	62,55
for BD 56 and ED 56	**CKE1.1**	1 unit(s)	100,15
for BF 56, FD 56 and FED 56	**ECY1.1**	1 unit(s)	100,15
for BD 115 and ED 115	**CKE2.1**	1 unit(s)	155,25
for BF 115, FD 115 and FED 115	**ECY2.1**	1 unit(s)	155,25
for BD 260 and ED 260	**CKE3.1**	1 unit(s)	290,25
for BF 260, FD 260 and FED 260	**ECY3.1**	1 unit(s)	290,25
for BD 400, BF 400, ED 400 and FED 400	**CKE4.1**	1 unit(s)	320,35
for BD 720 and ED 720	**CKE5.1**	1 unit(s)	348,30
for BF 720 and FED 720	**HPA7.1**	1 unit(s)	348,30



High-capacity drying cabinet Heratherm™

Thermo.

General features:

- Free-standing devices with fixed rollers
- Stainless steel interior
- RS 232 port
- Mains connection 230 V, 50 Hz
- Not including depth of handle and display (65 mm) and height of rollers (108 mm); required clearance to rear panel 120 mm

Technical specifications:

Art. No.	XH32.1	XH33.1	XH34.1	XH35.1
Type	OGS400	OGS750	OMH400	OMH750
Operating temperature	From +10 °C above room temperature to +250 °C			
Vol.	419 l	774 l	396 l	731 l
Inner width	544 mm	1,004 mm	544 mm	1,004 mm
Inner height	1,307 mm		1,335 mm	
Inner depth	590 mm		545 mm	
Outer width	778 mm	1,261 mm	778 mm	1,261 mm
Outer height	1,545 mm			
Outer depth	770 mm			
Max. removable shelves	39			
Rated power	2,400 W	3,000 W	2,400 W	3,000 W
Temporal temp. variance	±0,5 °C		±0,3 °C	±0,4 °C
Spatial temp. deviation	±3,0 °C	±3,7 °C	±2,1 °C	±3,1 °C
Weight	136 kg	182 kg	135 kg	185 kg
Mains connection	230 V, 50 Hz			

Delivery incl. 2 removable shelves. Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

General Protocol with natural air circulation

- **Operating temperature range from 10 °C above room temperature to 250 °C**
- With natural convection
- Integrated timer (1 min to 99 h, 59 min)
- Actual temperature display; setting accuracy ±1 K

Type	Vol. (l)	Art. No.	Pack Qty.	€
OGS400	419	**XH32.1**	1 unit(s)	4.773,00
OGS750	774	**XH33.1**	1 unit(s)	6.598,00

Advanced Protocol with ventilator

- **Operating temperature range from 10° C above room temperature to 250 °C**
- Setting accuracy ±1 K
- Mechanical convection – 2-stage fan: Can run fast or slow, but cannot be switched off
- Cable feedthrough (Ø 19 mm), e.g. for fitting sensors
- An audible alarm sounds if the door is accidentally left open
- Switch on/off after a preset time
- Weekly time setting or real-time control
- Programmable control for temperature ramps and dwell times (memory for 10 programs each with 10 individual steps)

Type	Vol. (l)	Art. No.	Pack Qty.	€
OMH400	396	**XH34.1**	1 unit(s)	6.352,00
OMH750	731	**XH35.1**	1 unit(s)	8.371,00

Accessories removable shelf kit Heratherm™ high-capacity wire drying cabinets

Thermo.

Wire removable shelf kit

1 removable shelf with 2 mounting clips.

Suitable for	Art. No.	Pack Qty.	€
OGS400, OMH400	**XH36.1**	1 unit(s)	228,00
OGS750, OMH750	**XH37.1**	1 unit(s)	273,00



High-temperature heating cabinet LHT (high-temperature laboratory oven)

Carbolite Gero.

- For maximum temperatures of 400, 500 or 600 °C depending on device type
- Recovery time of just 10 minutes at 400 or 500 °C after the door has been open for 1 min
- Polished stainless steel inner chamber
- Sturdy powder-coated outer housing
- High-performance recirculating air fan in the inner chamber (cannot be regulated)
- Adjustable digital overheating protection
- PID thermostat with digital display (target/actual temperature display)
- Heating rates up to max. temperature:
  LHT 4/30 = 50 min
  LHT 5/30 = 50 min
  LHT 6/30 = 70 min

Technical specifications:

Art. No.	NP16.1	NP17.1	NP18.1
Type	LHT 4/30	LHT 5/30	LHT 6/30
Operating temperature	Up to max. 400 °C	Up to max. 500 °C	Up to max. 600 °C
Vol.	30 l		
Inner width	300 mm		
Inner height	300 mm		
Inner depth	305 mm		
Outer width	830 mm		
Outer height	570 mm		
Outer depth	570 mm		
Max. removable shelves	2		
Rated power	1,000 W	2,000 W	
Temporal temp. variance	±0,5 °C		
Spatial temp. deviation	±5 °C		
Weight	73 kg		
Mains connection	230 V, 50 Hz		

Delivery incl. 2 grates.

Type	Vol. (l)	Art. No.	Pack Qty.	€
LHT 4/30	30	**NP16.1**	1 unit(s)	6.433,90
LHT 5/30	30	**NP17.1**	1 unit(s)	7.886,20
LHT 6/30	30	**NP18.1**	1 unit(s)	8.625,80

Muffle furnace



Laboratory ovens ELF series

Carbolite Gero.

For temperatures up to 1100 °C.

- General-diffuse heating coils on both side walls
- Furnace chamber comprising vacuum formed fibre insulation
- With abrasion-resistant base plate
- Double-walled housing for low ambient temperatures
- Short heating-up times of approx. 35 min
- Vent (Ø 30 mm)
- Forward hinged door
- PID thermostat with digital display (target/actual temperature display)
- Input of a temperature control profile with 2 segments (heating rate and hold time) using the timer function
- Built-in timer function (runtime: 99 h and 59 min)
- The timer can be operated in 5 different modes, e.g. the timer waits until the set temperature is reached, then begins to count down and on expiration shuts off the heater.
- **Please pay attention to supply voltages**

Technical specifications:

Art. No.	HY65.1	XK56.1	XK57.1
Type	ELF 11/6b	ELF 11/14b	ELF 11/23
Vol.	6 l	14 l	23 l
Max. temperature	1,100 °C		
Inner width	180 mm	220 mm	255 mm
Inner height	165 mm	210 mm	235 mm
Inner depth	200 mm	300 mm	400 mm
Outer width	410 mm	450 mm	505 mm
Outer height	580 mm	630 mm	715 mm
Outer depth	420 mm	520 mm	660 mm
Power consumption	2,000 W	3,000 W	6,100 W
Weight	20 kg	31 kg	52 kg
Mains connection	230 V, single-phase, 50 Hz with shock-proof plug, 16 A fuse		230 V, two-phase, 50 Hz with 16 A CEE plug, 16 A fuse per phase

Type	Vol. (l)	Art. No.	Pack Qty.	€
ELF 11/6b	6	**HY65.1**	1 unit(s)	3.218,55
ELF 11/14b	14	**XK56.1**	1 unit(s)	3.642,10
ELF 11/23	23	**XK57.1**	1 unit(s)	4.861,15



Muffle/ashing furnaces AAF series

Carbolite Gero.

For temperatures up to 1100 °C.

- Ceramic muffles heated from 4 sides for good temperature homogeneity (AAF 11/3 and AAF 11/7), AAF 11/18 model is heated from 2 sides with covered heating elements
- Parallel swing-up doors
- Hot door insulation is always facing away from the user
- Vacuum-formed fibre insulation
- Heating-up time: approx. 100 min
- Preheated air intake for optimal temperature distribution
- Air exchange rate: approx. 5 to 6 air changes per minute
- Exhaust outlet with vent (Ø 50 mm)
- With door contact switch
- PID thermostat with digital display (target/actual temperature display)
- Input of a temperature control profile with 2 segments (heating rate and hold time) using the timer function
- Built-in timer function (runtime: 99 h and 59 min)
- The timer can be operated in 5 different modes, e.g. the timer waits until the set temperature is reached, then begins to count down and on expiration shuts off the heater.
- **Please pay attention to supply voltages**

Technical specifications:

Art. No.	HY89.1	XK54.1	XK55.1
Type	AAF 11/3	AAF 11/7	AAF 11/18
Vol.	3.0 l	6.9 l	18.4 l
Max. temperature	1,100 °C		
Inner width	150 mm	170 mm	196 mm
Inner height	90 mm		235 mm
Inner depth	250 mm	455 mm	400 mm
Outer width	375 mm	430 mm	505 mm
Outer height	585 mm	650 mm	705 mm
Outer depth	485 mm	740 mm	675 mm
Power consumption	2,100 W	3,900 W	7,250 W
Weight	22 kg	63 kg	70 kg
Mains connection	230 V, single-phase, 50 Hz with shock-proof plug, 16 A fuse	230 V, two-phase, 50 Hz with 16 A CEE plug, 16 A fuse per phase	230 V, three-phase, 50 Hz with 16 A CEE plug, 16 A fuse per phase

Delivery incl. inconel bottom trays with handle (AAF 11/3 and AAF 11/7) or Inconel rack with handle for loading with samples on two levels (AAF 11/18).

Type	Vol. (l)	Art. No.	Pack Qty.	€
AAF 11/3	3.0	**HY89.1**	1 unit(s)	3.808,75
AAF 11/7	6.9	**XK54.1**	1 unit(s)	4.848,25
AAF 11/18	18.4	**XK55.1**	1 unit(s)	7.047,70

Vacuum ovens



Vacuum drying cabinet VT series

Thermo.

Areas of application: Pharmacy, biochemistry, cosmetics industry and electronics industry. Ideally suited for gentle and rapid drying and for thermal treatment of temperature-sensitive or easily decomposable substances and electronic components. Drying in the vacuum ensures sensitive samples are at no risk of contamination by particulate matter and the oxidation risk is lower.

General features of all models:

- **Operating temperature from 15 °C above room temperature to +200 °C**
- Max. spatial temperature deviation: ±4 °C (at 200 °C)
- Analogue pressure display
- **Possible ultimate vacuum: 0.01 mbar**
- With internal container made of corrosion-resistant, electropolished stainless steel (1.4571)
- Double-layer safety glass in the door window
- Microprocessor-controlled thermostat
- Digital temperature display
- Shell heating
- Temperature limiter (Protection Class 2 according to DIN 12880)
- In-house vacuum or a vacuum pump is required for operation. Please order the vacuum connection set separately.

Technical specifications:

Art. No.	ATN9.1	Y718.1
Type	VT 6025 Comfort	VT 6025 Standard
Version	With inert gas connection	Without inert gas connection
Vol.	25 l	
Inner width	300 mm	
Inner depth	307 mm	
Inner height	275 mm	
Outer width	480 mm	
Outer depth	450 mm	
Outer height	600 mm	
Max. removable shelves	4	
Rated power	1,300 W	
Connection	Hose nozzle Ø 20 mm for vacuum	
Weight	58 kg	
Mains connection	230 V, 50/60 Hz	

Delivery incl. 2 removable shelves. Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

VT 6025 Standard

Type	Version	Art. No.	Pack Qty.	€
VT 6025 Standard	Without inert gas connection	**Y718.1**	1 unit(s)	6.532,00

VT 6025 Comfort

Inert gas connection (OD Ø 4 mm) with precision valve and over-pressure relief valve for precise discharge of non-flammable, non-toxic gases (VDI 20465).

Type	Version	Art. No.	Pack Qty.	€
VT 6025 Comfort	With inert gas connection	**ATN9.1**	1 unit(s)	7.439,00

Accessories for VT series vacuum drying cabinets

Thermo.

Vacuum connection set

For connection to a vacuum pump for hose with ID 10 mm

Designation	Art. No.	Pack Qty.	€
Vacuum connection set	**Y720.1**	1 unit(s)	271,00

Additional tray

Designation	Art. No.	Pack Qty.	€
Additional tray	**Y719.1**	1 unit(s)	195,00



Vacuum drying cabinet VD series

Binder.

Fast, gentle drying of temperature-sensitive samples.

- **Operating temperature range from 10 °C above room temperature to 220 °C**
- Vacuum adjustable in the range 10 to 1100 mbar (end vacuum 0.01 mbar)
- Controller with digital display of pressure and temperature
- Drying process monitoring with automatic aeration at process end
- Internal data logger, measured values in open format readable via USB (approx. 100,000 entries possible, choice of save interval from 1 to 60 inutes)
- USB and Ethernet interface
- Universal aeration, for use with inert gas or ambient air
- Safety glass
- In-house vacuum or a vacuum pump is required for operation

Technical specifications:

Art. No.	1C6E.1	1C6H.1
Type	VD 23	VD 56
Vol.	24 l	55 l
Inner width	285 mm	400 mm
Inner depth	295 mm	343 mm
Inner height	285 mm	400 mm
Outer width	523 mm	638 mm
Outer depth	413 mm	461 mm
Outer height	698 mm	815 mm
Spatial temp. deviation	±1 K	±1,5 K
Temporal temp. variance	±0,1 K	
Rated power	900 W	1,400 W
Connection	Vacuum with small flange 16 DN mm, Inert gas with flow limiter 3/8 RP″	
Weight	64 kg	95 kg
Mains connection	200–230 V, 50/60 Hz	

Delivery incl. 1 aluminium insert/expansion rack. Please order vacuum connection set for pumps separately.

Type	Art. No.	Pack Qty.	€
VD 23	**1C6E.1**	1 unit(s)	7.927,05
VD 56	**1C6H.1**	1 unit(s)	9.424,55

Accessories for VD series vacuum drying cabinets

Binder.

Vacuum connection set
For connection to a vacuum pump.

Delivery incl. 2.5 m vacuum hose (ID 8 mm), aluminium clamping ring, universal centring ring, small flange with hose nozzle and hose clamps.

Designation	Art. No.	Pack Qty.	€
Vacuum connection set	**HTC0.1**	1 unit(s)	342,95



Electric barrel heaters WODL series

Winkler.

For heating and reducing the viscosity of materials and liquids in barrels and canisters allowing them to be filled into smaller containers or pumped more easily.

Properties:

- Heating directly at the installation location
- Outer sheath made from siliconised glass cloth
- Easy to mount using tension belts with adjustable snap locks
- Temperature range: Room temperature up to 70 °C
- Infinitely variable temperature setting (scale in 10 °C increments)
- Voltage 230, 50/60 Hz

Technical specifications:

Art. No.	LK10.1	LK11.1	LK12.1	LK13.1
Type	WODL-30	WODL-60	WODL-120	WODL-220
Drum	Canister 30 l	Canister 60 l	Canister 120 l	Drums 200-220 l
Total length	1,150 mm	1,350 mm	1,700 mm	1,950 mm
Width	400 mm	460 mm	370 mm	460 mm
Performance	150 W	200 W	220 W	330 W
Cable length	3 m			
Heated length	900 mm	1,100 mm	1,500 mm	2,100 mm
Mains connection	230 V, 50/60 Hz			

Type	Total length (mm)	Performance (W)	Art. No.	Pack Qty.	€
WODL-30	1,150	150	**LK10.1**	1 unit(s)	642,85
WODL-60	1,350	200	**LK11.1**	1 unit(s)	642,85
WODL-120	1,700	220	**LK12.1**	1 unit(s)	725,65
WODL-220	1,950	330	**LK13.1**	1 unit(s)	750,35



Temperature controller T series

Winkler.

For controlled and gentle heating of heating mantles and heating cords.

- LCD graphic display
- Digital display of set and actual temperature
- ABS desktop enclosure with anti-slip feet
- Operation via keypad with multilingual menu control (D, E, F, ES). Can optionally be controlled using WRZF310N remote control from a distance of up to 7 m (if required, please order separately).
- Three-coloured LED for displaying the operating statuses
- Adjustable target value for lower/upper limit
- Password menu protection
- With additional cut-off relay
- Control and operation only in conjunction with an optionally available Pt 100 or K type sensor
- Controller dimensions: W 157 x D 205 x H 100 mm

Technical specifications:

Art. No.	1A2L.1	1A2N.1
Type	T-560	T-570
Measuring range	K type: -200 to +1350 °C Pt 100: -120 to +850 °C	
Resolution	0,1 °C	
Setting accuracy	0,1 °C	
Rated power	2,300 W	1,450 W
Mains connection	250 V, 50/60 Hz	

Model T-560
For Pilz® heating mantles by Winkler with multipole coupling.

Max. current: 10 A.

Type	Art. No.	Pack Qty.	€
T-560	**1A2L.1**	1 unit(s)	482,70

Modell T-570
With Schuko socket on the back of the device. Suitable for many heating mantles and heating cords from different manufacturers.

Max. current: 6.3 A.

Type	Art. No.	Pack Qty.	€
T-570	**1A2N.1**	1 unit(s)	482,70

Heating cables, temperature controller



NEW / +

Accessories for T series temperature controller

Winkler.

(1) K-Type temperature gauge for heating mantles
Measuring range -40 to +1000 °C. Sensor length 300 mm, sensor Ø 1.6 mm. Accuracy ±2.5 °C at <333 °C; ±0.75 % of the actual value at >333 °C (max. ±7.5% at 1000 °C).

Type	Art. No.	Pack Qty.	€
K-Type sensor for T series	**1A2X.1**	1 unit(s)	138,70

(2) Temperature gauge Pt 100 for heating cords up to 250 °C
Measuring range -50 to +250 °C. Sensor length 50 mm, sensor Ø 4 mm. Accuracy ±1.55 °C at 250 °C.

Type	Art. No.	Pack Qty.	€
Pt 100 gauge for T series	**1A2P.1**	1 unit(s)	96,25

(2) Pt 100 temperature gauge for heating cords up to 500 °C
Measuring range -50 to +500 °C. Sensor length 35 mm, sensor Ø 5 mm. Accuracy ±2.8 °C at 500 °C.

Type	Art. No.	Pack Qty.	€
Pt 100 sensor for T series up to +500 °C	**1H9C.1**	1 unit(s)	110,75

(3) Infrared remote control WRZF310N
For T series temperature controller. Option to display setpoint and actual value and change the setpoint. Dimensions: 135 x 70 x 24 mm.

Delivery incl. 2 x 1.5 V AA batteries.

Type	Art. No.	Pack Qty.	€
Remote control WRZF310N	**1A2T.1**	1 unit(s)	149,45



NEW / +

Heating cord model WKG00402

Winkler.

With braided resistance wires. Not protected against moisture.

- Suitable for temperatures up to 400 °C
- Min. bending radius >6 mm
- Dimensions approx. Ø 6 mm
- Length of mains connection 2 x 1.0 m
- Mains power 230 V

Heating cords must not be laid overlapping and/or side by side, as otherwise these overheat. Furthermore, the heating strips may only be operated with a temperature regulator.

Delivery without safety plug or multipole coupling, please order separately (multipole coupling for Winkler temperature regulator T-560, safety plug for most temperature regulators from different manufacturers or Winkler temperature regulator T-570).

Total length (m)	Performance (W)	Art. No.	Pack Qty.	€
0.5	75	**1KA5.1**	1 unit(s)	67,75
1.0	150	**1KA6.1**	1 unit(s)	75,25
1.5	225	**1KA7.1**	1 unit(s)	94,60
2.0	300	**1KA8.1**	1 unit(s)	100,00
2.5	375	**1KA9.1**	1 unit(s)	112,90
3.0	450	**1KAA.1**	1 unit(s)	118,25
4.0	600	**1KAC.1**	1 unit(s)	135,45
5.0	750	**1KAE.1**	1 unit(s)	156,95

Heating cables, temperature controller



NEW / +

Heating strip model WBS00202

Winkler.

Tin-plated copper braided resistance wires. Silicon-insulated and protected against moisture.

- Suitable for temperatures up to 200 °C
- Min. bending radius >9 mm
- Dimensions 13 x 5 mm
- Length of mains connection 1.5 m
- Mains power 230 V

Heating strips must not be laid overlapping and/or side by side, as otherwise these overheat. Furthermore, the heating strips may only be operated with a temperature regulator.

Delivery without safety plug or multipole coupling, please order separately (multipole coupling for Winkler temperature regulator T-560, safety plug for most temperature regulators from different manufacturers or Winkler temperature regulator T-570).

With normal heating output

Total length (m)	Performance (W)	Art. No.	Pack Qty.	€
0.9	100	**1KA1.1**	1 unit(s)	153,75
1.8	200	**1KA2.1**	1 unit(s)	189,20
2.7	270	**1KA3.1**	1 unit(s)	235,45
4.0	410	**1KA4.1**	1 unit(s)	293,50

With reduced heating output

Total length (m)	Performance (W)	Art. No.	Pack Qty.	€
0.9	50	**1K9T.1**	1 unit(s)	153,75
1.8	100	**1K9X.1**	1 unit(s)	189,20
2.7	130	**1K9Y.1**	1 unit(s)	235,45
4.0	200	**1KA0.1**	1 unit(s)	293,50



NEW / +

Heating strip model WBG00402

Winkler.

Flexible glass silk external braid. Nickel braided resistance wires. Not protected against moisture. Two heat conductors running in parallel.

- Suitable for temperatures up to 400 °C
- Min. bending radius >15 mm
- Dimensions 35 x 5 mm
- Length of mains connection 0.4 m
- Mains power 230 V

Heating strips must not be laid overlapping and/or side by side, as otherwise these overheat. Furthermore, the heating strips may only be operated with a temperature regulator.

Delivery without safety plug or multipole coupling, please order separately (multipole coupling for Winkler temperature regulator T-560, safety plug for most temperature regulators from different manufacturers or Winkler temperature regulator T-570).

Total length (m)	Performance (W)	Art. No.	Pack Qty.	€
0.5	125	**1K9C.1**	1 unit(s)	110,75
1.0	250	**1K9E.1**	1 unit(s)	120,40
1.5	375	**1K9H.1**	1 unit(s)	136,55
2.0	500	**1K9K.1**	1 unit(s)	148,35
2.5	625	**1K9L.1**	1 unit(s)	175,25
3.0	750	**1K9N.1**	1 unit(s)	204,25
5.0	1250	**1K9P.1**	1 unit(s)	294,55

Heating cables, temperature controller



NEW / +

Installation set safety plug/multipole coupling for heating strips and heating cords

Winkler.

For installation of the safety plug or multipole coupling on heating strips or heating cables. Multipole coupling for Winkler temperature regulator T-560, safety plug for most temperature regulators from different manufacturers or Winkler temperature regulator T-570.

Delivery incl. 30 cm silicon hose for pushing over connection strands.

Type	Art. No.	Pack Qty.	€
Safety plug	**1KAK.1**	1 unit(s)	14,20
Multipole coupling for Winkler temp. regulator T-560	**1KAH.1**	1 unit(s)	18,60

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NEW / +

Heating mantle Pilz® WHG2H classic series

Winkler.

For operating temperatures of up to 900 °C.

- Heating element made from highly flexible glass silicate yarn for even heat transfer
- With heating zone switch
- Serial-parallel rotary switch, performance selector (Off/25/50/100%)
- Heating mantles 500 to 6000 ml: Base opening Ø 62 mm
- Mounted on support rings or tripods using clamping hooks
- Power supply voltage: 230 V, 50/60 Hz

Delivery incl. protective plug with FI function and Schuko socket cable (cable length 1.00 m).

For flask volume (ml)	Heating zones	Performance (W)	Ø Outer flask (mm)	Art. No.	Pack Qty.	€
250	2	300	85	**1L9P.1**	1 unit(s)	469,80
500	2	500	105	**1L9T.1**	1 unit(s)	528,90
1000	2	750	131	**1L9X.1**	1 unit(s)	657,90
2000	2	1200	166	**1L9Y.1**	1 unit(s)	923,45
4000	2	1800	207	**1LA0.1**	1 unit(s)	1.108,35
6000	2	2500	236	**1LA1.1**	1 unit(s)	1.349,15

Heating mantles



Heating mantle Pilz® WHG classic series

Winkler.

For operating temperature up to 450 °C.

- Heaters made of highly flexible yarn made of glass for uniform heat transfer and gentle treatment of round flasks
- With heating zone switch
- **Up to 1000 ml with the heating zone switch incorporated in the supply line, more than 2000 ml heating zones in the housing**
- Heating mantles 500 up to 20000 ml: opening the base Ø 60 mm
- Fastening at the support ring or rotary feet using clamping hooks
- Length of the mains cable: 1.5 m
- Power supply voltage: 230 V, 50/60 Hz

Delivery incl. protective plug with FI function and Schuko socket cable (cable length 1.00 m).

(1) Model WHG2
For operating temperature up to 450 °C

For flask volume (ml)	Heating zones	Performance (W)	Ø Outer flask (mm)	Art. No.	Pack Qty.	€
25	1	40	41	**KH06.1**	1 unit(s)	317,15
50	1	70	51	**KH07.1**	1 unit(s)	356,90
100	2	110	64	**KH08.1**	1 unit(s)	325,75
250	2	200	85	**KH09.1**	1 unit(s)	328,95
500	2	300	105	**KH10.1**	1 unit(s)	338,65
1000	2	450	131	**KH11.1**	1 unit(s)	449,35
2000	2	700	166	**KH12.1**	1 unit(s)	448,30
3000	2	800	185	**KH13.1**	1 unit(s)	516,00
4000	2	1000	207	**KH14.1**	1 unit(s)	560,10
5000	2	1200	223	**KH15.1**	1 unit(s)	693,40
6000	2	1400	236	**KH16.1**	1 unit(s)	777,25
10000	2	2000	279	**KH17.1**	1 unit(s)	1.020,20
20000	2	2800	345	**KH18.1**	1 unit(s)	1.499,65



Accessories tripod for standard heating mantles

Winkler.

Made of stainless steel. For installing standard heating mantles types WHG2, WHG4R and WHG2H.

Suitable for	Ø Internal (mm)	Art. No.	Pack Qty.	€
KH08.1	110	**KH29.1**	1 unit(s)	105,35
KH09.1	140	**KH30.1**	1 unit(s)	139,75
KH10.1	160	**KH31.1**	1 unit(s)	110,75
KH11.1	188	**KH32.1**	1 unit(s)	113,95
KH12.1	222	**KH33.1**	1 unit(s)	117,20
KH13.1	238	**KH34.1**	1 unit(s)	169,85
KH15.1	277	**KH36.1**	1 unit(s)	151,60
KH14.1, KH25.1	261	**KH35.1**	1 unit(s)	136,55
KH16.1, KH26.1	291	**KH37.1**	1 unit(s)	176,30
KH17.1, KH27.1	334	**KH38.1**	1 unit(s)	194,60
KH18.1, KH28.1	430	**KH39.1**	1 unit(s)	234,35



Support rings support rings for standard heating mantles

Winkler.

Made of stainless steel. To fasten the standard heating mantles, types WHG2, WHG4R and WHG2H in stand attachments.

Suitable for	Ø Internal (mm)	Art. No.	Pack Qty.	€
KH06.1	90	**KH40.1**	1 unit(s)	35,50
KH07.1	90	**KH41.1**	1 unit(s)	55,90
KH08.1	110	**KH42.1**	1 unit(s)	38,70
KH09.1	140	**KH43.1**	1 unit(s)	38,70
KH10.1	160	**KH44.1**	1 unit(s)	40,85
KH11.1	188	**KH45.1**	1 unit(s)	41,95
KH12.1	222	**KH46.1**	1 unit(s)	41,95
KH13.1	238	**KH47.1**	1 unit(s)	88,15
KH14.1, KH25.1	261	**KH48.1**	1 unit(s)	49,45



Accessories shockproof plug with multi-pole coupling

Winkler.

For Heating mantles of the WHG and WHLG series.
Without FI function. Use when the operator network is incorporates a residual current circuit breaker system. Cable length 1.0 m.
Voltage 230 V.

Type	Art. No.	Pack Qty.	€
Shockproof plug with multi-pole coupling	**PP37.1**	1 unit(s)	21,00



Heating mantle Pilz® WHLG-Classic-series

Winkler.

For operating temperature up to 450 °C.

- Heaters made of highly flexible yarn made of glass for uniform heat transfer and gentle treatment of round flasks
- Plastic coated metal housing
- With integrated fitting for connecting a stand clamp. Please order stand clamp separately
- Length of the mains cable: 1.5 m
- Power supply voltage: 230 V, 50/60 Hz

Delivery incl. protective plug with FI function and Schuko socket cable (cable length 1.00 m).

(1) Model WHLG2 - Heat zone switch
With integrated heat zone switch

For flask volume (ml)	Heating zones	Perfor-mance (W)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	1	50	160	180	**KE87.1**	1 unit(s)	305,30
100	1	100	160	180	**KE88.1**	1 unit(s)	299,95
250	2	150	160	180	**KE89.1**	1 unit(s)	317,15
500	2	200	210	190	**KE90.1**	1 unit(s)	342,95
1000	2	300	210	190	**KE91.1**	1 unit(s)	384,85
2000	2	500	280	220	**KE92.1**	1 unit(s)	392,40
3000	2	600	280	220	**KE93.1**	1 unit(s)	431,10

(2) Model WHLG2/ER - Power controller 0 to 100 %
With power controller for continuously variable adjustment from 0 to 100 %

For flask volume (ml)	Heating zones	Perfor-mance (W)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	1	50	160	180	**KE94.1**	1 unit(s)	337,55
100	1	100	160	180	**KE95.1**	1 unit(s)	338,65
250	2	150	160	180	**KE96.1**	1 unit(s)	389,15
500	2	200	210	190	**KE97.1**	1 unit(s)	358,00
1000	2	300	210	190	**KE98.1**	1 unit(s)	378,40
2000	2	500	280	220	**KE99.1**	1 unit(s)	431,10
3000	2	600	280	220	**KH00.1**	1 unit(s)	469,80

(3) Model WHLSG2/ER2 - Heating tray made of metal and power controller
With overflow-protected heating tray made of metal and power controller for continuously variable adjustment from 0 to 100 %

For flask volume (ml)	Heating zones	Perfor-mance (W)	Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	2	120	160	180	**KH01.1**	1 unit(s)	488,05
500	2	200	210	190	**KH02.1**	1 unit(s)	503,10
1000	2	300	210	190	**KH03.1**	1 unit(s)	523,55
2000	2	500	280	220	**KH04.1**	1 unit(s)	588,05

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Heating mantles



NEW / +

Heating mantle Pilz® LP2 Protect series

Winkler.

For operating temperatures of up to 450 °C.

- **Heating element protection class I** - protects users against contact voltages in case of wetting with liquid
- **Heating element impervious to fluids** as it is separate from the bottom
- On/off safety switch with protection against accidental activation
- Heating element made of glass silk for rapid heating and a good fit
- Metal housing with plastic coating
- With integrated fitting for connecting a stand clamp. Please order the stand clamp separately.
- Power supply voltage: 230 V, 50/60 Hz

Delivery incl. personal protection plug with FI function and Schuko socket cable (cable length 1.00 m).

(1) LP2 model - heat zone switch
With integrated heat zone switch.

For flask volume (ml)	Heating zones	Performance (W)	Ø Outer flask (mm)	Art. No.	Pack Qty.	€
50	1	60	51	**1H9L.1**	1 unit(s)	406,35
100	1	90	64	**1H9N.1**	1 unit(s)	408,50
250	2	150	85	**1H9P.1**	1 unit(s)	414,95
500	2	200	105	**1H9T.1**	1 unit(s)	434,30
1000	2	300	131	**1H9X.1**	1 unit(s)	463,35
2000	2	500	166	**1H9Y.1**	1 unit(s)	534,30
3000	2	600	185	**1HA0.1**	1 unit(s)	586,95

(2) LP2ER model - power controller for adjustment from 0 to 100 %
With power controller for continuously variable adjustment from 0 to 100 %.

For flask volume (ml)	Heating zones	Performance (W)	Ø Outer flask (mm)	Art. No.	Pack Qty.	€
50	1	60	51	**1HA1.1**	1 unit(s)	460,10
100	1	90	64	**1HA2.1**	1 unit(s)	461,20
250	2	150	85	**1HA3.1**	1 unit(s)	467,65
500	2	200	105	**1HA4.1**	1 unit(s)	487,00
1000	2	300	131	**1HA5.1**	1 unit(s)	516,00
2000	2	500	166	**1HA6.1**	1 unit(s)	586,95
3000	2	600	185	**1HA7.1**	1 unit(s)	640,70

Accessories stand clamp for housing heating mantles Pilz®

Winkler.

To fasten the housing heating mantles, type WHLG2, WHLG2/ER, WHLSG2/ER, LP2, LP2ER and WHLMG3ER in stand attachments. For stands up to Ø 13 mm.

Designation	Art. No.	Pack Qty.	€
Stand clamp	**KH05.1**	1 unit(s)	31,85



NEW / +

Multi-heating mantle Pilz® WHLMG3ER Classic series

Winkler.

For operating temperatures of up to 450 °C.

- Can be used for different flask sizes
- Powder-coated metal housing
- Glass fibre heating elements
- With heating zone switch
- Integrated mechanical power controller, continuously adjustable (0 to 100 %)
- Power supply voltage: 230 V, 50/60 Hz

Delivery incl. protective plug with FI function and Schuko socket cable (cable length 1.00 m).

For flask volume (ml)	Heating zones	Performance (W)	Ø Outer flask (mm)	Art. No.	Pack Qty.	€
50–250	3	150	51–85	**1LA2.1**	1 unit(s)	423,55
250–1000	3	360	85–131	**1LA3.1**	1 unit(s)	473,00
1000–3000	3	600	131–185	**1LA4.1**	1 unit(s)	554,70

Heating mantles

Heating mantle ITA series

ITA Instruments.

- Max. heating temperature range up to 450 °C
- Heating element protected against escape of fluid
- Infinitely variable temperature control via dial with 10-step scale
- “Chimney effect” for cooling housing outside walls
- LED power indicator during operation
- Housing surface made of ABS
- Version with electro-magnetic stirring function available
- Dimensions: W 192 x D 290 x H 131 mm
- Power supply voltage: 230 V, 50 Hz



(1) Standard version

For flask volume (ml)	Performance (W)	Ø Outer flask (mm)	Art. No.	Pack Qty.	€
100	150	64	**HCK2.1**	1 unit(s)	595,55
250	200	85	**HCK3.1**	1 unit(s)	594,50
500	300	105	**HCK4.1**	1 unit(s)	624,60
1000	400	131	**HCK5.1**	1 unit(s)	642,85

(2) Version with magnetic stirrer
Speed range 200 to 800 rpm

For flask volume (ml)	Performance (W)	Ø Outer flask (mm)	Art. No.	Pack Qty.	€
100	150	64	**HCK6.1**	1 unit(s)	1.006,20
250	200	85	**HCK7.1**	1 unit(s)	1.030,95
500	300	105	**HCK8.1**	1 unit(s)	1.047,05
1000	400	131	**HCK9.1**	1 unit(s)	1.071,80

Heating mantle Pilz® WHU2ER-Classic-series

Winkler.

For operating temperature up to 450 °C.

- Heating element made of highly flexible glass fibre yarn for even heat distribution and gentle treatment of round flasks
- **With power controller for continuously variable adjustment from 0 to 100 %**
- Plastic coated metal housing
- With integrated fitting for connecting a stand clamp. Please order stand clamp separately
- Power supply voltage: 230 V, 50/60 Hz



Delivery incl. protective plug with FI function and Schuko socket cable (cable length 1.00 m).

For flask volume (ml)	Heating zones	Performance (W)	Ø Internal (mm)	Height (mm)	Art. No.	Pack Qty.	€
4000	2	700	288	166	**NP32.1**	1 unit(s)	772,95
5000	2	860	318	166	**NP33.1**	1 unit(s)	891,20
6000	2	1000	318	166	**NP34.1**	1 unit(s)	895,50
10000	2	1400	368	194	**NP35.1**	1 unit(s)	1.020,20
20000	2	2400	438	234	**NP36.1**	1 unit(s)	1.366,35



Melting point measuring units MPM series

For measuring the melting point of powdery substances in glass capillaries.

Equipment features of all models:

- Digital temperature control
- Indirect, non-glare and anti-dazzle illumination of the substance during visual measurement using the magnifier
- Height-adjustable table tripod (360 to 460 mm)
- With USB interface
- Software makes it possible to create a measurement log in PDF format (incl. diagram with transparency progression for the MPM-HV 3 model)

Technical specifications:

Art. No.	HCE5.1
Type	MPM-H 3
Measuring range	+35 to +360 °C
Resolution	0,1 °C
Accuracy	±0,4 °C
Heat-up rate	when quick heating: to 200 °C - approx. 4 min to 350 °C - approx. 8 min when measuring: 1 °C/min
Magnification	with 3-fold magnifying glass
Width	230 mm
Depth	65 mm
Height	260 mm
Weight	6.8 kg
Mains connection	115–230 V, 50 Hz

Delivery incl. 100 melting point capillary tubes, USB cable, software and protective hood.

Semi-automatic/fully automatic multi-function unit MPM-HV 3
For testing a sample.
2 selectable measuring processes (visual or automatic). Fully automatic measurement: Set the required temperature (approx. 3 °C below the expected melting point). Once the preselected temperature is reached, a filled capillary is inserted. Measurement is terminated automatically when melting point is reached.

Semi-automatic MPM-H 3
For simultaneous testing of max. 3 samples.
Measuring process: visual by observation. Once the preselected temperature is reached, a filled capillary is inserted and a visual inspection of the capillary is performed using the magnifier. After the "Start" button is pressed again, the unit continues to heat up at a rate of 1 °C/min. As soon as the sample has melted, the value can be read on the display.

Type	Art. No.	Pack Qty.	€
MPM-H 3	**HCE5.1**	1 unit(s)	1.537,25

Accessories melting point capillary tubes for MPM series

Type	Art. No.	Pack Qty.	€
Melting point tubes, open on one side. Ext.-Ø 1,45 mm, int.-Ø 1,0 mm, length 80 mm	**HCE6.1**	100 unit(s)	10,45



Slide drying bench MH6616

Electrothermal.

To speed up the preparation of slides.
For up to 50 slides (76 x 26 mm). For temperatures from 10 °C above room temperature to 100 °C.

Microscope slides can be placed in various positions:

- On the storage rods
- Leaning against the filing rods
- Layed flat without the storage rods

Technical specifications:

Art. No.	YL72.1
Type	MH6616
Operating temperature	From 10 °C above room temperature to 100 °C
Heating output	150 W
W x D x H, external	390 x 180 x 95 mm
Outer height	95 mm
Weight	1.8 kg
Mains connection	230 V, 50/60 Hz

Type	Heating output (W)	Art. No.	Pack Qty.	€
MH6616	150	**YL72.1**	1 unit(s)	700,00



Paraffin stretching bath MH8517

Electrothermal.

For stretching and drying of cut tissue samples. For use in pathological, histological, chemical and bacteriological laboratories.

- For temperatures from 10 °C above room temperature to 100 °C (setting temperature from 30 to 80 °C)
- Observation and manipulation of specimens through matt black PTFE coating of the aluminium container
- With wide edge for depositing and drying the cuts
- Temperature of 45 °C is reached in approx. 40 min
- With overtemperature protection
- A bath lid is available to protect the water from contamination, please order separatel

Technical specifications:

Art. No.	**YL70.1**
Type	MH8517
Vol.	2.25 l
Operating temperature	From 10 °C above room temperature to 70 °C
Heating output	240 W
Accuracy	±0,5 °C
Ø Internal	220 mm
Inner height	80 mm
Ø ext.	330 mm
Outer height	140 mm
Weight	2.7 kg
Mains connection	230 V, 50/60 Hz

Type	Vol. (l)	Heating output (W)	Art. No.	Pack Qty.	€
MH8517	2.25	240	**YL70.1**	1 unit(s)	884,00



Tissue flotation bath Hydro H 2 P

Lauda.

For flotation and drying of sectioned tissue samples.

- For temperatures from 25 to 80 °C
- Temperature display by the control thermometer on the edge of the bath
- Temperature can be adjusted using the rotary knob with a temperature scale
- Low-water safety device
- Aluminium bath unit, anodised black

Technical specifications:

Art. No.	**1A90.1**
Type	H 2 P
Vol.	2 l
Operating temperature	25 to 80 °C
Heating output	300 W
Accuracy	±0,5 °C
Ø Internal	200 mm
Inner height	60 mm
Ø ext.	280 mm
Outer height	100 mm
Weight	2 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. control thermometer with holder.

Type	Vol. (l)	Heating output (W)	Art. No.	Pack Qty.	€
H 2 P	2	300	**1A90.1**	1 unit(s)	530,00

Bath cover for the Hydro H 2 P tissue flotation bath

Lauda.

Protects against dust.

Type	Art. No.	Pack Qty.	€
Bath cover for the H 2 P model flotation bath	**1A91.1**	1 unit(s)	82,80



Ozone generator OZ series

Phönix Instrument.

For local oxidative odour neutralisation and disinfection (elimination of micro-organisms) of surfaces like fixtures, furniture surfaces and walls.

Ozone (O_3) is a strongly oxidising molecule made up of three oxygen atoms. It exists as a gas and very quickly breaks down in the air into normal oxygen (O_2) under standard conditions. Ozone can remove harmful substances in the air.

An integrated timer ensures ozonisation at non-working times without personnel present. With proper application (sufficient ventilation), there are generally no more hazardous substances in the air after cleaning.

- Disinfection of rooms (germs, viruses, bacteria)
- Sanitation of rooms
- Mould spores in the air
- Musty smell
- Memory for 16 programmes - each programme comprises day (d) and On/Off time pair (h:min)

Technical specifications:

Art. No.	1CHY.1	1CK0.1
Type	OZ-10	OZ-30
Power consumption	10 g/h	30 g/h
Performance	130 W	250 W
Area of individual field	36 m²	82 m²
Volume	100 m³	320 m³
Flow rate	150 m³/h	250 m³/h
W x D x H	170 x 380 x 260 mm	220 x 440 x 305 mm
Ambient conditions	0 to 40 °C at 70% RH	
Weight	4 kg	6 kg
Mains connection	220–240 V, 50 Hz	

Type	Art. No.	Pack Qty.	€
OZ-10	**1CHY.1**	1 unit(s)	532,15
OZ-30	**1CK0.1**	1 unit(s)	897,65



Electrical sand baths ST series

Gestigkeit.

With continuously variable temperature control. Temperature range 50 to 300 °C. Robust version for continuous operation. Heating plates made of aluminium alloy with screwed on and sealed stainless steel frame with a usable height of 50 mm. Uniform heat distribution. Housing parts made of stainless steel. Connecting cable 1.7 m.

Technical specifications:

Art. No.	L165.1	L166.1
Type	ST 72	ST 82
Performance	2200 W	2850 W
Width	360 mm	
Depth	360 mm	510 mm
Height	220 mm	
Weight	1400 g	2100 g

Type	Art. No.	Pack Qty.	€
ST 72	**L165.1**	1 unit(s)	1.607,15
ST 82	**L166.1**	1 unit(s)	1.880,20



Rapid incinerator SVR/E

Gestigkeit.

Up to 950 °C with continuously variable temperature control. For individual and series incineration, even of liquid substances Top level has 8 openings, each Ø 34 mm and can accommodate a porcelain crucible up to Ø 50 mm for drying or heating.
Top part and housing made of stainless steel Integrated signal clock up to 120 min with switch setting for continuous operation. Ready for connection with 1.5 meter cable and protective plug.

Technical specifications:

Art. No.	L163.1
Type	SVR/E
Performance	2500 W
Width	450 mm
Depth	180 mm
Height	310 mm
Weight	7000 g
Mains connection	220 V

Type	Art. No.	Pack Qty.	€
SVR/E	**L163.1**	1 unit(s)	2.029,60

Hot plates



Hot plate

Severin.

With continuous temperature adjustment. Indicator lamp. Base plate with heat-resistant coating.

Technical specifications:

Art. No.	P853.1	EC13.1	K705.1	EC14.1
Type	Hot plate, individual		Double hot plate	
Version	Upper part, enamelled white	Upper part, brushed stainless steel	Upper part, enamelled white	Upper part, brushed stainless steel
Performance	1500 W		1500/1000 W	
Heated zone	Ø 180 mm		Ø 180/150 mm	
W x D x H, total	250 x 290 x 85 mm	262 x 285 x 80 mm	500 x 290 x 85 mm	460 x 290 x 77 mm

Type	Version	Art. No.	Pack Qty.	€
Hot plate, individual	Upper part, enamelled white	**P853.1**	1 unit(s)	45,75
Hot plate, individual	Upper part, brushed stainless steel	**EC13.1**	1 unit(s)	46,55
Double hot plate	Upper part, enamelled white	**K705.1**	1 unit(s)	60,10
Double hot plate	Upper part, brushed stainless steel	**EC14.1**	1 unit(s)	69,05



NEW/+

Hot plate RK 501 portable model

Rommelsbacher.

- Housing made of stainless steel and plastic
- Cast iron hot plate
- Continuously adjustable temperature control
- With overheating protection and rubber feet
- Integrated cord retractor

Technical specifications:

Art. No.	1H9K.1
Type	Portable RK 501
Heating output	500 W
Temperature range	to +450 °C
Heated zone	Ø 80 mm
W x D x H, total	140 x 140 x 70 mm
Weight	710 g
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
Portable RK 501	**1H9K.1**	1 unit(s)	64,45

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Hot plates



NEW / +

Glass ceramic hot plate CT 1800/E

Rommelsbacher.

- With stainless steel housing
- Schott Ceran® glass ceramic hot plate
- Infinitely adjustable temperature regulation (power control from 7 to 100%; scale with 12 stages)
- Residual heat display, indicator light, overheating protection

Technical specifications:

Art. No.	1HT2.1
Type	CT 1800/E
Heating output	1800 W
Temperature range	to +450 °C
Heated zone	Ø 180 mm
W x D x H, total	305 x 410 x 75 mm
Weight	2,52 kg
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
CT 1800/E	**1HT2.1**	1 unit(s)	187,05



Glass ceramic hot plate CT 2203/TC

Rommelsbacher.

- Brushed stainless steel housing
- Dual circuit heating technology
- Large heating zone can be switched on (Ø 210 mm)
- Heat output 1000 W (Ø 140 mm)
  Heat output 2200 W (Ø 210 mm)
- Schott Ceran® Cooktop
- Heating power is adjustable in 9 steps
- Heating element with particularly short heat-up time
- Control lamp, residual heat display
- Automatic operating time limitation (1 to 10 h depending on the cooking level set)

Technical specifications:

Art. No.	EY75.1
Type	CT 2203/TC
Heating output	1000/2200 W
Temperature range	to +460 °C
Heated zone	Ø 140/Ø 210 mm
W x D x H, total	305 x 410 x 75 mm
Weight	3.2 kg
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
CT 2203/TC	**EY75.1**	1 unit(s)	236,50



Double hot plate CT 3400/E

Rommelsbacher.

- With brushed stainless steel casing and Ceran®-hob
- Stepless energy regulation via retractable rotary toggles
- Heat output 1200 W(1st heating zone: Ø 145 mm)
  Heat output 2200 W (2nd heating zone: selectable Ø 140/210 mm)
- Control lamps, residual heat indicators and overheating protection

Technical specifications:

Art. No.	CHK9.1
Type	CT 3400/E
Heating output	1200/2200 W
Temperature range	to +460 °C
Heated zone	Ø 145/Ø 140/210 mm
W x D x H, total	550 x 310 x 65 mm
Weight	3.7 kg
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
CT 3400/E	**CHK9.1**	1 unit(s)	305,30

Hot plates



Induction hot plate CT 2215/IN

Rommelsbacher.

A magnetic coil generates the heat directly in the bottom of the pot. The cooking surface remains almost cold.
Operation only possible with pots suitable for induction.

- Stainless steel housing
- Schott Ceran®-cooking surface
- Temperature selection in 21 steps from 60 to 260 °C (adjustable in steps of 10 °C)
- Power selection in 9 steps (70/130/180/270/350/500/820/1280/2200 W)
- Electronic regulation via touch-control operating elements
- Time switch up to 99 min
- Pot detection
- Automatic switch-off and signal tone
- Residual heat and operation display

Technical specifications:

Art. No.	NA86.1
Type	CT 2215/IN
Heating output	2200 W
Temperature range	+60 to +260 °C
Heated zone	Ø 80–200 mm
Hotplate material	Schott Ceran®
W x D x H, total	333 x 380 x 65 mm
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
CT 2215/IN	**NA86.1**	1 unit(s)	218,25



Digital hot plate REC

Velp.

- Glass ceramic surface
- Digital display of hot plate target temperature (Setting accuracy in 5 °C increments)
- Hot Top Indicator (hot surface warning)
- Elevated control panel for protection against leaking liquids

Technical specifications:

Art. No.	ACP8.1
Type	REC
Heating output	780 W
Temperature range	+25 to +550 °C
Control accuracy	±10 K
Heated zone	180 x 180 mm
Hotplate material	Glass ceramic
W x D x H, total	203 x 344 x 94 mm
Weight	2.7 kg
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
REC	**ACP8.1**	1 unit(s)	384,85



Cell culture hot plate CultureTemp™ 37 °C

Housing made of PP, hot plate made of aluminium. Improves the viability of cells after removal from the incubator. With digital display and fixed hot plate temperature of 37 °C. Audible timer, adjustable from 1 to 15 mins in 1-minute increments (without influencing the heating; does not switch off when timer runs out). With LED for monitoring the heating function.

Technical specifications:

Art. No.	CHC7.1
Type	CulturTemp™ 37 °C
Operating temperature	37 °C (non-adjustable)
Temperature stability	±1 °C
Heated zone	203 x 178 mm
Hotplate material	Aluminium
W x D x H, total	249 x 254 x 57 mm
Weight	1.1 kg
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
CulturTemp™ 37 °C	**CHC7.1**	1 unit(s)	633,20

Hot plates



Digital heating plate C-MAG HP series

IKA.

General information for all models:

- Footprint made of glass ceramic
- Temperature setting via digital display (LED)
- Digital display of the heating plate target temperature
- Error code display in the event of a fault
- Fixed safety circuit of 550 °C
- Hot Top Indicator (hot surface warning)

Technical specifications:

Art. No.	LN75.1	LN76.1	LN77.1
Type	C-MAG HP 4	C-MAG HP 7	C-MAG HP 10
Heating output	250 W	1000 W	1500 W
Temperature range	+50 to +500 °C		
Control accuracy	±10 K		
Hotplate material	Glass Ceramics		
Footprint	100 x 100 mm	180 x 180 mm	260 x 260 mm
W x D x H, total	150 x 260 x 105 mm	200 x 330 x 105 mm	300 x 415 x 105 mm
Weight	3 kg	5 kg	6 kg
Mains connection	230 V, 50/60 Hz		

Standard version

Type	Art. No.	Pack Qty.	€
C-MAG HP 4	**LN75.1**	1 unit(s)	593,00

Models with contact thermometer connection

Additionally with DIN socket 12878 for the connection of an electronic contact thermometer e.g. ETS-D5 for high-precision temperature control.

Type	Art. No.	Pack Qty.	€
C-MAG HP 7	**LN76.1**	1 unit(s)	652,00
C-MAG HP 10	**LN77.1**	1 unit(s)	891,00



Hot plate US/UC-series

Stuart.

Features:

- Microprocessor-controlled heating element
- Platforms are optionally available in glass ceramic (generally good resistance to chemical attack, high temperature, 120 x 120 mm heated zone) or aluminium (extremely robust, 150 x 150 mm heated zone)
- Temperature control with LED display, colour LEDs make it easier to read current actual temperature
- Safety warning lamp comes on at temperatures above 50 °C

Technical specifications:

Art. No.	PY70.1	PY71.1
Type	US150	UC150
Heating output	700 W	500 W
Temperature range	to 325 °C	to 450 °C
Heated zone	150 x 150 mm	120 x 120 mm
Hotplate material	Aluminium/silicone-coated	Glass ceramic
Footprint	150 x 150 mm	
W x D x H, total	172 x 248 x 120 mm	
Weight	2.2 kg	
Mains connection	230 V, 50 Hz	

Type	Art. No.	Pack Qty.	€
US150	**PY70.1**	1 unit(s)	452,00
UC150	**PY71.1**	1 unit(s)	565,50

Hot plates



Infrared hotplate CR 300

Stuart.

- Chemically resistant ceramic surface
- With safety warning lamp for temperatures above 50 °C
- Efficient infrared heating with 900 W
- Heats 1 litre of water 30 % faster than conventional ceramic heating plates with 1200 W
- For liquid quantities up to 10 l

Technical specifications:

Art. No.	EE52.1
Type	CR 300
Heating output	900 W
Temperature range	+50 to +450 °C
Heated zone	Ø 140 mm
Footprint	300 x 300 mm
W x D x H, total	300 x 365 x 105 mm
Weight	4 kg
Mains connection	230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
CR 300	**EE52.1**	1 unit(s)	1.162,00



Hot plate CD/SB-series

Stuart.

With safety warning lamp for temperatures over 50 °C.

Technical specifications:

Art. No.	Y409.1	Y410.1
Type	CB 300	SB 300
Heating output	1200 W	600 W
Temperature range	+50 to +450 °C	+50 to +300 °C
Heated zone	200 x 200 mm	300 x 300 mm
Hotplate material	Ceramic	Aluminium
Footprint	300 x 300 mm	
W x D x H, total	300 x 365 x 105 mm	
Weight	6 kg	
Mains connection	230 V, 50 Hz	

Type	Art. No.	Pack Qty.	€
CB 300	**Y409.1**	1 unit(s)	847,00
SB 300	**Y410.1**	1 unit(s)	834,00



Hot plate CB/SB-series

Stuart.

Large surface for simultaneous heating of multiple samples, for example 30 beakers of 100 ml. With safety warning light at temperatures over +50 °C.

Technical specifications:

Art. No.	Y407.1	Y408.1
Type	CB 500	SB 500
Heating output	2250 W	1500 W
Temperature range	+50 to +375 °C	+50 to +300 °C
Heated zone	450 x 250 mm	500 x 300 mm
Hotplate material	Ceramic	Aluminium
Footprint	500 x 300 mm	
W x D x H, total	520 x 360 x 130 mm	
Weight	12 kg	
Mains connection	230 V, 50 Hz	

Type	Art. No.	Pack Qty.	€
CB 500	**Y407.1**	1 unit(s)	1.125,00
SB 500	**Y408.1**	1 unit(s)	1.083,00

Hot plates



Digital hot plate SD-series

Stuart.

With large surface for simultaneous heating of multiple samples.

- Microprocessor-controlled
- Footprint, model SD 300: 300 x 300 mm
  Footprint, model SD 500: 300 x 500 mm
- Digital display with a display resolution of 1 °C
- Aluminium hot plate ensures even heat distribution
- Temperature fluctuations in the worktop area: ±2 °C

Technical specifications:

Art. No.	AH86.1	AH87.1
Type	SD 300	SD 500
Heating output	600 W	1500 W
Temperature range	+50 to +300 °C	
Display resolution	1 °C	
Temperature stability	±1,5 °C	
Heated zone	300 x 300 mm	300 x 500 mm
W x D x H, total	320 x 365 x 105 mm	520 x 360 x 130 mm
Weight	6 kg	12 kg
Mains connection	230 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
SD 300	**AH86.1**	1 unit(s)	1.129,30
SD 500	**AH87.1**	1 unit(s)	1.265,00



Hot plate CP 300, acid resistant

Stuart.

Suitable for aggressive liquids, concentrated acids or alkalis, for trace analysis etc.

Features:

- Hot plate housing made of PTFE with ceramic heating surface
- Safety warning lamp for temperatures above 50 °C
- Remote control via separate control unit with PTFE-sheathed connection cable (the control unit can be placed outside the working area)

Technical specifications:

Art. No.	KN92.1
Type	CP 300
Heating output	900 W
Temperature range	to +400 °C
Heated zone	200 x 200 mm
Hotplate material	Ceramic
Footprint	300 x 300 mm
W x D x H, total	320 x 360 x 60 mm
Control line	2000 mm
Weight	11 kg
Mains connection	230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
CP 300	**KN92.1**	1 unit(s)	3.835,50

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Magnetic stirrers



Small magnetic stirrer ROTILABO® M 3

ROTH SELECTION.

- For stirring capacities up to 3 l
- Continuously adjustable speed range
- ABS housing

Technical specifications:

Art. No.	AAN1.1
Type	M 3
Number of stirring points	1
Max. stirring capacity (H_2O)	3 l
Speed range	to 1100 rpm
Motor power output	0.6 W
Housing material	ABS
Footprint	130 x 150 mm
W x D x H, total	130 x 150 x 50 mm
Operating temperature	5 to +40 °C at 80 % RH
Weight	400 g
Mains connection	100–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
M 3	**AAN1.1**	1 unit(s)	99,60



Small magnetic stirrer Topolino

IKA.

For stirring capacities up to 250 ml.

- Continuously adjustable speed range
- Plate made of PP

Technical specifications:

Art. No.	KE48.1
Type	Topolino
Number of stirring points	1
Max. stirring capacity (H_2O)	0.25 l
Speed range	300 to 1800 rpm
Motor power input	1.1 W
Motor power output	0.8 W
Footprint	Ø 80 mm
W x D x H, total	95 x 110 x 40 mm
Operating temperature	+5 to +40 °C at 80 % RH
Weight	300 g

Delivery incl. mains adapter.

Type	Art. No.	Pack Qty.	€
Topolino	**KE48.1**	1 unit(s)	132,00



Small magnetic stirrer MSL 8

Velp.

Robust epoxy-coated steeling casing. Control panel is recessed to protect it against leaking liquids.

Technical specifications:

Art. No.	EHY7.1
Type	MSL 8
Number of stirring points	1
Max. stirring capacity (H_2O)	8 l
Speed range	40 to 1500 rpm
Motor power input	5 W
Footprint	168 x 183 mm
W x D x H, total	168 x 183 x 60 mm
Operating temperature	+5 to +40 °C at 80 % RH
Weight	0,95 kg
Mains connection	100–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
MSL 8	**EHY7.1**	1 unit(s)	208,55

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Magnetic stirrers



Magnetic stirrers RSM series

Phönix Instrument.

Technical specifications:

Art. No.	XP52.1	XP53.1
Type	RSM-10 B	RSM-01 S
Number of stirring points	1	
Max. stirring capacity (H_2O)	3 l	20 l
Speed range	100 to 1500 rpm	to 1500 rpm
Speed display	LED	
Speed display accuracy	10 rpm	
Motor power input	5 W	30 W
Motor power output	3 W	18 W
Footprint	Ø 135 mm	
W x D x H, total	155 x 215 x 75 mm	160 x 280 x 85 mm
Weight	0.8 kg	2.8 kg
Mains connection	200–240 V, 50/60 Hz	

(1) RSM-10 B model

- Speed adjustment via digital display (LED display)
- ABS housing and platform

Pic.	Type	Art. No.	Pack Qty.	€
(1)	RSM-10 B	**XP52.1**	1 unit(s)	181,70

(2) RSM-01 S model

- With stainless steel platform
- Solid metal housing
- Levelling feet for uneven surfaces

Pic.	Type	Art. No.	Pack Qty.	€
(2)	RSM-01 S	**XP53.1**	1 unit(s)	338,65



Small magnetic stirrer Mini-MR standard

IKA.

For simple stirring applications **up to 1000 ml**. White plate with centring points, ideal for titrations and for observing colour reactions. Polyester foil plate.

Technical specifications:

Art. No.	0863.1
Type	Mini-MR standard
Number of stirring points	1
Max. stirring capacity (H_2O)	1 l
Speed range	to 2500 rpm
Motor power input	3 W
Motor power output	2 W
Footprint	115 x 115 mm
W x D x H, total	115 x 129 x 37 mm
Weight	250 g
Mains connection	100–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
Mini-MR standard	**0863.1**	1 unit(s)	272,00



Small magnetic stirrer Hei-Mix S

Heidolph.

Electronic speed control. With PVDF platform and polyamide housing.

Technical specifications:

Art. No.	EP84.1
Type	Hei-Mix S
Number of stirring points	1
Max. stirring capacity (H_2O)	5 l
Speed range	to 2200 rpm
Connected load	7 W
Footprint	Ø 104 mm
W x D x H, total	126 x 140 x 80 mm
Operating temperature	0 to +40 °C at 80 % RH
Weight	1.2 kg

Type	Art. No.	Pack Qty.	€
Hei-Mix S	**EP84.1**	1 unit(s)	257,00

Magnetic stirrers



Magnetic stirrers lab disc

IKA.

Adjustable reversing mode with change of direction every 30 sec.

- High IP protection (IP 65)
- Flat housing design

Technical specifications:

Art. No.	KX33.1
Type	lab disc
Number of stirring points	1
Max. stirring capacity (H_2O)	0.8 l
Speed range	150 to 1500 rpm
Motor power input	5 W
Motor power output	3 W
Footprint	Ø 100 mm
W x D x H, total	116 x 175 x 12 mm
IP rating	65
Mains connection	100–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
lab disc	**KX33.1**	1 unit(s)	348,00



Small magnetic stirrer squid series

IKA.

Glass plate, synthetic TPC-ET base.

Technical specifications:

Art. No.	KX28.1	KX23.1
Type	Color squid white	Big squid white
Number of stirring points	1	
Max. stirring capacity (H_2O)	1 l	1.5 l
Speed range	to 2500 rpm	
Speed display	digital	
Motor power input	3 W	
Motor power output	2 W	
Footprint	Ø 115 mm	Ø 160 mm
W x D x H, total	145 x 160 x 45 mm	183 x 203 x 45 mm
Mains connection	100–240 V, 50/60 Hz	

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Color squid white	**KX28.1**	1 unit(s)	381,00
(2)	Big squid white	**KX23.1**	1 unit(s)	381,00



Magnetic stirrer myPlate

IKA.

Users can choose the design of the plate surface themselves. Interchangeable frame makes it easy to replace the underlying photo.

- Digital speed display (set/actual value)
- Plate made of glass

Technical specifications:

Art. No.	KHC4.1
Type	myPlate
Number of stirring points	1
Max. stirring capacity (H_2O)	1.5 l
Speed range	100 to 2500 rpm
Motor power input	4 W
Motor power output	2 W
Setting accuracy	10 min^{-1}
Footprint	Ø 135 mm
W x D x H, total	152 x 164 x 30 mm
Operating temperature	+5 to +40 °C at 80 % RH
Weight	0,5 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. photo paper (can be individually printed, 10 pieces).

Type	Art. No.	Pack Qty.	€
myPlate	**KHC4.1**	1 unit(s)	381,00

Magnetic stirrers



NEW / +

Magnetic stirrer Induction stirrer

Heathrow Scientific.

Wear-free induction motor.

- Constant speed even at low speeds
- Magnetic coil technology to keep the plate cool - for stirring temperature-sensitive samples and for work over extended periods of time
- Digital display for speed and timer
- Direction of rotation of the magnetic motor can be adjusted by turning to the left or right
- Adjustable automatic reversal of direction of rotation (1 to 99 cycles)
- ABS plastic housing
- Five-year warranty

Technical specifications:

Art. No.	**1HAA.1**
Type	Induction stirrer
Number of stirring points	1
Max. stirring capacity (H_2O)	3 l
Speed range	10 to 2000 rpm
Speed display	LCD
Timer function	30 sec to 60 min in 1 sec increments or continuous operation
Footprint	165 mm
W x D x H, total	195 x 245 x 75 mm
Operating temperature	2 to 40 °C at 80 % RH
Weight	1,13 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. two cylindrical magnetic bars (Ø 12 mm, L 35 mm) and anti-slip mat made of silicone.

Type	Art. No.	Pack Qty.	€
Induction stirrer	**1HAA.1**	1 unit(s)	368,75



Magnetic stirrers MIX-1 series

2mag.

General information for all models:

- Wear-free magnetic stirrer
- Stainless steel housing
- Soft start for reliable capture/centring and acceleration of the stirring rod

Technical specifications:

Art. No.	**KLH5.1**	**KLH6.1**
Type	Mix 1 eco	Mix 1
Number of stirring points	1	
Max. stirring capacity (H_2O)	3 l	10 l
Speed range	120 to 1400 rpm	100 to 2000 rpm
Power setting	10 W	5/10/15/20 W
W x D x H, total	120 x 120 x 35 mm	180 x 238 x 38 mm
IP rating	65	
Operating temperature	-10 to +50 °C at 80 % RH	
Weight	1,7 kg	4,0 kg
Mains connection	100–240 V, 50/60 Hz	

Model: Mix 1 eco

- Up to 3-litre stirring capacity

Type	Art. No.	Pack Qty.	€
Mix 1 eco	**KLH5.1**	1 unit(s)	439,70

Model: Mix 1

- Up to 10-litre stirring capacity
- Digital display for speed and power setting
- Four-level power setting for high power when stirring large quantities, and reduced power for heat-free continuous operation
- Memory function stores the most recent settings

Type	Art. No.	Pack Qty.	€
Mix 1	**KLH6.1**	1 unit(s)	725,65

Magnetic stirrers



Magnetic stirrer Maxi Direct Digital

Thermo.

- Nonwearing Cimarec stirrer drive
- Stainless steel housing
- Automatic start-up for safe acceleration of the stirring rod
- With digital stirring speed display
- Constant stirring at low speeds of 80 rpm
- A memory function stores the most recent settings
- 5 years warranty

Technical specifications:

Art. No.	LY28.1
Type	Maxi Direct Digital
Number of stirring points	1
Max. stirring capacity (H_2O)	5 l
Speed range	80 to 2000 rpm
Power setting	5/10/15/20 W
W x D x H, total	180 x 215 x 35 mm
IP rating	62
Operating temperature	-10 to +40 °C at 95 % RH
Weight	2500 g

Type	Art. No.	Pack Qty.	€
Maxi Direct Digital	**LY28.1**	1 unit(s)	655,00



Magnetic stirrer SM27 Portable

Stuart.

ABS plastic housing. **Mains or battery operation**, even for use in climate chambers, incubators and in field research. Battery life approx. 600 h.

Technical specifications:

Art. No.	CC53.1
Type	SM27 Portable
Number of stirring points	1
Max. stirring capacity (H_2O)	1.5 l
Speed range	to 1300 rpm
W x D x H, total	150 x 160 x 70 mm
Operating temperature	0 to +40 °C at 80 % RH
Weight	1.3 kg

Delivery incl. 4 Mono 1.5 V batteries. Please order mains adapter separately.

Type	Art. No.	Pack Qty.	€
SM27 Portable	**CC53.1**	1 unit(s)	555,00



Magnetic stirrers C-MAG MS series

IKA.

- Ceramic glass plate
- Elevated control panel for protection against leaking liquids

Technical specifications:

Art. No.	LN38.1	LN40.1
Type	C-MAG MS 4	C-MAG MS 10
Number of stirring points	1	
Max. stirring capacity (H_2O)	5 l	15 l
Speed range	100 to 1500 rpm	
Motor power input	15 W	
Motor power output	1.5 W	
Footprint	100 x 100 mm	260 x 260 mm
W x D x H, total	150 x 260 x 105 mm	300 x 415 x 105 mm
Operating temperature	+5 to +40 °C at 80 % RH	
Weight	3 kg	6 kg
Mains connection	230 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
C-MAG MS 4	**LN38.1**	1 unit(s)	593,00
C-MAG MS 10	**LN40.1**	1 unit(s)	891,00
Type	Art. No.	Pack Qty.	€



Magnetic stirrer Hei-Mix L

Heidolph.

- Heat from the motor is not transferred to the footprint, in order to protect thermolabile substances
- Soft start ensures that samples are handled carefully, speed is slowly increased to the required value
- Sealed housing for longer service life
- Ceramic-coated plate

Technical specifications:

Art. No.	KHE0.1
Type	Hei-Mix L
Number of stirring points	1
Max. stirring capacity (H_2O)	20 l
Speed range	100 to 1400 rpm
Motor power output	20 W
Footprint	Ø 145 mm
W x D x H, total	173 x 277 x 94 mm
Permissible ambient conditions	+5 to +40 °C at 50% RH
Weight	2,9 kg
Mains connection	230 V, 50/60 Hz

KMO 3 basic	**KAA8.1**	1 unit(s)	718,00

Type	Art. No.	Pack Qty.	€
Hei-Mix L	**KHE0.1**	1 unit(s)	676,00

Magnetic stirrers



Magnetic stirrers POWER DIRECT

Thermo.

Powerful magnetic stirrer up to 40 litres stirring capacity. Compact dimensions with a flat design. Far-reaching magnetic field for stirring over a distance of up to 40 mm. Ideal for thick-walled glass bottoms, round flasks or double-walled vessels.

- Stainless steel housing
- Quick stop within 2 sec
- Stirring power can be adjusted to 4 steps (5/10/15/20 watts)
- Digital display for accurate speed adjustment
- Memory function stores the most recent settings
- 5 years warranty

Technical specifications:

Art. No.	Y822.1
Type	POWER DIRECT
Number of stirring points	1
Max. stirring capacity (H_2O)	40 l
Speed range	100 to 2000 rpm
Power setting	5/10/15/20 W
W x D x H, total	240 x 294 x 30 mm
Operating temperature	-10 to +40 °C at 95 % RH
Weight	3 kg

Delivery incl. wide range power supply unit (100–240 V/24 VDC).

Type	Art. No.	Pack Qty.	€
POWER DIRECT	**Y822.1**	1 unit(s)	1.144,00



Magnetic stirrers MIX-XL series

2mag.

General information for all models:

- Wear-free magnetic stirrer
- Stainless steel housing
- Powerful magnetic coupling for larger distances or thick vessel bottoms
- Soft start for reliable capture/centring and acceleration of the stirring rod
- Memory function stores the most recent settings

Technical specifications:

Art. No.	KLH7.1	KLH8.1
Type	Mix 1 XL	maxMix
Number of stirring points	1	
Max. stirring capacity (H_2O)	40 l	150 l
Speed range	70 to 2000 rpm	100 to 1200 rpm
Power setting	5/10/15/20 W	40 W
W x D x H, total	225 x 280 x 35 mm	265 x 320 x 68 mm
IP rating	64	
Operating temperature	-10 to +50 °C at 80 % RH	
Weight	4,0 kg	9,3 kg
Mains connection	100–240 V, 50/60 Hz	

Model: Mix 1 XL

- Up to 40-litre stirring capacity
- Digital display for speed and power setting
- Four-level power setting for high power when stirring large quantities of viscous media, and reduced power for heat-free continuous operation
- Adjustable interval times for automatically restarting the stirrer after up to 240 seconds (increments of two)
- mixWatch: Safety function for monitoring the magnetic coupling between the magnetic stirrer and the stirring rod

Type	Art. No.	Pack Qty.	€
Mix 1 XL	**KLH7.1**	1 unit(s)	1.348,05

Model: maxMix

- Up to 150-litre stirring capacity
- Digital display for speed

Type	Art. No.	Pack Qty.	€
maxMix	**KLH8.1**	1 unit(s)	2.943,35

Magnetic stirrers



Magnetic stirrers Genie®

Scientific Industries.

For gentle to intensive mixing of low-viscosity liquids. ABS/PC plastic housing. Powerful magnetic stirrer, up to 38 litres stirring capacity.

Technical specifications:

Art. No.	HH66.1	HH67.1
Type	MegaMag Genie®	Digital MegaMag Genie®
Number of stirring points	1	
Max. stirring capacity (H_2O)	38 l	
Speed range	200 to 1300 rpm	
Speed display	Scale	Digital
Speed display accuracy		2 rpm
Timer		1 to 99 min or continuous operation
Footprint	305 x 305 mm	
W x D x H, total	310 x 305 x 130 mm	
Operating temperature	0 to +38 °C at 95 % RH	
Weight	3 kg	

MegaMag Genie® model

Pic.	Type	Art. No.	Pack Qty.	€
(1)	MegaMag Genie®	**HH66.1**	1 unit(s)	895,50

Digital MegaMag Genie® model

With speed and time adjustment (timer function) via digital display. Speed increase in increments of 10 rpm.

Pic.	Type	Art. No.	Pack Qty.	€
(2)	Digital MegaMag Genie®	**HH67.1**	1 unit(s)	1.127,70



Magnetic stirrers Genie® programmable

Scientific Industries.

General features of both models:

For gentle mixing (e.g. of cell suspensions) in intermittent mode. Reversing mode can be adjusted for better mixing of the medium.

- Microprocessor-controlled
- Preselectable stirring power (Low, Medium, High) for various stirring applications, e. g. “High” stirring power for viscous liquids
- Interval and reversing modes are available

Four programmes can be selected:

- **Manual mode**
  For stirring without/with change of direction (reversing mode) and timer function (1 sec to 99 hrs).
- **Automatic mode**
  For activating user-defined stirring profiles.
- **Profile mode**
  For programming and storing 4 user-defined stirring profiles. Each stirring profile can store 9 different ramps such as speed, stirring direction (clockwise or anticlockwise), ramp acceleration (from 5 to 300 rpm per sec) and time (including stirring pause).
- **Setup mode**
  For programming manual mode. The programmable elements are as follows: Ramp acceleration from 5 to 300 rpm per sec (i.e. the time required to reach the set speed), stirring power and the duration and pause functions of the automatic direction change (adjustable from 1 sec to 59 mins).

Technical specifications:

Art. No.	AH70.1	CK78.1
Type	MagStir Genie®	MultiMagStir Genie®
Number of stirring points	1	4
Max. stirring capacity (H_2O)	4 l	1 l
Speed range	10 to 1800 rpm	10 to 1200 rpm
Speed accuracy	±0,1 %	
Footprint	Ø 100 mm	Ø 75 mm
Clearance between stirring points		165 mm
W x D x H, total	160 x 200 x 55 mm	325 x 375 x 48 mm
Operating temperature	0 to +38 °C at 95 % RH	
Max. load	5 kg	10 kg
Weight	1.0 kg	3.2 kg

MagStir Genie® model

Type	Art. No.	Pack Qty.	€
MagStir Genie®	**AH70.1**	1 unit(s)	718,10

MultiMagStir Genie® model

With 4 synchronised stirring positions for serial examinations. Suitable for 4 Erlenmeyer flasks or 1000 ml beakers.

Type	Art. No.	Pack Qty.	€
MultiMagStir Genie®	**CK78.1**	1 unit(s)	1.420,10

Magnetic stirrers



Magnetic stirrer, remote control option MOBIL 10

Thermo.

For stirring applications in heating chambers, climate chambers and cooling chambers and for built-in systems.

- Easy to clean, robust housing made of POM. For operating temperatures of +5 to +56 °C at 95 RH.
- Can be remotely controlled (corded) with a separate Telemodul 10 M control unit
- Quick stop without drive overrun, for high operational safety, protects glass vessels from breaking
- Continuously adjustable speed
- Easy to clean, robust housing made of POM. For operating temperatures of +5 to +56 °C at 95 RH.

Technical specifications:

Art. No.	EH13.1
Type	MOBIL 10
Number of stirring points	1
Max. stirring capacity (H_2O)	20 l
Speed range	100 to 1000 rpm
Stirring power	10 W
Control line	L 2 m / Ø 4 mm
Housing material	POM
Ø Housing	128 mm
IP rating	66
Operating temperature	+5 to +56 °C at 95 % RH
Weight	0.7 kg

Delivery without Telemodul 10 M control unit, please order separately (required for operation).

Type	Art. No.	Pack Qty.	€
MOBIL 10	**EH13.1**	1 unit(s)	496,00

Accessories control unit Telemodul 10 M for magnetic stirrer MOBIL series

Thermo.

Technical specifications:

Art. No.	EH15.1
Speed constancy	±1 %
Stirring power	10 W
W x D x H, total	63 x 96 x 50 mm
IP rating	20
Permissible ambient conditions	10 to 40 °C at 80% RH
Weight	0.5 kg
Mains connection	230 V, 50/60 Hz

Designation	Art. No.	Pack Qty.	€
Telemodul 10 M	**EH15.1**	1 unit(s)	283,00



Magnetic stirrer, remote control option Cimarec Micro

Thermo.

With induction drive. Compact design for applications with low volumes. Ideal for operation in demanding environments and water baths.

Micro magnetic stirrer:

- High temperature resistance up to 95 °C in water and 120 °C in air
- Hermetically-sealed stainless steel housing, waterproof and dustproof acc. to IP 68
- Can be remotely controlled (corded) with a separate Telemodul 20 C control unit

Telemodul 20 C control unit:

- Graphic display
- Vertical mixing (Shake mode)
- 3 assignable program keys for quick starting routines. The most recent setting is stored automatically
- Three-stage adjustable start-up times for safe acceleration of the magnetic rod
- Intermittent operation with freely selectable stirring times and pause times as well as rotation direction reversal (5 sec to 1 h)
- Four-stage adjustable nominal stirring power (25/50/75/100 %); high power for viscous media, reduced power for long-term heat-free operation
- 5 years warranty

Technical specifications:

Art. No.	LY27.1
Type	Cimarec Micro
Number of stirring points	1
Max. stirring capacity (H_2O)	1 l
Speed range	130 to 1400 rpm
Power setting	2/4/6/8 W
Control line	L 2 m / Ø 4 mm
W x D x H, total	48 x 48 x 16 mm
IP rating	68
Operating temperature in water	0 to +95 °C (100 % RH)
Operating temperature	-10 to +120 °C at 95 % RH
Weight	0.2 kg
Technical specifications for Telemodul 20 C	
Speed constancy	±1 %
Nominal stirring power	20 W
Output voltage	VDC 20
Dimensions (W x D x H)	155 x 165 x 95 mm
Perm. ambient temperature	0 to +40 °C at 80 % RH
Power supply	100-240 V, 50/60 Hz
Weight	0.6 kg

Delivery incl. micro magnetic stirrer and Telemodul 20 C control unit.

Type	Art. No.	Pack Qty.	€
Cimarec Micro	**LY27.1**	1 unit(s)	899,00

Magnetic stirrers



Magnetic stirrer, remote control option Compact 20

Thermo.

For stirring applications directly in water baths (up to +50 °C), heating and cooling chambers, in damp brooding chambers and for built-in systems.

Compact 20 magnetic stirrer:

- Stainless steel housing
- Nonwearing Cimarec inductive drive
- Can be remotely controlled (corded) with a separate Telemodul 20 C control unit
- Hermetically sealed; waterproof according to IP 68

Telemodul 20 C control unit:

- Graphic display
- Vertical mixing (Shake mode)
- 3 assignable program keys for quick starting routines. The most recent setting is stored automatically
- Three-stage adjustable start-up times for safe acceleration of the magnetic rod
- Intermittent operation with freely selectable stirring times and pause times as well as rotation direction reversal (5 sec to 1 h)
- Four-stage adjustable nominal stirring power (25/50/75/100 %); high power for viscous media, reduced power for long-term heat-free operation

Technical specifications:

Art. No.	**EH16.1**
Type	Compact 20
Number of stirring points	1
Max. stirring capacity (H_2O)	1.5 l
Speed range	130 to 1400 rpm
Control line	2 m / Ø 4 mm
W x D x H, total	120 x 120 x 35 mm
IP rating	68
Operating temperature in water	0 to +50 °C
Operating temperature	-10 to +56 °C at 100 % RH
Weight	1 kg

Technical specifications of Telemodul 20 C:	
Speed constancy	±1 %
Nominal stirring power	20 W
Output voltage	VDC 20
Dimensions (W x D x H)	155 x 165 x 95 mm
Perm. ambient temperature	0 to +40 °C at 80 % RH
Input voltage	100-240 V, 50/60 Hz
Weight	0.6 kg

Delivery incl. Compact 20 magnetic stirrer and Telemodul 20 control unit.

Type	Art. No.	Pack Qty.	€
Compact 20	**EH16.1**	1 unit(s)	908,00



Multi-position magnetic stirrers Digital 6 and 15

Velp.

- Stainless steel plate
- Digital speed display
- Constant speed, even after changes in medium viscosity
- With timer (1 to 900 sec or continuous mode) or adjustable reversing mode with opposite direction of rotation (5 to 900 sec)
- Speed can be adjusted in increments of 10 rpm

Technical specifications:

Art. No.	**EHY8.1**	**EHY9.1**
Type	Digital 6	Digital 15
Number of stirring points	6	15
Max. stirring capacity (H_2O)	0.4 l	0.25 l
Speed range	80 to 1500 rpm	
Speed display	LED	
Motor power input	3.6 W	9 W
Motor power output	3 W	8 W
Footprint	Ø 85 mm	Ø 64 mm
Clearance between stirring points	100 mm	74 mm
W x D x H, total	230 x 370 x 52 mm	
Operating temperature	+5 to +40 °C at 80 % RH	
Weight	1.75 kg	2.1 kg
Mains connection	100–240 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
Digital 6	**EHY8.1**	1 unit(s)	781,55
Digital 15	**EHY9.1**	1 unit(s)	1.084,70

Magnetic stirrers



Multi-position magnetic stirrers POLY 15

Thermo.

Nonwearing Cimarec stirrer drive. Powder-coated stainless steel housing. Digital display for accurate speed adjustment. Memory function stores the most recent settings.
For up to 15 250 ml beakers or 6 1000 ml Erlenmeyer flasks. 5 years warranty.

Technical specifications:

Art. No.	**X544.1**
Type	POLY 15
Number of stirring points	15
Max. stirring capacity (H_2O)	0.8 l
Speed range	130 to 990 rpm
Stirring power	10 W
W x D x H, total	240 x 420 x 35 mm
Operating temperature	-10 to +40 °C at 95 % RH
Weight	6 kg

Type	Art. No.	Pack Qty.	€
POLY 15	**X544.1**	1 unit(s)	983,00

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Multi-position magnetic stirrers Multipoint series

Thermo.

Features:

- With Cimarec stirrer drive
- Stainless steel housing. Hermetically sealed, **waterproof and dustproof and easy to clean.**
- **Not suitable for use under water**
- Stirring power can be adjusted to 4 steps (5/10/15/20 W); high power for larger stirring capacities and viscous media, reduced power for long-term, heat-free operation.
- **4-digit LED display**
- Memory function stores the most recent settings.
- Multipoint 6, e.g. for 6 1000 ml Erlenmeyer flasks or Multipoint 15, e.g. for 15 250 ml beakers
- 5 years warranty

Technical specifications:

Art. No.	**X176.1**	**X177.1**
Type	Multipoint 6	Multipoint 15
Number of stirring points	6	15
Max. stirring capacity (H_2O)	3 l	
Speed range	80 to 2000 rpm	
Power setting	5/10/15/20 W	
Clearance between stirring points	130 mm	65 mm
W x D x H, total	240 x 420 x 35 mm	
IP rating	64	
Operating temperature	-10 to +56 °C at 100 % RH	
Mains connection	230 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
Multipoint 6	**X176.1**	1 unit(s)	1.548,00
Multipoint 15	**X177.1**	1 unit(s)	2.154,00

Magnetic stirrers



Multi-position magnetic stirrers RO series

IKA.

Noiseless coil drive technology provides consistent stirring speeds at all stirring positions. This enables the performance of serial examinations under reproducible conditions.

- Digital speed display
- Stainless steel surface
- Stirring positions arranged in-line for optimum use of surface area (1 x 5, 2 x 5 or 3 x 5)
- Adjustable reversing mode with change of direction (adjustable to 30/60/90/120 sec)
- Eco mode for heat-free long-term operation with reduced power (max. speed is limited to 600 rpm)

Technical specifications:

Art. No.	XT33.1	XT34.1	XT35.1
Type	RO 5	RO 10	RO 15
Number of stirring points	5	10	15
Max. stirring capacity (H_2O)	0.4 l		
Max. stirring capacity with larger vessels	2 l	4 l	6 l
Speed range	to 1200 rpm		
Speed display	LED		
Setting accuracy	10 rpm		
Footprint	120 x 470 mm	190 x 470 mm	280 x 470 mm
Clearance between stirring points	90 mm		
W x D x H, total	120 x 570 x 60 mm	190 x 570 x 60 mm	280 x 570 x 60 mm
Weight	3 kg	5 kg	7 kg
Mains connection	100–240 V, 50/60 Hz		

Type	Art. No.	Pack Qty.	€
RO 5	**XT33.1**	1 unit(s)	1.652,00
RO 10	**XT34.1**	1 unit(s)	1.907,00
RO 15	**XT35.1**	1 unit(s)	2.666,00



Multi-position magnetic stirrer with heater AM4

Velp.

- Four independently controlled stirring/heating positions
- With aluminium hot plates
- Constant speed, even when viscosity changes

Technical specifications:

Art. No.	CKK3.1
Type	AM4
Number of stirring points	4
Max. stirring capacity (H_2O)	15 l
Speed range	50 to 1500 rpm
Speed display	Scales
Temperature range	+50 to +370 °C
Heating output	4 x 600 W
Footprint	Ø 135 mm
Clearance between stirring points	186 mm
W x D x H, total	715 x 246 x 115 mm
Weight	8.6 kg
Mains connection	230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
AM4	**CKK3.1**	1 unit(s)	1.598,55

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- Application-specific subject areas and special product compilations

Heating/magnetic stirrers



Multi-position magnetic stirrer with heater SB 162-3

Stuart.

Features:

- Hot plates with aluminium/silicone alloy for uniform temperature distribution
- Three independently controlled stirring/heating positions
- With separate safety warning lamp for each stirring/heating position; lights up when hot plate temperature exceeds 50 °C

Technical specifications:

Art. No.	KN82.1
Type	SB 162-3
Number of stirring points	3
Max. stirring capacity (H_2O)	15 l
Speed range	100 to 1500 rpm
Speed display	Scales
Temperature range	to 325 °C
Heating output	3 x 700 W
Footprint	160 x 160 mm
W x D x H, total	600 x 270 x 110 mm
Weight	11 kg
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
SB 162-3	**KN82.1**	1 unit(s)	1.569,50



NEW / +

Multi-position magnetic stirrer with heater RSM-03-4KH

Phönix Instrument.

- Four independently controlled stirring/heating positions
- LCD displays show the current temperatures or speeds
- **Integrated contact thermometer with full functionality for direct control of medium temperature using Pt 1000 measuring probe**
- Stainless steel hot plate with ceramic coating
- Overheating protection at 420 °C

Technical specifications:

Art. No.	1K9A.1
Type	RSM-03-4KH
Number of stirring points	4
Max. stirring capacity (H_2O)	3 l
Speed range	200 to 1500 rpm
Speed display	LCD
Motor power output	1.8 W
Operating temperature	Room temperature to +340 °C
Temperature display	LCD
Setting accuracy	1 °C
Control accuracy without sensor	±5 K
Control accuracy with sensor	±1 K
Heating output	4 x 500 W
Footprint	Ø 135 mm
Clearance between stirring points	170 mm
W x D x H, total	700 x 270 x 130 mm
Weight	9,5 kg
Mains connection	200–230 V, 50 Hz

Delivery incl. four Pt 1000 temperature gauges, four stand rods and four clamps.

Type	Art. No.	Pack Qty.	€
RSM-03-4KH	**1K9A.1**	1 unit(s)	2.031,75

Heating/magnetic stirrers



Multi-position magnetic stirrer with heater MULTI-HS series

Velp.

Simultaneous mixing at 6 or 15 stirring positions with identical intensity and homogeneous temperature distribution.

- Digital speed and temperature display
- Aluminium hot plate with protective coating made of ceramic
- **With integrated tempering plate**
- Constant speed, even after changes in medium viscosity
- Safety warning display comes on at temperatures above 50 °C
- Integrated timer operation (1 min to 99 h, 59 mins), with audible signal when the countdown has ended
- Adjustable automatic reversal of direction of rotation (5 sec to 99 min, 59 sec in 1 sec increments)
- Max. medium temperature 70 °C (depending on vessel)

Technical specifications:

Art. No.	1AN5.1	1AN6.1
Type	MULTI-HS 6	MULTI-HS 15
Number of stirring points	6	15
Max. stirring capacity (H_2O)	400 ml	250 ml
Speed range	100 to 1000 rpm	
Speed display	Digital	
Speed display accuracy	5 rpm	
Operating temperature	Room temperature up to 120 °C (setting accuracy ±1 °C)	
Temperature display	Digital	
Heating output	600 W	
Timer function	1 min up to 99 h, 59 min	
Footprint	432 x 223 mm	
Clearance between stirring points	100 mm	74 mm
W x D x H, total	240 x 550 x 65 mm	
Weight	4,7 kg	4,8 kg
Mains connection	230 V, 50/60 Hz	

HS 6 model
With six stirring positions for 400 ml beaker.

Type	Art. No.	Pack Qty.	€
MULTI-HS 6	**1AN5.1**	1 unit(s)	1.644,75

HS 15 model
With 15 stirring positions for 250 ml beaker.

Type	Art. No.	Pack Qty.	€
MULTI-HS 15	**1AN6.1**	1 unit(s)	2.612,25



Multi-position magnetic stirrer with heater RT series

IKA.

Simultaneous mixing at 5, 10 or 15 stirring positions with identical intensity and homogeneous temperature distribution.

- Digital speed and temperature display
- **With integrated tempering plate**
- Stainless steel surface
- Stirring positions arranged in-line for optimum use of surface area (1 x 5, 2 x 5 or 3 x 5)
- Adjustable reversing mode with change of direction (adjustable to 30/60/90/120 sec)
- Eco mode for heat-free long-term operation with reduced power
- Max. medium temperature 70 °C (depending on vessel)
- Speed can be adjusted in increments of 10 rpm

Technical specifications:

Art. No.	XT36.1	XT37.1	XT38.1
Type	RT 5	RT 10	RT 15
Number of stirring points	5	10	15
Max. stirring capacity (H_2O)	0.4 l		
Max. stirring capacity with larger vessels	2 l	4 l	6 l
Speed range	0 to 1000 rpm		
Speed display	LED		
Operating temperature	Ambient temperature up to 120 °C (setting accuracy ±1 °C)		
Temperature display	LED		
Footprint	110 x 495 mm	180 x 495 mm	270 x 495 mm
Clearance between stirring points	90 mm		
W x D x H, total	120 x 610 x 60 mm	190 x 610 x 60 mm	280 x 610 x 60 mm
Weight	4 kg	7.5 kg	10.5 kg
Mains connection	220–240 V, 50/60 Hz		

Type	Art. No.	Pack Qty.	€
RT 5	**XT36.1**	1 unit(s)	2.799,00
RT 10	**XT37.1**	1 unit(s)	3.695,00
RT 15	**XT38.1**	1 unit(s)	4.647,00

Heating/magnetic stirrers



Heating and magnetic stirrers ROTILABO® MH 15

ROTH SELECTION.

- Aluminium hot plate with protective coating
- With elevated control panel to protect against leaking liquids
- Constant speed, even after changes in medium viscosity
- Front panel with °C and rpm scale

Technical specifications:

Art. No.	AAN2.1
Type	MH 15
Number of stirring points	1
Max. stirring capacity (H_2O)	15 l
Speed range	50 to 1500 rpm
Motor power input	30 W
Motor power output	23 W
Temperature range	50 to 370 °C
Heating output	630 W
Footprint	Ø 135 mm
W x D x H, total	165 x 280 x 115 mm
Weight	2.6 kg
Mains connection	230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
MH 15	**AAN2.1**	1 unit(s)	295,65



Heating and magnetic stirrer RH basic 2

IKA.

- Stainless steel hot plate
- Fixed safety circuit, which limits the hot plate temperature to 400 °C

Technical specifications:

Art. No.	Y888.1
Type	RH basic 2
Number of stirring points	1
Max. stirring capacity (H_2O)	10 l
Speed range	100 to 2000 rpm
Motor power input	15 W
Motor power output	2 W
Operating temperature	Ambient temperature to +320 °C
Control accuracy	±15 K
Heating output	400 W
Footprint	Ø 125 mm
W x D x H, total	168 x 220 x 105 mm
Weight	2.4 kg

Type	Art. No.	Pack Qty.	€
RH basic 2	**Y888.1**	1 unit(s)	443,00

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Heating/magnetic stirrers



Heating and magnetic stirrers RSM series

Phönix Instrument.

- Temperature and speed adjustment via digital display (LED display)
- Digital display of nominal and actual temperature
- **Direct connection for Pt 1000 medium temperature sensor** (if required, please order separately)
- Fixed safety circuit of 320 °C
- Platform made of stainless steel or ceramic coated steel (optional)

Technical specifications:

Art. No.	TT78.1	TT79.1
Type	RSM-10HS	RSM-10HP
Number of stirring points	1	
Max. stirring capacity (H_2O)	3 l	
Speed range	200 to 1500 rpm	
Speed display	LED	
Speed display accuracy	20 rpm	
Motor power input	5 W	
Motor power output	3 W	
Hotplate material	Stainless steel	Ceramic-coated steel
Operating temperature	Ambient temperature to +280 °C	
Temperature display	LED	
Control accuracy without sensor	±10 K	
Control accuracy with sensor	±2 K	
Heating output	500 W	
Footprint	Ø 135 mm	
W x D x H, total	155 x 215 x 100 mm	
Weight	1.4 kg	
Mains connection	200–240 V, 50/60 Hz	

Delivery without temperature gauge and stand kit (if required, please order separately).

Type	Art. No.	Pack Qty.	€
RSM-10HS	**TT78.1**	1 unit(s)	295,65
RSM-10HP	**TT79.1**	1 unit(s)	306,40



Heating and magnetic stirrer RSM-14HP

Phönix Instrument.

- Temperature and speed adjustment via digital display (LCD display)
- Digital display of target and actual temperature
- **Integrated contact thermometer with full functionality. Direct connection for Pt 1000 medium temperature sensor** (if required, please order separately)
- Fixed safety circuit of 420 °C

Technical specifications:

Art. No.	KKE5.1
Type	RSM-14HP
Number of stirring points	1
Max. stirring capacity (H_2O)	5 l
Speed range	200 to 1500 rpm
Speed display	LCD
Speed display accuracy	20 rpm
Motor power input	2.4 W
Motor power output	1.8 W
Hotplate material	Ceramic-coated aluminium
Operating temperature	5 °C above room temperature up to +380 °C
Temperature display	LCD
Control accuracy without sensor	±10 K
Control accuracy with sensor	±2 K
Heating output	510 W
Footprint	140 x 140 mm
W x D x H, total	180 x 320 x 108 mm
Mains connection	200–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
RSM-14HP	**KKE5.1**	1 unit(s)	424,65

Accessories for heating and magnetic stirrers RSM-10HS, RSM-10HP and RSM-14HP

Phönix Instrument.

Pt 1000 temperature sensor
Made of V4A. Sensor length 190 mm, Ø 3 mm. Handle 50 mm.

Designation	Art. No.	Pack Qty.	€
Pt 1000 sensor	**TT80.1**	1 unit(s)	80,65

Stand kit
For attaching a single sensor probe.

Delivery incl. M8 stand rod (L 340 mm, Ø 10 mm), holder rod for Pt 1000 sensor (L 160 mm, Ø 10 mm) and clamp.

Designation	Art. No.	Pack Qty.	€
Stand kit	**YK80.1**	1 unit(s)	64,50

Heating/magnetic stirrers



Heating and magnetic stirrers ROTILABO® MH 20 Digital Set with integrated contact thermometer

ROTH SELECTION.

- Temperature and speed setting via digital display
- Integrated contact thermometer with full functionality for direct control of the medium temperature up to 250 °C via Pt 100 sensor (please order accessories for fastening the sensor separately)
- Aluminium hot plate with protective coating made of ceramic
- Constant speed, even after changes in medium viscosity
- A safety warning lamp indicates temperatures above 50 °C
- Adjustable safety circuit for the hot plate temperature (50 to 370 °C)
- Speed can be adjusted in increments of 10 rpm

Technical specifications:

Art. No.	EYE7.1
Type	MH 20 Digital
Number of stirring points	1
Max. stirring capacity (H_2O)	20 l
Speed range	50 to 1500 rpm
Speed display	digital
Temperature range	+50 to +370 °C
Temperature display	digital
Setting accuracy	±5 °C
Adjustment accuracy with measuring probe	±1 °C
Control accuracy without sensor	±10 K
Control accuracy with sensor	±2 K
Heating output	630 W
Footprint	Ø 135 mm
W x D x H, total	165 x 280 x 115 mm
Weight	2.6 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. MH 20 Digital heater and magnetic stirrer and Pt 100 stainless steel temperature measuring sensor, Ø 3 mm, L 250 mm.

Type	Art. No.	Pack Qty.	€
MH 20 Digital	**EYE7.1**	1 unit(s)	516,00

Accessories for MH 20, AREC.X and AREX-6 heating and magnetic stirrer

ROTH SELECTION.

Accessories for fastening the sensor

Designation	Art. No.	Pack Qty.	€
Stand rod	**EYE8.1**	1 unit(s)	35,85
Holder for temperature gauge	**EYE9.1**	1 unit(s)	53,40



NEW / +

Heating and magnetic stirrer AREC series

Velp.

- Digital display of hot plates' target and actual temperature
- Ceramic hot plate, white
- With elevated control panel to protect against leaking liquids
- Safety warnings come on at temperatures above 50 °C

Technical specifications:

Art. No.	1K6H.1	1K6K.1
Type	AREC	AREC.X
Number of stirring points	1	
Max. stirring capacity (H_2O)	15 l	
Speed range	50 to 1500 rpm	
Speed display	Scale	
Operating temperature	Room temperature to +550 °C	
Temperature display	LED	
Setting accuracy	±5 K	
Control accuracy	±10 K	
Control accuracy with sensor		±2 K
Heating output	800 W	
Footprint	180 x 180 mm	
W x D x H, total	203 x 344 x 94 mm	
Weight	3,5 kg	
Mains connection	230 V, 50/60 Hz	

(1) AREC model

- Good heat transfer and stirring power for simple laboratory applications.
- **Without** a connection option for temperature gauge Pt 100

Type	Art. No.	Pack Qty.	€
AREC	**1K6H.1**	1 unit(s)	481,60

(2) AREC.X model full set

- Ideal for temperature-sensitive applications in chemistry, biotech and pharmaceuticals
- Integrated contact thermometer with full functionality, for direct control of the medium temperature up to 250 °C via Pt 100 sensor

Delivery incl. Pt 100 stainless steel temperature gauge (Ø 3 mm, L 250 mm), stand rod and holder for temperature gauge.

Type	Art. No.	Pack Qty.	€
AREC.X	**1K6K.1**	1 unit(s)	637,50

Heating/magnetic stirrers



Heating and magnetic stirrer US/UC-series

Stuart.

Features:

- Microprocessor-controlled heating system
- Platforms are optionally available in glass ceramic (good resistance to chemicals, withstands high temperature, 120 x 120 mm heated zone) or aluminium (very rugged, 150 x 150 mm heated zone)
- A safety warning lamp indicates temperatures above 50 °C

Technical specifications:

Art. No.	PY72.1	CHA5.1	PY73.1	CHA6.1
Type	US152	US152D	UC152	UC152D
Number of stirring points	1			
Max. stirring capacity (H_2O)	15 l			
Speed range	100 to 2000 rpm			
Hotplate material	Aluminium/silicon-coated		Glass ceramic	
Operating temperature	5 °C above ambient temperature up to 325 °C		5 °C above ambient temperature up to 450 °C	
Temperature display	Scale	LED	Scale	LED
Setting accuracy		±5 °C		±5 °C
Control accuracy		±10 °C		±10 °C
Heated zone	150 x 150 mm		120 x 120 mm	
Heating output	700 W		500 W	
Footprint	150 x 150 mm			
W x D x H, total	172 x 248 x 120 mm			
Weight	2.9 kg			
Mains connection	230 V, 50 Hz			

Models with scale

Temperature control with LED display, colour LEDs make it easier to read current actual temperature

Pic.	Type	Art. No.	Pack Qty.	€
(2)	US152	**PY72.1**	1 unit(s)	525,50
(1)	UC152	**PY73.1**	1 unit(s)	565,00

Models with LED display

With digital display of actual temperature. Minimum setting temperature 25 °C.

Pic.	Type	Art. No.	Pack Qty.	€
(3)	US152D	**CHA5.1**	1 unit(s)	610,00
(4)	UC152D	**CHA6.1**	1 unit(s)	625,00



Heating and magnetic stirrer RH series

IKA.

- With adjustable safety circuit for the hot plate temperature, from 50 to 370 °C
- With a socket according to DIN 12878 for connection to an electronic contact thermometer, e.g. ETS-D5 (please order separately, see contact thermometer), to control the medium temperature.

Technical specifications:

Art. No.	XT23.1	XT25.1	XT24.1	XT26.1
Type	RH basic		RH digital	
Number of stirring points	1			
Max. stirring capacity (H_2O)	15 l			
Speed range	50 to 2000 rpm			
Speed display	Scale		LED	
Motor power input	15 W			
Motor power output	2 W			
Hotplate material	Stainless steel	Enamel coating	Stainless steel	Enamel coating
Temperature range	+50 to +320 °C			
Temperature display	Scale		LED	
Setting accuracy			±5 K	
Control accuracy without sensor	±10 K			
Control accuracy with sensor			±0,5 K	
Heating output	600 W			
Footprint	Ø 135 mm			
W x D x H, total	160 x 246 x 90 mm			
Weight	2 kg			
Mains connection	220–240 V, 50/60 Hz			

RH basic models

Delivery without ETS-D5 contact thermometer; please order separately.

Type	Version	Art. No.	Pack Qty.	€
RH basic	With stainless steel hot plate	**XT23.1**	1 unit(s)	636,00
RH basic	With enamel coating	**XT25.1**	1 unit(s)	712,00

RH digital models

- Digital display of temperature and speed
- Error code display
- Easy operation via membrane keypad

Delivery without ETS-D5 contact thermometer; please order separately.

Type	Version	Art. No.	Pack Qty.	€
RH digital	With stainless steel hot plate	**XT24.1**	1 unit(s)	762,00
RH digital	With enamel coating	**XT26.1**	1 unit(s)	830,00

Heating/magnetic stirrers



Heating and magnetic stirrers C-MAG HS series

IKA.

General information for all models:

- Ceramic glass hot plate
- Temperature setting via digital display (LED)
- Digital display of hot plate target temperature
- Error code display in the event of fault
- Fixed safety circuit of 550 °C
- Hot Top Indicator (hot surface warning)

Technical specifications:

Art. No.	LN35.1	LN36.1	LN37.1
Type	C-MAG HS 4	C-MAG HS 7	C-MAG HS 10
Number of stirring points	1		
Max. stirring capacity (H_2O)	5 l	10 l	15 l
Speed range	100 to 1500 rpm		
Speed display	Scale		
Motor power input	15 W		
Motor power output	1.5 W		
Temperature range	+50 to +500 °C		
Control accuracy	±10 K		
Heating output	250 W	1000 W	1500 W
Footprint	100 x 100 mm	180 x 180 mm	260 x 260 mm
W x D x H, total	150 x 260 x 105 mm	220 x 330 x 105 mm	300 x 415 x 105 mm
Weight	3 kg	5 kg	6 kg
Mains connection	230 V, 50/60 Hz		

C-MAG HS 4 model

Type	Art. No.	Pack Qty.	€
C-MAG HS 4	**LN35.1**	1 unit(s)	636,00

Models with contact thermometer connection

Additionally available with DIN-socket 12878 for connecting an electronic contact thermometer, e.g. ETS-D5, for high-precision temperature control.

Type	Art. No.	Pack Qty.	€
C-MAG HS 7	**LN36.1**	1 unit(s)	698,00
C-MAG HS 10	**LN37.1**	1 unit(s)	954,00



Heating and magnetic stirrers C-MAG HS 7 complete set

IKA.

C-MAG HS 7 magnetic stirrer with heater:

- Ceramic glass hot plate
- Temperature setting via digital display (LED)
- Digital display of hot plate target temperature
- Error code display in the event of fault
- Fixed safety circuit of 550 °C
- Hot Top Indicator (hot surface warning)
- Bushing for connecting a contact thermometer ETS-D5

ETS-D5 contact thermometers

- Medium temperature control via actual temperature display. Bushing according to DIN 12878 for connecting a contact thermometer. Temperature control with no medium temperature overshoot.

Technical specifications:

Art. No.	LY79.1
Type	C-MAG HS 7 complete set
Number of stirring points	1
Max. stirring capacity (H_2O)	10 l
Speed range	100 to 1500 rpm
Speed display	Scale
Motor power input	15 W
Motor power output	1.5 W
Temperature range	+50 to +500 °C
Control accuracy	±10 K
Heating output	1000 W
Footprint	180 x 180 mm
W x D x H, total	220 x 330 x 105 mm
Weight	5 kg
Mains connection	230 V, 50/60 Hz

ETS-D5 contact thermometer Technical specifications:

Measuring/control range	-50 to 450 °C
Resolution	0.1 °C
Measurement accuracy	±0.2 K
Setting accuracy	±0.1 K
Control deviation	±0.5 K
Dimensions (W x D x H)	82 x 22 x 83 mm

Delivery incl. C-MAG HS 7 heater and magnetic stirrer, ETS-D5 contact thermometer incl. Pt 1000 stainless steel measuring probe, stand rod, holder rod and clamp.

Type	Art. No.	Pack Qty.	€
C-MAG HS 7 complete set	**LY79.1**	1 unit(s)	1.081,00

Heating/magnetic stirrers



Heating and magnetic stirrer digital complete set AREX-6

Velp.

- Hot plate made of aluminium with ceramic coating
- Clear white LED display with icons for easy identification and navigation through the menus
- Temperature and speed setting via digital display
- Integrated contact thermometer with full functionality, for direct control of the medium temperature up to 250 °C via Pt 100 sensor
- Timer function – switches the stirring and heating function off on expiration of the countdown
- Adjustable reversing mode with change of direction (from 5 sec to 99 min, in 1 sec increments)
- Independent safety circuits protect the device in the event of overtemperature
- Adjustable max. temperature limit
- Probe Detector Alarm: Detects if the temperature gauge is not immersed in the medium
- Resistant cast housing (IP 42)
- Constant speed, even after changes in medium viscosity
- Speed can be adjusted in increments of 5 rpm

Technical specifications:

Art. No.	HLN1.1
Type	AREX-6 Digital
Max. stirring capacity (H_2O)	20 l
Speed range	30 to 1700 rpm
Speed display	digital
Operating temperature	Room temperature to +370 °C
Temperature display	digital
Setting accuracy	1 °C
Control accuracy without sensor	±10 K
Control accuracy with sensor	±1 K
Heating output	600 W
Timer function	1 to 99 min in 1-min increments
Footprint	Ø 135 mm
W x D x H, total	160 x 280 x 105 mm
IP rating	42
Weight	2.6 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. Pt 100 stainless steel temperature measuring sensor (Ø 3 mm, L 250 mm), stand rod and holder for temperature gauge.

Type	Art. No.	Pack Qty.	€
AREX-6 Digital	**HLN1.1**	1 unit(s)	752,50

Accessories for MH 20, AREC.X and AREX-6 heating and magnetic stirrer

ROTH SELECTION.

Accessories for fastening the sensor

Designation	Art. No.	Pack Qty.	€
Stand rod	**EYE8.1**	1 unit(s)	35,85
Holder for temperature gauge	**EYE9.1**	1 unit(s)	53,40

Replacement stainless steel Pt 100 temperature measuring sensor, Ø 3 mm, L 250 mm

Designation	Art. No.	Pack Qty.	€
Replacement stainless steel Pt 100 temperature measuring sensor, Ø 3 mm, L 250 mm	**EYH0.1**	1 unit(s)	122,60

Accessories for heating and magnetic stirrer

Velp.

Temperature measuring sensor, glass-coated Pt 100, Ø 5 mm, L 250 mm

Designation	Art. No.	Pack Qty.	€
Temperature measuring sensor, glass-coated Pt 100, Ø 5 mm, L 250 mm	**HLN2.1**	1 unit(s)	182,75

Silicone protective hood

Designation	Art. No.	Pack Qty.	€
Silicone protective hood for AREX-6 Digital	**HLN3.1**	1 unit(s)	29,10

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Heating/magnetic stirrers



Heating and magnetic stirrer C-MAG HS-Digital series

IKA.

- Ceramic glass hot plate
- Large LCD display for simultaneous display of the actual and target temperatures for the hot plate (actual temperature display when temperature gauge is connected with a resolution of 0.1 °C)
- Can be directly connected to Pt 1000.60 medium temperature sensor
- **Integrated contact thermometer with full functionality**
- Error code display in the event of fault
- Hot surface warning
- Fixed safety circuit for hot plate temperature at 550 °C

Technical specifications:

Art. No.	XT59.1	XT60.1	XT61.1
Type	HS 4 digital	HS 7 digital	HS 10 digital
Number of stirring points	1		
Max. stirring capacity (H_2O)	5 l	10 l	15 l
Speed range	100 to 1500 rpm		
Speed display	Scale		
Motor power input	15 W		
Motor power output	1.5 W		
Temperature range	+50 to +500 °C		
Temperature display	LCD		
Setting accuracy	±1 K		
Control accuracy without sensor	±10 K		
Control accuracy with sensor	±0,5 K		
Heating output	250 W	1000 W	1500 W
Footprint	100 x 100 mm	180 x 180 mm	260 x 260 mm
W x D x H, total	150 x 260 x 105 mm	215 x 330 x 105 mm	300 x 415 x 105 mm
Weight	3 kg	5 kg	6 kg
Mains connection	230 V, 50/60 Hz		

Delivery incl. Pt 1000.60 stainless steel temperature gauge.

Type	Art. No.	Pack Qty.	€
HS 4 digital	**XT59.1**	1 unit(s)	792,00
HS 7 digital	**XT60.1**	1 unit(s)	927,00
HS 10 digital	**XT61.1**	1 unit(s)	1.110,00

Accessories for heating and magnetic stirrer

IKA.

For fastening a Pt 1000 measuring probe

Designation	Art. No.	Pack Qty.	€
Stand rod	**A315.1**	1 unit(s)	78,00
Clamp	**A316.1**	1 unit(s)	37,00
Holder rod	**HA16.1**	1 unit(s)	34,00



Heating and magnetic stirrers MR Hei-Standard

Heidolph.

Features:

- Heating output 800 W
- Stirring capacities up to 20 l
- Hot plate made of silumin with ceramic coating
- Independent safety circuit switches off the heating at 25 °C over the preset hot plate temperature with a separate circuit
- Residual heat warning

Technical specifications:

Art. No.	HA08.1
Type	MR Hei-Standard
Number of stirring points	1
Max. stirring capacity (H_2O)	20 l
Speed range	100 to 1400 rpm
Speed accuracy	±2 %
Operating temperature	Room temperature to +300 °C
Setting accuracy	±5 K
Control accuracy	±5 K
Heating output	800 W
Footprint	Ø 145 mm
W x D x H, total	173 x 277 x 94 mm
Weight	2.6 kg

Type	Art. No.	Pack Qty.	€
MR Hei-Standard	**HA08.1**	1 unit(s)	678,00

Heating/magnetic stirrers



Heating and magnetic stirrers MR Hei series

Heidolph.

- Digital display of hot plate target temperature and target speed
- Heating output 800 W
- Stirring capacities up to 20 l
- Hot plate made of silumin with ceramic coating
- Independent safety circuit switches off the heating at 25 °C over the preset hot plate temperature with a separate circuit
- **Direct connection facility for PT 100 medium temperature sensor** (please order the desired temperature measuring sensor and the accessories for attaching the measuring probe separately, the packages with Art. No. 1ATN.1 and 1ATP.1 include the accessories)
- Integrated contact thermometer with full functionality
- Residual heat warning

Technical specifications:

Art. No.	HA10.1	1ATN.1	HCK1.1	1ATP.1
Type	Hei-Tec	Hei-Tec Silver 1 package	Hei-Connect	Hei-Connect Silver 2 package
Number of stirring points	1			
Max. stirring capacity (H_2O)	20 l			
Speed range	100 to 1400 rpm			
Speed accuracy	±2 %			
Operating temperature	Ambient temperature to 300 °C			
Setting accuracy	±1 K			
Control accuracy without sensor	±5 K			
Control accuracy with sensor	±1 K			
Heating output	800 W			
Footprint	Ø 145 mm			
W x D x H, total	173 x 277 x 94 mm			
Weight	2.6 kg			

Hei-Tec model

Delivery without temperature gauge (if required, please order separately).

Type	Art. No.	Pack Qty.	€
Hei-Tec	**HA10.1**	1 unit(s)	769,00

Hei-Tec Silver 1 package

Delivery incl. Hei-Tec heating and magnetic stirrer, Pt 1000 (V4A) temperature sensor and holder for Pt 1000 (contains supporting rod and holder with cable duct).

Type	Art. No.	Pack Qty.	€
Hei-Tec Silver 1 package	**1ATN.1**	1 unit(s)	952,00

Hei-Connect model

- With RS 232 interface for process documentation and reproducible results
- With timer function (1 to 999 min)

Delivery without temperature gauge (if required, please order separately).

Type	Art. No.	Pack Qty.	€
Hei-Connect	**HCK1.1**	1 unit(s)	1.281,00

Hei-Connect Silver 2 package

- With RS 232 interface for process documentation and reproducible results
- With timer function (1 to 999 min)

Delivery incl. Hei-Connect heater and magnetic stirrer, Pt 1000 (V4A) temperature sensor, holder for Pt 1000 (contains supporting rod and holder with cable duct) and RS 232 interface cable.

Type	Art. No.	Pack Qty.	€
Hei-Connect Silver 2 package	**1ATP.1**	1 unit(s)	1.462,00

Accessories for MR Hei-Tec, MR Hei-Connect and MR Hei-End heating and magnetic stirrers

Heidolph.

Pt 1000 temperature measuring sensor made of V4A

Designation	Art. No.	Pack Qty.	€
PT 1000 sensor V4A	**T041.1**	1 unit(s)	140,00

PT 1000 temperature measuring sensor with glass coating

Designation	Art. No.	Pack Qty.	€
Pt 1000 with glass coating	**T042.1**	1 unit(s)	207,00

Stand kit

For attaching a single sensor probe.

Delivery incl. M10 stand rod (L 425 mm, Ø 13 mm) and holder with cable terminal strip (L 85 mm)

Designation	Art. No.	Pack Qty.	€
Stand kit	**ALN8.1**	1 unit(s)	128,00

Heating/magnetic stirrers



Heating and magnetic stirrer RCT basic *safety control*

IKA.

- Temperature and speed setting via digital display
- The set safety temperature is shown on a digital display
- Hot Top indicator (hot surface warning)
- Adjustable safety circuit for the hot plate temperature (50 to 360 °C)
- Aluminium hot plate
- **Can be directly connected to PT 1000 medium temperature sensor**. (Please order accessories for fastening the sensor separately).
- Integrated contact thermometer with full functionality
- DIN socket 12878 for connection to an electronic contact thermometer, e.g. ETS-D5 for accurate temperature control (please order separately, see contact thermometer). Control accuracy with ETS-D5: ±0.5 K.

Technical specifications:

Art. No.	EY83.1
Type	RCT basic safety control
Number of stirring points	1
Max. stirring capacity (H_2O)	20 l
Speed range	50 to 1500 rpm
Speed display	digital
Motor power input	16 W
Motor power output	9 W
Temperature range	to 310 °C
Temperature display	digital
Setting accuracy	±1 K
Control accuracy without sensor	±10 K
Control accuracy with sensor	PT 1000: ±1 K ETS-D5: ±0,5 K
Heating output	600 W
Footprint	Ø 135 mm
W x D x H, total	160 x 270 x 85 mm
Weight	2.5 kg

Delivery incl. protective hood and PT 1000 temperature gauge.

Type	Art. No.	Pack Qty.	€
RCT basic safety control	**EY83.1**	1 unit(s)	927,00

Accessories for heating and magnetic stirrer

IKA.

For fastening a Pt 1000 measuring probe

Designation	Art. No.	Pack Qty.	€
Stand rod	**A315.1**	1 unit(s)	78,00
Clamp	**A316.1**	1 unit(s)	37,00
Holder rod	**HA16.1**	1 unit(s)	34,00



Heating and magnetic stirrer RCT series

IKA.

- Aluminium hot plate
- Clear display incl. target/actual value display for temperature and speed
- Housing surface made of toughened glass for optimum cleaning and chemical resistance
- **Integrated contact thermometer with full functionality, for direct control of the medium temperature**
- „Sensor in medium“ detection
- Adjustable safety circuit (50 to 360 °C)
- **Integrated timer function**
- Adjustable automatic reversal of direction of rotation (10 sec to 10 min) and pause time (3 sec to 5 min)
- **Direction of rotation of the magnetic motor can be adjusted by turning to the left or right**
- Hot surface warning
- USB/RS 232 interface

Technical specifications:

Art. No.	HPA5.1	1A33.1
Type	RCT digital	RCT 5 digital
Number of stirring points	1	
Max. stirring capacity (H_2O)	20 l	
Speed range	50 to 1500 rpm	
Speed display	LCD	
Operating temperature	Ambient temperature to +310 °C	
Temperature display	LCD	
Setting accuracy	1 °C	
Control accuracy without sensor	±5 K	
Control accuracy with sensor	±0,5 K	
Heating output	600 W	850 W
Timer function	99 h, 99 min and 59 sec	
Footprint	Ø 135 mm	137 x 137 mm
W x D x H, total	160 x 270 x 85 mm	
Weight	2,4 kg	2,6 kg
Mains connection	220–230 V, 50/60 Hz	

Delivery incl. Pt 1000.60 stainless steel temperature measuring sensor (Ø 3 mm, L 230 mm).

RCT digital
With round footprint made of aluminium. Heat output 600 W.

Type	Art. No.	Pack Qty.	€
RCT digital	**HPA5.1**	1 unit(s)	1.082,00

Heating/magnetic stirrers

RCT 5 digital
With rectangular base made of white, coated ceramic. Heat output 850 W.

Type	Art. No.	Pack Qty.	€
RCT 5 digital	**1A33.1**	1 unit(s)	1.110,00



Accessories for heating and magnetic stirrer

IKA.

For fastening a Pt 1000 measuring probe

Designation	Art. No.	Pack Qty.	€
Stand rod	**A315.1**	1 unit(s)	78,00
Clamp	**A316.1**	1 unit(s)	37,00
Holder rod	**HA16.1**	1 unit(s)	34,00



Heating and magnetic stirrer with large CB/SB series hot plate

Stuart.

Features:

- Hot plate is available in chemical-resistant ceramic or robust aluminium
- Safety warning lamp comes on at temperatures above 50 °C

Technical specifications:

Art. No.	KN93.1	KN94.1
Type	CB 302	SB 302
Number of stirring points	1	
Max. stirring capacity (H_2O)	15 l	
Speed range	100 to 1500 rpm	
Speed display	Scale	
Hotplate material	Ceramic	Aluminium
Operating temperature	Room temperature to +450 °C	Room temperature to +300 °C
Heated zone	200 x 200 mm	300 x 300 mm
Heating output	1200 W	600 W
Footprint	300 x 300 mm	
W x D x H, total	300 x 365 x 105 mm	
Weight	7 kg	
Mains connection	230 V, 50 Hz	

Type	Art. No.	Pack Qty.	€
CB 302	**KN93.1**	1 unit(s)	1.095,00
SB 302	**KN94.1**	1 unit(s)	1.112,00

Heating and magnetic stirrers RET control-visc

IKA.

Type:

- Time and speed indication via digital display
- Clear TFT display for easy navigation through menus
- Temperature display resolution 0.01 °C
- Can be connected to Pt 100.70 temperature measuring sensor
- **Integrated contact thermometer with full functionality**
- Timer and countdown function
- Detached magnet detection, intermittent operation
- USB and RS 232 interface to control and document the magnetic stirrer

pH function:

- With integrated pH electrode connection (BNC socket)
- Measuring range 0 to 14 pH; resolution 0.01 pH; accuracy ±0.1 pH
- Delivery without pH single-rod measuring cell (please order separately; a large selection of pH electrodes with BNC connectors can be found in the "Measuring devices" section)

Integrated weighing function:

- Max. weighing range 5000 g, readability 1 g
- Linearity ±1 g

Technical specifications:

Art. No.	XT54.1	XT55.1
Type	RET control-visc	
Number of stirring points	1	
Max. stirring capacity (H_2O)	20 l	
Speed range	50 to 1700 rpm	
Speed display	TFT	
Motor power input	16 W	
Motor power output	9 W	
Hotplate material	stainless steel hot plate	enamel hot plate
Operating temperature	Room temperature to +340 °C	
Temperature display	TFT	
Setting accuracy	±0,1 K	
Control accuracy with sensor	±0,2 K	
Heating output	600 W	
Footprint	Ø 135 mm	
W x D x H, total	160 x 270 x 85 mm	
Mains connection	220–240 V, 50/60 Hz	

Delivery incl. PT 100.70 stainless steel temperature gauge and type H 104 protective hood.

RET control-visc

Type	Version	Art. No.	Pack Qty.	€
RET control-visc	with stainless steel hot plate	**XT54.1**	1 unit(s)	1.838,00
RET control-visc	with enamel hot plate	**XT55.1**	1 unit(s)	1.897,00

Heating/magnetic stirrers

Accessories for RET control heater and magnetic stirrer

IKA.

For fastening a Pt 1000 measuring probe

Designation	Art. No.	Pack Qty.	€
Stand rod	**A315.1**	1 unit(s)	78,00
Clamp	**A316.1**	1 unit(s)	37,00
Holder rod	**HA16.1**	1 unit(s)	34,00



Contact thermometer ETS-D5

IKA.

- For all magnetic stirrers with contact thermometer connection according to DIN 12878
- Temperature control with no medium temperature overshoot
- Various control types (= operating modes) can be selected

Technical specifications:

Art. No.	**EY84.1**
Type	ETS-D5
Temperature range	-50 to +450 °C
Setting accuracy	0,1 K
Resolution	0,1 °C
Measurement accuracy	±0,2 K
Control deviation	±0,5 K
W x D x H, total	82 x 22 x 83 mm
Mains connection	230 V, 50 Hz

Delivery incl. Pt 1000 type H 67.60 stainless steel measuring probe (L 260 mm, Ø 3 mm) and connection cable. Please order accessories for fastening the contact thermometer separately.

Type	Art. No.	Pack Qty.	€
ETS-D5	**EY84.1**	1 unit(s)	432,00

Accessories for ETS-D5 contact thermometer

IKA.

Designation	Art. No.	Pack Qty.	€
Replacement Pt 1000 measuring probe type H 62.51, L 260 mm x Ø 3 mm	**K855.1**	1 unit(s)	217,00
Measuring probe, glass-coated, L 260 mm x Ø 6 mm	**K856.1**	1 unit(s)	317,00
Extension cable, L 1 mm	**K859.1**	1 unit(s)	220,00

Accessories for heating and magnetic stirrer

IKA.

For fastening a Pt 1000 measuring probe

Designation	Art. No.	Pack Qty.	€
Stand rod	**A315.1**	1 unit(s)	78,00
Clamp	**A316.1**	1 unit(s)	37,00
Holder rod	**HA16.1**	1 unit(s)	34,00



A 121 °C

Magnetic bars ROTILABO® Economy

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

Similar to cylindrical magnetic bar, but with rounded edges to intensify the stirring effect even at low speeds.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
3	12	**XA17.1**	10 unit(s)	14,50
8	25	**XA18.1**	10 unit(s)	19,40
8	40	**XA19.1**	10 unit(s)	22,55
8	50	**XA20.1**	10 unit(s)	29,15



A 121 °C

Magnetic bars ROTILABO® Micro

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

For very small vessels.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
1.5	8	**PK70.1**	10 unit(s)	17,45
1.5	15	**PK74.1**	10 unit(s)	28,60
2	2	**PK65.1**	10 unit(s)	19,40
2	5	**0955.1**	1 unit(s)	2,85
2	5	**0955.2**	10 unit(s)	23,50
2	7	**0973.1**	1 unit(s)	2,45
2	7	**0973.2**	10 unit(s)	19,15
3	3	**PK66.1**	10 unit(s)	22,15
3	6	**PK68.1**	10 unit(s)	14,75
3	8	**PK71.1**	10 unit(s)	18,50
3	10	**PK72.1**	10 unit(s)	18,15
3	13	**PK73.1**	10 unit(s)	19,10
3	20	**PK75.1**	10 unit(s)	32,30
3	30	**PK76.1**	10 unit(s)	35,85

Magnetic rods and accessories



121 °C

Magnetic bars ROTILABO® triangular

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
6	12	**1661.1**	1 unit(s)	3,45
8	20	**1662.1**	1 unit(s)	5,40
8	25	**5069.1**	1 unit(s)	4,05
9	35	**4557.1**	1 unit(s)	5,20
12	50	**1842.1**	1 unit(s)	6,45
14	25	**4551.1**	1 unit(s)	5,65
14	40	**1825.1**	1 unit(s)	5,85
14	55	**1843.1**	1 unit(s)	7,45
14	80	**1844.1**	1 unit(s)	9,75



121 °C

Magnetic bars ROTILABO® with centre ring

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.
Cylindrical.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
3	8	**1489.1**	1 unit(s)	3,40
3	8	**1489.2**	10 unit(s)	28,00
4.5	12	**1490.1**	1 unit(s)	3,45
4.5	12	**1490.2**	10 unit(s)	29,35
4.5	15	**1491.1**	1 unit(s)	3,45
4.5	15	**1491.2**	10 unit(s)	27,80
6	20	**1500.1**	1 unit(s)	3,45
6	20	**1500.2**	10 unit(s)	27,65
6	25	**1553.1**	1 unit(s)	3,55
6	25	**1553.2**	10 unit(s)	31,55
6	30	**1555.1**	1 unit(s)	3,90
6	30	**1555.2**	10 unit(s)	33,00
6	35	**1556.1**	1 unit(s)	3,95
8	40	**1600.1**	1 unit(s)	4,95
8	45	**1610.1**	1 unit(s)	5,20
8	50	**1613.1**	1 unit(s)	5,95
10	60	**1614.1**	1 unit(s)	6,75
10	70	**1659.1**	1 unit(s)	8,20



121 °C

Magnetic bars ROTILABO® cylindrical

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
3	6	**AKP1.1**	1 unit(s)	3,05
3	6	**AKP1.2**	10 unit(s)	25,05
3	8	**0989.1**	1 unit(s)	2,85
3	8	**0989.2**	10 unit(s)	22,65
4.5	12	**0999.1**	1 unit(s)	2,60
4.5	12	**0999.2**	10 unit(s)	17,80
4.5	15	**1204.1**	1 unit(s)	2,60
4.5	15	**1204.2**	10 unit(s)	16,70
5	25	**AKP8.1**	1 unit(s)	3,80
5	25	**AKP8.2**	10 unit(s)	31,80
6	10	**0994.1**	1 unit(s)	3,30
6	10	**0994.2**	10 unit(s)	24,55
6	13	**AKP2.1**	1 unit(s)	3,30
6	13	**AKP2.2**	10 unit(s)	27,75
6	15	**AKP5.1**	1 unit(s)	3,15
6	15	**AKP5.2**	10 unit(s)	26,55
6	20	**AKP6.1**	1 unit(s)	3,20
6	20	**AKP6.2**	10 unit(s)	27,40
6	25	**2152.1**	1 unit(s)	3,10
6	25	**2152.2**	10 unit(s)	25,10
6	30	**2153.1**	1 unit(s)	3,45
6	30	**2153.2**	10 unit(s)	28,20
6	35	**1292.1**	1 unit(s)	3,75
6	35	**1292.2**	10 unit(s)	29,85
7	20	**AKP7.1**	1 unit(s)	3,70
7	20	**AKP7.2**	10 unit(s)	30,85
7	30	**AKT0.1**	1 unit(s)	4,00
7	30	**AKT0.2**	10 unit(s)	32,25
7	40	**AKT2.1**	1 unit(s)	4,30
7	40	**AKT2.2**	10 unit(s)	35,70
8	13	**AKP3.1**	1 unit(s)	4,00
8	13	**AKP3.2**	10 unit(s)	33,40
8	20	**1237.1**	1 unit(s)	3,40
8	20	**1237.2**	10 unit(s)	21,65
8	25	**AKP9.1**	1 unit(s)	4,05
8	25	**AKP9.2**	10 unit(s)	33,65
8	30	**AKT1.1**	1 unit(s)	4,35
8	30	**AKT1.2**	10 unit(s)	36,85
8	40	**1306.1**	1 unit(s)	3,85
8	40	**1306.2**	10 unit(s)	30,15
8	45	**1309.1**	1 unit(s)	4,45
8	45	**1309.2**	10 unit(s)	36,30
8	50	**1482.1**	1 unit(s)	5,25
8	50	**1482.2**	10 unit(s)	43,25
10	60	**1486.1**	1 unit(s)	6,50
10	60	**1486.2**	10 unit(s)	52,35
10	70	**AKT3.1**	1 unit(s)	8,20
10	70	**AKT3.2**	10 unit(s)	74,30
10	80	**1487.1**	1 unit(s)	9,45
10	80	**1487.2**	10 unit(s)	74,40
12	55	**1484.1**	1 unit(s)	13,15
12	120	**1488.1**	1 unit(s)	36,05

Magnetic rods and accessories



121 °C

Magnetic bars ROTILABO® elliptical

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
5	10	**NK66.1**	1 unit(s)	5,20
6	15	**NK67.1**	1 unit(s)	4,85
10	20	**1848.1**	1 unit(s)	4,10
10	25	**NK68.1**	1 unit(s)	6,95
10	30	**NK69.1**	1 unit(s)	8,75
12	25	**1849.1**	1 unit(s)	4,65
13	40	**NK71.1**	1 unit(s)	12,30
16	30	**1853.1**	1 unit(s)	5,95
16	35	**1895.1**	1 unit(s)	6,90
20	40	**1896.1**	1 unit(s)	8,90
20	50	**1897.1**	1 unit(s)	11,45
20	64	**1909.1**	1 unit(s)	15,00
20	70	**1928.1**	1 unit(s)	17,75



121 °C

Magnetic bars ROTILABO® glass-coated

ROTH SELECTION. borosilicate glass-coated. Autoclavable: Yes.

Cylindrical. Smooth surface offering universal chemical resistance. Temperature stable up to 350 °C.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
5	6	**PK60.1**	10 unit(s)	59,85
5	12	**PK61.1**	10 unit(s)	65,60
6	25	**PK62.1**	10 unit(s)	68,85
8	45	**PK63.1**	10 unit(s)	75,00
8	60	**PK64.1**	10 unit(s)	80,15



121 °C

Magnetic bars KOMET

Thermo. PTFE-coated. Autoclavable: Yes.

Super-strong magnetic stirring rods. More than three times higher torque than conventional stirrers. For viscous media, high torques up to 2000 rpm and larger distances between the stirring rod and the magnetic stirrer. PTFE coated.

Type	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
KOMET 15	9	15	**Y823.1**	1 unit(s)	25,90
KOMET 30	12	29	**Y824.1**	1 unit(s)	36,90
KOMET 50	21	50	**Y825.1**	1 unit(s)	82,20
KOMET 90	24	90	**Y826.1**	1 unit(s)	290,00



121 °C

Magnetic bars ROTILABO® dumbbell-shaped

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

Exceptional stirring effect thanks to side stabilising sliding disc.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
8	35	**1943.1**	1 unit(s)	17,15
8	55	**1957.1**	1 unit(s)	18,90

Magnetic rods and accessories



121 °C

Magnetic bars ROTILABO® for test tubes

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
9	6	**LT59.1**	1 unit(s)	3,95
10	6	**LT60.1**	1 unit(s)	4,15
20	10	**LT61.1**	1 unit(s)	4,70
30	12	**LT62.1**	1 unit(s)	5,90



121 °C

Magnetic bars ROTILABO® tablet-shaped

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

Designation	Art. No.	Pack Qty.	€
Tablet stirring magnet Ø 22 mm, H 15 mm	**3003.1**	1 unit(s)	12,60
Tablet stirring magnet Ø 30 mm, H 12 mm	**4490.1**	1 unit(s)	13,65
Tablet stirring magnet Ø 40 mm, H 14 mm	**4517.1**	1 unit(s)	26,10



121 °C

Magnetic bars ROTILABO® cross-shaped

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

All-purpose magnetic bar with stable rotation position.

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	5	**XA21.1**	10 unit(s)	32,55
20	8	**XA22.1**	10 unit(s)	41,40
25	9	**XA23.1**	10 unit(s)	47,55
30	10	**XA24.1**	10 unit(s)	56,35
38	11	**XA25.1**	5 unit(s)	37,45
50	15	**XA26.1**	5 unit(s)	70,85
60	20	**XA27.1**	5 unit(s)	100,85



121 °C

Magnetic bars ROTILABO® special

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

Spherical

Type	Ø (mm)	Art. No.	Pack Qty.	€
Ball-shaped magnet	12	**LT63.1**	1 unit(s)	4,90

Ball-shaped stirring magnet

Type	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
Ball-shaped stirring magnet	9	6	**LT64.1**	1 unit(s)	3,40

Magnetic rods and accessories



A 121 °C

Magnetic bars ROTILABO® coloured

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.
In various colours.

Colour	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
red	2	5	**A937.1**	1 unit(s)	5,05
red	2	7	**A938.1**	1 unit(s)	5,40
red	3	10	**A939.1**	1 unit(s)	5,55
red	3	13	**A940.1**	1 unit(s)	6,00
blue	2	5	**A945.1**	1 unit(s)	5,15
blue	2	7	**A946.1**	1 unit(s)	5,40
blue	3	10	**A947.1**	1 unit(s)	5,50
blue	3	13	**A948.1**	1 unit(s)	6,00
yellow	2	5	**A941.1**	1 unit(s)	5,05
yellow	2	7	**A942.1**	1 unit(s)	5,40
yellow	3	10	**A943.1**	1 unit(s)	5,50
yellow	3	13	**A944.1**	1 unit(s)	6,05

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A 121 °C

Magnetic bars ROTILABO® with centre ring

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.
In various colours.

Colour	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
red	8	13	**A950.1**	1 unit(s)	5,65
red	8	15	**A951.1**	1 unit(s)	6,40
red	8	22	**A952.1**	1 unit(s)	7,30
red	8	25	**A953.1**	1 unit(s)	7,70
red	8	38	**A954.1**	1 unit(s)	8,75
red	8	51	**A955.1**	1 unit(s)	9,30
red	13	75	**A956.1**	1 unit(s)	18,40
blue	8	13	**A966.1**	1 unit(s)	5,65
blue	8	15	**A967.1**	1 unit(s)	6,40
blue	8	22	**A968.1**	1 unit(s)	7,30
blue	8	25	**A969.1**	1 unit(s)	7,70
blue	8	38	**A189.1**	1 unit(s)	8,75
blue	8	51	**A190.1**	1 unit(s)	9,30
blue	13	75	**A191.1**	1 unit(s)	18,40
yellow	8	13	**A958.1**	1 unit(s)	5,65
yellow	8	15	**A959.1**	1 unit(s)	6,45
yellow	8	22	**A960.1**	1 unit(s)	7,30
yellow	8	25	**A961.1**	1 unit(s)	7,70
yellow	8	38	**A962.1**	1 unit(s)	8,80
yellow	8	51	**A963.1**	1 unit(s)	9,30
yellow	13	75	**A964.1**	1 unit(s)	18,40

Magnetic rods and accessories



A 121 °C

Magnetic bars ROTILABO® wing-shaped

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

For effective stirring, e.g. in test tubes, centrifuge tubes, reaction vials etc. Temperature stable from -200 to +250 °C.

Pic.	Type	Suitable for	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
(1)	triangular	Tube-Ø 6–7 mm	5.5	9	**YH15.1**	10 unit(s)	49,70
(1)	triangular	Tube-Ø 9–10 mm	8	11	**YH16.1**	10 unit(s)	51,25
(2)	triangular, long	Tube-Ø 11–12 mm	10	16	**YH17.1**	10 unit(s)	58,90
(3)	round	Tube-Ø	13	10	**YH18.1**	10 unit(s)	52,95
(4)	round, long	Tube-Ø	13	20	**YH19.1**	10 unit(s)	64,80



Magnetic bar set ROTILABO® # 1

ROTH SELECTION. PTFE-coated.

10-piece set of the most commonly used sizes. PTFE-coated magnetic stirring rod, cylindrical. Packed in a single storage box made of polystyrene (pocket-sized).
Dimensions: L 120 x W 93 x D 12 mm.

Contents:

Length (mm)	Ø (mm)	Number
15	4.5	1
20	7	2
25	6	2
30	6	1
40	8	2
50	8	2

Type	Art. No.	Pack Qty.	€
Set I	**C267.1**	1 set	31,35



Magnetic bar set ROTILABO® # 2

ROTH SELECTION. PTFE-coated.

PTFE-coated magnetic stirring bars, cylindrical. **18 pieces, sorted** in a practical storage box, dimensions: L 187 x W 97 x D 32 mm. Collection of the most common sizes.

Contents:

Length (mm)	Ø (mm)	Number
10	6	2
15	6	2
20	7	2
25	8	2
30	8	2
40	8	2
50	8	2
60	10	2
80	10	2

Type	Art. No.	Pack Qty.	€
Set II	**X171.1**	1 set	69,70



A 121 °C

Magnetic bar set ROTILABO® # 3 with turbomagnet

ROTH SELECTION. PTFE-coated. Autoclavable: Yes.

Cylindrical. Samarium-cobalt magnet with strong magnetic field compared to conventional solenoid. Identified by a black marking (chemically inert). **14 pieces, the most common sizes, sorted**, in a practical storage box. Dimensions: L 187 x W 97 x D 32 mm.

Contents:

Length (mm)	Ø (mm)	Number
8	3	2
12	4.5	2
20	6	2
25	6	2
30	6	2
40	8	2
50	8	1
60	10	1

Type	Art. No.	Pack Qty.	€
Set III	**PK77.1**	1 set	112,45

Magnetic rods and accessories



A 121 °C

Magnetic bars Beakerliner

Bohlender. PTFE-coated. Autoclavable: Yes.

With guide cage. PTFE-encased magnetic core mounted axially in a PTFE guide cage. No shear action of the magnetic stirring bar on the bottom of the beaker, smooth running in beakers, even on an uneven base.

Suitable for	Ø (mm)	Height (mm)	Stirring rod	Art. No.	Pack Qty.	€
Beaker, low form, 250, 400 ml	67	21	Ø 8 x L 50	**TA88.1**	1 unit(s)	137,95
Beaker, low form, 600, 800, 1000 ml	74	29	Ø 9 x L 60	**TA89.1**	1 unit(s)	161,05
Beaker, low form, 2000 ml	103	32	Ø 10 x L 80	**TA90.1**	1 unit(s)	233,30



Magnetic bar remover ROTILABO®

ROTH SELECTION.

In different designs and dimensions. With powerful permanent magnet. Very helpful for finding lost magnetic bars or “fishing them out” of liquids.

Material	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
PP	10	350	**E452.1**	1 unit(s)	16,90
PP	10	450	**E453.1**	1 unit(s)	18,60
PTFE	10	150	**E448.1**	1 unit(s)	21,30
PTFE	10	250	**E449.1**	1 unit(s)	22,80
PTFE	10	350	**E450.1**	1 unit(s)	27,75
PTFE	10	450	**E451.1**	1 unit(s)	29,20



Stir bar catcher

Material: PS.

With powerful permanent magnet. For retention of magnetic bars and easy transfer of solutions. Suitable for magnetic bars with max. length 80 mm. Dimensions: L 87 x W 28 x H 42 mm.

Material	Length (mm)	Height (mm)	Art. No.	Pack Qty.	€
PS	87	42	**YC30.1**	1 unit(s)	26,15



A 121 °C

Stirring bars ROTILABO®

ROTH SELECTION. Autoclavable: Yes.

For stirring different specimens.

Made of flexible PTFE

Material: PTFE flexible. With spade-shaped ends.

Total length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	8	**EX96.1**	1 unit(s)	7,65
200	8	**EX97.1**	1 unit(s)	8,65
250	8	**EX98.1**	1 unit(s)	9,85
300	8	**EX99.1**	1 unit(s)	11,50

Made of PTFE with stainless steel core

Material: PTFE with stainless steel core. Bendable acc. to use. Bend remains permanently. Round ends.

Total length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	6	**EY00.1**	1 unit(s)	10,75
200	6	**EY01.1**	1 unit(s)	11,80
250	6	**EY02.1**	1 unit(s)	12,50
300	6	**EY03.1**	1 unit(s)	16,05
350	6	**EY04.1**	1 unit(s)	18,30
400	6	**EY05.1**	1 unit(s)	20,25

Magnetic rods and accessories



Stirring spatulas

ROTH SELECTION. Material: PP.

For stirring different specimens. Rod Ø 6 mm.

Total length (mm)	Art. No.	Pack Qty.	€
244	**TT16.1**	10 unit(s)	12,85



Stirring bars

For grinding, stirring and mixing test material. Suitable for small and large quantities.

(1) M 100d model
Two-step selector switch: 7000 rpm and 10,000 rpm.
Dimensions: Overall length 320 mm, protective hood Ø 58 mm, weight 850 g.
Power supply 230 V, 50 Hz. Output 120 W.
With multifunction blade and wall bracket.

Type	Art. No.	Pack Qty.	€
M 100d	**8290.1**	1 unit(s)	137,10

(2) P 200 model
Suitable for liquid volumes from 1 l to 20 l. Two-step selector switch: 12,000 rpm and 17,000 rpm. Power supply 230 V, 50 Hz. Output 200 W.

Type	Art. No.	Pack Qty.	€
P 200	**C527.1**	1 unit(s)	231,15



Agitators ROTI®Speed

For universal use, e.g. for stirring even the smallest samples in reaction vials etc.

- Ergonomic pen handle
- High-quality steel spring chuck and quality ball bearings for perfectly smooth operation.
- Locking button enables easy changing of tools
- **Infinitely variable speed from 5000 rpm to 20000 rpm**
- Powerful motor for constant torque
- Length 220 mm, weight 230 g
- Complete with power supply unit in portable case

Delivery without stirring tool, please order separately.

Type	Art. No.	Pack Qty.	€
ROTI®-Speed	**N372.1**	1 unit(s)	104,50

Accessories ROTI®Speed stainless steel tools

Carl ROTH.

High-performance stirring tool
For mixing and suspending samples. Provides effective mixing. Streamlined design. Stirrer shafts-Ø 3 mm.

Pic.	Total length (mm)	Ø Stirrer (mm)	Art. No.	Pack Qty.	€
(1)	90	7	**N373.1**	1 unit(s)	48,05
(2)	98	11	**N539.1**	1 unit(s)	48,55

Micropistil type stirring tool
Conical micropistil for applications in 1.5 ml reaction vials. Stirrer shafts-Ø 3 mm. Cone shrinks from 8 to 2.5 mm, cone length 15 mm.

Pic.	Total length (mm)	Ø Stirrer (mm)	Art. No.	Pack Qty.	€
(3)	98	8	**EX63.1**	1 unit(s)	50,05

Accessories additional tools for ROTI®-Speed agitators

ROTH SELECTION.

Combined set, 13-piece. Suitable for ROTI®-Speed stirrer. For cutting, separating, milling, polishing and drilling.

Set contents:
1 ball-shaped fine cutter, 2.3 mm,
1 cylindrical fine cutter, 2.3 mm,
1 ball-shaped white corundum abrasive pencil, 5.0 mm and 1 cone-shaped white corundum abrasive pencil, 5.0 mm,
1 micro drill, 1.0 and 2.3 mm,
5 cutting discs, Ø 22 mm,
1 saw blade, Ø 22 and
1 tool holder, Ø 2.35 mm.

Pic.	Designation	Art. No.	Pack Qty.	€
(4)	Combined set, 13-piece	**YY99.1**	1 set	16,40



Laboratory stirrers

Velp.

Technical specifications:

Art. No.	ACP3.1	ACP4.1
Type	ES	DLS
Max. stirring capacity (H_2O)	15 l	25 l
Max. viscosity	1,000 mPas	25,000 mPas
Max. torque	15 Ncm	40 Ncm
Motor power input	45 W	180 W
Motor power output	30 W	120 W
Speed range	50 to 1300 rpm	50 to 2000 rpm
Speed display	Scale	LCD
Ø Extension arm	13 mm	
Extension arm length	150 mm	
W x D x H	80 x 160 x 200 mm	80 x 215 x 196 mm
Weight	1.3 kg	2.5 kg
Mains connection	80–260 V, 50/60 Hz	

Delivery without stirring tool, stand and boss head, please order separately – see stirrer accessories.

(1) ES model

- For simple stirring applications
- Clamping range of chuck 1 to 10 mm
- Push-through stirring tool

Pic.	Type	Art. No.	Pack Qty.	€
(1)	ES	**ACP3.1**	1 unit(s)	566,55

(2) DLS model

- Electronic control for constant speed even after change in medium viscosity
- Digital display of nominal and actual speed
- Integrated timer function (adjustable to 999 min, 59 sec)
- Clamping range of chuck 1 to 10 mm
- Push-through stirring tool

Pic.	Type	Art. No.	Pack Qty.	€
(2)	DLS	**ACP4.1**	1 unit(s)	965,35



Laboratory stirrers RSO series

Phönix Instrument.

Technical specifications:

Art. No.	TA74.1	TA75.1	TA76.1
Type	RSO-20A analogue	RSO-20D digital	RSO-40A analogue
Max. stirring capacity (H_2O)	20 l		40 l
Max. viscosity	10,000 mPas		50,000 mPas
Max. torque	30 Ncm		60 Ncm
Motor power input	70 W		130 W
Motor power output	50 W		100 W
Speed range	50 to 2200 rpm		
Speed deviation during load change		±3 rpm	
Speed display	LED	LCD	LED
Torque display	No	Yes	No
Ø Extension arm	16 mm		
Extension arm length	200 mm		
Port		RS 232	
W x D x H	83 x 186 x 220 mm		
Weight	2.5 kg		3.5 kg
Mains connection	100–240 V, 50/60 Hz		

Delivery without stirring tool, stand and boss head (please order separately).

(1) Analogue stirrer

For stirring capacities up to 20/40 l. With digital LED speed display. Extremely quiet running. Speed continuously adjustable up to 2200 rpm. Stirring tools can be inserted. Clamping range of chuck 0.5 to 10 mm.

Type	Art. No.	Pack Qty.	€
RSO-20A analogue	**TA74.1**	1 unit(s)	729,95
RSO-40A analogue	**TA76.1**	1 unit(s)	1.063,20

(2) Digital/electronic stirrer

For stirring capacities up to 20 l as well as constant speed at changing medium viscosity. With LCD speed display. Display of nominal and actual speed or trend torque display. RS 232 port. Soft starting. Stirring tools can be inserted. Clamping range of chuck 0.5 to 10 mm.

Type	Art. No.	Pack Qty.	€
RSO-20D digital	**TA75.1**	1 unit(s)	962,15

Agitators



Accessories stand set for laboratory stirrers

Phönix Instrument.

With locknut to additionally secure the stand rod and prevent accidental removal. Clamping range of clamp for stand and extension arm: 4 to 24 mm. Max. weight load 5 kg. Dimensions: W 200 mm x D 310 mm x H 800 mm.

Delivery incl. stand plate, stand rod, clamp and immersion limiters to prevent accidental piercing to the vessel base.

Designation	Art. No.	Pack Qty.	€
Stand set	**TA77.1**	1 unit(s)	209,65



Electronic laboratory stirrers NANOSTAR 7.5 digital

IKA.

Space-saving, compact stirrer with processor-controlled speed.

- Digital speed display
- Continuously adjustable speed via rotary knob
- Constant torque over the entire speed range
- Push-through stirrer shafts
- Clamping range of chuck 0.5 to 8.2 mm

Technical specifications:

Art. No.	1EH4.1
Type	NANOSTAR 7.5 digital
Max. stirring capacity (H_2O)	5 l
Max. viscosity	4,000 mPas
Max. torque	7.5 Ncm
Motor power input	32 W
Motor power output	22 W
Speed range	50 to 2000 rpm
Speed display	LED
Ø Extension arm	13 mm
Extension arm length	160 mm
W x D x H	53 x 130 x 147 mm
Weight	0,8 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. R 300 stirrer shaft protection. Without stirring tool, stand and boss head please order separately - (see stirrer accessories).

Type	Art. No.	Pack Qty.	€
NANOSTAR 7.5 digital	**1EH4.1**	1 unit(s)	911,00



Electronic laboratory stirrers Hei-TORQUE Core

Heidolph.

Suitable for low- to medium-viscosity media. Digital target/actual speed display. Timer function (1 sec to 99 h, 59 min and 59 sec). "Max button" for short-term operation at maximum speed. "Quick-Chuck" with clamping range from 0.5 to 10.5 mm.

Technical specifications:

Art. No.	KAY6.1
Type	Hei-TORQUE Core
Max. stirring capacity (H_2O)	25 l
Max. viscosity	10,000 mPas
Max. torque	40 Ncm
Motor power input	105 W
Motor power output	75 W
Speed range	20 to 2000 rpm
Speed display	TFT display, monochrome, 2"
Ø Extension arm	13 mm
Extension arm length	160 mm
W x D x H	70 x 195 x 281.5 mm
Weight	2,3 g
Mains connection	100–240 V, 50/60 Hz

Delivery without stirring tool, stand and boss head please order separately – (see stirrer accessories).

Type	Art. No.	Pack Qty.	€
Hei-TORQUE Core	**KAY6.1**	1 unit(s)	1.001,00



Electronic laboratory stirrers EUROSTAR 20 series

IKA.

Constant speed through microprocessor control. An electronic safety circuit ensures that the device is switched off in the event of a fault or overload. Continuous matching of target and actual speed, to automatically correct any discrepancies. For constant speed, even after changes in medium viscosity.

- Digital speed display
- Continuously adjustable speed
- Push-through stirrer shafts
- Clamping range of chuck: 0.5 to 10 mm (EUROSTAR 20 digital only)
- EUROSTAR 20 high speed digital: Drive shaft with tapered seat for supplied R 6000 precision stirrer (L 280 mm, max. immersion depth 220 mm). Special precision stirrer is separately available.

Technical specifications:

Art. No.	XT16.1	XT17.1
Type	EUROSTAR 20 digital	EUROSTAR 20 high speed digital
Max. stirring capacity (H_2O)	15 l	20 l
Max. viscosity	10,000 mPas	
Max. torque	20 Ncm	
Motor power input	56 W	171 W
Motor power output	44 W	133 W
Speed range	30 to 2000 rpm	150 to 6000 rpm
Speed display	LED	
Ø Extension arm	16 mm	
Extension arm length	220 mm	
W x D x H	86 x 208 x 248 mm	86 x 208 x 325 mm
Weight	4.4 kg	5.3 kg
Mains connection	230 V, 50/60 Hz	

Delivery without please order stirring tool, stand and boss head separately (see stirrer accessories).

Pic.	Type	Art. No.	Pack Qty.	€
(1)	EUROSTAR 20 digital	**XT16.1**	1 unit(s)	1.151,00
(2)	EUROSTAR 20 high speed digital	**XT17.1**	1 unit(s)	2.345,00

Accessories special precision stirrer for laboratory stirrers EUROSTAR 20 high speed digital

IKA.

Only suitable for use with precision stirrer shaft R 6000 of the EUROSTAR 20 high speed digital. Max. speed 6,000 rpm.

Designation	Art. No.	Pack Qty.	€
Dissolver stirrer, Ø Stirrers42 mm	**AHK7.1**	1 unit(s)	317,00
Propeller stirrers, Ø Stirrers 55 mm	**AHK5.1**	1 unit(s)	284,00
Propeller stirrers, Ø Stirrers 45 mm	**AHK6.1**	1 unit(s)	229,00

Accessories Quick-action chuck for laboratory stirrers EUROSTAR 20 digital and 40/60/100/200

IKA.

Stirring tool can be replaced without chuck key.
Not suitable for EUROSTAR 20 high speed digital.

Designation	Art. No.	Pack Qty.	€
Quick-action chuck for EUROSTAR series	**XT18.1**	1 unit(s)	88,00



Electronic laboratory stirrers MICROSTAR series

IKA.

Constant speed over the entire speed range.

- Digital speed display
- Continuously adjustable speed
- Push-through stirrer shafts
- Clamping range of chuck 0.5 to 8,2 mm

Technical specifications:

Art. No.	KAK5.1	KAK6.1	KAK7.1
Type	MICROSTAR 7.5 digital	MICROSTAR 15 digital	MICROSTAR 30 digital
Max. stirring capacity (H_2O)	5 l	10 l	20 l
Max. viscosity	4,000 mPas	8,000 mPas	20,000 mPas
Max. torque	7.5 Ncm	15 Ncm	30 Ncm
Motor power input	32 W		
Motor power output	22 W		
Speed range	50 to 2000 rpm	50 to 1000 rpm	50 to 500 rpm
Speed display	LED		
Ø Extension arm	13 mm		
Extension arm length	160 mm		
W x D x H	60 x 173 x 126 mm		
Weight	1,18 kg	1,26 kg	
Mains connection	100–240 V, 50/60 Hz		

Delivery without stirring tool, stand and boss head please order separately - (see stirrer accessories).

Type	Art. No.	Pack Qty.	€
MICROSTAR 7.5 digital	**KAK5.1**	1 unit(s)	987,00
MICROSTAR 15 digital	**KAK6.1**	1 unit(s)	1.061,00
MICROSTAR 30 digital	**KAK7.1**	1 unit(s)	1.110,00

Agitators



Electronic laboratory stirrers MINISTAR series

IKA.

Constant speed over the entire speed range.

- Digital speed display
- Continuously adjustable speed
- Push-through stirrer shafts
- Clamping range of chuck 0.5 to 8,2 mm

Technical specifications:

Art. No.	**KAK8.1**	**KAK9.1**	**KAL0.1**
Type	MINISTAR 20 digital	MINISTAR 40 digital	MINISTAR 80 digital
Max. stirring capacity (H_2O)	15 l	25 l	50 l
Max. viscosity	10,000 mPas	30,000 mPas	60,000 mPas
Max. torque	20 Ncm	40 Ncm	80 Ncm
Motor power input	60 W		
Motor power output	46 W		
Speed range	50 to 2000 rpm	50 to 1000 rpm	50 to 500 rpm
Speed display	LED		
Ø Extension arm	13 mm		
Extension arm length	160 mm		
W x D x H	70 x 193 x 148 mm		
Weight	1,56 kg	1,72 kg	
Mains connection	100–240 V, 50/60 Hz		

Delivery without stirring tool, stand and boss head please order separately - (see stirrer accessories).

Type	Art. No.	Pack Qty.	€
MINISTAR 20 digital	**KAK8.1**	1 unit(s)	1.061,00
MINISTAR 40 digital	**KAK9.1**	1 unit(s)	1.185,00
MINISTAR 80 digital	**KAL0.1**	1 unit(s)	1.309,00



Electronic laboratory stirrers RW 20 digital

IKA.

For stirring capacities up to 20 l. Robust, slimline stirrer **with digital display**. Two speed ranges for universal use, 60 to 2000 rpm. Clamping range of chuck 0.5 to 10 mm. Push-through stirring tool.

Technical specifications:

Art. No.	**EY86.1**
Type	RW 20 digital
Max. stirring capacity (H_2O)	20 l
Max. viscosity	10,000 mPas
Max. torque	150 Ncm
Motor power input	70 W
Motor power output	35 W
Speed range	60 to 500 rpm
Speed range II	240 to 2000 rpm
Speed display	digital
Ø Extension arm	13 mm
Extension arm length	160 mm
W x D x H	88 x 212 x 294 mm
Weight	3.1 kg
Mains connection	230 V, 50 Hz

Delivery without please order stirring tool, stand and boss head separately – see stirrer accessories.

Type	Art. No.	Pack Qty.	€
RW 20 digital	**EY86.1**	1 unit(s)	1.437,00



Electronic laboratory stirrers Hei-TORQUE Value series

Heidolph.

For constant speed, even after changes in medium viscosity. Glass display with touch elements. Safety-oriented start/stop function (slide for start/stop). Protection class IP 54.

- Digital display of nominal/actual speed
- Continuously adjustable speed
- Push-through stirrer shafts
- Display of torque trend to detect changes in viscosity (using symbols)
- Clamping range of chuck 2.5 to 12.5 mm
- Quick-Chuck

Technical specifications:

Art. No.	CLT1.1	CLT2.1	CLT3.1
Type	Value 100	Value 200	Value 400
Max. stirring capacity (H_2O)	50 l		100 l
Max. viscosity	60,000 mPas	100,000 mPas	250,000 mPas
Max. torque	100 Ncm	200 Ncm	400 Ncm
Motor power input	90 W	120 W	150 W
Motor power output	50 W	80 W	90 W
Speed range	10 to 2000 rpm		100 to 400 rpm
Speed range II			20 to 2000 rpm
Speed display	digital monochrome 2.4″		
Ø Extension arm	13 mm		
Extension arm length	160 mm		
W x D x H	86 x 257 x 241 mm		93 x 257 x 241 mm
Weight	4.1 kg	5.0 kg	5.2 kg
Mains connection	230 V, 50/60 Hz		

Delivery without stirring tool, stand and boss head, please order separately.

Type	Art. No.	Pack Qty.	€
Value 100	**CLT1.1**	1 unit(s)	1.637,00
Value 200	**CLT2.1**	1 unit(s)	2.082,00
Value 400	**CLT3.1**	1 unit(s)	2.618,00



Electronic laboratory stirrers Hei-TORQUE Precision series

Heidolph.

For constant speed, even after changes in medium viscosity. Glass display with touch elements. Safety-oriented start/stop function (slide for start/stop). Protection class IP 54.

- Digital display for
  - Countdown function (adjustable from 1 min to 24 h)
  - Storage of 7 favourites (combination of countdown and speed)
  - Ramp function with up to 7 steps
  - Graphical display of process sequence
  - Time
- Continuously adjustable speed
- Plain text torque display with value (resolution 0.1 N cm)
- Push-through stirrer shafts
- USB interface
- Quick-Chuck with clamping range from 2.5 to 12.5 mm

Technical specifications:

Art. No.	CPK0.1	CPK1.1	CPK2.1
Type	Precision 100	Precision 200	Precision 400
Max. stirring capacity (H_2O)	50 l		100 l
Max. viscosity	60,000 mPas	100,000 mPas	250,000 mPas
Max. torque	100 Ncm	200 Ncm	400 Ncm
Motor power input	90 W	120 W	150 W
Motor power output	50 W	80 W	90 W
Speed range	10 to 2000 rpm		100 to 400 rpm
Speed range II			20 to 2000 rpm
Speed display	digital colour 3.2″		
Ø Extension arm	13 mm		
Extension arm length	160 mm		
Weight	4.1 kg	5.0 kg	5.2 kg
Mains connection	230 V, 50 Hz		

Delivery without stirring tool, stand and boss head, please order separately.

Precision models with change of direction
Anticlockwise stirring is also possible.

Type	Art. No.	Pack Qty.	€
Precision 100	**CPK0.1**	1 unit(s)	1.923,00
Precision 200	**CPK1.1**	1 unit(s)	2.290,00

Precision 400 models

Type	Art. No.	Pack Qty.	€
Precision 400	**CPK2.1**	1 unit(s)	2.971,00



Electronic laboratory stirrers EUROSTAR digital series

IKA.

Constant speed through microprocessor control. An electronic safety circuit ensures that the device is switched off in the event of a fault or overload. Continuous matching of target and actual speed, to automatically correct any discrepancies. For constant speed, even after changes in medium viscosity.

- Digital speed display
- Continuously adjustable speed
- Push-through stirrer shafts
- Clamping range of chuck 0.5 to 10 mm

Technical specifications:

Art. No.	XT19.1	XT20.1	XT21.1	XT22.1
Type	EUROSTAR 40 digital	EUROSTAR 60 digital	EUROSTAR 100 digital	EUROSTAR 200 digital
Max. stirring capacity (H_2O)	25 l	40 l	100 l	
Max. viscosity	30,000 mPas	50,000 mPas	70,000 mPas	100,000 mPas
Max. torque	40 Ncm	60 Ncm	100 Ncm	200 Ncm
Motor power input	112 W	168 W	174 W	121 W
Motor power output	87 W	132 W	142 W	99 W
Speed range	30 to 2000 rpm		30 to 1400 rpm	6 to 400 rpm
Speed range II				30 to 2000 rpm
Speed display	LED			
Ø Extension arm	16 mm			
Extension arm length	220 mm			
W x D x H	86 x 208 x 248 mm			91 x 209 x 274 mm
Weight	4.4 kg			4.6 kg
Mains connection	230 V, 50/60 Hz			

Delivery without stirring tool, stand and boss head, please order separately – see stirrer accessories.

Type	Art. No.	Pack Qty.	€
EUROSTAR 40 digital	**XT19.1**	1 unit(s)	1.399,00
EUROSTAR 60 digital	**XT20.1**	1 unit(s)	1.677,00
EUROSTAR 100 digital	**XT21.1**	1 unit(s)	2.395,00
EUROSTAR 200 digital	**XT22.1**	1 unit(s)	3.172,00

Accessories Quick-action chuck for laboratory stirrers EUROSTAR 20 digital and 40/60/100/200

IKA.

Stirring tool can be replaced without chuck key.
Not suitable for EUROSTAR 20 high speed digital.

Designation	Art. No.	Pack Qty.	€
Quick-action chuck for EUROSTAR series	**XT18.1**	1 unit(s)	88,00



Electronic laboratory stirrers MICROSTAR control series

IKA.

For stirring and mixing low viscosity liquids. Compact design with high-end features.

- Vibration detection with automatic stop in the event of stirring tool imbalance
- Torque measurement or temperature measurement with indication on the display - when the temperature sensor is plugged in, the torque or temperature display can be selected during operation
- Integrated temperature measurement using a measuring probe (-10 °C to 350 °C, accuracy of ±1.35 °C)
- With timer function up to a max. of 6000 min
- Microprocessor control for constant speed, even with changes in viscosity
- Push-through stirrer shafts
- USB interface and Bluetooth functionality
- Clamping range of chuck 0.5 to 8.2 mm

Technical specifications:

Art. No.	1EH1.1	1EH2.1	1EH3.1
Type	MICROSTAR 7.5 control	MICROSTAR 15 control	MICROSTAR 30 control
Max. stirring capacity (H_2O)	5 l	10 l	20 l
Max. viscosity	4,000 mPas	8,000 mPas	20,000 mPas
Max. torque	7.5 Ncm	15 Ncm	30 Ncm
Motor power input	32 W		
Motor power output	22 W		
Speed range	30 to 2000 rpm	30 to 1000 rpm	50 to 500 rpm
Speed display	LCD		
Ø Extension arm	13 mm		
Extension arm length	160 mm		
W x D x H	60 x 136 x 173 mm		
Weight	1,7 kg	1,26 kg	
Mains connection	100–240 V, 50/60 Hz		

Delivery incl. Pt 1000 H 67.60 temperature measuring sensor and R 300 stirrer shaft protection. Stirring tool, stand and boss head please order separately - (see stirrer accessories).

Type	Art. No.	Pack Qty.	€
MICROSTAR 7.5 control	**1EH1.1**	1 unit(s)	1.358,00
MICROSTAR 15 control	**1EH2.1**	1 unit(s)	1.432,00
MICROSTAR 30 control	**1EH3.1**	1 unit(s)	1.481,00



Electronic laboratory stirrers MINISTAR control series

IKA.

For stirring and mixing low to medium viscosity liquids. Compact design with high-end features.

- Vibration detection with automatic stop in the event of stirring tool imbalance
- Torque measurement with indication on the display
- Temperature measurement with indication on the display when the temperature sensor is plugged in (-10 °C to 350 °C, accuracy of ±1.35 °C)
- With timer function up to a max. of 6000 min
- Microprocessor control for constant speed, even with changes in viscosity
- Push-through stirrer shafts
- USB interface and Bluetooth functionality
- Clamping range of chuck 0.5 to 8.2 mm

Technical specifications:

Art. No.	1EH5.1	1EH6.1	1EH7.1
Type	MINISTAR 20 control	MINISTAR 40 control	MINISTAR 80 control
Max. stirring capacity (H_2O)	15 l	25 l	50 l
Max. viscosity	10,000 mPas	30,000 mPas	60,000 mPas
Max. torque	20 Ncm	40 Ncm	80 Ncm
Motor power input	60 W		
Motor power output	46 W		
Speed range	50 to 2000 rpm	30 to 1000 rpm	30 to 500 rpm
Speed display	LCD		
Ø Extension arm	13 mm		
Extension arm length	160 mm		
W x D x H	70 x 154 x 193 mm		
Weight	1,56 kg	1,72 kg	
Mains connection	100–240 V, 50/60 Hz		

Delivery incl. Pt 1000 H 67.60 temperature measuring sensor and R 300 stirrer shaft protection. Stirring tool, stand and boss head please order separately - (see stirrer accessories).

Type	Art. No.	Pack Qty.	€
MINISTAR 20 control	**1EH5.1**	1 unit(s)	1.432,00
MINISTAR 40 control	**1EH6.1**	1 unit(s)	1.555,00
MINISTAR 80 control	**1EH7.1**	1 unit(s)	1.678,00



Electronic laboratory stirrers EUROSTAR 60/100 control

IKA.

With detachable remote control and digital TFT display. Constant speed through microprocessor control. **Integrated torque trend display** measures the viscosity changes in the sample. Electronic safety circuit to switch off the device in the event of a fault or overload. Continuous matching of target and actual speed, to automatically correct any discrepancies. For constant speed, even after changes in medium viscosity.

- Programmable functions, e.g. Start/Stop function (adjustable to 9 h, 59 min, 59 sec)
- **Integrated temperature measurement (a temperature gauge is required to display the temperature. Please order separately)**
- Interval mode (adjustable to 59 min, 59 sec)
- Timer (adjustable to 99 h, 59 min, 59 sec)
- Infinitely adjustable speeds
- Push-through stirrer shafts
- With RS 232 and USB interface
- Clamping range of chuck 0.5 to 10 mm

Technical specifications:

Art. No.	XT44.1	XT45.1
Type	EUROSTAR 60 control	EUROSTAR 100 control
Max. stirring capacity (H_2O)	40 l	100 l
Max. viscosity	50,000 mPas	70,000 mPas
Max. torque	60 Ncm	100 Ncm
Motor power input	168 W	174 W
Motor power output	131 W	142 W
Speed range	30 to 2000 rpm	30 to 1300 rpm
Speed display	TFT	
Opposite direction of rotation	No	Yes
Ø Extension arm	16 mm	
Extension arm length	220 mm	
W x D x H	86 x 230 x 267 mm	
Mains connection	230 V, 50/60 Hz	

Delivery incl. please order stirring tool, stand and boss head separately – see stirrer accessories.

Type	Art. No.	Pack Qty.	€
EUROSTAR 60 control	**XT44.1**	1 unit(s)	2.569,00
EUROSTAR 100 control	**XT45.1**	1 unit(s)	3.248,00

Agitator accessories



H-tripod S2 series

Heidolph. Material: Stainless steel V2A.

The support rod is additionally secured with a nut which prevents it from being unscrewed accidentally. With levelling screw to compensate for unevenness. Max. weight load: 4 kg.

(1) Standard
Tripod rods-Ø 25 mm.

Type	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
S2	345	420	700	**TL67.1**	1 unit(s)	286,00
S2 XXL	345	420	1,000	**TL68.1**	1 unit(s)	323,00

(2) Tele
With extendable tripod rod from 725 to 1025 mm.
Support rods-Ø 32 mm.

Type	Width (mm)	Depth (mm)	Height-adjustability (mm)	Art. No.	Pack Qty.	€
Tele S2	345	420	725–1025	**TL69.1**	1 unit(s)	652,00

Accessories clamp for H stands S2 series

Heidolph. Material: Stainless steel V2A, cast aluminium.

Suitable for	Art. No.	Pack Qty.	€
Rod Ø 13-32 mm	**TL70.1**	1 unit(s)	119,00



Plate stands

IKA. Material: Stainless steel, tripod plate epoxy coated, rubber pad.

With slip-resistant foil on the plate. The support rod is additionally secured with a nut under the plate which prevents it from being unscrewed accidentally. Support rod-Ø: 16 mm. Max. weight load: 5 kg.

Type	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
R 1825	200	316	560	**CC13.1**	1 unit(s)	315,00
R 1826	200	316	800	**CC14.1**	1 unit(s)	347,00
R 1827	200	316	1,000	**CC15.1**	1 unit(s)	370,00



H-stand

IKA.

Suitable for larger, heavy devices and structures such as stirrers. Tilt-resistant thanks to H-base. With balance screw to compensate for uneven surfaces on the laboratory table.
Support rods-Ø: 34 mm. Max. weight load: 10 kg.

Type	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
R 2722	460	420	1,010	**CC16.1**	1 unit(s)	756,00

Height-adjustable
With compression sprung telescopic support rod for smoothly moving heavy devices or structures up and down. Lifting height: 390 mm.

Type	Width (mm)	Depth (mm)	Height-adjustability (mm)	Art. No.	Pack Qty.	€
R 2723	460	420	620-1010	**CC17.1**	1 unit(s)	1.402,00



Clamps

IKA. Material: Aluminium (cast).

R 270
Suitable for tripod type R 2722, R 2723.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	Tripod rods Ø 25-36 mm, extension arms Ø 5-21 mm	**CC18.1**	1 unit(s)	130,00

R 182
Suitable for tripod type R 1825, R 1826, R 1827.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(2)	Tripod rods Ø 6-12 mm, extension arms Ø 6-16 mm	**CY92.1**	1 unit(s)	99,00

Agitator accessories



A 121 °C

Stirring blades ROTILABO® ECO

ROTH SELECTION. Material: Stainless steel, coated with PTFE. Autoclavable: Yes.

Chemically inert and non-breakable. Temperature stable from -200 °C to +250 °C. Shaft Ø 6 mm.

Pic.	Designation	Wavelength (mm)	Ø Stirrer (mm)	Art. No.	Pack Qty.	€
(1)	Centrifugal	300	40	**YT25.1**	1 unit(s)	93,60
(1)	Centrifugal	400	40	**YT26.1**	1 unit(s)	95,60
(1)	Centrifugal	500	50	**YT27.1**	1 unit(s)	97,15
(2)	Armature	300	80	**YT28.1**	1 unit(s)	75,55
(2)	Armature	400	80	**YT29.1**	1 unit(s)	76,45
(2)	Armature	500	80	**YT30.1**	1 unit(s)	77,40
(3)	Propeller	300	40	**YT31.1**	1 unit(s)	89,20
(3)	Propeller	400	40	**YT32.1**	1 unit(s)	92,75
(3)	Propeller	500	50	**YT33.1**	1 unit(s)	98,30

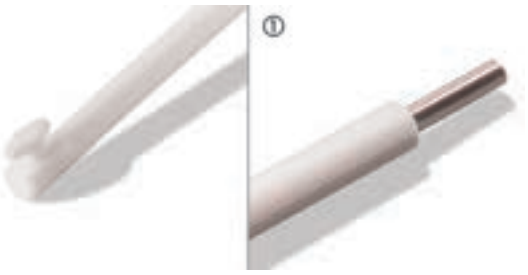
Our ROTH-Service

Personal, expert advice and many advantages for you



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- Direct delivery service
- NEW! Subscription service
- 10-day return guarantee



A 121 °C

Stirring blades ROTILABO®

ROTH SELECTION. Material: Stainless steel, coated with PTFE. Autoclavable: Yes.

Please order matching stirrer blades separately (Art. No. YT20.1ff). Temperature stable from –200 to +250 °C.

Standard

Wavelength (mm)	Ø Shaft (mm)	Art. No.	Pack Qty.	€
300	6	**YT08.1**	1 unit(s)	53,50
300	8	**YT11.1**	1 unit(s)	57,20
400	6	**YT09.1**	1 unit(s)	54,50
400	8	**YT12.1**	1 unit(s)	70,80
500	6	**YT10.1**	1 unit(s)	56,80
500	8	**YT13.1**	1 unit(s)	71,95
550	9.5	**YT14.1**	1 unit(s)	73,15
650	9.5	**YT15.1**	1 unit(s)	73,80

(1) With renewed clamp Ø 6.35 mm (length 50 mm)
for easy clamping of the stirrer shafts.

Wavelength (mm)	Ø Shaft (mm)	Art. No.	Pack Qty.	€
650	9.5	**YT16.1**	1 unit(s)	74,95
650	10	**YT18.1**	1 unit(s)	86,15
750	9.5	**YT17.1**	1 unit(s)	77,40
750	10	**YT19.1**	1 unit(s)	88,20

A 121 °C

Stirrer blade ROTILABO® with smooth ends

ROTH SELECTION. Material: PTFE. Autoclavable: Yes.

Suitable for ROTILABO® stirrer shafts made of stainless steel (Art. No. YT08.1ff). Borehole Ø 6.5 mm, Blade thickness 3.2 mm. Temperature stable from -200 to +250 °C.

Suitable for	Width (mm)	Total length (mm)	Art. No.	Pack Qty.	€
round bottom flask 250 ml	25	65	**YT20.1**	5 unit(s)	32,25
round bottom flask 500 ml	25	75	**YT21.1**	5 unit(s)	34,20
round bottom flask 2000 ml	25	105	**YT22.1**	5 unit(s)	38,70
round bottom flask 4000 ml	25	125	**YT23.1**	5 unit(s)	40,50
round bottom flask 6000 ml	25	150	**YT24.1**	5 unit(s)	44,85

Agitator accessories



Stirring blades made of stainless steel

Bohlender. Material: Stainless steel, coated with PTFE.

The stirrer unit is made entirely of PTFE. A stainless steel core provides the required hold in the clamping ring of the stirrer. The stirrer unit is firmly anchored to the shaft: it is not loosened by continued turning of the medium after the stirrer has been turned off. Since the materials to be turned only have contact with PTFE, the stirrer shafts are virtually resistant to chemicals and allow high application temperatures. **The dimensions of the stirrer shafts match the (KPG) glass stirrer shafts and are therefore interchangeable at any time. With tapered collet, for easier clamping of stirrer shafts.**

Crescent

Dimensions	Ø Shaft (mm)	Ø Clamping (mm)	Total length (mm)	Art. No.	Pack Qty.	€
Sheet: 90 x 24 x 3 mm	8	6.5	450	**K072.1**	1 unit(s)	191,35
Sheet: 90 x 24 x 3 mm	8	6.5	600	**K073.1**	1 unit(s)	213,95
Sheet: 90 x 24 x 3 mm	10	8	450	**K074.1**	1 unit(s)	195,65
Sheet: 90 x 24 x 3 mm	10	8	600	**K075.1**	1 unit(s)	227,90
Sheet: 125 x 35 x 3.5 mm	16	14	800	**K076.1**	1 unit(s)	336,50

Propeller

Dimensions	Ø Shaft (mm)	Ø Clamping (mm)	Total length (mm)	Art. No.	Pack Qty.	€
Sheet Ø 50 mm	6	4.7	450	**K077.1**	1 unit(s)	182,75
Sheet Ø 75 mm	8	6.5	450	**K078.1**	1 unit(s)	280,60
Sheet Ø 75 mm	10	8.0	450	**K079.1**	1 unit(s)	304,25

Armature

Dimensions	Ø Shaft (mm)	Ø Clamping (mm)	Total length (mm)	Art. No.	Pack Qty.	€
Sheet: 60 x 40 mm	8	6.5	360	**K080.1**	1 unit(s)	233,30
Sheet: 100 x 60 mm	8	6.5	600	**K081.1**	1 unit(s)	281,65



Stirring blades

IKA.

for laboratory stirrers. Material stainless steel, anchor stirrer (Art. No. Y443.1 and Y444.1) and propeller stirrer (Art. No. A328.1) made of fine cast metal. Choice depends on use, viscosity and amount of medium.

(1) Propeller, 4-winged

Wavelength (mm)	Ø Shaft (mm)	Ø Stirrer (mm)	Maximum speed (rpm)	Art. No.	Pack Qty.	€
350	8	50	2,000	**0867.1**	1 unit(s)	164,00
540	8	100	800	**Y436.1**	1 unit(s)	202,00
800	13	150	600	**Y437.1**	1 unit(s)	712,00

(2) Propeller, 3-winged

Wavelength (mm)	Ø Shaft (mm)	Ø Stirrer (mm)	Maximum speed (rpm)	Art. No.	Pack Qty.	€
350	8	45	2,000	**A328.1**	1 unit(s)	330,00
550	10	140	800	**Y438.1**	1 unit(s)	330,00
800	10	140	400	**Y439.1**	1 unit(s)	394,00

(3) Dissolver stirrer

Wavelength (mm)	Ø Shaft (mm)	Ø Stirrer (mm)	Maximum speed (rpm)	Art. No.	Pack Qty.	€
350	8	80	2,000	**A322.1**	1 unit(s)	293,00

(4) Centrifugal stirrers

Wavelength (mm)	Ø Shaft (mm)	Ø Stirrer (mm)	Maximum speed (rpm)	Art. No.	Pack Qty.	€
350	8	60/15	2,000	**A324.1**	1 unit(s)	185,00
550	8	100/24	800	**Y440.1**	1 unit(s)	247,00

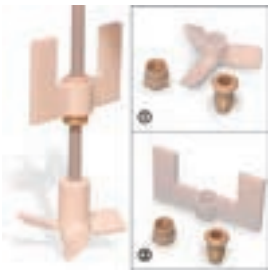
(5) Paddle stirrers

Wavelength (mm)	Ø Shaft (mm)	Ø Stirrer (mm)	Maximum speed (rpm)	Art. No.	Pack Qty.	€
550	8	70	800	**Y441.1**	1 unit(s)	198,00
550	10	150	800	**Y442.1**	1 unit(s)	394,00

(6) Anchor stirrers

Wavelength (mm)	Ø Shaft (mm)	Ø Stirrer (mm)	Maximum speed (rpm)	Art. No.	Pack Qty.	€
350	8	45	1,000	**Y443.1**	1 unit(s)	420,00
350	8	90	1,000	**Y444.1**	1 unit(s)	508,00

Agitator accessories



Accessories additional wings for stirrer shafts

Bohlender. Material: PTFE, PEEK Compound.

For fastening stirrer shafts made of PTFE with metal core, glass or metal. The height and also the turning position of the additional wings can be firmly positioned freely using a clamp fastener. Temperature stable from -200 °C to +250 °C, without load.

Delivery incl. fork wrench.

(1) Propeller additional wings, 3-winged

Suitable for	Dimensions	Art. No.	Pack Qty.	€
Shaft-Ø 8 mm	Sheet: Ø 75 mm	**CK98.1**	1 unit(s)	119,30
Shaft-Ø 10 mm	Sheet: Ø 75 mm	**CK99.1**	1 unit(s)	112,90

(2) Anchor additional wings

Suitable for	Dimensions	Art. No.	Pack Qty.	€
Shaft-Ø 8 mm	Sheet: 60 x 40 mm	**CT00.1**	1 unit(s)	106,80
Shaft-Ø 8 mm	Sheet: 100 x 60 mm	**CT01.1**	1 unit(s)	153,60
Shaft-Ø 10 mm	Sheet: 80 x 50 mm	**CT02.1**	1 unit(s)	114,65
Shaft-Ø 10 mm	Sheet: 100 x 60 mm	**CT03.1**	1 unit(s)	146,10



DURAN WHEATON KIMBLE

KPG stirrer shaft

DWK Life Sciences. Material: DURAN® glass.

Stirrer contact surface (L 160 mm) ground and polished.

(1) Type WG 10 with propeller stirrer, 4-winged

Suitable for Flasks with neck Ø inner min. 60 mm

Wavelength (mm)	Ø Shaft (mm)	Ø Stirrer (mm)	Art. No.	Pack Qty.	€
320	10	58	**NL72.1**	1 unit(s)	87,75
370	10	58	**NL73.1**	1 unit(s)	87,75

(2) Type WS 10 with centrifugal stirrer with movable spread wings

Suitable for Flasks with neck Ø inner min. 25 mm

Wavelength (mm)	Ø Shaft (mm)	Ø Stirrer (mm)	Art. No.	Pack Qty.	€
320	10	57	**NL76.1**	1 unit(s)	89,30
370	10	57	**NL77.1**	1 unit(s)	89,30
410	10	57	**NL78.1**	1 unit(s)	94,80
440	10	57	**NL79.1**	1 unit(s)	94,80



KPG stirrer with side stirrer blade

Material: DURAN® glass Stirring blade and safety screw made of PTFE.

For NS 29/32. Length of the ground and polished KPG-stirrer contact surface 160 mm. Drive pin Ø 8 x L 40 mm. Shaft Ø 10 mm.

Suitable for	Wavelength (mm)	Dimensions	Art. No.	Pack Qty.	€
Round bottom flask 100 ml	310	Blade: 50 x 18 x 3 mm	**KL66.1**	1 unit(s)	104,85
Round bottom flask 250/500 ml	310	Blade 68 x 24 x 3 mm	**KL67.1**	1 unit(s)	107,00
Round bottom flask 1000/2000/ 3000 ml	390	Blade 75 x 24 x 3 mm	**KL68.1**	1 unit(s)	109,65
Round bottom flask 4000/5000 ml	480	Blade 125 x 24 x 3 mm	**KL69.1**	1 unit(s)	141,90



KPG stirrer with movable wings

Material: DURAN® glass Stirring blade made of PTFE.

With ground and polished shaft and coupling pin. for NS 29/32. Drive pinjournal Ø 8 x L 40 mm. Shaft Ø 10 mm.

Suitable for	Wavelength (mm)	Ø Stirrer (mm)	Art. No.	Pack Qty.	€
Round bottom flask 100/250 ml	310	50	**KL71.1**	1 unit(s)	97,30
Round bottom flask 500 ml	310	90	**KL72.1**	1 unit(s)	98,40
Round bottom flask 1000 ml	400	90	**KL73.1**	1 unit(s)	98,40
Round bottom flask 2000/3000 ml	460	90	**KL74.1**	1 unit(s)	98,90
Round bottom flask 4000/5000 ml	520	90	**KL75.1**	1 unit(s)	98,90

Agitator accessories



Accessories for KPG stirrer

Material: DURAN® glass.

(1) KPG bearing bushing (stirrer plug)
Core: NS 29/32. Stirrer contact surface ground and polished

Ø Nominal (mm)	Standard ground glass joint core	Total length (mm)	Art. No.	Pack Qty.	€
10	29/32	125	**KX58.1**	1 unit(s)	65,60

(2) KPG stirrer shaft
Stirrer contact surface ground and polished.

Ø Nominal (mm)	Total length (mm)	Art. No.	Pack Qty.	€
10	240	**KX59.1**	1 unit(s)	42,50



DURAN
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KIMBLE

KPG bearing bushing

DWK Life Sciences. Material: DURAN® glass.

Model HQ 10
Running surface ground and polished, above the grinding core. With core NS 29/32.

Pic.	Type	Tread	Total length (mm)	Art. No.	Pack Qty.	€
(1)	HQ 10	Ø 10 x L 75 mm	170	**NL68.1**	1 unit(s)	77,50

Model HT 10
Stirrer contact surface ground and polished, below the ground joint. With ground glass cone 29/32 and glycerine reservoir.

Pic.	Type	Tread	Total length (mm)	Art. No.	Pack Qty.	€
(2)	HT 10	Ø 10 x L 75 mm	120	**NL69.1**	1 unit(s)	119,75



Glass stirrer clutch flexible

For stirring tasks in gas equipment with KPG-stirrers. To compensate for assembly inaccuracies. Obviates the need for exact alignment of the stirrer motor and stirrer shaft. As an elastic connection between laboratory stirrer and stirrer shaft. For motor shafts with chuck clamping range from 8 to 10 mm and stirring blades with shaft-Ø 8 to 10 mm.

Type	Art. No.	Pack Qty.	€
Flexible glass stirrer clutch	**KL60.1**	1 unit(s)	115,05



Stirrer coupling Globe

Bohlender. Material: POM.

For balancing the misalignment of axes between the stirrer and the stirrer shaft. Ideal for glass and metal stirrers. Power transmission of up to 300 Ncm. Max. speed ranges of up to 1200 rpm. Temperature stable from -20 to +110 °C. Clamping ring connection for easy assembly. Max. axial offset 10 mm. For stirrers with a chuck clamping range of 10 mm (Ø stirrer shaft for 8 mm stirrer and L 85 mm).

Suitable for	Art. No.	Pack Qty.	€
Stirrer opening at bottom, Ø 6.5 and 10 mm	**KHE5.1**	1 unit(s)	154,45
Stirrer opening at bottom, Ø 8.5 and 10 mm	**KHE6.1**	1 unit(s)	137,80

Agitator accessories



Universal stirrer plug

Material: Borosilicate glass, guide sleeve, disc set and pressure screw made of PTFE.

for round flasks. Extensively chemical resistant and temperature stable. Reliably tight, even after long-term use. For use without lubricant.

Ø Shaft (mm)	Standard ground glass joint core	Total length (mm)	Art. No.	Pack Qty.	€
8	29	140	**1793.1**	1 unit(s)	231,15
10	29	140	**1794.1**	1 unit(s)	231,15
8	45	140	**1791.1**	1 unit(s)	231,15
10	45	140	**1792.1**	1 unit(s)	231,15



DURAN
WHEATON
KIMBLE

KPG stirrer plug HB 10

DWK Life Sciences. Material: DURAN® glass.

Stirrer guide (GL 32 threaded tube with ground glass cone) with matching stirrer socket. Stirrer contact surface ground and polished, Ø 10 mm x L 75 mm. GL screw cap with O-ring allows the stirrer shaft to be sealed.

Standard ground glass joint core	Art. No.	Pack Qty.	€
24/29	**NL70.1**	1 unit(s)	75,35
29/32	**NL71.1**	1 unit(s)	77,50



PTFE standard ground stirring plug

Bohlender. Material: PTFE, screw cap GL 25 made of PPS.

Guide for stainless steel, glass and PTFE stirrer shafts. Embossed ring seals on the PTFE ground glass cone to fit ground glass sleeve. With special seal made of PTFE and FPM O-ring. Proportioned pressure of the GL screw cap on the O-ring provides a proper seal against the stirrer shaft. Temperature stable from -50 °C to +250 °C.

Suitable for	Standard ground glass joint core	Total length (mm)	Art. No.	Pack Qty.	€
Shaft-Ø 8 mm	19/26	65	**CKN9.1**	1 unit(s)	55,00
Shaft-Ø 8 mm	24/29	69	**CKP0.1**	1 unit(s)	60,90
Shaft-Ø 8 mm	29/32	74	**CKP2.1**	1 unit(s)	56,90
Shaft-Ø 10 mm	24/29	70	**CKP1.1**	1 unit(s)	72,70
Shaft-Ø 10 mm	29/32	72	**CKP3.1**	1 unit(s)	54,85
Shaft-Ø 10 mm	45/40	80	**CKP4.1**	1 unit(s)	76,35



Clutch for laboratory stirrer assembly

Material: PTFE.

Corrosion-proof. With shaft-part made of elastic polyamide. Prevents cuts, ensures proper working even at high speeds over long-term use. Shaft shoulder: Ø 5-8 mm. Shaft-part: Ø 7 mm, length 120 mm.

Type	Art. No.	Pack Qty.	€
Clutch for laboratory stirrer assembly	**2939.1**	1 unit(s)	109,65

Flocculation units



Rotational viscometer ROTAVISC Complete

IKA.

For determining the viscosity of liquids. 4.3″ TFT display with intuitive menu guidance. Digital spirit level supports the correct set-up of the start-up condition. Five user-defined “ramp” profiles can be set. Accuracy for Newtonian and non-Newtonian liquids is ±1 % of the measuring range, the reproducibility is ±0.2 %. Speed is infinitely adjustable. Also with graph function. RS 232 and USB interface. Connection for external Pt 100 temperature measuring sensor.

Technical specifications:

Art. No.	KHC5.1	KHC6.1
Type	lo-vi Complete	me-vi Complete
Measuring range	1-6,000,000 mPas	100-40,000,000 mPas
Accuracy	1 %	
Speed range	0,01 to 200 rpm	
Speed accuracy	± 0,01 rpm	
Timer	0.017 to 6000 min or continuous operation	
Temperature resolution	0.1 K	
Height-adjustability	200 mm	
W x D x H	351 x 372 x 629 mm	
Weight	7,1 kg	
Mains connection	100–240 V, 50/60 Hz	

ROTAVISC lo-vi Complete
Viscosity measuring range of 1 to 6,000,000 mPa·s.

Delivery incl. standard spindle set (SP 1 to SP 4), protective bracket, temperature sensor, quick coupling, hook coupling and ROTASTAND stand.

Type	Art. No.	Pack Qty.	€
lo-vi Complete	**KHC5.1**	1 unit(s)	3.396,00

ROTAVISC me-vi Complete
Viscosity measuring range of 100 to 40,000,000 mPa·s.

Delivery incl. standard spindle set (SP 7 to SP 12), protective bracket, temperature sensor, quick coupling, hook coupling and ROTASTAND stand.

Type	Art. No.	Pack Qty.	€
me-vi Complete	**KHC6.1**	1 unit(s)	3.396,00



Flock tester ET-series

Tintometer.

For various applications, e.g. for testing the effectiveness of flocculants and precipitants.

Technical specifications:

Art. No.	YC36.1	YC37.1	YC38.1
Type	ET 730	ET 740	ET 750
Number of stirring points	4		6
Speed	20-40-50-100-120 rpm	10–300 rpm	
Timer	0 to 30 min / continuous operation	0 to 999 min / 0 to 99 h / continuous operation	
W x D x H	250 x 320 x 250 mm	645 x 347 x 260 mm	935 x 347 x 260 mm
Weight	4.9 kg	13 kg	17 kg
Mains connection	100–240 V, 50/60 Hz		

Model ET 730, analogue

- Accommodates 4 low form beakers up to 1000 ml in size
- Portable, for mobile use
- Stirring points are arranged in a circle around a lamp
- Switchable centre column light (OFF/ON)
- Speed and time adjustment by rotary knob
- Height adjustment of the stirrer blades during operation

Delivery incl. 12 V adapter (for the cigarette lighter) and mains adapter.

Type	Art. No.	Pack Qty.	€
ET 730	**YC36.1**	1 unit(s)	1.603,90

Model ET-series, digital

- Accommodates 4/6 low or high form beakers up to 1000 ml in size
- Illuminated back panel for glare-free sample observation
- Switchable backlight (OFF/ON)
- Continuously variable stirring speed
- Digital rpm and timer display
- Height adjustment of the stirrer blades during operation

Delivery incl. mains adapter.

Type	Art. No.	Pack Qty.	€
ET 740	**YC37.1**	1 unit(s)	2.088,20
ET 750	**YC38.1**	1 unit(s)	2.645,05

Flocculation units



Flocculation unit Flocculator SW6

Stuart.

For reproducible analysis of flocculation conditions during sewage water treatment.

- **For simultaneous treatment of six samples in beakers up to 1000 ml**
- Uniform adjustable stirring speed for similar conditions at all sampling areas
- Digital display of speed and running time
- **With timer function**
  An audible signal indicates the end of the set time and all stirring units are switched off. The timer then counts the minutes from when the stirrer blades stop.
- Height adjustment of the stainless steel stirrer blades during operation
- The device has an illuminated base and a black back wall for anti-glare and high-contrast sample monitoring
- **Memory function saves 2 combinations of rpm and time parameters**
- A set-up for simultaneous addition of reagents and flocculators is also available

Technical specifications:

Art. No.	**CA98.1**
Type	SW6
Number of stirring points	6
Speed range	25 to 250 rpm
Timer function	0 to 99 mins/continuous operation
Performance	200 W
W x D x H	750 x 210 x 460 mm
Weight	17 kg
Mains connection	230 V, 50 Hz

Delivery without beakers, please order separately.

Type	Art. No.	Pack Qty.	€
SW6	**CA98.1**	1 unit(s)	3.518,00

Accessories supply device for Flocculator SW6

Stuart.

Designation	Art. No.	Pack Qty.	€
Supply device	**CA99.1**	1 unit(s)	225,00



Dispersion unit ULTRA-TURRAX® T 10 basic

IKA.

For use and hand-held or floor-mounted device.

- **For volumes from 0.5 to 100 ml**
- Continuous speed adjustment
- Quick-release coupling for easy dispenser tool changing
- Plastic disposable dispersion tools for PCR analysis available (please contact our sales department)

Technical specifications:

Art. No.	**EH01.1**
Type	T 10 basic ULTRA-TURRAX®
Motor power input	125 W
Motor power output	75 W
Speed range	8000 to 30000 rpm
Speed display	Scale
W x D x H	56 x 66 x 178 mm
Weight	0.5 kg

Delivery incl. storage box and arm lever R 200. Please order dispersion tool, sleeve and stand separately.

Type	Art. No.	Pack Qty.	€
T 10 basic ULTRA-TURRAX®	**EH01.1**	1 unit(s)	1.456,00

Dispersion tool ULTRA-TURRAX® for T 10 basic

IKA.

Made of stainless steel. Tool change and dismantling for cleaning purposes without additional tool.

Technical specifications:

Art. No.	**EH03.1**	**EH02.1**	**EH04.1**
Type	S 10 N - 8 G	S 10 N - 5 G	S 10 N - 10 G
Working range	1 to 50 ml	0.5 to 10 ml	1 to 100 ml
Ø Stator	8 mm	5 mm	10 mm
Ø Rotor	6.1 mm	3.8 mm	7.6 mm
Gap width between stator and rotor	0.25 mm	0.1 mm	0.2 mm
Immersion depth	20–95 mm	20–75 mm	20–100 mm
Materials in contact with product	PTFE, AISI 316L		
Temperature range	to +180 °C		
Approx. emulsion fineness	1–10 µm		
Approx. suspension fineness	5–25 µm		

Type	Art. No.	Pack Qty.	€
S 10 N - 8 G	**EH03.1**	1 unit(s)	1.384,00
S 10 N - 5 G	**EH02.1**	1 unit(s)	1.384,00
S 10 N - 10 G	**EH04.1**	1 unit(s)	1.384,00

Accessories for dispenser T 10 basic

IKA.

Small stand R 104
W 242 x T 355 mm, rod Ø 10 mm, stand rod height 370 mm

Designation	Art. No.	Pack Qty.	€
Small stand R 104	**EH05.1**	1 unit(s)	183,00



Dispersion unit ULTRA-TURRAX® complete set T 18 digital

IKA.

High-speed dispenser. A further speed range allows working at high circumference speeds.

ULTRA-TURRAX® T 18 digital dispersion unit:

- With digital speed display
- Compact, narrow shape

Technical specifications:

Art. No.	XX04.1
Type	T 18 digital ULTRA-TURRAX® complete set
Motor power input	500 W
Motor power output	300 W
Speed range	3000 to 25000 rpm
Speed display	LED
Speed adjustment	Continuously variable
W x D x H	87 x 106 x 271 mm
IP rating	20
Weight	2.5 kg
Mains connection	220–240 V, 50/60 Hz

Dispenser tool S 18 N-19 G

Technical data:

Working range	10 to 1500 ml
Ø stator	19 mm
Ø rotor	12.7 mm
Materials in contact with product	PTFE, AISI 316L

Delivery incl. ULTRA-TURRAX® T18 digital, extension rod and dispenser tool S 18 N - 19 G. Please order sleeve and stand separately.

Type	Art. No.	Pack Qty.	€
T 18 digital ULTRA-TURRAX® complete set	**XX04.1**	1 unit(s)	2.414,00

Dispersion tool ULTRA-TURRAX® for dispenser T 18 digital

IKA.

Technical specifications:

Art. No.	T598.1
Working range	1 to 100 ml
Ø Stator	10 mm
Ø Rotor	7.5 mm
Materials in contact with product	PTFE, AISI 316L

Dispenser tool S 18 N - 10 G

Designation	Art. No.	Pack Qty.	€
S 18 N - 10 G	**T598.1**	1 unit(s)	1.193,00



Dispersion unit ULTRA-TURRAX® T 25 digital

IKA.

High-performance dispenser with wide range of applications.
Applications:
Production of emulsions and dispersion, homogenisation of waste water sample and sample preparation.

- Processing volume (H_2O): 1 to 2000 ml
- Continuous speed adjustment
- **With digital speed display**

Technical specifications:

Art. No.	AN58.1
Type	T 25 digital ULTRA-TURRAX®
Motor power input	700 W
Motor power output	500 W
Speed range	3000 to 25000 rpm
Speed display	Digital
W x D x H	87 x 106 x 271 mm
Weight	2.5 kg
Mains connection	220–240 V, 50/60 Hz

Delivery incl. extension rod (L 175 x Ø 13 mm). Please order dispersion tool, sleeve and stand separately.

Type	Art. No.	Pack Qty.	€
T 25 digital ULTRA-TURRAX®	**AN58.1**	1 unit(s)	2.414,00

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Dispersion unit ULTRA-TURRAX® T 25 easy clean digital

IKA.

Application:

Homogenising samples, emulsifying cosmetics or suspending paints.

- Processing volume (H_2O): 1 to 2000 ml
- Brushless motor with low noise level
- Continuous speed adjustment
- With digital speed display
- Integrated timer function (max. 1 s to 99:59 h)
- Special tools available for quick and easy cleaning of the dispersion tools (only S 25 EC-C-18G-ST)
- USB port

Technical specifications:

Art. No.	HYK7.1
Type	T 25 easy clean ULTRA-TURRAX®
Motor power input	500 W
Motor power output	400 W
Speed range	3000 to 25000 rpm
Speed display	LED
W x D x H	89 x 161 x 270 mm
Weight	4,5 kg
Mains connection	220–240 V, 50/60 Hz

Delivery incl. extension rod (L 175 x Ø 13 mm). Please order dispersion tool, sleeve and stand separately.

Type	Art. No.	Pack Qty.	€
T 25 easy clean ULTRA-TURRAX®	**HYK7.1**	1 unit(s)	2.375,00

Dispersion tool ULTRA-TURRAX® for T 25 easy clean digital

IKA.

Special tool for easier and faster cleaning of the dispersion tool.

Technical specifications:

Art. No.	HYK8.1
Type	S 25 EC-C-18 G-ST
Working range	10 to 1500 ml
Ø Stator	18 mm
Ø Rotor	13.4 mm
Gap width between stator and rotor	0.25 mm
Immersion depth	35-150 mm
Materials in contact with product	AISI 316L Ceramic
Temperature range	to +180 °C
Approx. emulsion fineness	1-10 µm
Approx. suspension fineness	10-50 µm

Type	Art. No.	Pack Qty.	€
S 25 EC-C-18 G-ST	**HYK8.1**	1 unit(s)	1.526,00

Dispersion tool ULTRA-TURRAX® for T 25 digital and T 25 easy clean digital

IKA.

Technical specifications:

Art. No.	AN59.1	AN60.1	AN61.1
Type	S 25 N - 8 G	S 25 N - 18 G	S 25 N - 25 G
Working range	1 to 50 ml	10 to 1500 ml	50 to 2000 ml
Ø Stator	8 mm	18 mm	25 mm
Ø Rotor	6.1 mm	12.7 mm	17 mm
Gap width between stator and rotor	0.25 mm	0.3 mm	0.5 mm
Immersion depth	27–85 mm	40–165 mm	
Materials in contact with product	PTFE, AISI 316L		
Temperature range	to +180 °C		
Approx. emulsion fineness	1–10 µm		
Approx. suspension fineness	10–50 µm		15–50 µm

Type	Art. No.	Pack Qty.	€
S 25 N - 8 G	**AN59.1**	1 unit(s)	1.646,00
S 25 N - 18 G	**AN60.1**	1 unit(s)	1.235,00
S 25 N - 25 G	**AN61.1**	1 unit(s)	1.579,00



NEW / +

High-performance dispersion unit ULTRA-TURRAX® T 50 digital

IKA.

Application

Producing emulsions and dispersions.

- Processing volume (H_2O): 0.25 to 20 l
- Constant speed even when viscosity changes
- With digital speed display

Technical specifications:

Art. No.	KNK5.1
Type	T 50 digital Ultra-Turrax®
Motor power input	1,100 W
Motor power output	700 W
Speed range	600 to 10000 rpm
Speed display	LED
W x D x H	115 x 355 x 139 mm
Weight	5,85 kg
Mains connection	220–240 V, 50/60 Hz

Delivery incl. extension rod (L 220 x Ø 16 mm). Please order dispersion tool, sleeve and stand separately.

Type	Art. No.	Pack Qty.	€
T 50 digital Ultra-Turrax®	**KNK5.1**	1 unit(s)	3.843,00



NEW / +

Dispersion tool for ULTRA-TURRAX® T 50 digital

IKA.

Technical specifications:

Art. No.	KNK6.1	KNK7.1	KNK8.1
Type	S 50 N - G 45 F	S 50 N - G 45 M	S 50 N - G 45 G
Working range	0.25 to 10 l	0.5 to 15 l	0.5 to 20 l
Ø Stator	45 mm		
Ø Rotor	40 mm	40.5 mm	36 mm
Gap width between stator and rotor	0.5 mm	0.25 mm	0.5 mm
Materials in contact with product	PTFE, AISI 316L		
Temperature range	to +180 °C		
Approx. emulsion fineness	10-30 µm	25-50 µm	40-100 µm
Approx. suspension fineness	1-10 µm	5-20 µm	10-30 µm

Pic.	Type	Art. No.	Pack Qty.	€
(1)	S 50 N - G 45 F	**KNK6.1**	1 unit(s)	3.717,00
(2)	S 50 N - G 45 M	**KNK7.1**	1 unit(s)	3.541,00
(3)	S 50 N - G 45 G	**KNK8.1**	1 unit(s)	3.220,00

Cell disruption/homogenisation devices



Ultrasonic disintegrator UP series

Hielscher.

- Small, compact ultrasonic processors
- Applications: Disintegration or homogenisation of liquids, dispersion, cell disintegration
- With pulse mode for temperature-sensitive samples
- For use as hand-held or stand unit (please order stand separately)

Technical specifications:

Art. No.	Y509.1	Y510.1
Type	UP50H	UP100H
For max. volume	200 ml	500 ml
Performance	50 W	100 W
Working frequency	30 kHz	
Power output control	Amplitude 20 to 100 %, continuously adjustable	
Pulse range	10–100 %/s	
Length	50 mm	
Width	130 mm	
Height	180 mm	
IP rating	40	
Weight	0.8 kg	
Mains connection	230 V, 50/60 Hz	

Delivery incl. basic unit with travelling case and stand holder for stands rod Ø 16 mm, without sonotrode (please order separately).

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
UP50H	**Y509.1**	1 unit(s)	3.117,50
UP100H	**Y510.1**	1 unit(s)	3.633,50

Sonotrode for ultrasonic disintegrators UP50H and UP100H

Hielscher.

Made of titanium. Length 80 mm.

Technical specifications:

Art. No.	Y512.1	Y513.1	Y514.1	Y515.1
Type	MS1	MS2	MS3	MS7
Sample quantity	0,1–5 ml	2–50 ml	5–200 ml	20–500 ml
Length	80 mm			
Outer tip Ø	1 mm	2 mm	3 mm	7 mm
Immersion depth	5 mm	30 mm		

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
MS1	**Y512.1**	1 unit(s)	439,70
MS2	**Y513.1**	1 unit(s)	359,05
MS3	**Y514.1**	1 unit(s)	359,05
MS7	**Y515.1**	1 unit(s)	288,10



Ultrasonic disintegrator UP200Ht digital

Hielscher.

Applications: sample preparation, homogenisation, dispersion, disagglomeration (e.g. nanoparticles), emulsification, analysis and cell disruption, extraction, degassing and sonochemistry.

- Use as hand-held device or mounted on a stand
- Colour touch display and digital setting and monitoring functions
- Amplitude or power output control
- Countdown function: 0.1 s to 99 d
- Automatic data storage on integrated SD card reader in 100 ms cycles; records amplitude, power output, time and temperature
- Temperature range monitoring: acoustic irradiation is interrupted if the medium temperature is above or below the setpoint
- Temperature display (with connected probe): -50 to +200 °C
- Operation and monitoring via LAN cable, i.e. a browser can be used for display and remote control (no need to install software on PC)
- With LED sample illuminator
- Protection against dry running

Technical specifications:

Art. No.	YH05.1
Type	Ultrasonic disintegrator UP200Ht
Performance	200 W
Working frequency	26 kHz
Power output control	Amplitude 20 to 100 %, continuously adjustable
Pulse range	10,0–100,0 %/s
Length	190 mm
Width	90 mm
Height	300 mm
Weight	1.4 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. carry case, boom arm (L 200 x Ø 12 mm), cross clamp, 3 m network cable, 1 GB SD/USB combo card and temperature sensor Pt 100. Please order sonotrodes and stand separately.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Ultrasonic disintegrator UP200Ht	**YH05.1**	1 unit(s)	4.520,40

Sonotrode for Ultrasonic disintegrator UP200Ht digital

Hielscher.

Sonotrodes
Made of titanium.

Technical specifications:

Art. No.	YH06.1	YH07.1	YH08.1
Type	S26d2	S26d7	S26d14
Sample quantity	2–50 ml	20–500 ml	50–1000 ml
Length	120 mm	95 mm	80 mm
Outer tip Ø	2 mm	7 mm	14 mm

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
S26d2	**YH06.1**	1 unit(s)	388,10
S26d7	**YH07.1**	1 unit(s)	388,10
S26d14	**YH08.1**	1 unit(s)	413,90

Accessories stand for ultrasonic disintegrators UP50H, UP100H and 200Ht digital

Hielscher.

Stand
Made of stainless steel. Footplate L 300 x B 150 mm. Stand rod height 600 mm. Rod-Ø 16 mm.

Designation	Art. No.	Pack Qty.	€
Stand for UP50H, UP100H and UP200Ht	**Y525.1**	1 unit(s)	275,20

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Ultrasonic disintegrator SONOPULS series

Bandelin.

Applications: Cell disruption, homogenisation, emulsifying, suspension, process acceleration and, sonochemistry and de-gasing.

- LED display for pulsation, time as well as actual value display of the amplitude
- Ultrasonic operation modes: Continuous or pulsating (for temperature-sensitive
- samples); pulse range 10 to 100 %, can be saved
- Continuous operation or timer operation (adjustable 1 s bis 99 min; can be saved)

Technical specifications:

Art. No.	HC85.1	HC86.1
Type	HD 2070 set	HD 2200 set
For max. volume	50 ml	900 ml
Performance	70 W	200 W
Working frequency	20 kHz	
Power output control	Amplitude 10 to 100 %	
Pulse range	10–100 %	
Mains connection	230 V, 50/60 Hz	

In vitro diagnostic medical device according to IVDD

Complete sets Model HD 2070

Delivery incl. generator, ultrasonic transformer, graduated horn SH 70 G and micro tip MS 73, Ø 3 mm. Please order support frame separately.

Type	Art. No.	Pack Qty.	€
HD 2070 set	**HC85.1**	1 unit(s)	3.063,75

Complete set Model HD 2200

Delivery incl. generator, ultrasonic transformer, booster horn SH 213 G and titanium plate TT 13, Ø 13 mm. Please order support frame separately.

Type	Art. No.	Pack Qty.	€
HD 2200 set	**HC86.1**	1 unit(s)	3.731,35

Sonotrode for ultrasonic disintegrators HD 2070 and HD 2200

Bandelin.

Technical specifications:

Art. No.	HC87.1	HC88.1	HC89.1	HC90.1
Type	Microtip MS 72	Microtip MS 73	Cone tip KE 76	Titanium plate TT 13
Sample quantity	HD 2070: 1 - 25 m HD 2200: 2 - 30 ml	HD 2070: 2 - 50 ml HD 2200: 50 - 90 ml	HD 2070: 8 - 100 ml HD 2200: 10 - 350 ml	HD 2070: 10 - 200 ml HD 2200: 20 - 900 ml
Length	191 mm	175 mm	135 mm	5 mm
Outer tip Ø	2 mm	3 mm	6 mm	13 mm

In vitro diagnostic medical device according to IVDD

Type	Art. No.	Pack Qty.	€
Microtip MS 72	**HC87.1**	1 unit(s)	274,15
Microtip MS 73	**HC88.1**	1 unit(s)	192,45
Cone tip KE 76	**HC89.1**	1 unit(s)	211,80
Titanium plate TT 13	**HC90.1**	1 unit(s)	90,30

Accessories support frame set HG 40 for ultrasonic disintegrators SONOPULS HD 2070 and HD 2200

Bandelin.

Made of stainless steel. For fastening the ultrasonic transformer. With clamp.

Designation	Art. No.	Pack Qty.	€
Support frame set HG 40	**HC93.1**	1 unit(s)	1.030,95



Cell disruptors Genie® Disruptor

Scientific Industries.

Suitable for a variety of homogenizations of yeast cells, bacteria, tissue and cell resuspensions using glass beads (please order separately).

Technical specifications:

Art. No.	AH30.1	PA66.1
Type	Disruptor Genie® Analog	Disruptor Genie® Digital
Speed	2850 rpm	1000–2850 rpm
Speed display		Digital
Time setting from	0 min	
Time setting up to	15 min	99 min
Timer display	Scale	
Length	165 mm	
Width	122 mm	
Height	190 mm	
Weight	4.5 kg	
Mains connection	230 V, 50/60 Hz	

Delivery incl. TurboMix® attachment and holder for 12 reaction vials 1.5/2.0 ml. Beads please order separately.

Model analogue

- With fixed set speed
- Timer: 0 to 15 minutes or continuous operation

Type	Art. No.	Pack Qty.	€
Disruptor Genie® Analog	**AH30.1**	1 unit(s)	843,90

Model Digital

- With variable speed control
- Timer: 0 to 99 min or continuous operation
- After 10 min, the mixer switches to “Sleep” mode

Type	Art. No.	Pack Qty.	€
Disruptor Genie® Digital	**PA66.1**	1 unit(s)	972,90

Cell disruption/homogenisation devices



Disruptor Bead Beater

For rapid, efficient and safe cell disintegration.
Method of operationA fast running impeller wheel accelerates the movement of small beads in a specially formed vessel to a very high speed. The system is completely hermetically sealed and allows no air to enter into the sample, preventing harmful aerosols from forming. The unit is easy-to-use and maintenance
free. The beads precipitate within a few seconds and can be reused.

- Up to a max. sample volume of 100 g (moist weight) in 200 ml medium
- Ideal for sensitive proteins and enzymes

Delivery incl. 350 ml PC vessel.
Glass beads please order separately.

Designation	Art. No.	Pack Qty.	€
BeadBeater®	**N025.1**	1 unit(s)	1.354,50

Accessories vessels for Bead Beater®

Replacement vessels

Designation	Art. No.	Pack Qty.	€
PC replacement vessel 350 ml	**N026.1**	1 unit(s)	105,00
Stainless steel vessel 350 ml	**N027.1**	1 unit(s)	293,50

Additional vessels

Pic.	Designation	Art. No.	Pack Qty.	€
(1)	PC vessel with stainless steel guide bushing 15 ml	**EN04.1**	1 unit(s)	396,70
(2)	PC vessel with stainless steel guide bushing 50 ml	**EN05.1**	1 unit(s)	396,70

Accessories Beads for BeadBeater®

Glass beads
2.5 g/cm³.

Ø Ball (mm)	Art. No.	Pack Qty.	€
0,1	**N029.1**	450 g	74,15
0,5	**N030.1**	450 g	74,15
1,0	**N031.1**	450 g	74,15
2,7	**N032.1**	450 g	74,15

Zirconia/glass beads
3.7 g/cm³.

Ø Ball (mm)	Art. No.	Pack Qty.	€
0,1	**N033.1**	450 g	104,10
0,5	**N034.1**	450 g	104,10
1,0	**N035.1**	450 g	104,10
2,3	**N036.1**	450 g	104,10

Zirconia beads
5.5 g/cm³.

Ø Ball (mm)	Art. No.	Pack Qty.	€
0,7	**N037.1**	450 g	211,80
1,0	**N038.1**	450 g	211,80
2,0	**N039.1**	450 g	211,80

Stainless steel beads
7.9 g/cm³.

Ø Ball (mm)	Art. No.	Pack Qty.	€
1,5	**P329.1**	45 g	107,40



Lab blenders Bag Mixer® 400 series

Interscience.

The BagMixer® ensures safe and easy separation of bacteria from solid samples. A sterile plastic bag is added together with the closed sample and a diluent into the BagMixer®. For most samples 30 to 60 seconds mixing is sufficient. The filtrate can then be removed with a pipette and analysed immediately without any danger of changing or contamination.. Housing and mixing chamber are made of rustproof stainless steel.

Technical specifications:

Art. No.	KL16.1	T211.1	KL17.1
Type	Bag Mixer® 400 P	Bag Mixer® 400 W	Bag Mixer® 400 CC
Sample quantity	50-400 ml		
Length	420 mm		
Width	260 mm		
Height	265 mm		
Weight	16.5 kg		
Mains connection	110/240 V, 50/60 Hz		

Model 400 P

- With stainless steel cap
- Fixed speed (8 beats/s)
- Adjustable mixing time: 30 to 210 minutes or continuous operation

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Bag Mixer® 400 P	**KL16.1**	1 unit(s)	1.773,75

Model 400 W

- With window flap made of armour plate glass
- Fixed speed (8 beats/s)
- Adjustable mixing time: 30 to 210 minutes or continuous operation
- **Delivery incl.** drip pan

Pic.	Type	Art. No.	Pack Qty.	€
(2)	Bag Mixer® 400 W	**T211.1**	1 unit(s)	2.553,15

Model 400 CC

- Window flap made of armour plate glass
- LCD display indicates mixing time and speed
- Variable speed setting: 4, 6, 8 or 10 strokes/s
- Adjustable mixing time: 1 sec to 1 h with count-down display
- or continuous operation
- With additional indicator display for mixing blade intensity
- Distance between mixing blades and door can be adjusted
- **Delivery incl.** drip pan

Pic.	Type	Art. No.	Pack Qty.	€
(3)	Bag Mixer® 400 CC	**KL17.1**	1 unit(s)	3.473,35

Accessories rack made of stainless steel for homogeniser Bag Mixer®

Interscience.

The stainless rack can only be used with the sealing clips (please order separately).

Designation	Art. No.	Pack Qty.	€
(4) Rack made of stainless steel for 10 bags	**T213.1**	1 unit(s)	164,50



Lab blenders Bag Mixer®

Interscience.

Effective mixing of solid or liquid samples in laboratory blender bag.
Optimal micro-organism extraction.
Sample material is quickly prepared for analysis without complex cleaning.

General information for all models:

- **For reaction vials from 50 to 400 ml**
- Digital display of speed and time
- Adjustable mixing intensity
- Removable pedals
- 4 adjustable speeds: 4, 6, 8, 10 impacts/s
- Adjustable mixing time: 1 to 59 minutes or continuous operation
- LightCode System: colour LED light under the door indicates the mixing status (green: mixing operation finished; orange: active mixing operation)
- LED interior light
- Integrated drip pan
- Low noise (approx. 48 dB)

Technical specifications:

Art. No.	CEC0.1	CEC1.1
Type	Bag Mixer® 400 S	Bag Mixer® 400 SW
Sample quantity	50–400 ml	
Length	370 mm	
Width	290 mm	
Weight	26 kg	
Mains connection	110–240 V, 50/60 Hz	

Model S
Standard version.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Bag Mixer® 400 S	**CEC0.1**	1 unit(s)	3.806,60

Model SW

- Window flap with double glazing
- LiquidSensor: mixing stops immediately and automatically if a leak is detected by the sensor

Pic.	Type	Art. No.	Pack Qty.	€
(2)	Bag Mixer® 400 SW	**CEC1.1**	1 unit(s)	4.670,90



Accessories BagOpen® homogenizing bag stand

Interscience.

For opening and holding bags.
For individual 400 ml bags. Self-adhesive pads adhere to the outer walls of the bag and to the side walls of the stand and hold the bag open. Reduces the risk of sample contamination.

Delivery incl. 2 adhesive pads.

Width (mm)	Length (mm)	Height (mm)	Art. No.	Pack Qty.	€
80	150	250	**XX17.1**	1 unit(s)	125,75

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Lab blenders Stomacher® 400 circulator

Seward.

Ideal for extracting, mixing or dispersing.
Capacity 80 to 400 ml. The Stomacher® 400 circulator is indispensable in the laboratory when preparing and blending food samples and other substances for analysis.
The sample and diluent are placed into the unit in a sealed plastic bag. The bag is held securely in the unit during treatment. There is practically no risk of contact between the sample and unit. This eliminates any danger of contamination.
With regard to hygiene, security and general efficiency the Stomacher® 400 circulator brings enormous benefits compared to other units, which must be cleaned or even sterilized after use. Processing takes only 30 seconds for most substances.

Operating principle
Two reciprocating paddles beat against the bag repeatedly and press its contents against the door. This quiet and yet powerful movement distributes the sample quickly so that the extraction of soluble substances and the detection of even deep-seated micro-organisms is easier than when using standard blending processes.
The sample can be removed from the bag with a pipette after blending. The Stomacher® 400 circulator is ready for use again immediately.

Special characteristics:

- Control panel with keyboard and LCD display
- Count-down display indicates the processing time
- User-defined speed and time setting
  - 3 programs can be stored for easier operation
  - Setting options:
  1.) Paddle speed rpm 200/low, 230/normal, 260/high)
  2.) Time (from 1 s to 99 min and 59 s)
- Durable and robust aluminium casing

Technical specifications:

Art. No.	H453.1
Type	Stomacher® 400 circulator
Sample quantity	80–400 ml
Length	335 mm
Width	350 mm
Height	280 mm
Weight	23 kg
Mains connection	220 V, 50 Hz

Delivery incl. 1000 standard homogenizing bags (W 177 x H 305 mm).

Type	Art. No.	Pack Qty.	€
Stomacher® 400 circulator	**H453.1**	1 unit(s)	5.342,75



Analysis mill A 10 basic

IKA.

For shredding hard, brittle, but also soft and fibrous materials. Integrated cooling water connections (for hoses with an inner Ø 8 mm). Replaceable stainless steel beater. Operation only possible with closed lid.

- Digital timer (can be set to between 1 s and 5 mins) that shows the comminuting time
- Interval function (if the timer function has been activated, the equipment runs for 15 s and then stops for 1 s, repeating this pattern until the set time has elapsed)
- Max. processing grain size:
  6 mm for impact grinding
  10 mm for cutting grinding
- Max. switch-on duration.: 5 min ON / 10 min OFF

Technical specifications:

Art. No.	EEA9.1
Type	A 10 basic
Usable volume	50 ml
Motor power input	300 W
Motor power output	240 W
Max. duty time	Short-term operation (KB 5/10): 5 min ON / 10 min OFF
Maximum speed	25,000 rpm
Max. circumferential speed	70 m/s
Grinding chamber can be cooled by	Water: yes Dry ice: yes Liquid nitrogen: no
W x D x H, total	130 x 145 x 250 mm
Weight	2.9 kg
Mains connection	220–240 V, 50/60 Hz

Delivery incl. stainless steel beater type A 10.1 (stainless steel 1.4034) suitable for most brittle materials up to a Mohs hardness of 5 and A 10.4 grinding chamber reducer (stainless steel 1.4301) for small sample material volumes.

Type	Art. No.	Pack Qty.	€
A 10 basic	**EEA9.1**	1 unit(s)	2.221,00



Accessories for A 10 basic analysis mill

IKA.

(2) Carbide beater type A 10.3
Made of tungsten carbide for relatively hard materials up to Mohs hardness 9.

Designation	Art. No.	Pack Qty.	€
Carbide beater type A 10.3	**EEC0.1**	1 unit(s)	308,00

(3) Star-shaped cutter type A 10.2
For fibrous materials such as paper and plant material, as well as plastics, including. material with low specific weight.

Designation	Art. No.	Pack Qty.	€
Star-shaped cutter type A 10.2	**EEC1.1**	1 unit(s)	161,00

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Analysis mill A11 basic

IKA.

Batch mill with two grinding processes:

- **Impact milling of hard, brittle grinding material with a stainless steel beater up to max. Mohs' hardness scale 6** (beater is included in delivery)
- **Blade milling of soft, fibrous grinding material with a cutting knife** (not included in delivery)

Moist and sticky process materials can be ground by adding water. The standard grinding beaker (Art. No. T537.1) is suitable for embrittling grinding material with liquid nitrogen directly in the grinding chamber.

Technical specifications:

Art. No.	T534.1
Type	A11 basic
Usable volume	80 ml
Motor power input	300 W
Motor power output	160 W
On-load speed	19,500 rpm
Max. duty time	Short time operation (KB 1/10): 1 min ON / 10 min OFF
Idle speed	28000 rpm
Max. circumferential speed	53 m/s
W x D x H, total	85 x 85 x 240 mm
IP rating	43
Weight	1.5 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. standard grinding beaker made of ETFE, fibre-glass reinforced with stainless steel inlet (AISI 316L), effective volume 80 ml and stainless steel beater.

Type	Art. No.	Pack Qty.	€
A11 basic	**T534.1**	1 unit(s)	2.668,00

Accessories for A11 basic analysis mill

IKA.

Cutting blade
Made of stainless steel AISI 440B.

Designation	Art. No.	Pack Qty.	€
Cutting blade	**T539.1**	1 unit(s)	198,00

Beater for grinding material up to 9 Mohs
Made of stainless steel AISI 440B.

Designation	Art. No.	Pack Qty.	€
Beater for grinding material up to 9 Mohs	**T536.1**	1 unit(s)	247,00

Funnel
Prevents splashing when filling liquid nitrogen into standard 80 ml grinding beaker.

Designation	Art. No.	Pack Qty.	€
Funnel	**Y974.1**	1 unit(s)	272,00

250 ml grinding beaker
Made of PC with stainless steel inlet. Effective volume 250 ml. Not suitable for N_2 cooling, only to be used with double beater (Art. No. Y975.1).

Designation	Art. No.	Pack Qty.	€
250 ml grinding beaker	**T535.1**	1 unit(s)	667,00

Double beater
Made of titanium. Max. Mohs hardness 3, only to be used for 250 ml grinding beaker (Art. No. T535.1).

Designation	Art. No.	Pack Qty.	€
Double beater	**Y975.1**	1 unit(s)	530,00



Batch mill/mixer MultiDrive basic

IKA.

For hard, soft or fibrous samples. A variety of vessels are available for a wide range of grinding tasks. Suitable for pre-grinding through to fine grinding. With intermittent operation for pre-grinding hard samples or for thorough mixing.

Technical specifications:

Art. No.	KHT0.1
Type	MultiDrive basic
Motor power input	1,000 W
Motor power output	800 W
Max. duty time	Short time operation (KB 5/10): 5 min ON / 10 min OFF
Minimum speed	3,000 rpm
Maximum speed	20,000 rpm
Speed accuracy	± 5 %
W x D x H, total	300 x 250 x 450 mm
Weight	10 kg
Mains connection	220–240 V, 50/60 Hz

Delivery without grinding and mixing vessels, please order separately.

Type	Art. No.	Pack Qty.	€
MultiDrive basic	**KHT0.1**	1 unit(s)	3.409,00



Accessories for MultiDrive basic batch mill/mixer

IKA.

(1) MultiDrive BL 2000
Effective volume 2000 ml. Vessel with mixing tool for wet grinding of samples such as meat, sausage, soya beans, silage, vegetables, etc. All parts can be cleaned in a dishwasher. Mixing tool can be disassembled. Max. mixture hardness 5 Mohs. Max. mixture particle size 20 mm. Beater/blade material: Stainless steel 1.4304.

Dimensions: W 180 x D 200 x H 280 mm.

Delivery incl. stainless steel standard mixing tool.

Designation	Art. No.	Pack Qty.	€
MultiDrive BL 2000	**KHT1.1**	1 unit(s)	606,00

(2) MultiDrive MI 250
Effective volume 250 ml. Vessel with beater for dry grinding of samples such as wood, animal feed, frozen products, plastic, etc. Grinding chamber must be cleaned by hand. Detachable beater. Max. mixture hardness 5 Mohs. Max. mixture particle size 7 mm. Beater, blade and grinding chamber made of stainless steel. Grinding chamber can be cooled with water, suitable for hoses with Ø 6.25 x 1.5 mm.

Dimensions: W 180 x D 200 x H 280 mm.

Delivery incl. stainless steel standard beater.

Designation	Art. No.	Pack Qty.	€
MultiDrive MI 250	**KHT2.1**	1 unit(s)	776,00

(3) MultiDrive MI 400
Effective volume 400 ml. Vessel with beater for dry grinding of samples such as wood, animal feed, frozen products, plastic, etc. Grinding chamber must be cleaned by hand. Detachable beater. Max. mixture hardness 5 Mohs. Max. mixture particle size 7 mm. Beater, blade and grinding chamber made of stainless steel. Grinding chamber can be cooled with water, suitable for hoses with Ø 6.25 x 1.5 mm.

Dimensions: W 180 x D 200 x H 280 mm.

Delivery incl. stainless steel standard beater.

Designation	Art. No.	Pack Qty.	€
MultiDrive MI 400	**KHT3.1**	1 unit(s)	906,00

(4) Star-shaped blade
For fibrous materials such as paper and plant material.

Designation	Art. No.	Pack Qty.	€
MI 250.2 star-shaped blade for MultiDrive MI 250	**KHT4.1**	1 unit(s)	155,00
MI 400.2 star-shaped blade for MultiDrive MI 400	**KHT5.1**	1 unit(s)	176,00

(5) Carbide beater
Made of carbide for harder materials up to Mohs hardness 9.

Designation	Art. No.	Pack Qty.	€
MI 250.3 carbide beater for MultiDrive MI 250	**KHT6.1**	1 unit(s)	330,00
MI 400.3 carbide beater for MultiDrive MI 400	**KHT7.1**	1 unit(s)	363,00



Universal blenders

Severin.

Features:

- Power approx. 260 Watt
- Polystyrene container 650 ml
- Maximum speed approx. 3900 rpm
- Pulse switch
- Stainless steel blade
- Rubber anti-slip protection

Type	Art. No.	Pack Qty.	€
Universal blenders	**Y384.1**	1 unit(s)	41,05



Stand mixer

Severin.

For simple mixing and emulsifying tasks.

Features:

- Removable mixing attachment 1,5 l made of glass with removable drip tray
- Capacity approx. 550 W
- Two speed settings with additional pulse mode option
- Lid with opening for refilling
- Removable stainless steel blade
- Dimensions: W 210 mm x D 180 mm x H 402 mm
- Cord wind

Type	Art. No.	Pack Qty.	€
Stand mixer	**X477.1**	1 unit(s)	70,15



Universal mixers RBB pro

For blending, mixing and emulsifying.

Features:

- 3 settable speeds (4000/8000/14000 rpm)
- **Power consumption 550 W**
- Stainless steel motor housing, chrome plated
- Safety control: motor only runs lid is attached
- With soft start feature (prevents liquids from splashing up after switching on)
- With overload/overheating protection
- With pulse function, for stirring briefly
- Blending beaker is impact resistant and dishwasher safe, capacity 2 l
- Dimensions total: H 493 mm, Ø 190 mm
- Dimensions of mixer attachments: H 265 x W 182 mm
- Mains connection: 230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
Universal mixer with polycarbonate cup	**PT04.1**	1 unit(s)	1.052,45
Universal mixer with stainless steel bowl	**PT05.1**	1 unit(s)	1.280,35



Laboratory universal mixer with sound-proofing hood RMBL

For blending, mixing and emulsifying.

Features:

- 6 speed settings
- Version with protective hood for noise reduction and increased safety in the laboratory
- 12 storable cycles for automatic processing (max. cycle duration 30 min, time is determined by current mixing operation)
- Pulse function
- Stainless steel motor base
- Thermal circuit breaker

Technical specifications:

Art. No.	CYX5.1
Type	RMBL
Speed settings	1300/3500/6000/8700/12000/16000 rpm
Motor power input	900 W
W x D x H, total	225 x 265 x 495 mm
Weight	10 kg
Mains connection	230 V, 50 Hz

Delivery incl. sound-proofing hood.
Without mixing attachment, please order required mixing attachment separately.

Type	Art. No.	Pack Qty.	€
RMBL	**CYX5.1**	1 unit(s)	1.887,70



Mixer attachments for universal mixers RMBL

With stainless steel cutting attachment, laboratory type
For ultra fine processing and low quantities.

Type	Art. No.	Pack Qty.	€
Glass attachment 125 ml	**CYX6.1**	1 unit(s)	344,00
Glass attachment 250 ml	**CYX7.1**	1 unit(s)	366,60
Glass attachment 500 ml	**CYX8.1**	1 unit(s)	521,40
Glass attachment 1,000 ml	**CYX9.1**	1 unit(s)	569,75

With stainless steel cutting attachment, High-Power type
4 blades shaped for optimal stirring, intensive and quick processing, as well as crushing ice cubes.

Type	Art. No.	Pack Qty.	€
Polycarbonate cover 2,000 ml	**CYY0.1**	1 unit(s)	230,05
Stainless steel attachment 2,000 ml	**CYY1.1**	1 unit(s)	468,70



Universal mixers GK 900 W

For thorough blending, mixing and emulsifying.

Features:

- Infinitely adjustable from 1000 to 17 000 rpm
- **Power consumption 900 W**
- Die cast zinc motor housing, chrome-plated
- With soft start feature (prevents liquids from splashing up after switching on)
- Safety control: motor only runs lid is attached
- With overload and overheating protection
- Motor block dimensions: height 226 mm, Ø 190 mm
- Power supply: 230 V, 50/60 Hz

Selection of four different mixing beakers:

- 4 l polycarbonate attachment. Dimensions: W 300 x H 280 mm
- 2 l polycarbonate attachment. Dimensions: W 240 x H 280 mm
- 4 l stainless steel attachment. Dimensions: W 290 x H 300 mm
- 2 l stainless steel attachment. Dimensions: W 230 x H 280 mm

Type	Art. No.	Pack Qty.	€
Universal mixer with polycarbonate beaker 2 l	**CYX3.1**	1 unit(s)	1.595,30
Universal mixer with polycarbonate beaker 4 l	**X534.1**	1 unit(s)	1.799,55
Universalmixer with stainless steel beaker 2 l	**X535.1**	1 unit(s)	1.799,55
Universalmixer with stainless steel beaker 4 l	**CYX4.1**	1 unit(s)	2.029,60

Vortexer, small shaker



Test tube shakers lab dancer

IKA.

To mix small sample sizes using the touch function.

- For small containers with Ø of up to 30 mm, such as test tubes, centrifuge tubes and reaction vials
- With fixed speed setting of 2800 rpm

Technical specifications:

Art. No.	AN62.1
Type	lab dancer
Movement type	circular vibrating
Speed	2800 rpm
Shaking amplitude (stroke)	4,5 mm
Max. shaken volume	1 test tube 50 ml
Motor power input	1.2 W
Motor power output	0.8 W
W x D x H	100 x 110 x 70 mm
Weight	0.55 kg

Delivery incl. 12 V plug-in power supply.

Type	Art. No.	Pack Qty.	€
lab dancer	**AN62.1**	1 unit(s)	247,00



Test tube shakers Hula Dancer series

IKA.

For mixing small sample sizes in small containers such as test tubes and reaction vials, etc. using a touch function. Circular vibrating shaking motion. With robust housing.

Technical specifications:

Art. No.	KHC7.1	KHC8.1
Type	basic	digital
Movement type	circular vibrating	
Speed range	2800 rpm	1200 to 2800 rpm
Shaking amplitude (stroke)	4,5 mm	
Speed display	fixed	speed-adjustable in 9 increments
W x D x H	123 x 123 x 42 mm	
Weight	0,7 kg	
Mains connection	100–240 V, 50/60 Hz	

(1) Hula Dancer basic
Fixed speed setting of 2800 rpm.

Type	Art. No.	Pack Qty.	€
basic	**KHC7.1**	1 unit(s)	359,00

(2) Hula Dancer digital
Speed-adjustable in nine increments.

With digital display of the relevant speed level.

Type	Art. No.	Pack Qty.	€
digital	**KHC8.1**	1 unit(s)	419,00

Vortexer, small shaker



Test tube shakers ROTILABO® Mini Vortex

ROTH SELECTION. Material: ABS, Silicone.

Specially designed for low space requirements and mixing small sample sizes by means of a touch function.

- For small containers with a Ø of up to 30 mm such as test tubes, centrifuge tubes, reaction vials, etc.
- With fixed speed setting of 4500 rpm
- Quiet operation with good mixing effect
- 5 years warranty

Technical specifications:

Art. No.	HXH6.1
Type	ROTILABO® Mini Vortex
Movement type	circular vibrating
Speed	4500 rpm
Shaking amplitude (stroke)	6 mm
W x D x H	110 x 75 x 130 mm
Weight	0,9 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 12 V plug-in power supply and two standard silicone attachments.

Type	Art. No.	Pack Qty.	€
ROTILABO® Mini Vortex	**HXH6.1**	1 unit(s)	115,40



Vortexer with stirring attachment ROTILABO®

ROTH SELECTION.

For reaction vials 1.5 ml. Suitable for every vortexer or test tube shaker with a rubber plate or test tube holder. Large shaft with a fixed, round plate for mounting reaction vials. Reaction vials are protected against falling out by a second, adjustable plate. Shaft length 165 mm, with ball handle (Ø 25 mm) on the upper end.

Type	Art. No.	Pack Qty.	€
for 8 reaction vessels	**L660.1**	1 unit(s)	138,70
for 20 reaction vessels	**L661.1**	1 unit(s)	155,90



Test tube shakers RS series

Phönix Instrument.

General information on both models

For mixing small sample sizes in test tubes, centrifuge tubes, reaction vials, etc.

- Touch or continuous operation
- Robust housing design
- Slip-resistant silicon feet

Technical specifications:

Art. No.	PX87.1	PX88.1
Type	RS-VF-10	RS-VA-10
Movement type	circular vibrating	
Speed range		0 to 2500 rpm
Speed	2500 rpm	
Shaking amplitude (stroke)	4 mm	
W x D x H	127 x 130 x 160 mm	
Weight	3.5 kg	
Mains connection	220–230 V, 50 Hz	

Delivery incl. standard attachment for test tubes and small vessels.

Model: RS-VF 10
With fixed speed setting of 2500 rpm

Type	Art. No.	Pack Qty.	€
RS-VF-10	**PX87.1**	1 unit(s)	149,45

Model: RS-VA 10
with variable speed control from 0 to 2500 rpm

Type	Art. No.	Pack Qty.	€
RS-VA-10	**PX88.1**	1 unit(s)	187,05

Accessories single-hand attachment large, for RS series test tube shakers

Phönix Instrument.

For single-handed shaking of Erlenmeyer flasks, bottles, etc.
With rubber mat (Ø 99 mm).

Designation	Art. No.	Pack Qty.	€
Single-hand attachment, large	**PX89.1**	1 unit(s)	34,40

Vortexer, small shaker



Test tube shakers with ZX4 infrared sensor

Velp.

- IR sensor mode or continuous operation can be chosen
- When the contactless IR sensor is activated, the test tube shaker starts the typical vortex movement at the previously set speed as soon as a sample tube is detected in the immediate vicinity
- Robust housing design with slip-resistant feet

Technical specifications:

Art. No.	ACN9.1
Type	ZX4
Movement type	circular vibrating
Speed range	0 to 3000 rpm
Shaking amplitude (stroke)	4,5 mm
W x D x H	150 x 165 x 130 mm
Weight	2.7 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. standard attachment for test tubes and small vessels.

Type	Art. No.	Pack Qty.	€
ZX4	**ACN9.1**	1 unit(s)	223,60



Accessories for ZX4 series test tube shaker

Velp.

(1) Attachment for 19 x 1.5/2.0 ml reaction vials

Designation	Art. No.	Pack Qty.	€
Attachment for reaction vials	**ACP0.1**	1 unit(s)	44,95

(2) Attachment for 5 sample tubes Ø 16 mm

Designation	Art. No.	Pack Qty.	€
Attachment for 5 sample tubes	**ACP1.1**	1 unit(s)	44,95

(3) Attachment for 4 x 50 ml centrifuge tubes (29 mm)

Designation	Art. No.	Pack Qty.	€
Attachment for 4 centrifuge tubes	**ACP2.1**	1 unit(s)	53,40



Test tube shakers Vortex Mixer with multifunctional attachment

Heathrow Scientific.

Suitable for continuous or intermittent operation, with touch function, activated by applying pressure to the shaker attachment.

- With multifunctional attachment for six different vial types and a microtiter plate:
  2 x 50 ml centrifuge tubes (horizontal fitting)
  2 x 15 ml centrifuge tubes (horizontal fitting)
  4 x 1.5/2.0 ml reaction vials (vertical fitting)
  6 x 0.5 ml reaction vials (vertical fitting)
  24 x 0.2 ml reaction vials (vertical fitting)
  2 x 5 ml reaction vials (horizontal fitting)
  1 x microtiter plate
- A standard attachment for single-handed shaking of test tubes and vials is also integrated in the multifunctional platform
- Speed adjustment in three stages
- Attachment can be removed for cleaning
- 5 years warranty

Technical specifications:

Art. No.	CNH7.1
Type	Multi Vortex Mixer
Movement type	circular vibrating
Speed	1000/2000/3000 rpm
Shaking amplitude (stroke)	3,7 mm
W x D x H	171 x 190 x 197 mm
Weight	4 kg
Mains connection	220–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
Multi Vortex Mixer	**CNH7.1**	1 unit(s)	283,80

Vortexer, small shaker



Test tube shakers Genie® Vortex 1

Scientific Industries.

- Sturdy design with high stability
- For rapid, intensive mixing of samples
- Device starts at maximum speed when the attachment is pressed down, reducing the vortex time

Technical specifications:

Art. No.	AH32.1
Type	Genie® 1
Movement type	circular vibrating
Speed	2700 rpm
W x D x H	122 x 165 x 190 mm
Permissible ambient conditions	0 to +38 °C at 95% RH
Weight	4 kg
Mains connection	230–240 V, 50 Hz

Delivery incl. standard attachment (inside Ø 25 mm) for single-handed shaking of test tubes, sample tubes and reaction vials.

Type	Art. No.	Pack Qty.	€
Genie® 1	**AH32.1**	1 unit(s)	583,75

Accessories for Vortex-Genie® series

Scientific Industries.

Shaker dish

Designation	Art. No.	Pack Qty.	€
Shaker dish, Ø15 cm	**P509.1**	1 unit(s)	78,55

Replacement shaker dish, Ø 75 mm

Designation	Art. No.	Pack Qty.	€
Replacement shaker dish, Ø 75 mm	**P507.1**	1 unit(s)	53,70

Angular dish

Designation	Art. No.	Pack Qty.	€
Angular dish	**P512.1**	1 unit(s)	202,10



Test tube shakers REAX series

Heidolph.

Compact and powerful. High safety standard thanks to comparably strong pressure housing. The special design prevents fluid splashes from penetrating. Practical switching between intermittent and continuous operation.

Technical specifications:

Art. No.	L952.1	L953.1
Type	REAX top	REAX control
Movement type	circular vibrating	
Shaking frequency	0–2500 rpm	
Shaking amplitude (stroke)	5 mm	
Control accuracy	–	±2 %
Motor power input	42 W	
W x D x H	134 x 172 x 105 mm	
IP rating	22	
Permissible ambient conditions	+5 to +40 °C at 85% RH	
Weight	3.3 kg	

Delivery incl. small mounting plate for tubes up to Ø 20 mm.

Pic.	Type	Art. No.	Pack Qty.	€
	REAX top	**L952.1**	1 unit(s)	344,00
(1)	REAX control	**L953.1**	1 unit(s)	455,00



Accessories for REAX series test tube shakers

Heidolph.

(2) Mounting plate, large

For flasks up to 50 ml.

Designation	Art. No.	Pack Qty.	€
Mounting plate, large	**L954.1**	1 unit(s)	32,00

(3) Supporting rod with vessel holder

For securing test tubes or flasks during continuous operation.
Supporting rod made of V2A, length 210 mm.

Designation	Art. No.	Pack Qty.	€
Supporting rod with vessel holder	**H826.1**	1 unit(s)	87,00

(4) 10 holding rack

For max. 10 reaction vials (Ø 10 mm, L 60 mm).

Designation	Art. No.	Pack Qty.	€
10 holding rack	**L955.1**	1 unit(s)	36,00

Vortexer, small shaker



Test tube shakers Genie® Vortex Mixer series

Scientific Industries.

Robust and reliable shaking devices for rapid mixing and shaking of samples.

- Numerous accessories, such as attachments for test tubes, beakers, reaction vials, etc.
- Attachments are easy to change thanks to the snap-lock closure

Technical specifications:

Art. No.	P505.1	X561.1	HH64.1	PK04.1
Type	Vortex-Genie® 2	Vortex-Genie® 2T	Digital Vortex-Genie® 2	Digital Vortex-Genie® 2 Pulse
Movement type	circular vibrating			
Speed range	600 to 2700 rpm		500 to 2850 rpm	
Speed display	Scale		Digital	
Timer display	No	Scale Intermittent operation: 1 to 60 s Hands-free mode: 1 to 60 min	Digital Intermittent operation: 1 to 99 s Hands-free mode: 1 to 99 min	
W x D x H	122 x 165 x 165 mm			
Permissible ambient conditions	0 to +38 °C at 95 % RH			
Weight	4 kg			
Mains connection	230 V, 50/60 Hz			

Delivery incl. standard attachment (inside Ø 25 mm) and shaking tray (Ø 75 mm).

(1) Model: Vortex-Genie® 2
Intermittent operation (with automatic start, triggered by pressing the attachment) or continuous operation is possible.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Vortex-Genie® 2	**P505.1**	1 unit(s)	509,55

(2) Model: Vortex-Genie® 2T with integrated timer
Setting options: 1 to 60 s (intermittent operation), 1 to 60 min (hands-free mode) or continuous operation.

Type	Art. No.	Pack Qty.	€
Vortex-Genie® 2T	**X561.1**	1 unit(s)	833,15

(3) Model: Vortex-Genie® 2 Digital
With speed and time adjustment (timer function) via digital display. Setting options: 1 to 99 s (intermittent operation), 1 to 99 min (hands-free mode) or continuous operation. After not being used for 10 minutes, the mixer switches to „sleep“ mode. Speed increase in increments of 10 rpm.

Type	Art. No.	Pack Qty.	€
Digital Vortex-Genie® 2	**HH64.1**	1 unit(s)	867,55

(4) Model: Digital Vortex-Genie® 2 Pulse
Like the Digital Vortex-Genie® 2 with additional functions (but without the touch function):

- Programmable pulse function for various applications
- Depending on the selected pulse and pause duration, either a rapid and vigorous mixing of samples or an intermittent mixing function results. Interval programming is suitable for, for example, temperature-sensitive samples, which should be held in suspension and not warmed up.
- Pulse and pause duration (on/off) is adjustable from 0.1 s to 99 min

Type	Art. No.	Pack Qty.	€
Digital Vortex-Genie® 2 Pulse	**PK04.1**	1 unit(s)	619,20



Accessories for Vortex-Genie® series

Scientific Industries.

(1) TurboMix attachment
For simultaneous shaking of 12 x 1.5/2.0 ml reaction vials. Suitable for cell disintegration with glass beads. Highly efficient mixing.

Designation	Art. No.	Pack Qty.	€
TurboMix® attachment	**P517.1**	1 unit(s)	414,95

(2) Replacement standard attachment
For single-handed shaking of test tubes.

Designation	Art. No.	Pack Qty.	€
Replacement standard attachment	**P506.1**	1 unit(s)	53,70

(3) Rubber plate for shaking dish (Ø 75 mm)
For single-handed shaking of beakers, Erlenmeyer flasks, bottles, etc.

Delivery without shaker dish. A shaker dish (Ø 75 mm) is required for operation. Please order separately.

Designation	Art. No.	Pack Qty.	€
Replacement rubber plate with indents	**P508.1**	1 unit(s)	53,70

Vortexer, small shaker



Accessories for Vortex-Genie® series

Scientific Industries.

(4) Attachment for reaction vials
For shaking and mixing samples in reaction vials.

Delivery without shaker dish. The shaker dish of Ø 15 cm is required for set-up. Please order separately.

Designation	Art. No.	Pack Qty.	€
Attachment for reaction vials	**P510.1**	1 unit(s)	48,95

(5) Attachment for microtiter plates
For shaking and mixing cell cultures and other samples in microtiter plates.

Delivery without shaker dish. The shaker dish of Ø 15 cm is required for set-up. Please order separately.

Designation	Art. No.	Pack Qty.	€
Attachment for microtiter plates	**P511.1**	1 unit(s)	48,85

(6) Elastic bands for fastening beakers, flasks, etc.
For shaking and mixing samples in beakers, Erlenmeyer flasks, bottles, etc. Vessels are secured by the elastic bands.

Delivery without angular dish. The angular dish is required for set-up. Please order separately.

Designation	Art. No.	Pack Qty.	€
Elastic bands	**P513.1**	2 unit(s)	14,25

(7) Attachments for test tubes
For simultaneous shaking of multiple test tubes.

Delivery without angular dish. The angular dish is required for set-up. Please order separately.

Designation	Art. No.	Pack Qty.	€
Attachment for 12 test tubes of 9–16 mm	**P514.1**	1 unit(s)	26,30
Attachment for 8 test tubes of 14–29 mm	**P515.1**	1 unit(s)	26,30
Attachment for 4 test tubes of 29–37 mm	**P516.1**	1 unit(s)	26,30

(8) Attachment for centrifuge tubes/reaction vials
For shaking and mixing samples in centrifuge tubes/reaction vials.

Designation	Art. No.	Pack Qty.	€
Attachment for 12 centrifuge tubes of 15 ml (Ø 17 x L 120 mm)	**LY19.1**	1 unit(s)	192,45
Attachment for 6 centrifuge tubes of 50 ml (Ø 30 x L 115 mm)	**LY20.1**	1 unit(s)	174,15
Attachment for 6 centrifuge tubes of 50 ml, 6 centrifuge tubes of 15 ml and 12 reaction vials of 1.5/2.0 ml	**XX95.1**	1 unit(s)	217,15

(9) Horizontal attachment for 24 reaction vials, 1.5/2.0 ml

Designation	Art. No.	Pack Qty.	€
Horizontal attachment for 24 reaction vials, 1.5/2.0 ml	**1ALA.1**	1 unit(s)	268,75

Accessories for Vortex-Genie® series

Scientific Industries.

Shaker dish

Designation	Art. No.	Pack Qty.	€
Shaker dish, Ø15 cm	**P509.1**	1 unit(s)	78,55

Replacement shaker dish, Ø 75 mm

Designation	Art. No.	Pack Qty.	€
Replacement shaker dish, Ø 75 mm	**P507.1**	1 unit(s)	53,70

Angular dish

Designation	Art. No.	Pack Qty.	€
Angular dish	**P512.1**	1 unit(s)	202,10

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Vortexer, small shaker and accessories



Test tube shakers Vortex 2

IKA.

For short-term operation (touch function) or continuous operation.

- Stable thanks to sturdy zinc die-cast housing
- Attachments click into place
- Numerous accessories, e.g. attachments for reaction vials, microtitration plates, etc.

Technical specifications:

Art. No.	EHP7.1
Type	Vortex 2
Movement type	circular vibrating
Speed range	500 to 2500 rpm
Shaking amplitude (stroke)	4 mm
W x D x H	120 x 140 x 138 mm
Weight	3.9 kg
Mains connection	220–240/115/100 V, 50/60 Hz

Delivery incl. VG 3.1 standard attachment.

Type	Art. No.	Pack Qty.	€
Vortex 2	**EHP7.1**	1 unit(s)	293,00



Test tube shakers Vortex Genius 3

IKA.

Suitable for use over short periods (touch function), activated by applying pressure to the shaker attachment, or for continuous operation.

- Continuous speed adjustment
- Variety of accessories, e.g. attachments for test tubes, reaction vials, etc. (please order separately)
- Attachments simply click into place

Technical specifications:

Art. No.	EE34.1
Type	Vortex Genius 3
Movement type	circular vibrating
Speed range	500 to 2500 rpm
Shaking amplitude (stroke)	4 mm
W x D x H	127 x 149 x 136 mm

Delivery incl. standard attachment for test tubes and small vessels.

Type	Art. No.	Pack Qty.	€
Vortex Genius 3	**EE34.1**	1 unit(s)	457,00



Accessories for Vortex 2 and Genius 3 test tube shakers

IKA.

(1) VG 3.1 replacement standard attachment

Designation	Art. No.	Pack Qty.	€
VG 3.1 standard attachment	**EE35.1**	1 unit(s)	13,30

(2) VG 3.2 single-hand attachment

For single-handed shaking of Erlenmeyer flasks, bottles, etc. With rubber insert (Ø 88 mm).

Designation	Art. No.	Pack Qty.	€
VG 3.2 single-hand attachment	**EE36.1**	1 unit(s)	28,00

(3) VG 3.3 universal attachment

For mounting different inserts for test tubes and microtiter plates, etc. Please order separately. See accessories for VG 3.3 universal attachment.

Designation	Art. No.	Pack Qty.	€
VG 3.3 universal attachment	**EE37.1**	1 unit(s)	31,00



Accessories for VG 3.3 universal attachment

IKA.

(4) Test tube inserts

Designation	Art. No.	Pack Qty.	€
for 54 x 1.5/2.0 ml reaction vials (type: VG 3.31)	**EE38.1**	1 unit(s)	73,00
for 18 test tubes Ø 10 mm (type: VG 3.32)	**EE39.1**	1 unit(s)	39,00
for 12 test tubes Ø 12 mm (type: VG 3.33)	**EE40.1**	1 unit(s)	39,00
for 8 test tubes Ø 16 mm (type: VG 3.34)	**EE41.1**	1 unit(s)	39,00
for 8 test tubes Ø 20 mm (type: VG 3.35)	**EE42.1**	1 unit(s)	39,00

(5) VG 3.36 Erlenmeyer flask tightening strap

Tightening strap for 1 Erlenmeyer-/round-bottom flask of 100 to 250 ml.

Designation	Art. No.	Pack Qty.	€
VG 3.36 Erlenmeyer tightening strap	**EE43.1**	1 unit(s)	39,00

(6) VG 3.37 microtiter plate insert

VG 3.37 microtiter plate insert, for 1 microtiter plate.

Designation	Art. No.	Pack Qty.	€
VG 3.37 microtiter plate insert	**EE44.1**	1 unit(s)	39,00



Shakers RS series

Phönix Instrument.

Suitable for agitating five Petri dishes, with optional attachment for Erlenmeyer flasks.

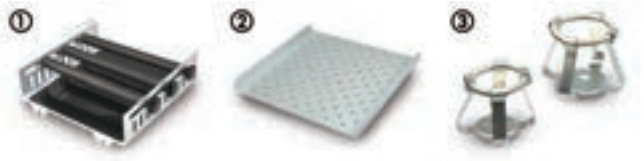
- Max. load capacity: 3 kg
- Continuous speed adjustment

Technical specifications:

Art. No.	CAX8.1	CAX9.1
Type	RS-OS 5	RS-LS 5
Movement type	circular	back and forth
Speed range	0 to 200 rpm	
Shaking amplitude (stroke)	20 mm	
Shaking surface area	240 x 240 mm	
W x D x H	245 x 310 x 125 mm	
Loading capacity	3 kg	
Permissible ambient conditions	+4 to +40 °C at 80 % RH	
Weight	3.1 kg	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. tray top with 6 fixing bands.

Type	Art. No.	Pack Qty.	€
RS-OS 5	**CAX8.1**	1 unit(s)	499,90
RS-LS 5	**CAX9.1**	1 unit(s)	499,90



Accessories for RS series platform shakers

Phönix Instrument.

(1) Universal attachment
Loading options: E.g. 6 x 250 ml Erlenmeyer flasks.

Delivery incl. 3 adjustable tension rollers.

Designation	Art. No.	Pack Qty.	€
Universal attachment	**CAY0.1**	1 unit(s)	145,15

(2) Spring clip attachment
For shaking of Erlenmeyer flasks. With holes for individual placement of spring clips.

Delivery without spring clips, please order separately.

Designation	Art. No.	Pack Qty.	€
Spring clip attachment	**CAY1.1**	1 unit(s)	145,15

Accessories spring clip for RS series attachment

Phönix Instrument.

(3)

Designation	Art. No.	Pack Qty.	€
Spring clip for 25 ml flasks (max. 18)	**CAY2.1**	1 unit(s)	28,95
Spring clip for 50 ml flasks (max. 18)	**CAY3.1**	1 unit(s)	31,10
Spring clip for 100 ml flasks (max. 9)	**CAY4.1**	1 unit(s)	31,10
Spring clip for 250 ml flasks (max. 6)	**CAY5.1**	1 unit(s)	40,75
Spring clip for 500 ml flasks (max. 4)	**CAY6.1**	1 unit(s)	43,70



Shakers Orbital digital

Heathrow Scientific.

- Circular movement
- Plates, petri dishes, glass flasks and culture bottles can be secured flexibly using elastic bands
- Digital display of speed and operating time
- Electronic speed control with soft start-up
- Loading options: E.g. 9 x 250 ml Erlenmeyer flasks or 4 x 500 ml Erlenmeyer flasks or 4 x 1000 ml Erlenmeyer flasks or 16 x 250 ml beakers or 4 x 1000 ml beakers
- 5 years warranty

Technical specifications:

Art. No.	PY67.1
Type	Digital orbital shaker
Movement type	circular
Speed range	20 to 300 rpm
Shaking amplitude (stroke)	19 mm
Timer	1 min to 49 h or continuous operation
Shaking surface area	279 x 279 mm
W x D x H	314 x 312 x 197 mm
Loading capacity	4.5 kg
Permissible ambient conditions	+2 to +40 °C at 80% RH
Mains connection	100–240 V, 50/60 Hz

Delivery incl. platform with rubber mat and 8 elastic bands.

Type	Art. No.	Pack Qty.	€
Digital orbital shaker	**PY67.1**	1 unit(s)	1.070,70



Shakers Genie® Mini-100 Orbital

Scientific Industries.

- Max. load capacity: 3 kg
- Continuous speed adjustment
- Can be expanded to three levels with additional platforms, please order separately

Technical specifications:

Art. No.	HHP1.1
Type	Mini-100 Orbital-Genie®
Movement type	circular
Speed range	20 to 100 rpm
Shaking amplitude (stroke)	19 mm
Shaking surface area	290 x 290 mm
W x D x H	350 x 350 x 90 mm
Permissible ambient conditions	0 to +38 °C at 95% RH
Weight	3.5 kg
Mains connection	230 V, 50 Hz

Delivery incl. tray top and anti-slip mat.

Type	Art. No.	Pack Qty.	€
Mini-100 Orbital-Genie®	**HHP1.1**	1 unit(s)	1.069,65



Accessories platform for Genie® Mini-100 Orbital shaker

Scientific Industries.

Can be expanded with additional platforms as a second and third level. Dimensions: Shaker surface 290 x 290 mm. Dimensions: W 318 mm x D 318 mm x H 114 mm. Weight 1.3 kg.

Designation	Art. No.	Pack Qty.	€
Attachment system for Genie® Mini-100 Orbital	**HHP2.1**	1 unit(s)	201,05



Shakers Hei-MIX series

Heidolph.

Shaking devices for universal use.

- Type of movement: Circular, vibrating
- Continuous speed adjustment
- Speed display: Scale
- With overheating protection
- Minimum self-heating
- Maintenance-free motors

Technical specifications:

Art. No.	H831.1	H832.1
Type	Tritamax 100	Vibramax 100
Movement type	circular vibrating	
Speed range	150 to 1350 rpm	
Orbit	1.5 mm	3 mm
Timer	0 to 120 min or continuous operation	
Motor power input	15 W	
Shaking surface area	220 x 220 mm	
W x D x H	245 x 310 x 125 mm	
Loading capacity	2 kg	
IP rating	30	
Weight	5.5 kg	
Mains connection	230–240 V, 50/60 Hz	

(1) Titramax 100
The special holders can hold up to four microtiter plates with a size of 85 x 128 mm.

Type	Art. No.	Pack Qty.	€
Tritamax 100	**H831.1**	1 unit(s)	1.042,00

(2) Vibramax 100
An attachment with two adjustable tension rollers is available as an accessory (please order separately).

Delivery incl. rubber pad with edge bead.

Type	Art. No.	Pack Qty.	€
Vibramax 100	**H832.1**	1 unit(s)	1.070,00



Shakers KS 130 basic complete set

IKA.

Suitable for mixing liquids in various vessels using different attachments.

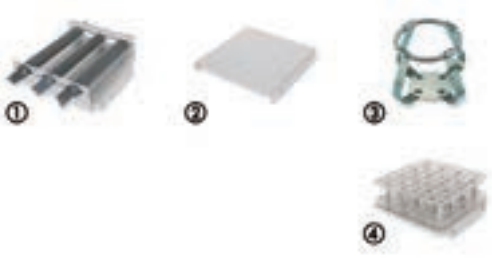
- Circular movement
- Speed display: 10-LED display bar with scale in graduations of 80 rpm
  Time adjustment: 10-LED display bar with scale in increments of 5 min
- Max. shaking weight up to 2 kg

Technical specifications:

Art. No.	PA19.1
Type	KS 130 basic
Movement type	circular
Speed range	80 to 800 rpm
Shaking amplitude (stroke)	4 mm
Timer	5 to 50 min or continuous operation
W x D x H	270 x 316 x 98 mm
Loading capacity	2 kg
Permissible ambient conditions	+5 to +50 °C at 80% RH
Weight	8.8 kg

Delivery incl. AS 130.3 tray top (mounting surface: W 340 x D 220 mm) for culture bottles and petri dishes, with integrated anti-slip mat.

Type	Art. No.	Pack Qty.	€
KS 130 basic	**PA19.1**	1 unit(s)	2.032,00



Accessories and attachment systems for KS 130 basic shaker

IKA.

(1) AS 130.1 universal attachment
Suitable for use with all types of vessels thanks to infinitely adjustable clamping rollers. Mounting surface 220 x 220 mm.

Delivery incl. 3 tension rollers.

Designation	Art. No.	Pack Qty.	€
AS 130.1 universal attachment	**PA23.1**	1 unit(s)	399,00

(2) AS 130.2 fixing clip attachment
Suitable for shaking of e.g. round-bottom flasks, volumetric flasks and Erlenmeyer flasks. Dimensions: W 230 x D 230 x H 24 mm.
Max. number:
20 fixing clips for 25 ml flasks or
12 fixing clips for 50 ml flasks or
12 fixing clips for 100 ml flasks or
4 fixing clips for 200/250 ml flasks or
4 fixing clips for 500 ml flasks

Delivery without fixing clips (3), please order separately.

Designation	Art. No.	Pack Qty.	€
AS 130.2 fixing clip attachment	**PA24.1**	1 unit(s)	120,00

(3) Fixing clips

Designation	Art. No.	Pack Qty.	€
Fixing clips for 25 ml flasks	**X185.1**	1 unit(s)	30,00
Fixing clips for 50 ml flasks	**X186.1**	1 unit(s)	30,00
Fixing clips for 100 ml flasks	**X187.1**	1 unit(s)	30,00
Fixing clips for 200/250 ml flasks	**X188.1**	1 unit(s)	56,00
Fixing clips for 500 ml flasks	**X189.1**	1 unit(s)	56,00
Fixing clips for 1000 ml flasks	**PA26.1**	1 unit(s)	56,00

(4) AS 130.4 test tube attachment
For intensive shaking of, for example, small tubes, test tubes and centrifuge tubes. For 64 sample tubes with Ø 10 to 16 mm. Minimum sample tube height: 80 mm.
Dimensions: W 200 x D 230 x H 95 mm.

Designation	Art. No.	Pack Qty.	€
AS 130.4 test tube attachment	**PA25.1**	1 unit(s)	269,00



Shakers Rotamax 120

Heidolph.

Suitable for agitating five petri dishes, with optional attachment for Erlenmeyer flasks up to 1000 ml.

- Max. load capacity: 2 kg
- Continuous speed adjustment
- Speed display with scale

Technical specifications:

Art. No.	LY47.1
Type	Rotamax 120
Movement type	Circular
Speed range	20 to 300 rpm
Shaking amplitude (stroke)	20 mm
Timer	0 to 120 min or continuous operation
Shaking surface area	220 x 220 mm
W x D x H	245 x 310 x 125 mm
Loading capacity	2 kg
Permissible ambient conditions	0 to +50 °C at 80 % RH
Weight	5.5 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. slip-resistant rubber mat with raised edge.

Type	Art. No.	Pack Qty.	€
Rotamax 120	**LY47.1**	1 unit(s)	1.170,00



Accessories for Rotamax 120 platform shaker

Heidolph.

(1) Universal attachment
With two adjustable tension rollers.

Designation	Art. No.	Pack Qty.	€
Universal attachment for Vibramax 100 and Rotamax 120, with two adjustable tension rollers	**H833.1**	1 unit(s)	133,00

Additional tension roller compatible with the universal attachment.

Designation	Art. No.	Pack Qty.	€
Additional tension roller for the Rotamax 120 universal attachment	**LY48.1**	1 unit(s)	39,00

(2) Spring clip attachment for Tablar 100 perforated board
For shaking of Erlenmeyer flasks. With holes for individual placement of spring clips.
Maximum number:
16 spring clips for 25 ml flasks or
16 spring clips for 50 ml flasks or
8 spring clips for 100 ml flasks or
5 spring clips for 250 ml flasks or
3 spring clips for 500 ml flasks or
2 spring clips for 1000 ml flasks

Delivery without spring clips (3), please order separately.

Designation	Art. No.	Pack Qty.	€
Spring clip attachment for Tablar 100 perforated board	**LY49.1**	1 unit(s)	82,00

Accessories spring clip for Tablar 100 and 2000

Heidolph.

Designation	Art. No.	Pack Qty.	€
Spring clip for 25 ml flasks	**HL12.1**	1 unit(s)	20,85
Spring clip for 50 ml flasks	**HL13.1**	1 unit(s)	24,00
Spring clip for 100 ml flasks	**HL14.1**	1 unit(s)	27,00
Spring clip for 250 ml flasks	**HL15.1**	1 unit(s)	34,00
Spring clip for 500 ml flasks	**HL16.1**	1 unit(s)	37,00
Spring clip for 1000 ml flasks	**HL17.1**	1 unit(s)	44,00
Spring clip for 2000 ml flasks	**KA43.1**	1 unit(s)	64,00



Shakers Vibrax® VXR basic

IKA.

Features:

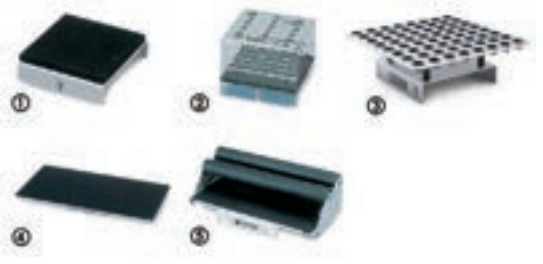
- Circular movement
- Continuous speed adjustment
- Speed display with scale
- Max. load capacity: 2 kg
- Suitable for continuous operation

Technical specifications:

Art. No.	Y517.1
Type	VXR basic Vibrax®
Movement type	circular
Speed range	0 to 2200 rpm
Shaking amplitude (stroke)	4 mm
Motor power input	35 W
Motor power output	13.2 W
W x D x H	157 x 247 x 130 mm
Loading capacity	2 kg
Weight	5.7 kg

Delivery without attachment, please order separately.

Type	Art. No.	Pack Qty.	€
VXR basic Vibrax®	**Y517.1**	1 unit(s)	1.790,00



Accessories for shaker Vibrax® VXR basic

IKA.

(1) VX 1 single-hand attachment
For shaking individual, non-fixed vessels of 1–250 ml.
Dimensions: W 130 x D 135 x H 40 mm. Weight 160 g.

Designation	Art. No.	Pack Qty.	€
VX 1 single-hand attachment	**Y518.1**	1 unit(s)	115,00

(2) VX 2 test tube attachment
For up to 36 test tubes or centrifuge tubes of Ø 16 mm.
Dimensions: W 140 x D 145 x H 115 mm. Weight 300 g.

Designation	Art. No.	Pack Qty.	€
VX 2 test tube attachment	**Y519.1**	1 unit(s)	471,00

(3) VX 2E reaction vial attachment
For intensive shaking of up to 64 reaction vials of 1.5 ml.
Dimensions: W 210 x D 210 x H 39 mm. Weight 368 g.

Designation	Art. No.	Pack Qty.	€
VX 2E reaction vial attachment	**Y520.1**	1 unit(s)	457,00

(4) VX 7 tray top
For gentle shaking, for example of culture flasks and petri dishes.
Dimensions: W 410 x D 210 x H 40 mm. Weight 740 g.

Designation	Art. No.	Pack Qty.	€
VX 7 tray top	**Y521.1**	1 unit(s)	333,00

(5) VX 8 universal attachment
For quick and secure clamping of e.g. 2 x 500 ml Erlenmeyer flasks.
Clamping range 25 to 135 mm.
Minimum vessel height: 80 mm. Dimensions: W 265 x D 136 x H 60 mm.
Weight 760 g.

Designation	Art. No.	Pack Qty.	€
VX 8 universal attachment	**Y522.1**	1 unit(s)	799,00



Shakers Hei-MIX series

Heidolph.

Infinitely variable speed. With timer, or can be set to continuous operation. Different attachments can be fitted as necessary.

Technical specifications:

Art. No.	H834.1	H835.1	H836.1	H837.1
Type	UNIMAX 1010	PROMAX 1020	DUOMAX 1030	POLYMAX 1040
Movement type	Circular	Back and forward	See-saw	Wobbling
Speed range	30 to 500 rpm	30 to 250 rpm	2 to 50 rpm	
Shaking amplitude (stroke)	10 mm	32 mm		
Angle			5 °	
Speed display	Digital		Scale	
Timer display	Digital (0–999 min)		Timer (0–120 min)	
Shaking surface area	258 x 290 mm			
W x D x H	320 x 375 x 125 mm		320 x 375 x 185 mm	320 x 375 x 195 mm
Loading capacity	5 kg			
Weight	8 kg			
Mains connection	230–240 V, 50/60 Hz			

Delivery incl. rubber support with raised edge. Suitable for operation with an incubator (compatible with incubator 1000, Art. No. H844.1).

(1) UNIMAX 1010 orbital shaker
Rotating (circular) movement. Digital display. Operated using a membrane keyboard. Set the shaking frequency using a rotary switch.

Type	Art. No.	Pack Qty.	€
UNIMAX 1010	**H834.1**	1 unit(s)	1.766,00

(2) PROMAX 1020 back and forward shaker
Back and forward movement. Digital display. Operated using a membrane keyboard. Set the shaking frequency using a rotary switch.

Type	Art. No.	Pack Qty.	€
PROMAX 1020	**H835.1**	1 unit(s)	1.743,00

(3) DUOMAX 1030 gyratory shaker
See-saw motion, 5° inclination angle. Operated using a rotary switch.

Type	Art. No.	Pack Qty.	€
DUOMAX 1030	**H836.1**	1 unit(s)	1.667,00

(4) POLYMAX 1040 wobble shaker
Three-dimensional wobbling movement, 5° inclination angle. Operated using a rotary switch.

Type	Art. No.	Pack Qty.	€
POLYMAX 1040	**H837.1**	1 unit(s)	1.670,00



Accessories attachment for UNIMAX 1010, PROMAX 1020, DUOMAX 1030 and POLYMAX 1040 shakers

Heidolph.

Designation	Art. No.	Pack Qty.	€
Attachment for 14 x 50 ml Erlenmeyer flasks	**H838.1**	1 unit(s)	220,00
Attachment for 9 x 100 ml Erlenmeyer flasks	**H839.1**	1 unit(s)	202,00
Attachment for 5 x 250 ml Erlenmeyer flasks	**H840.1**	1 unit(s)	181,00
Attachment for 4 x 500 ml Erlenmeyer flasks	**KA78.1**	1 unit(s)	179,00
Attachment for 2 x 1000 ml Erlenmeyer flasks	**KA79.1**	1 unit(s)	167,00
Universal attachment with two tension rollers	**H841.1**	1 unit(s)	270,00
Attachment for 4 x 50 or 100 ml separating funnels	**H842.1**	1 unit(s)	301,00



Incubator 1000 for shakers of 5 kg class

Heidolph.

Properties:

- Fast heat up, no condensation develops in the system
- Ideal for large-volume for high vessels, such as Erlenmeyer flasks up to 1000 ml
- Compatible with Unimax 1010, Promax 1020, Duomax 1030 and Polymax 1040 shakers (please order separately)
- Foldable hood
- Electronic temperature control with two-digit display of setpoint and actual value
- Electric convection heater with fan

Technical specifications:

Art. No.	H844.1
Type	Incubator 1000
Operating temperature	+5 °C above room temperature up to +65 °C
Accuracy	±2 K (to 50 °C) ±4 K (from 50 to 65 °C)
W x D x H, external	546 x 394 x 267 mm
Heating output	300 W
Mains connection	230–240 V, 50/60 Hz

Delivery incl. heating module with incubation hood, please order desired shaker separately.

Type	Art. No.	Pack Qty.	€
Incubator 1000	**H844.1**	1 unit(s)	1.886,00



Shakers Multi Reax

Heidolph.

Properties:

- Digital speed display
- Type of movement: Circular, vibrating
- With overheating protection
- With holder for 26 vessels, Ø 10 to 16 mm, max. length 160 mm and holder for 12 vessels, Ø 16 to 32 mm, max. length 120 mm

Technical specifications:

Art. No.	Y359.1
Type	Multi Reax
Movement type	circular vibrating
Speed range	150 to 2000 rpm
Shaking amplitude (stroke)	3 mm
Speed display	Digital
Timer	0 to 999 min or continuous operation
Motor power input	50 W
W x D x H	270 x 410 x 172 mm
Permissible ambient conditions	0 to +50 °C at 80% RH
Weight	9.8 kg
Mains connection	230–240 V, 50 Hz

Type	Art. No.	Pack Qty.	€
Multi Reax	**Y359.1**	1 unit(s)	1.539,00



Shaker KM 2 series

Edmund Bühler.

Technical specifications:

Art. No.	L646.1	H696.1
Type	KM 2	KM 2 battery with power supply unit/charger
Movement type	circular	
Speed range	30 to 220 rpm	
Shaking amplitude (stroke)	20 mm	
Timer	0 to 99 h, 59 min or continuous operation	
Shaking surface area	200 x 295 mm	
W x D x H	250 x 415 x 145 mm	
Loading capacity	2 kg	
Permissible ambient conditions	+4 to +45 °C at 95% RH	
Weight	10 kg	

Delivery incl. basic unit with swinging attachment and finely scored mat.

(1) KM 2 Standard

- Space-saving orbital shaker
- LED display to set the speed and operating time
- Robust, sturdy housing

Type	Art. No.	Pack Qty.	€
KM 2	**L646.1**	1 unit(s)	1.695,30

(2) KM 2, battery-powered

- Circular shaking movement
- LED display to set the speed and operating time, as well as a visualisation of the charging status
- Suitable for **use in cooling cabinets and incubators** thanks to the low heat emission
- Rechargeable battery allows operation without mains connection (minimum running time with maximum load: 40 hours).
- The battery can be recharged or set to continuous operation with a power supply unit/charging device. The power supply unit must be placed outside of the cooling cabinet/incubator.

Type	Art. No.	Pack Qty.	€
KM 2 battery with power supply unit/charger	**H696.1**	1 unit(s)	2.199,45

Accessories for cordless KM 2, KM 2 and KM CO_2 shakers

Edmund Bühler.

(3) Universal board

For individual placement of spring clips. L 300 mm x W 356 mm.
Max. Number per board:
29 fixing clips for 25 ml flasks or
27 fixing clips for 50 ml flasks or
24 fixing clips for 100 ml flasks or
12 fixing clips 250 ml flasks or
8 fixing clips 500 ml flasks or
5 fixing clips 1000 ml flasks or
2 fixing clips 2000 ml flasks

Delivery without spring clips (please order separately; see shaker accessories).

Designation	Art. No.	Pack Qty.	€
Universal board	**L647.1**	1 unit(s)	233,30

KM tension roller

For securely fastening upright vessels to the KM 2 cordless and KM 2. Loading options, e.g. 2 x 1000 ml Erlenmeyer flasks or 9 x 100 ml Erlenmeyer flasks. The KM tension roller is fixed to the edge of the shaker swivel plate with star-shaped grip screws.

Designation	Art. No.	Pack Qty.	€
KM tension roller	**T519.1**	1 unit(s)	54,30



Combi-shaker KL 2

Edmund Bühler.

Practical small shaker which can be switched between **circular and back and forward movements** at any time.

- **Loading capacity: 2 kg**
- Infinitely adjustable, electronic control
- Optional accessories available: Tension roller, clamping roller and spring roller – see shaker accessories
- Loading options, e.g. 4 x 500 ml Erlenmeyer flasks or 2 x 1000 ml Erlenmeyer flasks

Technical specifications:

Art. No.	P436.1
Type	KL 2
Speed range	30 to 420 rpm
Shaking amplitude (stroke)	8 mm
Timer	0 to 120 min or continuous operation
Shaking surface area	300 x 300 mm
W x D x H	355 x 455 x 195 mm
Weight	12.5 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. rack attachment with three tension rollers h and finely scored mat.

Type	Art. No.	Pack Qty.	€
KL 2	**P436.1**	1 unit(s)	2.004,90



Flask shaker SF1

Stuart.

Simulates an intensive hand movement.

- For max .8 Erlenmeyer flasks or 500 ml screw top bottles
- Sturdy design with four vibration-absorbing feet
- Speed: 8-800 oscillations/min

Technical specifications:

Art. No.	EP81.1
Type	SF 1
Shaking amplitude (stroke)	1,5 mm
Timer	10 to 60 min or continuous operation
W x D x H	780 x 270 x 240 mm
Loading capacity	3 kg
Weight	8.3 kg
Mains connection	230 V, 50 Hz

Delivery incl. clamps.

Type	Art. No.	Pack Qty.	€
SF 1	**EP81.1**	1 unit(s)	2.059,00



Shakers Hei-Mix series

Heidolph.

Use different attachments to mix liquids in Erlenmeyer flasks, staining jars and petri dishes.

- Digital speed display
- **Large platform for holding numerous samples. Shaking surface: W 390 x D 340 mm**

Technical specifications:

Art. No.	HL06.1	HL07.1	HL08.1
Type	Unimax 2010	Promax 2020	Polymax 2040
Movement type	circular	back and forth	staggering
Speed range	20 to 400 rpm		2,5 to 50 rpm
Shaking amplitude (stroke)	20 mm		
Angle			5 °
Speed display	digital		
Timer	0 to 120 min or continuous operation		
Shaking surface area	390 x 340 mm		
W x D x H	426 x 455 x 135 mm		426 x 455 x 208 mm
Loading capacity	10 kg		
Permissible ambient conditions	0 to +50 °C at 80% RH		
Weight	16 kg		
Mains connection	230–240 V, 50 Hz		

Delivery incl. rubber support with raised edge.

Type	Art. No.	Pack Qty.	€
Unimax 2010	**HL06.1**	1 unit(s)	2.494,00
Promax 2020	**HL07.1**	1 unit(s)	2.592,00
Polymax 2040	**HL08.1**	1 unit(s)	2.722,00



Accessories and attachment systems for laboratory shakers Hei-Mix series

Heidolph.

(2) Base frame for tension rollers
Used together with tension rollers for fastening a variety of vessels.

Delivery without tension rollers, please order separately.

Designation	Art. No.	Pack Qty.	€
Base frame for tension rollers	**HL09.1**	1 unit(s)	183,00

(3) Tension roller for base frame
Used together with the base frame for fastening a variety of upright vessels. Loading options: E.g. 20 x 100 ml Erlenmeyer flasks or 9 x 500 ml Erlenmeyer flasks. Please order at least two pieces.

Designation	Art. No.	Pack Qty.	€
Tension roller for base frame	**HL10.1**	1 unit(s)	62,00

(4) Universal board 2000
For shaking of Erlenmeyer flasks. With holes for individual placement of spring clips.
Max. number per board:
36 fixing clips for 25 ml flasks or
36 fixing clips for 50 ml flasks or
23 fixing clips for 100 ml flasks or
12 fixing clips for 250 ml flasks or
9 fixing clips for 500 ml flasks or
5 fixing clips for 1000 ml flasks or
3 fixing clips for 2000 ml flasks

Delivery without spring clips, please order separately.

Designation	Art. No.	Pack Qty.	€
Universal board 2000	**HL11.1**	1 unit(s)	187,00

Accessories spring clip for Tablar 100 and 2000

Heidolph.

Designation	Art. No.	Pack Qty.	€
Spring clip for 25 ml flasks	**HL12.1**	1 unit(s)	20,85
Spring clip for 50 ml flasks	**HL13.1**	1 unit(s)	24,00
Spring clip for 100 ml flasks	**HL14.1**	1 unit(s)	27,00
Spring clip for 250 ml flasks	**HL15.1**	1 unit(s)	34,00
Spring clip for 500 ml flasks	**HL16.1**	1 unit(s)	37,00
Spring clip for 1000 ml flasks	**HL17.1**	1 unit(s)	44,00
Spring clip for 2000 ml flasks	**KA43.1**	1 unit(s)	64,00



Shaker KS series

Edmund Bühler.

Technical specifications:

Art. No.	P432.1	L490.1	P433.1	L491.1
Type	KS 15 A		KS 15 B	KS 15 B control
Movement type	circular		back and forth	
Speed range	30 to 420 rpm			
Shaking amplitude (stroke)	17 mm			
Speed display		Digital		Digital
W x D x H	510 x 490 x 150 mm			
Loading capacity	15 kg			
Weight	22 kg			
Mains connection	230 V, 50/60 Hz			

Delivery without attachment, please order separately. Can be used with TH 15 incubation hood as a shake incubator (please order separately, Art. No. L492.1, see shaker accessories).

Models: KS Standard

- KS 15 A: Circular motion
- KS 15 B: Back/forward motion
- Without digital display

Type	Art. No.	Pack Qty.	€
KS 15 A	**P432.1**	1 unit(s)	2.075,85
KS 15 B	**P433.1**	1 unit(s)	2.146,80

Models: KS control

- KS 15 A control: Circular movement
- KS 15 B control: Back/forward movement
- With digital display of target and actual speed
- Preset function for the most recently selected setting, and programming of variable sequential programmes (shaking frequency and operating time)

Type	Art. No.	Pack Qty.	€
KS 15 A	**L490.1**	1 unit(s)	3.069,15
KS 15 B control	**L491.1**	1 unit(s)	3.145,45

Accessories platform for KS series shakers

Edmund Bühler.

Combifix KS standard attachment
Rack attachment with three tension rollers and finely scored rubber mat. Shaking surface 400 x 275 mm. For secure fastening of upright vessels. Loading options: E.g. 20 x 100 ml Erlenmeyer flasks or 2 x 2000 ml Erlenmeyer flasks. Can also be used for other vessels with additional rollers (see shaker accessories).

Designation	Art. No.	Pack Qty.	€
Combifix KS standard attachment	**T497.1**	1 unit(s)	422,50

KS universal board
Coated board with holes for individual placement of spring clips or test tube racks. Shaking surface 430 x 300 mm. Loading options: E.g. 15 x 250 ml Erlenmeyer flasks or 5 x 1000 ml Erlenmeyer flasks.

Delivery without spring clips, please order separately (see shaker accessories).

Designation	Art. No.	Pack Qty.	€
KS universal board	**P434.1**	1 unit(s)	276,30



Accessories spring roller / clamping roller

Edmund Bühler.

Suitable for

- KS 15A/B compact shaker (L490.1, L491.1, P432.1, P433.1)
- KL2 combi-shaker (P436.1)
- KS standard attachment (T497.1)

Both rollers are required for fixing separating funnels.

Designation	Art. No.	Pack Qty.	€
Clamping roller	**L669.1**	1 unit(s)	134,40
Spring roller	**L670.1**	1 unit(s)	118,25



Accessories test tube rack made of stainless steel

Edmund Bühler. Material: Stainless steel.

Can be secured to rack attachments using tension rollers h. Possible to secure to universal boards in combination with a swivel base (please order separately). The inclination angle of the rack can be adjusted using the swivel base.

Delivery without swivel base. Required for fastening to universal boards.

Type	Art. No.	Pack Qty.	€
for 68 test tubes Ø 14 mm	**T498.1**	1 unit(s)	105,60
for 44 test tubes Ø 16 mm	**T499.1**	1 unit(s)	105,60
for 44 test tubes Ø 18 mm	**T500.1**	1 unit(s)	105,60
for 14 sample/centrifuge tubes Ø 30 mm	**AH14.1**	1 unit(s)	125,80

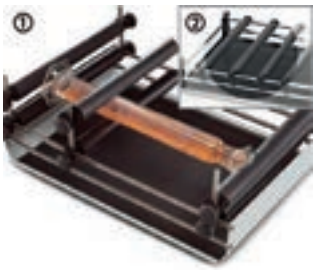


Accessories spring clip

Edmund Bühler.

For fastening Erlenmeyer flasks to the universal boards.

Designation	Art. No.	Pack Qty.	€
for 10 ml Erlenmeyer flasks	**L648.1**	1 unit(s)	18,50
for 25 ml Erlenmeyer flasks	**L649.1**	1 unit(s)	19,80
for 50 ml Erlenmeyer flasks	**L650.1**	1 unit(s)	20,90
for 100 ml Erlenmeyer flasks	**L651.1**	1 unit(s)	25,05
for 250 ml Erlenmeyer flasks	**L652.1**	1 unit(s)	31,50
for 500 ml Erlenmeyer flasks	**L653.1**	1 unit(s)	37,00
for 1000 ml Erlenmeyer flasks	**L654.1**	1 unit(s)	40,65
for 2000 ml Erlenmeyer flasks	**L655.1**	1 unit(s)	55,15



Accessories tension roller h/v

Edmund Bühler.

Suitable for

KS 15A/B compact shaker (L490.1, L491.1, P432.1, P433.1), KL2 combi-shaker (P436.1) and KS standard attachment (T497.1)

Tension rollers h

For fastening all flat-bottomed vessels, such as Erlenmeyer flasks, beakers, test tube racks, etc.

Tension rollers v

Used in combination with tension rollers h, to fasten horizontal vessels or to support tall vessels from the side. Maximum distance between the rollers: 60 mm.

Pic.	Designation	Art. No.	Pack Qty.	€
(1)	Tension roller v	**L668.1**	1 unit(s)	99,15
(2)	Tension roller h	**P435.1**	1 unit(s)	79,90



Incubation hood TH 15

Edmund Bühler.

Suitable for:

- KS 15A/B compact shaker (L490.1, L491.1, P432.1, P433.1)
- Microtritation plates shaker TiMix 5 (T490.1, T491.1, T492.1)

Technical specifications:

Art. No.	L492.1
Type	Incubation hood TH 15
Operating temperature	+5 °C above room temperature up to +50 °C
Accuracy	±1 % of adjusting value
W x D x H, external	510 x 460 x 470 mm
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
Incubation hood TH 15	**L492.1**	1 unit(s)	3.690,50



Shakers SM series

Edmund Bühler.

Desktop shakers for high loading in continuous operation.

- All necessary parameters are set with rotary knobs
- Electronic speed control with soft start-up
- Constant speed/operation even with different loads

Together with the TH 30 incubation hood, can be used as a shaking incubator (please order incubation hood separately).

Technical specifications:

Art. No.	AH15.1	AH16.1	AH17.1
Type	Model: A	Modell B	Modell C
Movement type	circular	back and forth	circular / back and forth
Speed range	15 to 300 rpm		
Shaking amplitude (stroke)	26 mm	30 mm	26 mm
Timer	0 to 120 min or continuous operation		
W x D x H	680 x 615 x 160 mm		
Loading capacity	30 kg		
Permissible ambient conditions	5 to 50 °C at 85 % RH		
Weight	32 kg		
Mains connection	230 V, 50/60 Hz		

Delivery incl. basic unit inclusive swivel plate and rubber mat. Without rack attachment, please order the required rack attachment separately.

Universal SM series model: SM 30 A
With circular shaking movement.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Model: A	**AH15.1**	1 unit(s)	3.336,80

Universal SM series model: SM 30 B
With back and forward shaking movement (horizontal).

Type	Art. No.	Pack Qty.	€
Modell B	**AH16.1**	1 unit(s)	3.405,60

Universal SM series model: SM 30 C
Can be switched between circular or back and forward movement.

Type	Art. No.	Pack Qty.	€
Modell C	**AH17.1**	1 unit(s)	4.417,20

Accessories platform for SM 30 universal shaker

Edmund Bühler.

Combifix SM rack attachment, set A
Rack with 5 tension rollers h. For secure mounting of various upright vessels. Loading options: E.g. 6 x 2000 ml Erlenmeyer flasks or 20 x 250 ml Erlenmeyer flasks. Platform size: W 560 x D 400 mm.

Designation	Art. No.	Pack Qty.	€
Combifix SM, set A	**AH18.1**	1 unit(s)	469,80

(2) Combifix SM rack attachment, set B
Rack with 4 tension rollers h and 4 tension rollers v. For clamping horizontal vessels between tension rollers or for tall vessels. Distance between the h + v rollers: Max. 60 mm. Loading options: E.g. 6 x 2000 ml or 12 x 500 ml Erlenmeyer flasks.

Designation	Art. No.	Pack Qty.	€
Combifix SM, set B	**AH19.1**	1 unit(s)	584,80

(3) SM universal board
Coated board with holes for individual placement of spring clips and test tube racks. Loading options: E.g. 11 x 1000 ml or 23 x 250 ml Erlenmeyer flasks.

Delivery without spring clips and test tube rack, please order separately (see shaker accessories).

Designation	Art. No.	Pack Qty.	€
SM universal board	**AH20.1**	1 unit(s)	315,00



Incubation hood TH 30

Edmund Bühler.

Temperature control chambers with standard and UV lighting. Combined with the SM shakers, it can be used either as a complete shaker incubator, or as an independent unit. A socket for smaller devices is mounted inside the hood.

Standard features:

- Coated metal housing with 3 windows
- The front door opens upwards
- Safety switch-off of UV light and automatic shaker stop when the front door is opened (when combined with universal shakers SM 30)
- Lighting: Standard lighting 15 W and UV lighting 15 W
- Hood height sufficient for 2 l Erlenmeyer flasks

Technical specifications:

Art. No.	AH21.1
Type	Incubation hood TH 30
Operating temperature	+5 °C above room temperature up to +50 °C
Accuracy	±1 % of adjusting value
W x D x H, interior	660 x 540 x 430 mm
W x D x H, external	680 x 610 x 560 mm
Weight	33 kg
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
Incubation hood TH 30	**AH21.1**	1 unit(s)	4.692,40

Accessories for incubation hood TH 30

Edmund Bühler.

Option for temperature range expandable up to 60 °C
Installation of an additional heater to achieve temperatures of max. 60 °C. **Please order with first order, if required.**

Designation	Art. No.	Pack Qty.	€
Temperature range expandable up to 60 °C	**AH22.1**	1 unit(s)	295,65

Cooling device for TH 30
Installation of cooling coil and connecting sleeves for connection of an external cooling device (circulating cooler etc. Please order separately). Depending on the cooling capacity of the cooling device, temperatures of approx. 5 °C below room temperature can be achieved. **Please order with first order, if required.**

Designation	Art. No.	Pack Qty.	€
Cooling device for TH 30	**AH23.1**	1 unit(s)	675,10



CO_2-resistant orbital shaker KM CO_2

Edmund Bühler.

Features:

- Circular movement
- High-grade materials and stainless steel components especially for CO_2 concentrations of up to 20 % and humidity of up to 95 % RH
- External control unit (corded, length 2.0 m, Ø 12 mm) with LED display for speed (resolution 5 rpm) and operating time (resolution 1 min). Control unit can be fastened to magnetic surfaces.
- Low heat emission

Technical specifications:

Art. No.	**ENE2.1**
Type	KM CO_2
Movement type	circular
Speed range	30 to 220 rpm
Shaking amplitude (stroke)	20 mm
Timer	0 to 99 h, 59 min or continuous operation
Shaking surface area	200 x 295 mm
W x D x H	230 x 340 x 145 mm
Loading capacity	2 kg
Permissible ambient conditions	4 to 45 °C at 95% RH 0 to 20% (CO_2 concentration)
Weight	7.6 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. external control unit and basic attachment with rubber mat.

Type	Art. No.	Pack Qty.	€
KM CO_2	**ENE2.1**	1 unit(s)	2.766,00

Accessories for cordless KM 2, KM 2 and KM CO_2 shakers

Edmund Bühler.

(3) Universal board
For individual placement of spring clips. L 300 mm x W 356 mm.
Max. Number per board:
29 fixing clips for 25 ml flasks or
27 fixing clips for 50 ml flasks or
24 fixing clips for 100 ml flasks or
12 fixing clips 250 ml flasks or
8 fixing clips 500 ml flasks or
5 fixing clips 1000 ml flasks or
2 fixing clips 2000 ml flasks

Delivery without spring clips (please order separately; see shaker accessories).

Designation	Art. No.	Pack Qty.	€
Universal board	**L647.1**	1 unit(s)	233,30

KM tension roller
For securely fastening upright vessels to the KM 2 cordless and KM 2. Loading options, e.g. 2 x 1000 ml Erlenmeyer flasks or 9 x 100 ml Erlenmeyer flasks. The KM tension roller is fixed to the edge of the shaker swivel plate with star-shaped grip screws.

Designation	Art. No.	Pack Qty.	€
KM tension roller	**T519.1**	1 unit(s)	54,30

Shakers with accessories



CO_2-resistant orbital shaker

Thermo.

Features:

- Circular movement
- Protects specially treated mechanical components against CO_2 concentrations of up to 20 % and humidity of up to 95 %
- External control unit (corded length 2.0 m, Ø 6 mm) with LED display for speed (resolution 1 rpm) and operating time (resolution 1 min)
- Low-maintenance magnetic drive
- Minimal heat emission, does not affect the conditions inside the CO_2 incubator
- Stainless steel construction for protection against corrosive CO_2 gas
- Control device dimensions: (W x D x H): 95 x 158 x 26 mm

Technical specifications:

Art. No.	CXT3.1
Type	CO_2 orbital shaker
Movement type	Circular
Speed range	30 to 300 rpm
Shaking amplitude (stroke)	19 mm
Timer	0 to 99 h, 59 min or continuous operation
W x D x H	360 x 300 x 96 mm
Loading capacity	6 kg
Permissible ambient conditions	4 to 60 °C at 95 % RH 0 to 20% (CO_2 concentration)
Weight	13 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. external control unit. Not including universal aluminium board and fixing clips, please order separately.

Type	Art. No.	Pack Qty.	€
CO_2 orbital shaker	**CXT3.1**	1 unit(s)	3.274,00

Accessories universal aluminium board for CO_2-resistant orbital shaker

Thermo.

For shaking of Erlenmeyer flasks. With holes for individual placement of spring clips.

Delivery without clamps, please order separately.

Designation	Art. No.	Pack Qty.	€
Universal aluminium board	**CXT4.1**	1 unit(s)	197,00

Accessories for CO_2-resistant orbital shaker

Thermo.

Fixing clips

Designation	Art. No.	Pack Qty.	€
for 50 ml flasks (max. 30)	**CXT5.1**	1 unit(s)	13,80
for 100 ml flasks (max. 15)	**CXT6.1**	1 unit(s)	14,60
for 150 ml flasks (max. 15)	**CXT7.1**	1 unit(s)	18,85
for 200 ml flasks (max. 15)	**CXT8.1**	1 unit(s)	22,15
for 250 ml flasks (max. 15)	**CXT9.1**	1 unit(s)	21,65
for 500 ml flasks (max. 9)	**CXX0.1**	1 unit(s)	31,20
for 1000 ml flasks (max. 6)	**CXX1.1**	1 unit(s)	47,20
for 2000 ml flasks (max. 4)	**CXX2.1**	1 unit(s)	69,10
for 3000 ml flasks (max. 2)	**CXX3.1**	1 unit(s)	86,30
for 5000 ml flasks (max. 1)	**CXX4.1**	1 unit(s)	114,00

Test tube racks for 40 tubes with Ø 16 mm (max. 2)
Variable inclination angle. Dimensions: L 285 x W 125 x H 175 mm.

Designation	Art. No.	Pack Qty.	€
For 40 tubes with Ø 16 mm (max. 2)	**CXX5.1**	1 unit(s)	110,00

Shakers with accessories



Shakers Genie® Multi Vortex

Scientific Industries.

Robust and reliable shaking device for mixing and shaking of samples in Erlenmeyer flasks or vials.

Properties:

- Digital display of speed and time
- Speed increase in increments of 10 rpm
- Robust metal case
- Stable at high speed thanks to adjustable feet with high vibration damping
- Loading options: E.g. max. 6 x 250 ml Erlenmeyer flasks or 2 x multi-racks, each for 12 sample tubes (max. tube Ø 10–29 mm, length min. 85 mm)
- After not being used for 10 minutes, the mixer switches to “Sleep” mode

Technical specifications:

Art. No.	LX88.1
Type	Multi Vortex-Genie®
Movement type	circular vibrating
Speed range	250 to 950 rpm
Shaking amplitude (stroke)	4 mm
Speed display	Digital
Timer	1 to 99 min or continuous operation
Shaking surface area	238 x 264 mm
W x D x H	310 x 270 x 195 mm
Loading capacity	4 kg
Permissible ambient conditions	0 to +38 °C at 90 % RH
Weight	11.3 kg
Mains connection	230 V, 50 Hz

Delivery incl. platform with clamp/tension rollers (for securely attaching upright vessels) and 2 multi-racks.

Type	Art. No.	Pack Qty.	€
Multi Vortex-Genie®	**LX88.1**	1 unit(s)	2.454,25



Shakers Varioshake VS-8 series

Lauda.

Properties:

- Max. shaking weight 8 kg
- Operation via timer or continuous operation
- Constant speed, load-independent

Technical specifications:

Art. No.	1CXY.1	1CXT.1	1CY0.1	1CXX.1
Type	VS 8 O	VS 8 OE	VS 8 B	VS 8 BE
Movement type	circular		back and forward	
Speed range	20 to 500 rpm		20 to 300 rpm	
Shaking amplitude (stroke)	10 mm		20 mm	
Speed display	Digital	Analogue	Digital	Analogue
Timer	1 min to 99:59 h or continuous operation	Up to 60 min or continuous operation	1 min to 99:59 h or continuous operation	Up to 60 min or continuous operation
Shaking surface area	330 x 330 mm			
W x D x H	350 x 355 x 160 mm	350 x 375 x 160 mm	350 x 355 x 160 mm	350 x 375 x 160 mm
Loading capacity	8 kg			
Permissible ambient conditions	10 to 60 °C at 70 % RH	10 to 50 °C at 70 % RH	10 to 60 °C at 70 % RH	10 to 50 °C at 70 % RH
Weight	13 kg			
Mains connection	230 V, 50/60 Hz			

Delivery incl. shaking table, but without attachment and accessories (please order separately).

Analogue control

- Analogue rotary controls for setting speed and operating time
- Electronic speed control with operation by rotary knobs

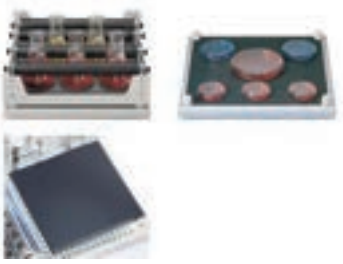
Type	Art. No.	Pack Qty.	€
VS 8 OE	**1CXT.1**	1 unit(s)	1.190,00
VS 8 BE	**1CXX.1**	1 unit(s)	1.190,00

Digital control

- Shaking frequency display and setting, digitally via LC display, in increments of 1 rpm
- Display of target and actual values for shaking frequency and time via two LC displays
- Storage of last operating parameters
- Soft start

Type	Art. No.	Pack Qty.	€
VS 8 O	**1CXY.1**	1 unit(s)	1.360,00
VS 8 B	**1CY0.1**	1 unit(s)	1.420,00

Shakers with accessories



Accessories for Varioshake VS-8 series shakers

Lauda.

Universal attachment
For secure fastening of various shaking objects between rubber-clad tension rollers. Tension rollers can be fixed at three different heights (25, 45 or 65 mm).

Delivery incl. four rubber-clad tension rollers.

Type	Art. No.	Pack Qty.	€
Universal attachment	**1CY1.1**	1 unit(s)	399,00

Slip-proof support
For slow movement e.g. of nutrient solutions in Petri dishes with a shaking speed of up to 50 rpm. L 330 x W 330 mm.

Type	Art. No.	Pack Qty.	€
Slip-proof support	**1CY2.1**	1 unit(s)	69,10

Adhesive mat for Varioshake VS-8 series shakers and VS 60 OI
Highly adhesive special mat for easy fastening of a huge variety of vessels. Shaking speed up to approx. 250 rpm (depending on shape and weight of the vessel and shaking amplitude level). Can be cut to size, L 200 x W 200 mm.

Type	Art. No.	Pack Qty.	€
Adhesive mat	**1CY3.1**	1 unit(s)	92,60



Shakers Varioshake VS-15 series

Lauda.

- Shaking frequency display and setting, digitally via LC display, in increments of 1 rpm
- Display of target and actual values for shaking frequency and time via two LC displays
- Max. shaking weight 15 kg
- Operation via timer or continuous operation
- Storage of last operating parameters
- Constant speed, load-independent

Technical specifications:

Art. No.	1CY7.1	1CY6.1
Type	VS 15 B	VS 15 O
Movement type	Back and forward	Circular
Speed range	20 to 300 rpm	
Shaking amplitude (stroke)	30 mm	
Speed display	Digital	
Timer	1 min to 99:59 h or continuous operation	
Shaking surface area	450 x 450 mm	
W x D x H	480 x 487 x 160 mm	
Loading capacity	15 kg	
Permissible ambient conditions	10 to 50 °C at 70 % RH	
Weight	19,5 kg	
Mains connection	230 V, 50/60 Hz	

Delivery incl. shaking table, but without attachment and accessories (please order separately).

Type	Art. No.	Pack Qty.	€
VS 15 O	**1CY6.1**	1 unit(s)	1.890,00
VS 15 B	**1CY7.1**	1 unit(s)	1.890,00



Accessories spring clip attachment for Varioshake VS-15 series and VS 60 OI

Lauda.

For shaking of Erlenmeyer flasks.
With hole pattern for fastening clips for Erlenmeyer flasks.
Max. number per board:
79 fixing clips for 25 ml flasks or
49 fixing clips for 50 ml flasks or
36 fixing clips for 100 ml flasks or
22 fixing clips for 200 ml flasks or
16 fixing clips for 250/300 ml flasks or
12 fixing clips for 500 ml flasks or
9 fixing clips for 1000 ml flasks or
4 fixing clips for 2000 ml flasks

Delivery without spring clips, please order separately.

Type	Art. No.	Pack Qty.	€
Universal board	**1CY8.1**	1 unit(s)	164,00



Accessories spring clip

Lauda.

For fastening Erlenmeyer flasks on the spring clip attachment and shaking tray.

Designation	Art. No.	Pack Qty.	€
Clamp for 25 ml Erlenmeyer flasks	**1CY9.1**	1 unit(s)	20,30
Clamp for 50 ml Erlenmeyer flasks	**1CYA.1**	1 unit(s)	23,80
Clamp for 100 ml Erlenmeyer flasks	**1CYC.1**	1 unit(s)	24,30
Clamp for 200 ml Erlenmeyer flasks	**1CYE.1**	1 unit(s)	25,10
Clamp for 500 ml Erlenmeyer flasks	**1CYK.1**	1 unit(s)	28,50
Clamp for 1000 ml Erlenmeyer flasks	**1CYL.1**	1 unit(s)	45,80
Clamp for 2000 ml Erlenmeyer flasks	**1CYN.1**	1 unit(s)	62,00
Clamp for 250/300 ml Erlenmeyer flasks	**1CYH.1**	1 unit(s)	27,50



Microtiter shakers Genie® Pulse

Scientific Industries.

Specially designed for small sample sizes in microtiter plates.

- Circular movement
- High speed for optimal mixing
- Digital display of speed and operating time
- Choice of standard shake mode or pulse mode
- Depending on the selected pulse and pause duration, rapid and vigorous mixing or an intermittent mixing function is available
- Pulse and pause duration (on/off) is adjustable from 0.1 s to 99 min

Technical specifications:

Art. No.	XP69.1	1A02.1
Type	Digital MicroPlate Genie® Pulse	Digital Multi-MicroPlate Genie® Pulse
Suitable for	1 microtiter plate	Four microtiter plates (eight MT plates with optional attachment)
Speed range	500 to 2850 rpm	
Speed display	Digital	
Shaking amplitude (stroke)	1 mm	
Timer	1 to 99 min or continuous operation	
Timer display	Digital	
W x D x H	165 x 165 x 165 mm	240 x 335 x 165 mm
Weight	2.75 kg	
Mains connection	230 V, 50/60 Hz	

Model: Digital MicroPlate Genie® Pulse
For strong shaking of one microtiter plate

Type	Art. No.	Pack Qty.	€
Digital MicroPlate Genie® Pulse	**XP69.1**	1 unit(s)	939,55

Digital Multi-MicroPlate Genie® Pulse model
For four microtiter plates.

Type	Art. No.	Pack Qty.	€
Digital Multi-MicroPlate Genie® Pulse	**1A02.1**	1 unit(s)	1.072,85

Accessories additional essay for Genie™ Multi-MicroPlate Pulse

Scientific Industries.

For 4 additional microtiter plates. As second level on the standard attachment. Only to be used in combination with the Multi-MicroPlate Genie™ Pulse.

Designation	Art. No.	Pack Qty.	€
Additional attachment for Multi-MicroPlate Genie™ Pulse	**EH54.1**	1 unit(s)	181,70

Shaker for microtitre plates



Magnet shaker Monoshake

Thermo.

For shaking liquids in microtiter plates.

- Space-saving external dimensions
- Circular movement
- Shaker platform self-positions to centric zero position
- Housing material: Nickel-plated aluminium/brass
- Zero position accuracy: ±0.1 mm

Technical specifications:

Art. No.	X826.1
Type	Monoshake
Suitable for	1 microtiter plate
Speed range	100 to 2000 rpm
Shaking amplitude (stroke)	2 mm
W x D x H	146 x 103 x 47 mm
Permissible ambient conditions	+5 to +40 °C at 95 % RH
Mains connection	230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
Monoshake	**X826.1**	1 unit(s)	1.030,00



Microtiter shakers digital

Thermo.

- For strong shaking of four microtiter plates
- Digital display of speed and operating time

Technical specifications:

Art. No.	1APX.1
Type	Digital microtiter shaker
Speed range	150 to 1200 rpm
Speed display	LED
Shaking amplitude (stroke)	2,5 mm
Timer	0.1 min to 99 h, 59 min or continuous operation
Shaking surface area	235 x 275 mm
W x D x H	260 x 383 x 145 mm
Loading capacity	1 kg
Permissible ambient conditions	5 to 40 °C at 85 % RH
Weight	15 kg
Mains connection	100–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
Digital microtiter shaker	**1APX.1**	1 unit(s)	845,00



Microtiter shakers TiMix series

Edmund Bühler.

Options: With attachment for **8** or **16 microtiter plates**. Can be used with different attachments for various applications. Adjustable mass compensation ensures stability under different loads. Thermostatic control of the samples is possible by attaching the TH 15 incubation hood (please order separately).

Technical specifications:

Art. No.	T490.1	T491.1
Type	TiMix 5	TiMix 5 control
Suitable for	8/16 microtiter plates (please order attachments separately)	
Speed range	100 to 1400 rpm	
Shaking amplitude (stroke)	3 mm	
Timer	0 to 120 min or continuous operation	1 min to 30 h or continuous operation
Shaking surface area	400 x 300 mm	
W x D x H	460 x 470 x 188 mm	
Loading capacity	5 kg	
Weight	18 kg	

Delivery incl. basic unit without attachment, please order separately.

Model: TiMix 5
High speed for best possible mixing of small sample sizes.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	TiMix 5	**T490.1**	1 unit(s)	2.508,00

Model: TiMix 5 control
With digital display showing target and actual speed, preset function for the most recent settings and the option to programme variable sequences (shaking frequency/duration).

Pic.	Type	Art. No.	Pack Qty.	€
(2)	TiMix 5 control	**T491.1**	1 unit(s)	3.723,80

Accessories and attachment systems for TiMix 5 microtiter shakers

Edmund Bühler.

(3) TiMix 5 standard attachment
For 8 microtiter plates or for Microwell-, Deepwell- and other plates in microtiterplate format.

Designation	Art. No.	Pack Qty.	€
TiMix 5 standard attachment	**T493.1**	1 unit(s)	308,55

(4) TiMix 5 expansion tray
For further 8 platesas a second level on the TiMix 5 standard attachment. Complete with attachment material.

Designation	Art. No.	Pack Qty.	€
TiMix 5 expansion tray	**T494.1**	1 unit(s)	341,85

Shaker for microtitre plates

(5) Attachment with clamping bushings for microtiter plates
For 8 standard microtiter plates.

Designation	Art. No.	Pack Qty.	€
Attachment with clamping bushings	**T495.1**	1 unit(s)	485,90

Attachment with large clamping bushings for two microtiter plates
Directly above one another.

Designation	Art. No.	Pack Qty.	€
Attachment with large clamping bushings	**T496.1**	1 unit(s)	552,55



Microtiter shakers SSM5 and SSL5

Stuart.

- A combination of high speed and low amplitude produces the vibration shaking action required to mix small quantities
- Digital display of speed and operating time
- Reaction vial holders are optionally available as accessories (please order separately). A maximum of two racks can be attached to one device
- Speed can be controlled in increments of 10 rpm

Technical specifications:

Art. No.	YH91.1	YH92.1
Type	SSM5	SSL5
Suitable for	4 microtiter plates	8 Microtiter plates
Speed range	250 to 1250 rpm	
Speed display	LED	
Shaking amplitude (stroke)	1,5 mm	
Timer	1 to 9999 min or continuous operation	
Timer display	LED	
Shaking surface area	220 x 220 mm	306 x 306 mm
W x D x H	240 x 300 x 160 mm	360 x 420 x 160 mm
Loading capacity	1 kg	2 kg
Permissible ambient conditions	4 to 40 °C at 80 % RH	
Mains connection	230 V, 50 Hz	

Delivery incl. anti-slip mat.

Type	Art. No.	Pack Qty.	€
SSM5	**YH91.1**	1 unit(s)	1.468,00
SSL5	**YH92.1**	1 unit(s)	2.450,00

Accessories holder for SSM5 and SSL5 microtiter shakers

Stuart.

Designation	Art. No.	Pack Qty.	€
Holder for 50 x 1.5 ml reaction vials	**YH93.1**	1 unit(s)	183,00
Holder for 50 x 0.5 ml reaction vials	**YH94.1**	1 unit(s)	188,00
Holder for 50 x 0.2 ml reaction vials	**YH95.1**	1 unit(s)	199,00



Incubation shaker for microlitre plates

Ohaus.

For immunoassays and hybridizations.

- **For 4 standard for microlitre plates**
- LED display for temperature, speed and time
- Timer with acoustic alarm
- Setpoint memory: display of set value
- Soft start
- Available with standard lid or with opaque lid for light-sensitive samples

Technical specifications:

Art. No.	HTA4.1	HTA5.1
Type	With transparent lid	With opaque lid
Operating temperature	±5 °C **above** room temperature up to 65 °C	
Set temperature from	5 °C	
Set temperature up to	65 °C	
Temperature constancy	± 0,5 °C (37 °C)	
Resolution	1 °C	
Speed range	100 to 1200 rpm	
Shaking amplitude (stroke)	3 mm	
Timer	1 to 9999 min or continuous operation	
W x D x H, external	279 x 432 x 197 mm	
Weight	13,6 kg	
Mains connection	230 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
With transparent lid	**HTA4.1**	1 unit(s)	2.280,00
With opaque lid	**HTA5.1**	1 unit(s)	2.280,00

Incubator shaker



Small incubation shaker

Ohaus.

For cell cultures, bacteria suspensions and hybridizations.

- LED display for temperature, speed and time
- Timer with acoustic alarm
- Setpoint memory: display of last value set
- Soft start

Technical specifications:

Art. No.	**HTC1.1**
Type	Small incubation shaker
Movement type	Circular
Operating temperature	+5 °C **above** ambient temperature up to 65 °C
Set temperature from	5 °C
Set temperature up to	65 °C
Temperature constancy	± 0,5 °C (37 °C)
Resolution	1 °C
Speed range	100 to 1200 rpm
Shaking amplitude (stroke)	3 mm
Timer	1 to 9999 min or continuous operation
Shaking surface area	197 x 279 mm
W x D x H, interior	211 x 287 x 145 mm
W x D x H, external	279 x 432 x 270 mm
Weight	13,6 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. universal attachment for fastening retaining clips for Erlenmeyer flasks (please order retaining clips separately).

Type	Art. No.	Pack Qty.	€
Small incubation shaker	**HTC1.1**	1 unit(s)	2.590,00

Accessories clamps for small incubation shakers

Ohaus.

Designation	Art. No.	Pack Qty.	€
Clamps for flasks 25 ml (max. 20)	**HTC2.1**	1 unit(s)	29,80
Clamps for flasks 50 ml (max. 15)	**HTC3.1**	1 unit(s)	30,90
Clamps for flasks 125 ml (max. 8)	**HTC4.1**	1 unit(s)	30,90
Clamps for flasks 250 ml (max. 5)	**HTC5.1**	1 unit(s)	35,40



Incubation shaker 2D/3D

Ohaus.

For hybridization processes, cell cultures, blotting techniques and colouring/dying of gels.

- LED display for temperature, speed/inclination angle and time
- Timer with acoustic alarm
- Inclination angle adjusts electronically (even when device is in operation)
- Setpoint memory: display of last value set
- Soft start

Technical specifications:

Art. No.	**HTC6.1**	**HTC7.1**
Type	Thermo-Shake 2D	Thermo-Shake 3D
Movement type	Rocking motion	Wobbling motion
Operating temperature	+5 °C **above** ambient temperature up to 65 °C	
Set temperature from	5 °C	
Set temperature up to	65 °C	
Temperature constancy	± 0,5 °C (37 °C)	
Resolution	1 °C	
Speed range	1 to 50 rpm	1 to 30 rpm
Tilt angle	0 – 15 °	0 – 20 °
Timer	1 to 9999 min or continuous operation	
Shaking surface area	191 x 254 mm	184 x 235 mm
W x D x H, interior	197 x 273 x 97 mm	197 x 273 x 86 mm
W x D x H, external	279 x 432 x 297 mm	
Weight	10 kg	
Mains connection	230 V, 50/60 Hz	

Delivery incl. base tray with universal mat.

Type	Art. No.	Pack Qty.	€
Thermo-Shake 2D	**HTC6.1**	1 unit(s)	2.970,00
Thermo-Shake 3D	**HTC7.1**	1 unit(s)	3.260,00

Accessories studded mat for incubation shaker 2D

Ohaus.

Studded mats for test tubes

Designation	Art. No.	Pack Qty.	€
Studded mat for Thermo-Shake 2D	**HTC8.1**	1 unit(s)	43,50

Incubator shaker



Incubation shaker Genie® Mini-Temp-Shaker 300

Scientific Industries.

For shaking and temperature control of samples.

- Circular movement
- Digital display of speed and temperature
- Heating mantle can be tilted back, to the left or to the right for placement or removed completely for cleaning. Also with door flap for removing and placing individual vessels.

Technical specifications:

Art. No.	1CA7.1
Type	Genie® Temp-Shaker 300
Movement type	circular
Operating temperature	5 °C above room temperature up to 75 °C
Set temperature from	28 °C
Set temperature up to	75 °C
Temperature constancy	±1 °C
Resolution	1 °C
Speed range	35 to 300 rpm
Shaking amplitude (stroke)	19 mm
Shaking surface area	315 x 315 mm
Loading capacity	3 kg
W x D x H, external	480 x 450 x 500 mm
Permissible ambient conditions	0 to 38 °C at 95 % rel. humidity
Weight	9 kg
Mains connection	230 V, 50 Hz

Delivery incl. platform with adhesive mat.

Type	Art. No.	Pack Qty.	€
Genie® Temp-Shaker 300	**1CA7.1**	1 unit(s)	3.896,90



Accessories universal attachment for Genie® Mini-Temp-Shaker 300

Scientific Industries.

Suitable for use with all types of vessels thanks to infinitely adjustable tension rollers and safe securement of different vessels. Loading option, e.g. 6 x 500 ml Erlenmeyer flasks with one optional tension roller available to order.

Delivery incl. 2 tension rollers. If more tension rollers are required, please order separately.

Designation	Art. No.	Pack Qty.	€
Universal attachment for Genie® Temp-Shaker 300	**1CA8.1**	1 unit(s)	697,70

Accessories tension roller for Genie® Mini-Temp-Shaker universal attachment

Scientific Industries.

Additional tension roller compatible with the Genie® Temp-Shaker 300 universal attachment.

Designation	Art. No.	Pack Qty.	€
Tension roller for Genie® Temp-Shaker universal attachment	**1CA9.1**	1 unit(s)	224,70



Incubation shaker KS 3000 i control

IKA.

For shaking, mixing and temperature control of samples.

- LED display for speed and heating setting, as well as temperature
- With RS 232 and USB interface
- Additional Pt 1000.60 temperature probe for temperature control directly within samples (included)
- Remark on outside dimensions: required floor space 600 x 600 mm

Technical specifications:

Art. No.	XT43.1
Type	KS 3000 i control
Movement type	circular
Operating temperature	+5 °C above room temperature up to +80 °C
Temperature constancy	±0,1 K
Resolution	0,1 °C
Accuracy	±0.5 K (with prober)
Speed range	10 to 500 rpm
Shaking amplitude (stroke)	20 mm
Timer	1 min to 999 h or continuous operation
W x D x H, interior	330 x 330 x 260 mm
W x D x H, external	465 x 695 x 430 mm
Heating output	1000 W
Mains connection	230 V, 50/60 Hz

Delivery without rack attachment, if desired, please order separately.

Type	Art. No.	Pack Qty.	€
KS 3000 i control	**XT43.1**	1 unit(s)	6.054,00

Incubator shaker



Accessories attachment system for incubation shakers KS 3000 i control

IKA.

(1) Universal attachment AS 260.1
Suitable for use with all types of vessels thanks to infinitely adjustable clamping rollers. Mounting surface 320 x 320 mm. Variable loading options, e.g. 8 x 250 ml Erlenmeyer flasks or 15 x 100 ml Erlenmeyer flasks.

Delivery incl. 4 tension rollers.

Designation	Art. No.	Pack Qty.	€
Universal attachment AS 260.1	**X182.1**	1 unit(s)	666,00

(2) Clamp holder AS 260.2
Suitable for shaking round-bottom flasks, volumetric flasks and Erlenmeyer flasks, etc. Dimensions W 330 x D 330 x H 24 mm.
Max. number:
31 clamps for 25 ml flasks or
23 clamps for 50 ml flasks or
23 clamps for 100 ml flasks or
11 clamps for 200/250 ml flasks or
9 clamps for 500 ml flasks or
5 clamps for 1000 ml flasks

Delivery without clamps, please order separately.

Designation	Art. No.	Pack Qty.	€
Clamp attachment AS 260.2	**X184.1**	1 unit(s)	173,00

(3) Fixing clips

Designation	Art. No.	Pack Qty.	€
Fixing clips for 25 ml flasks	**X185.1**	1 unit(s)	30,00
Fixing clips for 50 ml flasks	**X186.1**	1 unit(s)	30,00
Fixing clips for 100 ml flasks	**X187.1**	1 unit(s)	30,00
Fixing clips for 200/250 ml flasks	**X188.1**	1 unit(s)	56,00
Fixing clips for 500 ml flasks	**X189.1**	1 unit(s)	56,00
Fixing clips for 1000 ml flasks	**PA26.1**	1 unit(s)	56,00

(3) Dish attachment AS 260.3
For gentle movement of cell cultures or clamping rollers in Petri dishes, for example. Mounting surface: 320 x 320 mm.

Designation	Art. No.	Pack Qty.	€
Dish attachment AS 260.3	**X183.1**	1 unit(s)	145,00



Incubation shaker KS 4000 i control

IKA.

- LED display for speed and heating setting, as well as temperature
- Integrated PID temperature control
- With RS 232 interface
- Socket for use of an additional PT 1000.60 temperature probe in the working area (included)
- Remark on outside diameters: required floor space 600 x 600 mm

Technical specifications:

Art. No.	KH89.1
Type	KS 4000 i control
Movement type	circular
Operating temperature	+5 °C above room temperature up to +80 °C
Temperature constancy	±0,1 K
Resolution	0,1 °C
Accuracy	±0,5 K
Speed range	10 to 500 rpm
Shaking amplitude (stroke)	20 mm
Timer	1 min to 999 h or continuous operation
Loading capacity	20 kg
W x D x H, interior	430 x 430 x 280 mm
W x D x H, external	580 x 750 x 520 mm
Heating output	1000 W
Mains connection	230 V, 50/60 Hz

Delivery without rack attachment, if desired, please order separately.

Type	Art. No.	Pack Qty.	€
KS 4000 i control	**KH89.1**	1 unit(s)	7.326,00



Accessories top attachment system for incubation shakers KS 4000 i control

IKA.

(1) AS 4000.1 universal attachment
Attachment frame with continuously adjustable clamping rollers for universal adaptation to any vessel. Mounting surface 380 x 410 mm. Loading options: e.g. 2 x 2000 ml Erlenmeyer flasks or 9 x 500 ml Erlenmeyer flasks.

Delivery incl. 6 tension rollers.

Designation	Art. No.	Pack Qty.	€
Universal attachment AS 260.1	**KH90.1**	1 unit(s)	1.063,00

Incubator shaker

(2) Clamp holder AS 4000.2
For shaking Erlenmeyer flasks and bottles with a circular cross-section.
Max. number:
55 clamps for 25 ml flasks or
48 clamps for 50 ml flasks or
25 clamps for 100 ml flasks or
16 clamps for 250 ml flasks or
12 clamps for 500 ml flasks or
7 clamps for 1000 ml flasks

Delivery without clamps, please order separately.

Designation	Art. No.	Pack Qty.	€
AS 4000.2 clamp holder	**KH91.1**	1 unit(s)	888,00

(3) Dish attachment AS 4000.3
For soft shaking of cell cultures or culture medium in Petri dishes.
Mounting surface 430 x 430 mm.

Designation	Art. No.	Pack Qty.	€
Dish attachment AS 260.3	**KH92.1**	1 unit(s)	233,00



Incubation shaker SI-500

Stuart.

For temperature control and simultaneous shaking and mixing of samples.

- Digital LED display for speed, timer and temperature
- Smoke-coloured acrylic glazing
- With removable platform for easy removal and insertion of samples
- With timer: when the set time expires, shaking stops ad the temperature is maintained
- Air circulation for smooth heating of samples
- With USB interface to record the temperature characteristics
- Loading options:e.g. 12 x 250 ml Erlenmeyer flasks or 9 x 500 ml Erlenmeyer flasks or 6 x 1000 ml Erlenmeyer flasks
- Alternatively, a maximum of 4 reaction vials and/or centrifuge tube racks can be fastened. Inclination adjustable by 30°. Reaction vial and/or centrifuge tube racks, please order separately.

Technical specifications:

Art. No.	**KA99.1**
Type	SI-500
Movement type	circular
Operating temperature	+5 °C above room temperature up to +60 °C
Temperature constancy	±0,5 °C
Resolution	0,1 °C
Speed range	30 to 300 rpm
Shaking amplitude (stroke)	16 mm
Timer	1 s to 9 d
Shaking surface area	335 x 335 mm
Loading capacity	10 kg
W x D x H, interior	422 x 408 x 250 mm
W x D x H, external	450 x 474 x 522 mm
Heating output	250 W
Weight	30 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. platform system with 4 tension rollers and USB cable.

Type	Art. No.	Pack Qty.	€
SI-500	**KA99.1**	1 unit(s)	6.035,00



Accessories frame made of stainless steel for shaker SI-500

Stuart.

Designation	Art. No.	Pack Qty.	€
for 64 x 1.5 ml reaction vials	**KC00.1**	1 unit(s)	455,00
for 25 centrifuge tubes 15 ml	**KC01.1**	1 unit(s)	455,00
for 12 centrifuge tubes 50 ml	**KC02.1**	1 unit(s)	440,50



Incubation shaker MaxQ Digital 4000 set

Thermo.

- Digital display for speed, time and temperature on three individual displays
- Visual/audible signals alert you to temperature and speed deviation
- Automatic unbalanced load sensor stops the device if increased vibration is detected. An acoustic/visual alarm is issued at the same time.
- Soft start feature prevents sudden starts and stops
- **Clamp starter kit** comprising
  1 x 250-ml-, 1 x 500-ml-, 1 x 1000-ml- and 1 x 2000-ml flask clamps

Technical specifications:

Art. No.	**LY29.1**
Type	MaxQ Digital 4000 set
Movement type	Circular
Operating temperature	+10 °C above room temperature up to +80 °C
Temperature constancy	±0,1 °C
Resolution	0,1 °C
Speed range	15 to 500 rpm
Shaking amplitude (stroke)	19 mm
Timer	0.1 min to 999.9 h or continuous operation
Loading capacity	22.7 kg
W x D x H, interior	533 x 508 x 330 mm
W x D x H, external	572 x 813 x 559 mm
Heating output	1000 W
Weight	75.8 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. universal tray (457 x 457 mm), clamp starter kit (clamps for flasks from 125 to 2000 ml) and microtiter plate clamp.

Type	Art. No.	Pack Qty.	€
MaxQ Digital 4000 set	**LY29.1**	1 unit(s)	10.547,00

Incubator shaker

Accessories for MaxQ Digital 4000

Thermo.

Additional holding clamps

Designation	Art. No.	Pack Qty.	€
for 10 ml flasks (max. 113)	**LY31.1**	1 unit(s)	29,90
for 25 ml flasks (max. 64)	**LY32.1**	1 unit(s)	31,70
for 50 ml flasks (max. 32)	**LY33.1**	1 unit(s)	33,70
for 125 ml flasks (max. 32)	**LY34.1**	1 unit(s)	32,00
for 250 ml flasks (max. 16)	**LY35.1**	1 unit(s)	38,60
for 300 ml flasks (max. 16)	**LY36.1**	1 unit(s)	41,90
for 500 ml flasks (max. 16)	**LY37.1**	1 unit(s)	44,70
for 1000 ml flasks (max. 9)	**LY38.1**	1 unit(s)	56,40
for 2000 ml flasks (max. 6)	**LY39.1**	1 unit(s)	75,50
for microtritation/deepwell plate (max. 10)	**LY30.1**	1 unit(s)	33,40

Sample tube rack

Variable inclination angle.
Dimensions Art. No. LY40.1: L 248 x W 127 x H 70 mm.
Dimensions Art. No. LY41.1: L 248 x W 110 x H 82 mm.

Designation	Art. No.	Pack Qty.	€
for 72 tubes Ø from 14 to 17 mm (max. 4)	**LY40.1**	1 unit(s)	326,00
for 24 tubes Ø from 26 to 30 mm (max. 4)	**LY41.1**	1 unit(s)	325,00



Incubation shaker Varioshake VS 60 OI

Lauda.

For applications such as homogenisation, incubation, fermentation or chemical and biochemical reactions. With temperatures up to 70 °C and switchable circular movement.

- Digital temperature and shaking frequency setting via LED display, in increments of 0.1 °C/1 rpm
- Timer, microprocessor-controlled, with remaining time display and acoustic signal at end of process
- Limits for overheating and insufficient temperature alarm (visual and audible) adjustable
- Constant speed, load-independent
- Foldable acrylic glass cover
- Switching off the shaking motion and the heating when the doors are opened
- Integrated cooling coil for applications below room temperature

Technical specifications:

Art. No.	**1EHY.1**
Type	VS 60 OI
Movement type	circular
Operating temperature	8 °C above room temperature up to +70 °C
Temperature constancy	±0,2 K
Resolution	0,1 °C
Speed range	20 to 250 rpm
Shaking amplitude (stroke)	30 mm
Timer	1 min to 999 h or continuous operation
Shaking surface area	450 x 450 mm
Loading capacity	12 kg
W x D x H, interior	450 x 450 x 338 mm
W x D x H, external	559 x 687 x 628 mm
Weight	41,5 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. shaking table, but without attachment and accessories (please order separately).

Type	Art. No.	Pack Qty.	€
VS 60 OI	**1EHY.1**	1 unit(s)	7.140,00



Accessories spring clip attachment for Varioshake VS-15 series and VS 60 OI

Lauda.

For shaking of Erlenmeyer flasks.
With hole pattern for fastening clips for Erlenmeyer flasks.
Max. number per board:
79 fixing clips for 25 ml flasks or
49 fixing clips for 50 ml flasks or
36 fixing clips for 100 ml flasks or
22 fixing clips for 200 ml flasks or
16 fixing clips for 250/300 ml flasks or
12 fixing clips for 500 ml flasks or
9 fixing clips for 1000 ml flasks or
4 fixing clips for 2000 ml flasks

Delivery without spring clips, please order separately.

Type	Art. No.	Pack Qty.	€
Universal board	**1CY8.1**	1 unit(s)	164,00

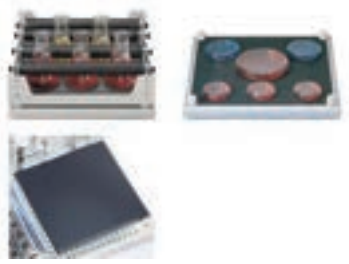


Accessories spring clip

Lauda.

For fastening Erlenmeyer flasks on the spring clip attachment and shaking tray.

Designation	Art. No.	Pack Qty.	€
Clamp for 25 ml Erlenmeyer flasks	**1CY9.1**	1 unit(s)	20,30
Clamp for 50 ml Erlenmeyer flasks	**1CYA.1**	1 unit(s)	23,80
Clamp for 100 ml Erlenmeyer flasks	**1CYC.1**	1 unit(s)	24,30
Clamp for 200 ml Erlenmeyer flasks	**1CYE.1**	1 unit(s)	25,10
Clamp for 500 ml Erlenmeyer flasks	**1CYK.1**	1 unit(s)	28,50
Clamp for 1000 ml Erlenmeyer flasks	**1CYL.1**	1 unit(s)	45,80
Clamp for 2000 ml Erlenmeyer flasks	**1CYN.1**	1 unit(s)	62,00
Clamp for 250/300 ml Erlenmeyer flasks	**1CYH.1**	1 unit(s)	27,50



Accessories for Varioshake VS-8 series shakers

Lauda.

Adhesive mat for Varioshake VS-8 series shakers and VS 60 OI
Highly adhesive special mat for easy fastening of a huge variety of vessels. Shaking speed up to approx. 250 rpm (depending on shape and weight of the vessel and shaking amplitude level). Can be cut to size, L 200 x W 200 mm.

Type	Art. No.	Pack Qty.	€
Adhesive mat	**1CY3.1**	1 unit(s)	92,60



Tilt/roller mixer RS-TR series

Phönix Instrument.

Simultaneous rolling and tilting movement for thorough mixing of samples, e.g. in centrifuge tubes and sample tubes. For vessel Ø max. 100 mm.

Technical specifications:

Art. No.	XK30.1	XK31.1
Type	RS-TR 05	RS-TR 10
Number of rollers	6	
Speed range	0 to 70 rpm	10 to 70 rpm
Speed display		LCD
Timer		1 min to 1199 min or continuous operation
Timer display		LCD
Roller length	280 mm	
Roller Ø	30 mm	
W x D x H	260 x 490 x 120 mm	
Permissible ambient conditions	5 to 40 °C at 80 % rel. humidity	
Weight	5,1 kg	5.5 kg
Mains connection	100–240 V, 50/60 Hz	

Model RS-TR 05
Variable speed control from 0 to 70 rpm via analogue rotary knob with scales.

Type	Art. No.	Pack Qty.	€
RS-TR 05	**XK30.1**	1 unit(s)	478,40

Model RS-TR 10
Speed control from 10 to 70 rpm with illuminated LCD display for setting time and speed.

Type	Art. No.	Pack Qty.	€
RS-TR 10	**XK31.1**	1 unit(s)	843,90



Tilt/roller mixer SRT series

Stuart.

Thorough mixing results due to simultaneous roll/tilt motion.

- With collecting tray
- Rollers are easily removable to accommodate larger vessels with Ø max. 100 mm
- Removable side panels prevent tubes from falling out accidentally during operation

Two model variants with different number of rollers and speed available.

Technical specifications:

Art. No.	HA31.1	HA32.1	HA30.1	HA33.1
Type	SRT 9	SRT 6D	SRT 6	SRT 9D
Number of rollers	9	6		9
Speed range		5 to 60 rpm		5 to 60 rpm
Speed	33 rpm		33 rpm	
Speed display		digital		digital
Shaking amplitude (stroke)	16 mm			
Timer		1 s to 90 min or 1 min to 9 h		1 s to 90 min or 1 min to 9 h
Roller length	340 mm			
Roller Ø	30 mm			
W x D x H	565 x 360 x 110 mm	565 x 240 x 110 mm		565 x 360 x 110 mm
Permissible ambient conditions	4 to 60 °C at 80 % rel. humidity			
Weight	6.9 kg	5.1 kg		6.9 kg
Mains connection	230 V, 50 Hz			

Models standard

With fixed speed of 33 rpm.

Pic.	Type	Art. No.	Pack Qty.	€
	SRT 9	**HA31.1**	1 unit(s)	1.403,00
(1)	SRT 6	**HA30.1**	1 unit(s)	1.156,00

Digital models

With variable speed control from 5 to 60 rpm, digital speed display and timer function.

Pic.	Type	Art. No.	Pack Qty.	€
	SRT 6D	**HA32.1**	1 unit(s)	1.490,00
(2)	SRT 9D	**HA33.1**	1 unit(s)	1.663,00



Tilt/roller mixer Roller series

IKA.

Simultaneous rolling and tilting movement. Rollers are easily removable to accommodate larger vessels with Ø max. 185 mm.

Two models are available with different number of roller and speeds:

Technical specifications:

Art. No.	XT39.1	XT40.1	XT41.1	XT42.1
Type	6 basic	10 basic	6 digital	10 digital
Number of rollers	6	10	6	10
Speed range			5 to 80 rpm	
Speed	30 rpm			
Speed display			LED	
Timer			1 s to 99 h or continuous operation	1 s to 99.9 h or continuous operation
Roller length	325 mm			
Roller Ø	32 mm			
W x D x H	240 x 545 x 115 mm	380 x 545 x 115 mm	240 x 545 x 115 mm	380 x 545 x 115 mm
Permissible ambient conditions	4 to 50 °C at 80 % rel. humidity			
Weight	4 kg	6 kg	4 kg	6 kg
Mains connection	100–240 V, 50/60 Hz			

Delivery incl. side protection plates (prevents tube disengagement at the sides).

Basic model

With fixed speed of 30 rpm

Type	Art. No.	Pack Qty.	€
6 basic	**XT39.1**	1 unit(s)	1.667,00
10 basic	**XT40.1**	1 unit(s)	2.037,00

Model Digital

With variable speed control from 5 to 80 rpm, digital speed display and timer function.

Type	Art. No.	Pack Qty.	€
6 digital	**XT41.1**	1 unit(s)	1.728,00
10 digital	**XT42.1**	1 unit(s)	2.098,00



Tilt/roller mixer RM 2

Edmund Bühler.

Gentle tilting and rolling movement for complete mixing. For all standard tube sizes, bottles and other cylindrical vessels up to Ø 80 mm. LED display for speed and operating time. Powder-coated metal housing. Removable rollers and collecting tray. Speed range can be adjusted in 5° increments.

Technical specifications:

Art. No.	HYK6.1
Type	RM 2
Movement type	Tilt and roll motion
Number of rollers	6
Speed range	5 to 80 rpm
Speed display	LED
Timer	0 to 99 h, 59 min or continuous operation
Roller length	300 mm
Roller Ø	32 mm
W x D x H	244 x 465 x 115 mm
Permissible ambient conditions	5 to 45 °C at 85% RH
Weight	7,3 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 6 plastic roller and collecting tray.

Type	Art. No.	Pack Qty.	€
RM 2	**HYK6.1**	1 unit(s)	2.496,15



Accessories overhead attachment for rolling mixers RM 2

Edmund Bühler.

With 12 slots for 50-ml Falcon® centrifuge tubes (slot Ø 29.5 mm) for gently rotating overhead mixing.

Designation	Art. No.	Pack Qty.	€
Overhead attachment	**KAX7.1**	1 unit(s)	308,55



Cell culture roller mixer Small bottle

DWK Life Sciences.

Capacity: 2 positions. Suitable for bottles with Ø 108 to 121 mm. Both outer rollers can be moved to the inside so that bottles with Ø 75 mm can also be accommodated. Each tier is designed to hold at least 2 bottles.

- With optional accessories, expandable to 6 positions with 2 additional tiers.
- Speed range depends on the bottle Ø:
  Speed range for bottles with max. Ø 110 mm: 0.1 to 3.8 rpm

Technical specifications:

Art. No.	EPX8.1
Type	Small bottle
Max. bottle dimensions	Ø 108 to 121 mm, max. L 290 mm
Speed range	0,1 to 3,8 rpm
W x D x H	320 x 325 x 180 mm
Permissible ambient conditions	10 to 40 °C at 80 % RH
Weight	8.2 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. standard roller system for 2 bottles. Expansions kit for additional flasks, please order separately.

Type	Art. No.	Pack Qty.	€
Small bottle	**EPX8.1**	1 unit(s)	2.268,25



Accessories extension kit (tiers) for Small-Bottle roller mixers

DWK Life Sciences.

For extension with max. 2 additional platforms as 2nd and 3rd tiers. Each tier must be ordered separately.

Designation	Art. No.	Pack Qty.	€
Extension kit	**EPX9.1**	1 unit(s)	699,85



Cell culture roller mixer Mini-bottle

DWK Life Sciences.

Capacity: 4 positions. Specially designed for mixing and stirring small quantities in bottles. For serum bottles (from 30 ml), media bottles (100 to 125 ml) and culture tubes (38 x 200 mm). Each tier is designed to hold at least 4 bottles.

- With optional accessories, expandable to 12 positions with 2 additional tiers.
- Speed range depends on the bottle Ø:
  speed range for bottles with max. Ø 38 mm: 3 to 45 rpm
  speed range for bottles with max. Ø 60 mm: 2 to 30 rpm

Technical specifications:

Art. No.	EPX7.1
Type	Mini-bottle
Max. bottle dimensions	Ø 38 to 60 mm, max. L 240 mm
W x D x H	320 x 325 x 180 mm
Permissible ambient conditions	10 to 40 °C at 80% RH
Weight	8 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. standard roller system for 4 bottles. Expansions kit for additional flasks, please order separately.

Type	Art. No.	Pack Qty.	€
Mini-bottle	**EPX7.1**	1 unit(s)	2.680,00



Accessories extension kit (tiers) for Mini-Bottle roller mixers

DWK Life Sciences.

For extension with max. 2 additional platforms as 2nd and 3rd tiers. Each tier must be ordered separately.

Designation	Art. No.	Pack Qty.	€
Extension kit	**EYH1.1**	1 unit(s)	922,35



Rocker and 3D shakers RS series

Phönix Instrument.

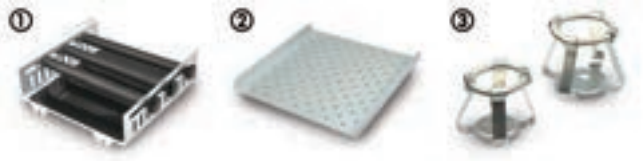
- Continuous speed adjustment
- With optional tray for Erlenmeyer flasks or with additional universal tray for adaptation to all types of vial through infinitely adjustable clamping rolls (please order desired tray separately)

Technical specifications:

Art. No.	HEH4.1	HEH5.1
Type	RS-RS 5	RS-DS 5
Movement type	seesaw	circular 3D rocking movement
Speed range	to 80 rpm	
Tilt angle	7 °	
Shaking surface area	240 x 240 mm	
W x D x H	270 x 330 x 110 mm	
Loading capacity	3 kg	
Permissible ambient conditions	4 to 40 °C at 80 % RH	
Weight	2.9 kg	3.2 kg
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. tray top with 6 fixing bands.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	RS-RS 5	**HEH4.1**	1 unit(s)	521,40
(2)	RS-DS 5	**HEH5.1**	1 unit(s)	521,40



Accessories for RS series platform shakers

Phönix Instrument.

(1) Universal attachment
Loading options: E.g. 6 x 250 ml Erlenmeyer flasks.

Delivery incl. 3 adjustable tension rollers.

Designation	Art. No.	Pack Qty.	€
Universal attachment	**CAY0.1**	1 unit(s)	145,15

(2) Spring clip attachment
For shaking of Erlenmeyer flasks. With holes for individual placement of spring clips.

Delivery without spring clips, please order separately.

Designation	Art. No.	Pack Qty.	€
Spring clip attachment	**CAY1.1**	1 unit(s)	145,15

(3)

Designation	Art. No.	Pack Qty.	€
Spring clip for 25 ml flasks (max. 18)	**CAY2.1**	1 unit(s)	28,95
Spring clip for 50 ml flasks (max. 18)	**CAY3.1**	1 unit(s)	31,10
Spring clip for 100 ml flasks (max. 9)	**CAY4.1**	1 unit(s)	31,10
Spring clip for 250 ml flasks (max. 6)	**CAY5.1**	1 unit(s)	40,75
Spring clip for 500 ml flasks (max. 4)	**CAY6.1**	1 unit(s)	43,70



NEW / +

Rocker shakers digital Tube Rocker

Thermo.

For gentle mixing of samples in standard tubes or centrifuge tubes by means of tilting movement.

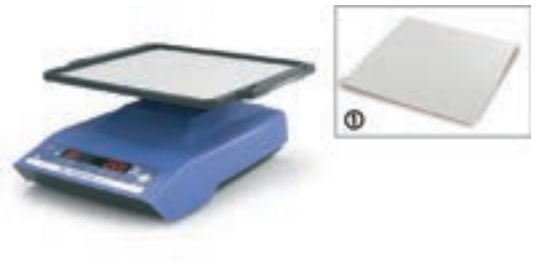
- Digital speed and tilt display
- Electronically adjustable tilt angle
- Studded rubber mat can be removed for cleaning
- For 16 tubes, Ø 10 to 20 mm or 7 tubes, Ø 22 to 30 mm

Technical specifications:

Art. No.	1L97.1
Type	Digital Tube Rocker
Movement type	See-saw
Speed range	2 to 40 rpm
Tilt angle	1–48 °
Shaking surface area	330 x 140 mm
W x D x H	411 x 144 x 146 mm
Permissible ambient conditions	5 to 40 °C at 85% RH
Weight	3,4 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. studded mat for tubes.

Type	Art. No.	Pack Qty.	€
Digital Tube Rocker	**1L97.1**	1 unit(s)	794,00



Rocker shakers Rocker 2D series

IKA.

Various attachments for different applications. Suitable for Petri dishes, culture bottles and sample tubes .

Technical specifications:

Art. No.	XT46.1	XT47.1
Type	Rocker 2D Basic	Rocker 2D digital
Movement type	seesaw	
Speed range	5 to 80 rpm	
Speed display	LED	
Tilt angle	8 °	0–15 °
Timer		1 s to 99.9 h or continuous operation
Timer display		LED
Shaking surface area	240 x 240 mm	
W x D x H	280 x 330 x 150 mm	
Loading capacity	2 kg	
Permissible ambient conditions	4 to 50 °C at 80 % rel. humidity	
Weight	2.2 kg	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. basic tray, (1) anti-slip universal mat for fixing culture bottles, Petri dishes, etc.

Model 2D basic

- With digital speed display
- Fixed tilt angle

Type	Art. No.	Pack Qty.	€
Rocker 2D Basic	**XT46.1**	1 unit(s)	987,00

Model 2D digital

- With digital speed and time display
- Manually adjustable tilt angle

Type	Art. No.	Pack Qty.	€
Rocker 2D digital	**XT47.1**	1 unit(s)	1.050,00



Accessories attachment for shaker Rocker series

IKA.

Pic.	Designation	Art. No.	Pack Qty.	€
(2)	Studded mat for tubes	**CHH3.1**	1 unit(s)	27,00
(3)	Attachment for 28 x 5 ml (Ø 12 mm) sample tubes	**XT48.1**	1 unit(s)	43,00
(4)	Attachment for 16 x 15 ml (Ø 16 mm) sample tubes	**XT49.1**	1 unit(s)	43,00
(5)	Attachment for 10 x 50 ml (Ø 28 mm) sample tubes	**XT50.1**	1 unit(s)	43,00



Accessories expansion tray for shaker Rocker series

IKA.

Further platform as 2nd. tier fixable to base tray. Please order desired attachment/mat separately.

Designation	Art. No.	Pack Qty.	€
Expansion tray for rocker series	**XT51.1**	1 unit(s)	78,00



Rocker shaker 2D Digital Rocker

Thermo.

For protein synthesis, ELISA, gel colouring and discolouration, antibody colouring and hybridisation.

- Digital speed and time display
- Capacity for 6 x 96-well plates
- Inclination angle can be electronically adjusted from 1 to 15°

Technical specifications:

Art. No.	1AT5.1
Type	2D Digital Rocker
Movement type	seesaw
Speed range	1 to 70 rpm
Speed display	LED
Tilt angle	1–15 °
Timer	1 min to 99 h, 59 min or continuous operation
Shaking surface area	282 x 322 mm
W x D x H	292 x 390 x 206 mm
Loading capacity	3 kg
Permissible ambient conditions	5 to 40 °C at 85 % RH
Weight	13,5 g
Mains connection	100–240 V, 50/60 Hz

Delivery incl. dimpled rubber mat.

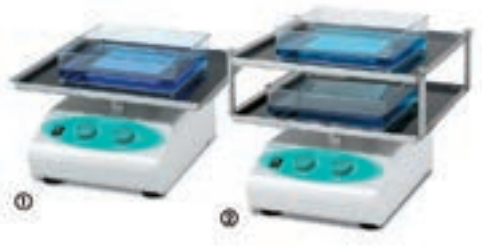
Type	Art. No.	Pack Qty.	€
2D Digital Rocker	**1AT5.1**	1 unit(s)	948,00

Accessories universal mat for 2D Digital Rocker

Thermo.

Smooth, slip-resistant surface for dishes, culture bottles and bags. Dimensions W 282 x D 322 mm.

Type	Art. No.	Pack Qty.	€
Universal mat for 2D Digital Rocker	**1AT6.1**	1 unit(s)	38,10



Rocker shakers ProBlot 25/25 XL series

Labnet International.

For dying, beaching and washing gels, DNA extraction as well as hybridisation.

- Gentle, linear rocking motion
- Inclination is fixed
- With anti-slip rubber pad
- With timer (0-120 min)

Technical specifications:

Art. No.	LX35.1	LX36.1	LX37.1	LX38.1
Type	ProBlot 25	ProBlot 25 D, 2 tiers	ProBlot 25 XL	ProBlot 25 XL D, 2 tiers
Version	Standard	2 platforms	Standard	2 platforms
Movement type	seesaw			
Speed range	10 to 120 rpm			
Tilt angle	7 °			
Timer	0 to 120 min or continuous operation			
Shaking surface area	260 x 200 mm		300 x 300 mm	
Level distance		90 mm		90 mm
W x D x H	290 x 320 x 145 mm		325 x 360 x 145 mm	
Loading capacity	5 kg			
Permissible ambient conditions	4 to 40 °C at 80 % RH			
Weight	6 kg			
Mains connection	230 V, 50/60 Hz			

Platform 260 x 200 mm

Pic.	Type	Art. No.	Pack Qty.	€
(1)	ProBlot 25	**LX35.1**	1 unit(s)	1.047,05
(2)	ProBlot 25 D, 2 tiers	**LX36.1**	1 unit(s)	1.115,85

Platform 300 x 300 mm

Type	Art. No.	Pack Qty.	€
ProBlot 25 XL	**LX37.1**	1 unit(s)	1.170,70
ProBlot 25 XL D, 2 tiers	**LX38.1**	1 unit(s)	1.290,00



3D rocker shaker Mini series

Labnet International.

General information for all models:

- Space-saving design with small footprint
- Speed and tilt angle are preset

Technical specifications:

Art. No.	ET51.1	NP21.1
Type	GyroMini™	Enduro MiniMix™
Movement type	circular 3D rocking movement	
Speed	20 rpm	
Tilt angle	20 °	5 °
Shaking surface area	240 x 170 mm	
W x D x H	240 x 170 x 150 mm	
Loading capacity	0.8 kg	
Permissible ambient conditions	4 to 40 °C at 80 % RH	
Weight	0.88 kg	
Mains connection	230 V, 50 Hz	

(1) Model 3D rocker shaker GyroMini™
For test tubes. For gentle blending of samples, e.g. in blood vials or centrifuge tubes.

Loading options: 60 reaction vials 1.5/2.0 ml or 16 centrifuge tubes 15 ml or 8 centrifuge tubes 50 ml or 20 Standard-blood vials 7 ml.

Delivery incl. removable studded mat.

Type	Art. No.	Pack Qty.	€
GyroMini™	**ET51.1**	1 unit(s)	640,70

(2) Model 3D rocker shaker Enduro MiniMix™
For sensitive gels and blots. The smaller tilt angle prevents gels/blots from drying out and/or breaking.

Delivery incl. anti-slip rubber mat and 2 large blotting boxes.

Type	Art. No.	Pack Qty.	€
Enduro MiniMix™	**NP21.1**	1 unit(s)	565,45

Accessories blotting boxes for 3D rocker shaker Enduro MiniMix™

Labnet International.

Blotting box, large
Dimensions: L 117 mm x W 89 mm. For 6-10 ml of solution.

Designation	Art. No.	Pack Qty.	€
Blotting box, large	**NP22.1**	10 unit(s)	152,10

Blotting box, small
Dimensions: L 91 mm x W 66 mm. For 3-5 ml of solution.

Designation	Art. No.	Pack Qty.	€
Blotting box, small	**NP23.1**	10 unit(s)	136,85



Wobble shakers Rocker 3D series

IKA.

Various attachments for different applications. Ideal for motion with low foaming, DNA extraction as well as staining and bleaching.

Technical specifications:

Art. No.	XT52.1	XT53.1
Type	Rocker 3D basic	Rocker 3D digital
Movement type	circular 3D rocking movement	
Speed range		5 to 80 rpm
Speed	30 rpm	
Speed display		LED
Tilt angle	8 °	0–15 °
Timer		1 s to 99.9 h or continuous operation
Timer display		LED
Shaking surface area	240 x 240 mm	
W x D x H	280 x 330 x 165 mm	280 x 330 x 185 mm
Loading capacity	2 kg	
Permissible ambient conditions	4 to 50 °C at 80 % rel. humidity	
Weight	2.2 kg	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. basic tray, anti-slip universal mat (1) for fixing culture bottles, Petri dishes, etc.

Model 3D basic
Tilt angle and speed are fixed.

Type	Art. No.	Pack Qty.	€
Rocker 3D basic	**XT52.1**	1 unit(s)	1.050,00

Model 3D digital

- With digital speed and time display
- Manually adjustable tilt angle

Type	Art. No.	Pack Qty.	€
Rocker 3D digital	**XT53.1**	1 unit(s)	1.110,00



Accessories attachment for shaker Rocker series

IKA.

Pic.	Designation	Art. No.	Pack Qty.	€
(2)	Studded mat for tubes	**CHH3.1**	1 unit(s)	27,00
(3)	Attachment for 28 x 5 ml (Ø 12 mm) sample tubes	**XT48.1**	1 unit(s)	43,00
(4)	Attachment for 16 x 15 ml (Ø 16 mm) sample tubes	**XT49.1**	1 unit(s)	43,00
(5)	Attachment for 10 x 50 ml (Ø 28 mm) sample tubes	**XT50.1**	1 unit(s)	43,00



Accessories expansion tray for shaker Rocker series

IKA.

Further platform as 2nd. tier fixable to base tray. Please order desired attachment/mat separately.

Designation	Art. No.	Pack Qty.	€
Expansion tray for rocker series	**XT51.1**	1 unit(s)	78,00

ROTH SELECTION



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3D rocker shaker

Stuart.

With orbital 3D rocking motion. For DNA extraction, for dying and bleaching of gels, for particularly low foaming.

General information for all models:

- Soft rocking motion
- Digital LED display for speed and timer
- Manually adjustable tilt angle
- Optionally extendible to 3 tiers with additional platforms (see figure; please order separately)

Technical specifications:

Art. No.	AT53.1	EP82.1
Type	SSM3	SSL3
Movement type	circular 3D rocking movement	
Speed range	5 to 70 rpm	
Tilt angle	3–12 °	
Timer	0 to 999 min or continuous operation	
Shaking surface area	235 x 235 mm	335 x 335 mm
W x D x H	240 x 300 x 165 mm	360 x 420 x 170 mm
Loading capacity	3 kg	10 kg
Permissible ambient conditions	4 to 40 °C at 80 % RH	
Weight	5 kg	10 kg
Mains connection	230 V, 50/60 Hz	

Delivery incl. 1 platform with integrated anti-slip mat.

(1) Model SSM3

- Mini platform for low number of samples
- Shaking area W 235 x D 235 mm
- Space-saving design

Type	Art. No.	Pack Qty.	€
SSM3	**AT53.1**	1 unit(s)	1.240,00

(3) Model SSL3

- Large platform to accommodate numerous samples
- Shaking area W 335 x D 335 mm

Type	Art. No.	Pack Qty.	€
SSL3	**EP82.1**	1 unit(s)	1.501,00

Accessories attachment system for 3D rocker shaker

Stuart.

Delivery incl. 8 fastening rods.

(2) For 3D mini rocke shakers
With two additional platforms as 2nd and 3rd floor. Quick to assemble without tools.

Designation	Art. No.	Pack Qty.	€
for SSM3	**AT54.1**	1 unit(s)	294,00
for SSL3	**EP83.1**	1 unit(s)	369,00

Overhead mixers, rotators



3D rocker shaker TL 2

Edmund Bühler.

Powder-coated metal housing. With slow three-dimensional movement for even, gentle mixing. For homogeneous mixing in culture bottles and Petri dishes or flasks. Ideal e.g. for breeding cell cultures and DNA extractions. LED display for setting the speed and operating time.

Technical specifications:

Art. No.	**HYK4.1**
Type	TL 2 3D rocker shaker
Movement type	circular 3D rocking movement
Speed	1–22 rpm
Speed display	LED
Timer	0 to 99 h, 59 min or continuous operation
Shaking surface area	220 x 220 mm
W x D x H	250 x 415 x 118 mm
Loading capacity	2 kg
Permissible ambient conditions	5 to 45 °C at 85 % RH
Weight	9,1 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. basic unit, including vibration plate with rubber anti-slip mat.

Type	Art. No.	Pack Qty.	€
TL 2 3D rocker shaker	**HYK4.1**	1 unit(s)	2.041,45



Accessories expansion tray for TL 2 3D rocking shaker

Edmund Bühler.

Can be expanded with an additional platform as a second level. Height 80 mm.

Delivery incl. finely scored rubber mat.

Designation	Art. No.	Pack Qty.	€
Expansion tray for TL 2 3D laboratory rocking shaker	**HYK5.1**	1 unit(s)	144,05



Rotator Tube revolver for sample tubes

Thermo.

For mixing samples in test tubes.

- With LED speed display
- Turntable can be positioned at any angle (exception: turntable for 50 ml centrifuge tubes can only be positioned horizontally or vertically)
- Turntable are easy to replace
- Overhead mixing function with activateable agitation mode (additional shaking every 40° during every second rotation cycle)
- Max. 4 turntables can be attached at once (exception: only 1 turntable can be attached for 50 ml centrifuge tubes)

Technical specifications:

Art. No.	**ATX1.1**
Type	Tube revolver
Speed range	10 to 40 rpm
W x D x H, external	225 x 154 x 195 mm
Permissible ambient conditions	4 to 60 °C at 80 % rel. humidity
Weight	1.2 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 2 turntables for 7 centrifuge tubes 15 ml, 2 turntables for 7 blood collection tubes 5/7 ml, 2 turntables for 15 reaction vials 1.5/2.0 ml, 2 turntables for 21 reaction vials 0.5/0.8 ml and 1 turntable for 6 centrifuge tubes 50 ml.

Type	Art. No.	Pack Qty.	€
Tube revolver	**ATX1.1**	1 unit(s)	428,00

Accessories turntables for rotator tube revolvers

Thermo.

Designation	Art. No.	Pack Qty.	€
7 centrifuge tubes 15 ml (Ø 16-17 mm)	**ATX2.1**	2 unit(s)	16,35
7 blood collection vials 5/7 ml (Ø 12-13 mm)	**ATX3.1**	2 unit(s)	16,35
15 reaction vials 1.5/2.0 ml (Ø 10-11 mm)	**ATX4.1**	2 unit(s)	16,35
21 reaction vials 0.5/0.8 ml (Ø 7.5-8.5 mm)	**ATX5.1**	2 unit(s)	16,35
6 reaction vials 50 ml (Ø 28-29 mm)	**ATX6.1**	1 unit(s)	24,55

Overhead mixers, rotators





Rotator Revolver mixer for test and sample tubes

Labnet International.

For a variety of mixing tasks in microbiology, biochemistry and histochemistry.

- Sample containers can be positioned horizontally and vertically, as well as in any inner?e position
- Both halves of the particular rotary module can be arranged separately
- With fixed speed of 20 rpm
- Gentle vertical mixing for applications such as hybridisation (rolling mixing motion); vertically positioned tubes for overhead mixing of blood sample tubes for example
- Rotary module halves can be fixed without tools

Technical specifications:

Art. No.	PP49.1
Type	Revolver mixer
Speed	20 rpm
W x D x H, external	239 x 127 x 225 mm
Permissible ambient conditions	4 to 65 °C at 80 % rel. humidity
Weight	2 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. rotary module for 36 reaction vials 1.5/2.0 ml. Additionally desired rotary modules, please order separately.

Type	Art. No.	Pack Qty.	€
Revolver mixer	**PP49.1**	1 unit(s)	551,50

Accessories turntables for rotator revolver mixer

Labnet International.

Designation	Art. No.	Pack Qty.	€
10 centrifuge tubes 15 ml and 16 for blood sample tubes 5/7 ml	**PP50.1**	1 unit(s)	70,20
6 centrifuge tubes 50 ml	**PP51.1**	1 unit(s)	67,80



Overhead rotor RS-RR 5

Phönix Instrument.

With soft rotating overhead mixing function for reaction vials and other test tubes / centrifuge vials.

- Analogue variable speed adjustment
- Adjustable screw feet
- Max. load:
  34 reaction vials 1.5/2.0 ml
  22 centrifuge tubes 15 ml
  16 centrifuge tubes 50 ml

Technical specifications:

Art. No.	CHA4.1
Type	RS-RR 5
Speed range	0 to 80 rpm
W x D x H, external	530 x 150 x 190 mm
Weight	1.7 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 36 clips (12 clips each for reaction tubes 1.5/2.0 ml and 12 clips each for centrifuge tubes 15/50 ml).

Type	Art. No.	Pack Qty.	€
RS-RR 5	**CHA4.1**	1 unit(s)	564,40

Accessories fastening clip for rotator RS-RR 5

Phönix Instrument.

Designation	Art. No.	Pack Qty.	€
Reaction vessels 1,5/2,0 ml (Ø 11 mm)	**CHA1.1**	12 unit(s)	24,65
Centrifuge tubes 15 ml (Ø 17 mm)	**CHA2.1**	12 unit(s)	24,65
Centrifuge tubes 50 ml (Ø 29 mm)	**CHA3.1**	12 unit(s)	24,65

Overhead mixers, rotators



Overhead mixer Trayster series

IKA.

For a wide variety of mixing tasks in microbiology. For blending samples in reaction vials, sample tubes and blood vials. Suitable for separation and mixing of powdery and liquid samples. With soft rotating overhead mixing function.

Technical specifications:

Art. No.	ANE5.1	ANE6.1
Type	Trayster basic	Trayster digital
Speed range		5 to 80 rpm
Speed	20 rpm	
Speed display		LED
Timer		1 s to 99 h or continuous operation
Timer display		LED
W x D x H, external	460 x 160 x 150 mm	
Permissible ambient conditions	4 to 50 °C at 80 % rel. humidity	
Weight	1.7 kg	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. standard tray to accommodate at total of 3 inserts. Without inserts, please order separately.

Basic model

With fixed speed

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Trayster basic	**ANE5.1**	1 unit(s)	987,00

Model Digital

With infinitely adjustable speed and timer function

Pic.	Type	Art. No.	Pack Qty.	€
(2)	Trayster digital	**ANE6.1**	1 unit(s)	1.050,00

Accessories inserts for standard tray Trayster series

IKA.

Designation	Art. No.	Pack Qty.	€
24 reaction vessels 1.5/2.0 ml (Ø 11 mm)	**ANE7.1**	1 unit(s)	51,00
12 centrifuge tubes 15 ml (Ø 17 mm)	**ANE9.1**	1 unit(s)	51,00
6 centrifuge tubes 50 ml (Ø 29 mm)	**ANH0.1**	1 unit(s)	51,00
24 test tubes 5 ml (Ø 12 mm)	**ANE8.1**	1 unit(s)	51,00



Rotator RS-RD 5

Phönix Instrument.

For soft and gentle mixing of samples in various tubes/vials.

- Analogue variable speed adjustment
- Adjustable screw feet
- Fixed 90° rotation angle

- Max. loading options:
  48 reaction vials 1.5/2.0 ml
  8 centrifuge tubes 15 ml
  8 centrifuge tubes 50 ml

Technical specifications:

Art. No.	CHA0.1
Type	RS-RD 5
Speed range	0 to 80 rpm
W x D x H, external	220 x 300 x 310 mm
Weight	2 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 36 clips (12 clips each for reaction tubes 1.5/2.0 ml and 12 clips each for centrifuge tubes 15/50 ml).

Type	Art. No.	Pack Qty.	€
RS-RD 5	**CHA0.1**	1 unit(s)	564,40

Accessories fastening clip for rotator RS-RR 5

Phönix Instrument.

Designation	Art. No.	Pack Qty.	€
Reaction vessels 1,5/2,0 ml (Ø 11 mm)	**CHA1.1**	12 unit(s)	24,65
Centrifuge tubes 15 ml (Ø 17 mm)	**CHA2.1**	12 unit(s)	24,65
Centrifuge tubes 50 ml (Ø 29 mm)	**CHA3.1**	12 unit(s)	24,65

Overhead mixers, rotators



Rotator Loopster series

IKA.

Suitable for soft separation and mixing of powdery and liquid samples. Freely adjustable rotary angle (0 to 90°). Different attachments enable units to be used for a variety of applications.

Technical specifications:

Art. No.	ANH1.1	ANH2.1
Type	Loopster basic	Loopster digital
Speed range		5 to 80 rpm
Speed	20 rpm	
Speed display		LED
Timer		1 s to 99 h or continuous operation
Timer display		LED
W x D x H, external	300 x 300 x 360 mm	
Permissible ambient conditions	4 to 50 °C at 80 % rel. humidity	
Weight	3 kg	
Mains connection	100–240 V, 50/60 Hz	

Delivery without turntables. Please order required turntable separately.

Basic model
With fixed set speed.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Loopster basic	**ANH1.1**	1 unit(s)	889,00

Model Digital
With infinitely adjustable speed, digital timer function and speed display.

Pic.	Type	Art. No.	Pack Qty.	€
(2)	Loopster digital	**ANH2.1**	1 unit(s)	954,00

Accessories standard turntable for Rotator Loopster series

IKA.

Designation	Art. No.	Pack Qty.	€
48 reaction vessels 1.5/2.0 ml (Ø 11 mm)	**ANH3.1**	1 unit(s)	231,00
24 test tubes 5 ml (Ø 12 mm)	**ANH4.1**	1 unit(s)	165,00
20 centrifuge tubes 15 ml (Ø 17 mm)	**ANH5.1**	1 unit(s)	165,00
12 test tubes 30 ml (Ø 25 mm)	**ANH6.1**	1 unit(s)	165,00
12 centrifuge tubes 50 ml (Ø 29 mm)	**ANH7.1**	1 unit(s)	165,00

Accessories universal turntable for rotator Loopster series

IKA.

Individually configurable. Fastening clips are required for attaching test tubes. Please order separately.
Max. loading options:
36 reaction vials 1.5/2.0 ml
24 sample tubes 5 ml (Ø 12 mm)
12 centrifuge tubes 15 ml
8 sample tubes 30 ml (Ø 15 mm)l
8 centrifuge tubes 50 ml

Designation	Art. No.	Pack Qty.	€
Universal turntable	**ANH8.1**	1 unit(s)	142,00

Accessories fastening clip for universal turntables

IKA.

Designation	Art. No.	Pack Qty.	€
Reaction vials 1.5/2.0 ml (Ø 11 mm)	**ANH9.1**	12 unit(s)	43,00
Sample tubes 5 ml (Ø 12 mm)	**ANK0.1**	12 unit(s)	43,00
Centrifuge tubes 15 ml (Ø 17 mm)	**ANK1.1**	12 unit(s)	43,00
Sample tubes 30 ml (Ø 25 mm)	**ANK2.1**	12 unit(s)	43,00
Centrifuge tubes 50 ml (Ø 29 mm)	**ANK3.1**	12 unit(s)	43,00



Rotator SB series

Stuart.

For gentle blending of samples, such as culture tubes, blood vials and reaction vials, for example.

- Turntables available for different vessels
- Freely adjustable angle of rotation

Technical specifications:

Art. No.	Y549.1	Y550.1
Type	SB 2	SB 3
Speed range		2 to 40 rpm
Speed	20 rpm	
Speed display		digital
Timer		1 to 999 min
W x D x H, external	200 x 270 x 240 mm	
Permissible ambient conditions	4 to 60 °C at 80 % rel. humidity	
Weight	3.2 kg	
Mains connection	230 V, 50 Hz	

Delivery incl. basic unit without turntable.
Please order required turntables separately.

Model SB 2
With fixed set speed

Type	Art. No.	Pack Qty.	€
SB 2	**Y549.1**	1 unit(s)	545,00

Model SB 3
With variable speed control, digital speed display and timer function

Type	Art. No.	Pack Qty.	€
SB 3	**Y550.1**	1 unit(s)	795,00

Accessories turntables for rotators SB 2 and SB 3

Stuart.

Designation	Art. No.	Pack Qty.	€
40 reaction vials 1,5/2,0 ml	**Y551.1**	1 unit(s)	275,00
20 sample vials Ø 9-20 mm	**Y552.1**	1 unit(s)	275,00
12 centrifuge tubes 50 ml	**Y553.1**	1 unit(s)	295,00
63 culture tubes Ø 12 mm	**Y554.1**	1 unit(s)	365,00
63 culture tubes Ø 16 mm	**Y555.1**	1 unit(s)	305,00

Accessories double holder for 2 turntables

Stuart.

Allows the simultaneous use of 2 turntables.
Please order required turntable separately.

Designation	Art. No.	Pack Qty.	€
Double holder	**XK80.1**	1 unit(s)	136,60



Rotator Genie®

Scientific Industries.

Overhead rotator for mixing specimens in reaction vials, culture tubes, test tubes etc.

- Easy, tool-free platform replacement
- The platforms can be loaded from both sides (assuming they are loaded evenly)

Technical specifications:

Art. No.	PH63.1	PH64.1
Type	With standard platform	With magnetic platform
Speed range	5 to 35 rpm	
Shaking surface area	260 x 260 mm	292 x 292 mm
W x D x H, external	400 x 290 x 400 mm	
Weight	5.2 kg	
Mains connection	230 V, 50/60 Hz	

Model with standard platform
(1) with rubber bands for versatile fastening of a variety of vials and tubes with max. diameter from 85 mm. Fastening clamps in the middle of the platform to adjust the length of the bands.

(2) The standard platform attaches variably to the mixer at an angle of 90°. Various mixing actions are possible thanks to the flexible attachment system and different tube placements.

Delivery incl. 8 rubber bands.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	With standard platform	**PH63.1**	1 unit(s)	1.079,30

(3) Model with magnetic platform
Mounts for tubes and other specimens can be attached to the magnetic plate (please order mounts separately).

Pic.	Type	Art. No.	Pack Qty.	€
(3)	With magnetic platform	**PH64.1**	1 unit(s)	1.120,15



Accessories additional platforms for Rotator Genie®

Scientific Industries.

Designation	Art. No.	Pack Qty.	€
Standard platform with 8 rubber straps	**PH65.1**	1 unit(s)	238,65
Magnetic platform	**PH66.1**	1 unit(s)	279,50

Accessories for Rotator Genie®, Roto-Shake Genie® and Enviro-Genie®

Scientific Industries.

Designation	Art. No.	Pack Qty.	€
Holder with 12 clips for tubes-Ø from 10 to 13 mm	**P519.1**	6 unit(s)	233,30
Holder with 6 clips for tubes-Ø from 15 to 17 mm	**P520.1**	6 unit(s)	233,30
Holder with 3 clips for tubes-Ø from 28 to 30 mm	**P521.1**	6 unit(s)	233,30
Magnetic strip for bags, 75 x 75 mm	**P522.1**	16 unit(s)	101,40

Rotators with accessories



Multifunction mixer Genie® Roto-Shake

Scientific Industries.

The universally applicable shaker with rocking, rotational and shaking motion. Depending on the positioning
of the vials, different mixing movements can be attained: rotating, tilting/shaking, tilting/rotating, tilting/rolling, rotating/rolling as well as a combination of these movements. The moving part consists of a double-sided, magnetic stainless steel plate 34 x 20 cm.
Easy to operate, **change-over from rotating to tilting movement as with a single hand movement.** Holders for vials with a diameter of 10 to 13 mm, 15 to 17 mm, or 28 to 30 mm or magnetic strips for holding the bags 75 x 75 mm can be placed on the magnetic plates.

Technical specifications:

Art. No.	P518.1
Type	Roto-Shake Genie®
Rotating	5 - 35 rpm
Tilting	10 to 70 cycles per min
Vibrating angle	±10 °
Shaking surface area	340 x 200 mm
W x D x H, external	508 x 252 x 267 mm
Permissible ambient conditions	0 to 38 °C at 85% RH
Weight	11.8 kg

Delivery incl. 1 multifunction mixer Roto-Shake Genie®, 1 holder with 12 clips for tubes-Ø 10 to 13 mm, 1 holder with 6 clips for tubes-Ø 15 to 17 mm, 1 holder with 3 clips for tubes-Ø 28 to 30 mm, 4 magnetic strips for 2 bags 75 x 75 mm, 1 shaker platform (203 x 305 mm) with anti-slip mat for Petri dishes, etc.

Type	Art. No.	Pack Qty.	€
Roto-Shake Genie®	**P518.1**	1 unit(s)	1.570,60

Accessories for Rotator Genie®, Roto-Shake Genie® and Enviro-Genie®

Scientific Industries.

Designation	Art. No.	Pack Qty.	€
Holder with 12 clips for tubes-Ø from 10 to 13 mm	**P519.1**	6 unit(s)	233,30
Holder with 6 clips for tubes-Ø from 15 to 17 mm	**P520.1**	6 unit(s)	233,30
Holder with 3 clips for tubes-Ø from 28 to 30 mm	**P521.1**	6 unit(s)	233,30
Magnetic strip for bags, 75 x 75 mm	**P522.1**	16 unit(s)	101,40



Rotator STR 4

Stuart.

Supplied with various rotary modules for different applications.

Technical specifications:

Art. No.	X466.1
Type	STR 4
Rotation speed	6–60 rpm
Timer	10 to 60 min or continuous operation
W x D x H, external	650 x 250 x 250 mm
Weight	6.4 kg
Mains connection	230 V, 50 Hz

Delivery incl. basic unit without rotary module. Please order rotary module separately.

Type	Art. No.	Pack Qty.	€
STR 4	**X466.1**	1 unit(s)	1.545,00



Accessories rotary module for containers for rotator STR4

Stuart.

For fastening 4 containers (bottles, cans) with an adjustable velcro-fastener belts.

- With 4-fold partitioned holders made of acrylic glass.
- Maximum container dimensions: length 300 mm, Ø 120 mm
- Maximum load: 5000 g

Designation	Art. No.	Pack Qty.	€
Container rotary module	**X472.1**	1 unit(s)	573,00

Rotators with accessories



Accessories sample tubes rotary module for rotator STR4

Stuart.

Four different clip holders can be attached to the clip-holders.

Delivery incl. rotary module without clip holders, please order separately.

Designation	Art. No.	Pack Qty.	€
Rotary module for sample tubes	**X467.1**	1 unit(s)	577,00

Accessories clip holder for samples tubes rotary module

Stuart.

Designation	Art. No.	Pack Qty.	€
For 12 tubes Ø 12 mm	**X468.1**	1 pair	218,00
For 10 tubes Ø 16 mm	**X469.1**	1 pair	205,00
For 8 tubes Ø 19 mm	**X470.1**	1 pair	205,00
For 7 tubes Ø 24 mm	**X471.1**	1 pair	205,00



Accessories rotary module for reaction vials for rotator STR4

Stuart.

Comprises 4 racks each for 60 x 15 ml reaction vials.

Designation	Art. No.	Pack Qty.	€
Rotary module for reaction vials	**X473.1**	1 unit(s)	1.142,00



Multifunction mixer Enviro Genie® temperature-controllable

Scientific Industries.

Mixing, stirring and tempering units for 5 different applications: **cooling – incubating – rotating – tilting/shaking – stirring**

- Easy-to-read digital display
- With large window for viewing the samples
- **Change-over from rotating to tilting movement as with a single hand movement**
- Holders for vials and other vessels, e.g. for blood and sample vials, centrifuge tubes, tissue culture bottles, staining vessels, sample bags can be placed on the magnetic platform
- **Temperature range adjustable from +4 to +75 °C**
- Visual and acoustic alarm for temperature and time
- Programmable timer function (up to 96 mins)
- **Two magnetic stirrers are integrated in the incubator**, reverse mode is possible. Max. stirring quantity per platform: 1 litre. Platform-Ø: 90 mm each.
- RS 232 port

Technical specifications:

Art. No.	AH71.1
Type	Enviro-Genie®
Rotating	1–35 rpm
Tilting	2–70 cycles per min
Stirring	1–2000 rpm
Temperature range	+4 to +75 °C
Resolution	0,1 °C
Accuracy	±0,2 °C
W x D x H, interior	362 x 254 x 260 mm
W x D x H, external	622 x 495 x 368 mm
Vol.	24 l
Loading capacity	4.5 kg
Weight	36 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. 1 multifunction mixer Enviro-Genie®, 1 double-sided magnetic platform (200 x 340 mm), 1 holder with 12 clips for tubes-Ø 10 bis 13 mm, 1 holder with 6 clips for tubes-Ø 15 bis 17 mm, 1 holder with 3 clips for tubes-Ø 29 bis 32 mm, 4 magnetic strips for 2 bags 15.3 x 15,3 cm, 1 wire rack, 1 shaking tray (203 x 305 mm).

Type	Art. No.	Pack Qty.	€
Enviro-Genie®	**AH71.1**	1 unit(s)	7.720,65

Rotators with accessories



Overhead mixer REAX 2

Heidolph.

Can be used for a variety of applications. With electronically controlled rotational speed. Two different holder can be connected. **Holder 1** for mixing up to 20 test tubes Ø 10-18 mm, please order separately.

Technical specifications:

Art. No.	**H827.1**
Type	REAX 2
Speed range	20 to 100 rpm
W x D x H, external	510 x 180 x 235 mm
IP rating	21
Permissible ambient conditions	0 to 40 °C at 80% RH
Weight	5.2 kg
Mains connection	230 V, 50 Hz

Delivery incl. universal holder to fasten sealed vessels or test tube racks. Infinitely adjustable height between 45 and 160 mm.

Type	Art. No.	Pack Qty.	€
REAX 2	**H827.1**	1 unit(s)	1.566,00



Accessories holder 1 for overhead mixer REAX 2

Heidolph.

For fasting up to 20 test tubes with Ø 10-18 mm.

Designation	Art. No.	Pack Qty.	€
Holder 1	**H828.1**	1 unit(s)	358,00



Overhead mixer REAX 20 series

Heidolph.

Enables overhead rotation of vessels of different sizes and properties. Suitable for mixing cylinders and wide neck bottles with a length of 160 to 270 mm and diameter up to 136 mm. Ideal for water, sewage water and mud analysis in accordance with DIN 36414. Infinitely adjustable speed range.

Technical specifications:

Art. No.	**KH64.1**	**H830.1**	**KH65.1**
Type	REAX 20/4	REAX 20/8	REAX 20/12
Intake capacity	4 bottle(s)	8 bottle(s)	12 bottle(s)
Speed range	1 to 16 rpm		
W x D x H, external	490 x 520 x 465 mm	770 x 520 x 465 mm	1050 x 520 x 465 mm
Permissible ambient conditions	0 to 40 °C at 80 % RH		
Weight	23 kg	28 kg	33 kg
Mains connection	230 V, 50 Hz		

Delivery incl. holder for 2 l bottles.

Type	Intake capacity (bottle(s))	Art. No.	Pack Qty.	€
REAX 20/4	4	**KH64.1**	1 unit(s)	3.217,00
REAX 20/8	8	**H830.1**	1 unit(s)	3.614,00
REAX 20/12	12	**KH65.1**	1 unit(s)	4.116,00

Accessories fastening set for overhead mixer REAX 20 series

Heidolph.

Designation	Art. No.	Pack Qty.	€
Fastening set for 4 x 1.0 bottles	**KH66.1**	1 set	60,00
Fastening set for 4 x 0.5 l bottles	**KH67.1**	1 set	77,00

Microlitre centrifuges



Mini centrifuge ROTILABO®

Carl ROTH.

With insert for **6 reaction vials** 1.5/2.0 ml. Maximum speed **6000 min**$^{-1}$ (equivalent to 2000 x g). **Small, compact and powerful. Start and stop** is controlled via an **additional switch**.
With transparent polycarbonate lid. The centrifuge is delivered with adapter for 0.5 ml reaction vials. Dimensions: H 120 x W 130 x D 150 mm. Weight 494 g. power connection 220 V, 50/60 Hz.

Delivery incl. adapter for 0.5 ml reaction vials.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Mini-centrifuge with standard rotor	**T464.1**	1 unit(s)	229,00



Mini centrifuge ROTILABO® with butterfly rotor

Carl ROTH.

With insert for PCR vessel strips from 2 x 8 reaction vials à 200 µl per strip. Maximum speed **6000 rpm** (equivalent to 2000 x g). **Small, compact and powerful. Start and stop** is controlled via an **additional switch**. With transparent polycarbonate lid. Dimensions: H 120 x W 130 x D 150 mm. Weight 494 g. power connection 220 V, 50/60 Hz.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Mini centrifuge with butterfly rotor	**T465.1**	1 unit(s)	239,75



Mini centrifuge with Rotor slides

Labnet International.

For fast slide drying, e.gB. for microarray examinations. Suitable for microarray slides 25 x 76 x 1 mm. Dries microarray substrate in less than 10 s.

- Rotor capacity: 2 slides
- Liquid is retained in the slide cassettes
- Cassettes can be removed for cleaning or replaced when necessary
- Max. speed 4,000 rpm (500 to 850 x g)
- Space-saving, compact unit (Ø 127 mm)

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Mini centrifuge	**AH48.1**	1 unit(s)	691,25



Mini centrifuge ROTILABO® Uni-fuge

Carl ROTH.

- Replaceable rotor system (effortless insertion and removal of the rotors included in delivery)
- **Start and stop is controlled via an additional switch**
- Small, compact and powerful
- With transparent PC lid

Technical specifications:

Art. No.	**CX73.1**
Type	Uni-Fuge
Max. capacity	6 x 1.5/2.0 ml reaction vials
Max. speed (in microlitre rotor)	6,000 rpm
Maximum RCF	2000 x g
W x D x H	130 x 150 x 120 mm
Weight	494 g
Mains connection	220 V, 50/60 Hz

Delivery incl. standard rotor for reaction vials 6 x 1.5/2.0 ml, adapter for reaction vials 0.5 ml and one rotor for PCR® vessel strips with 2 x 8 reaction vials à 200 µl per strip.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Uni-Fuge	**CX73.1**	1 unit(s)	239,75

Microlitre centrifuges



Mini centrifuge mini G

IKA.

- Max. capacity: 8 x 1.5/2.0 ml reaction vials
- Rotor interchangeable without tools
- **Digital display for operating time (adjustable from 1 to 99 min)**

Technical specifications:

Art. No.	XT15.1
Type	mini G
Max. capacity	8 x 1.5/2.0 ml reaction vials
Max. speed (in microlitre rotor)	6,000 rpm
Maximum RCF	2000 x g
W x D x H	155 x 175 x 105 mm
Mains connection	230 V, 50/60 Hz

Delivery incl. standard rotor for reaction vials 8 x 1.5/2.0 ml and one rotor for PCR® vessel strips with 4 x 8 reaction vials à 200 µl per strip and adapters for reaction vials 0.5/0.4/0.2 ml.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
mini G	**XT15.1**	1 unit(s)	335,00

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NEW / +

Mini centrifuge Sprout® Plus

Heathrow Scientific.

- Max. capacity: 6 x 1.5/2.0 ml reaction vials
- Rotor can be replaced without tools
- Power button for start/stop
- ABS housing
- Five-year warranty

Technical specifications:

Art. No.	1HAC.1	1HAE.1
Type	Green Sprout	Blue Sprout
Max. capacity	6 x 1.5/2.0 ml reaction vials	
Maximum speed	6,000 rpm	
Maximum RCF	2000 x g	
W x D x H	109 x 153 x 128 mm	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. standard rotor for 6 x 1.5/2.0 ml reaction vials, rotor for PCR® tube strips with 2 x 8 reaction vials of 200 µl per strip, adapters for 0.5/0.2 ml reaction vials, rotor storage box and reaction vial stands with 16 slots.

Not a medical device / Not an IVD product

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Green Sprout	**1HAC.1**	1 unit(s)	292,40
(2)	Blue Sprout	**1HAE.1**	1 unit(s)	292,40

Microlitre centrifuges



Microlitre centrifuge ROTILABO® Gusto®

ROTH SELECTION.

- Max. capacity: 12 x 1.5/2.0 ml reaction vials
- Digital display of speed and running time
- Actual status display during operation
- Pulse button for short spin
- Optional display of rpm or x g
- Rotor changing without tools
- 5 years warranty

Technical specifications:

Art. No.	**XP51.1**
Type	Gusto®
Max. capacity	12 x 1.5/2.0 ml reaction vials
Max. speed (in microlitre rotor)	12,500 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	9800 x g
Minimum speed	500 rpm
Timer function	1 s to 30 min, adjustable in increments of 1 s per short cycle
W x D x H	171 x 203 x 114 mm
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 12-place microlitre rotor with lid, PCR® tube strip rotor for 4 x 8 tube strips à 200 µl per strip and 12 adaptors for 0.5 and 0.2 ml reaction vials.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Gusto®	**XP51.1**	1 unit(s)	991,15



Microlitre centrifuge MagFuge® with magnetic stirrer

Heathrow Scientific.

2-in-1 centrifuge. For twelve 1.5/2.0 ml reaction vials or for six 5 ml reaction vials, with integrated magnetic stirrer for stirring capacities up to max. 3 l.

- Digital display of speed and running time
- With imbalance switch-off and safety cover lock
- Magnetic stirrer rotor can be set to rotate clockwise or anti-clockwise
- Rotor changing without tools
- 5 years warranty

Technical specifications:

Art. No.	**KHC9.1**
Type	MagFuge®
Max. capacity	12 x 1.5/2.0 ml reaction vials or 6 x 5 ml reaction vials
Maximum speed	12,500 rpm
Additional data	Speed adjustable in increments of 25 rpm
Maximum RCF	9783 x g
Minimum speed	500 rpm
Timer function	30 sec to 60 min in 5 sec increments
W x D x H	180 x 235 x 120 mm
Weight	1,85 g
Mains connection	100–240 V, 50/60 Hz

Magnetic stirrer technical specifications:

Max. stirring capacity (H_2O)	3 l
Speed	50 to 2500 min^{-1}
Magnetic stirrer plate	Ø 130 mm
Magnetic stirrer operating time	30 sec to 60 min in 5 sec increments or continuous operation

Delivery incl. microlitre rotor for 12 x 1.5/2.0 ml reaction vials, rotor for 6 x 5 ml reaction vials, rotor for magnetic stirrer function, 12 adapters for 0.2/0.5 ml reaction vials, 2 x silicone mats for the magnetic stirrer rotor, 2 x magnetic bars (L 40 x Ø 12).

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
MagFuge®	**KHC9.1**	1 unit(s)	1.113,70

Microlitre centrifuges



Microlitre centrifuge CD-2012 high speed

Phönix Instrument.

Features:

- Max. capacity: 12 x 1.5/2.0 ml reaction vials
- Illuminated display of speed and running time
- Optional display of rpm or x g
- Impulse button for short spinning of samples

Technical specifications:

Art. No.	HEA7.1
Type	CD-2012 high speed
Max. speed (in microlitre rotor)	15,000 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	15100 x g
Minimum speed	500 rpm
Timer function	30 s to 99 min, adjustable in steps of 1 s / continuous operation / short cycle
W x D x H	260 x 140 x 250 mm
Weight	6 kg
Mains connection	100–240 V, 50/60 Hz

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
CD-2012 high speed	**HEA7.1**	1 unit(s)	962,15

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Microlitre centrifuge G-L

IKA.

- Max. capacity 12 x 1.5/2.0 ml reaction vials
- Display of speed and operating time
- Optional display of rpm or x g
- Nine programme memory locations
- Tool-free rotor replacement
- Unbalance sensor, quick stop

Technical specifications:

Art. No.	KEE7.1
Type	Microlitre centrifuge G-L
Max. speed (in microlitre rotor)	15,700 rpm
Additional data	Adjustable in increments of 100
Maximum RCF	16 500 x g
Minimum speed	800 rpm
Timer function	20 s to 99 min/short cycle (pulse key)
W x D x H	200 x 280 x 140 mm
Weight	3,9 kg
Mains connection	220–230 V, 50/60 Hz

Delivery incl. metal rotor with lid for 12 x 1.5/2.0 ml vials.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Microlitre centrifuge G-L	**KEE7.1**	1 unit(s)	999,00

Accessories for microlitre centrifuge G-L

IKA.

Rotor and lid for 2 x 8 PCR strips suitable for microlitre centrifuge G-L

Designation	Art. No.	Pack Qty.	€
Rotor and lid for 2 x 8 PCR strips à 200 µl per strip	**KEE8.1**	1 unit(s)	213,00

Adaptor sleeves for 0.5 ml reaction vials suitable for microlitre centrifuge G-L

Designation	Art. No.	Pack Qty.	€
Adaptor sleeves for 0.5 ml reaction vials	**KEE9.1**	6 unit(s)	9,70

Adaptor sleeves for 0.2 ml reaction vials suitable for microlitre centrifuge G-L

Designation	Art. No.	Pack Qty.	€
Adaptor sleeves for 0.2 ml reaction vials	**KEH0.1**	6 unit(s)	9,70

Microlitre centrifuges



Microlitre centrifuge MIKRO 185

Hettich.

Sample preparation for molecular biological applications, as well as in the PCR laboratory and much more.

- Max. capacity 24 x 1.5/2.0 ml reaction vials
- Adjustment of centrifuging time, rpm or RCF by means of membrane keyboard

Technical specifications:

Art. No.	**ANP9.1**
Type	MIKRO 185
Max. capacity	24 x 1.5/2.0 ml reaction vials
Max. speed (in microlitre rotor)	14,000 rpm
Additional data	Speed can be adjusted in increments of 10 rpm
Maximum RCF	18845 x g
Minimum speed	500 rpm
Timer function	1 to 99 min / continuous duty / short cycle (pulse key)
W x D x H	261 x 353 x 228 mm
Weight	11 kg
Mains connection	200–240 V, 50/60 Hz

Delivery without microlitre rotor, please order separately.

In vitro diagnostic medical device according to IVDD

Type	Art. No.	Pack Qty.	€
MIKRO 185	**ANP9.1**	1 unit(s)	1.450,20



Accessories microlitre rotor for centrifuge MIKRO 185

Hettich.

24-tube microlitre rotor (45°) type 1226

- For Reaction vials 24 x 1.5/2.0 ml
- Max. speed 14,000 rpm, max. RZB 18845 x g

Delivery incl. lid with bio-seal, phenol-resistant and autoclavable.

Designation	Art. No.	Pack Qty.	€
24-fold microlitre rotor type 1226	**ANT0.1**	1 unit(s)	387,00

12-tube microlitre rotor (45°) type 1252

- For Reaction vials 12 x 1.5/2.0 ml
- Max. speed 14,000 rpm, max. RZB 15558 x g

Delivery incl. lid.

Designation	Art. No.	Pack Qty.	€
12-fold microlitre rotor type 1252	**ANT1.1**	1 unit(s)	304,25

18-tube microlitre rotor (45°) for Spin Column Kits type 1213

- For Mikro Spin Column Kits 18 x 1.5/2.0 ml (micro vials with filter insert)
- Max. speed 14,000 rpm, max. RZB 16654 x g

Delivery incl. lid type 1246 with bio-seal.

Designation	Art. No.	Pack Qty.	€
18-fold microlitre rotor type 1213	**ANT2.1**	1 unit(s)	527,85

Microlitre centrifuges



NEW / +

Microlitre centrifuge CD-3124R cooled

Phönix Instrument.

- **Max. capacity: 24 x 1.5/2.0 ml reaction vials**
- Continuously adjustable from -20 to +40 °C
- Pre-cooling system
- Nine programme memory locations
- Optional display of rpm or x g
- Selection of nine acceleration profiles and nine braking profiles
- Backlit LCD display
- Safety: Locking lid, speed monitoring system and overheating protection

Technical specifications:

Art. No.	**1H4H.1**
Type	CD-3124R
Max. capacity	24 x 1.5/2.0 ml reaction vials
Max. speed (in microlitre rotor)	15,000 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	21380 x g
Minimum speed	200 rpm
Timer function	30 s to 99 min./continuous operation/pulse key
W x D x H	340 x 560 x 290 mm
Temperature adjustment range	-20 - +40 °C
Weight	30 kg
Mains connection	220–240 V, 50 Hz

Not a medical device / Not an IVD product

Delivery incl. 24-fold microlitre rotor, 1.5/2.0 ml, made of aluminium and aerosol-tight lid.

Type	Art. No.	Pack Qty.	€
CD-3124R	**1H4H.1**	1 unit(s)	4.289,25



NEW / +

Accessories rotor for microlitre centrifuge CD-3124R

Phönix Instrument.

(1) 12-fold microlitre rotor for 5 ml reaction vials
Increases the number of separated nucleic acid samples. For 5 ml reaction vials with max. Ø 17.5 x H 63 mm.

Delivery incl. aerosol-tight lid.

Designation	Art. No.	Pack Qty.	€
12-fold microlitre rotor for 5 ml reaction vials	**1H4N.1**	1 unit(s)	297,80

(2) 36-fold angle rotor for 0.5 ml reaction vials
Increased throughput for smaller reaction vials.

Delivery incl. aerosol-tight lid.

Designation	Art. No.	Pack Qty.	€
36-fold angle rotor for 0.5 ml reaction vials	**1H4P.1**	1 unit(s)	297,80

(3) 4 x 8 PCR rotor tube strips, w. 200 µl p.strip
Centrifugation of PCR tube strips, max. 4 x 8 reaction vials with 200 µl per strip in one run.

Delivery incl. aerosol-tight lid.

Designation	Art. No.	Pack Qty.	€
4 x 8 PCR rotor tube strips, with 200 µl per strip	**1H4T.1**	1 unit(s)	661,15

Accessories adapter for microlitre centrifuge CD-2012 and CR-3124R

Phönix Instrument.

Designation	Art. No.	Pack Qty.	€
for reaction vials 0.2 ml	**HEA8.1**	24 unit(s)	52,70
for reaction vials 0.5 ml	**HEA9.1**	24 unit(s)	52,70

Microlitre centrifuges



Microlitre centrifuge

Thermo.

General information for all models:

- **Max. capacity: 24 x 1.5/2.0 ml reaction vials**
- Available as 17 000 x g- and 21 100 x g version
- Optional display of rpm or x g
- Speed increase in increments of 100
- Various sets available with different rotors, e.g. a two-row rotor for holding 18 x 1.5/2.0 ml and 18 x 0.5 ml reaction vials

Technical specifications:

Art. No.	HE09.1	HE10.1	HE11.1	HE12.1	HE13.1	HE14.1
Type	Pico® 17	Fresco® 17	Pico® 21	Fresco® 21	Pico® 21 set	Fresco® 21 set
Max. capacity	24 x 1.5/2.0 ml reaction vials					
Max. speed (in microlitre rotor)	13,300 rpm		14,800 rpm			
Additional data	Speed can be adjusted in increments of 100 rpm					
Maximum RCF	17000 x g		21100 x g			
Minimum speed	300 rpm					
Timer function	1 to 99 min / continuous operation / Quick Run					
W x D x H	225 x 352 x 243 mm	300 x 445 x 295 mm	243 x 352 x 243 mm	330 x 445 x 295 mm	225 x 352 x 243	330 x 445 x 295
Temperature adjustment range		-9 - +40 °C		-9 - +40 °C		-9 - +40 °C
Mains connection	230 V, 50/60 Hz					

In vitro diagnostic medical device according to IVDD

Standard - air-cooled or without cooling function

Delivery incl. 24 x 1.5/2.0 ml rotor with aerosol-tight ClickSeal lid.

Type	Art. No.	Pack Qty.	€
Pico® 17	**HE09.1**	1 unit(s)	2.399,00
Pico® 21	**HE11.1**	1 unit(s)	3.038,00

Cooling centrifuges

- Cooled microlitre centrifuge, adjustable in increments of 1 °C
- With standstill cooling

Delivery incl. 24 x 1.5/2.0 ml rotor with aerosol-tight ClickSeal lid.

Type	Art. No.	Pack Qty.	€
Fresco® 17	**HE10.1**	1 unit(s)	5.788,00
Fresco® 21	**HE12.1**	1 unit(s)	6.472,00

Sets with 2 rotors
Pico: Air-cooled or without cooling function
Fresco: with cooling function, adjustable in increments of 1 °C

Delivery incl. 24 x 1.5/2.0 ml rotor with aerosol-tight ClickSeal lid and two-tier 18 x 0.5 ml and 18 x 1.5/2.0 ml rotor with screw lid.

Type	Art. No.	Pack Qty.	€
Pico® 21 set	**HE13.1**	1 unit(s)	3.580,00
Fresco® 21 set	**HE14.1**	1 unit(s)	7.216,00

Accessories adapter sleeves for centrifuge Pico®, Fresco® and STR1/R Plus

Thermo.

Designation	Art. No.	Pack Qty.	€
Adapter sleeves for reaction vials 0.4 ml/0.25 ml	**X119.1**	24 unit(s)	225,00
Adaptor sleeves for 0.2 ml reaction vials	**X121.1**	24 unit(s)	224,00
Adaptor sleeves for 0.5 ml reaction vials	**X118.1**	24 unit(s)	224,00

Accessories microlitre rotor 10-fold for 5 ml reaction vials suitable for centrifuge Pico® and Fresco®

Thermo.

Designation	Art. No.	Pack Qty.	€
10-place microlitre rotor for 5 ml reaction tubes with aerosol-tight ClickSeal lid	**HAA9.1**	1 unit(s)	707,00

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Microlitre centrifuges



Microlitre centrifuge MIKRO series

Hettich.

General information for all models:

- **Max. capacity: 24 x 1.5/2.0 ml reaction vials**
- Motorised lid lock
- Parameter entry via foil keyboard
- Actual status display during operation
- Pulse button for short spin
- Open-lid button
- RZB button
- Safety: lid catch, emergency unlock, motor overheating protection and unbalance switch-off

Technical specifications:

Art. No.	AA69.1	AA70.1
Type	MIKRO 200 classic	MIKRO 200 R cooled
Max. capacity	24 x 1.5/2.0 ml reaction vials	
Max. speed (in microlitre rotor)	15,000 rpm	
Additional data	Speed can be adjusted in increments of 100 rpm	
Maximum RCF	21382 x g	
Minimum speed	500 rpm	
Timer function	1 to 99 min / permanent / brief operation	
W x D x H	275 x 344 x 260 mm	281 x 553 x 260 mm
Temperature adjustment range		-10 - +40 °C
Min. temperature at max. speed		+4 °C
Weight	11.5 kg	28.5 kg
Mains connection	220–240 V, 50/60 Hz	

Delivery without rotor, please order separately.

In vitro diagnostic medical device according to IVDD

Model MIKRO 200 classic, non-cooled

Air-cooled or without cooling function:

Type	Art. No.	Pack Qty.	€
MIKRO 200 classic	**AA69.1**	1 unit(s)	2.118,85

Model MIKRO 200 R cooled

- With cooling functions
- Infinitely adjustable from -10 to +40 °C in increments of 1 °C
- Pre-cooling function (to +4 °C in 10 to 5 min
- Stand-by cooling maintains the desired temperature
- Automatic switch-off of cooling when the lid is opened or after a selectable time

Type	Art. No.	Pack Qty.	€
MIKRO 200 R cooled	**AA70.1**	1 unit(s)	5.166,45

Accessories for centrifuges MIKRO 200/200 R

Hettich.

Angle rotor for max. 24 reaction vials 1.5/2.0 ml
50°-angle.

Delivery incl. aerosol-tight lid (autoclavable).

Designation	Art. No.	Pack Qty.	€
Angle rotor for 24 x 1.5/2.0 ml	**AA71.1**	1 unit(s)	368,75

For centrifuges MIKRO 185 and MIKRO 200/200 R adapter sleeves

Designation	Art. No.	Pack Qty.	€
Adaptor sleeves for 0.2 ml reaction vials	**AA67.1**	6 unit(s)	12,40
Adaptor sleeves for 0.5 ml reaction vials	**Y059.1**	6 unit(s)	12,40

For centrifuges MIKRO 185 and MIKRO 200/200 R adapter sleeves for reaction vials 1.5 ml, conical
Positive reduction, recommended for high-speed centrifuging.

Designation	Art. No.	Pack Qty.	€
Adaptor sleeve, tapered, for 1.5 ml vials	**AA68.1**	6 unit(s)	14,55



Benchtop centrifuge MIKRO series

Hettich.

General information for all models:

- 9 braking and start-up ramps as well as unbraked run-out possible
- Memory capacity for 10 programs
- Automatic rotor detection
- Optional display of rpm or x g when entering the rotor radius
- Window for viewing in the lid
- Metal housing
- Safety features: Emergency unlocking device, motor overheating
- protection, unbalance switch-off

Technical specifications:

Art. No.	LE07.1	LE08.1
Type	MIKRO 220 classic	MIKRO 220 R cooled
Max. speed (in microlitre rotor)	18,000 rpm	
Additional data	Speed can be adjusted in increments of 10 rpm	
Maximum RCF	31514 x g	
Minimum speed	500 rpm	
Minimum RCF	24 x g	
Timer function	1 to 99 min / continuous operation / pulse button	
W x D x H	330 x 420 x 313 mm	330 x 650 x 313 mm
Temperature adjustment range		-20 - +40 °C
Weight	21 kg	42 kg
Mains connection	220–240 V, 50/60 Hz	

Delivery without rotor, please order separately.

In vitro diagnostic medical device according to IVDD

Model MIKRO 220 classic, non-cooled

- Air-cooled or without cooling function

Type	Art. No.	Pack Qty.	€
MIKRO 220 classic	**LE07.1**	1 unit(s)	3.226,10

Model MIKRO 220 R, cooled

- Cooled centrifuge
- Infinitely adjustable from –20 to +40 °C in increments of 1 °C
- Precool function

Type	Art. No.	Pack Qty.	€
MIKRO 220 R cooled	**LE08.1**	1 unit(s)	5.841,55



Accessories for centrifuge MIKRO 220 / 220 R

Hettich.

(1) 24-fold microlitre rotor type 1195-A

- Max. capacity 24 x 1.5/2.0 ml reaction vials
- High output: max. 18,000 rpm, max. RZB 31514 x g

Delivery incl. lid.

Designation	Art. No.	Pack Qty.	€
24-fold microlitre rotor type 1195-A	**LE09.1**	1 unit(s)	506,35

(2) 30-tube microlitre rotor type 1189-A

- Max. capacity 30 x 1.5/2.0 ml reaction vials
- High output: max. 14,000 rpm, max. RZB 21255 x g

Delivery incl. lid.

Designation	Art. No.	Pack Qty.	€
30-tube microlitre rotor type 1189-A	**LE10.1**	1 unit(s)	633,20

(3) 6-fold tubes angle rotor type 1016 (only for MIKRO 220 R, Art. No. LE08.1)

- **Rotor only suitable for MIKRO 220 R (Art. No. LE08.1)**
- Max. capacity 3 x 50 ml
- Max. speed 6,000 rpm, max. RZB 3783 x g

Delivery without adapter for tubes, please order separately.

Designation	Art. No.	Pack Qty.	€
6-fold tubes angle motor	**LE13.1**	1 unit(s)	652,55

Accessories adapter for angle rotor of centrifuges MIKRO 220/220R and EBA 280 suitable for rotor type 1016 and type 1137

Hettich.

Technical specifications:

Art. No.	LE14.1	LE15.1	LE16.1
Nominal volume	15 ml		50 ml
Required number of adapters per rotor	6		3
Max. vessels per adapter	6 unit(s)		3 unit(s)
Max. vessel length	100 mm	120 mm	115 mm
Max. vessel Ø	17 mm		29 mm
Bottom shape	round	conical	
Additional data	Standard	Type Falcon®	

Designation	Art. No.	Pack Qty.	€
Adapter for 15 ml standard test tubes	**LE14.1**	1 unit(s)	39,25
Adapter for 15-ml tubes type Falcon®	**LE15.1**	1 unit(s)	39,25
Adapter for 50-ml tubes type Falcon®	**LE16.1**	1 unit(s)	39,25

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PCR/haematocrit centrifuges



PCR plate centrifuge C1000

Labnet International.

For 2 PCR plates in 96-well format.

- Suitable for skirted, non-skirted or semi-skirted plates (with/without half frame)
- To prevent soiling inside the rotor, only PCR plates that have been hot-laminated or sealed with film should be used
- PCR plates are inserted vertically into the rotor
- Fast centrifugation of droplets or condensate

Technical specifications:

Art. No.	**PP33.1**
Type	C1000
Max. capacity	2 PCR plates
Maximum speed	2,500 rpm
Maximum RCF	500 x g
W x D x H	190 x 210 x 183 mm
Weight	1,5 kg
Mains connection	230 V, 50/60 Hz

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
C1000	**PP33.1**	1 unit(s)	820,25

Accessories adapter for strips and small PCR plates suitable for centrifuge C1000

Labnet International.

The adapter's dimensions are identical to those of a 96 well standard PCR plate. Suitable for PCR tubes 0.2 ml, 8x PCR reaction vials, 12x PCR reaction vials, 24-well PCR plates and 48-well PCR plates.

Designation	Art. No.	Pack Qty.	€
Adapter for strips	**TA20.1**	2 unit(s)	72,00



Haematocrit centrifuge 200

Hettich.

For determining the percentage by volume of erythrocytes in blood. Haematocrit determination for diagnostic purposes and drug testing.

- For 24 standard capillary tubes
- Each capillary has its own chamber and is cushioned by holding trays at the outer rim
- Adjustment of time and speed
- Remaining runtime and rotational speed are shown on the display
- Safety: Lid locking and holding, imbalance switch-off

Technical specifications:

Art. No.	**ANX2.1**
Type	Haematocrit centrifuge 200
Maximum speed	13,000 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	16060 x g
Minimum speed	500 rpm
Timer function	1 to 99 min / continuous duty / short cycle (pulse key)
W x D x H	262 x 352 x 228 mm
Weight	10 kg
Mains connection	208–240 V, 50/60 Hz

Delivery incl. 24-station haematocrit rotor with lid and integrated evaluation disc.

In vitro diagnostic medical device according to IVDD

Type	Art. No.	Pack Qty.	€
Haematocrit centrifuge 200	**ANX2.1**	1 unit(s)	2.212,35



Manual centrifuge

Hettich.

To accommodate a 4-place oscillating rotor for 15 ml centrifuge tubes. With clamping device (max. span width approx. 40 mm) for attaching the centrifuge to lab desktops, etc.

Technical specifications:

Art. No.	EE90.1
Type	Manual centrifuge
Max. capacity	4 x 15 ml
Max. vessel length	125 mm
Max. vessel Ø	17 mm
Maximum speed	3,000 rpm
Maximum RCF	1076 x g
W x D x H	140 x 175 x 285 mm
Weight	0.9 kg

Delivery without oscillating rotor, please order separately.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Manual centrifuge	**EE90.1**	1 unit(s)	168,80



NEW / +

Small centrifuges CD-0506

Phönix Instrument.

With 6-slot angle rotor (54°) for centrifuging 1.5/2.0 ml reaction vials, 15 ml standard test tubes and 15 ml centrifuge tubes (Falcon®).

- Background-lit LCD display
- Displays centrifugation time, in rpm or x g
- Memory for two programmes, easy start with direct access keys
- Safety: Locking lid, rotation speed control

For use of the following types of vessel:

- 6 x 1.5/2.0 ml reaction vials (Ø 11 x L 41 mm)
- 6 x 5 ml reaction vials (Ø 15 x L 60 mm)
- 6 x 15 ml standard test tubes (Ø 17 x L 100 mm)
- 6 x 15 ml centrifuge tubes, Falcon® (Ø 17 x L 120 mm)
- 6 x 2.7-4.3 ml blood vials (Ø 13 x L 75 mm)
- 6 x 4.5-4.9 ml blood vials (Ø 11 x L 92 mm, Ø 13 x L 90 mm)
- 6 x 9-10 ml blood vials (Ø 16 x L 92 mm)
- 6 x 7.5-10 ml blood vials (Ø 15/16 x L 92 mm)
- 6 x 9.5-10 ml urine test tubes (Ø 15 x L 100 mm)

Technical specifications:

Art. No.	1L9E.1
Type	CD-0506
Maximum speed	5,000 rpm
Additional data	Speed can be adjusted in increments of 10 rpm
Maximum RCF	2600 x g
Minimum speed	300 rpm
Timer function	30 s to 99 mins / continuous operation function / short cycle (pulse key)
W x D x H	240 x 300 x 180 mm
Weight	5,2 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 6-slot angle rotor and adapter set (sleeve inner Ø 12 mm, H 35 mm) and sleeve inner Ø 13 mm, H 60 mm.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
CD-0506	**1L9E.1**	1 unit(s)	424,65



Small centrifuge CD-0412

Phönix Instrument.

With 12-slot angle rotor (45°) for centrifuging blood sample vessels, urine test tubes and centrifuge tubes (type Falcon®).

- Illuminated display
- Displays centrifugation time, in rpm or x g
- The timer starts once the selected speed is reached
- Safety: Cover lock, speed monitoring system and protection against overheating

For use of the following types of vessel:

- 12 x 15 ml standard test tubes (Ø 17 x L 100 mm)
- 6 x 15 ml centrifuge tubes, type Falcon® (Ø 17 x L 120 mm)
- 12 x 2.7-4.3 ml blood vials (Ø 13 x L 75 mm)
- 12 x 4.5-4.9 ml blood vials (Ø 11 x L 92 mm, Ø 13 x L 90 mm)
- 12 x 7.5-10 ml blood vials (Ø 15/16 x L 92 mm)
- 12 x 9-10 ml blood vials (Ø 16 x L 92 mm)
- 12 x 9.5-10 ml urine test tubes (Ø 15 x L 100 mm)

Technical specifications:

Art. No.	EEE2.1
Type	CD-0412
Maximum speed	4,500 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	2490 x g
Minimum speed	300 rpm
Timer function	30 s to 99 mins / continuous run function /short cycle (pulse key)
W x D x H	140 x 255 x 245 mm
Weight	6.7 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 12-fold angle rotor, adapter set (sleeve inner Ø 16 mm, H 80 mm) and spaces (H 21 mm).

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
CD-0412	**EEE2.1**	1 unit(s)	848,20



Small centrifuges CD-0412-50 for 15-/50-ml tubes

Phönix Instrument.

With 6-slot combination angle rotor (54°) for centrifuging 6 x 15 or 6 x 50 ml Falcon® tubes.

- LCD display for showing the speed or RCF value and time
- The timer starts once the selected speed is reached
- Diagnosis programme for monitoring all functions

Technical specifications:

Art. No.	KEC8.1
Type	CD-0412-50
Maximum speed	4,000 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	1800 x g
Minimum speed	300 rpm
Timer function	0.5 s to 99 min/continuous run function/short cycle
W x D x H	300 x 350 x 200 mm
Weight	6 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 6-fold angle rotor (54°).

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
CD-0412-50	**KEC8.1**	1 unit(s)	1.069,65



Small centrifuges EBA series

Hettich.

For centrifugation of blood and urine samples, clarification of water and soil samples, etc.

General information for all models:

- Lid can be opened at the touch of a button
- Housing and lid made of impact resistant plastic, metal lid inner
- Overheating protection
- **With 8-tube angle rotor**

For use of the following types of vessel:

- 8 x 15 ml standard test tubes (Ø 17 x L 100 mm)
- 4 x 15 ml centrifuge tubes, type Falcon (Ø 17 x L 120 mm)
- 4 x 8 ml urine test tubes (Ø 16 x L 125 mm)
- 8 x 7.5-10 ml blood sample vessels (Ø 15/16 x L 92 mm)
- 8 x 4.5-4.9 ml blood sample vessels (Ø 11 x L 92 mm, Ø 13 x L 90 mm)
- 8 x 10 ml blood sample vessels (Ø 15 x L 102 mm)

Technical specifications:

Art. No.	ANT4.1	ANT5.1
Type	EBA 200	EBA 200 S
Maximum speed	6,000 rpm	8,000 rpm
Additional data	Speed can be adjusted in increments of 100 rpm	
Maximum RCF	3461 x g	6153 x g
Minimum speed	500 rpm	
Timer function	1 to 99 min / continuous duty / short cycle (pulse key)	
W x D x H	262 x 352 x 228 mm	
Weight	8 kg	10 kg
Mains connection	208–240 V, 50/60 Hz	

Delivery incl. 8-fold angle rotor for max. capacity 8 x 15 ml.

In vitro diagnostic medical device according to IVDD

Type	Art. No.	Pack Qty.	€
EBA 200	**ANT4.1**	1 unit(s)	1.270,65
EBA 200 S	**ANT5.1**	1 unit(s)	2.359,65

Accessories adapter for centrifuge EBA 200 and 200 S

Hettich.

Designation	Art. No.	Pack Qty.	€
Adapter type 1054-A for 5/6-ml vessels (Ø 12 x L 75/82 mm)	**ANT6.1**	1 unit(s)	18,85



Small centrifuges EBA 270

Hettich.

With 6-slot oscillating rotor for centrifuging blood sample vessels, urine test tubes and standard centrifuge tubes.

- Variable speed and cycle time
- Display of parameters during centrifugation
- "Open lid" key for one-touch opening
- Safety: lid lock, emergency lid lock release, imbalance switch-off and metal lid
- Stainless steel centrifuging chamber

For use of the following types of vessel:

- 15 ml standard test tubes (Ø 17 x L 100 mm)
- 5/6 ml standard test tubes (Ø 12 x L 75/82 mm)
- 2.6-2.9 blood sample vessels (Ø 13 x L 65 mm), 2.7-3 m (Ø 11 x L 66 mm)
- 4-5.5 ml blood sample vessels (Ø 15 x L 75 mm), 4.5-5 ml (Ø 11 x L 92 mm), 4.9 ml (Ø 13 x L 90 mm), 7.5-8.5 ml (Ø 15 x L 92 mm), 9-10 ml (Ø 16 x L 92 mm), 10 ml (Ø 15 x L 102 mm)
- Urine test tubes 1.6-5 ml (Ø 13 x L 75 mm), 4.5-7 ml (Ø 13 x L 100 mm), 4-7 ml (Ø 16 x L 75 mm), 8.5-10 ml (Ø 16 x L 100 mm)

Technical specifications:

Art. No.	PH35.1
Type	EBA 270
Maximum speed	4,000 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	2254 x g
Minimum speed	500 rpm
Timer function	1-99 mins / continuous operation / short cycle (pulse key)
W x D x H	326 x 389 x 239 mm
Weight	13 kg
Mains connection	208–240 V, 50/60 Hz

Delivery incl. 6-fold oscillating rotor (90°), 6 sleeves with hole Ø 17.5 x L 80 mm and 6 sleeves with hole Ø 17.5 x L 50 mm.

In vitro diagnostic medical device according to IVDD

Type	Art. No.	Pack Qty.	€
EBA 270	**PH35.1**	1 unit(s)	1.368,50



Small centrifuges Medifuge with 2-in-1 hybrid rotor

Thermo.

With eight-slot hybrid rotor for centrifuging blood sample vessels, urine test tubes and standard centrifuge tubes. Depending on whether fixed-angle buckets (45°) or swing-out buckets (90 °C) are used in the rotor, various types of centrifugation are possible. Mixed bucket configurations (fixed-angle and swing-out buckets) are also possible.

- Centrifugation time, variably adjustable in rpm or x g
- Memory for four programs with one-touch button
- Three braking profiles – standard, soft and brake off
- Max. RZB 3114 x g (fixed angle bucket)
  max. RZB 3490 x g (swing-out bucket)

For use of the following types of vessel:

Fixed angle buckets, max. 3114 x g:

- 8 x 15 ml centrifuge tubes, Falcon type (Ø 17 x L 120 mm)
- 8 x 15 ml standard test tubes (Ø 17 x L 100 mm)
- 8 x 6/12/15 ml glass tubes (Ø 12/16 x L 100/125 mm)
- 8 x 1.2-4.3 ml blood vials (Ø 8-13 x L 66/75 mm)
- 8 x 4.5-4.9 ml blood vials (Ø 11 x L 92 mm/Ø 13 x L 90 mm)
- 8 x 7.5-10 ml blood vials (Ø 15/16 x L 92 mm)
- 8 x 9-10 ml blood vials (Ø 16 x L 92 mm)
- 8 x 9.5-10 ml urine test tubes (Ø 15 x L 100 mm)

Swing-out buckets, max. 3490 x g

- 8 x 15 ml standard test tubes (Ø 17 x L 100 mm)
- 8 x 6/12/15 ml glass tubes (Ø 12/16 x L 100 mm)
- 8 x 1.2-4.3 ml blood vials (Ø 8-13 x L 66/75 mm)
- 8 x 4.5-4.9 ml blood vials (Ø 11 x L 92 mm, Ø 13 x L 90 mm)
- 8 x 7.5-10 ml blood vials (Ø 15/16 x L 92 mm)
- 8 x 9-10 ml blood vials (Ø 16 x L 92 mm)
- 8 x 9.5-10 ml urine test tubes (Ø 15 x L 100 mm)

Technical specifications:

Art. No.	EEE1.1
Type	Medifuge
Maximum speed	4,900 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	3114/3490 x g
Minimum speed	300 rpm
Timer function	1-99 mins / continuous operation / short cycle (pulse key)
W x D x H	241 x 325 x 450 mm
Weight	15.5 kg
Mains connection	220–230 V, 50/60 Hz

Delivery incl. DualSpin™ rotor with fixed-angle and swing-out bucket set (each with 8 fixed-angle and swing-out buckets) and adapter set for various vessels.

In vitro diagnostic medical device according to IVDD

Type	Art. No.	Pack Qty.	€
Medifuge	**EEE1.1**	1 unit(s)	1.452,00



Benchtop centrifuge Frontier FC 5706

Ohaus.

For sample preparation and sedimentation of cells, yeasts, bacteria, etc.

- Optional display of rpm or x g
- Backlit LCD display
- Depending on the rotor, suitable for max. 6 x 50 ml centrifuge tubes of type Falcon® or 12 x 15 ml standard tubes
- Lid with locking system
- Unbalance sensor

Technical specifications:

Art. No.	HNP6.1
Type	FC 5706
Maximum speed	6,000 rpm
Additional data	Speed can be adjusted in increments of 50 rpm
Maximum RCF	4427 x g
Minimum speed	200 rpm
Timer function	10 to 99 h, 99 min or continuous operation
W x D x H	291 x 392 x 266 mm
Weight	10,5 kg
Mains connection	230 V, 50/60 Hz

Delivery without rotor, please order separately.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
FC 5706	**HNP6.1**	1 unit(s)	1.735,00



Accessories angle rotor 12-fold (32°) type 1520 for centrifuge Frontier FC 5706

Ohaus.

For 12 standard test tubes 15 ml with round base (Ø 17 x L 100 mm, max. RZB 4427 x g) or with optional adapter for reaction vials.

Designation	Art. No.	Pack Qty.	€
12-fold angle rotor, type 1520	**HNP7.1**	1 unit(s)	358,00

Accessories adapter for 12-fold angle rotor type 1520

Ohaus.

Technical specifications:

Art. No.	HNP8.1	HNP9.1	HNT0.1
Nominal volume	7 ml	5 ml	1.5 ml
Required number of adapters per rotor	12		
Max. vessel length	100 mm	75 mm	42 mm
Max. vessel Ø	13 mm		11 mm
Maximum RCF	4265 x g	3621 x g	3058 x g

Designation	Art. No.	Pack Qty.	€
Adapter for 7 ml vessels	**HNP8.1**	2 unit(s)	52,30
Adapter for 5 ml reaction vials	**HNP9.1**	2 unit(s)	45,90
Adapter for 1.5/2.0 ml reaction vials	**HNT0.1**	6 unit(s)	85,20



Accessories angle rotor 6-fold (40°) type 5015 for centrifuge Frontier FC 5706

Ohaus.

For 6 centrifuge tubes 50 ml type Falcon® (Ø 30 x L 115 mm, max. RZB 4427 x g) or with optional adapter for 15-ml centrifuge tubes type Falcon®.

Designation	Art. No.	Pack Qty.	€
6-fold angle rotor, type 5015	**HNT1.1**	1 unit(s)	640,00

Accessories adapter for 6-fold angle rotor type 5015

Ohaus.

Technical specifications:

Art. No.	HNT2.1	HNT3.1	HNT4.1
Nominal volume	30 ml	15 ml	
Required number of adapters per rotor	6		
Max. vessel length	100 mm	105 mm	120 mm
Max. vessel Ø	25 mm	17 mm	
Bottom shape	round		conical
Additional data			Tubes type Falcon®
Maximum RCF	4306 x g	4225 x g	4185 x g

Designation	Art. No.	Pack Qty.	€
Adapter for 30 ml vessels	**HNT2.1**	2 unit(s)	108,00
Adapter for 15 ml standard test tubes	**HNT3.1**	2 unit(s)	108,00
Adapter for 15 ml tubes type Falcon®	**HNT4.1**	2 unit(s)	74,70



Benchtop centrifuge Rotofix 32 A

Hettich.

For die sample preparation in research and industrial laboratories.

Features:

- Actual status display during operation
- Window for viewing in the lid
- Automatic rotor detection
- Optional display of rpm or x g
- Metal housing and metal lid are covered with an impact/scratch-resistant coating
- Safety: lid locking device and tumbler, unbalance switch-off, emergency unlocking device

Technical specifications:

Art. No.	EC34.1
Type	Rotofix 32 A
Maximum speed	6,000 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	4146 x g
Minimum speed	500 rpm
Timer function	1 to 99 min / continuous operation / pulse button
W x D x H	366 x 430 x 257 mm
Weight	25 kg

Delivery without rotor, please order separately.

In vitro diagnostic medical device according to IVDD

Type	Art. No.	Pack Qty.	€
Rotofix 32 A	**EC34.1**	1 unit(s)	2.204,85



Accessories rotor for benchtop centrifuge Rotofix 32 A

Hettich.

(1) 12-fold angle rotor type 1613 for tubes 15 ml
For 12 standard test tubes 15 ml with round base (Ø 17 x L 100 mm) or 6 centrifuge tubes 15 ml (Ø 17 x L 120 mm) with conical base shape.
Max. speed 6,000 rpm, max. RZB 4146 x g

Designation	Art. No.	Pack Qty.	€
12-fold angle rotor, type 1613	**EC35.1**	1 unit(s)	354,75

(3) 4-fold oscillating rotor type 1624 (90°) for tube beakers
For fastening 4 tube beakers.
Max. speed 4,000 rpm, max. RZB 2308 x g.

Delivery without tube beakers, please order separately.

Designation	Art. No.	Pack Qty.	€
4-fold angle rotor, type 1624	**EC38.1**	1 unit(s)	391,30



Accessories for benchtop centrifuges Rotofix 32 A and Universal 320

Hettich.

Technical specifications:

Art. No.	EC36.1
Max. speed (in microlitre rotor)	4,000 rpm
Maximum RCF	2469 x g

(2) 8-fold oscillating rotor type 1617 (45°) for centrifuge tubes 50 ml
Additional adapters are required for centrifuge tubes 50 ml with conical base (29 x L 115 mm).
Max. speed 4,000 rpm, max. RZB 2469 x g (for Rotofix 32 A),
max. speed 5,000 rpm, max. RZB 3875 x g (for Universal 320/320R).

Delivery without adapter for centrifuge tubes 15 ml (Ø 17 x L 120 mm), please order separately.

Designation	Art. No.	Pack Qty.	€
8-fold angle rotor, type 1617	**EC36.1**	1 unit(s)	693,40

Accessories tube beakers for standard test tubes 15 ml

Hettich.

Suitable for rotor type 1624. For centrifuging standard test tubes 15 ml (Ø 17 x L 100 mm) with round base. Number of vessels: 4 Vessels per beaker, 16 vessels per rotor. 4 tube beakers are required for operation with oscillating rotor type 1624.

Designation	Art. No.	Pack Qty.	€
Tube beaker for rotor type 1624	**EC39.1**	1 unit(s)	40,85

Accessories adapter for centrifuge tubes 15 ml to rotor type 1670 from centrifuge Rotofix 32 A and Universal 320

Hettich.

Designation	Art. No.	Pack Qty.	€
Adapter for centrifuge tubes 15 ml to rotor type 1670	**EC37.1**	1 unit(s)	25,80



Small centrifuges EBA 280

Hettich.

Centrifugation of water and soil samples as well as sedimentation of cells, yeasts, bacteria, etc.

- Programmable control system with 10 memory slots
- Adjustment of centrifuging time, rpm or RCF
- Input of start and stop times in increments from 1 to 9
- Safety: lid locking and holding, emergency lid lock release

Technical specifications:

Art. No.	ANT7.1
Type	EBA 280
Max. speed (in microlitre rotor)	6,000 rpm
Additional data	Speed can be adjusted in increments of 100 rpm
Maximum RCF	3703 x g
Minimum speed	500 rpm
W x D x H	326 x 389 x 242 mm
Weight	11 kg
Mains connection	200–240 V, 50/60 Hz

Delivery without rotor, please order separately.

In vitro diagnostic medical device according to IVDD

Type	Art. No.	Pack Qty.	€
EBA 280	**ANT7.1**	1 unit(s)	2.587,55



Accessories angle rotor 6-fold (35°) type 1137 for centrifuge EBA 280

Hettich.

- Max. capacity 6 x 50 ml
- Max. speed 6000 rpm, max. RCF 3703 x g
- Rotor is suitable for 6 standard test tubes 50 ml (Ø 34 x L 100 mm) without adapter
- If adapters for standard Falcon®- or Oak-Ridge tubes are required, please order separately

Designation	Art. No.	Pack Qty.	€
6-tube angle rotor (35°) type 1137	**ANT8.1**	1 unit(s)	631,05

Accessories adapter for angle rotor of centrifuges MIKRO 220/220R and EBA 280 suitable for rotor type 1016 and type 1137

Hettich.

Technical specifications:

Art. No.	LE14.1	LE15.1	LE16.1
Nominal volume	15 ml		50 ml
Required number of adapters per rotor	6		3
Max. vessels per adapter	6 unit(s)		3 unit(s)
Max. vessel length	100 mm	120 mm	115 mm
Max. vessel Ø	17 mm		29 mm
Bottom shape	round	conical	
Additional data	Standard	Type Falcon®	

Designation	Art. No.	Pack Qty.	€
Adapter for 15 ml standard test tubes	**LE14.1**	1 unit(s)	39,25
Adapter for 15-ml tubes type Falcon®	**LE15.1**	1 unit(s)	39,25
Adapter for 50-ml tubes type Falcon®	**LE16.1**	1 unit(s)	39,25

Accessories adapter for 6-fold angle rotor type 1137

Hettich.

Technical specifications:

Art. No.	ANT9.1	ANX0.1	ANX1.1
Nominal volume	7 ml	25 ml	50 ml
Required number of adapters per rotor	6		
Max. vessels per adapter	18 unit(s)	6 unit(s)	
Max. vessel length	100 mm		107 mm
Max. vessel Ø	12 mm	24 mm	29 mm
Bottom shape	round		
Additional data	Standard	Type Oak-Ridge	

Designation	Art. No.	Pack Qty.	€
Adaptor for 7 ml standard test tubes	**ANT9.1**	1 unit(s)	39,25
Adaptor for 25 ml standard test tubes and for 30 ml tubes of type Oak-Ridge	**ANX0.1**	1 unit(s)	39,25
Adaptor for 50 ml tubes of type Oak-Ridge	**ANX1.1**	1 unit(s)	39,25



Benchtop centrifuge Universal series

Hettich.

General information for all models:

- Short start-up and braking times
- 9 braking and start-up ramps as well as unbraked run-out possible
- Memory capacity for 10 programs
- Automatic rotor detection
- Optional display of rpm or x g when entering the rotor radius
- Simple rotor change
- Window for viewing in the lid
- Metal housing
- Safety features: Emergency unlocking device, motor overheating protection, unbalance switch-off

Technical specifications:

Art. No.	EC40.1	EC41.1
Type	Universal 320 classic	Universal 320 R cooled
Max. speed (in microlitre rotor)	16,000 rpm	
Additional data	Speed can be adjusted in increments of 10 rpm	
Maximum RCF	24900 x g	
Minimum speed	500 rpm	
Minimum RCF	24 x g	
Timer function	1 to 99 min / continuous operation / pulse button	
W x D x H	401 x 529 x 346 mm	407 x 698 x 346 mm
Temperature adjustment range		-20 to +40 °C
Weight	29 kg	52 kg
Mains connection	220–240 V, 50/60 Hz	

Delivery without rotor, please order separately.

In vitro diagnostic medical device according to IVDD

Model Universal 320 classic, non-cooled

- Air-cooled or without cooling function

Type	Art. No.	Pack Qty.	€
Universal 320 classic	**EC40.1**	1 unit(s)	3.531,40

Model Universal 320 R, cooled

- With cooling functions
- Temperature infinitely adjustable from -20 to +40 °C in increments of 1 °C
- Precool function

Type	Art. No.	Pack Qty.	€
Universal 320 R cooled	**EC41.1**	1 unit(s)	6.689,75



Accessories for Universal 320 / 320 R

Hettich.

(1) Microlitre rotor type 1552

- Max. capacity 24 x 1.5/2.0 ml
- High output: max. 15,000 rpm, max. RZB 24900 x g

Designation	Art. No.	Pack Qty.	€
Microlitre rotor type 1552	**EC42.1**	1 unit(s)	783,70

(2) 8-fold oscillating rotor type 1617 (45°) for centrifuge tubes 50 ml

Additional adapters are required for centrifuge tubes 50 ml with conical base (29 x L 115 mm).
Max. speed 4,000 rpm, max. RZB 2469 x g (for Rotofix 32 A),
max. speed 5,000 rpm, max. RZB 3875 x g (for Universal 320/320R).

Delivery without adapter for centrifuge tubes 15 ml (Ø 17 x L 120 mm), please order separately.

Designation	Art. No.	Pack Qty.	€
8-fold angle rotor, type 1617	**EC36.1**	1 unit(s)	693,40

Designation	Art. No.	Pack Qty.	€
Adapter for centrifuge tubes 15 ml to rotor type 1670	**EC37.1**	1 unit(s)	25,80

(3) 2-fold oscillating rotor for microtritation plates type 1460/1453

- Incl. 2 hangers for 8 microlitre plates (L 128 x W 86 x H 15 mm)
- Max. speed 4,000 rpm, max. RZB 2218 x g

Designation	Art. No.	Pack Qty.	€
2-fold oscillating rotor type 1460/1453	**EC43.1**	1 unit(s)	1.339,45

(4) 4-fold oscillating rotor type 1494 (90°) for tubes

- Max. capacity 4 x 50 ml
- Max. speed 5,000 rpm, max. RZB 4165 x g

Delivery without insertion beaker and adapter for tubes, please order separately. 4 round cups and adaptors are required for operation are required for operation.

Designation	Art. No.	Pack Qty.	€
4-fold oscillating rotor type 1494	**EC44.1**	1 unit(s)	577,30

Designation	Art. No.	Pack Qty.	€
Insert beaker type 1427 for rotor type 1494	**EC45.1**	1 unit(s)	206,40

Accessories adapter for insert beakers type 1427

Hettich.

Technical specifications:

Art. No.	EE32.1	EC46.1	EC47.1
Nominal volume	15 ml		50 ml
Number of vessels per rotor	24	4	
Max. vessels per adapter	6 unit(s)	1 unit(s)	
Max. vessel length	100 mm	120 mm	115 mm
Max. vessel Ø	17 mm		29 mm
Bottom shape	round	conical	
Additional data	Standard	Type Falcon®	

For insert beakers

Designation	Art. No.	Pack Qty.	€
Adapter for 15 ml vessels	**EE32.1**	1 unit(s)	69,90
Adapter for 15 ml vessels type Falcon®	**EC46.1**	1 unit(s)	90,85
Adapter for 50 ml vessels type Falcon®	**EC47.1**	1 unit(s)	143,00

Centrifuges with accessories



Benchtop centrifuge Megafuge 8 series

Thermo.

General information for all models:

- 2 profiles configurable for fast or gentle acceleration and deceleration times
- Optional display of revolutions in rpm or x g
- Safe rotor-changing at the touch of a button (without additional tools) for quick changeover between various applications and easy cleaning
- 3 program memory with one-touch key, with naming option
- Direct, brushless induction motor
- Illuminated display
- Text messages in various languages: German, English, French, Spanish, Russian, Italian and Dutch
- **Annual inspection acc. to BGR 500 recommended**

Technical specifications:

Art. No.	NN26.1	APT4.1
Type	Medifuge 8	Megafuge 8R
Max. speed (in microlitre rotor)	14,000 rpm	
Additional data	Speed can be adjusted in increments of 100 rpm	
Maximum RCF	21693 x g	
Minimum speed	300 rpm	
Minimum RCF	10 x g	
Timer function	9 h, 99 min / continuous operation / Quick-Run	
W x D x H	460 x 480 x 310 mm	370 x 670 x 320 mm
Temperature adjustment range		-10 - +40 °C
Weight	35 kg	71 kg
Mains connection	230 V, 50/60 Hz	

Delivery without rotor, please order separately. Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

In vitro diagnostic medical device according to IVDD

Model Megafuge 8, non-cooled

- Air-cooled or without cooling function

Type	Art. No.	Pack Qty.	€
Medifuge 8	**NN26.1**	1 unit(s)	2.979,00

Model Megafuge 8 R, cooled

- With cooling functions
- Infinitely adjustable from -10 to +40 °C in increments of 1 °C
- Precool function

Type	Art. No.	Pack Qty.	€
Megafuge 8R	**APT4.1**	1 unit(s)	7.025,00



Accessories for centrifuge Megafuge® 8/8R

Thermo.

(1) Oscillating rotor TX-150 (90°) - cell culture kit
For centrifuging 15-ml or 50-ml vessels of type Falcon®.

- Max. capacity 8 x 50 ml
- Max. speed 4,500 rpm, max. RZB 3260 x g

Delivery incl. 4 oval beakers suitable for 8 vials 50 ml type Falcon® (no adapter necessary) and 8 adapter for vials 15 ml type Falcon®.

Designation	Art. No.	Pack Qty.	€
Oscillating rotor TX-150, cell culture kit	**NN27.1**	1 unit(s)	2.850,00

(2) 30-fold microlitre rotor MicroClick (45°) for 30 x 1.5/2 ml reaction vials

- Max. capacity 30 x 1.5/2.0 ml
- Max. speed 14,000 rpm, max. RZB 21693 x g

Delivery incl. aerosol-tight lid.

Designation	Art. No.	Pack Qty.	€
MicroClick microlitre rotor	**NN28.1**	1 unit(s)	1.442,00

(3) Microtitration plate rotor M-10

- For 4 standard microtritation plates or 2 Midi-Deepwell plates
- Max. speed 4,400 rpm, max. RZB 2576 x g
- **An M-10 rotor and two open carriers are required for operation (please order both products separately)**

Designation	Art. No.	Pack Qty.	€
Microtitration plate rotor M-10	**NN31.1**	1 unit(s)	1.601,00

Accessories Open carrier for microtritation plate rotor of centrifuge Megafuge® 8/8R

Thermo.

Designation	Art. No.	Pack Qty.	€
Open carrier	**NN32.1**	2 unit(s)	898,00

(4) Fixed angle rotor HIGHConic III (45°)

- Max. capacity 6 x 50 ml
- Max. speed 8700 min^{-1}, max. RZB 10155 x g
- **Rotor is suitable for 50 ml vials of the type Falcon® without adaptor**

Delivery incl. aerosol-tight screw lid.

Designation	Art. No.	Pack Qty.	€
Fixed angle rotor HIGHConic III	**NN33.1**	1 unit(s)	2.404,00

Accessories adapter for fixed angle rotor HIGHConic III

Thermo.

Technical specifications:

Art. No.	NN34.1	NN35.1	NN36.1
Nominal volume	15 ml	16 ml	1.5 ml
Required number of adapters per rotor	6		
Number of vessels per rotor	6		12
Max. vessel length	123 mm		11 mm
Max. vessel Ø	17 mm	18 mm	40 mm
Bottom shape	conical	round	conical
Additional data	Type Falcon®	Standard	Reaction vials

Designation	Art. No.	Pack Qty.	€
Adapter for 15-ml vessels, type Falcon®	**NN34.1**	2 unit(s)	277,00
Adaptor for 16 ml round bottom tubes	**NN35.1**	2 unit(s)	155,00
Adapter for 1.5/2.0 ml reaction vials	**NN36.1**	2 unit(s)	155,00



Benchtop centrifuge ST1 Plus series

Thermo.

General information for all models:

- 6 program presets with speed buttons
- Multilingual display of programming steps, run conditions, alarms and servicing information
- Selection of 9 acceleration profiles and 10 braking profiles
- Optional display of revolutions in rpm or x g
- **Easy, toolless** insertion and exchange of the rotors with only one press of a button
- **Electronic** imbalance detection
- Motor-operated lid lock
- **Annual inspection acc. to BGR 500 recommended**

Technical specifications:

Art. No.	XP77.1	XP78.1
Type	ST1 Plus	ST1R Plus
Max. speed (in microlitre rotor)	15,200 rpm	
Additional data	Speed can be adjusted in increments of 100 rpm	
Maximum RCF	25830 x g	
Minimum speed	300 rpm	
Minimum RCF	17 x g	
Adjustment range		-10 to +40 °C
Timer function	1 min to 9 h, 99 min / continuous operation / Quick-Run	
W x D x H	445 x 660 x 364 mm	625 x 660 x 364 mm
Weight	61 kg	94 kg
Mains connection	230 V, 50/60 Hz	

Delivery without rotor, please order separately. Please note: Additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

Not a medical device / Not an IVD product

Model ST1 Plus, non-cooled

- Air-cooled or without cooling function

Type	Art. No.	Pack Qty.	€
ST1 Plus	**XP77.1**	1 unit(s)	5.069,00

Model ST1R Plus, cooled

- With cooling functions
- Infinitely adjustable from -10 to +40 °C in increments of 1 °C
- Precool function

Type	Art. No.	Pack Qty.	€
ST1R Plus	**XP78.1**	1 unit(s)	8.555,00

Centrifuges with accessories



Accessories oscillating rotor TX-400 (90°) for ST1/ ST1R Plus

Thermo.

- Max. capacity 4 x 400 ml
- Max. speed 5,000 rpm RZB 4696 x g

Delivery without round beaker, lid and adapter for tubes (please order separately). 4 round cups and 4 adaptors are required for operation.

Designation	Art. No.	Pack Qty.	€
Oscillating rotor TX-400	**XP79.1**	1 unit(s)	1.867,00

Accessories for oscillating rotor TX-400 to centrifuge STR1/R Plus

Thermo.

Designation	Art. No.	Pack Qty.	€
Round cup for TX-400	**XP80.1**	4 unit(s)	1.672,00
ClickSeal lid for round cups	**XP81.1**	4 unit(s)	463,00



Accessories adapter for round beaker suitable for oscillating rotor TX-400

Thermo.

Technical specifications:

Art. No.	XP82.1	XP83.1	XP84.1	XP85.1
Nominal volume	15 ml	50 ml	25 ml	250 ml
Required number of adapters per rotor	4			
Number of vessels per rotor	36	16	12	4
Max. vessel length	121 mm	116 mm	110 mm	135 mm
Max. vessel Ø	17 mm	29.5 mm	25 mm	62 mm
Bottom shape	conical		round	
Additional data	Type Falcon®		Universal tubes	Oak-Ridge bottles

Designation	Art. No.	Pack Qty.	€
Adapter for 15-ml vessels, type Falcon®	**XP82.1**	4 unit(s)	469,00
Adapter for 50-ml vessels type Falcon®	**XP83.1**	4 unit(s)	469,00
Adaptor for 25 ml universal tubes	**XP84.1**	4 unit(s)	498,00
Adaptor for 250 ml Oak Ridge bottle	**XP85.1**	4 unit(s)	493,00



Accessories for benchtop centrifuge STR1/R Plus

Thermo.

(1) 30-fold angle rotor for reaction vials Mikro 1.5/2.0 ml

- **Aerosol tight**
- Max. capacity 30 x 1.5/2.0 ml
- High output: max. 15,200 rpm max. RZB 25830 x g

Delivery incl. aerosol-tight lid.

Designation	Art. No.	Pack Qty.	€
Microlitre rotor type 30 x 2	**XP86.1**	1 unit(s)	1.400,00

(2) Microtitration plate rotor M-20

- For 2 x 3 standard microtitration plates or 2 x 1 deepwell plates
- Max. speed 4,000 rpm, max. RZB 2272 x g
- Max. H 65 mm

Delivery incl. 2 supports and 2 adaptors, but without lid (if a lid is required, an additional support set with lid must be ordered separately).

Designation	Art. No.	Pack Qty.	€
Microtitration plate rotor M-20	**XP89.1**	1 unit(s)	2.048,00

Accessories aerosol-tight carrier set with lid for Microtritation plate rotor M-20 suitable for centrifuge STR1/R Plus

Thermo.

Microtritation plates max. H 45 mm.

Designation	Art. No.	Pack Qty.	€
Aerosol-tight support set	**XP90.1**	2 unit(s)	1.159,00



Cleaning, Care & Aids

Adhesive- and isolation tapes 1577
Adhesives 1575
Anti-static spray 1550
APIEZON®-lubricants and waxes 1572
Bench-Top protection paper 1559
Boiling chips 1581
Brushes, cleaning utensils 1562
Casting resins, epoxides 1576
Cleaning agents
(floor, glass and stainless steel) 1544
Cleaning wipes 1552
Descaler 1546
Disinfectants for instruments 1533
Disinfecting agents 1533
Disinfecting agents for surfaces 1535
Floor mops 1565
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Magnesia scoops and rods 1581
neodisher® for laboratory dishwashers 1526
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Preservatives (wood, metal, etc.) 1575
RBS® for laboratory dishwashers 1523
Release agents 1574
Sealing agents 1574
Sealing agents / greases 1568
Solvents 1547
Sprays 1548
Ultrasonic baths and accessories 1498
Ultrasonic cleaners 1516
Universal cleaners RBS® 1518
Vacuum cleaners 1567
Water bath preservatives 1544
Wipes / cellulose tissues 1554

Ultrasonic baths

Ultrasonic cleaning unit Mini

Emag.

For cleaning spectacles, instruments and other small parts. Plastic housing with vibration tank made of 1.4301 stainless steel.

- Timer (1, 3, 5, 7 or 9 min selectable)
- Operating frequency approx. 42 kHz



Technical specifications:

Art. No.	EXH1.1
Type	Mini 0.5 l ultrasonic cleaning unit
Vol.	0.5 l
Inner tub length	160 mm
Inner tub width	90 mm
Inner tub height	50 mm
Inner basket length	140 mm
Inner basket width	70 mm
Inner basket height	40 mm
Outer length	193 mm
Outer width	120 mm
Outer height	123 mm
Operating frequency	42 kHz
Peak ultrasonic output	40 W
Mains connection	220–240 V, 50/60 Hz

Delivery incl. plastic lid and basket.

Not a medical device / Not an IVD product

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
Mini 0.5 l ultrasonic cleaning unit	0.5	193	120	123	**EXH1.1**	1 unit(s)	73,65

Ultrasonic cleaning unit Mini with heating

Emag.

For cleaning small parts. Housing and vibration tank made of 1.4301 stainless steel.

- Timer for 1 to 15 minutes or continuous operation
- Heating is adjustable up to approx. 80 °C
- Operating frequency approx. 45 kHz



Technical specifications:

Art. No.	CLL5.1
Type	Mini 0.8 l ultrasonic cleaning unit with heater
Vol.	0.8 l
Inner tub length	180 mm
Inner tub width	90 mm
Inner tub height	50 mm
Inner basket length	178 mm
Inner basket width	85 mm
Inner basket height	40 mm
Outer length	200 mm
Outer width	110 mm
Outer height	160 mm
Operating frequency	45 kHz
Peak ultrasonic output	60 W
Heating output	120 W
Mains connection	220–240 V, 50/60 Hz

Delivery incl. stainless steel lid and basket.

Not a medical device / Not an IVD product

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
Mini 0.8 l ultrasonic cleaning unit with heater	0.8	200	110	160	**CLL5.1**	1 unit(s)	199,95

Ultrasonic baths

Ultrasonic cleaning unit H-series



Emag.

Compact universal cleaning units for cleaning laboratory utensils and for speeding up dissolution.
Housing and vibration tank made of 1.4301 stainless steel.

Features:

- Timer for 1 to 60 minutes or continuous operation
- Heating is adjustable up to approx. 80 °C
- Operating frequency approx. 45 kHz
- Models H 30 to H 120 with drain valve

Technical specifications:

Art. No.	CPK5.1	CPK6.1	CPK7.1	CPK8.1	CPK9.1
Type	H 22	H 30	H 40	H 60	H 120
Vol.	1.65 l	2.6 l	3.55 l	5.3 l	9 l
Inner tub length	240 mm		300 mm		500 mm
Inner tub width	140 mm		150 mm		135 mm
Inner tub height	65 mm	100 mm		150 mm	
Inner basket length	220 mm		280 mm	285 mm	480 mm
Inner basket width	120 mm		140 mm		120 mm
Inner basket height	50 mm	60 mm	85 mm	135 mm	
Outer length	300 mm		330 mm		600 mm
Outer width	170 mm	165 mm	175 mm		165 mm
Outer height	225 mm			290 mm	355 mm
Operating frequency	45 kHz				
Peak ultrasonic output	120 W	180 W	240 W		300 W
Heating output	150 W	180 W	200 W	250 W	350 W
Outlet valve	No	Yes			
Mains connection	220–240 V, 50/60 Hz				

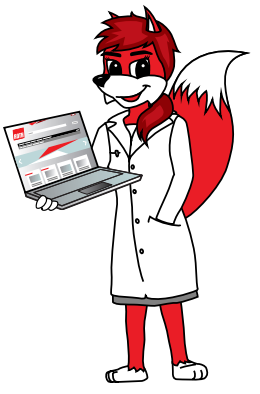
Delivery incl. stainless steel lid and basket.

Not a medical device / Not an IVD product

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
H 22	1.65	300	170	225	**CPK5.1**	1 unit(s)	323,60
H 30	2.6	300	165	225	**CPK6.1**	1 unit(s)	464,40
H 40	3.55	330	175	225	**CPK7.1**	1 unit(s)	566,55
H 60	5.3	330	175	290	**CPK8.1**	1 unit(s)	683,70
H 120	9	600	165	355	**CPK9.1**	1 unit(s)	1.047,05

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Ultrasonic baths

Ultrasonic cleaning unit D-series



Emag.

High-performance universal cleaning units with digital display for cleaning laboratory utensils, allowing faster dissolution and degassing of fluids.
Housing and vibration tank made of 1.4301 stainless steel.

Features:

- Timer for 1 to 30 minutes or continuous operation
- Heating is adjustable up to approx. 80 °C
- Power control 50/100%
- Sweep technology
- Degas function
- Operating frequency approx. 40 kHz
- Models D 30 to D 280 with drain valve

Technical specifications:

Art. No.	CPL1.1	CPL2.1	CPL3.1	CPL5.1	CPL6.1
Type	D 30	D 40	D 60	D 130	D 280
Vol.	2.6 l	3.55 l	5.3 l	13.0 l	28.0 l
Inner tub length	240 mm	300 mm			500 mm
Inner tub width	140 mm	150 mm		240 mm	300 mm
Inner tub height	100 mm		150 mm	200 mm	
Inner basket length	220 mm	280 mm			480 mm
Inner basket width	120 mm	140 mm	135 mm	225 mm	290 mm
Inner basket height	85 mm		135 mm	180 mm	190 mm
Outer length	265 mm	330 mm			530 mm
Outer width	165 mm	175 mm		270 mm	330 mm
Outer height	225 mm		290 mm	355 mm	360 mm
Operating frequency	40 kHz				
Peak ultrasonic output	160 W		240 W	400 W	640 W
Heating output	120 W			200 W	300 W
Outlet valve	Yes				
Mains connection	220–240 V, 50/60 Hz				

Delivery incl. stainless steel lid and basket.

Not a medical device / Not an IVD product

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
D 30	2.6	265	165	225	**CPL1.1**	1 unit(s)	623,50
D 40	3.55	330	175	225	**CPL2.1**	1 unit(s)	799,80
D 60	5.3	330	175	290	**CPL3.1**	1 unit(s)	900,85
D 130	13.0	330	270	355	**CPL5.1**	1 unit(s)	1.785,60
D 280	28.0	530	330	360	**CPL6.1**	1 unit(s)	2.203,75

Ultrasonic baths

Ultrasonic cleaning unit SONOREX

Bandelin.

- Robust stainless steel housing
- Unit frequency 35 kHz
- Protected against drips and splashes
- For the intensive and gentle cleaning of glassware, metal parts, electronic components, instruments, etc.
- For degassing liquids
- For accelerating slurry processes
- Purpose when using in the medical sector: Cleaning instruments
- For manufacturing emulsions



Delivery without basket and lid (optional), please order separately.

Medical device class I MDD

(1) SONOREX SUPER, without heating

- Timer 1 to 15 min or continuous operation

Technical specifications:

Art. No.	P390.1	P392.1	P398.1	P399.1	P401.1
Type	RK 31	RK 52	RK 106	RK 156	RK 510
Vol.	0.9 l	1.8 l	5.6 l	6.0 l	9.7 l
Inner tub length	190 mm	150 mm		500 mm	300 mm
Inner tub width	85 mm	140 mm		140 mm	240 mm
Ø Internal			240 mm		
Inner tub height	60 mm	100 mm	130 mm	100 mm	150 mm
Outer length	205 mm	175 mm		530 mm	325 mm
Outer width	100 mm	165 mm		165 mm	265 mm
Ø ext.			265 mm		
Outer height	155 mm	225 mm	270 mm	245 mm	305 mm
Operating frequency	35 kHz				
Peak ultrasonic output	240 W		480 W		640 W
Effective HF power	30 W	60 W	120 W		160 W
Outlet valve	No		Yes		
Mains connection	230 V, 50/60 Hz				

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
RK 31	0.9	205	100	155	**P390.1**	1 unit(s)	417,10
RK 52	1.8	175	165	225	**P392.1**	1 unit(s)	725,65
RK 106	5.6			270	**P398.1**	1 unit(s)	1.231,95
RK 156	6.0	530	165	245	**P399.1**	1 unit(s)	1.452,35
RK 510	9.7	325	265	305	**P401.1**	1 unit(s)	1.452,35

SONOREX SUPER, with heating

- Timer for 1 to 15 minutes or continuous operation
- Type "H" devices with heating 30–80 °C, can be set in 5 °C increments (except for type RK 31 H: Heating fixed at 65 °C, cannot be adjusted)

Technical specifications:

Art. No.	P391.1	P393.1	P394.1	P395.1	P396.1	P397.1	P400.1	P402.1	P403.1	P404.1	P405.1
Type	RK 31 H	RK 52 H	RK 100 H	RK 102 H	RK 103 H	RK 255 H	RK 156 BH	RK 510 H	RK 514 H	RK 514 BH	RK 1028 H
Vol.	0.9 l	1.8 l	3.0 l		4.0 l	5.5 l	9.0 l	9.7 l	13.5 l	18.7 l	28.0 l
Inner tub length	190 mm	150 mm	240 mm			300 mm	500 mm	300 mm	325 mm		500 mm
Inner tub width	85 mm	140 mm				150 mm	140 mm	240 mm	300 mm		
Inner tub height	60 mm	100 mm			150 mm					200 mm	
Outer length	205 mm	175 mm	260 mm			325 mm	530 mm	325 mm	355 mm		535 mm
Outer width	100 mm	165 mm	160 mm			175 mm	165 mm	265 mm	325 mm		
Outer height	155 mm	225 mm	250 mm		310 mm	305 mm	300 mm	305 mm		385 mm	400 mm
Operating frequency	35 kHz										
Peak ultrasonic output	240 W		320 W	480 W	640 W		860 W	640 W	860 W		1,200 W
Effective HF power	30 W	60 W	80 W	120 W	160 W		215 W	160 W	215 W		300 W
Outlet valve	No			Yes							
Mains connection	230 V, 50/60 Hz										

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
RK 31 H	0.9	205	100	155	**P391.1**	1 unit(s)	490,20
RK 52 H	1.8	175	165	225	**P393.1**	1 unit(s)	924,50
RK 100 H	3.0	260	160	250	**P394.1**	1 unit(s)	975,05
RK 102 H	3.0	260	160	250	**P395.1**	1 unit(s)	1.390,00

Ultrasonic baths

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
RK 103 H	4.0	260	160	310	**P396.1**	1 unit(s)	1.417,95
RK 255 H	5.5	325	175	305	**P397.1**	1 unit(s)	1.595,30
RK 156 BH	9.0	530	165	300	**P400.1**	1 unit(s)	1.954,35
RK 510 H	9.7	325	265	305	**P402.1**	1 unit(s)	1.789,90
RK 514 H	13.5	355	325	305	**P403.1**	1 unit(s)	2.446,70
RK 514 BH	18.7	355	325	385	**P404.1**	1 unit(s)	2.527,35
RK 1028 H	28.0	535	325	400	**P405.1**	1 unit(s)	3.297,05

SONOREX DIGITEC, without heating

- Membrane keyboard with clear symbols
- Timer 1 to 30 min or continuous operation
- Degas - Function switchable

Technical specifications:

Art. No.	HE28.1	HE30.1	HE32.1	HE36.1	HE37.1	HE39.1	HE41.1	HE43.1	HE46.1
Type	DT 31	DT 52	DT 100	DT 106	DT 156	DT 255	DT 510	DT 514	DT 1028
Vol.	0.9 l	1.8 l	3 l	5.6 l	6 l	5.5 l	9.7 l	13.5 l	28.0 l
Inner tub length	190 mm	150 mm	240 mm		500 mm	300 mm		325 mm	500 mm
Inner tub width	85 mm	140 mm			140 mm	150 mm	240 mm	300 mm	
Ø Internal				240 mm					
Inner tub height	60 mm	100 mm		130 mm	100 mm	150 mm			200 mm
Outer length	205 mm	175 mm	260 mm		530 mm	325 mm		355 mm	535 mm
Outer width	100 mm	165 mm	160 mm		165 mm	175 mm	265 mm	325 mm	
Ø ext.				265 mm					
Outer height	170 mm	230 mm	250 mm	270 mm	245 mm	295 mm	305 mm		400 mm
Operating frequency	35 kHz								
Peak ultrasonic output	240 W		320 W	480 W	640 W			860 W	1,200 W
Effective HF power	30 W	60 W	80 W	120 W	160 W			215 W	300 W
Outlet valve	No			Yes					
Mains connection	230 V, 50/60 Hz								

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
DT 31	0.9	205	100	170	**HE28.1**	1 unit(s)	509,55
DT 52	1.8	175	165	230	**HE30.1**	1 unit(s)	733,15
DT 100	3	260	160	250	**HE32.1**	1 unit(s)	817,00
DT 106	5.6			270	**HE36.1**	1 unit(s)	1.248,10
DT 156	6	530	165	245	**HE37.1**	1 unit(s)	1.467,40
DT 255	5.5	325	175	295	**HE39.1**	1 unit(s)	1.325,50
DT 510	9.7	325	265	305	**HE41.1**	1 unit(s)	1.467,40
DT 514	13.5	355	325	305	**HE43.1**	1 unit(s)	2.102,70
DT 1028	28.0	535	325	400	**HE46.1**	1 unit(s)	2.861,65

Ultrasonic baths

(2) SONOREX DIGITEC, with heating

- Membrane keyboard with clear symbols
- Timer for 1 to 30 minutes or continuous operation
- Type "H" devices with heating 20–80 °C, can be adjusted in 5 °C increments
- Safety switch-off after 12 hours
- LED display for temperature and heating phase
- Warning LED for excess temperature
- Degas function can be activated

Technical specifications:

Art. No.	HE29.1	HE31.1	HE33.1	HE34.1	HE35.1	HE38.1	HE40.1	HE42.1	HE44.1	HE45.1	HE47.1
Type	DT 31 H	DT 52 H	DT 100 H	DT 102 H	DT 103 H	DT 156 BH	DT 255 H	DT 510 H	DT 514 H	DT 514 BH	DT 1028 H
Vol.	0.9 l	1.8 l	3 l		4 l	9 l	5.5 l	9.7 l	13.5 l	18.7 l	28.0 l
Inner tub length	190 mm	150 mm	240 mm			500 mm	300 mm		325 mm		500 mm
Inner tub width	85 mm	140 mm					150 mm	240 mm	300 mm		
Inner tub height	60 mm	100 mm			150 mm					200 mm	
Outer length	205 mm	175 mm	260 mm			530 mm	325 mm		355 mm		535 mm
Outer width	100 mm	165 mm	160 mm			165 mm	175 mm	265 mm	325 mm		
Outer height	170 mm	230 mm	250 mm		310 mm	300 mm	295 mm	305 mm		385 mm	400 mm
Operating frequency	35 kHz										
Peak ultrasonic output	240 W		320 W	480 W	640 W	860 W	640 W		860 W		1,200 W
Effective HF power	30 W	60 W	80 W	120 W	160 W	215 W	160 W		215 W		300 W
Outlet valve	No			Yes							
Mains connection	230 V, 50/60 Hz										

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
DT 31 H	0.9	205	100	170	**HE29.1**	1 unit(s)	581,60
DT 52 H	1.8	175	165	230	**HE31.1**	1 unit(s)	932,05
DT 100 H	3	260	160	250	**HE33.1**	1 unit(s)	982,55
DT 102 H	3	260	160	250	**HE34.1**	1 unit(s)	1.405,05
DT 103 H	4	260	160	310	**HE35.1**	1 unit(s)	1.431,90
DT 156 BH	9	530	165	300	**HE38.1**	1 unit(s)	1.974,80
DT 255 H	5.5	325	175	295	**HE40.1**	1 unit(s)	1.610,35
DT 510 H	9.7	325	265	305	**HE42.1**	1 unit(s)	1.806,00
DT 514 H	13.5	355	325	305	**HE44.1**	1 unit(s)	2.460,70
DT 514 BH	18.7	355	325	385	**HE45.1**	1 unit(s)	2.540,25
DT 1028 H	28.0	535	325	400	**HE47.1**	1 unit(s)	3.313,15

Accessories lid for SONOREX ultrasonic cleaning unit

Bandelin. Material: Stainless steel.

For SONOREX ultrasonic compact baths. Noise-inhibiting and serves as evaporation protection.
Purpose when using in the medical sector:
Accessories for cleaning instruments.



Not a medical device / Not an IVD product

Version	Suitable for	Art. No.	Pack Qty.	€
Lid	RK/DT 31, RK/DT 31 H	**P406.1**	1 unit(s)	27,95
Lid	RK/DT 52, RK/DT 52 H	**P407.1**	1 unit(s)	51,60
Lid	DT 100, RK/DT 100 H, RK/DT102 H, RK/DT 103 H	**P408.1**	1 unit(s)	51,60
Lid	DT 255, RK/DT 255 H	**P411.1**	1 unit(s)	63,45
Lid	RK/DT 106	**P412.1**	1 unit(s)	80,65
Lid	RK/DT 156, RK/DT 156 BH	**P413.1**	1 unit(s)	88,15
Lid	RK/DT 510, RK/DT 510 H	**P415.1**	1 unit(s)	74,20
Lid	RK/DT 514, RK/DT 514 H, RK/DT 514 BH	**P416.1**	1 unit(s)	87,10
Lid	DT 1028, RK/DT 1028 H	**P418.1**	1 unit(s)	98,90

Accessories insertion basket for SONOREX ultrasonic cleaning unit



Bandelin. Material: Stainless steel.

Dimensions without handles.
Purpose when using in the medical sector:
Accessories for cleaning instruments.

Medical device class I MDD

Suitable for	Inner basket length (mm)	Inner basket width (mm)	Inner basket height (mm)	Ø Internal	Art. No.	Pack Qty.	€
RK/DT 31, RK/DT 31 H	170	65	50		**P419.1**	1 unit(s)	51,60
RK/DT 52, RK/DT 52 H	120	110	40		**P420.1**	1 unit(s)	66,65
DT 100, RK/DT 100 H, RK/DT102 H	200	110	40		**P421.1**	1 unit(s)	79,55
RK/DT 103 H	200	110	40		**P423.1**	1 unit(s)	86,00
DT 255, RK/DT 255 H	260	110	40		**P424.1**	1 unit(s)	94,60
RK/DT 106			50	215	**P425.1**	1 unit(s)	149,45
RK/DT 156	460	100	50		**P426.1**	1 unit(s)	252,65
RK/DT 156 BH	460	100	50		**P427.1**	1 unit(s)	254,80
RK/DT 510, RK/DT 510 H	250	195	50		**P428.1**	1 unit(s)	224,70
DT 514, RK/DT 514 H	275	245	50		**P429.1**	1 unit(s)	247,25
RK/DT 514 BH	275	245	50		**P430.1**	1 unit(s)	251,55
DT 1028, RK/DT 1028 H	455	245	50		**P431.1**	1 unit(s)	323,60

Ultrasonic cleaning unit Elmasonic Select



Elma. Material: Stainless steel Housing and cleaning bath.

Powerful, digital ultrasonic device for intensive cleaning of lab utensils and industrial components made of glass, plastic or metal. With five different ultrasonic modes for needs-based sound field distribution in the ultrasonic bath.

Features:

- **eco mode:** Gentle cleaning for quieter operation, with sweep mode performed at somewhat lower intensity
- **sweep mode:** Uniform cleaning through uniform sound field distribution in the ultrasonic bath
- **pulse mode:** Removal of even stubborn dirt with pulsing sound field distribution
- **dynamic mode:** Combination of sweep and pulse ultrasonic modes for increasing overall cleaning performance
- **degas mode:** Fast degassing of cleaning fluid and for special applications in the laboratory field

NEW / +

General information for all models:

- Working frequency: 37 kHz
- Digital control panel with membrane keyboard that can be wiped off, and easy-to-read display
- Four memory spaces for cleaning programmes, can be called up by speed dial
- Auto-start function for temperature-controlled start of cleaning
- Preselection of cleaning time: Cleaning duration adjustable between one minute and six hours
- Electronic temperature control in increments of 5 °C, adjustable from +25 to +80 °C (switchable to °F)
- Adjustable limit temperature from +40 to +60 °C (switchable to °F)
- Visual and audible feedbacks, e.g. at the end of cleaning or upon reaching the limit temperature
- Dry-running safety mechanism (not for Elmasonic Select 500 and 900)
- Automatic safety switch-off after eight hours

Range of applications:

- Cleaning: Removes stubborn dirt caused by resins, oils, grease, pastes for sanding and polishing, metal chips and fluxes
- Sample preparation: Homogenising, dispersing, emulsifying and lysing
- For degassing liquids and HPLC solvents

Delivery incl. plastic cover. For Select 500 and 900 devices incl. stainless steel cover and for Select 500 SD and 900 SD devices incl. sound insulation cover. Delivery without basket, please order separately.

Not a medical device / Not an IVD product

Ultrasonic baths

Technical specifications:

Art. No.	1HYC.1	1HYE.1	1HYH.1	1HYK.1	1HYL.1	1HYN.1	1HYP.1	1HYT.1	1HYX.1	1HYY.1	1K01.1	1K00.1	1K02.1
Type	Select 30	Select 40	Select 60	Select 80	Select 100	Select 120	Select 150	Select 180	Select 300	Select 500	Select 900	Select 500 SD	Select 900 SD
Vol.	1.6 l	2.9 l	4.3 l	6.8 l		10.0 l	8.7 l	14.2 l	22.0 l	40.3 l	63.7 l	40.3 l	63.7 l
Inner tub length	220 mm	215 mm	275 mm	475 mm	280 mm	300 mm	485 mm	300 mm	475 mm	500 mm	600 mm	500 mm	600 mm
Inner tub width	120 mm	115 mm	125 mm	110 mm	220 mm	215 mm	280 mm	370 mm	270 mm	330 mm	500 mm	330 mm	500 mm
Inner tub height	65 mm	115 mm				165 mm	65 mm	165 mm		235 mm	200 mm	235 mm	200 mm
Outer length	305 mm		370 mm	570 mm	380 mm		575 mm	405 mm	575 mm	770 mm	870 mm	770 mm	870 mm
Outer width	170 mm		210 mm	195 mm	300 mm		360 mm			425 mm	595 mm	510 mm	640 mm
Outer height	230 mm	280 mm	275 mm	280 mm		330 mm	230 mm	330 mm		505 mm		975 mm	1,145 mm
Operating frequency	37 kHz												
Peak ultrasonic output	480 W		600 W			800 W	1,200 W	800 W	1,200 W	1,920 W	3,840 W	1,920 W	3,840 W
Effective HF power	120 W		150 W			200 W	300 W	200 W	300 W	480 W	960 W	480 W	960 W
Heating output	200 W		400 W	600 W	400 W	800 W			1200 W	1600 W	2000 W	1600 W	2000 W
Power consumption	320 W		550 W	750 W	550 W	1,000 W	1,100 W	1,000 W	1,500 W	2,080 W	2,960 W	2,080 W	2,960 W
Outlet valve	No		Yes										
Weight	3,6 kg	3,8 kg	5,2 kg	6,9 kg	6,2 kg	7,7 kg	8,8 kg	10,2 kg	12,2 kg	30,4 kg	43,4 kg	34,7 kg	49,3 kg
Mains connection	220–240 V												

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
Select 30	1.6	305	170	230	**1HYC.1**	1 unit(s)	714,90
Select 40	2.9	305	170	280	**1HYE.1**	1 unit(s)	1.069,65
Select 60	4.3	370	210	275	**1HYH.1**	1 unit(s)	1.257,75
Select 80	6.8	570	195	280	**1HYK.1**	1 unit(s)	1.462,00
Select 100	6.8	380	300	280	**1HYL.1**	1 unit(s)	1.494,25
Select 120	10.0	380	300	330	**1HYN.1**	1 unit(s)	1.924,25
Select 150	8.7	575	360	230	**1HYP.1**	1 unit(s)	2.031,75
Select 180	14.2	405	360	330	**1HYT.1**	1 unit(s)	2.107,00
Select 300	22.0	575	360	330	**1HYX.1**	1 unit(s)	2.623,00
Select 500	40.3	770	425	505	**1HYY.1**	1 unit(s)	3.461,50
Select 500 SD	40.3	770	510	975	**1K00.1**	1 unit(s)	3.848,50
Select 900	63.7	870	595	505	**1K01.1**	1 unit(s)	5.310,50
Select 900 SD	63.7	870	640	1,145	**1K02.1**	1 unit(s)	5.826,50

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Ultrasonic baths

Ultrasonic cleaning unit Elmasonic EASY



Elma. Material: Stainless steel Housing, cleaning bath made of cavitation resistant stainless steel.

- For simple cleaning tasks and sample preparation in laboratories
- **Permanent sweep function** ensures even removal of contamination
- Additional **pulse function** enables the ultrasonic power to be increased by up to 20 %
- Continuous operation or brief operation adjustable between 1 and 30 minutes using the rotary switch
- H-models with dry-run-safe heating, temperature can be adjusted between 30 and 80 °C
  in 5 °C increments using the rotary switch
- Adjustable limit temperature with visual warning signal if it is exceeded
- Automatic safety switch-off after 8 hours of continuous operation or when the bath temperature reaches 90 °C

Delivery incl. lid. Without basket, please order separately.

Not a medical device / Not an IVD product

Technical specifications:

Art. No.	KHA3.1	KHA5.1	KHA4.1	KHA6.1	KHA7.1	KHA8.1	KHA9.1	KHC0.1	KHC1.1	KHC2.1	KHC3.1
Type	EASY 10	EASY 20	EASY 10H	EASY 20H	EASY 30H	EASY 40H	EASY 60H	EASY 100H	EASY 120H	EASY 180H	EASY 300H
Vol.	0.8 l	1.75 l	0.8 l	1.75 l	2.75 l	4.25 l	5.75 l	9.5 l	12.75 l	18 l	28 l
Inner tub length	190 mm	137 mm	190 mm	137 mm	225 mm	220 mm	281 mm		276 mm	303 mm	477 mm
Inner tub width	85 mm	123 mm	85 mm	123 mm	124 mm	118 mm	132 mm	222 mm	216 mm	273 mm	274 mm
Inner tub height	59 mm	99 mm	59 mm	99 mm		149 mm			199 mm		
Outer length	206 mm	176 mm	206 mm	176 mm	264 mm	263 mm	341 mm	339 mm	342 mm	371 mm	544 mm
Outer width	120 mm	176 mm	120 mm	175 mm	176 mm		196 mm	281 mm	285 mm	347 mm	374 mm
Outer height	182 mm	219 mm	182 mm	219 mm		269 mm		272 mm	322 mm		
Operating frequency	37 kHz										
Peak ultrasonic output	240 W	280 W	240 W	280 W	320 W	560 W	600 W		800 W		1,200 W
Effective HF power	30 W	35 W	30 W	35 W	80 W	140 W	150 W		200 W		300 W
Heating output				120 W	200 W		400 W		800 W		1200 W
Outlet valve	No						Yes				
Weight	2,0 kg	2,1 kg	2,0 kg	2,1 kg	3,3 kg	4,0 kg	5,1 kg	5,9 kg	7,5 kg	8,5 kg	11,0 kg
Mains connection	220–240 V										

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
EASY 10	0.8	206	120	182	**KHA3.1**	1 unit(s)	327,90
EASY 20	1.75	176	176	219	**KHA5.1**	1 unit(s)	392,40
EASY 10H	0.8	206	120	182	**KHA4.1**	1 unit(s)	397,75
EASY 20H	1.75	176	175	219	**KHA6.1**	1 unit(s)	473,00
EASY 30H	2.75	264	176	219	**KHA7.1**	1 unit(s)	505,25
EASY 40H	4.25	263	176	269	**KHA8.1**	1 unit(s)	747,15
EASY 60H	5.75	341	196	269	**KHA9.1**	1 unit(s)	870,75
EASY 100H	9.5	339	281	272	**KHC0.1**	1 unit(s)	1.042,75
EASY 120H	12.75	342	285	322	**KHC1.1**	1 unit(s)	1.354,50
EASY 180H	18	371	347	322	**KHC2.1**	1 unit(s)	1.472,75
EASY 300H	28	544	374	322	**KHC3.1**	1 unit(s)	1.849,00

Ultrasonic baths

Ultrasonic cleaning unit Elmasonic S



Elma.

For intensive cleaning of laboratory instruments made of glass, plastic and metal. Suitable for degassing HPLC solvents and carbonated beverage samples.

- Working frequency 37 kHz
- Housing made of stainless steel
- **Sweep function:** Continuous change of frequency guarantees fast and even cleaning
- **Degas function:** For degassing cleaning solutions and liquids
- Timer for 0 to 30 minutes and continuous operation, safety switch-off after 12 hours
- With fast drainage from model S 30
- H-models with dry-run-safe heating, continuously adjustable from 30–80 °C
- **Auto-Start function:** Ultrasonic cleaning starts once the preselected cleaning temperature has been reached
- LED displays for ultrasound function and heating

Delivery without basket and lid (optional), please order separately. S 10 and S 10 H ultrasonic cleaning units are delivered with the lids included.

Not a medical device / Not an IVD product

Without heating

Technical specifications:

Art. No.	CC84.1	CC86.1	CC88.1	CC90.1	CC92.1	CC94.1	CC96.1	CC98.1
Type	S10	S 15	S 30	S 40	S 60	S 70	S 80	S 180
Vol.	0.8 l	1.75 l	2.75 l	4.25 l	5.75 l	6.9 l	9.4 l	18.0 l
Inner tub length	190 mm	151 mm	240 mm		300 mm	505 mm		327 mm
Inner tub width	85 mm	137 mm			151 mm	137 mm		300 mm
Inner tub height	60 mm	100 mm		150 mm		100 mm	150 mm	200 mm
Outer length	206 mm	175 mm	300 mm		365 mm	564 mm		390 mm
Outer width	116 mm	180 mm	179 mm		186 mm	179 mm		340 mm
Outer height	178 mm	212 mm	214 mm	264 mm		214 mm	264 mm	321 mm
Operating frequency	37 kHz							
Peak ultrasonic output	240 W	280 W	320 W	560 W	600 W			800 W
Effective HF power	30 W	35 W	80 W	140 W	150 W			200 W
Outlet valve	No		Yes					
Mains connection	220–240 V, 50/60 Hz							

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
S10	0.8	206	116	178	**CC84.1**	1 unit(s)	327,90
S 15	1.75	175	180	212	**CC86.1**	1 unit(s)	537,50
S 30	2.75	300	179	214	**CC88.1**	1 unit(s)	607,40
S 40	4.25	300	179	264	**CC90.1**	1 unit(s)	870,75
S 60	5.75	365	186	264	**CC92.1**	1 unit(s)	1.005,15
S 70	6.9	564	179	214	**CC94.1**	1 unit(s)	1.161,00
S 80	9.4	564	179	264	**CC96.1**	1 unit(s)	1.263,15
S 180	18.0	390	340	321	**CC98.1**	1 unit(s)	1.720,00

Ultrasonic baths

With heating

Technical specifications:

Art. No.	CC85.1	CC87.1	CC89.1	CC91.1	CC93.1	CC95.1	CC97.1	CC99.1
Type	S 10 H	S 15 H	S 30 H	S 40 H	S 60 H	S 70 H	S 80 H	S 180 H
Vol.	0.8 l	1.75 l	2.75 l	4.25 l	5.75 l	6.9 l	9.4 l	18.0 l
Inner tub length	190 mm	151 mm	240 mm		300 mm	505 mm		327 mm
Inner tub width	85 mm	137 mm			151 mm	137 mm		300 mm
Inner tub height	60 mm	100 mm		150 mm		100 mm	150 mm	200 mm
Outer length	206 mm	175 mm	300 mm		365 mm	564 mm		390 mm
Outer width	116 mm	180 mm	179 mm		186 mm	179 mm		340 mm
Outer height	178 mm	212 mm	214 mm	264 mm		214 mm	264 mm	321 mm
Operating frequency	37 kHz							
Peak ultrasonic output	240 W	280 W	320 W	560 W	600 W			800 W
Effective HF power	30 W	35 W	80 W	140 W	150 W			200 W
Heating output	60 W		200 W		400 W	600 W		800 W
Outlet valve	No		Yes					
Mains connection	220–240 V, 50/60 Hz							

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
S 10 H	0.8	206	116	178	**CC85.1**	1 unit(s)	397,75
S 15 H	1.75	175	180	212	**CC87.1**	1 unit(s)	607,40
S 30 H	2.75	300	179	214	**CC89.1**	1 unit(s)	671,90
S 40 H	4.25	300	179	264	**CC91.1**	1 unit(s)	1.005,15
S 60 H	5.75	365	186	264	**CC93.1**	1 unit(s)	1.182,50
S 70 H	6.9	564	179	214	**CC95.1**	1 unit(s)	1.263,15
S 80 H	9.4	564	179	264	**CC97.1**	1 unit(s)	1.462,00
S 180 H	18.0	390	340	321	**CC99.1**	1 unit(s)	1.983,40

Accessories insertion basket for Elmasonic S, P and EASY ultrasonic cleaning units

Elma. Material: Stainless steel 1.4301, Electro-polished.
Handles with heat-insulating coating.



NEW / +

Not a medical device / Not an IVD product

Version	Suitable for	Inner length (mm)	Inner width (mm)	Inner height (mm)	Art. No.	Pack Qty.	€
Insertion basket	Select 150	455	250	45	**1K1H.1**	1 unit(s)	209,65
Insertion basket	Select 500	460	300	195	**1K1K.1**	1 unit(s)	331,10
Insertion basket	Select 900	545	460	190	**1K1L.1**	1 unit(s)	435,40
Insertion basket	S 10 / S 10H, EASY 10 / 10H	177	73	30	**CE06.1**	1 unit(s)	48,40
Insertion basket	S 15 / S 15H, EASY 20 / 20H	112	103	50	**CE07.1**	1 unit(s)	51,10
Insertion basket	S 30 / S 30H, P 30H, EASY 30H, Select 30	198	106	50	**CE08.1**	1 unit(s)	53,75
Insertion basket	S 40 / S 40H, EASY 40H, Select 40	190	105	75	**CE09.1**	1 unit(s)	62,35
Insertion basket	S 60 / S 60H, P 60H, EASY 60H, Select 60	255	115	75	**CE10.1**	1 unit(s)	75,25
Insertion basket	S 70 / S 70H, P 70H	465	106	50	**CE11.1**	1 unit(s)	180,60
Insertion basket	S 80 / S 80H, Select 80	455	106	75	**CE12.1**	1 unit(s)	139,75
Insertion basket	EASY 100H, Select 100	255	200	75	**KHA2.1**	1 unit(s)	161,25
Insertion basket	S 120 / S 120H, P 120H, EASY 120H, Select 120	250	190	115	**LX86.1**	1 unit(s)	161,25
Insertion basket	S 180 / S 180H, P 180H, EASY 180H, Select 180	280	250	115	**CE13.1**	1 unit(s)	188,15
Insertion basket	P 300H, EASY 300H, Select 300	455	250	115	**LX87.1**	1 unit(s)	209,65

Ultrasonic baths

Ultrasonic cleaning unit Elmasonic P



Elma.

- Stainless steel vibration tank and housing
- Digital LED display for clear indication of frequency, output, actual and nominal temperatures and timer
- 3/8″ drainage valve on back of unit (operated at the side)
- Ultrasonic frequency is switchable between 37 kHz (basic cleaning, mixing, dissolving) and 80 kHz (mild cleaning, low noise)
- Ultrasonic intensity is adjustable from 30% (for sensitive surfaces) to 100% in increments of 10%
- Automatic frequency switch-over for simultaneous coarse and fine cleaning
- **Sweep function** for optimised sound field distribution
- **Pulse function** for intensification of ultrasonic cleaning power by up to 20%
- (Auto-)**Degas function** for quick degassing
- Temperature-controlled ultrasonic cleaning
- Heating that is safe to run dry, adjustable from 30 to 80 °C in increments of 10 °C
- Automatic safety switch-off at a bath temperature of 90 °C or after more than 12 hours of continuous operation

Technical specifications:

Art. No.	LX70.1	LX71.1	LX72.1	LX73.1	LX74.1	LX75.1
Type	P 30H	P 60H	P 70H	P 120H	P 180H	P 300H
Vol.	2.75 l	5.75 l	6.9 l	12.75 l	18.0 l	28.0 l
Inner tub length	240 mm	300 mm	505 mm	300 mm	327 mm	505 mm
Inner tub width	137 mm	151 mm	137 mm	240 mm	300 mm	
Inner tub height	100 mm	150 mm	100 mm	200 mm		
Outer length	300 mm	365 mm	568 mm	365 mm	390 mm	568 mm
Outer width	179 mm	186 mm	179 mm	278 mm	340 mm	
Outer height	221 mm	271 mm	221 mm	321 mm		
Operating frequency	37 kHz/80 kHz					
Peak ultrasonic output	400 W	600 W	880 W	1,320 W		1,520 W
Effective HF power	100 W	150 W	220 W	330 W		380 W
Heating output	200 W	400 W	600 W	800 W		1200 W
Outlet valve	Yes					

Delivery without basket and lid (optional), please order separately.

Not a medical device / Not an IVD product

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
P 30H	2.75	300	179	221	**LX70.1**	1 unit(s)	1.075,00
P 60H	5.75	365	186	271	**LX71.1**	1 unit(s)	1.483,50
P 70H	6.9	568	179	221	**LX72.1**	1 unit(s)	1.580,25
P 120H	12.75	365	278	321	**LX73.1**	1 unit(s)	2.236,00
P 180H	18.0	390	340	321	**LX74.1**	1 unit(s)	2.461,75
P 300H	28.0	568	340	321	**LX75.1**	1 unit(s)	2.859,50

Accessories lid for Elmasonic S and P ultrasonic cleaning units



Elma. Material: Plastic.

Noise-inhibiting. Usable as a drip tray.

Not a medical device / Not an IVD product

Version	Suitable for	Art. No.	Pack Qty.	€
Lid	S 15 / S 15H	**CE01.1**	1 unit(s)	21,50
Lid	S 30 / S 30H / S 40 / S 40H / P 30H	**CE02.1**	1 unit(s)	24,75
Lid	S 60 / S 60H / P60 H	**CE03.1**	1 unit(s)	30,10
Lid	S 70 / S 70H / S 80 / S 80H / P 70 H	**CE04.1**	1 unit(s)	39,80
Lid	P 120H	**LX84.1**	1 unit(s)	39,80
Lid	S 180 / S 180H / P 180H	**CE05.1**	1 unit(s)	41,95
Lid	P 300H	**LX85.1**	1 unit(s)	48,95

Accessories insert tub for Elmasonic S, P and xtra ultrasonic cleaning units

Elma. Material: Plastic.
Tub with small holes in the base.



Not a medical device / Not an IVD product

Version	Suitable for	Art. No.	Pack Qty.	€
Insert tub	S 15, S 15H	**C309.1**	1 unit(s)	20,45
Insert tub	S 30, S 30H, P 30 H, xtra	**0613.1**	1 unit(s)	23,65
Insert tub	S 40, S 40H	**C310.1**	1 unit(s)	26,90

Accessories insert lid

Elma. Material: Stainless steel.



Not a medical device / Not an IVD product

Version	Suitable for	Ø Hole (mm)	Art. No.	Pack Qty.	€
for 2 beakers	S 30, S 30H, S 40, S 40H, P 30 H	95	**H557.1**	1 unit(s)	34,40

Accessories immersion basket

Elma.
Can be used with all types of device.



Not a medical device / Not an IVD product

(1) Polyethylene
Material: PE.

Version	Inner basket height (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
PE immersion basket	40	74	**H558.1**	1 unit(s)	17,20

(2) Stainless steel, mesh size 0.8 mm
Material: Stainless steel.

Version	Inner basket height (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
Immersion basket made of stainless steel	60	59	**H559.1**	1 unit(s)	54,85

Ultrasonic cleaning unit Elmasonic S 50 R

Elma.

Ultrasonic cleaning unit for cleaning test sieves, HPLC solvent degassing and sample preparation. With microprocessor-controlled ultrasound modes and special programmes for routine laboratory applications and cleaning tasks.



- **Sieve cleaning function**:
  strong cleaning pulses ensure optimal sieve cleaning
- **Degas/(autodegas) function**:
  efficient and noise-reduced degassing of HPLC solvents and carbonated beverage samples
- **Sample preparation function:**
  for routine tasks such as mixing, dissolving, dispersing and cleaning
- Short-time operation between 1 and 30 minutes or continuous operation, adjustable using rotary switch
- LED display of set cleaning time and remaining cleaning time
- Cleaning tank made of cavitation-resistant stainless steel
- Can be connected to laboratory stand for noise-reduced operation
- Plastic carry handles

Technical specifications:

Art. No.	YE61.1
Type	Elmasonic S 50 R
Vol.	5 l
Max. volume	5.3 l
Ø Internal	240 mm
Inner tub height	130 mm
Ø ext.	260 mm
Outer height	350 mm
Operating frequency	37 kHz
Peak ultrasonic output	600 W
Effective HF power	150 W
Power consumption	150 W
Weight	5 kg

Delivery without basket and accessories, please order separately.

Not a medical device / Not an IVD product

Type	Vol. (l)	Outer height (mm)	Art. No.	Pack Qty.	€
Elmasonic S 50 R	5	350	**YE61.1**	1 unit(s)	994,40

Accessories for Elmasonic S 50 R ultrasonic cleaning unit

Elma.

Not a medical device / Not an IVD product

Lid
Material: PP. Blue, noise-inhibiting.

Version	Art. No.	Pack Qty.	€
Lid	**YE62.1**	1 unit(s)	32,25

(1) Perforated lid
Material: PP. Blue. Opening Ø 97 mm. Perforated lid in combination with rubber ring suitable for 600 ml beakers (low form) and 1000 ml beakers (high form).

Delivery without rubber ring, please order separately.

Version	Art. No.	Pack Qty.	€
Perforated lid	**YE63.1**	1 unit(s)	32,25

Rubber ring
Material: Rubber.

Version	Art. No.	Pack Qty.	€
Rubber ring	**YE64.1**	1 unit(s)	3,55

(2) Sieve holder for laboratory sieves
Material: Stainless steel 1.4301. Suitable for laboratory sieve Ø of 100 and 200 mm.

Version	Suitable for	Art. No.	Pack Qty.	€
Sieve holder for laboratory sieves	Laboratory sieve Ø of 100 and 200 mm	**YE65.1**	1 unit(s)	70,95

(3) Insertion basket
Material: Stainless steel. Basket inner dimensions: Ø 220 x H 70 mm. Mesh size 10 x 10 mm. Handles with heat-insulating coating.

Version	Inner basket height (mm)	Ø Internal (mm)	Art. No.	Pack Qty.	€
Insertion basket	70	220	**YE66.1**	1 unit(s)	139,75

Set of fixtures for glass flasks for HPLC degassing

Delivery incl. three-finger clamp, fastening sleeve and stand rod (length 600 mm).

Version	Art. No.	Pack Qty.	€
Set of fixtures for glass flasks for HPLC degassing	**YE67.1**	1 unit(s)	75,25

Noise protection box for ultrasonic cleaning units

Elma.

Noise protection box for ultrasonic cleaning units to reduce typical cavitation noises by approx. 20 dBA and reduce subjective noises by 75%. Cover made of Plexiglas so that the unit function and fill level can be seen. Integrated air extraction to remove steam from the box can be manually activated. This allows the box to be used directly at work stations in chemical laboratories, dental laboratories and workshops.



Technical specifications:

Art. No.	YP19.1	YP20.1
Type	Noise protection box M	Noise protection box L
Suitable for	S 10, S 15, S 30, P 30, S 40, S 60, P 60	S 90, S 100, S 120, P 120, S 130, X-tra 30, X-tra 50, X-tra 70, Transsonic TI-H-5
Inner length	380 mm	440 mm
Inner width	240 mm	310 mm
Inner height	315 mm	480 mm
Outer length	465 mm	530 mm
Outer width	415 mm	490 mm
Outer height	360 mm	530 mm
Power consumption	18 W	
Weight	12.6 kg	15.2 kg
Mains connection	230 V, 50 Hz	

Delivery without ultrasonic cleaning unit, please order separately.

Not a medical device / Not an IVD product

Type	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
Noise protection box L	530	490	530	**YP20.1**	1 unit(s)	860,00
Noise protection box M	465	415	360	**YP19.1**	1 unit(s)	806,25

Ultrasonic baths

Ultrasonic cleaning unit Elmasonic xtra TT



Elma.

Powerful ultrasonic baths with permanently integrated sweep function for uniform cleaning. Vibration tank made of cavitation-resistant stainless steel. With LED display for ultrasonic and heating function.

- Ultrasonic frequency 37 kHz
- Permanently integrated sweep function for uniform distribution of the ultrasonic power in the entire cleaning bath
- Switchable dynamics function enhances the ultrasonic peak performance and improves the cleaning effect
- Permanent operation of brief operation adjustable between 1 and 30 minutes
- Temperature selectable from 30–80 °C in increments of 5 °C
- Adjustable limit temperature, LED warning display if exceeded
- Auto-start function: Ultrasonic cleaning starts automatically when the preselected temperature is reached
- 3/8″ drain ball valve
- Heating that is safe to run dry
- Automatic safety switch-off after 8 hours continuous operation or 90 °C bath temperature
- Removable power cable with rubber connector

Technical specifications:

Art. No.	**HHH7.1**	**HHH8.1**	**HHH9.1**	**HHK0.1**
Type	xtra TT 30 H	xtra TT 60 H	xtra TT 120 H	xtra TT 200 H
Vol.	2 l	5 l	10 l	13 l
Max. volume	3 l	6.5 l	14 l	18 l
Inner tub length	240 mm	300 mm		320 mm
Inner tub width	130 mm	150 mm	240 mm	280 mm
Inner tub height	100 mm	150 mm	200 mm	
Inner basket length	196 mm	257 mm	262 mm	280 mm
Inner basket width	112 mm	132 mm	222 mm	250 mm
Inner basket height	49 mm	74 mm	114 mm	
Loading capacity	1 kg	3 kg	7 kg	8 kg
Outer length	360 mm	420 mm	440 mm	420 mm
Outer width	230 mm	250 mm	340 mm	390 mm
Outer height	250 mm	300 mm	350 mm	330 mm
Operating frequency	37 kHz			
Effective HF power	140 W	150 W	200 W	300 W
Heating output	200 W	400 W	800 W	1200 W
Outlet valve	Yes			
Weight	6 kg	10 kg	11 kg	13 kg
Mains connection	220–240 V, 50/60 Hz			

Delivery incl. lid. Basket not included. Please order separately.

Not a medical device / Not an IVD product

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
xtra TT 30 H	2	360	230	250	**HHH7.1**	1 unit(s)	1.010,50
xtra TT 60 H	5	420	250	300	**HHH8.1**	1 unit(s)	1.365,25
xtra TT 120 H	10	440	340	350	**HHH9.1**	1 unit(s)	2.064,00
xtra TT 200 H	13	420	390	330	**HHK0.1**	1 unit(s)	2.386,50

Accessories insertion basket for Elmasonic xtra TT ultrasonic cleaning units

Elma. Material: Stainless steel.

Mesh size 6 x 1 mm.



Not a medical device / Not an IVD product

Version	Suitable for	Inner basket length (mm)	Inner basket width (mm)	Inner basket height (mm)	Art. No.	Pack Qty.	€
Insertion basket	xtra TT 30 H	196	112	49	**HHK1.1**	1 unit(s)	95,70
Insertion basket	xtra TT 60 H	257	132	74	**HHK2.1**	1 unit(s)	125,80
Insertion basket	xtra TT 120 H	262	222	114	**HHK3.1**	1 unit(s)	155,90
Insertion basket	xtra TT 200 H	280	250	114	**HHK4.1**	1 unit(s)	193,50

Ultrasonic cleaning unit Transsonic TI-H

Elma. Material: Stainless steel.

- **Multi-frequency bath:** Frequencies (35/130 kHz) can be switched over for intensive cleaning and gentle cleaning of sensitive surfaces
- Stainless steel shell. Vibration tank made of 1.5 mm strong special stainless steel, extremely robust and hard wearing
- **Degas function** for rapid, effective degassing
- **Sweep function** for optimised sound field distribution
- Outlet on back of housing, electrical control via push-button
- With heating, adjustable from 30–80 °C



Technical specifications:

Art. No.	T712.1	T713.1	T714.1	T715.1
Type	TI-H-5	TI-H-10	TI-H-15	TI-H-20
Vol.	3.5 l	8.6 l	12.2 l	16.8 l
Inner tub length	240 mm	300 mm		330 mm
Inner tub width	130 mm	240 mm		300 mm
Inner tub height	150 mm		200 mm	
Outer length	340 mm	400 mm		430 mm
Outer width	300 mm	415 mm		470 mm
Outer height	370 mm		420 mm	
Operating frequency	35/130 kHz			
Peak ultrasonic output	400 W	800 W		1,000 W

Delivery without basket and lid (optional), please order separately.

Not a medical device / Not an IVD product

Type	Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
TI-H-5	3.5	340	300	370	**T712.1**	1 unit(s)	2.031,75
TI-H-10	8.6	400	415	370	**T713.1**	1 unit(s)	2.279,00
TI-H-15	12.2	400	415	420	**T714.1**	1 unit(s)	2.547,75
TI-H-20	16.8	430	470	420	**T715.1**	1 unit(s)	2.676,75

Ultrasonic baths

Accessories lid for Transsonic TI-H ultrasonic cleaning units

Elma. Material: Stainless steel.
For Transsonic TI-H ultrasonic cleaning units.



Not a medical device / Not an IVD product

Version	Suitable for	Art. No.	Pack Qty.	€
Lid	TI-H-5	**T716.1**	1 unit(s)	48,40
Lid	TI-H-10	**T717.1**	1 unit(s)	50,55
Lid	TI-H-15	**T718.1**	1 unit(s)	50,55
Lid	TI-H-20	**T719.1**	1 unit(s)	60,20

Accessories insertion basket for Transsonic TI-H ultrasonic cleaning units

Elma. Material: Stainless steel.
For Transsonic TI-H ultrasonic cleaning unit.



Not a medical device / Not an IVD product

Version	Suitable for	Inner basket length (mm)	Inner basket width (mm)	Inner basket height (mm)	Art. No.	Pack Qty.	€
Insertion basket	TI-H-5	200	100	90	**T720.1**	1 unit(s)	204,25
Insertion basket	TI-H-10	260	210	90	**T721.1**	1 unit(s)	274,15
Insertion basket	TI-H-15	260	210	135	**T722.1**	1 unit(s)	301,00
Insertion basket	TI-H-20	290	270	135	**T723.1**	1 unit(s)	322,50

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Ultrasonic pipette cleaner SONOREX PR 140 DH

Bandelin.

Ultrasonic pipette cleaner to gently clean volumetric glass or plastic devices up to a length of 755 mm.

- Short cleaning times
- Timer (1, 2, 3, 4, 5, 10, 15, 30 minutes or continuous operation)
- Particularly robust thanks to the V4A (1.4571) stainless steel tank
- Drop handles for easier transportation
- Ball valve means that it can be emptied quickly and easily
- Model PR 140 DH with optional heating (can be adjusted from 20 to 80 °C) to increase the cleaning effect, e.g. in the case of grease residues and stubborn soiling

Number of pipettes to be cleaned in the pipette basket:
Ø 9 mm – approx. 90 pcs; Ø 10.7 mm – approx. 55 pcs; Ø 14 mm – approx. 35 pcs; Ø 20.0 mm – approx. 15 pcs; Ø 29 mm – approx. 10 pcs.

Technical specifications:

Art. No.	ECY0.1
Type	PR 140 DH
Volume range	9–18 l
Inner tub length	150 mm
Inner tub width	150 mm
Inner tub height	895 mm
Outer length	330 mm
Outer width	330 mm
Outer height	1,003 mm
Operating frequency	35 kHz
Peak ultrasonic output	860 W
Effective HF power	200 W
Heating output	700 W
Outlet valve	Yes
Weight	19.7 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. stainless steel lid and PE pipette basket (inner dimensions: Ø x H 120 x 275 mm).

Not a medical device / Not an IVD product

Type	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
PR 140 DH	330	330	1,003	**ECY0.1**	1 unit(s)	4.544,05



Ultrasonic cleaners ULTRASONOL® 7

Carl ROTH.

Gentle on materials, this special cleaner assists and intensifies the ultrasonic cleaning process.

- Also suitable for sensitive objects and materials. Non-irritating and non-toxic.
- Non-flammable, non-gassing, biodegradable
- Liquid concentrate pH 7

Use 2–10% in water. Reaction time approx. 10 min; after washing, rinse thoroughly and dry.

Technical specifications:

Art. No.	5356.1	5356.2	5356.4
Intended purpose	for ultrasonic baths		
Delivery form	Concentrated liquid		
pH range	neutral		
Free from chlorine	Yes		
Dosing	2-10% in water		

Warning H319

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
ULTRASONOL® 7	**5356.1**	1 l	16,70
ULTRASONOL® 7	**5356.2**	5 l	64,30
ULTRASONOL® 7	**5356.4**	20 kg	191,35

Ultrasonic cleaners



Ultrasonic cleaners ULTRASONOL® 11

Carl ROTH.

This highly effective special cleaner assists and intensifies the ultrasonic cleaning process.

- Removes distillation residues, tars, resins, Canada balsam, adhesives, silicones, greases, oils and similar contaminants
- Non-flammable, non-gassing, biodegradable
- Liquid concentrate pH 12.9

Use 2–10% in water. Reaction time 1 to 10 min; after washing, rinse thoroughly and dry.

Technical specifications:

Art. No.	5354.1	5354.2
Intended purpose	for ultrasonic baths	
Delivery form	Concentrated liquid	
Dosing	2-10% in water	

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
ULTRASONOL® 11	**5354.1**	1 l	15,50
ULTRASONOL® 11	**5354.2**	5 l	63,40



Ultrasonic cleaners EC 10

Elma.

Alkaline universal cleaning concentrate. For thorough ultrasonic and immersion cleaning of alkali-resistant cleaning goods and medical products such as laboratory, medical and dental instruments made of stainless steel, steel, ceramic, glass, plastic and rubber.
Removes blood, saliva, proteins, tissue and bone residues as well as greases, oils and pastes for sanding and polishing.
Dosing: 5% in water in ultrasonic and immersion baths, higher dosages (up to 10%) can be used for heavy contamination.

Danger H290-H315-H318

Medical device class I

Type	Art. No.	Pack Qty.	€
EC 10 ultrasonic cleaner	**CC48.1**	1 l	20,45



Ultrasonic cleaners Elma clean 70

Elma.

Alkaline, universal cleaning concentrate.
For cleaning laboratory equipment and materials made of glass, ceramic, alkaline-resistant plastic, rubber (e.g. respiratory protection masks), metal and light metal. Removes oils, greases, dust, soot and other organic contaminations.
Dispensing: 1–5% in water at 20–80 °C; 5–10% in water in an immersion bath without ultrasound.

Danger H315-H318

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Elma clean 70 ultrasonic cleaner	**CC46.1**	1 l	17,20



Ultrasonic cleaners Elma clean 75

Elma.

Cleaning concentrate containing ammonia for cleaning jewellery and for use in laboratories and workshops. Removes dirt particles, greases, oils, skin residues and sanding/polishing/lapping residues. Helps brighten precious and non-ferrous metals. Can corrode zinc and aluminium as well as light metal alloys.
Dispensing: 5–10% in water; 15% in water in an immersion bath without ultrasound.

Danger H315-H318-H336-H412

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Elma clean 75 ultrasonic cleaner	**CC47.1**	1 l	19,35

Ultrasonic cleaners



Ultrasonic cleaners Elma clean 65

Elma.

Gentle neutral cleaner with corrosion inhibitor.
For workpieces made of sensitive materials,such as glass, plastic, rubber as well as metal. Removes fingerprints, dust, pigments, light greases and oils.
Dispensing: 2–5% in water at 20–80 °C.

Danger H318

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Elma clean 65 ultrasonic cleaner	**CC45.1**	1 l	17,20



Ultrasonic cleaners EC 60

Elma.

Acidic cleaning concentrate for ultrasonic and immersion cleaning. Suitable for acidic deep-cleaning of medical instruments and workpieces made of stainless steel, metal, ceramic, glass and plastic. Also suitable for laboratory equipment. Removes metal oxides and mineral contamination such as limescale, rust, tarnished areas and other deposits, mineral oils and greases. Also suitable for removing acid soluble cements.
Not suitable for light metals.
Dosing: 1-10% in water at 40-70 °C; 3% in water in an immersion bath without ultrasound.

Danger H290-H314

Medical device class I

Type	Art. No.	Pack Qty.	€
EC 60 ultrasonic cleaner	**CC44.1**	1 l	29,05

RBS® universal cleaners

- Effective cleaning of laboratory glassware, plastics, porcelain, ceramics, crystal, stainless steel, etc. in laboratories (analysis, monitoring, research and development), universities, institutes, industry etc.
- Effective against grease, oils, salts, limescale, proteins, radioactive contamination and other chemical and biological residues.
- Suitable for manual cleaning, dishwashers and ultrasound baths or for automatic cleaning in immersion bath



Laboratory cleaning agent RBS 25

Carl ROTH.

Alkaline liquid laboratory cleaning concentrate for cleaning by hand as well as immersion bath and ultrasonic bath cleaning.
Cleans and degreases surfaces and objects made of glass, ceramic, porcelain, plastic and stainless steel. Also suitable for industrial applications (processing of electronic components, wafers, lenses, etc.).

- pH value in concentration for use 2%: approx. 11.9
- Density 1.094 g/ml
- Foaming

Concentration for use: 20 ml per litre of water. Temperatures up to approx. 50 °C accelerate the cleaning process. Items to be cleaned should remain in the immersion bath for at least 3 hours.
Rinse thoroughly with deionised water.

Technical specifications:

Art. No.	**AL89.1**
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath, for ultrasonic baths
Delivery form	Concentrated liquid
pH range	alkaline
Ingredients	Sodium hydroxide, sodium hypochlorite solution, surfactants, phosphates
Dosing	2% in water

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS 25	**AL89.1**	5 l	68,70

RBS® universal cleaners



Laboratory cleaning agent RBS 35

Carl ROTH.

Alkaline liquid laboratory cleaning concentrate for cleaning by hand for normal levels of dirt as well as immersion bath and ultrasonic bath cleaning. Also suitable for use with hard water.
Cleans and degreases all non-corrosive materials and surfaces. Also suitable for industrial cleaning and degreasing of metals, electronic components, wafers, lenses, etc. Rinses off trace-free.

- pH value in concentration for use 2%: approx. 11.5
- Density 1.07 g/ml
- Slightly foaming

Concentration for use: 20 ml per litre of water; increase the dosage for stubborn dirt.
Rinse thoroughly with deionised water.

Technical specifications:

Art. No.	9238.1	9238.2	9238.4
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath, for ultrasonic baths		
Delivery form	Concentrated liquid		
pH range	alkaline		
Ingredients	Sodium hydroxide, tetrapotassium diphosphate, sodium carbonate, sodium hypochlorite solution, surfactants		
Dosing	2% in water		

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS 35	**9238.1**	1 l	18,80
RBS 35	**9238.2**	5 l	77,25
RBS 35	**9238.4**	20 kg	216,10



Laboratory cleaning agent RBS 50

Carl ROTH.

Highly alkaline liquid laboratory cleaning concentrate. Suitable for universal cleaning by hand, immersion bath and ultrasonic bath cleaning as well as laboratory dishwashers. Even works on stubborn dirt.
Cleans and degreases all non-corrosive materials and surfaces. Also removes problematic substances such as radioactive residues, Canada balsam, silicones, etc. For industrial applications to treat metal parts, lenses, electronic components, etc.
Rinses off trace-free.

- pH pure product: 13.5
- Density 1.244 g/ml
- Non foaming
- Also suitable for use with hard water

Concentration for use:
For manual and automatic cleaning: 10 ml per litre of water.
Cleaning in dishwashers and ultrasonic baths:
3-5 ml per litre of water. Dishwasher cleaning particularly effective in combination with RBS NA 2 and/or RBS R 60.
Rinse thoroughly with deionised water.

Technical specifications:

Art. No.	9232.1	9232.2	9232.4
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath, for ultrasonic baths, for laboratory dishwashers		
Delivery form	Concentrated liquid		
pH range	highly alkaline		
Ingredients	Tetrapotassium diphosphate, sodium hydroxide, sodium hypochlorite solution, mineral salts		
Dosing	3–10% in water		

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS 50	**9232.1**	1 l	23,60
RBS 50	**9232.2**	5 l	108,05
RBS 50	**9232.4**	20 kg	303,15

Laboratory cleaning agent RBS Neutral T

Carl ROTH.

Neutral liquid laboratory cleaning concentrate for manual or automatic cleaning. Also suitable for sensitive materials and surfaces. Non-corrosive. No harmful effects on culture growth, therefore also suitable for use in microbiology and tissue culture.

- Free from chlorine
- pH-neutral cleaning solution
- Density 1.072 g/ml
- Slightly foaming
- Biodegradable

Concentration for use: 4 to 6 % v/v depending on amount of dirt. Rinse thoroughly with deionised water.

Technical specifications:

Art. No.	0180.1	0180.2
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath	
Delivery form	Concentrated liquid	
pH range	neutral	
Ingredients	Surfactants, isotridecanol, ethylene glycol monophenyl ether, phosphates	
Free from chlorine	Yes	
Dosing	4–6% in water	

Warning H319

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS Neutral T	**0180.1**	1 l	19,00
RBS Neutral T	**0180.2**	5 l	70,95

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Laboratory cleaning agent RBS IND 470

Carl ROTH.

Alkaline liquid laboratory cleaning concentrate for decontaminating radioactive residues (tested for ^{99}Mo, ^{192}Ir, ^{131}I). Also removes greases, silicone oils, carbonates, metal particles, dust and organic substances. Suitable for automatic or manual ultrasound cleaning of objects, containers and surfaces made of glass, stainless steel and plastic.

- Halogen free (Cl; I; Br; F < 20 µg/g) and phosphate free (P < 5 µg/g)
- pH pure product: 14.0
- Density at 20 °C: 1.06
- Slightly foaming
- Also suitable for use with hard water

Concentration for use: 2% v/v for normal contamination, temperatures up to approx. 50 °C accelerate the cleaning process. Soak parts to be decontaminated in a 10% solution at 60 °C for at least 6 hours. Rinse thoroughly with deionised water. Unsuitable for corrodible metals.

Technical specifications:

Art. No.	TA00.1	TA00.2
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath, for ultrasonic baths	
Delivery form	Concentrated liquid	
pH range	alkaline	
Ingredients	Potassium hydroxide, isotridecanol, surfactants	
Phosphate-free	Yes	
Dosing	2–10% in water	

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS IND 470	**TA00.1**	5 l	58,70
RBS IND 470	**TA00.2**	20 kg	177,40

RBS® universal cleaners



Laboratory cleaning agent RBS pF T

Carl ROTH.

Alkaline liquid laboratory cleaning concentrate for manual or automatic cleaning in analytical labs.
Equalises water hardness. Rinses off trace-free.

- Phosphate-free
- pH value in concentration for use 2%: approx. 11.8
- Density 1.072 g/ml
- Slightly foaming
- Also suitable for use with hard water
- Biodegradable

Concentration for use: 20 ml per litre of water; increase the dosage for stubborn dirt.
Rinse thoroughly with deionised water.

Technical specifications:

Art. No.	**9243.1**	**9243.2**	**9243.4**
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath		
Delivery form	Concentrated liquid		
pH range	alkaline		
Ingredients	Tetrasodium salt, sodium hydroxide, sodium carbonate, sodium hypochlorite solution, surfactants		
Phosphate-free	Yes		
Dosing	2% in water		

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS pF T	**9243.1**	1 l	18,15
RBS pF T	**9243.2**	5 l	75,25
RBS pF T	**9243.4**	20 kg	238,65



Laboratory cleaning agent RBS T 115

Carl ROTH.

Alkaline liquid laboratory cleaning concentrate with excellent emulsifying and wetting properties. For self and manual cleaning or use in ultrasonic baths. Strongly recommended for laboratory glass, quartz, porcelain or plastics. Removes organic and inorganic substances such as fats, proteins, distillation residues and biological contaminants. Reduces water hardness and counteracts scaling. Free from phosphates and therefore suitable for use in analytical labs. Biodegradable.

- Phosphate-free
- pH of a 2% cleaning solution: 11.7
- Density at 20 °C: 1.08
- Slightly foaming
- Also suitable for use with hard water

Concentration for use: 2% v/v (higher concentrations can be used to remove stubborn dirt). Temperatures up to approx. 50 °C accelerate the cleaning process. Rinse thoroughly with deionised water. Unsuitable for mildly corroding metals and sensitive materials.

Technical specifications:

Art. No.	**LY18.1**
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath, for ultrasonic baths
Delivery form	Concentrated liquid
pH range	alkaline
Ingredients	Tetrasodium salt, sodium hydroxide, sodium carbonate, sodium hypochlorite solution, surfactants
Phosphate-free	Yes
Dosing	2% in water

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS T 115	**LY18.1**	5 l	45,30

RBS® universal cleaners



Laboratory cleaning agent RBS T 105

Carl ROTH.

Alkaline liquid laboratory cleaning concentrate. For self and manual cleaning or use in ultrasonic baths. Suitable for laboratory glassware, stainless steel, porcelain and plastics. Removes organic and biological substances, such as greases, distillation residues, proteins and cell cultures. Reduces water hardness and counteracts scaling. Rinses off easily without leaving a residue.

- pH value of cleaning solution (2%): 11.8
  pH value, concentrate: 13.3
- Density at 20 °C: 1.12
- Foaming
- Also suitable for use with hard water

Concentration for use: 2% v/v, higher concentrations can be used to remove stubborn dirt. Temperatures up to approx. 50 °C accelerate the cleaning process.
Rinse thoroughly with deionised water. Unsuitable for corrodible metals.

Technical specifications:

Art. No.	**PY99.1**
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath, for ultrasonic baths
Delivery form	Concentrated liquid
pH range	alkaline
Ingredients	Tetrapotassium diphosphate, surfactants, sodium hypochlorite solution
Dosing	2% in water

Warning H319

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS T 105	**PY99.1**	5 l	42,65



Laboratory cleaning agent RBS T 230

Carl ROTH.

Neutral liquid laboratory cleaning concentrate for cleaning sensitive materials, such as volumetric glassware, aluminium, zinc, tin, PS or PC. Non-corrosive and fully biodegradable. Self-acting (no mechanical cleaning required). Also suitable for use in microbiology as it has no harmful effects on culture growth.

- Chlorine- and oxidant-free
- pH-neutral cleaning solution
- Density at 20 °C: 1.07
- Non-corrosive, non-toxic and non-irritant
- Slightly foaming
- Also suitable for use with hard water

Concentration for use: 4 to 6% v/v, i.e. 40 to 60 ml RBS T 230 per litre of water depending on contamination. Objects should be fully immersed for cleaning.
Exposure time: 2 to 12 hours. Temperatures up to approx. 60 °C accelerate the cleaning process. Lightly brush or rinse off stubborn dirt prior to use. Rinse thoroughly with deionised water.

Technical specifications:

Art. No.	**LY17.1**
Intended purpose	for automatic cleaning in immersion bath, for ultrasonic baths
Delivery form	Concentrated liquid
pH range	neutral
Ingredients	Surfactants, isotridecanol, ethylene glycol monophenyl ether, phosphates
Free from chlorine	Yes
Free from oxidising agents	Yes
Dosing	4–6% in water

Warning H319

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS T 230	**LY17.1**	5 l	42,95

RBS® universal cleaners

Laboratory cleaning agent RBS T 305

Carl ROTH.

Acidic liquid laboratory cleaning concentrate for manual cleaning. Particularly well suited to the removal of grease, oils, limescale residues, metal oxides, salts and inorganic residues from glass, ceramic, porcelain and non-corrosive stainless steel and surfaces and acid-resistant plastics. Also for cleaning floors, workbenches and animal cages. Apply the cleaning solution, allow it to act; if necessary, brush off and rinse thoroughly with water.

- Free from chlorine
- pH value in concentration for use: 1.5 to 1.2
- Density 1.40 g/ml
- Foaming
- Biodegradable
- Also suitable for use with hard water

Concentration for use: 2 to 5% v/v depending on amount of dirt.

Technical specifications:

Art. No.	KT39.1
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath
Delivery form	Concentrated liquid
pH range	acidic
Ingredients	Phosphoric acid, isotridecanol, surfactants
Free from chlorine	Yes
Dosing	2–5% in water

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS T 305	**KT39.1**	5 l	55,50

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Laboratory cleaning agent RBS A 285 SOLID pF

Carl ROTH.

Powder-based, alkaline high-performance cleaner for laboratory dishwashers. Suitable for laboratory glassware, stainless steel, porcelain and alkali-resistant plastics. Removes greases, oils, distillation residues and other organic and mineral substances. Rinses off trace-free.

- Free from phosphates, EDTA and NTA
- pH value in concentration for use 0.3%: 11.4
- Surfactants, biodegradable
- Also suitable for use with hard water

Concentration for use: 0.1% m/v, in the case of stubborn dirt or hard water, the concentration can be increased to 3 g per litre. Temperatures between 50 and 95 °C accelerate the cleaning process. Particularly effective in combination with RBS A 375 and/or RBS R 60 pF. Rinse with deionized water.

Technical specifications:

Art. No.	HNY8.1
Intended purpose	for laboratory dishwashers
Delivery form	Powder
pH range	highly alkaline
Ingredients	Anionic and non-ionic surfactants, carbonates, silicates, sodium hydroxide
Phosphate-free	Yes
Dosing	0.1–3% in water

Danger H315-H318-H335

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS A 285 SOLID pF	**HNY8.1**	4.5 kg	56,50

RBS® universal cleaners



Laboratory cleaning agent RBS A 375

Carl ROTH.

Liquid, acidic pre-rinse and neutralisation agent for laboratory dishwashers. Removes limescale deposits, hydroxides and many other residues from glass, plastic, porcelain, ceramic, crystal, stainless steel, etc.
Prewash: Removes stubborn dirt and stains, increasing the effectiveness of alkaline high-performance cleaning concentrates.
Rinsing: Neutralises alkaline cleaning concentrate residues after the main cleaning cycle and protects the garment and machine from limescale deposits.

- Free from surfactants, chlorine and phosphates
- Rinses off easily without leaving a residue
- Also suitable for use with hard water
- Non foaming
- pH value (0.5%): 2.6

Concentration for use: 0.2% (in the case of stubborn dirt/stains or hard water, the concentration can be increased up to 0.5%). Rinse with deionised water to ensure residue-free results.
Particularly effective in combination with RBS 50.

Technical specifications:

Art. No.	TK44.1
Intended purpose	for laboratory dishwashers
Delivery form	Concentrated liquid
pH range	acidic
Ingredients	Citric acid, lactic acid
Free from chlorine	Yes
Phosphate-free	Yes
Free from tensides	Yes
Dosing	0.2–0.5% in water

Danger H315-H318

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS A 375	**TK44.1**	5 l	50,65



Laboratory cleaning agent RBS NA 2

Carl ROTH.

Liquid, acidic pre-rinse and neutralisation agent for laboratory dishwashers.
Prewash: Removes stubborn dirt such as carbonates, hydroxides, salts and organic bases. Enhances the performance of alkaline main wash cycle detergents.
Rinsing: Neutralises alkaline detergent residues and prevent limescale deposits on the parts cleaned and in the dishwasher.

- Free from surfactants and chlorine
- pH value in concentration for use: 2.2 to 1.8
- Density 1.378 g/ml
- Non foaming

Concentration for use: 0.2 to 0.5% v/v. Particularly effective in combination with RBS SOLID, RBS B 210 T or RBS 50. Rinse with deionised water.

Technical specifications:

Art. No.	AL93.1
Intended purpose	for laboratory dishwashers
Delivery form	Concentrated liquid
pH range	acidic
Ingredients	Phosphoric acid
Free from chlorine	Yes
Free from tensides	Yes
Dosing	0.2–0.5% in water

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS NA 2	**AL93.1**	5 l	64,90

RBS® universal cleaners



Laboratory cleaning agent RBS R 60

Carl ROTH.

Liquid, slightly acidic neutralisation agent for laboratory dishwashers. Neutralises alkaline detergent residues and prevent limescale deposits on the parts cleaned and in the dishwasher. Accelerates the drying process and produces a glossy finish.

- Free from chlorine
- pH value in concentration for use: 6.3 to 3.6
- Density 1.016 g/ml
- Non foaming

Concentration for use: 0.1 to 0.3% v/v. Particularly effective in combination with RBS 50 or RBS SOLID. Rinse with deionised water.

Technical specifications:

Art. No.	**AL94.1**
Intended purpose	for laboratory dishwashers
Delivery form	Concentrated liquid
pH range	acidic
Ingredients	Surfactants, sodium cumene sulfonate, 2-Propanol, phosphoric acid
Free from chlorine	Yes
Dosing	0.1–0.3% in water

Warning H226-H290-H315-H319-H412

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS R 60	**AL94.1**	5 l	64,90



Laboratory cleaning agent RBS R 60 pF

Carl ROTH.

Liquid, slightly acidic neutralisation agent for laboratory dishwashers. Neutralises alkaline detergent residues and prevent limescale deposits on the parts cleaned and in the dishwasher. Accelerates the drying process and produces a glossy finish. Free from phosphates and therefore suitable for use in analytical labs.

- Free from phosphates and chlorine
- pH value in concentration for use: 6.5 to 4.4
- Density 1.015 g/ml
- Non foaming

Concentration for use: 0.1 to 0.3% v/v. Rinse with deionized water.

Technical specifications:

Art. No.	**AL96.1**
Intended purpose	for laboratory dishwashers
Delivery form	Concentrated liquid
pH range	acidic
Ingredients	Surfactants, sodium cumene sulfonate, 2-Propanol, citric acid, amidosulphonic acid
Free from chlorine	Yes
Phosphate-free	Yes
Dosing	0.1–0.3% in water

Warning H226-H315-H319-H412

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
RBS R 60 pF	**AL96.1**	5 l	77,00

Cleaner neodisher®, cleaning agents



Dishwasher cleaner neodisher® LaboClean A8

Dr. Weigert.

Alkaline intensive cleanser (powder) with extraordinary cleaning power and high soil carrying capacity. **Surfactant-free**.
For mechanical cleaning. Removes blood, serum, food residues, pharmaceuticals, colours, paint, gelatine and other organic residues. Not suitable for aluminium and light metal alloys.

Technical specifications:

Art. No.	N330.1	N330.2	N330.3
Intended purpose	for laboratory dishwashers		
Delivery form	Powder		
pH range	alkaline		
Ingredients	Phosphates, disodium metasilicate, sodium hydroxide, sodium carbonate and dichloroisocyanurate		
Free from tensides	Yes		

Danger H290-H314-H335-H411-EUH031

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LaboClean A8	**N330.1**	1 kg	17,70
neodisher® LaboClean A8	**N330.2**	10 kg	122,05
neodisher® LaboClean A8	**N330.3**	25 kg	291,35

Dishwasher cleaner neodisher® LaboClean UW

Dr. Weigert.

Mild, alkaline cleaning agent (powder), protects the material. **Phosphate-free.**
For mechanical cleaning of laboratory glassware and other utensils in water laboratories, serological institutes and in the phosphates industry. Removes anorganic and organic contamination. Reduced efficiency with hard water .

Technical specifications:

Art. No.	Y222.1
Intended purpose	for laboratory dishwashers
Delivery form	Powder
pH range	mildly alkaline
Ingredients	Disodium metasilicate, sodium carbonate, nitrilotriacetate, sodium perborate
Phosphate-free	Yes

Danger H314-H335

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LaboClean UW	**Y222.1**	10 kg	145,35



Dishwasher cleaner neodisher® LaboClean GK

Dr. Weigert.

Mildly alkaline cleaner (powder). Free of surfactants and surface-active substances.
For mechanical cleaning of plastics and glassware for cell and tissue cultures in the area of microbiology, virology and nuclear medicine, as well as in isotope laboratories. Removes nutrient media, cell culture and tissue residues, radioactive contaminations, organic colour and pigment contaminations. Easy to rinse.

Technical specifications:

Art. No.	N331.1
Intended purpose	for laboratory dishwashers
Delivery form	Powder
pH range	mildly alkaline
Ingredients	Trisodium phosphate, dichloroisocyanurate
Free from tensides	Yes

Warning H315-H319-H335-H411-EUH031

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LaboClean GK	**N331.1**	10 kg	162,35

Dishwasher cleaner neodisher® LaboClean PLM

Dr. Weigert.

Mildly alkaline defoaming cleaner (powder) for mechanical cleaning of laboratory glassware and laboratory utensils. Ideal for removing blood, protein, oils, ointments, cream bases and felt-tip pen markings. **Free of chlorine and oxidants.**

Technical specifications:

Art. No.	CLP2.1
Intended purpose	for laboratory dishwashers
Delivery form	Powder
pH range	mildly alkaline
Ingredients	Sodium carbonate, disodium metasilicate, surfactants
Free from chlorine	Yes
Free from oxidising agents	Yes

Danger H314-H335

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LaboClean PLM	**CLP2.1**	10 kg	181,70

Cleaner neodisher®, cleaning agents



Dishwasher cleaner neodisher® LaboClean LA

Dr. Weigert.

Highly alkaline intensive cleaner (powder) with a highly emulsifying, dispersing and defoaming action for mechanical cleaning of laboratory glassware and laboratory utensils. Ideal for removing greases, oils, resins, paraffin wax and organic dyes. **Chlorine-free.** Also suitable for use with hard water.

Technical specifications:

Art. No.	CLP1.1
Intended purpose	for laboratory dishwashers
Delivery form	Powder
pH range	highly alkaline
Ingredients	Sodium hydroxide, disodium metasilicate
Free from chlorine	Yes

Danger H290-H314-H335

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LaboClean LA	**CLP1.1**	3 kg	57,10

Dishwasher cleaner neodisher® LaboClean F

Dr. Weigert.

Highly alkaline intensive cleaner (powder) with high cleaning power for mechanical cleaning of laboratory glassware and laboratory utensils. Ideal for removing greases, oils, paraffin wax, resins, organic dyes and felt-tip pen markings. Good complexing and dispersing effect. **Free of phosphates, chlorine and surfactants.**

Technical specifications:

Art. No.	CLN9.1
Intended purpose	for laboratory dishwashers
Delivery form	Powder
pH range	highly alkaline
Ingredients	Sodium hydroxide, disodium metasilicate, sodium carbonate
Free from chlorine	Yes
Phosphate-free	Yes
Free from tensides	Yes

Danger H290-H314-H335

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LaboClean F	**CLN9.1**	3 kg	55,40



Cleaning agents neodisher® PM 5

Dr. Weigert.

Mildly alkaline cleaner (powder) for manual and automatic cleaning of laboratory glassware and surgical instruments in an immersion bath. High cleaning power for blood and protein, food leftovers as well as inorganic and organic residues. Material tolerant and easily rinsed off.

Technical specifications:

Art. No.	CLP5.1
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath
Delivery form	Powder
pH range	mildly alkaline
Ingredients	Phosphates, sodium carbonate, surfactants
CE marking	Yes

Warning H315-H319

Medical device class I MDD

Type	Art. No.	Pack Qty.	€
neodisher® PM 5	**CLP5.1**	3 kg	114,10

Dishwasher cleaner neodisher® MA

Dr. Weigert.

Mildly alkaline cleaner (powder) with defoaming properties. **Free of chlorine and oxidising additives.**
For mechanical cleaning of surgical instruments, medical utensils, laboratory glassware and babies' bottles. Removes residues of blood, protein and food. Excellent cleaning properties and very gentle on materials. Suitable for all water hardness levels.

Technical specifications:

Art. No.	AA59.1	AA59.2
Intended purpose	for laboratory dishwashers	
Delivery form	Powder	
pH range	mildly alkaline	
Ingredients	Phosphates, disodium metasilicate, nonionic surfactant	
Free from chlorine	Yes	
Free from oxidising agents	Yes	
CE marking	Yes	

Danger H314-H335

Medical device class I MDD

Type	Art. No.	Pack Qty.	€
neodisher® MA	**AA59.1**	1 kg	21,55
neodisher® MA	**AA59.2**	10 kg	145,80

Cleaner neodisher®, cleaning agents



Cleaning agents neodisher® LM 2

Dr. Weigert.

Mildly alkaline cleaner (liquid concentrate) for use in immersion and ultrasonic baths as well as for manual cleaning. Removes organic residues such as blood and protein from laboratory glassware, surgical instruments and objects made of ceramic, stainless steel and plastics. Easy to rinse off and low-foaming, ideal for cleaning pipettes. **Chlorine-free.**

Technical specifications:

Art. No.	CLP3.1
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath, for ultrasonic baths
Delivery form	Concentrated liquid
pH range	mildly alkaline
Ingredients	Potassium hydroxide, surfactants, phosphates
Free from chlorine	Yes
CE marking	Yes

Warning H315-H319-EUH208

Medical device class I MDD

Type	Art. No.	Pack Qty.	€
neodisher® LM 2	**CLP3.1**	10 l	206,40

Cleaning agents neodisher® LM 3

Dr. Weigert.

Alkaline universal cleaner (liquid). Free of phosphates, free of chlorine and low-foaming.
For mechanical and manual cleaning and use in immersion baths. Removes all anorganic and organic residues, blood-, protein and food remains, as well as radioactive substances. Also for pre-cleaning laboratory glassware and for cleaning pipettes and viscometers. Not suitable for aluminium and light metal alloys.

Technical specifications:

Art. No.	Y223.1	Y223.2
Intended purpose	for laboratory dishwashers, for manual cleaning, for automatic cleaning in immersion bath	
Delivery form	Concentrated liquid	
pH range	alkaline	
Ingredients	Potassium hydroxide, nitrilotriacetate, amphoteric surfactants	
Free from chlorine	Yes	
Phosphate-free	Yes	

Danger H290-H314-EUH208

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LM 3	**Y223.1**	1 l	23,20
neodisher® LM 3	**Y223.2**	10 l	183,85



Cleaning agents neodisher® LM 10

Dr. Weigert.

Alkaline cleaner with oxidising action (liquid concentrate) for manual cleaning of laboratory glassware in an immersion bath. For decontamination of radioactively contaminated objects and removal of stubborn organic residues.
Surfactant- and foam-free, therefore also suitable for pre-washing glassware before main wash cycle. No intermediate rinsing required.

Technical specifications:

Art. No.	CLP4.1
Intended purpose	for manual cleaning, for automatic cleaning in immersion bath
Delivery form	Concentrated liquid
pH range	alkaline
Ingredients	Potassium hydroxide, phosphates, sodium hydroxide
Free from tensides	Yes

Danger H290-H314-H412

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LM 10	**CLP4.1**	10 l	212,85

Dishwasher cleaner neodisher® LaboClean FM

Dr. Weigert.

Alkaline intensive cleaner (liquid concentrate) with a highly emulsifying and dispersing action for mechanical cleaning of laboratory glassware and laboratory utensils. Ideal for removing oils, greases, resins, paraffin wax and organic dyes. **Free of phosphates, chlorine and oxidants.** Also suitable for use with hard water.

Technical specifications:

Art. No.	CLP0.1
Intended purpose	for laboratory dishwashers
Delivery form	Concentrated liquid
pH range	alkaline
Ingredients	Sodium hydroxide, surfactants
Free from chlorine	Yes
Phosphate-free	Yes
Free from oxidising agents	Yes

Danger H290-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LaboClean FM	**CLP0.1**	5 l	80,80

Cleaner neodisher®, cleaning agents



Dishwasher cleaner neodisher® LaboClean FLA

Dr. Weigert.

Alkaline intensive cleanser (liquid) with extraordinary cleaning power and high soil carrying capacity. **Free of surfactants, chlorine, phosphorous compounds and oxidising agents.**
For mechanical cleaning. Removes stubborn, oil-based residues and other organic dirt. Reduced efficiency with hard water. Not suitable for aluminium and light metal alloys.

Technical specifications:

Art. No.	N333.1	N333.2	N333.3
Intended purpose	for laboratory dishwashers		
Delivery form	Concentrated liquid		
pH range	alkaline		
Ingredients	Polycarboxylate, potassium hydroxide, sodium nitrilotri-acetate		
Free from chlorine	Yes		
Phosphate-free	Yes		
Free from oxidising agents	Yes		
Free from tensides	Yes		

Danger H290-H302-H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LaboClean FLA	**N333.1**	5 l	68,20
neodisher® LaboClean FLA	**N333.2**	10 l	126,80
neodisher® LaboClean FLA	**N333.3**	25 kg	226,85

Dishwasher cleaner neodisher® LaboClean FT

Dr. Weigert.

Alkaline cleaner (liquid). Oxidising, **surfactant-free.**
Particularly effective for residue-free cleaning of pharmacy glassware, infusion flasks, glassware for cell and tissue cultures, as well as in the area of microbiology, virology and nuclear medicine. Removes residual nutrient media, blood, protein, radioactive contamination, residues of tissue cultures and cell layers as well as other organic residues. Reduced efficiency with hard water.

Technical specifications:

Art. No.	N334.1	N334.3
Intended purpose	for laboratory dishwashers	
Delivery form	Concentrated liquid	
pH range	alkaline	
Ingredients	Phosphates, potassium hydroxide, sodium hypochlorite	
Free from tensides	Yes	

Danger H290-H314-H410-EUH031

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® LaboClean FT	**N334.1**	12 kg	142,90
neodisher® LaboClean FT	**N334.3**	25 kg	284,90



Dishwasher cleaner neodisher® FA

Dr. Weigert.

Alkaline cleaner (liquid) – free of surfactants, chlorine and oxidising additives.
For mechanical cleaning of surgical instruments, medical utensils, laboratory glassware and babies' bottles. Removes blood, protein and nutrient media as well as gelatine. Very good cleaning action and very gentle on materials (colour changes might occur with titanium).

Technical specifications:

Art. No.	N332.1	N332.3
Intended purpose	for laboratory dishwashers	
Delivery form	Concentrated liquid	
pH range	alkaline	
Ingredients	Phosphates, disodium and potassium metasilicate	
Free from chlorine	Yes	
Free from oxidising agents	Yes	
Free from tensides	Yes	
CE marking	Yes	

Danger H290-H314

Medical device class I MDD

Type	Art. No.	Pack Qty.	€
neodisher® FA	**N332.1**	5 l	77,55
neodisher® FA	**N332.3**	25 kg	245,10

Dishwasher cleaner neodisher® DuoClean

Dr. Weigert.

Heavily alkaline intensive cleaner (liquid). Free of phosphates, silicates and oxidants.
For mechanical cleaning of surgical instruments made of stainless steel and other alkali-resistant surfaces. High cleaning action for removing blood protein and stubborn OP residues, even for other particularly adhesive dirt.

Technical specifications:

Art. No.	KP95.1
Intended purpose	for laboratory dishwashers
Delivery form	Concentrated liquid
pH range	highly alkaline
Ingredients	Sodium hydroxide, amphoteric surfactants
Phosphate-free	Yes
Free from oxidising agents	Yes
CE marking	Yes

Danger H290-H314

Medical device class I MDD

Type	Art. No.	Pack Qty.	€
neodisher® DuoClean	**KP95.1**	5 l	75,00

Cleaner neodisher®, cleaning agents



Dishwasher cleaner neodisher® N

Dr. Weigert.

Acidic neutralisation and cleaning agent (liquid). Surfactant-free. For mechanical cleaning of laboratory glass and surgical instruments. Ideal for neutralising carried over alkaline residue in first rinsing or for acidic pre-cleaning. Removes limescale and other acid-soluble residue. Easy to rinse. Not suitable for anodised aluminium, non-ferrous metals and acidsensitive plastics.

Technical specifications:

Art. No.	N335.1	N335.2	N335.3	N335.4
Intended purpose	for laboratory dishwashers			
Delivery form	Concentrated liquid			
pH range	acidic			
Ingredients	Phosphoric acid			
Free from tensides	Yes			
CE marking	Yes			

Danger H290-H314

Medical device class I MDD

Type	Art. No.	Pack Qty.	€
neodisher® N	**N335.1**	1 l	27,50
neodisher® N	**N335.2**	5 l	113,25
neodisher® N	**N335.3**	12 kg	173,10
neodisher® N	**N335.4**	25 kg	335,40

Dishwasher cleaner neodisher® TS

Dr. Weigert.

Acidic neutralising and clear rinsing agent for mechanical cleaning in food-processing plants and in livestock stalls. Prevents scaling, improves and accelerates drying. Suitable for objects made of glass, stainless steel, aluminium and plastics such as polycarbonate and polyetherimide.

Technical specifications:

Art. No.	CLP7.2
Intended purpose	for laboratory dishwashers
Delivery form	Concentrated liquid
pH range	acidic
Ingredients	Citric acid, phosphates, surfactants

Warning H319

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® TS	**CLP7.2**	10 l	131,40



Dishwasher cleaner neodisher® PolyKlar

Dr. Weigert.

Acidic clear rinsing agent (liquid) for the mechanical treatment of animal cages. Ideal for polycarbonate, polysulfone, polyphenylsulfone and polyetherimide. Adjusted for acidity. Neutralises alkaline residues and prevents corrosion of polycarbonate and polysulfone during the subsequent autoclaving process. Prevents the formation of stress cracks after autoclaving. Improves and accelerates drying. **Surfactant-free.**

Technical specifications:

Art. No.	CLP6.1
Intended purpose	for laboratory dishwashers
Delivery form	Concentrated liquid
pH range	acidic
Ingredients	Citric acid, polycarboxylate
Free from tensides	Yes

H412

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® PolyKlar	**CLP6.1**	10 l	154,30

Dishwasher cleaner neodisher® Z

Dr. Weigert.

Acidic neutralisation and cleaning agent (liquid). Free of surfactants, phosphates and nitrogen. For mechanical cleaning of laboratory glass and surgical instruments. Ideal for neutralising carried over alkaline residue in first rinsing or for acidic pre-cleaning. Removes limescale and other acid-soluble residue. Especially gentle on materials. Not suitable for anodised aluminium and non-ferrous metals.

Technical specifications:

Art. No.	N336.1	N336.2
Intended purpose	for laboratory dishwashers	
Delivery form	Concentrated liquid	
pH range	acidic	
Ingredients	Citric acid	
Phosphate-free	Yes	
Free from tensides	Yes	
CE marking	Yes	

Warning H319

Medical device class I MDD

Type	Art. No.	Pack Qty.	€
neodisher® Z	**N336.1**	1 l	19,55
neodisher® Z	**N336.2**	5 l	81,90

Cleaner neodisher®, cleaning agents



Dishwasher cleaner neodisher® EM cleaner additive

Dr. Weigert.

Liquid, **emulsifying and dispersing additive** to intensify the cleaning power of cleaning agents during mechanical cleaning of laboratory glassware and laboratory utensils. Suitable for removing stubborn residues of solids, paraffin wax, oils and greases. With defoaming action. Also suitable for use with hard water.

Technical specifications:

Art. No.	CLN8.1
Intended purpose	for laboratory dishwashers
Delivery form	Concentrated liquid
pH range	neutral
Ingredients	Surfactants

H412

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
neodisher® EM	**CLN8.1**	5 l	162,35

Dishwasher cleaner neodisher® anti-foaming agent S cleaner additive

Dr. Weigert.

Neutral liquid concentrate based on emulsified silicone oil, designed to hinder the formation of foam in dishwashers.
Can be used to remove foaming residues, such as surfactants, proteins and soaps including all neodisher® cleaning agents for pre-wash and main wash cycles. High effectiveness even at low temperatures.
Dispensing: Depending on the type and quantity of foaming impurities 0.05–0.1 ml/l using suitable dispensing devices or manually.

Technical specifications:

Art. No.	YC39.1	YC39.2
Intended purpose	for laboratory dishwashers	
Delivery form	Concentrated liquid	
pH range	neutral	
Ingredients	Emulsified silicone oils	
Phosphate-free	Yes	
CE marking	Yes	

Medical device class I MDD

Type	Art. No.	Pack Qty.	€
neodisher® anti-foaming agent S	**YC39.1**	1 l	42,65
neodisher® anti-foaming agent S	**YC39.2**	10 l	390,25



Dishwasher cleaner

Becker Chemie.

Intensive cleaner (powder) for all conventional dishwashers. Suitable for objects made of glass, metal, plastic, porcelain. Removes stubborn dirt, reduces limescale.
Dispensing dependent on water hardness: 1–2 g/l fresh water up to 8 °dH, 2–3 g/l fresh water from 9 °dH.

Danger H302-H314-H335-H412-EUH206

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Dishwasher cleaner	**N047.1**	5 kg	27,15



Dishwasher cleaner clear rinsing agent

Becker Chemie.

Low-foaming clear rinsing agent with citric acid for removing limescale. For all conventional dishwashers. Fully effective even when machine loads contain different items, such as porcelain, plastic, metal.
Dispensing dependent on water hardness: 0.5–0.8 ml/l fresh water at 8 °dH, 0.9–1.0 ml/l fresh water from 9 °dH.

Warning H319

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Clear rinsing agent	**N048.1**	1 l	7,20

Cleaner neodisher®, cleaning agents



Dishwasher cleaner dishwasher salt

Becker Chemie.

High-purity dishwasher salt for dishwashers. Effective water softening, protects dishes and machine from scale deposits. Completely soluble.

Not a medical device / Not an IVD product

Fine grained, 0.1–1.6 mm

Type	Art. No.	Pack Qty.	€
Fine grained	**N049.1**	2 kg	7,75

Coarse grained, 1.0–6.5 mm

Type	Art. No.	Pack Qty.	€
Coarse grained	**NH60.1**	2 kg	12,60

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Universal cleaner Mucasol®

Schülke & Mayr.

Liquid, alkaline high-performance concentrate for manual cleaning for the immersion and ultrasonic bath and suitable for cleaning by wiping. Effectively removes blood, protein, oil, grease, silicone, tar, wax, tap grease, resin and distillation residues. Multi-purpose quick cleaner for laboratory equipment and instruments made of glass, porcelain, plastic, rubber and metal.

- **Chlorine- and caustic alkali-free**
- Concentrate pH value: approx. 12.3
- Density: approx. 1.43 g/cm³

Working concentration

In an ultrasonic bath: 0.2–2%, in an immersion bath: 0.7–3%.

Directions for use

Exposure time: 10–30 min. Longer exposure times should be avoided on surfaces made of zinc and non-anodised aluminium.
An optimised cleaning result is achieved by heating the working solution. To avoid protein denaturation, select a temperature of < 45 °C. After cleaning, rinse the objects thoroughly with deionised water to completely remove cleaning solution residues.

Technical specifications:

Art. No.	1A3L.1	1A3L.2
Intended purpose	for manual cleaning, for ultrasonic baths, for automatic cleaning in immersion bath	
Delivery form	Concentrated liquid	
pH range	alkaline	
Ingredients	> 30% phosphates, < 5% anionic surfactants, < 5% amphoteric surfactants	
Free from chlorine	Yes	
Phosphate-free	No	
Free from tensides	No	
CE marking	Yes	
Dosing	One litre of a 2% working solution is equal to 980 ml of water and 20 ml of Mucasol®.	

Danger H290-H318

Medical device class I MDD

Type	Packaging type	Art. No.	Pack Qty.	€
Mucasol®	Bottle	**1A3L.1**	2 l	103,70
Mucasol®	Canister	**1A3L.2**	5 l	193,50

Instrument disinfectants



Instrument disinfectant Korsolex® extra

BODE Chemie.

Aldehyde instrument disinfectant based on aldehydes and quaternary ammonium compounds. For thermolabile and thermostable instruments, e.g. in endoscopy. Suitable for glass, ceramic, stainless steel, non-ferrous heavy metal, aluminium, plastic, hard plastic, silicone, rubber, hard rubber, latex and porcelain.
VAH- and IHO-listed.
Spectrum of activity: Bactericidal, levurocidal, fungicidal, tuberculocidal, mycobactericidal, partially virucidal (incl. HBV, HIV, HCV), virucidal. Also effective against germs resistant to antibiotics and Helicobacter pylori within the framework of VAH-concentrations. Economical operating concentration of 1–4%. Can be used in stainless steel ultrasonic baths.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	Y863.1	Y863.2
Delivery form	Concentrated liquid	
Ingredients	Aldehyde, quaternary ammonium compounds	
Bactericide	Yes	
Partially virucidal	Yes	
Virucidal	Yes	
Fungicide	Yes	
CE marking	Yes	
Listing	VAH, IHO	
Dosing	1–4%	

Danger H226-H302+H332-H315-H317-H318-H334-H341-H350-H410-EUH071

Medical device class IIb MDD

ID: 0482

Type	Packaging type	Art. No.	Pack Qty.	€
Korsolex® extra	Bottle	**Y863.1**	2 l	n. a.
Korsolex® extra	Canister	**Y863.2**	5 l	n. a.



Instrument disinfectant Korsolex® basic

BODE Chemie.

Aldehyde disinfectant for thermolabile and thermostable instruments based on glutaral and (ethylenedioxy)dimethanol. Can be used in the dipping method and for all standard circulation methods from the semi-automatic through to the fully automatic type in the cold method. Also suitable for ultrasonic disinfection.
Spectrum of activity: Bactericidal, levurocidal, fungicidal, tuberculocidal, mycobactericidal, sporicidal, partially virucidal (incl. HBV, HIV, HCV), virucidal. Also effective against SARS-coronavirus, germs resistant to antibiotics and Helicobacter pylori within the framework of VAH-concentrations.
Concentration for use: 1 to 5%.
VAH-, IHO- and RKI-listed.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	AK41.1	AK41.2
Delivery form	Concentrated liquid	
Ingredients	Glutaral, (ethylenedioxy)dimethanol	
Bactericide	Yes	
Partially virucidal	Yes	
Virucidal	Yes	
Fungicide	Yes	
Sporicide	Yes	
CE marking	Yes	
Listing	VAH, RKI, IHO	
Dosing	1–5%	

Danger H302+H332-H314-H317-H334-H341-H350-H411-EUH071

Medical device class IIb MDD

ID: 0482

Type	Packaging type	Art. No.	Pack Qty.	€
Korsolex® basic	Bottle	**AK41.1**	2 l	n. a.
Korsolex® basic	Canister	**AK41.2**	5 l	n. a.

Instrument disinfectants



NEW / +

Instrument disinfectant Bomix® plus

BODE Chemie.

An aldehyde-free instrument disinfectant with excellent cleaning properties based on a quaternary ammonium compound (N,N-Di-decyl-N-methyl-poly(oxyethyl)ammonium propionate). Wide material compatibility, e.g. for flexible endoscopes and latex and silicone combinations. Pleasant odour.
Applications
For the manual treatment of thermolabile and thermostable instruments in the dipping method and for performing coarse and brush cleaning of endoscopes. Can be used in ultrasonic baths. It can even be used to treat surgical instruments that have been heavily contaminated with protein. If you thoroughly rinse the instruments with water after using Bomix® plus, compatibility with products based on aldehydes and peracetic acid is guaranteed for high-level disinfection.
Spectrum of activity: Bactericidal, yeasticidal, limited bactericidal activity (incl. HBV, HIV, HCV), effective against rotaviruses and polyomaviruses.
Listing: VAH and IHO.
Concentration for use: 0.5-2.0%.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	1H91.1	1H91.2
Delivery form	Concentrated liquid	
Ingredients	N,N-Didecyl-N-methyl-poly(oxyethyl)ammonium propionate	
Bactericide	Yes	
Partially virucidal	Yes	
CE marking	Yes	
Listing	VAH, IHO	
Dosing	0.5 - 2.0%	

Danger H314-H410

Medical device class IIb MDD

ID: 0482

Type	Packaging type	Art. No.	Pack Qty.	€
Bomix® plus	Bottle	**1H91.1**	2 l	n. a.
Bomix® plus	Canister	**1H91.2**	5 l	n. a.



Instrument disinfectant Helipur® H plus N

B. Braun.

Alcohol- and aldehyde-based **formaldehyde-free instrument disinfectant**. Also suitable for heat-sensitive materials and instruments, such as flexible endoscopes and anesthesiology accessories.
Spectrum of activity: Bactericidal (incl. MRSA and TbB), fungicidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and virucidal, adeno-, polyoma-, rota- and polivirus.
Listing: VAH, IHO and DGHM. Can be used in ultrasonic baths. Exceptionally economical usage concentration (1–1.5%) and short exposure time (15–30 min).
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	LK27.1	LK27.2
Delivery form	Concentrated liquid	
Ingredients	Alcohol, aldehyde	
Bactericide	Yes	
Partially virucidal	Yes	
Virucidal	Yes	
Fungicide	Yes	
CE marking	Yes	
Listing	VAH, IHO, DGHM	
Dosing	1–1.5%	

Danger H302+H332-H314-H317-H334-H412-EUH071

Medical device class IIb

Type	Packaging type	Art. No.	Pack Qty.	€
Helipur® H plus N	Bottle	**LK27.1**	1 l	27,85
Helipur® H plus N	Canister	**LK27.2**	5 l	123,00

Surface disinfectants



Surface disinfectant Meliseptol®

B. Braun.

Ready-to-use alcohol-based fast-acting disinfectant without additional active substances. Also suitable for hard-to-reach surfaces and objects, for wiping or spraying.
Spectrum of activity: Bactericidal (incl. MRSA, TbB and mycobacteria), fungicidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and effective against rotavirus, adenovirus and noroviruses.
Listing: VAH, IHO and DGHM.
Short reaction time of 1 min.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	EAA6.1	EAA6.2	EAA6.3
Delivery form	Ready-to-use liquid		
Ingredients	Alcohol		
Bactericide	Yes		
Partially virucidal	Yes		
Fungicide	Yes		
CE marking	Yes		
Listing	VAH, IHO, DGHM		

Warning H226

Medical device class IIa MDD

Type	Packaging type	Art. No.	Pack Qty.	€
Meliseptol®	Spray bottle (with spray head)	**EAA6.1**	250 ml	9,15
Meliseptol®	Bottle (without spray pump)	**EAA6.2**	1 l	17,00
Meliseptol®	Canister	**EAA6.3**	5 l	63,40



Surface disinfectant Meliseptol® rapid

B. Braun.

Aldehyde- and alkylamine-free alcohol-based fast-acting disinfectant. Also suitable for hard-to-reach surfaces and objects, for wiping or spraying.
Spectrum of activity: Bactericidal (incl. MRSA and TbB), fungicidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and virucidal (incl. noroviruses).
Listing: VAH, IHO and DGHM. Ready to use. Very fast acting, reaction time of 1 minute; 10 minutes for virucidal efficacy.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	LK31.1	LK31.2	LK31.3
Delivery form	Ready-to-use liquid		
Ingredients	Alcohol		
Bactericide	Yes		
Partially virucidal	Yes		
Fungicide	Yes		
CE marking	Yes		
Listing	VAH, IHO, DGHM		

Danger H226-H318-H336

Medical device class IIa MDD

Type	Packaging type	Art. No.	Pack Qty.	€
Meliseptol® rapid	Spray bottle (with spray head)	**LK31.1**	250 ml	9,15
Meliseptol® rapid	Bottle (without spray pump)	**LK31.2**	1 l	17,00
Meliseptol® rapid	Canister	**LK31.3**	5 l	63,40

Surface disinfectants



Surface disinfectant Meliseptol® Foam pure

B. Braun.

Ready-to-use disinfectant foam based on propane-1-ol- and didecyldimethylammonium chloride for **quick disinfection of medical devices and sensitive surfaces**.
No aerosol formation during spraying, also suitable for use in the food industry. Good compatibility, even with alcohol-sensitive materials such as acrylic glass, examination tables, vaginal probes and ultrasound probes.
Aldehyde-, amine- and fragrance-free, odourless.
Spectrum of activity: Bactericidal (incl. MRSA and TbB), fungicidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and effective against rotavirus, polyomavirus, norovirus and avian influenza.
Listing: VAH, IHO and DGHM. Rated „very good" in dermatological tests. Short reaction time ≤5 min.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	XP56.1	XP56.2
Delivery form	Ready-to-use liquid	
Ingredients	Propane-1-ol, didecyldimethylammonium chloride	
Bactericide	Yes	
Partially virucidal	Yes	
Fungicide	Yes	
CE marking	Yes	
Listing	VAH, IHO, DGHM	

Danger H226-H318

Medical device class IIa MDD

Type	Packaging type	Art. No.	Pack Qty.	€
Meliseptol® Foam pure	Foam sprayer bottle	**XP56.1**	750 ml	16,30
Meliseptol® Foam pure	Canister	**XP56.2**	5 l	63,40



Fleece wipe rolls B. Braun Wipes

B. Braun.

For B. Braun Wipes fleece wipe dispenser systems, Mini 0.7 l and Standard 2.5 l. Absorbent and lint-free fleece wipes made of 100% PET.

Technical specifications:

Art. No.	CAT5.1	CAT2.1	CAT3.1
Delivery form	Wiping cloths for soaking		

Delivery without fleece wipe dispenser, please order separately.

Not a medical device / Not an IVD product

For fleece wipe dispenser system Mini

Version	Art. No.	Pack Qty.	€
Fleece Mini ECO with 60 wipes, 15 x 20 cm	**CAT5.1**	1 unit(s)	8,80

For standard fleece wipe dispenser system

Version	Art. No.	Pack Qty.	€
Fleece roll with 100 wipes, 19 x 36 cm	**CAT2.1**	1 unit(s)	27,80
Fleece roll ECO with 120 wipes, 19 x 36 cm	**CAT3.1**	1 unit(s)	18,20



Surface disinfectant neoform K sprint

Dr. Weigert.

Ready-to-use fast-acting disinfectant based on propane-1-ol and ethanol for quick disinfection of surfaces and equipment in the food industry. Also suitable for use in refrigerated areas.
Spectrum of activity: Bactericidal, fungicidal, limited virucidal efficacy and effective against noroviruses. Dries without leaving any residue, no additional rinsing needed. DVG and IHO listed.
Use disinfectants with care. Always read the label and the product information before use.

Technical specifications:

Art. No.	CLP9.1	CLP9.2
Delivery form	Ready-to-use liquid	
Ingredients	Propane-1-ol, ethanol	
Bactericide	Yes	
Partially virucidal	Yes	
Fungicide	Yes	
Listing	DVG, IHO	

Warning H226-H319-H336

Not a medical device / Not an IVD product

Type	Packaging type	Art. No.	Pack Qty.	€
neoform K sprint	Spray bottle	**CLP9.1**	750 ml	23,15
neoform K sprint	Canister	**CLP9.2**	10 l	186,00



Surface disinfectant neoform K plus

Dr. Weigert.

Disinfectant (liquid concentrate) based on didecyldimethyl ammonium chloride and N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine. For combined cleaning and disinfection of surfaces and objects in the food industry. Excellent cleaning performance and safe disinfection.
Spectrum of activity: Bactericidal, yeasticidal, limited virucidal efficacy. Fragrance and colourant-free.
Use disinfectants with care. Always read the labelling and product information before use!

Technical specifications:

Art. No.	CLP8.1	CLP8.2
Delivery form	Concentrated liquid	
Ingredients	Didecyldimethyl ammonium chloride, N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	
Bactericide	Yes	
Partially virucidal	Yes	
Dosing	0.5–4.0%	

Danger H302-H315-H318-H410

Not a medical device / Not an IVD product

Type	Packaging type	Art. No.	Pack Qty.	€
neoform K plus	Bottle	**CLP8.1**	2 l	27,80
neoform K plus	Canister	**CLP8.2**	10 l	109,55

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Surface disinfectant Bacillol® AF

BODE Chemie.

Ready-to-use aldehyde- and fragrance-free fast-acting disinfectant based on propane-1-ol, propane-2-ol and ethanol. Excellent wetting, fast acting and drying, leaves no visible residue.
Applications: For rapid disinfection of alcohol-resistant surfaces by wiping or spraying, if rapid effect and residue-free drying are required, e.g.
Spectrum of activity: Bactericidal, yeasticidal, fungicidal, tuberculocidal, mycobactericidal, limited virucidal (incl. HBV, HIV, HCV), adenovirus, murine norovirus, polyomavirus and rotavirus.
Listing: VAH, DVG, IHO, RKI. Ready to use. Reaction time: 1 min or longer.
Use disinfectants with care. Always read the labelling and product information before use.

- In sensitive areas with direct product contact (class C/D cleanrooms)
- If medical equipment and inventory falls under the Medical Products Act (acc. to MPG)
- In hospitals and nursing homes (acc. to BPD)
- In canteens and in the foodstuffs industry (acc. to BPD)

Technical specifications:

Art. No.	PY18.1	PY18.2
Delivery form	Ready-to-use liquid	
Ingredients	Propane-1-ol, propane-2-ol, ethanol	
Bactericide	Yes	
Partially virucidal	Yes	
Fungicide	Yes	
CE marking	Yes	
Listing	VAH, DVG, IHO, RKI	

Danger H226-H318-H336

Medical device class IIa MDD

ID: 0482

Type	Packaging type	Art. No.	Pack Qty.	€
Bacillol® AF	Bottle	**PY18.1**	1 l	n. a.
Bacillol® AF	Canister	**PY18.2**	5 l	n. a.

Surface disinfectants



Surface disinfectant Bacillol® 30 Foam

BODE Chemie.

Ready-to-use fast-acting alcohol-based disinfectant for sensitive surfaces. Particularly gentle on materials, also suitable for sensitive materials such as Plexiglas®, Makrolon® and Polysulfon. User-friendly application in a handy spray bottle with foam spray head for optimal wetting.
Spectrum of activity: Bactericidal, yeasticidal, limited virucidal efficacy (incl. HBV, HIV, HCV), and effective against murine norovirus, polyomavirus and rotavirus.
Applications: For fast-acting disinfection of sensitive plastic surfaces, medical inventory and surfaces in hospitals, medical practices and laboratories. Also suitable for disinfection of displays, keyboards and control panels of mobile and stationary communication devices.
Listing: VAH, IHO.
Active substances: Ethanol, propane-2-ol, propane-1-ol and N-Alkyl-aminopropylglycine.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	ANY8.1	ANY8.2
Delivery form	Ready-to-use liquid	
Ingredients	Ethanol, propane-2-ol, propane-1-ol, N-alkylamino-propyl-glycine	
Bactericide	Yes	
Partially virucidal	Yes	
CE marking	Yes	
Listing	VAH, IHO	

Warning H226-H319-H336

Medical device class IIa MDD

ID: 0482

Type	Packaging type	Art. No.	Pack Qty.	€
Bacillol® 30 Foam	Foam sprayer bottle	**ANY8.1**	750 ml	n. a.
Bacillol® 30 Foam	Canister	**ANY8.2**	5 l	n. a.



Surface disinfectant Kohrsolin® FF

BODE Chemie.

Surface disinfectant based on glutaral, benzyl-C12-18-alkyl-dimethyl ammonium chloride and didecyldimethyl ammonium chloride. Formaldehyde-free. Suitable for disinfection of all washable surfaces and objects by wet wiping. Low use concentrations (0.25 up to 4%), good material compatibility, environmentally friendly. Drying of the used solution almost residue-free.
VAH and IHO listed. **Spectrum of activity:** Bactericidal, yeasticidal, fungicidal, tuberculocidal, limited virucidal efficacy (incl. HBV, HIV, HCV), virucidal, MNV, adenovirus, polyomavirus and rotavirus and effective against Clostridium difficile spores.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	L301.1	L301.2
Delivery form	Concentrated liquid	
Ingredients	Glutaral, Benzyl-C12-18-alkyl-dimethyl ammonium chloride, didecyldimethyl ammonium chloride	
Bactericide	Yes	
Partially virucidal	Yes	
Virucidal	Yes	
Fungicide	Yes	
Listing	VAH, IHO	
Dosing	0.25–4.0%	

Danger H302+H332-H315-H317-H318-H334-H410-EUH071

Medical device class IIa MDD

ID: 0482

Type	Packaging type	Pack.	Art. No.	Pack Qty.	€
Kohrsolin® FF	Bag	40 ml	**L301.1**	125 unit(s)	n. a.
Kohrsolin® FF	Canister		**L301.2**	5 l	n. a.



Accessories measuring beaker for disinfectant concentrates

BODE Chemie.

With scale to produce working solutions. Volume 250 ml.

Not a medical device / Not an IVD product

Version	Art. No.	Pack Qty.	€
Measuring beakers	**AK05.1**	1 unit(s)	4,25



NEW / +

Surface disinfectant Mikrobac® forte

BODE Chemie.

Aldehyde-free surface disinfectant based on quaternary ammonium compounds (Benzyl-C12-18-alkyldimethyl ammonium chloride) and amines (N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine). For universal use, very high material compatibility, good cleaning performance and odourless. Suitable for disinfection by wet wiping. The drying of the working solution leaves little residue.
Applications:
Washable medical equipment and inventory that fall under the German Medical Devices Act (acc. to MPG). Washable surfaces (acc. to BPR), e.g. work surfaces in hospitals, medical and dental practices, nursing and retirement homes, ambulances, medical laboratories and medical suppliers. In canteens and in the foodstuffs industry (acc. to BPR).
Spectrum of activity: Bactericidal, yeasticidal, tuberculocidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and effective against adenovirus, polyomavirus, rotavirus and norovirus.
Listing: VAH, IHO and list of tested cleaning agents for ceramic tiling and cladding in swimming pools (RK list).
Concentration for use: 0.25-4.0%.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	1H90.1	1H90.2
Delivery form	Concentrated liquid	
Ingredients	Benzyl-C12-18-alkyldimethyl ammonium chloride, N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	
Bactericide	Yes	
Partially virucidal	Yes	
CE marking	Yes	
Listing	VAH, IHO	
Dosing	0.25 - 4.0%	

Danger H302-H314-H410

Medical device class IIa MDD

ID: 0482

Type	Packaging type	Pack.	Art. No.	Pack Qty.	€
Mikrobac® forte	Bag	20 ml	**1H90.1**	250 unit(s)	n. a.
Mikrobac® forte	Canister	5 l	**1H90.2**	5 l	n. a.



Fleece wipe dispenser system BODE X-Wipes

BODE Chemie.

Universal fleece wipe dispenser system for filling with any moist BODE surface disinfectants.
Absorbent and tear-resistant fleece wipes made of 100 % PET (60 g/m²) guarantee optimal distribution of the substances.
Applications:
For disinfecting surfaces in areas where the highest level of hygiene, economy and user benefit is required. Suitable for pre-cleaning and disinfection of non-soakable medical instruments and endoscopes.

- Colour sealing cap for easier differentiation between products in use
- Smooth surfaces and 3-part lid system protect against contamination or evaporation of the solution
- Minimal processing required before use of fleece roll in the foil bag, bag can be filled directly with application solution
- Shelf life of application solution: approx. 28 days

Delivery without wipes, please order separately.

Not a medical device / Not an IVD product

Version	Art. No.	Pack Qty.	€
Wipe dispenser with blue lid	**CAT6.1**	1 unit(s)	n. a.
Wipe dispenser with green lid	**CAT8.1**	1 unit(s)	n. a.
Wipe dispenser with red lid	**CAT7.1**	1 unit(s)	n. a.

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Surface disinfectants



Disinfection wipes Bacillol® tissues

BODE Chemie.

Ready-to-use fast-acting disinfectant wipes for surfaces. Based on propanol. Fragrance-and aldehyde-free. Suitable for all alcohol-insensitive surfaces, smaller surfaces, inventory and instruments. Good wetting and fast drying without streaks, even in hard-to-reach places. Skin-friendly. Takes effect after only 30 seconds (in accordance with new standard methods of the VAH).
VAH and IHO listed.
Spectrum of activity: Bactericidal, yeasticidal, fungicidal, tuberculocidal, mycobactericidal, limited virucidal efficacy (incl. HBV, HIV, HCV), adenovirus, norovirus, MNV, polyomavirus and rotavirus.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	KC11.1	KC12.1
Delivery form	Wiping cloths, pre-soaked	
Ingredients	Propanol	
Bactericide	Yes	
Partially virucidal	Yes	
Fungicide	Yes	
CE marking	Yes	
Listing	VAH, IHO	

Warning H226-H319

Medical device class IIa MDD

ID: 0482

Dispenser box

Packaging type	Pack.	Art. No.	Pack Qty.	€
Dispenser box	100 wipes	**KC11.1**	1 unit(s)	n. a.

Refill pack for Bacillol® Tissues

Packaging type	Pack.	Art. No.	Pack Qty.	€
Refill	100 wipes	**KC12.1**	1 unit(s)	n. a.



Disinfection wipes Meliseptol® wipes sensitive

B. Braun.

Ready-to-use, fast-acting disinfectant wipes for medical products and sensitive surfaces. Soft, non-linting fleece prevents scratching. Very good compatibility, even with alcohol-sensitive materials such as acrylic glass, Makrolon®, silicone rubber, latex and rubber as well as examination tables, vaginal probes and ultrasound probes. Aldehyde-, amine-, colourant- and fragrance-free, odourless.
Impregnating fluid based on propane-1-ol and didecyldimethylammonium chloride.
Spectrum of activity: Bactericidal (incl. MRSA and TbB), fungicidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and effective against rotavirus, polyomavirus, norovirus and avian influenza.
Listing: VAH, IHO and DGHM. Rated „very good“ in dermatological tests. Short reaction time ≤5 min.
Wipe dimensions: 152 x 200 mm.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	XP57.1	XP57.2
Delivery form	Wiping cloths, pre-soaked	
Ingredients	Propane-1-ol, didecyldimethylammonium chloride	
Bactericide	Yes	
Partially virucidal	Yes	
Fungicide	Yes	
CE marking	Yes	
Listing	VAH, IHO, DGHM	

Danger H318

Medical device class IIa MDD

Packaging type	Pack.	Art. No.	Pack Qty.	€
Dispenser box	60 wipes	**XP57.1**	1 unit(s)	18,60
Refill	60 wipes	**XP57.2**	1 unit(s)	13,05

Surface disinfectants



Disinfection wipes Meliseptol® HBV wipes

B. Braun.

Ready-to-use fast-acting disinfection wipes for easy disinfection of alcohol-resistant surfaces. Alcohol-based impregnating fluid, aldehyde- and alkylamine-free. Hygienic removal of single tissues by means of practical dispenser box, dermatologically tested.
Spectrum of activity: Bactericidal (incl. MRSA and TbB), fungicidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and virucidal (incl. noroviruses).
Listing: VAH, IHO and DGHM. Ready to use.
Very fast acting, reaction time 1 min; for virucidal activity 10 min., wipe dimensions: 145 x 200 mm.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	XP58.1	XP58.2
Delivery form	Wiping cloths, pre-soaked	
Ingredients	Alcohol	
Bactericide	Yes	
Partially virucidal	Yes	
Virucidal	Yes	
Fungicide	Yes	
CE marking	Yes	
Listing	VAH, IHO, DGHM	

Danger H226-H318-H336

Medical device class IIa MDD

Packaging type	Pack.	Art. No.	Pack Qty.	€
Dispenser box	100 wipes	**XP58.1**	1 unit(s)	13,80
Refill	100 wipes	**XP58.2**	1 unit(s)	10,00



Disinfection wipes Bacillol® AF tissues

BODE Chemie.

Alcoholic fast-acting disinfectant wipes with a broad spectrum of activity for simple disinfection of alcohol-insensitive surfaces in canteens and in the foodstuffs industry according to the BPD: Surfaces in the kitchen and food industries as well as in sensitive areas with direct product contact; surfaces in healthcare facilities and surfaces of non-invasive medical devices.
Spectrum of activity: Bactericidal, yeasticidal, fungicidal, tuberculocidal, mycobactericidal, limited virucidal (incl. HBV, HIV, HCV, adenovirus, polyomavirus, rotavirus and murine norovirus).
Use disinfectants with care. Always read the labelling and product information before use.

- With **Bacillol® AF** pre-saturated ready-to-use disinfectant wipes
- Rapid and comprehensive action
- Aldehyde-, colourant- and fragrance-free
- Safe and easy removal of individual tissues from resealable flow pack thanks to practical tissue-folding system
- High-quality tear-resistant and absorbent PET fleece, wipe size 180 x 200 mm
- Good wetting and fast drying

Technical specifications:

Art. No.	AHC1.1
Delivery form	Wiping cloths, pre-soaked
Ingredients	Propane-1-ol, propane-2-ol, ethanol
Bactericide	Yes
Partially virucidal	Yes
Fungicide	Yes

Warning H226-H319

Medical device class IIa MDD

ID: 0482

Packaging type	Pack.	Art. No.	Pack Qty.	€
Flowpack	80 wipes	**AHC1.1**	1 unit(s)	n. a.



Disinfection wipes Bacillol® 30 tissues

BODE Chemie.

Gentle disinfectant wipes for quick disinfection of sensitive surfaces in the food industry, in sensitive areas with direct product contact, in healthcare establishments and on medical equipment and inventory. Also suitable for disinfection of displays, keyboards and control panels on sensitive equipment.
Spectrum of activity: Bactericidal, yeasticidal, limited bactericidal activity (incl. HBV, HIV, HCV, polyomavirus, rotavirus and murine norovirus).
Use disinfectants with care. Always read the labelling and product information before use.

- With **Bacillol® 30 Foam** pre-saturated ready-to-use disinfectant wipes
- Rapid and comprehensive action
- Aldehyde-, colourant- and fragrance-free
- Material compatibility tested for PC, PS, Plexiglas®, Latex and artificial leather (examination tables etc.)
- Safe and easy removal of individual tissues from resealable flow pack thanks to practical tissue-folding system
- High-quality tear-resistant and absorbent PET fleece, wipe size 180 x 200 mm
- Good wetting and fast drying

Technical specifications:

Art. No.	ANY9.1
Delivery form	Wiping cloths, pre-soaked
Ingredients	Ethanol, propane-2-ol, propane-1-ol, N-alkylamino-propyl-glycine
Bactericide	Yes
Partially virucidal	Yes

Warning H226-H319

Medical device class IIa MDD

ID: 0482

Packaging type	Pack.	Art. No.	Pack Qty.	€
Flowpack	80 wipes	**ANY9.1**	1 unit(s)	n. a.



Disinfection wipes Kohrsolin® FF tissues

BODE Chemie.

Disinfectant wipes containing aldehyde for prophylactic cleaning surface disinfection.
Applications: For washable surfaces of medical equipment and inventory, in hygiene-relevant areas of the pharmaceutical industry, cosmetics industry and in laboratories.
Spectrum of activity: Bactericidal, yeasticidal, fungicidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and effective against murine norovirus, adenovirus, polyomavirus and rotavirus.
Use disinfectants with care. Always read the labelling and product information before use.

- With **Kohrsolin® FF** pre-saturated ready-to-use disinfectant wipes
- Formaldehyde-free
- Very good material compatibility
- Safe and easy removal of individual tissues from resealable flow pack thanks to practical tissue-folding system
- High-quality tear-resistant and absorbent PET fleece, wipe size 180 x 200 mm
- Good wetting and cleaning, low residue

Technical specifications:

Art. No.	APA1.1
Delivery form	Wiping cloths, pre-soaked
Ingredients	Glutaral, Benzyl-C12-18-alkyl-dimethyl ammonium chloride, didecyldimethyl ammonium chloride
Bactericide	Yes
Partially virucidal	Yes
Fungicide	Yes

Medical device class IIa MDD

ID: 0482

Packaging type	Pack.	Art. No.	Pack Qty.	€
Flowpack	80 wipes	**APA1.1**	1 unit(s)	n. a.



Accessories flow pack wall holders from BODE Chemie

BODE Chemie.

Made of stainless steel. For safe storage of Mikrobac® Tissues, Kohrsolin® FF and Kohrsolin® extra Tissues as well as Bacillol® 30 and Bacillol® AF Tissues. Easy removal of wipes with one hand avoids contamination.

Not a medical device / Not an IVD product

Version	Art. No.	Pack Qty.	€
Flow pack wall holders	**APA4.1**	1 unit(s)	57,65

Surface disinfectants



Disinfection wipes Mikrobac® tissues

BODE Chemie.

Gentle alcohol- and aldehyde-free disinfectant wipes for quick disinfection of sensitive, alcohol-resistant medical devices and work surfaces in hospitals, medical practices, nursing homes and laboratories.
Spectrum of activity: Bactericidal, yeasticidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and effective against murine norovirus, adenovirus, polyomavirus and rotavirus.
Active substances: Didecyldimethylammonium chloride and Benzyl-C12-18-alkyldimethyl ammonium chloride.
Use disinfectants with care. Always read the labelling and product information before use.

- Act fast
- Alcohol-, aldehyde-, colourant- and fragrance-free
- Very good material compatibility
- Safe and easy removal of individual tissues from resealable flow pack thanks to practical tissue-folding system
- High-quality tear-resistant and absorbent PET fleece
- Good wetting and cleaning

Technical specifications:

Art. No.	APA2.1	APA3.1
Delivery form	Wiping cloths, pre-soaked	
Ingredients	Didecyldimethylammonium chloride, Benzyl-C12-18-alkyldimethyl ammonium chloride	
Bactericide	Yes	
Partially virucidal	Yes	

H412

Medical device class IIa MDD

ID: 0482

Mikrobac® Tissues
Wipe size 180 x 200 mm For comfortable disinfection of smaller surfaces, range approx. 1 m².

Packaging type	Pack.	Art. No.	Pack Qty.	€
Flowpack	80 wipes	**APA2.1**	1 unit(s)	n. a.

Mikrobac® Tissues XXL
Wipe size 250 x 380 mm. For complete disinfection of larger surfaces, range approx. 2 m².

Packaging type	Pack.	Art. No.	Pack Qty.	€
Flowpack	40 wipes	**APA3.1**	1 unit(s)	n. a.



Disinfection tub

BODE Chemie. Material: PVC.

High-quality disinfection tubs for safe preparation of disinfection and cleaning solutions for manual treatment of instruments.

- Basket insert enables the user to remove instruments by hand without coming into direct contact with the disinfectant and allows instruments to be drip-dried before use
- Moulded handles in the tub and basket ensure safe handling
- Resistant to all BODE cleaning agents and disinfectants
- Temperature stable up to +59 °C
- 30-litre tub with drain cock

Delivery incl. lid and basket insert.

Not a medical device / Not an IVD product

Vol. (l)	Outer length (mm)	Outer width (mm)	Height (mm)	Version	Art. No.	Pack Qty.	€
3	300	200	110	White lid with slit	**APT0.1**	1 unit(s)	66,10
5	550	200	120	Transparent lid	**APT1.1**	1 unit(s)	88,85
10	390	290	170	Transparent lid	**APT2.1**	1 unit(s)	99,75
30	615	400	220	Transparent lid	**APT3.1**	1 unit(s)	208,55

Water bath preservatives



Water bath preservative AKASOLV Aqua Care

With blue colour indicator.
For preventing the formation of algae, fungi and bacteria in water baths and thermostat circuits. If the blue coloration disappears and/or after three months at the latest, a new water bath solution must be prepared. Low usage concentration (0.1%): 100 ml of concentrate is sufficient for 100 l of demineralised water. Application temperature max. 70 °C.
Use biocidal products with care. Always read the label and the product information before use.

Warning H319-H412-EUH208

Type	Art. No.	Pack Qty.	€
AKASOLV Aqua Care	**KAC5.1**	100 ml	n. a.



Water bath preservative AKASOLV Aqua Care CF

No colour indicator.
For preventing the formation of algae, fungi and bacteria in water baths and thermostat circuits. Depending on contamination and/or after three months at the latest, prepare a new water bath. Low usage concentration (0.1%): 100 ml of concentrate is sufficient for 100 l of demineralised water. Application temperature max. 70 °C.
Use biocidal products with care. Always read the label and the product information before use.

Warning H319-H412-EUH208

Type	Art. No.	Pack Qty.	€
AKASOLV Aqua Care CF	**KAC4.1**	100 ml	n. a.



Water purifier Micropur®

Based on silver ions. Kills bacteria in water tanks and -containers and keeps water free from germs, algae and odours.
Use biocidal products with care. Always read the label and the product information before use.

Warning H410

Micropur® standard tablets, one for every 1 litre of water

Type	Art. No.	Pack Qty.	€
Micropur® standard tablets	**0591.1**	100 unit(s)	n. a.

Micropur® large tablets, one for every 10 litres of water

Type	Art. No.	Pack Qty.	€
Micropur® large tablets	**0593.1**	40 unit(s)	n. a.



Cleaning agents SMA 11 washing up liquid

Extremely versatile, cleans fast and thoroughly. High foam properties, with citrus scent.
Usage: 20–50 ml per 10 l water.

Warning H317

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
SMA 11 washing up liquid	**PY16.1**	1 l	n. a.
SMA 11 washing up liquid	**PY16.2**	10 l	n. a.

Cleaning agents



NEW / +

Gloss finish cleaner Dismofix® G

BODE Chemie.

A low-foaming gloss finish cleaner based on non-ionic surfactants and alcohol.
Applications: Suitable for manual and mechanical cleaning of all waterproof materials and surfaces. For streak-free cleaning of sensitive surfaces, such as glass, mirrors, stainless steel, plastic and ceramic. For daily maintenance cleaning of all coated floors. For mechanical cleaning of treated floors with automatic cleaning systems and cleaning dissipative floor coverings.
Concentration for use: Manual 0.5%, mechanical 1.0%. Intermediate cleaning with a rotary floor machine 10%.

Technical specifications:

Art. No.	1H92.1	1H92.2
Delivery form	Concentrated liquid	
Ingredients	Non-ionic surfactants, alcohol, fragrances, auxiliary agents	
Dosing	0.5 - 10%	

EUH208

Not a medical device / Not an IVD product

Type	Packaging type	Art. No.	Pack Qty.	€
Dismofix® G	Bottle	**1H92.1**	1 l	n. a.
Dismofix® G	Canister	**1H92.2**	5 l	n. a.



Cleaning agents SMA 1 all-purpose cleaner

Surfactant and lemon based, with ammonium chloride. Quick and thorough cleaning of all washable surfaces and floors, removes coarse dirt and greasy films. Gentle on materials, kind to the skin, pleasant scent.

Warning H319

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
SMA 1 all-purpose cleaner	**PY17.1**	1 l	n. a.
SMA 1 all-purpose cleaner	**PY17.2**	10 l	n. a.



Cleaning agents Neutral cleaner G530

Buzil.

Surfactant-based. For manual cleaning of all water-resistant materials and surfaces. High grease-dissolving power, high foam activity. Cleaned objects dry quickly and streak-free, no additional drying by hand needed. Gentle on materials, kind to the skin, pleasant scent. Suitable for use in foodstuffs processing businesses, also ideal as a dishwashing detergent. Tried and tested in car washes and industry.

Warning H319

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Neutral cleaner G530	**PY15.1**	1 l	7,55
Neutral cleaner G530	**PY15.2**	10 l	53,75



Cleaning agents Concentryl activeFoam foam cleaner

Becker Chemie.

Alkaline degreaser for the food sector. Active foam thoroughly removes all grease and oil from stainless steel, glass and other alkaline-resistant surfaces.

Danger H314

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Concentryl ActiveFoam foam cleaner	**NH50.1**	1 l	11,85



Cleaning agents stainless steel care PRO127

For the care and protection of all washable metal objects. Removes greasy films, dust, streaks, water marks and fingerprints. Leaves behind glossy, streak-free surfaces, protects against re-soiling. Easy application.
Note: Not to be used on hot surfaces.

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Stainless steel care PRO127	**PY19.1**	500 ml	n. a.



NEW / +

Citric acid

Carl ROTH.

For descaling. Odourless, non-toxic, gentle on materials, biodegradable. For use, dilute 10–100 g citric acid in 1 litre of cold water depending on contamination.
Do not use in the food sector.

Technical specifications:

Art. No.	1818.1	1818.2
Delivery form	Granulate	
Dosing	10-100 g per litre of water	

Warning H319-H335

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Citric acid	**1818.1**	1 kg	23,55
Citric acid	**1818.2**	50 kg	639,65



Descaler

Carl ROTH.

For removing limescale. Ingredients: 83% formic acid, inhibitors and colourants. Biodegradable. Do not use in the food sector. For use, dilute approx. 50 ml descaler in 1 litre of water.

Technical specifications:

Art. No.	0023.1
Delivery form	Concentrated liquid
Dosing	approx. 50 ml per litre of water

Danger H290-H302+H332-H314-EUH071

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Descaler	**0023.1**	500 ml	11,75

Cleaning agents



Methylated spirits

Berkel.

Denatured ethyl alcohol. Suitable for use as a detergent, a fuel additive and an antifreeze agent.

Danger H225-H319

Not a medical device / Not an IVD product

Type	Packaging type	Art. No.	Pack Qty.	€
Methylated spirits	Bottle	**AL30.1**	1 l	11,75
Methylated spirits	Canister	**AL30.2**	10 l	74,20
Methylated spirits	Canister	**AL30.3**	20 l	138,70



Universal solvents ROTISOL®

Carl ROTH.

Universal alcoholic solvent, extraction agent, mobile phase and elution medium (denatured), for dehydrating in histology, recrystallisation, etc. Mixable with water.
Composition:
Anhydrous ethanol ~99% · acetone ~5% · methyl ethyl ketone ~1% · Flp 12 °C · Kp 56-80 °C · D ~0.79 · Highly flammable.

Danger H225-H319-EUH066

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Rotisol®	**7917.3**	1 l	27,45
Rotisol®	**7917.1**	2.5 l	47,20
Rotisol®	**7917.2**	25 l	263,40



Cleaning agents ROTIPLASTICLEAN® plastic cleaner

Carl ROTH.

Anti-static. Suitable for plastic housings, laboratory equipment, furniture and flooring. Cleans, protects against brittleness and prevents static charge.

Warning H226-H319

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
ROTIPLASTICLEAN® plastic cleaner	**1953.1**	500 ml	25,70



Cleaning agents cable cleaners

Carl ROTH.

For cleaning and degreasing stripped cables.
Not suitable for plastic cables.

Danger H226-H304-H315-H317-H411

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Cable cleaners	**5235.1**	1 l	32,15



Cleaning agents label remover

Carl ROTH.

100% plant-based. Application: Dab onto label, allow it to work for a short while, dab label again if necessary, remove label. Use label remover to wipe off any adhesive residues.

Danger H226-H304-H315-H317-H411

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Label remover	**2958.1**	1 l	31,10

Cleaning sprays



Cleaning agents silvosol stain remover

Primus Beier.

Removes stains of silver nitrate, developing agent or iodine from surfaces and textiles. Is dabbed on (undiluted).

Warning H290-H351-H361d-H412

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Silvosol stain remover	**0047.1**	250 ml	31,30
Silvosol stain remover	**0047.2**	1 l	65,20



Cleaning spray label remover 130

CRC.

Quickly and effectively removes self-adhesive labels. Suitable for housings, cladding, print rollers, glass, ceramics, non-porous materials.

Propellant: Propane gas.

Danger H222-H229-H315-H317-H336-H410

Type	Packaging type	Art. No.	Pack Qty.	€
Label remover 130	Aerosol	**P530.1**	200 ml	10,65



Cleaning spray SOLVENT 50 SUPER label remover

CRC.

With NSF certificate, specifically for the foodstuff, animal feed and packaging industries. NSF K3-certified for use in foodstuff-related industries.

Propellant: CO_2.

Danger H222-H229-H315-H317-H319-H336-H411

Delivery incl. Detachable dosing brush.

Type	Packaging type	Art. No.	Pack Qty.	€
SOLVENT 50 SUPER label remover	Aerosol	**KL91.1**	200 ml	14,90



Cleaning spray Multischaum 77

CRC.

Universal foam cleaner.

Contains highly active ingredients for powerful and gentle cleaning of all glass, ceramic, paint, metal and plastic surfaces. The cleaning foam is very stable and does not run off on vertical surfaces. With antistatic effect.

Propellant: Propane/butane.

Danger H222-H229-H319-EUH208

Type	Packaging type	Art. No.	Pack Qty.	€
Multischaum 77	Aerosol	**YK87.1**	400 ml	n. a.

Cleaning sprays



Cleaning spray Inox Kleen

CRC.

Special aqueous cleaning and care foam for stainless steel, aluminium and chrome.
Registered acc. to NSF A7/C1 for use in foodstuff technology. Removes dirt, fingerprints and water stains quickly. Leaves an even glossy finish after cleaning. An extremely thin, water-repellent protective film provides long-lasting shine.

Propellant: Propane/butane.

Warning H229-H319-EUH208

Type	Packaging type	Art. No.	Pack Qty.	€
Inox Kleen	Aerosol	**YK85.1**	500 ml	14,65



Cleaning spray cold cleaner

CRC.

For cold cleaning and degreasing. Fast, residue-free evaporation. Removes grease, oil, tar, wax, etc. Suitable for machine parts, electric motors, switches, relays, etc.

Propellant: CO_2.

Danger H222-H229-H315-H336-H411

Type	Packaging type	Art. No.	Pack Qty.	€
Cold cleaner	Aerosol	**P529.1**	400 ml	12,80



NEW / +

Compressed air spray 67

CRC.

Compressed-gas cleaner based on pure, liquefied, non-flammable gas. For fast and residue-free removal of dust, loose dirt and any dry contamination. Attachable spray tube enables targeted cleaning.

- Medium strength spraying pressure, very economical and easy to use on delicate components.
- Dry and oil-free, leaves no residue
- Non-flammable according to Directive 2008/47/EC
- Low global warming potential (GWP = 7), no ozone-depleting effect
- Compatible with all common materials in electronics

Propellant: Hydrofluoroolefin (HFO).

Application examples:

- Cleaning of electronic components, e. g. circuit boards
- Also suitable for use on delicate components such as lenses or precision instruments
- Cleaning of laboratory equipment, communication electronics or data processing equipment

Warning H229
Delivery incl. spray tube.

Type	Packaging type	Art. No.	Pack Qty.	€
Compressed air spray 67	Aerosol	**1LET.1**	200 ml	n. a.
Compressed air spray 67	Aerosol	**1LET.2**	400 ml	n. a.



Compressed air spray 67 SUPER

CRC.

Based on pure liquefied gas with low global warming potential (GWP = 7). The dry, oil-free compressed gas leaves no residue, is non-flammable acc. to Directive 2008/47/EC and can also be used on live equipment. The spray can is fitted with a special convenient spray nozzle for effective, precise blowing-out of dust and dirt.
Application: For removing dust and dirt in electronics and precision mechanics. Also suitable for use on sensitive components such as lenses and sensors.
Propellant: Hydrofluoroolefin (HFO).

Warning H229
Delivery incl. convenient spray nozzle with wide coverage area and spray tube guide

Type	Packaging type	Art. No.	Pack Qty.	€
Compressed air spray 67 SUPER	Aerosol	**KEC9.1**	200 ml	28,65

Cleaning sprays



Compressed air spray 360

CRC.

This dry, oil-free compressed gas, with low global warming potential (GWP = 7), leaves no residue and is non-flammable according to Directive 2008/47/EC. This spray can with detachable tube is equipped with a 360° nozzle that can be used for spraying regardless of position, as well as for cleaning in any can position.

Application examples:

- Blowing out dust and dirt in electronics and precision mechanics
- Particularly suitable for angled or hard-to-reach areas

Propellant: Hydrofluoroolefin (HFO).

Warning H229
Delivery incl. spray tube for targeted application.

Type	Packaging type	Art. No.	Pack Qty.	€
Compressed air spray 360	Aerosol	**HXH4.1**	200 ml	22,25



Compressed air spray High pressure 67

CRC.

With an extra-strong spray jet.
This dry, oil-free compressed gas leaves no residue and is non-flammable according to Directive 2008/47/EC. With low global warming potential (GWP = 7). The spray can with detachable spray tube allows dust and dirt to be blown out in a targeted manner. The extra-strong spray system generates a high spraying pressure and is therefore particularly suitable for removing stubborn dirt over large surfaces.

Application examples:

- Blowing out stubborn dust and dirt deposits in electronics and precision mechanics
- The high spraying pressure is ideal for cleaning large surfaces in control cabinets, plants and machines

Propellant: Hydrofluoroolefin (HFO).

Warning H229
Delivery incl. spray tube for targeted application.

Type	Packaging type	Art. No.	Pack Qty.	€
High-pressure compressed air spray 67	Aerosol	**HXH5.1**	340 ml	32,00



Cold spray 75 SUPER

CRC.

Highly purified cooling agent for the highest demands with extra-strong cooling effect down to -45 °C. Low global warming potential (GWP = 7). Non-flammable according to Directive 2008/47/EC; for use on live equipment, the ambient temperature should be below 28 °C. In combination with the Dual Action spray system, it provides an extra-strong cooling effect. The convenient Dual Action spray system has a wide coverage area and a long folding spray tube for precise application, even in hard-to-reach areas. Suitable for fast, effective cooling of surfaces and components. For thermal troubleshooting on electronic components, to avoid overheating during soldering, for checking thermostats and thermal sensors and for cold-shrinking small metal components.

Propellant: Hydrofluoroolefin (HFO).

Warning H229
Delivery incl. spray tube for targeted application.

Type	Packaging type	Art. No.	Pack Qty.	€
Cold spray 75 SUPER	Aerosol	**KEC7.1**	200 ml	28,30



Antistatic spray

CRC.

Prevents electrostatic charge and dust attraction. Suitable for plastics, screens, EDP systems, housings, telephones, floorings, seat covers, polished metal parts, wooden surfaces, etc.

Propellant: Propane gas.

Danger H222-H229-H319-H336

Type	Packaging type	Art. No.	Pack Qty.	€
Antistatic spray	Aerosol	**P531.1**	200 ml	8,65

Office cleaners



Office cleaner cleansing foam for TFT screens

CRC.

Special gentle cleaner for TFT screens and LCD displays. The resistant active foam cleans without solvents such as alcohol, petroleum ether or ammonia.

Propellant: Propane/butane.

Warning H229-EUH208

Version	Pack.	Packaging type	Art. No.	Pack Qty.	€
Cleansing foam	200 ml	Aerosol	**KL90.1**	1 unit(s)	11,85



Office cleaner Cleaning pen

Due to the adhesive power of the tip, the pen removes impurities sticking to smaller glass surfaces such as objective, ocular and camera lenses. The tip can be cleaned with water. Total length 12 cm.

Version	Art. No.	Pack Qty.	€
Cleaning pen	**AK15.1**	1 unit(s)	13,50



Office cleaner cleaning wipes for TFT screens

Duotuch screen cleaner: The moist cleaning wipe provides streak-free, effective cleaning of all TFT, CRT and LCD monitors, and all notebooks and handhelds. The dry cloth guarantees gentle cleaning of the screen surface.
Pack contains 10 moist wipes and 10 dry wipes.

Version	Art. No.	Pack Qty.	€
Cleaning wipes for TFT screens	**KL92.1**	1 set	3,45



Office cleaner moist cleaning wipes

Surface cleaning wipes with alcohol. Made of pulp rayon fleece. For streak-free and antistatic cleaning of office equipment such as keyboards, fax machines, copiers, telephones and other smooth surfaces. 100 wipes in refillable dispenser with aluminium freshness seal. Dispenser dimensions: Ø 85 mm, H 190 mm. Wipe size 13.8 x 22 cm.
Note: Not suitable for TFT monitors.

Warning H226-H319

Dispenser with moist cleaning wipes

Version	Art. No.	Pack Qty.	€
Dispenser box containing 100 wipes	**E170.1**	1 pack(s)	5,65

Refill pack for dispenser box

Version	Art. No.	Pack Qty.	€
Refill pack containing 100 wipes	**E171.1**	1 pack(s)	4,75

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Reusable wipes Polytex® wet wipes

Material: PP.

Made of 100% PP. Low-lint, absorbent, washable, tear-proof and solvent-resistant.

Colour	Length (cm)	Width (cm)	Pack.	Art. No.	Pack Qty.	€
blue	40	42	1 x 35 wipes	**EH09.3**	35 unit(s)	8,45
blue	40	42	12 x 35 wipes	**EH09.2**	420 unit(s)	85,85



Reusable wipes All-purpose cloths

Material: Viscose.

All-purpose cleaning cloths for damp and wet cleaning of all water-resistant surfaces. Very absorbent, durable and resistant to cleaning agents, washable up to 95 °C.

Colour	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
white, blue	35	40	**HCA1.1**	20 unit(s)	17,75



Dishcloths ROTILABO®

ROTH SELECTION. Material: Cotton.

Robust, low-lint, fast-drying and absorbent. With hanging loop. Suitable for foodstuffs.

Pic.	Type	Surface weight (g/m²)	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
(1)	Dishcloth	210	70	50	**YX97.1**	1 unit(s)	3,75
(2)	Glass cloth	210	60	45	**YX98.1**	1 unit(s)	4,75
(3)	Kitchen towel	110	100	50	**YX99.1**	1 unit(s)	3,50



Reusable cloths microfibre cloths

Material: Microfibre made of 80% polyester and 20% polyamide.

Knitted microfibre cloths with high cleaning performance. Washable up to 95 °C.

Colour	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
blue	36	36	**HCA2.1**	5 unit(s)	8,95



Reusable cloths microfibre cloths

Material: Microfibre made of 85% polyester and 15% polyamide.

Soft, long-lasting microfibre cloths with low surface friction. High cleaning performance, dirt, grease and dust particles are lifted and held inside the cloth. Washable up to 95 °C.

Colour	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
yellow	40	40	**HCA3.1**	5 unit(s)	40,10
green	40	40	**HCA4.1**	5 unit(s)	40,10
pink	40	40	**HCA5.1**	5 unit(s)	40,10
blue	40	40	**HCA6.1**	5 unit(s)	40,10



Reusable wipes antistatic wipes

Material: Microfibre, with dissipative component.

The highly conductive component in the fabric safely dissipates electrical charge carriers. The ultra-soft microfibres gently remove dust and dirt of all kinds from filmstrips, electronic circuit boards, CDs, monitors, scanner glass and plastic. Washable at 40 °C.

Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
25	45	**AK11.1**	1 unit(s)	18,55

Wipes and laboratory pads

Disposable wipes KIMTECH® Pure W4



Kimberly-Clark. Material: PP.

1-ply, low-lint, soft and extremely absorbent. **Suitable for use in clean rooms of ISO classes 4 and above** as well as for dry-cleaning of critical devices and surfaces in the pharmaceutical, biotechnology, medical appliance manufacturing and food processing industries.

- Resistant to acids, bases and solvents
- Thermally bonded polypropylene fibres without adhesive or binders
- Particularly smooth-cut edges
- Double-pouch packaging

Type	Ply	Colour	Length (mm)	Width (mm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
7646	1-ply	white	228	228	Bag	1 x 100 cloths	**HYL0.1**	100 unit(s)	37,10
7646	1-ply	white	228	228	Bag	5 x 100 cloths	**HYL0.2**	500 unit(s)	150,65
7605, quarter-folded	1-ply	white	305	305	Bag	1 x 100 cloths	**HYL1.1**	100 unit(s)	90,35
7605, quarter-folded	1-ply	white	305	305	Bag	5 x 100 cloths	**HYL1.2**	500 unit(s)	383,80

Reusable wipes KIMTECH® Pure



Kimberly-Clark. Material: PP.

Lint-free, soft and highly absorbent. Thickness 70 µm. For absorbing acids, bases, solvents, oils and aqueous solutions. **Suitable for use in clean rooms of ISO class 7 and higher.**

Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
white	38	35	Bag	1 x 35 cloths	**0393.3**	35 unit(s)	24,85
white	38	35	Bag	12 x 35 cloths	**0393.4**	420 unit(s)	253,70

Wipes WYPALL® pre-moistened



Kimberly-Clark.

Wipes pre-soaked with solvent-free cleaning solution, made of textured KIMTECH Pure® (100% polypropylene), with a rough cloth side for scrubbing contamination and a soft side for cleaning and wiping down. 50 wipes in a portable and sealable dispenser box with central dispensing hole. Wipe size 27 x 27 cm.
Dispenser box dimensions: Ø 11 cm, height 19.5 cm.

Application

Efficiently removes the most stubborn grease residues, dirt and lubricants from hands, machines and tools.

Type	Ply	Colour	Packaging type	Pack.	Art. No.	Pack Qty.	€
7772	1-ply	green	Dispenser box	1 x 50 wipes	**KKK2.1**	1 unit(s)	37,50
7772	1-ply	green	Dispenser box	6 x 50 wipes	**KKK2.2**	1 pack(s)	206,40

Wipes and laboratory pads

Reusable wipes WYPALL® X70

Kimberly-Clark. Material: Cellulose, Plastic.

Made of HYDROKNIT* (cellulose fibres (87%) embedded in spunbond non-woven fabric (13% synthetic fibres)). 1-ply. High absorbency, tear resistance and durability (wet and dry).

- Cleaning cloth for multiple use
- For easy and medium wiping applications, particularly in areas where absorbency is crucial
- Resistant to most solvents, reduces residues and enables spilled liquids, e.g. oil and water, to be wiped up quickly
- For cleaning surfaces, tools and machines
- Suitable for contact with foodstuffs



NEW / +

Folded wipes

Type	Ply	Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
8296	1-ply	white	42.6	28.2	Box	1 x 200 wipes	**1H50.1**	200 unit(s)	83,05

Pre-perforated wipes on a roll

Type	Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
8348	1-ply	white	34	31.5	37	Roll	870 wipes	**1H51.1**	1 unit(s)	259,10

Reusable wipes WYPALL® X90

Kimberly-Clark. Material: Cellulose, Plastic.

Made of HYDROKNIT* (cellulose fibres (68%) embedded in spunbond non-woven fabric (38% synthetic fibres)). 2-ply. Extremely absorbent, tear-proof and durable (when wet or dry), resistant to most solvents, low-residue, for quick cleaning. Pre-perforated cloths. Cloth size 32 x 30 cm.

- For wiping up spilled liquids such as oil or water
- For removing oil, grease, dirt and solvents from surfaces and tools
- For cleaning small parts or difficult-to-reach areas in machines
- Suitable for contact with foodstuffs



Type	Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
12889	2-ply	blue	32	30	33	Roll	450 wipes	**HYK9.1**	1 unit(s)	169,85

Disposable wipes WYPALL® L10 EXTRA +

Kimberly-Clark. Material: Cellulose.

Made of 100% recycled cellulose, 1-ply. Special AIRFLEX® texture for higher absorption capacity. Highly absorbent, for water and oil. Tearproof. Pre-perforated wipes.

- For medium-duty cleaning work, such as polishing glass and cleaning surfaces or tools
- Suitable for contact with foodstuffs



Type	Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
7241	1-ply	white	38	33	32	Roll	1000 wipes	**1APN.1**	1 unit(s)	50,90

Wipes and laboratory pads

Disposable wipes WYPALL® L20 Essential

Kimberly-Clark. Material: Cellulose recycled.

Made of 100% recycled cellulose, 2-ply, versatile, voluminous and absorbent. Features high tear resistance, even when wet. Pre-perforated cloths. Cloth size 38 x 35 cm.

- Ideal for day-to-day cleaning tasks such as wiping up spilled water and sprayed cleaning fluid
- For removing dirt and dust, and polishing glass and smooth surfaces
- For drying and cleaning tools and hands
- Suitable for contact with foodstuffs



Type	Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
7356	2-ply	blue	38	35	39	Roll	1000 cloths	**1A00.1**	1 unit(s)	42,75

Disposable wipes WYPALL® L20 EXTRA

Kimberly-Clark. Material: Cellulose.

Made of 27% recycled cellulose, 2-ply. Special AIRFLEX® texture for higher absorption capacity. Highly absorbent, for water and oil. Tearproof. Pre-perforated cloths.

- Ideal for medium-duty cleaning work, such as polishing glass and cleaning surfaces or tools
- Suitable for contact with foodstuffs



Type	Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
7248	2-ply	white	38	23.5	32	Roll	1000 tissues	**1APL.1**	1 unit(s)	39,10

Disposable wipes WYPALL® L40

Kimberly-Clark. Material: Cellulose, Latex.

Voluminous wipes made of textile-like, extra-soft AIRFLEX® material (made of a cellulose/latex mixture), 1-ply. With extremely high tear resistance even when wet. Outstanding water and oil absorbency, for fast absorption of large quantities of liquid.



Quarter-folded wipes

Type	Ply	Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
7471	1-ply	white	31.7	33	Bag	18 x 56 wipes	**NH08.1**	1,008 unit(s)	298,85

Roll of pre-perforated wipes

Type	Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
7452	1-ply	white	31.5	34	41	Roll	1 x 750 wipes	**NH09.1**	1 unit(s)	258,00

Disposable wipes WYPALL® L30 ULTRA+

Kimberly-Clark. Material: Cellulose.

Voluminous wipes made of textile-like, extra-soft AIRFLEX® material (100% recycled cellulose), 3-ply.
With extremely high tear resistance even when wet. Outstanding water and oil absorbency, for fast absorption of large quantities of liquid. For particularly demanding wiping applications.



Type	Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
7425	3-ply	blue	38	23.5	39	Roll	750 wipes	**NH10.1**	1 unit(s)	90,45
7426	3-ply	blue	38	37	39	Roll	670 wipes	**NH11.1**	1 unit(s)	105,95

Wipes and laboratory pads

Disposable tissues ROTIZELL® Tissues

ROTH SELECTION. Material: Cellulose.

2-ply, made of 100% chlorine-free bleached cellulose.
Extra-soft, absorbent, lint-free. Tissue size 21 x 20 cm.



Ply	Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
2-ply	white	21	20	Box	25 x 150 cloths	**0087.2**	3,750 unit(s)	67,85

Disposable wipes ROTIZELL® T

ROTH SELECTION. Material: Paper.

Quality household paper, 2-ply, white. Very absorbent and soft.
50 perforated wipes on a roll, core Ø 43 mm, wipe size L 23 x W 26 cm.
Suitable for use with commercial wall dispensers.



Ply	Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
2-ply	white	23	26	Roll	32 x 50 cloths	**0264.2**	32 unit(s)	67,05

Roll holder ROTILABO®

ROTH SELECTION.

With plastic base and roll-stop device for fixing the roll to tear off sheets.
The roll is placed 2 cm above the work surface and is therefore kept dry.
Easy roll replacement.

Type	Art. No.	Pack Qty.	€
ROTILABO® roll holder	**K879.1**	1 unit(s)	26,85

Disposable wipes tissue

ROTH SELECTION. Material: Cellulose.

Made of 100% cellulose, 2-ply. 9000 sheets, with point-to-point embossing. Suitable for single-sheet paper dispenser mini (Art. No. EE84.1).



Ply	Colour	Length (cm)	Width (cm)	Pack.	Art. No.	Pack Qty.	€
2-ply	white	18	11	36 x 250 cloths	**EE85.1**	9,000 unit(s)	70,75

Single-sheet paper dispenser mini

ROTH SELECTION. Material: Plastic.

For wall mounting.

- Hygienic single tissue removal
- Easy filling
- Viewing slot for fill level check

Delivery incl. mounting accessories, **delivery without** tissue paper (Art. No. EE85.1), please order separately.

W x D x H (cm)	Art. No.	Pack Qty.	€
16 x 13.5 x 31	**EE84.1**	1 unit(s)	36,45

Wipes and laboratory pads

Disposable wipes KIMTECH® Science lab wipes

Kimberly-Clark. Material: Cellulose.

- 2-ply
- Made of 100% pure cellulose, chlorine-free bleached
- Extra absorbent and soft
- Suitable for use with solvents and chemicals
- Low-lint, suitable for sensitive cleaning areas
- Ideal for wiping up smaller amounts of liquid and cleaning pipettes and slides



Type	Ply	Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
7557	2-ply	white	20	21	Box	1 x 100 wipes	**X213.1**	100 unit(s)	8,30
7557	2-ply	white	20	21	Box	24 x 100 wipes	**X213.3**	2,400 unit(s)	142,45
7558	2-ply	white	20	20.5	Box	1 x 200 wipes	**P502.1**	200 unit(s)	12,50
7558	2-ply	white	20	20.5	Box	15 x 200 wipes	**P502.4**	3,000 unit(s)	146,20

Disposable wipes KIMTECH® Science precision wipes

Kimberly-Clark. Material: Cellulose.

- 1-ply
- Made of specially treated, low-lint and absorbent cellulose fibres (100 % fresh cellulose)
- For precise wiping action in sensitive fields of application
- For cleaning electronic components and contacts, optical lenses and slides
- Easy removal from the dispenser box



Type	Ply	Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
7551	1-ply	white	30.4	30.4	Box	15 x 198 wipes	**AA63.2**	2,970 unit(s)	325,75
7552	1-ply	white	21.3	11.4	Box	1 x 280 wipes	**AA64.1**	280 unit(s)	12,45
7552	1-ply	white	21.3	11.4	Box	30 x 280 wipes	**AA64.2**	8,400 unit(s)	277,35
7557	1-ply	white	30.4	30.4	Box	1 x 198 wipes	**AA63.1**	198 unit(s)	28,85

Disposable wipes KC Professional

Kimberly-Clark. Material: Cellulose.

Type 28648. Disposable cleaning wipes with central dispenser, suitable for rough surfaces. Pre-perforated wipes, wipe size 32 x 31 cm.



Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
1-ply	white	32	31	20	Roll	6 x 60 wipes	**CLT0.1**	6 unit(s)	203,20

Wipes and laboratory pads

Disposable wipes ROTIZELL®

ROTH SELECTION. Material: Cellulose.
On large rolls.



XL2 1500
Made of soft cellulose. Highly absorbent and tear-resistant, suitable for water and oil. Pre-perforated tissues, 26.5 x 38 cm, white.

Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
2-ply	white	38	26.5	39	Roll	2 x 1500 cloths	**AN56.1**	2 unit(s)	128,95

XXL2 Blue
Made of cellulose. Highly absorbent and tear-resistant, ideal for absorbing dust, grease and oils. Pre-perforated tissues, 38 x 38 cm, blue.

Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
2-ply	blue	38	38	29	Roll	2 x 1000 cloths	**4695.1**	2 unit(s)	136,90

XXL3 1000
Made of cellulose. Highly absorbent and tear-resistant, ideal for absorbing dust, grease and oils. Pre-perforated tissues, 38 x 38 cm, white.

Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
3-ply	white	38	38	39	Roll	1 x 1000 cloths	**AN57.1**	1 unit(s)	100,60

L3 Blue
Made of cellulose. Highly absorbent and tear-resistant, ideal for absorbing dust, grease and oils. Pre-perforated wipes, 22 x 38 cm, blue.

Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
3-ply	blue	38	22	39	Roll	2 x 1000 cloths	**A972.1**	2 unit(s)	143,35

Absorptive crepe tissue S
Made of recycled cellulose. High absorbency. Tissue size: 24 x 38 cm, light grey.

Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
4-ply	light grey	38	24	35	Roll	2 x 1250 cloths	**1997.1**	2 unit(s)	66,15

ROTH SELECTION



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Wipes and laboratory pads



Roll-off stand ROTIZELL®

ROTH SELECTION.

With tear bar and holder for waste bags.
Max. roll width 42 cm.

W x D x H (mm)	Art. No.	Pack Qty.	€
480 x 640 x 1040	**0273.1**	1 unit(s)	98,15



Roll-off stand ROTIZELL®

ROTH SELECTION.

Silver, with tear bar. Max. roll width 34 cm.

W x D x H (mm)	Art. No.	Pack Qty.	€
440 x 380 x 970	**1798.1**	1 unit(s)	57,00



Wall-mounted roll holder

ROTH SELECTION.

Robust design. With tear bar and holder for refuse sacks (120 l).
Max. roll width 42 cm.

W x D x H	Art. No.	Pack Qty.	€
49 x 27 x 58	**AH00.1**	1 unit(s)	81,55



Absorbent paper ROTILABO®

ROTH SELECTION. Material: Cellulose, PE.

Benchtop protective paper
Absorbent white paper, coated on one side with waterproof PE. As a work support to protect laboratory benches or line cupboards and drawers. Protects surfaces from chemicals, dirt and contamination. Also suitable for analytical and isotope laboratories.

Sheets. Absorbency approx. 250–280 g/m²

Colour	Surface weight (g/m²)	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
white	144	60	48	**1941.1**	100 unit(s)	216,00

Roll. Absorbency approx. 250–280 g/m²

Colour	Surface weight (g/m²)	Length (m)	Width (cm)	Art. No.	Pack Qty.	€
white	144	100	48	**1959.1**	1 roll(s)	318,00
white	144	100	60	**1006.1**	1 roll(s)	385,00

Sheets. Absorbency approx. 170 g/m²

Colour	Surface weight (g/m²)	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
white	125	52	42	**HY90.1**	100 unit(s)	97,60
white	125	57	46	**HY91.1**	100 unit(s)	107,75
white	125	60	50	**HY92.1**	100 unit(s)	141,80

Roll. Absorbency approx. 170 g/m²

Colour	Surface weight (g/m²)	Length (m)	Width (cm)	Art. No.	Pack Qty.	€
white	125	50	49	**HY93.1**	1 roll(s)	141,60
white	125	50	60	**HY94.1**	1 roll(s)	169,85
white	125	50	92	**HY95.1**	1 roll(s)	227,90

Sheets. Absorbency approx. 200 g/m²

Colour	Surface weight (g/m²)	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
white	225	57	46	**HY96.1**	50 unit(s)	105,95
white	225	60	50	**HY97.1**	50 unit(s)	97,45

Roll. Absorbency approx. 200 g/m²

Colour	Surface weight (g/m²)	Length (m)	Width (cm)	Art. No.	Pack Qty.	€
white	225	50	49	**HY98.1**	1 roll(s)	268,75
white	225	50	60	**HY99.1**	1 roll(s)	326,80
white	225	50	92	**KA00.1**	1 roll(s)	460,10

Wipes and laboratory pads

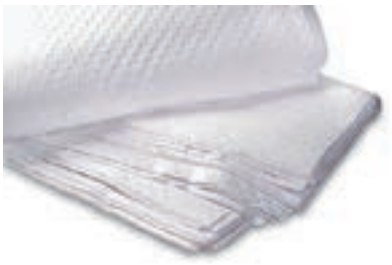


Joseph paper sheets ROTILABO®

ROTH SELECTION.

Low-lint fine-grade paper for cleaning and drying. Highly absorbent. Surface weight 25 g/m².

Type	Surface weight (g/m²)	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
Folded	25	35	35	**XP42.1**	500 unit(s)	88,80
Single	25	15	15	**XP41.1**	200 unit(s)	10,70



Disposable wipes ROTIZELL® layered cellulose

ROTH SELECTION. Material: Paper recycled.

Absorbent and tear-proof, made of 100% recycling paper, wipe size 40 x 60 cm.

Creped single ply, light grey

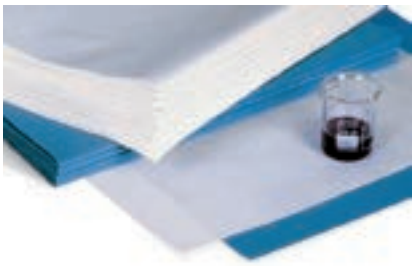
Ply	Colour	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
1-ply	light grey	60	40	**1745.1**	5 kg	28,50
1-ply	light grey	60	40	**1745.2**	15 kg	71,50

Creped single ply, high bleached

Ply	Colour	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
1-ply	white	60	40	**X859.1**	5 kg	67,75
1-ply	white	60	40	**X859.2**	15 kg	184,90

4-ply with horseshoe print, high bleached

Ply	Colour	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
4-ply	white	60	40	**1746.1**	5 kg	107,40



Filter papers ROTILABO®

ROTH SELECTION.

Qualitative filter papers made from 100% cellulose. High absorbency. Standard filter paper with a smooth surface for analysis. Larger sizes are ideal as surface protection paper or working surface. Colour: White.

Type 600

Weight: 64 g/m². Thickness: 0.15 mm. Retention range: 10–20 µm.

Type	Length (mm)	Width (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
600	420	520	10–20	**XP43.1**	500 unit(s)	102,60
600	500	500	10–20	**XP44.1**	500 unit(s)	122,20
600	600	600	10–20	**XP45.1**	500 unit(s)	168,80

Type 601

Weight: 73 g/m². Thickness: 0.16 mm. Retention range: 5–13 µm.

Type	Length (mm)	Width (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
601	450	450	5–13	**XP46.1**	500 unit(s)	285,95
601	460	570	5–13	**XP47.1**	100 unit(s)	65,50

Type 122

Weight: 73 g/m². Thickness: 0.17 mm. Retention range: 17–30 µm.

Type	Length (mm)	Width (mm)	Retention range (µm)	Art. No.	Pack Qty.	€
122	520	520	17–30	**XP48.1**	500 unit(s)	272,00
122	600	600	17–30	**XP49.1**	500 unit(s)	317,15

Wipes and laboratory pads



Filter papers

Macherey-Nagel.

Alpha cellulose content approx. 95%. Format 58 x 58 cm.

Type: MN 713 medium filtration speed
Technical filter paper for general laboratory work.

Weight: 70 g/m². Filtration time: 20 s. Thickness: 0.15 mm.

Type	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
MN 713	58	58	**HPL1.1**	100 unit(s)	90,90

Type: MN 615 medium filtration speed
Qualitative standard paper for various applications. Weight: 70 g/m².
Filtration time: 22 s. Ash content: 0.1%. Retention range: 4–12 µm.
Thickness: 0.16 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 615	58	58	4-12	**HPL2.1**	100 unit(s)	152,00

Type: MN 617 fast filtration speed
Qualitative filter paper for quick filtering of coarse deposits.
Weight: 85 g/m². Filtration time: 9 s. Ash content: 0.1%.
Retention range: 7–12 µm. Thickness 0.2 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 617	58	58	7-12	**HPL3.1**	100 unit(s)	223,00

Type: MN 640 w fast filtration speed, ash-less
Quantitative filter paper for quick filtering of coarse deposits.
Weight: 85 g/m². Filtration time: 9 s. Ash content: < 0.01%.
Retention range: 7–12 µm. Thickness: 0.2 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
640 w	58	58	7-12 µm	**HPL4.1**	100 unit(s)	565,00

Type: MN 640 m medium filtration speed, ash-less
Quantitative standard paper for various applications. Weight: 85 g/m².
Filtration time: 27 s. Ash content: < 0.01%. Retention range: 4–12 µm.
Thickness: 0.2 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
Type: MN 640 m	58	58	4-12	**HPL5.1**	100 unit(s)	565,00

Type: MN 640 d low filtration speed, ash-less
Quantitative filter paper for fine and very fine deposits. Weight: 85 g/m².
Filtration time: 140 s. Ash content: < 0.01%. Retention range: 2–4 µm.
Thickness: 0.17 mm.

Type	Length (cm)	Width (cm)	Retention range (µm)	Art. No.	Pack Qty.	€
MN 640 d	58	58	2-4	**HPL6.1**	100 unit(s)	565,00



Reusable cloths sponge wipes

Material: Cellulose, Cotton.

Made of approx. 70% cellulose and approx. 30% cotton. Universal, environmentally friendly wet-wipe cloth for efficient cleaning. Absorbent, soft and low-lint, washable up to 90 °C.

Colour	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
blue	20	18	**HCA8.1**	10 unit(s)	9,65
yellow	20	18	**HCA9.1**	10 unit(s)	9,65
red	20	18	**HCC0.1**	10 unit(s)	9,65



Reusable wipes fleece dishcloths

Composition: 30% cotton, 25% viscose, 20% polypropylene, 15% polyester and 10% other fibres. For wet and dry cleaning. Tear-proof, soft and absorbent. Washable up to 60 °C.

Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
35	35	**HCC1.1**	25 unit(s)	15,55



Cotton wool

Material: Cotton.

Made of 100% cotton. For filtration and cleaning purposes.

Type	Packaging type	Pack.	Art. No.	Pack Qty.	€
perforated	Bag	14 x 80 g	**0571.1**	1,100 g	26,05
unperforated	Bag	7 x 100 g	**PE40.1**	700 g	14,10

Cleaning sponges and brushes



Scrub sponge

With abrasive fleece for removal of stubborn dirt on hard-wearing surfaces. Washable up to 40 °C. Dimensions: L 95 x W 70 x H 45 mm.

Version	Art. No.	Pack Qty.	€
Scrub sponge	**HCA7.1**	6 unit(s)	4,60



Scrub sponge Scotch-Brite™ Delicate

3M.

For gentle cleaning of sensitive surfaces, such as glass, ceramic, porcelain and chrome. Absorbent and non-scratch.
Two sided: Cleaning fleece/natural sponge. Dimensions: L 90 x W 70 x H 40 mm.

Version	Art. No.	Pack Qty.	€
Scrub sponge	**TT83.1**	6 unit(s)	12,45



Spiral scourer

3M. Material: Stainless steel, rustproof.

For the removal of stubborn dirt.

Version	Art. No.	Pack Qty.	€
Spiral scourer	**EE55.1**	12 unit(s)	18,50



Dish washing brush set ROTILABO®

ROTH SELECTION. Material: Plastic break-proof, with nylon bristles.

Set includes 12 x dish washing brushes: 6 x with round brush head, 6 x with elongated brush head and tough scouring bristles at the tip. Brush length 280 mm, weight approx. 50 g.

Version	Art. No.	Pack Qty.	€
Dish washing brush set	**0667.1**	1 set	34,60



Cleaning brush ROTILABO®

ROTH SELECTION. Material: PE (foam), Scratch-free.

Especially for cleaning laboratory glass and plastic containers. Made of soft, scratch-resistant PE foam. Does not absorb liquids and is considerably more hard-wearing than standard brush materials.

Flexible for vessels with narrow necks

Pic.	Ø Brush (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(1)	20	410	**Y111.1**	1 unit(s)	20,05

Round head for tall vessels

Pic.	Ø Brush (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(2)	55	425	**EEH7.1**	1 unit(s)	21,70
(3)	70	480	**Y109.1**	1 unit(s)	18,60

Round head for medium-size vessels

Pic.	Ø Brush (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(4)	55	340	**EEH8.1**	1 unit(s)	14,85

Round head for small vessels

Pic.	Ø Brush (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(5)	50	230	**EEH9.1**	1 unit(s)	13,95
(6)	60	250	**Y110.1**	1 unit(s)	13,50

Special brush with bristles for cleaning test tubes and particularly narrow vessels

Flexible to adapt to the shape of the vessel.

Pic.	Ø Brush (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(7)	20	220	**Y112.1**	1 unit(s)	9,00

Brushes



Cleaning brush ROTILABO®

ROTH SELECTION.

Made of natural bristles with wool head or all-wool.
Galvanised twisted-in wire.

Brush made with natural fibres with wool head

Ø Brush (mm)	Brush length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
5	85	280	**XK58.1**	5 unit(s)	14,55
8	85	280	**XK59.1**	5 unit(s)	13,55
10	60	230	**XK60.1**	5 unit(s)	13,55
12	85	280	**XK61.1**	5 unit(s)	13,55
15	85	280	**XK62.1**	5 unit(s)	13,55
20	105	270	**XK63.1**	5 unit(s)	14,05
30	115	270	**XK64.1**	5 unit(s)	21,00
40	130	520	**XK66.1**	1 unit(s)	7,45
50	150	320	**XK67.1**	1 unit(s)	5,90
60	145	520	**XK69.1**	1 unit(s)	8,35

Wool brush

Ø Brush (mm)	Brush length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
35	100	330	**XK65.1**	1 unit(s)	9,25
55	140	390	**XK68.1**	1 unit(s)	9,50

ROTH SELECTION



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- High-quality top brands
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Cleaning brush ROTILABO®

ROTH SELECTION. Material: Nylon.

Ø Brush (mm)	Brush length (mm)	Total length (mm)	Version	Art. No.	Pack Qty.	€
2	60	300	Chrome-nickel twisted-in wire	**XK71.1**	5 unit(s)	17,90
3	100	300	Chrome-nickel twisted-in wire	**XK72.1**	5 unit(s)	14,45
4	100	300	Galvanised twisted-in wire	**XK73.1**	5 unit(s)	14,65
5	100	300	Galvanised twisted-in wire	**XK74.1**	5 unit(s)	14,65
8	100	300	Galvanised twisted-in wire	**XK75.1**	5 unit(s)	14,65
10	100	300	Galvanised twisted-in wire	**XK76.1**	5 unit(s)	14,65
20	100	300	Galvanised twisted-in wire	**XK77.1**	5 unit(s)	15,95
30	100	300	Galvanised twisted-in wire	**XK78.1**	5 unit(s)	17,10
50	100	300	Galvanised twisted-in wire	**XK79.1**	5 unit(s)	20,70



Cleaning brush ROTILABO® with joint

ROTH SELECTION. Material: Wood with natural bristles.
With wooden handle.

Brush length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
50	440	**XK70.1**	1 unit(s)	23,25



Cleaning brush ROTILABO®

ROTH SELECTION.

Bristle materials:
1: Brass 0.15
2: Bronze 0.15
3: Natural fibre/nylon
4 to 5: Horsehair
6 to 11: Pig bristles
9, 10 and 11: With wool head

Pic.	Ø Brush (mm)	Brush length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(1)	25	100	300	**2018.1**	5 unit(s)	46,75
(10)	20	80	270	**2009.1**	10 unit(s)	22,55
(11)	15	70	280	**2019.1**	10 unit(s)	22,25
(2)	15	100	300	**2023.1**	5 unit(s)	43,85
(3)	80	150	500	**2017.1**	5 unit(s)	74,05
(4)	63	120	480	**1850.1**	5 unit(s)	40,70
(5)	50	85	370	**2013.1**	10 unit(s)	54,65
(6)	18	100	500	**1202.1**	10 unit(s)	31,10
(7)	12	100	500	**2003.1**	10 unit(s)	30,75
(8)	6	100	500	**2002.1**	10 unit(s)	30,45
(9)	30	115	270	**2011.1**	10 unit(s)	24,55

Cleaning brush ROTILABO® product range

ROTH SELECTION.

Bristle materials:
1: Brass 0.15
2: Bronze 0.15
3: Natural fibre/nylon
4 to 5: Horsehair
6 to 11: Pig bristles
9, 10 and 11: With wool head

Version	Art. No.	Pack Qty.	€
Brushes set 8: 1 each of type 1, 2, 3, 4, 5, 9, 10, 11	**2027.1**	1 set	61,90
Brushes set 12: 4 each of type 6, 7, 8	**2006.1**	1 set	48,95



Scrubbing brush ROTILABO®

ROTH SELECTION. Material: Wood, PP-bristles.

S-shape.

Total length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
210	70	35	**ET48.1**	5 unit(s)	14,55



Cleaning brush ROTILABO® special

ROTH SELECTION. Material: PE (foam).

With bristles and PE-foam head. Ergonomically shaped, wide, flat handle for easily twisting the brush. For cleaning laboratory glass and plastic containers. Specially designed for wide-neck barrels, beakers and cylinders.

Pic.	Ø Brush (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(1)	50	385	**EEK0.1**	1 unit(s)	12,40
(2)	50	500	**EEK1.1**	1 unit(s)	14,65



Hose/burette brush ROTILABO®

ROTH SELECTION.

With undyed pig bristles, hard-wearing, highly resistant to chemicals, heat resistant up to approx. 150 °C.

Pic.	Ø Brush (mm)	Brush length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(1)	12	150	1,000	**KE66.1**	5 unit(s)	26,50
(2)	15	150	1,000	**KE67.1**	5 unit(s)	28,10
(3)	30	150	1,000	**KE68.1**	5 unit(s)	28,65

Brushes



Pipette brush ROTILABO®

ROTH SELECTION.

With undyed natural bristles. Hard-wearing, highly resistant to chemicals, heat resistant to approx. 150 °C.

Pic.	Ø Brush (mm)	Brush length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(1)	5/10/5	100	400	**KE62.1**	5 unit(s)	26,90
(2)	4/20/4	190	490	**KE63.1**	5 unit(s)	33,30
(3)	12/25	180	450	**KE64.1**	5 unit(s)	28,50
(4)	10	70	160	**KE65.1**	5 unit(s)	15,45



Hose brush ROTILABO®

ROTH SELECTION. Material: Nylon.

With Nylon bristles, abrasion-proof and highly resistant to chemicals, heat resistant to approx. 100 °C.

Pic.	Ø Brush (mm)	Brush length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
(1)	6	60	1,180	**KE69.1**	2 unit(s)	23,35
(2)	8	150	2,500	**KE70.1**	2 unit(s)	32,15
(3)	9	150	1,500	**KE71.1**	2 unit(s)	21,65
(4)	16	150	1,500	**KE72.1**	2 unit(s)	21,85



Pipe cleaners

Material: Cotton with stiff wire.

Conical, Ø 1.5–6 mm. Length approx. 170 mm. Ideal for cleaning small, hard-to-reach areas such as nozzles, bores, connectors, taps, pipettes and tubes.

Total length (mm)	Art. No.	Pack Qty.	€
170	**YC35.1**	80 unit(s)	6,35



Antistatic brush

Made with natural and synthetic fibres. Conductive fibres free surfaces such as glass panes, plastics and electronic components from electrical charge carriers and dust particles. Max. 65 °C, washable.

Width (mm)	Art. No.	Pack Qty.	€
20	**AK12.1**	1 unit(s)	22,10
30	**AK37.1**	1 unit(s)	46,50
60	**AK14.1**	1 unit(s)	56,15



Floor mop PROFI

Leifheit.

With convenient foot control and changeable mop heads for universal use on all floor surfaces. Aluminium handle with hanging loop and non-slip grip. Flexible, flat-folding 360-degree swivel head enables effective cleaning in a wavy line. Wiping width 420 mm.

Delivery incl. PROFI micro duo mop head.

Version	Art. No.	Pack Qty.	€
Aluminium handle 140 cm	**XP59.1**	1 unit(s)	54,30
Telescopic handle 80–135 cm	**XP60.1**	1 unit(s)	54,30



Mop wringer PROFI Evo

Leifheit. Material: PP.

Capacity: 8 litres. Sturdy foot-operated mop wringer allows cleaning without bending down, using force or coming into contact with dirty water.
The mop wringer can be stowed inside the bucket for space-saving storage. With sturdy carry handle and two built-in castors for easy transport. Ideal for use in combination with PROFI floor mops.

Version	Art. No.	Pack Qty.	€
PROFI Evo mop wringer	**XP64.1**	1 unit(s)	91,40

Mops and sweeping sets



Mop head for PROFI floor mop

Leifheit.

PROFI micro duo
Optimum dirt pick-up thanks to duo-fibre system. Suitable for all floor types. Washable at 60 °C.

Pic.	Version	Art. No.	Pack Qty.	€
(1)	PROFI micro duo mop heads	**XP61.1**	1 unit(s)	23,65

PROFI cotton plus
With cotton, ideal for tiles and stone floors. Removes even coarse dirt. Washable at 60 °C.

Pic.	Version	Art. No.	Pack Qty.	€
(2)	PROFI cotton plus mop heads	**XP62.1**	1 unit(s)	23,65

PROFI static plus
For dry cleaning. Attracts dust and hairs using static electricity. Washable at 40 °C.

Pic.	Version	Art. No.	Pack Qty.	€
(3)	PROFI static plus mop heads	**XP63.1**	1 unit(s)	23,65



Window wiper Powerslide

Leifheit. Material: ABS.

For streak-free cleaning of smooth surfaces. Movable joint reduces wrist strain. Locking mechanism on handle to control wiping angle. Wiper width 280 mm.

Version	Art. No.	Pack Qty.	€
Powerslide window wiper	**XP65.1**	1 unit(s)	12,80



Brush and dustpan set

Leifheit. Material: PP.

Ergonomic non-slip handle. With special bristles and flexible rubber lip for easy collection of dirt. Large dirt chamber for safe transport.

Version	Art. No.	Pack Qty.	€
Brush and dustpan set	**XP66.1**	1 unit(s)	16,10



Brush and dustpan set ROTILABO®

ROTH SELECTION. Material: PP, Bristles made of polymex.

Square. Dustpan with brush comb and lip. L 330 x W 195 x H 90 mm.

Version	Length (mm)	Art. No.	Pack Qty.	€
Brush set	330	**ET50.1**	1 unit(s)	7,05

All-purpose vacuum cleaners



Floor vacuum cleaner bagless

Bosch.

- SmartSensor control: Sensor-controlled power monitoring with an LED signal for perfect cleaning results
- QuattroPower System: High-performance technology for excellent cleaning with low energy consumption
- SilenceSound System™: For an especially quite operating noise
- Fully automatic SelfClean system: Avoids contact with dust when cleaning the filter
- Intelligent SelfClean system: Automatic self-cleaning of the integrated filter system
- Washable HEPA hygiene filter: Suitable for allergy sufferers
- Telescopic tube with clip lock
- Electronic suction power regulation with rotary control
- Ergonomic premium handle for effortless vacuuming
- Easy to switch off and put away
- Automatic cable retraction system
- 4 swivel castors

Technical specifications:

Art. No.	KCY8.1
Type	Floor vacuum cleaner
Energy efficiency class	A
Dust emission class	A
Hard floor surface cleaning class	A
Carpet flooring cleaning class	C
Vol.	3 l
Cable length	8 m
Operating radius	11 m
Sound power level	66 db
Power consumption	700 W
L x W x H	470 x 310 x 320 mm
Weight	6,7 kg
Mains connection	220–240 V, 50 Hz

Delivery incl. 1 x switchable roller nozzle, 1 x hard floor surface nozzle, 1 x upholstery nozzle, 1 x crevice nozzle, 1 x furniture brush.

Type	Art. No.	Pack Qty.	€
Floor vacuum cleaner	**KCY8.1**	1 unit(s)	435,40



Multi-purpose vacuum cleaners NSG uClean 1432 ST

Electrostar.

For dry and wet cleaning.
Suitable for dust, coarse dirt particles and water. Container volume 32 l, of which dust 28 l, water 21 l. max. airflow 69 l/s.

Features:

- 32 l impact resistant special plastic container
- Water level detection
- Carry handle with hose reel and connector fixture
- Storage depots for accessories
- 2 swivel castors
- Parking aid

Technical specifications:

Art. No.	X247.1
Type	NSG uClean 1432 ST
Vol.	32 l
Cable length	8 m
Vacuum	259 mbar
Power consumption	1,400 W
IP rating	24
L x W x H	420 x 390 x 640 mm
Weight	9.3 kg

Delivery incl. 1 suction hose (Ø 4.9 cm, 1.75 m), 2 suction pipes (length 50 cm), 1 floor nozzle (width 36 cm), 1 coarse dirt nozzle, 1 crevice nozzle (length 16 cm), 1 fleece filter bag, 1 foam filter for extracting water and 1 dust filter cartridge.

Type	Art. No.	Pack Qty.	€
NSG uClean 1432 ST	**X247.1**	1 unit(s)	416,05



Pneumatic blow gun

Made of anodised aluminium. Robust construction. With short nozzle for thin jet. Working pressure up to 15 bar. Equipped with lever valve, connecting piece for pressure tubing with an inner width of 7 mm and integrated suspension eye.

Technical specifications:

Art. No.	5454.1
Type	Pneumatic blow gun
Weight	165 g

Type	Art. No.	Pack Qty.	€
Pneumatic blow gun	**5454.1**	1 unit(s)	20,35

All-purpose vacuum cleaners



Wet and dry battery-operated vacuum cleaner

Fakir.

Cordless vacuum cleaner for wet and dry dirt. Capacity for dry dirt 400 ml, for liquids 250 ml. Dust container is easy to empty, washable filter. With lithium-ion battery, charging dock and charge indicator light. Power consumption: 7,4 V; 2Ah. Operating time up to 23 min.

Technical specifications:

Art. No.	**HNP5.1**
Type	Wet and dry battery-operated vacuum cleaner
L x W x H	410 x 115 x 128 mm
Weight	985 g
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 1 x crevice nozzle, 1 x upholstery brush, 1 x liquids nozzle, 1 x charging dock with accessories deposit for wall mounting.

Type	Art. No.	Pack Qty.	€
Wet and dry battery-operated vacuum cleaner	**HNP5.1**	1 unit(s)	94,90



Pneumatic vacuum gun

For fine dust extraction with NW 10 connection for pressure tubing to fit pneumatic system or pressurised gas cylinder (nitrogen, air, argon). If necessary, the easy-to-empty needle-felt dust bag can be disposed of together with its contents. Put together, the suction pipe and nozzle are approx. 20 cm long and can be rotated continuously. The inlet slot has a clear width of 70 x 5 mm. For air pressure up to approx. 6 bar, suction volume 700 l/min., vacuum 40 kPa (0.4 bar).

Technical specifications:

Art. No.	**5776.1**
Type	Pneumatic vacuum gun
Weight	700 g

Type	Art. No.	Pack Qty.	€
Pneumatic vacuum gun	**5776.1**	1 unit(s)	332,20



Silicone grease ROTISILON®

Carl ROTH.

Technical specifications:

Art. No.	**0830.1**	**0830.2**	**0836.1**	**0836.2**	**8537.1**
Type	ROTISILON® A		ROTISILON® B		ROTISILON® C/D
Application temperature from	-48 °C		-45 °C		-40 °C
Application temperature up to	+150 °C		+180 °C		+200 °C

A

Grinding grease and lubricant for rubber on glass, liquid, applicable from -48 to +150 °C.

Type	Packaging type	Art. No.	Pack Qty.	€
ROTISILON® A	Bottle	**0830.1**	250 ml	23,55
ROTISILON® A	Bottle	**0830.2**	1 l	77,95

B

Universal grease, especially as tap grease, vaseline-like, transparent, applicable from -45 to +180 °C.

Type	Packaging type	Art. No.	Pack Qty.	€
ROTISILON® B	Can	**0836.1**	250 g	35,40
ROTISILON® B	Can	**0836.2**	1 kg	117,75

C/D

For normal vacuum (water jet pump), ointment shaped, transparent, applicable from -40 to +200 °C.

Type	Packaging type	Art. No.	Pack Qty.	€
ROTISILON® C/D	Can	**8537.1**	100 g	32,15

Grinding greases



Grinding grease KWS

Carl ROTH.

For vacuum, high-vacuum and backflow distillation.
Silicone-free, acid- and base-resistant. For greasing ground glass joints, can be used between -40 and +200 °C. Steam pressure 10^{-5} mbar. Excellent adhesion, viscosity and releasing properties.

Technical specifications:

Art. No.	0930.2	0930.1
Type	KWS grinding grease	
Application temperature from	-40 °C	
Application temperature up to	+200 °C	
Steam pressure	10^{-5} mbar	

Type	Packaging type	Art. No.	Pack Qty.	€
KWS grinding grease	Can	**0930.2**	50 g	33,50
KWS grinding grease	Can	**0930.1**	100 g	59,10



Vaseline

For greasing ground joints, desiccators, stopcocks, etc. Silicone-free. Density approx. 0.8 g/cm³, melting point approx. 52 °C.

Technical specifications:

Art. No.	E746.1
Type	Vaseline
Melting point	52 °C
Density	0.8 g/cm³

Type	Packaging type	Art. No.	Pack Qty.	€
Vaseline	Tube	**E746.1**	100 g	4,55



Silicone paste KORASILON®

For use as grinding paste, sealing paste, lubricant and protective paste. Moisture repellent. Also suitable as a sealant for electrical appliances, as a lubricant paste for cooling units and as a mould release agent. Temperature resistant in the range -50 to +200 °C.

Technical specifications:

Art. No.	0857.1	0855.1	0856.1
Type	high viscosity	low viscosity	medium viscosity

Low viscosity

Type	Packaging type	Art. No.	Pack Qty.	€
low viscosity	Tube	**0855.1**	35 g	7,40

Medium viscosity

Type	Packaging type	Art. No.	Pack Qty.	€
medium viscosity	Tube	**0856.1**	35 g	7,40

High viscosity

Type	Packaging type	Art. No.	Pack Qty.	€
high viscosity	Tube	**0857.1**	35 g	7,40

Range of silicon pastes KORASILON®

Consisting of 2 tubes each low viscosity, medium viscosity and high viscosity.

Technical specifications:

Art. No.	0858.1
Type	Range of KORASILON® pastes

Type	Packaging type	Pack.	Art. No.	Pack Qty.	€
Range of KORASILON® pastes	Tube	6 x 35 g	**0858.1**	1 set	31,70

Grinding greases



Silicone paste KORASILON® M-S 2

For use as a slip agent, lubricant and release agent for ground joints, apparatus, seals, valves, cables and wires, etc. Suitable for use as an assembly aid and as a protective and sealing paste. Colourless, odourless, non-toxic, hydrophobic, resistant to salt water and hot steam. Good electrical insulation, inert to many chemicals and resistant to micro-organisms.
Compliant with German BfR Recommendation XV. Silicone. Compliant with FDA 178.3570 „Lubricants with incidental food contact".
With NSF-H1 approval. Temperature stable between -40 and +200 °C.

Technical specifications:

Art. No.	APA7.1	APA6.1
Type	M-S 2-200	M-S 2-270

M-S 2-270, medium viscosity

Type	Packaging type	Art. No.	Pack Qty.	€
M-S 2-270	Tube	**APA6.1**	35 g	11,65

M-S 2-200, high viscosity

Type	Packaging type	Art. No.	Pack Qty.	€
M-S 2-200	Tube	**APA7.1**	35 g	11,65



Grinding grease water-soluble

Buddeberg.

Transparent grinding grease, washes off with water. Vacuum-proof up to 10^{-3} mbar. Can be used between -30 and +200 °C without change in consistency. Does not resinify. Biodegradable.

Technical specifications:

Art. No.	E691.1
Type	Grinding grease
Application temperature from	-30 °C
Application temperature up to	+200 °C

Type	Packaging type	Art. No.	Pack Qty.	€
Grinding grease	Tube	**E691.1**	80 g	38,25



NEW / +

Silicone-free laboratory grease glisseal N

Borer Chemie.

Vacuum-resistant, silicone-free laboratory grease for sealing and lubricating fixed and rotating glass joints and for lubricating plastic and metal connections.

- Vacuum-resistant
- Colour: Transparent
- Excellent temperature stability, permanently smooth consistency between -40 and +200 °C, temporarily up to 300 °C (in the absence of air)
- No drop point
- Chemically resistant to most acids, bases and gases
- Insoluble in water and low molecular weight mono- or polyhydric alcohols

Technical specifications:

Art. No.	1L7T.1
Type	glisseal N
Application temperature from	-40 °C
Application temperature up to	+200 °C
Steam pressure	2.7 x 10^{-5} mbar
Density	0.9 g/cm³

Not a medical device / Not an IVD product

Type	Packaging type	Art. No.	Pack Qty.	€
glisseal N	Tube	**1L7T.1**	60 g	39,70



NEW / +

Silicone-free laboratory grease glisseal HV

Borer Chemie.

Highly vacuum-resistant, silicone-free laboratory grease for sealing and lubricating fixed and rotating glass joints and for lubricating plastic and metal connections.

- Highly vacuum-resistant
- Colour: Dark brown
- Excellent temperature stability, permanently smooth consistency between -40 and +220 °C, temporarily up to 320 °C (in the absence of air)
- No drop point
- Chemically resistant to most acids, bases and gases
- Insoluble in water and low molecular weight mono- or polyhydric alcohols

Technical specifications:

Art. No.	**1L7X.1**
Type	glisseal HV
Application temperature from	-40 °C
Application temperature up to	+220 °C
Steam pressure	0.27 x 10^{-5} mbar
Density	0.9 g/cm³

Not a medical device / Not an IVD product

Type	Packaging type	Art. No.	Pack Qty.	€
glisseal HV	Tube	**1L7X.1**	60 g	40,35



High-temperature vacuum lubricant APIEZON® PFPE 501

M+I Materials.

Chemically inert lubricant, slip and sealing agent based on perfluoro-polyether and PTFE. Can be used between -15 and +250 °C.

- Extremely resistant to solvents and aggressive chemicals (including halogens, nitric acid, as well as gaseous and liquid oxygen)
- High load-carrying capacity, as well as excellent lubricating properties thanks to film-forming, highly dense perfluoropolyether structure
- Non-flammable, not poisonous
- Versatile; protects, lubricates and seals bearings, valves, gears, threads, O-rings, seals, etc.

Technical specifications:

Art. No.	**YT61.1**
Type	APIEZON® PFPE 501
Application temperature from	-15 °C
Application temperature up to	+250 °C
Steam pressure	1.3 x 10^{-12} torr
Density	2.003 g/cm³

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® PFPE 501	Tube	**YT61.1**	100 g	460,10



PTFE paste

Carl ROTH.

For sealing threads and ground joints. High viscosity, good lubricating properties, excellent electrical insulation. Chemically inert. Can be used between -30 and +290 °C.

Technical specifications:

Art. No.	**0124.1**
Type	PTFE paste
Application temperature from	-30 °C
Application temperature up to	+290 °C

Type	Packaging type	Art. No.	Pack Qty.	€
PTFE paste	Can	**0124.1**	100 g	163,95

Vacuum grease APIEZON®

M+I Materials.

Excellent lubricating and gettering properties and extremely low steam pressures.

- Chemically inert
- Silicone-free
- Non-toxic
- Temperature stable
- Usable for 10 years



❄❄❄

Technical specifications:

Art. No.	C986.1	C987.1	1686.1	1682.1	1683.1	1684.1	1685.1
Type	APIEZON® AP 100	APIEZON® AP 101	APIEZON® H	APIEZON® L	APIEZON® M	APIEZON® N	APIEZON® T
Melting point	+47 °C	> +200 °C	> +250 °C	+47 °C	+44 °C	+43 °C	+125 °C
Application temperature from	+10 °C	-40 °C	-10 °C	+10 °C		-269 °C	+10 °C
Application temperature up to	+30 °C	+180 °C	+240 °C	+30 °C			+120 °C
Steam pressure	7 x 10^{-11} torr	<1 x 10^{-5} torr	1,7 x 10^{-9} torr	7 x 10^{-11} torr	1,7 x 10^{-9} torr	6 x 10^{-10} torr	4,6 x 10^{-9} torr

APIEZON® AP 100

Suitable for high vacuums, resistant to acids, bases and corrosive gases. Effectively prevents ground glass joints and polished glass connections seizing.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® AP 100	Tube	**C986.1**	50 g	409,60

APIEZON® AP 101

High-performance lubricant for a wide temperature range. For medium vacuum.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® AP 101	Tube	**C987.1**	50 g	206,40

APIEZON® H

Versatile grease for very high temperatures. Rather than melting at high temperatures, becomes firmer at temperatures above 40 °C.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® H	Tube	**1686.1**	25 g	393,45

APIEZON® L

Additive-free special grease for high vacuums with high absorption capacity for other hydrocarbons. High resistance to radiation. Also suitable for use as a stationary phase in gas chromatography. Halogen-free.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® L	Tube	**1682.1**	50 g	401,00

APIEZON® M

All-purpose lubricant, similar to L, but with a higher wax content. Halogen-free.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® M	Tube	**1683.1**	100 g	321,45

APIEZON® N

High-vacuum lubricant for cryogenic applications with consistency-improving additive, making it tougher. Halogen-free.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® N	Tube	**1684.1**	25 g	425,70

APIEZON® T

All-purpose lubricant. For medium vacuum. Halogen-free.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® T	Tube	**1685.1**	25 g	377,35

Lubricants and sealants

Waxes and sealing agent APIEZON®

M+I Materials.

APIEZON® waxes W, W 40, W 100
Provide lasting, high-vacuum sealing, excellent gettering properties and low vapour pressures. Resistant to acids such as hydrofluoric acid, nitric acid and acetic acid. Can be removed with hydrocarbons and chlorinated hydrocarbons.

APIEZON® Q compound
For sealing joints and filling cracks. Especially suitable for vacuum technology when extremely low vapour pressures are not required. Waterproof.



Technical specifications:

Art. No.	AL06.1	AL06.2	AL07.1	AL08.1	AL09.1
Type	APIEZON® W		APIEZON® W 40	APIEZON® W 100	APIEZON® Q compound
Melting point	80–90 °C		40–50 °C	50–60 °C	40–50 °C
Application temperature from	-10 °C				
Application temperature up to	+75 °C		+35 °C	+45 °C	+30 °C
Steam pressure	4,5 x 10^{-9} torr		6 x 10^{-8} torr	4,5 x 10^{-9} torr	1 x 10^{-4} torr

APIEZON® W
Sealing agent for seams which can heat up during operation.

Type	Pack.	Art. No.	Pack Qty.	€
APIEZON® W	Block	**AL06.1**	1,000 g	335,40
APIEZON® W	Stick	**AL06.2**	20 g	21,80

APIEZON® W 40
Sealant can be poured into or around a joint.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® W 40	Can	**AL07.1**	250 g	407,45

APIEZON® W 100
The soft wax reduces the risk of cracking under vibrational stress.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® W 100	Can	**AL08.1**	250 g	407,45

APIEZON® Q compound
Versatile sealing agent for vacuum technology.

Type	Packaging type	Art. No.	Pack Qty.	€
APIEZON® Q compound	Can	**AL09.1**	1 kg	407,45



Special oil Ballistol®

Ballistol.

Pure, mildly alkaline special oil with cleaning, conserving, protecting, regenerating, impregnating, lubricating and disinfecting properties. Low surface tension, wets even the smallest cracks and gaps. Free from chlorinated hydrocarbons, environmentally friendly and biodegradable. Also suitable for use on wood and leather. Dermatologically tested and approved for parts coming into contact with product in the foodstuffs industry.

Technical specifications:

Art. No.	AA74.1	AA74.2	AA75.1
Type	Ballistol® oil		Ballistol®-spray

Ballistol® oil

Type	Packaging type	Art. No.	Pack Qty.	€
Ballistol® oil	Bottle	**AA74.1**	50 ml	5,15
Ballistol® oil	Bottle	**AA74.2**	500 ml	22,85

Ballistol®-spray

Propellant: Propane/butane/hexane:

Danger H222-H229

Type	Packaging type	Art. No.	Pack Qty.	€
Ballistol®-spray	Aerosol	**AA75.1**	200 ml	10,65



PTFE spray Sprayflon

Saint-Gobain.

Multi-purpose PTFE lubricant, slip and release agent with extremely low friction coefficient. Resistant against water, oil and aggressive media. Anti-adhesive, dirt-repellent, prevents freezing and is temperature stable up to +260 °C. Free from grease and silicone.
Propellant: Propane/butane.

Technical specifications:

Art. No.	K007.1
Type	Sprayflon

Danger H222-H229-H319

Type	Packaging type	Pack.	Art. No.	Pack Qty.	€
Sprayflon	Aerosol	300 ml	**K007.1**	1 unit(s)	26,20



Silicone spray KORASILON® release agent M

Silicone-based mould release agent for duromers and thermoplastic materials. With high, long-lasting release capacity. Its extremely thin spray film is easy to apply and provides improved lubricity, surface gloss and scratch resistance.
Heat resistant up to approx. 150 °C, leaves no residues on hot surfaces.
Propellant: butane/pentane/propane/isobutane

Technical specifications:

Art. No.	0895.1
Type	KORASILON® release agent M

Danger H222-H229-H315-H336-H411

Type	Packaging type	Art. No.	Pack Qty.	€
KORASILON® release agent M	Aerosol	**0895.1**	400 ml	10,50



PTFE flat sealing tape

Material: PTFE.

Self-adhesive, for pipe connections and other surfaces. Soft, easily adaptable, smoothes out irregularities. Temperature range: -240 to +270 °C. Pressure range: up to 120 bar. Vacuum leakage rate for helium: 1.3 x 10^3 mbar/s at 20 N/m^2 Surface pressure.
Width 3.0 mm, 1.5 mm thick.

Technical specifications:

Art. No.	0801.1
Type	PTFE flat sealing tape
Application temperature from	-240 °C
Application temperature up to	+270 °C

Type	Art. No.	Pack Qty.	€
PTFE flat sealing tape	**0801.1**	2.5 m	43,95



Acrylic resin Paraloid™ B-72

Carl ROTH.

Transparent, light-resistant thermoplastic acrylic resin for preserving samples, and for coating and sealing wood, stone, metals and other materials. The coating is permanently stable and non-yellowing. Compatible with cellulose, silicone, PVC, and many other plastics and metals. Resistant to water and many chemicals. Dissolves in toluene or ethyl acetate. Can be applied with a brush, spray gun or in an immersion bath. Hardens by air drying or heat exposure (approx. 30 min. at 150 °C).

Technical specifications:

Art. No.	**9639.1**	**9639.2**
Type	Paraloid acrylic resin™	

Type	Art. No.	Pack Qty.	€
Paraloid acrylic resin™	**9639.1**	1 kg	80,10
Paraloid acrylic resin™	**9639.2**	5 kg	231,15



Zaponlack

Carl ROTH.

Fast-drying clear varnish based on nitrocellulose. Crystal clear, for sealing copper or brass against oxidation, and for fixing paper, wood, glass, leather, etc. Apply by brushing, spraying or dipping.

Technical specifications:

Art. No.	**6804.1**
Type	Zaponlack

Danger H225-H315-H318-H336-H412

Type	Art. No.	Pack Qty.	€
Zaponlack	**6804.1**	500 ml	51,50



Urea hydrogen peroxide

Carl ROTH.

Readily soluble oxidising agent. Tablet Ø 12 mm, weight 1.0 g. Mass percentage of H_2O_2 at least 35%, mass percentage of active oxygen at least 16.5%. Use as bleaching or fixing agent in the laboratory sector.

Danger H272-H315-H318-H335

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
Urea hydrogen peroxide	**7641.1**	500 g	62,25



Instant glue CA221

Ethyl cyanoacrylate based single-component instant glue for plastics, metals and porcelain. The adhesive bonds are to a large degree temperature- and chemical-resistant. Not suitable for permanent contact with water. Starts to harden in less than 1 minute and cures fully after 8–10 hours. Storage temp. +10 °C. Shelf life approx. six months.

Technical specifications:

Art. No.	**0258.1**
Type	CA 221

Warning H315-H319-H335

CA 221

Type	Art. No.	Pack Qty.	€
CA 221	**0258.1**	10 ml	6,85





One-component silicone rubber

For gluing, sealing, and coating. Highly chemical-resistant, UV/ozone-resistant. Polymerises at room temperature due to the air humidity to form a permanently elastic rubber.

Technical specifications:

Art. No.	E046.1	2024.1
Type	Scrintec® 600	Scrintec® 901

600 oxime cross-linking
Paste-like, transparent. Temperature-resistant from -50 to +180 °C.

Spec. weight 1.02 g/cm³, Shore hardness 20°.

Warning H317-EUH208

Type	Pack.	Art. No.	Pack Qty.	€
Scrintec® 600	85 ml	**E046.1**	1 tube	17,00

901 acetic acid cross-linking
Fluid, opaque red. Temperature-resistant from -60 to +250 °C.

Spec. weight 1.20 g/cm³, Shore hardness 35°.

Warning H315

Type	Pack.	Art. No.	Pack Qty.	€
Scrintec® 901	85 ml	**2024.1**	1 tube	17,75



One-component adhesive filler Autostic FC8

One-component adhesive filler for connecting, sealing, coating or gluing ceramics, glass, quartz crystal, metal, etc.
Max. usage temperature +1000 °C, non-flammable. Ready to use, viscosity 3000 MPa. Setting occurs at room temperature or can be accelerated by heating at up to 90 °C. Depending on temperature, humidity and the properties of the material to be glued as well as the required layer thickness, setting is complete after 36–48 h.

Technical specifications:

Art. No.	0279.1
Type	Autostic FC8

Type	Art. No.	Pack Qty.	€
Autostic FC8	**0279.1**	500 g	85,95

NEW / +

Epoxy systems

Carl ROTH.

For connecting metal, ceramic or plastics to each other or to other parts of the same material. For pouring out columns in these materials.

Technical specifications:

Art. No.	2545.2	2530.1	2545.1	2551.1	2551.2
Type	G2 cast resin	B1 adhesive	G2 cast resin	H2 hardener	

Araldit® B 1 adhesive
Epoxy-based, low viscosity, transparent. For connecting metal parts and filling hollow spaces. Hardens with Hardener H 2 (mixed in a ratio of 100:8 by weight).

Warning H315-H317-H319-H411-EUH205

Type	Art. No.	Pack Qty.	€
B1 adhesive	**2530.1**	500 g	134,40

Araldit® G 2 cast resin
Epoxy resin, low viscosity. Suitable for pouring in and embedding electronic components. Hardens at room temperature with Hardener H 2 (mixed in a ratio of 10:1 by weight).

Warning H315-H317-H319-H411-EUH205

Type	Art. No.	Pack Qty.	€
G2 cast resin	**2545.2**	1 kg	112,90
G2 cast resin	**2545.1**	500 g	60,75

Aradur® H 2 hardener
Liquid.

Danger H302+H312-H314-H317-H412

Type	Art. No.	Pack Qty.	€
H2 hardener	**2551.1**	100 g	24,65
H2 hardener	**2551.2**	500 g	92,35



Two-component adhesive Araldite® Rapid

With an epoxy resin base. Suitable for many materials with the exception of PP, PE, PTFE, PVC and Acryl. Fast-setting, heat-resistant up to +100 °C, resistant to alcohol, water, petrol, mineral oils and similar substances, mixing 1:1. Process of setting starts after five minutes, will support itself after another 15 minutes and is fully stable after 8–10 hours. Kit contains 15 ml each of component A and B.

Technical specifications:

Art. No.	**3131.1**
Type	Araldite® Rapid

Warning H315-H317-H319-H411

Type	Packaging type	Pack.	Art. No.	Pack Qty.	€
Araldite® Rapid	Tube	2 x 15 ml of each component A and B	**3131.1**	2 pack(s)	67,65



Two-component sealing resin Metaflux®

Two-component epoxy resin for quick repair of metal, porcelain, wood and stone, for sealing pipes and tanks, and for filling out irregularities and holes. Also ideal under water. Hardens within three hours at 20 °C. Heat-resistant up to +200 °C, suitable for mechanical processing. Compressive strength 7840 N/cm², tensile strength 2940 N/cm². Mixture 1:1.

Technical specifications:

Art. No.	**1279.1**
Type	Metaflux®

Warning H315-H317-H319-H412-EUH205

Type	Art. No.	Pack Qty.	€
Metaflux®	**1279.1**	400 g	42,90



Hot glue gun Gluematic 5000

Steinel.

Cordless hot glue gun with extremely high melting capacity.

- Very short heating times
- Glue is heated automatically when the unit is placed onto the charging dock
- Electronic temperature control using state-of-the-art PTC heating technology
- Continuous operation with power cable possible
- Energy-saving standby mode
- Mechanical glue stick feeder for speedy, well-metred working
- Replaceable glue nozzles

Technical specifications:

Art. No.	**PE36.1**
Type	Hot glue gun
Length	185 mm
Width	32 mm
Height	180 mm
Weight	330 g
Performance	120/500 W
Warm-up period	3–5 min
Melt temperature	210–220 °C
Delivery rate	22 g/min

Delivery incl. charger with drip protection, short nozzle Ø 2.0 mm, long nozzle Ø 2.8 mm, five Ultra Power glue sticks, power cable.

Type	Art. No.	Pack Qty.	€
Hot glue gun	**PE36.1**	1 unit(s)	76,70



Electrical insulating tape

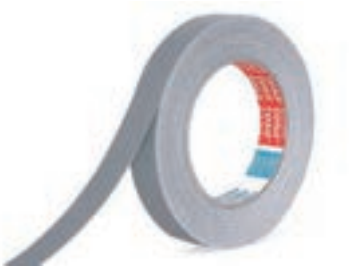
Material: PVC, high-gloss.

Tape made of high-gloss **PVC**, synthetic rubber adhesive. Temperature-resistant from -10 to 105 °C. Resistant to moisture, oil, diluted acids and bases, as well as UV radiation. Penetration resistance 40 kV/mm. Good adhesive force and high flexibility, elongation at break ≥ 160%, tear strength 18.0 N/mm². Width 19 mm, thickness 0.19 mm, roll length 20 m, weight 100 g.

Technical specifications:

Art. No.	**1256.1**
Type	Electrical insulating tape
Width	19 mm
Thickn.	0,18 mm

Type	Pack.	Art. No.	Pack Qty.	€
Electrical insulating tape	20 m	**1256.1**	1 roll(s)	7,00



Adhesive tape tesaband® Premium

Fabric tape, 25 mm wide. Wear- and tear-resistant. Good adhesion even on rough surfaces. Labellable. Temperature-resistant up to +130 °C.

Technical specifications:

Art. No.	**1263.2**
Type	tesaband® Premium adhesive tape
Width	25 mm

Type	Pack.	Art. No.	Pack Qty.	€
tesaband® Premium adhesive tape	25 m	**1263.2**	1 roll(s)	31,45



Adhesive tape Scotch Mount 4032

Material: PU.

Double-sided adhesive foam tape. For fixing down surfaces to prevent slipping, or as an adhesive tape for boards, posters, etc. Slightly tensile, good adhesion, and easy to remove. Width 25 mm, thickness 0.8 mm.

Technical specifications:

Art. No.	**1283.1**
Type	Scotch Mount 4032
Width	25 mm
Thickn.	0,8 mm

Type	Pack.	Art. No.	Pack Qty.	€
Scotch Mount 4032	11 m	**1283.1**	1 roll(s)	127,95



PTFE thread sealing tape

ROTH SELECTION. Material: PTFE.

Protects, seals and secures all types of thread. Highly flexible, usable from -190 to +260 °C. Chemically inert. Tape width 12 mm, thickness 0.08 mm. Roll length 12 m.

Technical specifications:

Art. No.	**1715.1**
Type	PTFE thread sealing tape
Application temperature from	-190 °C
Application temperature up to	+260 °C

Type	Pack.	Art. No.	Pack Qty.	€
PTFE thread sealing tape	3 x 12 m	**1715.1**	3 roll(s)	5,75



O-ringset Loctite®

Ideal for making different sized O-ring seals. Work pack with approx. 20 g special glue, cutter, 1 m elastic bands each with Ø 1,6; 2,4; 3,0; 5,7 en 8,4 mm and instructions. Drying time for rings approx.10 min.

Technical specifications:

Art. No.	**1725.1**
Type	O-ringset Loctite®

Type	Art. No.	Pack Qty.	€
O-ringset Loctite®	**1725.1**	1 set	95,95



Adhesive tape Velcro strip

Easily removable, consists of a hook-and-loop component with self-adhesive back. Fastener is closed by gently pressing hooks into the loops, which is ideal for applications where a high amount of opening and closing is expected. Approx. thickness when closed 2.5 mm. Length 230 cm, width 25.4 mm.

Technical specifications:

Art. No.	**K956.1**
Type	Velcro strip
Width	25.4 mm
Thickn.	2,5 mm

Type	Pack.	Art. No.	Pack Qty.	€
Velcro strip	2,3 m	**K956.1**	1 roll(s)	53,25



Adhesive tape Snap-fastening strip

Self-adhesive, flexible. Adhesion based on the interlocking of semi-spherical heads (62 heads/cm²). Provides extremely secure and resilient connections to most materials, with a high level of permanent adhesive power. Approx. thickness when closed 5.8 mm. Length 230 cm, width 25.4 mm.

Technical specifications:

Art. No.	**0295.1**
Type	Snap-fastening strip
Width	25.4 mm
Thickn.	5,8 mm

Type	Pack.	Art. No.	Pack Qty.	€
Snap-fastening strip	2,3 m	**0295.1**	1 roll(s)	48,95



Heat protection foil

Material: Aluminium.

Self-adhesive, made of 0.05 mm thick aluminium foil, for adhering window panes and other smooth surfaces, 50 cm wide. Temperature stable up to +80 °C.

Type	Pack.	Art. No.	Pack Qty.	€
Heat protection foil	5 m	**0193.1**	1 roll(s)	28,95



Gas-leak tester Roth

Carl ROTH.

Special liquid for detecting even the smallest of leaks in tubing or hollow spaces that are subject to gas or air pressure. Non-toxic, non-flammable, non-corrosive. Suitable for compressed air, butane, natural gas, town gas, propane, CO_2, O_2, N_2, H_2 and ammonia. Spray onto areas with suspected leaks. If there is a leak, foam bubbles will form.

Packaging type	Pack.	Art. No.	Pack Qty.	€
Spray bottle	500 ml	**2686.1**	1 unit(s)	20,40



Leak finder spray ECO

CRC.

For reliable location of leaks on gas pipes and compressed air systems. Produces easily visible foam bubbles at the site of leaks. Suitable for e.g. natural gas, propane, butane, acetylene, nitrogen, carbon dioxide, refrigerant and oxygen. Compatible with plastics and metals, non-corrosive. DVGW-tested in accordance with DIN EN 14291:NG-5170AS0069 and with NSF-P1 registration for food technology.

Propellant: N_2O.

Warning H229-H319-EUH208

Packaging type	Pack.	Art. No.	Pack Qty.	€
Aerosol	500 ml	**HAN3.1**	1 unit(s)	11,85



Heating bath fluid ROTITHERM® H 250

Carl ROTH.

Silicone oil for heating baths. Colour: Colourless.

- Density at 0 °C: 1.05 g/cm³
- Density at 23 °C: 0.90 g/cm³
- Heat stability: +250 °C
- Coefficient of thermal conductivity W/ (m x K): 0.131
- Flash point: > 295 °C
- Combustion point: > 360 °C
- Pour point: -65 °C
- Vapour pressure:
  at +20 °C: ~1.33 x 10^{-4} N/m (10^{-6} Torr)
  at +150 °C: ~1.33 x 10^{-2} N/m (10^{-4} Torr)
- Kinematic viscosity:
  at +20 °C: 200 mm² s^{-1} (cSt)
  at +100 °C: 34 mm² s^{-1} (cSt)

Type	Art. No.	Pack Qty.	€
ROTITHERM® H 250	**1670.1**	1 l	170,95
ROTITHERM® H 250	**1670.2**	10 l	1.451,25



NEW / +

Heating bath fluid ROTITHERM® M 220

Carl ROTH.

Silicone oil for heating baths. Colour: Brown.

- Density at 0 °C: 1.00 g/cm³
- Density at 23 °C: 0.85 g/cm³
- Heat stability: +220 °C
- Coefficient of thermal conductivity W/ (m x K): 0.170
- Flash point: > 320 °C
- Combustion point: > 360 °C
- Pour point: < -50 °C
- Vapour pressure:
  at +20 °C: ~10^{-4} mbar
  at +150 °C: ~10^{-2} mbar
- Kinematic viscosity:
  at +20 °C: 1000 mm² s^{-1} (cSt)
  at +100 °C: 300 mm² s^{-1} (cSt)

Type	Art. No.	Pack Qty.	€
ROTITHERM® M 220	**0991.1**	1 l	64,40
ROTITHERM® M 220	**0991.2**	5 l	284,90



Heating bath fluid ROTITHERM® M 150

Carl ROTH.

Silicone oil for heating baths. Colour: Colourless.

- Density at 0 °C: 1.00 g/cm³
- Density at 23 °C: 0.85 g/cm³
- Heat stability: +150 °C
- Coefficient of thermal conductivity W/ (m x K): 0.163
- Flash point: > 310 °C
- Combustion point: > 370 °C
- Pour point: < -50 °C
- Vapour pressure:
  10^{-5} to 10^{-4} mbar from +25 °C to +175 °C
- Kinematic viscosity:
  at +25 °C: 100 mm² s^{-1} (cSt)
  at +100 °C: 32 mm² s^{-1} (cSt)

Type	Art. No.	Pack Qty.	€
ROTITHERM® M 150	**0990.1**	1 l	59,05
ROTITHERM® M 150	**0990.2**	5 l	246,20



Floating balls

Material: PP.

Made of **PP**. Reduce evaporation, quick temperature loss and bad-smelling or corrosive vapours. Resistant to many acids, bases, solvents and mineral oils. Temperature stable up to +100 °C.

Ø Ball (mm)	Art. No.	Pack Qty.	€
20	**A753.2**	1,000 unit(s)	106,65



Boiling pebbles

ROTH SELECTION.

Reduce boiling delay and guarantee even distillation of low-viscosity liquids.

Type A
For normal distillation. Clay-bonded natural stone product primarily made of quartz grains. Low traces of iron present.

- Suitable for vacuum distillation
- Grain size approx. 5–8 mm
- 75 g = approx. 1000 items

Type	Art. No.	Pack Qty.	€
Type A	**1691.1**	75 g	18,20

Type B
For analytical purposes. Natural, alkaline clay silicate, without zeolite.

- Grain size up to approx. 5 mm
- 80 g = 1700 items

Type	Art. No.	Pack Qty.	€
Type B	**1692.1**	80 g	20,45



Boiling pebbles made of PTFE

ROTH SELECTION. Material: PTFE.

Unevenly shaped granulate, prevents uncontrolled overheating of solutions when heating volatile liquids. Resistant and inert to most aggressive chemicals (acids, bases, hydrocarbons).

- Does not leave scratches or powder residue on glass
- Maximum use temperature +260 °C
- Grain size 1 to 5 mm.

Type	Art. No.	Pack Qty.	€
Boiling pebbles made of PTFE	**L429.1**	50 g	10,35



Boiling pebbles Resistant

ROTH SELECTION.

For preparation and analysis work in biochemistry, biotechnology, microbiology, microanalytics, etc. Can be used for vacuum and high-vacuum distillation, even in very small amounts of liquid.
No abrasion, no absorption of solvents, start working again after every interruption. Can even be used in strong acids, bases, aggressive solvents and oxidants.

- Can be sterilised by annealing
- Grain size approx. 3–4 mm
- 50 g = 1785 items

Type	Art. No.	Pack Qty.	€
Resistant boiling pebbles	**H751.1**	50 g	33,80



Magnesia scoops

ROTH SELECTION.

For annealing and incineration of samples, as well as for the production of oxygen melts for the detection of chromium, manganese, etc. and for bead tests.

Dimensions: Length 100 mm x width 9 mm.

Type	Art. No.	Pack Qty.	€
Magnesia scoops	**6537.1**	25 unit(s)	30,00



Magnesia rods

ROTH SELECTION.

For flame colouration when detecting sodium, etc. For producing borax beads when detecting cobalt. For bead tests.

Dimensions: Ø 1.5 x length 140 mm.

Type	Art. No.	Pack Qty.	€
Magnesia rods	**6543.1**	25 unit(s)	28,10



Glass beads

ROTH SELECTION. Material: Soda-lime glass.

- Bulk weight 1.46–1.51 kg/l depending on size
- Refractive index 1.5188
- Specific weight approx. 2.5 g/cm³

Chemical composition: SiO_2 72.3%; Na_2O 13.3%; CaO 8.9%; MgO 4.0%; other 1.5%.

0,25 - 0,5 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
0,25 - 0,5	**A553.1**	1 kg	34,30

0,75 - 1,0 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
0,75 - 1,0	**A554.1**	1 kg	34,30

1,25 - 1,65 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
1,25 - 1,65	**A555.1**	1 kg	34,30

1,7 - 2,1 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
1,7 - 2,1	**A556.1**	1 kg	34,30

2,85 - 3,45 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
2,85 - 3,45	**A557.1**	1 kg	34,30



Glass beads

ROTH SELECTION. Material: Soda-lime glass.

Glass beads made of highly pure soda-lime glass. Manufactured using a special process that enables the production of beads with extremely high roundness in sizes from 4 mm upwards.
Use as agitating beads and mixing beads for aerosol sprays, as valve balls for bottle seals. Thanks to their high degree of purity, the glass balls are also suitable for use as grinding and dispersion balls for wet grinding of pigments, agrochemicals and biological or other preparations.

- Very smooth surface
- Low proportion of air bubbles
- Refractive index 1.5159
- Specific weight approx. 2.5 g/cm³

Chemical composition: SiO_2 68.1%; Na_2O 15.0%; CaO 8.3%; MgO 2.5%; Al_2O_3 3.3%; other 2.80%.

4 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
4 ± 0,3	**HH55.1**	1 kg	34,30

5 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
5 ± 0,3	**HH56.1**	1 kg	34,30

10 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
10 ± 0,5	**HH57.1**	1 kg	34,30

14 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
14 ± 0,5	**HH58.1**	1 kg	34,30

20 mm

Ø Ball (mm)	Art. No.	Pack Qty.	€
20 ± 0,5	**HH59.1**	1 kg	117,20

Chemical resistance of plastics

Chemicals at 20 °C	MF	ETFE	PA	PC	HDPE	LDPE	PMMA	POM	PP	PS	PTFE/ FEP	PVC	SAN	PMP	PVDF
Acetaldehyde		❍	❍	–	❍	❍	–	❍	–	–	●	–	–	❍	–
Acetic Acid, glacial	❍	❍	–	–	❍	❍	–	–	❍		●			❍	❍
Acetone	●	❍	●	–	●	❍	–	●	●	–	●	–	–	❍	–
Acetonitrile		●	●	–	●	●	–	❍	–	–	●	–		–	❍
Acetylene (Ethine)		●	●	●	●	●		●	●		●		–		●
Aluminum Chloride, saturated			–	❍	●	●	●	–	●		●	❍	●		●
Ammonia, pure		●		–	●	●	❍		●	❍	●		❍	❍	–
Ammonium Chloride, solid	●		●	●	●	●	●	❍	●		●				●
Aqua Regia	–	●	–	–	–	–		–	–	–	●	–	–	❍	–
Ascorbic Acid, water solution		●	❍	❍	●	●		❍	●		●				●
Benzaldehyde		❍	–	–	❍	❍	–	●	❍	–	●	–	❍	●	❍
Benzine	●	●	●	❍	❍	–	❍	●	–	–	●	❍	–	❍	●
Benzoic Acid, saturated		●	–	–	●	●	●	❍	❍	❍	●	●	●	●	●
Benzol	●	●	❍	–	–	–	–	❍	–	–	●	–	–	❍	●
Calcium Chloride, water solution		●	●	●	●	●	●	❍	●	●	●	●	●	●	●
Carbon Tetrachloride (TETRA)	●	●	–	–	–	–		❍	–	–	●	–	–	–	❍
Chlorine 97 %			–	–	–	–	❍	–	–	–	●	–	–	–	●
Chlorine, water solution		●	–	–	❍	–	❍	–	–	–	●	❍	❍	–	●
Chlorobenzene		●	–	–	–	–	–	●	–	–	●	–	–	–	●
Chloroform (Trichloromethane)	●	❍	–	–	–	–	–	–	–	–	●	–	–	–	❍
Copper(II) Chloride, saturated			–	●	❍	●		❍	❍		●	●		●	❍
Cyclohexane	●	●	●	❍	–	–	❍	●	–	–	●	❍	❍	–	●
Decahydronaphtalene		●	●	–	❍	–	–	●	–	–	●	❍	–	–	❍
Dichloromethane (Methylene Chloride)		❍	–	–	–	–		❍	–	–	●	–	–	–	❍
Diethyl Ether		●	●	–	–	–	–	●	–	–	●	–	–	–	❍
Dimethyl Formamide (DMF)		❍	●	–	●	❍		●	●	–	●	–	–	●	–
Dimethyl Phtalate (DMP)			❍	–	–	❍		❍	❍	–	●	–	–		❍
Dimethylsulfoxide (DMSO)		●	❍	–	●	●		●	●	●	●	–		●	–
1,4-Dioxane		●	●	–	❍	❍	–	●	❍	–	●	–	–	❍	–
Ethanol 96 %	●	●	●	❍	●	●	–	●	●	–	●	❍	❍	●	●
Ethyl Acetate	●	●	●	–	❍	–		●	❍	–	●	–	–	–	–
Ethylene Chloride		●	–	–	❍	❍		●	–	–	●	–	–	–	●
Ethylene Glycol	●	●	❍	❍	●	●	❍	●	●	●	●	❍	●	●	●
Ethylenediaminetetraacetic Acid (EDTA)		●	❍	❍	●	●		●	●		●				●
Fluorinated Alcanes (FKW)		●	❍	❍		–		❍	❍	–	●				–
Fluorine		❍	–	–	–	–		–	–	–	❍	❍	–	–	❍
Formaldehyde 40 %		●	❍	●	●	❍	●	●	●	–	●	❍	–	●	●
Formic Acid 98 %	●	●	–	–	●	●	–	–	❍	–	●	❍	–	❍	❍
Glycerine	●	●	●	❍	●	●	●	●	●	●	●	❍	●	●	●
Haloalkanes (FCKW)			❍	❍				●	❍	–	●				❍
n-Heptane		●	●	●	❍	–	●	●	❍	–	●		●	❍	●
n-Hexane		●	●	❍	❍	–		●	❍	–	●		●	–	●
Hydrobromic Acid 50 %		●	–	–	●	●		–	●	–	●	❍		–	❍
Hydrochloric Acid, concentrated	–	●	–	–	●	●		–	●	❍	●	❍	❍	●	●
Hydrofluoric Acid, concentrated	–		–	–				–	❍		●				●
Hydrogen Chloride, gasious			–	–	●			–	●		●	❍			●
Hydrogen Peroxide 90 %	–	●	–	●	●	●	–	–	●	●	●	❍		●	–
Mercury		●	●	●	●	●		●	●	●	●	❍	●	●	●
Methanol		●	❍	–	●	●	–	●	●	–	●	❍	–	●	●
Methyl Ethyl Ketone (MEK)		❍	●	–	❍	–	–	●	❍	–	●	–	–	–	–
Methyl Methacrylate			❍	–				❍	❍	–	●	–		–	❍
Oleum (fuming Sulfuric Acid)			–	–	–	–	–	–	–	–	●	–		–	–
Oxalic Acid		●	–	●	●	●	●	–	●	●	●	●	●	●	❍
Oxygen			❍	●	❍	❍		●	❍	●	●	●			●
Perchloric Acid 70 %		●	–	–	❍	–		–	–	❍	●	–		❍	❍
Petroleum Ether			●	–	❍	❍		●	❍	–	●	❍	❍	●	❍
Phenol		●	–	–	❍	❍	–	–	●	–	●	–	–	●	●
Phosphoric Acid 85 %	–	●	–	●	●	●	❍	–	●	●	●	●	●	●	●
Phosphoryl Chloride			–	–	❍	❍		–	❍		●	–			–
Potassium Hydroxide, concentrated	–	●	●	–	●	●	●	❍	●	❍	●	●	❍	●	–
Potassium Permanganate		●	–	●	❍	●	❍	●	●	❍	●	❍	❍	●	●
Pyridine		●	●	–	❍	❍		●	❍	–	●	–	–	❍	–
Salicylic Acid, saturated		●	●	●	●	●		–	●	●	●	❍	●	●	●
Silver Nitrate, water solution			●	●	●			●	●		●				●
Sodium Hydroxide, concentrated	–		❍	–	●	●	●		●		●				–
Sodium Thiosulfate		●	●		●	●		●	●		●		●		●
Sulfuric Acid 95 %		●	–	–	–	–	–	–	–	–	●	❍	–	❍	●
Tetrahydrofuran (THF)	●	❍	●	–	–	–	–	●	–	–	●	–	–	–	–
Thionyl Chloride		●	–	–	–	–		❍	–	–	●	–	–	–	–
Tincture of Iodine		●	–	–	❍	❍	–	●	●	❍	●	–	❍	●	●
Toluene		●	●	–	❍	❍	–	–	❍	–	●	–	–	❍	●
Trichloroacetic Acid (TCA)			–	–	❍	–		–	●	–	●	–			❍
Trichloroethylene (TRI)		●	–	–	–	–		–	–	–	●	–	–	–	●
Urea	●	●	●	●	●	●	●	●	●	●	●	❍	●	●	●
Xylene		●	●	–	–	–	–	●	–	–	●	–	–	–	●

● resistent
❍ conditionally resistent
– not resistent

All values given in this table refer to plastic raw material and can only be regarded as guidelines. As the chemical resistance may vary with different conditions of manufacturing or environmental influences, suitability tests by the user are highly recommanded.
No legal claims can be derived from this information; nor do we accept any liability for it.

Information on brands, purities and applications

▷	see
>	more than
<	less than
min	minimum
max	maximum
µm	0,001 mm
~	approximate
$[\alpha]_D^{20}$	specific rotation
+4 °C	storage in refrigerating room/refrigerator
-20 °C	storage in deep-freeze room/freezer
®	registered symbol, registered trade mark
	GHS01 exploding bomb
	GHS02 flame
	GHS03 flame over circle
	GHS04 gas cylinder
	GHS05 corrosion
	GHS06 skull and crossbones
	GHS07 exclamation mark
	GHS08 health hazard
	GHS09 environment
Å	Ångström = 10^{-10} m
abs	absolute
ACS	American Chemical Society
ADR	European agreement on international road transport of hazardous goods
Amp.	ampoule
aq	water
art.	artificial
asym.	asymmetrical
awg	hazardous to water in general (see WGK)
BP	British Pharmacopoeia
bp	boiling point, boiling range
c	amount-of-substance concentration
CAS	Chemical Abstract Service
CAS No	unique numeric identifier for chemicals
CELLPURE®	suitable for cell culture
C.I. No	colour index number
conc.	concentrated
cP	centipoise
cryst.	crystallised
cSt	centistokes
D	density
DAB	Deutsches Arzneibuch (German Pharmacopoeia)
DAC	Deutscher Arzneimittel-Codex (German Drugs Codex)
dec.	decomposition
dist.	distilled
DIN	German Industrial Standards
EN	European Norm or European Standard
EC no	the official number of a chemical substance that is commercially available within the EC
ERD	empfohlenes Retestdatum (recommended retest date)
extra pure	suitable for laboratory use
FCC	Food chemical codex
FIP	Fédération Internationale Pharmaceutique
flp	flash point
g	gram or gramme
GC	gas chromatography
(GC)	content defined by gas chromatography
H	Hazard statement acc. to regulation (EC) No 1272/2008 (CLP, GHS)
HPLC	high performance liquid chromatography
IE	Internationale Einheit (international unit)
ISO	International Organization for Standardization
IU	international unit
IVD	*In-vitro* diagnostics
JP	Japanese Pharmacopoeia
kg	kilogram or kilogramme
KU	Kilo unit
l, ltr	litre
Lit.	literature
LSC	liquid scintillation counting
lyophil.	lyophilised (readily soluble form)
M or mol/l	molarity, amount-of-substance concentration
M	molecular weight or molar mass
m%	percentage by mass
mg	milligram or milligramme
ml	mililitre
Mol.%	molar percent
MP	Medical product
mp	melting point, melting range
MU	Mega unit
nat.	natural
n_D	refractive index
nwg	non-hazardous to water (see WGK)

Abbreviations and Symbols

P	Precautionary statement acc. to regulation (EC) No 1272/2008 (CLP, GHS)
Pa s	Pascal second
p.a.	pro analysi = for analytical purposes
PEPTIPURE®	suitable for peptide synthesis
Pestilyse®	solvent, suitable for residue analysis (environmental, water and food analysis)
pH	pH value
pK_a	pK_a value
pharma.	pharmaceutical quality, for pharmaceutical purposes
Ph.Eur.	European Pharmacopoeia
ppb	parts per billion = 1 µg per kg
ppm	parts per million = 0,0001 %, 1 mg per kg
ppt	parts per trillion = 1 ng per kg
prim.	primary
PUFFERAN®	can be used as buffer
pulv.	pulverised
pure	suitable for synthesis and laboratory use
rect.	rectification
redist.	redistilled
resubl.	resublimated
ROTICHROM®	suitable as reference substance in chromatography
ROTICHROM® CHR	chromatographically pure reference substances that are chromatographically (HPLC, GC, etc.) tested for their purity and are supplied without a chromatogram
ROTICHROM® CHR_{TLC}	compound in this catalogue is designated asbeing thin-layer chromatographically pure (CHR_{TLC}) if no impurities can be detected under experimental conditions with 20 µg sample
ROTICHROM® ~CHR_{TLC}	for products with impurities which under our conditions, (see CHR_{TLC}), allow the main compound to be designated; such products can be identified as being „approximately thin-layer chromatographically pure“ (~CHR_{TLC})
ROTICHROM® GC	reference substance for gas chromatography, delivered with GC chromatogram
ROTICHROM® HPLC	reference substance for HPLC, delivered with HPLC chromatogram
ROTICHROM® TLC	reference substance for thin-layer chromatography, delivered with thin-layer chromatogram
ROTICUBE®	combi-box of 5 litre or 10 litre, consisting of a stable outer card box with inner bag made of PE; comes with stopcock
ROTIDRY®	dried solvents, filled under protective gas
ROTIPHORESE®	product is suitable for electrophoresis
ROTIPURAN®	highly pure product, suitable for analysis
ROTISOLV®	solvent tested for specific applications (e.g. HPLC, LC-MS, GC, Head-Space)
ROTITAINER®	stackable containers that are convenient to handle. Matching safety pumps are available
sec.	secondary
SOLVAGREEN®	solvents and products that comply with the principles of green chemistry and are either obtained from renewable resources or are considered to be less environmentally hazardous than traditional solvents
stab.	stabilised
subl.	sublimated
sym.	symmetrical
synth.	synthetic
techn.	technical quality. Products with the purity designation *„technicum“* feature a different content. They are generally mass produced and may have a slightly foreign odour and colour. They are used for general technical purposes.
tert.	tertiary; standard for thin-layer chromatograhy (TLC)
TLC	thin layer chromatography
U	unit
USP	United States Pharmacopoeia
WGK	Wassergefährdungsklasse, German Water Hazard Class (on the basis of the Ordinance on facilities for handling substances that are hazardous to water, AwSV)
WGK 1	generally hazardous to waters
WGK 2	clearly hazardous to waters
WGK 3	severe hazardous to waters
wt.% or wt%	percentage by weight

Classification & Labelling acc. to (EC) 1272/2008

Hazard Pictograms

The hazard pictogram on the designation label indicates the main hazard arising from a substance. If there are several hazardous qualitiies, several symbols are necessary.

Each pictogram is allocated a hazard designation and coding that do **not** appear on the designation label.



GHS01
exploding bomb



GHS02
flame



GHS03
flame over circle



GHS04
gas cylinder



GHS05
corrosion



GHS06
skull and crossbones



GHS07
exclamation mark



GHS08
health hazard



GHS09
environment

Hazard Statements H Codes

Hazard statements for physical hazards

H200	Unstable explosives.
H201	Explosive; mass explosion hazard.
H202	Explosive, severe projection hazard.
H203	Explosive; fire, blast or projection hazard.
H204	Fire or projection hazard.
H205	May mass explode in fire.
H206	Fire, blast or projection hazard; increased risk of explosion if desensitising agent is reduced.
H207	Fire or projection hazard; increased risk of explosion if desensitising agent is reduced.
H208	Fire hazard; increased risk of explosion if desensitising agent is reduced.
H220	Extremely flammable gas.
H221	Flammable gas.
H222	Extremely flammable aerosol.
H223	Flammable aerosol.
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H229	Pressurised container: May burst if heated.
H230	May react explosively even in the absence of air.
H231	May react explosively even in the absence of air at elevated pressure and/or temperature.
H232	May ignite spontaneously if exposed to air.
H240	Heating may cause an explosion.
H241	Heating may cause a fire or explosion.
H242	Heating may cause a fire.
H250	Catches fire spontaneously if exposed to air.
H251	Self-heating; may catch fire.
H252	Self-heating in large quantities; may catch fire.
H260	In contact with water releases flammable gases which may ignite spontaneously.
H261	In contact with water releases flammable gases.
H270	May cause or intensify fire; oxidiser.
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H280	Contains gas under pressure; may explode if heated.
H281	Contains refrigerated gas; may cause cryogenic burns or injury.
H290	May be corrosive to metals.

Hazard statements for health hazards

H300	Fatal if swallowed.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.

H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H350i	May cause cancer by inhalation.
H351	Suspected of causing cancer.
H360	May damage fertility or the unborn child.
H360F	May damage fertility.
H360D	May damage the unborn child.
H360FD	May damage fertility. May damage the unborn child.
H360Fd	May damage fertility. Suspected of damaging the unborn child.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H361	Suspected of damaging fertility or the unborn child.
H361f	Suspected of damaging fertility.
H361d	Suspected of damaging the unborn child.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H362	May cause harm to breast-fed children.
H370	Causes damage to organs.
H371	May cause damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H300+H310	Fatal if swallowed or in contact with skin.
H300+H330	Fatal if swallowed or if inhaled.
H310+H330	Fatal in contact with skin or if inhaled.
H300+H310 +H330	Fatal if swallowed, in contact with skin or if inhaled.
H301+H311	Toxic if swallowed or in contact with skin.
H301+H331	Toxic if swallowed or if inhaled.
H311+H331	Toxic in contact with skin or if inhaled.
H301+H311 +H331	Toxic if swallowed, in contact with skin or if inhaled.
H302+H312	Harmful if swallowed or in contact with skin.
H302+H332	Harmful if swallowed or if inhaled.
H312+H332	Harmful in contact with skin or if inhaled.
H302+H312+ H332	Harmful if swallowed, in contact with skin or if inhaled.

Hazard statements for environmental hazards

H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
H420	Harms public health and the environment by destroying ozone in the upper atmosphere.

Supplemental Hazard Information H Codes

EUH014	Reacts violently with water.
EUH018	In use may form flammable/explosive vapour-air mixture.
EUH019	May form explosive peroxides.
EUH029	Contact with water liberates toxic gas.
EUH031	Contact with acids liberates toxic gas.
EUH032	Contact with acids liberates very toxic gas.
EUH044	Risk of explosion if heated under confinement.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH070	Toxic by eye contact.
EUH071	Corrosive to the respiratory tract.
EUH201	Contains lead. Should not be used on surfaces liable to be chewed or sucked by children.
EUH201A	Warning! Contains lead.
EUH202	Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.
EUH203	Contains chromium (VI). May produce an allergic reaction.
EUH204	Contains isocyanates. May produce an allergic reaction.
EUH205	Contains epoxy constituents. May produce an allergic reaction.
EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine).
EUH207	Warning! Contains cadmium. Dangerous fumes are formed during use. See information supplied by the manufacturer. Comply with the safety instructions.
EUH208	Contains (name of sensitising substance). May produce an allergic reaction.
EUH209	Can become highly flammable in use.
EUH209A	Can become flammable in use.
EUH210	Safety data sheet available on request.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Hazard classes and categories

Classification				Labelling		
Hazard class	**Category codes**		**Pictogram, code**	**Signal word**	**Hazard statements**	
Explosive	Unstable explosives	Unst. Expl.	 GHS01	Danger	H200	Unstable explosives.
	Divisions 1.1	Expl. 1.1			H201	Explosive; mass explosion hazard.
	Divisions 1.2	Expl. 1.2			H202	Explosive, severe projection hazard.
	Divisions 1.3	Expl. 1.3			H203	Explosive; fire, blast or projection hazard.
	Divisions 1.4	Expl. 1.4		Warning	H204	Fire or projection hazard.
	Divisions 1.5	Expl. 1.5	No pictogram	Danger	H205	May mass explode in fire.
	Divisions 1.6	Expl. 1.6	No pictogram, no signal word, no hazard statement			
Flammable gas	Category 1	Flam. gas 1	 GHS02	Danger	H220	Extremely flammable gas.
	Category 2	Flam. gas 2	No pictogram	Warning	H221	Flammable gas.
Flammable aerosol	Category 1	Flam. aerosol 1	 GHS02	Danger	H222	Extremely flammable aerosol.
	Category 2	Flam. aerosol 2		Warning	H223	Flammable aerosol.
Oxidising gas	Category 1	Ox. gas 1	 GHS03	Danger	H270	May cause or intensify fire; oxidiser
Gas under pressure	Compressed gas	Press. gas	 GHS04	Warning	H280	Contains gas under pressure; may explode if heated.
	Dissolved gas					
	Liquefied gas				H281	Contains refrigerated gas; may cause cryogenic burns or injury.
	Refrigerated liquefied gas					
Flammable liquid	Category 1	Flam. Liq. 1	 GHS02	Danger	H224	Extremely flammable liquid and vapour.
	Category 2	Flam. Liq. 2			H225	Highly flammable liquid and vapour.
	Category 3	Flam. Liq. 3		Warning	H226	Flammable liquid and vapour.
Flammable solid	Category 1	Flam. Sol. 1		Danger	H228	Flammable solid.
	Category 2	Flam. Sol. 2		Warning		

Classification & Labelling acc. to (EC) 1272/2008

Classification			Labelling			
Hazard class	**Category codes**		**Pictogram, code**	**Signal word**	**Hazard statements**	
Self-reactive substance or mixture **Organic peroxide**	Type A	Self-react. A Org. Perox. A	 GHS01	Danger	H240	Heating may cause an explosion.
	Type B	Self-react. B Org. Perox. B	 GHS01 + GHS02		H241	Heating may cause a fire or explosion.
	Type C and D	Self-react. CD Org. Perox. CD	 GHS02	Danger	H242	Heating may cause a fire.
	Type E and F	Self-react. EF Org. Perox. EF		Warning		
	Type G	Self-react. G Org. Perox. G	No pictogram, no signal word, no hazard statement			
Pyrophoric liquid	Category 1	Pyr. Liq. 1	 GHS02	Danger	H250	Catches fire spontaneously if exposed to air.
Pyrophoric solid	Category 1	Pyr. Sol. 1				
Self-heating substance or mixture	Category 1	Self-heat. 1		Danger	H251	Self-heating; may catch fire.
	Category 2	Self-heat. 2		Warning	H252	Self-heating in large quantities; may catch fire.
Substance or mixture which in contact with water emits flammable gas	Category 1	Water-react. 1		Danger	H260	In contact with water releases flammable gases which may ignite spontaneously.
	Category 2	Water-react. 2		Danger	H261	In contact with water releases flammable gases.
	Category 3	Water-react. 3		Warning		
Oxidising liquid **Oxidising solid**	Category 1	Ox. Liq. 1 Ox. Sol. 1	 GHS03	Danger	H271	May cause fire or explosion; strong oxidiser.
	Category 2	Ox. Liq. 2 Ox. Sol. 2		Danger	H272	May intensify fire; oxidiser.
	Category 3	Ox. Liq. 3 Ox. Sol. 3		Warning		
Substance or mixture corrosive to metals	Category 1	Met. Corr. 1	 GHS05	Warning	H290	May be corrosive to metals.
Desensitised explosive substances/ mixtures	Category 1	Desen. Expl. 1	 GHS02	Danger	H206	Fire, blast or projection hazard; increased risk of explosion if desensitising agent is reduced.
	Category 2	Desen. Expl. 2		Danger	H207	Fire or projection hazard; increased risk of explosion if desensitising agent is reduced.
	Category 3	Desen. Expl. 3		Warning		
	Category 4	Desen. Expl. 4		Warning	H208	Fire hazard; increased risk of explosion if desensitising agent is reduced.
Acute toxicity	Category 1	Acute Tox. 1	 GHS06	Danger	H300 H310 H330	Fatal if swallowed. Fatal in contact with skin. Fatal if inhaled.
	Category 2	Acute Tox. 2				
	Category 3	Acute Tox. 3			H301 H311 H331	Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.
	Category 4	Acute Tox. 4	 GHS07	Warning	H302 H312 H332	Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.

Classification & Labelling acc. to (EC) 1272/2008

Classification			Labelling			
Hazard class	**Category codes**		**Pictogram, code**	**Signal word**	**Hazard statements**	
Skin corrosion/ irritation	Category 1A	Skin Corr. 1A	 GHS05	Danger	H314	Causes severe skin burns and eye damage.
	Category 1B	Skin Corr. 1B				
	Category 1C	Skin Corr. 1C				
	Category 2	Skin Irrit. 2	 GHS07	Warning	H315	Causes skin irritation.
Serious eye damage/eye irritation	Category 1	Eye Dam. 1	 GHS05	Danger	H318	Causes serious eye damage.
	Category 2	Eye Irrit. 2	 GHS07	Warning	H319	Causes serious eye irritation.
Respiratory sensitization	Category 1 Category 1A Category 1B	Resp. Sens. 1 Resp. Sens. 1A Resp. Sens. 1B	 GHS05	Danger	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization	Category 1 Category 1A Category 1B	Skin Sens. 1 Skin Sens. 1A Skin Sens. 1B	 GHS07	Warning	H317	May cause an allergic skin reaction.
Germ cell mutagenicity	Category 1A	Muta. 1A	 GHS08	Danger	H340	May cause genetic defects. (*)
	Category 1B	Muta. 1B				
	Category 2	Muta. 2		Warning	H341	Suspected of causing genetic defects. (*)
Carcinogenicity	Category 1A	Carc. 1A		Danger	H350 H350i	May cause cancer. (*) May cause cancer by inhalation.
	Category 1B	Carc. 1B				
	Category 2	Carc. 2		Warning	H351	Suspected of causing cancer. (*)
	(*) state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard					
Reproductive toxicity	Category 1A	Repr. 1A	 GHS08	Danger	H360 H360F H360D H360FD	May damage fertility or the unborn child. (*) May damage fertility. (*) May damage the unborn child. (*) May damage fertility. May damage the unborn child. (*)
	Category 1B	Repr. 1B				
	Category 2	Repr. 2		Warning	H361 H361f H361d H361fd	Suspected of damaging fertility or the unborn child. (*) Suspected of damaging fertility. (*) Suspected of damaging the unborn child. (*) Suspected of damaging fertility. Suspected of damaging the unborn child. (*)
	Additional category for effects on or via lactation	Lact.	No pictogram	No signal word	H362	May cause harm to breast-fed children.
	(*) state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard					

Classification & Labelling acc. to (EC) 1272/2008

Classification				Labelling		
Hazard class	**Category codes**		**Pictogram, code**	**Signal word**	**Hazard statements**	
Specific target organ toxicity – single exposure	Category 1	STOT SE 1	 GHS08	Danger	H370	Causes damage to organs. (*)
	Category 2	STOT SE 2		Warning	H371	May cause damage to organs. (*)
	Category 3	STOT SE 3	 GHS07	Warning	H335	May cause respiratory irritation.
					H336	May cause drowsiness or dizziness.
Specific target organ toxicity – repeated exposure	Category 1	STOT RE 1	 GHS08	Danger	H372	Causes damage to organs through prolonged or repeated exposure. (*)
	Category 2	STOT RE 2		Warning	H373	May cause damage to organs through prolonged or repeated exposure. (*)
	(*) state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard					
Aspiration hazard	Category 1	Asp. Tox. 1	 GHS08	Danger	H304	May be fatal if swallowed and enters airways.
Acute aquatic hazard	Acute 1	Aquatic Acute 1	 GHS09	Warning	H400	Very toxic to aquatic life.
Long-term aquatic hazard	Chronic 1	Aquatic Chronic 1		Warning	H410	Very toxic to aquatic life with long lasting effects.
	Chronic 2	Aquatic Chronic 2		No signal word	H411	Toxic to aquatic life with long lasting effects.
	Chronic 3	Aquatic Chronic 3	No pictogram	No signal word	H412	Harmful to aquatic life with long lasting effects.
	Chronic 4	Aquatic Chronic 3			H413	May cause long lasting harmful effects to aquatic life.
Hazardous for the ozone layer	Category 1	Ozone 1	 GHS07	Warning	H420	Harms public health and the environment by destroying ozone in the upper atmosphere.



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Terms and Conditions of Sale and Delivery

These Terms and Conditions of Sale and Delivery also apply for all future deliveries.

1. Validity for future business transactions – Validity of contrary General Terms and Conditions – Validity for companies only

1.1. Our Terms and Conditions of Sale and Delivery apply exclusively. They shall also apply to all future deliveries, even when no special reference is made thereto. We do not accept any contrary terms and conditions or those terms and conditions of the customer which differ from our Terms and Conditions of Delivery, even if the contract is performed unconditionally, unless we have expressly agreed to the validity thereof in writing or in text form.
1.2. Our Terms and Conditions of Sale shall only apply to entrepreneurs (Section 14 German Civil Code [BGB]), legal persons governed by public law or a separate legal entity under public law.

2. Quotes, formation of contract, delivery item

2.1. Our quotes are subject to change and are non-binding unless they have been explicitly declared binding or include a specific period of acceptance.
2.2. The ordering of goods by the customer shall be deemed to be a binding contractual offer. Orders are only binding for us if we confirm them in writing or in text form within two weeks, or if we fulfil them within two weeks through shipment of the ordered goods.
2.3. The legal relationship between the customer and us shall be governed exclusively by the contract, which has been entered into in writing or in text form, including these general Terms and Conditions of Sale and Delivery. Verbal agreements made by us before the contract is formed are not legally binding and verbal understandings between the parties are superseded by the contract that is formed in writing or in text form, unless it is expressly stated therein that such agreements will continue to apply.
2.4. Amendments and modifications to the agreements made, including these general Terms and Conditions of Sale and Delivery, must be made in writing or in text form in order to be valid. With the exception of managing directors and holders of commercial powers of attorney, our employees are not authorised to make verbal agreements which are contrary to the cited provisions.
2.5. The information we provide on the item to be supplied (e.g. weights, dimensions, quantities and functional values), as well as our representations of the item to be supplied, are only approximations, unless use for the purpose intended by the contract requires full conformity and specific characteristics have been agreed. Unless identified as such, these are not guaranteed physical characteristics, rather descriptions or characterisations of the product. Deviations that are customary in the trade and deviations that are the result of legal provisions are permissible provided that they do not impair usability for the contractually agreed purpose. Refer below to Item 10 of these Terms and Conditions.

3. Prices, price adjustments, electronic invoicing

3.1. Our prices are quoted "ex works" from Karlsruhe plus packaging, tariffs where export shipments are concerned, statutory VAT, fees and other public duties.
3.2. We reserve the right to amend our listed prices upon which the contract is based accordingly if cost reductions or increases arise as a result of tariff agreements, or if the price of materials increases after the contract is concluded. These shall be verified to the customer upon request. A price adjustment shall not be effected in cases where delivery is made as contractually stipulated within four months of conclusion of the contract.
3.3. We provide an electronic invoice in compliance with data protection legislation. This presumes the formation of a separate agreement.

4. Payment terms and conditions, payment arrears

4.1. To avoid accounting errors and the resulting erroneous issue of dunning notices, we rely on receiving the correct invoice number, invoice date and individual invoiced amounts with incoming payments. This data can be found on all of our invoices. If the payer is not the same as the invoice recipient, the name stated on the relevant invoice must also be given when the payment is made. If we receive payments without this information, we cannot guarantee that payments will be assigned correctly.
4.2. The invoiced amounts become payable upon receipt of the goods. Unless otherwise specified in writing or in text form, they are payable within thirty days without any deduction. In the event that the date on which the invoice or an equivalent payment schedule was received is disputed, the customer is considered to be in default 30 days after receipt of the goods at the latest, according to Section 286(4) German Civil Code [BGB]. The date of receipt of payment is decisive. Otherwise, the statutory regulations on defaults of payment apply.
4.3. For payment within eight days from date of invoice, a 2% discount shall be granted. The precondition for any discount shall be the settlement of all other customer payables arising from the business relationship with us that are older than 30 days.
4.4. For new customers, we reserve the right to require that payment be made prior to delivery or by cash on delivery.

5. Off-setting, retention

The off-setting of counter-demands by the customer or the retention of payment due to such demands shall only be permissible if such demands are indisputable, or if their validity has been legally established.

6. Shipping, packaging, transfer of risk

6.1. The shipping method and the packaging shall be subject to our due discretion in compliance with the statutory provisions if no other agreement has been made.
6.2. The risk of accidental loss or incidental deterioration of the delivered goods is, at the latest, transferred to the customer upon handover of the goods to the forwarding agent, the carrier, or any other third party charged with the task of performing shipment (applicable from commencement of loading). This also applies in the case of partial deliveries, and with respect to each partial delivery.
6.3. The shipment is only insured against theft, breakage, transport, fire and water damage or other insurable risks at the express request of the customer and at the customer's expense.

7. Delivery time

7.1. The promised delivery periods and dates are only binding for us if we have confirmed them in writing or in text form. The delivery dates indicated on our website during the ordering process or in our catalogue do not constitute such confirmation. Compliance with our delivery obligation requires the timely and proper fulfilment of the customer's obligations. The delivery dates and deadlines refer to the time at which the goods are made available for handover upon collection by the forwarding agent, carrier, or other third party assigned to transport the goods.
7.2. We cannot be held liable should a delivery prove impossible or in the case of delays in delivery due to force majeure or other events that were unforeseeable on signing of the contract (e.g. fire, explosion, strikes, lawful lockout, complications in procuring materials or energy, war, unrest, epidemics or pandemics where a risk level of "moderate" or above has been defined by the Robert Koch Institute, government rejection or renunciation of import and export licences, shortage of raw materials and/or other products and/or constituent parts), and for which we are not accountable. We reserve the right to withdraw from the contract if such occurrences substantially complicate delivery or make delivery impossible, and if the disruption is not merely of a temporary nature. If the disruption is of a temporary nature, delivery times shall be extended to take account of the period of disruption and a reasonable start-up period. We shall notify the customer of the start and end of such circumstances as promptly as possible. If such a delay makes acceptance of delivery unreasonable for the customer, the customer shall be entitled to withdraw from the contract by issuing immediate notice in writing or in text form.
7.3. If we are in default of delivery or performance, or are unable to carry out delivery or performance, for any reason whatsoever, our liability is limited to the extent set out in Item 13 of these Terms and Conditions of Sale and Delivery.
7.4. We cannot be held liable for the impossibility of, or delay in, performance of delivery obligations if, and to the extent that, such an impossibility or delay arises from circumstances caused by the customer, in particular if the customer fails to comply with public law obligations in connection with the European Regulations on Chemical Substances (REACH) or with other mandatory provisions.

8. Partial deliveries

8.1. In the absence of any special agreement, we may provide partial deliveries if
– the partial delivery can be used by the customer in the context of the contractually agreed intended use,
– delivery of the remaining goods is ensured and
– this causes no extensive additional effort or additional costs to the customer.
8.2. A partial delivery made under these conditions is considered a complete delivery with regard to the agreed delivery date.

9. Default of acceptance

Should the customer be in default of acceptance or culpably in breach of other duties to cooperate, we shall be entitled to charge for the resulting damages, including any additional costs incurred. In this case, the risk of accidental loss or incidental deterioration of the purchased goods also passes over to the customer at such time as the customer falls into default of acceptance, provided that our delivery obligation has already been met with regard to the goods to be delivered.

10. Intended use of the goods, obligations of the customer, liability

10.1. If we have made a pledge for certain products to effect delivery contingent upon their intended use, the customer shall be liable for any and all disadvantages which we may suffer as a result of incorrect statements made. In the case of toxins and other substances which may only be used within the scope of legal or official provisions, the customer's order shall also serve as a statement that these substances shall be used for a purpose permissible under the foregoing terms and conditions. The customer shall observe all the applicable statutory provisions when handling or using the substances, mixtures and products supplied by us. Private persons cannot be supplied with chemicals.
10.2. Information given concerning the usability of goods does not constitute any assurance or guarantee of suitability for such use. Relevant identified uses according to Regulation (EC) No. 1907/2006 (REACH Regulation) in the applicable version do not represent a contractual guarantee of any characteristic nor a use stipulated in the contract.
10.3. Our products shall be checked by the user with respect to their specific suitability, particularly prior to use for medical purposes, food and beverage processing, plant cultivation and similar applications. This applies in particular to natural substances, which are always subject to slight variation in content. We therefore cannot assume any liability for any such use.
10.4. Where a product comes with specific conditions for use provided by us or the manufacturer, e.g. as per the product datasheet, these must be complied with. We expressly accept no liability for any use to the contrary. Product datasheets are available via our homepage or can be requested from us directly.
10.5. Insofar as we provide the customer with advice – be this verbally, in writing or as a result of tests – such advice is provided to the best of our knowledge but without liability on our part, and does not release the customer from the obligation to check the delivered goods with respect to their suitability for the intended processes and purposes. The application, use and processing of goods is carried out beyond the scope of our control and is therefore the sole responsibility of the customer.

11. REACH clause

If the customer notifies us of a use according to Article 37.2 of the Regulation (EC) No.1907/2006 dated 5th August 2021 (Regulation (EC) No. 2021/1297) of the European Parliament and the Council for the Registration, Evaluation, Approval and Control of chemical substances (REACH Regulation) which requires updating of the registration or the chemical safety report or results in another obligation according to the REACH Regulation, the customer shall reimburse us all expenses for which evidence is provided. Art. 53 of the REACH Regulation remains unaffected. We shall not be liable for delays in delivery caused by the notification of this form of use and performance of the applicable obligations as stipulated by the REACH Regulation. If, for reasons of health and safety or environmental protection, or due to other mandatory provisions, we are unable to consider this use an identified use and should the customer, against our advice, intend to use the goods in the manner which we have advised against, we shall be entitled to withdraw from the contract.

12. Claims for defects, compensation

12.1. Claims for defects are subject to the prerequisite that the customer has properly performed their duties to examine and give notice of defects according to Section 377 German Commercial Code [HGB].
12.2. Rejected goods must no longer be used without our explicit prior written consent. Where notification of defects is justified, we undertake to bear the costs of all expenses required for rectification of the defects, in particular transportation, travel, labour and material costs. This shall not apply insofar as the expenses increase as a result of the delivery item being subsequently delivered to a location that differs from the one specified in the contract. The buyer's rights according to Section 439(3) German Civil Code [BGB] shall not be restricted as a result.
12.3. Insofar as we are liable for a defect in goods purchased from us, we are entitled to correct the defect or replace the relevant product at our discretion and within a reasonable period of time. The place of subsequent performance is our registered office (Karlsruhe, Germany). If this subsequent performance or replacement delivery fails, i.e. if it is impossible, unreasonable, rejected or unreasonably delayed, the customer shall be entitled to withdraw from the contract or to reduce the purchase price by a reasonable amount, where statutory requirements are present.
12.4. If a defect is attributable to us, the customer is entitled to claim for compensation exclusively according to the following provisions.
12.5. In the case that an essential contractual obligation is culpably breached (a material obligation), where statutory requirements are present, we shall be liable for compensation, but only limited to the foreseeable damages typically incurred, unless otherwise specified below. Material obligations are those which must be fulfilled as part of the proper execution of the contract in the first instance, the fulfilment of which the buyer may rely on and which if breached would jeopardise the achievement of the purpose of the contract.
12.6. The customer is entitled to assert claims for compensation against us, without restriction, according to the statutory provisions and at the statutory rate, if these are attributable to us, one of our legal representatives or vicarious agents and are based on
– a culpable loss of life, physical injury or damage to health, or
– an intentional or grossly negligent breach of duty, or
– the German Product Liability Act [Produkthaftungsgesetz], or
– a breach of a duty arising from an assumption of procurement risk or warranty.
12.7. Any further claims to compensation against us, our legal representatives or vicarious agents are excluded, regardless of their legal basis.
12.8. Section 478 German Civil Code [BGB] remains unaffected by the above provisions.
12.9. The bases of claims relating to data protection law are not covered by this limitations of liability clause.

13. Limitation period

13.1. Claims on the part of the buyer concerning material defects shall become time-barred after one year, unless
a) the goods supplied by us include an item which has been used for a building in accordance with its normal use and has caused a defect in the latter, or
b) the defect was maliciously concealed or is based on an intentional breach of duty by us or our legal representatives or vicarious agents, or
c) they relate to a culpable loss of life, physical injury or damage to health, or
d) they relate to claims based on a warranty or procurement risk assumed by us, or
e) they relate to claims to compensation (with the limitation of Item 13.2.).
The statutory limitation period applies in the cases above.
13.2. Claims to compensation which are based on refused subsequent performance are subject to a shortened limitation period of one year if subsequent performance has not been requested within the period shortened to a year for claims concerning material defects.
13.3. The statutory limitation periods also apply in the event of claims according to Section 445a German Civil Code [BGB] if the last contract in the supply chain is a consumer goods contract in the meaning of Section 474 German Civil Code [BGB].

14. Withdrawal by the customer

If the purchased item is defective, the legal right of the purchaser to withdraw from the contract shall not be subject to our culpability. In all other cases, the customer shall only be entitled to withdraw in the event that we are in breach of obligations for which we are accountable.

15. Return of defect-free goods

Insofar as we accept the return of defect-free goods, this shall only apply to new goods in original packaging. We are entitled to charge the customer any third-party costs which we incur as a result of the return up to 25% of the list price of the goods.

16. Consequences of deterioration in the financial circumstances of the customer

16.1. In the case of payment arrears and justified doubts concerning the solvency or creditworthiness of the customer, we are – irrespective of our other rights – authorised to request guarantees or advance payments for outstanding deliveries and set all claims arising from the business relationship to payable immediately.
16.2. We may withdraw from the contract in the event that we become aware of the suspension of payments, the opening of insolvency or judicial settlement proceedings, the refusal of insolvency due to lack of assets, bill protests or cheque protests or any other tangible indications that the financial circumstances of the customer have deteriorated.

17. Retention of title

17.1. The retention of title agreed to hereinafter serves to safeguard all existing and future claims that we may have against the customer as a result of the supply relationship between the two parties.
17.2. We, the seller, shall retain the right to ownership of the goods delivered to the customer until full payment has been made for all secured receivables. The goods and any goods taking their place and subject to retention of title under the following provisions shall hereinafter be referred to as "Reserved Goods".
17.3. The customer shall ensure the safekeeping of the Reserved Goods on our behalf at no charge.
17.4. The customer shall be entitled to process and resell the Reserved Goods in normal business transactions until such time as a claim is made against them. It is not permitted to pledge Reserved Goods or to use Reserved Goods as collateral.
17.5. If the Reserved Goods are processed by the customer, it is agreed that they will be processed in our name and for our account and that we will acquire direct title to them or – if they are processed together with items from more than one owner or the value of the processed item is greater than the value of the Reserved Goods – we will acquire (partial) joint ownership of the newly-created item. In the event that we do not acquire such title to goods, the customer shall herewith transfer future ownership or, to the extent specified above, joint ownership of the newly-created item to us as a security. If the Reserved Goods are compounded or inseparably combined with other items to form a single item and if one of the other items is considered the main item, then, insofar as the main item belongs to us, we shall transfer the co-ownership of the single item proportionally to the customer in the ratio stated in sentence 1.
17.6. In the event of the resale of Reserved Goods, the customer shall, by way of a security, herewith transfer to us the resulting accounts receivable from the buyer or our pro rata share in the case of joint ownership. The same shall apply to any other claims that take the place of Reserved Goods or otherwise accrue with respect to Reserved Goods, such as insurance claims or claims arising from unauthorised actions in case of loss or irreparable damage. We hereby authorise the customer on a revocable basis to collect receivables assigned to us on its own behalf. We shall only be entitled to revoke this authorisation for collection in the event that a claim is made.
17.7. In the event that third parties lay claim to the Reserved Goods, particularly through seizure, the customer shall without delay inform them of our ownership and notify us in writing, so that we can take action to enable assertion of our ownership rights. Unless the third party is in a position to reimburse us for legal expenses and out-of-court settlement costs, the customer shall be liable for our loss.
17.8. We undertake to release the Reserved Goods as well as any goods or claims superseding the Reserved Goods should their value exceed the amount of the secured receivables by more than 50%. The selection of the securities subsequently to be released shall be incumbent upon us.
17.9. Should we withdraw from a contract due to a breach of contract on behalf of the customer, particularly with regard to delayed payment (enforcement event), then we shall be entitled to demand that the Reserved Goods be returned.

18. Export control clause

18.1. When transferring our goods or services performed by us to third parties, the customer undertakes to observe and comply with the relevant applicable national and international legal regulations with regard to export control. This includes, but is not limited to, compliance with legal regulations governing export control in the European Union, the United States of America and the Federal Republic of Germany.
18.2. Prior to transferring our goods or services performed by us to third parties, the customer undertakes to ensure by means of suitable checks and measures that such transfer or provision does not constitute a violation of embargo regulations, including but not limited to those applicable in the European Union and the United States of America, also taking into account any anti-circumvention provisions.
18.3. The customer also undertakes to observe the provisions of European and US sanctions lists with regards to any business activities with organisations, individuals and companies listed therein. The customer also undertakes to guarantee that the use or transfer of our goods and services does not serve any military or arms-related purposes that are prohibited or require authorisation, unless the necessary authorisations have been granted.
18.4. If deemed necessary as a result of any checks, the customer is obligated, upon request and without delay, to provide us with all information regarding the end use, end recipient and intended use of our supplied goods and services.
18.5. The customer shall fully indemnify us against all claims asserted by the recipient as a result of the failure to comply with the above legal obligations regarding export control and undertakes to compensate us for the losses and expenses arising from such claims.

19. Information on brands and other industrial property rights

The goods we supply may be subject to intellectual property rights such as brands, utility models or other industrial property rights. Please contact the relevant manufacturer or owner for information on brands and other industrial property rights. We are happy to help you in this process.

20. Use of customer data, data protection

On this subject, we refer to our following data protection notice and to our Privacy Policy Statement, which you can access on our website at
https://www.carlroth.com/en/en/Datenschutzerklaerung

21. Place of performance, place of jurisdiction, choice of law

21.1. Unless specified otherwise in the order confirmation, the place of performance for all obligations arising from the contractual relationship is Karlsruhe, Germany.
21.2. The exclusive place of jurisdiction for all disputes arising from the contract is, if the customer is a merchant, a legal person governed by public law or a separate legal entity under public law, the competent court for our head office. However, we are also entitled to bring action against the customer in their domicile court. Peremptory legal provisions concerning the exclusive place of jurisdiction for disputes shall not be affected by this provision.
21.3. The laws of the Federal Republic of Germany exclusively govern the relationship between us and our customer. The United Nations Convention of 11th April 1980 on the International Sale of Goods (CISG) does not apply.

Carl Roth GmbH + Co. KG

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LACTAN®
Vertriebsges. m.b.H. + Co. KG
Puchstr. 85, A-8020 Graz
Phone +43 316 323692-0
info@lactan.at
www.lactan.at



ROTH SOCHIEL E.U.R.L.
3, rue de la Chapelle
F-67630 Lauterbourg
Phone +33 3 88948242
info@carlroth.fr
www.carlroth.fr



ROTH AG
Fabrikmattenweg 12
CH-4144 Arlesheim
Phone +41 61 7121160
info@carlroth.ch · www.carlroth.ch



CARL ROTH GmbH + Co. KG
Phone +31 180 516704
Fax +49 721 5606-260
info@carlroth.nl
www.carlroth.nl



CARL ROTH GmbH + Co. KG
Vlaanderen: Phone +32 52 374121
Wallonie: Phone +32 80 447958
info@carlroth.be
www.carlroth.be



LINEGAL CHEMICALS Sp.z o.o.
Ul. Kasprzaka 44/52
01-224 Warszawa, Polska
Phone +48 22 6317281
info@linegal.pl
www.linegal.pl



P-LAB A. S.
Laboratory Instruments
U Pekáren 1645/1, 10200 Praha 10
Phone +420 271 730800
info@p-lab.cz
www.p-lab.cz



Techmate Ltd.
10 Bridgeturn Avenue,
Old Wolverton
UK-MK12 5QL Milton Keynes
Phone +44 1908 322222
sales@techmate.co.uk
www.techmate.co.uk



PRODOTTI GIANNI S.r.l.
Via Quintiliano, 30, I-20138 Milano
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betaLab Lda.
Rua Sérgio Soares, 12-A Pendao
P-2745-051 Queluz
Phone +351 21 4358437
geral@betalab.pt



Aegis-Advanced
Healthcare Solutions
43, Koritsas str./Agios Dimitrios
GR-17342 Athens
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info@aegishealth.gr
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QUIMIVITA PRODUCTS, S.L
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adoblado@quimivita.com
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RK TECH Kft.
Köszál u. 6., H-1163 Budapest
Phone +36 1 4020721
rktech@rktech.hu
www.rktech.hu



INTROGEN KIMYA LTD. STI.
Ata Is Merkezi 228
Sokak No. 14 Kat. 3
TR-34524 Yakuplu
Beylikdüzü - ISTANBUL
Phone +90 212 8751112
info@introgen.com.tr
www.introgen.com.tr



Oasis-lab s.r.o.
Ignaca Gesaja 36
SK 90028 Zalesie, Bratislava
Phone +421 905 605 891
oasis@oasis-lab.sk
www.oasis-lab.sk



GRIDA
Molétu g. 16, Didzioji Riesé
LT-14260 Vilnius
Phone +370 5 2469435
labor@grida.lt
www.grida.lt



Koncept media d.o.o.
Ante Mike Tripala 1, 3rd floor
HR-10090 Zagreb
Phone +385 1 6547954
koncept@konceptmedia.hr
www.konceptmedia.hr



MIKRO + POLO d.o.o.
Zagrebska cesta 22
SI-2000 Maribor
Phone +386 2 6143300
info@mikro-polo.si
www.mikro-polo.si



Tampereen PENLI OY
Keskuojankatu 13
33900 Tampere, Finland
Phone +358 3 3486607
asiakaspalvelu@penli.fi
www.penli.fi



INTER-HEM DOOEL
Bulevar Partizanski Obredi br. 64
1000 Skopje
Phone +389 (0) 2 3063 158
info@interhem.com.mk
www.interhem.com.mk



Frisenette ApS
Energivej 134, 8420 Knebel,
Denmark
Phone +45 86 34 22 44
Denmark: roth@frisenette.dk
www.frisenette.dk



Sweden: roth@frisenette.dk
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CHIRON AS
Stiklestadveien 1
N-7041 Trondheim
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Biekensalas str. 21
LV-1004 Riga
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SEMIKEM d.o.o.
Omladinska 44
BIH - 71320 Vogosca-Sarajevo
Phone +387 33 722900
info@semikem.ba
www.semikem.com.ba



UNI-CHEM d.o.o. Beograd
Crnotravska 27
11000 Beograd
Phone +381 11 785 72 70
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Geolabinstruments Ltd.
Vaja-Pshavela Ave,
Block VII, 13, 30
GE-0186 Tbilisi
Phone +995 323 00866
info@geolab.ge
www.geolab.ge



AKROM-EX INC.
Vee 2, Märja,
EE-61406, Tartumaa
Phone +372 5520624
a-inf@akrom.ee
www.akrom.ee



Astech Ireland Ltd.
Unit 47, Southern Cross
Bus. Park, Bray, Co. Wicklow
Phone +353 0404 25070
info@astechireland.ie
www.astechireland.ie



Chemlaborreaktiv LLC
Schelkovskaya 8
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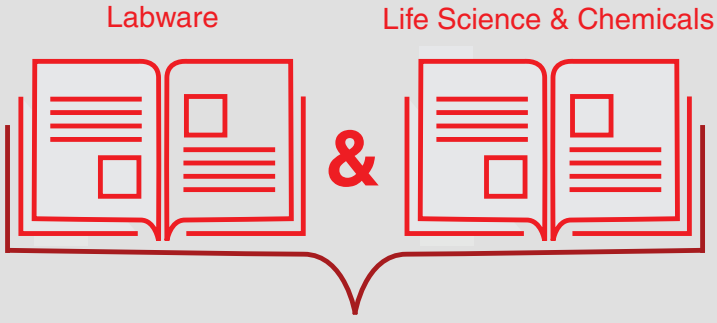
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Managing Director
André Houdelet

A challenging year lies behind us as we look forward into the new business year 2022 with drive and optimism. The pandemic has challenged us all; we must be ready to adapt to the situation at any moment and to react immediately to any new developments, so that we can serve you as quickly and reliably as ever. The satisfaction of our customers and staff is always our top priority. This is why we continually optimise our range, designing it to suit you.

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Total product portfolio 2022/2023

As always, you will find a wide variety of existing and new products to make your everyday work easier. If you require suitable laboratory equipment, simply take a look at our new laboratory equipment catalogue.

What‘s more, our online shop is always available and well-stocked; here, you can purchase your products efficiently and easily. Our ordering processes are designed with you in mind. It offers a wealth of information, documents, images and videos on many of our products. In addition, we are more than happy to provide you with individual support and are here to help whenever you need us.

We would like to take this opportunity to thank you for your loyalty and ever-successful cooperation. We look forward to remaining your reliable partner in the laboratory equipment and chemicals sector this year.

Kind regards,
André Houdelet

Your partner for high-quality performance

With 5 plus points to your advantage:

Quality

All products in the ROTH product range are subjected to strict in-house checks. This enables us to ensure you receive consistently high product quality.

Logistics

Direct dispatch! Delivery fast, simple and reliable!

Special rates & Discount

Fair and calculable, i. e. a quantity discount of 5 % from 6 packs and 10 % from 24 packs of same items will be granted. Please check with us for special rates on bulk amounts or standing orders.

Customer advice

Customer proximity and competence, i. e. we are here to advise you before and after buying.

Returned & Take-Back Goods

You can take advantage of our 10-day exchange and take-back guarantee. Just send the goods to us in their original packaging together with a copy of the invoice or delivery note and your modified order. We are unfortunately unable to pay the costs for postage and packing. We request you to get in touch with us for any legitimate complaints which require goods to be returned. We shall then authorize our forwarding agent immediately to pick up the goods in question. In the event of goods being returned independently and without prior notice, postage and packing costs can only be refunded for the same amount as agreed upon with our forwarding agent. Further information on returning goods can be found in the terms of sale and delivery at the back of this catalogue.

Discover the **CARL ROTH** webshop.

Comprehensive product information, recommendations, images, videos, certificates of analysis, special offers and the most up-to-date prices are available at www.carlroth.com.

Have you tried our subscription service yet?

www.carlroth.com



A private enterprise with tradition

Best service for 143 years

1879

CARL ROTH is established as a “material goods, colonial goods and dyes merchant and chemists” in Karlsruhe.

1891

CARL ROTH is appointed as an “official purveyor to the Grand Duke of Baden“.

1899

ROTH publishes its first sales and mailorder catalogue.

1907

CARL ROTH operates the first delivery van in Karlsruhe.

1928

The laboratory chemicals department opens.



Quality, Environment, Safety

We take responsibility

Our QM system celebrated its 25th birthday in 2020. Over this time, we have continuously adapted our QM system to the growing market demands in order to meet quality requirements and to continue to deliver a high standard of quality.



CERTIFICATE

The Certification Body
of TÜV SÜD Management Service GmbH
certifies that

Carl Roth GmbH + Co. KG
Schoemperlenstraße 1-5, 76185 Karlsruhe
Germany
An der Mole 5, 76187 Karlsruhe
Germany

has established and applies
a Quality and Environmental Management System
for the following scope of application:

Development, production and distribution of labware and chemicals.

Performance of audits (Order No. 70001407)
has furnished proof that the requirements under:

ISO 9001:2015
ISO 14001:2015

are fulfilled.

The certificate is valid from 2019-07-06 until 2022-07-05.
Certificate Registration No.: 12 100/104 20247 TMS.

Product Compliance Management
Munich, 2019-06-27

The guiding principle for an environmentally conscious corporate management has always been a fundamental part of our business conduct. In addition to fulfilling our statutory environmental commitments, therefore, we always strive to define environmental protection targets and to optimise our operating procedures taking into account environmental aspects.

Our certified environmental management system helps us to systematically pursue this aim.

By participating in the *Responsible Care*® programme of the chemical industry, we have undertaken a commitment to meet the goals set by the programme.

These goals are to promote sustainability, to show product responsibility, to ensure safety, to improve health protection in the workplace and to better protect the environment.

Innovative use of combined heat and power technology when printing this product reduced CO_2 emissions by up to 52% in comparison to conventional methods in Germany.

minus 52% CO_2

SOLVAGREEN® - Green Solvents
Our brand for alternative solvents

Green Solvents serve as an alternative for environmentally hazardous and harmful reagents, and thus contribute to risk minimisation.

1945

The highly efficient manufacturing and bottling department enters service.

1958

ROTH unveils its proprietary high-pressure laboratory autoclaves at the ACHEMA Fair.

1971

ROTH is awarded a patent on its Mercurisorb-ROTH® high-speed mercury absorber.

1989

The „Association of Independent Businesses“ presents its award to ROTH in recognition of its environmentally friendly business practices.

1990

CARL ROTH publishes its first general product catalogue for its Labware, Life Science and Chemicals product lines.

Plastics – Technical data / Key to symbols

What about the packaging material?

We are making our contribution to the environment:

- By trying to use as little packaging material as possible. Unfortunately we cannot do without packaging completely as it has the important function of not only protecting the product, but also man and environment from any harm.

- By using environmentally friendly and recyclable packaging material as far as possible. As early as the beginning of the 80s, we stopped using polystyrene inserts for packing solvents, acids and alkaline aolution. We now use special boxes for hazardous goods made of 100 % recyclable corrugated cardboard. Paper is used as stuffing material.

Please also help by putting the **packaging in the recycling container after use**. Our boxes are labelled with the recy-symbol; they can be easily stored when cut open and pressed together without taking up much space, prior to being put out for recycling.

Our **plastic containers made of polyethylene (PE)** can also be turned in for recycling after they have been completely emptied and cleaned of all harmful substances.

The same applies to **tin flasks and canisters** once emptied and pollutent-free.

Sterilizing plastics – Autoclaving

Recommended autoclave cycle:
20 minutes at 121 °C, 1 bar

1. Clean autoclave goods thoroughly prior to sterilizing.
2. Rinse off used detergent with distilled water.
3. Unscrew caps to enable pressure compensation.
4. Only autoclave containers with stop-cock when empty, screw off stop-cocks.

   Following plastics can be autoclaved repeatedly: ETFE, PFA, PTFE, FEP, E-CTFE, PMP/TPX®, PP, SI, PVDF; PES, PSU

Note:
Polycarbonate PC and Polysulfone PSU are also autoclavable, however this reduces the mechanical stability. This can result in material failure particularly when under high mechanical strain, e.g. during centrifuging.

Please contact us should you have any further questions regarding packaging.





1993

Construction of a modern high-bay warehouse.

1995

First certification of the quality management system to DIN EN ISO 9001.

2005

The chemicals department moves into modern premises on the Karlsruhe-Rheinhafen industrial estate.

2013

An extension with an automated small parts warehouse is added to the Chemicals and Life Science building, enlarging its area to approx. 8,000 m². CARL ROTH now stocks over 21,000 products in its warehouse.



Abbreviations / temperature resistance of plastics

DIN-Abbrev.	Description	Application temperature (°C)		
		from	to	
ABS	acrylonitrile butadiene styrene	-40	+85	(+100)
EPDM	ethylene propylene diene monomer rubber	-45	+150	
ETFE	ethylene tetrafluoroethylene copolymer	-100	+150	(+180)
FEP	fluorinated ethylene propylene	-100	+205	
FKM	fluorocarbon rubber	-20	+200	
HDPE	high-density polyethylene	-40	+80	(+120)
LDPE	low-density polyethylene	-40	+75	(+90)
MF	melamine	-60	+80	(+120)
NR	natural rubber	-40	+80	
PA	polyamide (PA6)	0	+80	
PBT	polybutylene terephthalate	-45	+140	(+150)
PC	polycarbonate	-40	+115	
PE	polyethylene	-40	+80	(+90)
PES	polyethersulfone	-100	+150	
PET	polyethylene terephthalate	0	+60	
PETG	polyethylene terephthalate modified with glycol	0	+65	
PFA	perfluoroalkoxy alkane	-200	+260	
PMMA	polymethyl methacrylate	-40	+85	(+90)
PMP (TPX®)	polymethylpentene	0	+150	(+180)
POM	polyoxymethylene	-40	+90	
PP	polypropylene	-10	+110	(+140)
PS	polystyrene	-20	+70	(+80)
PSU	polysulfone	-50	+150	(+180)
PTFE	polytetrafluoroethylene	-200	+260	
PU	polyurethane	-30	+60	(+70)
PVC	polyvinyl chloride	-20	+80	
PVDF	polyvinylidene fluoride	-40	+105	
SAN	styrene acrylonitrile	-20	+85	(+95)
SI	silicone rubber	-50	+180	
TPE	thermoplastic elastomer	-50	+121	

Temperature in ( ) short-term

All data in this table are approximate data and refer exclusively to raw plastic products; they can therefore only be regarded as indicative recommendations. As the temperature resistance may vary with different conditions of manufacturing or chemical influences, suitability tests by the user are highly recommanded.

No legal claims can be derived from this information; nor do we accept any liability for it.

Key to symbols

NEW / +
News and programme extensions

A 121 °C
Autoclavable products. Please also note any additional instructions when autoclaving.

Temperature resistance:
Safe to freeze (approx. -10/-20 °C)

Suitable for low temperatures (approx. -70/-80 °C)

Suitable for liquid nitrogen (gaseous phase / -196 °C)

See catalogue text for detailed information.

ready-to-use
Ready-to-use products and reagents

S
Sterile products

All products identified as being particularly temperaturesensitive are shipped **in special ice boxes with freezer packs or in dry ice.**

ROTH for Future
Products, with optimised manufacturing process in terms of sustainability.

2014
Succsesfull participation in the ECOfit programme sponsored by the state of Baden-Württemberg.

2014
Participation in the Responsible Care® programme.

2015
Relaunch of the new ROTH Online Shop.

2016
Certification of the corporate environmental management system according to ISO 14001 for the sustainable environmental protection.

2019
140th anniversary of CARL ROTH.

2020
Opening of the third plant with new logistics centre and automatic small parts warehouse and approx. 7,000 m² of additional storage space.

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Life Science



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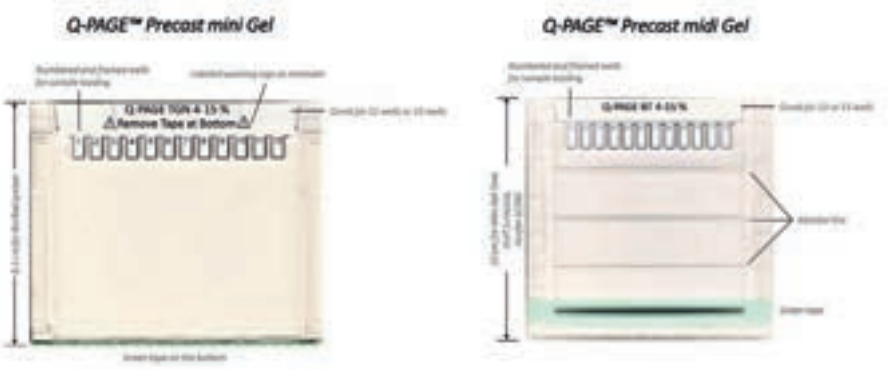
Q-PAGE™ Precast Gels

ready-to-use

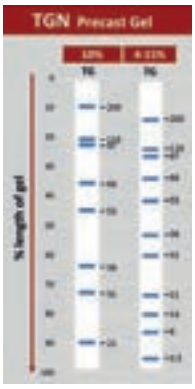
- **Compatibility** – gel cassettes with the sizes Mini (10 x 8.3 cm) and Midi (10 x 10 cm), suitable for most mini-gel tanks
- **Easy to load samples** – numbered wells with separators
- **Exceptionally fast separation** – clear, sharp bands already after 30-40 minutes
- **Gel cassettes with comb** to protect the gel pockets“

TGN (**T**ris-**G**lycine **N**ovel) Precast Gels are ready-to-use acrylamide gels for SDS-PAGE running in Tris-Glycine buffer system. With unique formula, TGN Precast Gels perform enhanced resolution, sharper bands, and longer shelf life as compared with conventional Laemmli Tris-HCl gels. The protein migration patterns in TGN series, however, are similar with typical Laemmli Tris-HCl gels, and thus TGN Precast Gels are compatible to traditional SDS-PAGE and subsequent analyses.

- **Particularly long shelf life** – up to 12 months from date of manufacture when stored at 4 °C
- **Wide separation range** – available as homogeneous and adjusted gradient gels
- **Easy to monitor during the run** – transparent reference lines on the gel cassette
- **Solid blister tray** – for safe transport of the gels“



PAGE Precast Gels



Compatibility:

Q-PAGE™ TGN Mini (10 x 8,3 cm):
- Bio-Rad® Mini PROTEAN® Tetra Cell
- Chambers of similar size of other manufacturers

Q-PAGE™ TGN Midi (10 x 10 cm):
- Roth PROclamp Mini (Art. No. 3501.1–3503.1)
- Roth Mini Vertikal (Art. No. Y001.1–Y004.1)
- Invitrogen® XCell SureLock® Mini-Cell
- Invitrogen® Mini Gel Tank
- Hoefer SE260
- Chambers of similar size of other manufacturers

Q-PAGE™ Precast Gels

Gels are supplied shrink-wrapped in Tris/Glycin buffer, without SDS (preserved).

Product name	Type	Instructions for use	Gel strength	Volume per pocket	Art. No.	Pack Qty.	€
Q-PAGE™ 10% TGN Mini	Gel with fixed polyacrylamide concentration (10 %)	Gel cassette: 10 x 8.3 cm, 12 wells	1 mm	25 µl	**3681.1**	2 unit(s)	52,60
					3681.2	10 unit(s)	223,10
	Gel with fixed polyacrylamide concentration (10 %)	Gel cassette: 10 x 8.3 cm, 15 wells	1 mm	22 µl	**3682.1**	2 unit(s)	52,60
					3682.2	10 unit(s)	223,10
Q-PAGE™ 4–15% TGN Mini	Gradient gel (4–15 %)	Gel cassette: 10 x 8.3 cm, 12 wells	1 mm	25 µl	**3670.1**	2 unit(s)	52,60
					3670.2	10 unit(s)	223,10
	Gradient gel (4–15 %)	Gel cassette: 10 x 8.3 cm, 15 wells	1 mm	22 µl	**3671.1**	2 unit(s)	52,60
					3671.2	10 unit(s)	223,10
Q-PAGE™ 10% TGN Midi	Gel with fixed polyacrylamide concentration (10 %)	Gel cassette: 10 x 10 cm, 12 wells	1 mm	40 µl	**3683.1**	2 unit(s)	52,60
					3683.2	10 unit(s)	223,10
	Gel with fixed polyacrylamide concentration (10 %)	Gel cassette: 10 x 10 cm, 15 wells	1 mm	28 µl	**3684.1**	2 unit(s)	52,60
					3684.2	10 unit(s)	223,10
Q-PAGE™ 4–15% TGN Midi	Gradient gel (4–15 %)	Gel cassette: 10 x 10 cm, 12 wells	1 mm	40 µl	**3673.1**	2 unit(s)	52,60
					3673.2	10 unit(s)	223,10
	Gradient gel (4–15 %)	Gel cassette: 10 x 10 cm, 15 wells	1 mm	28 µl	**3676.1**	2 unit(s)	52,60
					3676.2	10 unit(s)	223,10

For additional product data and safety information, see chapter Chemicals A–Z.

Important information on refrigerated transports

All products identified as being particularly temperature-sensitive are shipped in **special ice boxes with freezer packs or in dry ice.**

Additional costs resulting from such, **will be invoiced** (further information on request).

Please note: In order to guarantee optimum product quality, the dispatch of refrigerated transport products will be carried out **on Mon and Tue only outside Germany!**
Slight delays in delivery are therefore possible.

Storage temperature: +4 °C
Transport temperature: cooled

ROTIPHORESE® Acrylamide Ready-Made Solutions



Safe

Acrylamide ia a strong nerve poison which has clearly proved to be carcinogenic and to change the genetic make-up during animal testing. Acrylamide is resorbed primarily through the skin. The formation of dust when working with the solid matter is particularly critical. A hazard which can be easily avoided by using the ROTIPHORESE® ready-to-use solution.

Superior quality

ROTIPHORESE® Acrylamide and -Bisacrylamide solutions from Carl ROTH have the highest purity level. They are produced from substances free from acrylic acid. Oxidation products are removed from the solution by a selective absorption process. A new formation of such and/or polymerisation of the solution is prevented by gaseous stabilisation of the solution.
In order to guarantee a high consistency of our ROTIPHORESE®-solutions, each batch undergoes electrophoretic testing.

Ready-Made Solutions Acrylamide/ Bisacrylamide-Mix

ROTIPHORESE®Gel solution

PAGE gel solutions, Gel solution

Ready-to-use, gas-stabilized ready-to-use acrylamide solutions with different concentrations and ratios of acrylamide to bisacrylamide. The ROTIPHORESE® gel solutions are very easy to use and enable reproducible and high-resolution gel electrophoresis.

Directions for use

ROTIPHORESE® gel solutions can be used for protein and nucleic acid separation in PAGE gels. The high-purity solutions can be combined with any buffer system. During sequencing, they facilitate the preparation of sequencing gels of consistent quality; our fluorescence-free gel solutions are recommended for the use of automatic sequencers.

Please note

The ROTIPHORESE® acrylamide and bisacrylamide solutions from Carl ROTH are produced only from acrylic acid-free substances and are strictly controlled in acrylamide content and pH. Oxidation products are removed from the solution by a selective absorption process. Their new formation and the polymerization of the solution are prevented by stabilizing the solution with inert gas.
In order to ensure a high lot-to-lot consistency of our ROTIPHORESE® solutions, each batch is subjected to an electrophoretic test.
Fluorescence-free gel solutions are tested for suitability for automatic sequencers.



ready-to-use

ROTIPHORESE®Gel 30 (37.5:1)

ROTIPHORESE® 30 %, ready-to-use, gas-stabilized

Aqueous acrylamide and bisacrylamide stock solution at a ratio of 37,5:1 for preparation of protein gels.

Cross linking 2,7.

Analysis of proteins/peptides >15 kD, DNA fragments and DNA/protein interaction. Cross linking 2,7.

Storage temperature: +4 °C

WGK 3

Danger H302-H315-H317-H319-H340-H350-H361f-H372

Filled under protective gas.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
3029.3	250 ml	glass	31,75
3029.2	500 ml	glass	47,85
3029.1	1 l	glass	82,25
Original pack 6 x 1 l			78,14/1 l

Recommendation for Use of ROTIPHORESE® Ready-Made Gel Solutions

Analysis of	Gel solution	Art. No.
Proteins/peptides >15 kDa, DNA fragments	Gel 30 (37,5:1)	3029.1
	Gel 40 (37,5:1)	T802.1
Proteins/peptides <30 kDa and DNA oligonucleotides	Gel 40 (29:1)	A515.1
DNA sequences (manual sequencing)	ROTIPHORESE®DNA sequencing system	A431.1
	Gel 40 (19:1)	3030.1
DNA sequences (short-run automat. sequencing)	NF solution 40 % (19:1)	A516.1
DNA sequences (long-run automat. sequencing)	NF solution 30 % (29:1)	A124.1
	NF solution 40 % (29:1)	A121.1



ready-to-use

ROTIPHORESE®Gel 40 (19:1)

ROTIPHORESE® 40 %, ready-to-use, gas-stabilized

Aqueous acrylamide and bisacrylamide stock solution at a ratio of 19:1 for preparation of DNA gels.

Cross linking 5.

Optimal for DNA gels for separation of small fragments, manual sequencing and automatic sequencers. Cross linking 5.

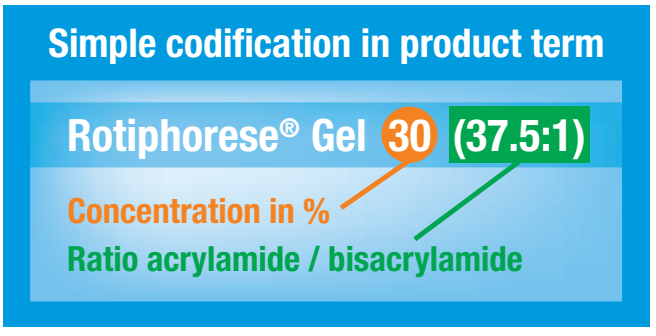
Storage temperature: +4 °C

UN no. 3426 · ADR 6.1 III · WGK 3

Danger H301-H315-H317-H319-H332-H340-H350-H361f-H372

Filled under protective gas.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
3030.2	250 ml	glass	39,70
3030.1	1 l	glass	96,25
Original pack 6 x 1 l			91,44/1 l



ready-to-use

ROTIPHORESE®Gel 40 (29:1)

ROTIPHORESE® 40 %, ready-to-use, gas-stabilized

Aqueous acrylamide and bisacrylamide stock solution at a ratio of 29:1 for preparation of protein- or DNA gels.

Cross linking 3,3.

Analysis of proteins/peptides <30 kD, DNA oligonucleotides and long-run DNA sequencing. Cross linking 3,3.

Storage temperature: +4 °C

UN no. 3426 · ADR 6.1 III · WGK 3

Danger H301-H315-H317-H319-H332-H340-H350-H361f-H372

Filled under protective gas.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
A515.2	250 ml	glass	41,85
A515.1	1 l	glass	101,60
Original pack 6 x 1 l			96,52/1 l

ready-to-use

ROTIPHORESE®Gel 40 (37.5:1)

ROTIPHORESE® 40 %, ready-to-use, gas-stabilized

Aqueous acrylamide and bisacrylamide stock solution at a ratio of 37,5:1 for preparation of protein gels.

Cross linking 2,7.

Analysis of proteins/peptides >15 kD, DNA fragments and DNA/protein interaction. Cross linking 2,7.

Storage temperature: +4 °C

UN no. 3426 · ADR 6.1 III · WGK 3

Danger H301-H315-H317-H319-H332-H340-H350-H361f-H372

Filled under protective gas.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
T802.2	250 ml	glass	38,20
T802.1	1 l	glass	91,95
Original pack 6 x 1 l			87,35/1 l

Acrylamide and Bisacrylamide Stock Solutions

PAGE solutions are always a mixture of acrylamide and bisacrylamide. Acrylamide forms linear polymers, whereas bisacrylamide crosslinks these linear polymers forming pores of a special size. The pore size may be altered by varying the total gel concentration (% T) and the percentage of the crosslink (% C).
With the ROTIPHORESE® stock solutions the desired T/C rate can be produced. You need an acrylamide stock solution (Gel A or Gel A-40) and a bisacrylamide stock solution (Gel B).

For detailed instructions regarding gel preparation with ROTIPHORESE® Gel A, A-40 and B please see user manual and technical information brochure “PAGE Instructions”.



ROTIPHORESE®Gel A

ROTIPHORESE® 30 %, gas-stabilized

Aqueous acrylamide stock solution for preparation of protein gels in combination with ROTIPHORESE® Gel B.

Directions for use

Ready-to-use, stabilised 30 % acrylamide stock solution. In combination with ROTIPHORESE®Gel B (2 % bisacrylamide stock solution, Art. No. 3039) gels with up to 20 % total acrylamide concentration can be produced.

For detailed instructions regarding gel preparation with ROTIPHORESE®Gel A, A-40 and B please see our Technical Information Brochure “PAGE Instructions”.

Gels with up to 20 % total acrylamide concentration can be produced.

Storage temperature: +4 °C

WGK 3

Danger H302-H315-H317-H319-H340-H350-H361f-H372

Filled under protective gas.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
3037.2	250 ml	glass	25,70
3037.1	1 l	glass	66,15
Original pack 6 x 1 l			62,84/1 l

ROTIPHORESE®Gel A-40

ROTIPHORESE® 40 %, gas-stabilized

Aqueous acrylamide stock solution for preparation of protein gels in combination with ROTIPHORESE® Gel B.

Directions for use

Ready-to-use, stabilised 40 % acrylamide stock solution. In combination with ROTIPHORESE®Gel B (2 % bisacrylamide stock solution, Art. No. 3039) gels with up to 25 % total acrylamide concentration can be produced.

For detailed instructions regarding gel preparation with ROTIPHORESE®Gel A, A-40 and B please see our Technical Information Brochure “PAGE Instructions”.

Gels with up to 25 % total acrylamide concentration can be produced.

Storage temperature: +4 °C

WGK 3

Danger H302+H332-H315-H317-H319-H340-H350-H361f-H372

Filled under protective gas.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
7748.1	250 ml	glass	35,40
7748.2	1 l	glass	84,85
Original pack 6 x 1 l			80,61/1 l

ROTIPHORESE®Gel B

ROTIPHORESE® 2 %, gas-stabilized

Aqueous bisacrylamide stock solution for preparation of protein gels in combination with ROTIPHORESE®Gel A or Gel A-40.

Directions for use

Ready-to-use, stabilised 2 % bisacrylamide stock solution. In combination with ROTIPHORESE®Gel A (30 % acrylamide stock solution, Art. No. 3037) or ROTIPHORESE®Gel A-40 (40 % acrylamide stock solution, Art. No. 7748) gels with up to 25 % total acrylamide concentration can be produced.

For detailed instructions regarding gel preparation with ROTIPHORESE®Gel A, A-40 and B please see our Technical Information Brochure “PAGE Instructions”.

Gels with up to 25 % total acrylamide concentration can be produced.

Storage temperature: +4 °C

WGK 1

Filled under protective gas.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
3039.2	250 ml	glass	24,65
3039.1	1 l	glass	59,70
Original pack 6 x 1 l			56,72/1 l

Please note our **Technical Information Brochure** on the Internet next to the products:

PAGE – polyacrylamide gel electrophoresis
General technical information

ROTIPHORESE®NF Ready-to-Use Solutions for Automated Sequencing

ROTIPHORESE®NF ready-to-use solutions for automated sequencing **are special fluorescence-free acrylamide/bisacrylamide mixtures** of highest quality as required for automatic sequencing.
Made from 4x cristallised acrylamide.



ready-to-use

ROTIPHORESE®NF-Acrylamide/Bis-solution 30 (29:1)

ROTIPHORESE® 30 %, ready-to-use, gas-stabilized, fluorescence-free

Aqueous acrylamide and bisacrylamide stock solution at a ratio of 29:1 for PAGE and DNA sequencers.

Cross linking 3,3.

ROTIPHORESE®NF ready-to-use solutions are made from 4x crystallized acrylamide and are special fluorescence-free acrylamide/bisacrylamide mixtures of the highest quality, as required for automatic sequencing.

Analysis of proteins/peptides <30 kD, DNA oligonucleotides and long-run DNA sequencing. Cross linking 3,3.

Storage temperature: +4 °C

WGK 3

Danger H302-H315-H317-H319-H340-H350-H361f-H372

Filled under protective gas.
Tested for automatic sequencers.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
A124.1	250 ml	glass	69,80
A124.2	1 l	glass	209,65
Original pack 6 x 1 l			199,17/1 l

► Fluorescence free urea see page 18

► ROTIPHORESE®NF 10x TBE Buffer see page 29

NF acrylamide solutions are very well suited for application in fluorescence-labelled automated sequencing, e. g. using LI-COR or ABI slab gel sequencers.



ready-to-use

ROTIPHORESE®NF-Acrylamide/Bis-solution 40 (19:1)

ROTIPHORESE® 40 %, ready-to-use, gas-stabilized, fluorescence-free

Aqueous acrylamide and bisacrylamide stock solution at a ratio of 19:1 for PAGE and automatic DNA sequencers.

Cross linking 5.

ROTIPHORESE®NF ready-to-use solutions are made from 4x crystallized acrylamide and are special fluorescence-free acrylamide/bisacrylamide mixtures of the highest quality, as required for automatic sequencing.

Optimal for DNA gels for separation of small fragments, manual sequencing and automatic sequencers. Cross linking 5.

Storage temperature: +4 °C

UN no. 3426 · ADR 6.1 III · WGK 3

Danger H301-H315-H317-H319-H332-H340-H350-H361f-H372

Filled under protective gas.
Tested for automatic sequencers.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
A516.1	250 ml	glass	72,60

ready-to-use

ROTIPHORESE®NF-Acrylamide/Bis-solution 40 (29:1)

ROTIPHORESE® 40 %, ready-to-use, gas-stabilized, fluorescence-free

Aqueous acrylamide and bisacrylamide stock solution at a ratio of 29:1 for PAGE and automatic DNA sequencers.

Cross linking 3,3.

ROTIPHORESE®NF ready-to-use solutions are made from 4x crystallized acrylamide and are special fluorescence-free acrylamide/bisacrylamide mixtures of the highest quality, as required for automatic sequencing.

Analysis of proteins/peptides <30 kD, DNA oligonucleotides and long-run DNA sequencing. Cross linking 3,3.

Storage temperature: +4 °C

UN no. 3426 · ADR 6.1 III · WGK 3

Danger H301-H315-H317-H319-H332-H340-H350-H361f-H372

Filled under protective gas.
Tested for automatic sequencers.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
A121.1	250 ml	glass	58,60

Ready-Made Solutions for Manual Sequencing



ROTIPHORESE®DNA sequencing system

Sequencing gel solutions, Gel solution

- For preparation of 4–20 % sequencing gels
- Most simple handling of three optimised ready-to-use solutions
- No tedious dissolving of urea
- Prevents acrylamide dusts
- Reproducible, superior quality of gels
- In tried-and-tested ROTIPHORESE® quality

Convenient set containing three ready-made solutions for easy and fast casting of sequencing gels. Solutions are produced in ROTIPHORESE® quality and are perfectly matched – providing superior, reproducible quality and high sequence resolution.
In addition, the ROTIPHORESE®Sequencing system allows flexible adaptation to the desired gel variant, so that the amount of urea can be varied in addition to the acrylamide concentration. By using the ROTIPHORESE®Sequencing gel buffer concentrate and ROTIPHORESE®Sequencing gel diluent contained in the set, gels with 50 % urea content are obtained. By adding defined quantities of ROTIPHORESE®10x TBE buffer or water, the urea content can be reduced to up to 40 %.

Directions for use

Handling is most simple: Measure and mix certain amounts of all three components, add APS and TEMED, and cast the gel. We recommend using the Carl ROTH sequencing electrophoresis chamber (Art. no. AE28).

ready-to-use

ROTIPHORESE®DNA sequencing system

ROTIPHORESE® for DNA sequencing

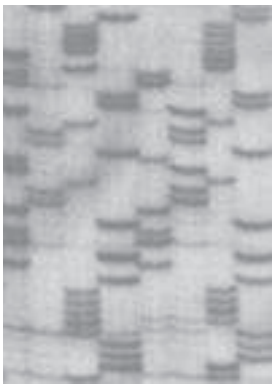
Set of ready-to-use solutions for preparation of DNA sequencing gels (manual sequencing).

The kit contains

- 1 l ROTIPHORESE®sequencing gel concentrate (Art. No. 3043.1) – ready-to-use, stabilised solution of 25 % acrylamide/bisacrylamide 19:1 with 50% urea (8,3 M).
- 1 l ROTIPHORESE®sequencing gel diluent (Art. No. 3047.1) – 50 % (g/v; 8,3 M) solution of urea in water.
- 250 ml ROTIPHORESE®sequencing gel buffer concentrate (Art. No. 3050.1) – 10x TBE with 50 % urea (8,3 M).
- Detailed instructions for use are enclosed with the product.

One set is sufficient for 35 gels of 6 % (30 x 40 cm) with 40 % urea
Storage temperature: +4 to +15 °C
WGK 3
Danger H302-H315-H317-H319-H340-H350-H360FD-H372

Art. No.	Pack Qty.	Packaging	Pack.	€
A431.1	1 kit	2 x 1 l, 1 x 250 ml	glass	134,40



ready-to-use

ROTIPHORESE®Sequencing gel concentrate

ROTIPHORESE® 25 % solution (19:1), ready-to-use, gas-stabilized

Aqueous acrylamide and bisacrylamide stock solution at a ratio of 19:1 for preparation of sequencing gels of 0–20 % acrylamide.

Ready-to-use, stabilised solution of 25 % acrylamide/bisacrylamide 19:1.
For the preparation of polyacrylamide sequencing gels containing 0-20 % monomer; 23,75 % acrylamide,1,25 % methylene bisacrylamide and 40–50 % urea (6,7–8,3 M).

Cross linking 5.

Also part of the ROTIPHORESE®DNA sequencing system (Art. No. A431.1).

One liter is sufficient for 70 gels of 6 % (30 x 40 cm). Cross linking 5.

Storage temperature: +4 to +15 °C
WGK 3
Danger H302-H315-H317-H319-H340-H350-H361f-H372

per 1 l.
23.75 % acrylamide.
1.25 % methylene bisacrylamide.
50 % urea.
distilled, deionized water.
Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Pack.	€
3043.2	100 ml	glass	17,10
3043.1	1 l	glass	74,75
Original pack 6 x 1 l			71,01/1 l

ready-to-use

ROTIPHORESE®Sequencing gel buffer concentrate

ROTIPHORESE® 50 % (w/v, 8,3 M) in 10x TBE

Solution of urea in 10x TBE for DNA sequencing

Ready-to-use 10x TBE stock solution (1 M Tris borate, 20 mM EDTA buffer, pH 8,3) with 50 % urea .
For the preparation of polyacrylamide sequencing gels with 40–50 % urea (6,7–8,3 M).

Also part of the ROTIPHORESE®DNA sequencing system (Art. No. A431.1).

One liter is sufficient for 160 gels (30 x 40 cm)

Storage temperature: +4 to +15 °C

WGK 1

Danger H360FD

1.0 M TRIS borate (pH 8.3), 20 mM EDTA.
50 % urea.
distilled, deionized water.
Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Pack.	€
3050.1	250 ml	glass	31,75

ready-to-use

ROTIPHORESE®Sequencing gel diluent

ROTIPHORESE® 50 % (w/v, 8.3 M), ready-to-use

Solution of urea in water for diluting ROTIPHORESE®Sequencing gel concentrate.

Ready-to-use, aqueous 50 % urea stock solution.
For the preparation of polyacrylamide sequencing gels with 40–50 % urea (6,7–8,3 M).

Also part of the ROTIPHORESE®DNA sequencing system (Art. No. A431.1).

One liter is sufficient for 35 gels (30 x 40 cm) with 40 % urea

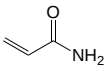
Storage temperature: +4 to +15 °C

WGK 1

50 % urea.
distilled, deionized water.
Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Pack.	€
3047.1	1 l	glass	46,80
Original pack 6 x 1 l			44,46/1 l

Reagents for PAGE



Acrylamide, 4x cryst.

≥99 %, p.a., 4x cryst.

For gel electrophoresis.

Top-quality acrylamide, particularly suitable for sequencing gels and flourescence labelled applications.

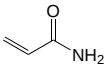
C_3H_5NO · M 71,08 g/mol

Storage temperature: +4 °C

UN no. 2074 · ADR 6.1 III · WGK 3

Danger H301-H312+H332-H315-H317-H319-H340-H350-H361f-H372

Art. No.	Pack Qty.	Pack.	€
7906.1	100 g	plastic	52,70
7906.3	250 g	plastic	106,45
7906.4	500 g	plastic	198,90
Original pack 6 x 500 g			188,96/500 g
7906.2	1 kg	plastic	353,70
Original pack 6 x 1 kg			336,02/1 kg



Acrylamide, 2x cryst.

≥98 %, extra pure, 2x cryst.

For gel electrophoresis

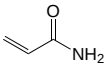
Standard acrylamide, inexpensive and versatile. For all standard applications.

C_3H_5NO · M 71,08 g/mol

UN no. 2074 · ADR 6.1 III · WGK 3

Danger H301-H312+H332-H315-H317-H319-H340-H350-H361f-H372

Art. No.	Pack Qty.	Pack.	€
7871.1	500 g	plastic	62,25
Original pack 6 x 500 g			59,14/500 g
7871.2	1 kg	plastic	85,90
Original pack 6 x 1 kg			81,61/1 kg
7871.3	2.5 kg	plastic	163,95
7871.4	5 kg	plastic	278,45



Acrylamide, BioScience

≥99 %, BioScience Grade, 4x cryst.

For molecular biology and sequencing

Top-quality acrylamide for electrophoresis, especially suitable for molecular biological applications.

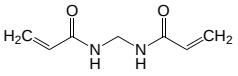
C_3H_5NO · M 71,08 g/mol

Storage temperature: +4 °C

UN no. 2074 · ADR 6.1 III · WGK 3

Danger H301-H312+H332-H315-H317-H319-H340-H350-H361f-H372

Art. No.	Pack Qty.	Pack.	€
0189.1	100 g	plastic	59,05
0189.2	500 g	plastic	228,45
Original pack 6 x 500 g			217,03/500 g



N,*N*'-Methylene bisacrylamide

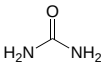
≥98 %, for gel electrophoresis

$C_7H_{10}N_2O_2$ · M 154,17 g/mol

Storage temperature: +4 °C
WGK 1

Warning H302

Art. No.	Pack Qty.	Pack.	€
7867.1	50 g	plastic	37,55
7867.2	100 g	plastic	62,25



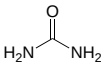
Urea

≥99,5 %, p.a., BioScience Grade

For molecular biology and biochemistry.

CH_4N_2O · M 60,06 g/mol
WGK 1

Art. No.	Pack Qty.	Pack.	€
2317.3	500 g	plastic	38,60
Original pack 6 x 500 g			36,67/500 g
2317.1	1 kg	plastic	68,70
Original pack 6 x 1 kg			65,27/1 kg
2317.4	2.5 kg	plastic	152,15
2317.2	5 kg	plastic	265,00



ROTIPHORESE®NF-Urea

ROTIPHORESE® fluorescence-free

for electrophoresis and fluorescent applications
Tested for automatic sequencers
Especially suitable for sequencing

CH_4N_2O · M 60,06 g/mol

Storage temperature: +4 to +15 °C
WGK 1

Tested for automatic sequencers.

Art. No.	Pack Qty.	Pack.	€
A120.1	1 kg	plastic	85,90
Original pack 6 x 1 kg			81,61/1 kg

TEMED

≥98,5 %, for synthesis

Catalyst for acrylamide polymerisation; bottled under argon.

The solution may contain sediment. It can be filtered before use. Lot-specific colour variation may range from slight to considerable yellow.

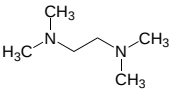
$C_6H_{16}N_2$ · M 116,21 g/mol
UN no. 2372 · ADR 3 II · WGK 1

Danger H225-H302+H332-H314

Bottled under argon.

Art. No.	Pack Qty.	Pack.	€
8142.1	100 ml	glass	35,40
8142.2	500 ml	glass	131,70
8142.3	1 l	glass	231,15
Original pack 6 x 1 l			219,59/1 l





TEMED

≥99 %, p.a., for electrophoresis

Catalyst for acrylamide polymerisation in PAGE

Directions for use
Use only fresh TEMED. Please store carefully and replace regularly.

40 µl TEMED per 100 ml gel solution

$C_6H_{16}N_2$ · M 116,21 g/mol
UN no. 2372 · ADR 3 II · WGK 1

Danger H225-H302+H332-H314

Bottled under argon.

Art. No.	Pack Qty.	Packaging	Pack.	€
2367.3	25 ml	1 x 25 ml	glass	23,55
2367.4	50 ml	5 x 10 ml	glass	58,60
2367.1	100 ml	1 x 100 ml	glass	50,45
2367.2	250 ml	1 x 250 ml	glass	99,90



Ammonium peroxydisulphate

≥98 %, p.a., ACS

Oxidizing agent for Cu, for separation of Mn and Cr.
For electrophoresis. Polymerisation catalyst.
Polymerisation catalyst for acrylamide/bisacrylamide polymerisation.

Use 10 % APS solution – fill 1 g of APS with water to an end volume of 10 ml. Prepare freshly or store in aliquots at –20 °C. Freeze and thaw infrequently.

$(NH_4)_2S_2O_8$ · M 228,20 g/mol
UN no. 1444 · ADR 5.1 III · WGK 1

Danger H272-H302-H315-H317-H319-H334-H335

Art. No.	Pack Qty.	Pack.	€
9592.3	50 g	plastic	16,05
9592.2	100 g	plastic	25,70
9592.5	500 g	plastic	69,80
Original pack 6 x 500 g			66,31/500 g
9592.1	1 kg	plastic	117,75
Original pack 6 x 1 kg			111,86/1 kg
9592.4	2.5 kg	plastic	231,15

ROTIPHORESE®PAGE Matrix Buffer plus

Gel matrix buffer, SDS-PAGE buffer

- Increases protein separation quality significantly
- Superior band dissemination from 5 kDa to 250 kDa
- Higher gel strength and longer shelf life
- Compatible with all common gel loading and running buffers
- Compatible with all common gel staining methods
- Also well suitable for 2D gels and prior to Western Blotting
- 250 ml sufficient for approx. 100 mini gels

ROTIPHORESE®PAGE Matrix Buffer plus is a 4x concentrated gel matrix buffer for enhanced protein separation and significantly higher gel strenth.

ROTIPHORESE®PAGE Matrix Buffer plus can be used for preparation of both stacking gel and resolving gel by simply replacing the Laemmli/ TRIS-, or TRICIN-, buffer system. Even gels with stacking gels of only one acrylamide concentration, show a protein separation quality comparable to that of gradient gels. Band depiction is significantly enhanced compared to standard buffer systems.
ROTIPHORESE®PAGE Matrix Buffer plus also provides increased gel strength, making handling of the gels much more convenient, for instance during separation of the glass plates or during transport. Gel stability is increased, leading to longer shelf lifes of self-made gels. Gels prepared with ROTIPHORESE®PAGE Matrix Buffer plus may also very well be used for 2D protein analysis or for subsequent Western Blotting onto NC or PVDF membranes.

► ROTI®Stock 20 % SDS see page 170

► SDS pellets see page 171

► ROTI®Fair 10 % SDS see www.carlroth.com

► ROTI®Fair 10 % SDS see www.carlroth.com

ready-to-use

ROTIPHORESE®PAGE Matrix Buffer plus

ROTIPHORESE® 4x conc., for electrophoresis

Ready-made buffer solution for pouring of optimized SDS-PAGE gels.

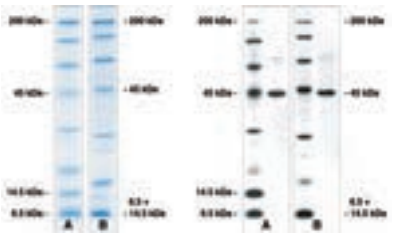


Figure 1 and 2:
Coomassie® stained gel and Western blot. HeLa extract on PVDF, detected via HRP chemoluminescence.
A: 10 % PAGE using Rotiphorese®-PAGE Matrix buffer plus,
B: 12 % PAGE using standard Tris glycine SDS buffer.



Figure 3:
Silver staining. HL-60 cell extract after 1D-IEF (pH 4-7) and 2D gel electrophoresis in a 12 % PA gel using Rotiphorese®-PAGE Matrix buffer plus.



Figure 4:
Stability of a 6 % PA gel.

One bottle of 250 ml is sufficient for pouring of approx. 100 mini gels.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Packaging	Pack.	€
8996.1	250 ml	1 x 250 ml	plastic	149,45

Agaroses and Gelling Reagents

Our agarose ROTI®Garose is a neutral polysaccharide which is obtained in many purification steps from the cell wall of certain algae, called Rhodophyceae. ROTI®Garose forms very clear gels with all standard running buffers and will result in a sharp and clear separation of your biomolecules. Extremely pure agarose with very low interference binding to staining reagents. Roti®garose produces a low background and high contrast appearance after staining



- For clear and sharp bands
- Gels with high transparency
- Low background
- Suitable for all standard running buffers and high-speed buffer systems
- Compatible with all nucleic acid staining systems
- Non-toxic in cell immobilisation assays
- Of course DNase and RNase free

Please note our **Technical Information Brochure** on the Internet next to the agaroses:
ROTI®Garoses and gel electrophoresis.

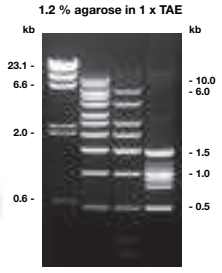
Roth Has the Right Agarose for Every Application:

Roti®garose	Art. No.	Application
Standard	3810	Routine gels, student's courses, general analyses (1–20 kb).
NEEO ultra quality	2267	All standard applications, qualitative and quantitative gels, screening and blotting. Range 500 bp–20 kb.
Agarose Tablets	HP67	Highly reproducible gels, or simple applications in students courses. Suitable for all standard-gels (0,5–0,25 %). For fragments ≥300 bp.
GTQ	6352	Genetic engineering quality, for DNA-elution of fragments ≥500 bp without melting the agarose* ** Tip: Use Kit Roti®-Prep Gel Extraction (Art. No. 8510.1)*
Broad Range	T846	For the total analytical range (200 bp up to 40 kb), Pulsed-Field electrophoresis, blotting, shift assays. Ideal when only a few agaroses are to be used in the laboratory.
Pulsed-Field	3771	Separation of large fragments (up to 20 kb), Pulsed Field gel electrophoresis (PFGE)
HR PLUS	HP30	Analysis of fragments between 100 and 3000 bp
High Resolution	K297	Analysis of fragments between 50 and 1000 bp
Low Melt	6351	With low melting and gelling temperatures (MT ≤65,5 °C, GT ≤28 °C). For gel elution from melted agarose. Range 500 bp-20 kb.
LM / PCR	HP31	Genetic engineering quality with low melting and gelling temperatures (MT ≤65 °C, GT ≤35 °C). For DNA-elution of fragments <1500 bp from melted agarose.
Super LM	HP45	With extremely low melting and gelling temperatures. (MT ≤62 °C, GT ≤20 °C). For gel elution from melted agarose. Recommended for in-gel analysis, capillary electrophoresis and cell and tissue culture. For fragments ≥1000 bp.
MEEO Ultra quality	2268	With medium EEO. For immune, serum and antibody electrophoresis. Range 500 bp–10 kb.
HEEO Ultra quality	2269	With high EEO. For protein precipitation and countercurrent electrophoresis.
Synergel®	0184	Agarose additive for finer pore formation. Increases the separative power of the agarose. For fragments from 10 bp up.



Agaroses and Gelling Reagents





DNAse-free RNAse-free

Agarose Standard

ROTI®Garose for DNA/RNA electrophoresis

General agarose for routine gels, student's courses, and standard analyses (1 kb-20 kb).

- Inexpensive agarose for routine gels and standard analyses
- Good separation efficiency for nucleic acids of 1 to 20 kb length
- Easily melting, non-foaming agarose
- Low background fluorescence after ethidium bromide staining
- Very cost-effective

Figure (left to right): Roth Lambda *Hind* III Marker (Art. No. X910.1) 0,6 µg, 1 kbp DNA Ladder (Art. No. Y014.1) 0,8 µg, DNA-Marker short-run *extended* (Art. No. CL05.1) 0,4 µg, PCR-Marker DNA*score* (Art. No. T146.1) 0,5 µg.

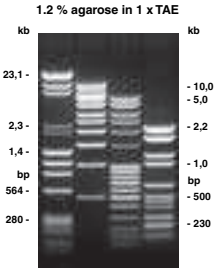
Guarantee analysis

Electroendosmosis (EEO)	≤0,12
Sulphate (SO_4)	≤0,15 %
Loss on drying	≤10 %
Ash	≤0,6 %
Gel strength (1 % gel)	≥1100 g/cm²
Gelling temperature (1,5 % gel)	36 ±2 °C
DNases, RNases	none detected
Melting temperature (1,5 % gel)	90-95 °C

Art. No.	Pack Qty.	Pack.	€
3810.1	10 g	plastic	22,05
3810.2	100 g	plastic	87,65
3810.5	250 g	plastic	174,70
3810.3	500 g	plastic	340,25
Original pack 6 x 500 g			323,24/500 g
3810.4	1 kg	plastic	552,05
Original pack 6 x 1 kg			524,45/1 kg

Agarose as Gelling Reagent

Chemically, agarose is a galactan which is capable of forming extremely solid gels, even at a low concentration. The pore size of the gels is determined by the concentration of the agarose used. Because there are no ionic groups in the gel, hydrophilic materials without any interaction with the gel matrix will also be separated according to their size. The high hysteresis of the agarose, that is the thermal stability after solidification, ensures that the gels remain reliably stable even during heatproducing running conditions.



DNAse-free RNAse-free

Agarose NEEO ultra-quality

ROTI®Garose low electroendosmosis (EEO = 0.05–0.13)

High-quality agarose for all general applications (500 bp-20 kb).

- Excellent separative power for nucleic acids of 500 bp to 20 kb
- High gel strength for stable gels and good handling
- Extremely low EEO allows speedy and efficient separation of nucleic acid molecules
- Fast melting, non-foaming agarose

Figure: (left to right) Roth Lambda *Hind* III / phiX *Hae* III marker (Art. No. CP49.1) 1 µg, 1 kbp DNA-ladder (Art. No. Y014.1) 0,8 µg, 100 bp-DNA-ladder *extended* (Art. No. T835.1) 0,8 µg, pBR328 Mix I (Art. No. T146.1) 0,8 µg.

Guarantee analysis

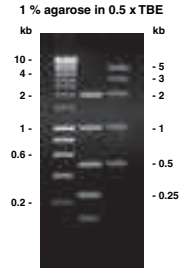
Electroendosmosis (EEO)	≤0,12
Water content	≤8,5 %
Ash	≤0,6 %
Sulphate (SO_4)	≤0,14 %
Gel strength (1 % gel)	≥1200 g/cm²
Gelling temperature (1,5 % gel)	36 ±2,0 °C
Melting temperature (1,5 % gel)	≥ 90°C
DNases, RNases	none detected

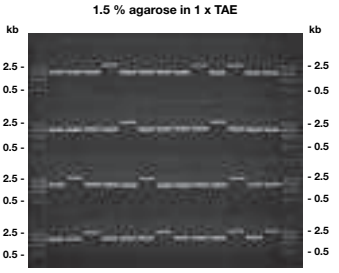
Art. No.	Pack Qty.	Pack.	€
2267.1	10 g	plastic	24,65
2267.2	100 g	plastic	122,05
2267.5	250 g	plastic	268,75
2267.4	500 g	plastic	514,95
Original pack 6 x 500 g			489,20/500 g
2267.3	1 kg	plastic	880,45
Original pack 6 x 1 kg			836,43/1 kg

► ROTI®GelStain Red, ROTI®GelStain und SYBR® Green DNA dye® – non-toxic ready-made solutions for fluorescent staining see page 49

► Ethidium bromide see page 418

Agaroses and Gelling Reagents





DNAse-free RNAse-free

Agarose-Tablets

ROTI®Garose 0,5 g agarose/tablet

Standard agarose with low EEO, for routine analyses (≥300 bp).

- Easy-to-use and safe tablets for constant gel strength and well reproducible gels
- Reliable agarose for routine analyses
- for detection of inserts or PCR amplificates of over 300 bps
- Agarose with high gel strength, applicable from 0,5 to 2,5 %
- Compatible with all standard running buffers and nucleic acid-staining methods



Guarantee analysis

Electroendosmosis (EEO) 0,05-0,1
Water content ..... ≤10 %
Sulphate (SO_4) ..... <0,2 %
Gel strength (1 % gel) ..... ≥1200 g/cm²
Gelling temperature ..... 36 ± 1,5 °C
Melting temperature ..... 88 ± 1,5 °C
DNases, RNases ..... none detected

Art. No.	Pack Qty.	Pack.	€
HP67.6	20 unit(s)	blister	34,30
HP67.7	200 unit(s)	blister	246,20
HP67.8	600 unit(s)	blister	698,75

DNAse-free RNAse-free

Agarose GTQ

ROTI®Garose Genetic engineering quality

Especially tested agarose for gel elution and biomolecular approaches (500 bp-20 kb).

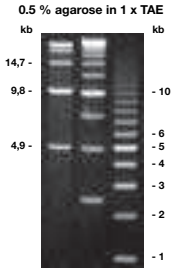
- Genetic technology quality (GTQ)
- For preparative DNA/RNA-electrophoresis of 500 bp to 20 kb
- Recommended for all molecular-biological routine methods like blotting, cloning, sequencing etc.
- No DNA binding
- No inhibition of restriction enzymes and ligases
- Particular low gel background after ethidium bromide staining

Fig.: High-through put screening with very short running distance. Plasmids of 2,65 and 4,36 kb. Lanes 1 and 15: DNA marker short run 1 (Art. No. 0146.1) 0,2 µg per lane.

Guarantee analysis

Electroendosmosis (EEO) ..... ≤0,11
Water content ..... ≤8 %
Ash ..... ≤0,5 %
Sulphate (SO_4) ..... ≤0,1 %
Gel strength (1 % gel) ..... ≥1200 g/cm²
Gel strength (1,5 % gel) ..... ≥2300 g/cm²
Gelling temperature ..... 36 ±2,0 °C
Melting temperature ..... 92 ±2,0 °C
DNases, RNases ..... none detected
DNA binding ..... none detected

Art. No.	Pack Qty.	Pack.	€
6352.1	10 g	plastic	33,25
6352.2	100 g	plastic	201,60
6352.4	500 g	plastic	833,15
Original pack 6 x 500 g			791,49/500 g



DNAse-free RNAse-free

Agarose Broad Range

ROTI®Garose BioScience Grade

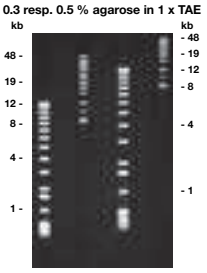
For gel electrophoresis, total size range (200 bp-40 kb).

- High-molcular linear polymer of particularly high DNA mobility in electrophoresis
- The ideal choice for Pulse Field gel electrophoresis
- Excellent for resolving DNAfragments between 200 bp and 40 kb in conventional gel electrophoresis
- Low EEO allows speedy and efficient resolution of very large DNA-molecules
- Extremely high gel strength guarantees good handling even at low concentrations of 0,3 % agarose
- Also suitable for separation of particles like ribosomes, virions or chromosomes

Guarantee analysis

Electroendosmosis (EEO) ..... ≤0,12
Ash content ..... ≤0,25 %
Sulphate (SO_4) ..... ≤0,12 %
Turbidity (1,5 % solution) ..... ≤4 NTU
Loss on drying ..... ≤7 %
Gel strength (1 % gel) ..... ≥1800 g/cm²
Gel strength (1,5 % gel) ..... ≥3200 g/cm²
Gelling temperature ..... 34,5-37,5 °C
Melting temperature ..... 86,5-89,5 °C
DNA-separation (≥1000 bp) ..... complies
DNases, RNases ..... none detected

Art. No.	Pack Qty.	Pack.	€
T846.1	10 g	plastic	31,75
T846.2	100 g	plastic	162,90
T846.3	500 g	plastic	697,70
Original pack 6 x 500 g			662,82/500 g



DNAse-free RNAse-free

Agarose Pulsed-Field

ROTI®Garose Genetic engineering quality, for pulsed field electrophoresis

Special agarose for separation of large fragments (20-50 kb).

- Optimised for separation of fragments of 20 to 50 kb or for Pulsed Field Gel Electrophoresis (PFGE)
- High gel-strength agarose for tearproof gels that are easy to handle
- High DNA mobility for fast and efficient gel electrophoresis
- Low background fluorescence after ethidium bromide staining
- In general, suitable for separation of fragments larger than 1000 bp
- Tested for absence of DNAses, RNAses and DNA binding

Figure (left to right): 0,3 % Agarose Pulsed-Field, extended 1kbp Ladder (1 µg) and High Molecular Weight Marker (0,3 µg, heated for 10 mins. at 65 °C); then same markers on 0,5 % Agarose Pulsed-Field.

Guarantee analysis

Electroendosmosis (EEO) ..... ≤0,05
Sulphate (SO_4) ..... ≤0,10 %
Loss on drying ..... ≤10 %
Gel strength (1 % gel) ..... ≥1800 g/cm²
Gelling temperature ..... 36 ±1,5 °C
Melting temperature ..... ≥90 °C
DNases, RNases ..... none detected

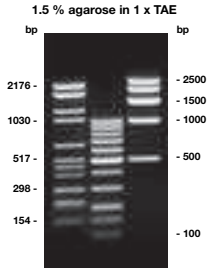
Art. No.	Pack Qty.	Pack.	€
3771.1	10 g	plastic	38,60
3771.2	25 g	plastic	70,45
3771.3	100 g	plastic	217,70
3771.4	250 g	plastic	439,70

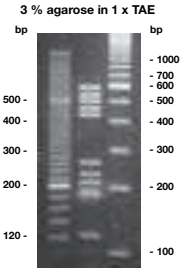
Electroendosmosis (EEO)

Osmotic Liquid Migration Caused by Electric Current

In gel matrices of agarose gels, minor impurities caused by cations (sulphate ester) are frequent. When an electric field is applied they move in the direction of the cathode, generating an electroosmotic flow (EOF) of the entire aqueous medium towards the negative pole. The migration speed of the flow depends, amongst other things, on the strength of the electric field and the frictional force generated by the gel matrix. The EOF always runs in the direction of the cathode, that is opposite to the movement of the anions separated during nucleic acid electrophoresis, and slows down their migration.

In the event of an agarose with high EEO, many cations are present, which generate a strong EOF. Furthermore, the gel strength is low, causing only weak frictional force. The strong EOF can lead to a change of behaviour during the run of the negatively-charged molecules (DNA/RNA) when using the agarose MEEO or HEEO. In extreme case anions with low self-mobility can even be diverted and transported in the direction of the cathode, causing band shifting.





DNAse-free RNAse-free

Agarose HR-PLUS

ROTI®Garose for analytical gels

Special agarose for use in the main analytical range (100 bp-3 kb).

- Reliable agarose for routine analyses in the range of 100 to 3000 bp
- Superior separation efficiency and high gel strength, usable in concentrations of up to 3 % agarose
- Very well suited for analysis of PCR amplificates, restriction digests and for blotting
- Low gel background
- Compatible with all standard nucleic acid-staining methods
- Separation range in 1 x TAE:
  1 % proof agarose gel: 1000-3000 bp
  1,5 % proof agarose gel: 300-2000 bp
  2,5 % proof agarose gel: 100-1000 bp

Guarantee analysis

Electroendosmosis (EEO) ..... ≤0,12
Water content ..... ≤8,5 %
Ash ..... ≤0,6 %
Sulphate (SO_4) ..... ≤0,14 %
Gel strength (1,5 % gel) ..... ≥1500 g/cm²
Gelling temperature (1,5 % gel) ..... ~36 °C
Melting temperature (1,5 % gel) ..... ~88 °C
Turbidity (1,5 % solution) ..... ≤4 NTU
DNases, RNases ..... none detected
DNA binding ..... very low

Art. No.	Pack Qty.	Pack.	€
HP30.1	10 g	plastic	58,60
HP30.2	100 g	plastic	360,15
HP30.3	500 g	plastic	1.392,15
Original pack 6 x 500 g			1.322,54/500 g

DNAse-free RNAse-free

Agarose High Resolution

ROTI®Garose for small fragments

Special agarose for PCR gels and small DNA fragments (50 bp–1 kb).

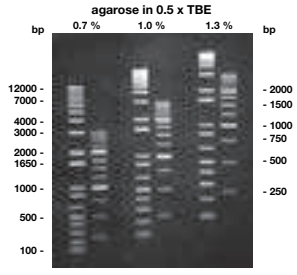
- High resolution of PCR-products and DNA fragments in the 50–1000 bp range
- Low gel background after staining, even for highly concentrated gels
- Can be used in concentrations of up to 5 % agarose
- Low DNA binding and low EEO for efficient separation of very small fragments
- Tip: cool the gel for 30 mins. at 4–8 °C before use for superior separation
- Separation range in 1 x TAE:
  1,8 % proof agarose gel: 500–1000 bp
  3,0 % proof agarose gel: 150–600 bp
  4,5 % proof agarose gel: 50–350 bp

Guarantee analysis

Electroendosmosis (EEO) ..... ≤0,12
Water content ..... ≤7 %
Ash ..... ≤0,35 %
Sulphate (SO_4) ..... ≤0,11 %
Gel strength (1,5 % gel) ..... ≥600 g/cm²
Gel strength (3 % gel) ..... ≥1500 g/cm²
Gelling temperature (3 % gel) ..... ≤35,5 °C
Melting temperature (3 % gel) ..... ≤80 °C
Turbidity (1,5 % solution) ..... ≤5 NTU
DNases, RNases ..... none detected

Art. No.	Pack Qty.	Pack.	€
K297.1	10 g	plastic	70,45
K297.2	100 g	plastic	453,15
K297.3	500 g	plastic	1.881,25
Original pack 6 x 500 g			1.787,19/500 g

Agaroses and Gelling Reagents



DNAse-free RNAse-free

Agarose Low Melt

ROTI®Garose with low melting and gelling temperature

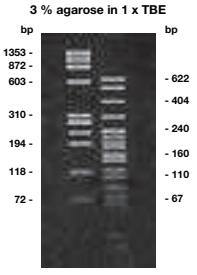
Particularly for gel elution and in-gel-application in a wide size range (500 bp–20kb).

- Low melting point and low gelling temperature
- High transparency and very low self fluorescence. For particular clear gels.
- The ideal solution when nucleic acid fragments or proteins are to be recovered after electrophoretic resolution
- Suitable for enzymatic reactions in liquid agarose (in-gel-applications)
- Excellent for immobilising microorganisms and virus-plaque-assays
- Suitable for cell culture applications (animal and plant)
- Tested for stability after autoclaving

Guarantee analysis

Electroendosmosis (EEO) ..... ≤0,12
Water content ..... ≤10 %
Ash ..... ≤0,4 %
Sulphate (SO_4) ..... ≤0,12 %
Gel strength (1,5 % gel) ..... ≥500 g/cm²
Gelling temperature (1,5 % gel) ..... ≤28 °C
Melting temperature (1,5 % gel) ..... ≤65,5 °C
Turbidity (1,5 % solution) ..... ≤4 NTU
DNases, RNases ..... none detected

Art. No.	Pack Qty.	Pack.	€
6351.1	5 g	plastic	48,95
6351.5	25 g	plastic	198,80
6351.2	100 g	plastic	693,40
6351.4	500 g	plastic	2.768,15
Original pack 6 x 500 g			2.629,74/500 g



DNAse-free RNAse-free

Agarose LM/PCR

ROTI®Garose Genetic engineering quality, with low melting and gelling temperature

Particularly for gel elution of small fragments (50 bp–1500 bp).

High resolution low melting agarose in genetic engineering quality. For optimal fragment separation, DNA recovery and cloning of PCR amplificates.

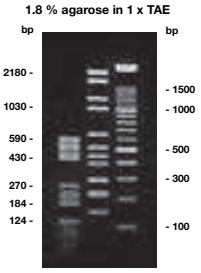
- Low melting point and low gelling temperature
- Fine resolution of fragments from 50 to 1500 bp
- Very well suited for analysis and recovery of PCR amplificates and fragments derived from restriction digests
- Also well suitable for in-gel-applications
- Low gel background, compatible with all standard nucleic acid-staining methods
- Low viscosity agarose, recommended for use in concentrations of 3 to 6 % agarose.

Note: gels of 2 % agarose and lower are fragile!

Guarantee analysis

Electroendosmosis (EEO) ..... ≤0,13
Water content ..... ≤7 %
Ash ..... ≤0,45 %
Sulphate (SO_4) ..... ≤0,12 %
Gel strength (4 % gel) ..... ≥800 g/cm²
Gelling temperature (4 % gel) ..... ≤35 °C
Melting temperature (4 % gel) ..... ≤65 °C
Turbidity (4 % solution) ..... ≤6 NTU
DNases, RNases ..... none detected
DNA binding ..... none detected
In-gel-processing ..... complies
Agarase digest ..... complies

Art. No.	Pack Qty.	Pack.	€
HP31.1	5 g	plastic	52,15
HP31.2	100 g	plastic	704,15
HP31.3	250 g	plastic	1.349,15



DNAse-free RNAse-free

Agarose Super LM

ROTI®Garose with particularly low melting and gelling temperature

Particularly for gel elution from melted agarose, capillary electrophoresis and in-gel processing (≥1000 bp).

- Fine resolution of fragments over 1000 bp
- Very well suited for analysis and recovery of longer PCR amplificates or other longer fragments like vectors, rare cutter digestions etc.
- Recommended for in-gel-applications, virus plaque-assays and tissue/cell culture applications
- Low gel background, compatible with all standard nucleic acid-staining methods
- Lower gel strength than Agarose Low Melt. Recommended for use in concentrations of over 1 % agarose

Guarantee analysis

Electroendosmosis (EEO) ..... ≤0,12
Water content ..... ≤7 %
Ash ..... ≤0,35 %
Sulphate (SO_4) ..... ≤0,14 %
Gel strength (1,5 % gel) ..... ≥300 g/cm²
Gelling temperature (1,5 % gel) ..... ≤20 °C
Melting temperature (1,5 % gel) ..... ≤62 °C
Turbidity (1,5 % solution) ..... ≤4 NTU
DNases, RNases ..... none detected

Art. No.	Pack Qty.	Pack.	€
HP45.1	5 g	plastic	52,60
HP45.2	100 g	plastic	714,90
HP45.3	250 g	plastic	1.392,15

DNAse-free RNAse-free

Agarose MEEO ultra-quality

ROTI®Garose middle electroendosmosis (EEO = 0,16–0,19)

Special agarose for immuno, countercurrent, serum and antibody electrophoresis (500 bp-10 kb).

- Suitable for separation of nucleic acids between 500 bp and 10 kb
- Gels are well-to-handle and have a strong matrix, even when using thin gels of 1–2 mm

Guarantee analysis

Electroendosmosis (EEO) 0,16-0,19
Water content ..... ≤7 %
Ash ..... ≤0,5 %
Sulphate (SO_4) ..... ≤0,14 %
Gel strength (1 % gel) ..... ≥1000 g/cm²
Gel strength (1,5 % gel) ..... ≥2200 g/cm²
Gelling temperature (1,5 % gel) ..... 36 ±1,5 °C
Melting temperature (1,5 % gel) ..... 88 ±1,5 °C
Turbidity (1,5 % solution) ..... ≤4 NTU

Art. No.	Pack Qty.	Pack.	€
2268.1	10 g	plastic	26,80
2268.2	100 g	plastic	150,00
2268.4	500 g	plastic	618,15
Original pack 6 x 500 g			587,24/500 g
2268.3	1 kg	plastic	1.021,25
Original pack 6 x 1 kg			970,19/1 kg

DNAse-free RNAse-free

Agarose HEEO ultra-quality

ROTI®Garose high electroendosmosis (EEO = 0,23–0,26)

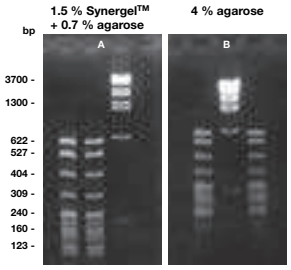
Special agarose for protein separation and countercurrent electrophoresis.

- Gels are well-to-handle and have a strong matrix, even when using thin gels of 1–2 mm
- Very clear and transparent matrix, even for thick gels

Guarantee analysis

Electroendosmosis (EEO) 0,23-0,26
Water content ..... ≤10 %
Ash ..... ≤1,0 %
Sulphate (SO_4) ..... ≤0,2 %
Gel strength (1 % gel) ..... ≥750 g/cm²
Gel strength (1,5 % gel) ..... ≥1200 g/cm²
Gelling temperature (1,5 % gel) ..... 36 ±1,5 °C
Melting temperature (1,5 % gel) ..... 88 ±1,5 °C
Turbidity (1,5 % solution) ..... ≤4 NTU

Art. No.	Pack Qty.	Pack.	€
2269.1	10 g	plastic	28,95
2269.2	100 g	plastic	158,60
2269.3	1 kg	plastic	1.091,15
Original pack 6 x 1 kg			1.036,59/1 kg



DNAse-free RNAse-free

Synergel™

≥99 %, for gel electrophoresis, up to 30 kb

Agarose additive

Synergel™ is a synergistic gelling and sieving agent consisting of a modified polysaccharide which, when combined with agarose, forms a hydrogen bonded binary gel system.
The addition of Synergel™ to agarose improves gel performance by providing superior separation and definition of DNA fragments up to 30 kb. A gel mixture containing 0,7 % agarose and 0,7 % Synergel™, e.g., will produce improved results when compared to a 2 % agarose-only gel. Synergel™ also provides greater optical clarity, which allows higher quality photodocumentation of stained gels.

Directions for use

Standard buffer systems like phosphate, acetate or borate buffered Tris-EDTA may be used in forming the gel with agarose/ Synergel™. RNA may also be separated in this system by using a 2,2 M formaldehyde-containing buffer. Synergel™ is compatible with standard blotting procedures, thus, nucleic acid may be electroeluted or transferred to membranes following standard Southern/Northern blotting protocols.

The **figure** compares separation qualities of
A: 1,5 % Synergel™ / 0,7 % agarose and **B:** 4 % high-resolution agarose (NuSieve®).
Please see also figures for pUC19 markers T149 and X901.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Type analysis

Colour ..... white to off-white powder
Odour ..... slightly salty
pH (1 % solution) 9
DNase, RNase ..... none detected

Art. No.	Pack Qty.	Pack.	€
0184.2	10 g	plastic	36,45
0184.1	100 g	plastic	256,95

How to Calculate the Required Synergel™ Quantity?

1. What percentage agarose gel is currently being used?
2. The gel will inevitably contain 0.7 % agarose (the minimum agarose concentration required to ensure gel stability). Hence, subtract 0.7 % from the agarose total.
3. Divide the difference by 2. The result is the percentage of Synergel™ to be added to the 0.7 % agarose.

Example:
Convert a 1 % agarose to a 1 % Synergel™/agarose gel

a. Substract 0.7 % from the 1 % agarose: 1 % – 0.7 % = 0.3 %

b. Divide the difference by 2: 0.3 % : 2 = 0.15 %

c. 0.15 % (150 mg / 100 ml) is the amount of Synergel™ added to 0.7 % agarose (0.7 g / 100 ml) to produce the functional equivalent of a 1 % agarose gel.

Discover our Life Science range at www.carlroth.com

Here you will find all the relevant information about our products – stay up to date!



- Detailed product information
- Specifications and certificates of analysis
- Instructions for use
- Suggestions for product alternatives
- Attractive offers
- Status of product availability
- Online order
- Newsletter
- ROTH Blog

Electrophoresis Gel Buffer Solutions

Time sparing ready-made buffers saving valuable time and significantly reducing your effort to prepare electrophoresis buffers. Each batch is manufactured from reagents of the highest purity and is subsequently filtered.

ROTIPHORESE®SDS-PAGE

SDS-PAGE buffer, Tris-glycine-SDS buffer, Laemmli buffer

Concentrated stock solution for tris/glycine/SDS gel run buffer (PAGE)

- Standardised composition according to Lämmli (*Nature*)
- Made from high-quality reagents
- For constant quality and highly reproducible gels

Mechanism

SDS denatures proteins and binds in a constant mass ratio to their peptide chains, covering their intrinsic charge. In the collection gel (pH 6.8) all proteins are kept in a sharp band between the neutral **Glycin** and chloride ions and thus all reach the separation gel at the same time. After the pH change when the separation gel is reached (pH 8.8), the chloride ions and the now cationic **Glycin** migrate very quickly to the anode and leave the proteins to themselves, which now move in the electric field **depending on size** towards the anode.



ready-to-use

ROTIPHORESE®10x SDS-PAGE

ROTIPHORESE® 10x conc.

SDS-PAGE running buffer in electrophoresis.

ROTIPHORESE®10x SDS-PAGE contains 0,25 M Tris, 1,92 M glycine and 1 % (w/v) SDS in distilled, deionised water for protein analysis. Acc. to Laemmli (1970), *Nature* 227:680.

Directions for use

ROTIPHORESE®10x SDS-PAGE is usually used as 1x concentrated solution. SDS-PAGE buffer is suitable for the denaturing separation of proteins and peptides of any size in the discontinuous polyacrylamide gel (collection gel / separation gel).

Mix before use!

WGK 1

0.25 M TRIS, 1.92 M glycine.
1 % (g/v) SDS, distilled, deionized water.
Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Pack.	€
3060.1	1 l	glass	46,80
Original pack 6 x 1 l			44,46/1 l
3060.3	2.5 l	glass	85,50
Original pack 4 x 2.5 l			81,23/2.5 l
3060.2	5 l	plastic	123,10
Original pack 2 x 5 l			116,95/5 l

ROTI®Fair SDS-PAGE

SDS-PAGE powder (pouch), Tris-glycine-SDS buffer, Laemmli buffer

Exactly pre-weighed pouches for convenient and rapid preparation of SDS-PAGE solution.

Running buffer for protein gel electrophoresis. Contains SDS und may therefore also used with SDS-free gels. Nach: Laemmli (1970), *Nature* 227:680.

Prepared solution may be sterilized by filtration (0,22 µm). For storage, buffer solution should be kept at room temperature.

ROTI®Fair SDS-PAGE

for 1000 ml/pouch, for electrophoresis

Buffer for protein electrophoresis.

1x SDS-PAGE solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

WGK 2

Danger H318

Prepared 1x SDS-PAGE solution contains: 25 mM Tris, 0.192 M glycine, 0,1 % SDS, pH 8.3 ±0,05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1249.1	10 unit(s)	box	299,95

ROTI®Fair SDS-PAGE

for 5000 ml/pouch, for electrophoresis

Buffer for protein electrophoresis.

1x SDS-PAGE solution is prepared by dissolution of 1 pouch in 5000 ml highly pure water.

WGK 2

Danger H318

Prepared 1x SDS-PAGE solution contains: 25 mM Tris, 0.192 M glycine, 0,1 % SDS, pH 8.3 ±0,05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1250.1	10 unit(s)	box	542,90

Please note our **Technical Information Brochure** on the Internet next to the products:

PAGE – polyacrylamide gel electrophoresis
General technical information

Gel Buffer Solutions

ROTIPHORESE®TBE Buffer

TBE-buffer

The TBE buffer is optimally suited as a gel and running buffer system.

Mechanism

TBE buffer has a higher buffer capacity than TAE, but also leads to stronger heating of the gels. A slightly lower voltage should therefore be selected when gelling. DNA migrates in the TBE gel about half as fast as in TAE-buffered gels.
ROTIPHORESE®TBE buffer has a high buffer capacity and is therefore ideally suited as a gel and running buffer system for sequencing gels.



ready-to-use

ROTIPHORESE®10x TBE Buffer

ROTIPHORESE® 10x conc.

TBE-buffer for preparing sequencing gels and as running buffer in electrophoresis.

ROTIPHORESE®10x TBE buffer contains 1,0 M Tris-Borate pH 8,3 and 20 mM EDTA in distilled, deionised water; pH 8,3.

Suitable for manufacturing sequencing gels with ROTIPHORESE®-Gel 40 and as a running buffer.

Directions for use

ROTIPHORESE®TBE buffer is usually used as 1x or 0.5-fold concentrated solution. TBE buffer is particularly suitable for the separation of small DNA fragments in the gel (up to 3 kb). TBE buffer is not suitable for use of gels for gel extraction of DNA.

Concentrated TBE tends to precipitate salts during storage. Mix before use!

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Danger H360FD

1.0 M TRIS borate (pH 8.3), 20 mM EDTA.
distilled, deionized water.
Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Packaging	Pack.	€
3061.1	1 l	1 x 1 l	glass	34,95
Original pack 6 x 1 l				33,20/1 l
3061.3	2.5 l	1 x 2.5 l	glass	74,10
Original pack 4 x 2.5 l				70,40/2.5 l
3061.2	5 l	1 x 5 l	plastic	116,10
Original pack 2 x 5 l				110,30/5 l

ready-to-use

ROTIPHORESE®NF 10x TBE Buffer

ROTIPHORESE® 10x conc., fluorescence-free

TBE-buffer for preparing sequencing gels and as running buffer in electrophoresis
Tested and optimised for automatic sequencers.

10-times concentrated buffer formulated specially for automated sequencing.

10x stock solution contains 0,89 M Tris-Borate and 22 mM EDTA in distilled, deionised water; pH 8,3.

Directions for use

Suitable for manufacturing sequencing gels with ROTIPHORESE®NF Acrylamide/Bis-solution 40 % (19:1) and as running buffer.In sequencing, NF-TBE buffer is usually used in a final concentration of 1x.

Ideally suited as a gel and running buffer system and also for sequencing gels,

Concentrated TBE tends to precipitate salts during storage. Mix before use!

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Danger H360FD

Tested for automatic sequencers.
0.89 M TRIS borate (pH 8.3), 22 mM EDTA.
distilled, deionized water.
Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Pack.	€
A118.1	2.5 l	glass	127,95
Original pack 4 x 2.5 l			121,55/2.5 l



ROTI®Fair 1x TBE

for 1000 ml/pouch, for electrophoresis

Buffer for DNA electrophoresis.

1x TBE solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

WGK 1

Danger H360FD

Prepared 1x TBE solution contains: 89 mM Tris-Borat, 2 mM EDTA, pH-value 8.3 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1241.1	10 unit(s)	box	238,15

ROTI®Fair 5x TBE

for 1000 ml/pouch, for electrophoresis

Buffer concentrate for DNA electrophoresis.

5x TBE solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

WGK 1

Danger H360FD

Prepared 5x TBE solution contains: 0.445 M Tris borate, 10 mM EDTA, pH-value 8.3 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1242.1	10 unit(s)	box	349,40

ROTI®Fair 10x TBE

for 1000 ml/pouch, for electrophoresis

Buffer concentrate for DNA electrophoresis.

10x TBE solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

WGK 1

Danger H360FD

Prepared 10x TBE solution contains: 0.89 M Tris borate, 20 mM EDTA, pH-value 8.3 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Packaging	Pack.	€
1243.1	10 unit(s)	1 x 10 bags	box	542,90

ROTIPHORESE®TAE Buffer

TAE-buffer

The TAE buffer is optimally suited as a gel and running buffer system.

Mechanism

TAE buffer has a lower buffer capacity than TBE and can be used with higher voltages, longer gels and larger DNA fragments. The gels heat up during running to a lesser extent than when using the running buffer TBE. DNA migrates in TAE gel about twice as fast as in TBE buffered gels.

ready-to-use

ROTIPHORESE®50x TAE Buffer

ROTIPHORESE® 50x conc.

Running buffer in DNA agarose gel electrophoresis.

ROTIPHORESE®50x TAE Buffer contains 2 M Tris, 1 M acetic acid and 50 mM EDTA in distilled, deionised water; pH 8,5.

Directions for use

ROTIPHORESE®TAE buffer is usually used as 1x concentrated solution. TAE buffer is suitable for the separation of DNA fragments of all sizes in gels. For the run of gels for gel extraction of DNA, we recommend using ROTIPHORESE®10x TAE-Puffer *light*.

Concentrated TAE tends to precipitate salts during storage. Mix before use!

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

2 M TRIS acetate.
50 mM EDTA.
distilled, deionized water.
Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Packaging	Pack.	€
CL86.1	1 l	1 x 1 l	glass	75,80
Original pack 6 x 1 l				72,01/1 l
CL86.3	2.5 l	1 x 2.5 l	glass	142,45
Original pack 4 x 2.5 l				135,33/2.5 l
CL86.2	5 l	1 x 5 l	plastic	220,40
Original pack 2 x 5 l				209,38/5 l

Concerning the ROTIPHORESE®10x TAE, 50x TAE and 10x TBE

During prolonged storage salt crystals may precipitate, which are easily resolubilised by gentle heating and shaking.
The quality of the buffer is not affected by this procedure.
Do not take out buffer solution when any precipitate is visible.

ready-to-use

ROTIPHORESE®10x TAE Buffer

ROTIPHORESE® 10x conc.

Running buffer in DNA agarose gel electrophoresis.

ROTIPHORESE®10x TAE Buffer contains 0,4 M Tris, 0,2 M acetic acid and 10 mM EDTA in distilled, deionised water; pH 8,3.

Directions for use

TAE buffer is usually used as 1x concentrated solution. TAE buffer is suitable for the separation of DNA fragments of all sizes in gels. For the run of gels for gel extraction of DNA, we recommend using ROTIPHORESE®10x TAE-Puffer *light*.

Concentrated TAE tends to precipitate salts during storage. Mix before use!

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

0.4 M TRIS acetate.
0.01 M EDTA.
distilled, deionized water.
Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Packaging	Pack.	€
T845.1	1 l	1 x 1 l	glass	38,20
Original pack 6 x 1 l				36,29/1 l
T845.2	5 l	1 x 5 l	plastic	88,70
Original pack 2 x 5 l				84,27/5 l

ready-to-use

ROTIPHORESE®10x TAE Buffer *light*

ROTIPHORESE® 10x conc., reduced EDTA concentration

Buffer concentrate for DNA agarose gel electrophoresis, ideal for DNA elution gels or in-gel-applications.

ROTIPHORESE®10x TAE-buffer *light* is particularly ideal for agarose gels in DNA-elution. Although the reduced EDTA-content lowers the contamination of the eluted DNA with EDTA and therefore prevents any interference of enzymatic activity, e.g. from ligases, isomerases or polymerases, the buffer properties still remain totally intact. Particularly suitable for in-gel-applications when used with ROTI®Garose Low Melt (Art. No. 6351).

ROTIPHORESE®4 M Tris-acetate and 1 mM EDTA in distilled, deionised water; pH 8,3.

Directions for use

ROTIPHORESE®TAE buffer*light* is usually used as 1x concentrated solution. TAE buffer is suitable for the separation of DNA fragments of all sizes in gels. Optimized for the run of gels for the gel extraction of DNA.

Concentrated TAE tends to precipitate salts during storage. Mix before use!

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

0.4 M TRIS acetate.
1 mM EDTA.
distilled, deionized water.
Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Pack.	€
0122.1	1 l	glass	32,15
Original pack 6 x 1 l			30,54/1 l



ROTI®Fair TAE

TAE powder (pouch)

Exactly pre-weighed pouches for convenient and rapid preparation of TAE solution.

Running buffer for DNA gel electrophoresis. TAE is recommended for gel analysis of large fragments and for gel elution, when high recovery rates are needed. Additionally, TAE is the buffer of choice for native or denaturing RNA gels.

Prepared solution may be sterilized by filtration (0,22 µm). For long-term storage, buffer solution should be kept at room temperature.

ROTI®Fair 50x TAE

for 500 ml/pouch, for electrophoresis

Buffer concentrate for DNA electrophoresis.

50x TAE solution is prepared by dissolution of 1 pouch in 500 ml highly pure water.

WGK 1

Warning H315-H319

Prepared 50x TAE solution contains: 2 M Tris acetate, 50 mM EDTA, pH-value 8.3 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1234.1	5 unit(s)	box	524,10

ROTI®Fair 50x TAE

for 1000 ml/pouch, for electrophoresis

Buffer concentrate for DNA electrophoresis.

50x TAE solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

WGK 1

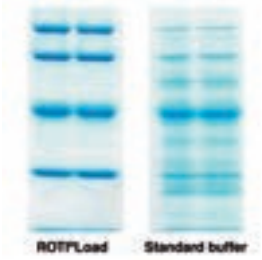
Warning H315-H319

Prepared 50x TAE solution contains: 2 M Tris acetate, 50 mM EDTA, pH-value 8.3 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Packaging	Pack.	€
1240.1	5 unit(s)	1 x 5 bags	box	1.009,45

Gel Loading Buffers

Gel Loading Buffers for Proteins



ROTI®Load

Laemmli buffer, Gel loading buffer

ROTI®Load 1 (reducing) as well as **ROTI®Load 2 and 3 (non-reducing)** represent special gel loading buffers for protein gel electrophoresis. They have been designed to protect your proteins during sample preparation and to stabilise sensitive peptide bonds. Protein degradation is efficiently prevented by those buffer systems. ROTI®Load are 4x concentrated ready-to-use solutions, which may be used directly for sample loading.

Selecting a Suitable ROTI®Load Gel Loading Buffer for Proteins

ROTI®Load 1 is suitable **for all PAGE standard gels**. It has denaturing and reducing properties.
ROTI®Load 2 is suitable **for protein complexes, secondary structures and native gels**. It has denaturing properties, but it does not have reducing properties. It is possible to enrich the buffer solution with reducing agents such as β-Mercapto-ethanol or DTT.
ROTI®Load 3 is suitable **for native gels, precast gels and cooled gels**. The buffer solution contains LDS. Unlike SDS, LDS does not crystallise out at low temperatures. In addition, the buffer solution is optimally adapted for precast gels. ROTI®Load 3 has denaturing properties, but does not have reducing properties. It is possible to enrich the buffer solution with reducing agents such as ß-Mercaptoethanol or DTT.

Glycerine is the standard reagent for increasing the density of samples.
SDS (sodium dodecyl sulphate), LDS (lithium dodecyl sulphate) are anionic surfactants. They form a negatively charged mantle around the protein molecules, which results in a denaturing effect. This process is reversible. Irreversible denaturation only occurs if the samples are boiled. Negative charging allows the molecules to be separated during electrophoresis.
β-mercaptoethanol, DTT (dithiothreitol) are reducing agents which split disulphide bridges in protein molecules. Increased unfolding of the molecule occurs. This process is reversible.

ready-to-use

ROTI®Load 1

4x conc., reducing

Protein gel loading buffer, modified formulation acc. to Laemmli.

Well tested and proven sample buffer for protein gel electrophoresis that has been modified and further developed based on the original formulation acc. to Laemmli (*Nature* 227, 1970). Optimized for a distinct band display. Recommended for size estimation of proteins in gel.

- Formulation acc. to Laemmli (modified)
- Stabilises peptide bands
- Prevents protein degradation
- Improves gel separation

Directions for use

ROTI®Load protein gel loading buffers are usually used as 1x concentrated solution. ROTI®Load can either be added to the prepared sample or the precipitated proteins are dissolved directly into ROTI®Load. Heat the ROTI®Load mixed sample to 95 °C for 5 minutes to break hydrogen bonds and stretch the peptide chains. The β-Mercaptoethanol contained in ROTI®Load 1 opens disulfide bridges by reduction and leads to a complete molecular stretching, the basic requirement for a correct size estimation of proteins in the gel.

ROTI®Load 1 prevents degradation of proteins while heating during sample preparation, additionally keeping the sample pH value constant during gel electrophoresis. Being a phosphate-buffered ready-to-use solution, ROTI®Load 1 already contains all necessary denaturing and reducing reagents, bromophenol blue as dye and glycerol as density increasing reagent.

Contains SDS (approx. 8 % w/v), β-mercapto ethanol (approx. 20 % v/v), glycerol (approx. 40 % v/v) and bromophenol blue (approx. 0,015 % w/v). Phosphate buffered.

Storage temperature: +15 to +25 °C

UN no. 2810 · ADR 6.1 III · WGK 3

Danger H302+H332-H311-H315-H317-H318-H373-H411

Remark: Contains SDS. Can be redissolved by heating (max. 45 °C).

Art. No.	Pack Qty.	Packaging	Pack.	€
K929.1	10 ml	1 x 10 ml	glass	22,05
K929.2	40 ml	4 x 10 ml	glass	65,50
K929.3	100 ml	10 x 10 ml	glass	149,45

Gel Loading Buffers

ready-to-use

ROTI®Load 2

4x conc., unreducing

Protein gel loading buffer, modified formulation acc. to Laemmli. For protein complexes, secondary structures, and for native gels.

Well tested and proven sample buffer for protein gel electrophoresis that has been modified and further developed based on the original formulation acc. to Laemmli (*Nature* 227, 1970). For depiction of protein complexes, secondary structures, and for native gels.

- Formulation acc. to Laemmli (modified)
- Stabilises peptide bands
- For protein complexes and secondary structures
- For native gels

Directions for use

ROTI®Load protein gel loading buffers are usually used as 1x concentrated solution. ROTI®Load can either be added to the prepared sample or the precipitated proteins are dissolved directly into ROTI®Load. Optionally, heat the ROTI®Load mixed sample to 95 °C for 5 minutes to break hydrogen bonds and stretch the peptide chains.

ROTI®Load 2 prevents degradation of proteins while heating during sample preparation, additionally keeping the sample pH value constant during gel electrophoresis. Being a phosphate-buffered ready-to-use solution, ROTI®Load 2 already contains all necessary denaturing reagents, bromophenol blue as dye and glycerol as density increasing reagent. ROTI®Load 2 may be supplemented with 20 µl/ml DTT solution (1 M), in order to gain a loading buffer using DTT as reducing reagent rather than β-Mercaptoethanol.

Contains SDS (approx. 8 % w/v), glycerol (approx. 40 % v/v) and bromophenol blue (approx. 0,015 % w/v). Phosphate buffered.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 2

Danger H318

Remark: Contains SDS. Can be redissolved by heating (max. 45 °C).

Art. No.	Pack Qty.	Pack.	€
K930.1	10 ml	glass	19,25

ready-to-use

ROTI®Load 3 (LDS)

4x conc., unreducing

Protein gel loading buffer for ready-made gels and cooled gels.

Modified, non-reducing protein sample-gel loading buffer for gels under denaturing or native conditions.

- Optimised for ready-made gels and cooled gel runs
- Superior solubility at low temperatures
- Stabilises proteins in the gel

Directions for use

ROTI®Load protein gel loading buffers are usually used as 1x concentrated solution. ROTI®Load can either be added to the prepared sample or the precipitated proteins are dissolved directly into ROTI®Load. Optionally, heat the ROTI®Load mixed sample to 95 °C for 5 minutes to break hydrogen bonds and stretch the peptide chains.

During sample preparation and heating, ROTI®Load 3 (LDS) efficiently prevents degradation of your proteins, also stabilising the pH value during the run.
This gel loading buffer is based on a triethanolamine buffered ready-to-use solution, in which the standard sodium dodecylsulphate (SDS) has been replaced by lithium dodecylsulphate (LDS). At low temperatures, LDS is much better soluble than SDS. Hence, no crystallisation of LDS takes place, and protein stability as well as band resolution is significantly enhanced.
Additionally, the formulation of ROTI®Load 3 (LDS) has been optimised for ready-made gels, particularly Q-PAGE™ gels, but also ready-made gels of other standard suppliers.

For reducing conditions, ROTI®Load 3 (LDS) may be supplemented with 20 µl/ml DTT solution (1 M) or with β-mercaptoethanol.

Contains LDS (approx. 4 % w/v), glycerol (approx. 40 % v/v) and Ficoll® 400 (approx. 4 % w/v), plus phenol red (approx. 0,025 % w/v) and Coomassie® G250 (approx. 0,025 % w/v). Triethanolamine buffered.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

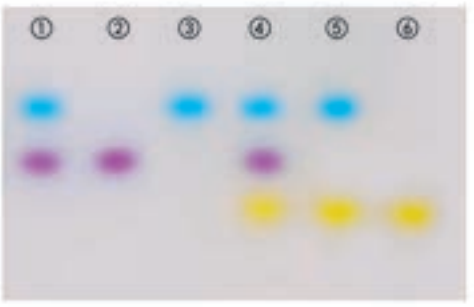
WGK 1

Warning H319

Art. No.	Pack Qty.	Pack.	€
3359.1	10 ml	glass	25,30

Gel Loading Buffers for Nucleic Acids





The Carl Roth gel loading buffers are special buffers for nucleic acid electrophoresis. Each batch is tested for its functionality in electrophoresis. The gel loading buffers are ready-to-use solutions, which may be used directly.

ROTI®Load DNA buffer solutions contain Tris, sodium acetate and EDTA, with additional tracking dyes. For increasing the density when loading the gel, they are available in three different variations – with glycerol or ficoll.

ready-to-use

Gel Loading Buffers for Nucleic Acids

Product name	Pic.	Use	Dye	Incl. DNA staining	Art. No.	Pack Qty.	€
ROTI®Load DNA (with ficoll)	(1)	Small amounts of DNA, especially sharp bands	Bromphenol blue, Xylene cyanole	No	**X905.1**	9 ml	54,75
ROTI®Load DNA (with glycerol)	(1)	Standard applications, routine gels	Bromphenol blue, Xylene cyanole	No	**X904.1**	9 ml	50,45
ROTI®Load DNA 1x (with glycerol)	(1)	Standard applications, pelleted DNA	Bromphenol blue, Xylene cyanole	No	**0100.1**	5 ml	46,15
ROTI®Load DNA orange 1 (with glycerol)	(6)	Very short separation distances, small fragments, high concentrated or High Resolution agarose	Orange G	No	**HP04.1**	9 ml	65,50
ROTI®Load DNA orange 2 (with glycerol)	(5)	Mixture of small and big fragments	Xylene cyanole, Orange G	No	**HP05.1**	9 ml	65,50
ROTI®Load DNA short-run (with glycerol)	(2)	Short separation distances, fast gels	Bromphenol blue	No	**0095.1**	9 ml	54,75
ROTI®Load DNA short-run 1x (with glycerol)	(2)	Short separation distances, fast gels, pelleted DNA	Bromphenol blue	No	**0099.1**	5 ml	46,15
ROTI®Load DNA small (with glycerol)	(3)	Small or very big fragments	Xylene cyanole	No	**HP03.1**	9 ml	56,45
ROTI®Load DNA-tricolor (with glycerol)	(4)	Broad size range, high flexibility	Bromphenol blue, Xylene cyanole, Orange G	No	**HP06.1**	9 ml	65,50

Stockage temperature: –20 °C
For safety information, see chapter Chemicals A-Z.

Selecting a Suitable ROTI®Load Gel Loading Buffer for Nucleic Acids

Care should be taken to ensure that the dyes contained in the gel stop before smallest relevant DNA bands. This ensures that the buffer can be stopped in time. However, the selected dyes may overlay the bands shown. In this case, select a loading buffer that does not contain any unwanted dyes.
Bromophenol blue and xylene cyanol can be used as colour markers in all **standard gels**. If a relevant band is overlaid by one of these colour markers, choose a gel loading buffer containing Orange G. If **small fragments** are to be assayed, the gel loading buffer should contain Orange G in order to mark the run. If relevant bands are overlaid, however, a choice can be made between bromophenol blue or xylene cyanol depending on the size of the bands. A loading buffer without xylene cyanol is usually used for assaying **large fragments**.

Glycerine is the standard reagent for increasing the density of samples.
Ficoll® 400 produces particularly well-defined bands.

Gel Loading Buffers

Running Distance in bp of Xylene Cyanol (XC) and Bromophenol Blue (BPB), with Respect to Agarose, Gel Concentration and Buffer System Used.

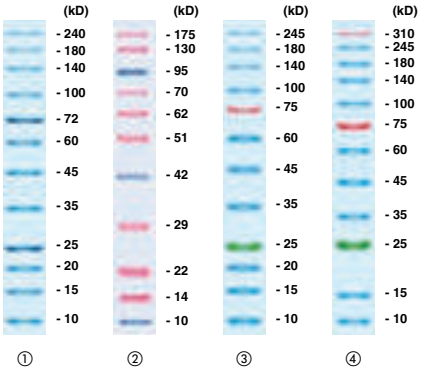
3810 Standard		0.5 %	1 %	1.5 %	2 %
1xTAE	XC	16000	6200	2800	1300
	BPB	1600	500	300	150
1xTBE	XC	12000	4200	1800	900
	BPB	1300	400	200	70
2267 NEEO		0.5 %	1 %	1.5 %	2 %
1xTAE	XC	16000	6100	2800	1300
	BPB	1650	500	300	150
1xTBE	XC	12000	4100	1800	850
	BPB	1350	400	200	70
HP67 Agarose Tablets		0.5 %	1 %	1.5 %	2 %
1xTAE	XC	15000	5000	2600	1500
	BPB	1800	650	400	200
1xTBE	XC	11000	4000	1800	800
	BPB	1100	350	150	60
6352 GTQ		0.5 %	1 %	1.5 %	2 %
1xTAE	XC	15000	5000	2600	1500
	BPB	1800	650	400	200
1xTBE	XC	11000	4000	1800	800
	BPB	1100	350	150	60
T846 Broad Range		0.3 %	0.7 %	1.2 %	1.7 %
1xTAE	XC	30000	11200	3900	1700
	BPB	4000	1200	520	300
1xTBE	XC	18000	10000	4500	1800
	BPB	2200	950	450	200
3771 Pulsed-Field		0.3 %	0.5 %	1 %	1.5 %
1xTAE	XC	24800	13000	6100	2600
	BPB	3550	2050	760	400
1xTBE	XC	19400	10000	4000	1900
	BPB	2550	1500	500	250
HP30 HR PLUS		1 %	2 %	3 %	4 %
1xTAE	XC	2500	1000	400	200
	BPB	250	150	100	60
1xTBE	XC	1500	600	200	120
	BPB	100	60	50	<50
K297 High Resolution		2 %	3 %	4 %	5 %
1xTAE	XC	600	300	160	100
	BPB	100	80	40	25
1xTBE	XC	400	150	80	50
	BPB	<50	<50	<20	<20
6351 Low Melt		1 %	1.5 %	2 %	2,5 %
1xTAE	XC	2800	1350	720	410
	BPB	425	225	120	75
1xTBE	XC	1600	800	400	200
	BPB	200	80	40	20
HP31 LM / PCR		2 %	3 %	4 %	5 %
1xTAE	XC	600	300	120	60
	BPB	100	80	40	20
1xTBE	XC	400	150	60	40
	BPB	50	40	20	10–20
HP45 Super LM		1 %	1.5 %	2 %	2.5 %
1xTAE	XC	2800	1350	720	410
	BPB	425	225	120	75
1xTBE	XC	1600	800	400	200
	BPB	200	80	40	20

Protein Markers

Protein markers from Roth are acylated and pre-reduced, for optimal running behaviour in the gel. For each batch, intensity of bands is optimised and electrophoretically tested.
All protein markers are offered as ready-to-use solutions which may be applied directly to the gel.

Prestained Protein Markers

Marker	ALL BLUE	BI-PINK	TRICOLOR	TRICOLOR XTRA
Art. No.	2242 (fig. 1)	8269 (fig. 2)	8271 (fig. 3)	2244 (fig. 4)
Size Range (kD)	10–240	10–175	10–245	10–310
Number of Fragments	12	11	12	12
Reinforced band at (kD)	25, 72	–	–	–
Quantitation	not recomm.	not recomm.	not recomm.	not recomm.
Staining	blue prestained	pink prestained	blue prestained	blue prestained
Additional reference bands	–	10 kD, 40 kD, 90 kD blue	25 kD green, 75 kD red	25 kD green, 75 and 310 kD red
Detection in Western-Blot	no detection	no detection	no detection	no detection
Number of Lanes in minigel	200 / ml	200 / ml	200 / ml	200 / ml
Delivery	ready-to-use	ready-to-use	ready-to-use	ready-to-use



► Protein marker for Western blotting see chapter Biochemistry – Western and ELISA

Please note: Reliable size determination of proteins cannot be performed using prestained markers. For this, we recommend the use of an unstained marker.

ROTI®Mark protein markers, prestained

Markers (protein gels), Protein-Markers

Perfect separation behaviour in the gel. Protein markers from Carl ROTH are acylated and pre-reduced, for optimal running behaviour in the gel. For each batch, intensity of bands is optimised and electrophoretically tested. All protein markers are offered as ready-to-use solutions which may be applied directly to the gel.

ready-to-use

ROTI®-Mark ALL BLUE

ready-to-use, prestained

Size range: 10-240 kD
Number of protein bands: 12
Number of lanes/ml: approx. 200 (mini gel)

ROTI®Mark ALL BLUE is a marker with 12 blue prestained proteins covering a range from 10 to 240 kDa in Tris-Glycine buffer. For better orientation in the gel the 25 kDa and the 75 kDa fragment are enhanced in their mass.
ROTI®Mark ALL BLUE is an ideal size marker for controlling the gel run during SDS-PAGE and for reliable evaluation of transfer efficiency during Western Blot.

Fig.: 15 % SDS-PAGE (Tris-Glycine)

For direct application to the gel.

Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 2

Art. No.	Pack Qty.	Packaging	Pack.	€
2242.1	250 µl	1 x 250 µl	plastic	112,90
2242.2	500 µl	2 x 250 µl	plastic	203,20

ready-to-use

ROTI®Mark BI-PINK

ready-to-use, prestained

Size range: 10-175 kD
Number of protein bands: 11
Number of lanes/ml: approx. 200 (mini gels)

Protein marker including bicolour-prestained proteins of 10 up to 175 kDa. In order to visualise separation during the gel run and for better orientation in the gel, three proteins of approx. 10, 40 and 90 kDa have been prestained in blue in addition to the pink coloured bands. All proteins excel by having a very even running behaviour and form distinct bands.
ROTI®Mark BI-PINK is an ideal size marker for controlling the gel run during SDS-PAGE and for reliable evaluation of transfer efficiency during Western Blot.

Fig.: 15 % SDS-PAGE (Tris)

For direct application to the gel.

Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 2

Art. No.	Pack Qty.	Pack.	€
8269.1	500 µl	plastic	241,90

ready-to-use

ROTI®Mark TRICOLOR

ready-to-use, prestained

Size range: 10-245 kD
Number of protein bands: 12
Number of lanes/ml: approx. 200 (mini gels)

Protein marker including tricolour-prestained proteins of 10 up to 245 kDa. In order to visualise separation during the gel run and for better orientation in the gel, two proteins of approx. 25 and 75 kDa have been prestained in green and red, respectively, in addition to the blue coloured bands. All proteins excel by having a very even running behaviour and form distinct bands.
ROTI®Mark TRICOLOR is an ideal size marker for controlling the gel run during SDS-PAGE and for reliable evaluation of transfer efficiency during Western Blot.

Fig.: 4–20 % gradient SDS-PAGE (Tris)

For direct application to the gel.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 2

Art. No.	Pack Qty.	Packaging	Pack.	€
8271.2	250 µl	1 x 250 µl	plastic	115,60
8271.1	500 µl	2 x 250 µl	plastic	212,35

ready-to-use

ROTI®Mark TRICOLOR XTRA

ready-to-use, prestained

Size range: 10-310 kD
Number of protein bands: 12
Number of lanes/ml: approx. 200 (mini gel)

ROTI®Mark TRICOLOR XTRA is a tricolour-prestained marker covering an extra range of molecular weights from 10 to 310 kDa in Tris-Glycine buffer. In order to visualise separation during the gel run and for better orientation in the gel, there is, besides the blue coloured proteins, one protein prestained in green (25 kDa) and two proteins in red (75 and 310 kDa). All bands excel by having a very even running behaviour and a good differentiation.
ROTI®Mark TRICOLOR XTRA is an ideal size marker for controlling the gel run during SDS-PAGE and for reliable evaluation of transfer efficiency during Western Blot.

Fig.: 15 % SDS-PAGE (Tris-Glycine)

For direct application to the gel.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 2

Art. No.	Pack Qty.	Packaging	Pack.	€
2244.1	250 µl	1 x 250 µl	plastic	131,70
2244.2	500 µl	2 x 250 µl	plastic	246,20

Instructions for use

can be found on the Internet next to the product description.

Non-prestained Protein Markers

Marker	PETIT
Art. No.	9299
Size Range (kD)	3,5–40
Number of Fragments	7
Reinforced band at (kD)	–
Quantitation	recommended
Staining	unstained
Detection in Western-Blot	no detection
Number of Lanes in minigel	200 / ml
Delivery	ready-to-use



ready-to-use

ROTI®Mark PETIT

ready-to-use, not prestained

Size range: 3,5-40 kD
Number of protein bands: 7
Number of lanes/ml: approx. 200 (mini gels)

Markers (protein gels) · Protein-Markers

ROTI®Mark PETIT is a finely graded protein marker for small size range. It consists of four genetically engineered proteins with defined, regular molecular weight and, in addition, of three native proteins for better visualization of the small size range. The marker is dissolved in non-reducing Laemmli buffer and can be used directly.

Fig.: 16,5 % SDS-PAGE (Tris-Tricine)

For direct application to the gel.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
9299.1	100 µl	plastic	70,45
9299.2	500 µl	plastic	203,20

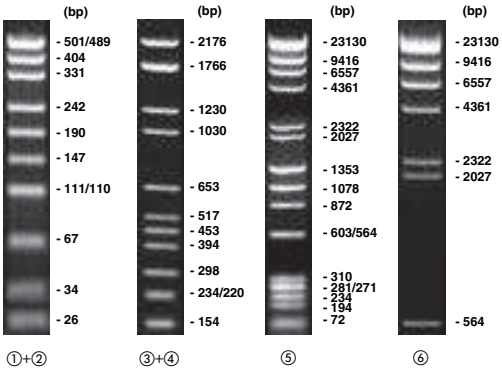
DNA Markers

Carl ROTH offers a multifaceted marker range including DNA markers for each application required. Our DNA-markers produce sharp, clear bands. Terminally, the unregular markers carry sticky *Eco*R I sites and, therefore, end-labelling methods can be applied easily.

DNA Markers with Unregular Pattern

These markers are recommended for DNA quantitation in the gel. DNA amounts of all bands are depicted in the included instructions-for-use.

Marker	pUC19-Marker ready-to-use	pUC19/MspI	pBR328-Marker ready-to-use	pBR328 Mix I	Lambda Hind III / phiX Hae III Marker	Lambda Hind III Marker
Art. No.	X901 (fig. 1)	T149 (fig. 2)	X902 (fig. 3)	T146 (fig. 4)	CP49 (fig. 5)	X910 (fig. 6)
Size range (bp)	26–501	26–501	154–2176	154–2176	72–23130	125–23130
Number of fragments	10	10	11	11	17	8
Reinforced band at (bp)	–	–	–	–	–	–
Quanti-tation	recommen-ded	recommen-ded	recommen-ded	recommen-ded	recommen-ded	recommen-ded
Number of lanes in minigel	200 / ml	200 / 100 µg	200 / ml	200 / 100 µg	200 / 100 µg	200 / 100 µg
Delivery	ready-to-use	lyophilised	ready-to-use	lyophilised	lyophilised	lyophilised



ready-to-use

pUC19-Marker ready-to-use

ready-to-use, not prestained

Size range: 26-501 b
Number of fragments: 10
Number of lanes per ml: approx. 200 (mini gels)

Markers (DNA-gels)

Irregular DNA-marker for analysis of small DNA fragments.
The marker was manufactured using pUC19-DNA and restriction endonuclease *Msp* I.

Made from natural plasmids: fragment sizes can be validated!
The concentration of the individual fragments is equimolar so that rough quantitation of the analysed DNA is possible.

Fig.: 1 % agarose (NEEO, Art. No. 2267) + 2 % Synergel™ (Art. No. 0184)

Delivered in ready-to-use format for direct application to gels (conc.: 0,1 µg DNA/µl). Marker dissolved in 1x conc. gel loading buffer (Art. No. 0100.1).

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
X901.1	500 µl	1 x 0,5 ml	plastic	76,90
X901.2	2 ml	4 x 0,5 ml	plastic	271,45

pUC19/Msp I

lyophilised, not prestained

Size range: 26-501 bp
Number of fragments: 10
Number of lanes per 100 µg: approx. 200 (mini gels)

Markers (DNA-gels)

Irregular DNA-marker for analysis of small DNA fragments.
The marker was manufactured using pUC19-DNA and restriction endonuclease *Msp* I.

Made from natural plasmids: fragment sizes can be validated!
The concentration of the individual fragments is equimolar so that rough quantitation of the analysed DNA is possible.

Fig.: 1 % agarose (NEEO, Art. No. 2267) + 1 % Synergel™ (Art. No. 0184).

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
T149.1	50 µg	1 x 50 µg	plastic	94,50
T149.2	200 µg	4 x 50 µg	plastic	332,20

ready-to-use

pBR328-Marker ready-to-use

ready-to-use, not prestained

Size range: 154-2176 bp
Number of fragments: 11
Number of lanes per ml: approx. 200 (mini gels)

Markers (DNA-gels)

Irregular DNA-marker for analysis of small DNA fragments.
The marker was manufactured by mixing fragments obtained by restriction digest of pBR328 using the endonucleases *Hinf* I and *Bgl* I.

Directions for use

Made from natural plasmids: fragment sizes can be validated!
The concentration of the individual fragments is equimolar so that rough quantitation of the analysed DNA is possible.

Fig.: 1,5 % agarose (NEEO, Art. No. 2267).

Delivered in ready-to-use format for direct application to gels (conc.: 0,1 µg DNA/µl). Marker dissolved in 1x conc. gel loading buffer (Art. No. 0100.1).

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
X902.1	500 µl	1 x 0,5 ml	plastic	82,70
X902.2	2 ml	4 x 0,5 ml	plastic	306,40

pBR328 Mix I

lyophilised, not prestained

Size range: 154-2176 bp
Number of fragments: 11
Number of lanes per 100 µg: approx. 200 (mini gels)

Markers (DNA-gels)

Irregular DNA-marker for analysis of small DNA fragments.
The marker was manufactured by mixing fragments obtained by restriction digest of pBR328 using the endonucleases *Hinf* I and *Bgl* I.

Directions for use

Made from natural plasmids: fragment sizes can be validated!
The concentration of the individual fragments is equimolar so that rough quantitation of the analysed DNA is possible.

Fig.: 1,5 % agarose (NEEO, Art. No. 2267)

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
T146.1	50 µg	plastic	97,75

For direct detection of the marker DNA in the gel under UV- or blue light we recommend to use lyophilized marker DNA. The marker DNA is first solubilized in sterile water or 1xTE buffer, then ROTI®Load DNAstain SYBR®Green (6x conc.) is added. The so prepared marker may be aliquoted and stored at –20 °C.
ROTI®Load DNAstain SYBR®Green contains a fluorecent dye which may be excited by UV- or blue light, emitting at 525 nm.

Lambda Hind III / phiX Hae III Marker

lyophilised, not prestained

Size range: 72-23130 bp
Number of fragments: 17
Number of lanes per 100 µg: approx. 200 (mini gels)

Lambda DNA-Marker

Versatile marker for depiction of all standard DNA fragment lengths.
Manufactured by restricting unmethylated DNA with the restriction endonucleases *Hind* III and *Hae* III.
By mixing high molecular weight Lambda (*Hind* III) fragments with short-sequence phiX-174 (*Hae* III) fragments a marker was designed which covers a broad range from 200 bp up to 20 kb. Most fragments are distributed in an equimolar way, additionally allowing rough DNA quantification in the gel. Due to this equimolarity, however, the smallest bands of 125 bp, 118 bp and 72 bp can not be detected efficiently in standard gels.

Directions for use

Optimal results are obtained with a running distance of approx. 10 cm.

Fig.: 1 % agarose (NEEO, Art. No. 2267).

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
CP49.1	50 µg	plastic	175,80

Lambda Hind III Marker

lyophilised, not prestained

Size range: 125-23130 bp
Number of fragments: 8
Number of lanes per 100 µg: approx. 200 (mini gels)

Lambda DNA-Marker

Classical, irregular standard for analysis of middle-range DNA fragments.
The marker was manufactured by using unmethylated Lambda-DNA and restriction endonuclease *Hind* III. The restriction digestion results in a largely equimolar distribution of the DNA (with the exception of the 4361 bp fragment), so that additional DNA quantity estimation can be performed.

Fig.: 1 % agarose (NEEO, Art. No. 2267)

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

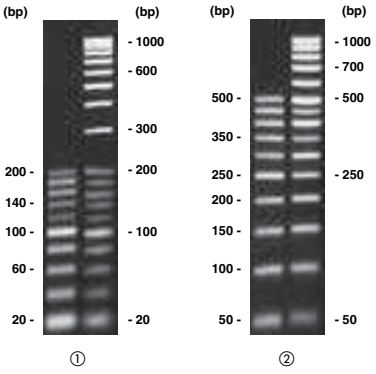
Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
X910.1	100 µg	plastic	81,20

Regular DNA Ladders (unstained)

Marker	20 bp-DNA Ladder	50 bp-DNA Ladder	100 bp-DNA Ladder equimolar	100 bp-DNA Ladder equalized	100 bp-DNA Ladder extended
Art. No.	2805 (fig. 1)	2810 (fig. 2)	T834 (fig. 3)	T833 (fig. 4)	T835 (fig. 5)
Size range (bp)	20–200	50–500	100–1000	100–1000	100–5000
Number of fragments	10	10	11	11	17
Reinforced bands at (bp)	100	250	500	500	500
Quantitation	possible	possible	recommen-ded	possible	possible
Number of lanes in minigel	200 / ml	200 / ml	200 / 100 µg	500 / 100 µg	160 / 100 µg
Delivery	ready-to-use	ready-to-use	lyophilised	lyophilised	lyophilised



ready-to-use

20 bp-DNA-Ladder

ready-to-use, not prestained

Size range: 20-200 bp
Number of fragments: 10
Number of lanes per ml: approx. 200 (mini gels)

Markers (DNA-gels)

Regular DNA ladder for the analysis of very small DNA fragments (left lane in figure).
The 100 bp fragment has been enhanced for easy analysis of the gel. All fragments are quantified, enabling quantitation of sample DNA in the gel. In order to avoid overlay of bands by bromophenol blue or xylene cyanol, Orange G was included as dye.

Directions for use

We recommend use of this ladder on the following special agaroses: High Resolution (Art. No. K297), HR-PLUS (Art. No. HP30), LM/PCR (Art. No. HP31), or an agarose with additional Synergel™ (Art. No. 0184). The 20 bp DNA-Ladder is highly compatible with the 100 bp DNA-Ladder *equimolar* (Art. No. T834). By combining both, a versatile ladder from 20 bp up to 1000 bp is obtained (right lane in figure).

Fig.: 1,4 % agarose (High Resolution, Art. No. K297) + 0,8 % Synergel™ (Art. No. 0184) in 1 x TAE.

Delivered in ready-to-use format for direct application to gels (conc.: 0,1 µg DNA/µl).

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
2805.1	500 µl	plastic	149,45

ready-to-use

50 bp-DNA-Ladder

ready-to-use, not prestained

Size range: 50-500 bp
Number of fragments: 10
Number of lanes per ml: approx. 200 (mini gels)

Markers (DNA-gels)

Regular DNA ladder for the analysis of small DNA fragments (left lane in figure).
The 250 bp fragment has been enhanced for easy analysis of the gel. All fragments are quantified, enabling quantitation of sample DNA in the gel. In order to avoid overlay of bands by bromophenol blue or xylene cyanol, Orange G was included as dye.

Directions for use

We recommend use of this ladder on the following special agaroses: High Resolution (Art. No. K297), HR-PLUS (Art. No. HP30), LM/PCR (Art. No. HP31), or an agarose with additional Synergel™ (Art. No. 0184). The 50 bp DNA-Ladder is highly compatible with the 100 bp DNA-Ladder *equimolar* (Art. No. T834). By combining both, a versatile ladder from 50 bp up to 1000 bp is obtained (right lane in figure).

Fig.: 1,1 % agarose (High Resolution, Art. No. K297) + 0,8 % Synergel™ (Art. No. 0184) in 1 x TAE.

Delivered in ready-to-use format for direct application to gels (conc.: 0,1 µg DNA/µl).

Storage temperature: –20 °C
Transport temperature: ambient temp.

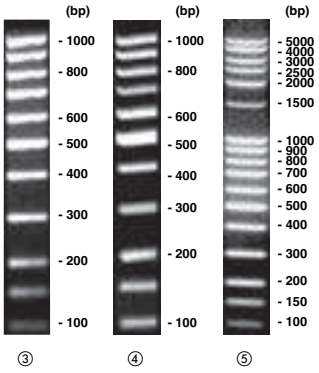
WGK 1

Art. No.	Pack Qty.	Pack.	€
2810.1	500 µl	plastic	127,95

Tips for Use of DNA Length Markers

- Storage: Store marker in small aliquots at –20 °C. One aliquot can be stored at +4 °C for permanent use.
- Application amount: Apply more marker when markers with higher band numbers are used. Applied amount can be reduced, however, for short separation distances. Application on polyacrylic amide gels may be reduced to ⅕ to ½ of the marker amount used for agarose gels.
- Fast running gels: Roth markers are established with respect to high separation efficiency even when applying high voltages. Be sure, however, to use sufficient and fresh gel running buffer made with water of good quality.
- "Falsely" running bands: Under extreme conditions, (e. g. high voltages, short running distances, salt content in the probes >150 mM) implausible results may occur, which are often caused by partial strand separation of the DNA. For amendments we recommend: a) Supplementation of the marker with restriction enzyme buffer in order to increase the salt content, b) use lower separation voltages, c) make sure to efficiently remove evolving heat, e. g. by cooling the gel prior to or during the run.

DNA Markers



100 bp-DNA-Ladder *equimolar*

lyophilised, not prestained

Size range: 100-1000 bp
Number of fragments: 11
Number of lanes per 100 µg: approx. 200 (mini gels)

Markers (DNA-gels)

Regular DNA Ladder for standard small fragment applications.
The individual bands of the ladder are present in the mixture in the same molar concentration (equimolar).

Fig.: 1,8 % agarose (NEEO, Art. No. 2267)

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
T834.1	50 µg	1 x 50 µg	plastic	98,40
T834.2	200 µg	4 x 50 µg	plastic	364,45

100 bp-DNA-Ladder *equalized*

lyophilised, not prestained

Size range: 100-1000 bp
Number of fragments: 11
Number of lanes per 100 µg: approx. 500 (mini gels)

Markers (DNA-gels)

Regular DNA Ladder for standard small fragment applications.
Ideal for analysis of fragments ≤500 bp.
The DNA-quantity per band was set in such a way that the intensity of the individual bands is comparable (equalized).

Fig.: 1,8 % agarose (NEEO, Art. No. 2267)

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
T833.1	20 µg	1 x 20 µg	plastic	98,40
T833.2	80 µg	4 x 20 µg	plastic	364,45

100 bp-DNA-Ladder *extended*

lyophilised, not prestained

Size range: 100-5000 bp
Number of fragments: 17
Number of lanes per 100 µg: approx. 160 (mini gels)

Markers (DNA-gels)

Regular DNA Ladder for standard small and medium fragment applications.
Fragment sizes 100 to 1000 bp are equimolar.

Fig.: 1,8 % agarose (NEEO, Art. No. 2267)

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

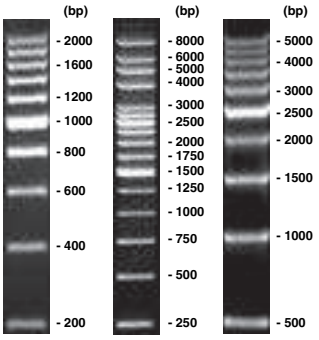
Art. No.	Pack Qty.	Packaging	Pack.	€
T835.1	50 µg	1 x 50 µg	plastic	97,75
T835.2	200 µg	4 x 50 µg	plastic	364,45

Tips for Estimating the Amount of DNA in Agarose Gels

- Please make sure to quantitatively dissolve the comparative DNA (e.g. the marker) in buffer, in order to obtain the full DNA-concentration.
- Allow the gel to run far enough so that the bands have adequate space, the DNA can then disperse in the bands and stain well.
- Stain the gel thoroughly – we recommend staining after the gel run. Staining the DNA by adding ethidium bromide to the agarose will not achieve an even distribution in the gel and is frequently not quantitative.
- Apply several lanes of comparative-DNA with different quantities so that various bands can be compared. A calibration curve may also be plotted to determine the exact concentration.
- For comparison it is best to use bands of similar size to your DNA (maximum ±50 % of the fragment length).
- Ethidium bromide is integrated much more effectively between the base pair stacks in linear DNA than in cyclic DNA. Therefore, please make sure that the conformation of the DNA whose concentration you wish to estimate is identical to that of the comparative DNA. In the event of cyclic DNA, i. e. isolated plasmids, cyclic DNA should also be used, e. g. plasmid-DNA pUC19 (Art. No. X911.1) or pBR322 (Art. No. X912.1). If you are using a DNA-marker as a comparative DNA and wish to measure cyclic DNA, you should initially linearize an aliquot of the DNA through restriction digestion and apply the preparation to the gel.
- In the event of a Lambda/Hind III marker: Do not use the 4.4 kb band of the marker for concentration analysis, as it is often not quantitatively present but coupled to the large fragment via the cos-site. Should you require the 4.4 kb band, please take care to heat the marker prior to applying (5 minutes at 65 °C).
- Only use the large marker fragments of a Lambda marker for concentration estimation when your fragments are in the same size range. Many visual systems do not depict the staining of the large bands proportionally to the DNA-amount.

Further Regular DNA Ladders (unstained)

Marker	200 bp-DNA Ladder	250 bp-DNA Ladder	500 bp-DNA Ladder	1 kbp DNA Ladder	DNA Ladder combi
Art. No.	8272 (fig. 6)	T918 (fig. 7)	8273 (fig. 8)	Y014 (fig. 9)	CL22 (fig. 10)
Size range (bp)	200–2000	250–8000	500–5000	500–10000	100–10000
Number of fragments	10	16	10	11	20
Reinforced bands at (bp)	1000	1500, 2500	2500	–	500
Quantitation	possible	–	possible	–	–
Number of lanes in minigel	200 / ml	200 / 100 µg	200 / ml	200 / 100 µg	200 / 140 µg
Delivery	ready-to-use	lyophilised	ready-to-use	lyophilised	lyophilised



⑥ ⑦ ⑧

ready-to-use

200 bp-DNA-Ladder

ready-to-use, not prestained

Size range: 200-2000 bp
Number of fragments: 10
Number of lanes per ml: approx. 200 (mini gels)

Markers (DNA-gels)

Regular DNA ladder for the analysis of DNA fragments.
Delivered in *ready-to-use* format for direct application to gels. The 1000 bp fragment has been enhanced for easy analysis of the gel. All fragments are quantified, enabling quantitation of sample DNA in the gel. Bromophenol blue and xylene cyanol are included as tracking dyes.

Directions for use

We recommend use of this marker on the following special agaroses: HR-PLUS (Art. No. HP30), LM/PCR (Art. No. HP31), or an agarose with additional Synergel™ (Art. No. 0184).
The 200 bp DNA-Ladder is highly compatible with the 20 bp DNA-Ladder (Art. No. 2805). By combining both, a versatile ladder from 20 bp up to 2000 bp is obtained.

Fig.: 1,8 % agarose (NEEO, Art. No. 2267)

Delivered in ready-to-use format for direct application to gels (conc.: 0,1 µg DNA/µl).

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
8272.1	500 µl	plastic	116,65

250 bp-DNA-Ladder

lyophilised, not prestained

Size range: 250-8000 bp
Number of fragments: 16
Number of lanes per 100 µg: approx. 200 (mini gels)

Markers (DNA-gels)

Universal ladder for size analysis of plasmids and DNA-insertions.
Two fragments of 1500 and 2500 bp have been reinforced for easy orientation in the gel. The DNA amount per band has been optimised in such a way that a small running distance and low amounts of marker are sufficient for optimum separation.

Fig.: 1,8 % agarose (NEEO, Art. No. 2267)

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
T918.1	50 µg	plastic	104,85

ready-to-use

500 bp-DNA-Ladder

ready-to-use, not prestained

Size range: 500-5000 bp
Number of fragments: 10
Number of lanes per ml: approx. 200 (mini gels)

Markers (DNA-gels)

Regular DNA ladder for the analysis of DNA fragments.
The 2500 bp fragment has been enhanced for easy analysis of the gel. All fragments are quantified, enabling quantitation of sample DNA in the gel. Bromophenol blue and xylene cyanol are included as tracking dyes.

Directions for use

We recommend use of this marker on the following special agaroses: GTQ (Art. No. 6352), Broad Range (Art. No. T846), or an agarose with additional Synergel™ (Art. No. 0184).
The 500 bp DNA-Ladder is highly compatible with the 50 bp DNA-Ladder (Art. No. 2810). By combining both, a versatile ladder from 50 bp up to 5 kb is obtained.

Fig.: 1,2 % agarose (NEEO, Art. No. 2267)

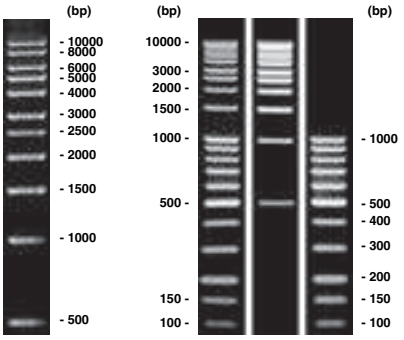
Delivered in ready-to-use format for direct application to gels (conc.: 0,1 µg DNA/µl).

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
8273.1	500 µl	plastic	90,85

DNA Markers



⑨ ⑩

1 kbp DNA-Ladder

lyophilised, not prestained

Size range: 500-10000 bp
Number of fragments: 11
Number of lanes per 100 µg: approx. 200 (mini gels)

Markers (DNA-gels)

Universal ladder for electrophoretic separation of fragments between 500 bp and 10 kb.
Optimally suited for size determination of inserts, plasmids, and restricted DNA.
The mass of the larger fragments was reduced, allowing to obtain clear and distinct bands with short running distances even for the large marker fragments.
The terminal sticky *Eco*R I-restriction sites allow simple labelling of the marker fragments via end-labelling techniques.

Directions for use

The 1 kbp DNA-ladder is highly compatible with the 100 bp DNA-ladder (equalised: T833.1).

Fig.: 1.2 % agarose (NEEO, Art. No. 2267). Additional band at 125 bp.

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
Y014.1	50 µg	plastic	47,20
Y014.2	200 µg	plastic	163,95

DNA-Ladder combi

lyophilised, not prestained

Size range: 100-10000 bp
Number of fragments 20
Number of lanes per 40 µg + 100 µg: approx. 200 (mini gels)

Markers (DNA-gels)

Versatile DNA-marker combination for gels and DNA-fragments of different size.
The bands below 500 bp were enhanced aligning their intensity in the gel to the large fragments. The 500 bp band was specially enhanced for easy orientation in the gel.

Directions for use

DNA-ladder combi combines the advantages of the 100 bp ladder, equalized (Art. No. T833), with the versatile 1 kbp DNA-ladder (Art. No. Y014). Subsequently we now have a marker set that completely covers both the medium size range up to 10 kb (see figure of Art. No. Y014) as well as enabling clear size analysis in the small fragment range.
The two markers come in separate tubes to ensure high flexibility in the laboratory. They can, therefore, be used separately or combined.

Fig.: Gel mixture of 0,9 % Agarose + 0,5 % Synergel™ with (left to right): 0,4 µg 100 bp Ladder, equalized + 0,3 µg 1 kbp Ladder; 0,5 µg 1 kbp Ladder; 0,4 µg 100 bp Ladder, equalized.

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
CL22.1	1 set	20 µg+50 µg	plastic	145,15



The DNA-markers are supplied ready-to-use or in lyophilised form. Gel loading buffer for dissolving the lyophilised DNA-fragments is included. We use ROTI®Load DNA with glycerol (Art. No. 0100.1) as gel loading buffer. The dissolved markers are ready-to-use and can be applied to gels immediately.

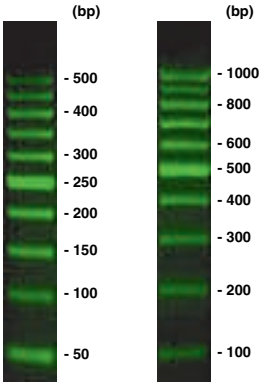
Regular DNA Ladders with Fluorescent Dye

DNA-Marker, prestained

Markers (DNA-gels)

The bands of the marker are prestained with the fluorescent dye SYBR® Green I, which has been developed specifically for DNA analysis. The dye bounds to the minor groove of DNA and also intercalates into the DNA. It can be excited by UV- and blue light, making it fully compatible with standard UV-transilluminators as well as with modern blue-light illumination (see also ROTIPHORESE®PROfessional runVIEW, Art. No. 4849.1). When excited, the nucleic acid-bound dye emits a brightly coloured green fluorescence that may be documented by all usual broadband ethidium bromide filters or SYBR® Green foto filters.

Marker	50 bp-DNA-Ladder SYBR® Green	100 bp-DNA-Ladder SYBR® Green
Art. No.	1CN8 (fig. 1)	1CN9 (fig. 2)
Size range (bp)	50–500	100–1000
Number of fragments	10	10
Reinforced band at (bp)	250	500
Staining	fluorescent/green	fluorescent/green
Quantitation	possible	possible
Number of lanes in minigel	200/ml	200/ml
Delivery	ready-to-use	ready-to-use



Please note: Reliable size determination of unstained DNA fragments cannot performed using prestained markers.
In order to make the running distances comparable it is necessary to stain the DNA fragments, too. We recommend using the gel loading buffer ROTI®Load DNAstain SYBR® Green. The buffer contains – as well as the prestained ladders – the non-toxic fluorescent dye SYBR® Green, which is detectable with UV- and blue light.

► SYBR® Green DNA dye see page 49

ready-to-use

50 bp-DNA-Ladder SYBR® Green

ready-to-use, prestained with SYBR®Green DNA dye

Size range: 50-500 bp
Number of fragments: 10
Number of lanes per ml: approx. 200 (mini gels)

Regular DNA ladder for the analysis of small DNA fragments. Delivered in *ready-to-use* format for direct application to gels. The 250 bp fragment has been enhanced for easy analysis of the gel. Orange G was included as tracking dye.

Fig. : 3 % agarose

Wavelength

Excitation maximum (bound to DNA): 254 nm and 495 nm
Emission maximum (bound to DNA): 521 nm

The marker is an ideal addition to the gel loading buffer ROTI®Load DNAstain 3 SYBR® Green (Art. No. 1CN7).

Volume supplied: 52.5 ng DNA in 500 µl buffer solution

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
1CN8.1	500 µl	plastic	146,75

ready-to-use

100 bp-DNA-Ladder SYBR® Green

ready-to-use, prestained with SYBR®Green DNA dye

Size range: 100-1000 bp
Number of fragments: 10
Number of lanes per ml: approx. 200 (mini gels)

Regular DNA ladder for the analysis of small DNA fragments. Delivered in ready-to-use format for direct application to gels. The 500 bp fragment has been enhanced for easy analysis of the gel. Tartrazine and xylene cyanole were included as tracking dyes.

Fig. : 2.4 % agarose

Wavelength

Excitation maximum (bound to DNA): 254 nm and 495 nm
Emission maximum (bound to DNA): 521 nm

The marker is an ideal addition to the gel loading buffer ROTI®Load DNAstain 2 SYBR® Green (Art. No. 1CN6).

Volume supplied: 52.5 ng DNA in 500 µl buffer solution

Storage temperature: –20 °C
Transport temperature: ambient temp.

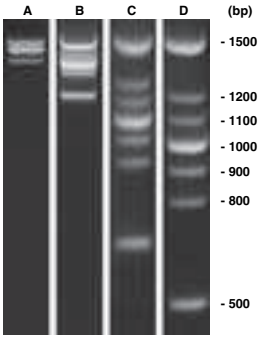
WGK 1

Each batch is functionally tested for its suitability in electrophoresis.

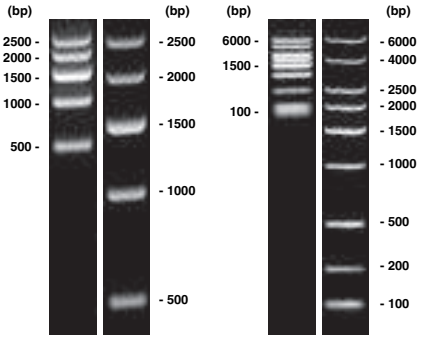
Art. No.	Pack Qty.	Pack.	€
1CN9.1	500 µl	plastic	134,40

DNA Markers for Short Runs

Marker	PCR-Marker DNAscore	DNA-Marker short run 1	DNA-Marker short run extended
Art. No.	T917 (fig. 1)	0146 (fig. 2)	CL05 (fig. 3)
Size range (bp)	500–1500	500–2500	100–6000
Number of fragments	7	5	9
Reinforced bands at (bp)	500, 1000, 1500	1500	1500
Quantitation	possible	possible	possible
Number of lanes in minigel	200 / 100 µg	400 / 100 µg	300 / 100 µg
Delivery	lyophilised	lyophilised	lyophilised



①



② ③

PCR-Marker DNA*score*

lyophilised, not prestained

Size range: 500-1500 bp
Number of fragments: 7
Reinforced bands: 500 bp, 1000 bp, 1500 bp
Band for DNA quantitation: 1000 bp
Number of lanes per 100 µg: approx. 200 (mini gels)

Markers (DNA-gels)

Marker excellent for analysing PCR-fragments and for routine-analysis.
The 500 bp, 1000 bp and 1500 bp bands have been reinforced in their intensity for speedy and simple orientation. The special 1000 bp band allows the marker to be used for quantifying in gel.

Directions for use

Depending on the resolved segment, the marker changes its appearance (see **figure**).

Fig.: A) 1,0 cm: The marker shows three bands (500 bp, 1000 bp, 1500 bp).

B) 1,5 cm: Four satellite bands flank the 1000-bp-band.

C) 3-4 cm: All bands are resolved. Efficient size analysis of fragments with a difference of 50 bp is possible.

D) 6-7 cm: The marker can also be used for quantfying after approx. 6 cm run: the 1000-bp-band corresponds to 140 ng DNA (when loading 0,5 µg DNA-marker).

DNA-marker in lyophilised form. A short-run-optimised sample buffer (Art. No. 0099.1) for dissolving the DNA and subsequent application on gels is supplied.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
T917.1	50 µg	plastic	97,75

The DNA-ladders are supplied in lyophilised form. A short-run-optimised sample buffer for dissolving the lyophilised DNA-fragments is included (Art. No. 0099.1). The dissolved markers are ready-to-use and can be applied to gels immediately.

DNA-Marker short-run 1

lyophilised, not prestained

Size range: 500-2500 bp
Number of fragments: 5
Number of lanes per 100 µg: approx. 400 (mini gels)

Markers (DNA-gels)

The perfect DNA-marker for very short gel running distances and high-through-put approaches.
The fragment mass is optimised for very short runs. The 1500 bp fragment has been enhanced for easy analysis of the gel.

Directions for use

Best results are already obtained at 18 mm running distance in a 1,5 % agarose gel (see figure).

Fig.: 1,5 % agarose (NEEO, Art. No. 2267). Left – running distance 18 mm, Right – running distance 40 mm.

DNA-marker in lyophilised form. A short-run-optimised sample buffer (Art. No. 0099.1) for dissolving the DNA and subsequent application on gels is supplied.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
0146.1	50 µg	plastic	97,75

DNA-Marker short-run *extended*

lyophilised, not prestained

Size range: 100-6000 bp
Number of fragments: 9
Number of lanes per 100 µg: approx. 300 (mini gels)

Markers (DNA-gels)

DNA marker, optimised for all standard applications in the lab.
Due to the lesser number of fragment bands, the short-run, extended DNA-Marker separates very efficiently even on very short running distances, making it a versatile tool also for high-throughput and short-term electrophoresis.
The fragment mass is optimised for very short runs and the enhanced 1500 bp fragment provides easy orientation for analysis.

Directions for use

Best results are already obtained at 15 mm running distance / 7 minutes runtime in a 1,5 % agarose gel with 0,3 µg DNA loading per lane (see figure).

Fig.: Left – 1,5 % agarose (NEEO, Art. No. 2267), running distance 15 mm. Right – 1,2 % agarose, running distance 35 mm.

DNA-marker in lyophilised form. A short-run-optimised sample buffer (Art. No. 0099.1) for dissolving the DNA and subsequent application on gels is supplied.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
CL05.1	50 µg	plastic	107,40

Staining of Protein Gels

ROTH provides a large selection of high-quality staining kits and reagents for proteins, differing in their sensitivity and range of application.

Summary Staining of Protein Gels

Product	Sensitivity	Description
ROTI®Black P	1 ng/mm²	**Silver** staining kit. Highly sensitive. Simple, fast and reproducible.
ROTI®Blue	10 ng/mm²	**Coomassie**®-solution for colloidal staining of proteins. **Destaining not required**. Non-fixing staining for protein gel elution possible. Proteomics-compatible.
ROTI®Blue quick	10 ng/mm²	Solution for **rapid**, highly specific **staining** of proteins. **Destaining not required**. Non-fixing staining, compatible with blotting and Proteomics.
ROTIPHORESE®Blau R	50 ng/mm²	**Coomassie**® staining solution concentrate for rapid staining.
Coomassie® Blue G250 (C.I. 42655)	60 ng/mm²	Dye for performing Coomassie® staining. OD_{max} = 595
Coomassie® Blue R250 (C.I. 42660)	50 ng/mm²	Dye for performing Coomassie staining. OD_{max} = 550

Suitability of Protein Stainings

Product	Sensitivity	Rapid Gel Analysis	Gel Drying	Elution/ Transfer	2D-Gels	MS-Analysis
ROTI®Black P	1 ng/mm²	–	+++	–	+++	–
ROTI®Blue	10 ng/mm²	–	+++	+++	–	+++
ROTI®Blue quick	10 ng/mm²	+++	+++	++	–	++
ROTI®Blau R	50 ng/mm²	+++	+	–	–	–

+++: recommended +: suitable –: not recommended

Please note our **Technical Information Brochure** on the Internet next to the products:

Coomassie® Gel Staining
Basics and mechanisms of Coomassie® dyes



ready-to-use

ROTI®Blue quick

1x conc., ready-to-use

For rapid, sensitive staining of protein gels.

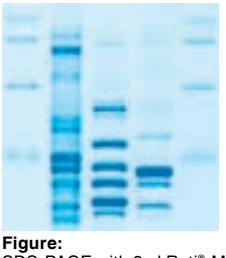


Figure:
SDS-PAGE with 3 µl Roti®-Mark Standard and samples.
Staining duration: 20 mins.

ROTI®Blue quick provides a new, very fast staining method for proteins in polyacrylamide gels. Due to the modern formulation, the dye binds highly specifically to proteins, but not to the gel matrix, hence eliminating the need to destain the gel. First bands are clearly visible within 3 minutes!

- Particularly fast, specific staining
- First bands are visible within 3 mins.
- No background – no destaining necessary
- Very simple application without heating, methanol, or acetic acid
- Stabilised for a longer shelf life

Directions for use

The following protein amounts / band can be detected in the specified time (minutes):
from 1 µg (3 min.)
from 100 ng (15 min.)
from 10 ng (60 min.)

The sensitivity of staining equals that of ROTI®Blue (Art. No. A152), so bands of 10 ng protein can be detected. ROTI®Blue quick is, therefore, approx. 5times more sensitive than standard Coomassie® staining solutions. ROTI®Blue quick staining is also fully compatible with usual down-stream applications like, membrane transfer & Western blotting, MS analysis (incl. MALDI) and protein gel elution.

1 l solution is sufficient for approx. 40 mini gels.

Storage temperature: +4 °C

UN no. 1760 · ADR 8 II · WGK 1

Danger H314

Art. No.	Pack Qty.	Pack.	€
4829.1	250 ml	glass	98,40
4829.2	1 l	plastic	360,15
Original pack 6 x 1 l			342,14/1 l

Staining of Protein Gels

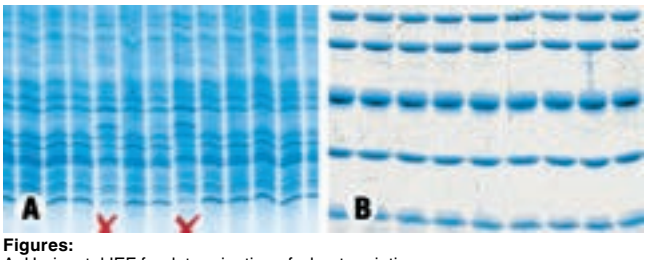


ready-to-use

ROTI®Blue

5x conc.

Colloidal Coomassie® staining solution for protein gels.



Figures:
A: Horizontal IEF for determination of wheat-varieties.
With kind permission of R. Knoblauch, LTZ Referat 23, Karlsruhe
B: SDS-PAGE ROTI®Mark Standard.

ROTI®Blue is a colloidal Coomassie® brilliant blue G250 staining agent for proteins in polyacrylamid gels. Its colloidal features enable the staining agent to be bound to the proteins with high specificity and only minimally to the gel matrix. There is no longer any need for the extensive washing steps for background decoloring.

- Most simple application
- No destaining necessary
- 5x more sensitive than Coomassie® R 250

ROTI®Blue is approximately 5 x more sensitive than standard Coomassie® staining solutions. Staining time takes 2 to 12 hours depending on the desired band intensity.
Due to the fact that proteins may be stained without fixing the gel, membrane transfer and gel elution are still possible following staining. **Particularly well suited for staining prior to MS-analyses (e. g. MALDI) and prior to gel elution.**

1 l concentrated solution is sufficient for approx. 50 mini gels.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
UN no. 1805 · ADR 8 III · WGK 1

Warning H290

Art. No.	Pack Qty.	Pack.	€
A152.2	250 ml	plastic	39,25
A152.1	1 l	plastic	114,50
Original pack 6 x 1 l			108,78/1 l

Brilliant blue G 250 (C.I. 42655)

for electrophoresis and biochemistry

For preparation of solutions for protein gel staining and protein quantitation (Bradford)

Not suitable for staining of membranes after protein transfer.

$C_{47}H_{48}N_3O_7S_2Na$ · M 854,03 g/mol
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
9598.1	10 g	glass	46,15
9598.2	100 g	plastic	278,45



ready-to-use

ROTIPHORESE®Blue R

ROTIPHORESE® concentrate

Brillant Blue R solution for Coomassie® staining of protein gels.

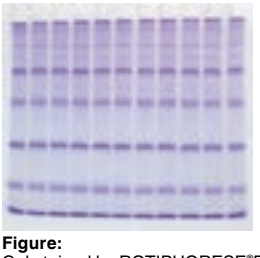


Figure:
Gel stained by ROTIPHORESE®Blue R, 12% PAA in Tris, ROTI®Mark STANDARD (Art. No. T851).

Concentrate for easy preparation of Coomassie® Blue R staining solutions.
ROTIPHORESE®Blue R is ideal for staining proteins in SDS-PAGE gels. It saves any tedious weighing of staining powder and having to prepare the mixture.

Directions for use

Concentrate contains Coomassie® Blue R, methanol and pure acetic acid. ROTIPHORESE®Blue R can be diluted directly in the bottle with 400 to 600 ml deionized water, resulting in the following composition depending on the dilution.

When diluted with 397,5 ml water (to a total of 1 litre staining solution):
Methanol (50 %), acetic acid 10 %, Coomassie® R (0,25 %)
When diluted with 507,5 ml water (to a total of 1,1 litre staining solution):
Methanol (45 %), acetic acid 9 %, Coomassie® R (0,22 %)
When diluted with 602,5 ml water (to a total of 1,2 litre staining solution):
Methanol (41,5 %), acetic acid 8,3 %, Coomassie® R (0,2 %).

We recommend mixing the concentrated solution well before dilution and filtering the diluted solution before application.

600 ml concentrated solution is sufficient for approx. 12 mini gels.
UN no. 3286 · ADR 3 (6.1, 8) II · WGK 1

Danger H225-H301+H311+H331-H315-H319-H370

Art. No.	Pack Qty.	Pack.	€
3074.1	600 ml	glass	39,25

Brilliant blue R 250 (C.I. 42660)

for electrophoresis

For preparing protein gel staining solutions

Conditionally suitable for staining of membranes after protein transfer.

$C_{45}H_{44}N_3NaO_7S_2$ · M 825,99 g/mol
WGK 1

Art. No.	Pack Qty.	Pack.	€
3862.1	10 g	glass	31,75
3862.2	100 g	glass	127,95

Staining of Protein Gels



ROTI®Black P

for electrophoresis

Silver staining kit for protein gels

ROTI®Black P is a kit for speedy, reproducible silver staining of proteins in free and foil-supported gels.

- Sensitive silver staining
- Transparent gel
- Reliable results

ROTI®Black P allows the detection of proteins from 1 ng/mm² due to its high sensitivity in combination with the very low background of the stained gels. Free gels can be stained without methanol, for carrier-supported gels methanol is required.

The ROTI®Black P Kit comes with an easy to follow protocol that guarantees you reliable results.

The kit contains

Sodium thiosulphate (Art. No. L534), silver nitrate (Art. No. L535), empty test tubes (Art. No. L536), formaldehyde (Art. No. L537), and sodium carbonate (Art. No. L538).
Contents of this Kit may not be bought separately.
Shipped without racket.

One kit is adequate for staining 10 gels.

UN no. 3316 · ADR 9 II · WGK 3

Danger H272-H290-H301+H311+H331-H314-H317-H335-H341-H350-H370-H410

Art. No.	Pack Qty.	Packaging	Pack.	€
L533.1	1 kit	for 10 mini or 2 maxi gels	cardboard	97,30
L533.2	1 kit	for 40 mini or 10 maxi gels	cardboard	117,20

Silver Staining of Proteins and DNA-Gels

ROTI®Black silver staining kits have been optimized to provide you with the most sensitive staining possible. Adding **thiosulphate** during the sensibilization and generation process reduces the background and increases contrast (acc. to Blum *et al.*, (1987) *Electrophoresis* 8:93-9). **Formaldehyde** should preferably be fresh when applied and it reduces the silver ions (Ag^+) to so-called silver seed crystals.

We recommend to:

- Wash the gels carefully after each step otherwise there may be side reactions in the form of stains, spots, increased background or secondary bands.
- Fix the gels carefully. Inadequate fixation impairs band formation and increases the background. Fresh and high-quality fixatives should be used and adapted to the volume and duration of gel strength.

► Silver nitrate see www.carlroth.com

Safety data sheets

can be found on the Internet next to the product description.

Staining of DNA Gels

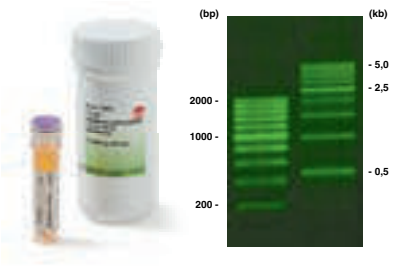
Nucleic acid dyes for agarose and acrylamide gels, for laboratories and practical applications. We offer you high-quality stains with high sensitivity (silver stains), standard stains (ethidium bromide) in user-friendly dropper bottles, and non-toxic fluorescent dyes for blue or UV light.

Summary Staining of Nucleic Acid in Gels

Product	Sensitivity	Description	Excitation
Ethidium bromide solution	1,5 ng/mm²	Standard **fluorescent** staining	254-330 nm, 500 nm UV- White light
SYBR® Green DNA dye	0,01 ng/band	Non-toxic, green **fluorescent** staining	254 nm and 495 nm UV- White light
ROTI®GelStain	1,5 ng/band	Non-toxic, green **fluorescent** staining	290-320 nm UV-light
ROTI®GelStain Red	1,5 ng/mm²	Non-toxic, red **fluorescent** staining	310 nm, 540 nm UV- and blue light
ROTI®Methylene blue staining concentrate	10 ng/mm²	Reversible, non-toxic **blue** staining	White light
ROTI®Black N	<0,1 ng/mm²	**Silver** staining of DNA polyacrylic amide gels	White light

Non-Toxic Fluorescent Staining of Nucleic Acids in Gels

Non-toxic and non-carcinogenic staining reagents for fluorescent staining of nucleic acids in agarose and polyacrylamide gels. Highly sensitive and applicable just like ethidium bromide.
The **ROTI®GelStain** dyes are added to the gel solution and the running buffer.
The fluorescent dye **SYBR®Green** is added directly to the loading buffer.
The **ROTI®Load DNAstain SYBR®Green** solutions already contain the dye and are thus ready-to-use loading buffers.
All dyes can be excited by UV light and blue light. Resulting signals may be detected by ethidium bromide broadband photo filters.



SYBR® Green DNA dye

Ethidium bromide substitutes

This is the DNA dye SYBR® Green I, a staining reagent for detection of double stranded nucleic acid in agarose and polyacrylamide gels. The dye is added directly to the DNA/loading buffer mixture and then loaded onto the gel.
SYBR® Green I bounds to the minor groove of DNA and intercalates into the DNA. Upon excitation it emits a bright green fluorescence. The sensitivity is up to 0.01 ng per band and is therefore 20 times higher than ethidium bromide.
SYBR® Green I has been developed specifically for gentle DNA analysis. DNA integrity is not influenced; hence, gel eluted DNA may directly be applied to standard down-stream applications, like, e.g., ligations, PCR, transformation, transfection etc. without interfering effects.

- Recommended for dsDNA
- Direct addition to DNA sample
- For excitation with UV light and blue light
- Non-toxic alternative for ethidium bromide
- Sensitivity (0,01 ng/band)

SYBR® Green DNA dye can be excited by UV- and blue light, making it fully compatible with standard UV-transilluminators as well as with modern blue-light illumination (see also ROTIPHORESE®PROfessional runVIEW, Art. No. 4849.1). The gels may be documented by all usual broadband ethidium bromide- or SYBR® Green foto filters.

Wavelength

Excitation maximum (bound to DNA): approx. 254 nm and 495 nm
Emission maximum (bound to DNA): 521 nm

ready-to-use

SYBR® Green DNA dye

11x conc., for electrophoresis, ready-to-use

For fluorescent staining of nucleic acids in agarose and polyacrylamide gels.

1.8 ml are sufficient for gel run and staining of approx. 3,600 lanes (5 µl sample + 0.5 µl dye).

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Packaging	Pack.	€
1CN2.1	1.8 ml	1 x 1.8 ml	plastic	26,80
1CN2.2	9.0 ml	5 x 1.8 ml	plastic	104,20

ROTI®Load DNAstain SYBR® Green

Loading bufer with the fluorescent dye SYBR® Green I for staining of double stranded nucleic acid in agarose and polyacrylamide gels.

- Alternative for ethidium bromide, non-toxic, non-mutagen
- 20 times more sensitive than ethidium bromide, up to 0.01 ng nucleic acid per band
- For use with common broad-band ethidium bromide photo filters
- Excitation possible via UV light (254 nm) and blue light (495 nm)
- Compatible with all usual down-stream applications.

ROTI®Load DNAstain SYBR® Green is easy to use and reduces significantly the time required for gel analysis. The contained fluorescent dye SYBR® Green I detects up to 0.01 ng per band, and is, therefore, 20 times more sensitive than ethidium bromide. DNA integrity is not influenced by SYBR® Green I; hence, gel eluted DNA may directly be applied to standard down-stream applications, like, e.g., ligation, PCR, transformation, transfection etc. without interfering effects.
SYBR® Green I bounds to the minor groove of DNA and intercalates into the DNA. It can be excited by UV- and blue light, making it fully compatible with standard UV-transilluminators as well as with modern blue-light illumination (see also ROTIPHORESE®PROfessional runVIEW, Art. No. 4849.1).
When excited, nucleic acid-bound SYBR® Green I emits a brightly coloured green fluorescence (521 nm) that may be documented by all usual broadband ethidium bromide- or SYBR® Green foto filters.
The **figure** depicts 50 ng DNA per band, or 75 ng (1000 bp and 2.5 kb), respectively. Each lane has been loaded and concurrently stained using 1 µl ROTI®Load DNAstain SYBR® Green.

Wavelength

Excitation maximum (bound to DNA): 254 nm and 495 nm
Emission maximum (bound to DNA): 521 nm

ready-to-use

ROTI®Load DNAstain 1 SYBR® Green

6x conc., ready-to-use

DNA-gel loading buffer with fluorescent DNA-dye SYBR® Green.
For fragments >500 bp.

Directions for use

In order to cover the main size range needed in gel electrophoresis, ROTI®Load DNAstain 1 SYBR® Green contains bromophenol blue and xylene cyanol.

Glycerin is the standard reagent for increasing sample density.

Recommended for staining of dsDNA- and dsRNA-fragments of over 500 bp.

Contains: Tris, EDTA, bromophenol blue, xylencyanol, SYBR® Green, glycerol.
1.8 ml are sufficient for gel run and staining of approx. 1,800 lanes (5 µl sample + 1 µl loading buffer).

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Packaging	Pack.	€
1CN5.1	1.8 ml	1 x 1.8 ml	plastic	52,15
1CN5.2	9.0 ml	5 x 1.8 ml	plastic	160,20

ready-to-use

ROTI®Load DNAstain 2 SYBR® Green

6x conc., ready-to-use

DNA-gel loading buffer with fluorescent DNA-dye SYBR® Green.
For fragments of 100–2000 bp.

Directions for use

ROTI®Load DNAstain 2 SYBR® Green contains tartrazine and xylencyanol to mark the length. Tartrazine runs in the very small fragment range and shows the maximum running distance for very short runs. Recommended if bromophenol blue could mask important DNA bands.

Glycerin is the standard reagent for increasing sample density.

Recommended for staining of dsDNA- and dsRNA-fragments of 100–2000 bp.

Contains: Tris, EDTA, xylencyanol, tartrazine, SYBR® Green.
1.8 ml are sufficient for gel run and staining of approx. 1,800 lanes (5 µl sample + 1 µl loading buffer).

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Packaging	Pack.	€
1CN6.1	1.8 ml	1 x 1.8 ml	plastic	52,15
1CN6.2	9.0 ml	5 x 1.8 ml	plastic	160,20

ready-to-use

ROTI®Load DNAstain 3 SYBR® Green

6x conc., ready-to-use

DNA-gel loading buffer with fluorescent DNA-dye SYBR® Green.
For fragments <500 bp.

Directions for use

ROTI®Load DNAstain 3 SYBR® Green is a special gel loading buffer with orange G as the only tracking dye optimized for very short runs. Orange G runs in the very small fragment range and shows the maximum running distance for very short runs. Also well suited if bromophenol blue or xylene cyanol could mask important DNA bands.

Glycerin is the standard reagent for increasing sample density.

Recommended for staining of dsDNA- and dsRNA-fragments of under 500 bp.

Contains: Tris, EDTA, orange G, SYBR® Green.
1.8 ml are sufficient for gel run and staining of approx. 1,800 lanes (5 µl sample + 1 µl loading buffer).

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Packaging	Pack.	€
1CN7.1	1.8 ml	1 x 1.8 ml	plastic	52,15
1CN7.2	9.0 ml	5 x 1.8 ml	plastic	160,20

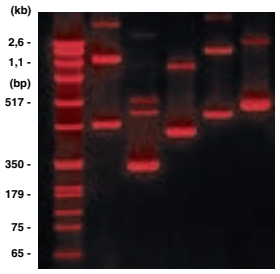
Staining of DNA Gels

ROTI®GelStain

Ethidium bromide substitutes

Non-toxic and non-carcinogenic dyes for fluorescent staining of nucleic acids in agarose gels and polyacrylamide gels. Highly sensitive and applied just like ethidium bromide.

The ROTI®GelStain dyes are used as additives to the gel solution and the running buffer, partly also post-run staining is possible. Both ROTI®GelStain dyes can be excited by UV light, additionally, ROTI®GelStain Red may be excited by blue light. Resulting signals may be detected by ethidium bromide broadband photo filters.



ready-to-use | DNAse-free | RNAse-free

ROTI®GelStain Red

ready-to-use, DNAse-free, RNAse-free, for electrophoresis

Red fluorescent staining reagent for non-toxic staining of nucleic acids in agarose and polyacrylamide gels.

ROTI®-GelStain Red is a new, versatile staining reagent for detection of all nucleic acids in agarose and polyacrylamide gels.
Suitable for staining of dsDNA, ssDNA and RNA.

- Red fluorescence
- Alternative to ethidium bromide, non-toxic, non-mutagen
- Detection of > 0.3 ng nucleic acid per band
- Usuable with the same filters as ethidium bromide
- Excitation via UV light (310 nm) and blue light (540 nm)
- Compatible with all usual down-stream applications

ROTI®-GelStain Red is a new designed red fluorescent dye that can be used like ethidium bromide for staining in gel (addition to gel solution). Due to the low membrane permeability of the dye ROTI®-GelStain Red is non-mutagenic and non-toxic. It is suitable for staining of dsDNA, ssDNA and RNA.
ROTI®-GelStain detects up to 0,3 ng/mm² nucleic acid, i.e. below 0,1 ng per band, and is, therefore, more sensitive than ethidium bromide. Bound to nucleic acid it emits a brightly red fluorescence that can be documented by all usual ethidium bromide foto filters. ROTI®-GelStain Red is compatible with all usual down-stream applications.

Wavelength

Excitation maximum (bound to DNA): approx.310 nm and 540 nm
Emission maximum (bound to DNA): 630 nm

1 ml is sufficient for staining of approx. 600 minigels with 30 ml agarose volume each.

Storage temperature: +4 °C

WGK 2

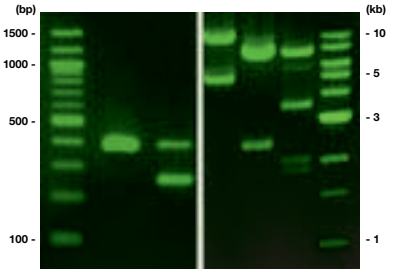
Art. No.	Pack Qty.	Packaging	Pack.	€
0984.1	1 ml	1 x 1 ml	plastic	123,65
0984.2	5 ml	5 x 1 ml	plastic	542,90

► Gel documentation see page 93

► Transilluminators, UV-hand-held lamps and UV-hand-held magnifiers see at www.carlroth.com

Please note our **Technical Information Brochure** on the Internet next to the products:

Gel staining of nucleic acids
Background and mechanisms of the various stains



ready-to-use

ROTI®GelStain

ready-to-use, for electrophoresis

For non-toxic fluorescent staining of nucleic acids in agarose gels. Green fluorescence. Direct addition to the agarose solution.

ROTI®GelStain is a versatile staining reagent for detection of all nucleic acids in agarose gels.

- Green fluorescence
- Alternative for ethidium bromide, non-toxic, non-mutagen
- For dsDNA, ssDNA and RNA
- Nearly as sensitive as ethidium bromide (approx. 0.2 ng / band)
- For use with common broad-band ethidium bromide photo filters
- Excitation via UV light (302 nm) and blue light (490 nm)
- Compatible with all usual down-stream applications

The dye may be used exactly in the same way as ethidium bromide – for staining in-gel, staining through running buffer, or post-run staining –, and may replace this toxic and potentially mutagen reagent completely. ROTI®-GelStain detects up to 1,5 ng/mm² nucleic acid, which is approx. 0.2 ng per band, and is, therefore, nearly as sensitive as ethidium bromide.
When bound to nucleic acids in agarose gels, ROTI®-GelStain emits a brightly green fluorescence that may be documented by all usual broadband ethidium bromide or SYBR® Green foto filters.

ROTI®-GelStain is compatible with all standard down-stream applications and has been successfully tested for use with gel extraction, ligation, transformation and transfection.

Figure:
Amplicons of a mouse genotyping (left), and restriction digested DNA (right), respectively, separated in 2,5 and 1 % agarose ROTI®Garose NEEO with ROTI®GelStain (5 µl / 100 ml agarose). Pictures were taken using standard ethidium bromide photo filters.
With kind permission of Prof. R. Slany, Dept. of Genetics, Friedrich Alexander University, Erlangen.

Wavelength

Excitation maximum (bound to DNA): 302 nm (UV) and 490 nm (blue light)
Emission maximum (bound to DNA): 520 nm

1 ml is sufficient for staining of approx. 600 minigels with 30 ml agarose volume each.

Storage temperature: +4 °C

WGK 2

Art. No.	Pack Qty.	Packaging	Pack.	€
3865.1	1 ml	1 x 1 ml	plastic	123,65
3865.2	5 ml	5 x 1 ml	plastic	547,20

Ethidium Bromide



In spite of newly developed fluorescent staining reagents ethidium bromide remains the standard staining technic for nucleic acid in electrophoresis.
Ethidium bromide is a carcinogenic substance which shouldn't come in contact with skin. In order to minimise this danger we offer ready-to-use ethidium bromide solution in dropper bottles for easy handling and maximum safety.



Sekuroka® Decon-Bags

Carl ROTH.

Adsorber bags for removal of ethidium bromide from liquids.

Sekuroka® Decon-Bags are a simple method for removal of ethidium bromide from solutions.

- Reliable technique
- Very easy application
- Efficiency >99 %
- Capacity 2.5 mg/bag
- Bag size:5.5 x 2.2 cm
- Suitable for ethidium bromide, propidium iodide, PicoGreen® and SYBR® Green.

The bags contain a special type of activated carbon which absorbs ethidium bromide effectively and safely. One bag can absorb 2.5 mg ethidium bromide. Efficiency is >99 %.

Directions for use

Place the adsorber bag in the ethidium bromide solution, incubate for 24 hours under stirring and dispose of the bag as hazardous waste in accordance with local regulations.

Suitable for adsorption of ethidium bromide, propidium iodide, PicoGreen® and SYBR® Green.

Art. No.	Pack Qty.	Pack.	€
T856.2	10 unit(s)	bag	32,15
T856.1	50 unit(s)	box	138,70
T856.3	250 unit(s)	box	590,20

Excitation maxima (unbound): 210 nm, 285 nm, 470 nm
Excitation maxima (bound to DNA): 330 nm, 500 nm, excitation possible via DNA at 254 nm
Emission maximum: 605 nm



ready-to-use

Ethidium bromide solution 0.025 % in dropper bottle

250 µg/ml in water, ready-to-use

For staining of DNA or RNA in agarose gels during electrophoresis.

Directions for use

Two drops will suffice for staining a 50 ml agarose gel. Add directly to melted agarose.

2 drops ethidium bromide solution on 50 ml melted agarose.
Store solution in the dark!

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
HP47.1	15 ml	1 x 15 ml	plastic	38,60
HP47.2	75 ml	5 x 15 ml	plastic	134,40

ready-to-use

Ethidium bromide solution 0.5 % in dropper bottle

5 mg/ml in water, ready-to-use

For staining of DNA/RNA after electrophoresis and for counterstaining of nuclei in histology and cytology.

Directions for use

In order to prepare a staining solution add 5 drops of ethidium bromide solution to 500 ml water, buffer, or electrophoresis running buffer, respectively.
Nuclei / nucleic acids are stained red.

Staining solution: add 5 drops of ethidium bromide solution to 500 ml buffer.
Store solution in the dark!

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
HP46.1	15 ml	1 x 15 ml	plastic	38,60
HP46.2	75 ml	5 x 15 ml	plastic	134,40

Ethidium bromide solution 1 %

10 mg/ml in water

For staining of DNA/RNA after electrophoresis.

Stock solution for fluorescent detection of nucleic acids. Detection limit: 1.5 ng/mm².

Store solution in the dark!

WGK 1

Warning H341

Art. No.	Pack Qty.	Packaging	Pack.	€
2218.1	10 ml	1 x 10 ml	glass	13,90
2218.4	15 ml	1 x 15 ml	dropp. bottle	40,75
2218.2	30 ml	1 x 30 ml	glass	31,75
2218.3	100 ml	1 x 100 ml	glass	77,30

Colorimetric Staining of Nucleic Acids in Gels



ROTI®Black N

for electrophoresis

Silver staining kit for DNA-polyacrylamide gels

Kit for ultra-sensitive and reproducible staining of DNA in polyacrylamide gels.

- Ultra-sensitive
- Easy-to-follow guide
- Transparent gel

Detection limit for DNA is <0.1 ng/mm². ROTI®Black N is, therefore, an excellent alternative to using radioactivity or bioluminescent systems. ROTI®Black N results in an intensive staining of nucleic acids, yet the gel matrix remains highly transparent.

The ROTI®Black N Kit comes with an easy to follow protocol that guarantees you reliable results.

The kit contains

Silver nitrate (Art. No. N770), formaldehyde (Art. No. N771), sodium thiosulphate (Art. No. N772), sodium carbonate (Art. No. N774), and stop solution (Art. No. N773).
Contents of this Kit may not be bought separately. Shipped without racket.

One kit is adequate for staining 10 gels of 10 or 40 mls gel volume.

UN no. 3316 · ADR 9 II · WGK 3

Danger H272-H290-H301+H311+H331-H314-H317-H335-H341-H350-H370-H373-H410

Art. No.	Pack Qty.	Packaging	Pack.	€
N769.1	1 kit	for 10 mini or 2 maxi gels	cardboard	122,05
N769.2	1 kit	for 40 mini or 10 maxi gels	cardboard	213,95



ready-to-use

ROTI®Methylene blue staining concentrate

200x conc.

For reversible staining of DNA in agarose gels

ROTI®Methylene blue staining concentrate was specially developed for sensitive staining of DNA in agarose gels. Sensitivity reaches up to 10 ng per band. Staining can be conducted in a simple staining bowl, a transilluminator is not required.

- Highly reversible alternative to ethidium bromide
- High sensivity (in minimum 10 ng/band)
- No transilluminator required
- Solution can be used repeatedly
- Sufficient for more than 50 mini gels

Mechanism

ROTI®Methylene blue staining concentrate binds to the negativly charged DNA backbone by salt bridges formed through quaternary ammonia complexes. The staining is very easy to remove by washing or replacement by salts.

Directions for use

For staining DNA agarose gels, DNA polyacrylamide gels, for reversible staining of Southern- and Northern-Blots.
Staining can be performed in a simple staining dish, a transilluminator is not required. The diluted staining solution can be used several times.

12 ml Roti®-methylene blue staining concentrate is sufficient for more than 50 mini gels.

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 1

Warning H226-H319

Art. No.	Pack Qty.	Pack.	€
0648.1	3 ml	plastic	49,35
0648.2	12 ml	plastic	138,70

Horizontal Electrophoresis: Systems & Modules

A large range of different electrophoresis chambers for agarose or acrylamide gel electrophoresis is available

- Corrosion-free, gold-plated contacts. Conducting cables are linked directly to the safety lid, current flow is automatically stopped by opening the lid
- The safety lid can only be closed in one direction, a mix-up of orientation is excluded
- The platinum electrodes are protected by a special construction
- Our entire range of electrophoresis chambers is CE-certified
- For all chambers a wide range of accessories is available, such as combs, spacers and gel casting trays
- All gel casting trays are **UV-transparent**

Depending on the model, the gels can be cast directly in the chamber or on a special gel casting tray. The different combs can be adjusted in height and are available in three or four colour-coded thicknesses.

Overview of Horizontal Electrophoresis Units acc. to Gel Size

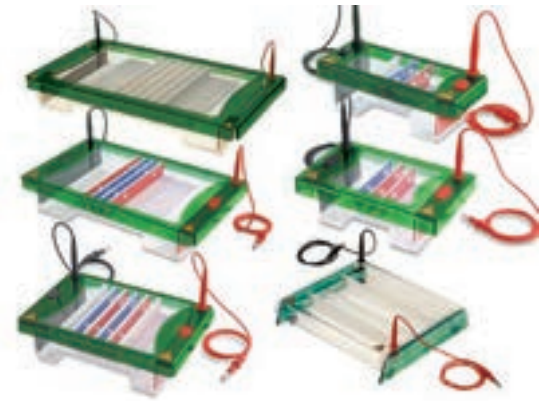
Gel Size	Suitable for	Unit	Art. No.
6 x 7,5 cm	Agarose	MINI	N562.1
7 x 7 cm	Agarose	PROfessional I	2788.1
8 x 10 cm	Agarose	MINIeasy	N817.1
10 x 10 cm	Agarose	PROfessional II	2799.1
10 x 11,5	Agarose	MIDI 1	N576.1
15 x 15 cm	Agarose	PROfessional III	2850.1
15 x 15 cm	Agarose	PROfessional runVIEW	4849.1
15 x 15 cm	Agarose	MIDI PLUS	HP70.1
15 x 7 to 15 x 20 cm	Agarose	VARIA 1	AE17.1
15 x 20 cm	Agarose	PROfessional III Stretch 20	9940.1
15 x 25 cm	Agarose	PROfessional III Stretch 25	9941.1
20 x 20 cm	Agarose	PROfessional IV	2941.1
20 x 20 cm	Agarose	MIDI 2	N596.1
20 x 20 cm	Agarose	MIDI 2 cooled	N618.1
24 x 20 cm	Agarose	PROfessional Acetate	3099.1
25 x 25 cm	Agarose, IEP, Membrane	MULTI (flat bed)	CP51.1
25 x 30 cm	Agarose	MAXI	N610.1
25 x 30 cm	Agarose	MAXI cooled	N619.1
26 x 32 cm	Agarose	PROfessional V	3000.1

Colour coding of the combs

Colour	Comb thickness
black	0,75 mm
white	1,0 mm
red	1,5 mm
blue	2,0 mm



ROTIPHORESE® PROfessional Units



Electrophoresis Unit ROTIPHORESE®

Product Line for Lab Bench and Student's Courses

General features:

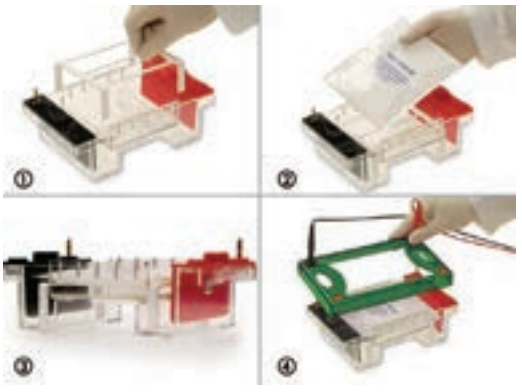
- Made of robust acrylic glass
- High-grade quality
- Injection moulded without bonding
- Absolutely leak proof
- Extremely easy to operate
- Wide range of accessories
- Easily replaceable electrodes
- Excellent value for money
- UV-transparent gel trays

Technical specifications:

Art. No.	2788.1	2799.1	9938.1	9939.1	2941.1	3099.1	3000.1	2850.1
Type	PROfessional I	PROfessional II	PROfessional III Stretch 20	PROfessional III Stretch 25	PROfessional IV	PROfessional Acetate	PROfessional V	PROfessional III
L x W, gel	7 cm x 7 cm	10 cm x 10 cm	20 cm x 15 cm	25 cm x 15 cm	20 cm x 20 cm	20 cm x 24 cm	32 cm x 26 cm	15 cm x 15 cm
Max. number of samples	32	80	280	350	500		672	210
Comb positions	2	4	8	10			12	6
Buffer volume	225 ml	300 ml	1000 ml		1200 ml		1400 ml	500 ml
L x W x H, device	21 x 9 x 9 cm	22 x 12.5 x 9 cm	41 x 17.5 x 9 cm		39.5 x 23 x 9 cm		50 x 28 x 9 cm	26.5 x 17.5 x 9 cm
Suitable for	Agarose					Acetate	Agarose	

Convenient Gel Cooling System

Larger ROTIPHORESE®PROfessional units may be cooled by a highly efficient and very easy to applicate cooling system via precooled pads.



(1) Set cooling frame into buffer-filled chamber covering the gel
(2) Load gel and carefully apply precooled cool pack
(3) Side view
(4) Add lid and start gel run

Maximum sample size depends on the height of the gel. Rule of thumb (all values in mm):
Max. sample per well = Broadth of teeth x comb thickness x (gel height – 3)

PROfessional runVIEW Real-time Electrophoresis Under Blue Light



Complete electrophoresis system ROTIPHORESE® PROfessional runVIEW

All-in-one system for real-time electrophoresis:
unit, power supply and illuminator combined

Suitable for:

- Watch your bands migrate through the gel in blue light – without mutagen or retina damaging effects
- Recommended for use with SYBR®Green, ROTI®GelStain (green) and ROTI®GelStain Red (red), compatible with ethidium bromide and common alternatives such as SYBR® Green
- First choice for rapid gel analysis, gel elution and all control gels
- Suitable accessories are the runVIEW dark hood (Art. No. 1348.1) and the runDOC gel documentation system (Art. No. 1315.1).

Directions for use

Innovative, all-in-one system for electrophoresis – with integrated power supply and illuminator. Stained DNA is made visible during the run by excitation with blue light of 470 nm wave length and a special lid with integrated emission filter for green and red fluorescence. DNA stained during the run by SYBR® Green, ROTI®GelStain (green), ROTI®GelStain Red (red), ethidium bromide or another common replacement dye can be watched in real-time without having damaging effects caused by short wave lengths.
In this way, all work can be carried out directly on the laboratory bench. Transport of the gel is no longer necessary.

The compact arrangement of the devices and the simple control panel guarantee uncomplicated use. For high flexibility in application, gel trays with 7, 10 and 15 cm length are available. Also seven different combs in four thicknesses, including preparative combs with broad wells. For all accessories see electrophoresis unit ROTIPHORESE®PROfessional III (Art. No. 2850.1).

Technical specifications:

Art. No.	4849.1
L x W, gel	15 cm x 15 cm
Max. number of samples	210
Buffer volume	500 ml
Comb positions	6
L x W x H, device	17.5 x 26.5 x 9 cm
Wavelength	470 nm
Current	max. 300 mA
Performance	max. 30 W
Display type	LED display
Connection	Outlets: 1, Parallel socket pairs: 4 mm
Safety devices	Detection of "no load"
Ambient temperature	15–40 °C
Weight	2.6 kg
Mains connection	25–150 V

Complete electrophoresis system ROTIPHORESE® PROfessional runVIEW

ROTH SELECTION.



Figure: Unit under blue light, without lid



Figure: Unit under blue light, with green-filtering lid

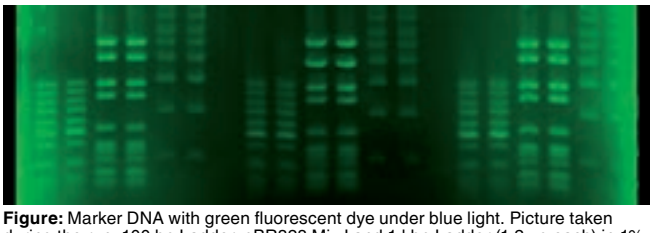


Figure: Marker DNA with green fluorescent dye under blue light. Picture taken during the run. 100 bp Ladder, pBR328 Mix I and 1 kbp Ladder (1.2 µg each) in 1% agarose / 0.5x TBE.



Figure: Gel elution can be performed very easily by simply letting the DNA band of choice migrate into a second row of wells, and then stopping the run at the right time.

Delivery incl. 1 ROTIPHORESE®PROfessional runVIEW base (base station with integrated blue light and power supply, also available individually under order no. 4850.1), 1 horizontal gel chamber ROTIPHORESE®PROfessional III (also available individually under order no. 2850.1), 1 special lid for blue light (also available individually under order no. 3077. 1) with integrated spectral emission filter for green and red fluorescence and electrophoresis cables (4 mm plug), 1 UV-transparent gel carrier tray (15 x 15 cm) with 2 gel casting barriers, 8 double-sided combs, compatible with multichannel pipettes: 2 x 4/16 samples and 4 x 20/28 samples (1 mm each), 1 x 4/16 samples and 1 x 20/28 samples (3 mm each).

Type	Art. No.	Pack Qty.	€
PROfessional runVIEW complete system	**4849.1**	1 unit(s)	2.324,15



Electrophoresis Station ROTIPHORESE® PROfessional runVIEW Base

Base station for real-time electrophoresis

General features:

- Combination of power supply and blue light illuminator
- Special lid for detection of green and red fluorescent dyes
- Optimal supplement for electrophoresis chamber ROTIPHORESE® PROfessional III

Technical specifications:

Art. No.	4850.1
L x W x H, device	29.3 x 22 x 8 cm
Wavelength	470 nm
Current	max. 300 mA
Performance	max. 30 W
Timer display	1–999 min. (Alarm)
Display type	LED display
Connection	Outlets: 1, Parallel socket pairs: 4 mm
Safety devices	Detection of "no resistance"
Ambient temperature	15–40 °C
Weight	2,6 kg
Mains connection	25–150 V

Delivery incl. power supply with blue light illuminator, power cord, special lid with integrated spectral emission filter for green and red fluorescence, **suitable for electrophoresis unit PROfessional III** (Art. No. 2850.1).

Electrophoresis Station ROTIPHORESE® PROfessional runVIEW Base

ROTH SELECTION.

The special lid is also available separately under Art.-No. 3077.1.

Type	Art. No.	Pack Qty.	€
runVIEW Basic	**4850.1**	1 unit(s)	1.964,05

► Gel documentation system ROTIPHORESE® runDOC see page 93



Electrophoresis Station ROTIPHORESE® PROfessional runVIEW Basis MINI

Base station for real-time electrophoresis.

General features:

- Blue light illuminator, adaptable-size
- Special lid for detection of green and red fluorescent dyes
- Optimal supplement to electrophoresis units ROTIPHORESE® PROfessional I and II

The special lid can also be bought separately. It is available in two different sizes: Art. No. 3663.1 for electrophoresis unit PROfessional I (Art. No. 2788.1), Art. No. 3680.1 for electrophoresis unit PROfessional II (Art. No. 2799.1).
Convenient power supplies are EV1450 (Art. No. CP56.1) or Carl ROTH MINI (Art. No. 2907.1).

Technical specifications:

Art. No.	9958.1	9961.1
Wavelength	470 nm	
Ambient temperature	15–40 °C	
Mains connection	100–240 V	

Delivery incl. Blue light illuminator (adjustable to 2 different sizes), power cord, special lid with integrated spectral emission filter for green and red fluorescence.

Electrophoresis Station ROTIPHORESE® PROfessional runVIEW Basis MINI

ROTH SELECTION.

Suitable for	Type	Art. No.	Pack Qty.	€
Unit PROfessional I	runVIEW Basis MINI	**9958.1**	1 unit(s)	1.072,85
Unit PROfessional II	runVIEW Basis MINI	**9961.1**	1 unit(s)	1.082,55



Lid ROTIPHORESE® PROfessional runVIEW

Special lid for real-time electrophoresis with the runVIEW system.
The lid has a built-in fan and an integrated spectral emission filter for blue light, which is suitable for red and green fluorescence. Together with the runVIEW system stained DNA can be made visible in the gel during the run.

Lid ROTIPHORESE® PROfessional runVIEW

ROTH SELECTION.

Suitable for	Use	Type	Art. No.	Pack Qty.	€
Unit PROfessional I	red and green fluorescence	PROfessional I	**3663.1**	1 unit(s)	165,55
Unit PROfessional II	red and green fluorescence	PROfessional II	**3680.1**	1 unit(s)	196,75
Unit PROfessional III	red and green fluorescence	PROfessional III	**3077.1**	1 unit(s)	162,35

Units – horizontal



Electrophoresis Unit ROTIPHORESE® PROfessional I

ROTH SELECTION. Material: Polymer (acrylate).

Gel chamber PROfessional I – for small gels with short separation distance, first choice for rapid single-bench analyses

- Electrophoresis chamber with accessories – ready for use
- Gel casting outside the chamber with gel casting gates
- Seven different combs available in four thicknesses, including preparative combs with broad wells
- Compatible with multi-channel pipettors (combs with 12 teeth)
- Gel trays with 7 and 10 cm length available
- For real-time electrophoresis upgradeable with ROTIPHORESE® PROfessional runVIEW Base MINI (Art. No. 9958.1)

Delivery incl. 1 horizontal gel chamber, 1 safety lid with integral power leads (4 mm plugs), 1 UV-transparent gel casting tray (7 × 7 cm) with 2 gel casting gates, 2 combs (1 mm, 8 teeth).

Type	Art. No.	Pack Qty.	€
PROfessional I	**2788.1**	1 unit(s)	555,80



Gel casting trays PROfessional I

ROTH SELECTION.

Delivery without gel casting dams. Please order separately.

Type	L x W (cm)	Art. No.	Pack Qty.	€
Gel casting tray	7 x 7	**2784.1**	1 unit(s)	76,00
Gel casting tray	10 x 7	**2785.1**	1 unit(s)	91,25

Gel casting gate PROfessional I

ROTH SELECTION.

Gel casting barriers for PROfessional I electrophoresis unit (Art. No 2788.1).

Type	Art. No.	Pack Qty.	€
Gel casting gate	**2765.1**	1 pair	71,30

Electrode PROfessional I

ROTH SELECTION.

Replacement electrode for electrophoresis unit PROfessional I (Art. No. 2788.1).

Type	Art. No.	Pack Qty.	€
Anode electrode	**2767.1**	1 unit(s)	120,75
Cathode electrode	**2769.1**	1 unit(s)	120,75



Comb ROTIPHORESE® PROfessional I

ROTH SELECTION.

Pockets	Thickness (mm)	Art. No.	Pack Qty.	€
8	0.75	**2740.1**	1 unit(s)	46,05
8	1.0	**2747.1**	1 unit(s)	46,05
8	1.5	**2754.1**	1 unit(s)	46,05
8	2.0	**2761.1**	1 unit(s)	46,05
10	0.75	**2741.1**	1 unit(s)	46,05
10	1.0	**2748.1**	1 unit(s)	46,05
10	1.5	**2755.1**	1 unit(s)	46,05
10	2.0	**2762.1**	1 unit(s)	46,05
1+1	0.75	**2737.1**	1 unit(s)	46,05
1+1	1.0	**2744.1**	1 unit(s)	46,05
1+1	1.5	**2751.1**	1 unit(s)	46,05
1+1	2.0	**2758.1**	1 unit(s)	46,05
12	0.75	**2742.1**	1 unit(s)	46,05
12	1.0	**2749.1**	1 unit(s)	46,05
12	1.5	**2756.1**	1 unit(s)	46,05
12	2.0	**2763.1**	1 unit(s)	46,05
16	0.75	**2743.1**	1 unit(s)	46,05
16	1.0	**2750.1**	1 unit(s)	46,05
16	1.5	**2757.1**	1 unit(s)	46,05
16	2.0	**2764.1**	1 unit(s)	46,05
2+2	0.75	**2738.1**	1 unit(s)	46,05
2+2	1.0	**2745.1**	1 unit(s)	46,05
2+2	1.5	**2752.1**	1 unit(s)	46,05
2+2	2.0	**2759.1**	1 unit(s)	46,05
4+2	0.75	**2739.1**	1 unit(s)	46,05
4+2	1.0	**2746.1**	1 unit(s)	46,05
4+2	1.5	**2753.1**	1 unit(s)	46,05
4+2	2.0	**2760.1**	1 unit(s)	46,05

Sample volume for a 5 mm thick gel

	1 + 1**	2 + 2**	4 + 2**	8	10	12*	16
0,75 mm	152 µl	68 µl	36 µl	19 µl	14 µl	10 µl	7 µl
1,0 mm	203 µl	90 µl	48 µl	25 µl	18 µl	14 µl	10 µl
1,5 mm	304 µl	135 µl	72 µl	37 µl	27 µl	20 µl	15 µl
2,0 mm	405 µl	180 µl	96 µl	50 µl	36 µl	27 µl	20 µl

*Compatibel with multi-channel pipettors
**Combs with extremely wide wells (for preparative gels)

Units – horizontal



Electrophoresis Unit ROTIPHORESE® PROfessional II

ROTH SELECTION.

Gel chamber PROfessional II – First choice for all rapid routine analyses

- Electrophoresis chamber with accessories – ready for use
- Gel casting outside the chamber with gel casting gates
- Seven different combs available in four thicknesses, including preparative combs with broad wells
- Compatible with multi-channel pipettors (combs with 10 and 20 teeth)
- Gel trays with 7 and 10 cm length available
- For real-time electrophoresis upgradeable with ROTIPHORESE® PROfessional runVIEW Base MINI (Art. No. 9961.1)

Delivery incl. 1 horizontal gel chamber, 1 safety lid with integral power leads (4 mm plugs), 1 UV-transparent gel casting tray (10 × 10 cm) with 2 gel casting gates, 2 combs (1 mm, 16 teeth).

Type	Art. No.	Pack Qty.	€
PROfessional II	**2799.1**	1 unit(s)	578,35



Gel casting trays PROfessional II

ROTH SELECTION.

Delivery without gel casting dams. Please order separately.

Type	L x W (cm)	Art. No.	Pack Qty.	€
Gel casting tray	10 x 7	**3147.1**	1 unit(s)	93,55
Gel casting tray	10 x 10	**3148.1**	1 unit(s)	93,45

Gel casting gate PROfessional II

ROTH SELECTION.

Gel casting barriers for PROfessional II electrophoresis unit (Art. No. 2799.1).

Type	Art. No.	Pack Qty.	€
Gel casting gate	**3146.1**	1 pair	91,70

Electrode PROfessional II

ROTH SELECTION.

Replacement electrode for electrophoresis unit PROfessional II (Art. No. 2799.1).

Type	Art. No.	Pack Qty.	€
Anode electrode	**3141.1**	1 unit(s)	192,45
Cathode electrode	**3142.1**	1 unit(s)	192,45



Comb ROTIPHORESE® PROfessional II

ROTH SELECTION.

Pockets	Thickness (mm)	Art. No.	Pack Qty.	€
8	0.75	**3157.1**	1 unit(s)	54,65
8	1.0	**3202.1**	1 unit(s)	54,65
8	1.5	**3219.1**	1 unit(s)	54,65
8	2.0	**3234.1**	1 unit(s)	54,65
10	0.75	**3158.1**	1 unit(s)	54,65
10	1.0	**3203.1**	1 unit(s)	54,65
10	1.5	**3220.1**	1 unit(s)	54,65
10	2.0	**3238.1**	1 unit(s)	54,65
12	0.75	**3161.1**	1 unit(s)	54,65
12	1.0	**3204.1**	1 unit(s)	54,65
12	1.5	**3222.1**	1 unit(s)	54,65
12	2.0	**3239.1**	1 unit(s)	54,65
16	0.75	**3177.1**	1 unit(s)	54,65
16	1.0	**3206.1**	1 unit(s)	54,65
16	1.5	**3227.1**	1 unit(s)	54,65
16	2.0	**3244.1**	1 unit(s)	54,65
20	0.75	**3178.1**	1 unit(s)	54,65
20	1.0	**3208.1**	1 unit(s)	54,65
20	1.5	**3229.1**	1 unit(s)	54,65
20	2.0	**3245.1**	1 unit(s)	54,65
2+2	0.75	**3150.1**	1 unit(s)	54,65
2+2	1.0	**3181.1**	1 unit(s)	54,65
2+2	1.5	**3212.1**	1 unit(s)	54,65
2+2	2.0	**3230.1**	1 unit(s)	54,65
4+2	0.75	**3151.1**	1 unit(s)	54,65
4+2	1.0	**3188.1**	1 unit(s)	54,65
4+2	1.5	**3213.1**	1 unit(s)	54,65
4+2	2.0	**3233.1**	1 unit(s)	54,65

Sample volume for a 5 mm thick gel

	2 + 2**	4 + 2**	8	10*	12	16	20*
0,75 mm	118 µl	57 µl	30 µl	20 µl	17 µl	12 µl	10 µl
1,0 mm	158 µl	77 µl	41 µl	27 µl	23 µl	16 µl	14 µl
1,5 mm	236 µl	115 µl	61 µl	41 µl	34 µl	24 µl	20 µl
2,0 mm	315 µl	153 µl	81 µl	54 µl	45 µl	32 µl	27 µl

*Compatibel with multi-channel pipettors
**Combs with extremely wide wells (for preparative gels)

Maximum voltage for horizontal gels: 10 V/cm gel length



Electrophoresis Unit ROTIPHORESE® PROfessional III

ROTH SELECTION.

Gel chamber PROfessional III – First choice for all standard analyses
High flexibility in application: Gel trays with three different legth available

- Electrophoresis chamber with accessories – ready for use
- Gel casting outside the chamber with gel casting gates
- For high flexibility in application: Gel trays with 7, 10 and 15 cm length available
- Seven different combs available in four thicknesses, including preparative combs with broad wells
- Compatible with multi-channel pipettors (combs with 16 and 28 teeth)
- For real-time electrophoresis upgradeable with ROTIPHORESE® PROfessional runVIEW Base (Art. No. 4850.1)

Delivery incl. 1 horizontal gel chamber, 1 safety lid with integral power leads (4 mm plugs), 1 UV-transparent gel casting tray (15 × 15 cm) with 2 gel casting gates, 2 combs (1 mm, 20 teeth).

Type	Art. No.	Pack Qty.	€
PROfessional III	**2850.1**	1 unit(s)	632,10



Electrophoresis Unit ROTIPHORESE® PROfessional III Stretch 20

ROTH SELECTION.

Gel chamber PROfessional III Stretch 20 – first choice for all standard analyses with gels up to 20 cm long, gel trays available in four different lengths

- Electrophoresis chamber with accessories – ready for use
- Gel casting outside the chamber with gel casting gates
- For high flexibility in application: Gel trays with 7, 10, 15, 20 cm length available
- Seven different combs available in four thicknesses, including preparative combs with broad wells
- Compatible with multi-channel pipettors (combs with 16 and 28 teeth)

Delivery incl. 1 horizontal gel chamber, 1 safety lid with integral power leads (4 mm plugs), 1 UV-transparent gel casting tray (15 × 20 cm) with 2 gel casting gates, 4 combs (1 mm, 28 teeth).

Type	Art. No.	Pack Qty.	€
PROfessional III Stretch 20	**9938.1**	1 unit(s)	809,50



Electrophoresis Unit ROTIPHORESE® PROfessional III Stretch 25

ROTH SELECTION.

Gel chamber PROfessional III Stretch 25 – first choice for all standard analyses with gels up to 25 cm long, gel trays available in five different lengths

- Electrophoresis chamber with accessories – ready for use
- Gel casting outside the chamber with gel casting gates
- For high flexibility in application: Gel trays with 7, 10, 15, 20 and 25 cm length available
- Seven different combs available in four thicknesses, including preparative combs with broad wells
- Compatible with multi-channel pipettors (combs with 16 and 28 teeth)

Delivery incl. 1 horizontal gel chamber, 1 safety lid with integral power leads (4 mm plugs), 1 UV-transparent gel casting tray (15 × 25 cm) with 2 gel casting gates, 4 combs (1 mm, 28 teeth).

Type	Art. No.	Pack Qty.	€
PROfessional III Stretch 25	**9939.1**	1 unit(s)	809,50



Gel casting trays PROfessional III

ROTH SELECTION.

Delivery without gel casting dams. Please order separately.

Type	L x W (cm)	Art. No.	Pack Qty.	€
Gel casting tray	7 x 15	**3250.1**	1 unit(s)	109,95
Gel casting tray	10 x 15	**3251.1**	1 unit(s)	109,95
Gel casting tray	15 x 15	**3252.1**	1 unit(s)	109,95
Gel casting tray	20 x 15	**9940.1**	1 unit(s)	142,45
Gel casting tray	25 x 15	**9941.1**	1 unit(s)	142,45

Gel casting gate PROfessional III

ROTH SELECTION.

Gel casting barriers for PROfessional III electrophoresis unit (Art. No. 2850.1).

Type	Art. No.	Pack Qty.	€
Gel casting gate	**3262.1**	1 pair	90,50

Units – horizontal



Electrode PROfessional III

ROTH SELECTION.

Replacement electrode for electrophoresis unit PROfessional III (Art. No. 2850.1).

Type	Art. No.	Pack Qty.	€
Anode electrode	**3247.1**	1 unit(s)	149,75
Cathode electrode	**3248.1**	1 unit(s)	149,75



Comb ROTIPHORESE® PROfessional III

ROTH SELECTION.

Pockets	Thickness (mm)	Art. No.	Pack Qty.	€
10	0.75	**3266.1**	1 unit(s)	66,30
10	1.0	**3308.1**	1 unit(s)	66,30
10	1.5	**3347.1**	1 unit(s)	66,30
10	2.0	**3374.1**	1 unit(s)	66,30
12	0.75	**3269.1**	1 unit(s)	66,30
12	1.0	**3309.1**	1 unit(s)	66,30
12	1.5	**3350.1**	1 unit(s)	66,30
12	2.0	**3378.1**	1 unit(s)	66,30
16	0.75	**3270.1**	1 unit(s)	66,30
16	1.0	**3312.1**	1 unit(s)	66,30
16	1.5	**3365.1**	1 unit(s)	66,30
16	2.0	**3379.1**	1 unit(s)	66,30
20	0.75	**3276.1**	1 unit(s)	66,30
20	1.0	**3317.1**	1 unit(s)	66,30
20	1.5	**3368.1**	1 unit(s)	66,30
20	2.0	**3381.1**	1 unit(s)	66,30
28	0.75	**3281.1**	1 unit(s)	66,30
28	1.0	**3332.1**	1 unit(s)	66,30
28	1.5	**3370.1**	1 unit(s)	66,30
28	2.0	**3382.1**	1 unit(s)	66,30
35	0.75	**3283.1**	1 unit(s)	66,30
35	1.0	**3334.1**	1 unit(s)	66,30
35	1.5	**3372.1**	1 unit(s)	66,30
35	2.0	**3384.1**	1 unit(s)	66,30
4+2	0.75	**3263.1**	1 unit(s)	66,30
4+2	1.0	**3302.1**	1 unit(s)	66,30
4+2	1.5	**3339.1**	1 unit(s)	66,30
4+2	2.0	**3373.1**	1 unit(s)	66,30

Sample volume for a 5 mm thick gel

	4 + 2**	10	12	16*	20	28*	35
0,75 mm	91 µl	34 µl	30 µl	20 µl	16 µl	8 µl	7 µl
1,0 mm	122 µl	45 µl	41 µl	27 µl	21 µl	11 µl	10 µl
1,5 mm	182 µl	68 µl	61 µl	41 µl	32 µl	17 µl	15 µl
2,0 mm	243 µl	90 µl	81 µl	54 µl	43 µl	23 µl	20 µl

*Compatibel with multi-channel pipettors

**Combs with extremely wide wells (for preparative gels)



Electrophoresis Unit ROTIPHORESE® PROfessional Acetate

ROTH SELECTION.

Gel chamber PROfessional Acetate – compact high resolution system for electrophoresis of acetate strips and membranes

- Electrophoresis chamber with accessories – ready for use
- Suitable for both standard and wet cellulose acetate electrophoresis
- For high flexibility in application

Delivery incl. 1 horizontal gel chamber, 1 safety lid with integral power leads (4 mm plugs), adjustable support for different lengths of membrane strips.

Type	Art. No.	Pack Qty.	€
PROfessional Acetate	**3099.1**	1 unit(s)	939,55

Units – horizontal



Electrophoresis Unit ROTIPHORESE® PROfessional IV

ROTH SELECTION.

Gel chamber PROfessional IV – for large gels or higher sample numbers, gel trays available in three different lengths

- Electrophoresis chamber with accessories – ready for use
- Gel casting outside the chamber with gel casting gates
- For high flexibility in application: Gel trays with 10, 20 and 25 cm length available
- Eight different combs available in four thicknesses, including preparative combs with broad wells
- Compatible with multi-channel pipettors (combs with 20, 36, 40 teeth)
- With practical and easy-to-use gel cooling, independently of water supply or temperature baths

Delivery incl. 1 horizontal gel chamber, 1 safety lid with integral power leads (4 mm plugs), 1 UV-transparent gel casting tray (20 × 20 cm) with 2 gel casting gates, 2 combs (1 mm, 20 teeth).

Type	Art. No.	Pack Qty.	€
PROfessional IV	**2941.1**	1 unit(s)	1.046,00

Gel casting trays PROfessional IV

ROTH SELECTION.

Delivery without gel casting dams. Please order separately.

Type	L x W (cm)	Art. No.	Pack Qty.	€
Gel casting tray	10 x 20	**3392.1**	1 unit(s)	144,75
Gel casting tray	20 x 20	**3393.1**	1 unit(s)	153,55
Gel casting tray	25 x 20	**3394.1**	1 unit(s)	180,60

Gel casting gate PROfessional IV

ROTH SELECTION.

Gel casting barriers for PROfessional IV electrophoresis unit (Art. No. 2941.1).

Type	Art. No.	Pack Qty.	€
Gel casting gate	**3397.1**	1 pair	92,85

Cooling Set PROfessional IV Cooling pack

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Cooling pack	**3386.1**	1 unit(s)	196,75

Electrode PROfessional IV

ROTH SELECTION.

Replacement electrode for electrophoresis unit PROfessional IV (Art. No. 2941.1).

Type	Art. No.	Pack Qty.	€
Anode electrode	**3390.1**	1 unit(s)	154,80
Cathode electrode	**3391.1**	1 unit(s)	154,80

Comb ROTIPHORESE® PROfessional IV

ROTH SELECTION.

Pockets	Thickness (mm)	Art. No.	Pack Qty.	€
16	0.75	**3409.1**	1 unit(s)	71,25
16	1.0	**3427.1**	1 unit(s)	71,25
16	1.5	**3440.1**	1 unit(s)	71,25
16	2.0	**3447.1**	1 unit(s)	71,25
20	0.75	**3410.1**	1 unit(s)	71,25
20	1.0	**3428.1**	1 unit(s)	71,25
20	2.0	**3449.1**	1 unit(s)	71,25
20	1.5	**3458.1**	1 unit(s)	71,25
25	0.75	**3413.1**	1 unit(s)	71,25
25	1.0	**3430.1**	1 unit(s)	71,25
25	1.5	**3441.1**	1 unit(s)	71,25
25	2.0	**3450.1**	1 unit(s)	71,25
30	0.75	**3414.1**	1 unit(s)	71,25
30	1.0	**3431.1**	1 unit(s)	71,25
30	1.5	**3442.1**	1 unit(s)	71,25
30	2.0	**3452.1**	1 unit(s)	71,25
36	0.75	**3416.1**	1 unit(s)	71,25
36	1.0	**3432.1**	1 unit(s)	71,25
36	1.5	**3443.1**	1 unit(s)	71,25
36	2.0	**3453.1**	1 unit(s)	71,25
40	0.75	**3417.1**	1 unit(s)	71,25
40	1.0	**3435.1**	1 unit(s)	71,25
40	1.5	**3444.1**	1 unit(s)	71,25
40	2.0	**3454.1**	1 unit(s)	71,25
4+2	0.75	**3401.1**	1 unit(s)	71,25
4+2	1.0	**3422.1**	1 unit(s)	71,25
4+2	1.5	**3438.1**	1 unit(s)	71,25
4+2	2.0	**3446.1**	1 unit(s)	71,25
50	0.75	**3419.1**	1 unit(s)	71,25
50	1.0	**3437.1**	1 unit(s)	71,25
50	1.5	**3445.1**	1 unit(s)	71,25
50	2.0	**3456.1**	1 unit(s)	71,25

Sample volume for a 5 mm thick gel

	4 + 2**	16	20*	25	30	36*	40*	50
0.75 mm	115 µl	30 µl	20 µl	16 µl	13 µl	11 µl	8 µl	8 µl
1.0 mm	153 µl	41 µl	27 µl	21 µl	17 µl	14 µl	11 µl	10 µl
1.5 mm	230 µl	61 µl	41 µl	32 µl	26 µl	22 µl	17 µl	16 µl
2.0 mm	306 µl	81 µl	54 µl	42 µl	34 µl	29 µl	23 µl	21 µl

*Compatibel with multi-channel pipettors
**Combs with extremely wide wells (for preparative gels)

► External Casting Unit ROTIPHORESE® PROfessional Flexicaster see page 91

Units – horizontal



Electrophoresis Unit ROTIPHORESE® PROfessional V

ROTH SELECTION.

Gel chamber PROfessional V – for very long gels or high sample numbers, gel trays available in three different lengths

- Electrophoresis chamber with accessories – ready for use
- Gel casting outside the chamber
- For high flexibility in application: Gel trays with 16, 24 and 32 cm length available
- Compatible with multi-channel pipettors (combs with 20, 36, 40 teeth)
- With practical and easy-to-use gel cooling, independently of water supply or temperature baths

Delivery incl. 1 horizontal gel chamber, 1 safety lid with integral power leads (4 mm plugs), 1 UV-transparent gel casting tray (26 × 32 cm), 6 combs (1 mm, 28 teeth). For sealing of the tray during gel pouring we recommend to use the temperature stable Sekuroka®-adhesive tape, Art. No. L035.1, or our external casting unit **Flexicaster**, Art. No. 3688.1.

Type	Art. No.	Pack Qty.	€
PROfessional V	**3000.1**	1 unit(s)	1.620,05

Gel casting trays PROfessional V

ROTH SELECTION.

Delivery without gel casting dams. Please order separately.

Type	L x W (cm)	Art. No.	Pack Qty.	€
Gel casting tray	16 x 26	**3019.1**	1 unit(s)	209,65
Gel casting tray	24 x 26	**3020.1**	1 unit(s)	248,35
Gel casting tray	32 x 26	**3021.1**	1 unit(s)	248,35

Cooling Set PROfessional V Cooling pack

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Cooling pack	**3009.1**	1 unit(s)	188,15

Electrode PROfessional V

ROTH SELECTION.

Replacement electrode for electrophoresis unit PROfessional V (Art. No. 3000.1).

Type	Art. No.	Pack Qty.	€
Anode electrode	**3001.1**	1 unit(s)	205,35
Cathode electrode	**3002.1**	1 unit(s)	205,35



Comb ROTIPHORESE® PROfessional V

ROTH SELECTION.

Pockets	Thickness (mm)	Art. No.	Pack Qty.	€
28	0.75	**3023.1**	1 unit(s)	105,25
28	1.0	**3027.1**	1 unit(s)	105,25
28	1.5	**3038.1**	1 unit(s)	105,25
28	2.0	**3056.1**	1 unit(s)	105,25
56	0.75	**3024.1**	1 unit(s)	105,25
56	1.0	**3031.1**	1 unit(s)	105,25
56	1.5	**3055.1**	1 unit(s)	105,25
56	2.0	**3058.1**	1 unit(s)	105,25

Sample volume for a 5 mm thick gel

	28*	56*
0,75 mm	25 µl	10 µl
1,0 mm	34 µl	14 µl
1,5 mm	51 µl	20 µl
2,0 mm	68 µl	27 µl

*Compatible with multi-channel pipettors



Electrophoresis Units

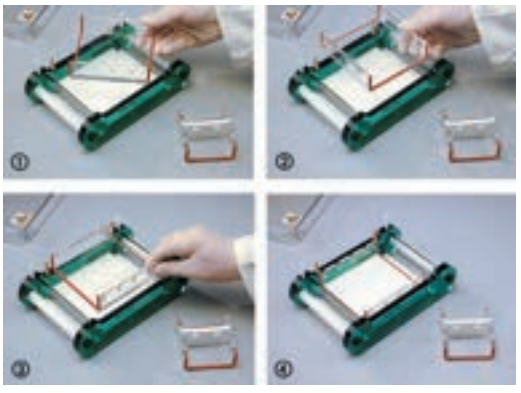
The Classic Line – compact Horizontal Electrophoresis Chambers

General features:

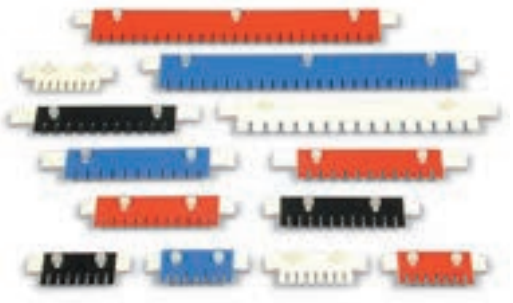
- High-grade quality
- Firmly standing
- Robust construction made of acrylic glass
- Chemically bonded contact points
- Platinum electrodes are protected by a special construction
- Wide range of accessories
- UV-transparent gel trays

Convenient in-Tank Gel Pouring

Big benefit: Several instruments of the classic line allow very convenient in-tank gel pouring – fast and definitely leak-proof.



(1) Remove the gel tray from the chamber. Turn the tray by 90°.
(2) Press the tray carefully into the chamber so that the silicone rubber forms a tight, leakfree seal with the walls of the chamber. Pour slightly precooled agarose into the tray.
(3) Allow the agarose to polymerise, then lift the tray from the chamber and insert it back by positioning it in the direction of the run.
(4) The gel is ready for sample loading and for electrophoresis.





Electrophoresis Unit MINI*easy*

ROTH SELECTION.

MINIeasy – small, complete gel chamber for speedy analysis with short running distance

- Electrophoresis chamber with accessories – ready for use
- Fully UV-transparent – application with UV transilluminator possible
- Low buffer quantity needed
- Tank-gel casting (casting tray cannot be removed)
- Cables with coloured, retractable sheaths
- In addition three different combs available in two different thicknesses

Technical specifications:

Art. No.	**N817.1**
Type	MINI*easy*
L x W, gel	10 cm × 8 cm
Max. number of samples	32
Comb positions	2
Buffer volume	50 ml
L x W x H, device	15 x 13.5 x 3 cm
Suitable for	Agarose

Delivery incl. horizontal gel chamber, safety lid with power leads (4 mm plugs), 2 gel casting gates, 2 combs (1.5 mm; 8 teeth).

Type	Art. No.	Pack Qty.	€
MINI*easy*	**N817.1**	1 unit(s)	897,65

Gel casting gate MINI*easy*

ROTH SELECTION.

Gel casting barriers for MINI*easy* electrophoresis unit (Art. No. N817.1).

Type	Art. No.	Pack Qty.	€
Gel casting gate	**N818.1**	1 pair	40,40

Comb MINI*easy*

ROTH SELECTION.

Pockets	Thickness (mm)	Art. No.	Pack Qty.	€
8	1.0	**N820.1**	1 unit(s)	58,45
8	1.5	**N823.1**	1 unit(s)	56,15
12	1.0	**N821.1**	1 unit(s)	56,15
12	1.5	**N824.1**	1 unit(s)	59,65
16	1.0	**N819.1**	1 unit(s)	56,15

No. of teeth	Broadth of teeth (mm)	Space between teeth (mm)
8	10	2
12	6	2
16	4	2

Units – horizontal



Electrophoresis Unit MINI

ROTH SELECTION.

MINI gel chamber – for small gels with short separation distance

- Electrophoresis chamber with accessories – ready for use
- Gel casting possible in external casting unit MINI and directly in the chamber
- Cables with coloured, retractable sheaths
- In addition three different combs available in three different thicknesses
- Compatible with multi-channel pipettors (combs with 12 teeth)

Technical specifications:

Art. No.	**N562.1**
Type	MINI
L x W, gel	7.5 cm x 6 cm
Max. number of samples	32
Buffer volume	325 ml
L x W x H, device	24 x 13 x 6.5 cm
Suitable for	Agarose

Delivery incl. horizontal gel tank, safety lid with power leads (4 mm plugs), 1 removable gel casting tray, 2 combs (1 mm, 8 teeth).

Type	Art. No.	Pack Qty.	€
MINI	**N562.1**	1 unit(s)	989,00



Silicone Sealing Hose for horizontal gel casting trays

ROTH SELECTION.

For horizontal gel casting trays.

Length (m)	Ø (mm)	Art. No.	Pack Qty.	€
1	4	**T811.1**	1 unit(s)	42,60

► Agaroses, gel buffer solutions and markers for horizontal electrophoresis see page 20



Gel casting trays MINI

ROTH SELECTION.

Delivery without gel casting dams.

Type	L x W (cm)	Art. No.	Pack Qty.	€
Gel casting tray	6 x 7.5	**N575.1**	1 unit(s)	157,55

External Casting Unit MINI

ROTH SELECTION.

For casting max. three gels outside the chamber.

Simply insert the gel casting trays into the casting unit.
No additional sealing required.

Type	Art. No.	Pack Qty.	€
External Casting Unit	**T828.1**	1 unit(s)	187,05

Comb MINI

ROTH SELECTION.

Pockets	Thickness (mm)	Art. No.	Pack Qty.	€
8	1.0	**N564.1**	1 unit(s)	78,25
8	1.5	**N568.1**	1 unit(s)	78,25
8	2.0	**N572.1**	1 unit(s)	78,25
12	1.0	**N565.1**	1 unit(s)	78,25
12	1.5	**N569.1**	1 unit(s)	78,25
12	2.0	**N573.1**	1 unit(s)	78,25
16	1.0	**N566.1**	1 unit(s)	78,25
16	1.5	**N570.1**	1 unit(s)	78,25
16	2.0	**N574.1**	1 unit(s)	78,25

No. of teeth	Broadth of teeth (mm)	Space between teeth (mm)
8	4,5	2
12*	2,5	2
16	2,2	1

*Compatible with multi-channel pipettors



Electrophoresis Unit MIDI 1

ROTH SELECTION.

MIDI 1 gel chamber – for routine gels with medium separation distance

- Electrophoresis chamber with accessories – ready for use
- Gel casting possible in external casting unit MIDI 1 and directly in the chamber
- Cables with coloured, retractable sheaths
- In addition five different combs available in three different thicknesses
- Compatible with multi-channel pipettors (combs with 10 and 20 teeth)

Technical specifications:

Art. No.	N576.1
Type	MIDI 1
L x W, gel	11.5 cm x 10 cm
Max. number of samples	80
Comb positions	4
Buffer volume	450 ml
L x W x H, device	23 x 16.5 x 6.5 cm
Suitable for	Agarose

Delivery incl. horizontal gel tank, safety lid with power leads (4 mm plugs), 1 removable gel casting tray, 2 combs (1 mm, 16 teeth).

Type	Art. No.	Pack Qty.	€
MIDI 1	**N576.1**	1 unit(s)	1.097,60



Gel casting trays MIDI 1

ROTH SELECTION.

Delivery without gel casting dams.

Type	L x W (cm)	Art. No.	Pack Qty.	€
Gel casting tray	10 x 11.5	**N595.1**	1 unit(s)	190,30

► Silicone Sealing Hose for horizontal gel casting trays see page 65

External Casting Unit MIDI 1

ROTH SELECTION.

For casting max. three gels outside the chamber.

Simply insert the gel casting trays into the casting unit.
No additional sealing required.

Type	Art. No.	Pack Qty.	€
External Casting Unit	**T829.1**	1 unit(s)	220,40

Comb MIDI 1

ROTH SELECTION.

Pockets	Thickness (mm)	Art. No.	Pack Qty.	€
8	1.0	**N578.1**	1 unit(s)	78,25
8	1.5	**N584.1**	1 unit(s)	79,55
8	2.0	**N590.1**	1 unit(s)	78,25
10	1.0	**N579.1**	1 unit(s)	78,25
10	1.5	**N585.1**	1 unit(s)	78,25
10	2.0	**N591.1**	1 unit(s)	78,25
12	1.0	**N580.1**	1 unit(s)	78,25
12	1.5	**N586.1**	1 unit(s)	78,25
12	2.0	**N592.1**	1 unit(s)	78,25
16	1.0	**N581.1**	1 unit(s)	78,25
16	1.5	**N587.1**	1 unit(s)	81,95
16	2.0	**N593.1**	1 unit(s)	78,25
20	1.0	**N582.1**	1 unit(s)	78,25
20	1.5	**N588.1**	1 unit(s)	78,25
20	2.0	**N594.1**	1 unit(s)	78,25

No. of teeth	Broadth of teeth (mm)	Space between teeth (mm)
8	9	2,5
10*	7	2
12	5,5	2
16	3,6	2
20*	3	1,5

*Compatible with multi-channel pipettors

Units – horizontal



Electrophoresis Unit MIDI PLUS

ROTH SELECTION.

MIDI PLUS gel chamber – gold standard for all routine gels in the lab

- Electrophoresis chamber with accessories – ready for use
- Gel casting outside the chamber with gel casting gates
- Buffer recirculation possible
- Cables with coloured, retractable sheaths
- In addition eight different combs available in three different thicknesses, including preparative combs with broad wells
- Compatible with multi-channel pipettors (combs with 16 and 30 teeth)

Technical specifications:

Art. No.	**HP70.1**
Type	MIDI PLUS
L x W, gel	15 cm × 15 cm
Max. number of samples	120
Comb positions	4
Buffer volume	1200 ml
L x W x H, device	33.5 x 21.5 x 7 cm
Suitable for	Agarose

Delivery incl. horizontal gel chamber, safety lid with power leads (4 mm plugs), 2 connections for buffer recirculation, 1 removable gel casting tray with 2 gel casting gates, 2 combs (1 mm, 16 teeth).

Type	Art. No.	Pack Qty.	€
MIDI PLUS	**HP70.1**	1 unit(s)	1.379,25

► Silicone Sealing Hose for horizontal gel casting trays see page 65



Gel casting trays MIDI PLUS

ROTH SELECTION.

Delivery incl. gel casting dams.

Type	L x W (cm)	Art. No.	Pack Qty.	€
Gel casting tray	15 x 15	**HP71.1**	1 unit(s)	377,35

Gel casting gate MIDI PLUS

ROTH SELECTION.

Gel casting barriers for MIDI PLUS electrophoresis unit (Art. No. HP70.1).

Type	Art. No.	Pack Qty.	€
Gel casting gate	**HP72.1**	1 pair	147,35

Comb MIDI PLUS

ROTH SELECTION.

Pockets	Thickness (mm)	Art. No.	Pack Qty.	€
10	1.0	**HP76.1**	1 unit(s)	105,15
10	1.5	**HP84.1**	1 unit(s)	101,45
10	2.0	**HP92.1**	1 unit(s)	105,15
1+1	1.0	**HP73.1**	1 unit(s)	n. a.
1+1	1.5	**HP81.1**	1 unit(s)	n. a.
1+1	2.0	**HP89.1**	1 unit(s)	n. a.
16	1.0	**HP77.1**	1 unit(s)	101,45
16	1.5	**HP85.1**	1 unit(s)	105,15
16	2.0	**HP93.1**	1 unit(s)	105,15
20	1.0	**HP78.1**	1 unit(s)	101,45
20	1.5	**HP86.1**	1 unit(s)	102,70
20	2.0	**HP94.1**	1 unit(s)	105,15
2+1	1.0	**HP74.1**	1 unit(s)	n. a.
2+1	1.5	**HP82.1**	1 unit(s)	n. a.
2+1	2.0	**HP90.1**	1 unit(s)	n. a.
25	1.0	**HP79.1**	1 unit(s)	101,45
25	1.5	**HP87.1**	1 unit(s)	102,70
25	2.0	**HP95.1**	1 unit(s)	105,15
30	1.0	**HP80.1**	1 unit(s)	101,45
30	1.5	**HP88.1**	1 unit(s)	101,45
30	2.0	**HP96.1**	1 unit(s)	112,25
4+1	1.0	**HP75.1**	1 unit(s)	n. a.
4+1	1.5	**HP83.1**	1 unit(s)	n. a.
4+1	2.0	**HP91.1**	1 unit(s)	n. a.

No. of teeth	Broadth of teeth (mm)	Space between teeth (mm)
1+1**	138	2
2+1**	68	2
4+1**	33	2
10	12,8	2
16*	6,4	2
20	5,9	2
25	3,5	2
30*	2,5	2

*Compatibel with multi-channel pipettors
**Combs with extremely wide wells (for preparative gels)

Units – horizontal





Electrophoresis Unit VARIA

ROTH SELECTION.

VARIA 1 gel chamber – greatest flexibility in application due to four gel trays of different lengths

- Electrophoresis chamber with accessories – ready for use
- For agarose gels with lengths of 7/10/15/20 cm:
  7 x 15 cm / max. 60 samples at 2 comb positions
  10 x 15 cm / max. 90 samples at 3 comb positions
  15 x 15 cm / max. 120 samples at 4 comb positions
  20 x 15 cm / max. 180 samples at 6 comb positions
- Gel casting outside the chamber with gel casting gates
- Asymmetric electrode offset preventing accidental polarity reversal
- Buffer recirculation possible
- Cables with coloured, retractable sheaths
- In addition four different combs available with up to three different thicknesses
- Developed by Scientists for Scientists

Technical specifications:

Art. No.	**AE17.1**
Type	VARIA 1
L x W, gel	7 cm x 15 cm, 15 cm x 10 cm, 15 cm x 15 cm, 15 cm x 20 cm
Max. number of samples	180
Comb positions	6
Buffer volume	700 ml
L x W x H, device	31.5 x 19 x 7 cm
Suitable for	Agarose

Delivery incl. horizontal gel tank, safety lid with power leads (4 mm plugs), two connections for buffer circulation, two gel casting gates, four removable gel casting trays of 7, 10, 15 and 20 cm length, respectively, two combs (1 mm, 15 teeth).

Type	Art. No.	Pack Qty.	€
VARIA 1	**AE17.1**	1 unit(s)	2.000,60

Gel casting trays VARIA

ROTH SELECTION.

Type	L x W (cm)	Art. No.	Pack Qty.	€
15 x 20 cm	20 x 15	**AE77.1**	1 unit(s)	248,35
Gel casting tray	7 x 15	**AE74.1**	1 unit(s)	141,80
Gel casting tray	10 x 15	**AE75.1**	1 unit(s)	166,65
Gel casting tray	15 x 15	**AE76.1**	1 unit(s)	187,05

Gel casting gate VARIA

ROTH SELECTION. Material: Silicone.

Gel casting barriers for VARIA 1 electrophoresis unit (Art. No AE17.1).

Type	Art. No.	Pack Qty.	€
Gel casting gate	**3690.1**	1 pair	183,85



Comb VARIA

ROTH SELECTION.

Pockets	Thickness (mm)	Art. No.	Pack Qty.	€
10	1.0	**0085.1**	1 unit(s)	101,05
20	1.0	**0089.1**	1 unit(s)	101,05
20	1.5	**0105.1**	1 unit(s)	101,05
20	2.0	**0128.1**	1 unit(s)	101,05
25	1.0	**0090.1**	1 unit(s)	101,05
25	1.5	**0106.1**	1 unit(s)	101,05
25	2.0	**0129.1**	1 unit(s)	101,05
30	1.0	**0091.1**	1 unit(s)	101,05

No. of teeth	Broadth of teeth (mm)	Space between teeth (mm)
10	12,8	2
16*	6,4	2
20	5,9	2
25	3,2	2
30*	2,5	2

*Compatible with multi-channel pipettors

Units – horizontal



Electrophoresis Unit MIDI 2

ROTH SELECTION.

MIDI 2 gel chamber – optimised for large standard gels or higher sample numbers

- Electrophoresis chamber with accessories – ready for use
- Gel casting outside the chamber with gel casting gates
- Buffer recirculation possible
- Cables with coloured, retractable sheaths
- In addition four different combs available in three different thicknesses
- Compatible with multi-channel pipettors (combs with 20 and 40 teeth)

Technical specifications:

Art. No.	N596.1	N618.1
Type	MIDI 2 standard version	MIDI 2 with cooled base plate
L x W, gel	20 cm x 20 cm	
Max. number of samples	160	
Comb positions	4	
Buffer volume	2200 ml	
L x W x H, device	47.5 x 27 x 8 cm	
Suitable for	Agarose	

Delivery incl. horizontal gel tank, safety lid with power leads (4 mm plugs), 2 connections for buffer recirculation, 1 removable gel casting tray, 2 gel casting gates, 2 combs (1 mm, 16 teeth).

Type	Art. No.	Pack Qty.	€
MIDI 2 standard version	**N596.1**	1 unit(s)	1.745,80
MIDI 2 with cooled base plate	**N618.1**	1 unit(s)	2.294,05



Gel casting trays MIDI 2

ROTH SELECTION.

Delivery incl. gel casting dams.

Type	L x W (cm)	Art. No.	Pack Qty.	€
Gel casting tray	20 x 20	**N609.1**	1 unit(s)	430,00

► Silicone Sealing Hose for horizontal gel casting trays see page 65

Gel casting gate MIDI 2

ROTH SELECTION.

Gel casting barriers for MIDI 2 electrophoresis units (Art. No. N596.1 and N618.1).

Type	Art. No.	Pack Qty.	€
Gel casting gate	**T812.1**	1 pair	202,10

Comb MIDI 2

ROTH SELECTION.

Pockets	Thickness (mm)	Art. No.	Pack Qty.	€
16	1.0	**N597.1**	1 unit(s)	104,60
16	1.5	**N601.1**	1 unit(s)	109,30
16	2.0	**N605.1**	1 unit(s)	104,60
20	1.0	**N598.1**	1 unit(s)	104,60
20	1.5	**N602.1**	1 unit(s)	104,60
20	2.0	**N606.1**	1 unit(s)	104,60
28	1.0	**N599.1**	1 unit(s)	104,60
28	1.5	**N603.1**	1 unit(s)	104,60
28	2.0	**N607.1**	1 unit(s)	104,60
40	1.0	**N600.1**	1 unit(s)	104,60
40	1.5	**N604.1**	1 unit(s)	104,60
40	2.0	**N608.1**	1 unit(s)	104,60

No. of teeth	Broadth of teeth (mm)	Space between teeth (mm)
16	8,5	3
20*	7	2
28	4,8	2
40*	2,75	2

*Compatible with multi-channel pipettors



Electrophoresis Unit MAXI

ROTH SELECTION.

MAXI gel chamber – optimised for very high sample numbers and for long separation distance

- Electrophoresis chamber with accessories – ready for use
- Gel casting outside the chamber with gel casting gates
- Buffer recirculation possible
- Cables with coloured, retractable sheaths
- In addition two different combs available in three thicknesses
- All combs are compatible with multi-channel pipettors

Technical specifications:

Art. No.	N610.1	N619.1
Type	MAXI standard model	MAXI with cooled base plate
L x W, gel	30 cm x 25 cm	
Max. number of samples	624	
Comb positions	12	
Buffer volume	3000 ml	
L x W x H, device	56 x 33 x 9 cm	
Suitable for	Agarose	

Delivery incl. horizontal gel tank, safety lid with power leads (4 mm plugs), 2 connections for buffer recirculation, 1 removable gel casting tray, 2 gel casting gates, 6 combs (1 mm, 26 teeth).

Type	Art. No.	Pack Qty.	€
MAXI standard model	**N610.1**	1 unit(s)	2.454,25
MAXI with cooled base plate	**N619.1**	1 unit(s)	2.696,10



Gel casting trays MAXI

ROTH SELECTION.

Delivery incl. gel casting dams.

Type	L x W (cm)	Art. No.	Pack Qty.	€
Gel casting tray	25 x 30	**N617.1**	1 unit(s)	678,35

► Silicone Sealing Hose for horizontal gel casting trays see page 65

Gel casting gate MAXI

ROTH SELECTION.

Gel casting barriers for MAXI electrophoresis units (Art. No. N610.1 and N619.1).

Type	Art. No.	Pack Qty.	€
Gel casting gate	**T813.1**	1 pair	210,70

Comb MAXI

ROTH SELECTION.

Pockets	Thickness (mm)	Art. No.	Pack Qty.	€
26	1.0	**N611.1**	1 unit(s)	148,40
26	1.5	**N613.1**	1 unit(s)	148,40
26	2.0	**N615.1**	1 unit(s)	150,80
52	1.0	**N612.1**	1 unit(s)	148,40
52	1.5	**N614.1**	1 unit(s)	148,40
52	2.0	**N616.1**	1 unit(s)	148,40

No. of teeth	Broadth of teeth (mm)	Space between teeth (mm)
26*	7	2
52*	3	1,5

*Compatible with multi-channel pipettors

Units – horizontal





Flat Bed Electrophoresis Unit MULTI

For all precast horizontal gels and for Iso Electric Focussing (IEF)

General features:

- For high voltage electrophoresis up to 5000 Volt
- Variable applications using tank mounted electrodes or adjustable electrodes for wicked horizontal gels/IEF
- Including cooling unit and buffer drainage system
- Number of samples varies with application
- Superior separation quality and robust construction

We recommend using Circulation Cooler Accel 250 (Art. No. PE51.1) and Power Supply EV 3330 (Art. No. A541.1).

Technical specifications:

Art. No.	**CP51.1**
Type	MULTI
L x W, gel	25 cm x 25 cm
L x W x H, device	46 x 41 x 11.5 cm
Weight	9,6 kg
Suitable for	Agarose, IEF, Membrane

Delivery incl. horizontal flat bed electrophoresis chamber with buffer chambers and integral electrodes, safety lid, one removable ceramic cooling plate (27 x 27 cm), one glass electrode frame, one adjustable anode- and cathode electrode, glass electrode weight, drainage tubing (outer Ø 12 mm), cable set (2 mm plug) and adapter pair for 4 mm socket.

Flat Bed Electrophoresis Unit MULTI

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
MULTI	**CP51.1**	1 unit(s)	4.174,25

Ceramic cooling plate MULTI

ROTH SELECTION.

Type	L x W (cm)	Art. No.	Pack Qty.	€
Ceramic cooling plate	27 x 27	**CP54.1**	1 unit(s)	939,55

Glass electrode frame MULTI

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Glass electrode frame	**CP55.1**	1 unit(s)	347,25

Electrode MULTI

ROTH SELECTION.
Replacement electrode for flat bed electrophoresis unit MULTI (Art. No. CP51.1).

Type	Art. No.	Pack Qty.	€
Anode electrode	**CP52.1**	1 unit(s)	330,05
Cathode electrode	**CP53.1**	1 unit(s)	330,05

Vertical Electrophoresis Systems & Modules

Safety lid with integral power leads
Orientation cannot be mixed up as the lid can only be closed if properly used. Power supply is automatically interrupted when lid is opened.

Platinum electrodes – gold-plated, corrosion-free contacts
Electrodes are made of pure platinum. They are protected by a special construction and can be replaced easily by the user.

Colour coding of spacers and combs
Regular colour coding of spacers and combs facilitates selection of the right tool during gel preparation, preventing assembly of wrong components.

- Simultaneous electrophoresis of minimum two gels
- Inner buffer volume ensures even distribution of heat in gel and prevents “smiling”
- Gel casting module enables speedy and simultaneous casting of two gels
- **Suitable for standard ready-to-use gels**

Wide field of application:

- Separation of proteins, nucleic acids and peptides
- Isoelectric focussing
- Electro-transfer of proteins and nucleic acids

Colour coding of the combs and spacers

Colour	Thickness	Application
violet	0,5 mm	for ultra finely resolved bands
black	0,75 mm	for finely resolved bands
white	1,0 mm	standard
red	1,5 mm	for bigger sample volumina and gels of 2nd dimension
blue	2,0 mm	for big sample volumina and preparative gels

► Q-PAGE™ ready-made gels, compatible with Roth’ vertical units, see www.carlroth.com



Units – vertical



Electrophoresis Unit ROTIPHORESE®

The PROclamp Line – vertical Double Electrophoresis Units with Clamping System
The fast-clamping technique allows rapid and easy-to-handle insertion of glass plates and ready-made gels.

General features:

- **For running of up to 4 gels in parallel**
- Extensive range of accessories incl. glass plates with fixed spacers and suitable blotting modules available
- Colour coded spacers and combs in up to 5 thicknesses available – 0,5 up to 2 mm
- Compatible with multi-channel pipettors (combs are marked *)
- Effective buffer cooling independent of running water or chillers
- **Modular system:** Tanks are compatible with different electrophoresis modules, keeping costs and space to a minimum.

Technical specifications:

Art. No.	5769.1	3501.1	3502.1	3503.1	1395.1
Type	PROclamp MAXI	PROclamp MINI complete set	PROclamp MINI set with accessories	PROclamp MINI set for precast gels	PROclamp MINI Wide
L x W, glass plate	20 x 20 cm	10 x 10 cm			10 x 20 cm
Max. number of samples	192	80			192
Buffer volume	640 / 1000 ml	100 / 300 ml			250 / 600 ml
L x W x H, device	18 x 30 x 27 cm	13 x 19 x 15 cm			16 x 26 x 16 cm
Suitable for	Polyacrylamide gels				



Tight and leak-proof insertion of glass plates in seconds – by modern **fast-clamping techniques**: (MINI: clamps, MAXI: waves):
(1) Position running module on bench surface
(2) Insert glass plates (incl. spacers) from above
(3) Tighten clamps – Ready-to-go!

► Q-PAGE™ ready-made gels, compatible with Roth' vertical units www.carlroth.com



Electrophoresis Unit ROTIPHORESE® PROclamp MINI

ROTH SELECTION.

Electrophoresis Unit ROTIPHORESE® PROclamp MINI

- Electrophoresis chamber with accessories – ready for use
- Compatible with all major brands of 10 × 10 cm precast gels
- With fast-clamping technique
- Up to 20 samples per gel
- Effective buffer cooling independent of running water or chillers

Delivery incl. 1 vertical electrophoresis chamber incl. buffer tank, safety lid and 2 cables (4 mm plugs), 1 running module, 1 dummy plate for run of one gel only, 1 gel cooling pack.
For run of 3 or 4 gels, please additionally order PROclamp MINI notched glass plates with fixed spacers (e.g. thickness 1 mm, Art. No. 3563.1) and suitable combs (e.g. Art. No. 3638.1).

Complete Set
Additionally included: 2 glass plates with fixed spacers (thickness 1 mm), 2 notched glass plates, 2 combs (thickness 1 mm, 12 wells), 1 gel opener, 1 gel casting module for rapid and leak-proof gel casting.

Set with Accessories
Additionally included: 2 glass plates with fixed spacers (thickness 1 mm), 2 notched glass plates, 2 combs (thickness 1 mm, 12 wells), 1 gel opener.

Set for precast gels
Without further accessories. When using precast gels only a maximum of 2 gels can be run simultaneously.

Type	Art. No.	Pack Qty.	€
PROclamp MINI complete set	**3501.1**	1 unit(s)	984,70
PROclamp MINI set for precast gels	**3503.1**	1 unit(s)	851,40
PROclamp MINI set with accessories	**3502.1**	1 unit(s)	900,85

Buffer tank MINI (w/o lid)

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
buffer tank without lid	**3509.1**	1 unit(s)	134,00

Lid for buffer tank MINI (w/o cables)

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Lid for buffer tank	**3511.1**	1 unit(s)	98,70



Running module PROclamp MINI

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Running module	**3504.1**	1 unit(s)	473,00



Gel casting module PROclamp MINI

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Gel casting module	**3506.1**	1 unit(s)	251,55

Sealing pad for gel casting module PROclamp MINI

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Sealing pad for gel casting module	**3507.1**	1 unit(s)	64,80



Cooling Set PROclamp MINI Cooling pack

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Cooling pack	**3512.1**	1 unit(s)	58,75

Glass Plates ROTIPHORESE® PROclamp MINI

ROTH SELECTION.

Also suitable for use in the MINI Vertical electrophoresis chambers of the classic line.

Type	L x W (mm)	Thickness (mm)	Art. No.	Pack Qty.	€
Standard glass plates	100 x 100	2	**3528.1**	2 unit(s)	37,05
Notched glass plates	100 x 100	2	**3522.1**	2 unit(s)	47,90
Dummy plate	100 x 100	5	**3520.1**	1 unit(s)	30,10



Units – vertical



Spacers PROclamp MINI and MINI Wide

ROTH SELECTION.

With labelled upper side
For PROclamp MINI and MINI Wide.

L x W (mm)	Spacer thickness (mm)	Art. No.	Pack Qty.	€
101 x 12	0.5	**3570.1**	1 pair	28,85
101 x 12	0.75	**3573.1**	1 pair	28,85
101 x 12	1.0	**3578.1**	1 pair	28,85
101 x 12	1.5	**3579.1**	1 pair	28,85
101 x 12	2.0	**3584.1**	1 pair	28,85



Standard Glass Plates ROTIPHORESE® PROclamp MINI with fixed spacers

ROTH SELECTION.

Also suitable for use in the MINI Vertical electrophoresis chambers of the classic line.

L x W (mm)	Spacer thickness (mm)	Art. No.	Pack Qty.	€
100 x 100	0.5	**3531.1**	2 unit(s)	45,30
100 x 100	0.75	**3537.1**	2 unit(s)	49,80
100 x 100	1.0	**3542.1**	2 unit(s)	52,00
100 x 100	1.5	**3547.1**	2 unit(s)	69,05
100 x 100	2.0	**3548.1**	2 unit(s)	69,05

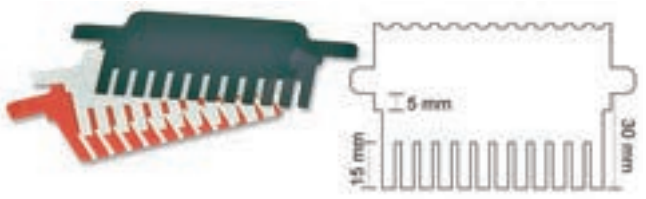


Notched Glass Plates ROTIPHORESE® PROclamp MINI with fixed spacers

ROTH SELECTION.

For pouring of double-gels.

L x W (mm)	Spacer thickness (mm)	Art. No.	Pack Qty.	€
100 x 100	0.5	**3552.1**	2 unit(s)	73,45
100 x 100	0.75	**3561.1**	2 unit(s)	73,45
100 x 100	1.0	**3563.1**	2 unit(s)	73,45
100 x 100	1.5	**3567.1**	2 unit(s)	73,45
100 x 100	2.0	**3568.1**	2 unit(s)	73,45



Comb ROTIPHORESE® PROclamp MINI

ROTH SELECTION.

Pockets	Thickness (mm)	Art. No.	Pack Qty.	€
5	0.5	**3587.1**	1 unit(s)	49,00
5	0.75	**3605.1**	1 unit(s)	49,00
5	1.0	**3623.1**	1 unit(s)	48,90
5	1.5	**3644.1**	1 unit(s)	49,00
5	2.0	**3664.1**	1 unit(s)	49,00
8	0.5	**3593.1**	1 unit(s)	49,00
8	0.75	**3606.1**	1 unit(s)	49,00
8	1.0	**3632.1**	1 unit(s)	49,00
8	1.5	**3649.1**	1 unit(s)	49,00
8	2.0	**3665.1**	1 unit(s)	49,00
10	0.5	**3595.1**	1 unit(s)	49,00
10	0.75	**3610.1**	1 unit(s)	49,00
10	1.0	**3633.1**	1 unit(s)	49,00
10	1.5	**3656.1**	1 unit(s)	49,00
10	2.0	**3667.1**	1 unit(s)	49,00
1+1	0.5	**3585.1**	1 unit(s)	49,00
1+1	0.75	**3600.1**	1 unit(s)	49,00
1+1	1.0	**3622.1**	1 unit(s)	49,00
1+1	1.5	**3642.1**	1 unit(s)	49,00
1+1	2.0	**3662.1**	1 unit(s)	49,00
12	0.5	**3597.1**	1 unit(s)	49,00
12	0.75	**3612.1**	1 unit(s)	49,00
12	1.0	**3638.1**	1 unit(s)	49,00
12	1.5	**3657.1**	1 unit(s)	49,00
12	2.0	**3668.1**	1 unit(s)	49,00
16	0.5	**3598.1**	1 unit(s)	49,00
16	0.75	**3614.1**	1 unit(s)	49,00
16	1.0	**3640.1**	1 unit(s)	49,00
16	1.5	**3658.1**	1 unit(s)	49,00
16	2.0	**3672.1**	1 unit(s)	49,00
20	0.5	**3599.1**	1 unit(s)	49,00
20	0.75	**3615.1**	1 unit(s)	49,00
20	1.0	**3641.1**	1 unit(s)	49,00
20	1.5	**3659.1**	1 unit(s)	49,00
20	2.0	**3674.1**	1 unit(s)	49,00

Max. sample volume per well

	1+1**	5	10	18*	24	30	36*
0,75 mm	1100 µl	160 µl	80 µl	40 µl	30 µl	25 µl	20 µl
1,0 mm	1500 µl	200 µl	100 µl	50 µl	40 µl	35 µl	25 µl
1,5 mm	2200 µl	320 µl	160 µl	80 µl	60 µl	50 µl	40 µl
2,0 mm	3000 µl	400 µl	200 µl	100 µl	80 µl	70 µl	50 µl

*Compatibel with multi-channel pipettors
**Combs with extremely wide wells (for preparative gels)

► Tank-Blotting modules for PROclamp MINI see page 96

► Compatible Gel Multi Caster ROTIPHORESE® for pouring of 12 gels see page 92



Electrophoresis Unit ROTIPHORESE® PROclamp MINI Wide

ROTH SELECTION.

Electrophoresis Unit ROTIPHORESE® PROclamp MINI Wide

- Electrophoresis chamber with accessories – ready for use
- For vertical electrophoresis of wide mini gels (20 × 10 cm)
- Innovative new wave-screw-clamp technology
- Up to 48 samples per gel (capacity equivalent to 2 mini gels)
- Effective buffer cooling independent of running water or chillers

Delivery incl. 1 vertical electrophoresis unit consisting of buffer tank, safety lid and 2 cables (4 mm plugs), 1 running module, 1 gel cooling pack.

Additionally included: 2 standard glass plates with fixed spacers (thickness 1 mm), 2 notched glass plates, 1 dummy plate (for run of one gel only), 2 combs (thickness 1 mm, 24 wells), 4 yellow wave-clamps for electrophoresis of 3 or 4 gels (substitute green clamps), 1 gel casting module.
For the run of 3 or 4 gels, please additionally order PROclamp MINI Wide notched glass plates with fixed spacers (e. g. thickness 1 mm, Art. No. 1427.1) and suitable combs (e. g. Art. No. 5957.1).

Type	Art. No.	Pack Qty.	€
PROclamp MINI Wide	**1395.1**	1 unit(s)	1.383,55



Buffer tank PROclamp MINI Wide (w/o lidl)

ROTH SELECTION.

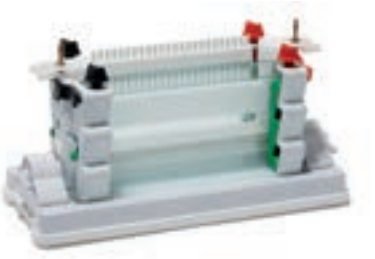
Type	Art. No.	Pack Qty.	€
buffer tank w/o lid	**1396.1**	1 unit(s)	494,50

Lid for buffer tank PROclamp MINI Wide (w/o cable)

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Lid for buffer tank	**1400.1**	1 unit(s)	494,50

► Tank-Blotting modules for PROclamp MINI Wide see page 97



Running module PROclamp MINI Wide

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
running module	**1401.1**	1 unit(s)	444,00



Gel casting module PROclamp MINI Wide and MAXI

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Gel casting module	**5792.1**	1 unit(s)	296,70

Sealing pad for gel casting module PROclamp MINI Wide and MAXI

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Sealing pad for gel casting module	**5793.1**	1 unit(s)	89,80



Cooling Set PROclamp MINI Wide Cooling pack

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
cooling pack	**1429.1**	1 unit(s)	81,90

Units – vertical

Glass Plates ROTIPHORESE® PROclamp MINI Wide

ROTH SELECTION.

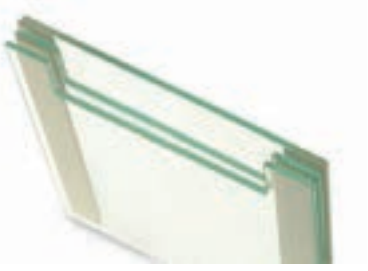
Type	L x W (mm)	Thickness (mm)	Art. No.	Pack Qty.	€
Standard glass plates	100 x 200	4	**1404.1**	2 unit(s)	78,55
Notched glass plates	100 x 200	4	**1405.1**	2 unit(s)	121,70
Dummy plate	100 x 200	10	**1421.1**	1 unit(s)	36,95

► Spacers for PROclamp MINI and MINI Wide
see page 75

Standard Glass Plates ROTIPHORESE® PROclamp MINI Wide with fixed spacers

ROTH SELECTION.

L x W (mm)	Spacer thickness (mm)	Art. No.	Pack Qty.	€
100 x 200	0.75	**1422.1**	2 unit(s)	94,60
100 x 200	1.0	**1423.1**	2 unit(s)	94,60
100 x 200	1.5	**1424.1**	2 unit(s)	94,60
100 x 200	2.0	**1425.1**	2 unit(s)	94,60



Notched Glass Plates ROTIPHORESE® PROclamp MINI Wide with fixed spacers

ROTH SELECTION.

For pouring of double-gels

L x W (mm)	Spacer thickness (mm)	Art. No.	Pack Qty.	€
100 x 200	0.75	**1426.1**	2 unit(s)	162,35
100 x 200	1.0	**1427.1**	2 unit(s)	162,35

► Combs for PROclamp MINI Wide and MAXI
see page 79

Discover our Electrophoresis Units at www.carlroth.com

Detailed product and additional information as well as our complete product range



All information available around the clock!

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- Newsletter subscription - always up to date
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Electrophoresis Unit ROTIPHORESE® PROclamp MAXI

ROTH SELECTION.

Electrophoresis Unit ROTIPHORESE® PROclamp MAXI

- Electrophoresis chamber with accessories – ready for use
- For large-format vertical gel electrophoresis (20 x 20 cm)
- Innovative new wave-screw-clamp technology
- Up to 48 samples per gel
- Detachable inner cooling coil for optional cooling

Delivery incl. 1 vertical electrophoresis chamber consisting of buffer tank, safety lid and 2 cables (4 mm plugs), 1 running module, 1 detachable cooling coil.
For run of 3 or 4 gels, please additionally order PROclamp MAXI notched glass plates with fixed spacers (e.g. thickness 1 mm, Art. No. 5906.1) and suitable combs (e.g. Art. No. 5957.1).

Accessories included: 2 standard glass plates with fixed spacers (thickness 1 mm), 2 notched glass plates, 1 dummy plate (for run of one gel only), 2 combs (thickness 1 mm, 24 wells), 4 yellow wave-clamps for electrophoresis with 3 or 4 gels (substitute green clamps), 1 gel casting module for rapid and leak-proof gel casting.

Type	Art. No.	Pack Qty.	€
PROclamp MAXI	**5769.1**	1 unit(s)	1.943,60

Buffer tank PROclamp MAXI (w/o lid and cooling coil)

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
buffer tank (w/o lid and cooling coil)	**5807.1**	1 unit(s)	740,70

► Tank-Blotting modules for PROclamp MAXI see page 97

Lid for buffer tank PROclamp MAXI (w/o cables)

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Lid for buffer tank	**5809.1**	1 unit(s)	335,40



Running module PROclamp MAXI

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
running module	**5786.1**	1 unit(s)	632,10

► Gel casting module PROclamp MINI Wide and MAXI see page 76

► Sealing pad for gel casting module PROclamp MINI Wide and MAXI see page 76

Cooling Set PROclamp MAXI Cooling coil

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Cooling coil	**5812.1**	1 unit(s)	199,95

Glass Plates ROTIPHORESE® PROclamp MAXI

ROTH SELECTION.

Also suitable for use in vertical electrophoresis chambers of the classic line.

Type	L x W (mm)	Thickness (mm)	Art. No.	Pack Qty.	€
Standard glass plates	200 x 200	4	**5870.1**	2 unit(s)	89,25
Notched glass plates	200 x 200	4	**5871.1**	2 unit(s)	113,90
Dummy plate	200 x 200	10	**5875.1**	1 unit(s)	42,30



Spacers PROclamp MAXI

ROTH SELECTION.

With labelled upper side

L x W (mm)	Spacer thickness (mm)	Art. No.	Pack Qty.	€
200 x 19	0.75	**5908.1**	1 pair	40,50
200 x 19	1.0	**5917.1**	1 pair	40,50
200 x 19	1.5	**5921.1**	1 pair	40,50
200 x 19	2.0	**5922.1**	1 pair	40,50

Units – vertical

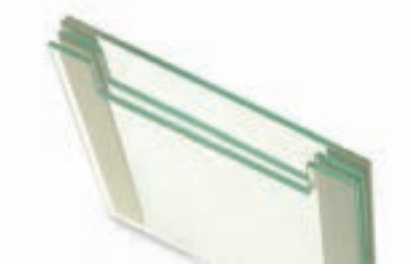


Standard Glass Plates ROTIPHORESE® PROclamp MAXI with fixed spacers

ROTH SELECTION.

Also suitable for use in vertical electrophoresis chambers of the classic line.

L x W (mm)	Spacer thickness (mm)	Art. No.	Pack Qty.	€
200 x 200	0.75	**5877.1**	2 unit(s)	117,35
200 x 200	1.0	**5878.1**	2 unit(s)	92,85
200 x 200	1.5	**5893.1**	2 unit(s)	92,85
200 x 200	2.0	**5897.1**	2 unit(s)	92,85



Notched Glass Plates ROTIPHORESE® PROclamp MAXI with fixed spacers

ROTH SELECTION.

For pouring of double-gels.

L x W (mm)	Spacer thickness (mm)	Art. No.	Pack Qty.	€
200 x 200	0.75	**5904.1**	2 unit(s)	142,05
200 x 200	1.0	**5906.1**	2 unit(s)	142,05
200 x 200	1.5	**6011.1**	2 unit(s)	143,00
200 x 200	2.0	**6020.1**	2 unit(s)	143,00

Comb ROTIPHORESE® PROclamp MINI Wide and MAXI

ROTH SELECTION.

Pockets	Thickness (mm)	Art. No.	Pack Qty.	€
5	0.75	**5928.1**	1 unit(s)	64,50
5	1.0	**5952.1**	1 unit(s)	64,50
5	1.5	**5964.1**	1 unit(s)	64,50
5	2.0	**5977.1**	1 unit(s)	64,50
10	0.75	**5934.1**	1 unit(s)	64,50
10	1.0	**5953.1**	1 unit(s)	64,50
10	1.5	**5967.1**	1 unit(s)	64,50
10	2.0	**5981.1**	1 unit(s)	64,50
1+1	0.75	**5925.1**	1 unit(s)	64,50
1+1	1.0	**5949.1**	1 unit(s)	64,50
1+1	1.5	**5962.1**	1 unit(s)	64,50
1+1	2.0	**5974.1**	1 unit(s)	64,50
18	0.75	**5936.1**	1 unit(s)	64,50
18	1.0	**5955.1**	1 unit(s)	64,50
18	1.5	**5968.1**	1 unit(s)	64,50
18	2.0	**5983.1**	1 unit(s)	64,50
24	0.75	**5940.1**	1 unit(s)	64,50
24	1.0	**5957.1**	1 unit(s)	64,50
24	1.5	**5969.1**	1 unit(s)	64,50
24	2.0	**5984.1**	1 unit(s)	64,50
30	0.75	**5941.1**	1 unit(s)	64,50
30	1.0	**5959.1**	1 unit(s)	64,50
30	1.5	**5970.1**	1 unit(s)	64,50
30	2.0	**5999.1**	1 unit(s)	64,50
36	0.75	**5944.1**	1 unit(s)	64,50
36	1.0	**5960.1**	1 unit(s)	64,50
36	1.5	**5971.1**	1 unit(s)	64,50
36	2.0	**6005.1**	1 unit(s)	64,50
48	0.75	**5947.1**	1 unit(s)	64,50
48	1.0	**5961.1**	1 unit(s)	64,50
48	1.5	**5972.1**	1 unit(s)	64,50
48	2.0	**6007.1**	1 unit(s)	64,50

Max. sample volume per well

	1+1**	5	10	18*	24	30	36*	48
0,75 mm	1100 µl	160 µl	80 µl	40 µl	30 µl	25 µl	20 µl	15 µl
1,0 mm	1500 µl	200 µl	100 µl	50 µl	40 µl	35 µl	25 µl	20 µl
1,5 mm	2200 µl	320 µl	160 µl	80 µl	60 µl	50 µl	40 µl	30 µl
2,0 mm	3000 µl	400 µl	200 µl	100 µl	80 µl	70 µl	50 µl	40 µl

*Compatibel with multi-channel pipettors

**Combs with extremely wide wells (for preparative gels)

Units – vertical



Electrophoresis Unit

The Classic Line – compact Vertical Double Electrophoresis Chambers with Glass Plate Stops

General features:

Modular system

Tanks are compatible with different electrophoresis modules, keeping costs and space to a minimum. The electrophoresis units are available as *standard* and as *coolable* device.

- **For running of up to 2 gels in parallel**
- High-grade quality and robust, made of acrylic glass
- With glass plate stops
- Chemically bonded contact points
- Wide range of accessories
- Coolable versions with reliable water cooled system

Different versions of MINI and MAXI vertical dual plate electrophoresis chambers are available. **The full version** includes the buffer tank (*standard* or *coolable*), the running module for gel run and a gel casting module including glass plates and combs for immediate electrophoresis.

Technical specifications:

Art. No.	X951.1	X953.1	X950.1	X952.1	Y002.1	Y004.1	Y001.1	Y003.1
Type	MAXI Vertical coolable model with reliable water cooling	MAXI Vertical coolable model with reliable water cooling, without gel casting module	MAXI Vertical standard model	MAXI Vertical standard model, without gel casting module	MINI Vertical coolable model with reliable water cooling	MINI Vertical coolable model with reliable water cooling, without gel casting module	MINI Vertical standard model	MINI Vertical standard model, without gel casting module
L x W, glass plate	20 x 20 cm				10 x 10 cm			
Max. number of samples	96				32			
Buffer volume	650 / 1000 ml				100 / 300 ml			
L x W x H, device	15 x 28.5 x 27.5 cm				15 x 20 x 14 cm			
Suitable for	Polyacrylamide gels							



With glass plate stops – for reliable pouring of gels and optimised results.

► Q-PAGE™ ready-made gels, compatible with Roth' vertical units, see www.carlroth.com

Units – vertical



Electrophoresis Unit MINI Vertical

ROTH SELECTION.

Electrophoresis Unit MINI Vertical

- Electrophoresis chamber with accessories – ready for use
- Compatible with most 10 x 10 cm to 8 x 10 cm ready-made gels (max. width 10.0 cm)
- The coolable models are cooled by a cooling coil in the unit.
- Cables with coloured, retractable sheaths

Delivery incl. 1 vertical electrophoresis chamber – with buffer tank, lid incl. cables (4 mm plug), 1 running module for simultaneous electrophoresis of two gels.

Accessories included: 2 glass plates, 2 separate spacer pairs (spacer thickness 1 mm), 2 notched glass plates, 1 dummy plate (for electrophoresis of one gel only), 2 combs (12 teeth, 1 mm thick).

Devices with additional Gel casting module: The device types standard (Art. No. Y001.1) and coolable (Art. No. Y002.1) additionally include a gel casting module.

Type	Additional info	Art. No.	Pack Qty.	€
MINI Vertical coolable model with reliable water cooling	with buffer tank incl. cooling coil, running module, accessories and gel casting module	**Y002.1**	1 unit(s)	3.520,65
MINI Vertical coolable model with reliable water cooling, without gel casting module	with buffer tank incl. cooling coil, running module and accessories	**Y004.1**	1 unit(s)	2.728,35
MINI Vertical standard model	with buffer tank, running module, accessories and gel casting module	**Y001.1**	1 unit(s)	3.444,30
MINI Vertical standard model, without gel casting module	with buffer tank, running module and accessories	**Y003.1**	1 unit(s)	2.950,90

Buffer tank MINI Vertical

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Buffer tank without lid	**Y005.1**	1 unit(s)	470,85

Lid for buffer tank MINI Vertical (with power cables)

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Lid for buffer tank	**Y009.1**	1 unit(s)	287,05

Running module MINI Vertical

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Running module	**Y007.1**	1 unit(s)	1.225,50

Fixing plate with seals for running module MINI Vertical

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
MINI Vertical fixing plate with seals for running module	**Y010.1**	2 unit(s)	294,55

Seals for running module MINI Vertical

ROTH SELECTION.

Type	Pack.	Art. No.	Pack Qty.	€
Seals for running module	4 pro set	**Y011.1**	2 set	225,75

Screws for running module MINI Vertical

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Screws for running module	**Y012.1**	4 unit(s)	96,80

Gel casting module MINI Vertical

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Gel casting module	**Y008.1**	1 unit(s)	567,60

Sealing pad for gel casting module MINI Vertical

ROTH SELECTION.

Type	Pack.	Art. No.	Pack Qty.	€
Sealing pad for gel casting module	2 pro set	**Y013.1**	1 set	40,35

► Platinum Spare Electrode see page 90

Glass Plates MINI Vertical

ROTH SELECTION.

Type	L x W (mm)	Art. No.	Pack Qty.	€
Standard glass plates	100 x 100	**0513.1**	2 unit(s)	63,10
Notched glass plates	100 x 100	**0520.1**	2 unit(s)	137,20
Dummy plate	100 x 100	**0537.1**	1 unit(s)	46,85



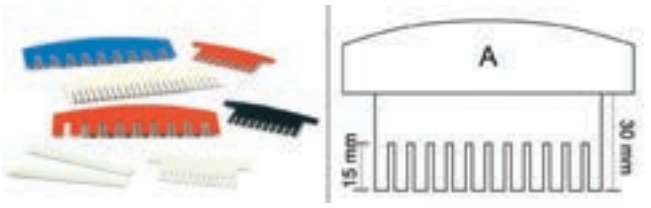
Spacers MINI Vertical

ROTH SELECTION.

L x W (mm)	Spacer thickness (mm)	Art. No.	Pack Qty.	€
100 x 12	0.75	**N624.1**	1 pair	49,85
100 x 12	1.0	**N625.1**	1 pair	49,85
100 x 12	1.5	**N626.1**	1 pair	51,05
100 x 12	2.0	**N627.1**	1 pair	49,85

► Glass plates with fixed spacers see page 74

► See next page for matching combs



Comb MINI Vertical

ROTH SELECTION.

Pockets	Spacer thickness (mm)	Art. No.	Pack Qty.	€
8	0.75	**0550.1**	1 unit(s)	79,05
8	1.0	**0554.1**	1 unit(s)	75,55
8	1.5	**0555.1**	1 unit(s)	79,05
8	2.0	**0556.1**	1 unit(s)	79,05
10	0.75	**N638.1**	1 unit(s)	75,90
10	1.0	**N643.1**	1 unit(s)	75,90
10	1.5	**N648.1**	1 unit(s)	75,90
10	2.0	**N653.1**	1 unit(s)	75,90
12	0.75	**N639.1**	1 unit(s)	75,90
12	1.0	**N644.1**	1 unit(s)	74,75
12	1.5	**N649.1**	1 unit(s)	74,80
12	2.0	**N654.1**	1 unit(s)	74,80
16	0.75	**N640.1**	1 unit(s)	74,80
16	1.0	**N645.1**	1 unit(s)	74,80
16	1.5	**N650.1**	1 unit(s)	75,90

No. of teeth	Broadth of teeth (mm)	Space between teeth (mm)
8*	5,5	15
10	4	15
12	4	15
16*	2,5	15
20	2	15

*Compatible with multi-channel pipettors



Electrophoresis Unit MAXI Vertical

ROTH SELECTION.

Electrophoresis Unit MAXI Vertical

- Electrophoresis chamber with accessories – ready for use
- Compatible with most 20 x 20 cm ready-made gels
- The coolable models are cooled by a cooling coil in the unit.
- Cables with coloured, retractable sheaths

Delivery incl. 1 vertical electrophoresis chamber – with buffer tank, lid incl. cables (4 mm plug), 1 running module for simultaneous electrophoresis with two gels.

Accessories included: 2 glass plates, 2 separate spacer pairs (spacer thickness 1 mm), 2 notched glass plates, 1 dummy plate (for electrophoresis of one gel only), 2 combs (24 teeth, 1 mm thick).

Gel casting module: The device types standard (Art. No. X950.1) and coolable (Art. No. X951.1) additionally include a gel casting module.

Type	Additional info	Art. No.	Pack Qty.	€
MAXI Vertical coolable model with reliable water cooling	with buffer tank incl. cooling coil, running module, accessories and gel casting module	**X951.1**	1 unit(s)	3.575,45
MAXI Vertical coolable model with reliable water cooling, without gel casting module	with buffer tank incl. cooling coil, running module and accessories	**X953.1**	1 unit(s)	3.309,95
MAXI Vertical standard model	with buffer tank, running module, accessories and gel casting module	**X950.1**	1 unit(s)	3.548,60
MAXI Vertical standard model, without gel casting module	with buffer tank, running module and accessories	**X952.1**	1 unit(s)	3.086,35

Buffer tank MAXI Vertical (w/o lid)

ROTH SELECTION.

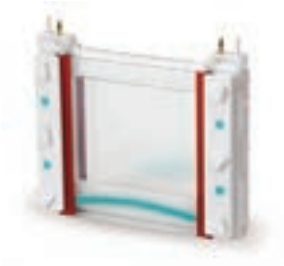
Type	Art. No.	Pack Qty.	€
Buffer tank without lid	**X954.1**	1 unit(s)	1.378,15
Coolable buffer tank without lid	**X955.1**	1 unit(s)	2.763,85

Lid for buffer tank MAXI Vertical (with power cables)

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Lid for buffer tank	**X958.1**	1 unit(s)	599,85

Units – vertical



Running module MAXI Vertical

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Running module	**X956.1**	1 unit(s)	1.629,70

Seals for running module MAXI Vertical

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Seals for running module	**X960.1**	2 unit(s)	387,00

Screws for running module MAXI Vertical

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Screws for running module	**X961.1**	6 unit(s)	48,15



Gel casting module MAXI Vertical

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Gel casting module	**X957.1**	1 unit(s)	667,60

Sealing pad for gel casting module MAXI Vertical

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Sealing pad for gel casting module	**X963.1**	2 unit(s)	75,05

Glass Plates MAXI Vertical

ROTH SELECTION.

Type	L x W (mm)	Art. No.	Pack Qty.	€
Plain glass plates	205 x 200	**0649.1**	2 unit(s)	106,60
Notched glass plates	205 x 200	**0650.1**	2 unit(s)	166,65
Dummy plate	205 x 200	**0651.1**	1 unit(s)	198,90



Spacers MAXI Vertical

ROTH SELECTION.

L x W (mm)	Spacer thickness (mm)	Art. No.	Pack Qty.	€
200 x 20	0.75	**N632.1**	1 pair	56,15
200 x 20	1.0	**N633.1**	1 pair	56,15
200 x 20	1.5	**N634.1**	1 pair	56,15
200 x 20	2.0	**N635.1**	1 pair	57,25



Glass Plates MAXI Vertical with Fixed Spacers

ROTH SELECTION.

L x W (mm)	Spacer thickness (mm)	Art. No.	Pack Qty.	€
205 x 200	0.75	**0658.1**	2 unit(s)	125,10
205 x 200	1.0	**0659.1**	2 unit(s)	125,10
205 x 200	1.5	**0664.1**	2 unit(s)	125,10



Comb MAXI Vertical

ROTH SELECTION.

Pockets	Thickness (mm)	Art. No.	Pack Qty.	€
18	0.75	**N673.1**	1 unit(s)	83,70
18	1.0	**N683.1**	1 unit(s)	83,70
18	1.5	**N691.1**	1 unit(s)	83,70
24	0.75	**N677.1**	1 unit(s)	83,70
24	1.0	**N685.1**	1 unit(s)	92,90
24	1.5	**N693.1**	1 unit(s)	83,70
36	0.75	**N679.1**	1 unit(s)	86,05
36	1.0	**N687.1**	1 unit(s)	83,70
36	1.5	**N695.1**	1 unit(s)	86,05
48	0.75	**N680.1**	1 unit(s)	87,10
48	1.0	**N688.1**	1 unit(s)	83,70
48	1.5	**N696.1**	1 unit(s)	86,20

No. of teeth	Broadth of teeth (mm)	Zahnabstand (mm)
18*	6,5	20
24	5	20
36*	3	20
48	2,5	20

*Compatible with multi-channel pipettors



Sequencing Electrophoresis Unit

For SSCP-gels, DDRT-PCR analyses, and extra long protein gels

General features:

- Electrophoresis chamber with accessories – ready for use
- Safety cover with integral connectors
- User-replaceable electrodes made of pure platinum
- Removable lower buffer tank for easy cleaning
- Accessories may be bought separately
- Heavy duty aluminium back plate helps disperse heat evenly
- Optional thermostatic fan kit
- CE certified

Technical specifications:

Art. No.	AE28.1
Type	Sequencing Electrophoresis Unit
L x W, glass plate	45 x 33 cm
Max. number of samples	96
Buffer volume	500 / 500 ml
L x W x H, device	21.5 x 50 x 63 cm
Suitable for	Polyacrylamide gels

Delivery incl. 1 chamber with safety lid and integral power leads (2 mm plugs), 1 set of glass plates (1× plain, 1× notched) 1 pair of spacers (0,35 mm), 1 sharktooth comb (0,35 mm, 48 teeth).

Sequencing Electrophoresis Unit

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Sequencing Electrophoresis Unit	**AE28.1**	1 unit(s)	2.239,25





Glass Plates for Sequencing Electrophoresis Unit

ROTH SELECTION.

Type	L x W (cm)	Art. No.	Pack Qty.	€
Plain glass plate	45 x 33	**N707.1**	2 unit(s)	170,95
Notched glass plate	45 x 33	**N706.1**	2 unit(s)	296,70

Spacers for Sequencing Electrophoresis Unit

ROTH SELECTION.

Spacer thickness (mm)	Art. No.	Pack Qty.	€
0.25	**N708.1**	1 pair	65,40
0.35	**N709.1**	1 pair	65,40
1.0	**N710.1**	1 pair	65,40
1.5	**AE39.1**	1 pair	64,50

Comb rectangular tooth

ROTH SELECTION.

Pockets	Spacer thickness (mm)	Art. No.	Pack Qty.	€
48	1.0	**AE31.1**	1 unit(s)	91,65
48	1.5	**AE32.1**	1 unit(s)	91,65
80	1.0	**AE35.1**	1 unit(s)	91,65
80	1.5	**AE36.1**	1 unit(s)	91,65

Comb shark tooth

ROTH SELECTION.

Pockets	Spacer thickness (mm)	Art. No.	Pack Qty.	€
48	0.25	**N719.1**	1 unit(s)	91,65
48	0.35	**N722.1**	1 unit(s)	91,65
96	0.25	**N721.1**	1 unit(s)	91,65
96	0.35	**N724.1**	1 unit(s)	91,65



Power Supplies

Power Supply EV Series

Low cost power supplies for all applications
The upgraded Consort series with new design – powerful, easy to operate and low priced.

General features:

- Small and compact devices
- On screen help in 4 languages for application and for solving errors
- Automatic cross-over to show which of the 3 parameters (V, mA, W) is kept constant during the run
- Automatic recovery after power failure
- Connection of up to 4 units possible (4 mm sockets)
- Password protection
- High safety standard
- 3 years warranty

Other properties of the devices (with the exception of EV0200):

- Storing of up to 9 methods possible
- Timer Mode
- Setting of a voltage gradient (Voltage Ramp Mode)
- Data logging of electrophoresis runs (of about 100 hours)
- Firmware updates via USB interface possible
- Remote control by PC possible



Power Supply EV Series EV2310

Consort.

Suitable for

(formerly EV231)
For horizontal and vertical gels, for blotting and for mini gel applications.

Technical specifications:

Art. No.	A545.1
Type	EV2310
Voltage range	0–300 V
Current	1000 mA
Performance	150 W
Volt-hours	0–99,99 kVh
Timer display	0–99,59 h
Display type	grafical
Resolution	1 V, 1 mA, 1 W
Program	9 x 9 parameter settings
Connection	Outlets: 4, Parallel socket pairs: 4 mm
Min. load resistance	10 Ohm
Safety devices	Leak recognition
Ambient temperature	0–40 °C
W x D x H	24 x 20 x 13 cm
Weight	6 kg
Mains connection	210–250 V, 50/60 Hz, 200 W

Type	Art. No.	Pack Qty.	€
EV2310	**A545.1**	1 unit(s)	999,75



Power Supply EV Series EV2650

Consort.

Suitable for

(formerly EV265)
For horizontal and vertical gels and for electro-elution. Particularly suited for electrophoresis with multiple units.

Technical specifications:

Art. No.	A544.1
Type	EV2650
Voltage range	0–600 V
Current	500 mA
Performance	150 W
Volt-hours	0–99,99 kVh
Timer display	0–99,59 h
Display type	grafical
Resolution	1 V, 1 mA, 1 W
Program	9 x 9 parameter settings
Connection	Outlets: 4, Parallel socket pairs: 4 mm
Min. load resistance	30 Ohm
Safety devices	Leak recognition
Ambient temperature	0–40 °C
W x D x H	24 x 20 x 13 cm
Weight	6 kg
Mains connection	210–250 V, 50/60 Hz, 200 W

Type	Art. No.	Pack Qty.	€
EV2650	**A544.1**	1 unit(s)	999,75

Power Supplies



Power Supply EV Series EV3020

Consort.

Suitable for

(formerly EV202)
For tank and semi-dry blotting.

Technical specifications:

Art. No.	A543.1
Type	EV3020
Voltage range	0–300 V
Current	2000 mA
Performance	300 W
Volt-hours	0–99,99 kVh
Timer display	0–99,59 h
Display type	LCD, 2 x 16 characters
Resolution	1 V, 1 mA, 1 W
Program	9 x 9 parameter settings
Connection	Outlets: 4, Parallel socket pairs: 4 mm
Min. load resistance	5 Ohm
Safety devices	Leak recognition
Ambient temperature	0–40 °C
W x D x H	31 x 26 x 13 cm
Weight	10 kg
Mains connection	210–250 V, 50/60 Hz, 360 W

Type	Art. No.	Pack Qty.	€
EV3020	**A543.1**	1 unit(s)	1.440,50



Power Supply EV Series EV3150

Consort.

Suitable for

(formerly EV215)
Optimal for isoelectric focussing and DNA-sequencing.

Technical specifications:

Art. No.	A542.1
Type	EV3150
Voltage range	0–1200 V
Current	500 mA
Performance	300 W
Volt-hours	0–99,99 kVh
Timer display	0–99,59 h
Display type	LCD, 2 x 16 characters
Resolution	1 V, 1 mA, 1 W
Program	9 x 9 parameter settings
Connection	Outlets: 4, Parallel socket pairs: 4 mm
Min. load resistance	70 Ohm
Safety devices	Leak recognition
Ambient temperature	0–40 °C
W x D x H	31 x 26 x 13 cm
Weight	10 kg
Mains connection	210–250 V, 50/60 Hz, 360 W

Type	Art. No.	Pack Qty.	€
EV3150	**A542.1**	1 unit(s)	1.440,50

► Cables and adapters for electrophoresis units and blotters see page 90



Power Supply EV Series EV3330

Consort.

Suitable for

(formerly EV233)
Optimal for DNA-sequencing and IEF using flat bed units.

Technical specifications:

Art. No.	A541.1
Type	EV3330
Voltage range	0–3000 V
Current	300 mA
Performance	300 W
Volt-hours	0–99,99 kVh
Timer display	0–99,59 h
Display type	LCD, 2 x 16 characters
Resolution	1 V, 1 mA, 1 W
Program	9 x 9 parameter settings
Connection	Outlets: 4, Parallel socket pairs: 4 mm (deep)
Min. load resistance	600 Ohm
Safety devices	Leak recognition
Ambient temperature	0–40 °C
W x D x H	31 x 26 x 13 cm
Weight	10 kg
Mains connection	210–250 V, 50/60 Hz, 360 W

Delivery incl. Adapter pair 4 mm plug/4 mm socket; adapter pair 4 mm plug/2 mm socket.

Type	Art. No.	Pack Qty.	€
EV3330	**A541.1**	1 unit(s)	2.150,00

Power Supply EV Series EV3610

Consort.

Suitable for

(formerly EV261)
Versatile Power Supply, suitable for horizontal and vertical gels, for electro-elution, for minigel-blotting and for Comet Assays.

Technical specifications:

Art. No.	2804.1
Type	EV3610
Voltage range	0–600 V
Current	1000 mA
Performance	300 W
Volt-hours	0–99,99 kVh
Timer display	0–99,59 h
Display type	LCD, 2 x 16 characters
Resolution	1 V, 1 mA, 1 W
Program	9 x 9 parameter settings
Connection	Outlets: 4, Parallel socket pairs: 4 mm
Min. load resistance	15 Ohm
Safety devices	Leak recognition
Ambient temperature	0–40 °C
W x D x H	31 x 26 x 13 cm
Weight	10 kg
Mains connection	210–250 V, 50/60 Hz, 360 W

Type	Art. No.	Pack Qty.	€
EV3610	**2804.1**	1 unit(s)	1.440,50

Power Supply EV Series EV3620

Consort.

Suitable for

For isoelectric focusing and for DNA sequencing. Optimal for long vertical gels.

Technical specifications:

Art. No.	1300.1
Type	EV3620
Voltage range	0–6000 V
Current	150 mA
Performance	300 W
Volt-hours	0–99,99 kVh
Timer display	0–99,59 h
Display type	LCD, 2 x 16 characters
Resolution	1 V, 1 mA, 1 W
Program	9 x 9 parameter settings
Connection	Outlets: 4, Parallel socket pairs: 4 mm
Min. load resistance	1,200 Ohm
Safety devices	Leak recognition
Ambient temperature	0–40 °C
W x D x H	31 x 26 x 13 cm
Weight	10 kg
Mains connection	210–250 V, 50/60 Hz, 360 W

Type	Art. No.	Pack Qty.	€
EV3620	**1300.1**	1 unit(s)	2.150,00

ROTH Power Supplies

The Carl ROTH series – mature technology in modern design
Three units for all applications in electrophoresis:
MINI, STANDARD and BLOT.

- Compact and easy to operate
- Constant parameters
- Timer with alarm function
- Comply to all relevant safety standards
- 1 year warranty



Technical specifications:

Art. No.	2907.1	2908.1	2909.1
Type	MINI (nanoPAC-300P)	STANDARD (PowerPro3200)	BLOT (PowerPro3AMP)
Voltage range	10–300 V	5–300 V	
Current	1–400 mA	1–700 mA	10–3000 mA
Performance	60 W	150 W	300 W
Volt-hours	49,995 kVh		
Timer display	1–1999 min		
Display type	LED	2,4″TFT	
Resolution	1 V, 1 mA		1 V, 10 mA, 1 W
Unit of measurement	Constant V or mA with automatic crossover	Constant V or mA with automatic crossover During constant mode not adjusted parameters are automatically set to maximum	
Program	Manually adjustable (Constant Mode), 2-step program, editable, 2-step program, pre-assigned	Manually adjustable (Constant Mode), 30 programs, each with up to 6 steps editable (Program Mode), Pre-assigned programs for different applications (Typical running condition Mode)	
Connection	Outlets: 2, Parallel socket pairs: 4 mm	Outlets: 5, Parallel socket pairs: 4 mm	
Min. load resistance	5 Ohm	3 Ohm	0.1 Ohm
Safety devices	Detection of "no load", overload and overheating	Detection of "No load" "Over load" and "Leakage" Protection against overheating Automatic recovery after power failure	
Ambient temperature	4–40 °C		
Approval	CE, ETL, FCC	CE, ETL	CE
W x D x H	14 x 19.1 x 8.4 cm	21.5 x 33.5 x 10.4 cm	
Weight	1,0 kg	2,1 kg	
Mains connection	100–240 V, 50/60 Hz, 2,5 A	100–240 V, 47–60 Hz, 200 W	100–240 V, 47–60 Hz, 410 W



ROTH Power Supply MINI

ROTH SELECTION.

For horizontal mini gels, rapid analyses of nucleic acids and for students courses.
Connection with up to 2 units possible.

Type	Art. No.	Pack Qty.	€
MINI (nanoPAC-300P)	**2907.1**	1 unit(s)	638,55

Power Supplies

ROTH Power Supply STANDARD

ROTH SELECTION.

For standard applications, all middle sized horizontal gels (routine gels) and for vertical mini gels. Suitable for cold-room operation.



Power Pro models (Roth STANDARD and Roth BLOT):

- Up to 30 individual protocols with 1–6 steps savable
- Pre-programmed options for special applications
- Connection with up to 5 units possible.

Type	Art. No.	Pack Qty.	€
STANDARD (PowerPro3200)	**2908.1**	1 unit(s)	827,75

ROTH Power Supply BLOT

ROTH SELECTION.

For large dimension horizontal gels, vertical maxi gels (e.g. 20 x 20 cm) and blotting. For high flexibility in application. Connection with up to 5 units possible. IQ/OQ protocols possible. Suitable for cold-room operation.

Power Pro models (Roth STANDARD and Roth BLOT):

- Up to 30 individual protocols with 1–6 steps savable
- Pre-programmed options for special applications
- Connection with up to 5 units possible.

Type	Art. No.	Pack Qty.	€
BLOT (PowerPro3AMP)	**2909.1**	1 unit(s)	1.542,65

Recommendation of Suitable Power Supplies

Unit	for 1–2 Units	for 3–4 Units
MINIeasy	Roth-MINI, EV2310	Roth-MINI, EV2310
PROfessional I		
MINI		
PROfessional II	Roth-STANDARD, EV2310	Roth-STANDARD, EV2310, EV2650
MIDI 1		
PROfessional III	Roth-STANDARD, EV2310, EV2650	Roth-BLOT, EV2650
MIDI PLUS		
PROfessional IV	EV2650, EV3610	Roth-BLOT, EV2650, EV3610
MIDI 2		
PROfessional V		Roth-BLOT, EV3610
MAXI		
VARIA 1		Roth-BLOT, EV2650, EV3610
PROfessional Acetat	Roth-STANDARD, EV2310	Roth-STANDARD, EV2650
MULTI	EV3150	EV3330
PROclamp MINI	Roth-STANDARD, EV2310	Roth-STANDARD, EV2310, EV2650
PROclamp MINI Wide		
MINI vertikal		
PROclamp MAXI	Roth-BLOT, EV2310, EV3610	Roth-BLOT, EV2650, EV3150
MAXI vertikal		
Sequencing	EV3330, EV3620	EV3330, EV3620
IEF	EV3150, EV3330	EV3150, EV3330
MINI-Blotting	Roth-MINI, EV2310	EV2310, EV3610
MAXI-Blotting	Roth-BLOT, EV2310, EV3610	Roth-BLOT, EV3610, EV3020
Electroelution	Roth-MINI, EV3610	Roth-STANDARD, EV2650, EV3610, EV3150
COMPAC-50 Comet Assay	Roth-STANDARD, EV2310, EV2650	Roth-BLOT, EV2650

When connecting several units, a higher voltage must be applied in order to attain the same intensity of current and output and, subsequently, the same separating capacity.

Accessories

Electrophoresis cables

Replacement cables for destroyed and functionless cable pairs. Adaptable to all electrophoresis units and power supplies with adapter pairs T843, K294 and K295.



Electrophoresis cables for electrophoresis units

ROTH SELECTION.

- Suitable for all common electrophoresis units
- Suitable up to 1000 volt
- Cable length: 1 m

Application:

Pic.	Type	Ø Bushing (mm)	Ø Connector (mm)	Art. No.	Pack Qty.	€
(1)	Classic Line	4	4	**N843.1**	1 pair	152,90
(2)	Rotiphorese® PROfessional	4	4	**6848.1**	1 pair	79,10



Electrophoresis cables for semi dry blotters

ROTH SELECTION.

- Suitable for all common Semi Dry Blotters
- Suitable up to 1000 Volt
- Cable length: 1 m
- Narrow socket sheaths

Ø Bushing (mm)	Ø Connector (mm)	Art. No.	Pack Qty.	€
4	4	**6072.1**	1 pair	93,65



Adapters

For switching between 2 mm and 4 mm plugs or sockets for electrophoresis devices and cables.

With the appropriate adapter pair, electrophoresis cables can be connected to any commercially available power supply and to any electrophoresis chamber.

Adapters for electrophoresis cables and power supplies

Consort.

Type	Ø Bushing (mm)	Ø Connector (mm)	Art. No.	Pack Qty.	€
2 mm → 4 mm	2	4	**T843.1**	1 pair	21,50
4 mm → 2 mm	4	2	**K294.1**	1 pair	9,90
4 mm → 4 mm	4	4	**K295.1**	1 pair	7,70



Silicone Sealing Hose for horizontal gel casting trays

ROTH SELECTION.

For horizontal gel casting trays.

Length (m)	Ø (mm)	Art. No.	Pack Qty.	€
1	4	**T811.1**	1 unit(s)	42,60



Platinum Spare Electrode

ROTH SELECTION.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
500	0.2	**1428.1**	1 unit(s)	172,00
650	0.2	**T794.1**	1 unit(s)	242,95

Accessories



External Casting Unit ROTIPHORESE® PROfessional Flexicaster

For use with the electrophoresis units PROfessional I-V

Casting unit for pouring gels outside the gel chamber, suitable for all PROfessional gel trays up to a size of 26 x 32 cm (W x L). When using gel trays with a maximum size of 10 x 10 cm, 2 gels can be poured simultaneously (PROfessional I and II).
The level bubble allows an optimal levelling of the gels. Additional sealing is not necessary.

Type	Art. No.	Pack Qty.	€
External Casting Unit	**3688.1**	1 unit(s)	494,50



Glass Plate Racks

Carl ROTH glass plate racks for safe drying and storage of glass plates for vertical gel electrophoresis.

Glass Plate Racks

ROTH SELECTION.

Type	W x D x H (cm)	Suitable for	Art. No.	Pack Qty.	€
MINI	8 x 27 x 9	20 glass plates (up to 2 mm thick)	**N860.1**	1 unit(s)	88,85
MAXI	17 x 17 x 17	10 glass plates (up to 5 mm thick)	**N861.1**	1 unit(s)	133,85



Gradient Mixer

For preparing polyacrylic amide gel gradients or centrifugation gradients (sucrose or caesium chloride gradients).

These stable and easy to use gradient mixers are made of an acrylic block.
They consist of two chambers, a storage chamber and a mixing chamber with connecting valve. A second valve regulates the outflow from the chamber. A magnetic rod can be inserted into the mixing chamber. With a magnetic stirrer, an even mixture and a constant gradient are created.
The mixers have a flat underside. A rod on the back serves to fasten a holding device.

Connection for 4 mm FEP- tubes.

Gradient Mixer

ROTH SELECTION.

Type	Filling capacity (ml)	Art. No.	Pack Qty.	€
MINI	30	**N857.1**	1 unit(s)	1.026,65
MIDI	100	**N858.1**	1 unit(s)	1.212,60



Levelling Table

Carl ROTH levelling tables enable casting of horizontal gels of equal thickness, featuring easy-to-turn rotating feet on the corners. Tables also have an air bubble in the centre for precise horizontal alignment.

Levelling Table

ROTH SELECTION.

L x W (cm)	Art. No.	Pack Qty.	€
30 x 20	**N854.1**	1 unit(s)	414,95



Gel Multi Caster ROTIPHORESE®

Multiple gel casting systems, tailored for use with ROTIPHORESE® PROclamp vertical electrophoresis units (10 × 10 cm gel glass plates).

The number or the thickness of gels being poured is variable. After pouring the glass plates can be easily separated by the included separation sheets. With level bubble for optimal levelling of gels.

Directions for use

If required, fewer gels can be poured using the spacer plates supplied with each system in order to adjust the volume.

Delivery incl. gel casting chamber, 1 bottom silicone gasket for top filling, 1 level bubble, 1 clip, 12 separation sheets, 6 or 9 spacer plates with different diameters: 1 × 12 mm, 5 × 5 mm, 3 × 3 mm.

Gel Multi Caster ROTIPHORESE®

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
for max. 12 gels	**3118.1**	1 unit(s)	938,50



Gel Scoops

Carl ROTH gel scoops enable easy transport of gels in staining solutions or to a transilluminator. Even low concentrated agarose gels are protected against breaking.
Carl ROTH gel scoops are UV-transparent.

Technical specifications:

Art. No.	N850.1	N852.1
Scoop width	60 mm	200 mm
Total length	235 mm	430 mm

Gel Scoops

ROTH SELECTION.

Type	Scoop length (mm)	Art. No.	Pack Qty.	€
MINI	82	**N850.1**	1 unit(s)	128,30
MIDI 2	250	**N852.1**	1 unit(s)	349,40

► Staining chamber see www.carlroth.com

► Western incubation trays and blot incubation trays see page 223



Gel and Membrane Support FlowMesh™

Permeable support mesh for gels and filter membranes. Sturdy, versatile, and convenient. Re-usable and easily cut to size.

Suitable, for example, for:

- **Gel support** – Place FlowMesh™ above or below a gel to protect from tearing, bending, or folding. May be used during gel staining, destaining, probing, equilibration etc.
- **Spacing** – Use FlowMesh™ as permeable spacer for separation of gels and membranes during stacking.
- **Membrane stabilisation** – Use on one or both sides of membranes during storage or hybridisation, while keeping the membrane fully accessible for blocking, probing and washing.

FlowMesh™ is made of polypropylene mesh approximately 0.3 mm thick with 1 mm strand spacings and approx. 70 % void volume. Between two flat sheets separated by FlowMesh™ is 2.7 ml/100 cm^2 void volume.

Gel and Membrane Support FlowMesh™

L x W (mm)	Thickness (mm)	Art. No.	Pack Qty.	€
278 x 217	0.3	**2796.1**	20 sheet	81,45

Gel Documentation System for runVIEW

Gel documentation system ROTIPHORESE® runDOC



Gel documentation system for the Professional runVIEW real-time electrophoresis system.

It comprises:

- Darkroom hood
- Digital camera (18.0 MP)
- One filter each for green and red fluorescence

The darkroom hood fits exactly to the runVIEW gel unit. After excitation by the blue light illuminator of the runVIEW base station the fluorescent gel bands are made visible by the filter slide integrated in the darkroom hood. Subsequently, they can be documented by the integrated camera.

Technical specifications:

Art. No.	**1315.1**
Type	Gel documentation system ROTIPHORESE® runDOC
Version	5× optical / 4× digital zoom DIGIC-5 processor
Resolution	640 × 480 – 400 × 3000 Pixel
Number of pixels	12.1 (MP)
Photosensor	1/1.7″ type high sensitivity CMOS
Data memory	RAW, JEPG
Port	USB 2.0 Hi-speed (Mini-B-jack)
Outlet connection	NTSC / PAL
Focal width (lens)	6.1–30.5 mm
Shutter (lens)	f/1.8(W)–f/2.9(T)
Exposure time (lens)	15–1/4000s

Technical data of filters:

Filter type	Filter colour	Usage
Green filter for blue light	yellow	SYBR®Green I, EvaGreen®, ROTI®GelStain, ROTI®Load DNAstain SYBR®Green, green fluorescence
Red filter for blue light	orange	ROTI®Gelstain Red, Ethidiumbromid, red fluorescence

Delivery incl. darkroom hood with integrated camera (12.1 MP), green filter for blue light, red filter for blue light.
Please order runVIEW electrophoresis system separately.

Gel documentation system ROTIPHORESE® runDOC

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Gel documentation system ROTIPHORESE® runDOC	**1315.1**	1 unit(s)	2.805,75

Band-pass filter for gel documentation system ROTIPHORESE® runDOC

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Green filter for blue light	**1361.1**	1 unit(s)	134,30
Red filter für for blue light	**1349.1**	1 unit(s)	134,30

Power cord ROTIPHORESE® runDOC Accessories

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Mains charger cable (optional) for runDOC camera	**1392.1**	1 unit(s)	71,35

Darkroom Hood ROTIPHORESE® PROfessional runVIEW

The runVIEW darkroom hood is a portable, lightweight hood designed exclusively for use with the runVIEW system. It aids viewing the samples in bright lit areas during the run and has no further functions.



Directions for use

The hood is placed directly over the runVIEW unit, which includes an integrated power supply and a blue light illuminator. The illuminator provides the excitation source for the DNA and the special lid of the unit makes the gel bands visible.

Please note

For complete gel documentation please order the runDOC system (Art. No. 1315.1).

Technical specifications:

Art. No.	**1348.1**
Type	Darkroom hood Rotiphorese® PROfessional runVIEW

Darkroom Hood ROTIPHORESE® PROfessional runVIEW

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Darkroom hood Rotiphorese® PROfessional runVIEW	**1348.1**	1 unit(s)	239,75

► **ROTIPHORESE® Unit PROfessional runVIEW** for real-time electrophoresis under blue light see page 56

Discover our Life Science range at www.carlroth.com

Here you will find all relevant information about our products – stay up to date!



- Detailed product information
- Specifications and Certificates of Analysis
- Instructions for use
- Suggestions for product alternatives
- Attractive offers
- Status of product availability
- Online order
- Newsletter
- ROTH Blog

Gel Drying



Gel Drying Frames

For easy drying of gels between 2 cellophane papers without heat or vacuum. The cellophane sheets (spare packs) may also be used for drying of gels on vacuum gel dryers (60 °C). Cellophane sheets (cell glass) are uncoated.

The set contains

2 frames, 2 backs, 8 clamps and 50 cellophane sheets.

Technical specifications:

Art. No.	K420.1	K421.1
L x W, internal	117 x 117 mm	225 x 225 mm
L x W, external	140 x 140 mm	240 x 240 mm

Gel Drying Frames

Type	Art. No.	Pack Qty.	€
MAXI	**K421.1**	2 unit(s)	234,35
MINI	**K420.1**	2 unit(s)	154,45



Spare clamps

Clamps to fix the cellophane film to the gel drying frame.

Type	Art. No.	Pack Qty.	€
MAXI	**T827.1**	4 unit(s)	24,55
MINI	**T826.1**	4 unit(s)	21,75

Spare pack of cellophane

Material: Cellophan.

The cellophane sheets (spare packs) may also be used for drying of gels on vacuum gel dryers (60 °C). Cellophane sheets (cell glass) are uncoated.

Type	Art. No.	Pack Qty.	€
MAXI	**K423.1**	50 sheet	33,40
MINI	**K422.1**	50 sheet	31,90



Vacuum Gel Dryer

Features:

- Heatable
- For fast and even gel drying
- For drying protein and sequencing gels
- Particularly even distribution of temperature over entire drying surface
- Precise adjustment of temperature of up to 80 °C
- Digital display of temperature
- Timer for heating element and vacuum pump (1-minute increments)
- Very robust construction
- All accessories are also available individually

Please note

In order to achieve efficient drying, the vacuum pump should achieve a flow rate of 1000–6000 l/h (equals 1–6 m^3/h). We recommend use of the Membrane Vacuum Pump (Art. No. T789.1) and the ROTILABO® vacuum silicone tube (Art. No. 9746.1).

Technical specifications:

Art. No.	T781.1	T782.1
Version	MIDI	MAXI
Suitable for	gels up to max. 44 x 34 cm	gels up to max. 49 x 41 cm
Heating output	800 W	
Timer display	Vacuum/temperature 0–10 h	
Temperature display	digital, 40–80 °C	
Accuracy	±2 %	
Mains connection	220–240 V, 50/60 Hz	
W x D x H	550 x 435 x 85 mm	680 x 480 x 85 mm
Weight	8 kg	13 kg

Delivery incl. accessories.

Vacuum Gel Dryer

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
MIDI	**T781.1**	1 unit(s)	5.304,05
MAXI	**T782.1**	1 unit(s)	5.842,65

Cover

ROTH SELECTION. Material: Silicone.

Type	Art. No.	Pack Qty.	€
MAXI	**T825.1**	1 unit(s)	445,05
MIDI	**T824.1**	1 unit(s)	438,60

Mylar-mat

ROTH SELECTION. Material: PET.

Type	Art. No.	Pack Qty.	€
MAXI	**T821.1**	1 unit(s)	129,55
MIDI	**T820.1**	1 unit(s)	158,35

Blotting Units

Tank Blotting

Tank Blotting System ROTIPHORESE®

For the gentle transfer of proteins and nucleic acids

Features:

- Electro tank blotting system for blotting of up to 4 gels in parallel
- Optimised hinged cassettes - for most easy handling and rapid blot set up
- Module compatible with the vertical electrophoresis system ROTIPHORESE®PROclamp

The tank blotting system ROTIPHORESE®PROclamp is ideally suited for the gentle transfer of peptides and proteins of any size. It is ideal for large, temperature sensitive or native proteins.
The short distance between the electrodes ensures a constant high voltage over the entire transfer surface and reduces heat development. Open, reinforced cassettes guarantee optimal current flow and even blot contact. The colour coding of the cassettes and an asymmetrical lid ensure reliable blot build-up and correct power connection.

Buffer Recommendations for Transfer (Blotting)

Buffers recommended for Tank blotting:
Acc. to **Tobwin** et al., 1997: 25 mM Tris, 192 mM glycin, 20 % methanol. Optional: 0–0,1 % SDS.
Acc. to **Bjerrum und Schaefer-Nielsen**, 1986: 48 mM Tris, 39 mM glycin, 0–20 % methanol. Optional: 0–0.1 % SDS.
Acc. to **Dunn**, 1986: 10 mM $NaHCO_3$, 3 mM $NaCO_3$, 20 % methanol.

Buffers recommended for Semy Dry blotting:
Discontinuous buffer system: ROTI®Blot 1 – for standard proteins or ROTI®Blot 2 – for hydrophobic proteins.
Continuous **Tris-glycin buffer** acc. to Bjerrum and Schaefer-Nielsen, 1986: 48 mM Tris, 39 mM glycin, 0–20 % methanol. Optional: 0,01–0,1 % (usually 0,0375 %) SDS.
Continuous **CAPS buffer** for blotting of basic proteins and prior to N-terminal sequencing: 0,22 % CAPS (pH 10,5–11,0), 10 % methanol.
Do not adjust pH of the buffer (exception: CAPS stock solution). Adding acid or base to the buffer will result in higher conductivity, leading to increased formation of heat as well as ions. Subsequently, this results in brown, “burnt” looking blotting paper and damage to the electrode plates.

Methanol prevents the gel from swelling during transfer (mandatory for gradient gels!) and improves the absorption of proteins to NC membranes. For transfer of native or big proteins, reduce or omit methanol.

SDS improves transfer efficiency of large proteins and protein binding to PVDF membranes, however increasing relative current, power and temperature. Don’t use SDS for Semi-Dry blotting of small proteins to NC membranes. For tank blotting use 0,02 % SDS in minimum.

For **blotting of native proteins** use buffer acc to Bjerrum and Schaefer-Nielsen with 0,04 % SDS and 0–10 % methanol.



Tank Blotting System ROTIPHORESE® PROclamp MINI

ROTH SELECTION.

- Can be used with all gels of 10 × 10 cm in maximum
- Compatible with the PROTIPHORESE®ROclamp MINI unit for vertical electrophoresis (Art. No. 3501.1 – 3503.1)

Delivery incl. 1 ROTIPHORESE®PROclamp MINI buffer tank, safety lid with cables and 1 PROclamp MINI blotting module for max. 4 gels, incl. 4 cassettes and 16 fibre blotting mats, 1 cooling pad.

Type	Art. No.	Pack Qty.	€
Tank Blotting System MINI	**3513.1**	1 unit(s)	965,35



Tank Blotting Module ROTIPHORESE® PROclamp MINI

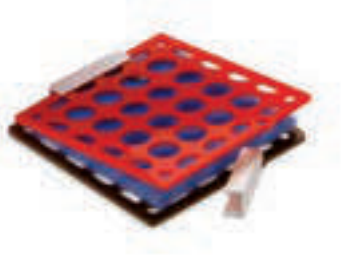
ROTH SELECTION.

Maximum blotting area: 4 gels of up to 10 x 10 cm.

Can be used with PROclamp MINI chambers (Art. No. 3501.1-3503.1).

Delivery incl. 4 cassettes and 16 fibre blotting mats.

Type	Art. No.	Pack Qty.	€
Tank Blotting Module MINI	**3517.1**	1 unit(s)	599,85



Blotting Accessories ROTIPHORESE® PROclamp MINI

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Compression cassette (with 2 mats)	**3518.1**	1 unit(s)	68,40
Blotting mats	**3519.1**	4 pair	68,40

Blotting Units



Tank Blotting System ROTIPHORESE® PROclamp Mini Wide

ROTH SELECTION.

- Can be used with all gels of 20 × 10 cm in maximum
- Compatible with the ROTIPHORESE®PROclamp MINI Wide unit for vertical electrophoresis (Art. No. 1395.1)

Delivery incl. 1 ROTIPHORESE®PROclamp MINI Wide buffer tank, safety lid with cables and 1 PROclamp MINI Wide blotting module for max. 4 gels, incl. 4 cassettes and 16 fibre blotting mats, 1 cooling pad.

Type	Art. No.	Pack Qty.	€
Tank Blotting System MINI Wide	**3697.1**	1 unit(s)	1.296,45



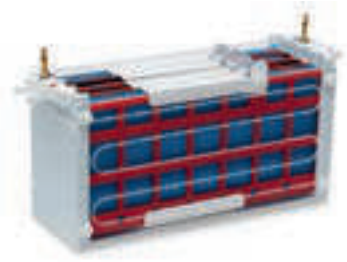
Tank Blotting System ROTIPHORESE® PROclamp MAXI

ROTH SELECTION.

- Can be used with all gels of 20 × 20 cm in maximum
- Compatible with the ROTIPHORESE®PROclamp MAXI unit for vertical electrophoresis (Art. No. 5769.1)

Delivery incl. 1 ROTIPHORESE®PROclamp MAXI buffer tank, safety lid with cables, removable cooling coil, and 1 PROclamp MAXI blotting module for max. 4 gels, incl. 4 cassettes and 18 fibre blotting mats.

Type	Art. No.	Pack Qty.	€
Tank Blotting System MAXI	**5814.1**	1 unit(s)	1.584,55



Tank Blotting Module ROTIPHORESE® PROclamp MINI Wide

ROTH SELECTION.

Maximum blotting area: 4 gels of up to 20 x 10 cm.

Can be used with PROclamp MINI Wide chamber (Art. No. 1395.1).

Delivery incl. 4 cassettes and 16 fibre blotting mats.

Type	Art. No.	Pack Qty.	€
Tank Blotting Module MINI Wide	**3699.1**	1 unit(s)	632,10



Tank Blotting Module ROTIPHORESE® PROclamp MAXI

ROTH SELECTION.

Maximum blotting area: 4 gels of up to 20 x 20 cm.

Can be used with PROclamp MAXI chamber (Art. No. 5769.1).

Delivery incl. 4 cassettes and 18 fibre blotting mats.

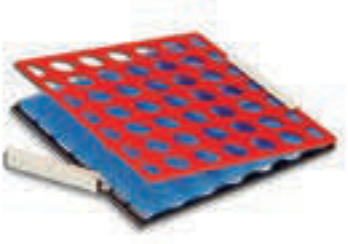
Type	Art. No.	Pack Qty.	€
Tank Blotting Module MAXI	**5816.1**	1 unit(s)	868,60



Blotting Accessories ROTIPHORESE® PROclamp MINI Wide

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Blotting mats	**3654.1**	4 pair	82,00
Compression cassette (with 2 mats)	**3702.1**	1 unit(s)	77,10

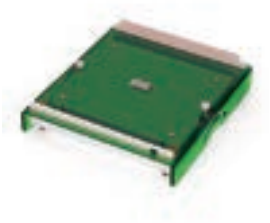


Blotting Accessories ROTIPHORESE® PROclamp MAXI

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Compression cassette (with 2 mats)	**5827.1**	1 unit(s)	113,90
Blotting mats	**5829.1**	6 unit(s)	113,90

Semi-Dry-Blotting



Semi Dry Blotter

For transfer of proteins and nucleic acids.

Features:

- Durable, corrosion-free electrodes
- Fast, steady transfer
- Minimum heat development
- Low buffer use

The extremely constant electric field over the entire transfer surface guarantees optimal results with all transfer membranes.
As the electrodes are made of high-grade steel (cathode, lid) and platinised titanium (anode, base), they will last indefinitely if used correctly. There is no build-up of deposits on the transfer surface, the buffers cannot penetrate into the electrodes.

Semi Dry Blotter MAXI

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
Semi Dry Blotter MAXI	**T788.1**	1 unit(s)	1.811,40

► Please see our extensive assortment for Western-, Southern- and Northern-Blot detections in the chapter Biochemistry / Western & ELISA.

Transfer Recommendation

The power supply should be set to a defined current intensity resulting from the total transfer area. The voltage should be freely adjustable by the power supply.

We recommend for
Tank blotting: 2-4 mA / cm^2
Semi-Dry blotting: 2-5 mA / cm^2

Please also note the recommendations for the respective buffer system used.

Please note our **Technical Information Brochure** on the Internet next to the products:

Transfer Buffers
Tips and protocols



Semi dry blotter ROTIPHORESE® PROfessional

For transfer of proteins and nucleic acids.

Features:

- Fast transfer with uniform heat dispersion
- Superior blotting quality due to screw down lid and long life electrodes
- Minimum heat development and buffer use

Semi Dry Blotters PROfessional offer rapid transfer times for blotting of proteins, as well as nucleic acids, being compatible with gel thicknesses from 0,25 up to 10 mm.
Semi Dry Blotters PROfessional utilise a screw down lid, which secures the blot sandwich (optionally) and allows complete control of pressure ensuring even transfer. Uniform heat dispersion across the transfer surface ensures stable blotting parameters and no heat induced sample loss or transfer distortions.
The electrodes (platinum coated anode, base, and stainless steel cathode, lid) will exhibit no corrosion when used with accurately prepared transfer buffers, and provide many years of trouble free use.

Semi dry blotter ROTIPHORESE® PROfessional MINI

ROTH SELECTION.

Type	L x W x H, device (cm)	Art. No.	Pack Qty.	€
Semi Dry Blotter MINI	16.5 x 15 x 5.5	**KK58.1**	1 unit(s)	928,80

Semi dry blotter ROTIPHORESE® PROfessional MAXI

ROTH SELECTION.

Type	L x W x H, device (cm)	Art. No.	Pack Qty.	€
Semi Dry Blotter MAXI	26 x 26 x 7	**KK59.1**	1 unit(s)	1.873,75

Blotting Units



Blotting unit

For rapid transfer of DNA, RNA and immunological antibody screening methods.

General features:

- Robust acrylic construction
- Precision lapped mating surfaces prevent sample leakage
- Steady transfer
- Very simple assembly
- Alpha-numeric sample identification

Directions for use

A vacuum of approximately 600 mm Hg (0,8 Bar, relative pressure) is required during sample application. We recommend LABOPORT® Membrane vacuum pump (Art. No. Y371.1) with hose stems for hose inner Ø 8 mm (Art. No. EL44.1) and the following hoses: ROTILABO® Vacuum silicone hose, inner Ø 8 mm (Art. No. 9746.1) or ROTILABO® Vacuum rubber hose, inner Ø 8 mm (Art. No. 0680.1).

Technical specifications:

Art. No.	T790.1	T791.1
Max. number of samples	96	48
Pockets	12×8	16×3
Volume per pocket	~180 µl	~360 µl

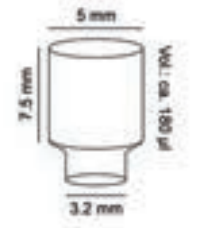
Delivery incl. template for cutting the filter membranes. Supplied without pump and hoses.

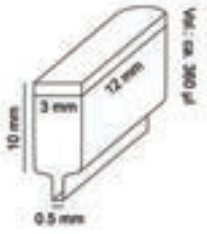
Blotting unit

ROTH SELECTION.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Dot Blotter	**T790.1**	1 unit(s)	965,35
(2)	Slot Blotter	**T791.1**	1 unit(s)	965,35

Semi-Dry-Blotting







UV Crosslinker

The UV crosslinker provides a compact unit occupying minimum bench space with a footprint of only 350 × 350 mm and a spacious interior chamber of 270 × 300 × 145 mm. As with all our products, safety is a major consideration so the door of the crosslinker is safety interlocked against opening during operation and the observation window in the door is ultraviolet blocking.

Features:

- Programmable microprocessor control
- UV energy monitored automatically
- Compact footprint with large interior
- Observation window – UV blocking
- Membrane keypad operation
- Clear LED display
- Safety interlocked

The ultraviolet energy is continuously monitored by an accurate microprocessor controlled photo feedback system which compensates for variation in output from the UV sources. In this way consistency of operation and maximum efficiency are maintained.

Possible applications:

- Fixing of nucleic acids to nylon or nitrocellulose membranes
- Southern or Northern blotting, dot blotting and colony or ple lifts
- Elimination or reduction of PCR contamination
- Nicking ethidium bromide stained DNA in agarose gels
- Gene mapping for creating cleavage inhibiting thymine dimers
- Screening RecA mutation
- Ultraviolet curing of polymers, adhesives and inks
- Ultraviolet sterilisation

Technical specifications:

Art. No.	1782.1	1778.1	1777.1
Type	Short Wave	Medium Wave	Long Wave
Wavelength	254 nm	302 nm	365 nm
Light source	5 × 8 W UV lamps		
Performance	0–99,99 Joule / 0–9,999 Joule		
Display type	LED display		
Operation	Membrane keypad operation		
Program	Programmable microprocessor control, 9 preset ultraviolet energy levels, 9 preset exposure times, Manual adjustment of the UV energy level, Manual Exposure Adjustment		
Timer	0–999,9 min		
W x D x H	270 x 300 x 145 mm		
W x D x H, total	350 x 350 x 300 mm		
Weight	10,5 g		

UV Crosslinker

ROTH SELECTION.

Type	Wavelength (nm)	Art. No.	Pack Qty.	€
Short Wave	254	**1782.1**	1 unit(s)	3.681,90
Medium Wave	302	**1778.1**	1 unit(s)	3.787,25
Long Wave	365	**1777.1**	1 unit(s)	3.681,90

Transfer Filter Membranes

Transfer Membranes Made of Nitrocellulose

Pure nitrocellulose membranes for reliable protein standard applications

Please note: Membranes made of nitrocellulose age and should be replaced anually!

- Free of cellulose acetate
- High absorption capacity
- Very low background
- 0,2 µm or 0,45 µm pore size
- Easy to block
- For all standard detection systems

Transfer membrane ROTI®NC 0.2

Transfer membrane for protein analyses, colony- and plaque-lifts.
High-quality transfer membrane for all detection systems – extremely suitable for all protein transfer and detection methods. The membrane stands out for its particularly high mechanical stability. The pure 100 % nitrocellulose quality membrane is easy to block and allows for background-free blots with perfect bands.



Directions for use

The pore size of 0,2 µm is suitable for proteins and peptides of all sizes. The best retention rate is achieved when blotting proteins of up to 70 kDa. Its excellent protein binding capacity not only efficiently prevents the blot from going through during transfer, but also guarantees highly sensitive detection of even low protein amounts.
A slight optical difference between the two membrane sides results from the membrane production and has no influence on the binding capacity or the blot quality of the two sides. Both sides can be used equally for transfer and detection.We recommend to always use the optically same side as "detection side" to achieve maximum reproducibility.

Application examples

Optimised for proteins of ≤70 kDa. Western- and far-western-blot, colony- and plaque-lifting of nucleic acids and proteins, immunoblots, dot-blots.
Detection via radio activity, chemoluminescence colour.

Technical specifications:

Art. No.	HP43.1	HP41.1	HP40.1	9302.1	HP44.1	HP42.1
Dimensions	20 × 20 cm	300 × 20 cm	300 × 30 cm	400 × 30 cm	Ø 9.0 cm	13.3 × 10.2 cm
Version	sheet	roll			disks	sheet
Pore size	0,2 µm					
Bond	hydrophobic					
Binding capacity	125–200 µg/cm²					
Thickn.	150±50 µm					
Immobilisation	UV, baking (max. 80 °C)					

Technical Parameters of ROTH-Transfer Membranes

Membrane	Material	Characteristics	Thickness (µm)	Binding capacity (µg/cm²)	Pore size (µm)	Immobilisation
Roti® Fluoro PVDF	Polyvinyliden fluoride	hydrophobic	125 ±25	300	0,2	not necessary
Roti® PVDF 0.2	Polyvinyliden fluoride	hydrophobic	140 ±20	≥125	0,2	not necessary
Roti® PVDF	Polyvinyliden fluoride	hydrophobic	125 ±25	ca. 200	0,45	not necessary
Immobilon P	Polyvinyliden fluoride	hydrophobic	120 ±25	150–300	0,45	not necessary
Roti® Nylon 0.2	Nylon 6,6	neutral/amphoteric	150 ±20	500	0,2/0,45	UV, baking
Roti® Nylon plus	Nylon 6,6	hydrophilic, positively charged	160 ±20	500	0,45	not necessary, UV and baking possible
Roti® NC	Nitrocellulose	electrostatic, hydrophobic	150 ±50	125–200	0,2	UV, baking (max. 80 °C)
Roti® NC 0.45	Nitrocellulose	electrostatic, hydrophobic	150 ±10	≥125	0,45	UV, baking (max. 80 °C)
Amersham Protran®	Nitrocellulose	electrostatic, hydrophobic	unknown	11–72	0,2/0,45	UV, baking (max. 80 °C)
Amersham Protran® supported	Nitrocellulose	electrostatic, hydrophobic	unknown	86–110	0,2/0,45	UV, baking (max. 80 °C)

Blotting Membranes

Transfer membrane ROTI®NC 0.2 13.3 × 10.2 cm

ROTI®NC

Carl ROTH.

UN no. 3270 · ADR 4.1 II · WGK 1

Danger H228

Dimensions	Art. No.	Pack Qty.	€
13.3 × 10.2 cm	**HP42.1**	10 sheet	97,20

Transfer membrane ROTI®NC 0.2 20 × 20 cm

ROTI®NC

Carl ROTH.

UN no. 3270 · ADR 4.1 II · WGK 1

Danger H228

Dimensions	Art. No.	Pack Qty.	€
20 × 20 cm	**HP43.1**	10 sheet	247,25

Transfer membrane ROTI®NC 0.2 300 × 20 cm

ROTI®NC

Carl ROTH.

UN no. 3270 · ADR 4.1 II · WGK 1

Danger H228

Dimensions	Art. No.	Pack Qty.	€
300 × 20 cm	**HP41.1**	1 roll(s)	293,50

Transfer membrane ROTI®NC 0.2 300 × 30 cm

ROTI®NC

Carl ROTH.

UN no. 3270 · ADR 4.1 II · WGK 1

Danger H228

Dimensions	Art. No.	Pack Qty.	€
300 × 30 cm	**HP40.1**	1 roll(s)	370,90

Transfer membrane ROTI®NC 0.2 400 × 30 cm

ROTI®NC

Carl ROTH.

UN no. 3270 · ADR 4.1 II · WGK 1

Danger H228

Dimensions	Art. No.	Pack Qty.	€
400 × 30 cm	**9302.1**	1 roll(s)	492,35

Transfer membrane ROTI®NC 0.2 Ø 9.0 cm

ROTI®NC

Carl ROTH.

UN no. 3270 · ADR 4.1 II · WGK 1

Danger H228

Dimensions	Art. No.	Pack Qty.	€
Ø 9.0 cm	**HP44.1**	50 sheet	184,90



Transfer membrane ROTI®NC 0.45 0,45 µm

Transfer membrane for protein analyses, Southern- and Northern-Blots.

High-quality transfer membrane for all detection systems – extremely suitable for all protein transfer and detection methods. The ROTI®NC 0.45 membrane offers very good mechanical stability, standing out for its particularly smooth structure and even membrane thickness. The pure 100% nitrocellulose quality membrane is easy to block and allows for background-free blots with perfect bands.

Directions for use

The pore size of 0,45 µm is suitable for proteins and peptides of all sizes. The best retention rate is achieved when blotting proteins of ≥20 kDa. Having a high protein binding capacity, the membrane not only efficiently prevents protein loss during transfer, but also guarantees very sensitive detection of even low protein amounts.
A slight optical difference between the two membrane sides results from the membrane production and has no influence on the binding capacity or the blot quality of the two sides. Both sides can be used equally for transfer and detection.We recommend to always use the optically same side as “detection side” to achieve maximum reproducibility.

Application examples

Optimised for proteins ≥20 kDa. Western- and far-Western-blots, Southern- and Northern blots, colony- and plaque-lifting of nucleic acids and proteins, dot- and slot blots.
Detection via radio activity, chemoluminescence, colour.

Technical specifications:

Art. No.	9201.1	9200.1
Dimensions	400 × 30 cm	300 × 30 cm
Version	roll	
Pore size	0,45 µm	
Bond	hydrophobic	
Binding capacity	≥125 µg/cm²	
Thickn.	150±10 µm	
Immobilisation	UV, baking (max. 80 °C)	

Transfer membrane ROTI®NC 0.45 300 × 30 cm

ROTI®NC

Carl ROTH.

UN no. 3270 · ADR 4.1 II · WGK 1

Danger H228

Dimensions	Art. No.	Pack Qty.	€
300 × 30 cm	**9200.1**	1 roll(s)	385,95

Transfer membrane ROTI®NC 0.45 400 × 30 cm

ROTI®NC

Carl ROTH.

UN no. 3270 · ADR 4.1 II · WGK 1

Danger H228

Dimensions	Art. No.	Pack Qty.	€
400 × 30 cm	**9201.1**	1 roll(s)	492,35



Transfer membrane Amersham™ Protran® NC 0.2

Transfer membrane for most nucleic acid and protein immobilising techniques
Replaces Protran® BA 83 from Whatman®
Multiple use – ideal for most nucleic acid and protein immobilising techniques. Pure nitro-cellulose, free from cellulose acetate and triton. They have a high binding capacity and low background.

Directions for use

Nitrocellulose should only conditionally be used for electrophoretic transfer of nucleic acids, because of the high salt concentrations required for the transfer.
The pore size of 0,2 µm is suitable for proteins and peptides of all sizes.

Application examples

Southern, Northern, Western transfer, colony and plaque hybridisation, immunoblots, nucleic acid and protein dot-blot, slot-blot, electrophoretic transfer of proteins.
Detection systems are radioactivity, chemoluminescence, colour

Technical specifications:

Art. No.	4685.1
Dimensions	400 × 30 cm
Version	roll
Pore size	0,2 µm
Type	Protran® NC 0,2
Bond	electrostatic, hydrophobic
Binding capacity	11–72 µg/cm²
Immobilisation	UV, baking (max. 80 °C)

Transfer membrane Amersham™ Protran® NC 0.2 roll 400 × 30 cm

Amersham™ Protran®

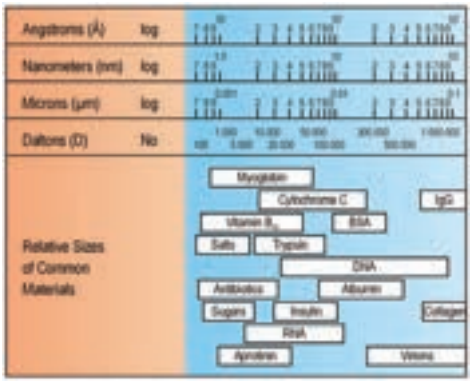
Cytiva.

In practical roll format for maximum flexibility in cutting.

WGK 1

Warning H228

Dimensions	Art. No.	Pack Qty.	€
400 × 30 cm	**4685.1**	1 roll(s)	618,15



Transfer membrane Amersham™ Protran® NC 0.45

Transfer membrane for most nucleic acid and protein immobilising techniques
Replaces Protran® BA 85 from Whatman®
Multiple use – ideal for most nucleic acid and protein immobilising techniques. Pure nitro-cellulose, free from cellulose acetate and triton. They have a high binding capacity and low background.

Directions for use

Nitrocellulose should only conditionally be used for electrophoretic transfer of nucleic acids, because of the high salt concentrations required for the transfer.
Membranes of 0,45 µm pore size allow for DNA transfer (minimum 300 bp) and protein transfer (minimum 20 kDa).

Application examples

Southern, Northern, Western transfer, colony and plaque hybridisation, immunoblots, nucleic acid and protein dot-blot, slot-blot, electrophoretic transfer of proteins.
Detection systems are radioactivity, chemoluminescence, colour

Technical specifications:

Art. No.	4589.1	4675.1	0041.1
Dimensions	Ø2.5 cm	400 × 30 cm	400 × 20 cm
Version	disks	roll	
Pore size	0,45 µm		
Type	Protran® NC 0,45		
Bond	electrostatic, hydrophobic		
Binding capacity	86–110 µg/cm²		
Immobilisation	UV, baking (max. 80 °C)		

Transfer membrane Amersham™ Protran® NC 0.45 roll 400 × 20 cm

Amersham™ Protran®

Cytiva.

In practical roll format for maximum flexibility in cutting.

WGK 1

Warning H228

Dimensions	Art. No.	Pack Qty.	€
400 × 20 cm	**0041.1**	1 roll(s)	500,95

Transfer membrane Amersham™ Protran® NC 0.45 roll 400 × 30 cm

Amersham™ Protran®

Cytiva.

In practical roll format for maximum flexibility in cutting.

WGK 1

Warning H228

Dimensions	Art. No.	Pack Qty.	€
400 × 30 cm	**4675.1**	1 roll(s)	488,05

Transfer membrane Amersham™ Protran® NC 0.45 disks Ø2.5 cm

Amersham™ Protran®

Cytiva.

For colony and plaque lifting in small petri dishes.

WGK 1

Warning H228

Dimensions	Art. No.	Pack Qty.	€
Ø2.5 cm	**4589.1**	100 sheet	174,15

Transfer Membranes Made of PVDF

For optimal results with all protein transfer techniques

- Well suited for all protein blots
- Best signal-to-noise ratio
- Very robust
- 0,2 µm or 0,45 µm pore size
- Suitable for long-term exposition
- Suitable for all detection systems
- May be used for peptide sequencing



Transfer membrane ROTI®PVDF 0.2

PVDF membrane for protein analyses.
ROTI®PVDF 0.2 is a hydrophobic, microporous polyvinylidene membrane, free from adjuvants and detergents. It has been optimised for transfer and highly sensitive detection of proteins of up to 70 kDa, but is also perfectly suited for blotting of bigger proteins.

Directions for use

The membrane shows superior protein binding parameters and stands out for its particularly low background. It may also be used very well after repeated stripping and harsh washing processes.
This mechanically rigid transfer membrane can be easily cut to the desired gel size and it remains flexible and tear-proof even when dry.
Briefly immerse ROTI®PVDF 0.2 membrane in 100 % methanol prior to transfer until no more white areas are visible. This transfer membrane is then compatible with every blotting system.
Due to production processes, the membrane shows two different sides – one smooth and one raw. For optimally distinct bands, please use the smooth side for protein binding.

Application examples

Optimised for proteins of ≤70 kDa. Western-blot, Dot-blot, lipopoly-saccharide- and amino acid analysis, bindings assays, *N*-terminal peptide sequencing.
Detection systems: chemoluminescence, radioactivity, colour

Technical specifications:

Art. No.	**8989.1**
Dimensions	300 × 30 cm
Version	roll
Pore size	0,2 µm
Bond	hydrophobic
Binding capacity	≥125 µg/cm²
Thickn.	140±20 µm
Immobilisation	not necessary

Transfer membrane ROTI®PVDF 0.2

Carl ROTH.

Dimensions	Art. No.	Pack Qty.	€
300 × 30 cm	**8989.1**	1 roll(s)	586,95



Transfer membrane ROTI®FluoroPVDF

Premium PVDF membrane from Carl ROTH, suitable for direct fluorescence detection
ROTI®Fluoro PVDF is a white, microporous membrane made from naturally hydrophobic polyvinylidene fluoride. The membrane is of superior protein binding capacity, making it perfectly suited for all standard and special applications in the field of protein analysis.

Directions for use

ROTI®Fluoro PVDF has been specially optimised for direct detection via fluorescence.
ROTI®Fluoro PVDF binds proteins adhesively via hydrophobic interactions. It enables very sensitive protein detection by keeping the background very low, resulting in a good signal-to-noise ratio with all standard detection systems. The mechanically rigid membrane is of high tensile strength and tear-proof, and does not crack or curl during handling. Therefore, signals remain clear and distinct, and are undisturbed by false-positive signals caused by membranes crinkles.
Briefly immerse ROTI®Fluoro PVDF membrane in 100 % methanol prior to transfer until no more white areas are visible. This transfer membrane is then compatible with every aqueous transfer system.
The membrane ROTI®Fluoro PVDF is only conditionally suitable for use with chemiluminescence detection. The membranes are specially coated for fluorescence applications and this coating can reduce the sensitivity of chemiluminescence. For chemiluminescent assays we recommend the use of ROTI®PVDF membranes.

Application examples

Western- and Far-Western-Blot, analysis of small peptides, Immunoblot, Dot-blot, binding assays, *N*-terminal sequencing
Detection systems: fluorescence, radioactivity, colour

Technical specifications:

Art. No.	**2831.1**	**2803.1**
Dimensions	20 × 13 cm	330 × 26 cm
Version	sheet	roll
Pore size	0,2 µm	
Bond	hydrophobic	
Binding capacity	300 µg/cm²	
Thickn.	125±25 µm	
Immobilisation	not necessary	

Transfer membrane ROTI®FluoroPVDF

Carl ROTH.

Dimensions	Art. No.	Pack Qty.	€
20 × 13 cm	**2831.1**	2 sheet	33,00
330 × 26 cm	**2803.1**	1 roll(s)	381,65





Transfer membrane ROTI®PVDF 0.45

PVDF membrane from Carl ROTH.
ROTI®PVDF is a hydrophobic, microporous polyvinylidene membrane. It is free from adjuvants and detergents. This membrane enables efficient transfer of proteins over a wide molecular weight range.

Directions for use

This mechanically rigid transfer membrane can be easily cut to the desired gel size and it remains flexible and tear-proof even when dry. Briefly immerse ROTI®PVDF membrane in 100 % methanol prior to transfer until no more white areas are visible. This transfer membrane is then compatible with every aqueous blot system.

Application examples

Optimised for proteins ≥20 kDa. Western-blot, Dot-blot, lipopolysaccharide- and amino acid analysis, binding assays, N-terminal peptide sequencing.
Detection systems: chemoluminescence, radioactivity, colour.
Not suitable for use with infrared densitometers (700 nm/800 nm).

Technical specifications:

Art. No.	**T830.1**
Dimensions	375 × 30 cm
Version	roll
Pore size	0,45 µm
Bond	hydrophobic
Binding capacity	~200 µg/cm²
Thickn.	125±25 µm
Immobilisation	not necessary

Transfer membrane ROTI®PVDF 0.45

Carl ROTH.

Dimensions	Art. No.	Pack Qty.	€
375 × 30 cm	**T830.1**	1 roll(s)	643,95

Application of ROTH-Transfer Membranes

Biomolecules	Nylon plus	Nylon 0.2	PVDF 0.2	PVDF	Fluoro PVDF	NC	NC 0.45
DNA	+++	+	-	-	-	+	+
RNA	+	+++	-	-	-	+	+
Proteins	-	+	+++	+++	+++	+	+
Detection System							
Colour	+++	+++	+++	+++	+++	+++	+++
Radioactivity	+++	+++	+++	+++	+++	+++	+++
Chemolumine-scence	+++	+++	+++	+++	-	+	+
Fluorescence	+++	+++	-	-	+++	-	-
+++: recommended		+: suitable		-: not			

Transfer membrane Immobilon®-P PVDF

Original PVDF membrane from Millipore, for outstanding Western Blots.
The Immobilon-P membrane consists of microporous polyvinylidene fluoride (PVDF) with a high binding capacity for all biomolecules, particularly for proteins, independently of the transfer method or gel used. The efficient signal-to-noise ratio allows long exposure times and provides a high sensitivity during detection even when working with low protein amounts.

Directions for use

Compared to nitrocellulose the Immobilon-P membrane is much easier to handle and much better to stain, and shows superior resistance to organic solvents. Furthermore, the open pore structure provides easy access of antibodies or other peptides used for detection to bound protein, and enables efficient removal of unbound molecules, efficiently reducing the background.
Immobilon-PVDF membrane is ideal when performing immunodetection. The rapid immunodetection method additionally provides a tool to reduce the time span needed for the process by several hours. During Western Blot, the superior qualities of the PVDF membrane not only supersede a blocking step, but also reduce number and time span of washing steps considerably without compromising on specificity or sensitivity.

Application examples

Western-blot, Dot- and Slot-blot, amino acid analysis, binding assays, detection of glycoproteins, N-terminal peptide sequencing.
Detection systems: radioactivity, chemoluminescence, colour

Technical specifications:

Art. No.	**T831.1**
Dimensions	375 × 30 cm
Version	roll
Pore size	0,45 µm
Bond	hydrophobic
Binding capacity	150–300 µg/cm²
Thickn.	125±25 µm
Immobilisation	not necessary

Transfer membrane Immobilon®-P PVDF

MERCK MILLIPORE.

Dimensions	Art. No.	Pack Qty.	€
375 × 30 cm	**T831.1**	1 roll(s)	536,45

Size Comparison of Membrane Pores and Biomolecules

Biomolecules / Membrane Pores	Size (kD)
genomic DNA (human)	>11000000
E. coli	approx. 1500000
0.45 µm	approx. 5000
0.2 µm	approx. 2000
DNA 3 kb	approx. 1000
RNA 1 kb	approx. 300
Antibodies (IgG)	approx. 150
Proteins in the lab	approx. 10–300
BSA (Albumin)	69

Transfer Membranes Made of Nylon

For perfect Southern- and Northern-Blots

- Very low background
- Suitable for all staining techniques
- Superior performance in nucleic acid absorption
- Available as roll, easy-to-use pre-cut membranes and disks – the perfect size for each application



Transfer membrane ROTI®Nylon plus

Ideal for DNA/RNA-transfers.
ROTI®Nylon plus is a cationic, einforced nylon 6.6-membrane with extremely high tensile strength. The positively charged membrane surface guarantees rapid and efficient binding of DNA and RNA. May be steam sterilised.
Also available in convenient pre-cut sheets of standard gel size!

Directions for use

Nucleic acids can be cross-linked to the membrane by baking (80 °C, 15 min) or through UV exposure. No cross-linking is required for alkaline transfer as the negatively charged DNA forms a very stable complex with the positively charged ROTI®Nylon membrane.

Application examples

Southern- and Northern-blot, Dot-blot, DNA fingerprinting, macro- and microarrays.
Detection systems: radioactivity, chemoluminescence, fluorescence“

Technical specifications:

Art. No.	HP34.1	HP35.1	HP36.1	K058.1
Dimensions	10 × 10 cm	15 × 10 cm	20 × 20 cm	300 × 30 cm
Version	sheet			roll
Pore size	0,45 µm			
Bond	hydrophilic			
Load	positive			
Binding capacity	500 µg/cm²			
Thickn.	160±20 µm			
Immobilisation	not necessary, UV and baking possible			

Transfer membrane ROTI®Nylon plus

Carl ROTH.

Dimensions	Art. No.	Pack Qty.	€
10 × 10 cm	**HP34.1**	10 unit(s)	145,35
15 × 10 cm	**HP35.1**	10 unit(s)	161,70
20 × 20 cm	**HP36.1**	10 unit(s)	n. a.
300 × 30 cm	**K058.1**	1 roll(s)	364,45



Transfer membrane ROTI®Nylon 0.2

Ideal for DNA/RNA transfer, particularly for colony- and plaque-lifting, as well as for all multiple rehybridisations.
Especially recommended for Northern-blots.
ROTI®Nylon 0.2 is a neutral, enhanced Nylon membrane. Based on the material it provides a superior tensile strength and is extremely resistant against alcohol, acetone, and many other organic solvents.

Directions for use

In a buffer pH of 6,5 ROTI®Nylon 0.2 is uncharged and by means of the surface-standing amino- and carboxy-groups has superior hydrophilic qualities. The charge of the membrane (ζ-potential) may be altered through the pH of the buffer – the membrane is positively charged at pH <6,5 and negatively charged at pH >6,5.
Membrane of particulary high DNA-binding capacity. Available as roll (pore size 0,2 µm) for high-flexible usage, and as disks (pore size 0,45 µm) for colony- and plaque-lifting. May be steam sterilised.
Covalent bondage of transferred nucleic acids is achieved by cross linking (baking for 15 min at 80 °C or UV-cross linking for 20 sec at 260 nm). Due to the excellent signal-to-noise ratio of the membrane, very sensitive detection (single copy-gene detection) and multiple rehybridisation is possible without loosing sensitivity.

Application examples

Southern- and Northern blot, Dot blot, DNA fingerprinting, ELISA, colony- and plaque lifting, macro- and microarrays.
Detection systems: radioactivity, chemoluminescence, fluorescence

Technical specifications:

Art. No.	AE50.1	HP39.1
Dimensions	300 × 30 cm	Ø13.2 cm
Version	roll	disks
Pore size	0,2 µm	0,45 µm
Type	0,2 µm	0,45 µm
Load	neutral/amphoteric	
Binding capacity	500 µg/cm²	
Thickn.	150±20 µm	
Immobilisation	UV, baking	

Transfer membrane ROTI®Nylon 0.2

Carl ROTH.

Dimensions	Art. No.	Pack Qty.	€
Ø13.2 cm	**HP39.1**	50 sheet	n. a.
300 × 30 cm	**AE50.1**	1 roll(s)	364,45

Blotting Papers



Blotting Papers ROTILABO®

High quality paper for blotting, chromatography and filtration. With good absorption qualities and smooth surface – for distinct bands and sample spots.

Blotting Papers ROTILABO® Thickness 0,17 mm

Carl ROTH.

Particularly thin, for maximum variability in application.
Can be used in several layers and is, therefore, suitable for all types of transfers.

Technical specifications:

Art. No.	CL68.1	CL69.1	CL70.1	CL71.1
Thickness	0.17 mm			
Surface weight	81 g/m²			
Suction lift	70–90/10 mm/min			

L x W (cm)	Art. No.	Pack Qty.	€
13 x 10	**CL68.1**	100 sheet	62,35
20 x 20	**CL69.1**	100 sheet	67,80
57 x 46	**CL70.1**	100 sheet	279,50
60 x 58	**CL71.1**	100 sheet	313,90

Blotting Papers ROTILABO® Thickness 0,35 mm

Carl ROTH.

Conventional thickness for all general protocols. Equivalent to 3MM.

Technical specifications:

Art. No.	CL64.1	CL65.1	CL66.1	CL67.1
Thickness	0.35 mm			
Surface weight	192 g/m²			
Suction lift	55–65/10 mm/min			

L x W (cm)	Art. No.	Pack Qty.	€
13 x 10	**CL64.1**	100 sheet	42,20
20 x 20	**CL65.1**	100 sheet	78,25
57 x 46	**CL66.1**	100 sheet	312,85
60 x 58	**CL67.1**	100 sheet	358,00

Blotting Papers ROTILABO® Thickness 0,75 mm

Carl ROTH.

Exceptional paper of optimised thickness, perfectly suited for Semi Dry- and Tank-Blotting. Superior transfer efficiciency due to high flow rate, while being nicely flexible and to cut easy.

Technical specifications:

Art. No.	0942.1	0943.1	0945.1
Thickness	0.75 mm		
Surface weight	320 g/m²		
Suction lift	150–160/10 mm/min		

L x W (cm)	Art. No.	Pack Qty.	€
13 x 10	**0942.1**	100 sheet	63,95
20 x 20	**0943.1**	100 sheet	131,80
60 x 58	**0945.1**	100 sheet	590,20

Blotting Papers ROTILABO® Thickness 1,0 mm

Carl ROTH.

Medium thickness paper with high flow rate. Very flexible, easy to process and cut.
Due to the even structure this paper enables a very even transfer with a very simple construction of the blot stacks. Since the paper can be used in a single layer, it drastically reduces the risk of trapped air bubbles that can ruin the transfer.

Technical specifications:

Art. No.	CL72.1	CL73.1	CL74.1
Thickness	1.0 mm		
Surface weight	400 g/m²		
Suction lift	130–145/10 mm/min		

L x W (cm)	Art. No.	Pack Qty.	€
15 x 15	**CL72.1**	25 sheet	29,60
20 x 20	**CL73.1**	25 sheet	49,35
60 x 58	**CL74.1**	25 sheet	195,15

Blotting Papers ROTILABO® Thickness 1,5 mm

Carl ROTH.

Paper of high thickness with high flow rate. Easy to cut despite the layer thickness.
Due to the even structure this paper enables a very even transfer with a very simple construction of the blot stacks. Since the paper can be used in a single layer, it drastically reduces the risk of trapped air bubbles that can ruin the transfer.

Technical specifications:

Art. No.	CL75.1
Thickness	1.5 mm
Surface weight	570 g/m²
Suction lift	250–300/10 mm/min

L x W (cm)	Art. No.	Pack Qty.	€
60 x 58	**CL75.1**	25 sheet	266,10

Blotting Papers

Gel Blotting Papers

Original Whatman®-blotting paper for wicking, blots and drying. Made from specially selected cellulose. Superior for applications in electrophoresis and chromatography.



Gel Blotting Papers Whatman® 3MM Thickness 0,34 mm

Cytiva.

Standard thickness, ideal for all types of transfers.

- **Also available in convenient rolls!**

Technical specifications:

Art. No.	0043.1	0048.1	4926.1	4928.1	CL87.1
Thickness	0.34 mm				
Suction lift	130/30 mm/min				

L x W (cm)	Art. No.	Pack Qty.	€
13.3 x 10.2	**0043.1**	100 sheet	30,75
20 x 20	**0048.1**	100 sheet	110,10
57 x 46	**4926.1**	100 sheet	432,15
68 x 58	**4928.1**	100 sheet	652,55
10000 x 10	**CL87.1**	1 roll(s)	240,80



Gel Blotting Papers Whatman® GB005 Thickness 1,5 mm

Cytiva.

Extra thick. Particularly recommended for Semi-Dry-Blotting.

Technical specifications:

Art. No.	A125.1	A126.1	AE19.1
Thickness	1.5 mm		
Surface weight	550 g/m²		

L x W (cm)	Art. No.	Pack Qty.	€
15 x 15	**A125.1**	25 sheet	122,55
20 x 20	**AE19.1**	25 sheet	152,85
58 x 58	**A126.1**	25 sheet	612,75



Chromatography-Papers Whatman®

Papers for blotting, chromatography and filtration.
Made from specially selected cellulose.

Chromatography-Papers Whatman® 1CHR Thickness 0,18 mm

Cytiva.

Particularly thin, for maximum variability in application.

- **Also available in convenient rolls!**

L x W	Art. No.	Pack Qty.	€
30 x 10	**CL37.1**	100 sheet	75,90
20 x 20	**CL38.1**	100 sheet	84,40
57 x 46	**CL40.1**	100 sheet	287,05
100 m x 2 cm	**7606.1**	1 roll(s)	47,05
100 m x 4 cm	**CL43.1**	1 roll(s)	71,25
100 m x 10 cm	**CL44.1**	1 roll(s)	159,80

Chromatography-Papers Whatman® 3CHR Thickness 0,36 mm

Cytiva.

For general applications with medium/heavy solute loadings.
May also be used in blotting transfers.

L x W (cm)	Art. No.	Pack Qty.	€
57 x 46	**7604.1**	100 sheet	561,15

Chromatography-Papers Whatman® 17CHR Thickness 0,92 mm

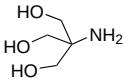
Cytiva.

For the heaviest solute loadings. May also be used in blotting transfers.

L x W (cm)	Art. No.	Pack Qty.	€
9 x 7	**7600.1**	100 sheet	109,30
22 x 2.5	**7601.1**	100 sheet	111,70
57 x 46	**7602.1**	25 sheet	420,35

Blotting Reagents





TRIS

≥99,9 %, Blotting Grade

For Western blotting and immunodetection

Tris of very high purity, tested for absence of heavy metals and protease. Particularly suitable for Western blotting and protein immunodetection.

$C_4H_{11}NO_3$ · M 121,14 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
0188.1	250 g	plastic	52,15
0188.2	500 g	plastic	89,15
Original pack 6 x 500 g			84,69/500 g
0188.3	1 kg	plastic	158,60
Original pack 6 x 1 kg			150,67/1 kg
0188.4	2.5 kg	plastic	327,90



$H_3C—OH$

Methanol

≥99,9 %, Blotting Grade

For Western blotting

Methanol of very high purity, tested for absence of heavy metals, sulphates, and organic impurities. Particularly suitable for Western blotting.

CH_3OH · M 32,04 g/mol

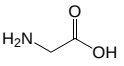
Storage temperature: +15 to +25 °C

UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H370

Art. No.	Pack Qty.	Pack.	€
0082.1	500 ml	glass	27,85
0082.2	1 l	glass	38,60
Original pack 6 x 1 l			36,67/1 l
0082.3	2.5 l	glass	80,10
Original pack 4 x 2.5 l			76,10/2.5 l





Glycine

≥99 %, Blotting Grade

For Western blotting

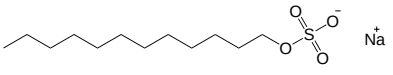
Glycin of very high purity, tested for absence of heavy metals, ammonia, and hydrolysable substances. Well soluble and particularly suitable for Western blotting.

$C_2H_5NO_2$ · M 75,07 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
0079.1	250 g	plastic	31,75
0079.2	500 g	plastic	59,05
Original pack 6 x 500 g			56,10/500 g
0079.3	1 kg	plastic	101,60
Original pack 6 x 1 kg			96,52/1 kg
0079.4	2.5 kg	plastic	196,20





SDS

≥99,3 %, Blotting Grade

For Western- and Southern blotting

SDS of particularly high purity, tested for absence of heavy metals and for UV-absorption qualities. Particularly suitable for Western- and Southern blotting, as well as for immunodetection and assays in molecular biology.

CMC (critical micelle concentration) = 8,5 mM SDS solution

$C_{12}H_{25}NaO_4S$ · M 288,38 g/mol

UN no. 1325 · ADR 4.1 III · WGK 2

Danger H228-H302+H332-H315-H318-H335-H412

Art. No.	Pack Qty.	Pack.	€
0183.1	100 g	plastic	60,10
0183.2	250 g	plastic	127,95
0183.3	500 g	plastic	209,65
Original pack 6 x 500 g			199,17/500 g



ROTI®Fair TG-Western

TG buffer powder (pouch), Tris-glycine buffer

Exactly pre-weighed pouches for convenient and rapid preparation of TG-Western solution.

SDS-free running buffer for native protein gel electrophoresis. Optimum base for preparation of Western blot transfer buffer by addition of 5–20 % methanol (Blotting-Grade, Art. No. 0082).

Prepared solution may be sterilized by filtration (0,22 µm). For long-term storage, buffer solution should be kept at room temperature.

ROTI®Fair TG-Western

for 1000 ml/pouch, for electrophoresis

Buffer for protein electrophoresis and transfer.

1x TG-Western solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

WGK 1

Prepared 1x TG-Western solution contains: 25 mM Tris, 0.192 M glycine, pH-value 8.3 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1269.1	10 unit(s)	box	231,15

ROTI®Fair TG-Western

for 5000 ml/pouch, for electrophoresis

Buffer for protein electrophoresis and transfer.

1x TG-Western solution is prepared by dissolution of 1 pouch in 5000 ml highly pure water.

WGK 1

Prepared 1x TG-Western solution contains: 25 mM Tris, 0.192 M glycine, pH-value 8.3 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1276.1	10 unit(s)	box	467,65



ROTI®Fair 20x SSC

for 1000 ml/pouch, for molecular biology

Concentrated buffer solution for Southern- and Northern transfer.

20x SSC solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

WGK 1

Prepared 20x SSC solution contains: 3.0 M NaCl, 0.3 M Na-Citrat, pH-value 7.0 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1232.1	5 unit(s)	box	197,30



S ready-to-use

ROTI®Stock 20x SSC

20x conc., BioScience Grade, ready-to-use, steam sterilized

For molecular biology.

20fold stock solution sodium/sodiumcitrate.
Undiluted or after dilution with sterile water to 10x, 6x, 1x or 0,1x SSC one receives a versatile buffer for blotting, hybridising or washing of Southern- or Dot/Slot-Blots of DNA as well as for *in situ* hybridisation. Undiluted buffer is also suitable for neutral transfer of RNA onto unloaded membranes (e.g. ROTI®Nylon 0.2, Art. No. AE50.1).

With original seal.

WGK 1

3.0 M NaCl, 300 mM sodium citrate in deionised water, pH-value 7.0, steam sterilised.

Art. No.	Pack Qty.	Pack.	€
1054.1	1 l	glass	85,50
Original pack 6 x 1 l			81,23/1 l





ROTI®Fair SSPE

for 200 ml/tablet, for molecular biology

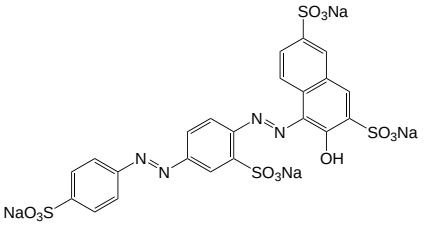
Buffer solution for DNA- and RNA hybridisation.

1x SSPE solution is prepared by dissolution of 1 tablet in 200 ml highly pure water.

WGK 1

Prepared 1x SSPE solution contains: 0.15 M NaCl, 1 mM EDTA, 10 mM Na-phosphate, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1233.1	100 unit(s)	plastic	130,65



Ponceau S (C.I. 27195)

for histology and electrophoresis

For reversible protein staining on membranes and for microscopy.

Directions for use

Staining of NC membranes: 0.2-2 % Ponceau S in 3 % trichloroacetic acid (Art. No. 8789.1) + 3 % sulphosalicylic acid (Art. No. 4119.1), incubate for 1-5 mins. at room temperature. Enhance contrast by incubation in water acidified by a few drops acetic acid.

Staining of PVDF membranes: 0.1–1 % Ponceau S in 10 % acetic acid (Art. No. 6755.1), incubate 1-5 mins. at room temperature. Ponceau S stained bands on PVDF only appear bright and distinct after drying (not recommended if Western blotting shall be performed).

Prior to Western blot analysis decolourise in PBS (Art. No. 1058.1) or TBS (Art. No. 1060) for 10-20 mins. at room temperature.

Suitable for NC and PVDF membranes as well as prior to Western analyses.

$C_{22}H_{12}N_4Na_4O_{13}S_4$ · M 760,56 g/mol

WGK 1

Warning H315-H319-H335

Art. No.	Pack Qty.	Pack.	€
5938.2	10 g	glass	32,15
5938.1	25 g	glass	65,50

ROTI®Blot

Blotting buffers

Discontinuous buffer system for optimum transfer in the semi-dry blotter.

- Optimised for semi dry blotting
- Superior blotting results for peptides and proteins of every size
- Special formulation with reduced acid formation – for optimal electrode protection

In the semi-dry blotting system, both a continuous buffer system (identical buffer at anode and cathode) and a discontinuous buffer system (different buffer at anode and cathode) can be used. The transfer performance of discontinuous systems is, however, generally higher, since the two buffers are designed separately according to the needs of the two electrodes.
The discontinuous buffer system ROTI®Blot 1 consists of two different buffers, the anode buffer A (pH 7.8 ±0.1) and the cathode buffer K (pH 8.5 ±0.1). ROTI®Blot 1 shows a much better transfer efficiency than a tris-glycine buffer and can be used for proteins and peptides of any length.

Directions for use

The blot stack is built up by soaking the upper blotting papers with cathode buffer and the lower blotting papers with anode buffer. With slightly longer transfer times, proteins >100 kDa can also be completely transferred with ROTI®Blot 1.
A detailed instruction manual is enclosed with the product.

ready-to-use

ROTI®Blot 1

10x conc., for electrophoresis

Discontinuous transfer buffer for semi dry blotting.

The kit contains

Anode buffer ROTI®Blot A, 1 l (10 x concentration) (Art. No. L510)
Cathode buffer ROTI®Blot K, 1 l (10 x concentration) (Art. No. L511)
Both solutions may be bought separately.

Kit of two solutions. Both solutions may be bought separately.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Warning H290-H315-H319

Art. No.	Pack Qty.	Packaging	Pack.	€
L509.1	1 kit	2 x 1 L	glass	127,95

► For anode buffer ROTI®Blot A (L510) and cathode buffer ROTI®Blot K (L511) see www.carlroth.com

► Amido black 10 B (C.I. 20470) see www.carlroth.com



Molecular Biology

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DNA/RNA Isolation

ROTI®Phenol

ROTI®Phenol solutions for DNA and RNA extraction

- Reduce exposure to toxic chemicals
- Prepared from phenol of highest purity
- Packed under argon for maximum stability
- Successfully tried and tested in many research laboratories



ready-to-use

ROTI®Phenol

ready-to-use, for the extraction of nucleic acids

Redistilled, in TE buffer equilibrated phenol, pH 7,5-8,0.

Phenol solutions · ROTI®Aqua-Phenol

Phenol solutions for nucleic acid isolation must be buffered and adjusted to the correct pH value prior to use. ROTI®Phenol is a redistilled, in TE buffer equilibrated readytouse phenol.

ROTI®Phenol has been successfully tried and tested for isolating nucleic acids in many research laboratories. This quality product for molecular biology replaces the time consuming preparation of phenol and subsequently any exposure to toxic vapours.

Mechanism

Addition of 1 volume ROTI®Phenol and thorough mixing. Phenol leads to denaturation of proteins which accumulate in the interphase. Following centrifugation, the nucleic acid containing solution may be retrieved as upper phase.

Draw solution from lower phase. Do not shake before use!
Covered with buffer. Store in the dark!

Storage temperature: +4 °C

UN no. 2821 · ADR 6.1 III · WGK 2

Danger H301+H311+H331-H314-H341-H373-H411

Bottled under argon.

Art. No.	Pack Qty.	Pack.	€
0038.1	100 ml	glass	32,15
0038.2	250 ml	glass	64,40
0038.3	500 ml	glass	99,90

Mechanism

Phenol and chloroform lead to denaturation of proteins which accumulate in the interphase. Isoamyl alcohol prevents foaming and very efficiently inhibits RNAses.
For distinct phase separation, ROTI®Aqua-Phenol needs a pH of ≤4.0 in the aqueous upper phase. If needed, the upper phase may be acidified by adding 1-2 drops of 1 N HCl.

Draw solution from lower phase. Do not shake before use!



ready-to-use

ROTI®Phenol/Chloroform/Isoamyl alcohol

ready-to-use, for the extraction of nucleic acids

Redistilled, in TE-buffer equilibrated phenol, chloroform and isoamyl alcohol at a ratio of 25:24:1, pH 7,5-8,0.

Phenol solutions · ROTI®Aqua-P/C/I

ROTI®Phenol/Chloroform/Isoamyl alcohol is re-distilled phenol, equilibrated in TE buffer, premixed with high purity chloroform and isoamyl alcohol.

ROTI®Phenol/Chloroform/Isoamyl alcohol has proven itself in many research laboratories for the isolation of nucleic acids and is an ideal complement to pure ROTI®Phenol.

Mechanism

Addition of 1 volume ROTI®Phenol/Chloroform/Isoamyl alcohol and thorough mixing. Phenol and chloroform lead to denaturation of proteins which accumulate in the interphase. Isoamyl alcohol prevents foaming and very efficiently inhibits RNAses. Following centrifugation, the nucleic acid containing solution may be retrieved as upper phase.

Draw solution from lower phase. Do not shake before use!
Covered with buffer. Store in the dark!

Storage temperature: +4 °C

UN no. 2810 · ADR 6.1 III · WGK 3

Danger H301+H331-H312-H314-H341-H351-H361d-H372-H411

Bottled under argon.

Art. No.	Pack Qty.	Pack.	€
A156.3	100 ml	glass	46,15
A156.1	250 ml	glass	91,95
A156.2	500 ml	glass	155,90

ready-to-use

ROTI®Aqua-Phenol

ready-to-use, for RNA extraction

Redistilled, in water saturated phenol, pH 4,5-5.

Phenol solutions

ROTI®Aqua Phenol is perfectly suited for RNA isolation and other procedures, requiring a low phenol pH value. The low pH results in interphase enrichment of the DNA, reducing DNA contamination in the RNA eluate.

Also ideal for self-adjustment of the pH-value. If required, buffer solution (e.g. TE buffer) may be added directly into the bottle, as ROTI®Aqua-Phenol comes in the following bottle sizes:
A980.2: 100 ml in a 250 ml bottle
A980.1: 250 ml in a 500 ml bottle
A980.3: 500 ml in a 1 l bottle

Mechanism

Addition of 1 volume ROTI®Aqua-Phenol and thorough mixing. Phenol leads to denaturation of proteins which accumulate in the interphase. The acid pH-value causes a depletion of the DNA, so that only little contaminating DNA is isolated. Following centrifugation, the RNA containing solution may be retrieved as upper phase.
For distinct phase separation, ROTI®Aqua-Phenol needs a pH of ≤4.0 in the aqueous upper phase. If needed, the upper phase may be acidified by adding 12 drops of 1 N HCl.

Draw solution from lower phase. Do not shake before use!
Covered with water. Store in the dark!

Storage temperature: +4 °C

UN no. 2821 · ADR 6.1 III · WGK 2

Danger H301-H312+H332-H314-H341-H373-H411

Bottled under argon.

Art. No.	Pack Qty.	Pack.	€
A980.2	100 ml	glass	26,80
A980.1	250 ml	glass	52,15
A980.3	500 ml	glass	81,60



Please note our **Technical Information Brochure** on the Internet next to the products:

Phenolic DNA Isolation
Background and protocol

ready-to-use

ROTI®Aqua-P/C/I

ready-to-use, for RNA extraction

Redistilled, in water saturated phenol, chloroform and isoamyl alcohol at a ratio of 25:24:1, pH 4,5-5.

Phenol solutions

ROTI®Aqua-P/C/I is the optimal choice for RNA isolation and other procedures where a low phenol pH value is desired.
The low pH results in interphase enrichment of the DNA, reducing DNA contamination in the RNA eluate.

Mechanism

Addition of 1 volume ROTI®Aqua-P/C/I and thorough mixing. Phenol and chloroform lead to denaturation of proteins which accumulate in the interphase. Isoamyl alcohol prevents foaming and very efficiently inhibits RNAses. The acid pH-value causes a depletion of the DNA, so that only little contaminating DNA is isolated. Following centrifugation, the RNA containing solution may be retrieved as upper phase.
For distinct phase separation, ROTI®Aqua-P/C/I needs a pH of ≤4.0 in the aqueous upper phase. If needed, the upper phase may be acidified by adding 12 drops of 1 N HCl.

Store in the dark!

Storage temperature: +4 °C

UN no. 2821 · ADR 6.1 II · WGK 3

Danger H301+H331-H312-H314-H341-H351-H361d-H372-H411

Art. No.	Pack Qty.	Pack.	€
X985.3	100 ml	glass	35,40
X985.1	250 ml	glass	62,90
X985.2	500 ml	glass	96,25

ready-to-use

ROTI®C/I

ready-to-use, for the extraction of nucleic acids

Chloroform/Isoamyl alcohol at a ratio of 24:1.

Mixture of chloroform and isoamyl alcohol of highest purity.
Ideal for extraction of DNA/RNA in combination with ROTI®Phenol, especially for the purification of nucleic acid containing solutions from residual phenol.

Mechanism

Addition of 1 volume ROTI®C/I and thorough mixing. Chloroform dissolves residual phenol from the sample solution and leads to the denaturation of residual proteins which accumulate in the interphase. Isoamyl alcohol prevents foaming and very efficiently inhibits RNAses. Following centrifugation, the purified nucleic acid containing solution may be retrieved as upper phase.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 1888 · ADR 6.1 III · WGK 3

Danger H302-H315-H319-H331-H351-H361d-H372

Art. No.	Pack Qty.	Pack.	€
X984.3	100 ml	glass	13,45
X984.1	250 ml	glass	21,00
X984.2	500 ml	glass	32,80

Safety data sheets

can be found on the Internet next to the product description.

Extraction Systems & Kits



ROTI®Prep Plasmid MINI-XL

for molecular biology

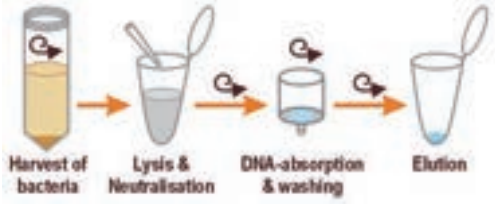
Kit for easy isolation of plasmids from up to 15 ml bacterial culture.

MIDI preps in MINI size-fomat.

ROTI®Prep Plasmid MINI-XL is a further development of the classical Plasmid Mini extraction kit, which is based on an alkaline lysis and binding of the plasmid to the spin filter.
The binding capacity of the spin filter has been, compared to usual plasmid mini kits, considerably increased (approx. 80 µg plasmid DNA) and allows now a plasmid extraction from 5–15 ml bacteria culture. Since filter dimensions correspond to the usual miniprep spin filters, its application differs only slightly from other plasmid mini kits. Most significant difference is the afore done convenient lysis in a 15 ml tube.

- Preparation by well-known mini spin-column system
- Fast, easy and efficient
- Preparation from 5–15 ml bacteria culture
- Preparation within approx. 20 minutes
- Yield 60–70 µg (on average)

The elution resulting in highly concentrated pure DNA in 100 µl, takes then place in a 1,5 ml tube, like in standard mini kits. Isolated DNA is free of RNA or protein contamination and can be directly applied to all standard down-stream applications like restriction digest, sequencing, *in vitro* transcription, transfection etc.



The kit contains

Resuspension Buffer RB, Lysis Buffer LS, Neutralisation Buffer NB, Washing Buffer PA, Washing Solution PB, Elution Buffer XEB, spin columns, collection tubes, elution tubes, detailed instructions-for-use. Contents of this kit may not be bought separately.

Please order ethanol 96–99,8 % (p.a., Art. No. 9065) separately.

Preparation of up to 70 µg plasmid DNA from up to 15 ml bacterial culture per column.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 3316 · ADR 9 II · WGK 1

Danger H225-H302-H315-H318-H336

Art. No.	Pack Qty.	Packaging	Pack.	€
8546.1	1 kit	10 preparations	cardboard	56,45
8546.2	1 kit	50 preparations	cardboard	151,50
8546.3	1 kit	250 preparations	cardboard	600,95



ROTI®Prep Genomic DNA MINI

for molecular biology

Kit for isolation of genomic DNA from tissues, rodent tails, FFPE tissues, buccal swabs, cell cultures.

Roti®Prep Genomic DNA MINI has been developed for the isolation of genomic DNA from various sources.
The isolation is carried out through the proven and reliable spin column technique, which is very easy to handle and needs only few steps.

- Preparation by well-known mini spin-column system
- Fast, easy and efficient
- Preparation in approx. 15 minutes (excluding lysis)
- Yield up to 65 µg gDNA, depending on source material

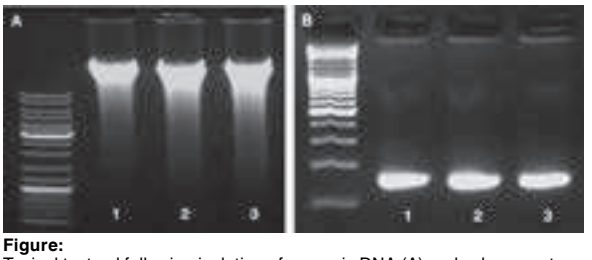
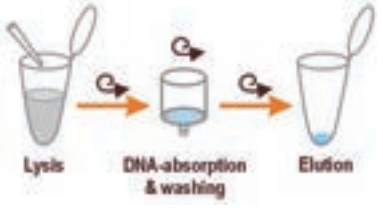


Figure:
Typical test gel following isolation of genomic DNA (A) and subsequent GAPDH-PCR (B) from rodent tail (frozen, 8 mm each).
Yield of gDNA (from left to right): 22,6 µg, 27,7 µg and 28 µg. Ratio A_{260}:A_{280} = 1,97±0,01.

In addition to the especially on proteinase K adapted lysis buffer, the filtration spin column has been optimised, permitting particularly high extraction rates. Extraction from up to 40 mg tissue, therefore, allows a yield of up to µg µg DNA. The thereby extracted DNA is free of RNA and proteins, and can directly be stored or used for downstream applications.

Possible basic material:

- Tissue (up to 40 mg)
- Rodent tails (0,5–1 cm)
- FFPE tissue (formalin-fixed, paraffin-embedded)
- Buccal swabs
- Cell culture (up to 5x10^6 cells)



The kit contains

Lysis Buffer LSA, Binding Buffer BSN, Proteinase K, Washing Buffer WST, Elution Buffer EB, spin columns, collection tubes, elution tubes, detailed instructions-for-use.
Contents of this kit may not be bought separately.

Please order ethanol 99,8 % (p.a., Art. No. 9065), RNase A (Art. No. 7156, not for FFPE tissue), and for FFPE tissue xylole (Art. No. 4436) or octane separately.

Preparation of up to 65 µg gDNA from up to 40 mg tissue per column.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 3316 · ADR 9 II · WGK 2

Danger H225-H315-H317-H318-H334-H335-H336-H411

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
8472.1	1 kit	10 preparations	cardboard	59,70
8472.2	1 kit	50 preparations	cardboard	197,30
8472.3	1 kit	250 preparations	cardboard	714,90

Discover ... www.carlroth.com

Detailed product and additional information as well as our complete product range



All information available around the clock!

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- Optimised search
- Clearer filter functions
- Faster order workflow
- Improved order tracking
- Convenient subscription service
- Newsletter subscription - always up to date
- Available on all devices



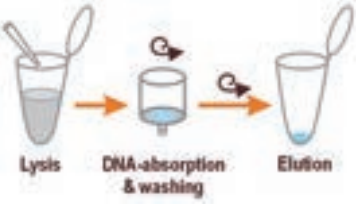
ROTI®Prep Blood Genomic DNA MINI

for molecular biology

Kit for isolation of DNA from whole blood

Roti®Prep Blood Genomic DNA MINI has been specially designed for the isolation of high purity genomic DNA from blood samples.
The isolation is carried out through the proven and reliable spin column technique, which is very easy to handle and needs only few steps.

- Preparation by well-known mini spin-column system
- Fast, easy and efficient
- Preparation in approx. 25 minutes
- Yield up to 30 µg gDNA



The Roti®Prep Blood Genomic DNA MINI kit has been adapted to gain high purity DNA from fresh or frozen blood (EDTA or citrate stabilised) or whole blood, respectively. In order to get optimal results, two protocols, depending on sample amount, are provided. Furthermore, the properties of the binding buffer have been optimised to reach highest binding capacity with blood samples, permitting a yield of up to 30 µg gDNA out of 400 µl blood.
Usage is uncomplicated and fast to achieve (approx. 25 minutes, lysis included), and offers best conditions for following downstream applications.
Isolated gDNA is free of EDTA, RNA, or proteins, and may directly be applied to all standard downstream applications like, for instance, restriction digest, PCR etc.

The kit contains

Lysis Buffer LSN, Binding Buffer BR, Proteinase K, Washing Solution WSO, Washing Buffer WSH, Elution Buffer EB, spin columns, collection tubes, elution tubes, detailed instructions-for-use.
Contents of this Kit may not be bought separately.

Please order ethanol 99,8 % (p.a., Art. No. 9065) and RNase A (optional, Art. No. 7156) separately.

Preparation of up to 30 µg gDNA from up to 400 µl blood per column.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 3316 · ADR 9 II · WGK 3

Danger H225-H315-H335

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
8620.1	1 kit	10 préparations	cardboard	65,50
8620.2	1 kit	50 preparations	cardboard	209,65
8620.3	1 kit	250 preparations	cardboard	740,70



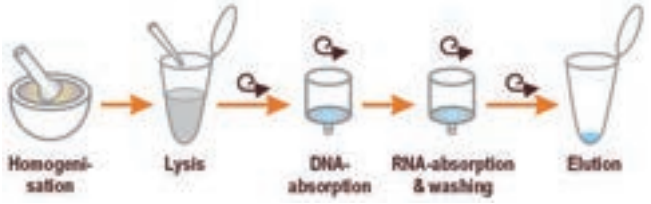
ROTI®Prep RNA MINI

for molecular biology

Kit for RNA isolation from eukaryotic cells, tissues, bacteria, biopsies.

Roti®Prep RNA MINI has been developed for the isolation of total RNA from various sources.
The isolation is carried out through the proven and reliable spin column technique, which is very easy to handle and needs only few steps.

- Preparation by well-known mini spin-column system
- Fast, easy and efficient
- Use of DNase not necessary
- Preparation in approx. 15 to 40 minutes
- Yields up to 100 µg RNA, depending on source material
- Elution in 30-80 µl



One of the critical points in RNA extraction is the presence of endogenous RNases, which can lead to high losses very early in extraction of the (in comparison to DNA) very sensitive RNA. Therefores the lysis buffer has been specially optimised to inactivate RNases, with highest efficiency, already at the early stage of the extraction.
Furthermore, in order to get a high-pure total RNA, one particularly for this purpose developed prefilter is used. This filter exclusively serves for binding and targeted removal of DNA impurities, and is discarded after use with the bound DNA. Thus, it is possible to omit application of DNase I.
Total RNA is then obtained from the DNA-free eluate through a simple "Binding-Washing-Elution" process.
In each preparation, up to 100 µg highly pure total RNA may be isolated.
One preparation takes (excluding lysis) approx. 10 mins.
Isolated RNA is free of DNA and enzyme inhibitors, and may directly be applied to RT-PCR or other downstream applications.

Possible basic material:

- Tissues (up to 20 mg)
- Eukaryotic cells (up to $5x10^6$)
- Bacteria Gram + and Gram - (up to $1x10^9$)
- Biopsies

The kit contains

Lysis Buffer LSR, Washing Buffer WSA, Washing Solution WSL, RNase-free Water, spin filters (blue), spin columns (violet), collection tubes, elution tubes, detailed instructions-for-use.
Contents of this Kit may not be bought separately.

Please order ethanol 99,8 % (p.a., Art. No. 9065) and 70 % (p.a., Art. No. T868) separately.

Preparation of up to 100 µg whole RNA from up to 20 mg tissue or cells per column.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 2

Warning H302+H312-H412-EUH032

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
8485.1	1 kit	10 preparations	cardboard	66,15
8485.2	1 kit	50 preparations	cardboard	269,30
8485.3	1 kit	250 preparations	cardboard	1.073,95



ready-to-use | RNAse-free

ROTI®ZOL RNA

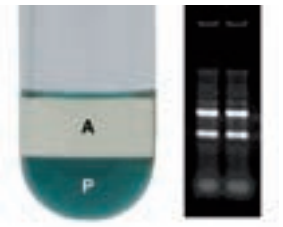
ready-to-use, for molecular biology

Ready-made solution with green dye for isolation of total RNA

ROTI®ZOL RNA is a ready-to-use, green-coloured solution for isolating total RNA from biological samples such as cells or tissue.

ROTI®ZOL RNA is based on the phenolic isolation procedure known from Chomczynski and Sacchi (*Anal. Biochem.* (1987) 162:156-9). Due to the advanced and optimized formulation, ROTI®ZOL RNA results in very high recovery rates of highly pure total RNA. Application is very convenient and preparation of several samples in parallel is finished in less than one hour. Additionally, the green colour significantly simplifies the separation of the RNA containing aqueous phase, the DNA containig interphase, and the protein containing phenolic phase during the process.

- Easy and very rapid two-step RNA isolation
- High recovery rates of intact, very pure total RNA
- Applicable on a broad range of tissues and on cell types
- The purified RNA is ready for use in standard downstream applications such as RT-PCR



Figures 1 and 2:
Isolation of totalRNA by ROTI®Zol RNA.
Left: Tube after centrifugation. A: Aqueous phase - RNA containig, P: Phenolic phase - protein containing. DNA accumulates in the A/P interphase.
Right: Typical gel of total RNA isolated by ROTI®Zol RNA (extracted from $5x10^6$ HL-60 cells).

Typical RNA yield from $5x10^6$ cells: 30–35 µg
Typical purity of RNA prepared from $5x10^6$ cells: 2,08 (A_{260}/A_{280})

1 ml ROTI®ZOL RNA is used for RNA isolation from 100 mg tissue or 10^7 cells, respectively.

Storage temperature: +4 °C

UN no. 1760 · ADR 8 III · WGK 2

Danger H290-H302+H312+H332-H314-H341-H373-H411-EUH032 EUH208

Art. No.	Pack Qty.	Pack.	€
9319.1	100 ml	plastic	278,45
9319.2	200 ml	plastic	499,90



ready-to-use

ROTI®Quick kit

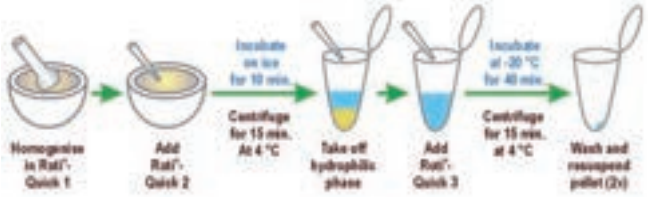
ready-to-use, for molecular biology

Kit for RNA-isolation from cells and tissues.

Column-free, ultra-flexible isolation system designed for reliable isolation of total RNA from almost any tissue.
The ROTI®Quick Kit is suitable for use with cell culture material, biopsies, high-fat or high-protein tissue, blood (Üçeyler *et al. Neurology* (2007) 69:42-9), solid plant material, mitochondria (Backert *et al. Plant Molecular Biology* (1997) 33:1037-50), mycoplasms (Weiner *et al. Nucleic Acids Res.* (2000) 28:4488-96) and many more. The kit can be used for both fresh tissue and frozen material.

The ROTI®Quick Kit is based on the GITC isolation method by Chomczynski and Sacchi (Chomczynski and Sacchi. (1987) *Anal. Biochem.* 162:156) and includes three optimised ready-to-use solutions that were developed by molecular biologists and have proven effective for many years.
After the tissue has been homogenised, the RNA is purified in a single step and isolated by precipitation. Each isolation takes approximately 2,5 hours, and multiple isolations can easily be performed simultaneously. The incubation and centrifuging steps take about 2 hours.

- Easy, most versatile application
- High recovery rate of intact, very pure total RNA
- Column-free two-step isolation
- Applicable on nearly any tissue type



Preparation as given in the instruction-for-use is optimised for RNA isolation from approx. 0,2 g of tissue or cell material. The amount of material isolated per batch may easily be up- or downscaled to larger or smaller amounts of tissue.
The isolated total RNA is highly pure and may be used directly for all common down-stream applications, such as RT-PCR, Northern blotting and reverse transcription. Detailed instructions-for-use are enclosed with each kit.

The kit contains

ROTI®Quick Kit 1 (Art. No. A976), ROTI®Quick Kit 2 (Art. No. A977), and ROTI®Quick Kit 3 (Art. No. A978).
Contents of this Kit may not be bought separately.

The Rot®-Quick Kit is sufficient for 20 isolations from 0,2 g tissue each.

Storage temperature: +4 °C

UN no. 2924 · ADR 3 (8) II · WGK 3

Danger H225-H301+H311+H331-H314-H336-H341-H351-H361d-H372-H411-EUH032 EUH208

Art. No.	Pack Qty.	Packaging	Pack.	€
A979.1	1 kit	for approx. 20 preparations	cardboard	111,30



ROTI®Prep PCR Purification

for molecular biology

Kit for concentration and purification of PCR products.

Very fast purification and/or concentration of PCR products, between 60 bp and 30 kb length, through simple but effective spin column technique.

- Preparation by well-known mini spin-column system
- Fast, easy and efficient
- Purification in approx. 3 minutes
- For fragment length of 60 bp-30 kb
- Recovery rate up to 95 %
- Elution in 10 µl



The high performance membrane used for the Roti®Prep PCR Purification columns, allows purification or concentration of PCR products within approx. 3 minutes. The PCR product to be extracted (50 µl in maximum) is first mixed with binding buffer, which can be done separately or directly in the spin filter column. The nucleic acid is then eluted by centrifugation, without any additional washing step, in a minimum of 10 µl of water or buffer.
Isolated DNA is free of residual nucleotides or PCR additives, and may directly be applied to all standard downstream applications like cloning or sequencing.

The kit contains

Binding Buffer, Elution Buffer EB, spin columns, collection tubes, elution tubes, detailed instructions-for-use.
Contents of this Kit may not be bought separately.

Yield up to 95 %, elution in minimum 10 µl.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 3316 · ADR 9 II · WGK 1

Danger H225-H319-H336

Art. No.	Pack Qty.	Packaging	Pack.	€
8503.1	1 kit	10 preparations	cardboard	47,85
8503.2	1 kit	50 preparations	cardboard	122,45
8503.3	1 kit	250 preparations	cardboard	364,45



ROTI®Prep Gel Extraction

for molecular biology

Kit for DNA extraction from agarose gels.

DNA extraction from agarose gels through incubation and subsequent spin column process.
The gel slice to be extracted (up to 300 mg) is first solubilised in a lysis buffer through a simple 10 minute incubation. After that, DNA is elutied via convenient spin filter centrifugation in approx. 10 mins.
A specially developed Binding Enhancer is admixed in order to enhance binding efficiency of the DNA to the filter, and thus yield and purity of the isolated DNA.

- Preparation by well-known mini spin-column system
- Fast, easy and efficient
- Extraction within approx. 20 minutes
- For fragment length of 100 bp–30 kb
- Recovery rate up to 90 %



Furthermore, the ROTI®Prep Gel Extraction kit allows, if needed, to reduce elution volume down to 10 µl in order to obtain particularly highly concentrated DNA.
For gel runs both, TAE and TBE may be used. The kit is compatible with all standard gel loading buffers and gel staining reagents, even non-toxic ethidium bromide replacements like, for instance, Roti®GelStain.
Isolated DNA is free of residual agarose, PCR- and ligase inhibitors, and cytotoxic reagents, and can directly be applied to all standard downstream applications like cloning, PCR, transformation and transfection.

The kit contains

Binding Enhancer, Gel Solubizer, Washing Solution WSL, Elution Buffer EB, spin columns, collection tubes, elution tubes, detailed instructions-for-use.
Contents of this Kit may not be bought separately.

Please order ethanol 96-99,8 % (p.a., Art. No. 9065) separately.

Yield up to 90 %, elution in minimum 10 µl.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 3316 · ADR 9 III · WGK 2

Warning H290-H302+H312+H332-H315-H319-H412-EUH032

Art. No.	Pack Qty.	Packaging	Pack.	€
8510.1	1 kit	10 preparations	cardboard	47,85
8510.2	1 kit	50 preparations	cardboard	122,45
8510.3	1 kit	250 preparations	cardboard	364,45

Instructions for use

can be found on the Internet next to the product description.



Gel extraction kit Ultrafree® DA

for molecular biology

For easy and speedy extraction of DNA fragments from agarose or polyacryl amide gels.

- Extraction in 10 minutes
- High recovery of fully intact DNA
- Highly efficient with all gel running buffers
- Easy application – even during student courses
- Convenient handling even of large sample numbers

Recovery of functionally intact DNA in one spin-step. The agarose slice is placed directly into the pre-assembled device and centrifuged for 10 minutes (fig. B). Melting or enzymatic digestion is not required. The agarose slice is nebulised and the DNA is filtered and purified during centrifugation. The eluate may simply be stored away in the extraction tube or collected from the tube in order to apply the DNA to subsequent analyses.

Directions for use

Compatible with all agaroses with standard gelling temperature (not compatible with Low-Melting agarose). Suitable for fragments of 100 bp up to 10,000 bp. Ideal also for labelled DNA, e.g. after fluorescence- or radioactive labelling. Reliable recovery rates for fragments of 100 bp up to 2,000 bp.
The gel extraction units may be used with all standard gel running buffers. Following elution from gels run with ROTIPHORESE® 10x TAE buffer *light* (Art. No. 0122.1), the DNA may be applied **directly** to cloning or sequencing.
Compatible with all standard Mini-centrifuges.

Gel extraction kit Ultrafree® DA

MERCK MILLIPORE.

The kit contains

50 standard reaction vessels and 50 removable nebulizer/filter units

Type	Pack.	Art. No.	Pack Qty.	€
Gel extraction kit Ultrafree® DA	50 extraction units	**AE86.1**	50 unit(s)	181,70

► Tools for cutting of DNA bands like, for instance, Gel Cutting Tips and Safety Blades see at www.carlroth.com

ROTI®elution Tubes



RNase-free, DNase-free and proteinase-free, free of PCR products. For gel elution and purification of DNA/RNA and proteins.
Easy-to-handle system for gel elution and purification of DNA/RNA and proteins in solution (electro elution).
This very gentle method guarantees the non-disruptive purification of high-molecular or genomic DNA as well as of native protein complexes and long peptides. Using membranes of low MWCO, elution of very small DNA fragments is possible, making the tubes a very useful tool for the efficient desalting of primers within 60–100 min as well as for purification of siRNA (ss or duplexes).
ROTI®elution tubes are suitable for elution of ssDNA (≥20 nt), dsDNA (15 bp–100 kb), RNA of each size, proteins of each size, and of protein/nucleic acid complexes. The tubes may be applied to elution procedures from agarose- and polyacrylamide gels, as well as to all popular electrophoresis units. Used in floating racks, they are ideal for the purification of DNA, RNA or proteins by means of dialysis.
All ROTI®elutions tubes are free of DNase, RNase, Proteinase and PCR products. All membranes are made from regenerated cellulose and can thus be exposed to a pH range of 2–12, to a temperature of +60 °C, and also to a variety of organic solvents. Additionally, the membranes are free of sulphate and heavy metals and were treated with EDTA. Hence, macromolecules (like proteins or nucleic acids) or other biological particles may be eluted and dialysed in native conformation, and are very well suited for subsequent activity tests.

- Ultrapure
- Easy-to-handle
- Very gentle process
- Typical recovery rate of >95%
- Suitable for elution from agarose and PAGE
- Suitable for dialysis of biomolecules
- Suitable for oligoncleotides, dsDNA, ssDNA, RNA, proteins and protein/nucleic acid complexes
- Compatibel with all popular electrophoresis units

Application examples

Purification of DNA and proteins from gels, elution of genomic DNA or total RNA, preparation of DNA fragments prior to cloning, purification of siRNA for RNAi assays, purification/desalting of oligonucleotides/primers, purification of RNA or DNA for transfection or transformation, desalting or buffer change of protein solutions.
Please order the respective ROTI®elution Tube Tray separately.

Directions for use

ROTI®elution tubes are very easy to handle, and therefore can be used in both individual tests and high-throughput applications. Thanks to the screw cap, the vials are easy to open, can easily be filled with gel slices and buffer and can be securely sealed.
The practical elution vial holder has sufficient stability for safe use in electrophoresis cell. Under current flow, the DNA/RNA/protein molecules initially migrate from the gel slice until they are halted by the dialysis membrane. By briefly reversing the polarity of the electrical field, the molecules can be separated from the membrane and pipetted out of the tube together with the buffer. By carefully selecting the tube and the amount of buffer, it is in many cases possible to achieve a high concentration directly within the elution buffer. The buffer can then easily be concentrated by using the usual methods (e.g. precipitation).
ROTI®elution tubes with MWCO 1, 25 and 50 kDa are wet packed in stabilising solution (25 % ethanol, 2 mM EDTA) and should stored under refrigeration. All other elution vials are dry packed and can be stored at room temperature.

The classification below refers only to Art. Nos. marked *.

DNAse-free RNAse-free

ROTI®elution Tubes MINI

ROTH SELECTION.

Storage temperature: +15 to +25 °C

Technical specifications:

Art. No.	9281.1	9281.2	9281.3	9283.1	9283.2	9283.3
MWCO	8 kDa			14 kDa		
Suitable for	Gel pieces up to approx. 0.4 x 1.0 cm					
Volume	10 to 250 µl					
Delivery form	Dry					
Additional info	Recommended storage temperature for dry elution tubes: +15–25 °C; for elution tubes in solution: +4 °C					

Type	Volume (µl)	Art. No.	Pack Qty.	€
MINI 8	10 to 250	**9281.1**	2 unit(s)	17,10
MINI 8	10 to 250	**9281.2**	30 unit(s)	158,60
MINI 8	10 to 250	**9281.3**	100 unit(s)	439,70
MINI 14	10 to 250	**9283.1**	2 unit(s)	17,10
MINI 14	10 to 250	**9283.2**	30 unit(s)	158,60
MINI 14	10 to 250	**9283.3**	100 unit(s)	439,70

DNAse-free RNAse-free

ROTI®elution Tubes MINI in stabilising solution

ROTH SELECTION.
Storage temperature: +4 °C
UN no. 1170 · ADR 3 III · WGK 1
Warning H226-H319

Technical specifications:

Art. No.	9284.1	9284.2
MWCO	25 kDa	
Suitable for	Gel pieces up to approx. 0.4 x 1.0 cm	
Volume	10 to 250 µl	
Delivery form	In ethanol solution	
Additional info	Recommended storage temperature for dry elution tubes: +15–25 °C; for elution tubes in solution: +4 °C	

Type	Volume (µl)	Art. No.	Pack Qty.	€
Mini 25*	10 to 250	**9284.1**	1 unit(s)	13,90
Mini 25*	10 to 250	**9284.2**	5 unit(s)	55,80

DNAse-free RNAse-free

ROTI®elution Tubes MIDI

ROTH SELECTION.
Storage temperature: +15 to +25 °C

Technical specifications:

Art. No.	9266.1	9266.2	9266.3	9294.1	9294.2	9294.3
MWCO	3,5 kDa			8 kDa		
Suitable for	Gel pieces up to approx. 0.5 x 1.2 cm					
Volume	50 to 800 µl					
Delivery form	Dry					
Additional info	Recommended storage temperature for dry elution tubes: +15–25 °C; for elution tubes in solution: +4 °C					

Type	Volume (µl)	Art. No.	Pack Qty.	€
MIDI 3.5	50 to 800	**9266.1**	2 unit(s)	19,90
MIDI 3.5	50 to 800	**9266.2**	30 unit(s)	198,90
MIDI 3.5	50 to 800	**9266.3**	100 unit(s)	575,15
MIDI 8	50 to 800	**9294.1**	2 unit(s)	19,90
MIDI 8	50 to 800	**9294.2**	30 unit(s)	193,50
MIDI 8	50 to 800	**9294.3**	100 unit(s)	575,15

DNAse-free RNAse-free

ROTI®elution Tubes MIDI in stabilising solution

ROTH SELECTION.
Storage temperature: +4 °C
UN no. 1170 · ADR 3 III · WGK 1
Warning H226-H319

Technical specifications:

Art. No.	9263.1	9263.2
MWCO	1 kDa	
Suitable for	Gel pieces up to approx. 0.5 x 1.2 cm	
Volume	50 to 800 µl	
Delivery form	In ethanol solution	
Additional info	Recommended storage temperature for dry elution tubes: +15–25 °C; for elution tubes in solution: +4 °C	

Type	Volume (µl)	Art. No.	Pack Qty.	€
MIDI 1*	50 to 800	**9263.1**	1 unit(s)	17,10
MIDI 1*	50 to 800	**9263.2**	5 unit(s)	70,45

DNAse-free RNAse-free

ROTI®elution Tubes MAXI

ROTH SELECTION.

Storage temperature: +15 to +25 °C

Technical specifications:

Art. No.	9421.1	9421.2	9421.3	9425.1	9425.2	9425.3	9427.1	9427.2	9427.3
MWCO	3,5 kDa			8 kDa			14 kDa		
Suitable for	Gel pieces up to approx. 1.0 x 2.0 cm								
Volume	0.1 to 3 ml								
Delivery form	Dry								
Additional info	Recommended storage temperature for dry elution tubes: +15–25 °C; for elution tubes in solution: +4 °C								

Type	Volume (ml)	Art. No.	Pack Qty.	€
MAXI 3.5	0.1 to 3	**9421.1**	2 unit(s)	25,70
MAXI 3.5	0.1 to 3	**9421.2**	30 unit(s)	321,45
MAXI 3.5	0.1 to 3	**9421.3**	100 unit(s)	891,20
MAXI 8	0.1 to 3	**9425.1**	2 unit(s)	25,70
MAXI 8	0.1 to 3	**9425.2**	30 unit(s)	321,45
MAXI 8	0.1 to 3	**9425.3**	100 unit(s)	891,20
MAXI 14	0.1 to 3	**9427.1**	2 unit(s)	25,70
MAXI 14	0.1 to 3	**9427.2**	30 unit(s)	321,45
MAXI 14	0.1 to 3	**9427.3**	100 unit(s)	891,20

DNAse-free RNAse-free

ROTI®elution Tubes MAXI in stabilising solution

ROTH SELECTION.

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 1

Warning H226-H319

Technical specifications:

Art. No.	9489.1	9489.2	9489.3	9428.1	9428.2
MWCO	50 kDa			25 kDa	
Suitable for	Gel pieces up to approx. 1.0 x 2.0 cm				
Volume	0.1 to 3 ml				
Delivery form	In ethanol solution				
Additional info	Recommended storage temperature for dry elution tubes: +15–25 °C; for elution tubes in solution: +4 °C				

Type	Volume (ml)	Art. No.	Pack Qty.	€
MAXI 50*	0.1 to 3	**9489.1**	1 unit(s)	23,55
MAXI 50*	0.1 to 3	**9489.2**	5 unit(s)	109,15
MAXI 50*	0.1 to 3	**9489.3**	30 unit(s)	456,90
MAXI 25*	0.1 to 3	**9428.1**	1 unit(s)	23,55
MAXI 25*	0.1 to 3	**9428.2**	5 unit(s)	109,15

Recommendation for the Choice of the MWCO:

MWCO (kDa)	RNA/ssDNA	dsDNA	Proteins
1	20–50 nt	15–25 bp	3–15 kDa
3,5	50–250 nt	25–100 bp	10–30 kDa
8	250–1000 nt	100–500 bp	25–50 kDa
14	1–5 knt	0,5–2 kb	45–100 kDa
25	5–30 knt	2–10 kb	80–200 kDa
50	>30 knt	10–100 kb	>150 kDa

DNAse-free RNAse-free

ROTI®elution Tubes MEGA

ROTH SELECTION.

Storage temperature: +15 to +25 °C

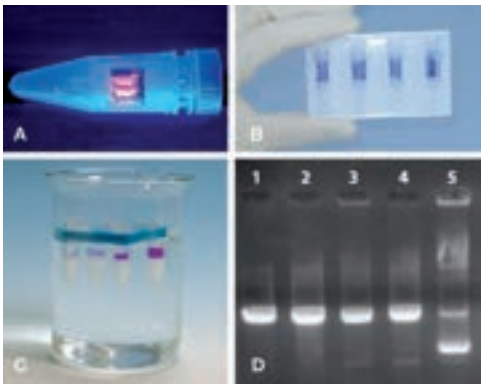
Technical specifications:

Art. No.	9371.1	9371.2	9380.1	9380.2	9381.1	9381.2	9390.1	9390.2	9393.1	9393.2	9394.1	9394.2	9396.1	9396.2	9397.1	9397.2	9398.1	9398.2
MWCO	3,5 kDa						8 kDa						14 kDa					
Suitable for	preparative gels																	
Volume	to 10 ml		to 15 ml		to 20 ml		to 10 ml		to 15 ml		to 20 ml		to 10 ml		to 15 ml		to 20 ml	
Delivery form	Dry																	
Additional info	Recommended storage temperature for dry elution tubes: +15–25 °C; for elution tubes in solution: +4 °C																	

Type	Volume (ml)	Art. No.	Pack Qty.	€
MEGA 3.5/10	to 10	**9371.1**	1 unit(s)	23,55
MEGA 3.5/10	to 10	**9371.2**	10 unit(s)	166,65
MEGA 3.5/15	to 15	**9380.1**	1 unit(s)	23,55
MEGA 3.5/15	to 15	**9380.2**	10 unit(s)	166,65
MEGA 3.5/20	to 20	**9381.1**	1 unit(s)	23,55
MEGA 3.5/20	to 20	**9381.2**	10 unit(s)	166,65
MEGA 8/10	to 10	**9390.1**	1 unit(s)	23,55
MEGA 8/10	to 10	**9390.2**	10 unit(s)	166,65
MEGA 8/15	to 15	**9393.1**	1 unit(s)	23,55
MEGA 8/15	to 15	**9393.2**	10 unit(s)	166,65
MEGA 8/20	to 20	**9394.1**	1 unit(s)	23,55
MEGA 8/20	to 20	**9394.2**	10 unit(s)	166,65
MEGA 14/10	to 10	**9396.1**	1 unit(s)	23,55
MEGA 14/10	to 10	**9396.2**	10 unit(s)	166,65
MEGA 14/15	to 15	**9397.1**	1 unit(s)	23,55
MEGA 14/15	to 15	**9397.2**	10 unit(s)	166,65
MEGA 14/20	to 20	**9398.1**	1 unit(s)	23,55
MEGA 14/20	to 20	**9398.2**	10 unit(s)	166,65

Colour Code of the ROTI®Elution Tubes MEGA

Colour	MWCO	Application
Blue	3,5 kDa	Nucleic acids from 50 nt or 25 bp, proteines from 10 kDa
Red	8 kDa	Nucleic acids from 250 nt or 100 bp,proteines from 25 kDa
Green	14 kDa	Nucleic acids from 1000 nt or 500 bp,proteines from 45 kDa



Figures:
A: ROTI®elution Tube under UV-light with a DNA containing agarose slice stained by ethidium bromide
B: ROTI®elution Tubes MIDI positioned in ROTI®elution Tube Tray
C: Dialysis of the restriction enzyme PstI in enzyme buffer/8 M urea against pure enzyme buffer
D: Detection of enzymatic activity after dialysis by digestion on plasmid DNA (1–4). Untreated control (5).

ROTI®elution Tube Trays

Technical specifications:

Art. No.	9628.1	9626.1	9627.1
Suitable for	3 Elution Tubes MAXI	4 Elution Tubes MINI	4 Elution Tubes MIDI



ROTI®elution Tube Trays

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
MAXI	**9628.1**	1 unit(s)	24,65
MIDI	**9627.1**	1 unit(s)	21,00
MINI	**9626.1**	1 unit(s)	18,20

Magnetic Beads – Kits for DNA Isolation



MagSi-DNA Vegetal

Magnetic beads

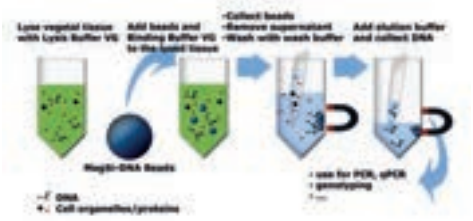
- Cost-effective – Low price per sample
- Superior lysis – Lysis Buffer VG is specially designed for lysis of vegetal tissues
- Flexible protocol – Kit components can be individually adjusted in volume
- Easy to automate – Designed for highthroughput, robotic, liquid handling processes
- Good yields and recovery – Very well suited for typical downstream applications (PCR, qPCR, NGS, Genotyping)
- Excellent DNA purity, $A_{260/280}$= 1,7–2,0

MagSi-DNA Vegetal

for molecular biology

magtivio.

Magnetic beads for nucleic acid isolation from plant tissue.



The MagSi-DNA Vegetal kit allows for extraction of genomic DNA from plant tissue. It has a very flexible setup, as the volume of each of its components can be adjusted to facilitate your specific extraction protocol requirements.
Lysis Buffer VG is designed for extremely good breakdown of the tough components in vegetal materials, allowing optimal release of the DNA to be isolated. The extraction itself is based on the binding of DNA to MagSi-VG I magnetic beads, and works in combination with the proprietary Binding Buffer VG. After a series of washing steps in which the magnetic beads (with DNA) are held by the magnet, the DNA is eventually released in an elution step.

MagSi-DNA Vegetal helps you extract DNA from seeds but also from leaves of e.g. cucumber, bell pepper, tomato, wheat, flowers, sugar beet, potato, chicory or maize.
Bigger packages available on request.

The kit contains

Magnetic beads MagSi-VG I, Lysis Buffer VG, Binding Buffer VG, Wash Buffer I, Wash Buffer II, Elution Buffer. Contents of this Kit may not be bought separately.

Storage temperature: +15 to +25 °C

UN no. 1987 · ADR 3 II · WGK 1

Danger H225-H302-H319-H336

Art. No.	Pack Qty.	Pack.	€
1624.1	96 unit(s)	cardboard	299,95
1624.2	960 unit(s)	cardboard	2.230,65

MagSi-gDNA blood

Magnetic beads

- Suitable for whole blood, drawn in Citrate-, EDTA- or Heparin tubes
- Reproducible, high yield of DNA - 3–15 µg from 200 µl fresh or frozen whole blood
- Excellent DNA purity, $A_{260/280}$ = 1,7–2,0
- Preparation time: 20–25 mins. (after lysis)
- Suitable for many genomic applications including PCR, DNA sequencing and Southern blotting
- Simple bind-wash-elute procedure
- Protocol easily adjustable for different sample volumes
- Suitable for manual and automated use
- Safe sample handling with minimal user input
- Also suitable for isolation of DNA from saliva, serum/plasma and cultured cells

MagSi-gDNA blood

for molecular biology

magtivio.

Magnetic beads for isolation of genomic DNA from whole blood.

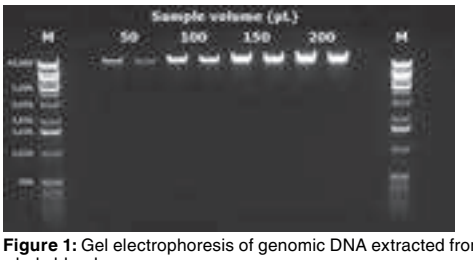


Figure 1: Gel electrophoresis of genomic DNA extracted from 50-200 µl fresh whole blood.

MagSi-gDNA blood kit allows fast and cost-effective extraction of genomic DNA from a wide range of sample volumes. The paramagnetic bead-based kit can be used on whole blood samples drawn in EDTA-, citrate- or heparin tubes. Due to the ready to use reagents and simple protocol the kit is easy to use and easy to automate. As a linear volume to volume ratio is used between whole blood sample and reagents, it is possible to use the kit in any situation where genomic DNA out of blood is needed.
MagSi-gDNA blood kit is easy to automate. It is compatible with many different automated liquid handling systems (e.g KingFisher™, PrimaRWS®, PIPETMAX® and JANUS®). Furthermore, it is performed with short and easy protocols and suitable for small, medium and high-throughput automation using variable volume sample input.

This magnetic bead-based kit is a fast and economic purification system for extraction of genomic DNA from mammalian samples. The MagSi-gDNA blood kit includes magnetic beads, buffers and Proteinase K, and is easy to automate for high-throughput processing.
Bigger packages available on request.

The kit contains

Magnetic beads MagSi-DNA 3.0 COOH, Proteinase K, Lysis Buffer, Binding Buffer, Wash Buffer I, Wash Buffer II, Elution Buffer. Contents of this Kit may not be bought separately.

Storage temperature: +4 °C

UN no. 1987 · ADR 3 II · WGK 1

Danger H225-H302-H319-H336

Art. No.	Pack Qty.	Pack.	€
1630.1	96 unit(s)	cardboard	299,95
1630.2	960 unit(s)	cardboard	2.230,65

MagSi-DNA saliva

Magnetic beads

- Fast and easy processing using magnetic beads
- Suitable for automated liquid handlers
- Yields high quality genomic DNA of excellent purity, $A_{260/280}$= 1,7–2,0
- Compatible with fresh saliva samples as well as sample collection and preservation kits
- Sample collection is non-invasive, risk free, and painless
- More affordable than blood testing

MagSi-DNA saliva

for molecular biology

magtivio.

Magnetic beads for isolation of genomic DNA from saliva or buccal swabs.

The MagSi-DNA saliva kit provides a fast and simple procedure for DNA extraction from saliva. The kit is compatible with fresh saliva samples as well as saliva preserved in standard saliva sample collection kits. Genomic DNA obtained with MagSi-DNA saliva is of the highest quality and is compatible with applications like PCR, Southern Blotting, genetic typing or mutation analysis.
MagSi-DNA saliva is based on magnetic bead technology, and is suitable for extraction of DNA from human saliva or buccal swabs. The kit includes magnetic beads, buffers and Proteinase K, and is easy to automate for high-throughput processing.

Saliva is rapidly becoming an attractive alternative source of DNA for genetics testing. Unlike blood or tissues, saliva can be collected non-invasive by individuals with little training, and without the need for expensive equipment. Saliva preserved in collection kits is stable for years at room temperature, facilitating easy transportation and storage. Bigger packages available on request.

The kit contains

Magnetic beads MagSi-DNA 3.0 COOH, Proteinase K, Lysis Buffer, Binding Buffer, Wash Buffer I, Wash Buffer II, Elution Buffer. Contents of this Kit may not be bought separately.

Storage temperature: +4 °C

UN no. 1987 · ADR 3 II · WGK 1

Danger H225-H302-H319-H336

Art. No.	Pack Qty.	Pack.	€
1648.1	96 unit(s)	cardboard	299,95
1648.2	960 unit(s)	cardboard	2.230,65

Specific Application of Silica- and of Carboxylated Beads

Bead surface	Silica beads	Carboxylated beads
Compatible Buffer Systems	Chaotropic buffers	PEG-based, low pH or chaotropic buffers
Binding Mechanism	Precipitation with chaotropic salts	Precipitation by polymers like PEG, divalent cations (e.g. Mg^{2+}) or chaotropic salts
Elution	Low salt conditions	Low salt conditions or pH shift from acidic to alkaline conditions
Recommended use	Recommended in case chaotropic conditions can be applied.	Recommended if flexibility in buffer systems is necessary or if non-chaotropic conditions have to be applied. Results in **higher purity and recovery rate** under **non-chaotropic conditions.**

MagSi-Wash Buffer III

for molecular biology

magtivio.

Solution for optimising DNA isolation using MagSi-DNA Kits.

Additional Washing Buffer which may be used with the kits MagSi-gDNA blood-, -saliva- or -Vegetal kit. It is not included in the three kits, but may be bought separately.
Wash Buffer III eliminates the need for a drying step to remove traces of ethanol, resulting in faster protocols and DNA with higher purity.

For use with MagSi-gDNA blood-, -saliva- or -Vegetal kit.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1649.1	80 ml	plastic	49,35
1649.2	800 ml	plastic	342,95

Product Properties

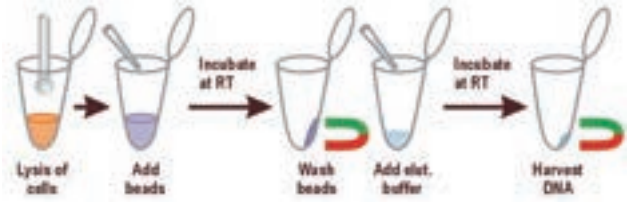
MagSi-DNA	Ø Bead size	Bead surface	Concentration	Art. No.
	0,3 µm	silica	300 mg/ml	1540
600	0,6 µm	silica	20 mg/ml	1542
allround	1,2 µm	silica	20 mg/ml	1544
3.0	3 µm	silica	20 mg/ml	1549
COOH	0,3 µm	carboxylated*	300 mg/ml	1552
600 COOH	0,6 µm	carboxylated*	20 mg/ml	1557
allround COOH	1,2 µm	carboxylated*	20 mg/ml	1558
3.0 COOH	3 µm	carboxylated*	20 mg/ml	1559

* Carboxylation may enhance purity and recovery rate.

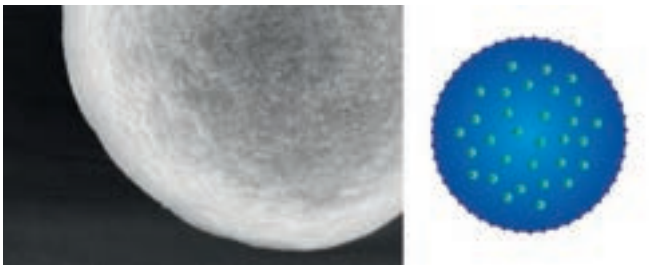
Recommendation for Use

MagSi-DNA	Suitable buffers	Characteristic	Art. No.
	chaotropic	Fast magenetic separation, very large total surface, high yield	1540
600	chaotropic	Slow magnetic separation, for long incubation times	1542
allround	chaotropic	Medium magnetic separation	1544
3.0	chaotropic	Ultra fast magnetic separation, for rapid preparations	1549
COOH	variable	Fast magenetic separation, very large total surface, high yield	1552
600 COOH	variable	Slow magnetic separation, for long incubation times	1557
allround COOH	variable	Medium magnetic separation	1558
3.0 COOH	variable	Ultra fast magnetic separation, for rapid preparations	1559

Bead Solutions for DNA Isolation



DNA yield (20 µl beads): >3 µg



MagSi-DNA

Magnetic beads

Magnetic beads can be used as solid support phase in DNA extraction and purification protocols by a simple bind/wash/elute principle. The products in this category are intended for own development of protocols and are suitable for various sample sources and buffer systems. MagSi-beads for genomic applications are available with a range of physical properties and a silica or carboxyl modified surface.

MagSi-DNA Trial kit

for molecular biology

magtivio.

Magnetic beads for covalent coupling of chosen ligands.

A complete set of the 8 types of MagSi beads for genomic applications, offered in a single kit for trial purposes in development of new assays. Intended for nucleic acid isolation from various sources (blood, cells, bacteria etc.) for manual and automated work-flow.

The kit contains

2 ml each of MagSi-DNA, MagSi-DNA COOH, MagSi-DNA allround, MagSi-DNA allround COOH, MagSi-DNA 600, MagSi-DNA 600 COOH, MagSi-DNA 3.0 and MagSi-DNA 3.0 COOH.

Kit for development of new assays.

Storage temperature: +4 °C

WGK 1

2 ml each of MagSi-DNA, -DNA 600, -DNA allround, -DNA 3.0, DNA COOH, -DNA 600 COOH, -DNA allround COOH, and -DNA 3.0 COOH.

Art. No.	Pack Qty.	Pack.	€
1560.1	1 kit	cardboard	238,15

MagSi-DNA

300 mg/ml, for molecular biology

magtivio.

Magnetic beads for nucleic acid isolation from various sources.

Magnetic silica beads of 300 nm size with optimized magnetic content and long suspension time. Ultra-fast ferromagnetic silica particles with instant magnetic separation. Intended for nucleic acid isolation from various sources (blood, cells, bacteria etc.) for manual and automated work-flow.

Fast magenetic separation, very large total surface, high yield. Silica surface. For chaotropic buffer systems only.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1540.1	2 ml	plastic	120,95
1540.2	10 ml	plastic	489,15
1540.3	100 ml	plastic	3.923,75

MagSi-DNA COOH

300 mg/ml, for molecular biology

magtivio.

Magnetic beads for nucleic acid isolation from various sources.

Carboxylated magnetic silica beads of 300 nm size with optimized magnetic content and long suspension time. Ultra-fast ferromagnetic silica particles with instant magnetic separation. Intended for nucleic acid isolation from various sources (blood, cells, bacteria etc.) for manual and automated work-flow. Under specific conditions, the carboxylated surface enables higher yield and purity from samples.

Fast magenetic separation, very large total surface, high yield. Carboxyl-modified surface.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1552.1	2 ml	plastic	134,40
1552.2	10 ml	plastic	557,95
1552.3	100 ml	plastic	4.509,65

MagSi-DNA 600

20 mg/ml, for molecular biology

magtivio.

Magnetic beads for nucleic acid isolation from various sources.

Magnetic silica beads of 600 nm size with large surface area and optimized magnetic content for long suspension time. Intended for nucleic acid isolation from various sources (blood, cells, bacteria etc.) for manual and automated work-flow.

Slow magnetic separation, for long incubation times. Silica surface. For chaotropic buffer systems only.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1542.1	2 ml	plastic	120,95
1542.2	10 ml	plastic	489,15
1542.3	100 ml	plastic	3.923,75

MagSi-DNA 600 COOH

20 mg/ml, for molecular biology

magtivio.

Magnetic beads for nucleic acid isolation from various sources.

Carboxylated magnetic silica beads of 600 nm size with large surface area and optimized magnetic content for long suspension time. Intended for nucleic acid isolation from various sources (blood, cells, bacteria etc.) for manual and automated work-flow. Under specific conditions, the carboxylated surface enables higher yield and purity from samples.

Slow magnetic separation, for long incubation times. Carboxyl-modified surface.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1557.1	2 ml	plastic	155,90
1557.2	10 ml	plastic	643,95
1557.3	100 ml	plastic	5.213,75

MagSi-DNA allround

20 mg/ml, for molecular biology

magtivio.

Magnetic beads for nucleic acid isolation from various sources.

Magnetic silica beads of 1,2 µm size with optimized magnetic content for fast separation and medium suspension time. Intended for nucleic acid isolation from various sources (blood, cells, bacteria etc.) for manual and automated work-flow.

Medium magnetic separation. Silica surface. For chaotropic buffer systems only.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1544.1	2 ml	plastic	120,95
1544.2	10 ml	plastic	489,15
1544.3	100 ml	plastic	3.923,75

MagSi-DNA allround COOH

20 mg/ml, for molecular biology

magtivio.

Magnetic beads for nucleic acid isolation from various sources.

Carboxylated magnetic silica beads of 1,2 µm size with optimized magnetic content for fast separation and medium suspension time. Intended for nucleic acid isolation from various sources (blood, cells, bacteria etc.) for manual and automated work-flow. Under specific conditions, the carboxylated surface enables higher yield and purity from samples.

Medium magnetic separation. Carboxyl-modified surface.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1558.1	2 ml	plastic	155,90
1558.2	10 ml	plastic	643,95
1558.3	100 ml	plastic	5.213,75

MagSi-DNA 3.0

20 mg/ml, for molecular biology

magtivio.

Magnetic beads for nucleic acid isolation from various sources.

Magnetic silica beads of 3,0 µm size with very fast separation and shorter suspension time. Intended for nucleic acid isolation from various sources (blood, cells, bacteria etc.) for manual and automated work-flow.

Ultra fast magnetic separation, for rapid preparations. Silica surface. For chaotropic buffer systems only.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1549.1	2 ml	plastic	120,95
1549.2	10 ml	plastic	489,15
1549.3	100 ml	plastic	3.923,75

MagSi-DNA 3.0 COOH

20 mg/ml, for molecular biology

magtivio.

Magnetic beads for covalent coupling of chosen ligands.

Carboxylated magnetic silica beads of 3,0 µm size with very fast separation and shorter suspension time. Intended for nucleic acid isolation from various sources (blood, cells, bacteria etc.) for manual and automated work-flow. Under specific conditions, the carboxylated surface enables higher yield and purity from samples.

Ultra fast magnetic separation, for rapid preparations. Carboxyl-modified surface.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1559.1	2 ml	plastic	155,90
1559.2	10 ml	plastic	643,95
1559.3	100 ml	plastic	5.213,75

Please note our **Technical Information Brochure** on the Internet next to the products:

MagSi-Beads and Kits

Magnetic Beads for Isolation of Biotinylated Nucleic Acids



MagSi-STA

Magnetic beads

Magnetic silica particles with high quality streptavidin covalently bonded to the surface of the particle. Applications include immunoassays and capture or purification of biotinylated molecules.

Various types of this product are available, with different mean size, streptavidin coating chemistry, and binding capacity.
Bigger packages available on request.



MagSi-STA Trial kit

for protein biochemistry and molecular biology

magtivio.

Magnetic beads for capture or purification of biotinylated molecules.

The MagSi-STA Trial kit allows the screening of different types of streptavidin in parallel. The kit is especially useful when required specifications for magnetic beads are not known.

This kit includes 1 mL of the 8 different MagSi-STA products and is intended for evaluation purposes during trial phase of developing new assays, or bead replacement in existing assays.

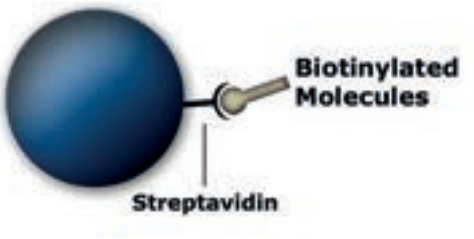
Kit for development of new assays.

Storage temperature: +4 °C

WGK 1

1 ml each of MagSi-STA 600, -STA 600 BI, -STA 1.0 L, -STA 1.0, -STA 1.0 TL, -STA 1.0 TS, -STA 3.0 L, -STA 3.0 TL.

Art. No.	Pack Qty.	Pack.	€
1566.1	1 kit	cardboard	338,65



MagSi-STA 1.0

10 mg/ml, for protein biochemistry and molecular biology

magtivio.

Magnetic beads for capture or purification of biotinylated molecules.

Magnetic silica particles of 1,0 µm size with high quality streptavidin covalently attached to the bead surface.

Use with PBS or glycine buffer. Medium magnetic separation.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1561.1	2 ml	plastic	575,15
1561.2	10 ml	plastic	2.069,40

MagSi-STA 600

10 mg/ml, for protein biochemistry and molecular biology

magtivio.

Magnetic beads for capture or purification of biotinylated molecules.

Magnetic silica particles of 600 nm size with high quality streptavidin covalently attached to the bead surface.

Use with PBS or glycine buffer. Slow magnetic separation, for long incubation times.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1562.1	2 ml	plastic	628,90
1562.2	10 ml	plastic	2.252,15

MagSi-STA 3.0 L

10 mg/ml, for protein biochemistry and molecular biology

magtivio.

Magnetic beads for capture or purification of biotinylated molecules.

Use with PBS or glycine buffer. Ultra fast magnetic separation, for rapid preparations.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1563.1	2 ml	plastic	493,45
1563.2	10 ml	plastic	1.816,75

► ROTI®Garose beads for affinity chromatography of biotinylated molecules see chapter Biochemistry

Separators

MM Separator for automated processing



These MM-Separators are designed for fast and efficient collection of magnetic beads in a variety of microplates.
Their SBS footprint allows placement on standard automated liquid handling workstations. Small skirts on each side of the aluminium block ensure correct and stable placement of microplates onto the separators.

Directions for use

Compatible with 8- or 12-channel multipipettes.

Technical specifications:

Art. No.	2162.1	2166.1	2167.1	2169.1
Type	96 PCR	384 PCR	96 SBS BC	96 DeepWell
Max. number of samples	96	384	96	
Max. volume	300 µl	40 µl	400 µl	1.2 ml
Min. elution volume	20 µl	10 µl	5 µl	
L x W x H	133.7 x 91.5 x 3.4 cm			

MM Separator for automated processing

magtivio. Material: Aluminium.

Suitable for

Type 96 PCR: PCR plates, U- and V-bottom microplates
Type 384 PCR: PCR microplates only. For 384 V-bottom plates, use MM-Separator 384 DeepWell
Type 96 SBS BC: U- and V-bottom microplates
Type 96 DeepWell: DeepWell microplates

Type	Suitable for	Art. No.	Pack Qty.	€
96 PCR	PCR plates, U- and V-bottom microplates	**2162.1**	1 unit(s)	1.832,90
384 PCR	PCR microplates only. For 384 V-bottom plates, use MM-Separator 384 DeepWell	**2166.1**	1 unit(s)	2.590,75
96 SBS BC	U- and V-bottom microplates	**2167.1**	1 unit(s)	1.940,40
96 DeepWell	DeepWell microplates	**2169.1**	1 unit(s)	1.832,90

MM Separator



Made from acrylic glas for optimal visual inspection needs, and from chemically resistant polyoxymethylene (POM) (versions “P”) for routine use of organic solvents.

Application examples

MM-Separators are designed for optimal magnetic bead separation in terms of speed and bead pellet positioning, as well as stability and user-friendliness.

magtivio’s MM-Separators are intended for magnetic separation of MagSi beads from liquid samples for isolation and purification of nucleic acids and proteins, immunoprecipitation, immunoassays (ELISA), cell sorting, and purification of biomolecules.

Technical specifications:

Art. No.	2138.1	2151.1	2141.1	2154.1	2155.1	2157.1
Type	M12 + 12	M12 + 12 P	M96	M96 P	PCR Strip Adapter	PCR Strip Adapter P
Max. number of samples	24		96			
L x W x H	21.7 x 11.0 x 2.5 cm		12.8 x 8.6 x 2.5 cm		12.8 x 8.6 x 1.0 cm	
Weight	0,7 kg		0,4 kg		0,1 kg	

MM Separator M12 + 12

magtivio.

Directions for use

MM-Separators M12 + 12 enable easy separation of beads from liquids for processing low amounts of samples with working volumes from 10 µl to 2 ml. In the centre, 12 magnets allow accommodation of up to 24 centrifuge tubes.

Application area: manual use with 1.5 and 2 mL microtubes.



Pic.	Type	Art. No.	Pack Qty.	€
(1)	M12 + 12	**2138.1**	1 unit(s)	427,85
(2)	M12 + 12 P	**2151.1**	1 unit(s)	427,85

MM Separator M96

magtivio.

Directions for use

MM-Separators M96 enable easy separation of beads from liquids for multiple sample processing with 8- or 12-channel pipettes. The separators hold 24 magnets that are placed for magnetic separation of beads in 96 wells.
MM-Separators M96 allow magnetic particles to be pulled to the side of wells for optimal access to the bottom and easy supernatant removal. The product is suitable for U- and V-bottom shaped 96 well microplates and for most PCR plates, skirted or semi- and non-skirted.

Application area: anual use with 96 well microplates and PCR plates.

Compatible with 8- or 12-channel multi-pipettes.



Pic.	Type	Art. No.	Pack Qty.	€
(3)	M96	**2141.1**	1 unit(s)	427,85
(4)	M96 P	**2154.1**	1 unit(s)	427,85

MM Separator PCR Strip Adapter

magtivio.

Directions for use

The PCR Strip Adapters have to be placed onto the MM-Separators M96 and are suitable for users with smaller sample throughputs, preferring use of PCR tube strips over PCR plates. These separators are suitable for use with U- or V-shaped 96 well microplates and for 96-well PCR plates in various formats, and 8- and 12-tube PCR strips.

Application area: manual use with 8- and 12-tube PCR strips, complementary to MM-Separators M96.

Compatible with 8- or 12-channel multi-pipettes.



Pic.	Type	Art. No.	Pack Qty.	€
(5)	PCR Strip Adapter	**2155.1**	1 unit(s)	268,75
(6)	PCR Strip Adapter P	**2157.1**	1 unit(s)	268,75

FTA® Technology

Collect, transport, archive and isolate nucleic acids – all at room temperature.

FTA® Cards utilize patented Whatman FTA® Technology that simplifies the handling and processing of nucleic acids. The cards contain chemicals that lyse cells, denature proteins and protect nucleic acids from nucleases, oxidative and UV damage.

FTA® Cards rapidly inactivate organisms, including bloodborne pathogens, and prevent the growth of bacteria and other microorganisms. Capture of nucleic acid is a most simple and highly rapid process which can be performed quite easily also by untrained personal. The captured DNA is stable for years at room temperature.

Indicating FTA® Cards change colour upon sample application to facilitate handling of colourless samples.
Since FTA® Cards are suitable for virtually any cell type, this is a very versatile, ready-to-use and easy-to-handle tool for storage and isolation of genomic DNA.

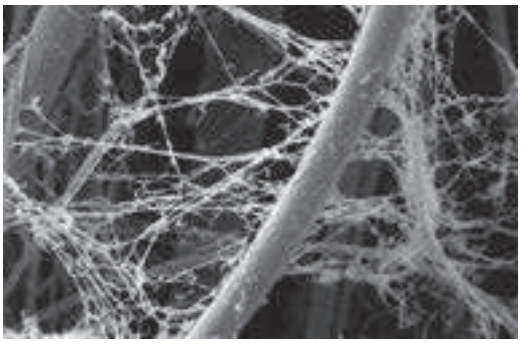


Figure: Electron micrograph showing DNA entrapped within the FTA Matrix (magnification x 10,000).

FTA® Cards

Speciality cards for space- and time-saving collection, archival storage, and isolation of genomic DNA from a variety of sample material. Originally Whatman®.

- Capture nucleic acid in one easy step – simply apply blood or tissue material to the FTA® Card
- Captured nucleic acid is ready for downstream applications in less than 30 mins.
- Genomic DNA collected on FTA® Cards is stable for years at room temperature
- Suitable for virtually any cell type
- Indicating FTA® Cards change colour upon sample application in order to facilitate handling of colourless samples

Simply apply your sample to the FTA® Card. Liquids are pipetted or trickled, tissue samples are pressed onto the surface. Cell membranes and organelles are automatically lysed and the released nucleic acids are entrapped in the fibres of the matrix. The nucleic acids remain immobilized and are stabilized for transport, immediate processing or long-term storage. Libraries and species DNA collections can be stored simply in a folder; single DNA samples can be filed in your lab manual. FTA® Cards facilitate sample collection in remote locations and simplify sample transport, thus, you can collect samples in the field without worrying about refrigeration.
Captured nucleic acids are used for downstream experiments by simply taking a small punch from the FTA® Card, wash with FTA® Purification Reagent and rinse with TE buffer (ROTI®Stock 100x TE Buffer, Art. No. 1052.1). DNA on the washed punch is ready for use in a variety of applications given below. Genomic DNA stored on FTA® Cards at room temperature for over 14 years (and counting) has been successfully amplified by PCR. For RNA, being more sensitive than DNA, we recommend rapid analysis after only few weeks' storage at room temperature.

FTA® Cards contain chemicals that lyse cells, denature proteins and protect nucleic acids from nucleases, oxidative and UV damage. FTA® Cards rapidly inactivate organisms, including blood borne pathogens, and prevent the growth of bacteria and other microorganisms. Each card can be used for archival storage or multiple downstream applications of 1–2 (MINI) and 1–4 (CLASSIC) independent samples.

Suitable for blood, cultivated cells, buccal cells, plant material, bacteria, microorganisms, tissue and tissue homogenisations, virions, M13 plaques and more.
Applications: storage of genomic DNA samples and libraries, collection of nucleic acid from animal tissue or cell cultures, or from plants or microorganisms during in-field-experiments.
Downstream-Experiments: e. g. PCR, real-time PCR, SNP and STR analysis, transgenetic identification, whole genome amplification, HLA typing, and genotyping **in** forensics, molecular biology, food and agriculture testing, drug discovery, genomics, species identification, and more.

FTA® Cards

Qiagen.

Type	Fields	Art. No.	Pack Qty.	€
MINI	2	**CL90.1**	25 unit(s)	148,85
MINI with colour indicator	2	**CL91.1**	25 unit(s)	187,05
CLASSIC	4	**CL93.1**	25 unit(s)	172,00
CLASSIC with colour indicator	4	**CL94.1**	25 unit(s)	212,85

FTA® CloneSaver Cards

Speciality cards for space- and time-saving archival storage and isolation of Plasmid and BAC DNA. Originally Whatman®.

- Capture DNA in one easy step by simply applying the samples (recombinant bacteria, glycerol stocks etc.) to the card
- Captured nucleic acid is easily accessible for downstream applications
- DNA collected on FTA® CloneSaver Cards is stable for years at room temperature
- Store up to 96 clones on each card
- Standard 96well plate format and compatible with multi-channel pipettors

Apply few µl bacterial culture, resuspended colony or glycerol stock. Cells are lysed and plasmid or BAC DNA is stabilized for long-term storage or immediate processing.
Captured nucleic acids are used for downstream experiments without the need for culture regrowth and plasmid purification. Simply take a small punch from the FTA® Card and wash with TE buffer (ROTI®Stock 100x TE Buffer, Art. No. 1052.1). DNA on the washed punch is ready for elution or for direct use in PCR, transformation, amplification by rolling circle followed by sequencing, and so on.

FTA® CloneSaver Cards

Qiagen.

Type	Art. No.	Pack Qty.	€
CloneSaver	**HP11.1**	5 unit(s)	210,70

ready-to-use

FTA® Purification Reagent

FTA® ready-to-use, for molecular biology

Qiagen.

For purification of nucleic acids stored on FTA® Cards.

Simple and rapid purification of nucleic acids stored on FTA® Cards. Ensures superior quality DNA for PCR or SNP analysis. Removes heme, PCR inhibitors and other potential contaminants.

WGK 2

Art. No.	Pack Qty.	Pack.	€
CL99.1	500 ml	plastic	499,90

FTA® Foam Tip Applicator

For application of saliva and buccal cells to FTA® Cards. Originally Whatman®.

Non-abrasive foam head is same size as sample area on FTA® Cards and is, therefore, best suited for application of buccal samples. The oral mucosa is grazed with the foam head, which is then pressed onto the card field. We recommend the use of FTA® Cards with colour indicator (CLASSIC Art. No. CL 91.1 and MINI Art. No. CL94.1) for buccal and saliva samples.

S

FTA® Foam Tip Applicator

Qiagen.

Type	Art. No.	Pack Qty.	€
Foam tip applicator	**HP14.1**	100 unit(s)	125,20



Punches Harris Uni-Core

The disposable Uni-Core Punch addresses your laboratory's manual punching requirements. Designed for use with Whatman® FTA® Cards, FTA® Elute Cards, and EasiCollect device.
Uni-Core Punch is a disposable punch which has a polished steel tip that is case-hardened and can be sterilized. Each tip provides up to 500 punches before disposal. Uni-Core Punch is available in diameters from 1,0 to 6,0 mm for a variety of sampling needs. It is housed in a plastic handle and disposable for contamination control. Stainless steel cutting edges enable manual coring, retrieval, and controlled ejection of the FTA® punch. Manual punching is preferred for laboratories with low sample volumes punching 1 to 50 samples per day.

Directions for use

By pressing the Micro tip down a tiny slice is punched from the FTA® card. This DNA containing sample is then washed and directly applied to downstream experiments.

The set contains

Two cutting mats are included in the small packages (4 punches). Colour of the punches supplied may differ to that shown in the picture.

Punches Harris Uni-Core

Qiagen.

Ø (mm)	Cutting mats	Art. No.	Pack Qty.	€
1.0		**6729.1**	25 unit(s)	324,65
1.2	2	**HP15.1**	4 unit(s)	74,40
1.2		**HP15.2**	25 unit(s)	324,65
2.0	2	**HP16.1**	4 unit(s)	74,70
2.0		**HP16.2**	25 unit(s)	324,65
3.0	2	**6798.1**	4 unit(s)	72,65
3.0		**6798.2**	25 unit(s)	324,65
6.0	2	**6799.1**	4 unit(s)	72,65
6.0		**6799.2**	25 unit(s)	315,00



FTA® Pouches

For transporting or storing FTA® Cards.
Originally Whatman®.
Seven laminated layers protect the FTA® Card from exposure to gas or liquid contamination. Tamper-evident seal maintains sample security. Outer paper surface for labelling or writing.

CloneSaver pouches only: with additional resealable zip-lock closure.

FTA® Pouches

Qiagen.

Type	Suitable for	Art. No.	Pack Qty.	€
MINI	for FTA® Cards of Type MINI, MICRO	**CL92.1**	100 unit(s)	80,50
MAXI	for FTA® Cards of Type CLASSIC	**CL95.1**	100 unit(s)	145,90
CloneSaver	for FTA® Cards of Type CloneSaver	**HP12.1**	50 unit(s)	197,80

Density Gradient Centrifugation



Caesium chloride

≥99,999 %, p.a., Ultra Quality

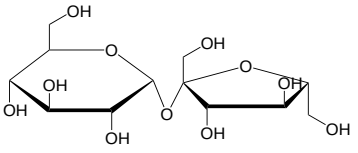
Reagent for density gradient centrifugation.
For isolation and purification of nucleic acids in ultra centrifugation. This extremely pure reagent is especially ideal for isolation of DNA, which is subsequently used in hybridisation and enzyme reactions.

CsCl · M 168,36 g/mol
WGK 1
Warning H361fd

Art. No.	Pack Qty.	Pack.	€
8627.4	10 g	plastic	28,95
8627.3	50 g	plastic	78,40
8627.1	100 g	plastic	134,40
8627.5	250 g	plastic	252,65
8627.2	1 kg	plastic	934,20
Original pack 6 x 1 kg			887,49/1 kg

► Caesium chloride extra pure, for biochemistry see www.carlroth.com

► Caesium sulphate see www.carlroth.com



DNAse-free RNAse-free

D(+)-Saccharose

≥99,5 %, RNAse/DNAse free

Reagent for density gradient centrifugation.
Sucrose gradient centrifugation has proven very effective in structural and functional analysis of macromolecular complexes. The distribution of macromolecules in gradients can be measured by UV absorption (A_{254}).

$C_{12}H_{22}O_{11}$ · M 342,30 g/mol
WGK 1

Art. No.	Pack Qty.	Pack.	€
9097.1	1 kg	plastic	46,15
Original pack 6 x 1 kg			43,84/1 kg
9097.2	5 kg	plastic	203,20

► Reagents for cell isolation by density gradient centrifugation, see chapter Cell Biology

Enzymes

Ligase



DNAse-free

Ligase T4

5 U/µl, for molecular biology

ATP-dependent recombinant ligase for molecular cloning.

ATP-dependent recombinant ligase for molecular cloning, site-directed mutagenesis, pitch repair in duplex DNA, RNA or DNA/RNA hybrids and ligation-mediated PCR.

- Cloning of PCR and restriction fragments
- Self-circulation of linear DNA
- Site-directed mutagenesis

T4 DNA Ligase catalyses the formation of a phosphodiester bond between adjacent 5'-phosphate and 3'-hydroxyl end groups in duplex DNA or RNA.

The kit contains

T4 DNA Ligase
Ligation buffer (10x)
ATP solution (25 mM)
The individual components of this kit cannot be purchased separately.

The kit consists of color coded tubes for easier identification to avoid confusion of reagents.

Storage temperature: –20 °C
Transport temperature: cooled
WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
3729.1	100 µl	1x 500 U	plastic	125,25
3729.2	500 µl	5x 500 U	plastic	450,45



DNAse-free

Ligase quick

5 U/µl, for molecular biology

ATP-dependent T4 DNA ligase for efficient ligation of sticky and or blunt ends.

ATP-dependent recombinant ligase for molecular cloning, site-directed mutagenesis, pitch repair in duplex DNA, RNA or DNA/RNA hybrids, ligation-mediated PCR.

- Ligation in 5 to 15 minutes
- Cloning of PCR products and restriction fragments
- Suitable for site-directed mutagenesis

Quick Ligase catalyses the formation of a phosphodiester bond between adjacent 5'-phosphate and 3'-hydroxyl end groups in duplex DNA or RNA.

The kit contains

Quick Ligase
Ligation buffer (2x)
ATP solution (25 mM)
The individual components of this kit cannot be purchased separately.

The kit consists of color coded tubes for easier identification to avoid confusion of reagents.

Storage temperature: –20 °C
Transport temperature: cooled
WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
3733.1	50 µl	1x 50 reactions	plastic	142,45
3733.2	150 µl	3x 50 reactions	plastic	322,00



DNAse-free

Ligase Tth

5 U/µl, for molecular biology

NAD-dependent ligase for molecular cloning.

Tth DNA Ligase catalyzes the NAD-dependent formation of phosphodiester bonds between adjacent 3'-hydroxyl and 5'-phosphate termini in double-stranded DNA. This ligase is inactive against single-stranded DNA or RNA and blunting DNA.

- stable at high temperatures
- ligates double-stranded DNA
- Repairs single strand breaks in double stranded DNA

The Tth DNA ligase is stable and active at much higher temperatures than conventional DNA ligases. The optimal ligation temperature range is 7-10 °C higher than that of the T4 DNA ligase and is determined by the Tm of the substrates. High ligation temperature eliminates the nonspecific ligation.

The kit contains

Quick Ligase
Ligation buffer (10x)
The individual components of this kit cannot be purchased separately.

The kit consists of color coded tubes for easier identification to avoid confusion of reagents.

Storage temperature: –20 °C
Transport temperature: cooled
WGK 1

Art. No.	Pack Qty.	Pack.	€
3736.1	50 µl	plastic	112,90
3736.2	500 µl	plastic	740,70

► Lysozyme see page 174

► Polymerases for PCR see page 149

Proteinase K

Endopeptidase

Proteinase K (from *Tritirachium album*) is a non-specific protease of the serine protease family.
Proteinase K is used for the cleavage of proteins in nucleic acid preparations. It is mainly used in nucleic acid purification or for the removal of nucleases.
Proteinase K is active under a wide range of reaction conditions, including elevated temperatures and presence of SDS.

Directions for use

Activity: (Haemoglobin, pH 7.5; 25 °C) 30 mAnson-U/mg
Foreign activity: RNAse and DNAse not detectable
Optimum temperature: +65 °C.
Activity at +65 °C is ca. 12 x higher than at +25 °C. Over +65 °C, inactivation due to denaturation.
Activators: Denaturating agents like SDS (0,5-1 %), urea.
Inhibitors: Inhibition with Hg^{2+}-ions, DFP, PMSF and phenol. Not inhibited by EDTA, sulfhydryl reagents and trypsin or chymotryps ininhibitors.
Stability: pH 4.0-12.5. pH optimum: 8,0.
Also stable even when denaturing agents, e.g. SDS and urea are present.
Stabilisers: Ca^{2+}-ions (1-5 mM) prevent autolysis.

DNAse-free RNAse-free

Proteinase K

≥35 U/mg, BioScience Grade, lyophilised

High-quality endopeptidase for molecular biology. Isolated from fungi (*Tritirachium album*).

Endopeptidase for the degradation of proteins with very high solubility, specific activity and DNA purity. Extra high purified.

Advantages:

- High solubility
- High specific activity
- Extremely low DNA content

Activity: ≥ 35 U/mg lyophilizate
Specific activity: ≥ 45 U/mg protein
DNA content: ≤ 0.1 pg/mg

Directions for use

Working solution: 50 µg/ml
Reaction buffer: 50 mM Tris-HCl; pH 7.5; 5 mM $CaCl_2$; 0.5 % SDS

Stock solution: 20 mg/ml in water. Storage temperature (stock solution): -20 °C

Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Danger H315-H317-H319-H334-H335

Art. No.	Pack Qty.	Pack.	€
3726.1	100 mg	glass	203,20
3726.2	1 g	glass	919,15

► Proteinase K, lyophilised, for biochemistry
see page 176



S ready-to-use DNAse-free RNAse-free

Proteinase K – Solution

20 mg/ml, sterile, ready-to-use, for biochemistry and molecular biology

Non-specific protease for degrading proteins in biological samples. Isolated from fungi (*Tritirachium album*).

Proteinase K (from *Tritirachium album*) is a non-specific protease of the serine protease family. Proteinase K is used for the cleavage of proteins in nucleic acid preparations. It is mainly used in nucleic acid purification or for the removal of nucleases.

- Sterile ready-to-use solution
- Stable over a wide pH range: 4.0–12.5
- Active at high temperatures and denaturing conditions

Ready made solution

Storage temperature: –20 °C
Transport temperature: cooled
WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
3719.1	1 ml	glass	39,70
3719.2	5 ml	glass	155,90

Ribonucleases

DNAse-free Protease-free

Ribonuclease

>70 U/mg (Kunitz), salt-free, protease-free

Purified by chromatography, for biochemistry.

Extracted from bovine pancreas; free from salt, without proteases and chromatographically cleaned with specific activity of 70 U/mg (Kunitz). RNAse mixture containing approx. 70–80 % RNAse A.

DNAse free RNAse ist prepared by cooking the solubilised ribonuclease aliquots for 15 min. Let cool to room temperature on bench top.

Stock solution: 10 mg/ml in water.
Working solution: 5–20 µg/ml in 10 mM Tris (pH 7,5), 15 mM NaCl.
Store solution in aliquots at –20 °C.

M ~13 700 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
7164.1	100 mg	glass	42,90
7164.2	1 g	glass	327,90



DNAse-free Protease-free

Ribonuclease H

5 U/µl, for molecular biology

For hydrolytic cleavage of phosphodiester bonds between RNA and DNA.

Non-specific endoribonuclease that specifically cleaves RNA into RNA:DNA hybrids. At least four continuous base pairs (RNA:DNA) are required for activity. The RNAse H cleaves RNA to release 5' oligoribonucleotides.

RNAse H does not degrade single and double-stranded DNA or unhybridized RNA.

The kit contains

RNAse H
Reaction buffer (10x)
The individual components of this kit cannot be purchased separately.

The kit consists of colour coded tubes for easy identification of the reagents.

250 U correspond to 50 preparations with a volume of 20 µl.

M ~13 700 g/mol

Storage temperature: –20 °C
Transport temperature: cooled
WGK 1

Art. No.	Pack Qty.	Pack.	€
3728.1	50 µl	plastic	220,40
3728.2	250 µl	plastic	886,90

DNAse-free RNAse-free

RNAse Inhibitor

40 U/µl, for biochemistry and molecular biology

Inhibitor of common enzymes such as RNAse A, B and C

The RNAse Inhibitor is a 50 kDa recombinant human placental protein expressed in *Escherichia coli*. It inhibits ribonuclease (RNAse) activity of common eukaryotic enzymes such as e.g. RNAse A, RNAse B, RNAse C.

- Inhibits eukaryotic type ribonucleases e.g. RNAses A, B and C
- For RNA isolation and purification
- Suitable for c-DNA synthesis, RT-PCR and RT-qPCR
- Wide pH range

Directions for use

The RNAse inhibitor is intended for use in applications where the presence of RNAses may pose a risk to RNA quality and experimental results, e.g. RNA isolation, cDNA synthesis, RT-PCR, *in vitro* transcription and translation or RNAse-free monoclonal antibody production.

Storage temperature: –20 °C
Transport temperature: cooled
WGK 1

Art. No.	Pack Qty.	Pack.	€
3727.1	50 µl	plastic	149,45
3727.2	250 µl	plastic	579,45



DNAse-free Protease-free

Ribonuclease A

90 U/mg (Kunitz), BioScience Grade, salt-free

Acc. to Hirs, extracted from bovine pancreas.

Extracted from bovine pancreas for RNA separation, especially when isolating RNAfree DNA. The enzyme cleaves RNA and produces 3' terminal nucleoside phosphates.
This quality product for molecular biology is free from salt, without proteases and is chromatographically homogeneous. Unit definition acc. to Kunitz.

The DNAse content of the RNAse powder ist below detection limit. However, we nevertheless recommend pretreatment of the ribonuclease prior to using it for DNA isolation. DNAse free RNAse ist prepared by dissolution of the RNAse powder in water, followed by cooking of the solubilised ribonuclease aliquots for 15 min. Let cool to room temperature on bench top.

Directions for use

Working solution: 2–10 µg/ml in 10 mM Tris (pH 7,5), 15 mM NaCl.
Note: RNAse precipitates when concentrated solutions are heated/cooked at pH ≥7,0. Store solution in aliquots at –20 °C

Stock solution: 10 mg/ml in water (pH ≤6,0) or 0,01 M sodium acetate (pH 5,2). Do not heat RNAse prepared in sodium acetate.

M ~13 700 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
7156.1	100 mg	glass	127,95
7156.4	250 mg	glass	289,20
7156.2	500 mg	glass	553,65
7156.3	1 g	glass	1.021,25

Zymolyase®

β-1,3-glucan laminaripentaohydrolase, Lyticase

Zymolyase®, produced by a submerged culture of *Arthrobacter luteus,* has strong lytic activity against living cell walls of various strains of yeast cells. Hence, it is frequently used in order to produce protoplasts or spheroplasts.
The essential enzyme for the lytic activity of Zymolyase® is β-1,3-glucan laminaripentaohydrolase. It hydrolyzes linear glucose polymers with β-1,3-linkages and releases specifically laminaripentaose as the main and minimum product unit.

Directions for use

Other enzymatic activities contained: β-1,3-glucanase, protease, mannanase. Trace amounts of amylase, xylanase, phosphatase.
Stability: At 30 °C 70 % of the lytic activity is lost after 3 months.
Optimum temperature and pH: at pH 7,5 – 35 °C for lysis of viable yeast cells, at pH 6,5 – 45 °C for hydrolysis of yeast glucan.
Specificity (lytic spectrum): *Ashbya, Candida, Debaryomyces, Eremothecium, Endomyces, Hansenula, Hanseniaspora, Kloeckera, Kluyveromyces, Lipomyces, Metschnikowia, Pichia, Pullularia, Torulopsis, Saccharomyces, Saccharomycopsis, Saccharomycodes, Schwanniomyces*, etc.
Stock solution: As stock solution, a 2 to 10 % (20 or 100 mg/ml) Zymolyase® solution may be prepared, solubilizing the enzyme in water, 10 mM sodiumphosphate buffer (pH 7,4) or 50 mM Tris-Cl (pH 7,5), respectively, according to the buffer system to be used downstream and containing 5 % glucose and 50 % glycerol each. The Zymolyase® tends to not dissolve completely. Do not heat for solubilization, but rather use the Zymolyase® as suspension. The suspension may be stored in aliquots at –20 °C.
Working solution: For use in the respective buffer system, dilute the stock solution to the working concentration of 2–5 mg/ml and optionally sterilize by filtration (0,2 µm). In most cases, however, Zymolyase® is solubilized in freshly prepared working buffer (for instance rescue buffer 50 mM Tris-Cl, pH 7,5, 10 mM EDTA, 0,3 % β-Mercaptoethanol) in the required working concentration directly prior to use.
Sterile filtration: Avoid using nitrocellulose filters when sterilizing – Zymolyase® may be adsorbed to nitrocellulose membranes.

Unit definition

One unit of lytic activity is defined as the enzyme amount causing a decrease of 30 % in absorbance at 800 nm using 6 mg Brewer's yeast as substrate in Phosphate buffer (pH 7,5) at 25 °C. Lytic activity varies depending on the particular yeast strain, the growth stage of the yeast, and cultural conditions.

Zymolyase® 20T

≥20 U/mg, for biochemistry and molecular biology

For lysis of yeast cells. Isolated from *Arthrobacter luteus*.
Zymolyase® 20T is prepared by ammonium sulfate precipitatation.

Please note: Zymolyase® does not dissolve completely in higher concentrations.

Storage temperature: +4 °C
Transport temperature: cooled
WGK 1

Art. No.	Pack Qty.	Pack.	€
9324.1	100 mg	glass	99,45
9324.2	500 mg	glass	281,15
9324.3	1 g	glass	489,15

Zymolyase® 100T

≥100 U/mg, for biochemistry and molecular biology

For lysis of yeast cells. Isolated from *Arthrobacter luteus*.
Zymolyase® 100T is prepared by ammonium sulphate precipitatation, and is further purified by affinity chromatography.

Please note: Zymolyase® does not dissolve completely in higher concentrations.

Storage temperature: +4 °C
Transport temperature: cooled
WGK 1

Art. No.	Pack Qty.	Pack.	€
9329.1	100 mg	glass	352,10
9329.2	500 mg	glass	1.112,65

Precipitation & Concentration

DNA-free

Glycogen

lyophilized, made of oysters

For molecular biology and biochemistry.

Glycogen type 2.
Long-chain polysaccharide made of glucose. Most frequently used in biochemistry and as “carrier” during precipitation of nucleic acids. Recovery of precipitated DNA is significantly enhanced by addition of 50 µg/ml glycogen; even starting from solutions with very low DNA concentrations, efficient precipitation can be performed.
Contains no nucleic acid and doesn‘t hinder enzymatic downstream applications.

Glycogen contains a central protein and should not be applied if DNA is to be used in protein binding-assays following precipitation. In these cases we recommend to use our glycogen-free coprecipitants.

Stock solution: 5 mg/ml in distilled, sterile water
Working concentration: 50 µg/ml

WGK 1

Art. No.	Pack Qty.	Pack.	€
HP51.1	1 g	glass	31,10
HP51.2	5 g	plastic	123,65
HP51.3	10 g	plastic	213,95
HP51.4	25 g	plastic	461,20

► For further reagents for nucleic acid precipitation, e. g. ethanol, ammonium acetate, PEG etc., see chapter Chemicals A-Z.

Tips for Application of Precipitation Salts

Precipitation Salts	Stock solution	Amount applied	Recommended for	Not recommended for
Ammonium acetate	7.5 M	1/2 volume	Removal of nucleotides or other contaminants	Kinase downstream experiments (phosphorylation)
Lithium chloride	8.0 M	1/10 volume	RNA precipitation	Very small RNA
Sodium acetate	3.0 M (pH 5.2)	1/10 volume	Routine DNA precipitation	Removal of nucleotides or other contaminants
Sodium chloride	5.0 M	1/20 volume	SDS containing solutions	Routine precipitations



Centrifugation Units ROTI®Spin

For purification and concentration of biomolecules and for purification of solutions.

- Applicable for nucleic acids, proteins/peptides, other biomolecules >6 kDa and very small bioparticles
- Can be used to replace standard techniques like precipitation, dialysis, gel filtration, gel purification, column chromatography, gradient centrifugation etc.
- Gentle: No shearing of DNA of up to 100 kb, proteins remain native and enzymatically active
- Applicable for purification of all labelled probes (isotope-, fluorescent-, chromogenic labelling)
- Very high recovery rates of >90% (when using devices of appropriate MWCO)

Centrifugal devices for ultrafiltration of biomolecules. The membranes made of highly chemical-resistant polyethersulfone have been tightly sealed to prevent leakage and loss of samples. Furthermore, the membranes underwent special treatment minimising the binding of biomolecules, in order to optimise sample recovery rates.
ROTI®Spin Centrifugal Devices can be applied to a variety of applications and can be used to replace tedious and labour-intensive methods like gel filtration, gel purification or precipitation. Application is time-saving and very simple - only few centrifugal steps are necessary to concentrate and recover your sample. During this, the sample remains untouched in the upper reservoir, and cross-contamination is efficiently prevented even when large numbers of samples are handled. Centrifugation can easily be performed in the cold room or at specially designated benches like isotope laboratories or in laminar flow hoods.

Application examples

Desalting or buffer exchange following restriction digest, PCR or such; separation of free nucleotides and polymerised DNA; removal of contaminating compounds (like DNA) from stock solutions (e.g. PCR-buffers); concentration of DNA or proteins; separation of proteins of different size; sample preparation prior to HPLC.

Overview for selecting the appropriate pore size

MWCO	Molecule size	DNA size
3 kDa	10 – 20 kDa	<50 bp
10 kDa	30 – 90 kDa	50 – 200 bp
30 kDa	90 – 180 kDa	200 bp – 1 kb
100 kDa	>300 kDa	>1 kb

Centrifugation Units ROTI®Spin

Carl ROTH.

Directions for use

Sample volumes:
Maximum sample volume: ROTI®Spin MINI 50-500 µl
Final concentrate volume: ROTI®Spin MINI 15-20 µl

MWCO:
For convenient and successful application, centrifugal devices with membranes in 4 colour-coded molecular weight cut-offs (MWCO) are available. In order to choose the appropriate MWCO please use the following thumb-rule:
Centrifugation of proteins/peptides: MWCO ≤1/3 of sample molecule size.
Centrifugation of nucleic acids: MWCO ≤½ sample molecule size.

Type	MWCO (kDa)	Colour	Art. No.	Pack Qty.	€
MINI-3	3	grey	**CL12.1**	25 unit(s)	129,15
MINI-10	10	blue	**CL13.1**	25 unit(s)	129,15
MINI-30	30	red	**CL14.1**	25 unit(s)	129,15
MINI-100	100	colourless	**CL15.1**	25 unit(s)	129,15

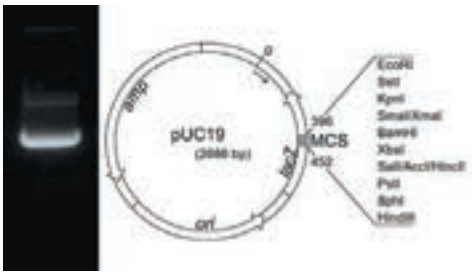
DNA-/RNA Analysis

Plasmid DNA

Plasmides

The following plasmid DNA was prepared in low nuclease host bacteria and isolated through ion exchange chromatography. It is available in supercoiled form (ccc-form >95%) and, as a high-purity DNA ($OD_{260/280}$ > 1,70), it is ideal for different applications:

- Controlling transformation efficiency
- Comparison with plasmid ccc-forms of unknown size
- Cloning DNA-fragments
- Restriction (Preparing DNA-length markers)
- Calibrating DNA-separating or DNA-preparing processes or equipment
- Blocking DNA-chips with plasmid DNA of a defined sequence



Plasmid DNA pUC19

lyophilized

High-purity plasmid-DNA of pUC19 for genetic engineering

$OD_{260/280}$: >1.70
Genomic DNA: <2 %
oc form: <3 %
ccc form: >95 %
Base pairs: 2686

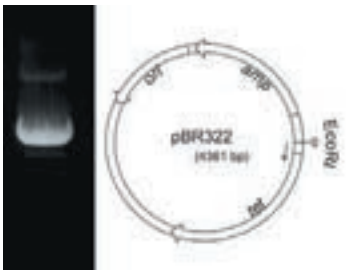
pUC19 is a standard high-copy cloning vector for *E. coli* recombinants. The position of the Multi Cloning Site (MCS), which is inserted in frame into the LacZ-gene, enables a blue-white selection of insert containing plasmid DNA by α-complementation. The copy number of plasmids per cell depends on the temperature and is approx. 70–80 at 37 °C and over 200 at 42 °C.

pUC19c, Acc. No. L09137
full llength: 2686 bp

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
X911.1	50 µg	plastic	65,05



Plasmid DNA pBR322

lyophilized

High-purity plasmid-DNA of pBR322 for genetic engineering

$OD_{260/280}$: >1.70
Genomic DNA: <2 %
oc form: <3 %
ccc form: >95 %
Base pairs: 4361

The circular sequence was numbered in such a way that 0 lies in the middle of the singular *EcoR* I restriction site. The copy number of pBR322 is limited by the gene product of *rop* to 20 copies per cell. However, by adding chloroamphenicol (final concentration 170 µg/ml) to log-phase cultures and then incubating for 8 hours, the copy number can be increased considerably.

pBR322, Acc. No. V01119
full lenght: 4361 bp

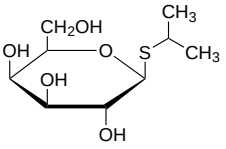
Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
X912.1	50 µg	plastic	76,90

Blue-/White Selection





IPTG

≥99 %, BioScience Grade, dioxane-free, animal-free

For molecular biology.

Lactose analogon. Glucose-galactose-disaccharide. *lac*-promotor is induced by IPTG via inhibition of *lac*-repressor. Recommended for induction of *lac*-regulated vectors in expression assays, for instance blue-/white selection of recombinant *E. coli*, in bench-top as well as in production scale.

Mechanism

Being a galacto pyranoside, IPTG inhibits the lac repressor, therefore leading to the induction the lac promotor. Subsequently, using the plasmid as matrix the C-terminal 146 amino acid fragment of the bacterial β-galactosidase is expressed, which functions as so called □-donor and complements the C-terminally deleted bacterial β-galactosidase. The then functional β-galactosidase restricts the galactoside X-Gal, resulting in a blue-coloured dye – therefore, these lac+ clones are coloured dark blue. Since the C-terminal part of the □-donor is located **upstream** and the N-terminal part is located **downstream** of the multi cloning site of the plasmid, inserted DNA normally leads to frame shift or at least to major chain elongation, resulting in an unfunctional □-donor and no functional galactosidase – recombinant clones are white. The appearance of light blue clones either results form very short insertions or from the fact that in some plasmids the C-terminal fragment cloned upstream of the MCS is sufficient for □-complementation and restriction of a small amount of X-Gal.

Directions for use

Stock solution: 0,5 M (1 g / 8,4 ml) in water (sterilise through 0,2 µm filter).
Final concentration in agar plates: 0,2 mM (add after autoclaving and cooling medium).
Final concentration in induction medium: 2 mM.

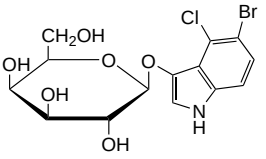
Stock solution: 0,5 M (1 g / 8,4 ml) in water (sterilise through 0,2 µm filter)

$C_9H_{18}O_5S$ · M 238,30 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
2316.1	250 mg	glass	23,55
2316.2	1 g	glass	56,45
2316.3	5 g	glass	160,20
2316.4	25 g	plastic	536,45
2316.5	100 g	plastic	1.392,15





DNAse-free **RNAse-free** **Protease-free**

X-β-Gal

≥99 %, BioScience Grade

Colorimetric substrate of β-galactosidase. For biochemistry and molecular biology.

Ideal for colorimetric detection of β-galactosidase activity, for instance during blue-/white selection.

Mechanism

Being a galacto pyranoside, IPTG inhibits the lac repressor, therefore leading to the induction the lac promotor. Subsequently, using the plasmid as matrix the C-terminal 146 amino acid fragment of the bacterial β-galactosidase is expressed, which functions as so called α-donor and complements the C-terminally deleted bacterial β-galactosidase. The then functional β-galactosidase restricts the galactoside X-Gal, resulting in a blue-coloured dye - therefore, these lac+ clones are coloured dark blue.
Since the C-terminal part of the α-donor is located **upstream** and the N-terminal part is located **downstream** of the multi cloning site of the plasmid, inserted DNA normally leads to frame shift or at least to major chain elongation, resulting in an unfunctional α-donor and no functional galactosidase – recombinant clones are white. The appearance of light blue clones either results form very short insertions or from the fact that in some plasmids the C-terminal fragment cloned upstream of the MCS is sufficient for α-complementation and restriction of a small amount of X-Gal.

Directions for use

Working solution: for blue/white selection of recombinant clones on agar plates use 0.3 µl stock solution per ml broth/agar.

Stock solution: 100 mg/ml (240 mM) in DMF, store at –20 °C in the dark

$C_{14}H_{15}BrClNO_6$ · M 408,6 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
2315.1	100 mg	glass	24,65
2315.2	500 mg	glass	73,00
2315.3	1 g	glass	134,40
2315.5	2.5 g	glass	252,65
2315.4	5 g	glass	461,20

α-Complementation (Blue-White Selection)

Being a galacto pyranoside, IPTG inhibits the *lac* repressor, therefore leading to the induction the lac promotor. Subsequently, using the plasmid as matrix the C-terminal 146 amino acid fragment of the bacterial β-galactosidase is expressed, which functions as so called α-donor and complements the C-terminally deleted bacterial β-galactosidase. The then functional β-galactosidase restricts the galactoside X-Gal, resulting in a blue-coloured dye – therefore, these *lac*+ clones are coloured dark blue. Since the C-terminal part of the α-donor is located **upstream** and the N-terminal part is located **downstream** of the multi cloning site of the plasmid, inserted DNA normally leads to frame shift or at least to major chain elongation, resulting in an unfunctional α-donor and no functional galactosidase – recombinant clones are white. The appearance of light blue clones either results form very short insertions or from the fact that in some plasmids the C-terminal fragment cloned upstream of the MCS is sufficient for α-complementation and restriction of a small amount of X-Gal.

α-Complementation – Protocol

Stock solution
IPTG: 0.5 M (1 g /8.4 ml) in water, freeze sterile filtered and aliquoted
X-β-Gal: 100 mg/ml (240 mM) in DMF, store aliquoted and in the dark at –20 °C

Approach
Add 10 µl IPTG solution + 10 µl X-β-Gal solution per 25 ml autoclaved, cooled Agar and pour plates.
Alternatively, mix 10 µl IPTG and X-β-Gal solution with approx.100 µll sterile water and plate onto a hardened 9 cm agar petri dish.

Hybridisation

Ready-Made Buffers & Supplements



ready-to-use

ROTI®Hybri-Quick

BioScience Grade, ready-to-use, for molecular biology

Ready-made buffer for DNA- and RNA hybridisation.

Roti®-Hybri-Quick ready-to-use solution is an all-purpose solution for DNA-hybridisation experiments.

Optimised sodiumphosphate buffer with superior signal-to-noise ratio. Compatible with all Southern- and Northern-hybridisations, all labelling and detection methods, and all types of membranes. Improved buffer formulation based on the hybridisation solution published by Church & Gilbert (*PNAS USA*, 81:1991-95).

- Suitable for prehybridisation, hybridisation and washing
- For Southern- and Northern-hybridisations
- Suitable for all membrane types

WGK 2

Remark: Contains SDS. Can be redissolved by heating (max. 45 °C).

Art. No.	Pack Qty.	Pack.	€
A981.1	1 l	glass	64,40
Original pack 6 x 1 l			61,18/1 l
A981.2	2.5 l	glass	117,20
Original pack 4 x 2.5 l			111,34/2.5 l



ROTI®Fair SSPE

for 200 ml/tablet, for molecular biology

Buffer solution for DNA- and RNA hybridisation.

1x SSPE solution is prepared by dissolution of 1 tablet in 200 ml highly pure water.

WGK 1

Prepared 1x SSPE solution contains: 0.15 M NaCl, 1 mM EDTA, 10 mM Na-phosphate, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1233.1	100 unit(s)	plastic	130,65





ROTI®Fair 20x SSC

for 1000 ml/pouch, for molecular biology

Concentrated buffer solution for Southern- and Northern transfer.

20x SSC solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

WGK 1

Prepared 20x SSC solution contains: 3.0 M NaCl, 0.3 M Na-Citrat, pH-value 7.0 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1232.1	5 unit(s)	box	197,30

► ROTI®Fair reagents see at the beginning of chapter Biochemistry



S ready-to-use

ROTI®Stock 20x SSC

20x conc., BioScience Grade, ready-to-use, steam sterilized

For molecular biology.

20fold stock solution sodium/sodiumcitrate.
Undiluted or after dilution with sterile water to 10x, 6x, 1x or 0,1x SSC one receives a versatile buffer for blotting, hybridising or washing of Southern- or Dot/Slot-Blots of DNA as well as for *in situ* hybridisation. Undiluted buffer is also suitable for neutral transfer of RNA onto unloaded membranes (e.g. ROTI®Nylon 0.2, Art. No. AE50.1).

With original seal.

WGK 1

3.0 M NaCl, 300 mM sodium citrate in deionised water, pH-value 7.0, steam sterilised.

Art. No.	Pack Qty.	Pack.	€
1054.1	1 l	glass	85,50
Original pack 6 x 1 l			81,23/1 l

Denhardt's solution, lyophilised powder

50x, BioScience Grade, for molecular biology

Blocking reagent for hybridisation and stripping.

Denhardt's lyophilised powder contains a mixture of different blocking agents that is used for nuclear acid hybridisation (Northern and Southern Blot) as well as for stripping of hybridised membranes. By prehybridisation the filter membranes with Denhardt's solution unspecific binding of DNA to the membrane is avoided.

Directions for use

For hybridisation use 10x Denhardt's solution with 6x SSC (ROTI®Stock 20x SSC, Art. No. 1054.1) supplemented with 100 µg/ml denatured salmon sperm DNA and 1 % SDS (ROTI®Stock 20 % SDS, Art. No. 1057.1).

The bottle contains powder mix for 50 ml 50x stock solution. Add 48,8 ml water to gain exactly 50 ml stock solution. Sterilise stock solution by filtration (0,2 µm) and store in aliquots of 10 ml at –20 °C .

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
HP33.1	50 ml	Powder for 50 ml	plastic	112,35

► Dextran sulphate 500 sodium salt see www.carlroth.com

Salmon Sperm DNA sodium salt

ex salmon testes

DNA from salmon sperm is used in Southern- and Northern hybridisation, in order to block unspecific probe binding prior to and during hybridisation (Sambrook, J. *et al.* (1989) *Molecular Cloning:* A Laboratory Manual, 2nd Edition).

Stock solution: 10 mg/ml in H_2O. Storage of stock solution: –20 °C in aliquots. Working concentration: 100 µg/ml.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
5434.1	5 g	plastic	45,70
5434.2	10 g	plastic	85,90

► Spermidine, see chapter Chemicals A-Z

► Further accessories and reagents for hybridisation see chapter Biochemistry/Western-Blotting or at www.carlroth.com

General Reagents for Molecular Biology



ROTI®Fair 10x TE

for 1000 ml/pouch, for molecular biology

Concentrated buffer solution for solubilisation and dilution of nucleic acids.

1x TE solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

WGK 1

Warning H373

Prepared 10x TE solution contains: 0.1 M Tris-HCl, 10 mM EDTA, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1268.1	10 unit(s)	box	284,90

Tris Buffers

Tris (hydroxymethyl) aminomethane (or "Tris" for short) was first described[1] in 1897 and then proposed as a pH-stabilising reagent for biological systems[2] in 1946. On account of its high water solubility, its very large buffering capacity and the fact that it behaves inertly in a large number of enzymatic reactions, it has been used for many years as a base reagent for standard buffers in all fields of molecular biology.

[1]Piloty *et* Ruff (1897) *Proc. Soc. Exp. Biol. Med.* 6:233-234.

[2]Gomori (1946) *Ber. Dtsch. Chem. Ges.* 30:1656-1665.

In addition to the original, alkaline Tris, the pre-buffered Tris hydrochloride (Tris-HCl) is also available today. 1 M Tris buffer can be manufactured directly with a defined pH buffering range through skilful mixing of Tris (alkaline) and Tris-HCl. The following table specifies the mixing ratio for each Tris.
Please note: the pH buffered by the Tris mixture depends heavily on the temperature. The values found is the literature always refer to a temperature of 25 °C (unless specified otherwise).



S ready-to-use

ROTI®Stock 100x TE

100x conc., BioScience Grade, ready-to-use, steam sterilized

For molecular biology.

100fold stock solution Tris/EDTA.

The most popular solution and storage buffer for DNA can be obtained by diluting 1:100 with sterile water.
The accompanying EDTA inhibits traces of DNAses and therefore protects your valuable nucleic acids from degradation. However, many other enyzmes such as ligases will also be inhibited through the complexation of bivalent cations, therefore TE-buffer should not be used as a solution buffer for cloning.

With original seal.

WGK 1

1.0 M Tris (pH 8.0), 100 mM EDTA (pH 8.0) in deionised water, steam sterilised.

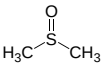
Art. No.	Pack Qty.	Pack.	€
1052.1	1 l	glass	104,85
Original pack 6 x 1 l			99,61/1 l

Good's Buffer Reagents for Application in Molecular Biology

In order to compensate for the low Tris buffering capacity at pH levels below 7,5, Good and colleagues 1966 developed a new reagent group as a buffer for this range: N-substituted amino sulphonic acids[1]. Amino sulphonic acids behave like strong hybrid ions at physiological pH levels (approx. 7,0) and facilitate a large spectrum of molecular biological processes by virtue of their high buffering capacity.
The group of "Good's buffers" also includes sulphonic acids and reagents such as bicine, tricine and AMP with higher pK_a values, thus providing buffer substances for the entire pH range between 5,5 and 11.

[1]Good *et al.* (1966) *Biochemistry* 5:467–477.





Dimethyl sulphoxide (DMSO)

≥99,5 %, BioScience Grade, for molecular biology

Recommended for PCR, sequencing, hybridisation and cell culture.

C_2H_6OS · M 78,13 g/mol
WGK 1

Art. No.	Pack Qty.	Pack.	€
A994.1	100 ml	glass	27,85
A994.2	250 ml	glass	47,20



DNAse-free RNAse-free

Formamide, deionized

≥99,5 %, BioScience Grade, RNAse/DNAse free

After receiving the formamide, mix well and aliquot. Store aliquots at –20 °C.

CH_3NO · M 45,04 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Danger H351-H360FD-H373

Art. No.	Pack Qty.	Pack.	€
P040.1	250 ml	plastic	57,95
P040.2	500 ml	glass	88,70

► Guanidine thiocyanate see chapter Chemicals A-Z

► ROTI®Stock 20 % SDS see page 170



S ready-to-use DNAse-free RNAse-free

Water

sterile, ready-to-use, nuclease-free, autoclaved, DEPC-treated water

For molecular biology.

Distilled water mixed with DEPC and steam sterilised. By DEPC Histidin residues in proteins are modified to *N*-carbethoxy histidin, resulting in inhibition of RNases and DNases. DEPC decomposes to CO_2 and ethanol during sterilisation.

Also available as 50 reaction tubes or as 50 glass ampoules with 1 ml each nuclease free water in a tube rack.
To prevent loss of volume in the 1 mltubes (T143.4), we recommend freezing the product at -20°C after receipt.

After autoclaving, each lot is photometrically tested for optimal purity in the wave length range relevant for nucleic acid research.

H_2O · M 18,02 g/mol

Art. No.	Pack Qty.	Packaging	Pack.	€
T143.4	50 ml	50 x 1 ml in tubes	plastic	123,65
T143.6	50 ml	50 x 1 ml in glass breaker ampoules	glass ampoule	134,40
T143.5	100 ml	5 x 20 ml	glass	33,90
T143.1	250 ml	1 x 250 ml	glass	32,15
T143.2	500 ml	1 x 500 ml	glass	40,35
T143.3	1 l	1 x 1 l	glass	55,40
Original pack 6 x 1 l				52,63/1 l



Decontamination & Purification

ROTI®Nucleic Acid-free

Decontamination solution, Purification solution for surfaces

The ROTI®Nucleic Acid-free products are **not** suitable for the removal of virus contamination.



ready-to-use

ROTI®Nucleic Acid-free

ready-to-use

for removal of nucleic acid contaminations from surfaces

Decontamination solution · Nuclease Removal · Purification solution for surfaces

ROTI®Nucleic Acid-free was specifically designed for extensive removal of nucleic acid contaminations.
Being a mild reagent, ROTI®Nucleic Acid-free may be used on tables, laboratory devices, as well as on glass and plastic wares. By incubation or by wiping, laboratory benches, heating blocks, thermocyclers, pipettor shafts, reaction tubes a.s.o. can easily be cleaned.
Contamination with foreign DNA or RNA, which may heavily interfere with sensitive assays like PCR, reverse transcription or sequencing, is hence efficiently eliminated.

UN no. 1824 · ADR 8 III · WGK 1

Warning H290-H315-H319

Art. No.	Pack Qty.	Pack.	€
HP69.1	500 ml	spray bottle	91,30
HP69.2	1 l	plastic	123,65
Original pack 6 x 1 l			117,47/1 l
HP69.3	2.5 l	plastic	267,70
Original pack 4 x 2.5 l			254,32/2.5 l



ready-to-use

ROTI®Nucleic Acid-free eXtra

ready-to-use

Gentle solution for removal of nucleic acid contaminations from surfaces

Decontamination solution · Purification solution for surfaces

ROTI®Nucleic Acid-free eXtra is a very gently and highly efficient solution that has been designed as nonhazardous alternative to our top-selling ROTI®Nucleic Acid-free.

The ready-to-use solution or spray may be used for fast elimination of all kinds of contaminating nucleic acids (e.g. gDNA, amplicons, plasmids, RNA) from surfaces without the need to handle dangerous liquids. Contamination with foreign DNA or RNA, which may heavily interfere with sensitive assays like PCR, reverse transcription or sequencing, is hence efficiently eliminated.

Application examples

ROTI®Nucleic Acid-free eXtra is suitable for use on a broad variety of materials for instance glass, ceramic, plastic, rubber, high quality steel and precious metal, with the exception of light or non-ferrous metals. By incubation or by wiping, laboratory benches, heating blocks, thermal cyclers, pipettor shafts, reaction tubes etc. can easily be cleaned.
We recommend to test the reagent in an inconspicuous place before using it over a large area.

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
1312.1	500 ml	1 x 500 ml	plastic	107,00
1312.4	500 ml	1 x 500 ml, spray bottle	spray bottle	112,35
1312.2	1 l	1 x 1 l	plastic	203,20
Original pack 6 x 1 l				193,04/1 l
1312.3	2.5 l	1 x 2,5 l	plastic	471,95
Original pack 4 x 2.5 l				448,35/2.5 l

NEW/+

Spray bottle with pump atomiser for ROTI®Nucleic Acid-free eXtra

Material: HDPE.

Decontamination solution · Purification solution for surfaces

Volume: 500 ml

Art. No.	Pack Qty.	€
1L9N.1	1 unit(s)	10,65



ready-to-use

RNase AWAY®

ready-to-use

for removal of RNase-contaminations from surfaces

RNase AWAY® allows quick and safe removal of RNases from labware made of plastic or glass, e.g. pipettes, gel chambers, glass discs, etc.

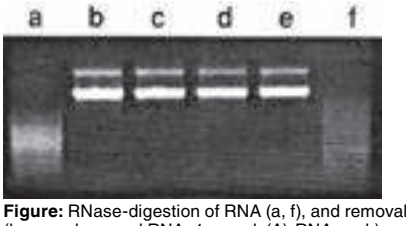


Figure: RNase-digestion of RNA (a, f), and removal of RNase by RNase AWAY® (b–e: undamaged RNA, 1 µg poly(A)-RNA each).

A safe alternative to DEPC. Reduces the use of carcinogenic DEPC in the laboratory considerably. RNase AWAY® does not corrode the surface and is not carcinogenic. Creates and preserves RNase-free surfaces. No mixing, baking or time-consuming waiting. RNase AWAY® is chemically stable and requires no special storing.

Apply RNase AWAY® directly to surface, allow to work in, then rinse with water or dry with an RNase-free tissue cloth. For effective removing of RNases without influencing your DNA samples

UN no. 1824 · ADR 8 III · WGK 1

Danger H314

Art. No.	Pack Qty.	Pack.	€
A998.1	250 ml	plastic	62,25
A998.4	475 ml	spray bottle	96,65
A998.2	1 l	plastic	131,70
Original pack 6 x 1 l			125,12/1 l
A998.3	4 l	plastic	256,95

Instructions for use

can be found on the Internet next to the product description.

ready-to-use

DNA AWAY®

ready-to-use

for removal of DNA-contaminations from surfaces

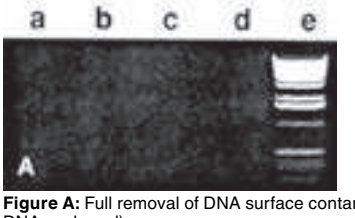


Figure A: Full removal of DNA surface contaminations after 5 minutes (1 µg dried DNA each, a-d).

Suitable for PCR-applications.
DNA AWAY® enables speedy and safe removal of DNA-contaminations, e.g. to prevent false-positive PCR results. For decontamination of surfaces as well as of lab ware like pipettors, thermocyclers, and reaction tubes.

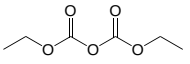


Figure B: No removal of solubilised DNA - for protection of your sample-DNA (1 µg DNA each, 5 minutes incubation).

UN no. 1824 · ADR 8 III · WGK 1

Danger H314

Art. No.	Pack Qty.	Pack.	€
X996.1	250 ml	plastic	53,65
X996.2	4 l	plastic	278,45



DEPC

≥97 %, for biochemistry and molecular biology

Histidin residues in proteins are modified to N-carbethoxy histidin, resulting in inhibition of RNases and DNases. DEPC decomposes to CO_2 and ethanol during steam sterilisation.

Application: 0,1 % DEPC over night under agitation. Autoclave.

$C_6H_{10}O_5$ · M 162,14 g/mol

Storage temperature: +4 °C

WGK 1

Warning H302-H315-H319-H335

Art. No.	Pack Qty.	Pack.	€
K028.3	5 ml	glass	26,35
K028.1	25 ml	glass	80,55

PCR



ROTI®Pol DNA Polymerases and Master Mixes

For PCR. Recombinant, heat stable DNA polymerases from the thermophilic bacteria *Thermus aquaticus* or *Pyrococcus furiosus*.

ROTI®Pol, the series of DNA polymerases is the optimal choice for all PCR cycling protocols, as being performed in, for instance, analysis of cloning efficiency, for gene fishing, in routine screening processes, educational assays and much more. In combination with our specially designed buffers, the ROTI®Pol DNA polymerases deliver specific and reproducible PCR amplification with a wide range of PCR templates.

In addition to the **standard Taq** polymerase for PCR assays in general, the range also includes the antibody blocked **hot-start** version of the enzyme, which is recommended for particularly sequence specific approaches. This inhibited Taq polymerase is getting active only after the initial denaturation step, resulting in amplification of the target sequence without production of unwanted side products. Both Taq polymerases are available as **set of enzyme and buffer solutions** as well as premixed, 2x concentrated **master mixes**. The sets contain the DNA polymerase plus two 10x concentrated reaction buffers with $MgCl_2$, one of which has been specially designed for direct gel loading following the PCR reaction. Besides the DNA polymerase, the master mixes include dNTPs, $MgCl_2$, and all other components required for PCR except primers and template DNA, and are available in a colourless version for PCR only, plus a red ready-to-load version for subsequent direct gel electrophoresis.
With the **TaqHY** DNA polymerase we provide a modified Taq polymerase outstanding in robust performance, fast polymerisation rate and high yield of amplicons. Combining the benefits of both techniques, the **Hot-TaqHY** DNA polymerase has been designed by increasing the PCR sequence specificity of a quick and high yield modified Taq polymerase by antibody mediated inhibition.
In combination with the attached specially adjusted high fidelity buffer, the **ProofRead** polymerase delivers highly sequence-true PCR amplicons and is recommended for amplification of target sequences of high GC content, or with complex secondary structures.
All **TaqUltra** DNA polymerase are being tested on absence of DNA (bacterial genomic DNA) which makes them particularly suitable for amplification of bacterial DNA. This polymerase is also available in standard version as well as the hot-start type **Hot-TaqUltra**.



Contents

Product	Polymerase	Master mix (2x)	Reaction buffer	Art. No.
ROTI®Pol TaqS 9223	Standard Taq polymerase	–	colourless + red (ready to load)	9223
ROTI®Pol TaqS Mix (2x)	Standard Taq polymerase	colourless	–	9239
ROTI®Pol TaqS Red-Mix (2x)	Standard Taq polymerase	red (ready to load)	–	9241
ROTI®Pol Hot-TaqS	Hot start Taq polymerase	–	colourless + red (ready to load)	9245
ROTI®Pol Hot-TaqS Mix (2x)	Hot start Taq polymerase	colourless	–	9248
ROTI®Pol Hot-TaqS Red-Mix (2x)	Hot start Taq polymerase	red (ready to load)	–	9256
ROTI®Pol TaqHY	High yield / high performance Taq polymerase	–	colourless + red (ready to load)	9345
ROTI®Pol TaqHY Mix	*High yield / high performance* Taq-Polymerase	colourless	–	1K33
ROTI®Pol TaqHY Red-Mix	*High yield / high performance* Taq-Polymerase	red *(ready-to-load)*	–	1K34
ROTI®Pol Hot-TaqHY	High yield / high performance hot start Taq polymerase	–	colourless + red (ready to load)	9346
ROTI®Pol ProofRead	Proof reading / high fidelity Pfu polymerase	–	ProofRead	9344
ROTI®Pol TaqUltra	DNA free, ultra pure Taq polymerase	–	–	9347
ROTI®Pol Hot-TaqUltra	DNA free, ultra pure hot start Taq polymerase	–	–	9350

ROTI®Pol DNA polymerases are able to amplify PCR products up to 5 kb with genomic, viral, cDNA and plasmid DNA as template. The Taq DNA polymerases possess a 5' → 3' polymerase- as well as a 5'-flap endonuclease activity, generating amplicons with a 3'dA (adenine)-overhang which may well be used for TA-cloning purposes. In addition to the 5' → 3' polymerase activity, the Pfu DNA polymerase possesses a 3' → 5' (proof reading) exonuclease activity, rapidly substituting misincorporated bases during polymerization. These DNA fragments are blunt-ended.
For easy handling, all solutions are filled in tubes with **colour coded lids**. The red dye for direct gel loading, included in buffers and master mixes, migrates approx. as fast as a 1 kb DNA fragment in 1 % agarose gels.

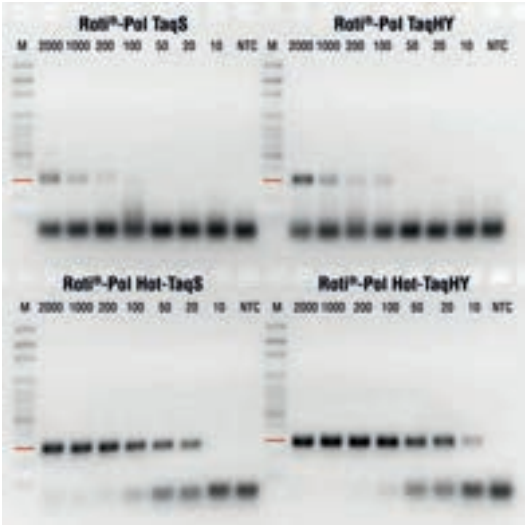


Figure: Sensitivity assay using ROTI®Pol TaqS, TaqHY, Hot-TaqS and Hot-TaqHY, 1 U/reaction each (20 µl). 300 bp β-Actin fragment, 40 cycles.
Template: 10 to 2000 pg human gDNA. Gel loading 10 µl each.
M: 100 bp-DNA Ladder extended. NTC: no template control.

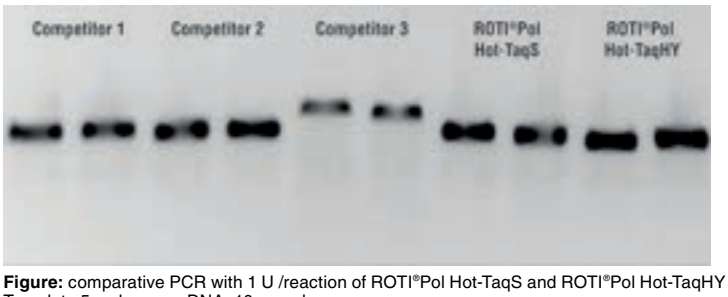


Figure: comparative PCR with 1 U /reaction of ROTI®Pol Hot-TaqS and ROTI®Pol Hot-TaqHY with various competitor Taq polymerases. 1 kb α1-AT fragment, 30 cycles.
Template 5 ng human gDNA, 10 µ per lane.

Roti®Pol DNA Polymerases – Overview

Product name	Purity	Use	Amplicon ends	Art. No.	Pack Qty.	€
ROTI®Pol TaqS	5 U/µl	Standard PCR	3'dA	**9223.1**	100 µl	75,15
				9223.2	500 µl	364,45
ROTI®Pol TaqS Mix (2x)	2x conc., ready-to-use	Standard PCR	3'dA	**9239.1**	2 ml	54,30
				9239.2	10 ml	217,70
ROTI®Pol TaqS Red-Mix (2x)	2x conc., ready-to-use	Standard PCR with subsequent gel loading	3'dA	**9241.1**	2 ml	59,70
				9241.2	10 ml	235,45
ROTI®Pol Hot-TaqS	5 U/µl	Particularly sequence specific standard PCR	3'dA	**9245.1**	40 µl	76,90
				9245.2	200 µl	364,45
ROTI®Pol Hot-TaqS Mix (2x)	2x conc., ready-to-use	Particularly sequence specific standard PCR	3'dA	**9248.1**	2 ml	82,70
				9248.2	10 ml	385,95
ROTI®Pol Hot-TaqS Red-Mix (2x)	2x conc., ready-to-use	Particularly sequence specific standard PCR with subsequent gel loading	3'dA	**9256.1**	2 ml	86,55
				9256.2	10 ml	396,70
ROTI®Pol TaqHY	5 U/µl	Fast PCR protocols and/or high yield, GC rich template DNA	3'dA	**9345.1**	100 µl	86,55
				9345.2	500 µl	396,70
ROTI®Pol TaqHY Mix (2x)	2x conc., ready-to-use	Fast PCR protocols and/or high yield, GC rich template DNA	3'dA	**1K33.1**	2 ml	86,55
				1K33.2	10 ml	396,70
ROTI®Pol TaqHY Red-Mix (2x)	2x conc., ready-to-use	Fast PCR protocols and/or high yield, GC rich template DNA with following gel loading	3'dA	**1K34.1**	2 ml	86,55
				1K34.2	10 ml	396,70
ROTI®Pol Hot-TaqHY	5 U/µl	Particularly sequence specific, fast PCR protocols and/or high yield, GC rich template DNA	3'dA	**9346.1**	40 µl	86,55
				9346.2	200 µl	396,70
ROTI®Pol ProofRead	5 U/µl	High fidelity PCR with exact sequence replication	blunt	**9344.1**	40 µl	99,45
				9344.2	200 µl	456,90
ROTI®Pol TaqUltra	5 U/µl, DNA-free	PCR of bacterial gDNA	3'dA	**9347.1**	40 µl	177,40
				9347.2	200 µl	886,90
ROTI®Pol Hot-TaqUltra	5 U/µl, DNA-free	Particularly sequence specific PCR of bacterial gDNA	3'dA	**9350.1**	40 µl	192,45
				9350.2	200 µl	912,70

Instructions for use

can be found in our webshop in the product description under “Downloads”.

Important information on refrigerated transports

All products identified as being particularly temperature-sensitive are shipped in **special ice boxes with freezer packs or in dry ice.**

Additional costs resulting from such, **will be invoiced** (further information on request).

Please note: In order to guarantee optimum product quality, the dispatch of refrigerated transport products will be carried out **on Mon and Tue only outside Germany!**
Slight delays in delivery are therefore possible.

Thermal Cycler ³PRIME

Compact, easy-to-handle thermal cyclers for each work bench.



- Licensed for PCR
- New, upgraded generation
- Fast heating and cooling rates
- High temperature homogeneity
- Simple, intuitive programming
- 3.5″ colour touch screen
- USB port
- Cost-efficient
- 4 years or 80.000 cycles warranty on cyclers and blocks

New generation of reliable, inexpensive thermal cyclers specially developed for use on the individual bench, for student's courses and schools.
In order to enable very rapid heating and cooling rates at extremely low temperature variations in the block, an advanced block algorithm has been implemented, regulating the modern Peltier technology. The mono-tube blocks were specially designed to provide optimal contact between the PCR-vials and the block bore hole and are cut, with the most modern of technologies, out of high-grade material. In most ³PRIME instruments, the heated lid can be adjusted to the height of the PCR-vials, thus optimising the temperature and volume constancy in the sample.
Intuitive programming and the newly designed colour touch screen with very easy handling, enable both simple as well as complex cycle protocols to be entered very easily and quickly. All thermal cycler models have 1000 program slots available. With Gradient Thermal Cycler a temperature gradient may be added freely to every temperature step of the program.
Further data may be found online in our detailed product instruction manual or by calling one of our staff on the service hotline.

Purchase of this instrument conveys a limited non-transferable immunity from suit for the purchaser's own internal research and development and applied fields other than human *in vitro* diagnostics under non-real-time thermal cycler patents of Applied Biosystems LLC.

Technical specifications:

Art. No.	**4834.1**	**4835.1**	**4837.1**	**4838.1**	**4847.1**	**4848.1**
Type	Personal Cycler ³PRIME		Standard Cycler ³PRIMEX		Gradient Cycler ³PRIMEG	
Sample capacity	24 × 0.2 ml tubes	18 × 0.5 ml tubes	48 × 0.2 ml tubes	30 × 0.5 ml tubes	48 × 0.2 ml tubes	30 × 0.5 ml tubes
Block temperature range	4–100 °C					
Block uniformity at 55 °C	<±0.3 °C					
Temperature control accuracy at 55 °C	<±0,2 °C					
Max. heating rate	3.0 °C/s					
Max. cooling rate	2.1 °C/s					
Peltier elements	2 per block		4 per block			
Lid temperature (can be switched off)	35–115 °C					
Lid height, adjustable	No		Yes			
Suitability of lid	flat lid		flat and domed lids			
Suitable for	single tubes and strips		single tubes, strips and 48well plates (heating block for 48 × 0,2 ml tubes only)	single tubes and strips	single tubes, strips and 48well plates (heating block for 48 × 0,2 ml tubes only)	single tubes and strips
Max. number of programmes	1,000					
Max. number of increments per programme	10 stages with 10 steps each					
Max. cycle repetition	99					
Hold time range	1 s – 4 h / 59 min / 59 s					
Increment/decrement function	yes (temperature and time)					
Ramp resolution	0.1 °C/s					
Gradient temperature range					30–80 °C	
Maximum gradient					14 °C	
Minimum gradient					1 °C	
Gradient calculation	No				Yes	
Oligonucleotide T_m calculation	yes (Nearest Neighbour method)					
Display type	3.5″ colour touch screen					
Auto-Restart function	yes (disengageable)					
Port	USB port					
Safety devices	Password protection					
L x W x H	35 x 21 x 18 cm					
Weight	6 kg					
Mains connection	100–230 V, 50/60 Hz					
Performance	155 W					

licensed

Thermal Cycler ³PRIME (Personal)

Cole-Parmer.



Not a medical device / Not an IVD product

Sample capacity	Art. No.	Pack Qty.	€
24 × 0.2 ml tubes	**4834.1**	1 unit(s)	2.943,00
18 × 0.5 ml tubes	**4835.1**	1 unit(s)	2.943,00

licensed

Thermal Cycler ³PRIMEX (Standard)

Cole-Parmer.

Not a medical device / Not an IVD product

Sample capacity	Art. No.	Pack Qty.	€
48 × 0.2 ml tubes	**4837.1**	1 unit(s)	3.825,00
30 × 0.5 ml tubes	**4838.1**	1 unit(s)	3.825,00

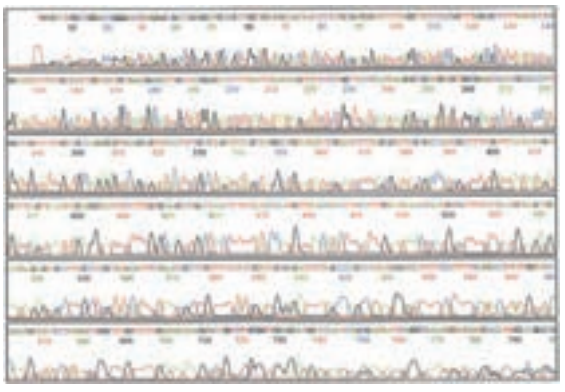
licensed

Thermal Cycler ³PRIMEG (Gradient)

Cole-Parmer.

Not a medical device / Not an IVD product

Sample capacity	Art. No.	Pack Qty.	€
48 × 0.2 ml tubes	**4847.1**	1 unit(s)	4.170,00
30 × 0.5 ml tubes	**4848.1**	1 unit(s)	4.170,00



Thermal Cycler PRIME



Versatile, easy-to-handle thermal cyclers for each laboratory.

- Licensed for PCR
- New, upgraded generation
- Fast heating and cooling rates
- High temperature homogeneity
- Simple, intuitive programming
- 5,7″ colour touch screen
- 8 Peltier elements per block
- USB port
- Cost-efficient
- 4 years or 80.000 cycles warranty on cyclers and blocks

New generation of versatile, inexpensive thermal cyclers for use in the laboratory.
In order to enable very rapid heating and cooling rates at extremely low temperature variations in the block, an advanced block algorithm has been implemented, regulating the modern Peltier technology. The mono-tube blocks were specially designed to provide optimal contact between the PCR-vials and can be exchanged in a matter of seconds without the need of tools. The heated lid can be adjusted to the height of the PCR-vials, thus optimising the temperature and volume constancy in the sample.
The modern, intuitive programming, and the newly designed colour touch screen with very easy handling, enable both simple as well as complex cycle protocols to be entered very easily and quickly. All thermal cycler models have 1000 program slots available. With Thermal Cycler Gradient a temperature gradient may be added freely to every temperature step of the program.
Further data may be found online in our detailed product instruction manual or by calling one of our staff on the service hotline.

Purchase of this instrument conveys a limited non-transferable immunity from suit for the purchaser's own internal research and development and applied fields other than human *in vitro* diagnostics under non-real-time thermal cycler patents of Applied Biosystems LLC.

Technical specifications:

Art. No.	**4853.1**	**4854.1**	**0253.1**	**4864.1**	**4865.1**
Type	For 60 x 0,5 ml tubes	For 384well plates	Combi-block for 33 × 0,2 ml and 33 × 0,5 ml tubes	For 60 x 0,5 ml tubes	For 384well plates
Sample capacity	60 × 0.5 ml tubes	384well plates	Combi-block for 33 × 0.2 ml and 33 × 0.5 ml tubes	60 × 0.5 ml tubes	384well plates
Block temperature range	4–100 °C				
Block uniformity at 55 °C	<±0.3 °C				
Temperature control accuracy at 55 °C	<±0,25 °C				
Max. heating rate	3.4 °C/s				
Max. cooling rate	1.0 °C/s				
Peltier elements	8 per block				
Lid temperature (can be switched off)	35–115 °C				
Lid height, adjustable	Yes				
Suitability of lid	flat and domed lids				
Suitable for	single tubes, strips, 96well and 384well plates				
Max. number of programmes	1,000				
Max. number of increments per programme	10 stages with 10 steps each				
Max. cycle repetition	99				
Hold time range	1 s – 4 h / 59 min / 59 s				
Increment/decrement function	yes (temperature and time)				
Ramp resolution	0.1 °C/s				
Gradient temperature range				30–80 °C	
Maximum gradient				29 °C	19 °C
Minimum gradient				1 °C	
Gradient calculation	No			Yes	
Oligonucleotide T_m calculation	yes (Nearest Neighbour method)				
Display type	5.7″ colour touch screen				
Auto-Restart function	yes (disengageable)				
Port	USB port				
Safety devices	Password protection				
L x W x H	42 x 24 x 24 cm				
Weight	9.4 kg				
Mains connection	100–230 V, 50/60 Hz				
Performance	425 W				

licensed

Thermal Cycler PRIME (Standard)

Cole-Parmer.



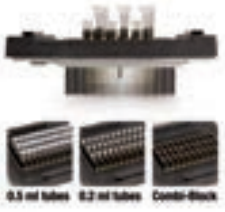
Not a medical device / Not an IVD product

Sample capacity	Art. No.	Pack Qty.	€
60 × 0.5 ml tubes	**4853.1**	1 unit(s)	3.790,00
384well plates	**4854.1**	1 unit(s)	3.790,00
Combi-block for 33 × 0.2 ml and 33 × 0.5 ml tubes	**0253.1**	1 unit(s)	3.488,00

licensed

Thermal Cycler PRIMEG (Gradient)

Cole-Parmer.



Not a medical device / Not an IVD product

Sample capacity	Art. No.	Pack Qty.	€
60 × 0.5 ml tubes	**4864.1**	1 unit(s)	4.350,00
384well plates	**4865.1**	1 unit(s)	4.350,00



Nucleotides

Applicable to

PCR, light-cycling, cDNA synthesis, labelling and primer-extension, mutagenesis-assays, sequencing reactions and *in vitro* transcription.

- Available as ready-to-use set or mix, for contamination-free applications
- Purity ≥98 % (HPLC-tested)
- Tested for “long-run-PCR” of up to 30 kb
- DNAse-, RNAse-, Protease- and Phosphatase-free
- Free of PCR inhibitors like modified bases and tetra-pyrophosphate
- Adjusted to pH 8,5 for superior stability even during larger numbers of freeze-and-thaw cycles
- Also available adjusted to pH 7,0 for special applications (see below)
- Highly efficient enzymatic fabrication
  of dATP, dGTP, dCTP and dUTP. dTTP ist synthesized chemically.

All Carl ROTH nucleotides are manufactured from highest-quality reagents and are most thoroughly tested for quality. This testing procedure not only includes standard-PCR (fig. 1) but also “long-range-PCR” of up to 30 kb, repeated quantitative light-cycling reactions (fig. 2), and tests for physical stability (fig. 3).

► Modified nucleotides for DNA synthesis, see www.carlroth.com

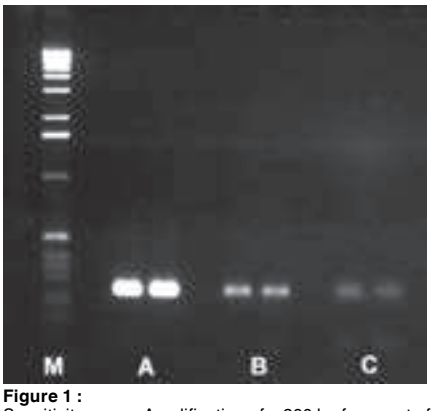


Figure 1 :
Sensitivity assay. Amplification of a 260 bp fragment of human genomic DNA with (left to right) 250 ng (A), 25 ng (B) and 2,5 ng (C) DNA as template (two replicates).

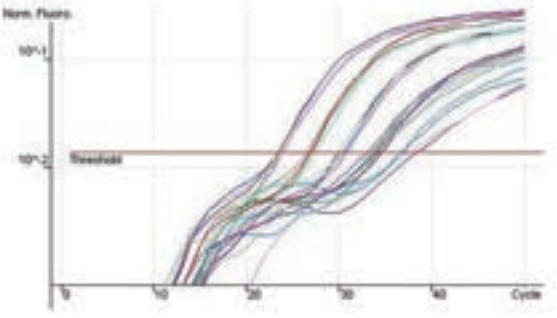


Figure 2:
Sensitivity assay II: Quantitative light-cycling-PCR on recombinant DNA with (left to right) 10 ng, 1 ng, 100 pg, 10 pg, 1 pg DNA as template (six replicates).

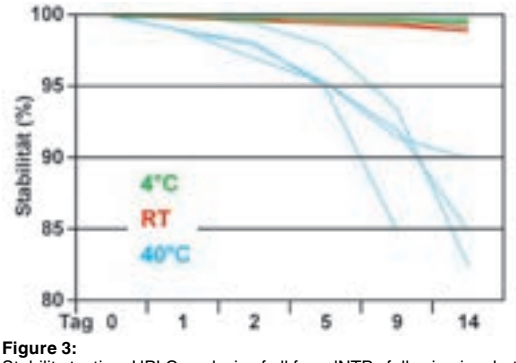


Figure 3:
Stability testing: HPLC analysis of all four dNTPs following incubation periodes of 1–14 days at different temperatures (4 °C – green; room temperature – red; 40 °C – blue). Stability of nucleotides is >99 % even after 14 days incubation at room temperature. Even after an incubation period of 9 days at 40 °C, 85 % of all nucleotide molecules are still intact.

dNTP Sets and dNTP Mixtures

Applicable to
PCR, light-cycling, cDNA synthesis, labelling and primer-extension, mutagenesis-assays, sequencing reactions and *in vitro* transcription. All Carl ROTH nucleotides are produced from high-quality starting reagents and carefully checked for quality. The quality check always includes a “long-run-PCR”, repeated quantitative runs in the light cycler and physical stability tests.



- Available as ready-to-use set or mix, for contamination-free applications
- Can be optimally combined with ROTI®Pol DNA polymerases from Carl ROTH
- Tested for “long range PCR”
- DNAse-, RNAse-, Protease- and Phosphatase-free
- Free of PCR inhibitors like modified bases and tetra-pyrophosphate
- Adjusted to pH 8,5 for superior stability even during larger numbers of freeze-and-thaw cycles
- Also available adjusted to pH 7,0 for special applications
- Highly efficient enzymatic fabrication of dATP, dGTP, dCTP and dUTP. dTTP ist synthesized chemically.

Storage temperature: –20 °C
Transport temperature: cooled (freezer packs)

DNAse-free | RNAse-free | PCR inhibitor-free | Phosphatase-free | Protease-free

dNTP Sets

Product name	Purity	General application	Instructions for use	Packaging	Art. No.	Pack Qty.	€
dNTP-Set 1	≥99 % dATP, dTTP, dGTP, dCTP, 100 mM per dNTP	for PCR and RT, nucleotide set composed of solutions of dATP, dTTP, dGTP, dCTP	Concentration: 100 mM per dNTP Typical end concentration in PCR: 200 µM each	4 x 25 µmol (250 µl), 100 mM	**K039.1**	1 set	127,95
				5 x 4 x 25 µmol (250 µl), 100 mM	**K039.2**	1 set	521,40
dNTP-Set 1 (pH 7)	≥99 % dATP, dTTP, dGTP, dCTP , 100 mM per dNTP	for PCR and RT, nucleotide set composed of solutions of dATP, dTTP, dGTP, dCTP, **pH 7,0 ±0,1**	Concentration: 100 mM per dNTP Typical end concentration in PCR: 200 µM each	4 x 25 µmol (250 µl), 100 mM	**0178.1**	1 set	127,95
				5 x 4 x 25 µmol (250 µl), 100 mM	**0178.2**	1 set	521,40
dNTP-Set 2	≥99 % dATP, dUTP, dGTP, dCTP, 100 mM per dNTP	for PCR and RT, nucleotide set composed of solutions of dATP, **dUTP**, dGTP, dCTP	Concentration: 100 mM per dNTP Typical end concentration in PCR: 200 µM each	4 x 25 µmol	**L540.1**	1 set	127,95
				5 x 4 x 25 µmol	**L540.2**	1 set	521,40
dNTP-Set 3	≥99 % dATP, dTTP, dITP, dCTP, 100 mM per dNTP	for PCR and RT, nucleotide set composed of solutions of dATP, dTTP, **dITP**, dCTP	Concentration: 100 mM per dNTP Typical end concentration in PCR: 200 µM each	4 x 25 µmol	**P731.1**	1 set	127,95
				5 x 4 x 25 µmol	**P731.2**	1 set	521,40



ready-to-use | DNAse-free | RNAse-free | PCR inhibitor-free | Phosphatase-free | Protease-free

dNTP Mixtures

Product name	Purity	General application	Instructions for use	Packaging	Art. No.	Pack Qty.	€
ROTI®Mix PCR 1	2 mM (/dNTP), 8 mM (total), dATP, dTTP, dGTP, dCTP, ready-to-use	for PCR and RT, nucleotide mix of dATP, dTTP, dGTP, dCTP	Concentration: 2 mM per dNTP Typical end concentration in PCR: 200 µM each	1 x 1 ml	**L541.1**	1 ml	30,00
				5 x 1 ml	**L541.2**	5 ml	119,90
ROTI®Mix PCR 3	10 mM (/dNTP), 40 mM (total), dATP, dTTP, dGTP, dCTP, ready-to-use	for PCR and RT, nucleotide mix of dATP, dTTP, dGTP, dCTP	Concentration: 10 mM per dNTP Typical end concentration in PCR: 200 µM each	1 x 0.2 ml	**L785.1**	0.2 ml	30,00
				5 x 0,2 ml	**L785.2**	1 ml	119,90
				5 x 1 ml	**L785.3**	5 ml	489,15
ROTI®Mix PCR 3 (pH 7)	10 mM (/dNTP), 40 mM (total), dATP, dTTP, dGTP, dCTP, ready-to-use	for PCR and RT, nucleotide mix of dATP, dTTP, dGTP, dCTP, **pH 7,0 ±0,1**	Concentration: 10 mM per dNTP Typical end concentration in PCR: 200 µM each	1 x 0,2 ml	**0179.1**	0.2 ml	30,00
				5 x 0,2 ml	**0179.2**	1 ml	119,90

dNTP Solutions



DNAse-free | RNAse-free | PCR inhibitor-free | Phosphatase-free | Protease-free

Product name	Purity	General application	Packaging	Art. No.	Pack Qty.	€
dATP solution	≥99 %, 100 mM solution	for molecular biology, biochemistry and cell analysis	25 µmol	**K035.1**	250 µl	42,90
dCTP solution	≥99 %, 100 mM solution	for molecular biology	25 µmol	**K038.1**	250 µl	42,90
dGTP solution	≥99 %, 100 mM solution	for molecular biology, biochemistry and cell analysis	25 µmol	**K037.1**	250 µl	42,90
dITP solution	≥99 %, 100 mM solution	for molecular biology	25 µmol	**P732.1**	250 µl	42,90
dTTP solution	≥99 %, 100 mM solution	for molecular biology	25 µmol	**K036.1**	250 µl	42,90
dUTP solution	≥99 %, 100 mM solution	for molecular biology	25 µmol	**L539.1**	250 µl	42,90

Parameters of Nucleotide Solutions

Nucleotides	Art. No.	pH value	Solvent
dNTP-Solution	K035-K038, L539, P732	8.5 ±0.1	Water
dNTP-Set	K039, L540, P731	8.5 ±0.1	Water
dNTP-Mix	L541, L785	8.5 ±0.1	Water
dNTP-Set or -Mix	0178, 0179	7.0 ±0.1	Water
NTP-Solution	K045-K048	8.0 ±0.2	20 mM Tris-HCl*
NTP-Set	K049	8.0 ±0.2	20 mM Tris-HCl*
Labelled Nucleotides	1049	7.5 ±0,2	Water

*For highly efficient reverse transcription

Important information on refrigerated transports

All products identified as being particularly temperature-sensitive are shipped in **special ice boxes with freezer packs or in dry ice.**

Additional costs resulting from such, **will be invoiced** (further information on request).

Please note: In order to guarantee optimum product quality, the dispatch of refrigerated transport products will be carried out **on Mon and Tue only outside Germany!**
Slight delays in delivery are therefore possible.

Labelled dNTPs

- Ultra pure
- Stabile
- pH 7.5
- Tested for the lack of endo- and exonucleases, ribonucleases, and phosphatases

Applications:
Non-radioactive labelling of DNA via enzymatic reactions like e.g. PCR, reverse transcription, nick-end-translation, end-labelling, or random-priming. Can be incorporated by all standard DNA-polymerases (Taq-polymerase, T4 DNA-polymerase, Klenow fragment and so on).

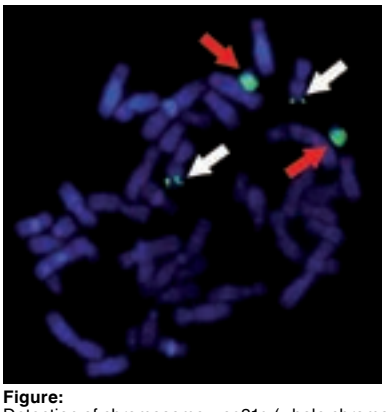


Figure:
Detection of chromosome wcp21q (whole chromosome paint, red arrows) and band 11q23 (BAC, bacterial artificial chromosome, white arrows) by FISH, labelling with fluorescein-12-dUTP.
With kind permission of PD Dr. Thomas Liehr, Institute of Human Genetics and Anthropology, Friedrich-Schiller University, Jena.



ready-to-use | DNAse-free | RNAse-free | PCR inhibitor-free | Protease-free

Rhodamine-12-dUTP

≥95 %, 1 mM solution

For non-radioactive, enzymatic labelling of DNA.

Rhodamine-12-dUTP is able to replace dTTP in growing DNA-strands and is used for efficient non-radioactive DNA-labelling. Detection of labelled nucleic acids can easily be done by direct analysis of fluorescent signals (e. g. by fluorescence microscopy).
Rhodamine-12-dUTP can also be used for double staining techniques in combination with fluorescein-12-dUTP or biotin-11-dUTP and corresponding antibodies or streptavidin-complexes, respectively.

Excitation: 505 nm
Emission: 530 nm (red)

Application examples

Non-radioactive labelling of DNA by enzymatic reactions, e.g. PCR, reverse transcription, nick-end-translation, end-labelling or random-primed DNA-labelling. Incorporation can be done with all established DNA-polymerases (e.g. Taq-polymerase, T4 DNA-polymerase, Klenow fragment).
Tested for the lack of endo-, exodeoxyribonuclease, ribonuclease and phosphatase.

Rhodamine Green, mixture of 5/6 isomeres

ε_{505} (pH 7) = 8,5 E x $mmol^{-1}$ x cm^{-1}; pH: 7,5 ±0,2

$C_{39}H_{41}N_6O_{19}P_3$ · M 990,7 g/mol

Storage temperature: –20 °C
Transport temperature: cooled

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
1049.1	25 µl	25 nmol	plastic	228,45
1049.2	50 µl	50 nmol	plastic	403,15

NTP Set

DNAse-free | RNAse-free | PCR inhibitor-free | Protease-free

NTP-set

≥99 % ATP, TTP, GTP, UTP, 100 mM per NTP

for molecular biology, nucleotide set composed of solutions of ATP, TTP, GTP, UTP

Concentration: 100 mM per NTP
Storage temperature: –20 °C
Transport temperature: cooled
WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
K049.1	1 set	4 x 25 µmol	plastic	162,90
K049.2	1 set	5 x 4 x 25 µmol	plastic	547,20

NTP Solutions

DNAse-free | RNAse-free | PCR inhibitor-free | Protease-free

Product name	Purity	Packaging	Art. No.	Pack Qty.	€
ATP solution	≥99 %, 100 mM solution	25 µmol	**K045.1**	250 µl	52,60
CTP solution	≥99 %, 100 mM solution	25 µmol	**K048.1**	250 µl	52,60
GTP solution	≥99 %, 100 mM solution	25 µmol	**K047.1**	250 µl	52,60
UTP solution	≥99 %, 100 mM solution	25 µmol	**K046.1**	250 µl	52,60

NTP Lyophilisates

DNAse-free | RNAse-free | Protease-free

Product name	Purity	General application	Art. No.	Pack Qty.	€
ATP	≥98 %, lyophilized	for molecular biology and biochemistry	**K054.1**	1 g	37,55
			K054.3	10 g	149,45
			K054.6	100 g	607,40
CTP	≥98 %, lyophilized	for molecular biology and biochemistry	**K057.1**	100 mg	75,80
			K057.4	1 g	303,70
			K057.5	10 g	1.192,20
GTP	≥90 %, lyophilized	for molecular biology and biochemistry	**K056.1**	100 mg	75,80
			K056.4	1 g	303,70
			K056.5	10 g	1.192,20
UTP	≥90 %, lyophilized	for molecular biology and biochemistry	**K055.1**	100 mg	75,80
			K055.3	1 g	303,70

► For structural formulae of the nucleotides, see chapter Chemicals A-Z

Reagents for PCR



NEW / + | ready-to-use | DNA-free | DNAse-free | RNAse-free | Protease-free

Magnesium chloride solution

25 mM, for PCR, for molecular biology

For optimisation of PCR reaction conditions.
In a PCR reaction, cofactors such as divalent cations ($MgCl_2$) are needed for an optimal process. Magnesium interacts with the DNA template, dNTPs and the polymerase in a PCR reaction. The $MgCl_2$ concentration influences the productivity and accuracy of the polymerase. It also influences the binding of the primers to the template.

Application:

- Too high magnesium concentration can lead to reduced specificity and undesired PCR products
- Too low a magnesium concentration can lead to no PCR product at all
- Magnesium influences the melting point of double-stranded DNA

$MgCl_2$ · M 95,22 g/mol

Storage temperature: +4 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
1HY7.1	1 ml	2 x 0,5 ml in tubes	plastic	12,80
1HY7.2	2.5 ml	5 x 0,5 ml in tubes	plastic	23,15





NEW / +

S | ready-to-use | DNA-free | DNAse-free | RNAse-free | Protease-free

PCR water

for molecular biology, sterile, ready-to-use

Ultrapure water, free of nucleases, DNA and RNA for use in sensitive molecular biological applications.

PCR water is ultrapure water that is proven to be free of nucleases, DNA and RNA. The difference to the quality of distilled or demineralised water can be seen in the electrical conductivity of ≤0.075 µS/cm. Since the water molecule is an ampholyte that can react with itself, even ultrapure water has a low electrical conductivity.

PCR water is suitable for use in sensitive molecular biology applications such as PCR, RT-PCR, cDNA synthesis or sequencing.

Each batch is tested by PCR to exclude contamination by DNA and nucleases.

H_2O · M 18,02 g/mol

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Packaging	Pack.	€
1HPE.1	15 ml	10 x 1,5 ml in tubes	plastic	93,45
1HPE.2	30 ml	20 x 1,5 ml in tubes	plastic	180,10
1HPE.3	75 ml	50 x 1,5 ml in tubes	plastic	418,20

► Water with low TOC value, see chapter Chemicals A-Z

► RNAse-/DNAse free water for molecular biology see page 144

► Dimethyl sulphoxide (DMSO) see page 144



ready-to-use

Mineral Oil

for molecular biology

For overlaying PCR and other enzymatic reactions.

Light, colourless oil, particularly suitable for overlaying PCR and other enzymatic reactions such as restriction digestion, priming reactions or whole-mount *in situ* reactions incubated in warm temperatures. Prevents fluid loss and reduces any danger of cross-contamination.

Each batch is functionally tested for its suitability in PCR.

WGK 1

Danger H304

Each batch is functionally tested for its suitability in PCR.

Art. No.	Pack Qty.	Pack.	€
HP50.1	10 ml	glass	18,20
HP50.4	15 ml	dropp. bottle	30,00
HP50.2	50 ml	plastic	36,05
HP50.3	250 ml	plastic	107,00

Ready-Made Primers

- Superior purity
- Standardised quality
- Immediately available



ROTH Random-Primer sets for RAPD-PCR

Ready-made primers, Primer

- Superior purity
- Standardised quality
- Immediately available

Primer set for rapid amplification of polymorphic DNA (RAPD)-PCR. For analysing DNA-polymorphisms or the change in genetic expression samples.
20 x 10mers with 60–80 % GC-assay.

ROTH Random-Primer set A

desalinated and lyophilized

20 x 10mer/set

2,0 OD_{260} units per primer, aliquoted in 2 vials each.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Packaging	Pack.	€
HP22.1	1 set	40 tubes	box	246,20

ROTH Random-Primer set B

desalinated and lyophilized

20 x 10mer/set

2,0 OD_{260} units per primer, aliquoted in 2 vials each.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Packaging	Pack.	€
HP23.1	1 set	40 tubes	box	246,20

ROTH Random-Primer set C

desalinated and lyophilized

20 x 10mer/set

2,0 OD_{260} units per primer, aliquoted in 2 vials each.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Packaging	Pack.	€
HP24.1	1 set	40 tubes	box	246,20

ROTH Random-Primer set D

desalinated and lyophilized

20 x 10mer/set

2,0 OD_{260} units per primer, aliquoted in 2 vials each.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Packaging	Pack.	€
HP25.1	1 set	40 tubes	box	246,20

1 OD DNA is defined as the amount of DNA recieved by lyophilisation of 1 ml solution containing DNA-concentrations of 1 OD.

ROTH poly d(T)$_{12-18}$ Primer

HPLC-purified, lyophilized

For sequence unspecific priming during reverse transcription.

Delivery includes 5 x 1 OD_{260} units (31.2 µg or 7.3 nmol DNA each) poly d(T)$_{12-18}$ Primer in one vial each and 1 ml DEPC-treated water for molecular biology (DNAse-free, RNAse-free).

- Superior purity
- Standardised quality
- Immediately available

Mix of d(T) 12 to 18mers.
5 OD_{260} units.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Packaging	Pack.	€
HP27.1	1 set	5 tubes, 1 OD each	plastic	64,40

ROTH Hexanucleotide Random-Primer Mix

HPLC-purified, lyophilized

For random priming during probe generation or during total genome-amplification.

Delivery includes 10 x 1 OD_{260} units (27.4 µg or 15.3 nmol DNA each) of hexanucleotide mixture in one vial each and 1 ml DEPC-treated water for molecularbiology (DNAse-free, RNAse-free).

- Superior purity
- Standardised quality
- Immediately available

N_6 mix (N for A, G, C, T).
10 OD_{260} units.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Packaging	Pack.	€
HP28.1	1 set	10 tubes, 1 OD each	plastic	87,65



Biochemistry

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ROTI®Fair Reagents

Highly pure reagents and buffer mixes in pouches or as tablets.



A tablet or the contents of a sachet is simply dissolved in the appropriate amount of water – and the desired solution is ready. By adjusting the amount of water, the concentration can easily be varied and a higher concentrated stock solution, for example, can be prepared.

- **Easy to use** – simply dissolve the contents of a bag or tablet in water.
- **Time saving** – no need to weigh reagents or adjust pH.
- **Practical** – dry reagents for direct use eliminate the need to prepare stock solutions that have been stored for long periods.
- **Reliable** – our stringent quality control ensures high batch consistency.

ROTI®Fair

Product name	Buffer/solution	Use	Batch quantity	End concentration	pH value	Art. No.	Pack Qty.	€
ROTI®Fair BBS	Borate Buffered Saline	Coating of ELISA plates and blocking supplement.	500 ml/tablet	1x	8,2 ±0,05	**1005.1**	100 unit(s)	330,60
ROTI®Fair BSC	Buffered Sodium Citrate	Buffer solution for isolation of blood cells	100 ml/pouch	0.109 M / 3.2 %		**1011.1**	10 unit(s)	117,75
	Buffered Sodium Citrate	Buffer solution for isolation of blood cells	1000 ml/pouch	0.109 M / 3.2 %		**1026.1**	5 unit(s)	217,70
ROTI®Fair 0.5M EDTA	Ethylenediamine tetraacetic acid solution	For preparation of bioanalytical solutions, anticoagulant	500 ml/pouch	0,5 M	8,0 ±0,05	**1031.1**	5 unit(s)	321,45
ROTI®Fair 20% Glucose	D(+)-Glucose solution	For preparation of nutrient media	1000 ml/pouch	20 %		**1030.1**	5 unit(s)	209,65
ROTI®Fair Glycine 3.0	Glycine solution	For preparation of buffer solutions with acidic pH and elution buffer in affinity chromatography	1000 ml/pouch	0.1 M	3,0 ±0,05	**1032.1**	10 unit(s)	124,20
ROTI®Fair HBS	HEPES Buffered Saline	General buffer base and for calcium phosphate mediated transfection	500 ml/tablet	1 M	7,4 ±0,05	**1033.1**	12 unit(s)	84,40
ROTI®Fair 1M KCl	potassium chloride solution	For preparation of salt solutions and buffer concoctions	1000 ml/pouch	1 M		**1034.1**	10 unit(s)	217,70
ROTI®Fair 3M KCl	Potassium chloride solution	For preparation of salt solutions and buffer concoctions	1000 ml/pouch	3 M		**1035.1**	5 unit(s)	186,55
ROTI®Fair Na-Acetate 5.2	sodium acetate solution	For isolation of nucleic acids	1000 ml/pouch	3 M	5,2 ±0,05	**1195.1**	5 unit(s)	317,15
ROTI®Fair 0.9 % NaCl	Sodium chloride solution	For preparation of salt solutions and buffer concoctions	100 ml/tablet	0,9 %		**1053.1**	100 unit(s)	70,45
	Sodium chloride solution	For preparation of salt solutions and buffer concoctions	1000 ml/tablet	0,9 %		**1067.1**	10 unit(s)	61,20
						1067.2	100 unit(s)	152,15
ROTI®Fair 3M NaCl	sodium chloride solution	For preparation of salt solutions and buffer concoctions	1000 ml/pouch	3 M		**1071.1**	5 unit(s)	100,55

Roti®Fair Reagents

Product name	Buffer/solution	Use	Batch quantity	End concentration	pH value	Art. No.	Pack Qty.	€
ROTI®Fair 5M NaCl	sodium chloride solution	For preparation of salt solutions and buffer concoctions	1000 ml/pouch	5 M		**1079.1**	5 unit(s)	117,75
ROTI®Fair 0.02M Na-Phosphate 7.0	sodium phosphate solution	General solution for assays in molecular biology and biochemistry	1000 ml/pouch	0,02 M	7,0 ±0,05	**1090.1**	10 unit(s)	114,50
	sodium phosphate solution	General solution for assays in molecular biology and biochemistry	5000 ml/pouch	0,02 M	7,0 ±0,05	**1094.1**	10 unit(s)	331,00
ROTI®Fair 1M Na-Phosphate 6.5	sodium phosphate solution	General solution for assays in molecular biology and biochemistry	1000 ml/pouch	1 M	6,5 ±0,05	**1095.1**	10 unit(s)	310,70
ROTI®Fair 1M Na-Phosphate 7.2	Sodium phosphate solution	General solution for assays in molecular biology and biochemistry	1000 ml/pouch	1 M	7,2 ±0,05	**1097.1**	10 unit(s)	310,70
ROTI®Fair PBS 7.2	Phosphate Buffered Saline	General solution for assays in molecular biology and bio-chemistry	1000 ml/tablet	1x	7,2 ±0,05	**1106.1**	10 unit(s)	94,10
						1106.2	100 unit(s)	464,95
ROTI®Fair PBS 7.4	Phosphate Buffered Saline	General solution for assays in molecular biology and bio-chemistry	100 ml/tablet	1x	7,4 ±0,05	**1107.1**	100 unit(s)	73,00
	Phosphate Buffered Saline	General solution for assays in molecular biology and bio-chemistry	200 ml/tablet	1x	7,4 ±0,05	**1108.1**	100 unit(s)	120,30
	Phosphate Buffered Saline	General solution for assays in molecular biology and bio-chemistry	500 ml/tablet	1x	7,4 ±0,05	**1111.1**	12 unit(s)	63,35
						1111.2	100 unit(s)	255,35
	Phosphate Buffered Saline	General solution for assays in molecular biology and bio-chemistry	1000 ml/tablet	1x	7,4 ±0,05	**1112.1**	10 unit(s)	94,10
						1112.2	100 unit(s)	459,60
	Phosphate Buffered Saline	General solution for assays in molecular biology and bio-chemistry	10 l/pouch	1x	7,4 ±0,05	**1101.1**	1 unit(s)	49,35
	Phosphate Buffered Saline	General solution for assays in molecular biology and bio-chemistry	50 l/pouch	1x	7,4 ±0,05	**1103.1**	1 unit(s)	155,90
	Phosphate Buffered Saline	General solution for assays in molecular biology and bio-chemistry	100 l/pouch	1x	7,4 ±0,05	**1104.1**	1 unit(s)	255,35
ROTI®Fair 10x PBS 7.4	Phosphate Buffered Saline	General solution for assays in molecular biology and bio-chemistry	1000 ml/pouch	10x	7,4 ±0,05	**1105.1**	5 unit(s)	123,10
ROTI®Fair PBS potassium-free 7.4	Phosphate Buffered Saline, potassium-free	Potassium-free, general solution for assays in molecular biology and biochemistry	1000 ml/tablet	1x	7,4 ±0,05	**1113.1**	10 unit(s)	94,10
						1113.2	100 unit(s)	459,60
	Phosphate Buffered Saline, potassium-free, high-phosphate	Potassium-free, high-phosphate general solution for assays in molecular biology and biochemistry	1000 ml/tablet	1x	7,4 ±0,05	**1114.1**	100 unit(s)	534,85
ROTI®Fair PBST 7.4	Phosphate Buffered Saline/Tween	General solution for assays in molecular biology and biochemistry	500 ml/tablet	1x	7,4 ±0,05	**1115.1**	12 unit(s)	81,60
						1115.2	100 unit(s)	330,60
	Phosphate Buffered Saline/Tween	General solution for assays in molecular biology and biochemistry	1000 ml/tablet	1x	7,4 ±0,05	**1116.1**	10 unit(s)	106,35
						1116.2	100 unit(s)	524,10
ROTI®Fair pNPP 5mg	pNPP (tablet), p-Nitrophenyl phosphate	Substrate solution for alkaline phosphatase	5 mg/tablet	1 mg/ml		**1117.1**	24 unit(s)	143,55
ROTI®Fair pNPP 20mg	pNPP (tablet), p-Nitrophenyl phosphate	Substrate solution for alkaline phosphatase	20 mg/tablet	1 mg/ml		**1128.1**	24 unit(s)	124,20
ROTI®Fair SDS-PAGE	Tris-glycine-SDS buffer	Buffer for protein electrophoresis	1000 ml/pouch	1x	8,3 ±0,05	**1249.1**	10 unit(s)	299,95
	Tris-glycine-SDS buffer	Buffer for protein electrophoresis	5000 ml/pouch	1x	8,3 ±0,05	**1250.1**	10 unit(s)	542,90
ROTI®Fair 20x SSC	Sodium sodium citrate buffer	Buffer solution for Southern- and Northern transfer	1000 ml/pouch	20x	7,0 ±0,05	**1232.1**	5 unit(s)	197,30
ROTI®Fair SSPE	Sodium sodium phosphate EDTA buffer	Buffer solution for DNA- and RNA hybridisation	200 ml/tablet	1x	7,4 ±0,05	**1233.1**	100 unit(s)	130,65

Roti®Fair Reagents

Product name	Buffer/solution	Use	Batch quantity	End concentration	pH value	Art. No.	Pack Qty.	€
ROTI®Fair 50x TAE	Tris acetate EDTA buffer	Buffer solution for DNA electrophoresis	500 ml/pouch	50x	8,3 ±0,05	**1234.1**	5 unit(s)	524,10
	Tris acetate EDTA buffer	Buffer solution for DNA electrophoresis	1000 ml/pouch	50x	8,3 ±0,05	**1240.1**	5 unit(s)	1.009,45
ROTI®Fair 1x TBE	Tris acetate EDTA buffer	Buffer solution for DNA electrophoresis	1000 ml/pouch	1x	8,3 ±0,05	**1241.1**	10 unit(s)	238,15
ROTI®Fair 5x TBE	Tris acetate EDTA buffer	Buffer solution for DNA electrophoresis	1000 ml/pouch	5x	8,3 ±0,05	**1242.1**	10 unit(s)	349,40
ROTI®Fair 10x TBE	Tris acetate EDTA buffer	Buffer solution for DNA electrophoresis	1000 ml/pouch	10x	8,3 ±0,05	**1243.1**	10 unit(s)	542,90
ROTI®Fair TBS 7.6	Tris-buffered salt solution, Tris Buffered Saline	General solution for assays in molecular biology and bio-chemistry	500 ml/tablet	1x	7,6 ±0,05	**1244.1**	10 unit(s)	80,55
						1244.2	100 unit(s)	413,90
ROTI®Fair TBS 8.0	Tris-buffered salt solution, Tris Buffered Saline	General solution for assays in molecular biology and bio-chemistry	1000 ml/pouch	1x	8,0 ±0,05	**1245.1**	10 unit(s)	223,10
ROTI®Fair 10x TBS 8.0	Tris-buffered salt solution, Tris Buffered Saline	General solution for assays in molecular biology and bio-chemistry	1000 ml/pouch	10x	8,0 ±0,05	**1247.1**	10 unit(s)	858,95
ROTI®Fair TBST 7.6	Tris-buffered salt solution with Tween, Tris Buffered Saline/ Tween	General solution for assays in molecular biology and bio-chemistry	500 ml/tablet	1x	7,6 ±0,05	**1248.1**	10 unit(s)	112,35
						1248.2	100 unit(s)	504,20
ROTI®Fair 10x TE	Tris EDTA buffer	Buffer solution for solubilisation and dilution of nucleic acids	1000 ml/pouch	10x	7,4 ±0,05	**1268.1**	10 unit(s)	284,90
ROTI®Fair TG-Western	Tris-glycine buffer	Buffer for protein electrophoresis and transfer	1000 ml/pouch	1x	8,3 ±0,05	**1269.1**	10 unit(s)	231,15
	Tris-glycine buffer	Buffer for protein electrophoresis and transfer	5000 ml/pouch	1x	8,3 ±0,05	**1276.1**	10 unit(s)	467,65
ROTI®Fair 1M Tris 7.4	Tris solution	General solution for assays in molecular biology and bio-chemistry	1000 ml/pouch	1 M	7,4 ±0,05	**1251.1**	10 unit(s)	542,90
ROTI®Fair 1M Tris 8.0	Tris solution	General solution for assays in molecular biology and bio-chemistry	1000 ml/pouch	1 M	8,0 ±0,05	**1260.1**	10 unit(s)	542,90
ROTI®Fair 1M Tris 8.3	Tris solution	General solution for assays in molecular biology and bio-chemistry	1000 ml/pouch	1 M	8,3 ±0,05	**1261.1**	10 unit(s)	542,90
ROTI®Fair SDS 0.5g	Sodium dodecyl sulfate solution	Anionic detergent for preparation of bioana-lytical solutions	0,5 g/tablet	variable		**1156.1**	50 unit(s)	n. a.

For additional product data and safety information, see chapter Chemicals A–Z.

Biological Buffer Reagents

PUFFERAN® – for biochemistry, bioinorganic chemistry and molecular genetics
CELLPURE® – especially for cell culture

- Very high purity
- Dissolve easily in water and aqueous media
- No penetration or dissolution of membranes
- Low UV absorption
- No or only very weak complexing with cations
- Chemically stable
- No inhibition or activation of biological or biochemical reactions
- Minimal alteration of pH-value by temperature changes



Application Range of Biological Buffer Reagents

Buffer reagents (alphabetical))	pH range	pK_a (25 °C)
ACES	6,1–7,5	6,78
ADA	6,0–7,2	6,59
AMP	8,7–10,4	6,69
AMPSO	8,3–9,7	9,00
BES	6,4–7,8	7,09
BICINE	7,6–9,0	8,26
BIS-TRIS	5,8–7,2	6,46
BIS-TRIS-Propane	6,3–9,5	6,80
Cacodylic acid	5,0–7,4	6,27
CAPS	9,7–11,1	10,40
CAPSO	8,9–10,3	9,60
Carbonate buffers	6,0–8,0	6,35
CHES	8,6–10,0	9,50
Citrate	2,2–6,5	3,13
DIPSO	7,0–8,2	7,52
Glycine	2,2–3,6	2,35
Glycyl-glycine	2,5–3,8	3,14
HEPES	6,8–8,2	7,48
HEPES, EPPS	7,6–8,6	8,00
HEPPSO	7,1–8,5	7,85
Imidazole	6,2–7,8	6,95
MES	5,5–6,7	6,10
MOPS	6,5–7,9	7,14
MOPSO	6,2–7,6	6,87
Phosphate buffers	1,7–2,9	2,15
PIPES	6,1–7,5	6,76
POPSO	7,2–8,5	7,78
Potassium acetate	3,6–5,6	4,76
Pyridine	4,9–5,9	5,23
Sodium acetate	3,6–5,6	4,76
Sodium formiate	3,0–4,5	3,75
Succinate	3,2–5,2	4,21
Succinic acid	3,2–5,2	4,21
TAPS	7,7–9,1	8,40
TAPSO	7,0–8,2	7,61
Taurine	8,4–9,6	9,06
TES	6,8–8,2	7,40
TRICINE	7,4–8,8	8,05
Triethanolamine	7,0–8,3	7,76
TRIS	7,5–9,0	8,06

Buffer reagents (buffered pH range)	pH range	pK_a (25 °C)
Phosphate buffers	1,7–2,9	2,15
Glycine	2,2–3,6	2,35
Citrate	2,2–6,5	3,13
Glycyl-glycine	2,5–3,8	3,14
Sodium formiate	3,0–4,5	3,75
Acide succinique	3,2–5,2	4,21
Succinate	3,2–5,2	4,21
Potassium acetate	3,6–5,6	4,76
Sodium acetate	3,6–5,6	4,76
Pyridine	4,9–5,9	5,23
Cacodylic acid	5,0–7,4	6,27
MES	5,5–6,7	6,10
BIS-TRIS	5,8–7,2	6,46
ADA	6,0–7,2	6,59
Carbonate buffers	6,0–8,0	6,35
ACES	6,1–7,5	6,78
PIPES	6,1–7,5	6,76
MOPSO	6,2–7,6	6,87
Imidazole	6,2–7,8	6,95
BIS-TRIS-Propane	6,3–9,5	6,80
BES	6,4–7,8	7,09
MOPS	6,5–7,9	7,14
HEPES	6,8–8,2	7,48
TES	6,8–8,2	7,40
DIPSO	7,0–8,2	7,52
TAPSO	7,0–8,2	7,61
Triethanolamine	7,0–8,3	7,76
HEPPSO	7,1–8,5	7,85
POPSO	7,2–8,5	7,78
TRICINE	7,4–8,8	8,05
TRIS	7,5–9,0	8,06
HEPES, EPPS	7,6–8,6	8,00
BICIN	7,6–9,0	8,26
TAPS	7,7–9,1	8,40
AMPSO	8,3–9,7	9,00
Taurine	8,4–9,6	9,06
CHES	8,6–10,0	9,50
AMP	8,7–10,4	6,69
CAPSO	8,9–10,3	9,60
CAPS	9,7–11,1	10,40

Biological Buffer Reagents

Product name	Brand/Purity	Art. No.	Pack Qty.	€
ACES	PUFFERAN® ≥99 %	**9138.1**	10 g	26,80
		9138.2	100 g	204,25
ADA	PUFFERAN® ≥98 %	**0250.1**	50 g	32,15
		0250.2	100 g	56,90
		0250.3	500 g	222,00
AMP	PUFFERAN® ≥90 %	**3121.1**	250 ml	51,50
		3121.2	1 l	149,45
AMPSO	PUFFERAN® ≥98 %	**7159.1**	25 g	62,25
		7159.2	100 g	188,15
AMPSO sodium salt	PUFFERAN® ≥98 %	**7014.1**	25 g	66,15
		7014.2	100 g	209,65
BES	PUFFERAN® ≥99 %	**9134.1**	25 g	30,00
		9134.2	100 g	81,60
		9134.3	250 g	177,40
		9134.4	500 g	289,20
BICINE	PUFFERAN® ≥99 %	**9162.1**	50 g	50,00
		9162.2	250 g	160,20
		9162.3	500 g	231,15
BIS-TRIS	PUFFERAN® ≥99 %	**9140.1**	50 g	70,85
		9140.2	250 g	295,65
		9140.3	500 g	499,90
		9140.8	1 kg	779,40
BIS-TRIS-Propane	PUFFERAN® ≥98 %	**6999.1**	25 g	79,45
		6999.2	100 g	278,45
Cacodylic acid sodium salt trihydrate	PUFFERAN® ≥98 %	**5169.3**	10 g	27,45
		5169.1	50 g	81,60
		5169.2	250 g	263,40
CAPS	PUFFERAN® ≥99 %	**9168.1**	25 g	22,50
		9168.3	100 g	61,20
		9168.2	250 g	138,70
CAPSO	PUFFERAN® ≥98 %	**5584.3**	25 g	37,55
		5584.1	100 g	112,35
		5584.2	500 g	407,45
CAPSO sodium salt	PUFFERAN® ≥95 %	**6861.1**	25 g	33,25
CHAPS	PUFFERAN® ≥98 %, for biochemistry	**1479.1**	5 g	74,20
		1479.3	10 g	126,35
		1479.2	25 g	256,95
		1479.4	100 g	547,20
Citric acid	≥99,5 %, p.a., ACS, anhydrous	**X863.1**	500 g	28,95
		X863.2	1 kg	48,30
		X863.3	2.5 kg	98,80
		X863.4	5 kg	174,70
		X863.6	10 kg	332,20
		X863.5	25 kg	639,65
DIPSO	PUFFERAN® ≥98 %	**7151.1**	25 g	88,70
Glycine	≥99 %, Blotting Grade	**0079.1**	250 g	31,75
		0079.2	500 g	59,05
		0079.3	1 kg	101,60
		0079.4	2.5 kg	196,20
	PUFFERAN® ≥99 %, p.a.	**3908.1**	250 g	29,60
		3908.2	1 kg	96,65
		3908.4	2.5 kg	180,10
		3908.3	5 kg	267,70
		3908.6	10 kg	471,95
		3908.5	25 kg	1.037,40
	CELLPURE® ≥99 %	**HN07.1**	100 g	21,40
		HN07.2	500 g	62,90
		HN07.3	1 kg	112,90
	≥99 %, for biochemistry	**3187.1**	250 g	23,55
		3187.2	500 g	33,90
		3187.3	1 kg	51,10
		3187.5	2.5 kg	101,60
		3187.4	5 kg	192,45
		3187.6	10 kg	332,20
		3187.7	25 kg	633,20

Product name	Brand/Purity	Art. No.	Pack Qty.	€
Glycylglycine	PUFFERAN® ≥99 %, Ultra Quality	**3794.1**	10 g	21,40
		3794.2	100 g	134,40
		3794.3	250 g	267,70
		3794.4	500 g	493,45
	PUFFERAN® ≥98,5 %, Buffer Grade	**HN74.1**	50 g	42,50
		HN74.2	100 g	70,85
		HN74.3	250 g	153,20
		HN74.4	500 g	278,45
HEPES	PUFFERAN® CELLPURE® ≥99,5 %	**HN77.1**	50 g	36,45
		HN77.2	100 g	53,25
		HN77.3	250 g	102,05
		HN77.4	500 g	181,70
		HN77.5	1 kg	321,45
		HN77.6	2.5 kg	643,95
	≥99,5 %, BioScience Grade	**6763.1**	100 g	46,15
		6763.2	500 g	181,70
		6763.3	1 kg	310,70
	PUFFERAN® ≥99,5 %, p.a.	**9105.2**	100 g	42,50
		9105.1	250 g	89,15
		9105.4	500 g	170,95
		9105.3	1 kg	299,95
		9105.6	2.5 kg	590,20
		9105.5	5 kg	1.106,20
	PUFFERAN® ≥99,5 %, Buffer Grade	**HN78.1**	100 g	34,95
		HN78.2	500 g	126,35
		HN78.3	1 kg	231,15
		HN78.5	2.5 kg	493,45
		HN78.4	5 kg	955,70
HEPES sodium salt	PUFFERAN® ≥99 %	**7020.1**	25 g	47,85
		7020.2	100 g	160,20
HEPPS, EPPS	PUFFERAN® ≥98 %	**9164.1**	10 g	26,35
		9164.2	100 g	155,90
Imidazole	PUFFERAN® ≥99 %, p.a., Ultra Quality	**X998.1**	10 g	21,40
		X998.2	50 g	57,95
		X998.3	100 g	100,95
		X998.4	250 g	228,45
MES	PUFFERAN® ≥99 %	**4256.2**	100 g	79,45
		4256.5	250 g	170,95
		4256.3	500 g	321,45
		4256.4	1 kg	557,95
	≥99 %, for biochemistry	**4259.1**	50 g	40,75
		4259.2	100 g	62,90
		4259.3	250 g	112,90
		4259.4	500 g	213,95
		4259.5	1 kg	403,15
MES monohydrate	PUFFERAN® ≥99 %	**6066.1**	50 g	32,15
		6066.2	100 g	53,65
		6066.3	500 g	203,20
		6066.4	1 kg	385,95
MES sodium salt	PUFFERAN® ≥99 %	**6922.1**	25 g	30,00
		6922.2	100 g	107,40
MOPS	PUFFERAN® ≥99,5 %	**6979.2**	250 g	94,50
		6979.4	500 g	170,95
		6979.3	1 kg	321,45
		6979.5	2.5 kg	654,70
MOPSO	PUFFERAN® ≥99 %	**7117.1**	25 g	52,60
		7117.2	100 g	170,95
		7117.3	1 kg	1.451,25
MOPSO sodium salt	PUFFERAN® ≥98 %	**7101.1**	25 g	81,60
		7101.2	100 g	278,45
MOPS sodium salt	PUFFERAN® ≥99 %	**6927.1**	25 g	34,30
		6927.2	100 g	107,40
PIPES	PUFFERAN® ≥99 %	**9156.1**	25 g	24,65
		9156.2	100 g	75,15
		9156.3	250 g	160,20
		9156.4	500 g	289,20
PIPES monosodium salt	PUFFERAN® ≥97 %	**9153.1**	25 g	46,15
PIPES disodium salt	PUFFERAN® ≥99 %	**7109.2**	100 g	149,45
POPSO	PUFFERAN® ≥99 %	**6632.1**	25 g	46,15
		6632.2	100 g	145,15

Biological Buffer Reagents

Product name	Brand/Purity	Art. No.	Pack Qty.	€
POPSO 1.5 Na	PUFFERAN® ≥99 %	**6965.1**	25 g	75,15
		6965.2	100 g	224,70
Potassium acetate	≥99 %, p.a.	**T874.1**	500 g	42,90
		T874.2	1 kg	78,40
		T874.3	2.5 kg	160,20
		T874.5	25 kg	1.279,25
Potassium dihydrogen phosphate	≥99 %, p.a., ACS	**3904.2**	250 g	25,70
		3904.1	1 kg	81,60
		3904.3	5 kg	338,65
		3904.5	25 kg	1.558,75
di-Potassium hydrogen phosphate	≥99 %, p.a., anhydrous	**P749.1**	500 g	37,55
		P749.2	1 kg	67,65
		P749.3	2.5 kg	138,70
		P749.5	25 kg	1.069,65
Pyridine	ROTIPURAN® ≥99,5 %, p.a., ACS	**9729.3**	500 ml	83,75
		9729.1	1 l	155,35
		9729.2	2.5 l	321,45
ROTI®Fair Glycine 3.0	for 1000 ml/pouch, for biochemistry	**1032.1**	10 unit(s)	124,20
ROTI®Fair Na-Acetate 5.2	for 1000 ml/pouch, for molecular biology	**1195.1**	5 unit(s)	317,15
ROTI®Fair 0.02M Na-Phosphate 7.0	for 1000 ml/pouch, for biochemistry and molecular biology	**1090.1**	10 unit(s)	114,50
	for 5000 ml/pouch, for biochemistry and molecular biology	**1094.1**	10 unit(s)	331,00
ROTI®Fair 1M Na-Phosphate 6.5	for 1000 ml/pouch, for biochemistry and molecular biology	**1095.1**	10 unit(s)	310,70
ROTI®Fair 1M Na-Phosphate 7.2	for 1000 ml/pouch, for biochemistry and molecular biology	**1097.1**	10 unit(s)	310,70
ROTI®Fair 1M Tris 7.4	for 1000 ml/pouch, for biochemistry and molecular biology	**1251.1**	10 unit(s)	542,90
ROTI®Fair 1M Tris 8.0	for 1000 ml/pouch, for biochemistry and molecular biology	**1260.1**	10 unit(s)	542,90
ROTI®Fair 1M Tris 8.3	for 1000 ml/pouch, for biochemistry and molecular biology	**1261.1**	10 unit(s)	542,90
Sodium acetate	≥99 %, p.a., ACS, anhydrous	**6773.1**	250 g	40,75
		6773.2	1 kg	107,40
		6773.3	2.5 kg	235,45
		6773.5	25 kg	1.666,25
Sodium carbonate	≥99,5 %, p.a., ACS, anhydrous	**A135.1**	500 g	27,85
		A135.2	1 kg	51,10
		A135.3	5 kg	209,65
mono-Sodium citrate	≥99 %, anhydrous, extra pure	**HN13.1**	100 g	18,20
		HN13.2	500 g	49,35
		HN13.3	1 kg	76,90
Sodium dihydrogen phosphate dihydrate	≥99 %, p.a.	**T879.1**	500 g	37,55
		T879.2	1 kg	62,25
		T879.3	2.5 kg	134,40
		T879.5	25 kg	1.171,75
Sodium formate	≥99 %, p.a., ACS	**4404.1**	250 g	40,75
		4404.2	500 g	71,95
		4404.3	1 kg	128,50
Sodium hydrogen carbonate	≥99,5 %, p.a., ACS, ISO	**6885.2**	500 g	23,55
		6885.1	1 kg	38,60
		6885.3	5 kg	149,45
		6885.5	25 kg	579,45
di-Sodium hydrogen phosphate	≥99 %, p.a., ACS, anhydrous	**P030.1**	500 g	67,65
		P030.2	1 kg	117,20
		P030.3	2.5 kg	246,20
Succinic acid disodium salt hexahydrate	≥98 %, for biochemistry	**3195.1**	100 g	24,65
		3195.2	500 g	56,45
		3195.3	1 kg	101,60
		3195.4	2.5 kg	198,90
		3195.5	10 kg	633,20
TAPS	PUFFERAN® ≥99 %	**6982.1**	10 g	17,10
		6982.2	100 g	58,60
		6982.3	250 g	117,20
		6982.4	500 g	213,95

Product name	Brand/Purity	Art. No.	Pack Qty.	€
TAPSO	PUFFERAN® ≥99 %	**6628.1**	25 g	37,55
		6628.2	100 g	112,90
TAPSO sodium salt	PUFFERAN® ≥99 %	**6974.1**	25 g	46,15
		6974.2	100 g	149,45
Taurine	≥99 %, for biochemistry	**4721.1**	100 g	23,55
		4721.2	500 g	69,35
TES	PUFFERAN® ≥99 %	**9137.1**	10 g	31,75
		9137.2	100 g	155,90
		9137.3	500 g	461,20
TRICINE	PUFFERAN® ≥99 %	**6977.1**	50 g	34,30
		6977.4	250 g	134,40
		6977.2	500 g	246,20
		6977.3	1 kg	439,70
		6977.5	2.5 kg	858,95
Triethanolamine	≥99 %, for synthesis	**6300.1**	1 l	33,90
		6300.3	2.5 l	58,60
		6300.2	10 l	193,50
Triethanolamine hydrochloride	≥99 %, for biochemistry	**4804.1**	100 g	75,15
TRIS	PUFFERAN® ≥99,9 %, p.a.	**4855.6**	250 g	46,15
		4855.1	500 g	78,40
		4855.2	1 kg	147,85
		4855.5	2.5 kg	306,40
		4855.3	5 kg	579,45
		4855.4	10 kg	1.116,95
		4855.7	25 kg	2.574,65
	≥99,9 %, Blotting Grade	**0188.1**	250 g	52,15
		0188.2	500 g	89,15
		0188.3	1 kg	158,60
		0188.4	2.5 kg	327,90
	CELLPURE® ≥99,9 %	**3170.1**	100 g	36,45
		3170.2	500 g	112,80
	PUFFERAN® ≥99,9 %, Ultra Quality	**5429.1**	500 g	73,00
		5429.3	1 kg	140,30
		5429.5	2.5 kg	292,95
		5429.2	5 kg	568,70
		5429.4	10 kg	1.069,65
	≥99 %, Ph. Eur., USP	**A411.1**	500 g	70,45
		A411.2	1 kg	138,70
		A411.4	2.5 kg	289,20
		A411.3	5 kg	557,95
	PUFFERAN® ≥99,3 %, Buffer Grade	**AE15.1**	500 g	68,30
		AE15.2	1 kg	131,70
		AE15.6	2.5 kg	281,15
		AE15.3	5 kg	547,20
		AE15.4	10 kg	1.037,40
		AE15.5	25 kg	2.311,25
	≥99 %, cryst.	**2449.1**	500 g	64,40
		2449.2	1 kg	123,10
		2449.3	5 kg	532,15
		2449.4	10 kg	1.015,90
		2449.5	25 kg	2.230,65
TRIS acetate	PUFFERAN® ≥98 %	**7125.1**	25 g	50,45
		7125.2	100 g	174,70
TRIS hydrochloride	PUFFERAN® ≥99 %, p.a.	**9090.1**	50 g	18,85
		9090.6	250 g	72,60
		9090.2	500 g	123,65
		9090.3	1 kg	209,65
		9090.5	2.5 kg	407,45
		9090.4	5 kg	772,95
TRIS maleate	PUFFERAN® ≥99 %	**6991.1**	100 g	123,65

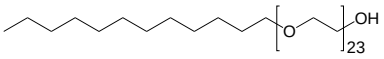
For additional product data and safety information, see chapter Chemicals A–Z.

Please note our **Technical Information Brochure** on the Internet next to the products:

Biological Buffers

Detergents

The dissolving power of detergents is utilised to deal with a number of molecular-biological and biochemical problems.



Brij® 35

for biochemistry

Non-ionic detergent.

Copolymer and non-ionoic detergent with polyoxyethylen group. Highly resistant against acids and bases. Particularly suited for emulgation of fats at high or low pH values. Also well suited for protein analysis, since Brij® 35 does neither denature nor dissociate proteins.

Application: 0.5 % solution: Dissolve 0.5 g Brij® 35 in 100 ml hot water. Tip: In case some detergent precipitates during cooling, dilute to 150 ml (0.34 % solution) and use 1.5 vol. in the assay.

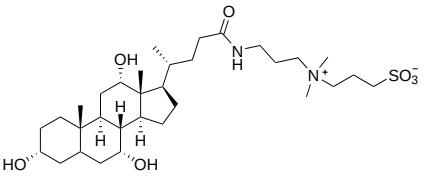
$C_{58}H_{118}O_{24}$ · M 1198,57 g/mol

UN no. 3082 · ADR 9 III · WGK 2

Warning H302-H319-H410

Art. No.	Pack Qty.	Pack.	€
CN21.1	250 g	plastic	32,15
CN21.2	500 g	plastic	55,80
Original pack 6 x 500 g			53,01/500 g
CN21.3	1 kg	plastic	94,10
Original pack 6 x 1 kg			89,40/1 kg





CHAPS

PUFFERAN® ≥98 %, for biochemistry

Buffer substance, zwitterionic detergent

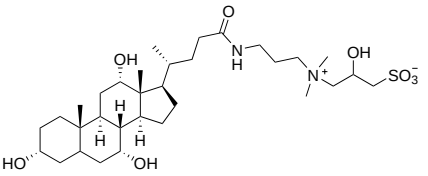
$C_{32}H_{58}N_2SO_7$ · M 614,9 g/mol

Storage temperature: +4 °C

WGK 1

Warning H315-H319-H335

Art. No.	Pack Qty.	Pack.	€
1479.1	5 g	plastic	74,20
1479.3	10 g	plastic	126,35
1479.2	25 g	plastic	256,95
1479.4	100 g	plastic	547,20



CHAPSO

PUFFERAN® ≥99 %, for biochemistry

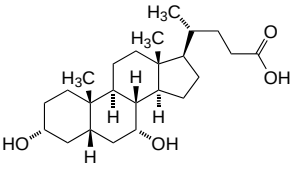
Buffer substance, zwitterionic detergent

$C_{32}H_{58}N_2O_8S$ · M 630,88 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
HN73.1	1 g	plastic	74,20
HN73.2	5 g	plastic	231,15
HN73.3	10 g	plastic	424,65



Chenodeoxycholic acid

≥98 %, for biochemistry

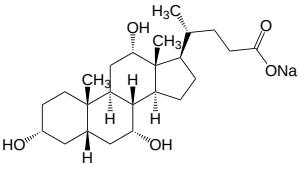
Anionic detergent

$C_{24}H_{40}O_4$ · M 392,58 g/mol

WGK 1

Warning H315-H319

Art. No.	Pack Qty.	Pack.	€
4128.1	5 g	glass	45,70
4128.2	10 g	glass	85,90
4128.3	25 g	glass	170,95



Cholic acid sodium salt

≥99 %, for biochemistry

Anionic detergent

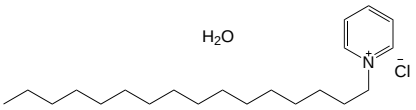
$C_{24}H_{39}NaO_5$ · M 430,57 g/mol

WGK 1

H412

Art. No.	Pack Qty.	Pack.	€
3407.1	50 g	plastic	85,90

Detergents



Cetylpyridinium chloride monohydrate (CPC)

≥98 %, for biochemistry

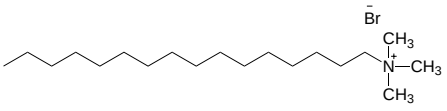
Cationic detergent

$C_{21}H_{38}ClN \cdot H_2O$ · M 358,01 g/mol

UN no. 2811 · ADR 6.1 II · WGK 3

Danger H301-H315-H319-H330-H335-H410

Art. No.	Pack Qty.	Pack.	€
CN27.1	100 g	plastic	49,35
CN27.2	500 g	plastic	192,45
Original pack 6 x 500 g			182,83/500 g



Cetyltrimethylammonium bromide (CTAB)

≥99 %, for biochemistry

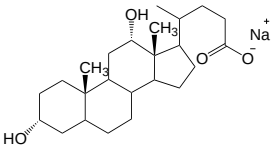
Cationic detergent

$C_{19}H_{42}BrN$ · M 364,46 g/mol

UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H315-H318-H335-H373-H410

Art. No.	Pack Qty.	Pack.	€
9161.1	100 g	plastic	27,85
9161.3	500 g	plastic	110,20
Original pack 6 x 500 g			104,69/500 g
9161.2	1 kg	plastic	198,90
Original pack 6 x 1 kg			188,96/1 kg



Deoxycholic acid sodium salt (DOC)

≥98 %, for biochemistry

Anionic detergent

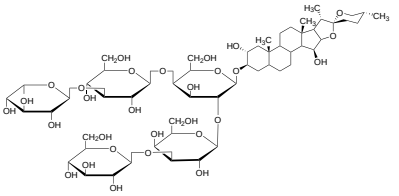
$C_{24}H_{39}NaO_4$ · M 414,64 g/mol

Storage temperature: +4 °C

WGK 1

Warning H302

Art. No.	Pack Qty.	Pack.	€
3484.1	10 g	plastic	32,15
3484.2	50 g	plastic	110,20
3484.3	100 g	plastic	198,90



Digitonin

Ultra Quality

Water soluble quality, for biochemistry. Non-ionic detergent.

Steroid glycoside and non–onic detergent with high binding capacity for cholesterol. Digitonin is used for permeabilisation of plasma membranes as well as for mild solubilisation of membrane–bound proteins.

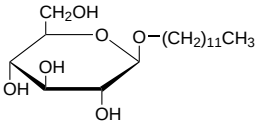
Application: Use 10–100 µg/ml for selective permeabilisation of plasma membranes via binding of cholesterol (Mooney, R.A. (1988). *Methods Enzymol.* 159:193–2).

$C_{56}H_{92}O_{29}$ · M 1229,32 g/mol

UN no. 2811 · ADR 6.1 III · WGK 3

Danger H301+H311+H331

Art. No.	Pack Qty.	Pack.	€
HN76.3	100 mg	glass	99,45
HN76.1	250 mg	glass	209,65
HN76.2	1 g	glass	639,65



n-Dodecyl-β-D-glucopyranoside

for biochemistry

Non-ionic detergent.

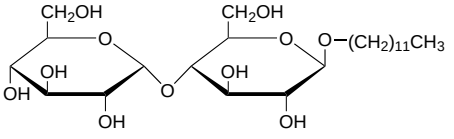
$C_{18}H_{36}O_6$ · M 348,48 g/mol

Storage temperature: +4 °C

WGK 1

Warning H315-H319-H335

Art. No.	Pack Qty.	Pack.	€
4129.1	500 mg	glass	138,70



Dodecyl-β-D-maltoside (DDM)

≥99 %, for biochemistry

Non-ionic detergent.

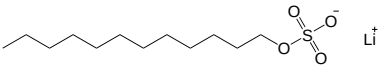
Mainly used for isolation and solubilisation of membrane proteins. Isolated proteins frequently remain folded in native complexes with stabile conformation and high activity.

$C_{24}H_{46}O_{11}$ · M 510,63 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
CN26.1	500 mg	glass	53,65
CN26.2	1 g	glass	85,90
CN26.3	2.5 g	glass	181,70
CN26.4	10 g	glass	590,20
CN26.5	50 g	plastic	1.709,25



Lithiumdodecyl sulphate (LDS)

≥99 %, for biochemistry

Anionic detergent

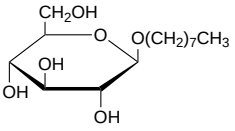
For special applications in molecular biology, and for release of peptides from protein complexes. Compared with SDS, LDS has higher solubility and, under certain conditions, may be used to replace SDS in PAGE.

$C_{12}H_{25}LiO_4S$ · M 272,33 g/mol

UN no. 1325 · ADR 4.1 III · WGK 2

Danger H228-H302+H332-H315-H318-H335-H412

Art. No.	Pack Qty.	Pack.	€
CN25.1	10 g	plastic	34,95
CN25.2	25 g	plastic	69,80
CN25.3	50 g	plastic	127,95



n-Octyl-β-D-glucopyranoside (OGP)

≥98 %, for biochemistry

Non-ionic detergent.

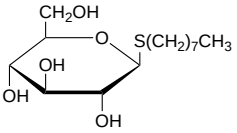
Non–ionic, non–denaturing, water–soluble detergent, mainly used for isolation of membrane proteins. Easily removable by dialysis. No photometric absorption at 280 nm.
Recommended working solution: 30 mM.
Always prepare working solutions freshly.

$C_{14}H_{28}O_6$ · M 292,38 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
CN23.1	1 g	glass	37,55
CN23.2	5 g	glass	134,40
CN23.3	10 g	glass	241,90



n-Octyl-β-D-thioglucopyranoside

≥95 %, for biochemistry

Non-ionic detergent.

Octyl-β-D-thioglucopyranoside excels by its stability in aqueous solutions. It is also easily removed by dialysis. Hence, it is highly useful for isolation of native membrane proteins.

$C_{14}H_{28}O_5S$ · M 308,44 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
4139.3	500 mg	glass	49,35
4139.1	1 g	glass	75,15
4139.2	5 g	glass	317,15

Propane sulphonates

Zwitterionic detergents

Product name	Purity	Art. No.	Pack Qty.	€
N-Decyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate	≥98 %, for biochemistry	**1816.1**	5 g	62,25
		1816.2	25 g	166,65
N-Dodecyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate	≥98 %, for biochemistry	**1821.1**	5 g	31,75
		1821.2	25 g	85,90
		1821.3	100 g	299,95
N-Hexadecyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate	≥98 %, for biochemistry	**1823.1**	5 g	67,20
		1823.2	25 g	181,70
N-Octyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate	≥98 %, for biochemistry	**1800.1**	5 g	61,20
		1800.2	25 g	160,20
N-Tetradecyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate	≥98 %, for biochemistry	**1822.1**	5 g	34,30
		1822.2	25 g	96,25
		1822.3	100 g	317,15



S ready-to-use

ROTI®Stock 20 % SDS

20 % SDS, BioScience Grade, ready-to-use, sterile filtered

For molecular biology and electrophoresis.

20 % stock solution sodium dodecyl sulphate.

Store the solution away from light in a dry place. SDS stock solution and other solutions containing SDS should not be cooled below 24 °C otherwise the SDS may precipitate. The crystals can be easily resolubilised by heating them between 30 to 50 °C.

With original seal.

WGK 2

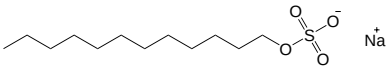
Danger H315-H318-H335

20 % SDS in deionised water, 0.2 µm filtered.
Remark: Contains SDS. Can be redissolved by heating (max. 45 °C).

Art. No.	Pack Qty.	Pack.	€
1057.1	1 l	glass	177,40
Original pack 6 x 1 l			168,53/1 l

Detergents





SDS

≥99,3 %, Blotting Grade

For Western- and Southern blotting

SDS of particularly high purity, tested for absence of heavy metals and for UV-absorption qualities. Particularly suitable for Western- and Southern blotting, as well as for immunodetection and assays in molecular biology.

CMC (critical micelle concentration) = 8,5 mM SDS solution

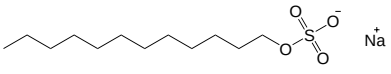
$C_{12}H_{25}NaO_4S$ · M 288,38 g/mol

UN no. 1325 · ADR 4.1 III · WGK 2

Danger H228-H302+H332-H315-H318-H335-H412

Art. No.	Pack Qty.	Pack.	€
0183.1	100 g	plastic	60,10
0183.2	250 g	plastic	127,95
0183.3	500 g	plastic	209,65
Original pack 6 x 500 g			199,17/500 g





SDS pellets

≥99,5 %, ROTIPHORESE® Grade

Ultrapure, dust-free SDS for electrophoresis.

Ultrapure, dust-free SDS in special quality for electrophoresis. The use of pellets significantly reduces the generation of SDS dust during weighing and thus protects personnel and the environment.

Each batch is tested for its functionality in electrophoresis.

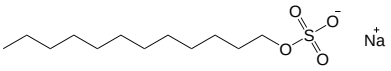
$C_{12}H_{25}NaO_4S$ · M 288,38 g/mol

WGK 2

Danger H302-H315-H318-H412

Art. No.	Pack Qty.	Pack.	€
8029.1	100 g	plastic	40,75
8029.2	250 g	plastic	82,25
8029.3	500 g	plastic	145,15
Original pack 6 x 500 g			137,89/500 g
8029.4	1 kg	plastic	268,75
Original pack 6 x 1 kg			255,31/1 kg





SDS ultra pure

≥99 %, for electrophoresis, for biochemistry and molecular biology

Anionic detergent.

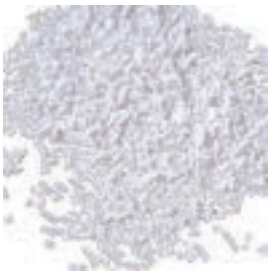
CMC (critical micelle concentration) = 8,5 mM SDS solution

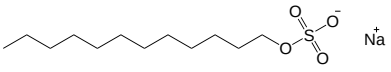
$C_{12}H_{25}NaO_4S$ · M 288,38 g/mol

UN no. 1325 · ADR 4.1 III · WGK 2

Danger H228-H302+H332-H315-H318-H335-H412

Art. No.	Pack Qty.	Packaging	Pack.	€
2326.1	100 g	1 x 100 g	plastic	50,45
2326.4	250 g	1 x 250 g	plastic	106,45
2326.2	500 g	1 x 500 g	plastic	192,45
Original pack 6 x 500 g				182,83/500 g
2326.3	500 g	1 x 500 g in 2,5 l glass bottle	glass	198,35
Original pack 6 x 500 g				188,43/500 g
2326.5	1 kg	1 x 1 kg	plastic	332,20
Original pack 6 x 1 kg				315,59/1 kg





SDS pellets

≥99 %, for biochemistry

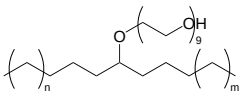
Anionic detergent.

$C_{12}H_{25}NaO_4S$ · M 288,38 g/mol

WGK 2

Danger H302-H315-H318-H412

Art. No.	Pack Qty.	Pack.	€
CN30.1	250 g	plastic	34,30
CN30.2	500 g	plastic	53,65
Original pack 6 x 500 g			50,97/500 g
CN30.3	1 kg	plastic	89,15
Original pack 6 x 1 kg			84,69/1 kg
CN30.4	2.5 kg	plastic	170,95
CN30.7	5 kg	plastic	268,75



n+m=2-6

Tergitol™ 15-S-9

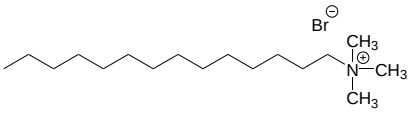
extra pure

Alternative to Triton® X-100, non-ionic detergent.

WGK 2

Warning H302+H332-H412

Art. No.	Pack Qty.	Pack.	€
9975.1	100 ml	glass	21,00
9975.2	500 ml	glass	46,15
9975.3	1 l	plastic	61,85
Original pack 6 x 1 l			58,76/1 l
9975.4	2.5 l	plastic	112,90
Original pack 4 x 2.5 l			107,26/2.5 l
9975.5	10 l	plastic	332,20



Tetradecyltrimethylammonium bromide (MTAB)

≥96 %, extra pure

Cationic detergent

$C_{17}H_{38}BrN$ · M 336,42 g/mol

UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H315-H318-H335-H373-H400

Art. No.	Pack Qty.	Pack.	€
7452.1	100 g	plastic	49,35
7452.2	500 g	plastic	188,15
Original pack 6 x 500 g			178,74/500 g
7452.3	1 kg	plastic	364,45
Original pack 6 x 1 kg			346,23/1 kg
7452.4	2.5 kg	plastic	800,90



Tween®

Product name	Purity	General application	Art. No.	Pack Qty.	€
Tween® 20	Ph. Eur.	Non-ionic detergent.	**9127.1**	250 g	28,95
			9127.2	1 kg	77,30
			9127.3	2.5 kg	147,85
			9127.4	5 kg	246,20
			9127.8	10 kg	450,45
Tween® 40	Ph. Eur.	Non-ionic detergent.	**8240.1**	250 g	34,95
			8240.2	500 g	61,20
			8240.3	1 kg	105,25
Tween® 60	Ph. Eur.	Non-ionic detergent.	**9694.1**	250 g	34,95
			9694.2	500 g	61,20
			9694.3	1 kg	105,25
Tween® 80	Ph. Eur.	Non-ionic detergent.	**9139.1**	250 g	32,15
			9139.3	500 g	57,95
			9139.2	1 kg	100,55
			9139.4	2.5 kg	180,10
			9139.5	5 kg	299,95
			9139.6	10 kg	532,15

Enzymes



Alkaline phosphatase

≥2 000 Glycin U/mg protein (approx. 6000 DEA U/mg protein)

From bovine intestinal mucosa. Solution in 50 % glycerol, 5 mM Tris/HCl, 5 mM $MgCl_2$ and 0.1 mM $ZnCl_2$, pH approx. 7.0.

Unit definition

One glycine unit (U) is defined as the amount of enzyme that catalyzes the hydrolysis of one µmole of p-nitrophenyl phosphate per min at pH 9.6 and 25 °C (glycine buffer).

Packaging: 10 KU

M ~120 000 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
6024.1	1 unit(s)	10 KU	plastic	697,70

β-Amylase

16–24 U/mg, lyophil.

Made from barley malt.

Unit definition

1 Unit enzyme acc. to Zulkowsky releases 1 µmol maltose per minute at 25 °C (pH 4.8).

Storage temperature: +4 °C

WGK 1

Danger H334

Art. No.	Pack Qty.	Pack.	€
8717.1	100 mg	glass	66,55

Catalase

≥11 700 U/mg material (approx. 40 000 U/mg protein)

From bovine liver, freeze-dried

Unit definition

One unit (U) is defined as the amount of enzyme that catalyzes the decomposition of one µmole of hydrogen peroxide per min at pH 7.0 and 25 °C.

Packaging: 5 Mega Unit

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Danger H334

Art. No.	Pack Qty.	Packaging	Pack.	€
6025.1	1 unit(s)	5 Mega Unit	plastic	188,15

Bromelain

~1200 GDU/g, for biochemistry

Made from stems of young pineapple *(Bromeliaceae)*.

Highly active thiol proteinase (non-specific cystein protease), glycoprotein. Enzyme from *Bromeliaceae*, used in biochemistry and for meat tenderising. Preferable digestion at lysin, alanin, tyrosin and glycin. Degrades hemoglobin, gluten, collagen, globulin, casein and gelatin at pH 4-9. Cream-coloured, hygroscopic powder.
Bromelain is activated by cystein, bisufite salts, NaCN, Na_2S, H_2S and benzoate. The definite pH optimum depends on substrate and reaction parameters. pH stability of bromelain increases drastically after binding to the substrate.

Unit definition

One GDU (gelatin digestion unit) will hydrolyse 1.0 mg of amino nitrogen from gelatin in 20 minutes at pH 4.5 at 45 °C. One bromelain tyrosine unit (BTU) corresponds to 1.1 GDU. 1200 GDU/g correspond to approx. 2.4 FIP-units/mg.

Directions for use

Working concentration: substrate dependent.
pH working range: 4.0–8.0, pH optimum: 5–6, stabile at pH 3.0–6.5
Temperature optimum: 50–65 °C
Inhibitors: Hg^{2+}, Ag^{+}, Cu^{2+}, antitrypsin, estatin, iodacetate, TLCK, TPCK, and temperatures of over 70 °C

Stock solution: 10 mg/ml in H_2O. Unsoluble in organic solvents (acetone, ethanol, methanol etc.)

Storage temperature: +4 °C

WGK 3

Danger H315-H319-H334-H335

Art. No.	Pack Qty.	Pack.	€
5950.1	10 g	plastic	26,35
5950.2	100 g	plastic	117,20

NEW/+

Chymotrypsin

≥1 000 USP-U/mg, for biochemistry

Made from bovine pancreas.

Trypsin content below 1 %

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Danger H315-H319-H334-H335

Art. No.	Pack Qty.	Pack.	€
0238.1	100 mg	glass	32,15
0238.2	500 mg	glass	67,65
0238.3	1 g	glass	110,65
0238.4	5 g	glass	456,90

Glucose oxidase (GOD)

~360 U/mg protein (approx. 280 U/mg material)

From *Aspergillus niger*, freeze-dried.

Unit definition

One unit (U) is defined as the amount of enzyme that catalyses the oxidation of one µmole of glucose per min at pH 7.0 and 25 °C.

Packaging: 0,5 MU

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Danger H334

Art. No.	Pack Qty.	Packaging	Pack.	€
6028.1	1 unit(s)	0,5 MU	plastic	289,20

Glutamate dehydrogenase (GDH, GLDH)

≥10 U/mg material (ca. 40 U/mg protein)

From bovine liver, freeze-dried.

Unit definition

One unit (U) is defined as the amount of enzyme that catalyses the reduction of one µmole of 2-oxoglutarate per min at pH 7.3 and 25 °C.

Packaging: 10 KU

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
6052.1	1 unit(s)	10 KU	plastic	256,95

Lactate dehydrogenase (LDH)

≥290 U/mg protein

From porcine heart, freeze-dried

Unit definition

One unit (U) is defined as the amount of enzyme that oxidises one µmole of NADH per min at pH 7.4 and 25 °C.

Packaging: 0,05 Mega Unit

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
6060.1	1 unit(s)	0,05 Mega Unit	plastic	203,20

Lipoxygenase

≥100 000 U/mg, for biochemistry

Made from soybeans. For oxidation of arachidonic acid.

Lipoxygenase stereo-specifically catalyses the oxidation of arachidonic acid, initiating the formation of leukotrienes in eicosanoid metabolism.

Unit definition

One unit will cause an increase in absorption (234 nm) of 0.001 per minute at 25 °C and pH 9 by oxidation of linoleic acid.

Directions for use

Well soluble in H_2O or buffer.
Recommended storage of stock solution in aliquots at –20 °C.

M ~108 000 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
CN73.1	100 mg	glass	99,45
CN73.2	500 mg	glass	353,70
CN73.3	1 g	glass	600,95



Lysozyme

≥45 000 FIP U/mg, lyophilized

From chicken egg white, free from albumin.

Salt and albumin free lyophilised powder. Quality product for molecular biology. Ideal for lysis of bacteria for preparing DNA.

Lysozyme preferentially hydrolyses the β-1,4-glycosidic bond between N-acetylmuraminic acid and N-acetylglucosamine. Muramic acid and acetylglucosamine are components of the proteoglycan cell wall of many microorganisms. The enzyme is mostly derived from chicken egg white and may efficiently be used for lysis of Gram+ bacteria. In genetic engineering, it is very often used during isolation of plasmid DNA or cellular RNA for the lysis of *E. coli* or eukaryotic cells.

Unit definition

1 FIP-Unit equals the amount of enzyme which reduces the absorbance by 0.001 per min. at 450 nm, 25 °C, pH 7.00 using a suspension of FIP *Micrococcus luteus* as substrate (acc. to *Pharmaceutical Enzymes* 1997). 1 FIP-Unit resembles approximately 1 Shugar-Unit.

Directions for use

Working solution: 5-10 mg/ml (bacteria), 1-2 mg/ml (eukaryotic cells)
Buffer: salt solution without detegents (0.1 M potassium phosphate buffer, 50 mM Tris buffer, 1x PBS, 1x TBS or similar)
pH optimum: 6.0-7.0
Inhibitors: imidazole, indole, N-acetyl glucosamine
Temperature optimum: 37 °C
Stability: The lyophilisate is stable at +4 °C and -20 °C for several years. The stability of the solution at pH 4-5 is several weeks at +4 °C and several days at room temperature.
Isoelectric point: approx. 11
Lysozyme solution should be frozen only once.

Stock solution: 10–50 mg/ml in 10 mM Tris (pH 8,0), prepare directly before use

M ~14000 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Danger H334

Art. No.	Pack Qty.	Pack.	€
8259.1	1 g	glass	36,45
8259.2	10 g	glass	188,15
8259.3	25 g	glass	375,20

► Ligases see chapter Molecular Biology page 134

Malate dehydrogenase (MDH)

≥1 250 U/mg protein

From porcine heart, freeze-dried

Unit definition

One unit (U) is defined as the amount of enzyme that oxidizes one µmole of NADH per min at pH 7.4 and 25 °C.

Packaging: 0,05 MU

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Danger H334

Art. No.	Pack Qty.	Packaging	Pack.	€
6062.1	1 unit(s)	0,05 MU	glass	198,90

Papain

>30 000 USP-U/mg, for biochemistry

Made from *Carica papaya*.

A non-specific endopeptidase from Papaya latex. Has a very wide substrate range and cleaves proteins more efficiently than trypsin, for example. Is capable of not only hydrolysing peptide bonds, but also acts effectively as an esterase and thiol-esterase.

Unit definition

30.000 USP (Casein) Units is approx. 2 FIP-Units (BAEE-Units). One USP Unit of Papain activity releases the equivalent of 1 µg tyrosine form a specified casein substrate under assay conditions specified by the USP.

Directions for use

Working concentration: Dilution immediately before application in a buffer with approx. 5 mM L-Cysteine
pH optimum: 6.0
Temperature optimum: 65 °C
Activation and stabilization: EDTA, Cysteine and Dimercaptopropanol. DTT may be added in orderto increase activity.

Stock solution: 10 mg/ml in water

Storage temperature: +4 °C

WGK 1

Danger H315-H319-H334-H335

Art. No.	Pack Qty.	Pack.	€
8933.1	25 g	plastic	64,40
8933.2	100 g	plastic	177,40



Pepsin

≥2 000 FIP-U/g, for biochemistry

From porcine gastric mucosa. For detection of trichina in meat.

Acidic endopeptidase, the inactive precursor of which, pepsinogen, is produced in the stomach mucosa. Pepsin cleaves proteins preferentially at carboxylic groups of aromatic amino acids such as phenylalanine and tyrosine. Highly active pepsine is preferably used for detection of trichina in pre-digested muscle meat of animals.

Unit definition

1 FIP unit (≈ Ph. Eur. unit) of Pepsin activity will, during incubation at 25 ±0.1 °C for one minute, cause decomposition of haemoglobin to an extent comparable with the colour caused by reaction of 1 micromole of tyrosine with the same dye. 2 000 FIP-Units correspond to 1: 10 000 NF-U and 1: 12 500 BP-U.

Directions for use

Irreversible inactivated in alkaline medium.
Solution is stable in temperatures of up to 60 °C, and also in higher concentrations of urea and guanidine.
pH optimum: 1–2.
Isoelectric point: 1.0

Well soluble in water, stable in aqueous solutions of pH up to 5.5, unstable above pH 6.0

M 35000 g/mol

Storage temperature: +4 °C

WGK 1

Danger H315-H319-H334-H335

Art. No.	Pack Qty.	Pack.	€
KK38.1	50 g	plastic	77,95
KK38.2	100 g	plastic	128,50
KK38.3	250 g	plastic	278,45
KK38.4	1 kg	plastic	1.048,15
Original pack 6 x 1 kg			995,74/1 kg

Pepsin

≥0,5 E/mg, Ph. Eur., for biochemistry

Isolated from pigs stomach.

Unit definition

0.5 Ph. Eur.-U/mg correspond to approx. 500 FIP-U./g.

M 35000 g/mol

Storage temperature: +4 °C

WGK 1

Danger H315-H319-H334-H335

Art. No.	Pack Qty.	Pack.	€
0230.1	25 g	glass	36,45
0230.2	50 g	glass	61,85
0230.3	250 g	plastic	169,35
0230.4	1 kg	plastic	600,95
Original pack 6 x 1 kg			570,90/1 kg

Peroxidase

≥250 U/mg material

From horseradish, freeze-dried

Unit definition

One unit (U) is defined as the amount of enzyme that catalyzes the production of 1 mg of purpurogallin from pyrogallol in 20 seconds at pH 6.0 and 20 °C.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
6055.1	0.05 g	plastic	149,45

► Polymerases see chapter Molecular Biology page 149

Enzyme: a neoclassical, Greek artificial word ενζυμου, *énzymon*, derived from εν-, en- (in-) and ζυμη, *zýmé* (yeast, sourdough, archaic)
Ferments: comes from the Latin *fermentum* (ferments, sourdough)

There are six **classes** in which all enzymes are classified according to the particular reaction they catalyse:

- *Oxidoreductases* (catalyse redox reactions)
- *Transferases* (transfer functional groups among substrates)
- *Hydrolases* (cleave bonds via addition of water)
- *Lyases/Synthases* (cleave or synthesise complex products out of basic substrates without cleavage of ATP)
- *Isomerases* (transform chemical isomers)
- *Ligases/Synthetases* (cleave or synthesise complex products out of basic substrates via cleavage of ATP)

Rennin

for biochemistry

M ~31000 g/mol

Storage temperature: +4 °C

WGK 1

Danger H315-H319-H334-H335

Preserved with benzoic acid. From the fourth calf stomach.

Art. No.	Pack Qty.	Pack.	€
8178.1	50 g	plastic	73,65

Proteinase K

Endopeptidase

Proteinase K (from *Tritirachium album*) is a non-specific protease of the serine protease family.
Proteinase K is used for the cleavage of proteins in nucleic acid preparations. It is mainly used in nucleic acid purification or for the removal of nucleases.
Proteinase K is active under a wide range of reaction conditions, including elevated temperatures and presence of SDS.

Directions for use

Activity: (Haemoglobin, pH 7.5; 25 °C) 30 mAnson-U/mg
Foreign activity: RNAse and DNAse not detectable
Optimum temperature: +65 °C.
Activity at +65 °C is ca. 12 x higher than at +25 °C. Over +65 °C, inactivation due to denaturation.
Activators: Denaturating agents like SDS (0,5-1 %), urea.
Inhibitors: Inhibition with Hg^{2+}-ions, DFP, PMSF and phenol. Not inhibited by EDTA, sulfhydryl reagents and trypsin or chymotryps ininhibitors.
Stability: pH 4.0-12.5. pH optimum: 8,0.
Also stable even when denaturing agents, e.g. SDS and urea are present.
Stabilisers: Ca^{2+}-ions (1-5 mM) prevent autolysis.



DNAse-free RNAse-free

Proteinase K

≥30 mAnson U/mg, lyophilized

Non-specific protease for degrading proteins in biological samples. Isolated from fungi (*Tritirachium album)*.

A non-specific endopeptidase with strong proteolytic activity for degrading proteins in biological samples. A quality product for molecular biology with a broad scope of application.

Directions for use

Working solution: 50 µg/ml
Reaction buffer: 50 mM Tris-HCl; pH 7.5; 5 mM $CaCl_2$; 0.5 % SDS

Stock solution: 20 mg/ml in water. Storage temperature (stock solution): -20 °C.
Art. No. 7528.3: A The stock solution (20 mg/ml) can be prepared directly in the bottle.

Storage temperature: +4 °C

WGK 1

Danger H315-H317-H319-H334-H335

Art. No.	Pack Qty.	Packaging	Pack.	€
7528.1	100 mg	1 x 100 mg	glass	117,20
7528.5	250 mg	1 x 250 mg	glass	220,40
7528.2	500 mg	1 x 500 mg	glass	396,70
7528.3	500 mg	in 30 ml glass vial	glass	435,40
7528.4	1 g	1 x 1 g	glass	654,70
7528.6	5 g	1 x 5 g	glass	2.606,90

► Proteinase K in BioScience quality for molecular biology – as lyophilisate and as ready-to-use solution – see page 135

► Ribonucleases (RNAses) see page 136

Trypsin

A pancreatic serine protease with a specificity for peptide bonds between basic amino acids arginine or lysine and another non-specific amino acid.
Trypsin is frequently used to suspend cells which grow as monolayers on surfaces. Longer exposure to trypsin can damage cells, so that an inhibitor (serum or trypsin inhibitor from soya beans) should be added upon completion.

Unit definition

One USP Unit will cause an increase in absorption (253 nm) per minute of 0.003 at 25 °C and pH 7.6 using BAEE as substrate.
One (international) Unit (U, 255 nm, BAEE, pH 8) is approx. 90 USP U.
One TAME Unit is approx. 20 USP Units.
One NF Unit is one USP Unit.
Ten „BAEE Units“ are approx. 3.3 USP Units.

Directions for use

pH optimum 7.2-8.5



TSE-/BSE-free

Trypsin

5.000 USP-U/mg

Serine protease isolated from porcine pancreas, lyophilised.

M ~24,000 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Danger H315-H319-H334-H335

Art. No.	Pack Qty.	Pack.	€
2193.1	100 mg	glass	45,15
2193.2	500 mg	glass	160,20
2193.3	5 g	glass	1.493,20

Trypsin

≥2500 USP-U/mg, cryst.

Isolated from porcine pancreas, lyophilised.

M ~24,000 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Danger H315-H319-H334-H335

Art. No.	Pack Qty.	Pack.	€
5455.1	100 mg	glass	32,15
5455.2	1 g	glass	134,40

Urease

Hydrolase belonging to the Amidases. Metallo-enzyme. Urease hydrolasis urea, resulting in ammonia and carbon dioxide, or in ammonia- and carbonate ions, respectively. The molecule isolated from Jack beans is composed of 6 subunits of approx. 91 kDa each with an overall size of approx. 544 kDa. Nickel is the cofactor.
Using high amounts of urea as substrate (200 mM), urease is applied for visualisation of the connection between reaction rate and time. Detection is carried out via measurement of conductivity, or, photometrically, via colour change of bromothymol blue. Furthermore, model system for catalytic activation of carbon dioxide in metallo-organic chemistry.

Directions for use

pH optimum: 7.4.
Recommended reaction buffer system is 40 mM potassium phosphate buffer, pH 7.4. Heavy metals (e. g. lead) are inhibitory.

Urease

≥220 Nessler U/mg material

From jack beans, freeze-dried

Unit definition

One unit (U) is defined as the amount of enzyme that catalyzes the liberation of 1 µmole of NH_3 per min at pH 7.0 and 25 °C.

Packaging: 0,25 Mega Unit

M ~480000 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Danger H315-H319-H334-H335

Art. No.	Pack Qty.	Packaging	Pack.	€
6065.1	1 unit(s)	0,25 Mega Unit	plastic	246,20

Urease

~1 U/mg, for biochemistry

From jack beans *Canavalia ensiformis*.

Unit definition

1 Unit enzyme hydrolyses 1 µmol urea per minute at 25 °C (pH 8.0).

M ~480000 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

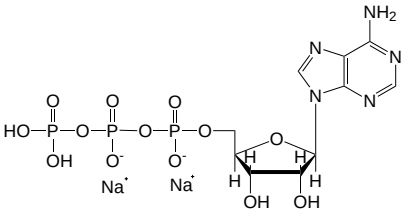
Danger H315-H319-H334-H335

Art. No.	Pack Qty.	Pack.	€
7537.1	5 g	plastic	203,20

► Zymolyase® see page 137

Coenzymes





Adenosin-5'-triphosphate disodium salt (ATP)

≥98 %, for biochemistry

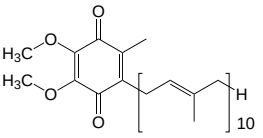
Coenzyme of kinases.

Discovered in 1929 by Karl Lohmann. Main molecular currency of energy in all cells and highly important regulator of energy providing processes. During hydrolysis of phospho-anhydride bonds, energy of 30.5 kJ/mol (ADP) or 45.6 kJ/Mol (AMP), respectively, is released. Ligand of purinergic receptors and intercellular signalling molecule. Additionally, ATP is coenzyme of phosphate-transferring kinases like proteine kinases A, proteine kinases C, calmodulin-dependent kinases, and substrate of adenylate cyclases, which synthesize the second-messenger molecule cAMP.

$C_{10}H_{14}N_5Na_2O_{13}P_3$ · M 551,10 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
HN35.1	5 g	glass	30,00
HN35.2	10 g	glass	42,90
HN35.3	25 g	glass	81,60
HN35.4	100 g	glass	267,70



Coenzyme Q 10

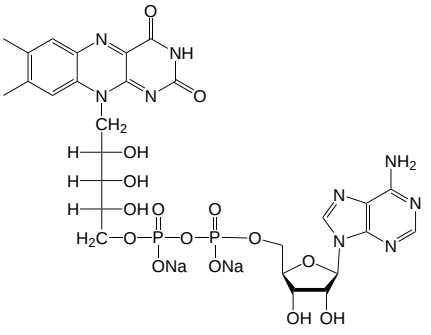
≥98 %, for biochemistry

Ubiquinones represent a vital component in electron transport of the mitochondrial respiratory chain (hydrogen, electron and oxygen carriers). They, therefore, are almost ubiquitously distributed through the species, with the only exclusion of gram positive bacteria and cyanobacteria. Coenzyme Q functions as electron carrier between flavoproteins and cytochrome molecules of the respiratory chain. Well soluble in organic solvents (e. g. acetone, diethyl ether, chloroform) and fats. Virtually insoluble in water.

$C_{59}H_{90}O_4$ · M 863,37 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
4047.1	25 mg	glass	24,65
4047.2	1 g	glass	42,90
4047.3	5 g	glass	110,65
4047.4	10 g	glass	198,90
4047.5	25 g	glass	375,20



Flavine-adenine-dinucleotide disodium salt (FAD)

≥95 %, for biochemistry

$C_{27}H_{31}O_{15}N_9Na_2P_2$ · x H_2O · M 829,52 (+ x H_2O) g/mol

Storage temperature: +4 °C
WGK 1

Art. No.	Pack Qty.	Pack.	€
5581.2	10 mg	glass	21,40
5581.3	25 mg	glass	29,60
5581.1	100 mg	glass	50,45
5581.4	500 mg	glass	80,55
5581.5	1 g	glass	120,95

NAD/NADP

Product name	Purity	M	Art. No.	Pack Qty.	€
NAD	≥95 %, for biochemistry	663,4 g/mol	**AE11.1**	1 g	37,55
			AE11.2	5 g	150,40
			AE11.3	10 g	263,40
NADH disodium salt	≥84 %, for biochemistry	709,4 g/mol	**AE12.1**	1 g	55,80
			AE12.2	5 g	246,20
			AE12.3	10 g	446,15
NADP disodium salt	≥85 %, for biochemistry	787,4 g/mol	**AE13.1**	250 mg	45,05
			AE13.2	500 mg	81,60
			AE13.3	1 g	155,90
NADPH tetrasodium salt	≥95 %, for biochemistry	833,4 g/mol	**AE14.1**	100 mg	103,10
			AE14.2	250 mg	224,70
			AE14.3	500 mg	407,45

Inhibitors

Enzyme inhibitors are molecules that bind to enzymes and decrease their activity. The classification of inhibitors, which can stem from various substance classes, results from the type of inhibition (reversible with subclasses, or irreversible) or the target molecule (e. g. serine protease inhibitors). Generally, for inhibition of specific proteins in biochemical assays single specific inhibitors are used, while a suitable inhibitor cocktail is recommended for work on protein mixtures such as cellular or tissue extracts. At Carl ROTH you will find both inhibitor cocktails for all common extracts, as well as the most important individual inhibitors.

Inhibitor Cocktails



Inhibitor Cocktail	Standard	BroadRange	Plus	Tissue	Bacteria	His-tag
Art. No.	**3743**	**3749**	**3751**	**3755**	**3758**	**3760**
Shipment	lyophilised (uncooled)	lyophilised (uncooled)	in 1 ml DMSO (uncooled)	lyophilised (uncooled)	lyophilised (uncooled)	in 1 ml DMSO (uncooled)
Dilution/ stock sol.	100 ml 1x sol.	1 ml 100x stock sol.	for 20 g tissue	1 ml 100x stock sol.	5 ml 40x stock sol.	1 ml 100x stock sol.
AEBSF	1,67 mM	50 mM	100 mM	50 mM	20 mM	100 mM
Aprotinin	-	15 µM	80 µM	15 µM	-	-
Bestatin	-	-	5 mM	-	1,7 mM	5 mM
E-64	-	100 µM	1,5 mM	100 µM	200 µM	1,5 mM
EDTA	13,44 mM	50 mM	-	-	85 mM	-
Leupeptin	2,1 µM	100 µM	2 mM	100 µM	-	0,2 mM
Pepstatin A	1,46 µM	-	1 mM	-	2 mM	-
Phosphoramidon	-	-	-	-	-	2 mM
Recommended for	Extracts without special proteases, basic sol. For own inhibitors.	Broad band effects. Extracts from eukaryotic tissue.	Broad band effects. Extracts from mammalian cells and tissue.	Extracts from mammalian cells and tissue.	Bacterial extracts.	Extractions of His-tagged proteins.

The Mechanisms of Enzyme Inhibition

Depending on the binding of the inhibitor, you may find both *reversible* and *irreversible inhibition*.

In **reversible enzyme inhibition** the inhibitor doesn't bind closely to the enzyme and can be separated or displaced in succession. It lowers its activity and/or the speed constant of the reaction of the substrate to the product. It also establishes a balance between the enzyme-inhibitor complexes with or without substrate. Metabolic processes are typical examples of this, which, depending on the physiological state of the cells, either are enhanced or inhibited.
Competitive inhibitors are reagents which compete with substrate (A) for the binding site in the enzyme's active center and increase the Michaelis Menten constant of the enzyme. They are either extremely similar to the substrate (but are not converted and can be displaced again by the substrate) or even represent a second substrate and thereby competitively inhibit the conversion of substrate A.
In *non-competitive inhibition* the inhibitor does not bind in the active center but through binding, it changes the enzyme's tertiary structure to such an extent that a product can no longer be produced/set free.
Uncompetitive inhibition is a special case where the inhibitor can only interact with the enzyme-substrate complex and it changes both the MM-constant as well as the maximum reaction speed.
In *partial-competitive inhibition*, binding of the inhibitor lowers the affinity of the enzyme to the substrate without influencing the speed constants.

In **irreversible inhibition**, the inhibitor binds so closely that it can no longer be separated from the enzyme and thus the activity of the enzyme is permanently reduced or destroyed. Typical examples of this are protein-synthesis inhibitive antibiotics or "suicide substrates" which bind covalently to the active center.

Inhibitor Cocktail Standard

for biochemistry

General cocktail of protease inhibitors.

Inhibitor cocktail for inhibition of standard proteases. Inhibits serine proteases, metalloproteases, cysteine proteases, trypsin-like proteases, and aspartic proteases.
Recommended as cocktail for protease inhibition during standard extraction without presence of special proteases, or as basic solution for supplementation with own inhibitors.

Directions for use

Well water-soluble. The premixed powder may easily be reconstituted in 100 ml distilled water or extraction buffer to form a 1x inhibitor solution.

End concentrations in 1x solution are:
AEBSF: 1.67 mM
EDTA: 13.44 mM
Leupeptin: 2.1 µM
Pepstatin A: 1.46 µMM

Storage of inhibitor solution: 4 °C max. 90 days.
Do not freeze!

For 100 ml 1x solution.

Storage temperature: –20 °C
Transport temperature: ambient temp.

UN no. 3261 · ADR 8 III · WGK 1

Danger H314-H332-H373

Art. No.	Pack Qty.	Pack.	€
3743.1	1 tube	plastic	162,90

Inhibitor Cocktail BroadRange

for biochemistry

Broad range cocktail of protease inhibitors.

Inhibitor cocktail for inhibition of a broad range of proteases. Inhibits serine proteases, esterases, metalloproteases, cysteine proteases, and trypsin-like proteases.
Recommended as cocktail for protease inhibition during tissue extraction.

Directions for use

Well water-soluble. The premixed powder may easily be reconstituted in 1 ml distilled water to form a approx. 100x inhibitor stock-solution.

Concentrations in stock-solution are:
AEBSF: 50 mM
Aprotinin: 15 µM
E-64: 100 µM
EDTA: 50 mM
Leupeptin: 100 µM

Storage of aliquoted inhibitor solution: –20 °C max. 1 month.

1 vial is sufficient for inhibition of proteases from 1–2 g material.

Storage temperature: –20 °C
Transport temperature: ambient temp.

UN no. 3261 · ADR 8 III · WGK 1

Danger H314-H332-H373

Art. No.	Pack Qty.	Pack.	€
3749.1	1 tube	plastic	69,80

Please note our **Technical Information Brochure** on the Internet next to the products:

Protease Inhibitor Cocktails
Overview and recommendations for application

Inhibitor Cocktail Tissue

for biochemistry, EDTA free

Cocktail of protease inhibitors for extracts of mammalian cells or tissue. Without EDTA.

Inhibitor cocktail. Inhibits serine proteases, esterases, cysteine proteases, and trypsin-like proteases.
Recommended as cocktail for protease inhibition particularly in extracts from mammalian cells or tissue.

Directions for use

Well water-soluble and hygroscopic. The premixed powder may easily be reconstituted in 1 ml distilled water to form an inhibitor stock-solution.

Recommended dilution is 1:100. End concentration for the respective extract has to be optimized.

Concentrations in stock-solution are:
AEBSF: 50 mM
Aprotinin: 15 µM
E-64: 100 µM
Leupeptin: 100 µM

Storage of aliquoted inhibitor solution: –20 °C max. 6 months.

1 vial is sufficient for inhibition of proteases from approx. 2 g cells or tissue.

Storage temperature: –20 °C
Transport temperature: ambient temp.

UN no. 3261 · ADR 8 III · WGK 1

Danger H314

Art. No.	Pack Qty.	Pack.	€
3755.1	1 tube	plastic	60,10

Inhibitor Cocktail Bacteria

for biochemistry

Broad range cocktail of protease inhibitors for extracts from bacteria.

Inhibitor cocktail for inhibition of standard proteases. Inhibits serine proteases, aminopeptidase B, leucine-aminopeptidases, metallo-proteases, cysteine proteases, and aspartic proteases.
Recommended as cocktail for protease inhibition in extracts from bacteria.

Directions for use

Well soluble in DMSO and hygroscopic. The premixed powder (Art. No. 3947) may easily be reconstituted in 1 ml DMSO and may then be diluted with 4 ml distilled water to form a slightly opaque inhibitor stock-solution.

Recommended dilution approx. 1:40.

Concentrations in stock-solution are:
AEBSF: 20 mM
Bestatin: 1.7 mM
E-64: 200 µM
EDTA: 85 mM
Pepstatin A: 2 mM

The kit contains

DMSO (1 ml) for reconstitution of the lyophilized inhibitor mix is included (Art. No. 3949).
Contents of this Kit may not be bought separately.

Storage of aliquoted inhibitor solution: –20 °C max. 6 months.

1 vial is sufficient for inhibition of proteases from approx. 20 g *E. coli.*

Storage temperature: –20 °C
Transport temperature: ambient temp.

UN no. 3261 · ADR 8 III · WGK 1

Danger H314-H332-H373

Art. No.	Pack Qty.	Pack.	€
3758.1	1 kit	plastic	131,70

ready-to-use

Inhibitor Cocktail Plus

ready-to-use, for biochemistry, EDTA free

Broad range cocktail of protease inhibitors for extracts of mammalian cells or tissue. Without EDTA.

Inhibitor cocktail for inhibition of a broad range of proteases. Inhibits serine proteases, esterases, aminopeptidase B, leucine-amino-peptidases, cysteine proteases, trypsin-like proteases, and aspartic proteases.
Recommended as cocktail for protease inhibition particularly in extracts from mammalian cells or tissue.

Provided as stock-solution in DMSO.

Directions for use

Concentrations per vial are:
AEBSF: 100 mM
Aprotinin: 80 µM
Bestatin: 5 mM
E-64: 1.5 mM
Leupeptin: 2 mM
Pepstatin A: 1 mM

Storage of inhibitor solution: –20 °C max. 6 months.

1 ml is sufficient for inhibition of proteases from approx. 20 g cells or tissue.

Storage temperature: –20 °C
Transport temperature: cooled

WGK 1

Warning H315-H319

Art. No.	Pack Qty.	Pack.	€
3751.1	1 ml	plastic	115,60

ready-to-use

Inhibitor Cocktail His-tag

ready-to-use, for biochemistry, EDTA free

Broad range cocktail of protease inhibitors for extraction of His-tagged proteins. Without EDTA.

Inhibitor cocktail for inhibition of a broad range of proteases. Inhibits serine proteases, aminopeptidase B, leucine-aminopeptidases, cysteine proteases, aspartic proteases, and metalloendopeptidases.
Recommended as cocktail for protease inhibition particularly for extraction of His-tagged proteins from bacterial extracts. EDTA-free to allow optimal Ni^{++}- or Co^{++}-his binding in affinity chromatography.

Directions for use

Recommended dilution approx. 1:100.
Provided as stock-solution in DMSO.

Concentrations per vial are:
AEBSF: 100 mM
Bestatin: 5 mM
-64: 1.5 mM
Pepstatin A: 0.2 mM
Phosphoamidon: 2 mM

Storage of inhibitor solution: –20 °C max. 6 months.

1 ml is sufficient for inhibition of proteases from 10 g bacterial cells.

Storage temperature: –20 °C
Transport temperature: cooled

WGK 1

Danger H315-H318

Art. No.	Pack Qty.	Pack.	€
3760.1	1 ml	plastic	123,10

Individual Inhibitors



► Structural formulae see chapter Chemicals A-Z

AEBSF hydrochloride

≥98 %, for biochemistry

Inhibitor of serine proteases

Irreversible inhibition. Inhibits trypsin, chymotrypsin, plasmin, kallikrein and thrombin by sulphurizing a functional group in the active centre of an enzyme. Due to its low toxicity, AEBSF is a good alternative to PMSF.

Directions for use

Working concentration: 0.1–5 mM.
Optimal at pH 6.5, alkali-labile. Avoid pH-value 7 and do not exceed pH-value 9.

Easily water-soluble, resulting in an acidic pH-value.
Stock solution: 5–50 mg/ml (20–200 mM) in H_2O.
Storage of stock solution: at –20 °C max. 6 months

$C_8H_{10}FNO_2S \cdot HCl \cdot M$ 239,69 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

UN no. 3261 · ADR 8 III · WGK 1

Danger H314

Art. No.	Pack Qty.	Pack.	€
2931.1	25 mg	plastic	24,65
2931.2	100 mg	plastic	53,65
2931.3	500 mg	plastic	217,70

4-Aminobenzamidine dihydrochloride

≥98 %, for biochemistry

Potent inhibitor of serine proteases.

Competitive inhibitor of trypsin and trypsin-like enzymes, thrombin and plasmin.

Directions for use

Working concentration: 100–400 µg/ml (0.5–2 mM).
Aminobenzamidine is sensitive to oxidation. It is recommended to prepare fresh solutions each time for use.

Stock solution: 100–200 mg/ml (0.5–1 M) in H_2O and alcohol. Storage of stock solution at –20 °C. Stock solutions should only be stored for a short time.

$C_7H_8N_2 \cdot 2\ HCl \cdot M$ 208,09 g/mol

Storage temperature: +4 °C

WGK 2

Warning H315-H319-H335

Art. No.	Pack Qty.	Pack.	€
CN71.1	1 g	glass	19,90
CN71.2	5 g	plastic	80,10
CN71.3	10 g	plastic	139,25

Antipain dihydrochloride

≥30 U/mg, for biochemistry

Serine/cysteine protease inhibitor and in general of proteases similar to trypsin.
Isolated from *Streptomyces.*

Antipain was isolated from streptomycin (actinomycetes). Reversible inhibition of papain (derivation of the name: anti-papain), trypsin, cathepsin A, B, D, plasmin, chymotrypsin, pepsin and calpain I.

Antipain has a similar spectrum of activity to leupeptin.

Directions for use

Working concentration: 10–50 µg/ml (15–75 µM).

Stock solution: 50 mg/ml (75 mM) in H_2O, DMSO or ethanol. Storage of stock solution: at –20 °C max. 1 month.

$C_{27}H_{44}N_{10}O_6 \cdot 2\ HCl$ · M 677,6 g/mol
Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
2933.1	5 mg	plastic	70,85
2933.2	25 mg	plastic	246,20



Aprotinin

3,0 PEU/mg, for biochemistry

Inhibitor for inhibition of serin proteases, lyophilized and made of beef lung.

Aprotinin inhibits trypsin, chymotrypsin, plasmin and kallikrein with high activity.

Kininogens are cysteine proteases from the cystatin superfamily. Kininogenases split kininogens into kinins (inflammation mediators).

Unit definition

Activity: 1 PEU (Ph. Eur. Unit) corresponds to 1950 KIU (Kallikrein Inhibitory Units). 1 PEU corresponds to approx. 1.5 TIU (Trypsin Inhibitory Units). 1 TIU corresponds to approx. 1300 KIU.
Specific Activity: ≥3.0 PEU/mg corresponding to ≥5850 KIU/mg

Directions for use

Recommended end concentration: 1.54 µM (10 µg/ml).
pH-optimum: 7.0-8.0.

Dissolves easily in water. Stock solution: 1.54 mM (10 mg/ml) in H_2O or buffer. Storage of stock solution: in aliquots at –20 °C.

M 6500 g/mol

Storage temperature: +4 °C
WGK 1

Lyophilized from bovine lungs.

Art. No.	Pack Qty.	Pack.	€
A162.1	10 mg	glass	46,15
A162.2	50 mg	glass	138,70
A162.3	100 mg	glass	246,20
A162.5	250 mg	glass	514,95
A162.4	500 mg	glass	962,15

► Bacitracin see page 363

Benzamidine hydrochloride monohydrate

≥98 %, for biochemistry

Inhibitor of serine proteases

Inhibitor of serine proteases. Competitive inhibitor of trypsin and trypsin-like enzymes, acrosin, thrombin and plasmin.

Directions for use

Working concentration: 150–750 µg/ml (1–5 mM).
Benzamidine is sensitive to oxidation. It is recommended to prepare fresh solutions each time for use.

Stock solution: 100–150 mg/ml (0.65–1 M) in H_2O and alcohol. Storage of stock solution at –20 °C. Stock solutions should only be stored for a short time.

$C_7H_8N_2 \cdot HCl \cdot H_2O$ · M 174,63 g/mol
Storage temperature: +4 °C
WGK 1

Warning H315-H319-H335

Art. No.	Pack Qty.	Pack.	€
CN38.1	5 g	plastic	22,50
CN38.2	10 g	plastic	33,25
CN38.3	25 g	plastic	63,35

Bestatin hydrochloride

≥98 %, for biochemistry

Inhibitor of aminopeptidases

Competitive and specific inhibition of aminopeptidase B, leucin-aminopeptidase and triaminopeptidase. Does not inhibit aminopeptidase A, trypsin, chymotripyin, elastase, papain, pepsin, thermolysin. Bestatin does not have an antibacterial effect and is non-fungicidal. Its low toxicity facilitates the application.

Directions for use

Working concentration: 10–100 µM.

Stock solution: 1–15 mM (0.35–5 mg/ml) in methanol. Storage of stock solution: at –20 °C max. 1 month.

$C_{16}H_{24}N_2O_4 \cdot HCl$ · M 344,84 g/mol
Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
2937.1	5 mg	plastic	96,65
2937.2	25 mg	plastic	364,45

E-64

≥99 %, for biochemistry

Inhibitor of cysteine proteases.

Irreversible, strong and highly selective inhibition of cysteine protease (e. g. papain, bromelain, ficin, cathepsin B, H and L, tumor-cathepsin, calpain etc.). Does not inhibit serine proteases except trypsin.

Low toxicity, high cell permeability and stability against reducing reagents makes E-64 an excellent alternative to leupeptin or antipain.

Directions for use

Working concentration: 1–10 µM.

Stock solution: 1 mM (360 µg/ml) in H_2O, DMSO or ethanol. Storage of stock solution: at –20 °C max. 3 months.

$C_{15}H_{27}N_5O_5 \cdot 0{,}5\ H_2O$ · M 357,41 g/mol
Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
2935.1	5 mg	plastic	107,40
2935.2	25 mg	plastic	403,15

► EDTA and EGTA see chapter Chemicals A-Z

Geldanamycin

≥98 %, for biochemistry

HSP90 inhibitor, tyrosine kinase inhibitor. Benzoquinone ansamycin antibiotic.

Geldanamycin arrests cells in G_2 phase, thus interfering with angiogenesis and oncogenesis. The specific binding of geldanamycin to heat shock protein 90 (HSP90) and its ER homologue GP96 leads to inhibition of the chaperone, results in degradation of HSP90 substrates and, subsequently, to deregulation of central cell mechanisms – cell cycle, cell proliferation, apoptosis/cell vitality.

Due to its antitumor potential it may be used as antibiotic against several eucaryotic carcinogenic cell lines. Additionally, geldanamycin is used as inhibitor of tyrosin-kinase and during analysis of several other physiological regulatory mechanisms.

Directions for use

Working concentration: 1–10 µg/ml.
Photo sensitive! Store protected from light.

Stock solution: 1000x in DMSO or methanol. Storage of stock solution at –20 °C, max. 2 weeks at 4 °C.
Photo sensitive! Store protected from light.

$C_{29}H_{40}N_2O_9$ · M 560,64 g/mol
Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
HN71.1	1 mg	glass	83,75
HN71.2	5 mg	glass	203,20
HN71.3	10 mg	glass	295,65

Genistein

≥98 %, for biochemistry

Inhibitor of tyrosine specific protein kinases.

Competitive inhibitor of ATP binding to the catalytic domain of tyrosin kinases. Exceptional are the insulin receptor tyrosin kinase and the serin-/threonin specific proteases, which will not be inhibited by genistein. An additional, tyrosin kinase independent, effect of genistein is the inhibition of topoisomerases I and II.

Directions for use

Working concentration: 10–100 µM

Stock solution: 100 mg/ml (370 mM) in DMSO. Storage of stock solution: +4 °C or –20 °C.

$C_{15}H_{10}O_5$ · M 270,24 g/mol
Storage temperature: +4 °C
WGK 1

Warning H302

Art. No.	Pack Qty.	Pack.	€
0716.1	25 mg	plastic	69,80
0716.2	50 mg	plastic	103,10
0716.3	100 mg	plastic	170,95

► Phosphatase inhibitor glycerophosphate disodium pentahydrate see chapter Chemicals A-Z

Leupeptin hemisulphate

≥96,5 %, for biochemistry

Reversible inhibitor of serine- and cysteine proteases.

Leupeptin competitively inhibits calpain, cathepsin B, kallikrein, papain, plasmin and trypsin. Inhibition of thrombin is controversely discussed. Little or non-inhibiting for pepsin, cathepsin A and D and chymotrypsin.

Directions for use

Working concentration: 0.5–50 µg/ml (1–100 µM). Working solutions are stabile only for few hours.
Due to its aldehyde groups, leupeptin may interfere with protein detection assays (e.g. Bradford).

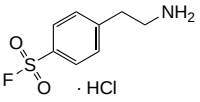
Stock solution: 5 mg/ml (10 mM) in H_2O, ethanol, acetic acid and DMF. Stock solution is stabile at +4 °C for approx. 7 days. Recommended storage of stock solution at –20 °C (6 months).

$C_{20}H_{38}N_6O_4 \cdot 0{,}5\ H_2SO_4$ · M 475,99 g/mol
Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
CN33.1	10 mg	glass	58,60
CN33.2	25 mg	glass	117,20
CN33.3	50 mg	glass	213,95
CN33.4	100 mg	glass	396,70

► HSP90 Inhibitor Novobiocin sodium salt see page 369





Pefabloc® SC-Protease Inhibitor

Pefabloc® ≥95 %, for biochemistry

Irreversible inhibitor of serine proteases.

Broadband inhibitor for serine proteases. Reacts covalently with the serin of the active center. Alternative to PMSF and DFP with a great number of advantages to standard inhibitors.

- Extremely low toxicity (LD_{50} >2800 mg/kg)
- Stability in neutral range
- High solubility in aqueous buffers
- Wide spectrum of specifity for serin protease
- Minimal reaction to cell growth

Directions for use

Working concentration: 1–5 mM.
Pefabloc® reacts with thiols. DTT and β-mercaptoethanol reduce the inhibitory effect.

Stock solution 5–50 mg/ml in H_2O; stable with neutral pH.

$C_8H_{10}NSO_2F \cdot HCl$ · M 239,7 g/mol

Storage temperature: +4 °C

UN no. 3261 · ADR 8 III · WGK 1

Danger H314

Art. No.	Pack Qty.	Pack.	€
A154.1	100 mg	glass	85,90
A154.2	500 mg	glass	349,40
A154.3	1 g	glass	628,90



Pepstatin A

≥98 %, for biochemistry

Inhibitor of acidic / aspartic proteases

Isolated from streptomoycin and other actinomycetes.

Strong, highly selective inhibition. Inhibits pepsin, renin, cathepsin D, chymosin, protease B and also retroviral proteases. No inhibitive effect on thiolproteases, neutral proteases and serine proteases.
Hardly toxic.

Directions for use

Working concentration: 0.5–1 µM.
It may be necessary to add 10-50 % acetic acid to completely dissolve pepstatin A.

Stock solution: 1 mM (685 µg/ml) in DMSO or methanol.
Storage of stock solution: at –20 °C max. 1 month, at +4 °C max. 1 week.

$C_{34}H_{63}N_5O_9$ · M 685,91 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
2936.1	5 mg	plastic	38,20
2936.2	25 mg	plastic	120,95
2936.3	100 mg	plastic	392,40

Phenylmethyl sulphonyl fluoride

≥98 %, for biochemistry

Irreversible inhibitor of serine- and thiol proteases. Reversible effect on cysteine proteases.

General, irreversible inhibitor of serin proteases (chymotrypsin, trypsin and thrombin) and for the dystin-protease papain. Inhibiton by sulphonation of the serine localised in the enzymatic active site.

Reversible inhibitor of cysteine-proteases. K_i = 0.91 ±0.01 mM

Directions for use

Working concentration: 17–174 µg/ml (0,1–1 mM).
Dissolves easily in isopropanol, ethanol and methanol. Not stable in aqueous solutions (half-life value of 1 h at pH 7.5/RT).
For stock solutions of 200-250 mM heat shortly (approx. 30 mins) to 30 °C.
Stock solutions should be stored at -20 °C. Short term storage of few weeks may be done at +4 °C in the dark.
PMSF reacts with thiols. DTT and β-mercaptoethanol reduce the inhibitory effect.
At every stage of isolating or purifying the proteins, PMSF should be added fresh from the stock solution. PMSF is often not sufficient as the only protease inhibitor in the preparation to protect against decomposition processes, as for example high salt concentration (3.0 M) impairs the inhibitory effect of PMSF.

Stock solution: 17.4 mg/ml (100 mM) in isopropanol, ethanol or methanol.
Storage of stock solution protected from light at –20 °C.

For your convenience, **Art. No. 6367.4** comes packed in a 30 ml brown glass bottle. Addition of 20 ml 2-propanol results in a 100 mM stock solution.

$C_7H_7FO_2S$ · M 174,2 g/mol

UN no. 2923 · ADR 8 (6.1) II · WGK 1

Danger H301-H314

Art. No.	Pack Qty.	Pack.	€
6367.4	348 mg	glass	18,20
6367.1	5 g	plastic	38,60
6367.2	25 g	plastic	127,95
6367.3	100 g	plastic	381,65

Radicicol

≥98 %, for biochemistry

Strong HSP90 inhibitor, macrolactone antibiotic. Binds specifically to the heat shock protein HSP90.

The strong specific binding of radicicol to heat shock protein 90 (HSP90) leads to deregulation of its target mechanisms: cell cycle, cell proliferation, apoptosis/cell vitality. Also binds to yeast HSP90, *E.coli* HtpG and TRAP-1. Antifungal effects are probably caused by inactivation of chitin synthase in fungal cells.

Directions for use

Working concentration: 5–300 µM

Stock solution: 10 mg/ml (27 mM) in ethanol or DMSO
Storage of stock solution at –20 °C, max. 2 weeks at 4 °C
Photo sensitive! Store protected from light.

$C_{18}H_{17}ClO_6$ · M 364,79 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

UN no. 2811 · ADR 6.1 III · WGK 1

Danger H301-H315-H319-H335

Art. No.	Pack Qty.	Pack.	€
HN72.1	1 mg	glass	117,20
HN72.2	5 mg	glass	482,70
HN72.3	10 mg	glass	762,20

► RNAse Inhibitor see page 136

Trypsin inhibitor

Trypsin inhibitor inhibits Trypsin with high effiency, and, to a lesser extent, chymotrypsin. Additionally, there is a light inhibiting effect on plasmin, kallikrein, thrombin and a few other proteolytic enzymes.

Directions for use

Recommended final concentration: 1–100 µg/ml

Solutions of higher concentration may be hazy and slightly yellow-coloured.
pH optimum: pH 7.6–8.0.

Trypsin inhibitor

≥10 000 BAEE U/mg

Made from soybeans. Highly active inhibitor for trypsin, weakly inhibitory for chymotrypsin, plasmin, kallikrein, thrombin.

1 mg of lyophilisate inhibits at minimum 10.000 BAEE Units of trypsin.

Directions for use

Application in cell culture (stock solution 1 mg/ml): Following trypsination, add the same volume inhibitor solution as was used for trypsin. Zentrifuge cells (5 mins, 1000 rpm), and remove supernatant. Resuspend cells in medium and cultivate further.

Stock solution: 1–10 mg/ml in H_2O, PBS or other phosphate buffer.
Storage of stock solution in aliquots at –20 °C

Storage temperature: +4 °C

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
2949.1	25 mg	plastic	37,55
2949.2	100 mg	plastic	95,15
2949.3	250 mg	plastic	192,45
2949.4	500 mg	plastic	327,90
2949.5	1 g	plastic	564,40

Trypsin inhibitor

≥7 000 BAEE U/mg, salt-free

Made from soybeans. Inhibition of trypsin, chymotrypsin, plasmin, kallikrein, thrombin and other proteolytic enzymes; free from salt.

Stock solution: 1–10 mg/ml in H_2O, PBS or other phosphate buffer.
Storage of stock solution in aliquots at –20 °C

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
5279.1	100 mg	glass	26,80
5279.4	250 mg	glass	54,75
5279.5	500 mg	glass	96,65
5279.2	1 g	glass	177,40
5279.3	5 g	glass	805,20

Substrates



► Structural formulae see chapter Chemicals A-Z

5-Bromo-4-chloro-3-indolyl phosphate disodium salt

≥99 %

Substrate for alkaline phosphatase, in particular in immunoblot procedures.

In combination with NBT ideal for colorimetric detection of alkaline phosphatase activity, in particular in immunoblot procedures.

Highly soluble in water (20 mg/ml), poorly soluble in DMF.

Protect from light and humidity.

$C_8H_4BrClNO_4PNa_2 \cdot 1{,}5\ H_2O$ · M 397,46 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
A155.1	100 mg	glass	34,30
A155.2	500 mg	glass	149,45
A155.3	1 g	glass	267,70
A155.4	5 g	glass	854,65

5-Bromo-4-chloro-3-indolyl phosphate *p*-toluidine salt

≥99 %, BioScience Grade

Histochemical substrate for phosphatase.

In combination with NBT ideal for colorimetric detection of alkaline phosphatase activity, in immunohistochemical procedures.

Mechanism

By enzymatic dephosphorylation BCIP is converted to indoxyl which subsequently tautomerizes to the ketone. In basic pH values, this ketone dimerizes and, in doing so, releases H^+ ions. The dye precipitates in the direct vicinity of the phosphatase, hence staining this site in a weak blue colour. Enhencement and darkening of this colour is achieved by adding NBT (Art. No. 4421).

Highly soluble in DMF (20 mg/ml), poorly soluble in water.

Protect from light and humidity.

$C_{15}H_{15}N_2O_4BrClP$ · M 433,63 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 2

Warning H371

Art. No.	Pack Qty.	Pack.	€
6368.1	500 mg	glass	46,15
6368.2	1 g	glass	90,85
6368.3	5 g	glass	338,65

Coelenterazine

≥95 %, for biochemistry

Luciferase substrate

Substrate of the Renilla luciferase used for monitoring of the mitochondrial Calcium flux and of reportergenes. Coelenterazine is applied in bioluminescence resonance energy transfer (BRET) assays, ELISAs, HTS and in chemiluminescent detection of superoxide anion and peroxynitrite in cells or tissues.

$C_{26}H_{21}N_3O_3$ · M 423,48 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
4094.3	1 mg	glass	75,15
4094.4	2.5 mg	glass	145,15

3,3'-Diaminobenzidine tetrahydrochloride

≥98 %, p.a.

Substrate of horseradish peroxidase. For detection of endogenous peroxidase and for immunohistochemical stainings.

Popular substrate of peroxidases. DAB is used for biochemical and histological detection of endogenous peroxidases like catalase and cytochome oxidase. Additionally, it is the most common substrate for horseradish peroxidase (HRP) in histochemical and cytological assays. DAB is oxidised by HRP, forming a brown precipitate, which is unsoluble in aqueous and organic solvents. This precipitate can be detected in visible light and does not bleach during long-term storage.

Directions for use

Working concentration: 0.05–0.1 % (0.5–1 mg/ml) DAB in buffer (PBS, TBS, pH 7.0–7.6) containing 0.01 % hydrogen peroxide. Always use freshly prepared working solution. For oxidation high concentrations of fresh hydrogen peroxide are needed.

Stock solution: 1–2 % (10–20 mg/ml) in 50 mM Tris buffer, pH 7.3. Storage of stock solution in aliquots at –20 °C

$C_{12}H_{14}N_4 \cdot 4\ HCl$ · M 360,10 g/mol

Storage temperature: +4 °C
WGK 1

Warning H315-H319-H335-H341-H351

Art. No.	Pack Qty.	Pack.	€
CN75.1	1 g	glass	30,00
CN75.2	5 g	plastic	96,65
CN75.3	10 g	plastic	170,95

Assay protocol for use of BCIP/NBT in immunoblot procedures:

Stock solutions (All solutions are stable for at least 1 year at 4 °C):
0.5 g NBT in 10 ml 70 % dimethylformamide;
0.5 g BCIP (p-toluidine salt) in 10 ml 100 % dimethylformamide.
Incubation buffer for alkaline phosphatase:
100 mM NaCl, 5 mM $MgCl_2$,100 mM Tris (pH 9.5).
Fresh substrate solution: 66 µl NBT stock solution + 10 ml incubation buffer, mix well, add 33 µl BCIP stock solution. Use within 1 hour.
Blot development: Approx. 10 ml substrate solution per 15 x 15 cm^2 membrane surface. Develop at room temperature until bands become visible (approx. 30 mins).
Reaction stop: Rinse with PBS/20 mM EDTA.

4-Methylumbelliferyl-β-D-glucuronide dihydrate

≥99 %, p.a.

MUG. Substrate for β-glucuronidase for detection of *E. coli*.

Ideal for fluorometric detection of β-glucoronidase hydrolysed by MUG to 4-methylumbelliferone.
Detection occurs via long wave UV light (366 nm).

$C_{16}H_{16}O_9 \cdot 2\ H_2O$ · M 388,33 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
6394.1	50 mg	glass	28,95
6394.2	250 mg	glass	79,45
6394.3	1 g	glass	246,20

p-Nitrotetrazolium blue chloride

≥98 %, p.a.

Substrate for alkaline phosphatase

Used in combination with BCIP-toluidine salt (X-phosphate) for detection of alkaline phosphatase activity by producing an indigo dye precipitate. Colour enhancer for staining with alkalic phosphatase.

Mechanism

During dimerisation of ketonized X-Phos, H^+ ions are set free which reduce NBT to purple-coloured diformazan. Both dyes precipitate in the direct vicinity of the phosphatase, hence staining this site in a dark violet. Store at +4 °C. Please also see assay protocol for use of BCIP/NBT in immunoblot procedures.

Stock solution: 0.5 g NBT in 10 ml 70 % dimethylformamide. Protect from light and humidity.

$C_{40}H_{30}Cl_2N_{10}O_6$ · M 817,65 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
4421.1	100 mg	glass	22,05
4421.2	500 mg	glass	57,55
4421.3	1 g	glass	105,90
4421.4	5 g	glass	381,65

4-Nitrophenyl phosphate disodium salt hexahydrate

≥99 %, for biochemistry

Substrate for alkaline phosphatase, particularly for ELISA.

Substrate of the alkaline phosphatase for use in ELISAs. During reaction of the substrate, a soluble, yellow product is formed that is detected photometrically at 405 nm wave length.

Directions for use

Working solution: 1 mg/ml in diethanolamine substrate buffer (10 mM diethanolamine, 0.5 mM $MgCl_2$, pH 9.5).
For endpoint analysis the reaction may be stopped via addition of 2–3 M NaOH.

$C_6H_4NNa_2O_6P \cdot 6\ H_2O$ · M 371,12 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
4165.1	2.5 g	glass	19,25
4165.9	25 g	glass	81,60
4165.7	100 g	glass	228,45

DNAse-free RNAse-free

ROTI®DAB Kit

for immunochemistry

Substrate kit for detection of HRP activity on blot membranes and slides.

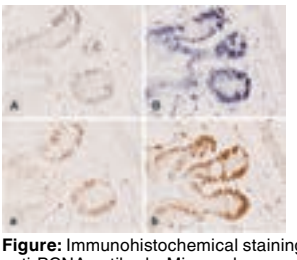


Figure: Immunohistochemical staining of mouse small intestines with an anti-PCNA antibody. Minuscules: pure DAB substrate, capitals: detection supplemented by DAB enhancer (A: $NiCl_2$, B: DAB Metal Enhancer, Art. No. 9204).
A/a: Basic method using 0.6 mg/ml DAB in Tris-buffer.
B/b: Detection performed with the ROTI®DAB Kit.

Mechanism

DAB is oxidized by HRP, forming a brown precipitate, which is insoluble in aqueous and organic solvents. This precipitate can be detected in visible light and does not bleach during long-term storage.

Directions for use

Addition of the DAB Metal Enhancer (Art. No. 9204) doubles the signal strength. Slides may be permanently mounted in hydrophilic, or, after dehydration, in hydrophobic mounting medium.

The kit contains

DAB solution (Art. No. 9869), DAB buffer (Art. No. 9870), and Activation reagent (Art. No. 9871) in dropper bottles. Contents of this Kit may not be bought separately.

One kit is sufficient for staining of approx. 44 minigel blot membranes or 500 slides.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Danger H302-H341-H351-H360D-H373

Art. No.	Pack Qty.	Packaging	Pack.	€
9202.1	1 kit	for ca. 40 assays, in dropper bottles	cardboard	224,70

► DAB Metal Enhancer see page 219

► Streptavidin/HRP kit see www.carlroth.com

ROTI®Fair pNPP

p-Nitrophenyl phosphate, pNPP (tablet)

Exactly pre-weighed tablets for convenient and rapid preparation of pNPP solution.

Prepared solution may be sterilized by filtration (0,22 µm). The solution has to be stored at –20 °C in aliquots.



ROTI®Fair pNPP 5mg

5 mg/tablet, for biochemistry

For preparation of pNPP substrate solution for alkaline phosphatase.

0.1 % pNPP solution (1 mg/ml) is prepared by dissolution of 1 tablet in 5 ml substrate buffer.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Prepared solution contains 1 mg/ml pNPP, when 1 tablet is dissolved in 5 ml substrate buffer or deionized, or distilled, water.

Art. No.	Pack Qty.	Pack.	€
1117.1	24 unit(s)	blister	143,55

ROTI®Fair pNPP 20mg

20 mg/tablet, for biochemistry

For preparation of pNPP substrate solution for alkaline phosphatase.

0.1 % pNPP solution (1 mg/ml) is prepared by dissolution of 1 tablet in 20 ml substrate buffer.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Prepared solution contains 1 mg/ml pNPP, when 1 tablet is dissolved in 20 ml substrate buffer or deionized, or distilled, water.

Art. No.	Pack Qty.	Pack.	€
1128.1	24 unit(s)	blister	124,20



ROTI®Lumin

HRP substrate

- Sensitive and reliable
- For all standard membrane types
- Low background
- No cumbersome preparation of peroxidase buffers
- Suitable for multiple stripping and hybridisation

ROTI®Lumin is a kit for chemoluminescent detection of peroxidase-linked reporters (e.g. HRP-antibodies), as can be found in Western-Blot assays. In comparison to chromogen substrates, ROTI®Lumin displays increased sensitivity and reduced background reaction.

Mechanism

ROTI®Lumin is transformed by the HRP into an excited dianion in the presence of hydrogen peroxide. When the dianion is reversed back to its normal state, light is emitted. The light emission of ROTI®Lumin reaches its maximum within 5 minutes and remains at the maximum level for approx. 1–2 hours.

ready-to-use

ROTI®Lumin

10x conc., fluorescence-free, for protein and cytoimmunochemistry

Chemoluminescence substrate for peroxidase mediated detection systems.

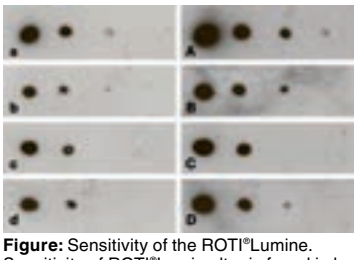


Figure: Sensitivity of the ROTI®Lumine.
Sensitivity of ROTI®Lumin ultra is found in low femtogram range. Detection of a polyclonal antibody (left to right 4 pg, 400 fg, 40 fg, 4 fg) on ROTI®PVDF (Art. No. T830.1). Staining in PBST via a HRP-conjugated anti-rabbit antibody (1:2000).
a/A: ROTI®Lumin ultra; b/B: ROTI®Lumin plus; c/C: ROTI®Lumin; d/D: Product of a competitor, recommended for femtogram range. a/b/c/d: 10 sec. exposition, A/B/C/D: 1 min. exposition.

Directions for use

ROTI®Lumin consists of two solutions, which should be mixed at a 1:1 ratio before use. It can be used with nitrocellulose, nylon and PVDF membranes. Optimal results can be achieved with Immobilon-P® PVDF or ROTI®PVDF.
Can be used for Western-Blotting, ELISA, Southern- Blotting, Dot-Blotting and colony hybridisation. Membranes may be stripped from bound probes using ROTI®Free stripping buffer, and may thus undergo multiple reprobing.

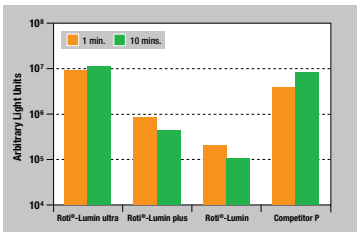


Figure:
Relative sensitivity of ROTI®Lumins. Measurement of the relative light emission following ECL reaction with solubilised HRP.
Competitor P: Product of a competitor, recommended for femtogram range.

The kit contains

120 ml (25 ml) ROTI®Lumin 1 (Art. No. P079) and 120 ml (25 ml) ROTI®Lumin 2 (Art. No. P080).
Contents of this Kit may not be bought separately.

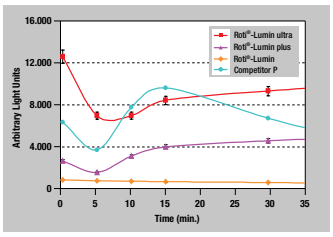


Figure:
Typical course of light emission of the ROTI®Lumins: 0–30 mins., post mixing/ spraying. Competitor P: Product of a competitor, recommended for femtogram range.

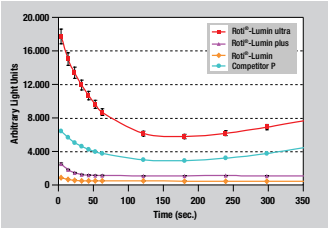


Figure:
Typical course of light emission of the ROTI®Lumins: 0–5 mins., post mixing/ spraying. Competitor P: Product of a competitor, recommended for femtogram range.

2 x 120 ml is sufficient for approx. 3,500 cm^2 membrane (approx. 50 mini gel blots) or 2,400 wells in the ELISA.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Packaging	Pack.	€
P078.1	1 kit	2 x 120 ml	plastic	424,65
P078.2	1 kit	2 x 25 ml	plastic	117,20

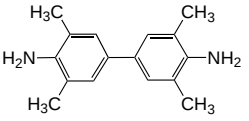
Detection of peroxidase activity (Immunoassay):

Dissolve 1 mg TMB in 0.1 ml dimethylsulfoxide (Art. No. 4720); add 9.9 ml of a 0.1 M sodium acetate solution (pH 6.0) (Powder: Art. No. 6779), filter and add H_2O_2 (Art. No. 8070) (final concentration 0.01 %).

Always prepare freshly!

Incubation 10–30 mins at room temperature (approx. 50 µl per microtitre well; finally add 50 µl 1 M H_2SO_4, Art. No. X873, per well).
Photometric quantitation at 450 nm.

Reference: Bos E.S. *et al.* (1981) *J. Immunoassay 2,* (3/4), 187.



3,3',5,5'-Tetramethylbenzidine

≥98 %, p.a.

Substrate for peroxidase

Used as a highly sensitive substrate for peroxidases, particularly in ELISA procedures. Can replace carcinogenic benzidine.

Dissolves easily in acetone, chloroform and ethanol.

Directions for use

Working solution: 1 mg TMB in 0.1 ml dimethyl sulfoxide, add 9.9 ml 0.1 M sodium acetate (pH 6). Filter and add H_2O_2 ad 0.01 %. Always prepare freshly!
Application: approx. 50 µl per 96well, incubate for 10–30 mins. at room temperature. Add 50 µl 1 M H_2SO_4 and quantitate photometrically at 450 nm (acc. to: Bos *et. al.* (1981) *J. Immunoassay* 2:187).
Protect from light.

Always prepare a fresh working solution!

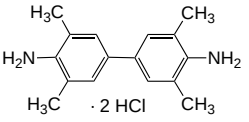
$C_{16}H_{20}N_2$ · M 240,35 g/mol

Storage temperature: +4 °C

WGK 1

Can replace carcinogenic benzidine.

Art. No.	Pack Qty.	Pack.	€
6350.1	1 g	glass	62,25
6350.2	5 g	plastic	192,45
6350.3	25 g	plastic	639,65



3,3',5,5'-Tetramethylbenzidine dihydrochloride

≥99 %, for biochemistry

Water-soluble peroxidase substrate

Tetramethylbenzidine dihydrochloride is used as highly sensitive substrate for detection of horseradish peroxidase labelled probes, particularly in solution-based assays like ELISA techniques. It produces a soluble, blue-coloured end product, which can be read spectrophotometrically.

The dihydrochloride form is well water-soluble, making it a versatile tool in laborartory science.

Directions for use

Working solution: Immediately prior to use add 2 µl / 10 ml of 30 % hydrogen peroxide (Liem *et al.* (1979) *Anal Biochem*, 98:388-93).

Stock solution: 0.1 mg/ml in 50 % acetic acid or phosphate citrate buffer (50 mM NaH_2PO_4, 25 mM citric acid, pH 5.0). For solubilisation, heat to 45 °C and sonicate.

Storage of stock sol.: At +4 °C if tightly sealed. Oxidation can be seen by colour-shift to a faint blue.

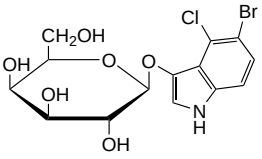
$C_{16}H_{20}N_2$ · 2 HCl · M 313,27 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
4107.1	500 mg	glass	50,45
4107.2	1 g	glass	84,40





DNAse-free | RNAse-free | Protease-free

X-β-Gal

≥99 %, BioScience Grade

Colorimetric substrate of β-galactosidase. For biochemistry and molecular biology.

Ideal for colorimetric detection of β-galactosidase activity, for instance during blue-/white selection.

Mechanism

Being a galacto pyranoside, IPTG inhibits the lac repressor, therefore leading to the induction the lac promotor. Subsequently, using the plasmid as matrix the C-terminal 146 amino acid fragment of the bacterial β-galactosidase is expressed, which functions as so called α-donor and complements the C-terminally deleted bacterial β-galactosidase. The then functional β-galactosidase restricts the galactoside X-Gal, resulting in a blue-coloured dye - therefore, these lac+ clones are coloured dark blue.
Since the C-terminal part of the α-donor is located **upstream** and the N-terminal part is located **downstream** of the multi cloning site of the plasmid, inserted DNA normally leads to frame shift or at least to major chain elongation, resulting in an unfunctional α-donor and no functional galactosidase – recombinant clones are white. The appearance of light blue clones either results form very short insertions or from the fact that in some plasmids the C-terminal fragment cloned upstream of the MCS is sufficient for α-complementation and restriction of a small amount of X-Gal.

Directions for use

Working solution: for blue/white selection of recombinant clones on agar plates use 0.3 µl stock solution per ml broth/agar.

Stock solution: 100 mg/ml (240 mM) in DMF, store at –20 °C in the dark

$C_{14}H_{15}BrClNO_6$ · M 408,6 g/mol

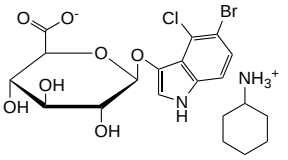
Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
2315.1	100 mg	glass	24,65
2315.2	500 mg	glass	73,00
2315.3	1 g	glass	134,40
2315.5	2.5 g	glass	252,65
2315.4	5 g	glass	461,20

► IPTG see page 140

► For a full list of our substrates see chapter Chemicals A-Z.





X-Gluc

≥99 %, for microbiology

Glucuronidase substrate

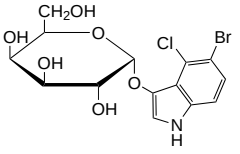
For colorimetric detection of glucuronidase activity. During hydrolysis of X-gluc two molecules are formed, glucuronic acid and 5-bromo-4-chloro-indoxyle, which is then being oxidized to a deep-blue indigo-dye.

X-Gluc is used for detection of contaminations by *E. coli* bacteria in food, waters and feeds. In molecular genetics, it is widely used as marker for expression analysis of target genes.

$C_{20}H_{26}N_2O_7ClBr \cdot H_2O$ · M 539,81 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
0018.1	100 mg	glass	131,70
0018.2	500 mg	glass	499,90
0018.3	1 g	glass	833,15



X-α-Gal

≥98 %, for biochemistry

Colorimetric substrate of α-galactosidase.

Chromogenic substrate of α-galactosidase (melibiase, α-D-galactoside galactohydrolase), an enzyme that is necessary for metabolization of the disaccharide melibiose as a carbon source.

Used for selection of positive clones in yeast two-hybrid screens.

Directions for use

Working concentration: 20–50 µg/ml in agar plates.

Stock solution: 2–20 mg/ml in DMF

$C_{14}H_{15}BrClNO_6$ · M 405,63 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
HN36.1	25 mg	glass	85,50
HN36.2	100 mg	glass	256,95
HN36.3	250 mg	glass	600,95

Albumins

BSA are proteins yielded from blood, which function as binding and transport proteins in blood circulation. Depending on the preparation process, the albumins contain different quality and quantities of metabolic products, enzymes, peptides, fatty acids, vitamines, etc. and are suitable for different applications.

Cohn/ethanol lyophilsate

BSA made of fresh bovine plasma by fractionation (Cohn method) and subsequent crystallisation from alcohol solution at a low temperature.

Heatshock albumin

For purification of this Albumin an extensive heat-shock/diafiltration method is used, which has been shown to bring more highly purified products than the standard process acc. to Cohn. The process is taking place in a closed system.

All albumins are available in bulk on request.



Albumin/BSA solutions

BSA

Standard albumin for biochemical assays, as stabilisation reagent and as reference in quantitation assays.

Very suitable for all standard applications where a high quality albumin is to be used that does not meet any special requirements. Suitable for immunoassays, as blocking reagent, for stabilising enzymes and antibodies, for industrial applications on a large scale and much more.

S ready-to-use

Albumin solution 20 %

20 %, sterile, for biochemistry and cell biology

Wide range of applications, e.g. as protein standard or blocking reagent.

Heatshock albumin.
Long-term storage in aliquots at –20 °C possible.
Storage temperature: +4 °C
Transport temperature: cooled
WGK 1

Art. No.	Pack Qty.	Pack.	€
9400.1	20 ml	plastic	49,35
9400.2	100 ml	plastic	107,40
9400.3	500 ml	plastic	428,95

S ready-to-use

Albumin solution 30 %

30 %, sterile, for biochemistry and cell biology

Wide range of applications, e.g. as protein standard or blocking reagent.

Heatshock albumin.
Long-term storage in aliquots at –20 °C possible.
Storage temperature: +4 °C
Transport temperature: cooled
WGK 1

Art. No.	Pack Qty.	Pack.	€
9401.1	20 ml	plastic	50,45
9401.2	100 ml	plastic	123,55
9401.3	500 ml	plastic	482,70

S ready-to-use

Albumin solution 30 %, with azide, US-Origin

30 %, sterile, with azide, US-Origin, for biochemistry

Suitable as blocking or stabilising reagent in all general assays.

Heatshock albumin.
Long-term storage in aliquots at –20 °C possible.
Recommended if BSA with US-Origin is required.
Storage temperature: +4 °C
Transport temperature: cooled
WGK 1

Art. No.	Pack Qty.	Pack.	€
9414.1	100 ml	plastic	213,95
9414.2	500 ml	plastic	697,70

► Detailed specifications see chapter Chemicals A–Z

Molar extinction coefficient: $4{,}4 \times 10^4$ L x mol^{-1} x cm^{-1}
(acc. to 0,667 L x mol^{-1} x cm^{-1} for a 0,1 % solution).

Albumin/BSA Lyophilisates

Origin Australia/New Zealand

Albumin, NZ-Origin is particularly recommended when procedural regulations require the use of albumin of guaranteed origin Australia or New Zealand.



TSE-/BSE-free

Albumin Fraction V, NZ-Origin

≥98 %, for biochemistry and molecular biology

Wide range of applications, e.g. as protein standard or blocking reagent.

Very suitable for all standard applications where a high quality albumin is to be used that does not meet any special requirements. Suitable for immunoassays, as blocking reagent, for stabilising enzymes and antibodies, for industrial applications on a large scale and much more.

Cohn/ethanol lyophilsate
Recommended if BSA with origin Australia or New Zealand is required.

M ~66 000 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
8076.1	10 g	plastic	34,95
8076.2	50 g	plastic	107,00
8076.4	200 g	plastic	352,10
8076.3	500 g	plastic	775,65
Original pack 6 x 500 g			736,87/500 g
8076.5	1 kg	plastic	1.267,45
Original pack 6 x 1 kg			1.204,08/1 kg

TSE-/BSE-free

Albumin, sulfhydryl blocked, NZ-Origin

≥98 %, for biochemistry and molecular biology

Monomeric albumin for all sensitive assays.

High quality albumin originating from Australia or New Zealand.
By blocking the thiol groups, the polymerisation of the albumin molecules is very efficiently prevented, which can occur during the storage of powder and solution and change the properties of the albumin. The albumin remains stable over time as a monomer and can, therefore, be used very well for reproducible laboratory assays. Due to its low IgG and protease content, the albumin is excellent for all immunoassays such as WESTERN or ELISA and as a stabilising reagent for proteins, antibodies etc. Furthermore, the Albumin, sulfhydryl-blocked, NZ-Origin is recommended for all thiol or sulfur sensitive assays.

Tested for the absence of detectable free sulfhydryl groups.

Heatshock albumin.
Constant properties over longer storage time.
Recommended if BSA with origin Australia or New Zealand is required.

M ~66 000 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1ET3.1	1 g	plastic	31,75
1ET3.2	10 g	plastic	74,10
1ET3.3	50 g	plastic	201,60
1ET3.4	200 g	plastic	579,45



TSE-/BSE-free

Albumin Fraction V, biotin-free, NZ-Origin

≥98 %, biotin-free, for biochemistry and molecular biology

Excellent as blocking and stabilising reagent in all biotin/streptavidin-mediated detection systems.

Tried and tested albumin preparation, suitable for all immunoassays, for stabilising proteins, enzymes and antibodies and as a blocking-reagent in hybridisation.

Tested for its absence of biotin.

Cohn/ethanol lyophilsate
Recommended if BSA with origin Australia or New Zealand is required.

M ~66 000 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
0163.1	10 g	plastic	42,90
0163.2	50 g	plastic	136,00
0163.4	200 g	plastic	444,55
0163.3	500 g	plastic	923,45
Original pack 6 x 500 g			877,28/500 g

Albumins

Protease-free **TSE-/BSE-free**

Albumin, protease-free, NZ-Origin

≥98 %, protease-free, for protein analysis and molecular biology

For all sensitive enzymatic assays.

High purity albumin with origin from Australia or New Zealand with very low protease content. Excellent in sensitive immuno assays, as a stabilising reagent for proteins, enzymes and antibodies and also suitable as a blocking reagent in hybridisation techniques.

Tested for the absence of detectable protease activity.

Heatshock albumin.
Recommended if BSA with origin Australia or New Zealand is required.

M ~66 000 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1ET7.1	10 g	plastic	63,35
1ET7.2	50 g	plastic	152,15
1ET7.3	200 g	plastic	499,90
1ET7.4	500 g	plastic	1.052,45
Original pack 6 x 500 g			999,83/500 g



DNAse-free **RNAse-free** **Protease-free** **TSE-/BSE-free**

Albumin, IgG free, NZ-Origin

>98 %, IgG-free, for biochemistry and molecular biology

Recommended as blocking and stabilising reagent in all antibody-mediated detection systems.

Albumin, highly purified and tested for presence of immunoglobulins (IgGs), proteases, RNAse, and DNAse. Albumin, IgG-free is particularly recommended for use as stabilising reagent in antibody solutions, and as blocking reagent in all assays using detection systems via anti-bodies.
Also very well suited for stabilising of hot-start-PCRs mediated by antibodies, or as blocking reagent in antibody-detected hybridisations.

Tested for the absence of detectable IgG.

Heatshock albumin.
Recommended if BSA with origin Australia or New Zealand is required.

M ~66 000 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
3737.1	10 g	plastic	69,35
3737.2	50 g	plastic	190,85
3737.3	200 g	plastic	579,45
3737.4	500 g	plastic	1.177,15
Original pack 6 x 500 g			1.118,29/500 g

TSE-/BSE-free

Albumin, fatty acid-free, NZ-Origin

≥98 %, fatty acid-free, for biochemistry and molecular biology

Suitable as blocking or stabilising reagent in all fatty acid-sensitive assays.

Highly pure albumin, prepared from blood of cattle certified for origin from Australia or New Zealand.
Albumin, fatty acid-free, NZ-Origin, may well be used for blocking of all assays regarding membrane proteins, or other approaches aiming for fatty acid-associated proteins. It is also well suited for stabilisation of antibodies, enzymes or fatty acids. Albumin, fatty acid-free, NZ-Origin, shows exceedingly low content of endotoxins and IgGs, making it a useful reagent for cell biology also.

Tested for very low fatty acid concentration.

Heatshock albumin.
Recommended if BSA with origin Australia or New Zealand is required.

M ~66 000 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1ETC.1	1 g	plastic	27,45
1ETC.2	10 g	plastic	70,85
1ETC.3	50 g	plastic	228,45
1ETC.4	200 g	plastic	514,95
1ETC.5	500 g	plastic	1.073,95
Original pack 6 x 500 g			1.020,25/500 g

TSE-/BSE-free

Albumin, very low endotoxin, NZ-Origin

CELLPURE® ≥98 %, very low endotoxin, for cell biology

With extremely low endotoxin content. Recommended for the culture of primary cells and cell lines. Also suitable for sensitive cell culture assays.

Albumin, very low endotoxin, NZ-Origin is particularly recommended for use during culturing of eukaryotic cells and in cell culture assays. This albumin of superior quality is thoroughly tested for its very low endotoxin content, therefore providing trouble-free cell culture assays and reliable results even when handling primary cells or stem cells.
Bovine serum albumin is basically suitable for stabilisation of all enzymes and antibodies, as well as for blocking of hybridisations and immunoassays.

Tested for very low endotoxin content.

Heatshock albumin.
Recommended if BSA with origin Australia or New Zealand is required.

M ~66 000 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1ET4.1	1 g	plastic	27,45
1ET4.2	10 g	plastic	65,50
1ET4.3	50 g	plastic	209,65
1ET4.4	200 g	plastic	493,45

Origin Europe

Albumin of European origin is produced from blood of European cattle herds. It is excellent for use in all assays and products manufactured for regions outside the USA, Australia and New Zealand.



TSE-/BSE-free

Albumin Fraction V, Europe

≥98 %, for biochemistry and molecular biology

Wide range of applications, e.g. as protein standard or blocking reagent.

Very suitable for all standard applications where a high quality albumin is to be used that does not meet any special requirements. Suitable for immunoassays, as blocking reagent, for stabilising enzymes and antibodies, for industrial applications on a large scale and much more.

Cohn/ethanol lyophilsate

M ~66 000 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1ETA.1	10 g	plastic	37,10
1ETA.2	50 g	plastic	113,45
1ETA.3	200 g	plastic	378,95
1ETA.4	500 g	plastic	822,40
Original pack 6 x 500 g			781,28/500 g
1ETA.5	1 kg	plastic	1.353,45
Original pack 6 x 1 kg			1.285,78/1 kg



TSE-/BSE-free

Albumin Fraction V, pH 5.2, Europe

>97 %, for protein analysis

Non-neutralized albumin. Suitable as protein standard or hapten carrier, recommmended for use in ELISA and Western-Blotting.

Albumin Fraction V, pH 5.2 is basically suitable for all applications using albumin of Cohn-fraction V, e.g. for stabilisation of enzymes and antibodies, or as hapten carrier in immunoassays.
The pH value of albumin pH 5.2 is close to its pI and the protein is only weakly charged. It is, therefore, particularly recommended for use in ELISA and Western blotting, since it may help in further reducing background signals.

Cohn/ethanol lyophilsate

M ~66 000 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
2834.1	10 g	plastic	50,00
2834.2	50 g	plastic	156,45
2834.3	200 g	plastic	481,10
2834.4	500 g	plastic	1.009,45
Original pack 6 x 500 g			958,98/500 g



Protease-free TSE-/BSE-free

Albumin Fraction V, protease-free, Europe

≥98 %, protease-free, for protein analysis and molecular biology

For all sensitive enzymatic assays.

Excellent in sensitive immuno assays, as a stabilising reagent for proteins, enzymes and antibodies and also suitable as a blocking reagent in hybridisation techniques.

Tested for the absence of detectable protease activity.

Cohn/ethanol lyophilsate

M ~66 000 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
T844.1	10 g	plastic	61,20
T844.2	50 g	plastic	158,60
T844.4	200 g	plastic	504,20
T844.3	500 g	plastic	1.064,25
Original pack 6 x 500 g			1.011,04/500 g

TSE-/BSE-free

Albumin Fraction V, fatty acid-free, Europe

≥98 %, fatty acid-free, for biochemistry and molecular biology

Excellent when working with membrane-associated proteins.

Suitable for all immunoassays, for stabilising proteins, enzymes and antibodies and as a blocking-reagent during hybridisation.

Tested for very low fatty acid concentration.

Cohn/ethanol lyophilsate

M ~66 000 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
0052.1	1 g	glass	23,55
0052.2	10 g	plastic	73,65
0052.3	50 g	plastic	239,20

Origin USA

BSA, US-Origin is particularly recommended if the use of albumin with certified US-Origin is dictated by process regulations.



TSE-/BSE-free

Albumin Fraction V, US-Origin

≥96 %, for biochemistry and molecular biology

Suitable as blocking or stabilising reagent in all general assays.

Highly pure albumin of Cohn's Fraction, prepared from blood of cattle certified for US-origin. Albumin Fraction V, US-Origin may well be used for all standard assays where blocking with BSA is necessary, as well as for stabilisation of antibodies or enzymes. Many lots show exceedingly low content of protease and IgGs.
BSA, US-Origin is particularly recommended if the use of albumin with certified US-Origin is dictated by process regulations.

Cohn/ethanol lyophilsate.
Recommended if BSA with US-Origin is required.

M ~66 000 g/mol

Storage temperature: +4 °C
WGK 1

Art. No.	Pack Qty.	Pack.	€
3854.1	10 g	plastic	48,30
3854.2	50 g	plastic	160,20
3854.3	200 g	plastic	525,70
3854.4	500 g	plastic	1.138,45
Original pack 6 x 500 g			1.081,53/500 g
3854.5	1 kg	plastic	1.988,75
Original pack 6 x 1 kg			1.889,31/1 kg



TSE-/BSE-free

Albumin, pH 5.2, US-Origin

≥96 %, for protein analysis

Non-neutralized albumin. Suitable as protein standard or hapten carrier, recommmended for use in ELISA and Western-Blotting.

The Albumin, pH 5.2, US-Origin is very well suited for all applications where Albumin is used as a stabilising reagent, for blocking or as a carrier, e.g. for stabilisation of enzymes and antibodies, or as hapten carrier in immunoassays.
The pH value of albumin pH 5.2 US-Origin is close to its pI and the protein is only weakly charged. It is, therefore, particularly recommended for use in ELISA and Western blotting, since it may help in further reducing background signals.

Heatshock albumin.
Recommended if BSA with US-Origin is required.

M ~66 000 g/mol

Storage temperature: +4 °C
WGK 1

Art. No.	Pack Qty.	Pack.	€
1ET8.1	10 g	plastic	61,20
1ET8.2	50 g	plastic	158,60
1ET8.3	200 g	plastic	504,20
1ET8.4	500 g	plastic	1.064,25
Original pack 6 x 500 g			1.011,04/500 g



Protease-free **TSE-/BSE-free**

Albumin, protease-free, US-Origin

≥98 %, protease-free, for protein analysis and molecular biology

For all sensitive enzymatic assays.

High purity albumin with origin from the USA with very low protease content. Excellent in sensitive immuno assays, as a stabilising reagent for proteins, enzymes and antibodies and also suitable as a blocking reagent in hybridisation techniques.

Tested for the absence of detectable protease activity.

Heatshock albumin.
Recommended if BSA with US-Origin is required.

M ~66 000 g/mol

Storage temperature: +4 °C
WGK 1

Art. No.	Pack Qty.	Pack.	€
1ET5.1	10 g	plastic	69,35
1ET5.2	50 g	plastic	162,90
1ET5.3	200 g	plastic	510,65
1ET5.4	500 g	plastic	1.069,65
Original pack 6 x 500 g			1.016,17/500 g





TSE-/BSE-free

Albumin, IgG free, US-Origin

≥98 %, IgG-free, for biochemistry and molecular biology

Recommended as blocking and stabilising reagent in all antibody-mediated detection systems.

Albumin, highly purified and tested for the presence of immunoglobulins (IgGs)
The Albumin, IgG-free, US-Origin is especially recommended to stabilize antibody solutions and as blocking reagent in all assays working with antibodies. Due to its particularly low protease content, it is also well suited for use in all other protein assays that could be interfered with by protease presence.

Tested for the absence of detectable IgG.

Heatshock albumin.
Recommended if BSA with US-Origin is required.

M ~66 000 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1ET9.1	10 g	plastic	74,10
1ET9.2	50 g	plastic	201,60
1ET9.3	200 g	plastic	579,45
1ET9.4	500 g	plastic	1.187,90
Original pack 6 x 500 g			1.128,51/500 g

TSE-/BSE-free

Albumin, very low endotoxin, US-Origin

CELLPURE® ≥98 %, very low endotoxin, for cell biology

With extremely low endotoxin content. Recommended for the culture of primary cells and cell lines. Also suitable for sensitive cell culture assays.

Albumin, very low endotoxin, US-Origin is particularly recommended for use during culturing of eukaryotic cells and in cell culture assays. This albumin of superior quality is thoroughly tested for its very low endotoxin content, therefore providing trouble-free cell culture assays and reliable results even when handling primary cells or stem cells.
Bovine serum albumin is basically suitable for stabilisation of all enzymes and antibodies, as well as for blocking of hybridisations and immunoassays.

Tested for very low endotoxin content.

Heatshock albumin.
Recommended if BSA with US-Origin is required.

M ~66 000 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1ET6.1	1 g	plastic	32,80
1ET6.2	10 g	plastic	72,60
1ET6.3	50 g	plastic	229,55
1ET6.4	200 g	plastic	532,15

TSE-/BSE-free

Albumin, fatty acid-free, US-Origin

≥98 %, fatty acid-free, for biochemistry and molecular biology

Suitable as blocking or stabilising reagent in all fatty acid-sensitive assays.

Highly pure albumin, prepared from blood of cattle certified for US-origin.
Albumin, fatty acid-free, US-Origin, may well be used for blocking of all assays regarding membrane proteins, or other approaches aiming for fatty acid-associated proteins. It is also well suited for stabilisation of antibodies, enzymes or fatty acids. Albumin, fatty acid-free, US-Origin, shows exceedingly low content of endotoxins and IgGs, making it a useful reagent for cell biology also.

Tested for very low fatty acid concentration.

Heatshock albumin.
Recommended if BSA with US-Origin is required.

M ~66 000 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
9638.1	1 g	plastic	32,80
9638.2	10 g	plastic	76,25
9638.3	50 g	plastic	252,65
9638.4	100 g	plastic	532,15

Lactalbumin

Lactalbumin

for microbiology and biochemistry

Lactalbumin is produced by enzymatic hydrolysis of milk whey. It consists of peptides, amino acids and carbohydrates, simple and complex.

It is used in media for culturing of bacterial cells (e.g. *lactobacilli*), for tissue culture, production of vaccines and in fermentation procedures.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
7597.1	250 g	plastic	98,40
7597.2	500 g	plastic	175,80
Original pack 6 x 500 g			167,01/500 g

Albumins

Recommended Application of Albumins

Albumin	Art. No.	Recommended Application
Albumin Solution 20 %, Europe	9400	Stabilization of proteins in general, especially antibodies. Suitable for all biochemical assays, e. g. as protein standard or blocking reagent, unless special requirements apply.
Albumin Solution 30 %, Europe	9401	Stabilization of proteins in general, especially antibodies. Suitable for all biochemical assays, e. g. as protein standard or blocking reagent, unless special requirements apply.
Albumin Solution 30 %, with azide, US-Origin	9414	Stabilization of proteins in general, especially antibodies. Suitable for all biochemical assays, e. g. as protein standard or blocking reagent, unless special requirements apply. Recommended if albumin with certified origin USA has to be used.
Fraction V, Europe	1ETA	Stabilisation of proteins and blocking reagent in protein biochemical detection systems. Basically suitable for all assays unless specific requirements apply.
Fraction V, US-Origin	3854	Stabilisation of proteins and blocking reagent in all standard biochemical detection systems. Basically suitable for all assays unless specific requirements apply. Recommended if albumin with certified origin USA has to be used.
Fraction V, NZ-Origin	8076	Stabilisation of proteins and blocking reagent in protein biochemical detection systems. Basically suitable for all assays unless specific requirements apply. Recommended if albumin with certified origin New Zealand or Australia has to be used.
Fraction V, pH 5.2, Europe	2834	Stabilisation of proteins and blocking reagent. Particularly recommended for Western-Blotting and ELISAs.
pH 5.2, US-Origin (heat shock)	1ET8	Stabilisation of proteins and blocking reagent. Particularly recommended for Western-Blotting and ELISAs. Recommended if albumin with certified origin USA has to be used.
sufhydryl-blocked, NZ-Origin (heat shock)	1ET3	Particularly sensitive assays where monomeric albumin is guaranteed to be used or where reproducibility is particularly important. Can be stored as monomers over a longer period of time.
Fraction V, biotin-free, NZ-Origin	0163	Stabilisation of proteins and blocking reagent in all biotin / streptavidin-mediated detection systems (membrane-bound- or coating-plate-assays, as well as soluble assays).
Fraction V, protease-free, Europe	T844	Stabilisation of proteins in general, antibodies in particular, and blocking reagent in sensitive enzymatic detection systems, activity tests or protein/protein-interaction assays.
protease-free, US-Origin (heat shock)	1ET5	Stabilisation of proteins in general, antibodies in particular, and blocking reagent in sensitive enzymatic detection systems, activity tests or protein/protein-interaction assays. Recommended if albumin with certified origin USA has to be used.
protease-free, NZ-Origin (heat shock)	1ET7	Stabilisation of proteins in general, antibodies in particular, and blocking reagent in sensitive enzymatic detection systems, activity tests or protein/protein-interaction assays. Recommended if albumin with certified origin New Zealand or Australia has to be used.
IgG-free, US-Origin (heat shock)	1ET9	Stabilisation of antibodies. Blocking reagent in all antibody-mediated detection systems and Radio-Immuno Assays (RIAs). Reduces false-positive signals. Recommended if albumin with certified origin USA has to be used.
IgG-free, NZ-Origin (heat shock)	3737	Stabilisation of antibodies. Blocking reagent in all antibody-mediated detection systems and Radio-Immuno Assays (RIAs). Reduces false-positive signals. Recommended if albumin with certified origin New Zealand or Australia has to be used.
Fraction V, fatty acid-free, Europe	0052	Stabilisation of proteins and blocking reagent in detection systems. Particularly recommended for experiments on metabolism proteins, membrane-associated proteins and cell surface proteins.
fatty acid-free, US-Origin, (heat shock)	9638	Particularly for experiments on metabolism proteins, membrane-associated proteins and cell surface proteins. Also well suited for cell biology and all antibody-mediated detection systems. Recommended if albumin with certified origin USA has to be used.
fatty acid-free, NZ-Origin (heat shock)	1ETC	Stabilisation of proteins and blocking reagent in detection systems. Particularly for experiments on metabolism proteins, membrane-associated proteins and cell surface proteins. Recommended if albumin with certified origin New Zealand or Australia has to be used.
very low endotoxin, US-Origin (heat shock)	1ET6	Cell culture of all cell lines, primary cells, stem cells. Cloning and 3D-cultures or cell-stressing assays like transfections, *in vitro* infections, cell fusion. Recommended if albumin with certified origin USA has to be used.
very low endotoxin, NZ-Origin (heat shock)	1ET4	Cell culture of all cell lines, primary cells, stem cells. Cloning and 3D-cultures or cell-stressing assays like transfections, *in vitro* infections, cell fusion. Recommended if albumin with certified origin New Zealand or Australia has to be used..

PBS and TBS as powder mix, ready-to-use solution, tablets and in pouches



ROTI®PreMix PBS

for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

Among biological buffers, PBS is the one most commonly used. Due to its isotonic and non-toxic nature, PBS is suitable for applications in cell culture as well as in biochemistry and molecular biology. PBS is frequently used for sample dilution and as base solution in immuno-chemical processes.

Directions for use

Prepared solution may be sterilized by filtration (0,22 µm) or autoclaving. For long-term storage, buffer solution should be kept at +4 °C.

1x PBS solution is prepared by dissolution of 9.55 g/l in highly pure water.

WGK 1

Prepared 1x PBS solution contains: 0.14 M NaCl, 2.7 mM KCl, 10 mM phosphate, pH-value 7.4 ±0.2, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
0890.1	250 g	plastic	94,10
0890.2	1.25 kg	plastic	317,15

ROTI®PreMix PBST

for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

Buffer solution composed of PBS with the addition of the non-ionic detergent Tween® 20. Since detergents are known to reduce non-specific protein-protein interactions, PBST is preferably used as basic solution during Western blotting, ELISA or other immunochemical assays.

Directions for use

Prepared solution may be sterilized by filtration (0,22 µm). For long-term storage, buffer solution should be kept at +4 °C.

1x PBS solution is prepared by dissolution of 10.05 g/l in highly pure water.

WGK 1

Prepared 1x PBST solution contains: 0.14 M NaCl, 2,7 mM KCl, 10 mM phosphate, 0.05 % Tween® 20, pH-value 7.4 ±0.2, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
0987.1	250 g	plastic	94,10
0987.2	1.25 kg	plastic	317,15



S ready-to-use

ROTI®Stock 10x PBS

10x conc., BioScience Grade, ready-to-use, sterile filtered

For protein biochemistry, cytology, and molecular biology.

10fold stock solution phosphate buffered saline, pH 7,4.

Very versatile standard solution for detection systems in protein biochemistry, cytological stainings and molecular biological assays.

Directions for use

1 x PBS is, for instance, used as basic solution for Western-Blot analyses, ELISAs and other enzymatic assays, for solving and dilution of proteins, for immunocytological and immunohistological assays, as well as for *in situ* hybridisations, apoptosis detection systems and staining of nuclei.

Recommended for **HRP**-mediated detection systems.
With original seal.

WGK 1

1.37 M NaCl, 27 mM KCl, 100 mM Na_2HPO_4, 20 mM KH_2PO_4 in deionised water, pH-value 7.4 ±0.25, 0.2 µm filtered.

Art. No.	Pack Qty.	Pack.	€
1058.1	1 l	glass	149,45
Original pack 6 x 1 l			141,98/1 l

S ready-to-use

ROTI®Stock 10x PBST

10x conc., BioScience Grade, ready-to-use, sterile filtered

For protein biochemistry, cytology, and molecular biology.

10fold stock solution phosphate buffered saline with Tween® 20, pH 7,4.

Extremely versatile standard solution for protein biochemical detection systems, cytological staining and molecular-biological assays with similar fields of application as ROTI®Stock PBS.

Directions for use

1 x PBST is, for instance, used as basic solution for Western-Blot analyses, ELISAs and other enzymatic assays, for solving and dilution of proteins, for immunocytological and immunohistological assays, as well as for *in situ* hybridisations, apoptosis detection systems and staining of nuclei.
ROTI®Stock PBST can be used directly instead of PBS when the presence of Tween® 20 is required in the detection system.

Recommended for **HRP**-mediated detection systems.
With original seal.

WGK 1

1.37 M NaCl, 27 mM KCl, 100 mM Na_2HPO_4, 20 mM KH_2PO_4, 0.5 % Tween® 20 in deionised water, pH value 7.4 ±0.25, 0.2 µm filtered.

Art. No.	Pack Qty.	Pack.	€
1059.1	1 l	glass	155,90
Original pack 6 x 1 l			148,11/1 l

PBS & TBS

S ready-to-use

ROTI®Stock 10x TBS

10x conc., BioScience Grade, ready-to-use, sterile filtered and steam sterilized

For protein biochemistry, cytology, and molecular biology.

10fold stock solution tris buffered saline, pH 7,4.

Very versatile standard solution for detection systems in protein biochemistry, cytological stainings and molecular biological assays.

Directions for use

1 x TBS is, for instance, used as basic solution for protein detection systems like Western-Blot analyses and Far-Western assays, for immunocytological and immunohistological assays, as well as for whole mount *in situ* hybridisations, apoptosis detection systems and staining of nuclei.

Recommended for **AP**-mediated detection systems.
With original seal.

WGK 1

1.5 M NaCl, 30 mM KCl, 250 mM Tris in deionised water, pH value 7.4 ±0.25, 0.2 µm filtered and steam sterilised.

Art. No.	Pack Qty.	Pack.	€
1060.1	1 l	glass	155,90
Original pack 6 x 1 l			148,11/1 l

S ready-to-use

ROTI®Stock 10x TBST

10x conc., BioScience Grade, ready-to-use, sterile filtered and steam sterilized

For protein biochemistry, cytology, and molecular biology.

10fold stock solution tris buffered saline with Tween 20, pH 7,4.

Extremely versatile standard solution for protein biochemical detection systems, cytological staining and molecular-biological assays with similar fields of application as ROTI®Stock TBS.

Directions for use

1 x TBST is, for instance, used as basic solution for protein detection systems like Western-Blot analyses and Far-Western assays, for immunocytological and immunohistological assays, as well as for whole mount *in situ* hybridisations, apoptosis detection systems and staining of nuclei.
ROTI®Stock TBST can be used directly instead of TBS when the presence of Tween 20 is required in the detection system.

Recommended for **AP**-mediated detection systems.
With original seal.

WGK 1

1.5 M NaCl, 30 mM KCl, 250 mM Tris, 0.5 % Tween® 20 in deionised water, pH value 7.4 ±0.25, 0.2 µm filtered and steam sterilised.

Art. No.	Pack Qty.	Pack.	€
1061.1	1 l	glass	155,90
Original pack 6 x 1 l			148,11/1 l

► Complete range of ROTI®Stock solutions see chapter Chemicals A–Z



ROTI®Fair Buffered Salt Solutions

1x and 10x conc., as tablets or in pouches, for biochemistry and molecular biology

Product name	Batch quantity	Art. No.	Pack Qty.	€
ROTI®Fair PBS 7.2	1000 ml/tablet	**1106.1**	10 unit(s)	94,10
		1106.2	100 unit(s)	464,95
ROTI®Fair PBS 7.4	100 ml/tablet	**1107.1**	100 unit(s)	73,00
	200 ml/tablet	**1108.1**	100 unit(s)	120,30
	500 ml/tablet	**1111.1**	12 unit(s)	63,35
		1111.2	100 unit(s)	255,35
	1000 ml/tablet	**1112.1**	10 unit(s)	94,10
		1112.2	100 unit(s)	459,60
	10 l/pouch	**1101.1**	1 unit(s)	49,35
	50 l/pouch	**1103.1**	1 unit(s)	155,90
	100 l/pouch	**1104.1**	1 unit(s)	255,35
ROTI®Fair 10x PBS 7.4	1000 ml/pouch	**1105.1**	5 unit(s)	123,10
ROTI®Fair PBST 7.4	500 ml/tablet	**1115.1**	12 unit(s)	81,60
		1115.2	100 unit(s)	330,60
	1000 ml/tablet	**1116.1**	10 unit(s)	106,35
		1116.2	100 unit(s)	524,10
ROTI®Fair TBS 7.6	500 ml/tablet	**1244.1**	10 unit(s)	80,55
		1244.2	100 unit(s)	413,90
ROTI®Fair TBS 8.0	1000 ml/pouch	**1245.1**	10 unit(s)	223,10
ROTI®Fair 10x TBS 8.0	1000 ml/pouch	**1247.1**	10 unit(s)	858,95
ROTI®Fair TBST 7.6	500 ml/tablet	**1248.1**	10 unit(s)	112,35
		1248.2	100 unit(s)	504,20

For additional product data and safety information, see chapter Chemicals A–Z.

► For more ROTI®Fair buffer mixtures see page 164



Protein Isolation

Affinity Chromatography

ROTI®Garose Beads and Columns for Isolation of His-tag Proteins

Ion charged agarose beads for low pressure affinity chromatography. IMAC matrix.

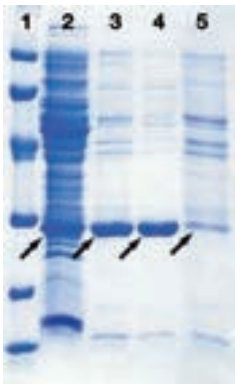
Immobilized metal ion affinity chromatography (IMAC) still is the most widely used method to obtain high yield of very pure proteins with reasonable effort. ROTI®Garose His Beads offer the perfect solution for your specific application of low flow column chromatography or protein isolation in batch mode.

The matrix of ROTI®Garose His Beads consists of crosslinked and beaded 6 % agarose, IDA- or NTA-conjugated and charged with divalent ions. ROTI®Garose His beads result in eluates with considerably low metal contamination. ROTI®Garose Beads may repeatedly be regenerated, making them very cost-effective.
The matrix is stable in al commonly used reagents including denaturing and reducing reagents (like 8 M urea, 6 M guanidinium hydrochloride, 5 mM DTT).

- Simple and rapid one-step purification of His-tagged proteins from total lysates
- High recovery rate of very pure proteins
- Superior binding capacity
- Easy elution and regeneration
- Very low ion leaching
- Compatible with denaturing and reducing reagents

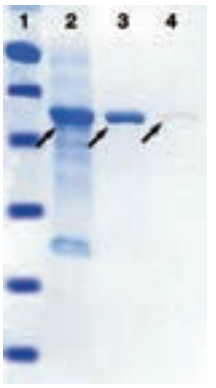
Nickel chelates recognize two exposed histidine tags with good specificity and very high affinity, making the Ni^{2+} charged matrix the first choice for **all standard applications**. ROTI®Garose His/Ni beads give **very high yields of pure proteins** with considerably low metal contamination.

Figure: SDS-PAGE of 6xHis-fuculose aldolase, 28 kDa (arrows). Very high yield of well purified proteins.
1: Marker, 2: Protein raw extract, 3,4: 6xHis target protein purified with ROTI®Garose His/Ni Beads or Column, respectively, 5: 6xHis target protein purified by competitor product.



Cobalt chelates recognize two exposed, vicinal histidins with superior specificity and good affinity, resulting in acceptable to **good recovery rates, yielding proteins of superior purity**. This matrix is, therefore, the perfect choice if extremely pure proteins are required, or if hard-to-separate proteins shall be isolated.

Figure: SDS-PAGE of highly expressed 6xHis-glutaryl acylase, 58 kDa (arrows). Good yield of extremely pure proteins.
1: Marker, 2: Protein raw extract, 3: 6xHis target protein purified with ROTI®Garose His/Co Beads, 4: 6xHis target protein purified by competitor product.



► Magnetic beads and separators see chapter Molecular Biology, DNA-/RNA Isolation

► ROTI®Spin centrifugal devices see chapter Molecular Biology, DNA-/RNA Isolation

Nickel Charged IMAC Beads and Columns – IDA Linker



ROTI®Garose-His/Ni IDA

For the isolation of very high yields of pure His-tagged proteins under non-reducing conditions.
Immobilized metal ion affinity chromatography (IMAC) still is the most widely used method to obtain high yield of very pure proteins with reasonable effort.
ROTI®Garose His/Ni Beads and ready-to-use columns offer the perfect solution for your specific applications in the field of benchtop column chromatography, for protein isolation in batch processes or under medium pressures (MPLC, FPLC). Depending on the product, our beads are optimally suited for low or high flow rates or when small or large sample volumes are to be purified. The ready-to-use columns and cartridges offer you the perfect solution for fast and easy purification of His-tag proteins from total lysate.

- Superior recovery rate of pure His-tagged proteins
- Very low Nickel leaching
- Compatible with denaturing reagents

The matrix of ROTI®Garose His/Ni products consists of crosslinked and beaded 6 % agarose, IDA-conjugated and charged with divalent Nickel ions. Nickel chelates recognize two exposed histidines with good specificity and very high affinity, making the Ni^{2+} charged matrix the first choice for all standard applications. ROTI®Garose His/Ni beads give very high yields of pure His-tagged protein with considerably low metal contamination.

Directions for use

The tridentate IDA cross-linker provides easy elution with low amounts of imidazole. Additionally, ROTI®Garose Beads may repeatedly be regenerated, making them very cost-effective.
The Matrix is stable in all commonly used reagents including denaturing reagents (like 8 M urea, 6 M guanidinium hydrochloride, 5 mM DTT).
A special feature is the modified polychelate linker used in the ROTI®Garose-His/Ni HPBeads plus (0806). For more detailed data please see this product.
For insulation under reducing conditions we recommend ROTI®Garose-His/Ni HPBeads plus or ROTI®Garose-His/Ni NTA beads.



ready-to-use

ROTI®Garose-His/Ni HPCartridges

ROTI®Garose for biochemistry

For isolation of His-tagged proteins by high pressure affinity chromatography.

Affinity chromatography colums · IMAC columns · Nickel agarose beads · Nickel charged IMAC columns

Prepacked cartridges with Nickel charged IDA-agarose bead matrix for medium pressure affinity chromatography (MPLC). Optimal for automated liquid chromatography, or if proteins shall be isolated under pressure.
In ROTI®Garose His/Ni HPBeads, the advantages of the highly efficient Nickel-His binding have been combined with a bead technology allowing a very rapid flow rate.
Matrix in 20 % ethanol.

- Very fast and simple purification of His-tagged proteins from total lysates
- Binding capacity (purified 6xHis protein) of 110 mg per ml matrix / 550 mg per cartridge
- Recommended flow rate 5 ml/min.
- Recommended pressure 5 bar [0,5 MPa] (70 psi)
- Standard ports 10-32 (1/16″)
- Easy elution and regeneration
- **Very versatile. Applicable with ÄKTA™FPLC™, pump and syringe.**
- **For medium pressure flow chromatography**

Suitable for

ÄKTA™FPLC™ and for sample application via peristaltic pump or syringe.

Directions for use

ROTI®Garose His/Ni HPCartridges are prepacked and may be used directly.

Column material made from polypropylene and polyethylene (frit), Inner diameter 1,6 cm, height 2,5 cm, inlet port 10-32 (1/16″) female, outlet port 10-32 (1/16″) male.

Suitable for MPLC, FPLC, ÄKTA™ and peristaltic pumps.
Matrix volume 5 ml, whole volume 10 ml. For approx. 500 mg His labelled protein.

Prepacked columns, binding capacity ca. 500 mgl/column

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319-EUH208

Art. No.	Pack Qty.	Packaging	Pack.	€
1318.1	1 unit(s)	1 x 5 ml	cardboard	217,70
1318.2	5 unit(s)	5 x 5 ml	cardboard	919,15



ready-to-use

ROTI®Garose-His/Ni Columns

ROTI®Garose for biochemistry

For isolation of His-tagged proteins by affinity chromatography.

Affinity chromatography colums · IMAC columns · Nickel agarose beads · Nickel charged IMAC columns

Prepacked columns with nickel-loaded IDA agarose bead matrix for low-pressure affinity chromatography.
ROTI®Garose His/Ni Columns offer the perfect solution for fast and simple isolation of His-tagged proteins from total lysates.
Matrix in 20 % ethanol.

- Fast and simple purification of His-tagged proteins from total lysates
- Binding capacity (purified 6xHis protein) of 117 mg per ml matrix
- Easy elution and regeneration
- **For gravity flow chromatography**

Suitable for

all general applications, or if proteins of very small amount shall be isolated without loss.

Directions for use

Column material made from polypropylene and polyethylene (frit).
May be autoclaved at 121 °C for 30 mins.

Prepacked colums for gravity flow chromatography.
Matrix volume 1 or 5 ml, whole volume 12 or 35 ml, respectively.
For approx. 100 and 500 mg His labelled protein.

Prepacked columns, binding capacity ca. 100 (.1) resp. 500 (.2) mg/column $(His)_6$

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319-EUH208

Art. No.	Pack Qty.	Packaging	Pack.	€
1314.2	5 unit(s)	5 × 5 ml	cardboard	908,40
1314.1	8 unit(s)	8 x 1 ml	cardboard	349,40



ROTI®Garose-His/Ni Beads

ROTI®Garose for biochemistry

For isolation of His-tagged proteins by affinity chromatography.

Agarose beads for affinity chromatography · IMAC matrix/nickel charged · Nickel agarose beads · Column matrix for protein isolation · IMAC beads

Nickel charged IDA-agarose beads for low pressure affinity chromatography.
50 % bead suspension in 20 % ethanol.

- One-Step purification of His-tagged proteins from total lysates
- Binding capacity (purified 6xHis protein) of 117 mg per ml matrix
- Easy elution and regeneration
- **For batch mode and gravity flow column chromatography**

Suitable for

all general applications, or if proteins of very small amount shall be isolated without loss.

Directions for use

May be autoclaved at 121 °C for 30 mins.

For batch mode and gravity flow

Bead suspension, binding capacity 117 mg/ml packed matrix $(His)_6$

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319-EUH208

Art. No.	Pack Qty.	Pack.	€
1308.1	25 ml	plastic	342,95
1308.2	100 ml	plastic	1.015,90



ROTI®Garose-His/Ni HPBeads

ROTI®Garose for biochemistry

For isolation of His-tagged proteins by fast or large scale affinity chromatography

Agarose beads for affinity chromatography · IMAC matrix/nickel charged · Nickel agarose beads · Column matrix for protein isolation · IMAC beads

Nickel charged IDA-agarose beads for affinity chromatography under medium pressure, with high flow rate or with big sample-/matrix volume. In ROTI®Garose-His/Ni HPBeads, the advantages of the highly efficient Nickel-His binding have been combined with a bead technology allowing a very rapid flow rate. ROTI®Garose-His/Ni HPBeads are ideal for purifying large sample volumes.
50 % bead suspension in 20 % ethanol.

- Rapid one-step purification of very pure His-tagged proteins from total lysates
- Very high binding capacity for 6xHis-tagged protein
- Easy elution and regeneration
- **For batch mode, gravity flow, MPLC und FPLC**
- **Recommended for big matrix volumes**

Suitable for

MPLC and FPLC, or if His-tag proteins shall be isolated either **in particularly short time or in big amounts**.

Directions for use

May be autoclaved at 121 °C for 30 mins.

Suitable for LPLC, FPLC and MPLC and big matrix volumes

Bead suspension

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319-EUH208

Art. No.	Pack Qty.	Pack.	€
0835.1	25 ml	plastic	360,15
0835.2	100 ml	plastic	983,65



ROTI®Garose-His/Ni HPBeads plus

ROTI®Garose for biochemistry

For isolation of His-tagged proteins by fast or large scale affinity chromatography under presence of EDTA or DTT

Agarose beads for affinity chromatography · IMAC matrix/nickel charged · Nickel agarose beads · Column matrix for protein isolation · IMAC beads

Nickel charged agarose beads for affinity chromatography under presence of EDTA or DTT. The matrix of choice for applications under low or medium pressure, and applicable for every required sample and/or matrix volume.
In ROTI®Garose-His/Ni HPBeads *plus*, the advantages of the highly efficient Nickel-His binding have been combined with a bead technology allowing a very rapid flow rate. The **specially developed polychelating ligand** forms highly stabile nickel chelates, which are able to isolate His-tagged proteins even from solutions containing 20 mM EDTA or DTT – reliably and without undesired nickel stripping.
50 % bead suspension in 20 % ethanol.

- Rapid one-step purification of very pure His-tagged proteins from total lysates
- High binding capacity for 6xHis-tagged protein (≥80 mg/ml purified His-tagged protein)
- Reliably elution and regeneration
- Minimized Nickel leaching
- **Compatible with 20 mM EDTA and DTT**
- **For batch mode, gravity flow, MPLC und FPLC**
- **Recommended for all matrix volumes**

Suitable for

MPLC and FPLC, or if His-tag proteins shall be isolated either **in particularly short time or in big amounts from reducing solutions**.

Directions for use

In the matrix of ROTI®Garose-His/Ni HPBeads *plus,* IDA was replaced by a polychelator conjugation. This multi dentate cross-linker binds his-tagged proteins very efficiently, leading to high recovery rates with minimized nickel bleeding into the eluate. ROTI®Garose-His/Ni HPBeads *plus* may not be regenerated.

The matrix is very stabile and may generally be used with buffers including the following reagents: ≤20 mM EDTA, ≤20 mM DTT, ≤8 M urea, ≤6 M guanidinium hydrochloride, ≤100 % methanol, ≤100 % ethanol, ≤30 % acetonitrile, pH range 4–9. May be autoclaved at 121 °C for 30 mins.

Suitable for LPLC, FPLC and MPLC and all matrix volumes

Bead suspension, binding capacity ≥80 mg/ml packed matrix $(His)_6$

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319-EUH208

Art. No.	Pack Qty.	Pack.	€
0806.1	25 ml	plastic	719,20
0806.2	100 ml	plastic	2.467,15

Nickel Charged IMAC Beads and Columns – NTA Linker



ROTI®Garose-His/Ni NTA

For the isolation of His-tagged proteins under reducing conditions. Immobilized metal ion affinity chromatography (IMAC) still is the most widely used method to obtain high yield of very pure proteins with reasonable effort.
ROTI®Garose His/Ni Beads and ready-to-use columns offer the perfect solution for your specific applications in the field of benchtop column chromatography, for protein isolation in batch processes or under medium pressures (MPLC, FPLC). Depending on the product, our beads are optimally suited for low or high flow rates or when small or large sample volumes are to be purified.

- Superior recovery rate of pure His-tagged proteins
- Minimized Nickel leaching
- **Compatible with denaturing and reducing reagents**

The matrix of ROTI®Garose-His/Ni NTA products consists of crosslinked and beaded 6 % agarose, NTA-conjugated and charged with divalent Nickel ions. Nickel chelates recognize two exposed histidine tags with good specificity and very high affinity, making the Ni^{2+} charged matrix the first choice for all standard applications. The tetradentate NTA cross-linker binds his-tagged proteins very efficiently, leading to high recovery rates with minimized nickel bleeding into the eluate.

Directions for use

ROTI®Garose-His/Ni NTA-Beads may be regenerated, making them very cost-effective.
The Matrix is stable in all commonly used reagents including denaturing reagents (like 8 M urea, 6 M guanidinium hydrochloride) and (dependent on the respective buffer) reducing substances (for instance ≤30 mM glutathion, ≤10 mM DTT, ≤10 mM DTE, ≤20 mM β-mercaptoethanol und ≤0,3 % SDS).



ready-to-use

ROTI®Garose-His/Ni NTA-Cartridges

ROTI®Garose for biochemistry

For isolation of His-tagged proteins by high pressure affinity chromatography under reducing conditions

Agarose beads for affinity chromatography · IMAC columns · Nickel agarose beads

Prepacked cartridges with Nickel charged NTA-agarose bead matrix for medium pressure affinity chromatography (MPLC) under reducing conditions.
Immobilized metal ion affinity chromatography (IMAC) under medium pressure is the prefect method to obtain high yield of very pure proteins in minimum time. ROTI®Garose-His/Ni NTA-Cartridges offer the perfect solution for fast and simple isolation of His-tagged proteins from total lysates in reducing buffer solutions.
Matrix in 15 % ethanol.

- Very fast and simple purification of His-tagged proteins from total lysates
- High binding capacity for 6×His-tagged protein
- Recommended flow rate 5 ml/min
- Standard ports 10-32 (1/16″)
- Very versatile. Applicable with ÄKTA™FPLC™, pump and syringe
- Reliable elution and regeneration
- **For medium pressure flow chromatography**

Suitable for

ÄKTA™FPLC™ and for sample application via peristaltic pump or syringe.

Directions for use

ROTI®Garose His/Ni NTA-Cartridges are prepacked and may be used directly.

Column material made from polypropylene and polyethylene (frit), Inner diameter 1,6 cm, height 2,5 cm, inlet port 10-32 (1/16″) female, outlet port 10-32 (1/16″) male.

Suitable for MPLC, FPLC, ÄKTA™ and peristaltic pumps.
Matrix volume 5 ml, whole volume 10 ml. For approx. 250 mg His labelled protein.

Prepacked columns, binding capacity 50-250 mg/column $(His)_6$

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319-EUH208

Art. No.	Pack Qty.	Packaging	Pack.	€
0804.1	5 ml	1 x 5 ml	plastic	267,70
0804.2	5 ml	5 x 5 ml	plastic	966,45



ROTI®Garose-His/Ni NTA-Beads

ROTI®Garose for biochemistry

For isolation of His-tagged proteins by affinity chromatography under reducing conditions

Agarose beads for affinity chromatography · IMAC matrix/nickel charged · Nickel agarose beads · Column matrix for protein isolation · IMAC beads

Nickel charged NTA-agarose beads for affinity chromatography under reducing conditions.
50 % bead suspension in 20 % ethanol.

- Rapid one-step purification of very pure His-tagged proteins from total lysates
- High binding capacity for 6xHis-tagged protein
- Reliably elution and regeneration
- **For batch mode and gravity flow**

Suitable for

The matrix of choice if His-tagged proteins of very small amount shall be isolated **from reducing buffer solutions without loss**.

Directions for use

May be autoclaved at 121 °C for 30 mins.

For batch mode and gravity flow

Bead suspension, binding capacity ≥50 mg/ml packed matrix $(His)_6$

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319-EUH208

Art. No.	Pack Qty.	Pack.	€
0807.1	25 ml	plastic	461,20
0807.2	100 ml	plastic	1.488,90



ROTI®Garose-His/Ni NTA-HPBeads

ROTI®Garose for biochemistry

For isolation of His-tagged proteins by fast or large scale affinity chromatography under reducing conditions

Agarose beads for affinity chromatography · IMAC matrix/nickel charged · Nickel agarose beads · Column matrix for protein isolation · IMAC beads

Nickel charged NTA-agarose beads for affinity chromatography under reducing conditions. The matrix of choice for applications under medium pressure, with high flow rate or with big sample-/matrix volume.
In ROTI®Garose-His/Ni NTA-HPBeads, the advantages of the highly efficient Nickel-His binding have been combined with a bead technology allowing a very rapid flow rate. ROTI®Garose-His/Ni HPBeads are ideal for purifying large sample volumes.
50 % bead suspension in 20 % ethanol.

- Rapid one-step purification of very pure His-tagged proteins from total lysates
- High binding capacity for 6xHis-tagged protein (≥60 mg/ml purified His-tagged protein)
- Reliably elution and regeneration
- **For batch mode, gravity flow, MPLC und FPLC**
- **Recommended for big matrix volumes**

Suitable for

MPLC and FPLC, or if His-tag proteins shall be isolated either **in particularly short time or in big amounts from reducing solutions**.

Directions for use

May be autoclaved at 121 °C for 30 mins.

Suitable for LPLC, FPLC and MPLC and big matrix volumes

Bead suspension, binding capacity ≥60 mg/ml packed matrix $(His)_6$

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319-EUH208

Art. No.	Pack Qty.	Pack.	€
0805.1	25 ml	plastic	579,45
0805.2	100 ml	plastic	1.881,25

Cobalt Charged IMAC Beads and Columns – IDA Linker





ready-to-use

ROTI®Garose-His/Co

For the isolation of high yields of highly pure His-tagged proteins under non-reducing conditions.
Immobilized metal ion affinity chromatography (IMAC) still is the most widely used method to obtain high yield of very pure proteins with reasonable effort.
ROTI®Garose His/Co Beads and ready-to-use columns offer the perfect solution for your specific applications in the field of benchtop column chromatography, for protein isolation in batch processes or under medium pressures (MPLC, FPLC). Depending on the product, our beads are optimally suited for low or high flow rates or when small or large sample volumes are to be purified. The ready-to-use columns and cartridges offer you the perfect solution for fast and easy purification of His-tag proteins from total lysate.

- Good recovery rate of extremely pure His-tagged proteins
- Very low Cobalt leaching
- Compatible with denaturing reagents

The matrix of ROTI®Garose His/Co products consists of crosslinked and beaded 6 % agarose, IDA-conjugated and charged with divalent Cobalt ions. Cobalt chelates recognize two exposed, vicinal histidines with superior specificity and good affinity, resulting in acceptable to good recovery rates only, but yielding proteins of superior purity. This matrix is, therefore, the perfect choice if extremely pure proteins are required, or if hard-to-separate proteins shall be isolated. ROTI®Garose His/Co beads result in eluates with considerably low metal contamination.

Directions for use

The tridentate IDA cross-linker provides easy elution with low amounts of imidazole. Additionally, ROTI®Garose Beads may repeatedly be regenerated, making them very cost-effective.
The Matrix is stable in all commonly used reagents including denaturing reagents (like 8 M urea, 6 M guanidinium hydrochloride, 5 mM DTT).
For insulation under reducing conditions we recommend ROTI®Garose-His/Ni NTA beads.

ROTI®Garose-His/Co Columns

ROTI®Garose for biochemistry

For isolation of His-tagged proteins by affinity chromatography.

Affinity chromatography colums · Cobalt agarose beads · Cobalt charged IMAC columns · IMAC columns

Prepacked columns with Cobalt charged IDA-agarose bead matrix for low pressure affinity chromatography.
ROTI®Garose His/Co Columns offer the perfect solution for fast and simple isolation of His-tagged proteins from total lysates.
Matrix in 20 % ethanol.

- Fast and simple purification of His-tagged proteins from total lysates
- Binding capacity (purified 6xHis protein) of 135 mg per ml matrix
- Easy elution and regeneration
- **For gravity flow chromatography**

Suitable for

Perfect choice if **extremely pure proteins** are required, or if hard-to-separate proteins shall be isolated.

Directions for use

ROTI®Garose His/Co columns are prepacked and may be used directly.
Column material made from polypropylene and polyethylene (frit).
May be autoclaved at 121 °C for 30 mins.

Prefilled colums for gravity flow chromatography.
Matrix volume 1 or 5 ml, whole volume 12 or 35 ml, respectively.
For approx. 120 and 600 mg His labelled protein.

Prepacked columns, binding capacity ca. 120 (.1) resp. 600 (.2) mg/column $(His)_6$

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Danger H226-H319-H350-H411-EUH208

Art. No.	Pack Qty.	Packaging	Pack.	€
1267.2	5 unit(s)	5 x 5 ml	cardboard	908,40
1267.1	8 unit(s)	8 x 1 ml	cardboard	349,40



ROTI®Garose-His/Co Beads

ROTI®Garose for biochemistry

For isolation of His-tagged proteins by affinity chromatography.

Agarose beads for affinity chromatography · Cobalt agarose beads · IMAC matrix/cobalt charged · Column matrix for protein isolation · IMAC beads

Cobalt charged IDA-agarose beads for low pressure affinity chromatography.
50 % bead suspension in 20 % ethanol.

- One-Step purification of His-tagged proteins from total lysates
- Binding capacity (purified 6xHis protein) of 135 mg per ml matrix
- Easy elution and regeneration
- **For batch mode and gravity flow column chromatogrphy**

Suitable for

Perfect choice if **extremely pure proteins** are required, or if hard-to-separate proteins shall be isolated.

Directions for use

May be autoclaved at 121 °C for 30 mins.

For batch mode and gravity flow

Bead suspension, binding capacity 135 mg/ml packed matrix $(His)_6$

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Danger H226-H319-H350-H411-EUH208

Art. No.	Pack Qty.	Pack.	€
1235.1	25 ml	plastic	375,20
1235.2	100 ml	plastic	1.015,90



ROTI®Garose-His/Co HPBeads

ROTI®Garose for biochemistry

For isolation of His-tagged proteins by fast or large scale affinity chromatography

Agarose beads for affinity chromatography · Cobalt agarose beads · IMAC matrix/cobalt charged · Column matrix for protein isolation · IMAC beads

Nickel charged IDA-agarose beads for affinity chromatography under medium pressure, with high flow rate or with big sample-/matrix volume. In ROTI®Garose-His/Co HPBeads, the advantages of the highly efficient cobalt-His binding have been combined with a bead technology allowing a very rapid flow rate. ROTI®Garose-His/Co HPBeads are ideal for purifying large sample volumes.
50 % bead suspension in 20 % ethanol.

- Fast one-step purification of highly purified His-tag proteins from total lysate
- High binding capacity and excellent specificity for 6xHis-tagged protein
- Easy elution and regeneration
- **For batch mode, gravity flow, MPLC und FPLC**
- **Recommended for big matrix volumes**

Suitable for

MPLC and FPLC, or if **superiorly pure** His-tag proteins shall be isolated either i**n particularly short time or in big amounts**.

Directions for use

May be autoclaved at 121 °C for 30 mins.

Suitable for LPLC, FPLC and MPLC and big matrix volumes

Bead suspension

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Danger H226-H319-H350-H411-EUH208

Art. No.	Pack Qty.	Pack.	€
0838.1	25 ml	plastic	360,15
0838.2	100 ml	plastic	983,65

Uncharged IMAC Beads



ROTI®Garose-His uncharged

Immobilized metal ion affinity chromatography (IMAC) still is the most widely used method to obtain high yield of very pure proteins with reasonable effort. ROTI®Garose-His *uncharged* HPBeads offer the perfect solution for your specific application under medium pressure (MPLC, FPLC), if rapid flow rates are desired or if big samples volumes have to be purified.

- Easy elution and regeneration
- Very low metal leaching
- Compatible with denaturing reagents

The matrix of ROTI®Garose-His *uncharged* HPBeads consists of crosslinked and beaded 6 % agarose, IDA-conjugated. In one step, the beads can be loaded safely and rapidly with all standard bivalent metal cations (Ni^{2+}, Co^{2+}, Zn^{2+}, Cu^{2+}).
ROTI®Garose-His *uncharged* HPBeads result in eluates with considerably low metal contamination.

Directions for use

The tridentate IDA cross-linker provides easy elution with low amounts of imidazole. Additionally, ROTI®Garose-His uncharged HPBeads may repeatedly be regenerated, making them very cost-effective.
The Matrix is stable in all commonly used reagents including denaturing reagents (like 8 M urea, 6 M guanidinium hydrochloride, 5 mM DTT).

ROTI®Garose-His *uncharged* HPBeads

ROTI®Garose for biochemistry

For isolation of His-tagged proteins by fast or large scale affinity chromatography

Uncharged IDA-agarose beads for affinity chromatography under medium pressure, with high flow rate or with big sample-/matrix volume. In ROTI®Garose-His *uncharged* HPBeads, the advantages of the efficient metal ion/His binding have been combined with a bead technology allowing a very rapid flow rate.
50 % bead suspension in 20 % ethanol.

- Rapid one-step purification of His-tagged proteins from total lysates
- High binding capacity for standard me^{2+} ions under rapid one-step loading
- **For batch mode, gravity flow, MPLC und FPLC**
- **Recommended for big matrix volumes**

Suitable for

Suitable for MPLC and FPLC, or if His-tag proteins shall be isolated either in particularly short time or in big amounts.

Directions for use

May be autoclaved at 121 °C for 30 mins.

Suitable for LPLC, FPLC and MPLC and big matrix volumes

Bead suspension

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319

Art. No.	Pack Qty.	Pack.	€
0839.1	25 ml	plastic	360,15
0839.2	100 ml	plastic	983,65

ROTI®Garose Beads and Columns for Isolation of GST-tag Proteins



ROTI®Garose-Glu/GST

Glutathione coupled agarose beads for isolation of glutathione-S-transferase (GST) or GST fusion proteins.
ROTI®Garose-Glu/GST Beads offer the perfect solution for your specific application of low flow column chromatography or protein isolation in batch mode, under medium pressure (MPLC, FPLC), if rapid flow rates are desired or if big samples volumes have to be purified.

- Rapid, mild and highly specific purification
- Suitable for isolation of GST-peptides and protein complexes of all sizes
- High binding capacity
- Easy elution and regeneration

Efficient and highly specific isolation of GST-tagged proteins via affinity chromatography is based on the affinity of the glutathion-S-transferase to it's substrate glutathione. Merely no unspecific binding of proteins without GST-tag takes place, even during purification from raw extracts, while the biological activity of the purified proteins is preserved by chromatography conditions.

Directions for use

The matrix of ROTI®Garose-Glu/GST Beads consists of beaded 4 % agarose without crosslinking, coupled with glutathione. Elution is carried out via a mild Tris/glutathione buffer, enabling even recovery of native protein complexes. ROTI®Garose-Glu/GST Beads may be regenerated, making them very cost-effective.



ready-to-use

ROTI®Garose-Glu/GST Cartridges

ROTI®Garose for biochemistry

For isolation of GST-tagged proteins by high pressure affinity chromatography

Affinity chromatography colums · Glutathione-agarose beads · Column matrix for protein isolation

Prepacked cartridges with glutathione coupled agarose beads for medium pressure affinity chromatography (MPLC).
ROTI®Garose-Glu/GST Cartridges offer the perfect solution for your specific application of chromatography under medium pressure (MPLC, FPLC).
Matrix in 20 % ethanol.

- Easy isolation of GST-tagged proteins from total lysates
- Recommended flow rate 0,5-5 ml/min.
- Standard ports (10-32)
- **For medium pressure flow chromatography**
- **Very versatile. Applicable with ÄKTA™FPLC™, pump and syringe**

Suitable for

Optimal for isolation of glutathione-S-transferase (GST) or GST fusion proteins via automated liquid chromatography, or if proteins shall be isolated under pressure. Suitable for **ÄKTA**™FPLC™ and for sample application via peristaltic pump or syringe.

Directions for use

ROTI®Garose-Glu/GST Cartridges are prepacked and may be used directly.

Column material made from polypropylene and polyethylene (frit), Inner diameter 1,6 cm, height 2,5 cm, inlet port 10-32 (1/16″) female, outlet port 10-32 (1/16″) male.

Suitable for MPLC, FPLC, ÄKTA™ and peristaltic pumps

Prepacked columns, binding capacity ≥50 mgl/column

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319

Art. No.	Pack Qty.	Packaging	Pack.	€
0843.1	5 ml	1 x 5 ml	plastic	521,40
0843.2	25 ml	5 x 5 ml	plastic	2.101,65



ROTI®Garose-Glu/GST Beads

ROTI®Garose for biochemistry

For isolation of GST-tagged proteins by affinity chromatography

Agarose beads for affinity chromatography · Glutathione-agarose beads · Column matrix for protein isolation

Glutathione coupled agarose beads for affinity chromatography.
75 % bead suspension in 20 % ethanol.

- One-step isolation of GST-tagged proteins from total lysates
- **For batch mode, gravity flow, MPLC und FPLC**
- **Suitable for big matrix volumes**

Suitable for

Recommended for isolation of glutathione-S-transferase (GST) or GST fusion proteins in batch mode or via columns. Suitable for low to medium pressure, FPLC, or if GST-tag proteins shall be isolated either in particularly short time or in big amounts.

Directions for use

The matrix is easy to pack and results in very evenly packed columns.

Suitable for batch mode, LPLC, FPLC and MPLC and big matrix volumes

Bead suspension, binding capacity ≥8 mgl/ml packed matrix

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319

Art. No.	Pack Qty.	Pack.	€
0841.1	10 ml	plastic	349,40
0841.2	100 ml	plastic	2.402,65

ROTI®Garose Beads for Isolation of Biotinylated or Streptavidinated Proteins



ROTI®Garose-Streptavidin Beads

ROTI®Garose for biochemistry

For isolation of biotin-coupled molecules by affinity chromatography

Agarose beads for affinity chromatography · Streptavidin Agarose-Beads · Column matrix for protein isolation

Biotin coupled agarose beads for affinity chromatography.
50 % bead suspension in 20 % ethanol.

- One-step isolation of biotinylated molecules from total lysates
- **For batch mode and gravity flow**

Suitable for

Recommended for isolation of biotinylated molecules in batch mode or via columns via low pressure affinity chromatography.

Directions for use

The matrix of ROTI®Garose-Streptavidin Beads consists of beaded 6 % cross-linked agarose. Elution of iminobiotinylated molecules is performed by 50 mM NH_4-acetate buffer. Isolation of an antigen by biotinylated antibodies can be performed by 0.1 M glycine buffer. Streptavidin is immobilised to the beads through a spacer arm and covalent carboxy/amide linkage, not only minimizing streptavidin leakage during elution, but also enhancing the binding capacity by reduction of steric effects.

For batch mode and gravity flow

Bead suspension, binding capacity ≥120 nmol/ml packed matrix

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319

Art. No.	Pack Qty.	Pack.	€
0846.1	5 ml	plastic	510,65
0846.2	10 ml	plastic	880,45

ROTI®garose-Biotin/Streptavidin

ROTI®Garose-Biotin and Streptavidin beads offer the perfect solution for the isolation of biotinylated and streptavidinated molecules in benchtop column chromatography or in batch procedures.

- Rapid, mild and highly specific purification
- Suitable for isolation of DNA, proteins and other molecules of all sizes
- High binding capacity
- High recovery rates

With a value of K_a~10^{-14}/M, the affinity of avidin and streptavidin for biotin is the strongest non-covalent bond between molecules known in biochemistry. Efficient and highly specific isolation of biotinylatd or avidin/streptavidin-tagged molecules via affinity chromatography is based on this particular affinity.

Directions for use

The matrix is easy to pack and results in very evenly packed columns. Elution is carried out via 8 M guanidine-HCl or prior to gel loading during heating in gel loading buffer. Merely no unspecific binding of unlabelled molecules takes place, even during purification from raw extracts.



ROTI®Garose-Biotin Beads

ROTI®Garose for biochemistry

For isolation of avidin/streptavidin-coupled molecules by affinity chromatography

Agarose beads for affinity chromatography · Biotin-Agarose Beads · Column matrix for protein isolation

Biotin coupled agarose beads for affinity chromatography.
50 % bead suspension in water stabilised with 0,02 % sodium azide.

- One-step isolation of avidin/streptavidin-tagged molecules from total lysates
- **For batch mode and gravity flow**

Suitable for

Recommended for isolation of avidin- or streptavidin labelled molecules in batch mode or via columns via low pressure affinity chromatography.

Directions for use

The matrix of ROTI®Garose-Biotin Beads consists of beaded 4 % cross-linked agarose.
Biotin is immobilised to the beads through a spacer arm and covalent carboxy/amide linkage, not only minimizing biotin leakage during elution, but also enhancing the binding capacity by reduction of steric effects. Merely no unspecific binding of unlabelled molecules takes place, even during purification from raw extracts.

For batch mode and gravity flow

Bead suspension, binding capacity >30 mgl/ml packed matrix

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319

Art. No.	Pack Qty.	Pack.	€
0844.1	5 ml	plastic	521,40
0844.2	10 ml	plastic	929,90

Protein A and G Coated Agarose Beads for Antibody Purification



ROTI®Garose-Protein A/G

For rapid and simple purification of antibodies with reasonable effort, affinity chromatography still is the first choice in most cases. ROTI®Garose-Protein A and G Beads offer the perfect solution for your specific application under medium pressure (MPLC, FPLC), if rapid flow rates are desired or if big samples volumes have to be purified.

- Rapid one-step purification of immunoglobulins from cell lysates and biological solutions
- High yield of very pure immunoglobulins
- Easy elution and regeneration
- Covalent binding of protein G in high ligand density

The matrix of ROTI®Garose-Protein A and G Beads consists of cross-linked and beaded 4 % agarose, coated and covalently coupled with protein A from *Staphylococcus aureus* and protein G from *Streptococcus*, respectively.
The **recombinant protein A** (*rec*A) shares IgG binding properties with natural protein A of *S. aureus* Cowan strain I. It has high affinity for IgG from a variety of different mammalian species, also binding some populations of IgA and IgM.
Binding domains specific for albumin as well as cell walls and cell membranes have been removed in the **recombinant protein G**, in order to ensure the maximum specific IgG binding capacity. It has high affinity for IgG from a variety of different mammalian species, also binding IgG3 with high affinity.

Directions for use

Most immunoglobulins may be eluted in 100 mM glycin or citric acid buffer (pH 3.0). ROTI®Garose-Protein A and G Beads may be regenerated, making them very cost-effective.
May not be autoclaved.



ROTI®Garose-Protein A Beads

ROTI®Garose for biochemistry

For purification of immunoglobulins by affinity chromatography.

Agarose beads for affinity chromatography · Protein A agarose beads · Column matrix for protein isolation

Protein A coated agarose beads for low pressure affinity chromatography. High-performance affinity resin for antibody purification.
50 % bead suspension in 20 % ethanol.

- Binding capacity (human IgG) of approx. 25 mg per ml matrix
- Superior affinity for IgG from various mammalian species
- Binding of some populations IgA and IgM
- **For batch mode, gravity flow, MPLC und FPLC**

Suitable for

Isolation of antibodies, in affinity column chromatography or in batch procedures.

Directions for use

The matrix of ROTI®Garose Protein A Beads consists of cross-linked and beaded 4 % agarose, coated and covalently coupled with protein A from *Staphylococcus aureus*.
High binding affinity to IgGs of many different mammalian species, binding of some populations IgA and IgM.

For batch mode and gravity flow

Bead suspension, binding capacity ca. 25 mg/ml Suspension (human IgG)

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319

Art. No.	Pack Qty.	Pack.	€
1278.1	5 ml	plastic	740,70
1278.2	25 ml	plastic	2.617,65



ROTI®Garose-Protein G HPBeads

ROTI®Garose for biochemistry

For purification of immunoglobulins by affinity chromatography.

Agarose beads for affinity chromatography · Column matrix for protein isolation · Protein G agarose beads

Protein G coated agarose beads for affinity chromatography under medium pressure, with high flow rate or with big sample-/matrix volume. High-performance affinity resin for antibody purification.
In ROTI®Garose-Protein G HPBeads, the advantages of the highly efficient protein G/antibody binding have been combined with a bead technology allowing a very rapid flow rate.
50% bead suspension in 20 % ethanol.

- Binding capacity (human IgG) of approx. 20 mg per ml matrix
- High affinity binding of IgG3
- Recommended for the isolation of rat IgGs
- **For batch mode, gravity flow, MPLC und FPLC**
- **Recommended for big matrix volumes**

Suitable for

All small-scale applications, for MPLC and FPLC, or if antibodies shall be isolated either in short time or in big amounts.

Directions for use

The matrix of ROTI®Garose-Protein G HPBeads consists of crosslinked and beaded 4 % agarose, coated and covalently coupled with protein G from *Streptococcus*.
High affinity binding of IgG3. Low affinity to other immunoglobulins such as IgA, IgE or IgM.
Protein G is recommended for the isolation of rat IgGs.

Suitable for LPLC, FPLC and MPLC and big matrix volumes

Bead suspension, binding capacity ca. 25 mg/ml Suspension (human IgG)

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319

Art. No.	Pack Qty.	Pack.	€
0808.1	5 ml	plastic	747,15
0808.2	25 ml	plastic	2.123,15



ROTI®Garose-Protein A/G HPBeads

ROTI®Garose for biochemistry

For purification of immunoglobulins by affinity chromatography.

Agarose beads for affinity chromatography · Column matrix for protein isolation · Protein A/G agarose beads

Mixture (1:1) of protein A- and protein G coated agarose beads for affinity chromatography under medium pressure, with high flow rate or with big sample-/matrix volume. High-performance affinity resin for antibody purification.
In ROTI®Garose-Protein A/G HPBeads, the advantages of the highly efficient protein A and G/antibody binding have been combined with a bead technology allowing a very rapid flow rate.
50 % bead suspension in 20 % ethanol.

- Binding capacity (human IgG) of approx. 25 mg per ml matrix
- Superior affinity for a wide range of IgGs
- Binding of some populations IgA and IgM
- Recommended for the isolation of rat IgGs
- **For batch mode, gravity flow, MPLC und FPLC**
- **Recommended for big matrix volumes**

Suitable for

All small-scale applications, for MPLC and FPLC, or if antibodies shall be isolated either in short time or in big amounts.

Directions for use

The matrix of ROTI®Garose-Protein A/G HPBeads consists of cross-linked and beaded 4 % agarose, coated and covalently coupled with protein A from *Staphylococcus aureus* and protein G from *Streptococcus*, respectively.
High binding affinity to IgGs of many different mammalian species, high affinity binding of all IgG3, binding of some populations IgA and IgM.

Suitable for LPLC, FPLC and MPLC and big matrix volumes

Bead suspension, binding capacity ca. 25 mg/ml Suspension (human IgG)

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319

Art. No.	Pack Qty.	Pack.	€
0809.1	0.5 ml	plastic	145,15
0809.2	1 ml	plastic	241,90
0809.3	2 ml	plastic	424,65

Columns and Accessories



Empty columns for protein isolation

Empty columns for protein isolation by chromatography.
Chemically stabile and versatile.

Technical specifications:

Art. No.	1541.1	1541.2	1515.1	1516.1	1518.1
Type	Spin		Grav S	Grav M	Grav L
Matrix volume	100–250 µl		100–200 µl	0,5–2 ml	2–6 ml
Total volume	1.5 ml		1 ml	12 ml	35 ml
Pore size	20 µm				
Chromatography by	centrifugation		gravitation		

Empty columns for protein isolation Spin

ROTH SELECTION.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Spin	**1541.1**	25 unit(s)	70,25
(1)	Spin	**1541.2**	100 unit(s)	226,85

Empty columns for protein isolation Grav

ROTH SELECTION.

Delivery incl. end caps.

Pic.	Type	Art. No.	Pack Qty.	€
(2)	Grav S	**1515.1**	20 unit(s)	119,65
(3)	Grav M	**1516.1**	50 unit(s)	222,55
(3)	Grav L	**1518.1**	50 unit(s)	269,85



Empty cartridges for protein isolation FPLC

Empty cartridges for protein isolation by Fast Protein Liquid Chromatography (FPLC).
The FPLC cartridges combine the easy handling of a small column with a robust design that also allows higher pressures. The cartridges are easy and reproducible to pack, offer 4 sizes in identical design and can be stored very easily.

Suitable for connection to common chromatographs such as ÄKTA™FPLC™.
Standard connections needed are: Luer Lock Male/M6 Female & Union Luerlock Female/M6 Female. This fitting can be avoided in FPLC-8 (0860.1) by fitting the column directly to an ÄKTA™ device through a 1/16″ Male/Female Luer Lock Connector.
Standard connections are usually included with standard FPLC instruments.

Directions for use

Chemically stable in all commonly used reagents.

Technical specifications:

Art. No.	0860.1	0862.1	0866.1	0868.1
Type	FPLC-8	FPLC-30	FPLC-45	FPLC-80
Filling capacity	8 ml	30 ml	45 ml	80 ml
Pore size	10 µm			
Chromatography by	FPLC			
Max. pressure	200 psi / 14 bar / 1,38 MPa			
Ø Internal	12 mm	21 mm		26 mm
Height	70 mm	87 mm	137 mm	144 mm

*The exact filling volume depends on the column material used and varies by approx. ±10 %.
Delivery incl. Empty cartridges, 3 frits each and 2 end caps each.

Empty cartridges for protein isolation FPLC

ROTH SELECTION.

Type	Art. No.	Pack Qty.	€
FPLC-8	**0860.1**	3 unit(s)	99,60
FPLC-30	**0862.1**	2 unit(s)	99,60
FPLC-45	**0866.1**	2 unit(s)	99,60
FPLC-80	**0868.1**	1 unit(s)	91,60



Empty cartridges for protein isolation LC

Empty cartridges for protein isolation by pressure chromatography.
Compatible with common chromatography instruments like ÄKTA™FPLC™.
Connections: 10–32, male/female luer connector. Standard adapters are usually included with standard FPLC instruments.

Directions for use

Chemically stabile and versatile. In case longer column beds are needed, 2 or 3 cartridges may be interconnected using the Luer adapter (0198.1, 10–32, male/female luer connector), resulting in a matrix of up to 10 cm.

Technical specifications:

Art. No.	1345.1
Type	Empty cartridges
Filling capacity	1 ml
Pore size	12 µm
Chromatography by	pressure
Ø Internal	6.2 mm

*The actual filling volume depends on the respective resin used, varying between approx. 1 and 1.3 ml.
Delivery incl. Empty cartridges plus end plugs.
For storage of packed cartridges, column plugs (0197.1) have to be used. Please order separately.

Empty cartridges for protein isolation LC

ROTH SELECTION.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	Empty cartridges	**1345.1**	5 unit(s)	169,85

Protein Quantitation



ROTI®Quant

Bradford solution

- Reproducible
- Fast
- Low price

Application:

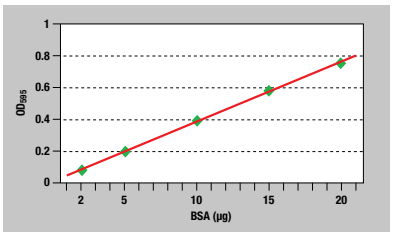
- One measurement per sample (OD_{595})
- Linearity of measuring results to a great extent
- Sensitivity to 2 µg
- Functional range: 2-100 µg

ready-to-use

ROTI®Quant

5x conc.

For protein quantitation acc. to Bradford.



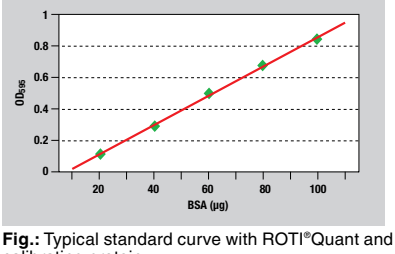


Fig.: Typical standard curve with ROTI®Quant and BSA (Art. No. 8076.1) as calibrating protein.

50 ml Roti®-Quant is sufficient for more than 200 macroassays (1 ml-cuvette) or more than 900 assays when using microtiter plates.

Storage temperature: +4 °C

UN no. 2924 · ADR 3 (8) III · WGK 1

Danger H226-H290-H302-H314

Tested for protein gel staining.

Art. No.	Pack Qty.	Packaging	Pack.	€
K015.2	50 ml	200 assays (cuvettes)	plastic	18,85
K015.3	200 ml	800 assays (cuvettes)	plastic	60,75
K015.1	500 ml	2000 assays (cuvettes)	plastic	120,95



ROTI®Nanoquant

Bradford solution

- Reproducible
- Low-priced
- For very low protein amounts

Application:

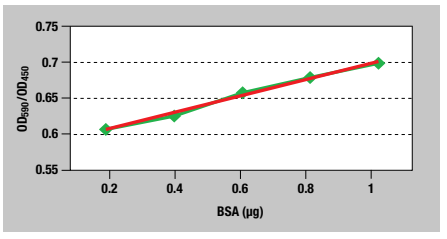
- Double measurement per sample (OD_{450}/OD_{590})
- Perfect linearity of measuring results
- Sensitivity: up to 200 ng
- Broad functional range of 200 ng to 25 µg

ready-to-use

ROTI®Nanoquant

5x conc.

For protein quantitation acc. to Bradford, for extremely small protein amounts.



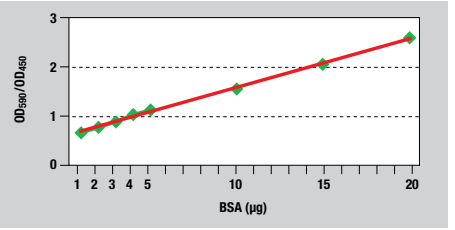


Fig.: Typical calibration line with ROTI®Nanoquant and BSA (Art. No. 8076.1) as calibrating protein

50 ml ROTI®Nanoquant is sufficient for more than 200 macroassays (1 ml-cuvette) or more than 900 assays when using micro-titer plates

Storage temperature: +4 °C

UN no. 2920 · ADR 8 (3) II · WGK 1

Danger H226-H290-H302-H314

Tested for protein gel staining.

Art. No.	Pack Qty.	Packaging	Pack.	€
K880.2	50 ml	200 assays (cuvettes)	plastic	19,25
K880.3	200 ml	800 assays (cuvettes)	plastic	57,95
K880.1	500 ml	2000 assays (cuvettes)	plastic	115,60

► Cuvettes and cuvette racks see www.carlroth.com



ROTI®Quant universal

Biuret solutions

Colorimetric test for detecting and quantifying soluble proteins. Universally applicable.

- **Equals the well-known BCA assay**
- Very easy to handle
- Highly sensitive measurement up to 0.5 µg protein
- Linear measuring range from 0.5 to 200 µg protein
- Can be used in 1-ml-scales and in microtiter plates (can be automated)
- Measurement with standard filters (492 nm wave length) or at 503 nm wave length
- Accelerated reaction and increased sensitivity in mild heat

The special reagent formula effects a high tolerance against interfering factors such as detergents, alcohol and buffer salts, thus making the kit a universal tool for measuring proteins in almost every solution.

Mechanism

The basic mechanism, a PCA enhanced Biuret reaction, is identical with the one used for the well known BCA protein assay. Its result, however, is a bright blue colour which may be measured with standard filters of approx. 500 nm wave length.
ROTI®Quant universal is based on a biuret reaction in combination with a highly specific colorimetric enhancer reaction. The Cu^{++} ions of reagent 2 are reduced to Cu^{+} ions in the alkaline reaction media of the test. The colour development of the copper-specific enhancer reaction is directly proportional to the concentration of the protein which is present. The resulting purple-coloured copper complex exhibits a strong light absorption with a maximum of 503 nm, although the wide maximum of the absorption curve also permits highly sensitive and no-loss measurements at 492 nm. The reaction does not form a true end point measurement: the colour develops slowly at room temperature, this, however, can be accelerated in heat. High sensitivity, therefore, can be achieved even after a short time.

ROTI®Quant universal

for biochemistry

For protein quantitation (PCA enhanced Biuret reaction). High tolerance against detergents, salts and alcohols.

Mechanism

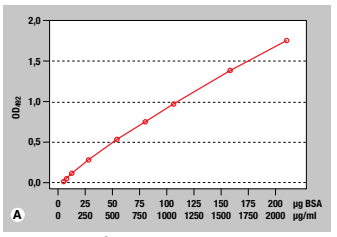


Fig. A: ROTI®Quant universal, standard curve with BSA (bovine serum albumin). Blank-value corrected. Measurement of 100 µl each protein solution.

The kit contains

500/200 ml ROTI®Quant universal reagent 1 (Art. No. 0118) and 40/16 ml ROTI®Quant universal reagent 2 (Art. No. 0119).
Contents of this Kit may not be bought separately.

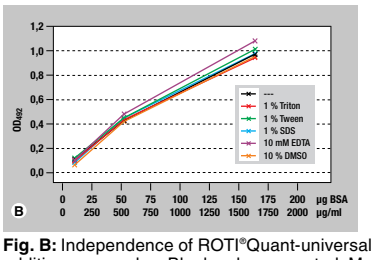


Fig. B: Independence of ROTI®Quant-universal-assay of detergents and other additives, examples. Blank-value corrected. Measurement of 100 µl each protein solution.
(With kind permission of Dr. Angelika Böttger, Zoological Institute, Ludwig-Maximilians-University Munich)

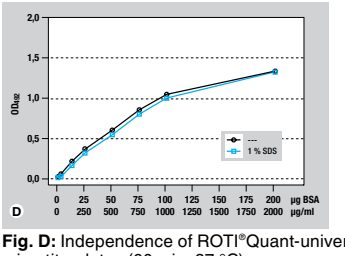


Fig. D: Independence of ROTI®Quant-universal assay of SDS. Microassay in microtiterplates (60 min, 37 °C).

Kit contents are adequate for 500/200 preparations in photometer cuvettes or 5000/2000 preparations in microtiter plates.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 3082 · ADR 9 III · WGK 2

Danger H315-H318-H411

Tested for protein gel staining.

Art. No.	Pack Qty.	Packaging	Pack.	€
0120.1	1 kit	500 assays (cuvettes)	plastic	235,45
0120.2	1 kit	200 assays (cuvettes)	plastic	115,60

► Further details and figures on these products at www.carlroth.com / Life Science / Biochemistry / protein quantitation

Scintillation Cocktail



ROTISZINT®eco plus

Scintillation cocktail

Multi-purpose, ready-to-use scintillation cocktail for Liquid Scintillation Counting (LSC) of β radiators (e.g. ^{3}H, ^{14}C, ^{32}P).
In ROTISZINT®eco plus, di-isopropyl naphthalene is the base reagent of primary scintillators. The cocktail is free of carcinogenic or environmentally dangerous reagents.

- Very high sample acceptance capacity
- High counting efficiency
- Low photo- and chemoluminescence
- Very good colour- and chemical quench resistance
- Environmentally safe and non-carcinogenic
- Virtually odor- and colourless
- High flash point
- No permeation through plastic vials

Excellent sample acceptance capacity for all aqueous and organic samples, optimally suited for solutions with high ionic strength. ROTISZINT®eco plus may be used in general in all biological, biochemical and chemical areas, contemporary typical applications are e. g. measurement of cell culture supernatants, routine analyses, and enzymatic assays. Also well suitable for filter plates.

Advantages of ROTISZINT®Eco plus

ROTISZINT®Eco plus is based on the solvent di-isopropyl naphthaline (DIN), which due to its environmental friendliness is easy to handle, store and ship. It also fulfills all the measuring demands required of efficient scintillation cocktails. ROTISZINT®Eco plus is produced without benzene, toluene, xylene and pseudocumene. The solvent has low vapour pressure, therefore there is no irritation caused by a bad odour. The solution is hardly flammable and economical in use. It is also biodegradable. ROTISZINT®Eco plus has high counting efficiency, excellent quench resistance, good sample stability, no chemoluminescence and no diffusion through plastic vials.

ROTISZINT®Eco plus comes in black 5 l plastic bottles, which can be used as storage containers. They enable easy, safe and place-saving storage.
A practical dispenser helps to remove the required amount of cocktail easily and safely. We recommend the ROTILABO® dispenser (Art. No. Y837.1–Y842.1). In order to completely remove all the liquid, the inner withdrawal tube may be replaced with a longer Teflon® or polyethylene tube (6 mm inner Ø), or by the telescope suction tube (Art. No. AA92.1).

ready-to-use

ROTISZINT®eco plus

ROTISZINT® ready-to-use, for scintillation

LSC-universal cocktail, for hydrophilic and lipophilic samples.

Directions for use

Perfectly suited for measurement of solutions, showing a counting efficiency of 47 % (^{3}H). Through its emulsifying character, ROTISZINT®eco plus elutes samples from filter plates, thus making it also suitable for counting of filter samples.
For reliable quantitative elution we recommend addition of a sample specific elution buffer.

Wavelength

Excitation maximum 190–370 nm
Emission maximum 420 nm

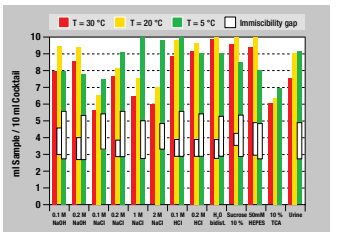


Fig.: Typical sample acceptance capacity
The immiscibility gap is characterized by two phases and may not be used for measurement. By increasing or reducing sample amount in relation to scintillation cocktail, the immiscibility gap may be avoided. Sample acceptance capacities of PBS, TBS etc. equal this of 0.1 M NaCl. Sample acceptance capacities of BSA solutions, cell culture supernatants etc. equal this of HEPES.

Please note

Use of alkylating elution buffers may cause chemoluminescence.
We recommend the use of ROTILABO®Dispensers (Art. No. HAC6.1–HAC9.1, HAE0.1 oder HAE1.1) and telescopic suction pipe (Art. No. AA92.1).

Well suited for measurement of β-emitters like ^{3}H, ^{14}C, ^{32}P.

UN no. 3082 · ADR 9 III · WGK 3

Warning H315-H319-H411

Art. No.	Pack Qty.	Pack.	€
0016.4	100 ml	glass	21,40
0016.3	5 l	plastic	321,45
Original pack 2 x 5 l			305,38/5 l

Application and quench of ROTISZINT®Eco plus

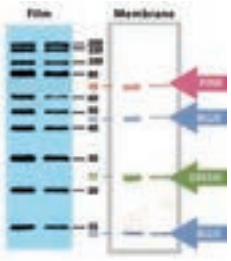
ROTISZINT®Eco plus:

Ideal for measuring **solutions**. Efficiency in solution (^{3}H) 47 %, (^{14}C) 90 %

Please note when measuring **filter discs**:
ROTISZINT®Eco plus contains emulsifying components and elutes the samples from the discs. This increases measuring efficiency, however involves the risk of nonquantitative elution, so that the measurements may not be reproduced as reliably in some cases. The rate of yield when eluting from filter discs can be increased by adding tissue solutizers, whereby the chemical and color quench are also increased. It must be determined for each individual experiment which mixture is suitable.

Western-Blot & ELISA

Western-Blot Marker



ready-to-use

ROTI®-Mark WESTERN PLUS

ready-to-use, pre-dyed

Size range: 15-200 kD
Number of protein bands: 14
- 10 IgG binding
- 4 prestained (tricolour)
Number of lanes/ml: approx. 200 (mini gel)

The ROTI®Mark WESTERN PLUS protein marker covers a wide range of molecular weights from 15 to 200 kDa. It consists of 10 IgG binding proteins with two in their mass enhanced reference bands (30 kDa and 80 kDa).
For the most common type of primary antibodies are IgG type antibodies the ROTI®Mark WESTERN PLUS marker can be used in almost any situation of Western Blot. Appropriate detection methods are fluorescence, chemoluminescence, colour or other systems.

Directions for use

For controlling the gel run during SDS-PAGE and for reliable evaluation of transfer efficiency during Western Blot the marker additionally contains four prestained proteins: 10 kDa (blue), 25 kDa (green), 45 kDa (blue) und 70 kDa (red).

Fig.: Marker after detection on X-ray film (left), after Western blot on PVDF membrane (right)

For direct application to the gel.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 2

Art. No.	Pack Qty.	Packaging	Pack.	€
2245.1	250 µl	1 × 250 µl	plastic	246,20
2245.2	500 µl	2 × 250 µl	plastic	482,70

Technical specifications:

Marker	WESTERN PLUS
Art. No.	2245
Size Range	10–200 kDa
Number of Fragments	14
Reinforced band at	30 kD, 80 kD
Quantitation	not recommended
Staining	prestained
Detection in Western-Blot	detection by anti-His possible
Number of Lanes in minigel	~200/ml
Delivery	ready-to-use

Blocking Reagents



► For albumin solutions and lyophilisates in a wide range, see from page 191

Sodium-Casein

≥89 % lactoprotein

Blocking reagent from milk protein, suitable for Western and ELISA. High blocking efficiency based on the amount of small protein and peptide species (<10 kD). Can be used with PBS/PBST and TBS/TBST as well as all standard colorimetric and fluorescent detection systems. Not suitable for PVDF-membranes, biotin/streptavidin mediated labelling (milk contains biotin), and detection of phospho-proteins. **Tip:** Prepare stock solution in 0.3 M NaOH (37 °C), titrate to pH 7.4 (HCl).

WGK 1

Art. No.	Pack Qty.	Pack.	€
8569.2	500 g	plastic	40,75
Original pack 6 x 500 g			38,71/500 g
8569.1	1 kg	plastic	70,85
Original pack 6 x 1 kg			67,31/1 kg
8569.3	2.5 kg	plastic	160,20



Powdered milk

Blotting Grade, powdered, low in fat

For biochemistry, molecular biology and microbiology

Lowfat powdered milk, especially suited for use as blocking reagent in immunological assays like Western-Blot analyses or ELISA. Fine powdered for easy application.

Please note

Milk contains biotin. Not suitable for biotin/streptavidine mediated detection systems.
The added anti-caking agents (phosphates) guarantee easy weighing. Calcium, magnesium and iron phosphates can precipitate in higher concentrated solutions of milk powder.

Milk contains biotin.

Art. No.	Pack Qty.	Pack.	€
T145.1	250 g	plastic	18,20
T145.2	500 g	plastic	27,85
Original pack 6 x 500 g			26,46/500 g
T145.3	1 kg	plastic	45,05
Original pack 6 x 1 kg			42,80/1 kg
T145.5	2.5 kg	plastic	95,15
T145.4	5 kg	plastic	170,95

► ROTI®Fair-PBS/PBST and -TBS/TBST see www.carlroth.com



ready-to-use

ROTI®Block

10x conc., ready-to-use

Protein free blocking solution

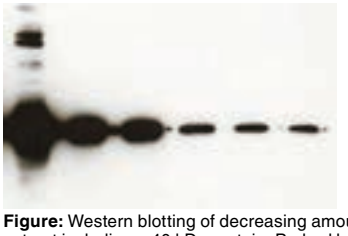


Figure: Western blotting of decreasing amounts (50 ng - 17 pg) of a bacterial extract including a 40 kDa protein. Probed by Anti His Serum (1:1.000) and Carl ROTH Anti Rabbit-HRP, blocking by means of ROTI®Block. Detection via chemoluminescence.

ROTI®Block is a protein-free blocking solution that can be used diluted as a base solution for all steps of Western detections and ELISAs. ROTI®Block replaces PBS/TBS buffers and other buffer systems including the blocking reagents used.
If required, ROTI®Block can be enriched with further blocking reagents, detergents etc. to further optimise the detection system.

Directions for use

Included you will find a detailed instruction manual with protocols, e.g. for stripping ROTI®PVDF-membranes from bound probes without destabilising the blocking, which enables fast rescreening of the filter. ROTI®Block also enables the blot to be Ponceau stained even after blocking.
For detection systems using antibodies specifically directed against protein-phosphorylations we recommend to test and optimise the blocking efficiency prior to assaying your samples.

Contains Tween® 20

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
A151.1	250 ml	glass	62,90
A151.4	500 ml	glass	106,45
A151.2	1 l	glass	190,85
Original pack 6 x 1 l			181,31/1 l
A151.3	2.5 l	glass	353,70
Original pack 4 x 2.5 l			336,02/2.5 l

► Membrans, papers and reagents for transfer see chapter Electrophoresis

► Mounting media and further immunohistological products, see chapters Histology and Cell Biology

ready-to-use

ROTI®ImmunoBlock

10x conc., ready-to-use

Protein free blocking reagent for immunocytological assays

The protein-free formulation prevents contamination of your detection systems by foreign proteins.
Unspecific interactions of the detection reagents such as antibodies with proteins of the samples are suppressed, while the specific binding sites are retained. The signal to noise ratio is considerably increased and signal detection significantly improved.
The practical ready-to-use solution makes tedious preparation unnecessary. Since the assays can be performed completely in ROTI®ImmunoBlock, highly reproducible results are achieved.

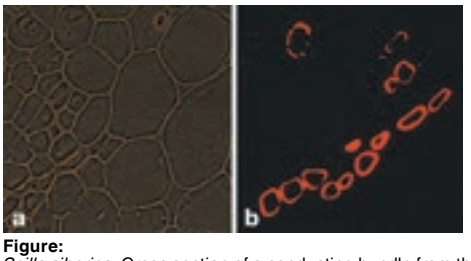


Figure:
Scilla siberica: Cross section of a conducting bundle from the leaf. Immunofluorescent detection of a protein in sieve cells.
a: Phase contrast;
b: Immunofluorescence, blocking with ROTI®ImmunoBlock
With kind permission of Dr. Deumling, MPI for Culture Research, Cologne.

Without detergent

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
T144.1	250 ml	glass	57,95



ROTI®Fair BBS

for 500 ml/tablet, for biochemistry and molecular biology

Coating of ELISA plates and blocking supplement.

1x BBS solution is prepared by solubilization of 1 tablet in 500 ml highly pure water.
WGK 1

Danger H319-H360FD

Prepared 1x BBS solution contains: 0.15 M NaCl, 10 mM borate buffer, pH-value 8.2 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1005.1	100 unit(s)	plastic	330,60

Enhancers

ready-to-use | DNAse-free | RNAse-free

DAB Metal Enhancer

ready-to-use, for immunochemistry

For enhancement of HRP signals on blot membranes and slides.

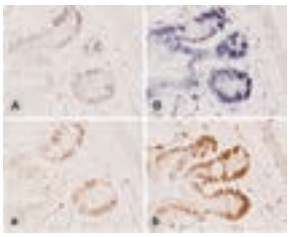


Figure: Immunohistochemical staining of mouse small intestines with an anti-PCNA antibody. Minuscules: pure DAB substrate, capitals: detection supplemented by DAB enhancer (A: $NiCl_2$, B: DAB Metal Enhancer, Art. No. 9204).
A/a: Basic method using 0.6 mg/ml DAB in Tris-buffer.
B/b: Detection performed with the ROTI®DAB Kit.

Mechanism

When the DAB metal enhancer is applied, the sensitivity of DAB staining is about two times higher than with DAB alone.

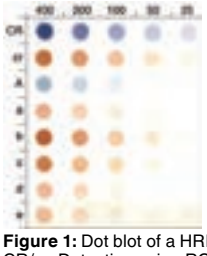


Figure 1: Dot blot of a HRP conjugated antibody (400, 200, 100, 50 and 25 pg).
CR/cr: Detection using ROTI®DAB Kit
A-e: Detection using kits and DAB substrates from other suppliers
CR: Detection under supplementation with DAB Metal Enhancer
A: Detection under supplementation with $NiCl_2$

Directions for use

For application, the DAB substrate components and buffer reagents (for instance ROTI®DAB-Kit, Art. No. 9202) are simply diluted in DAB metal enhancer instead of water.
The purplish gray precipitate resulting from the staining reaction can be detected in visible light and does not bleach during long-term storage. Since it is insoluble in aqueous and organic solvents, slides may be permanently mounted in hydrophilic, or, after dehydration, in hydrophobic mounting medium.

One bottle of 100 ml is sufficient for enhancement of approx. 10 minigel blots or 100 slides.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 2

Danger H317-H334-H341-H350-H360D-H372-H412

Art. No.	Pack Qty.	Pack.	€
9204.1	100 ml	plastic	120,95

► DAB substrate kit see page 187

► Substrates for Western Blot and ELISA see from page 186



Signal Enhancer Western/ELISA

Enhancer solution

Kit for amplification of immunochemical detection signals on blot membranes and in ELISA.

- Strong enhancement of signal strength
- Most easy application

The Signal Enhancer Western/ELISA enhances antigen-antibody reactions in a variety of immunoassays such as Western blotting, dot blotting and ELISA. It can significantly enhance detection of weak immunoreactive and low abundance target proteins and is well compatible with all common assay versions, membranes and ELISA plates. Signal enhancement is dependent on several parameters such as the particular antigen/antibody pair, the particular detection enzyme, the substrate chosen and so on. In most cases, however, the signal strength is about 5 to 10fold higher than with the substrate alone.

Compatible with:

- Western and ELISA
- HRP and AP
- all common membranes
- all common substrates

For application, the two solutions Signal Enhancer Western/ELISA-1 and -2 are simply used as buffer solutions for preparation of the primary- and secondary antibody incubation solutions. Following incubation and washing, all common detection procedures may be applied, for instance colour staining with ROTI®DAB-Kit (Art. No. 9202) or chemoluminescent staining with ROTI®Lumin plus (Art. No. 3692).

Signal Enhancer Western/ELISA Set

for immunochemistry

For enhancement of immunochemical detection signals on blot membranes and in ELISA.

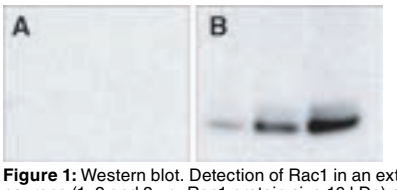


Figure 1: Western blot. Detection of Rac1 in an extract from rat cortical primary neurons (1, 2 and 3 µg, Rac1 protein size 16 kDa) on PVDF. Detection via murine anti-Rac1 and anti-mouse-HRP.
A: Base method w/o enhancer, **B:** Detection via Signal Enhancer Western/ELISA
With kind permission of Dr. K. Ishizuka, Department of Psychiatry and Behavioural Sciences, Johns Hopkins University, Baltimore, USA

The kit contains

Signal Enhancer Western/ELISA-1 (Art. No. 9213) and Signal Enhancer Western/ELISA-2 (Art. No. 9214). 1 Mini-Set: 2 x 50 ml, 1 Set: 2 x 250 ml.

One set with 250 ml each is sufficient for optimization of approx. 25 minigel blots.

Storage temperature: +4 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Packaging	Pack.	€
9211.1	1 kit	2 x 250 ml	plastic	482,70
9211.2	1 kit	2 x 50 ml	plastic	166,10

Signal Enhancer Western/ELISA-1

for immunochemistry

For optimisation of primary antibody binding in immunochemical assays.

The solution Signal Enhancer Western/ELISA-1 enhances reaction between antigens and their corresponding **primary** antibodies in a variety of immunoassays such as Western blotting, dot blotting and ELISA. Even for weak immunoreactive and low abundance target proteins strong signals may thus be achieved. The solution is well compatible with all common assay versions, membranes and ELISA plates.

Directions for use

For application, the solution Signal Enhancer Western/ELISA-1 is simply used as buffer solutions for preparation of the primary antibody incubation solution. Following incubation and washing, all common detection procedures may be applied, for instance colour staining with ROTI®DAB-Kit (Art. No. 9202) or chemoluminescent staining with ROTI®Lumin plus.
When assays are performed using one antibody (labelled) only, application of Signal Enhancer Western/ELISA-2 is recommended.

One bottle with 250 ml is sufficient for approx. 25 assays.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Art. No.	Pack Qty.	Pack.	€
9213.1	250 ml	plastic	278,45

Signal Enhancer Western/ELISA-2

for immunochemistry

For optimisation of binding of secondary and labelled antibodies in immunochemical assays.

The solution Signal Enhancer Western/ELISA-2 enhances binding of **secondary** antibodies in a variety of immunoassays such as Western blotting, dot blotting and ELISA. Even for weak immunoreactive and low abundance target proteins strong signals may thus be achieved. The solution is well compatible with all common assay versions, membranes and ELISA plates.
Recommended for performance of assays using one antibody (labelled) only.

Directions for use

For application, the solution Signal Enhancer Western/ELISA-2 is simply used as buffer solutions for preparation of the secondary antibody incubation solution. Following incubation and washing, all common detection procedures may be applied, for instance colour staining with ROTI®DAB-Kit (Art. No. 9202) or chemoluminescent staining with ROTI®Lumin plus.

Recommended for 1-antibody-assays (labelled).
One bottle with 250 ml is sufficient for approx. 25 assays.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Art. No.	Pack Qty.	Pack.	€
9214.1	250 ml	plastic	278,45



Antibody Diluent

Buffer solution for preparation of antibody incubation solutions and stabile antibody dilutions for storage. With green dye for optimum handling or as a clear solution.

- Enhances signal strength
- Reduces background
- Very easy application
- Compatible with paraffin- and cryo sections

Due to the particularly designed formulation, antigen/antibody binding is enhanced, while reducing background signals in parallel (Grube (2004) *Arch Histol Cytol.* 67:115-34 and Buchwalow *et al.* (2011) *Sci Rep.* 1:28). Stability of the antibodies is significantly enhanced.

Directions for use

The buffer solution is suitable for dilution of all primary and secondary antibodies, all mono- and polyclonals, as well as for all labelled as well as non-labelled antibodies. The antibodies are just diluted in the ready-to-use diluent and applied to the slides after blocking. For reduction of the amount needed and for optimised use of high-priced antibodies we recommend to use the ROTI®Liquid Barrier Marker (red, Art. No. AN92, or colourless, Art. No. AN91), in order to prepare tiny incubation chambers on top of the slides.

ready-to-use

Antibody Diluent green

ready-to-use, for immunohistochemistry

For optimisation of immunohistochemical detection signals.

One bottle for 125 ml is sufficient for enhancement of approx. 125 slides.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
0070.1	125 ml	1 x 125 ml	plastic	85,90
0070.2	500 ml	4 x 125 ml	plastic	241,90

ready-to-use

Antibody Diluent clear

ready-to-use, for immunohistochemistry

For optimisation of immunohistochemical detection signals.

One bottle for 125 ml is sufficient for enhancement of approx. 125 slides.

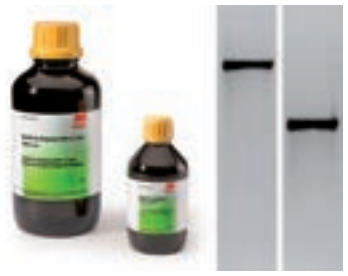
Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
0509.1	125 ml	1 x 125 ml	plastic	85,90
0509.2	500 ml	4 x 125 ml	plastic	241,90

Stripping Buffer



ready-to-use

ROTI®Free Stripping Buffer 2.2 plus

ready-to-use

Premixed buffer for efficient stripping of Western-Blot membranes after Chemoluminescence detection, even with hard-to-remove antibodies.

Stripping buffer for removal of high-affinity antibodies, as well as chemoluminescence staining, from Western blot membranes. Due to the low pH of the buffer, the antibody conformation is altered, therefore gently removing all molecules bound to the epitopes (Legocki *et. al.* (1981) *Analyt. Biochem.* 111:385-92). Specially designed additives enhance the efficiency in removing those antibodies requiring long stripping times or high incubation temperatures with standard stripping buffer systems. Advanced formulation without β-mercaptoethanol or DTT for use at room temperature or heated. Suitable for nitrocellulose and PVDF membranes.

- Very effective
- Gentle
- Odour-free
- Simple application
- Also suitable for high-affinity antibodies

Directions for use

Following rinsing steps in PBST- or TBST buffer, the membrane is incubated in ROTI®Free Stripping-Puffer 2.2 plus for 30–60 mins. at room temperature. In case of very persistent antibodies incubation in heated buffer is allowed. After washing it again, the membrane may be blocked and probed anew. The particular time needed for complete stripping depends on the respective antibody/epitope pairing.

Suitable for nitrocellulose and PVDF-membranes.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 1760 · ADR 8 III · WGK 1

Warning H290

Remark: Contains SDS. Can be redissolved by heating (max. 45 °C).

Art. No.	Pack Qty.	Pack.	€
3337.1	250 ml	glass	60,75
3337.2	1 l	glass	149,45
Original pack 6 x 1 l			141,98/1 l



ready-to-use

ROTI®Free Stripping Buffer 2.0

ready-to-use

Premixed buffer for gentle stripping of Western-Blot membranes after Chemoluminescence detection.

Stripping buffer for efficient removal of primary and secondary antibodies, as well as chemoluminescence staining, from Western blot membranes. Due to the low pH of the buffer, the antibody conformation is altered, therefore gently removing all molecules bound to the epitopes (Legocki *et. al.* (1981) *Analyt. Biochem.* 111:385-92). Robust formulation without β-mercaptoethanol or DTT for use at room temperature. Suitable for nitrocellulose and PVDF membranes.

- Effective
- Gentle
- Odour-free
- Simple application w/o heating
- Cost-efficient

Directions for use

Following rinsing steps in PBST- or TBST buffer, the membrane is incubated in ROTI®Free Stripping-Puffer 2.0 for 15–60 mins. at room temperature. After washing it again, the membrane may be blocked and probed anew. The particular time needed for complete stripping depends on the respective antibody/epitope pairing.

Suitable for nitrocellulose and PVDF-membranes.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 1760 · ADR 8 III · WGK 1

Warning H290-H319

Remark: Contains SDS. Can be redissolved by heating (max. 45 °C).

Art. No.	Pack Qty.	Pack.	€
3319.1	250 ml	glass	52,15
3319.2	1 l	glass	134,40
Original pack 6 x 1 l			127,68/1 l

ready-to-use

ROTI®Free Stripping Buffer

ready-to-use

Premixed buffer for stripping of Western-Blot membranes.

The buffer offers a simple tool for removing antibodies and chemo-luminescence staining from Western blot membranes, allowing the valuable membranes to be analysed several times. Excellent when several proteins are to be detected in the same extract, or e.g. when in addition to a specific analysis, proteins in the respective lanes have to be semi-quantified (Kaufmann *et. al.* (1987) *Anal. Biochem.* 161:89-95). Suitable for nitrocellulose and PVDF-membranes.

- Efficient
- Well-tried formulation
- With β-mercaptoethanol
- For stripping under heating
- Low-priced

Directions for use

Wash the membrane in TBST-buffer (Art. No. 1061.1), incubate in ROTI®Free Stripping-buffer in closed hood for 30 min at 56 °C (e. g. in shaking water bath). To strip AP-conjugates, we recommend incubation at 70 °C for 30-60 min. After washing the membrane twice in TBST for 20 min each time, it should first be blocked, before the first antibody is added. The stripping process can be checked by brief chemilumi-nescence staining after washing in TBST.
A slight reduction of the membrane-bound proteins and increase of the background may appear after repeated stripping. Store membranes after stripping wetpacked at +2 to +8 °C.

Suitable for nitrocellulose and PVDF-membranes.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 2

Warning H317-H319-H412

Remark: Contains SDS. Can be redissolved by heating (max. 60 °C).

Art. No.	Pack Qty.	Pack.	€
0083.2	250 ml	glass	24,20
0083.1	1 l	glass	75,15
Original pack 6 x 1 l			71,39/1 l
0083.3	2.5 l	glass	131,70
Original pack 4 x 2.5 l			125,12/2.5 l



► Substrates for Western Blot and ELISA see from page 186

Accessories



Autoradiography Pen

Pen with phosphorous ink for easy marking of those membranes ready for exposure.
The fine tip of the pen also allows individual bands and gel tracks to be marked simply and easily.

Directions for use

The marking is activated by the light in the room prior to exposure. The ink illuminates the X-ray film during exposure and the letters are visible in black ink. The letters are easy to read even after short exposure time. In the event of long exposure, the short half-life value of 2–3 minutes effectively prevents overexposure. The writing is therefore easy to make out after virtually all exposure times. Through the replacement nibs the pen can be reused even after a number of months or after drying out.

Suitable for

chemoluminescence and isotope-radiography. Ideal for marking paper, plastic foil and dried polyacrylamide gels.

Technical specifications:

Art. No.	CL10.1
Type	Autoradiography pen

Delivery incl. 1 pen + 4 replacement nibs

Autoradiography Pen

For marking and labelling chemiluminescent and isotope-labelled media before autoradiographic detection.

WGK 1

Type	Art. No.	Pack Qty.	€
Autoradiography pen	**CL10.1**	1 unit(s)	160,20

Replacement nibs for Autoradiography Pen

Type	Art. No.	Pack Qty.	€
Replacement nibs for Autoradiography Pen CL10.1	**CL11.1**	4 unit(s)	21,80

Western Incubation Trays

Western incubation trays have been specially developed for staining Western-blots. Four different sizes for perfect fit to your respective blot membrane. Stabile and frequently reusable.

Suitable for

all standard Western-staining methods.

Directions for use

The sizes adapted to suit typical Western-blots, reduce the required quantity of antibodies and staining reagents. The trays are compatible with all standard staining methods and can easily be stacked. The airtight lids effectively prevent the solution from evaporating even during longer incubation periods.



reusable

Western Incubation Trays

Type	L x W (mm)	Material	Max. temperature (°C)	Art. No.	Pack Qty.	€
MINI	91 x 66	PS	80	**8862.1**	10 unit(s)	250,50
MIDI	117 x 89	PS	80	**8870.1**	10 unit(s)	280,60
MIDI-XL	120 x 120	PMMA	60	**8874.1**	1 unit(s)	237,60
MAXI	200 x 165	PMMA	60	**8876.1**	1 unit(s)	302,10

Blot incubation trays

Compatible with Western- and Southern blotting methods

- Robust
- Autoclavable
- Reusable

Developed for incubation of filter membranes during signal detection after Western- and Southern blotting. The robust incubation trays can safely be stacked, and, due to the tightly sealing lids, evaporation of solution is prevented even during long incubation periods. The size, adapted to typical membrane sheets, reduces the amount of buffer needed during incubation.



A 121 °C reusable

Blot incubation trays

Directions for use

MINI: The 5 trays may be used separately as well as in uniform.

Type	L x W (mm)	Material	Art. No.	Pack Qty.	€
MINI	115 x 16	PP	**4810.1**	5 unit(s)	81,00
MIDI	90 x 90	PP	**4811.1**	5 unit(s)	123,30
MAXI	165 x 165	PP	**4812.1**	5 unit(s)	269,85

Western-blot immuno trays

Trays with narrow incubation volumes, especially for the detection procedure of membrane strips in Western blot. Available in two sizes for optimal adaptation to MINI or MAXI gel strips. Sturdy, reusable and with practical lid. Please note: lid and tray must be ordered separately. For the Western-blot immuno tray, MINI (X990.1) the lid, MINI (X991.1) must be ordered and for the Western-blot immuno tray, MAXI (X992.1) the lid, MAXI (X993.1) must be ordered.



Directions for use

Ideal for incubating membrane strips after blotting or for preparing incubation solutions, e.g. during Western-Blot or Immuno-Assay.

A 121 °C reusable

Western-blot immuno trays

Material: PP.

Type	Suitable for	L x W (mm)	Material	Art. No.	Pack Qty.	€
MAXI	17 cm strips	200 x 110	PP	**X992.1**	10 unit(s)	40,50
MINI	10 cm strips	128 x 85	PP	**X990.1**	10 unit(s)	40,50

reusable

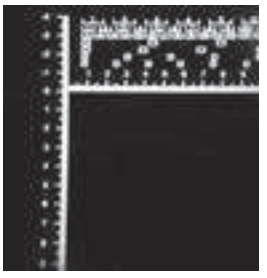
Western-blot immuno trays Lid

Material: PS.

Type	L x W (mm)	Material	Art. No.	Pack Qty.	€
MAXI	200 x 110	PS	**X993.1**	10 unit(s)	36,90
MINI	128 x 85	PS	**X991.1**	10 unit(s)	35,40

Luminous stencil

Stencil with phosphorescent ordinate system and a pattern of different sized electrophoresis comb wells.



Application examples

Are ideal for controlling and measuring during chemoluminescence detection of blots.

Directions for use

Stencil can be activated by exposure to daylight or to artificial light. When activated, stencils fluoresce for approx. 15 minutes.

reusable

Luminous stencil

Type	Art. No.	Pack Qty.	€
Luminous stencil	**X981.1**	1 unit(s)	n. a.



Cell Biology

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ROTI®Cell – Media and Solutions for Cell Culture

The product line for your cell culture. Media and solutions of highest purity, the perfect base line for all standard cell culture applications.

Our ROTI®Cell range is currently being revised for you.
At www.carlroth.com you will always find the latest information on the products and availability. In case you have any questions, please contact our Carl Roth team.



Medium	Art. No.	Glucose g/l	Glutamine (mM)	HEPES (mM)	Sodium Pyruvate (mM)	$NaHCO_3$ (mM)	Phenol Red	Salts	Note
Dulbecco's Minimum Essential Medien									
ROTI®Cell DMEM High Glucose	9005.1	4.5	4	X	1	44	yes	X	
ROTI®Cell DMEM High Glucose	9006.1	4.5	4	X	X	44	yes	X	
ROTI®Cell DMEM High Glucose	9007.1	4.5	4 stab.	X	1	44	yes	X	With temperature stabile glutamine
ROTI®Cell DMEM High Glucose	9010.1	4.5	X	X	1	44	yes	X	
ROTI®Cell DMEM High Glucose	9011.1	4.5	X	25	1	44	yes	X	
ROTI®Cell DMEM High Glucose	9019.1	4.5	X	X	X	44	yes	X	
ROTI®Cell DMEM High Glucose	9023.1	4.5	X	X	1	44	X	X	
ROTI®Cell DMEM Low Glucose	9027.1	1	X	X	1	44	yes	X	
ROTI®Cell DMEM Low Glucose	9030.1	1	X	25	1	44	yes	X	
DMEM : F12									
ROTI®Cell DMEM : F12	9031.1	3.151	2.5	15	1	14.3	yes	X	
Iscove's Modfied Dulbecco Media									
ROTI®Cell Iscove's MDM	9033.1	4.5	4	25	1	36	yes	X	Additional Amino Acids and selene
ROTI®Cell Iscove's MDM	9035.1	4.5	X	25	1	36	yes	X	Additional Amino Acids and selene
Minimum Essential Media									
ROTI®Cell Eagle's MEM / Earle's	9044.1	1	2	X	X	26.2	yes	Earl's	
ROTI®Cell Eagle's MEM / Earle's	9047.1	1	X	X	X	26.2	yes	Earl's	
ROTI®Cell Eagle's MEM / Earle's	9048.1	1	X	25	X	26.2	yes	Earl's	
ROTI®Cell Eagle's MEM / Earle's	9049.1	1	X	X	1	26.2	yes	Earl's	Plus NEAA*
ROTI®Cell Eagle's MEM / Hanks'	9056.1	1	X	X	X	4.2	yes	Hanks'	
ROTI®Cell Eagle's MEM-Alpha	9058.1	1	X	X	1	26.2	yes	Earl's	Plus cobalamine, ascorbic acid, NEAA*, lipoic acid, biotine
ROTI®Cell Eagle's MEM-Alpha	9082.1	5.5	2 stab.	X	1	26.2	yes	Earl's	Plus cobalamine, ascorbic acid, NEAA*, lipoic acid, biotine. Plus ribonucleosides and desoxyribo-nucleosides. With temperature stabile glutamine
RPMI Media									
ROTI®Cell RPMI 1640	9085.1	2	2	X	X	23.8	yes	X	
ROTI®Cell RPMI 1640	9086.1	2	2	25	X	23.8	yes	X	
ROTI®Cell RPMI 1640	9091.1	2	2 stab.	X	X	23.8	yes	X	With temperature stabile glutamine
ROTI®Cell RPMI 1640	9093.1	2	2 stab.	25	X	23.8	yes	X	With temperature stabile glutamine
ROTI®Cell RPMI 1640	9094.1	X	2	X	X	23.8	yes	X	
ROTI®Cell RPMI 1640	9099.1	2	X	X	X	23.8	yes	X	
ROTI®Cell RPMI 1640	9104.1	2	X	X	X	23.8	X	X	
Special Media									
ROTI®Cell Ham's F12	9108.1	1.8	1	X	1	14	yes	X	Mammalian & hybridoma cells, mainly CHO
ROTI®Cell Leibovitz's L15	9109.1	0.9 galact.	X	X	5	14	yes	X	Cultivation w/o CO_2
ROTI®Cell McCoy's 5A	9111.1	3	1.5	X	X	26.2	yes	X	Primary cells
ROTI®Cell Medium 199 / Earle's	9112.1	1	0.7	25	X	26.2	yes	Earl's	Virology & vaccine production
ROTI®Cell TC100	9114.1	0.6	4,1	X	X	4.16	X	X	Sf9 cells/baculovirus. Based on Grace's medium

* NEAA: Non-essential amino acids
Media with stabile glutamine may be stored at room temperature!

Cell Culture Media and Solutions



Balanced Salt Solutions		Art. No.	Glucose g/l	Ca^{++}	Mg^{++}	Phenol Red	PO_4 (mM)	EDTA	$NaHCO_3$ (mM)
Hank's Salt Solutions									
ROTI®Cell Hank's BSS	CELLPURE®, without Ca/Mg, without phenol red	9117.1	1	X	X	X	X	X	4,2
ROTI®Cell Hank's BSS	CELLPURE®, without Ca/Mg, with phenol red	9118.1	1	X	X	yes	X	X	4,2
ROTI®Cell Hank's BSS	CELLPURE®, with Ca/Mg, without phenol red	9119.1	1	yes	yes	X	X	X	4,2
ROTI®Cell Hank's BSS	CELLPURE®, with Ca/Mg, with phenol red	9122.1	1	yes	yes	yes	X	X	4,2
Phosphate Buffered Salt Solutions by Dulbecco									
ROTI®Cell DPBS	CELLPURE®, without Ca/Mg	9124.1 9124.2	X	X	X	X	9,5	X	X
ROTI®Cell 10x DPBS	CELLPURE®, without Ca/Mg	9130.1 9130.2	X	X	X	X	95	X	X
ROTI®Cell DPBS	CELLPURE®, with Ca/Mg	9131.1 9131.2	X	yes	yes	X	9,5	X	X
Phosphate Buffered Salt Solutions									
ROTI®Cell PBS	CELLPURE®	9143.1 9143.2	X	X	X	X	6,7	X	X
ROTI®Cell 10x PBS	CELLPURE®	9150.1	X	X	X	X	67	X	X

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Here you will find all relevant information about our products – stay up to date!



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- Specifications and Certificates of Analysis
- Instructions for use
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- Attractive offers
- Status of product availability
- Online order
- Newsletter
- ROTH Blog

Reagents for Cell Culture

General Reagents

Albumin/BSA

BSA

Heatshock albumin

For purification of this Albumin an extensive heat-shock/diafiltration method is used, which has been shown to bring more highly purified products than the standard process acc. to Cohn. The process is taking place in a closed system.



TSE-/BSE-free

Albumin, very low endotoxin, US-Origin

CELLPURE® ≥98 %, very low endotoxin, for cell biology

With extremely low endotoxin content. Recommended for the culture of primary cells and cell lines. Also suitable for sensitive cell culture assays.

Albumin, very low endotoxin, US-Origin is particularly recommended for use during culturing of eukaryotic cells and in cell culture assays. This albumin of superior quality is thoroughly tested for its very low endotoxin content, therefore providing trouble-free cell culture assays and reliable results even when handling primary cells or stem cells.
Bovine serum albumin is basically suitable for stabilisation of all enzymes and antibodies, as well as for blocking of hybridisations and immunoassays.

Tested for very low endotoxin content.

Heatshock albumin.
Recommended if BSA with US-Origin is required.

M ~66 000 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1ET6.1	1 g	plastic	32,80
1ET6.2	10 g	plastic	72,60
1ET6.3	50 g	plastic	229,55
1ET6.4	200 g	plastic	532,15

TSE-/BSE-free

Albumin, very low endotoxin, NZ-Origin

CELLPURE® ≥98 %, very low endotoxin, for cell biology

With extremely low endotoxin content. Recommended for the culture of primary cells and cell lines. Also suitable for sensitive cell culture assays.

Albumin, very low endotoxin, NZ-Origin is particularly recommended for use during culturing of eukaryotic cells and in cell culture assays. This albumin of superior quality is thoroughly tested for its very low endotoxin content, therefore providing trouble-free cell culture assays and reliable results even when handling primary cells or stem cells.
Bovine serum albumin is basically suitable for stabilisation of all enzymes and antibodies, as well as for blocking of hybridisations and immunoassays.

Tested for very low endotoxin content.

Heatshock albumin.
Recommended if BSA with origin Australia or New Zealand is required.

M ~66 000 g/mol

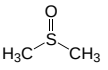
Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1ET4.1	1 g	plastic	27,45
1ET4.2	10 g	plastic	65,50
1ET4.3	50 g	plastic	209,65
1ET4.4	200 g	plastic	493,45

► Lactalbumin see page 196, 352





Dimethyl sulphoxide (DMSO)

≥99,5 %, BioScience Grade, for molecular biology

Recommended for PCR, sequencing, hybridisation and cell culture.

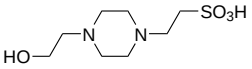
C_2H_6OS · M 78,13 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
A994.1	100 ml	glass	27,85
A994.2	250 ml	glass	47,20

► Flavine-adenine-dinucleotide disodium salt (FAD) see www.carlroth.com





DNAse-free | RNAse-free | Protease-free

HEPES

PUFFERAN® CELLPURE® ≥99,5 %

For cell culture, tissue culture and biotechnology.

Extremely versatile buffer. Excellent for cell and tissue cultures and for analysis of biological systems.

Application examples:

- Combined with bicarbonate, HEPES is an excellent medium for human lymphocytoidal cell lines
- HEPES is more effective than $NaHCO_3$ when controlling the pH value in tissue and organ culture
- HEPES-buffered media for chicken and human lung fibroblasts
- Can be used to replace a bicarbonate buffered medium containing serum with a serum-free HEPES-buffered medium for mouse fibroblasts

Tested for low amount of endotoxins.

Buffer reagent according to Good. High buffer capacity at physiological pH-values.

$C_8H_{18}N_2O_4S$ · M 238,31 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
HN77.1	50 g	plastic	36,45
HN77.2	100 g	plastic	53,25
HN77.3	250 g	plastic	102,05
HN77.4	500 g	plastic	181,70
Original pack 6 x 500 g			172,62/500 g
HN77.5	1 kg	plastic	321,45
Original pack 6 x 1 kg			305,38/1 kg
HN77.6	2.5 kg	plastic	643,95

Sodium chloride solution 0.9 %

CELLPURE®

WGK 1

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
8607.1	500 ml	plastic	19,90
8607.2	1 l	plastic	34,30
Original pack 6 x 1 l			32,59/1 l



S

ROTI®Cell Bicarbonate solution

CELLPURE® 7,5 %, sterile

For cell culture

Due to it being the main physiological buffer system, sodium bicarbonate still is the most commonly used buffer in cell culture media. For media with Hanks' Salts (HBSS) add a low concentration of ROTI®Cell Bicarbonate solution (350 mg/l = 0,035 % end concentration) and incubate in closed culture vessels. For media with Earle's Salts (EBSS) add a higher concentration of ROTI®Cell Bicarbonate solution (2.200 mg/l = 0,22 % end concentration) and incubate in an open vessel, in an atmosphere supplied with 5 % CO_2 in air.

Solution in water

WGK 1

Art. No.	Pack Qty.	Pack.	€
9165.1	100 ml	plastic	36,45

S

ROTI®Cell Glutamine solution

CELLPURE® 200 mM, sterile

For cell culture

L-glutamine is an essential amino acid required for cell culture growth and is normally present in media in a concentration of 292 mg/l (2 mM). While standard L-glutamine is temperature-sensitive and thus not stable for longer periods, the L-Glutamine form used for this ROTI®Cell Glutamine solution extends by temperature stability and may be stored at room temperature for years, making it a highly valuable tool for cell culture media.
Stable L-glutamine is used in the same concentration as standard, temperature-sensitive L-glutamine.

Temperature-stable solution in 145 mM NaCl

WGK 1

Art. No.	Pack Qty.	Pack.	€
9183.1	100 ml	plastic	30,00



ROTI®Cell Gelatine solution

Gelatine solution

ROTI®Cell Gelatine solution may be used in a variety of applications in Life Science research in general. The following applications, however, are amongst the most popular: coating of cell culture wells in order to improve cell adhesion of various cell types, stabilizing of DNA polymerases, blocking additive in immunochemical assays, and species differentiation processes in microbiology.
Gelatine is a heterogeneous mixture of water-soluble proteins of high average molecular masses present in collagen.

❄ S ready-to-use

ROTI®Cell 0.1% Gelatine solution

CELLPURE® 0,1 % conc., sterile, ready-to-use, in PBS, w/o Ca/Mg

From porcine skin, for cell culture, protein biochemistry and molecular biology

Directions for use

ROTI®Cell 0.1% Gelatine solution for cell culture coating: 100–200 µg (0,1–0,2 ml)/cm².
Hence, we recommend to use the following amounts per well/plate in ml: 0,1–0,2 (48well), 0,2–0,4 (24well), 0,4–0,8 (12well), 1–1,9 (6well), 2,8–5,7 (6 cm plate), 8–15,7 (10 cm plate). The optimal amount depends on the cell type and specific assay parameters and has to be evaluated. Coat by incubation at 37 °C for 30 mins in minimum.

For coating cell culture vessels: 100–200 µg (0,1–0,2 ml)/cm²

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
0621.1	500 ml	plastic	117,20

❄ S ready-to-use

ROTI®Cell 2% Gelatine solution

CELLPURE® 2 % conc., sterile, ready-to-use, in PBS, w/o Ca/Mg

From porcine skin, for cell culture, protein biochemistry and molecular biology

Directions for use

ROTI®Cell 2% Gelatine solution for cell culture coating: 100–200 µg (5–10 µl)/cm².
Hence, we recommend to use the following amounts per well/plate in ml: 5–10 µl (48well), 10–20 µl (24well), 20–40 µl (12well), 42–85 µl (6well), 0,12–0,24 ml (6 cm plate), 0,31–0,63 ml (10 cm plate). The optimal amount depends on the cell type and specific assay parameters and has to be evaluated. Coat by incubation at 37 °C for 30 mins in minimum.

For coating cell culture vessels: 100–200 µg (5–10 µll)/cm²

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
0646.1	100 ml	plastic	37,65

ROTI®Cell Hanks' BSS

HBBS, Hanks' salt solution

ROTI®Cell Hanks' BSS is a balanced salt solution to be used in a wide variety of cell- and tissue culture applications; for instance stabilizing of a physiological pH for cell maintenance in CO_2-free atmosphere, diluting cell suspensions prior to counting, washing cells prior to dissociation or passaging, and transporting cells or tissues.

S ready-to-use

ROTI®Cell Hanks' BSS

CELLPURE® ready-to-use, sterile, with Ca/Mg, with Phenolrot

Balanced salt solution acc. to Hanks for cell culture

ready-to-use

WGK 1

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
9122.1	500 ml	plastic	26,80

❄ S

ROTI®Cell MEM-AA solution

CELLPURE® 50x conz., sterile, w/o glutamine

for cell culture

Amino acids, essential · Essential amino acids

ROTI®Cell MEM-AA solution consists of a mixture of 12 essential amino acids in water. Since cells are not able to synthesize essential amino acids by themselves, those have to be externally supplemented. By enrichment of cell culture media with ROTI®Cell MEM-AA, the culture medium is supplemented with a preformulated mixture of essential amino acids perfectly suited for culturing of most eukaryotic cells. For each amino acid, dilution by 1:50 of ROTI®Cell MEM-AA solution yields the final concentration known from Eagle's Minimum Essential Medium.

Solution in water.
Dilution 1:50 in cell culture medium. End concentration per amino acid conforms to EMEM.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Art. No.	Pack Qty.	Pack.	€
0647.1	100 ml	plastic	38,60

Soon back in the assortment:

ROTI®Cell HEPES solution
ROTI®Cell Pyruvate solution
ROTI®Cell MEM-NEAA solution
ROTI®Cell Water

Antibiotics for Cell Culture



S ready-to-use

ROTI®Cell Myco-Free

CELLPURE® 50x conc., sterile, ready-to-use

For elimination of mycoplasm contamination in cell culture.

ROTI®Cell Myco-Free is a reliable, rapidly effective reagent for eradication of contaminations by mycoplasms and other bacteria in cell culture.

The sterile solution ROTI®Cell Myco-Free is composed of a mixture of specially selected antibiotics in PBS, which are known to be highly potent, even in very low concentrations. The effect is due to a specific interaction with prokaryotic protein biosynthesis by inhibition of translation and of the transcription complex located gyrase. Eukaryotic cells are not affected.

- Simple Application
- Reliable eradication
- Effective against all mycoplasms and bacteria
- Not cytotoxic

Directions for use

Culture media are supplemented by the ROTI®Cell Myco-Free stock solution diluted by 1:50. Mycoplasms and bacteria are reliably and efficiently eliminated.

One bottle of 100 ml is sufficient for approx. 300 applications.

Storage temperature: –20 °C
Transport temperature: cooled
WGK 3

Art. No.	Pack Qty.	Pack.	€
9830.1	100 ml	plastic	274,15



Antibiotics

Product name	Purity	Endotoxin content	Art. No.	Pack Qty.	€
Ampicillin sodium salt	≥91 %	< 0,15 E.U./mg	**HP62.1**	10 g	56,90
			HP62.2	50 g	209,65
Geneticin disulphate (G418) solution	50 mg/ml, sterile	<10 E.U./ml	**CP11.1**	10 ml	79,45
			CP11.2	20 ml	109,55
			CP11.3	100 ml	439,70
	50 mg/ml, BioScience Grade, sterile, ready-to-use		**2039.1**	10 ml	78,40
			2039.2	20 ml	107,40
			2039.3	100 ml	435,40
Gentamycin sulphate solution	50 mg/ml, sterile	≤10 E.U./ml	**HN09.1**	20 ml	118,15
			HN09.2	100 ml	375,20
Gentamycin solution	50 mg/ml, BioScience Grade, sterile, ready-to-use		**2475.1**	20 ml	117,10
			2475.2	100 ml	370,90
Hygromycin B solution	50 mg/ml, sterile	<10 E.U./ml	**CP12.1**	10 ml	131,70
			CP12.2	20 ml	231,15
	50 mg/ml in PBS, BioScience Grade, sterile, ready-to-use		**1287.1**	10 ml	126,35
			1287.2	20 ml	209,65
Penicillin G potassium salt	≥1550 U/mg	≤0,25 E.U./mg	**HP49.1**	1 g	24,65
			HP49.2	10 g	49,35
			HP49.3	25 g	97,30
Penicillin G sodium salt	≥1550 U/mg	≤0,25 E.U./mg	**HP48.1**	1 g	19,90
			HP48.2	10 g	40,75
			HP48.3	25 g	80,55
Pen/ Strep-PreMix		≤4,2 I.U. / ml	**HP10.1**	1 set	78,40
ROTI®Cell Myco-Free	50x conc., sterile, ready-to-use	<10 E.U./ml	**9830.1**	100 ml	274,15
Streptomycin sulphate	≥720 I.U./mg	≤0,25 E.U./mg	**HP66.1**	10 g	34,30
			HP66.2	25 g	53,65
			HP66.3	50 g	85,90
Tetracycline hydrochloride	≥900 µg/mg	≤0,5 E.U./mg	**HP63.1**	10 g	59,05
			HP63.2	50 g	246,20
Vancomycin hydrochloride	≥900 U/mg	≤0,33 E.U./mg	**0242.1**	250 mg	43,55
			0242.2	500 mg	70,45
			0242.3	1 g	117,20
			0242.7	5 g	418,20

► Amino Acids CELLPURE® see chapter Chemicals A-Z

► Extensive labware for cell culture, see our Labware catalogue.

► Salts CELLPURE® see chapter Chemicals A-Z

► Carbohydrates CELLPURE® see chapter Chemicals A-Z



ROTI®Fair NaCl tablets

Sodium chloride (tablet)

Exactly pre-weighed tablets for convenient and rapid preparation of sodium chloride solution.

Sodium chloride solution is generally used in many routine processes in Life Science laboratories, for instance preparation of salt solutions or composing of special buffer concoctions. In order to alleviate the effort involved, preparation of salt solutions using the ROTI®Fair salt tablets is most convenient.

Prepared solution may be sterilized by filtration (0,22 µm) or autoclaving. For long-term storage, salt solution should be kept at +4 °C.

ROTI®Fair 0.9 % NaCl

for 100 ml/tablet, for biochemistry and molecular biology

For preparation of salt solutions and buffer concoctions.

0,9 % NaCl solution is prepared by dissolution of 1 tablet in 100 ml highly pure water respectively.

WGK 1

Prepared solution contains: 0.9 % NaCl, when prepared in deionized or distilled water.
For research use only. Not approved for human or veterinary use, for application to humans or animals, or for use in clinical or *in vitro* diagnostics.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1053.1	100 unit(s)	plastic	70,45

ROTI®Fair 0.9 % NaCl

for 1000 ml/tablet, for biochemistry and molecular biology

For preparation of salt solutions and buffer concoctions.

0,9 % NaCl solution is prepared by dissolution of 1 tablet in 1000 ml highly pure water respectively.

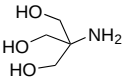
WGK 1

Prepared solution contains: 0.9 % NaCl, when prepared in deionized or distilled water.
For research use only. Not approved for human or veterinary use, for application to humans or animals, or for use in clinical or *in vitro* diagnostics.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1067.1	10 unit(s)	blister	61,20
1067.2	100 unit(s)	plastic	152,15





DNAse-free **RNAse-free** **Protease-free**

TRIS

CELLPURE® ≥99,9 %

For cell culture, tissue culture and biotechnology.

Buffer with low endotoxin content and especially designed for life science applications.

Endotoxins: ≤0.03 E.U./mg

$C_4H_{11}NO_3$ · M 121,14 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
3170.1	100 g	plastic	36,45
3170.2	500 g	plastic	112,80
Original pack 6 x 500 g			107,16/500 g

Endotoxins (greek ἔndo [endo]=inner, within; τοξίνη [toxin]=poison, toxic substance).
Largest subgroup of **pyrogens** (greek πψροσ [pyros]=fire; γενναν [gennan]=to produce).
The terms **endotoxin** and **pyrogen** are often used synonymously.

Lipopoly saccharides from the outer cell membrane of gram-negative bacteria or bluegreen algae. The pathological effects of **endotoxins** are microbial poisoning, septicaemia and lung disease. The lipid A contained in endotoxins is toxic to eukaryotic cells since it interacts with the cell membrane and affects the transcription of many proteins (e.g. tumour necrosis factor). It is, therefore, important to use reagents that are to a large degree free of endotoxins / pyrogens in the **cell culture**. This can be verified by older test methods such as induction of fever in rabbits, the LAL test (the haemolymph of the horseshoe crab *limulus polyphemus* coagulates in the presence of endotoxins) or by using modern and animal-friendly methods such as monocyte activation or ELISA.
1 E.U. (Endotoxin Unit) = 1 I.U. (International Unit) = 1 USP.U. (United States Pharmocopeia Unit)

1 E.U. = approx. 0,1 ng endotoxin

Cell Passage



S ready-to-use

ROTI®Cell DPBS/EDTA

CELLPURE® sterile, 0,02 % EDTA (Versene®), w/o Ca/Mg

Balanced salt solution with EDTA for cell culture.

EDTA, a chelator of divalent cations, is used combined with trypsin prior to passaging in order to solubilize adherent cells from the culture vessel surface into suspension. EDTA binds calcium and magnesium which aid in cell-cell adhesion, additionally allowing trypsin to more efficiently hydrolyze specific peptide bonds.
ROTI®Cell DPBS/EDTA may also be used directly without addition of trypsine for very gentle cell dissociation. Versene® is a trade-marked name of EDTA.

ready-to-use
WGK 1

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
9135.1	100 ml	plastic	27,45

S

ROTI®Cell PBS/EDTA

CELLPURE® sterile, 0,046 % EDTA, w/o Ca/Mg

Balanced salt solution with EDTA for cell culture.

EDTA, a chelator of divalent cations, is used combined with trypsin prior to passaging in order to solubilize adherent cells from the culture vessel surface into suspension. EDTA binds calcium and magnesium which aid in cell-cell adhesion, additionally allowing trypsin to more efficiently hydrolyze specific peptide bonds.

ROTI®Cell PBS/EDTA may also be used directly without addition of trypsine for very gentle cell dissociation.
WGK 1

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
9152.1	500 ml	plastic	19,25

TSE-/BSE-free

Trypsin

5.000 USP-U/mg

Serine protease isolated from porcine pancreas, lyophilised.

M ~24,000 g/mol
Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Danger H315-H319-H334-H335

Art. No.	Pack Qty.	Pack.	€
2193.1	100 mg	glass	45,15
2193.2	500 mg	glass	160,20
2193.3	5 g	glass	1.493,20

Trypsin

≥2500 USP-U/mg, cryst.

Isolated from porcine pancreas, lyophilised.

M ~24,000 g/mol
Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Danger H315-H319-H334-H335

Art. No.	Pack Qty.	Pack.	€
5455.1	100 mg	glass	32,15
5455.2	1 g	glass	134,40

► Trypsin inhibitors see page 185

Please note our **Technical Information Brochure** on the Internet next to the products:

Cell Passage
General information and protocol for trypsination



Cell Isolation

ROTI®Sep 1077 human

Lymphocyte separation medium, Polysucrose solution

Ready-to-use and sterile separation medium based on polysucrose 400, for efficient isolation of lymphocytes from human blood by density gradient centrifugation.
Density 1.077 g/ml.
Best alternative to Ficoll®.

- Optimised for isolation of lymphocytes from non-coagulated human whole blood
- Produces distinct, compact layers
- Results in high recovery rates of viable cells
- Maintains the representative ratio of B- to T lymphocytes
- May be directly applied to all protocols using Ficoll®

ROTI®Sep 1077 human excels due to the superior separation power, forming very distinct, easy to pipet, lymphocyte layers during centrifugation. The ready to use solution is very easy in handling, resulting in high cell recovery rates, while cell viability and the representative ratio of B- to T lymphocytes are maintained. Osmolality as well as pH value are strictly kept in the physiological range.
Suitable for application with human non-coagulated peripheral blood.
In all respective protocols originally using Ficoll® this reagent may be replaced by ROTI®Sep 1077 human without any adjustment.



S ready-to-use

ROTI®Sep 1077 human/tube

CELLPURE® sterile, ready-to-use, for density gradient centrifugation

Polysucrose based medium for separation of lymphocytes/PBMC from human whole blood. Density: 1,077 g/ml

Prefilled in 50 ml centrifugation tubes, 15 ml each.

With permeable membrane for easy pipetting of diluted blood.

15 ml prefilled in 50 ml tubes.
Long-term storage at approx. 4 °C recommended. Short-term storage at room temperature possible. Storage protected from light.

M ~400000 g/mol

Storage temperature: +4 °C
WGK 1

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
0634.1	25 unit(s)	25 x 50 ml	cardboard	783,70

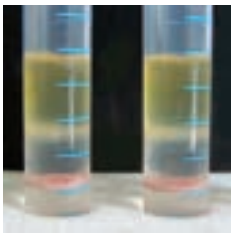


S ready-to-use

ROTI®Sep 1077 human

CELLPURE® sterile, ready-to-use, for density gradient centrifugation

Polysucrose based medium for separation of lymphocytes/PBMC from human whole blood. Density: 1,077 g/ml



The **figure** depicts two specimens prepared with heparinic blood obtained from venous puncture. Density gradient centrifugation of 6 ml diluted whole blood (dilution in PBS 1:1.5), with 3 ml of ROTI®Sep 1077 human, 10 mins., 1000 g, no break.

Long-term storage at approx. 4 °C recommended. Short-term storage at room temperature possible. Storage protected from light.

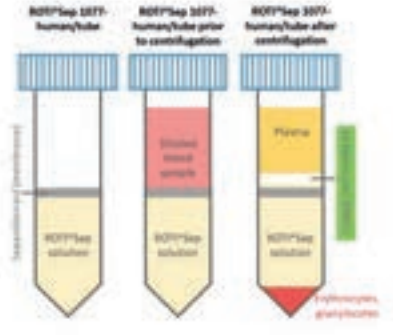
M ~400000 g/mol

Storage temperature: +4 °C
WGK 1

Danger H317-H334

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
0642.1	100 ml	plastic	61,85
0642.2	500 ml	plastic	220,40





ROTI®Sep 1077 animal

Lymphocyte separation medium, Polysucrose solution

Ready-to-use and sterile separation medium based on polysucrose 400, for efficient isolation of lymphocytes from mammalian blood by density gradient centrifugation.
Density 1, 077 g/ml.
Best alternative to Ficoll®.

- Optimised for isolation of lymphocytes from non-coagulated mammaliam whole blood
- Produces distinct, compact layers
- Results in high recovery rates of viable cells
- Maintains the representative ratio of B- to T lymphocytes
- May be directly applied to all protocols using Ficoll®

ROTI®Sep 1077 animal excels due to the superior separation power, forming very distinct, easy to pipet, lymphocyte layers during centrifugation. The ready to use solution is very easy in handling, resulting in high cell recovery rates, while cell viability and the representative ration of B- to T lymphocytes are maintained. Osmolality as well as pH value are strictly kept in the physiological range.
Suitable for application with non-coagulated peripheral whole blood from all mammals. In all respective protocols originally using Ficoll® this reagent may be replaced by ROTI®Sep 1077 animal without any adjustment.

S ready-to-use

ROTI®Sep 1077 animal

CELLPURE® sterile, ready-to-use, for density gradient centrifugation

Polysucrose based medium for separation of lymphocytes/PBMC from mammalian whole blood. Density: 1,077 g/ml

Long-term storage at approx. 4 °C recommended. Short-term storage at room temperature possible. Storage protected from light.

Storage temperature: +4 °C

WGK 1

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
0622.1	100 ml	plastic	91,40
0622.2	500 ml	plastic	311,75



ROTI®Sep 1086 mouse

Lymphocyte separation medium, Polysucrose solution

Ready-to-use and sterile separation medium based on polysucrose 400, for efficient isolation of lymphocytes from murine blood by density gradient centrifugation.
Density 1, 086 g/ml.
Best alternative to Ficoll®.

- Optimised for isolation of lymphocytes from non-coagulated mouse whole blood
- Produces distinct, compact layers
- Results in high recovery rates of viable cells
- Maintains the representative ratio of B- to T lymphocytes
- May be directly applied to all protocols using Ficoll®

ROTI®Sep 1086 mouse excels due to the superior separation power, forming very distinct, easy to pipet, lymphocyte layers during centrifugation. The ready to use solution is very easy in handling, resulting in high cell recovery rates, while cell viability and the representative ration of B- to T lymphocytes are maintained. Osmolality as well as pH value are strictly kept in the physiological range.
Suitable for application with non-coagulated peripheral whole blood from mouse. In all respective protocols originally using Ficoll® this reagent may be replaced by ROTI®Sep 1086 mouse without any adjustment.

S ready-to-use

ROTI®Sep 1086 mouse

CELLPURE® sterile, ready-to-use, for density gradient centrifugation

Polysucrose based medium for separation of lymphocytes/PBMC from mouse whole blood. Density: 1,086 g/ml

Long-term storage at approx. 4 °C recommended.Short-term storage at room temperature possible.Storage protected from light.

Storage temperature: +4 °C

WGK 1

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
0624.1	100 ml	plastic	81,60
0624.2	500 ml	plastic	299,95



Ficoll® 400

for molecular biology and biochemistry

For density gradient centrifugation; ingredient of gel loading buffers. Non-ionic polymer of saccharose.

Ficoll® 400 is a hydrophilic copolymer of saccharose and epichlorohydrin, that readily solubilises in water and aqueous solutions. It may be solubilised at concentrations of up to 50 %, and is mainly used in the following applications: A) In hybridisation buffer acc. to Denhardt, Ficoll® 400 reduces non specific binding of labelled DNA to the filter membrane. B) In gel loading buffer it supports DNA application to agarose gels by increasing the density of the sample. C) In continuous or discontinuous density gradients, Ficoll® 400 is used as matrix for fractioning of cells (e.g. lymphocytes) or subcellular particles, also taking advantage of its ability to stabilise membrane coupled components and the functional as well as the morphological integrity of cells. Autoclavable at neutral pH.

M ~400 000 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
CN90.1	10 g	plastic	47,85
CN90.2	25 g	plastic	99,45
CN90.3	100 g	plastic	321,45

Polysucrose 400

BioScience Grade, for molecular biology

For density gradient centrifugation during cell separation and isolation of cell organelles.

Nonionic, synthetic copolymer from sucrose and epichlorohydrin. Ficoll® derivative.

Solution of polysucrose 400 is used for separation of blood cells (mono nuclear cells, granulocytes, erythrocytes) via density gradient centrifugation, and for isolation of mononuclear cells from whole blood. Also well applicable for isolation of islets of Langerhans from pancreatic issue.

May be used as direct replacement for Ficoll® in common protocols.

$(C_{12}H_{22}O_{11})_n$ x $(C_3H_5ClO)_n$ · M 450000 ±100000 g/mol

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
4668.1	10 g	plastic	34,95
4668.2	25 g	plastic	78,40
4668.3	100 g	plastic	267,70



ROTI®Fair BSC

BSC buffer powder (pouch), Buffered Sodium Citrate

Exactly pre-weighed pouches for convenient and rapid preparation of BSC solution.

Prepared solution may be sterilized by filtration (0,22 µm). For long-term storage, buffer solution should be kept at +4 °C.

ROTI®Fair BSC

for 100 ml/pouch, for cell culture and microscopy

Buffer solution for isolation of blood cells.

0,109 M BSC solution is prepared by dissolution of 1 pouch in 100 ml highly pure water.

WGK 1

Prepared BSC solution contains: 0,109 M (3,2 %) buffered Na-citrate, when prepared in deionized or distilled water.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1011.1	10 unit(s)	box	117,75

ROTI®Fair BSC

for 1000 ml/pouch, for cell biology

Buffer solution for isolation of blood cells.

0,109 M BSC solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

WGK 1

Prepared BSC solution contains: 0,109 M (3,2 %) buffered Na-citrate, when prepared in deionized or distilled water.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1026.1	5 unit(s)	box	217,70

► Centrifuge tubes can be found at www.carlroth.com

Transfection



ready-to-use

ROTI®Fect

CELLPURE® ready-to-use, for transfection

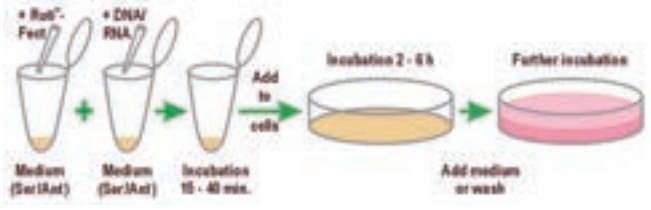
Reagent for liposoma-mediated transfection of eukaryotic cells.

ROTI®Fect is a liposome formulation of a polycationic lipid in combination with a neutral colipid. Compared to monocationic lipid formulations, ROTI®Fect has a higher efficiency with lower levels being required. Its excellent reproducibility in combination with its high level of efficiency reduced optimisation work to a minimum. Because of its low toxicity, a wide range of cell lines can be transfected efficiently.
An efficient triple-cotransfection using ROTI®Fect is described in Ufartes, Schlüter, Kaufluss and Seipp (2005) *Biospektrum* 4: 464-5.

- Highly efficient reproduction of DNA in mammal cells
- Excellent reproducibility
- High and wide operating plateau
- No inhibition through serum
- Low cell toxicity
- Successful with different cell lines
- Excellent transfection results

Successfully tested on a variety of cell types.

siRNA: CEM, COS-7, ES-D3,HeLa, HL60, LNCaP, OVCAR3, PC3, SW620
Primary cells: pAML, pHDF, pMEF, pRHC, pSMC
Cell lines: 143B, 293-T, A-293, A-431, AM-C6SC8, BHK, BV-2, C2C12, C6, CHO, CHO-DHFR, COS-1, COS-7, CRFK, Colo-205, DU-145, ECV-304, EMC, F98 (glioma), GD25-ß1, HBL 100, HCT-116, HCT-15, HEK293, HeLa, HeLa-S3, Hep-3B, Hep-G2, HOSE, HSG, HT-22, HT-29, HUVEC, JURKAT, LLC-PK1, LS174T, LoVo, MCF-7, MDCK, MeWo, MV3, NIH-3T3, NS20Y, OK, P815, PC3, PT-11, Rcho-1, SAOS, SH-SY5Y, SK-MEL-28, SKOV-3, SM10, SW-480, THP-1, tsA201, U87 (glioma), Vero 76, *et al.*



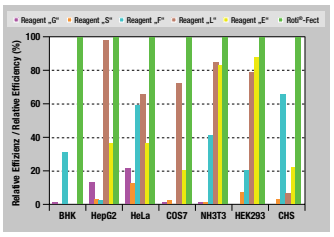


Figure:
Transfection of a variety of cell lines with ROTI®Fect and other commercially available transfectants.
Transfection was performed in 24wells using 0.25 µg DNA each, with 1.5 µl ROTI®Fect or acc. to instructions given by the manufacturers. Luciferase activity was measured 48 hours post transfection. Data of cells transfected with ROTI®Fect was set to 100 %.

Approx. 400 assays per ml in 24wells. Dependent on the cell line used.

Storage temperature: +4 °C

WGK 3

Art. No.	Pack Qty.	Packaging	Pack.	€
P001.1	0.2 ml	1 x 0,2 ml	plastic	97,75
P001.2	0.5 ml	1 x 0,5 ml	plastic	209,65
P001.3	1 ml	1 x 1 ml	plastic	327,90
P001.4	5 ml	5 x 1 ml	plastic	1.451,25

DEAE Dextran

for biochemistry

Transfection reagent

DEAE is the oldest transfection reagent known. The method of complexation of plasmid DNA with diethylaminoethyldextran has been published in 1968 by McCutchan. Positively charged DEAE binds negatively charged DNA to aggregates, which then bind to negtively charged surface structures of cell membranes. Uptake is done via endocytosis. This DEAE method needs only little amounts of DNA, while resulting in high transfection efficiency of up to 30 %. However, the cytotoxic effects caused by DEAE allow only transient transfections. The following cell lines are well transfectable: CV-1, BSC-1 and COS cells, and other stabile, insensitive cell lines.

Stock solution: 50 mg/ml in H_2O. Autoclave.

End concentration: 1 mg/ml (transfection for 30-90 min.) or 250 µg/ml (transfection for up to 8 h)

M ~500000 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
4198.1	25 g	plastic	73,00
4198.2	100 g	plastic	238,15

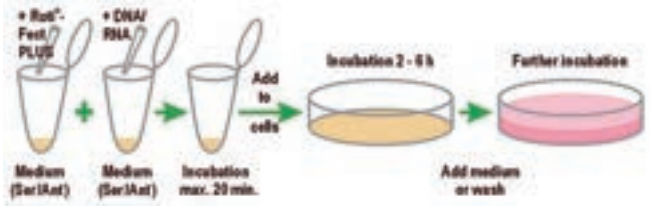


ready-to-use

ROTI®Fect Plus

CELLPURE® ready-to-use, for transfection

Reagent for transfection of all eukaryotic cells in culture, particularly suited for hard-to-transfect cell lines.



Highly sophisticated transfection reagent for liposoma mediated transfection of eukaryotic cell lines and primary cells in culture. ROTI®Fect PLUS further reduces the toxic effects of transfection, making it a versatile tool for transfection of sensitive cell lines or primary cells. Based on this, ROTI®Fect PLUS is also especially recommended for transfection prior to *in vivo* analyses (siRNA-Assays, *in vivo* life microscopy, etc.), since the transfection stress is minimized, reducing stress dependent effects like the rate of apoptosis induced cells. Additionally, the stability of nucleic acid/lipid complexes is diminished in comparison with ROTI®Fect, therefore improving the release of nucleic acids in the cell.
Thus, the newly established liposoma formulation of ROTI®Fect PLUS guarantees gentle and highly efficient transfections, even when hard-to-transfect or particularly sensitive cell lines are handled.

- Particularly low cell toxicity
- Superior transfection efficiency with all cell lines
- Especially recommended for hard-to-transfect cell lines
- Particularly suited for use with primary cells
- Excellent reproducibility
- No serum inhibition

Successfully tested on a variety of cell types.

siRNA: 1BR3, HEK293, HeLa, LN-308, T98G. U87MG, UACC-257
Primary cells: 1BR3, 8VM, CGN, HMEC, HUVEC, PBMC, S15VM
Cell lines: 1BRneo, 143B, 293T, NSCLC, alphaTC1, B16-F10, BHK-21, C2C12, C6, CHO, CHO-K1, Colo205, COS-7, EVLC2, HaCaT, HAEC, HCT116, HEK293, HeLa, HepG2, Hep 3B, IMR32, Jurkat, Kelly, KG1, La1-5S, LN-308, M2-10B4, MDCK, MEF, MG-63, MIN6, MLEC32, mPAC, mpkCCD, N18TG2, N2a, N-Tera2, NG NIH-3T3, Panc-1, PC 12, Phi-NX, Raji, RAW264.7, RD, RF24, RGE, S2, S91, SMA-560, SK-N-BE, SW480, T98G, U-2 OS, Vero, *et al.*

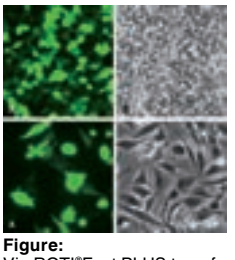


Figure:
Via ROTI®Fect PLUS transfected cells.**A:** Fluorescent light (520 nm), **B:** Standard light.
Above: COS7 cells (0.5 × 10^5 cells / cm^2 in 24-well).
Transfection after 24 h using 0.9 µg pCMV-GFP + 3.6 µl ROTI®Fect PLUS (ratio 1:4). Analysis after 48 h.
Below: BHK cells (0.2 × 10^5 cells / cm^2 in 24-well).
Transfection after 24 h using 0.3 µg pCMV-GFP + 1.2 µl ROTI®Fect PLUS (ratio 1:4). Analysis after 48 h.

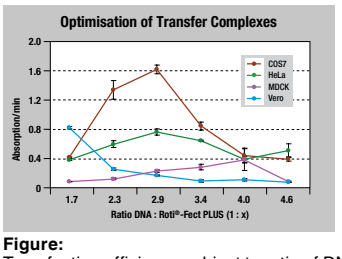


Figure:
Transfection efficiency subject to ratio of DNA to ROTI®Fect PLUS. For most cell lines, the optimised composition of transfection complex is 1:3 to 1:4.
Vero: 1.2 × 10^5 cells / cm^2; MDCK: 1.2 × 10^5 cells / cm^2; COS7: 5 × 10^4 cells / cm^2; HeLa: 1 × 10^5 cells / cm^2. Transfection with pCMV-LacZ 24 h after sawing in 48 wells in serum-free DMEM. Analysis (ONPG assay) after 48 h.

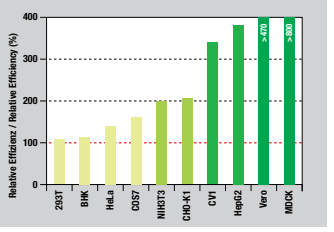


Figure:
Transfection efficiency of ROTI®Fect PLUS given in percentage. For standardisation, transfection efficiency of ROTI®Fect was set as reference (100 %).
Compared to ROTI®Fect, transfection efficiency achieved by ROTI®Fect PLUS is at least equivalent. For some cell lines known to be hard-to-transfect with ROTI®Fect, e.g. Vero, CV1, or CHO-K1 cells, ROTI®Fect PLUS achieves multiple enhancement of transfection efficiency.

Approx. 500 assays per ml in 24wells. Dependent on the cell line used.

Storage temperature: +4 °C

WGK 3

Art. No.	Pack Qty.	Packaging	Pack.	€
CL21.1	0.2 ml	1 x 0,2 ml	plastic	117,75
CL21.2	1 ml	1 x 1 ml	plastic	424,65

Instructions for use

can be found on the Internet next to the product description.

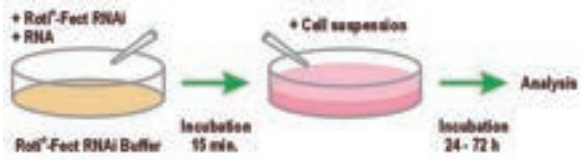


ready-to-use

ROTI®Fect RNAi Kit

CELLPURE® ready-to-use, for transfection

Reagent for transfection of mammalian cells with siRNA and miRNA, for efficient gene silencing.



New, powerful transfection reagent for liposoma mediated siRNA and miRNA transfection of all mammalian cells in culture. Liposoma formulation and enclosed buffer were specially established and designed for core parameters of RNAi: Most efficient quantitative endocytosis plus release of nucleic acids into the cytosol, without subsequent transport to the nucleus.
ROTI®Fect RNAi provides you with superior knockdown results, even using low amounts of RNA.Hereby, the ROTI®Fect technology guarantees minimisation of toxic effects during transfection, thus making these reagents suitable for very sensitive cell lines of primary cells.
The detailed instruction-for-use contains a standardised transfection protocol working via a definite RNA/liposoma ratio and providing good results starting with the very first assay - making elaborate optimisations of transfection obsolete. Evaluation of results is often possible after 48 hours, enabling two sequential assays per week.

- Optimised RNA release into the cytosol
- High levels of gene silencing with low RNA concentration
- Efficient knockdown after 48 hours already
- No elaborate optimisation necessary
- Very low cell toxicity
- Suitable for cell lines and primary cells
- Straightforward, efficient protocol for whole medium included

Successfully tested on a variety of cell types.

Primary cells: MCS, M1
Cell lines: A549, 3T3-L1, B16F10, CHO-K1, H441, HT1080, HeLa, HeLa-KB, HepG2

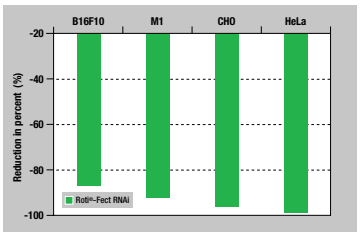


Figure:
Knockdown of luciferase activity in stably Luc-transfected cell lines and cells (48 wells, 2 × 10^4 cells, 30 pMol siRNA). Percent reduction in luciferase activity (measured by luminometer) in knockdown cells compared to cells transfected with control RNA. Measurement 2 days after transfection.

The set contains

0.2 and 1 ml, respectively, ROTI®Fect RNAi liposoma formulation (Art. No. 2911), and 0.4 and 2 ml, respectively, ROTI®Fect RNAi buffer (Art. No. 2913). Les composants unitaires de ce kit ne peuvent pas être achetés séparément.

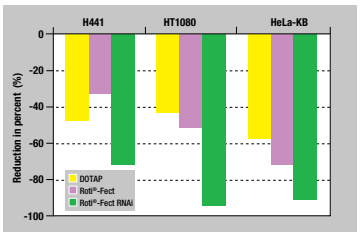


Figure:
Knockdown of luciferase activity in stably Luc-transfected cell lines and cells (48 wells, 2 × 10^4 cells, 30 pMol siRNA). Percent reduction in luciferase activity (measured by luminometer) in knockdown cells compared to cells transfected with control RNA. Comparison of results obtained using different transfection reagents. Measurement 2 days after transfection.

Approx. 250 assays per ml in 24wells. Dependend on the cell line used.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
3129.1	0.2 ml	plastic	142,45
3129.2	1 ml	plastic	456,90



ROTI®Fair HBS

for 500 ml/tablet, for biochemistry and cell biology

General buffer base and for calcium phosphate mediated transfection.

1x HBS solution is prepared by dissolution of 1 tablet in 500 ml highly pure water.
WGK 1

Prepared 1x HBS solution contains: 10 mM HEPES, 0.15 M NaCl, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1033.1	12 unit(s)	blister	84,40



ready-to-use

ROTI®Insectofect

CELLPURE® ready-to-use, for transfection

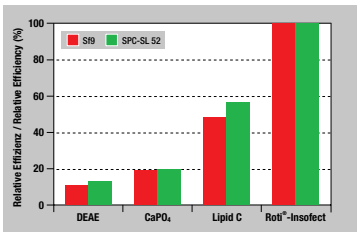
For transfection of insect cells in culture.

Recombinant proteins at a large scale can be manufactured under simple conditions in insect cell cultures with the non-human pathogenic baculovirus system and a simple scale-up procedure. ROTI®Insectofect enables best transfection results with a wide spectrum of activity and very low toxicity.
ROTI®Insectofect consists of an aqueous solution of polycationic lipids and was specially developed for liposome mediated transfection of insect cells. Because of its special formulation, it has a much higher efficiency than standard transfectants, such as calcium phosphate or DEAE.

- No serum inhibition
- Superior transfection efficiency
- High and wide operating plateau
- Excellent reproducibility
- Very low cell toxicity
- Quick and easy handling

Successfully tested on a variety of cell types.

Ag55, Anso, As43, Bm5, Cpp512, IPLB-SF21, LD652, Mos-20, S2, SF9, SL2.
Ideal for transfection of SF9, SL-3 and SPC-SL 52 cells.



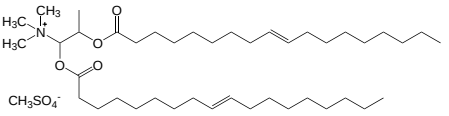
The **figure** shows evaluation of an X-Gal assay after transfection of β-Galactosidase-genes in SF9 and SPC-SL 52 cells.

Approx. 1000 assays per ml in 24wells.

Storage temperature: +4 °C
WGK 3

Art. No.	Pack Qty.	Pack.	€
AE29.1	0.5 ml	plastic	174,70
AE29.2	1 ml	plastic	282,20





ready-to-use

DOTAP

CELLPURE® ready-to-use, for transfection

Purity, QC: Controlled by TLC, NMR, standard transfection test with HeLa-, CV-1-cells. At least 99 %
Stability: Minimum shelf-life 6 month at +4 °C
Culture media: Suitable for whole and serum-free media

Formulation

Transfection reagent DOTAP is an aqueous liposome formulation of N-[1-(2,3-**Di**o**l**eoyloxy)]-N,N,N-**t**rimethyl**a**mmonium **p**ropane methyl sulphate.
Concentration is approx. 1 mg/ml.

Successfully tested on a variety of cell types.

A375-C6, A549, B6.NOS, Balb/3T3, BalbSV, BHK, BNL CL.2, C2, C6, CaShi, CCRF-CEM/VLB, CHO, COS-1, COS-7, CV-1, D-17, DTM, EL-4, Fibroblasts, GSM06, H225, HEL, HeLa, Hepa 1-6, HepG2, HMEC-1, Hippocampal neurons, Huh7, I-3, I10, JEG-3, Jurkat, LH, Ltk, Lymphocytes, PBL, M17, MC57, MCF-7, MDA-MB-435, MEC-J, MH1C1, mhAT3F, mhAT3F, NG 108-15, NIH/3T3, PXF 1118, RASM, REF-1, Ret-1, ROS 17/2.8, SCC-13, SK-BR-3, Smooth muscle cells, ST33c, T2-Kb, U87, Vero, WI-38, Y1, *et al.*

Approx. 200 assays per ml in 24wells.

$C_{43}H_{83}NO_8S$ · M 774,21 g/mol

Storage temperature: +4 °C
WGK 3

Art. No.	Pack Qty.	Packaging	Pack.	€
L787.1	0.5 ml	1 x 0,5 ml	plastic	104,85
L787.2	1 ml	1 x 1 ml	plastic	170,95
L787.3	5 ml	5 x 1 ml	plastic	643,95

Cell Analysis

Vitality Assay & Cell Counting



ROTITEST®Vital

Cell proliferation test solution

Rapid and simple test system for non-radioactive quantitation of proliferating cells. Also well suitable for cytotoxicity assays.

Optimum replacement for MTT:

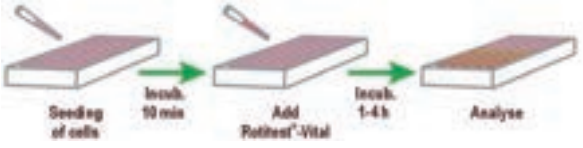
- Cells keep on being vital
- Most simple handling
- One-component-system without radioactivity
- For adherent and suspension cells
- Photometric result in 1 to 4 hours
- Strong correlation between absorbance and cell number
- Suitable for every culture media

S ready-to-use

ROTITEST®Vital

ROTITEST® Bio Analysis, sterile, ready-to-use

Colorimetric test solution for evaluation of cell proliferation and -viability. Non toxic.



Mechanism

Sensitivity of the tetrazolium salt used is higher than that known for standard reagents such as MTT, XTT, MTS, or WST-1. Results were shown to be of highly stringent correlation with [^{3}H]-thymidine incorporation assays, therefore representing viability as well as proliferation status of the cells (Tominaga *et al.*, *Anal. Commun.* 1999 (36) 47-50). In all living cells, NADH and NADPH are formed by the respiratory chain. ROTITEST®vital is based on the (colourless) WST-8, which functions as acceptor for the NADH/NADPH dehydrogenase while being reduced to (coloured) formazane during the process.

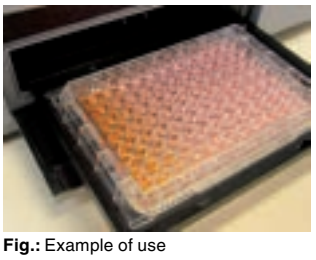


Fig.: Example of use

Directions for use

The test solution is added directly to the cultivated cells in 96wells. During incubation for few hours, a water-soluble formazan dye is produced by viable cells, and is released into the surrounding medium. The resulting orange colour is measured photometrically (approx. 450 nm). Also suitable for culture media containing phenol red.

Each package contains simple-to-follow instructions-for-use.

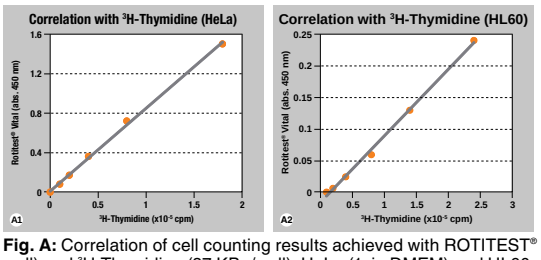
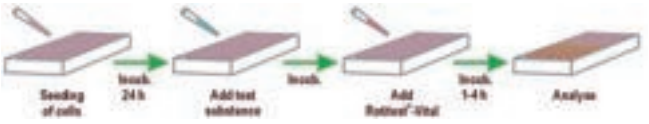


Fig. A: Correlation of cell counting results achieved with ROTITEST® Vital (10 µl/well) and ^{3}H-Thymidine (37 KBq/well). HeLa (1, in DMEM) and HL60 cells (2, in MEM).



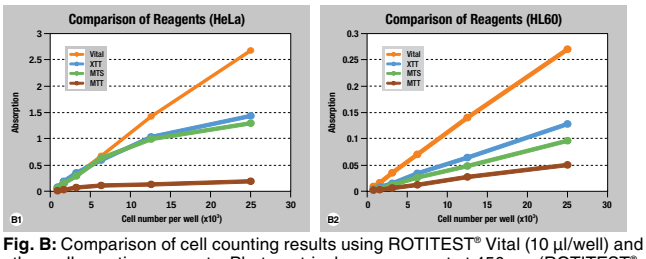


Fig. B: Comparison of cell counting results using ROTITEST® Vital (10 µl/well) and other cell counting reagents. Photometrical measurement at 450 nm (ROTITEST® Vital, XTT), 490 nm (MTS), and 570 nm (MTT). HeLa (1, in DMEM) and HL60 cells (2, in MEM).

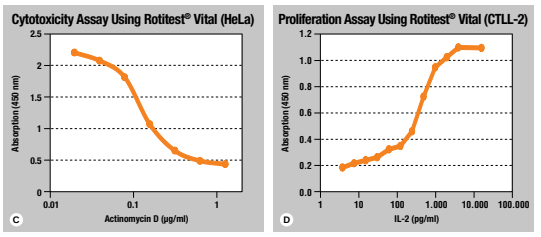


Fig. C: Measurement of cytotoxic effects of actinomycin D (exposition 24 h) on HeLa cells (in DMEM), assayed with ROTITEST® Vital (10 µl/well).
Fig. D: Proliferation assay on CTLL-2 cells (in RPMI) under influence of humane IL-2 (exposition 72 h), using ROTITEST® Vital (10 µl/well).

Stable at ambient temperature. Very stabile when being cooled. Store protected from light. Do not freeze.

1 ml is sufficient for enumeration of 100 cell samples.

Storage temperature: +4 °C

WGK 2

Art. No.	Pack Qty.	Packaging	Pack.	€
0069.3	1 ml	1 x 1 ml	plastic	78,40
0069.1	5 ml	1 x 5 ml	plastic	217,70
0069.2	20 ml	4 x 5 ml	plastic	654,70

► Neutral red (C.I. 50040) see page 411

► LOEFFLER's methylene blue solution see page 394

► Trypan blue solution 0.4 % see page 415

► Trypan blue (C.I. 23850) see page 415

Apoptosis Assay



ROTITEST®Annexin V

Rapid and simple detection system of apoptotic cells, with simultaneous differentiation of necrotic cells.

ready-to-use

ROTITEST®Annexin V

ROTITEST® Bio Analysis, ready-to-use

For detection and enumeration of apoptotic cells and simultaneous differentiation from necrosis.

Mechanism

During the first stages of apoptosis, phosphatidylserine (PS) is translocated from the inner membran layer to the outer surface of the cell. The ROTITEST®Annexin V Kit uses the Ca^{2+} dependent binding efficiency of Annexin V to PS in order to label cells with damaged cell membranes. Additionally, propidium iodide is used to counter stain nuclei of cells with opened membranes, hence those which undergo necrotic degradation.
Thus, cells with yellow-green membrane staining only can be identified as apoptotic, while double stained cells (with yellow-green membranes plus orange-red nuclei) are classified as necrotic. Analysis is performed via flow cytometry or fluorescence microscopy.

- Simple, rapid application
- For adherent and suspension cells
- For cultured and primary cells (also for yeast cells)
- Discriminating between apoptotic and necrotic cells
- Result in approx. 30 minutes

Each package contains simple-to-follow instructions-for-use.

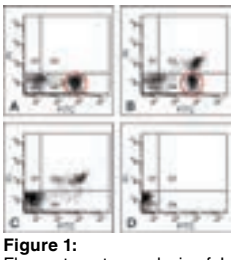


Figure 1:
Flow cytometry analysis of Jurkat cells. Assayed using 5 × 10^5 cells in 500 µl Annexin binding buffer, 25 µl Annexin V-FITC conjugate and 25 µl propidium iodide solution, 15 min. RT.
FITC-A: FITC staining (binding of Annexin-FITC conjugate), PE-A: Propidium iodide staining
A,B) Cells after induction of apoptosis by Staurosporin, under pure annexin-FITC staining (A) or under annexin-FITC / PI staining (B), respectively. C,D) Uninduced control cells under annexin-FITC / PI staining (C) and without staining (D), respectively.
Due to the binding of Annexin V to PS on the outer membrane surface, apoptotic cells are Annexin-FITC positive, but PI negative (Q4, circle). Q3 displays healthy cells (neg/neg), Q2 necrotic cells (Annexin-FITC pos and PI pos). Cells in Q1 (PI pos/ Annexin-FITC neg) are dead, non-apoptotic cells.

The kit contains

Annexin V-FITC conjugate, propidium iodide solution, Annexin V binding buffer, detailed instructions-for-use.
Excluding the columns, contents of this Kit may not be bought separately.

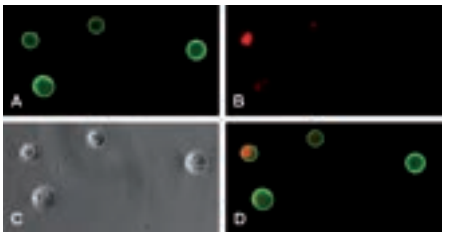


Figure 2:
Fluorescence microscopic analysis of Jurkat cells following induction of apoptosis by staurosporine. Assayed using 10^5 cells in 100 µl Annexin binding buffer, 5 µl Annexin V-FITC conjugate and 5 µl propidium iodide solution, 15 min. RT.
A) FITC fluorescence (green), B) propidium iodide fluorescence (red), C) bright field image, D) composite image. Apoptotic cells are FITC positive, PI negative. FITC pos/PI pos cells may be classified as being necrotic. Healthy cells are FITC/ PI neg.

Store protected from light.

1 set is sufficient for analysis of 50 samples of 10^5 cells each

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
7735.1	1 kit	approx. 50 assays	cardboard	256,95

Proliferation Assays



► EdU Click kits for imaging see chapter Organic and Bioorganic Chemicals, Click Chemistry

► 5-Bromo-2'-deoxyuridine see www.carlroth.com

Instructions for use

can be found on the Internet next to the product description.

► Specially coated sample slides see www.carlroth.com

► Fixing agents see chapter Histology/Microscopy

► Substrates for Immuno Detection from page 186

► ROTI®Fair-PBS/PBST and -TBS/TBST see www.carlroth.com



Microbiology

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Ready-Made Media acc. to Application

Media Specialised for ...

Art. No.	Medium	Ph. Eur.	ISO/DIN	Water	Milk	Drinks	Foods	Feeds	Cosmetics	Clin. microbiology	Veterinary	Mycology	Environment	Special	Mol Biol
4827	CompactDry™ CF														
4826	CompactDry™ EC														
4828	CompactDry™ ETB														
1L17	CompactDry™ PA														
4817	CompactDry™ SL														
4816	CompactDry™ TC														
1070	CompactDry™ X-BC														
1087	CompactDry™ X-SA														
4818	CompactDry™ YM														
9646	ROTI®Aquatest Plate Cetr														
9640	ROTI®Aquatest Plate PCA														
9644	ROTI®Aquatest Plate R2A														
9643	ROTI®Aquatest Plate Sab4														
9650	ROTI®Aquatest Plate Staph														
9642	ROTI®Aquatest Plate YE														
2313	ROTI®ContiPlate MacCon														
9630	ROTI®ContiPlate PCA														
9632	ROTI®ContiPlate RBC														
9633	ROTI®ContiPlate Sab4plus														
2312	ROTI®ContiPlate TSA														
9634	ROTI®ContiPlate TSA-Letheen														
2314	ROTI®ContiPlate VRB														
9631	ROTI®ContiPlate VRBD														
1ATX	ROTI®DipSlide CASO														
3934	ROTI®DipSlide CASO-TTC/RBCenr														
2957	ROTI®DipSlide CLED/MacCon														
8023	ROTI®DipSlide D/Eneutral														
8045	ROTI®DipSlide MacCon/Cetr														
2837	ROTI®DipSlide Nutrient-TTC														
2927	ROTI®DipSlide PCA														
1AX1	ROTI®DipSlide PCA														
2493	ROTI®DipSlide PCA/Legionella														
2926	ROTI®DipSlide PCA/RBCplus														
8715	ROTI®DipSlide PCA/TSA-Letheen														
2925	ROTI®DipSlide PCA/VRB														
2924	ROTI®DipSlide PCA/VRBD														
1AX0	ROTI®DipSlide Sab4Cla														
2956	ROTI®DipSlide Sab4plus														
2954	ROTI®DipSlide VRBD														
1K27	ROTI®Plate90 Columbia														
1K24	ROTI®Plate90 DG18														

Summaries

Media Specialised for ...

Art. No.	Medium	Ph. Eur.	ISO/DIN	Water	Milk	Drinks	Foods	Feeds	Cosmetics	Clin. microbiology	Veterinary	Mycology	Environment	Special	Mol Biol
1K23	ROTI®Plate90 MEA														
1K26	ROTI®Plate90 MRS														
1K22	ROTI®Plate90 Mueller Hinton														
1K25	ROTI®Plate90 Sab4														
1ATT	ROTI®Plate90 TSA														
1K21	ROTI®Plate90 TSA 4N														
1AX2	ROTI®Plate90 VRBD														
1ATY	ROTI®Plate90 YGC														
1L83	CASO Broth														
1L8A	D/E Neutralisation buffer														
1L86	Fraser Half Broth														
1L85	Letheen Broth modified														
1L87	MacConkey Broth														
1L84	Maximum Recovery Solution														
1L8E	Peptone Water 0,1 %, buffered														
1L8H	Peptone Water, buffered														
1L88	Ringer solution 1/4														
1L89	Sabouraud 2 % Glucose Broth														
1L8C	Thioglycolate Broth														

Ph.Eur.	Media acc. to European Pharmacopeia
ISO/DIN	Media acc. to ISO, DIN or other norms (exc. Ph. Eur.)
Water	Media for analysis of water and wastewater
Milk	Media for analysis of dairy products
Drinks	Media for analysis of alcoholic and soft drinks (beer, wine, juice etc.)
Foods	Media for analysis of foods in general
Feeds	Media for analysis of feeds
Cosmetics	Media for analysis of cosmetics
Clin. microbiology	Media for clinical microbiology
Veterinary	Media for veterinary analyses
Mycology	Media for analysis of yeasts and moulds
Environment	Media for analysis of environmental microorganisms
Special	Media for special applications
Mol Biol	Media for applications in molecular biology

Ready-Made Media acc. to Usage for Microorganisms

Media Specialised for ...

Art. No.	Medium	Ph.Eur.	Water	Whole Germ	Coli	Clo & Bruc & Camp	Entero	Yeast & Mould	Lacto & Bac	Pseude & Leg & Lis	Sal & Shig	Staph & Strep	Chromo	Special	Mol Biol
4827	CompactDry™ CF														
4826	CompactDry™ EC														
4828	CompactDry™ ETB														
1L17	CompactDry™ PA														
4817	CompactDry™ SL										Sal				
4816	CompactDry™ TC														
1070	CompactDry™ X-BC								Bac						
1087	CompactDry™ X-SA											Staph			
4818	CompactDry™ YM														
9646	ROTI®Aquatest Plate Cetr														
9640	ROTI®Aquatest Plate PCA														
9644	ROTI®Aquatest Plate R2A														
9643	ROTI®Aquatest Plate Sab4														
9650	ROTI®Aquatest Plate Staph											Staph			
9642	ROTI®Aquatest Plate YE														
2313	ROTI®ContiPlate MacCon														
9630	ROTI®ContiPlate PCA														
9632	ROTI®ContiPlate RBC														
9633	ROTI®ContiPlate Sab4plus														
2312	ROTI®ContiPlate TSA														
9634	ROTI®ContiPlate TSA-Letheen														
2314	ROTI®ContiPlate VRB														
9631	ROTI®ContiPlate VRBD														
3934	ROTI®DipSlide CASO-TTC/RBCenr														
2957	ROTI®DipSlide CLED/MacCon														
8023	ROTI®DipSlide D/Eneutral														
8045	ROTI®DipSlide MacCon/Cetr									Pseud					
2837	ROTI®DipSlide Nutrient-TTC														
2927	ROTI®DipSlide PCA														
2493	ROTI®DipSlide PCA/Legionella									Leg					
2926	ROTI®DipSlide PCA/RBCplus														
8715	ROTI®DipSlide PCA/TSA-Letheen														
2925	ROTI®DipSlide PCA/VRB														
2924	ROTI®DipSlide PCA/VRBD														
2956	ROTI®DipSlide Sab4plus														
2954	ROTI®DipSlide VRBD														
1ATX	ROTI®DipSlide CASO														

Summaries

Media Specialised for ...

Art. No.	Medium	Ph.Eur.	Water	Whole Germ	Coli	Clo & Bruc & Camp	Entero	Yeast & Mould	Lacto & Bac	Pseude & Leg & Lis	Sal & Shig	Staph & Strep	Chromo	Special	Mol Biol
1AX1	ROTI®DipSlide PCA														
1AX0	ROTI®DipSlide Sab4Cla														
1K27	ROTI®Plate90 Columbia														
1K24	ROTI®Plate90 DG18														
1K23	ROTI®Plate90 MEA														
1K26	ROTI®Plate90 MRS								Lact.						
1K22	ROTI®Plate90 Mueller Hinton											Staph.			
1K25	ROTI®Plate90 Sab4														
1ATT	ROTI®Plate90 TSA														
1K21	ROTI®Plate90 TSA 4N														
1AX2	ROTI®Plate90 VRBD														
1ATY	ROTI®Plate90 YGC														
1L83	CASO Broth														
1L8A	D/E Neutralisation buffer														
1L86	Fraser Half Broth									Lis.					
1L85	Letheen Broth modified														
1L87	MacConkey Broth														
1L84	Maximum Recovery Solution														
1L8E	Peptone Water 0,1 %, buffered														
1L8H	Peptone Water, buffered														
1L88	Ringer solution 1/4														
1L89	Sabouraud 2 % Glucose Broth														
1L8C	Thioglycolate Broth														

Ph.Eur.	Media acc. to European Pharmacopeia
Water	Media for drinking water analysis
Whole Germ	Detection of whole germs or unspecific microorganisms
Coli	Detection of coliforms and *E. coli*
Clo & Bruc & Camp	Detection of *Clostridia, Brucella* or *Campylobacter*
Entero	Detection of enterobacteria
Yeast & Mould	Detection of yeasts or moulds
Lacto & Bac	Detection of lactobacilli or bacilli
Pseudo & Leg & Lis	Detection of pseudomonads, legionells or listeriae
Sal & Shig	Detection of salmonellae or shigellae
Staph & Strep	Detection of staphylococci or streptococci
Chromo	Chromo- and fluorogenic media
Special	Media for special applications
Mol Biol	Media for applications in molecular biology

Review of Anhydrous Nutrient Media

Media Specialised for ...

Art. No.	Medium	Pharm. Eur.	Water	Whole Germ	Coli	Clo & Bruc & Camp	Entero	Yeast & Mould	Lacto & Bac	Pseude & Leg & Lis	Sal & Shig	Staph & Strep	Chromo	Special	Mol Biol
X967	2x YT Agar														
X966	2x YT Broth														
6676	2x YT Broth, granulated														
CP61	Acetamide Broth (Solution A)									Pseu					
CL53	Antibiotic Medium No. 1														
CL54	Antibiotic Medium No. 23														
CL79	Azide Dextrose Broth														
X913	Baird Parker Agar (Base)											Staph			
AE24	Bengal Red Agar (with chloroamphenicol) (RBC)														
CP62	Bile Esculine Azide Agar														
X914	Blood Agar (Base)											Strep			
8281	Blood Agar No. 2 (Base)								Bac	Lis		Strep			
X915	Brain-Heart-Infusion Agar														
X916	Brain-Heart-Infusion Broth														
CL06	Brilliant Green Bile Broth														
AE42	Brilliant Green Tetrathionate Bile Broth										Sal				
AE43	Brilliant Green Lactose Sucrose Agar										Sal				
5752	Brucella Agar					Bru									
5754	Brucella Broth					Bru									
5756	Campylobacter Agar, blood-free (Base)					Camp									
8847	Campylobacter Selective Agar (Base)					Camp									
2922	Candida chromogenic Agar														
X937	CASO Agar (Soy Broth, TSB Agar)														
1506	CASO Agar, granulated														
8848	CASO Agar with Lecithin/Polysorbate 80														
X938	CASO Broth (Soy Broth, TSB)														
6678	CASO Broth, granulated (Soy Broth, TSB)														
0139	CASO Broth vegetal (Soy Broth, TSB)														
X918	Cetrimide Agar (Base)									Pseu					
2835	CLED Agar														
2836	CLED Agar plus														
2923	Coli Fluoro Broth														
8849	Coliforms chromogenic Agar (ISO)														
CL45	Coliforms chromogenic Agar														
X919	Columbia Agar (Base)														
1507	Columbia Agar (Base), granulated														
2997	Cronobacter chromogenic Agar														
8850	D/E Neutralizing Agar														
AE44	Desoxycholate Citrate Agar										Sal, Shi				
AE25	Dichlorane Bengal Red Agar (with chloroamph.) (DRBC)														
AE26	Dichlorane Glycerol Agar (DG18) (Base)														
CL78	Differential Reinforced Clostridial Medium (DRMC)					Clo									
8295	DNase Test Agar											Staph			
8310	EC Broth														
X920	Endo Agar (Base)														
HP17	Fraser Broth (Base)									Lis					

Summaries

Media Specialised for ...

Art. No.	Medium	Pharm. Eur.	Water	Whole Germ	Coli	Clo & Bruc & Camp	Entero	Yeast & Mould	Lacto & Bac	Pseude & Leg & Lis	Sal & Shig	Staph & Strep	Chromo	Special	Mol Biol
HP18	Fraser Half Broth (Base)									Lis					
HP07	Gelatin Agar (DEV)														
CP64	King's B Medium (Base)									Pseu					
5758	Kligler Iron Agar														
X921	Lactose Broth										Sal				
CL76	Lactose Broth (DEV)														
CL77	Lactose Peptone Broth (DEV)														
AE46	Lactose Sulphite Broth (Base)					Clo									
CL80	Lauryl Sulphate Broth														
X965	LB Agar (Lennox)														
6671	LB Agar (Lennox), granulated														
0159	LB Agar (Lennox) vegetal														
X969	LB Agar (Luria/Miller)														
6675	LB Agar (Luria/Miller), granulated														
8852	LB Agar (Lennox) / Amp100														
8853	LB Agar (Lennox) / Kana50														
8860	LB Agar (Luria/Miller) / Kana50														
8858	LB Agar (Luria/Miller) / Amp50														
8855	LB Agar (Luria/Miller) / Amp100														
8861	LB Agar (Luria/Miller) / Chloramph34														
X964	LB Broth (Lennox)														
6669	LB Broth (Lennox), granulated														
0155	LB Broth (Lennox) vegetal														
X968	LB Broth (Luria/Miller)														
6673	LB Broth (Luria/Miller), granulated														
CL48	Legionella Agar (Base)									Leg					
5759	Letheen Agar modified														
5761	Letheen Broth modified														
3008	Listeria chromogener Agar (Base)									Lis					
8322	Lysin Iron Agar										Sal, Shi				
X922	MacConkey Agar										Shi				
1514	MacConkey Agar, granulated										Shi				
AE47	MacConkey Broth														
X923	Malt Extract Agar														
CP75	Malt Extract Broth														
CL81	Mannitol Salt Agar											Staph			
5765	Mannitol Egg Yolk Polymyxin Agar (Base)								Bac						
CP73	Marine Broth														
5766	Maximum Recovery Solution														
CL55	m-CP Agar					Clo									
3014	m-EI chromogenic Agar (Base)														
AE65	Mossel EE Broth										Sal				
X924	MRS Agar								Lac						
X925	MRS Broth								Lac						
HP65	MRS Agar pH 5.7								Lac						
HP64	MRS Broth pH 5.7								Lac						
3026	MRSA chromogenic Agar (Base)											Staph			
1E1K	MR/VP Broth														
X926	Mueller Hinton Agar											Staph			

Summaries

Media Specialised for ...

Art. No.	Medium	Pharm. Eur.	Water	Whole Germ	Coli	Clo & Bruc & Camp	Entero	Yeast & Mould	Lacto & Bac	Pseude & Leg & Lis	Sal & Shig	Staph & Strep	Chromo	Special	Mol Biol
X927	Mueller Hinton Broth														
8323	Mueller Kauffmann Broth (Base)										Sal				
X928	Nutrient Agar														
CL02	Nutrient Agar (DEV)														
CP66	Nutrient Agar (DEV/ISO)									Pseu					
X929	Nutrient Broth														
X974	NZCYM Broth														
X973	NZYM Broth														
HP09	Orange Serum Agar														
1520	Orange Serum Agar, granulated														
5767	Oxford-Listeria Agar									Lis					
5768	Palcalm Listeria Agar (Base)									Lis					
X917	Peptone Water, buffered														
6680	Peptone Water, buffered, granulated														
AE67	Peptone Water, buffered (Ph. Eur.)														
X930	Plate Count Agar														
1521	Plate Count Agar, granulated														
HP08	Plate Count Agar with Powdered Milk														
X931	Potato Extract Glucose Agar														
CP74	Potato Extract Glucose Broth														
3075	Pseudomonas chromogenic Agar									Pseu					
CP67	Pseudomonas Selective Agar (CN Agar) (Base)									Pseu					
CL01	R2A Agar														
1523	R2A Agar, granulated														
CL03	Rappaport Vassiliadis Broth (RVS)										Sal				
AE66	Reinforced Clostridial Medium (RCM)					Clo									
8329	Rogosa Agar								Lac						
AE22	Sabouraud 2 % Glucose Agar														
AE23	Sabouraud 2 % Glucose Broth														
1508	Sabouraud 2 % Glucose Broth, granulated														
X932	Sabouraud 4 % Glucose Agar														
X933	Sabouraud 4 % Glucose Agar (with chloramph.)														
AE48	Sabouraud 4 % Glucose Agar (with chloramph.) (Ph.Eur.)														
CL46	Salmonella chromogenic Agar										Sal				
X934	Salmonella Shigella Agar										Sal				
5771	Schaedler Agar														
5772	Schaedler Broth														
5774	Simmons Citrate Agar														
X935	Slanetz-Bartley Agar											Strep			
CP68	Slanetz-Bartley Medium (with tetrazolium chloride)														
AE27	SOB Broth														
5778	Sorbitol MacConkey Agar														
AE91	Standard Count Agar														
AE93	Standard Nutrient Agar I														
1524	Standard Nutrient Agar I, granulated														
AE92	Standard Nutrient Broth I														
1533	Standard Nutrient Broth I, granulated														
3935	TAT Broth (Base)														

Summaries

Media Specialised for ...

Art. No.	Medium	Pharm. Eur.	Water	Whole Germ	Coli	Clo & Bruc & Camp	Entero	Yeast & Mould	Lacto & Bac	Pseude & Leg & Lis	Sal & Shig	Staph & Strep	Chromo	Special	Mol Biol
CL47	TBX chromogenic Agar														
8333	TCBS-Agar														
X972	Terrific Broth Broth														
3556	Terrific Broth, granulated														
HP61	Terrific Broth modified														
0161	Terrific Broth Broth vegetal														
1E12	Thioglycolate Broth														
X936	Todd Hewitt Broth											Strep			
AE49	Triple Sugar Iron Agar (Base)										Sal				
CP69	Tryptone Bile Salts Agar (TBA)														
CP70	Tryptone Soy Agar (TSA)														
CP71	Tryptophane Broth														
CL51	TSC Agar (Base)					Clo									
CP65	TTC Chapman Agar (with sod. heptadecylsulph.) (Base)														
8337	Universal Beer Agar (Base)								Lac						
3089	UTI chromogenic Agar											Staph			
X939	Violet Red Bile Agar with Glucose (VRBD)														
1525	Violet Red Bile Agar with Glucose, granulated														
AE45	Violet Red Bile Agar with Dextrose and Lactose														
X940	Violet Red Bile Agar with Lactose (VRB)														
CL04	Wort Agar (Base)														
5779	Wort Broth														
X941	XLD Agar										Sal, Shi				
CP63	Yeast Extract Agar														
CL00	Yeast Glucose Agar (with chloroamph.) (YGC)														
1526	Yeast Glucose Agar (with chloroamph.), granulated														
HP26	Yeast Nitrogen Base (without Amino Acids)														
5780	Yersinia Selective Agar (Base)														
X971	YPD Agar														
X970	YPD Broth														

Ph.Eur.	Media acc. to European Pharmacopeia
Water	Media for drinking water analysis
Whole Germ	Detection of whole germs or unspecific microorganisms
Coli	Detection of coliforms and *E. coli*
Clo & Bruc & Camp	Detection of *Clostridia, Brucella* or *Campylobacter*
Entero	Detection of enterobacteria
Yeast & Mould	Detection of yeasts or moulds
Lacto & Bac	Detection of lactobacilli or bacilli
Pseudo & Leg & Lis	Detection of pseudomonads, legionells or listeriae
Sal & Shig	Detection of salmonellae or shigellae
Staph & Strep	Detection of staphylococci or streptococci
Chromo	Chromo- and fluorogenic media
Special	Media for special applications
Mol Biol	Media for applications in molecular biology

Media acc. to European Pharmacopoeia

Medium	Art. No.	acc. to Ph. Eur. 6.0 (2008)	acc to Ph. Eur. 6.0 (2008, Harmonized Method), 6.3 (2009), 7.0 (2011), 8.0 (2014) or 9.0 (2017)	acc. to Ph. Eur. 10
Antibiotic Medium No. 1	CL53	*not listed in this norm*	Antibiotic Agar No. 1 (Seed Agar) (*not list. in 8.0 and 9.0*)	*not listed in this norm*
Baird Parker Agar (Base)	X913	Agar Medium O	*not listed in this norm*	*not listed in this norm*
Brilliant Green Lactose Sucrose Agar	AE43	Agar Medium L	*not listed in this norm*	*not listed in this norm*
Brilliant Green Tetrathionate Bile Broth	AE42	Broth Medium I	*not listed in this norm*	*not listed in this norm*
CASO Agar	X937	Agar Medium B	Casein Soya Bean Digest Agar	Casein Soya Bean Digest Agar
CASO Broth	X938	Broth Medium A	Casein Soya Bean Digest Broth	Casein Soya Bean Digest Broth
CASO Broth, granulated	6678	Broth Medium A	Casein Soya Bean Digest Broth	Casein Soya Bean Digest Broth
Cetrimide Agar (Base)	X918	Agar Medium N	Cetrimide Agar	Cetrimide Agar
Columbia Agar (Base)	X919	Medium Q	Columbia Agar	Columbia Agar
Desoxycholate Citrate Agar	AE44	Agar Medium J	*not listed in this norm*	*not listed in this norm*
Lactose-Broth	X921	Broth Medium D	*not listed in this norm*	*not listed in this norm*
Lactose Sulphite Broth (Base)	AE46	Medium R	*not listed in this norm*	*not listed in this norm*
MacConkey Agar	X922	Agar Medium H	MacConkey Agar	MacConkey Agar
MacConkey Broth	AE47	Broth Medium G	MacConkey Broth	MacConkey Broth
Mannitol Salt Agar	CL81	*not listed in this norm*	Mannitol Salt Agar	Mannitol Salt Agar
Mossel EE Broth	AE65	Enriched Broth Medium E	Enterobacteria enrichment broth-Mossel	Enterobacteria enrichment broth-Mossel
Peptone Water, buffered	AE67	Buffered Sodium Chloride-Peptone Solution pH 7.0	Buffered Sodium Chloride-Peptone Solution pH 7.0	Buffered Sodium Chloride-Peptone Solution pH 7.0
Potato Extract Glucose Agar	X931	*not listed in this norm*	Potato Dextrose Agar	*not listed in this norm*
R2A Agar	CL01	Agar Medium S	*not listed in this norm*	*not listed in this norm*
Rappaport Vassiliadis Broth	CL03	*not listed in this norm*	Rappaport Vassiliadis Salmonella Enrichment Broth	Rappaport Vassiliadis Salmonella Enrichment Broth
Reinforced Clostridial Medium	AE66	Medium P	Reinforced Medium for *Clostridia*	Reinforced Medium for *Clostridia*
Sabouraud 2 % Glucose Broth	AE23	Sabouraud Dextrose Broth	Sabouraud Dextrose Broth	Sabouraud Dextrose Broth
Sabouraud 4% Glucose Agar	X932	Agar Medium C	Sabouraud Dextrose Agar	Sabouraud Dextrose Agar
Sabouraud 4% Glucose Agar (with chloroamphenicol)	AE48	Agar Medium C	*not listed in this norm*	*not listed in this norm*
Thioglykolat Medium	1E12	*not listed in this norm*	Thioglycolate Broth	Thioglycolate Broth
Triple Sugar Iron Agar	AE49	Agar Medium M	*not listed in this norm*	*not listed in this norm*
Violet Red Bile Agar with Glucose and Lactose	AE45	Agar Medium F	*not listed in this norm*	*not listed in this norm*
Violet Red Bile Agar with Glucose	X939	*not listed in this norm*	Violet Red Bile Glucose Agar	*not listed in this norm*
XLD Agar	X941	Agar Medium K	Xylose, Lysine, Desoxycholate Agar	Xylose, Lysine, Desoxycholate Agar

Nutrient Media for Water Analysis acc. to European Drinking Water Directives

Medium	Art. No.	Norms
Acetamide Broth (Solution A)	CP61	DEV, TWVO 2001, EN ISO 16266
Bile Esculin Azide Agar	CP62	DEV, TWVO 2001, ISO 7899-2
Brilliant Green Bile Broth	CL06	DIN 10172
Coliforms chromogenic Agar	CL45	-
Coliforms chromogenic Agar (ISO)	8849	EN ISO 9308-1
EC Broth	8310	ISO 7251
Gelatin Agar (DEV)	HP07	DEV
King's B Medium (Base)	CP64	DEV, TWVO 2001, EN ISO 16266
Lactose Broth (DEV)	CL76	DEV
Lactose Peptone Broth (DEV)	CL77	DEV
Lauryl Sulphate Broth	CL80	APHA
Legionella Agar (Base)	CL48	EN ISO 11731-2
m-CP Agar	CL55	TWVO 2001
m-EI-chromogenic Agar (Base)	3014	-
Nutrient Agar (DEV/ISO)	CP66	DEV, TWVO 2001, EN ISO 16266
Nutrient Agar (DEV)	CL02	DEV, DIN 38 411
Pseudomonas Selektive Agar (CN Agar) (Base)	CP67	DEV, TWVO 2001, EN ISO 16266
R2A-Agar	CL01	Ph. Eur.
Rappaport Vassiliadis Broth (RVS)	CL03	Ph. Eur.
Salmonella chromogenic Agar	CL46	-
Slanetz Bartley Medium (with tetrazolium chloride)	CP68	DEV, TWVO 2001, ISO 7899-2
Standard Count Agar	AE91	-
Tryptone Bile Salts Agar (TBA)	CP69	DEV, TWVO 2001, EN ISO 9308-1
Tryptone Soy Agar (TSA)	CP70	DEV, TWVO 2001, EN ISO 9308-1
Tryptophane Culture Broth	CP71	DEV, TWVO 2001, EN ISO 9308-1
TSC Agar (Base)	CL51	DEV, EN ISO 7937
TTC Chapman Agar (with sodium heptadecylsulphate) (Base)	CP65	DEV, TWVO 2001, EN ISO 9308-1
Yeast Extract Agar	CP63	DEV, TWVO 2001, EN ISO 6222

Acc. to EN ISO 16266:2008 (replaces EN ISO 12780:2002), EN ISO 6222:1999, ISO 7899-2:2000, EN ISO 9308-1:2000, EN ISO 7937:2004

Standard Code Designations

Abbreviation	Broth/Agar	Art. No.	Abbreviation	Broth/Agar	Art. No.
BCYE	Legionella Agar	CL48	PCM	Plate Count Agar with milk	HP08
BHI	Brain Heart Infusion Broth	X916	R2A	R2A Agar	CL01, 1523
BP	Baird Parker Agar	X913	RBC	Bengal Red Agar	AE24
BPLS	Brilliant Green Lactose Sucrose Agar	AE43	RCM	Reinforced Clostridial Medium	AE66
Brilla	Brilliant Green Bile Broth	CL06	RVS	Rappaport Vassiliadis Broth	CL03
CASO	CASO Agar or Broth	X924, X925	SMAC	Sorbitol MacConkey Agar	5778
CCDA	Campylobacter Agar	5756	TAT	TAT Broth	3935
CIN	Yersinia Selective Agar	5780	TBA	Tryptone Bile Salts Agar	CP69
CLED	CLED Agar	2835	TBX	TBX chromogenic Agar	CL47
CN	Pseudomonas Selective Agar	CP67	TSA	Trypton Soy Agar	CP70
CPLP	TAT Broth	3935	TSB	CASO Broth	X938, 6678
DG18	Dichlorane Glycerol Agar	AE26	TSB Agar	CASO Agar	X937, 1506
DRBC	Dichlorane Bengal Red Agar	AE25	TSC	TSC Agar	CL51
DRCM	Differential-Reinforced Clostridia Medium	CL78	VRBD	Violet Red Bile Agar with Glucose	X939, 1525
GVCP	Legionella Agar	CL48	VRB	Violet Red Bile Agar with Lactose	X940
mCP	m-CP Agar	CL55	WPCA	Yeast Extract (Water Plate Count) Agar	CP63
MRS	MRS Agar or Broth	X924, X925	XLD	XLD Agar	X941
MYP	Mannitol Egg Yolk Polymyxin Agar	5765	YGC	Yeast Glucose Agar	CL00, 1526
PC/PCA	Plate Count Agar	X930, 1521	YNB	Yeast Nitrogen Base	HP26

Hygiene Monitoring

In recent years, the prevention of infection, environmental-, residential- and communal hygiene have become very important even in day-to-day life. Today, hygiene monitoring equipment is installed, required and, in some cases, already prescribed by law in institutions, facilities and a variety of other areas. These include hospitals, rehabilitation clinics, ambulance services, blood donor services, drinking water supply systems, public swimming baths, sports facilities, schools, public offices, companies, hotels, gastronomy and canteens, food retailing, food-producing companies and ports.

The main emphasis of hygiene monitoring is on checking the results of cleaning and decontamination processes, e.g. in-house monitoring of food production and processing, determining the hygiene status of kitchens, sports facilities and sanitary facilities, checking the contamination status of air conditioning systems for the protection of employees and customers, and raising awareness of hygiene problems during training.

Carl ROTH offers a wide range of hygiene monitoring products which are quick and easy to use even for novices.

- Easy and safe handling – also for laymen
- Simple interpretation
- Storage and transport at room temperature
- Suitable for hygiene monitoring and contamination survey wherever needed, for schooling and student's courses

Hygiene (greek ὑγιεινή τέχνη [hygieiné téchne] = conducive to health [art])

The word hygiene" is a collective term applied to all measures for the prevention of infectious diseases and the spread thereof as well as for the preservation of health.
Hygiene is often used incorrectly as a synonym for cleanliness, which, however, represents only a small part of hygiene. On the contrary, hygiene is the science of applying measures for the protection of health.



ready-to-use

ROTITEST®Protein

ROTITEST® Bio Analysis, ready-to-use

Protein detection system for rapid control of surfaces after the cleaning process. Test result in max. 2 mins.
The ROTITEST® swab tests are fast and simple test systems for the detection of impurities on surfaces.

ROTITEST®Protein is **not** suitable for the detection of virus contamination.

- Easy and safe to handle – even for laymen
- Definite interpretation through colour shift
- Storage and transport at room temperature
- Suitable for testing all surfaces

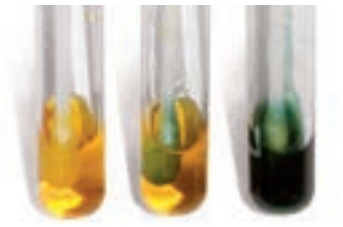


Figure:
Colour shift to dark green-blue caused by presence of proteins.

Rapid and simple test system for detection of protein contamination on surfaces. Optimal for hygiene control and testing of cleaning efficiency of table tops, sales counters, handles etc.
This ROTITEST®Protein is very easy to apply: Using the integrated swab the respective surface is probed; pressing of the lid automatically drips the detection solution onto the swab head. Interpretation is simple due to the distinct colour shift from yellow-orange to dark green-blue. Results are available in 2 mins. maximum.

Each package contains simple-to-follow instructions-for-use.

Please note

The ROTITEST® systems do **not provide quantitative information** about the level of contamination.

Suitable for testing of any surface. Store at 15–25 °C protected from light. Do not freeze.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 1170 · ADR 3 III · WGK 1

Warning H226-H319

Art. No.	Pack Qty.	Pack.	€
4803.1	20 unit(s)	cardboard	107,40

Orion Clean Card® PRO – Makes cleanliness visible

The Clean Card® PRO of amfora health care detects any soiling that contains protein or substances similar to protein, such as allergen proteins as well as surfactants from residual cleaning detergent or disinfectant agent on work surfaces, equipment and containers that look clean to the naked eye.This means cleaning practices can be quickly optimised and risks can be minimised – as outlined in the HACCP concept.

- **Fast** – results in 30 seconds
- **Straightforward** – clear analysis thanks to visible colour change
- **User-friendly** – no additional devices required
- Safety and high standard confirmed in internal tests for compliance with legal requirements of HACCP, good hygiene practice or internal QA/hygiene plans
- **Evidence from approx. 50 µg protein/100 cm²**
- Certified and proven in practice: Recommended by Bundesverband der Lebensmittelkontrolleure (German Association of Food Regulators)
- Suitable for use in many sectors, e.g. community catering, restaurants and cafés, hotels, cleaning services, food industry businesses such as butchers and bakers, suppliers, haulage companies, for hygiene training courses to sensitise staff and for those working in hygiene, quality management and quality assurance, and much more.



The surface is wetted and then wiped with the Clean Card® PRO. After 30 seconds, the colour of the test section is compared against the colours in the picture card provided and the result is recorded.
A green or blue colour indicates the surface is contaminated with residual protein. The higher the level of protein detected, the darker the colouration of the card.
The Clean Card® PRO test record (Art. No. 0076.1) can be used to maintain a clear overview of the results.

Clean Card® PRO

Protein quick test, Cleaning control

Clean Card® PRO is **not** suitable for the detection of virus contamination.

ready-to-use

Clean Card® PRO Pack

Orion Clean Card® for hygiene control

amfora health care.

For rapid detection of protein contamination on surfaces after the cleaning process.

The Clean Card® PRO detects any soiling that contains protein or substances similar to protein, such as allergen proteins as well as surfactants from residual cleaning detergent or disinfectant agent on work surfaces, equipment and containers that look clean to the naked eye.This means cleaning practices can be quickly optimised and risks can be minimised – as outlined in the HACCP concept.

- **Fast** – results in 30 seconds
- **Straightforward** – clear analysis thanks to visible colour change
- **User-friendly** – no additional devices required
- Safety and high standard confirmed in internal tests for compliance with legal requirements of HACCP, good hygiene practice or internal QA/hygiene plans
- **Evidence from approx. 50 µg protein/100 cm²**
- Certified and proven in practice: Recommended by Bundesverband der Lebensmittelkontrolleure (German Association of Food Regulators)
- Suitable for use in many sectors, e.g. community catering, restaurants and cafés, hotels, cleaning services, food industry businesses such as butchers and bakers, suppliers, haulage companies, for hygiene training courses to sensitise staff and for those working in hygiene, quality management and quality assurance, and much more.

The set contains:
50 tests
Picture card for analysis
Operating instructions
Refil pack for use with the starter kit (Art. No. 0071)

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
0072.1	1 set	cardboard	213,95



ready-to-use

Clean Card® PRO Starter Kit

Orion Clean Card® for hygiene control

amfora health care.

For rapid detection of protein contamination on surfaces after the cleaning process.

The Clean Card® PRO detects any soiling that contains protein or substances similar to protein, such as allergen proteins as well as surfactants from residual cleaning detergent or disinfectant agent on work surfaces, equipment and containers that look clean to the naked eye.This means cleaning practices can be quickly optimised and risks can be minimised – as outlined in the HACCP concept.

- **Fast** – results in 30 seconds
- **Straightforward** – clear analysis thanks to visible colour change
- **User-friendly** – no additional devices required
- Safety and high standard confirmed in internal tests for compliance with legal requirements of HACCP, good hygiene practice or internal QA/hygiene plans
- **Evidence from approx. 50 µg protein/100 cm²**
- Certified and proven in practice: Recommended by Bundesverband der Lebensmittelkontrolleure (German Association of Food Regulators)
- Suitable for use in many sectors, e.g. community catering, restaurants and cafés, hotels, cleaning services, food industry businesses such as butchers and bakers, suppliers, haulage companies, for hygiene training courses to sensitise staff and for those working in hygiene, quality management and quality assurance, and much more.

The starter kit contains:
25 tests
Small plastic spray bottle
Picture card for analysis
Operating instructions
The refill pack, containing 50 Clean Card® PRO tests can be ordered using the Art. No. 0072.1.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
0071.1	1 kit	cardboard	126,35



Test protocol Orion Clean Card® PRO

DIN A4 block with 50 pre-printed forms for easy and reproducible documentation of test results.

The Clean Card® PRO detects all protein-containing and protein-like contaminants such as allergen proteins and surfactants from cleaning or disinfectant residues on optically clean work surfaces, equipment and containers. This enables cleaning measures to be optimised quickly and risks to be minimised – in line with the HACCP concept.
With the help of the Clean Card® PRO test protocol, the results can be clearly recorded.

Directions for use

For use with the Clean Card® PRO Starter Kit (Order No. 0071.1) and the Clean Card® PRO Pack refill (Order No. 0072.1).

ready-to-use

Test protocol Orion Clean Card® PRO

amfora health care.

L x W (cm)	Art. No.	Pack Qty.	€
29.7 x 21	**0076.1**	1 unit(s)	12,40

ATP Measurement with a System: Lumitester and LuciPac®

Lumitester SMART

Easy-to-use, lightweight luminometer for ATP measurement. For reliable monitoring of liquids, dry and wet surfaces as part of hygiene control in the manufacturing sector, in the foodstuffs and animal feed sector, in patients- and health care, in gastronomy and trade, in training and in many other areas.
Lumitester SMART is **not** suitable for the detection of virus contamination.

- Lightweight and easy-to-use
- Fast and easy handling
- Highly sensitive, precise measurement of ATP, ADP and AMP
- Ready for use after 8 seconds
- Auto-calibration
- Definition of own limit values is possible
- Storage of the measurement results in the cloud
- Date and time internal to the device

General properties:

- Hygiene monitoring in three simple steps
- Data visualization via App
- Access from anywhere with cloud storage

Mechanism

ATP (adenosine triphosphate), ADP (adenosine diphosphate) and the more stable form AMP (adenosine monophosphate) are found in all living cells and, therefore, provide an exact and quantitative marker for the presence of bacteria, fungi or food residue.
An enzyme/substrate complex in the LuciPac® sampling tube reacts with ATP, ADP *and* AMP to release bioluminescence whose intensity correlates directly with the quantity of ATP/ADP/AMP present. The Lumitester SMART fully converts this bioluminescence into a measurement result and is, therefore, the most sensitive measuring system available today. Thus, **liquids** and **surfaces** can be quickly and easily tested for contamination by foodstuffs and microorganisms using the Lumitester SMART and the LuciPac® sampling pen. Within approximately 30 seconds, the Lumitester SMART can provide information on hygiene status or the efficiency of cleaning and disinfection procedures.
The system is easy and safe to operate, even by non-professionals. Simply insert the sampling tube and close the unit. Then press the *Enter* button, and the measurement result will be displayed within 10 seconds.

Technical specifications:

Art. No.	**1E37.1**
Measurement duration	10 s
Display type	Organic-LED-Display
Port	USB, Bluetooth LE (Ver. 4.1)
Temperature range	5 to 40 °C
Unit of measurement	RLU
Data memory	2000 Analyses
Power supply	2 alkaline batteries (AA)
Weight	255 g
L x W x H	176 x 65 x 176 mm
Additional info	Date and time internal to the device

Suitable for use with LuciPac®Pen Aqua (Art. No. NC58) and LuciPac®A3 Aqua (Art. No. 1ENK) for monitoring liquids or with LuciPac®Pen (Art. No. NC59) and LuciPac®A3 (Art. No. 1ENH) for the analysis of surfaces.
Delivery incl. 2 alkaline batteries (AA), 3 cleaning brushes, USB-Cable, strap, quick guide
Please order separately: LuciPac®Pen Aqua (Order No.No. NC58), LuciPac®Pen (Order No. NC59), LuciPac®A3 Aqua (Order No. 1ENK), LuciPac®A3 (Order No. 1ENH) and Lumitester LED Test Stick (Order No. NC60.1).



Lumitester SMART

Kikkoman.

Connecting the device to a smartphone, tablet and/or PC allows measurement data to be stored in the cloud for analysis, graphing and sharing across multiple smart devices.

Please note

Lumitester SMART is **not** suitable for the detection of virus contamination.

Type	Art. No.	Pack Qty.	€
Lumitester SMART	**1E37.1**	1 unit(s)	2.418,75

Suitable for monitoring of circulating water in **evaporative cooling systems** by measuring ATP (VDI 2047).



Lumitester LED Control Swab

The Lumitester LED control swab, once charged, produces a stable, exactly defined and calibrate light signal that can be used check the functioning of the Lumitester PD20 or PD30. The product illustration shows the LED control swab (back) in comparison with a LuciPac® Pen sampling tube.
Immediately before checking the Lumitester, connect the LED control swab to the power supply using the supplied charging cable and charge for 30 to 60 seconds. Then disconnect the LED control swab from the power supply and insert the LuciPac® Pen sampling tube into the cleaned measuring chamber of the Lumitester. The luminous energy emission is measured by pressing the *Enter* button.

Comparing the measurement result with the printed information indicates the condition of the unit. If the nominal value of 80 to 120 % is achieved, the Lumitester is in perfect working order. If not, please contact us to have the Lumitester and control swab recalibrated.

Lumitester LED Control Swab

Kikkoman.

Type	Art. No.	Pack Qty.	€
Lumitester LED Control Swab	**NC60.1**	1 unit(s)	1.236,25



S ready-to-use

LuciPac® Pen

sterile, for hygiene control of surfaces

Kikkoman.

For testing for the contamination of surfaces by ATP/AMP measurement using Lumitester PD20 and PD30.

- Quick and easy sampling
- Easy and quick measurement within seconds
- Sensitive and reproducible measurement

Using the LuciPac® Pen sampling rods, surfaces can be tested easily and quickly for contamination by bacteria, fungi and food residue. Organic contamination is indicated by the presence of ATP or AMP on these surfaces. An enzyme/substrate complex in the LuciPac® Pen sampling tube reacts with ATP and AMP to produce bioluminescence whose intensity correlates directly with the amount of ATP/AMP present. The Lumitester PD20 or PD30 then determines the bioluminescence as a direct measure of original contamination.

The unit is easy to operate, even by non-professionals. Just moisten the swab and swipe it across the surface. Then put the swab back into the tube and push it down into the reaction chamber. Shake the tube until the reagents are released and measure the bioluminescence in the Lumitester PD20 or PD30.

20 LuciPac® Pens each are packed in a resealable aluminium bag. Store in a dark place.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
NC59.1	20 unit(s)	aluminium bag	123,65
NC59.2	100 unit(s)	aluminium bag	547,20

LuciPac®Pen

For the reliable monitoring of dry and moist surfaces as well as solutions in the manufacturing industry, in the food and feed sector, in patient care and nursing, in gastronomy and trade, in training and in many other areas.

Please note

LuciPac®Pen is **not** suitable for the detection of virus contamination.



S ready-to-use

LuciPac® Pen Aqua

sterile, for hygiene control of liquids

Kikkoman.

For testing for the contamination of liquids by ATP/AMP measurement using Lumitester PD20 and PD30.

- Quick and easy sampling
- Exact sample volumes of 150 µl
- Easy and quick measurement within seconds
- Sensitive and reproducible measurement

Using the LuciPac® Pen Aqua sampling rods, liquids can be quickly and easily examined for organic contamination. The organic contamination of liquids, e.g. by bacteria, is indicated by the presence of ATP or AMP in these samples. An enzyme/substrate complex in the LuciPac® Pen Aqua sampling tube reacts with ATP and AMP to produce bioluminescence whose intensity correlates directly with the amount of ATP/AMP present. The Lumitester PD20 or PD30 then determines the bioluminescence as a direct measure of original contamination. The sampling comb ensures precise sampling of 150 µl with a deviation of ≤2 %. Test results are, therefore, highly reproducible and comparable.

The unit is easy to operate, even by non-professionals. Just immerse the sampling comb into the liquid. Then put the comb back into the tube and push it down into the reaction chamber. Shake the tube until the reagents are released and measure the bioluminescence in the Lumitester PD20 or PD30.

20 LuciPac® Pens Aqua each are packed in a resealable aluminium bag. Store in a dark place.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
NC58.1	20 unit(s)	aluminium bag	123,65
NC58.2	100 unit(s)	aluminium bag	547,20

► Dip- and contact agar for detection of Legionells in water see page 274



NEW / +

S ready-to-use

LuciPac®A3

sterile, for hygiene control of surfaces

Kikkoman.

For testing for the contamination of surfaces by ATP/ADP/AMP measurement using Lumitester PD30 and SMART.

Directions for use

Remove the cotton swab (green holder) from the tube. Moisten the cotton swab with tap water if the surface is completely dry.
Wipe the object/the surface. An area of approx. 10 x 10 cm^2 is recommended for optimum results.
Put the cotton swab back into the tube. Then press the stick down to open the reaction capsule.
Shake the LuciPac®A3 horizontally several times so that all the liquid flows into the lower reaction capsule.
Insert the entire LuciPac®A3 into the measuring chamber of the Lumitester PD30 or Smart and close the measuring chamber cover.
Press the ENTER key on the control panel to start the measurement process. The measurement results are displayed after 10 seconds.
Remove the sleeve of the LuciPac®A3 from the measuring chamber.

20 LuciPac®A3 each are packed in a resealable aluminium bag. Store in a dark place.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1ENH.1	20 unit(s)	aluminium bag	123,65
1ENH.2	100 unit(s)	aluminium bag	547,20



NEW / +

S ready-to-use

LuciPac®A3 Aqua

sterile, for hygiene control of liquids

Kikkoman.

For testing for the contamination of liquids by ATP/ADP/AMP measurement using Lumitester PD30 and SMART.

Directions for use

Remove the sample collector (green holder) from the tube.
Dip the red comb into the liquid to be analysed.
Put the sample collector back into the tube. Then press the pin downwards to open the reaction capsule.
Shake the LuciPac®A3 Aqua horizontally several times so that all the liquid flows into the lower reaction capsule.
Insert the entire LuciPac®A3 Aqua into the measuring chamber of the Lumitester PD30 or SMART and close the measuring chamber cover.
Press the ENTER key on the control panel to start the measurement process. The measurement results are displayed after 10 seconds.
Remove the sleeve of the LuciPac®A3 Aqua from the measuring chamber.

20 LuciPac®A3 Aqua each are packed in a resealable aluminium bag. Store in a dark place.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1ENK.1	20 unit(s)	aluminium bag	123,65
1ENK.2	100 unit(s)	aluminium bag	547,20

LuciPac®A3

For the reliable monitoring of dry and moist surfaces as well as solutions in the manufacturing industry, in the food and feed sector, in patient care and nursing, in gastronomy and trade, in training and in many other areas.

All the advantages at a glance:

- Quick and easy sampling
- Simple and fast measurement within seconds
- Sensitive and reproducible measurement
- Measurement of all forms - ATP, ADP and AMP

Please note

LuciPac®A3 is **not** suitable for the detection of virus contamination.

Why A3 assay (ATP+ADP+AMP)?

A3 detects ATP+ADP+AMP offering higher sensitivity to find micro-organisms and biofilms that others miss. Just as fast and easy to use as conventional tests, but its advanced chemistry produces superior detection to uncover contaminants that you may be missing.

Monitoring of Pasteurised Milk



ready-to-use

ROTITEST®Phosphatase paper

ROTITEST® Bio Analysis, ready-to-use

For detection of phosphatase in Milk.

Test paper for efficiency monitoring of milk pasteurisation.

Directions for use

The ROTITEST®Phosphatase paper, impregnated with detection reagent, is cut at one end and allowed to soak by dipping it into a sample of the milk to be analysed. During incubation at 37 °C for 2 hours in maximum, a yellow colouring shows presence of Alkalic Phosphatase, hence the non-efficient pasteurisation of the milk.

Sensitivity of the phosphatase test system is 0.5 % raw milk in pasteurised milk. This test system does not provide quantitative data.

One package contains 10 single welded test papers, impregnated with detection reagent.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	€
8470.1	10 unit(s)	24,65

SurfACE™ Sampling Solutions with dry and moistened cellulose sponges

Easy-to-use, sterile specimen collection and surface sampling kits for quality control and identification of hazards at critical control points.

SurfACE™ Sponge-Sticks



Sponge-Stick SurfACE™

For environmental surfaces to collect and ship microbial samples.

All the advantages at a glance:

- 3″ x 1.5″ (7.5 x 3.5 cm) biocide-free cellulose sponge
- Unique, quick sponge-release handle for fast and convenient sponge release
- Thumb stop in-handle included to avoid accidental sponge contact
- No gloves needed for different sampling sites
- Perfectly suited to sample in gaps, drains and pipes
- Dry or pre-moistened with 10 ml buffer
- Bags can be opened easily with attached pull tabs
- Label area for sample identification
- Irradiated for proven sterility

Directions for use

The Romer Labs Sponge-Stick is a 3″ x 1.5″ (7.5 cm x 3.5 cm) compressed cellulose sponge attached to a quick-release handle, pre-moistened with 10 ml buffer of choice and individually packaged in a sampling bag (Twirl-Tie™). The quick-release handle provides an extra level of convenience and reliability. It is designed to release the sponge into the sample bag after sample collection, allowing only the sponge to be returned to the laboratory. Unnecessary parts that could interfere with sample processing are therefore eliminated.

Application

BPW (Buffered Peptone Water): This is a non-selective pre-enrichment medium that enhances the revival of damaged cells.
LB (Letheen Bouillon): A nutrient-rich medium containing lecithin and Tween 80 as neutralisers. This medium can be used to test the effectiveness of hygiene treatment.
DE (Dey-Engley Neutralising Medium): Neutralises bactericidal and bacteriostatic effects of disinfectants. It contains additional nutrients that promote the recovery and growth of microorganisms.
NB (Neutralisation Buffer): Buffer that neutralises the effects of chlorine and quaternary ammonium compounds. Can be used on disinfected surfaces.

Available moistening buffers:

Buffer	Application
BPW (Buffered Peptone Water)	pre-enrichment medium
	for isolating bacteria and pathogens from foods
	facilitate resuscitation of stressed cells
DE (Dey-Engley neutralizing broth)	assists in the recovery of microorganisms
	neutralizes the bactericidal and bacteriostatic effects of sanitizing agents
	contains nutritive agents that aid in recovering and promoting the growth of microorganisms
	Bromocresol purple as a colorimetric indicator
LB (Letheen Broth)	highly nutritional medium that contains lecithin and Tween 80
	for testing the efficacy of sanitizing protocols
	as lecithin neutralizes quaternary ammonium compounds
	Tween 80 neutralizes phenols, hexachlorophene and formalin
NB (Neutralizing Buffer)	eliminates the effect of chlorine and quaternary ammonium compounds
	buffer assists in the recovery of microorganisms in samples taken from surfaces exposed to sanitizing agents
	different color from DE neutralizing broth

NEW / +

S ready-to-use

Sponge-Stick SurfACE™ BPW

SurfACE™ ISO 18593

Romer Labs.

For the detection of bacteria and especially pathogens.

Storage temperature: +4 to +15 °C
Transport temperature: ambient temp.
WGK 1

Type	Art. No.	Pack Qty.	€
Sponge-Stick SurfACE™ BPW	**1EAK.1**	75 unit(s)	231,15

NEW / +

S ready-to-use

Sponge-Stick SurfACE™ DE

SurfACE™ ISO 18593

Romer Labs.

For surfaces after treatment with disinfectants or preservatives.

Storage temperature: +4 to +15 °C
Transport temperature: ambient temp.
WGK 1

Type	Art. No.	Pack Qty.	€
Sponge-Stick SurfACE™DE	**1EAY.1**	75 unit(s)	231,15

NEW / +

S ready-to-use

Sponge-Stick SurfACE™ LB

SurfACE™ ISO 18593

Romer Labs.

For surfaces after treatment with disinfectants or preservatives.

Storage temperature: +4 to +15 °C
Transport temperature: ambient temp.
WGK 2

Type	Art. No.	Pack Qty.	€
Sponge-Stick SurfACE™ LB	**1EAP.1**	75 unit(s)	231,15

NEW / +

S ready-to-use

Sponge-Stick SurfACE™ NB

SurfACE™ ISO 18593

Romer Labs.

For surfaces after treatment with disinfectants or preservatives.

Application

Storage temperature: +4 to +15 °C
Transport temperature: ambient temp.
WGK 1

Type	Art. No.	Pack Qty.	€
Sponge-Stick SurfACE™ NB	**1EAE.1**	75 unit(s)	231,15

NEW / +

S ready-to-use

Sponge-Stick SurfACE™ dry

ISO 18593

Romer Labs.

Storage temperature: +4 to +15 °C
Transport temperature: ambient temp.

Type	Art. No.	Pack Qty.	€
Sponge-Stick SurfACE™ dry	**1EAL.1**	75 unit(s)	231,15

SurfACE™ Sponges



For environmental surfaces to collect and ship microbial samples.

All the advantages at a glance:

- 3" x 1.5" (7.5 x 3.5 cm) biocide-free cellulose sponge
- Available dry or pre-moistened with 10 ml buffer
- In Twirl-Tie™ bag or vial
- Bags can be opened easily with attached pull tabs
- Label area for sample identification
- Irradiated for proven sterility

Directions for use

The Romer Labs Sponge is a 3″ x 1.5″ (7.5 cm x 3.5 cm) cellulose sponge pre-moistened with 10 ml buffer of choice and individually packaged in a vapor-barrier foil pouch.

Application

BPW (Buffered Peptone Water): This is a non-selective pre-enrichment medium that enhances the revival of damaged cells.
LB (Letheen Bouillon): A nutrient-rich medium containing lecithin and Tween 80 as neutralisers. This medium can be used to test the effectiveness of hygiene treatment.
DE (Dey-Engley Neutralising Medium): Neutralises bactericidal and bacteriostatic effects of disinfectants. It contains additional nutrients that promote the recovery and growth of microorganisms.
NB (Neutralisation Buffer): Buffer that neutralises the effects of chlorine and quaternary ammonium compounds. Can be used on disinfected surfaces.

NEW/+

S ready-to-use

Sponges SurfACE™ BPW

SurfACE™ ISO 18593

Romer Labs.

For the detection of bacteria and especially pathogens.

Storage temperature: +4 to +15 °C
Transport temperature: ambient temp.

WGK 1

Type	Art. No.	Pack Qty.	€
Sponge SurfACE™ BPW	**1EAT.1**	100 unit(s)	231,15

NEW/+

S ready-to-use

Sponges SurfACE™ DE

SurfACE™ ISO 18593

Romer Labs.

For surfaces after treatment with disinfectants or preservatives.

Storage temperature: +4 to +15 °C
Transport temperature: ambient temp.

WGK 1

Type	Art. No.	Pack Qty.	€
Sponge SurfACE™ DE	**1EC3.1**	100 unit(s)	231,15

NEW/+

S ready-to-use

Sponges SurfACE™ LB

SurfACE™ ISO 18593

Romer Labs.

For surfaces after treatment with disinfectants or preservatives.

Storage temperature: +4 to +15 °C
Transport temperature: ambient temp.

WGK 2

Type	Art. No.	Pack Qty.	€
Sponge SurfACE™LB	**1EC1.1**	100 unit(s)	231,15

NEW/+

S ready-to-use

Sponges SurfACE™ NB

SurfACE™ ISO 18593

Romer Labs.

For surfaces after treatment with disinfectants or preservatives.

Storage temperature: +4 to +15 °C
Transport temperature: ambient temp.

WGK 1

Type	Art. No.	Pack Qty.	€
Sponge SurfACE™NB	**1EC0.1**	100 unit(s)	231,15



NEW/+

S ready-to-use

Sponges SurfACE™ LB (vial)

SurfACE™ ISO 18593

Romer Labs.

For surfaces after treatment with disinfectants or preservatives.

Storage temperature: +4 to +15 °C
Transport temperature: ambient temp.
WGK 2

Type	Art. No.	Pack Qty.	€
Sponge SurfACE™LB (vial)	**1EAH.1**	98 unit(s)	448,85

NEW/+

S ready-to-use

Sponges SurfACE™ dry

ISO 18593

Romer Labs.

Storage temperature: +4 to +15 °C
Transport temperature: ambient temp.

Type	Art. No.	Pack Qty.	€
Sponge SurfACE™ dry	**1EAN.1**	250 unit(s)	378,95

SurfACE™ Fabric swabs



For environmental surfaces to collect and ship microbial samples.

All the advantages at a glance:

- 28 x 32 cm blue biocide-free fabric swab (swab cloth)
- Pre-moistened with 10 ml buffer
- In 55 oz.; 7.5 x 12" (19 x 30 cm) Twirl-Tie™ bag
- Bags can be opened easily with attached pull-tabs
- Label area for sample identification
- Irradiated for proven sterility

Directions for use

Romer Labs fabric swabs, also known also swab cloths, are pre-moistened with 10 ml buffer. The cloth is a blue, biocide-free, non-woven, wood-pulp/polyester fabric, measuring at 28 x 32 cm, folded twice and placed in a 55 oz., 7.5 x 12″ (19 x 30 cm) Twirl-Tie™ bag. Bags can be opened easily with the attached pull-tabs and include a label area for sample identification. Like all microbial sampling products, they are irradiated for proven sterility.

Application

NB (Neutralisation Buffer): Buffer that neutralises the effects of chlorine and quaternary ammonium compounds. Can be used on disinfected surfaces.

NEW/+

S ready-to-use

Fabric swabs SurfACE™ NB

SurfACE™ ISO 18593

Romer Labs.

For surfaces after treatment with disinfectants or preservatives.
Storage temperature: +4 to +15 °C
Transport temperature: ambient temp.
WGK 1

Type	Art. No.	Pack Qty.	€
Fabric swab SurfACE™ NB	**1EC2.1**	200 unit(s)	310,70

Swab Tests



S ready-to-use

ROTITEST®Listeria

ROTITEST® Bio Analysis, sterile, ready-to-use

Detection system for exclusion, or affirmation, of contamination by listeriae.

ROTITEST® swab tests are fast and simple test systems for the detection of impurities on surfaces.

- Easy and safe to handle – even for laymen
- Definite interpretation through colour shift
- Storage and transport at room temperature
- Suitable for testing all surfaces



Figure:
Colour shift to black caused by presence of listeria.

Simple test system for detection, or exclusion, of listeriae contamination on surfaces. Optimal for control and minimisation of the contamination risk caused by *Listeria ssp.*, particularly *L. monocytogenes*.
This ROTITEST®Listeria is very easy to apply: Using the integrated swab the respective surface is probed and the swab is firmly pressed into the sterile nutrient medium. After incubation for 24–48 hours (37 °C) a distinct blackening of the medium indicates the presence of listeriae, hence the contamination of the respective surface.

Each package contains simple-to-follow instructions-for-use. Note: This test system only allows exclusion, or affirmation, of a listeriae contamination per se. Quantitation is not possible.

Please note

The ROTITEST® systems do **not provide quantitative information** about the level of contamination.

Suitable for testing of any surface. Store at 15–25 °C. Do not freeze.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	€
4805.1	25 unit(s)	192,45

Please note:

The ROTITEST® systems provide **non-quantitative data only**, and aren't equipped to measure any contamination magnitude.



S ready-to-use

ROTITEST®Coliform

ROTITEST® Bio Analysis, sterile, ready-to-use

Detection system for exclusion, or affirmation, of contamination by coliforms.

ROTITEST® swab tests are fast and simple test systems for the detection of impurities on surfaces.

- Easy and safe to handle – even for laymen
- Definite interpretation through colour shift
- Storage and transport at room temperature
- Suitable for testing all surfaces



Figure:
Colour shift to yellow-orange caused by presence of coliforms.
Gas formation hints to presence of *E. coli*.

Simple test system for detection, or exclusion, of coliform contamination on surfaces. Optimal for hygiene monitoring and for minimisation of the contamination risk caused by coliforms in general., particularly *E. coli*.
This ROTITEST®Coliform is very easy to apply: Using the integrated swab the respective surface is probed and the swab is firmly pressed into the sterile nutrient medium. After incubation for 18–24 hours (37 °C) a distinct colour shift of the medium from purple to yellow indicates the presence of coliforms, hence the contamination of the respective surface.

Each package contains simple-to-follow instructions-for-use. Note: This test system only allows exclusion, or affirmation, of a coliform contamination per se. Quantitation is not possible.

Please note

The ROTITEST® systems do **not provide quantitative information** about the level of contamination.

Suitable for testing of any surface. Store at 15–25 °C. Do not freeze.

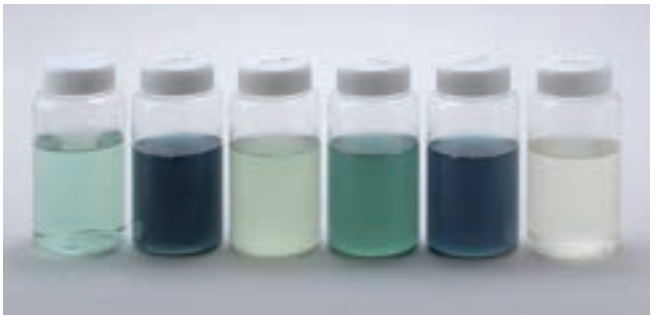
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
4806.1	25 unit(s)	cardboard	192,45

EC Blue System

For qualitative and quantitative detection of Coliforms, and *E. coli* in particular, in water.

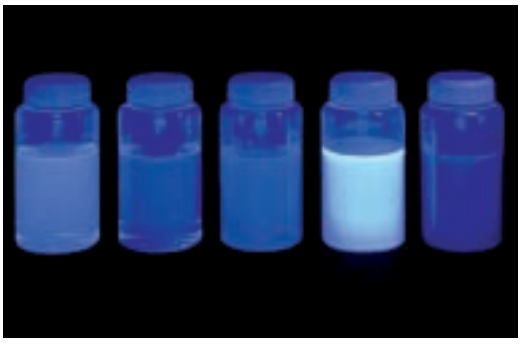


EC Blue system

- Fast – results in just 24 hours
- Simple – easy to handle, even by non-professionals
- Safe – easy-to-interpret colour reaction
- Sensitive – 1 cfu/10 ml detection limit
- Efficient – simultaneous analysis of coliforms and *E. coli*
- Also suitable for chlorinated and turbid water

Quick and safe process for the analysis of coliform bacteria in general, and *E. coli* specifically in water.

The test is also suitable for analysis of turbid water samples and water samples containing suspended matter. Bacteria stressed by chlorinated water can generally also be verified.
The EC Blue system saves time and preliminary work because the reagent mixture is provided in sterile test bottles for direct use.
The presence of *E. coli* can easily be detected by the occurrence of fluorescence under UV light (see EC-Blue Mini UV lamp Art. No. KK49.1). Approximately 95 % of all *E. coli* strains produce the enzyme β-glucuronidase, which reacts with an enzyme substrate contained in EC Blue to release a fluorescent dye.
The EC Blue Comparator for 10 ml and 100 ml (Art. No. 0349) is available for the comparison of own samples with a slightly positive control. Quantification is possible using EC Blue Quant/MPN (Art. No. 0199.1).





S ready-to-use

EC Blue 100P

sterile, ready-to-use, for water analysis

NISSUI Pharmaceutical.

For qualitative and quantitative analysis of coliforms and *E. coli* in water.

Pour 100 ml of the test water into a sterile container and dissolve the contents of a single-dose sachet of EC Blue 100P powder in it. The formation of a blue to blue-green colour after incubation at 35 °C indicates the presence of coliform bacteria in the water. This colour change is due to an enzymatic colour reaction of the coliform-specific galactosidase with the chromogenic substrate X-Gal.

Dissolve a single-dose sachet of analysis reagent in 100 ml of test water. Store protected from light.

WGK 1

Type	Art. No.	Pack Qty.	€
EC Blue 100P	**0202.1**	100 unit(s)	547,20



EC Blue Mini UV lamp

Small, handy UV lamp for quick and simple detection of *E. coli* bacteria in EC Blue assays.

The presence of *E. coli* can easily be detected by the occurrence of fluorescence under UV light. Approximately 95 % of all *E. coli* strains produce the enzyme β-glucuronidase, which reacts with an enzyme substrate contained in EC Blue to release a fluorescent dye.

Technical specifications:

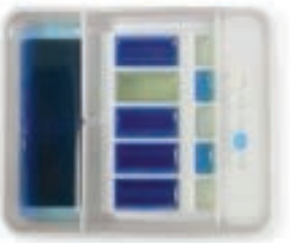
Art. No.	**KK49.1**
Wavelength	365 nm
Temperature range	0 to +40 °C
Performance	4 W
Power supply	4 x AA alkaline batteries
Weight	100 g

EC Blue Mini UV lamp

Kikkoman.

L x W x H (mm)	Art. No.	Pack Qty.	€
160 x 52 x 21	**KK49.1**	1 unit(s)	170,95





EC Blue Quant/MPN

For fast and easy quantification of coliform bacteria and *E.coli* as MPN test (**M**ost **P**robable **N**umber), e.g. according to DIN EN ISO 9308-2:2014-06. Optimised for use with EC Blue 100 and 100P. Detection limit: 1 cfu/100 ml for coliforms and *E. coli*.

- Set of 18 EC BlueQuant/MPN chambers incl. lid
- Reproducible, precise results
- Detection limit 1 cfu/100 ml
- No pre-dilution required
- Test result after 24 hours
- Simultaneous quantitation of coliforms and *E. coli*
- Also suitable for chlorinated and turbid water

The unique, innovative design of the EC BlueQuant/MPN allows rapid and reliable processing of MPN tests – simple to operate and without any additional equipment, except an incubator. The method is based on the standardised MPN method that uses at least three different dilution levels in increments of 10 and 5 compartments per dilution. Testing with the EC BlueQuant/MPN does not require a series of dilutions. When pouring the mixture, due to the special layout, the compartments are filled in such a way as to ensure correct serial dilution. After incubating the sample for 24 hours at about 35 °C, the result can be read off the device and converted to cfu/ml using ISO standard tables (e.g. DIN EN ISO 9308-2:2014-06).

Presence of *E. coli* can easily be detected by the occurrence of fluorescence under UV light (see EC-Blue Mini UV lamp Art. No. KK49.1). Approximately 95 % of all *E. coli* strains produce the enzyme ß-glucuronidase, which reacts with an enzyme substrate contained in EC Blue to release a fluorescent dye.

Delivery incl. lids.



MPN tests – easier than ever with EC BlueQuant

Application:

1. Mix the water sample (100 ml) with the EC Blue 100 / 100P medium.
2. Pour the mixture into the EC BlueQuant tool. The sample is distributed evenly in the dilution chambers (please ensure horizontal / horizontal substrate).
3. Check that all dilution chambers are filled. Close with lid and incubate the sample at 35 ±2 °C for 24 hours.
4. After the incubation period coliforms show the typical blue coloration, *E. coli* contaminated samples shine under UV light (366 nm).

EC Blue Quant/MPN

NISSUI Pharmaceutical.

L x W x H (mm)	Art. No.	Pack Qty.	€
110 x 90 x 50	**0199.1**	18 unit(s)	439,70

Ready-Made Media

Liquid Ready-Made Media

Ready-to-use, sterile liquid culture media for simple microbiological examinations

- Made from our proven dehydrated nutrient media
- Individually applicable
- Available in different package sizes
- With detailed instructions for use

Art. No.	Nutrient medium	Standards	Application
1L83	CASO Broth	Ph. Eur., USP, ISO 10273, for microbiology	Cultivation of fastidious and undemanding microorganisms
1L8A	D/E Neutralisation buffer	for microbiology	In the presence of disinfectants and preservatives
1L86	Fraser Half Broth	ISO 11290, for microbiology	Detection and isolation of listeria
1L85	Letheen Broth modified	for microbiology	For samples containing disinfectants or preservatives
1L87	MacConkey Broth	Ph. Eur. , USP, for microbiology	Detection of coliform bacteria
1L84	Maximum Recovery Solution	ISO 6887, ISO 8199, ISO 22718, for micro-biology	Homogenisation and dilution of microbiologi-cal samples
1L8E	Peptone Water 0,1 %, buffered	Ph. Eur., USP, for microbiology	For sample preparation for microbiological analyses
1L8H	Peptone Water, buffered	ISO 6579, ISO 6887, ISO 22964, for micro-biology	For sample preparation for microbiological analyses
1L88	Ringer solution 1/4	ISO 8199, ISO 10718, for microbiology	Isotonic solution for cell suspensions
1L89	Sabouraud 2 % Glucose Broth	Ph. Eur., for microbiology	For taxonomic study of pathogenic fungi
1L8C	Thioglycolate Broth	Ph. Eur., USP, ISO 7937, for microbiology	Detection of microorga-nisms in sterility tests



NEW / +

S ready-to-use

CASO Broth

Ph. Eur., USP, ISO 10273, for microbiology

For the cultivation of fastidious and undemanding microorganisms.

Broth medium A (Ph. Eur. 6.0) · Soy Peptone Broth · TSB Broth · Tryptic Soy Broth · Casein Soya Bean Digest Broth (Ph. Eur. 6.3, 7.0, 8.0 and 9.0)

CASO Broth is a medium very rich in nutrients for genral use in micro-biological labroratories. It supports the abundant growth of fastidious organisms such as pneumococci, streptococci, Neisseriae etc.

The medium is used frequentl in many procedures of diagnostic research or microbiology. For example, it is used for the isolation and sensitivity testing of all types of pathogens.
Containing two peptones as rich nitrogen sources, obtained by the enzymatic hydrolysis of Casein and Soy proteins, this medium supports growth of a great variety of microorganisms, inclusing fastidious aerobes and anaerobes. Soy peptone also contains natural sugars which promote bacterial growth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Casein peptone ..... 17 g/l
Soy peptone ..... 3 g/l
Sodium chloride (NaCl) ..... 5 g/l
Dikaliumhydrogenphosphat ..... 2,5 g/l
Glucose ..... 2,5 g/l
pH value (25 °C) 7,1-7,5

Art. No.	Pack Qty.	Packaging	Pack.	€
1L83.1	180 ml	20 x 9 ml	glass	45,05
1L83.2	900 ml	10 x 90 ml	glass	72,60
1L83.3	1 l	10 x 100 ml	glass	80,10
Original pack 6 x 1 l				76,10/1 l



NEW / +

S ready-to-use

D/E Neutralisation buffer

for microbiology

For detection and enumeration of microorganisms from a sanitized environment.

Particularly recommended for testing areas or samples that have been treated with disinfectants or preservatives.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Bromocresol purple	0,02 g/l
Tryptone	5 g/l
Dextrose	10 g/l
Yeast extract	2,5 g/l
Sodium thioglycolate	1 g/l
Sodium thiosulphate	6 g/l
Sodium bisulfite	2,5 g/l
Lecithin	7 g/l
Polysorbate 80	5 g/l
pH value (25 °C)	7,4-7,8

Art. No.	Pack Qty.	Packaging	Pack.	€
1L8A.1	1 l	10 x 100 ml	glass	76,90
Original pack 6 x 1 l				73,06/1 l



NEW / +

S ready-to-use

Fraser Half Broth

ISO 11290, for microbiology

Enrichment medium for detection and isolation of *Listeria* in foods and environmental samples.

Fraser Half Broth is used for the selective enrichment medium and enumeration of Listeria monocytogenes and other Listeria species in all food types, including milk and diary products, and environmental samples.

Fraser Half Broth is a modification of Listeria Fraser Broth in which the nalidixic acid and acriflavin concentrationshave been reduced to 10 mg/l and 12.5 mg/l respectively.

The antibiotics are already included in the formula so it is only necessary to add the ammonium iron(III) citrate solution (Art. no. 3130).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 2

Acriflavine	0,0125 g/l
Casein peptone	5 g/l
Meat peptone	5 g/l
Yeast extract	5 g/l
Meat extract	5 g/l
Sodium chloride (NaCl)	20 g/l
Potassium dihydrogen phosphate	1,35 g/l
Esculin	1 g/l
di-Sodium hydrogen phosphate	12 g/l
Ammonium iron(III) citrate	0,5 g/l
Lithium chloride	3 g/l
Nalidixic acid	0,01 g/l
pH value (25 °C)	7,0-7,4

Art. No.	Pack Qty.	Packaging	Pack.	€
1L86.1	180 ml	20 x 9 ml	glass	44,65
1L86.2	2.25 l	10 x 225 ml	glass	110,20



NEW / +

S ready-to-use

Letheen Broth modified

for microbiology

For microbiological analyses of cosmetics, and samples containing disinfectants or preservatives.

Letheen Broth modified is a highly nutrious liquid medium recommended for use in microbiological testing of cosmetics.

Beef extract and Casein peptone provide nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is the source of vitamins, particularly of the B-group. Sodium chloride supplies essential electrolytesfor transport and osmotic balance.
Glucose is a fermentable carbohydrate providingcarbon and energy.
Lecithin, Polysorbate 80 and sodium bisulfite neutralize quaternary ammonium compounds and partially neutralize the preservative system commonly found in cosmetics.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 2

Casein peptone	15 g/l
Meat peptone	10 g/l
Meat extract	5 g/l
Sodium chloride (NaCl)	5 g/l
Yeast extract	2 g/l
Polysorbate 80	5 g/l
Lecithin	0,7 g/l
Sodium bisulfite	0,1 g/l
pH value (25 °C)	7,0-7,4

Art. No.	Pack Qty.	Packaging	Pack.	€
1L85.1	180 ml	20 x 9 ml	glass	53,65
1L85.2	900 ml	10 x 90 ml	glass	83,75



NEW / +

S ready-to-use

MacConkey Broth

Ph. Eur. , USP, for microbiology

For detection of coliform bacteria in water, milk and other liquids.

MacConkey Broth is used as a test medium for the prescence of coliforms in water and other materials of sanitary importance. It is also used for cultivating gram-negative, lactose fermenting bacilli in water and foods.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Bromocresol purple	0,01 g/l
Gelatin Peptone	20 g/l
Lactose	10 g/l
Dehydrated ox bile	5 g/l
pH value (25 °C)	7,1-7,5

Art. No.	Pack Qty.	Packaging	Pack.	€
1L87.1	180 ml	20 x 9 ml	glass	47,85
1L87.2	1 l	10 x 100 ml	glass	77,95
Original pack 6 x 1 l				74,05/1 l



NEW / +

S ready-to-use

Maximum Recovery Solution

ISO 6887, ISO 8199, ISO 22718, for microbiology

For homogenization and dilution of microbiological samples.

Saline Peptone Water (Maximum Recovery Diluent) is an isotonic diluent used for maximum recovery of microorganims and for the growth of bacterial cultures, principally marine bacteria.

ISO 6887 recmmends this medium as a diluent for the preparation of initial suspensions for microbiological samples. The low concentration of peptone does not cause a multiplication of the organisms within 1–2 hours of dilution of the sample.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Casein peptone (pancreas hydrolysate) ..... 1 g/l
Sodium chloride (NaCl) ..... 8,5 g/l
pH value (25 °C) 6,8-7,2

Art. No.	Pack Qty.	Packaging	Pack.	€
1L84.1	180 ml	20 x 9 ml	glass	36,05
1L84.2	900 ml	10 x 90 ml	glass	69,80



NEW / +

S ready-to-use

Peptone Water 0.1%, buffered

Ph. Eur., USP, for microbiology

For homogenising food and preparing samples for microbiological analyses.

Sodium peptone buffer solution pH 7,0 (Ph. Eur. 6.0) · Buffered Sodium Chloride-Peptone Solution pH 7,0 (Ph.Eur. 6.3, 7.0, 8.0 et 9.0)

Buffered peptone water 0.1% is recommended by Ph. Eur. for microbiological testing of non-sterile products and as a diluent for homogenisation of samples, effectiveness of culture media and validity of the counting method.

Pancreatic digest of casein provides nitrogen, vitamins, minerals and amino acids essential for growth. Potassium phosphates act as buffer system and sodium chloride supplies essential electrolytes for transport and osmotic balance.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

di-Sodium hydrogenphosphate dihydrate ..... 7,23 g/l
Peptone ..... 1 g/l
Sodium chloride (NaCl) ..... 4,3 g/l
Potassium dihydrogen phosphate ..... 3,6 g/l
pH value (25 °C) 6,8-7,2

Art. No.	Pack Qty.	Packaging	Pack.	€
1L8E.1	180 ml	20 x 9 ml	glass	42,90
1L8E.2	900 ml	10 x 90 ml	glass	66,15
1L8E.3	1 l	10 x 100 ml	glass	74,10
Original pack 6 x 1 l				70,40/1 l



NEW/+

S ready-to-use

Peptone Water, buffered

ISO 6579, ISO 6887, ISO 22964, for microbiology

For homogenising food and preparing samples for microbiological analyses.

Buffered peptone water is a non-selective medium recommended as a preenrichtment medium by EN ISO 6579 normative in food samples containing suspected contaminants such as *Salmonella* and in ISO 22964 in milk and milk products for *Enterobacter sakazakii*.

This broth is rich in nutrients and produces high resuscitation rates for sublethally injured bacteria and intense growth.
Changes in pH my cause damages to bacteria growth. Buffered peptone water maintains a high pH over the enrichment period via the posphate buffer system and allows repair of injured cells sensitive to low pH.
Pancreatic digest of casein provides nitrogen, vitamins, minerals and amino acids essential for growth. Sodium pyruvate can be added as an additional source of energy, but may also have protective effects against hydrogen peroxide that aids in the resuscitation of stressed organisms.
Sodium chloride supplies essentials electrolytes for transport and osmotic balance.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Casein peptone ..... 10 g/l
Sodium chloride (NaCl) ..... 5 g/l
di-Sodium hydrogen phosphate ..... 3,5 g/l
Dipotassium hydrogen phosphate ..... 1,5 g/l
pH value (25 °C) 6,8-7,2

Art. No.	Pack Qty.	Packaging	Pack.	€
1L8H.1	180 ml	20 x 9 ml	glass	42,90
1L8H.2	900 ml	10 x 90 ml	glass	66,15
1L8H.3	1 l	10 x 100 ml	glass	74,10
Original pack 6 x 1 l				70,40/1 l



NEW/+

S ready-to-use

Ringer solution 1/4

ISO 8199, ISO 10718, for microbiology

Isotonic solution for cell suspensions according to ISO standards.

The composition of this Ringer's solution 1/4 allows autoclaving without precipitation.

Ringer's solution does not act as a revitaliser.
For dilution of food samples or substances that have undergone thermal treatment, it is more advisable to use peptone water (Art. no. 1L8H) or Maximum Recovery Solution (Art. no. 1L84) for the dilutions, these act as revitalisers.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Sodium chloride (NaCl) ..... 2,25 g/l
Calcium chloride ..... 0,06 g/l
Potassium chloride (KCl) ..... 0,1 g/l
Sodium bicarbonate ..... 0,05 g/l

Art. No.	Pack Qty.	Packaging	Pack.	€
1L88.1	180 ml	20 x 9 ml	glass	40,75



NEW / +

S ready-to-use

Sabouraud 2 % Glucose Broth

Ph. Eur., for microbiology

Selective medium for the taxonomic study of pathogenic fungi.

Sabouraud Glucose Broth is a liquid medium used for culturing yeasts, molds and aciduric microorganisms.

The high glucose concentrations and acidic pH value make this medium selective for fungi from clinical samples and other materials.
This medium is a modification of the Glucose Agar described by Sabouraud, with half the glucose and withour agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 2

Casein peptone (pancreas hydrolysate) ..... 5 g/l
Meat peptone ..... 5 g/l
Dextrose ..... 20 g/l
pH value (25 °C) 5,4-5,8

Art. No.	Pack Qty.	Packaging	Pack.	€
1L89.1	180 ml	20 x 9 ml	glass	40,75
1L89.2	1 l	10 x 100 ml	glass	72,60
Original pack 6 x 1 l				68,97/1 l



NEW / +

S ready-to-use

Thioglycolate Broth

Ph. Eur., USP, ISO 7937, for microbiology

For the detection of microorganisms in sterility tests.

Thioglycolate Broth is used for detecting microorganisms in sterility tests, according to the formula specified in the USP and conforms to formulations detailed in the Bristish and European Pharmacopoeia.

The reducing agents thioglycolate and L-Cystine ensure anaerobiosis which is adequate even for fastidious anaerobes. In this broth a special agar with a high viscosity but a very low turbidity is used. A very slow cooling is recommended to prevent stratification. The higher viscosity of the fluid thioglycolate medium prevents rapid uptake of oxygen. Any increase in the oxygen content is indicated by the redox indicator sodium resazurin which changes colour to pink.

The -SH groups of these substances also inactivate arsenic, mercury and other heavy metal compounds. Thioglycolate media are thus suitable for the examination of materials which contain heavy metals or heavy metal preservatives.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Agar-Agar ..... 0,75 g/l
Casein peptone ..... 15 g/l
Dextrose ..... 5,5 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 2,5 g/l
Sodium thioglycolate ..... 0,5 g/l
L-Cysteine ..... 0,5 g/l
Sodium resazurin ..... 0,001 g/l
pH value (25 °C) 6,9-7,3

Art. No.	Pack Qty.	Packaging	Pack.	€
1L8C.1	180 ml	20 x 9 ml	glass	46,15
1L8C.2	1 l	10 x 100 ml	glass	81,60
Original pack 6 x 1 l				77,52/1 l

ROTI®DipSlides

Sterile dip slides with solid, ready-made culture medium for easy microbiological analysis of solutions and surfaces.

ROTI®DipSlides

Ready-made media, Contact agar

Sterile dip slides with solid culture medium for easy microbiological analysis of solutions and surfaces.
Tried-and-tested media in a new look – Now with optimised plastic carriers!

- **2 in 1:** Immersion culture media and impression agar
- Easy to use
- Reliable assay and easy interpretation
- Suitable for determining the microbiological contamination and for hygiene controls in a variety of domains
- Including detailed instructions-for-use

ROTI®DipSlides are made of a flexible plastic tongue which is coated with solid culture medium on both sides. Following dipping into the solution to be tested or inoculation by pressing to a surface, the slide is placed back into the sterile tube and incubated.
Total area for analysis is 11,44 cm^2 per side.
Tube Ø: 2,9 cm.

Large quantity orders are freshly produced. Hence, longer delivery times may occur.

Art. No.	Agar 1	Agar 2	Detection of
2493	Plate Count Agar (PC)	Legionella Agar	whole germs + legionells
2924	Plate Count Agar (PC)	Violet Red Bile Agar with Glucose (VRBD)	whole germs + enterobacteria
2925	Plate Count Agar (PC)	Violet Red Bile Agar with Lactose (VRB)	whole germs + coliforms
2926	Plate Count Agar (PC)	Bengal Red Agar* (RBC)	whole germs + yeast/ moulds
3934	Caso Agar with TTC	Bengal Red Agar (RBC) with antibiotics	whole germs + yeast/ moulds
2927	Plate Count Agar (PC)	Plate Count Agar (PC)	whole germs
2837	Nutrient Agar	Nutrient Agar with TTC	whole germs
8023	D/E Neutralizing Agar	D/E Neutralizing Agar	whole germs after disinfection
8715	Plate Count Agar (PC)	Caso Agar with Lecithin/ polysorbate 80	whole germs + whole germs after disinfection
2954	Violet Red Bile Agar with Glucose (VRBD)	Violet Red Bile Agar with Glucose (VRBD)	enterobacteria
2956	Sabouraud 4 % Glucose Agar*	Sabouraud 4 % Glucose Agar*	yeast/moulds
2957	CLED Agar	MacConkey Agar	urinary tract bacteria + enterobacteria/coliforms
8045	MacConkey Agar	Cetrimide Agar	enterobacteria + pseudomonads

*with chloroamphenicol

► DipSlide incubator EM4 EM4 see page 279



❄ S ready-to-use

ROTI®DipSlide CASO-TTC/RBCenr

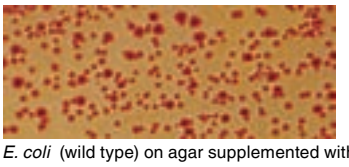
ready-to-use, sterile, for microbiology

For total germ count and for detection of yeasts and moulds in solution or on surface. Suitable for analysis of water-mixable cooling lubricants, air conditions, water-soluble paint, and cosmetics.

Side 1 (CASO-TTC): Tryptic Soy Agar (CASO) (Ph. Eur.) (Art. No. X937) for reliable total germ count.

Side 2 (RBCenr): enriched Bengal Red Agar (with antibiotics) for detection of yeasts and moulds.

ROTI®DipSlide CASO-TTC/RBCenr is suitable for analysis of **water-mixable cooling lubricants, air conditions, water-soluble paint, and cosmetics**.



E. coli (wild type) on agar supplemented with TTC (example).

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 3

Composition

Agar side 1:
Caseine peptone ..... 15 g/l
Soja peptone ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
TTC ..... 0,05 g/l
Agar ..... 15 g/l
pH value ..... 7,3 ± 0,2
Colour ..... amber, slightly opalescent
Growth of test strains ..... complies

Agar side 2:
Peptone ..... 5,0 g/l
Glucose ..... 10 g/l
Bengal red ..... 0,05 g/l
Magnesium sulphate ($MgSO_4$) ..... 0,5 g/l
Potassium phosphate ..... 1,0 g/l
Chloroamphenicol ..... 0,1 g/l
Agar ..... 15 g/l
pH-value ..... 7,2 ± 0,2
Colour ..... intense pink
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
3934.1	20 unit(s)	box	79,45



S ready-to-use

ROTI®DipSlide PCA/Legionella

ready-to-use, sterile, for microbiology

For total germ count and for detection of legionells in solution or on surface.

Side 1 (PCA): Plate Count Agar (acc. to APHA, ISO 4833:2003) (Art. No. X930) for total germ count.

Side 2 (Legionella): Legionella Agar (acc. to ISO 11731-2) (Art. No. CL48) for selective detection of legionells.

ROTI®DipSlide PCA/Legionella is suitable for supervision of units for heating of drinking water (Drinking Water Regulations), for surveillance of ventilation and air conditioning (VDI Guideline 6022), as well as for monitoring of the microbiological status of evaporative cooling systems (VDI Guideline 2047).

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Agar side 1:

Casein peptone	5 g/l
Yeast extract	2,5 g/l
Glucose	1 g/l
Agar	15 g/l
pH value	7,0±0,2
Colour	amber, slightly opalescent
Growth of test strains	complies

Agar side 2:

Yeast extract	10 g/l
Charcoal activated	2 g/l
GVPC selective additive	complies
Growth additive	complies
Agar	13 g/l
pH-value	6,9±0,2
Colour	black
Growth of test strains	complies

Art. No.	Pack Qty.	Pack.	€
2493.1	20 unit(s)	box	79,45

Application:

- Remove carrier from sterile vial. Screw-cap serves automatically as holder.
- Press agar gently onto surface or immerse in liquid
- Replace carrier into vial and close cap
- Incubate vial with carrier at a temperature suitable for the bacteria



S ready-to-use

ROTI®DipSlide PCA/RBCplus

ready-to-use, sterile, for microbiology

For total germ count and for detection of yeasts and moulds in liquids or on surfaces.

Side 1 (PCA): Plate Count Agar (acc. to APHA, ISO 4833:2003) (Art. No. X930) for total germ count.

Side 2 (RBCplus): Bengal Red Agar (with chloroamphenicol) (Art. No. AE24) for detection of yeasts and moulds.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 3

Composition

Agar side 1:

Casein peptone	5 g/l
Yeast extract	2,5 g/l
Glucose	1 g/l
Agar	15 g/l
pH value	7,0±0,2
Colour	amber, slightly opalescent
Growth of test strains	complies

Agar side 2:

Peptone	5 g/l
Glucose	10 g/l
Potassium phosphate	1 g/l
Magnesium sulphate ($MgSO_4$)	0,5 g/l
Chloroamphenicol	0,1 g/l
Bengal red	0,05 g/l
Agar	15 g/l
pH-value	7,2±0,2
Colour	intense pink
Growth of test strains	complies

Art. No.	Pack Qty.	Pack.	€
2926.1	20 unit(s)	box	79,45



S ready-to-use

ROTI®DipSlide PCA/VRB

ready-to-use, sterile, for microbiology

For total germ count and for detection of Coliforms in liquids or on surfaces.

Side 1 (PCA): Plate Count Agar (acc. to APHA, ISO 4833:2003) (Art. No. X930) for total germ count.

Side 2 (VRB): Violet Red Bile Agar with Lactose (ISO 4832) (Art. No. X940) for detection of Coliforms.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Agar side 1:

Casein peptone	5 g/l
Yeast extract	2,5 g/l
Glucose	1 g/l
Agar	15 g/l
pH value	7,2±0,2
Colour	amber, slightly opalescent
Growth of test strains	complies

Agar side 2:

Yeast extract	3 g/l
Pancreas hydrolysate made from gelatin	7 g/l
Sodium chloride (NaCl)	5 g/l
Bile salts	1,5 g/l
Lactose	10 g/l
Neutral red	0,03 g/l
Crystal Violet	0,002 g/l
Agar	15 g/l
pH-value	7,4±0,2
Colour	purple-red
Growth of test strains	complies

Art. No.	Pack Qty.	Pack.	€
2925.1	20 unit(s)	box	79,45



S ready-to-use

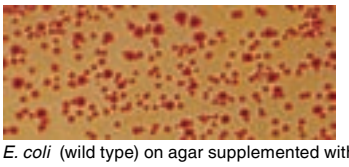
ROTI®DipSlide Nutrient-TTC

ready-to-use, sterile, for microbiology

For total germ count in liquids or on surfaces.

Side 1 (Nutrient): Nutrient agar for total germ count.

Side 2 (Nutrient-TTC): Nutrient agar with TTC for reliable detection of all living micro-organisms by formazan caused staining (red) of all colonies.



E. coli (wild type) on agar supplemented with TTC (example).

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 3

Composition

Agar side 1:

Gelatine peptone	5 g/l
Meat extract	3 g/l
Agar	15 g/l
pH value	6,8 ± 0,2
Colour	amber, slightly opalescent
Growth of test strains	complies

Agar side 2:

Gelatin Peptone	5 g/l
Meat extract	3 g/l
TTC	0,05 g/l
Agar	15 g/l
pH-value	6,8 ± 0,2
Colour	amber, slightly opalescent
Growth of test strains	complies

Art. No.	Pack Qty.	Pack.	€
2837.1	20 unit(s)	box	79,45



S ready-to-use

ROTI®DipSlide PCA/VRBD

ready-to-use, sterile, for microbiology

For total germ count and for detection of enterobacteria in liquids or on surfaces.

Side 1 (PCA): Plate Count Agar (acc. to APHA, ISO 4833:2003) (Art. No. X930) for total germ count.

Side 2 (VRBD): Violet Red Bile Agar with Glucose (Ph. Eur., ISO 21528) (Art. No. X939) for detection of enterobacteria.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 2

Composition

Agar side 1:

Casein peptone	5 g/l
Yeast extract	2,5 g/l
Glucose	1 g/l
Agar	15 g/l
pH value	7,2±0,2
Colour	amber, slightly opalescent
Growth of test strains	complies

Agar side 2:

Yeast extract	3 g/l
Pancreas hydrolysate made from gelatin	7 g/l
Sodium chloride (NaCl)	5 g/l
Bile salts	1,5 g/l
Glucose monohydrate	10 g/l
Neutral red	0,03 g/l
Crystal Violet	0,002 g/l
Agar	15 g/l
pH-value	7,4±0,2
Colour	purple-red
Growth of test strains	complies

Art. No.	Pack Qty.	Pack.	€
2924.1	20 unit(s)	box	79,45



S ready-to-use

ROTI®DipSlide PCA

ready-to-use, sterile, for microbiology

For total germ count in liquids or on surfaces.

Both sides (PCA): Plate Count Agar (acc. to APHA, ISO 4833:2003) (Art. No. X930) for total germ count.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 3

Composition

Casein peptone	5 g/l
Yeast extract	2,5 g/l
Glucose	1 g/l
Agar	15 g/l
pH value	7,2±0,2
Colour	amber, slightly opalescent
Growth of test strains	complies

Art. No.	Pack Qty.	Pack.	€
2927.1	20 unit(s)	box	79,45

Important information on refrigerated transports

All products identified as being particularly temperature-sensitive are shipped in **special ice boxes with freezer packs or in dry ice.**

Additional costs resulting from such, **will be invoiced** (further information on request).

Please note: In order to guarantee optimum product quality, the dispatch of refrigerated transport products will be carried out **on Mon and Tue only outside Germany!**
Slight delays in delivery are therefore possible.



S ready-to-use

ROTI®DipSlide PCA/TSA-Letheen

ready-to-use, sterile, for microbiology

For total germ count in liquids or on surfaces. Suitable for analysis of cosmetics and of preservative containing products or after disinfection. Contains two neutralizers.

Side 1 (PCA): Plate Count Agar (acc. to APHA, ISO 4833:2003) (Art. No. X930) for total germ count.

Side 2 (TSA-Letheen): CASO Agar with Lecithin/Polysorbate 80 (Art. No. 8848) for detection of microorganisms from cosmetics and disinfected surfaces.

ROTI®DipSlide PCA/TSA-Letheen is suitable for 14-day controls of evaporative cooling systems (VDI guideline 2047).

Lecithin and Polysorbate 80 (Tween® 80) neutralise the growth-inhibiting impact of disinfectants and preservatives.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Warning H319

Composition

Agar side 1:

Casein peptone	5,0 g/l
Glucose	1,0 g/l
Yeast extract	2,5 g/l
Agar	15,0 g/l
pH value	7,2 ± 0,2
Colour	amber, slightly opalescent
Growth of test strains	complies

Agar side 2:

Pancreatic digest of casein	15,0 g/l
Soy peptone (papain hydrolysate)	5,0 g/l
Sodium chloride (NaCl)	5,0 g/l
Lecithin	0,7 g/l
Polysorbate 80	5 g/l
Agar	15,0 g/l
pH-value	7,2 ±0,2
Colour	amber, slightly opalescent
Growth of test strains	complies

Art. No.	Pack Qty.	Pack.	€
8715.1	20 unit(s)	box	79,45

Neutraliser	Active substance
Polysorbate 80 + Lecithin	Amphotensides, benzamidine, chlorhexidine (guanidine), quaternary ammonium compounds, substituted phenols
Sodium bisulphite	Aldehydes, glutaraldehyde
Natrium thioglycolate	Isothiazoline (Kathon CG), mercury compounds
Sodium thiosulfate	Iodine and iodophore, chlorine

Sources: Walhäuser (1988), APHA (2001), AAMI (1984)



S ready-to-use

ROTI®DipSlide D/Eneutral

ready-to-use, sterile, for microbiology

For total germ count on surface after disinfection. For hygiene monitoring. Contains 5 neutralizers.

Both sides (D/Eneutral): D/E neutralizing Agar (Art. No. 8850) for total germ count after disinfection. For hygiene monitoring.

Sodium bisulfite, Sodium thioglycolate, Sodium thiosulphate, Lecithin and Polysorbate 80 (Tween® 80) neutralise the growth-inhibiting impact of disinfectants and preservatives.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

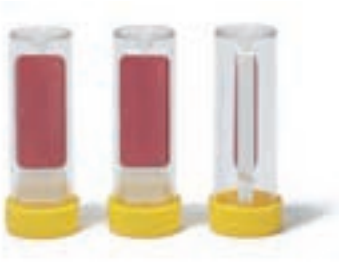
Composition

Dextrose	10 g/l
Lecithin	7 g/l
Sodium thiosulphate	6 g/l
Casein peptone	5 g/l
Polysorbate 80	5 g/l
Yeast extract	2,5 g/l
Sodium bisulfite	2,5 g/l
Sodium thioglycolate	1 g/l
Bromocresol purple	0,02 g/l
Agar	15 g/l
pH value	7,6 ±0,2
Colour	purple
Growth of test strains	complies

Art. No.	Pack Qty.	Pack.	€
8023.1	20 unit(s)	box	79,45

Inactivation of anti-microbiological products:

Disinfectants and preservatives have the task of preventing the growth of, or killing bacteria. However, there are particularly resistant bacteria that can survive anti-microbe agents, or even survive in the active substance.
In order to determine the bacterial count, the bactericide or fungicide effect is neutralized by socalled uninhibitors.
Thus, media containing uninhibitors can be used to check the effectiveness of the disinfectants and preservatives.



S ready-to-use

ROTI®DipSlide VRBD

ready-to-use, sterile, for microbiology

For detection of enterobacteria in liquids or on surfaces.

Both sides (VRBD): Violet Red Bile Agar with Glucose (Ph. Eur., ISO 21528) (Art. No. X939) for detection of enterobateria.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 3

Composition

Yeast extract	3 g/l
Pancreas hydrolysate made from gelatin	7 g/l
Sodium chloride (NaCl)	5 g/l
Bile salts	1,5 g/l
Glucose monohydrate	10 g/l
Neutral red	0,03 g/l
Crystal Violet	0,002 g/l
Agar	15 g/l
pH value	7,4±0,2
Colour	purple-red
Growth of test strains	complies

Art. No.	Pack Qty.	Pack.	€
2954.1	20 unit(s)	box	79,45

S ready-to-use

ROTI®DipSlide Sab4plus

ready-to-use, sterile, for microbiology

For detection of yeasts and moulds in liquids or on surfaces.

Both sides (Sab4plus): Sabouraud 4 % Glucose Agar (with chloroamphenicol) (Art. No. X933) for detection of yeasts and moulds.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Meat and casein peptone	10 g/l
Glucose	40 g/l
Chloroamphenicol	0,5 g/l
Agar	15 g/l
pH value	5,6±0,2
Colour	amber, slightly opalescent
Growth of test strains	complies

Art. No.	Pack Qty.	Pack.	€
2956.1	20 unit(s)	box	79,45



S ready-to-use

ROTI®DipSlide CLED/MacCon

ready-to-use, sterile, for microbiology

For detection of bacteria of the urinary tract and of enterobacteria/ Coliforms in liquids or on surfaces.

Side 1 (CLED): CLED Agar (Art. No. 2835) for detection of bacteria of the urinary tract.

Side 2 (MacCon): MacConkey-Agar (Ph. Eur., ISO 21567) (Art. No. X922) for detection of enterobacteria/Coliforms.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Agar side 1:

Casein peptone	4 g/l
Gelatine peptone	4 g/l
Beef extract	3 g/l
Lactose	10 g/l
L-Cystine	0,128 g/l
Bromothymol blue	0,02 g/l
Agar	15 g/l
pH value	7,3±0,2
Colour	green
Growth of test strains	complies

Agar side 2:

Gelatin peptone (Pancreas hydrolysate)	17 g/l
Meat and casein peptone	3 g/l
Lactose monohydrate	10 g/l
Bile salt (Cholate)	1,5 g/l
Sodium chloride (NaCl)	5 g/l
Neutral red	0,03 g/l
Crystal Violet	0,001 g/l
Agar	13,5 g/l
pH-value	7,1±0,2
Colour	violet-red
Growth of test strains	complies

Art. No.	Pack Qty.	Pack.	€
2957.1	20 unit(s)	box	79,45



❄ S ready-to-use

ROTI®DipSlide MacCon/Cetr

ready-to-use, sterile, for microbiology

For detection of enterobacteria like salmonellae or shigellae and pseudomonads in liquids or on surfaces.

Side 1 (MacCon): MacConkey Agar (Ph. Eur., ISO 21567) (Art. No. X922) for detection of enterobacteria/coliforms like salmonellae or shigellae.

Side 2 (Cetr): Cetrimide Agar (Ph. Eur., ISO 22717) (Art. No. X918) for detection of pseudomonads.

ROTI®DipSlide MacCon/Cetr is suitable for the supervision of cooling and process water as well as of pool water (DIN EN ISO 16266) and for monitoring of the microbiological status of evaporative cooling systems and cooling towers (VDI guideline 2047, Federal Environment Ministry (BImSchG)).

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Agar side 1:
Casein peptone ..... 17,0 g/l
Meat and casein peptone ..... 3,0 g/l
Lactose monohydrate ..... 10,0 g/l
Sodium chloride (NaCl) ..... 5,0 g/l
Bile salt (Cholate) ..... 1,5 g/l
Neutral red ..... 0,03 g/l
Crystal Violet ..... 0,001 g/l
Agar ..... 13,5 g/l
pH value ..... 7,1 ± 0,2
Colour ..... violet-red
Growth of test strains ..... complies

Agar side 2:
Pancreas hydrolysate made from gelatin ..... 20,0 g/l
Magnesium chloride ..... 1,4 g/l
Potassium sulphate (K_2SO_4) ..... 10,0 g/l
Cetrimide ..... 0,3 g/l
Agar ..... 13,6 g/l
pH-value ..... 7,1 ±0,2
Colour ..... opaque white
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
8045.1	20 unit(s)	box	79,45



DipSlide incubator EM4 EM4

Lightweight, small incubator specially designed for DipSlides. With transparent, easily removable cover for quick insertion and removal of DipSlides. Easy to operate, even for inexperienced users.
A stand insert and a thermometer are also supplied. Also usable without a stand for incubation of Petri dishes and contact plates.

Technical specifications:

Art. No.	KK43.1
Type	DipSlide incubator EM4
Suitable for	23 DipSlides
Operating temperature	Room temperature up to +44 °C
Vol.	4 l
Inner width	180 mm
Inner depth	180 mm
Inner height	125 mm
Outer width	230 mm
Outer depth	230 mm
Outer height	180 mm
Weight	1,5 kg
Mains connection	200 V

DipSlide incubator EM4 EM4

Laboratories Humeau.

Type	Suitable for	Vol. (l)	Art. No.	Pack Qty.	€
DipSlide incubator EM4	23 DipSlides	4	**KK43.1**	1 unit(s)	526,75

For easy interpretation of results, use the following table:

No. of colonies	Result	Interpretation
0	Negative	No contamination
1–10	Weakly positive	Weak contamination
11–20	Positive	Low contamination
21–100	Strongly positive	High contamination
>100	Highly positive	Very high contamination

Detection limit is 10^2 cfu/ml solution assayed.
For detailed instructions on interpretation see instruction-for-use.

Please note our **Technical Information Brochure** on the Internet next to the products:

ROTI®DipSlides
Evaluation aid

ROTI®ContiPlates

Sterile culture medium contact plates for the microbiological analysis of surfaces.



ROTI®ContiPlates

Sterile culture medium contact plates for the microbiological analysis of surfaces.

- Diameter 60 mm
- Surface 28 cm^2
- Very easy to use
- Domed agar surface optimal for testing specimen surfaces
- Prepared with our proven dehydrated nutrient media mixtures
- Easy evaluation due to grid on the bottom of the panel
- With detailed instructions-for-use

ROTI®ContiPlates are culture media plates with a diameter of 60 mm. The domed agar surface is especially suitable for analyzing the microbiological status of surfaces.
In the box, each 6 plates are packaged in a blister in discrete compartments. Thus, the sterile plates can be obtained individually.

The plate is gently pressed onto the surface for some seconds. Afterwards the plate is closed with the lid and incubated. The grid on the bottom of the plate helps interpreting the results.

Art. No.	Abbreviation	Agar	Application
9630	PCA	Plate-Count-Agar	Whole germs
9631	VRBD	Violet Red Bile Agar with Glucose	Enterobacteria
9632	RBC	Bengal Red Agar (with chloroamphenicol)	Yeasts and moulds
9633	Sab4plus	Sabouraud 4 % Glucose Agar (with chloroamphenicol)	Yeasts and fungi
9634	TSA-Letheen	CASO Agar with Lecithin/ Polysorbate 80	Whole germs after disinfection
2312	TSA	CASO-Agar	Whole Germs
2313	MacCon	MacConkey Agar	Enterobacteria
2314	VRB	Violet Red Bile Agar with Lactose	Coliforms



S ready-to-use

ROTI®ContiPlate MacCon

ready-to-use, sterile, for microbiology

For detection of enterobacteria on surfaces.

Contact plates · Ready-made media · Media plates · Ready-made plate enterobacteria

The MacConkey Agar (Art. No. X922) is certified according to Pharm. Eur. and ISO 21567 for the analysis of Enterobacteria.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Gelatine peptone	17 g/l
Meat and casein peptone	3 g/l
Lactose	10 g/l
Bile salt (Cholate)	1,5 g/l
Sodium chloride (NaCl)	5 g/l
Neutral red	0,03 g/l
Crystal Violet	0,001 g/l
Agar	15 g/l
pH value	7,1±0,2
Colour	pink
Growth of test strains	complies
Diameter	60 mm

Art. No.	Pack Qty.	Pack.	€
2313.1	30 unit(s)	box	91,40



S ready-to-use

ROTI®ContiPlate TSA

ready-to-use, sterile, for microbiology

For total germ count on surfaces.

Contact plates · Ready-made media · Media plates · TSA · ROTI®ContiPlate CASO · Ready-made plate total count

The CASO Agar (Art. No. X937) is certified according to Pharm. Eur. is suitable for determining the total bacterial count.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Casein peptone	15 g/l
Soy peptone	5 g/l
Sodium chloride (NaCl)	5 g/l
Agar	15 g/l
pH value	7,3±0,2
Colour	straw-colored
Growth of test strains	complies
Diameter	60 mm

Art. No.	Pack Qty.	Pack.	€
2312.1	30 unit(s)	box	91,40

S ready-to-use

ROTI®ContiPlate PCA

ready-to-use, sterile, for microbiology

For total germ count on surfaces.

Contact plates · Ready-made media · Media plates · PCA · Ready-made plate total count

The Plate Count Agar (Art. No. X930) is recommended by APHA and ISO 4833 for total germ count.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Casein peptone	5 g/l
Yeast extract	2,5 g/l
Glucose	1 g/l
Agar	15 g/l
pH value	7,0 ±0,2
Colour	amber, slightly opalescent
Growth of test strains	complies
Diameter	60 mm

Art. No.	Pack Qty.	Pack.	€
9630.1	30 unit(s)	box	91,40



S ready-to-use

ROTI®ContiPlate TSA-Letheen

ready-to-use, sterile, for microbiology

For detection of microorganisms on disinfected surfaces.

Contact plates · Ready-made media · Media plates · Ready-made plate total count

The TSA-Letheen Agar (Art. No. 8848) is recommended for detection of microorganisms in presence of preservatives or after disinfection.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Warning H319

Composition

Pancreatic digest of casein	15 g/l
Soy peptone (papain hydrolysate)	5 g/l
Sodium chloride (NaCl)	5 g/l
Triton® X-100	1,0 g/l
Lecithin	0,7 g/l
Polysorbate 80	5 g/l
Agar	15 g/l
pH value	7,0 ±0,2
Colour	amber, slightly opalescent
Growth of test strains	complies
Diameter	60 mm

Art. No.	Pack Qty.	Pack.	€
9634.1	30 unit(s)	box	91,40



S ready-to-use

ROTI®ContiPlate RBC

ready-to-use, sterile, for microbiology

For counting yeasts and moulds on surfaces.

Contact plates · Ready-made media · Media plates · RBC Agar · Ready-made plate yeasts and moulds

The Bengal Red Agar (with chloroamphenicol) (Art. No. AE24) is recommended for enumeration of yeasts and moulds.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 3

Danger H318

Composition

Glucose	10 g/l
Peptone	5 g/l
Potassium phosphate	1 g/l
Magnesium sulphate ($MgSO_4$)	0,5 g/l
Chloroamphenicol	0,1 g/l
Bengal red	0,05 g/l
Agar	15 g/l
pH-value	7,2 ±0,2
Colour	intense pink
Growth of test strains	complies
Diameter	60 mm

Art. No.	Pack Qty.	Pack.	€
9632.1	30 unit(s)	box	91,40



S ready-to-use

ROTI®ContiPlate Sab4plus

ready-to-use, sterile, for microbiology

For selective detection of yeasts and pathogenic fungi on surfaces.

Contact plates · Ready-made media · Media plates · Ready-made plate yeasts and moulds

The Sabouraud 4 % Glucose Agar (with chloroamphenicol) (Art. No. X933) is recommended for selective isolation of yeasts and pathogenic fungi.

Expiration time on request.
Do NOT freeze!

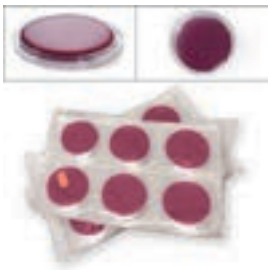
Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 3

Composition

Glucose	40 g/l
Meat and casein peptone	10 g/l
Chloroamphenicol	0,5 g/l
Agar	15 g/l
pH value	5,6 ±0,2
Colour	amber, slightly opalescent
Growth of test strains	complies
Diameter	60 mm

Art. No.	Pack Qty.	Pack.	€
9633.1	30 unit(s)	box	91,40



S ready-to-use

ROTI®ContiPlate VRB

ready-to-use, sterile, for microbiology

For detection of coliforms on surfaces.

Contact plates · Ready-made media · Media plates · VRB Agar · Ready-made plate *E. coli*/Coliforms

The violet red bile lactose agar (VRB, Art. No. X940) is suitable for the examination of coliforms according to ISO 4832.

Expiration time on request.
Do NOT freeze!

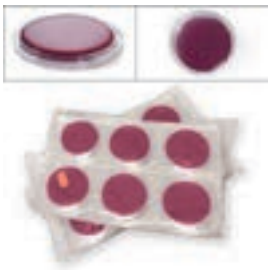
Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 3

Composition

Yeast extract	3 g/l
Meat peptone	7 g/l
Sodium chloride (NaCl)	5 g/l
Bile salt (Cholate)	1,5 g/l
Lactose	10 g/l
Neutral red	0,03 g/l
Crystal Violet	0,002 g/l
Agar	15 g/l
pH value	7,4±0,2
Colour	purple-pink
Growth of test strains	complies
Diameter	60 mm

Art. No.	Pack Qty.	Pack.	€
2314.1	30 unit(s)	box	91,40



S ready-to-use

ROTI®ContiPlate VRBD

ISO 11133, ready-to-use, sterile, for microbiology

For detection of enterobacteria on surfaces.

Contact plates · Ready-made media · Media plates · VRBD Agar · Ready-made plate enterobacteria

The Violet Red Bile Agar with Glucose (Art. No. X939) is recommended by Pharm. Eur. and ISO 21528 for enumeration of enterobacteria.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Glucose	10 g/l
Gelatine peptone	7 g/l
Sodium chloride (NaCl)	5 g/l
Yeast extract	3 g/l
Bile salts	1,5 g/l
Neutral red	0,03 g/l
Crystal Violet	0,002 g/l
Agar	13 g/l
pH value	7,4 ±0,2
Colour	purple-red
Growth of test strains	complies
Diameter	60 mm

Art. No.	Pack Qty.	Pack.	€
9631.1	30 unit(s)	box	91,40

ROTI®Plate90

Our proven dry nutrient media as 90 mm ready-to-use nutrient media plates!

ROTI®Plate90

Ready-made media

Sterile ready-to-use culture media plates for microbiological analysis.

- Diameter 90 mm
- Surface 63,6 cm^2
- Ready-to-use and sterile
- Easy to use, reliable detection and simple evaluation
- Well applicable for microbiological analysis of samples
- With detailed instructions for use

ROTI®Plate90 are prepared culture media plates with a diameter of 90 mm. They are thus adapted to the size of membrane filters for assaying of low-germ fluids by membrane filtration method. They are also applicable for the microbiological analysis of samples in general. The germs of expected low-germ liquid samples are concentrated by membrane filtration. Afterwards, the membrane is placed on top of the medium and incubated. Using a membrane with a grid helps counting the resulting colonies.
Our products are tested and approved exclusively for research and development.

Samples which are expected to have a higher microbiological burden are prepared in a serial dilution. Afterwards, every dilution step is plated and incubated. The number of grown colonies is noted as result.

Art. No.	Product	Standards	Application
1ATX	CASO	Ph.Eur., ISO 11133	Non-demanding microorganisms
1K27	Columbia	ISO 11133	(Non)-fastidious microorganisms
1K24	DG18	ISO 21527-2, ISO 11133	Xerophilic fungi
1K23	MEA	ISO 11133	Yeasts/moulds
1K26	MRS	ISO 11133	Lactobacilli
1K22	Müller Hinton	EUCAST	Gonococci/meningococci
1AX1	PCA	ISO 4833, ISO 11133, EN 12322	Total germ count
1K25	Sab4	Ph. Eur., USP, JP, EN ISO 11133	Yeasts/moulds/dermatophytes
1AX0	Sab4Cla	ISO 11133, EN 12322	Yeast/moulds
1LNY	Sab4Cla	Ph. Eur., ISO 11133	Fungi
1ATT	TSA	Ph.Eur., USP, ISO 11133, ISO 21149:2017	*E. coli*/Coliforms
1K21	TSA 4N	Ph. Eur., USP, JP, EN ISO 11133	Microbial count
1AX2	VRBD	ISO 11133, EN 12322, ISO 21528	Enterobacteria
1ATY	YGC	ISO 11133, EN 12322	Yeast/moulds



S ready-to-use

ROTI®Plate90 CASO

Ph. Eur., ISO 11133, ready-to-use, sterile, for microbiology

For the cultivation of non-demanding microorganisms.

CASO-Agar is recommended by the Pharmacopeia Europaea for examination of samples by the membrane-filter method for the presence of bacteria. Furthermore, it is recommended for counting bacteria on agar plates or by dilution series (MPN method).
Containing two peptones obtained by enzymatic hydrolysis of casein and soy protein, this medium supports the growth of a great variety of microorganisms.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Composition

Casein peptone	15 g/l
Sodium chloride	5 g/l
Soy peptone (papain hydrolysate)	5 g/l
Agar	15 g/l
pH value (25 °C)	7,1-7,5

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1ATX.1	10 unit(s)	box	17,10

S ready-to-use

ROTI®Plate90 TSA

Ph. Eur., USP, ISO 11133, ISO 21149:2017, ready-to-use, sterile, for microbiology

For detection and counting of *E. coli* and other coliform bacteria in food and water samples.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Composition

Casein peptone	15 g/l
Sodium chloride (NaCl)	5 g/l
Soy peptone	5 g/l
Agar	15 g/l
pH value (25 °C)	7,1-7,5

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1ATT.1	10 unit(s)	box	17,10





S ready-to-use

ROTI®Plate90 PCA

ISO 4833, ISO 11133, ready-to-use, sterile, for microbiology

For total bacterial count of aerobic microorganisms.

Plate-Count Agar is recommended when enumerating bacteria of sanitary interest, which are indicators of contamination or microbial load in foods.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Composition

Casein peptone	5 g/l
Yeast extract	2,5 g/l
Glucose	1 g/l
Agar	15 g/l
pH value (25 °C)	6,8-7,2

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1AX1.1	10 unit(s)	box	17,10

NEW/+

S ready-to-use

ROTI®Plate90 Sab4

Ph. Eur., USP, JP, EN ISO 11133, for microbiology

For the cultivation and counting of yeasts, moulds and dermatophytes.

Sabouraud 4 % Glucose Agar (Sab4) is recommended for the cultivation and maintenance of pathogenic and saprophytic fungi, or of yeasts like *Candida albicans*. It is a medium which has been widely used for the isolation of fungi and in general work in mycology.
Sabouraud 4 % Glucose Agar is recommended by the Pharmacopeia Europaea for sample examination by the membrane-filter method for the presence of fungi. Furthermore, it is recommended for counting of fungal colonies on agar plates or by dilution series (MPN method).

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Composition

Peptone	10 g/l
Glucose	40 g/l
Agar-Agar	15 g/l
pH value (25 °C)	5,4-5,8

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1K25.1	10 unit(s)	box	17,10

S ready-to-use

ROTI®Plate90 Sab4Cla

ISO 11133, ready-to-use, sterile, for microbiology

For selective isolation of yeasts and pathogenic fungi.

Sabouraud 4 % Glucose Agar with Chloramphenicol (Sab4Cla) is used to test for the presence of fungi, as well as to count fungal colonies. The high glucose content promotes the growth of these microorganisms, while the growth of bacteria is suppressed by the acidic pH of 5.6.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Composition

Meat and casein peptone	10 g/l
Glucose	40 g/l
Chloroamphenicol	0,5 g/l
Agar	15 g/l
pH value (25 °C)	5,4-5,8

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1AX0.1	10 unit(s)	box	17,10

NEW/+

S ready-to-use

ROTI®Plate90 Sab4Cla

Ph. Eur., ISO 11133, ready-to-use, sterile, for microbiology

Selective medium for isolation of fungi according to European Pharmacopoeia.

Sabouraud 4% glucose agar with chloramphenicol is recommended by Ph. Eur. for testing for the presence of fungi by the membrane filter method, and for counting fungal colonies on agar plates or by the dilution method (MPN method).

This agar has a lower concentration of chloramphenicol than 1AX0, making it less inhibitory to contaminant bacteria.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Composition

Peptone mixture	10 g/l
Glucose	40 g/l
Chloroamphenicol	0,05 g/l
Agar-Agar	15 g/l
pH value (25 °C)	5,4-5,8

Art. No.	Pack Qty.	Pack.	€
1LNY.1	10 unit(s)	box	22,05



NEW/+

S ready-to-use

ROTI®Plate90 MEA

EN ISO 11133, for microbiology

For the cultivation of moulds and yeasts.

Malt extract agar is used for the isolation and cultivation of yeasts and moulds from food.
The malt extract contained provides the carbon, protein and nutrient source necessary for fungal growth. It is particularly suitable for yeasts and moulds because it contains a high concentration of maltose and other saccharides as an energy source.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Composition

Malt extract	12,75 g/l
Dextrine	2,75 g/l
Peptone	0,78 g/l
Glycerol	2,35 g/l
Agar-Agar	15 g/l
pH value (25 °C)	5,2-5,6

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1K23.1	10 unit(s)	box	17,10



S ready-to-use

ROTI®Plate90 YGC

ISO 11133, ready-to-use, sterile, for microbiology

For counting yeasts and moulds in milk and dairy products.

Yeast Glucose Agar (with chloroamphenicol) (YGC) can be used in the analysis of milk and dairy products, bottled drinks, and other types of food. It is particularly suited when yeast is predominant in the sample. The antibiotic, chloramphenicol, suppresses bacterial growth, therefore allowing even slow-growing or damaged yeast and mould cells to intersperse.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Composition

Yeast extract	5 g/l
Glucose	20 g/l
Chloroamphenicol	0,1 g/l
Agar	12 g/l
pH value (25 °C)	6,4-6,8

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1ATY.1	10 unit(s)	box	17,10





❄ S ready-to-use

ROTI®Plate90 VRBD

ISO 11133, ISO 21528, ready-to-use, sterile, for microbiology

For the cultivation of enterobacteria.

VRBD agar is used according to ISO 21528 to detect coliform bacteria as indicators of faecal contamination in water, food and feed. Coliform bacteria ferment glucose and produce acid with or without gas. Lactose-negative *Salmonella* and *Shigella* species and enteropathogenic *E. coli* grow on this medium, as do *Klebsiella* and *Citrobacter*, which are more heat-resistant than coliforms and may indicate a production process defect (insufficient heating) of the products under investigation. Gram-positive organisms are inhibited by the bile salts and crystal violet.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Composition

Yeast extract	3 g/l
Bile salts No. 3	1,5 g/l
Sodium chloride	5 g/l
Neutral red	0,03 g/l
Gelatin peptone (Pancreas hydrolysate)	7 g/l
Glucose	10 g/l
Crystal Violet	0,002 g/l
Agar	15 g/l
pH value (25 °C)	7,2-7,6

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1AX2.1	10 unit(s)	box	17,10

NEW/+

❄ S ready-to-use

ROTI®Plate90 Columbia

ISO 11133, for microbiology

For the isolation and cultivation of fastidious and non- fastidious microorganisms.

Columbia Agar is recommended by the Pharmacopeia Europaea for subculturing of samples enumeration and semiquantitative detection of clostridiae. It is a highly nutritive general purpose medium for the cultivation of fastidious organisms.

The contained peptone provides nitrogen, vitamins, minerals and amino acids that are important for growth while sodium chloride maintains the osmotic balance. Corn starch neutralises toxic fatty acids that may be present in the agar.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 3

Composition

Peptone	10 g/l
Sodium chloride (NaCl)	5 g/l
Starch	1 g/l
Agar-Agar	13,5 g/l
pH value (25 °C)	7,1-7,5

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1K27.1	10 unit(s)	box	17,10



NEW / + S ready-to-use

ROTI®Plate90 Mueller Hinton

EUCAST, for microbiology

Nutrient medium for the sensitivity test.

Mueller-Hinton Agar is a medium very rich in nutrients that was originally recommended for the isolation and development of gonococci and meningococci. It is used primarily for sensitivity testing of microorganisms.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Composition

Casein peptone (acidic hydrolysate)	17,5 g/l
Beef Infusion	2 g/l
Starch	1,5 g/l
Agar-Agar	17 g/l
pH value (25 °C)	7,1-7,5

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1K22.1	10 unit(s)	box	17,10



NEW / + S ready-to-use

ROTI®Plate90 DG18

ISO 21527-2, EN ISO 11133, for microbiology

For counting and isolating xerophilic fungi, especially from semi-dry and dry foods.

Dichloran-Glycerin Agar (DG18) is a selective agar for counting yeasts and food moulds, especially from semi-dry and dry foods.
It is recommended for the enumeration and isolation of xerophilic molds from dried and semi-dried foods such as fruit, spices, cereals, nuts, meat and fish products.
The addition of dichlorane, the reduction of water content by the addition of glycerol and the low pH inhibit bacterial growth.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Composition

Casein, enzymatically digested	5 g/l
Glucose	10 g/l
Potassium dihydrogen phosphate	1 g/l
Magnesium sulphate ($MgSO_4$)	0,5 g/l
Glycerol	220 g/l
Dichlorane	0,002 g/l
Chloroamphenicol	0,1 g/l
Agar-Agar	15 g/l
pH value (25 °C)	5,4-5,8

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1K24.1	10 unit(s)	box	20,35



NEW/+

S ready-to-use

ROTI®Plate90 MRS

EN ISO 11133, for microbiology

Selective medium for the isolation of lactobacilli.

MRS Agar was developed by deMan, Rogosa and Sharpe to grow luxuriantly all strains of *Lactobacilli* especially the fastidious, slower-growing types such as *L. brevis* and *L. fermenti*. The medium is apt for the growth of lactic acid bacteria, including *Lactobacillus*, *Streptococcus*, *Pediococcus* and *Leuconostoc*.
Ammonium citrate at a low pH inhibits most microorganisms, including other Streptococci and molds. It allows for the growth of *Lactobacillus*, but limits swarming in general.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 2

Composition

Casein, enzymatically digested	10 g/l
Glucose	20 g/l
Yeast extract	4 g/l
Beef extract	10 g/l
Dikaliumhydrogenphosphat	2 g/l
Magnesium sulphate ($MgSO_4$)	0,2 g/l
Sodium acetate	5 g/l
Manganese sulphate	0,05 g/l
Triammonium citrate	2 g/l
Tween 80	1 g/l
Agar-Agar	10 g/l
pH value (25 °C)	6,0-6,4

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1K26.1	10 unit(s)	box	17,10



NEW/+

S ready-to-use

ROTI®Plate90 TSA 4N

Ph. Eur., USP, JP, EN ISO 11133, for microbiology

For monitoring microbial contamination.

Tryptone soy agar (TSA) is recommended by the Pharmacopeia Europaea for testing products under investigation for the presence of bacteria by the membrane filter method, and for counting bacteria on agar plates or by the dilution method (MPN method). As this medium contains two peptones obtained by enzymatic hydrolysis of casein and soy protein, it supports a wide range of microorganisms, including fastidious aerobic and anaerobic organisms.
The included disinhibitors lecithin, polysorbate 80 (Tween®80), sodium thiosulphate and histidine are also called neutralisers. Disinhibitors serve to neutralise residues of disinfectants and preservatives and ensure bacterial growth.

These plates are triple wrapped, which allows the removal of each individual package when the plates are taken further into the clean room.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Composition

Casein peptone	15 g/l
Soy peptone	5 g/l
Sodium chloride (NaCl)	5 g/l
Lecithin	0,7 g/l
Sodium thiosulphate	0,5 g/l
Polysorbate 80	5 g/l
Histidine	1 g/l
Agar-Agar	15 g/l
pH value (25 °C)	7,1-7,5

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1K21.1	10 unit(s)	box	30,65

ROTI®Aquatest Plates

Sterile culture medium plates for the microbiological analysis of liquid samples.



ROTI®Aquatest Plates

Sterile culture medium plates for the microbiological analysis of liquid samples.

- Diameter 55 mm
- Surface 24 cm^2
- Easy to use
- Optimal for the membrane filtration method
- Also well applicable for microbiological analysis of samples in general
- Prepared with our proven dehydrated nutrient media mixtures
- With detailed instructions-for-use

ROTI®Aquatest Plates are prepared culture media plates with a diameter of 55 mm. They are thus adapted to the size of membrane filters for assaying of low-germ fluids by membrane filtration method. They are also applicable for the microbiological analysis of samples in general. The germs of expected low-germ liquid samples are concentrated by membrane filtration. Afterwards, the membrane is placed on top of the medium and incubated. Using a membrane with a grid helps counting the resulting colonies.

Samples which are expected to have a higher microbiological burden are prepared in a serial dilution. Afterwards, every dilution step is plated and incubated. The number of grown colonies is noted as result.

Art. No.	Abbreviation	Agar	Application
9640	PCA	Plate-Count-Agar	Whole germs
9642	YE	Yeast extract Agar	Bacteria, Yeast and moulds
9643	Sab4	Sabouraud 4 % Glucose-Agar	Yeast and fungi
9644	R2A	Reasoner's 2A Agar	Heterotrophic bacteria
9646	Cetr	Cetrimide Agar	*Pseudomonas aeruginosa*
9650	Staph	Mannitol Salt Agar/Chapman Agar	Pathogenic staphylococci



❄ S ready-to-use

ROTI®Aquatest Plate PCA

APHA, ISO 4833, ready-to-use, sterile, for microbiology

For enumeration of the aerobic microbial flora.

Ready-made media · Media plates · PCA · Ready-made plate total count

The Plate Count Agar (Art. No. X930) is recommended by APHA and ISO 4833 for total germ count.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Casein peptone ..... 5 g/l
Yeast extract ..... 2,5 g/l
Glucose ..... 1 g/l
Agar ..... 14 g/l
pH value ..... 7,0 ±0,2
Colour ..... amber, slightly opalescent
Growth of test strains ..... complies
Diameter ..... 55 mm

Art. No.	Pack Qty.	Pack.	€
9640.1	30 unit(s)	box	74,20

❄ S ready-to-use

ROTI®Aquatest Plate YE

DEV, ISO 6222, ready-to-use, sterile, for microbiology

For enumeration of microorganisms in general, e.g. bacteria, moulds or yeast.

Ready-made media · Media plates · Ready-made plate total count

The Yeast Extract Agar (Art. No. CP63) is recommended for enumeration of microorganisms in general.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Tryptone ..... 6 g/l
Yeast extract ..... 3 g
Agar ..... 15 g/l
pH value ..... 7,2 ±0,2
Colour ..... amber, slightly opalescent
Growth of test strains ..... complies
Diameter ..... 55 mm

Art. No.	Pack Qty.	Pack.	€
9642.1	30 unit(s)	box	74,20



S ready-to-use

ROTI®Aquatest Plate Cetr

Ph. Eur., ready-to-use, sterile, for microbiology

For isolation of *Pseudomonas aeruginosa*.

Ready-made media · Media plates · Ready-made plate *Pseudomonas aeruginosa*

The Cetrimide Agar (Art. No. X918) is recommended by the Ph. Eur. for isolation of *Pseudomonas aeruginosa*.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

UN no. 3077 · ADR 9 III · WGK 3

Warning H400

Composition

Gelatin peptone (Pancreas hydrolysate)	20 g/l
Potassium sulphate (K_2SO_4)	10 g/l
Magnesium chloride	1,4 g/l
Cetrimide	0,3 g/l
Glycerol	10 ml/l
Agar	13,6 g/l
pH value	7,2 ±0,2
Colour	opaque white
Growth of test strains	complies
Diameter	55 mm

Art. No.	Pack Qty.	Pack.	€
9646.1	30 unit(s)	box	74,20



S ready-to-use

ROTI®Aquatest Plate R2A

Ph. Eur., ready-to-use, sterile, for microbiology

For enumeration of heterotrophic bacteria.

Ready-made media · Media plates · Ready-made plate heterotrophic bacteria

The R2A Agar (Art. No. CL01) is recommended by the Ph. Eur. for enumeration of heterotrophic bacteria.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Yeast extract	0,5 g/l
Peptone	0,5 g/l
Casein hydrolysed	0,5 g/l
Glucose	0,5 g/l
Starch	0,5 g/l
di-Potassium hydrogen phosphate	0,3 g/l
Magnesium sulphate ($MgSO_4$)	0,024 g/l
Sodium pyruvate	0,3 g/l
Agar	15 g/l
pH value	7,2 ±0,2
Colour	amber
Growth of test strains	complies
Diameter	55 mm

Art. No.	Pack Qty.	Pack.	€
9644.1	30 unit(s)	box	74,20



S ready-to-use

ROTI®Aquatest Plate Sab4

Ph. Eur., ready-to-use, sterile, for microbiology

For cultivation of yeasts and fungi.

Ready-made media · Media plates · Ready-made plate yeasts and moulds

The Sabouraud 4 % Glucose Agar (Art. No. X932) is recommended by the Ph. Eur. for cultivation of yeasts like *Candida albicans* and moulds.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Glucose	40 g/l
Meat and casein peptone	10 g/l
Agar	15 g/l
pH value	5,6 ±0,2
Colour	amber, slightly opalescent
Growth of test strains	complies
Diameter	55 mm

Art. No.	Pack Qty.	Pack.	€
9643.1	30 unit(s)	box	74,20

Our tip for most simple **filtration and microbiological analysis of liquids:**

Bottle-top filter holders **KA90.1**

+ Cellulose mixed ester (CME) membrane filters **NH80.1** (non-sterile)

+ Screw neck bottles DURAN®-pressure plus (e. g. 1 Litre, **H995.1**)

- Apply membrane to filter holder
- Screw filter holder onto bottle
- Optional: Wrap whole construct in aluminum foil
- Steam sterilize
- Ready-for-use (or ready-for-store)



S ready-to-use

ROTI®Aquatest Plate Staph

Ph. Eur., ready-to-use, sterile, for microbiology

For isolation of pathogenic staphylococci.

Ready-made plate Staphylococci · Ready-made media · Media plates · Ready-made plate pathogenic staphylococci

The Mannitol Salt Agar (Chapman Agar) (Art. No. CL81) is recommended by the Ph. Eur. for isolation of pathogenic staphylococci.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Pancreatic digest of casein	5 g/l
Peptone (peptic digest of animal tissue)	5 g/l
Beef extract	1 g/l
Sodium chloride (NaCl)	75 g/l
D-Mannitol	10 g/l
Phenol red	0,025 g/l
Agar	15 g/l
pH value	7,4 ±0,2
Colour	red
Growth of test strains	complies
Diameter	55 mm

Art. No.	Pack Qty.	Pack.	€
9650.1	30 unit(s)	box	74,20

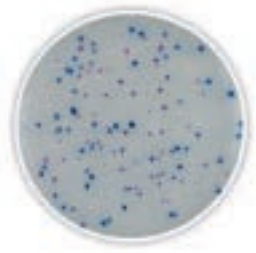
► Membrane filters see www.carlroth.com

Compact Dry Ready-Made Plates

Dry ready-made plates for easy microbiological analysis of solutions and compact samples

By NISSUI





S ready-to-use

CompactDry™

Anhydrous nutrient plates for simple microbiological analysis of solutions and dry matter.

- Simple and safe to use
- Safely non-slip stackable
- Easy interpretation due to chromogenic additives and 1 x 1 cm grid
- Storage and transport at room temperature
- With detailed instruction-for-use
- Suitable for the control of foods and feeds, cosmetics and pharmaceutical samples, for hygiene monitoring and contamination control, for schooling and student´s courses

CompactDry™ plates are suitable for detection and enumeration of microorganisms from foods and feeds, cosmetics and pharmaceutical samples, as well as for hygiene monitoring and contamination control in food-producing areas. Due to the chromogenic additives, colonies depict specific colouring, making them easy to interpret.

CompactDry™ plates are easy and safe to handle. Due to storage at room temperature, they may be used even on site. One millilitre of the sample to be analysed is applied onto the sterile plate surface, spreading itself evenly over the plate during rehydration of the medium. Dry sample matter is homogenised and solubilised using the CompactDry™ Dilution Rack (Art. No. 4823.1) prior to plate inoculation.

Art. No.	Compact Dry	Detection of	Certificate
4816	TC	whole germs	AOAC, MicroVal, NordVal
1070	X-BC	*Bacillus cereus*	MicroVal
1087	X-SA	*Staphylococcus aureus*	AOAC, MicroVal, NordVal
4817	SL	salmonells	-
4818	YM	yeast/moulds	AOAC, MicroVal, NordVal
4826	EC	coliforms /*E. coli*	AOAC, MicroVal, NordVal
4827	CF	coliforms	AOAC, MicroVal, NordVal
4828	ETB	enterobacteria	MicroVal, NordVal
1L17	PA	*P. aeruginosa*	AOAC, MicroVal, NordVal, ISO 16140

CompactDry™ EC

sterile, for microbiology

NISSUI Pharmaceutical.

Ready-made plates with anhydrous chromogenic nutrient medium for detection of coliforms in general, particularly *E. coli*.

Ready-made media · Media plates · Ready-made plate *E. coli*/Coliforms

The nutrient medium used for CompactDry™ EC plates is related to the Coliform chromogenic Agar. It consists of a phosphate-buffered, rich medium with peptone and yeast extract as nutrient base, which contains tryptophan for later *E. coli* detection and has been enriched with NaCl, pyruvate and cholates. It also contains the colour substrates for ß-D-glucuronidase (blue / cyan / violet – *E. coli*) and ß-D-galactosidase (salmon / magenta / red – other coliforms).
Colonies of *E. coli* show a bright blue colour, while other coliforms grow in red to pink coloured colonies. Addition of red and blue colonies results in total count of coliforms.

AOAC-, MicroVal-, and NordVal- certified.

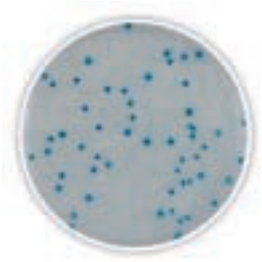
Growth area is 20 cm^2. Ø 47 mm.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
4826.1	40 unit(s)	blister	98,80
4826.3	120 unit(s)	blister	246,20
4826.2	240 unit(s)	blister	514,95





S ready-to-use

CompactDry™ CF

sterile, for microbiology

NISSUI Pharmaceutical.

Ready-made plates with anhydrous chromogenic nutrient medium for detection of coliforms.

Ready-made media · Media plates · Ready-made plate *E. coli*/Coliforms

The nutrient medium used for CompactDry™ CF plates is related to the Coliform chromogenic Agar and resembles a modified version of the CompactDry™ EC plates. It consists of a phosphate-buffered, rich medium with peptone and yeast extract as nutrient base, containing tryptophan and enriched with NaCl, pyruvate and cholates. The Chromogenic mixture has been replaced by X-Gal, causing all coliform bacteria to grow in colonies of a bright blue colour.

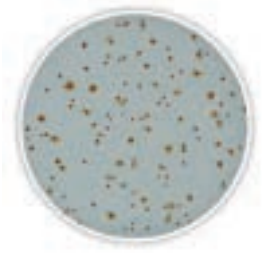
AOAC-, MicroVal-, and NordVal- certified.

Growth area is 20 cm². Ø 47 mm.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
4827.1	40 unit(s)	blister	98,80
4827.2	240 unit(s)	blister	514,95



S ready-to-use

CompactDry™ TC

sterile, for microbiology

NISSUI Pharmaceutical.

Ready-made plates with anhydrous chromogenic nutrient medium for total germ count.

Ready-made media · Media plates · Ready-made plate total count

CompactDry™ TC are based on a typical total germ count lagar using peptone, glucose and yeast extract as nutrient base. The addition of TTC as a redox indicator, allows living bacterial colonies to grow red in colour.

AOAC- MicroVal-, and Nordval certified.

Growth area is 20 cm². Ø 47 mm.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
4816.3	8 unit(s)	blister	26,35
4816.1	40 unit(s)	blister	95,15
4816.2	240 unit(s)	blister	467,65



S ready-to-use

CompactDry™ ETB

sterile, for microbiology

NISSUI Pharmaceutical.

Ready-made plates with anhydrous chromogenic nutrient medium for detection of enterobacteriaceae.

Ready-made media · Media plates · Ready-made plate enterobacteria

The nutrient medium used for CompactDry™ ETB plates is deduced from the Violet Red Bile Agar with Dextrose (VRBD). Due to the chromogenic additives contained, bacterial colonies show up in specific colours and are easy to evaluate.
Enterobacteriaceae grow in red colonies.

MicroVal-, and NordVal- certified.

Growth area is 20 cm². Ø 47 mm.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
4828.3	8 unit(s)	blister	28,95
4828.1	40 unit(s)	blister	104,20
4828.2	240 unit(s)	blister	557,95



S ready-to-use

CompactDry™ SL

sterile, for microbiology

NISSUI Pharmaceutical.

Ready-made plates with anhydrous chromogenic nutrient medium for detection of salmonellae.

Ready-made media · Media plates · Ready-made plate salmonells

The nutrient medium used for CompactDry™ SL plates is deduced from the formulation of Triple Sugar Iron Agar. Salmonellae may easily be identified by the green colouring of the colonies, accompanied by colour shift of the plate to yellow due to alcalization of the medium. Salmonellae producing hydrogen sulphide grow in black colonies on yellow medium.

Growth area is 20 cm². Ø 47 mm.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
4817.1	40 unit(s)	blister	129,55
4817.2	240 unit(s)	blister	676,20



S ready-to-use

CompactDry™ X-BC

sterile, for microbiology

NISSUI Pharmaceutical.

Ready-made plates with anhydrous chromogenic nutrient medium for detection of *Bacillus cereus*.

Ready-made media · Media plates · Ready-made plate *Bacillus cereus*

The nutrient medium used for CompactDry™ X-BC plates is based on a nutritious formulation, using mannitol as selective agent. Colonies of *Bacillus cereus* grow in a light blue or blue colour.

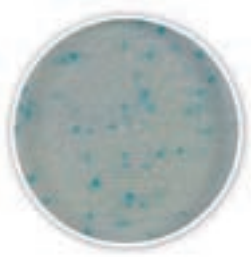
MicroVal certified.

Growth area is 20 cm^2. Ø 47 mm.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
1070.1	40 unit(s)	blister	134,40
1070.2	240 unit(s)	blister	697,70



S ready-to-use

CompactDry™ X-SA

sterile, for microbiology

NISSUI Pharmaceutical.

Ready-made plates with anhydrous chromogenic nutrient medium for detection of *Staphylococcus aureus*.

Ready-made plate Staphylococci · Ready-made media · Media plates · Ready-made plate *Staphylococcus aureus*

The nutrient medium used for CompactDry™ X-SA plates is based on a mannitol agar, using lithium as additional selective agent. *Staphylococci* grow in a light to bright cyan-blue colour.

AOAC-, MicroVal-, and NordVal certified.

Growth area is 20 cm^2. Ø 47 mm.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
1087.1	40 unit(s)	blister	134,40
1087.2	240 unit(s)	blister	697,70



NEW/+

S ready-to-use

CompactDry™ PA

ISO 16140, sterile, for microbiology

NISSUI Pharmaceutical.

Ready-to-use plates with dried chromogenic culture medium for the detection of *Pseudomonas aeruginosa*.

Ready-made media · Media plates · Ready-made plate *Pseudomonas aeruginosa*

Compact Dry PA is a standard culture medium containing nutrient agar for the detection of the genus *Pseudomonas aeruginosa*.
Due to the redox indicator tetrazolium salt, the bacterial colonies show a red colouration. Differentiation from other pseudomonads is achieved by the formation of a coloured halo around the colony.
Pseudomonas aeruginosa grows as a red colony with a green-yellowish halo.

AOAC-, MicroVal-, NordVal- and ISO 16140 certified.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
1L17.1	40 unit(s)	blister	188,15
1L17.2	240 unit(s)	blister	955,70



S ready-to-use

CompactDry™ YM

sterile, for microbiology

NISSUI Pharmaceutical.

Ready-made plates with anhydrous chromogenic nutrient medium for detection of yeasts and moulds.

Ready-made media · Media plates · Ready-made plate yeasts and moulds

The nutrient medium used for CompactDry™ YM plates is deduced from an enriched version of the Potato Extract Glucose Agar. While accompanying bacteria are inhibited by inherent antibiotics, yeast colonies show a bright blue colour. Due to the net quality of the plate matrix, moulds are able to form their natural, three-dimensional growth structure accompanied by their respective characteristic colouring.

AOAC-, MicroVal-, and NordVal certified.

Figure:
A: *Candida albicans ATCC 10231*
B: *Aspergillus niger ATCC 16404*

Growth area is 20 cm^2. Ø 47 mm.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
4818.3	8 unit(s)	blister	28,95
4818.1	40 unit(s)	blister	102,05
4818.2	240 unit(s)	blister	547,20



S ready-to-use

CompactDry™ Swab

ISO 6887, sterile, for microbiology

NISSUI Pharmaceutical.

All-in-one set of swab and nutrient broth for microbiological sampling of surfaces.

Sterile all-in-one system for sampling in the microbiological field of work. Suitable for analysis of foods and feeds, in pharmaceutical areas, as well as for hygiene monitoring, and for exclusion of contaminations.

Compact Dry Swabs are particularly suitable for sampling at difficult-to-access areas or when working on site. The sample taken may be transported inside the swab. Storage at room temperature as well as easy application makes them a very versatile tool in microbiology.



Compact Dry Swabs made by NISSUI are particularly easy to apply, and may also be used by laymen. In order to test a surface, the respective area is wiped with the sterile cotton swab. After returning the swab into the tube, the germs are released into the nutrient broth by agitation. The amount of 1 ml medium has been optimised for inoculation of nutrient agar plates in general, also making this swab most compatible with Compact Dry plates.

Contains 1 ml **Peptone Water, buffered**

Due to the adaptation to ISO 6887, the medium is slightly darker. No negative impact on usage.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
4809.1	40 unit(s)	box	118,80
4809.2	240 unit(s)	box	622,45

Compact Dry Dilution Rack

Each well is sealed by an aluminium foil, and may be separated from the others at a perforation line. Using the Compact Dry Opener (Art. No. 4825.1, please order separately) a hole may be pierced into the lid, providing access for pipetting.



S ready-to-use

Compact Dry Dilution Rack PBS

sterile, for microbiology

ELMEX.

For preparation of dilution series of microbiological samples. **Sterile PBS.**



Sterile buffer solution in racks for easy preparation of dilution series for microbiological assays.

Each rack consist of 4 wells with 9 mls phosphate buffered saline each. By transferring 1 ml, 10-fold dilution series are very easily prepared.

128 wells in 32 racks of 4 separable wells each (9 ml each).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
4823.1	128 unit(s)	in 32 racks of 4 separable wells	box	185,45



S ready-to-use

Compact Dry Dilution Rack MRD

sterile, for microbiology

ELMEX.

For preparation of dilution series of microbiological samples. Sterile nutrient broth.

Maximum Recovery Solution in racks

Ready-made nutrient broth in racks for easy preparation of dilution series for microbiological assays.

Each rack consist of 4 wells with 9 mls of **Maximum Recovery Solution** each (Art. No. 5766). By transferring 1 ml, 10-fold dilution series are very easily prepared.

128 wells in 32 racks of 4 separable wells each (9 ml each).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
1096.1	128 unit(s)	in 32 racks of 4 separable wells each	box	213,95



CompactDry™ Openers

Metal pin for easy penetration of the aluminium foil of the Compact Dry™ dilution set.

CompactDry™ Openers

NISSUI Pharmaceutical.

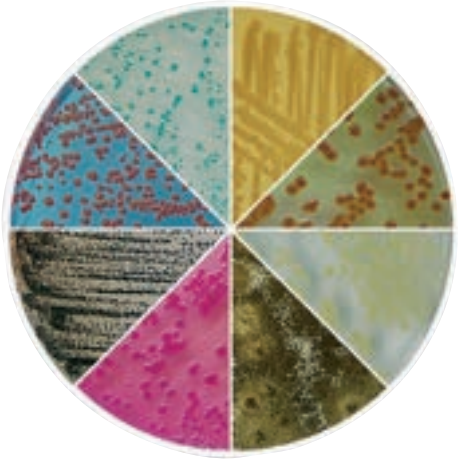
Type	Art. No.	Pack Qty.	€
Compact Dry opener	**4825.1**	1 unit(s)	32,65

Microbiological Nutrient Media

Carl ROTH provides the most important microbiological nutrient media as ready-made mixtures. Our anhydrous media fulfil the highest purity and quality requirements, several media are formulated according to the specifications of the European Pharmakopoeia (Ph.Eur.), European and German drinking water regulations, APHA, and other ISO standards.
Our microbiological nutrient media are suitable for analysis of food, cosmetics, pharmaceutics, and research, as well as for service and waste water analysis.

- Optimised formulation
- Superior quality and purity
- Tried and tested ready-made mixtures
- **Big packs on request**





Acetamide Broth (Solution A)

DEV, EN ISO 16266:2008, for microbiology

For confirmation of *Pseudomonas aeruginosa* in water samples.

Application: Use 3.4 g for 1 l broth. Solubilise in 900 ml, add freshly prepared solution B (sodium molybdate, Art. No. 0274.1, and iron sulfat, Art. No. P015.1) and adjust with water to 1 l.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Warning H351

Guarantee analysis

Potassium dihydrogen phosphate	1 g/l
Magnesium sulphate ($MgSO_4$)	0,2 g/l
Acetamide	2 g/l
Sodium chloride (NaCl)	0,2 g/l
pH value	7,0 ±0,5

Art. No.	Pack Qty.	Pack.	€
CP61.1	500 g	plastic	251,05
Original pack 6 x 500 g			238,50/500 g

Antibiotic Medium No. 1

Ph. Eur., for microbiology

Standard agar medium for detection and for assaying the potency of antibiotics.

Antibiotic Agar No. 1 (Ph. Eur. 7,0) · Penassay Seed Agar

Application: Use 30.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Peptone	6,0 g/l
Casein peptone (Pancreas hydrolysate)	4,0 g/l
Yeast extract	3,0 g/l
Beef extract	1,5 g/l
Glucose monohydrate	1,0 g/l
Agar	15,0 g/l
pH-value	6,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL53.1	500 g	plastic	152,15
Original pack 6 x 500 g			144,54/500 g

Antibiotic Medium No. 23

for microbiology

Agar medium for detection and for assaying the potency of antibiotics.



Application: Use 27.1 g for 1 l agar. Directly prior to pouring add 14.3 g ammonium chloride in 10 ml sterile water.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Glucose	10,0 g/l
Yeast extract	2,5 g/l
di-Potassium hydrogen phosphate	0,69 g/l
Potassium dihydrogen phosphate	0,45 g/l
Agar	13,5 g/l
pH-value	5,6 ±0,1

Art. No.	Pack Qty.	Pack.	€
CL54.1	500 g	plastic	139,25
Original pack 6 x 500 g			132,29/500 g

Azide Dextrose Broth

for microbiology

For enrichment and detection of enterococci.

Application: Use 34.7 g (1x) or 69.4 g (2x) for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Warning H302-H412-EUH032

Composition

Casein peptone	15 g/l
Meat extract	4,5 g/l
Glucose	7,5 g/l
Sodium chloride (NaCl)	7,5 g/l
Sodium azide	0,2 g/l
pH value	7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL79.1	500 g	plastic	124,20
Original pack 6 x 500 g			117,99/500 g

Baird Parker Agar (Base)

ISO 11133, ISO 6888, ISO 22718, for microbiology

For isolation and enumeration of staphylococci.

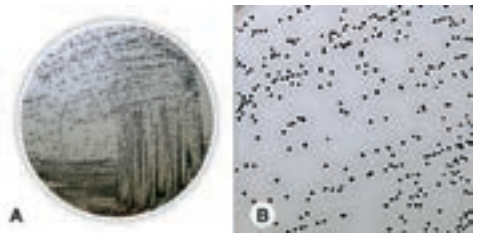


Figure:
A: *Staphylococcus aureus.*
B: Enlargement of A, showing clear zones round the colonies (Lecithinase break-down of egg yolk).

For isolation and enumeration of staphylococci.

Application: Use 63 g for 1 l agar. Add egg yolk emulsion tellurit (Art. No. 0339.1) to 5 % final concentration.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Casein peptone (pancreas hydrolysate)	10 g/l
Beef extract	5 g/l
Yeast extract	1 g/l
Lithium chloride	5 g/l
Glycine	12 g/l
Sodium pyruvate	10 g/l
Agar	20 g/l
pH value	7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
X913.1	500 g	plastic	145,70
Original pack 6 x 500 g			138,42/500 g

► RPF Supplement see page 339

► Egg Yolk Tellurite Emulsion (20 %) see page 337

Bengal Red Agar (with chloroamphenicol)

for microbiology

Standard-selective agar for counting yeast and food mould fungi.
The addition of chloroamphenicol inhibits bacterial growth.

Bengal red limits the size and the spreading of fungal colonies, so that slow-growing species are not overgrown by fast-growing ones.



Figure:
Aspergillus niger.

Application: Use 31.6 g for 1 l agar.
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 3

Composition

Peptone	5 g/l
Glucose	10 g/l
Potassium phosphate	1 g/l
Magnesium sulphate ($MgSO_4$)	0,5 g/l
Chloroamphenicol	0,1 g/l
Bengal red	0,05 g/l
Agar	15 g/l
pH value	7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE24.1	500 g	plastic	152,15
Original pack 6 x 500 g			144,54/500 g

Bile Esculin Azide Agar

DEV, ISO 7899-2:2000, for microbiology

For isolation and identification of intestinal enterococci from water samples.



Figure:
Esculin hydrolysis and reaction with ferric citrate caused by *Enterococcus faecalis*. Medium surrounding the brown to black coloured *E. faecalis* colonies is also stained brown.

Application: Use 56.6 g for 1 l agar.
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Warning H302-H412-EUH032

Guarantee analysis

Tryptone	17 g/l
Peptone	3 g/l
Yeast extract	5 g/l
Ox bile dehydrated	10 g/l
Sodium chloride (NaCl)	5 g/l
Esculin	1 g/l
Ammonium iron(III) citrate	0,5 g/l
Sodium azide	0,15 g/l
Agar	15 g/l
pH value	7,1 ±0,1

Art. No.	Pack Qty.	Pack.	€
CP62.1	500 g	plastic	283,30
Original pack 6 x 500 g			269,14/500 g

Blood Agar (Base)

for microbiology

For isolation, cultivation and detection of haemolytic reaction of fastidious microorganisms.

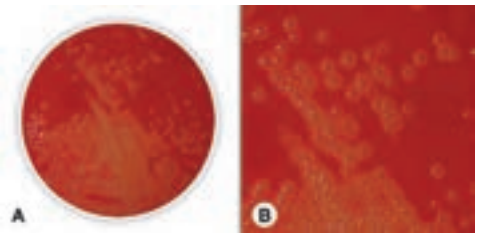


Figure:
A: *Streptococcus pyogenes.*
B: Enlargement of A, showing β-haemolysis caused by *S. pyogenes.*

Application: Use 40 g for 1 l agar. If required, add 50–110 ml defibr. blood.
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 3

Composition

Meat peptone	10 g/l
Heart infusion	10 g/l
Sodium chloride (NaCl)	5 g/l
Agar	15 g/l
pH value	7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
X914.1	500 g	plastic	195,15
Original pack 6 x 500 g			185,39/500 g

Blood Agar No. 2 (Base)

ISO 7932, ISO 11290-1, for microbiology

For cultivation and detection of haemolytic reaction of fastidious microorganisms.

Particularly recommended for confirmation of *Bacillus cereus* and *Listeria monocytogenes*.

Application: Use 39.5 g for 1 l agar, add 50-70 ml defibr. blood.
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 3

Guarantee analysis

Proteose peptone	15 g/l
Yeast extract	5 g/l
Sodium chloride (NaCl)	5 g/l
Liver extract	2,5 g/l
Agar	12 g/l
pH value	7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
8281.1	500 g	plastic	151,05
Original pack 6 x 500 g			143,50/500 g



Brain-Heart-Infusion Broth

for microbiology

For cultivation of fastidious microorganisms.

Application: Use 37 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Composition

Pig brain infusion ..... 7,5 g/l
Pig heart infusion ..... 10 g/l
Peptone ..... 10 g/l
Glucose ..... 2 g/l
Sodium chloride (NaCl) ..... 5 g/l
Disodium phosphate ..... 2,5 g/l
pH value ..... 7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
X916.1	500 g	plastic	117,75
Original pack 6 x 500 g			111,86/500 g
X916.2	1 kg	plastic	201,60
Original pack 6 x 1 kg			191,52/1 kg

Brain-Heart-Infusion Agar

for microbiology

For cultivation of fastidious microorganisms.

Application: Use 52 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 3

Composition

Calf Brain Infusion ..... 7,5 g/l
Beef Heart Infusion ..... 10 g/l
Peptone ..... 10 g/l
Glucose ..... 2 g/l
Sodium chloride (NaCl) ..... 5 g/l
Disodium phosphate ..... 2,5 g/l
Agar ..... 15 g/l
pH value ..... 7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
X915.1	500 g	plastic	127,95
Original pack 6 x 500 g			121,55/500 g

Brilliant Green Bile Broth

ISO 4831, ISO 4832, ISO 11133, for microbiology

For selective enrichment and enumeration of coli bacteria in milk, water samples, faeces and other material.

Adding 40 mg/l Novobiocin (Art. No. 0247.1) during selective detection of coliform bacteria further reduces the growth of attendant flora (Alcaide *et al.*, 1982, *J. Appl. Bact.* 53:143-6).



Figure:
(1) *Escherichia coli* (turbidity and gas formation (arrow))
(2) *Enterobacter aerogenes* (turbidity)
(3) Uninoculated broth

Application: Use 40 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Guarantee analysis

Gelatine peptone ..... 10 g/l
Lactose ..... 10 g/l
Bile salts ..... 20 g/l
Brilliant green ..... 0,0133 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL06.1	500 g	plastic	188,15
Original pack 6 x 500 g			178,74/500 g

Brilliant Green Lactose Sucrose Agar

for microbiology

Highly selective medium for the isolation of *Salmonellae* from pathological specimens and food.

Application: Use 58.1 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Guarantee analysis

Meat and casein peptone ..... 10 g/l
Yeast extract ..... 3 g/l
Sodium chloride (NaCl) ..... 5 g/l
Lactose monohydrate ..... 10 g/l
Saccharose ..... 10 g/l
Phenol red ..... 0,08 g/l
Brilliant green ..... 0,0125 g/l
Agar ..... 20 g/l
pH value ..... 6,9 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE43.1	500 g	plastic	127,40
Original pack 6 x 500 g			121,03/500 g

Brilliant Green Tetrathionate Bile Broth

for microbiology

For selective enrichment of *Salmonellae* in food and faeces.

Application: Use 63 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Guarantee analysis

Peptone	8,6 g/l
Dried beef bile	8 g/l
Sodium chloride (NaCl)	6,4 g/l
Calcium carbonate	20 g/l
Potassium tetrathionate	20 g/l
Brilliant green	0,07 g/l
pH value	7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE42.2	100 g	plastic	188,15
AE42.1	500 g	plastic	826,70
Original pack 6 x 500 g			785,37/500 g

Brucella Broth

for microbiology

For cultivation of *Brucella* and other fastidious microorganisms.

Also suitable for enrichment of fastidious microorganisms like, e.g. *Campylobacter*.

Application: Use 28.1 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Composition

Meat peptone	10 g/l
Casein peptone	10 g/l
Sodium chloride	5 g/l
Yeast extract	2 g/l
Glucose	1 g/l
Sodium bisulfite	0,1 g/l
pH value	7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
5754.1	500 g	plastic	113,45
Original pack 6 x 500 g			107,78/500 g

Brucella Agar

for microbiology

For cultivation of *Brucella* and other fastidious microorganisms in foods and other specimens.

In order to gain a selective medium, supplement with Nystatin, Bacitracin, Polymyxin B, Cycloheximide, Vancomycin and Nalidixic acid.

Application: Use 43.1 g for 1 l agar, add 50 ml defibr. sheep blood.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Composition

Meat peptone	10 g/l
Casein peptone	10 g/l
Sodium chloride	5 g/l
Yeast extract	2 g/l
Glucose	1 g/l
Sodium bisulfite	0,1 g/l
Agar	15 g/l
pH value	7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
5752.1	500 g	plastic	124,20
Original pack 6 x 500 g			117,99/500 g

Campylobacter Agar, blood-free (Base)

for microbiology

For isolation of *Campylobacter jejuni*, *Campylobacter coli*, and *Campylobacter laridis* in foods, and other samples.

Modified formulation acc. to Bolton (Bolton *et al.*, (1984) *Clin. Microbiol.* 19:169-171), replacing blood with charcoal, sodium pyruvate and iron sulphate.

Application: Use 45.5 g for 1 l agar. After cooling add 2 vials (2x5 ml) reconstituted Campylobacter Supplement (Art. No. 4857.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Meat peptone	10 g/l
Beef extract	10 g/l
Sodium chloride	5 g/l
Casein hydrolysed	3 g/l
Bacteriological charcoal	4 g/l
Sodium deoxycholate	1 g/l
Iron sulphate	0,25 g/l
Sodium pyruvate	0,25 g/l
Agar	12 g/l
pH value	7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
5756.1	500 g	plastic	230,60
Original pack 6 x 500 g			219,07/500 g

► Campylobacter Supplement see page 335

Please note our **Technical Information Brochure** on the Internet next to the products:

Microbiological Media
Manual for preparation and storage

Campylobacter Selective Agar (Base)

for microbiology

For isolation of *Campylobacter coli* and *C. jejuni*.

The Campylobacter Selective Agar is based on the formulation of Bolton and Robertson (Bolton and Robertson (1982) *J. Clin. Path.* 35:462-7). Trough addition of the Campylobacter Preston Supplement (Art. No. 8851), the Agar is highly selective for *Campylobacter coli* and *C. jejuni*.

Application: Use 18.5 g for 475 ml agar. After cooling add 5–7 % lysed blood and 1 vial of Campylobacter Preston Supplement (Art. No. 8851).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Casein peptone ..... 10 g/l
Beef extract ..... 10 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar ..... 12 g/l
pH value ..... 7,5 ±0,2

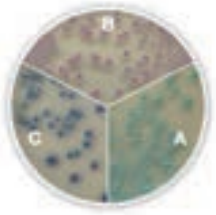
Art. No.	Pack Qty.	Pack.	€
8847.1	500 g	plastic	224,70
Original pack 6 x 500 g			213,47/500 g

► Campylobacter Preston Supplement see page 335

Candida chromogenic Agar

for microbiology

Selective medium for isolation and quick identification of pathogeneous *Candida* species.



Staining of species:
A: *Candida albicans* turquoise-green (glucuronidase)
B: *Candida krusei* purple-pink (galactosidase)
C: *Candida tropicalis* blue (glucosidase)
Candida parasilosis and *C. glabrata* light-purple to light white

Application: Use 45.9 g for 1 l agar.

Storage temperature: +4 °C

WGK 3

Warning H351

Composition

Peptone ..... 10 g/l
Glucose ..... 20 g/l
Chloroamphenicol ..... 0,5 g/l
Chromogene Mixture ..... 0,4 g/l
Agar ..... 15 g/l
pH value ..... 6,1 ±0,2

Art. No.	Pack Qty.	Pack.	€
2922.2	100 g	plastic	188,15
2922.1	500 g	plastic	822,40
Original pack 6 x 500 g			781,28/500 g



CASO Broth

Ph. Eur., USP, ISO 10273, ISO 11133, ISO 21871, for microbiology

For cultivation of fastidious and non-fastidious microorganisms.

Broth medium A (Ph. Eur. 6.0) · Soy Peptone Broth · TSB Broth · Tryptic Soy Broth · Casein Soya Bean Digest Broth (Ph. Eur. 6.3, 7.0, 8.0 and 9.0)

Application: Use 30 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Casein peptone (pancreas hydrolysate) ..... 17 g/l
Soy peptone (papain hydrolysate) ..... 3 g/l
di-Potassium hydrogen phosphate ..... 2,5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Glucose monohydrate ..... 2,5 g/l
pH value ..... 7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
X938.1	500 g	plastic	90,85
Original pack 6 x 500 g			86,31/500 g
X938.2	1 kg	plastic	149,45
Original pack 6 x 1 kg			141,98/1 kg
X938.3	2.5 kg	plastic	317,15
X938.7	5 kg	plastic	600,95

► CASO Broth, granulated see page 332

animal-free

CASO Broth vegetal

animal-free, for microbiology

For cultivation of fastidious and non-fastidious microorganisms.
Soy Peptone Broth · TSB Broth · Tryptic Soy Broth

Application: Use 30 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Vegetable peptone ..... 20 g/l
di-Potassium hydrogen phosphate ..... 2,5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Glucose ..... 2,5 g/l
pH value ..... 7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
0139.1	500 g	plastic	109,15
Original pack 6 x 500 g			103,69/500 g



CASO Agar

Ph. Eur., ISO 9308, ISO 11133, ISO 11930, ISO 18415, ISO 18416, ISO 21149, ISO 21150, ISO 22717, ISO 22718, for microbiology

For isolation and cultivation of non-fastidious organisms.

Application: Use 40 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Casein peptone (pancreas hydrolysate) ..... 15 g/l
Soy peptone (papain hydrolysate) ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar ..... 15 g/l
pH value ..... 7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
X937.1	500 g	plastic	107,00
Original pack 6 x 500 g			101,65/500 g
X937.2	1 kg	plastic	188,15
Original pack 6 x 1 kg			178,74/1 kg
X937.3	2.5 kg	plastic	413,90
X937.7	5 kg	plastic	779,40

► CASO Agar, granulated see page 332

CASO Agar with Lecithin/Polysorbate 80

for microbiology

For detection of microorganisms from cosmetics and disinfected surfaces.

Lecithin and Tween® 80 enable growth and colony counting of bacteria through inactivating disinfectants and preservatives like quaternary ammonium compounds.

Application: Use 45.7 g for 1 l agar.

Storage temperature: +4 °C
Transport temperature: ambient temp.

WGK 1

Composition

Pancreatic digest of casein ..... 15 g/l
Soy peptone ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Lecithin ..... 0,7 g/l
Polysorbate 80 ..... 5 g/l
Agar ..... 15 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
8848.1	500 g	plastic	192,45
Original pack 6 x 500 g			182,83/500 g

Cetrimide Agar (Base)

Ph. Eur., ISO 22717, for microbiology

For isolation and identification of *Pseudomonas aeruginosa*.

Recommended by the Harmonized Method (Ph. Eur. 6.0, 2.6.13.B) for growth of *Pseudomonas aeruginosa*.



Figure:
Production of pyoverdin by *Pseudomonas aeruginosa*. Being water soluble, pyoverdin diffuses through the agar, staining the originally opaque-white medium fluorescent greenish-yellow where *P. aeruginosa* colonies are located.

Application: Use 45.3 g for 1 l agar, add 10 ml glycerol.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 3077 · ADR 9 III · WGK 3

Warning H410

Guarantee analysis

Gelatin peptone (Pancreas hydrolysate) ..... 20 g/l
Magnesium chloride ..... 1,4 g/l
Potassium sulphate (K_2SO_4) ..... 10 g/l
Cetrimide ..... 0,3 g/l
Agar ..... 13,6 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
X918.1	500 g	plastic	128,50
Original pack 6 x 500 g			122,08/500 g

CLED Agar

for microbiology

For cultivation, differentiation and enumeration of gram-positive and gram-negative bacteria from the urinary tract.



Figure:
A: *Proteus vulgaris* (blue colour due to pH-shift to >7.6)
B: *Escherichia coli* (colour greenish-yellow due to acid production caused by lactose fermentation)

Inhibits swarming of *Proteus*.

Application: Use 36 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Casein peptone ..... 4 g/l
Gelatine peptone ..... 4 g/l
Beef extract ..... 3 g/l
Lactose ..... 10 g/l
L-Cystine ..... 0,128 g/l
Bromothymol blue ..... 0,02 g/l
Agar ..... 15 g/l
pH value ..... 7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
2835.1	500 g	plastic	128,50
Original pack 6 x 500 g			122,08/500 g
2835.2	1 kg	plastic	235,45
Original pack 6 x 1 kg			223,68/1 kg

CLED Agar plus

for microbiology

For cultivation, easy differentiation by colour, and enumeration of gram-positive and gram-negative bacteria from the urinary tract.

Inhibits swarming of *Proteus*. **With Andrade´s indicator**.

Application: Use 36.2 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 2

Composition

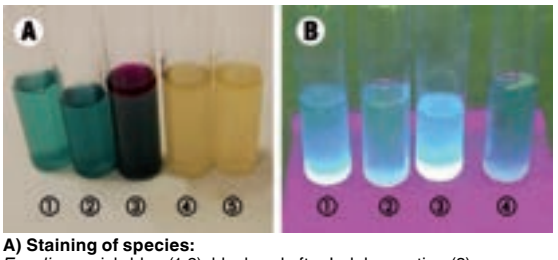
Casein peptone	4 g/l
Gelatine peptone	4 g/l
Beef extract	3 g/l
Lactose	10 g/l
L-Cystine	0,128 g/l
Bromothymol blue	0,02 g/l
Andrade's indicator	0,1 g/l
Agar	15 g/l
pH value	7,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
2836.1	500 g	plastic	145,15
Original pack 6 x 500 g			137,89/500 g

Coli Fluoro Broth

for microbiology

Enrichment medium for the simultaneous and easy detection of total Coliforms and *E. coli* in water, foods and dairy products.



A) Staining of species:
E. coli greenish-blue (1,2), black-red after Indole reaction (3)
Enterobacter, Klebsiella, Citrobacter greenish-blue (1,2)
Shigella, Salmonella no colour change (4,5)
B) Fluorescence detection (365 nm):
E. coli fluorescence-positive (1,3)
Enterobacter, Klebsiella, Citrobacter, Shigella, Salmonella no fluorescence (2,4)

Application: Use 17 g for 1 l broth.

Storage temperature: +4 °C

WGK 2

Composition

Tryptose	5 g/l
Sodium chloride	5 g/l
Dipotassium phosphate	2,7 g/l
Potassium phosphate	2 g/l
Sorbitol	1 g/l
Tryptophane	1 g/l
Sodium lauryl sulphate	0,1 g/l
Chromogenic-fluorogenic mixture	0,23 g/l
pH value	6,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
2923.2	100 g	plastic	127,95
2923.1	500 g	plastic	536,45
Original pack 6 x 500 g			509,63/500 g

Coliforms chromogenic Agar (ISO)

ISO 9308-1, ISO 11133, for microbiology

For detection and enumeration of *E. coli* and other coliforms in water.



Staining of species:
A: *E. coli* ATCC 25922 blue -dark violet (by reaction of the ß-D-Glucuronidase).
B: *Enterobacter aerogenes* ATCC 13048 red rose (by reaction of the ß-D-galacto-sidase).

The addition of tryptophane enables an indole test for *E. coli*.

Application: Use 26.45 g for 1 l agar.

Storage temperature: +4 °C

WGK 1

Guarantee analysis

Sodium chloride (NaCl)	5,0 g/l
di-Sodium hydrogen phosphate	2,7 g/l
Sodium dihydrogen phosphate	2,2 g/l
Yeast extract	2,0 g/l
Casein, enzymatically digested	1,0 g/l
Sodium pyruvate	1,0 g/l
Tryptophane	1,0 g/l
Sorbitol	1,0 g/l
Chromogene Mixture	0,4 g/l
Sodium heptadecyl sulphate (Tergitol-7)	0,15 g/l
Agar	10 g/l
pH value	6,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
8849.1	500 g	plastic	600,95
Original pack 6 x 500 g			570,90/500 g

Microbiological Quality Control

Microbiological quality control of Carl ROTH molecular biological and microbiological culture media and agar is carried out according to following guidelines:

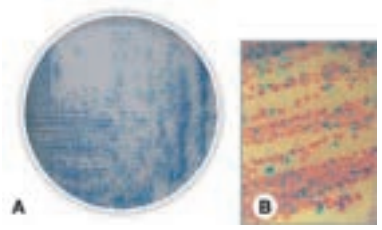
- Plating relevant bacterial strains from standardized stock solution (as a rule in dilutions of 10-1 to 10-10) on agar plates of culture medium to be tested. The preparation of the media and agar must be carried out strictly according to the instructions, which are included.
- Plates from a checked batch of culture media are used as a reference
- The developed colonies are counted and rated after adequate incubation. Counting is always carried out using the plate with colony number 30-300.
- Standardization and validation of test: reference plates are compared with the number of bacteria expected
- Reference and test plate colonies are analysed for size, colour, appearance and possible reaction to certain chemicals
- Growth count on the test plates:

„good“ or „satisfactory“	colony number = 50 % - 99 % of expected growth
„moderate“	colony number = 30 % - 50 % of expected growth
„inhibited“	colony number ≤ 30 % of expected growth
„zero“	no growth

Coliforms chromogenic Agar

for microbiology

For selective enrichment and simultaneous detection of *E. coli* and other Coliforms in water and food samples.



Staining of species:
A: *E. coli* blue (by reaction of the ß-D-Glucuronidase)
B: Other coliforms salmon-coloured (by reaction of the ß-D-galactosidase)
E. coli (blue) and *Citrobacter* (salmon-coloured).

The addition of tryptophane enables an indole test for *E. coli*.

Application: Use 26.4 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Composition

Sodium chloride (NaCl) ..... 5 g/l
Phosphate buffer ..... 4,9 g/l
Peptone ..... 3 g/l
Sodium pyruvate ..... 1 g/l
Tryptophane ..... 1 g/l
Sorbitol ..... 1 g/l
Chromogene Mixture ..... 0,36 g/l
Sodium heptadecyl sulphate (Tergitol-7) ..... 0,1 g/l
Agar ..... 10 g/l
pH value ..... 6,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL45.2	100 g	plastic	149,45
CL45.1	525 g	plastic	590,20



Columbia Agar (Base)

Ph. Eur., for microbiology

For cultivation of fastidious and non-fastidious microorganisms, also for Mycoplasms.

Application: Use 42.5 g for 1 l agar. If required, add 50–110 ml defibr. blood.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Guarantee analysis

Casein peptone (Pancreas hydrolysate) ..... 10 g/l
Meat peptone (Pepsin hydrolysate) ..... 5 g/l
Heart peptone (Pancreas hydrolysate) ..... 3 g/l
Yeast extract ..... 5 g/l
Corn starch ..... 1 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar ..... 13,5 g/l
pH value ..... 7,3 ±0,2

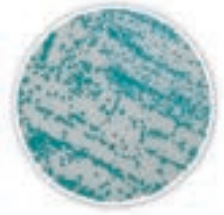
Art. No.	Pack Qty.	Pack.	€
X919.1	500 g	plastic	99,90
Original pack 6 x 500 g			94,91/500 g
X919.2	1 kg	plastic	180,10
Original pack 6 x 1 kg			171,10/1 kg

► Columbia Agar (Base), granulated see page 332

Cronobacter chromogenic Agar

ISO 22964:2017, for microbiology

Selective medium for detection of *Cronobacter* (formerly *Enterobacter*) *sakazakii* in milk powder and powdered infant formulae.



Staining of species:
Cronobacter (*Enterobacter) sakazakii* green to turquois (by reaction of the α-D-glucosidase)
E. coli transparent to red/violet
Staphylococcus inhibited

Application: Use 30.7 g for 1 l agar.

Storage temperature: +4 °C

WGK 1

EUH208

Guarantee analysis

Casein peptone (Pancreas hydrolysate) ..... 7 g/l
Sodium chloride ..... 5 g/l
Yeast extract ..... 3 g/l
Sodium deoxycholate ..... 0,25 g/l
Chromogene Mixture ..... 0,15 g/l
Sodium thiosulphate 1g/l
Ammonium iron(III) citrate ..... 1 g/l
Agar ..... 15 g/l
pH value ..... 7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
2997.1	100 g	plastic	295,65

D/E Neutralizing Agar

for microbiology

For detection and enumeration of microorganisms from a sanitized environment.

Particularly recommended for testing areas or samples that have been treated with disinfectants or preservatives.

Application: Use 54 g for 1 l agar.

Storage temperature: +4 °C
Transport temperature: ambient temp.

WGK 1

Warning H317-EUH031

Composition

Dextrose	10 g/l
Lecithin	7 g/l
Sodium thiosulphate	6 g/l
Casein peptone	5 g/l
Polysorbate 80	5 g/l
Yeast extract	2,5 g/l
Sodium bisulfite	2,5 g/l
Sodium thioglycolate	1 g/l
Bromocresol purple	0,02 g/l
Agar	15 g/l
pH value	7,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
8850.1	500 g	plastic	163,95
Original pack 6 x 500 g			155,75/500 g

Deoxycholate Citrate Agar

for microbiology

For highly selective isolation of enteric pathogenes, particularly *Salmonella* and *Shigella*.



Figure:
Salmonella typhimurium grows well-developed, colourless colonies with a distinct black center.

Application: Use 70 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Guarantee analysis

Beef extract	10 g/l
Meat peptone	10 g/l
Lactose monohydrate	10 g/l
Sodium citrate	20 g/l
Iron(III) citrate	1 g/l
Sodium deoxycholate	5 g/l
Neutral red	0,02 g/l
Agar	13,5 g/l
pH value	7,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE44.1	500 g	plastic	137,10
Original pack 6 x 500 g			130,25/500 g
AE44.2	1 kg	plastic	235,45
Original pack 6 x 1 kg			223,68/1 kg

Dichlorane Bengal Red Agar (with chloramphenicol)

ISO 11133, ISO 21527-1, for microbiology

Selective agar for enumeration of yeast and food mould fungi, especially for strongly hyphen-forming fungi.

The addition of dichlorane inhibits hyphae-forming fungi from spreading and improves counting. Chloroamphenicol and a low pH-value inhibit the growth of bacteria.



Figure:
Aspergillus brasiliensis.

Application: Use 31.6 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Composition

Peptone	5 g/l
Glucose	10 g/l
Potassium phosphate	1 g/l
Magnesium sulphate monohydrate	0,5 g/l
Chloroamphenicol	0,1 g/l
Dichlorane	0,002 g/l
Bengal red	0,025 g/l
Agar	15 g/l
pH value	5,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE25.1	500 g	plastic	195,15
Original pack 6 x 500 g			185,39/500 g

Dichlorane Glycerol Agar (Base)

ISO 11133, ISO 21527-2, for microbiology

Selective agar for enumeration of yeast and food mould fungi, especially in half-dry and dry food.

The addition of dichlorane, the reduction of the water content by adding glycerol, and the low pH-value inhibit bacterial growth.



Figure:
Saccharomyces cerevisiae.

Application: Use 31.6 g for 1 l agar, add 18 vol.-% glycerol.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Peptone	5 g/l
Glucose	10 g/l
Potassium dihydrogen phosphate	1g/l
Magnesium sulphate ($MgSO_4$)	0,5 g/l
Chloroamphenicol	0,1 g/l
Dichlorane	0,002 g/l
Agar	15 g/l
pH value	5,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE26.1	500 g	plastic	183,30
Original pack 6 x 500 g			174,14/500 g

Differential Reinforced Clostridial Medium

for microbiology

For enrichment and enumeration of clostridia in foods and other samples.

Application: Use 27.5 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Warning H319-EUH031

Composition

Casein peptone	5 g/l
Meat peptone	5 g/l
Beef extract	8 g/l
Yeast extract	1 g/l
Soluble starch	1 g/l
Glucose	1 g/l
Cystein hydrochloride	0,5 g/l
Sodium acetate	5 g/l
Sodium bisulfite	0,5 g/l
Ammonium iron(III) citrate	0,5 g/l
Sodium resazurin	0,002 g/l
pH value	7,1 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL78.1	500 g	plastic	177,40
Original pack 6 x 500 g			168,53/500 g

DNase Test Agar

for microbiology

For detection of DNase activity for identification of pathogenic bacteria.



Figure:
Clear, DNA-free zone around a streak of *Staphylococcus aureus* ATCC 25923 (DNase positive).

Particularly recommended for identification of pathogenic *Staphylococci*.

Application: Use 42 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Casein peptone	15 g/l
Soy peptone	5 g/l
Sodium chloride (NaCl)	5 g/l
Deoxyribonucleic acid	2 g/l
Agar	15 g/l
pH value	7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
8295.1	500 g	plastic	303,70
Original pack 6 x 500 g			288,52/500 g

EC Broth

ISO 7251, ISO 11133, for microbiology

For detection and enumeration of coliform bacteria in water.

Application: Use 37.4 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Tryptose	20 g/l
Lactose	5 g/l
Sodium chloride (NaCl)	5 g/l
Dipotassium phosphate	4 g/l
Potassium dihydrogen phosphate	1,5 g/l
Bile salts No. 3	1,5 g/l
pH value	6,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
8310.1	500 g	plastic	141,40
Original pack 6 x 500 g			134,33/500 g

Endo Agar (Base)

for microbiology

For isolation of enteric gram-negative bacteria, especially coliforms, from water, dairy products and food.



Figure:
Escherichia coli grows red colonies accompanied by red staining of the surrounding medium (sodium sulphite/fuchsin reaction).

Application: Use 36 g for 1 l agar, add 5 ml basic fuchsin solution.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Peptone	10 g/l
Lactose	10 g/l
di-Potassium phosphate	3,5 g/l
Sodium sulphite	2,5 g/l
Agar	10 g/l
pH value	7,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
X920.1	500 g	plastic	104,85
Original pack 6 x 500 g			99,61/500 g



Fraser Half Broth (Base)

ISO 11133, ISO 11290-1, for microbiology

Enrichment medium for detection and isolation of *Listeria* in foods and environmental samples.

Fraser Broth including esculin. With reduced amounts of acriflavine and nalidixic acid.

Application: Use 57.3 g for 1 l broth. A slight precipitate may appear after autoclaving. Prior to use add sterile filtered iron(III) ammonium citrate solution ad 0.5 g/l broth (Art. No. 3130.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 3

Guarantee analysis

Pancreatic digest of casein	5 g/l
Meat peptone	5 g/l
Beef extract	5 g/l
Yeast extract	5 g/l
Sodium chloride	20 g/l
Disodium hydrogen phosphate dihydrate	12 g/l
Potassium dihydrogen phosphate	1,35 g/l
Lithium chloride	3 g/l
Esculin	1 g/l
Acriflavine	0,0125 g/l
Nalidixic acid	0,01 g/l
pH value	7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
HP18.1	500 g	plastic	127,95
Original pack 6 x 500 g			121,55/500 g
HP18.2	1 kg	plastic	228,45
Original pack 6 x 1 kg			217,03/1 kg

Whitish precipitates in nutrient media

In media containing potassium or sodium phosphate, large amounts of yeast extract, or non-fat milk, light-coloured precipitates may form during autoclaving, appearing as opaqueness, light-coloured clouding or white precipitate. In the majority of cases this is insoluble calcium- or magnesium phosphates, which originate in exceeding of the solubility product during heating, and which don't resolubilise during cooling. Typical media showing these phosphate crystals are, for instance, Terrific Broth (TB), Plate Count Agar with non-fat milk, or **Fraser media**.
The amount of phosphates present is only slightly reduced by that, so the medium may be used without any problems. In case the cloudiness hinders analyses, the bouillon may be cleared from precipitates by sterile filtration. Agar media may generally be used directly.

In cases of recurrence we recommend to thoroughly check the desalting plant, or to desalt the water used repeatedly, in order to remove residual calcium carbonate (chalk).

Fraser Broth (Base)

ISO 11133, ISO 11290-1, for microbiology

Enrichment medium for detection and isolation of *Listeria* in foods and environmental samples.

Full Fraser Broth including esculin, acriflavine and nalidixic acid.

Application: Use 57.3 g for 1 l broth. A slight precipitate may appear after autoclaving. Prior to use add sterile filtered ferric(III) ammonium citrate solution ad 0.5 g/l broth (Art. No. 3130.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 3

Guarantee analysis

Pancreatic digest of casein	5 g/l
Meat peptone	5 g/l
Beef extract	5 g/l
Yeast extract	5 g/l
Sodium chloride	20 g/l
Disodium phosphate	12 g/l
Potassium phosphate	1,35 g/l
Lithium chloride	3 g/l
Esculin	1 g/l
Acriflavine	0,025 g/l
Nalidixic acid	0,02 g/l
pH value	7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
HP17.1	500 g	plastic	165,05
Original pack 6 x 500 g			156,80/500 g

► Ammonium iron(III) citrate solution solution
see page 335

Gelatin Agar (DEV)

DEV, for microbiology

For enumeration of the total microbial population and detection of gelatin-liquefying microorganisms in water samples.

Application: Use 50 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 3

Guarantee analysis

Meat peptone	10 g/l
Meat extract	10 g/l
Sodium chloride (NaCl)	5 g/l
Gelatine	10 g/l
Agar	15 g/l
pH value	7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
HP07.1	500 g	plastic	188,15
Original pack 6 x 500 g			178,74/500 g

King's B Medium (Base)

DEV, EN ISO 16266:2008, for microbiology

For confirmation of *Pseudomonas aeruginosa* in water samples.

Application: Use 38 g for 990 ml agar. Add 10 ml glycerol.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Peptone ..... 20 g/l
di-Potassium hydrogen phosphate ..... 1,5 g/l
Magnesium sulphate heptahydrate ..... 1,5 g/l
Agar ..... 15 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CP64.1	500 g	plastic	212,35
Original pack 6 x 500 g			201,73/500 g

Kligler Iron Agar

for microbiology

For differentiation of gram-negative enterobacteria.



Figure:
(1) *Salmonella enteritidis*
(2) Uninoculated agar

Application: Use 52 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Composition

Peptone mixture ..... 20 g/l
Lactose ..... 10 g/l
Sodium chloride ..... 5 g/l
Glucose ..... 1 g/l
Ammonium iron(III) citrate ..... 0,5 g/l
Sodium thiosulphate ..... 0,5 g/l
Phenol red ..... 0,025 g/l
Agar ..... 15 g/l
pH value ..... 7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
5758.1	500 g	plastic	115,60
Original pack 6 x 500 g			109,82/500 g

Lactose Broth

for microbiology

For detection and enumeration of coliform bacteria and for enrichment of *Salmonellae*.



Figure:
(1) *Escherichia coli* (gas formation (arrow)).
(2) Uninoculated broth.

Application: Use 13 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Gelatin peptone (Pancreas hydrolysate) ..... 5 g/l
Lactose monohydrate ..... 5 g/l
Beef extract ..... 3 g/l
pH value ..... 6,9 ±0,2

Art. No.	Pack Qty.	Pack.	€
X921.1	500 g	plastic	112,90
Original pack 6 x 500 g			107,26/500 g

Lactose Broth (DEV)

for microbiology

For confirmation of *Escherichia coli* in water samples by lactose fermentation.

Application: Use 28 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Guarantee analysis

Meat peptone ..... 10 g/l
Meat extract ..... 3 g/l
Sodium chloride (NaCl) ..... 5 g/l
Lactose ..... 10 g/l
Bromcresol purple ..... 0,02 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL76.1	500 g	plastic	122,05
Original pack 6 x 500 g			115,95/500 g

Lactose Peptone Broth (DEV)

DEV, for microbiology

For enrichment and enumeration of coliform bacteria in water samples.

Application: Use 35 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Guarantee analysis

Meat peptone ..... 17 g/l
Soy peptone ..... 3 g/l
Sodium chloride (NaCl) ..... 5 g/l
Lactose ..... 10 g/l
Bromcresol purple ..... 0,02 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL77.1	500 g	plastic	145,15
Original pack 6 x 500 g			137,89/500 g
CL77.2	1 kg	plastic	246,75
Original pack 6 x 1 kg			234,41/1 kg

Lactose Sulphite Broth (Base)

ISO 7937, for microbiology

For selective detection and enumeration of *C. perfringens*.

Application: Use 20.3 g for 1 l broth. Prior to use add sodium bisulphite solution and iron(III) ammonium citrate solution (Art. No. 3130.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Casein peptone (Pancreas hydrolysate) ..... 5 g/l
Yeast extract ..... 2,5 g/l
Sodium chloride (NaCl) ..... 2,5 g/l
Lactose monohydrate ..... 10 g/l
Cystein hydrochloride ..... 0,3 g/l
pH value ..... 7,1 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE46.1	500 g	plastic	114,50
Original pack 6 x 500 g			108,78/500 g

► Ammonium iron(III) citrate solution solution see page 335

Lauryl Sulphate Broth

ISO 4831:2006, ISO 7251, ISO 11133, for microbiology

For enrichment and detection of coliform bacteria in waters.

Application: Use 35.6 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Tryptose ..... 20 g/l
Lactose ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
di-Potassium phosphate ..... 2,75 g/l
Potassium phosphate ..... 2,75 g/l
Sodium lauryl sulphate ..... 0,1 g/l
pH value ..... 6,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL80.1	500 g	plastic	134,40
Original pack 6 x 500 g			127,68/500 g

Legionella Agar (Base)

ISO 11133, EN ISO 11731-2, for microbiology

For selective cultivation of *Legionella.*



Figure:
Legionella pneumophila.

Application: Use 12.5 g for 500 ml agar. After autoclaving add 1 vial (10 ml) reconstituted Legionella Growth Supplement (Art. No. CL49.1). If required also add reconstituted Legionella GVCP Supplement (Art. No. CL50.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Guarantee analysis

Yeast extract ..... 10,0 g/l
Charcoal activated ..... 2,0 g/l
Agar ..... 13,0 g/l
pH value ..... 6,9 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL48.1	500 g	plastic	162,90
Original pack 6 x 500 g			154,76/500 g

► Legionella Acid Buffer see page 341

► Legionella Supplements see page 337

Letheen Broth modified

for microbiology

For microbiological analyses of cosmetics, and samples containing disinfectants or preservatives.

Based on the formulation acc. to FDA (Food and Drug Administration, USA), Bacteriological Analytical Manual (1995), Microbiological Methods for Cosmetics.

Application: Use 42.8 g for 1 l broth.

Storage temperature: +4 °C
Transport temperature: ambient temp.

WGK 3

Composition

Meat peptone ..... 20 g/l
Casein peptone ..... 5 g/l
Polysorbate 80 ..... 5 g/l
Sodium chloride ..... 5 g/l
Beef extract ..... 5 g/l
Yeast extract ..... 2 g/l
Lecithin ..... 0,7 g/l
Sodium bisulfite ..... 0,1 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
5761.1	500 g	plastic	141,40
Original pack 6 x 500 g			134,33/500 g

Letheen Agar modified

for microbiology

For microbiological analyses of cosmetics, and samples containing disinfectants or preservatives.

Based on the formulation acc. to FDA (Food and Drug Administration, USA), Bacteriological Analytical Manual (1995), Microbiological Methods for Cosmetics.

Application: Use 59.1 g for 1 l agar.

Storage temperature: +4 °C
Transport temperature: ambient temp.

WGK 3

Composition

Meat peptone	10 g/l
Casein peptone	10 g/l
Polysorbate 80	7 g/l
Sodium chloride	5 g/l
Beef extract	3 g/l
Yeast extract	2 g/l
Glucose	1 g/l
Lecithin	1 g/l
Sodium bisulfite	0,1 g/l
Agar	20 g/l
pH value	7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
5759.1	500 g	plastic	152,15
Original pack 6 x 500 g			144,54/500 g

Please note our **Technical Information Brochure** on the Internet next to the products:

Why Doesn't My Agar Gel?
Basics, tips & tricks

New size

Listeria chromogenic Agar (Base)

ISO 11133, ISO 11290:2004, for microbiology

Selective medium for detection and enumeration of *Listeria monocytogenes* acc. to Ottaviani and Agosti.



Staining of species:
A: *Listeria monocytogenes* cyan-blue to turquois (by reaction of the β-D-glucosidase) with halo.
B: *Listeria innocua* green to light greenish-blue.
Enterococcus and *E. coli* inhibited.

Application: Use 70.55 g for 1 l agar. After cooling to 47-50°C add 2 vials (2x6 ml reconstituted) Listeria Chromo Selective Supplement (Art. No. 2947.1) and 2 vials (24 ml each) Listeria Chromo Lipase C Supplement (Art. No. 2948.1).

Storage temperature: +4 °C

WGK 3

Warning H315-H319

Guarantee analysis

Meat peptone	18 g/l
Lithium chloride	10 g/l
Yeast extract	10 g/l
Tryptone	6 g/l
Sodium chloride	5 g/l
di-Sodium hydrogen phosphate	2,5 g/l
Glucose	2 g/l
Sodium pyruvate	2 g/l
Magnesium glycerophosphate	1 g/l
Magnesium sulphate	0,5 g/l
Chromogene Mixture	0,05 g/l
Agar	13,5 g/l
pH value	7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
3008.1	100 g	plastic	82,70
3008.2	500 g	plastic	295,65
Original pack 6 x 500 g			280,87/500 g

► Listeria Supplements see page 338

Lysine Iron Agar

for microbiology

For rapid differentiation of *Enterobacteriaceae,* particularly *Salmonella arizonae.*

Differentiation of *Enterobacteriaceae* on the basis of Lysine decarboxylation and -deamination, as well as of H_2S production.

Application: Use 33 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

L-Lysin	10 g/l
Gelatine peptone	5 g/l
Yeast extract	3 g/l
Dextrose	1 g/l
Ammonium iron(III) citrate	0,5 g/l
Sodium thiosulphate	0,04 g/l
Bromocresol purple	0,02 g/l
Agar	13,5 g/l
pH value	6,7 ±0,2

Art. No.	Pack Qty.	Pack.	€
8322.1	500 g	plastic	228,45
Original pack 6 x 500 g			217,03/500 g

Nutrient Media

MacConkey Broth

Ph. Eur., USP, for microbiology

For detection of coliform bacteria in water, milk and other liquids.

Application: Use 35 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Gelatin peptone (Pancreas hydrolysate)	20 g/l
Lactose monohydrate	10 g/l
Dehydrated ox bile	5 g/l
Bromocresol purple	0,01 g/l
pH value	7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE47.1	500 g	plastic	107,40
Original pack 6 x 500 g			102,03/500 g

MacConkey Agar

Ph. Eur., ISO 21150, EN ISO 21567, for microbiology

For selective isolation and identification of enterobacteria from waste water, foods and other samples.



Figure:
A: *Enterobacter aerogenes.*
B: *Shigella dysenteriae.*

Application: Use 50 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Gelatin peptone (Pancreas hydrolysate)	17 g/l
Meat and casein peptone	3 g/l
Lactose monohydrate	10 g/l
Bile salt (Cholate)	1,5 g/l
Sodium chloride (NaCl)	5 g/l
Neutral red	0,03 g/l
Crystal Violet	0,001 g/l
Agar	13,5 g/l
pH value	7,1 ±0,2

Art. No.	Pack Qty.	Pack.	€
X922.3	100 g	plastic	35,40
X922.1	500 g	plastic	109,15
Original pack 6 x 500 g			103,69/500 g
X922.2	1 kg	plastic	196,20
Original pack 6 x 1 kg			186,39/1 kg

► MacConkey Agar, granulated see page 333

Malt Extract Broth

for microbiology

For isolation and enumeration of yeasts and moulds, as well as for sterility testing.

Application: Use 19 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

Malt extract	13,0 g/l
Gelatine peptone	5,5 g/l
Yeast extract	0,5 g/l
pH value	4,7 ±0,2

Art. No.	Pack Qty.	Pack.	€
CP75.1	500 g	plastic	115,60
Original pack 6 x 500 g			109,82/500 g



Malt Extract Agar

for microbiology

For cultivation of fungi and yeasts.

Application: Use 33.6 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Malt extract	12,75 g/l
Gelatine peptone	0,78 g/l
Glycerol	2,35 g/l
Dextrine	2,75 g/l
Agar	15 g/l
pH value	4,7 ±0,2

Art. No.	Pack Qty.	Pack.	€
X923.1	500 g	plastic	109,15
Original pack 6 x 500 g			103,69/500 g
X923.2	1 kg	plastic	188,15
Original pack 6 x 1 kg			178,74/1 kg

Sterilisation of media containing sugar

Media containing sugar or **malt extract**, particularly those with a low pH, must be sterilised with care. We recommend autoclaving at up to 118 °C for a maximum of 15 min. Please observe the guidelines given in the instructions for use.

The reasons are as follows:

a) Heating sugar in combination with amino acids (from peptone, meat extract, yeast extract, or similar) can result in **toxic Maillard reaction products** which may interfere with proliferation of micro-organisms.

b) Inclusion of different sugar molecules and sugar degradation products will cause premature chain termination and inhibit chain cross-linking. The **gelability of agars containing sugar** will thereby be reduced.

Mannitol Egg Yolk Polymyxin Agar (Base)

for microbiology

For enumeration and isolation of *Bacillus cereus* in food, acc. to Mossel.



Figure:
Bacillus cereus.

Application: Use 43 g for 900 ml agar. After cooling add 100 ml Egg Yolk Emulsion (Art. No. 0402.1) and 2 vials (2x6 ml) reconstituted *Bacillus cereus* Supplement (Art. No. 4856.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Composition

Meat peptone	10 g/l
Sodium chloride	10 g/l
D-Mannitol	10 g/l
Beef extract	1 g/l
Phenol red	0,025 g/l
Agar	12 g/l
pH value	7,1 ±0,2

Art. No.	Pack Qty.	Pack.	€
5765.1	500 g	plastic	127,95
Original pack 6 x 500 g			121,55/500 g

► Bacillus cereus Supplement see page 335

Mannitol Salt Agar

Ph. Eur., ISO 22718, for microbiology

For isolation of pathogenic *Staphylococci*.

Recommended by the Harmonized Method (Ph. Eur. 6.0, 2.6.13.B) for proliferation and identification of *Staphylococcus aureus*.



Figure:
Staphylococcus aureus.

Application: Use 111 g for 1 l agar. Optional: Add egg yolk emulsion (Art. No. 0402.1) to 5 % final concentration.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 2

Guarantee analysis

Pancreatic digest of casein	5 g/l
Peptone (peptic digest of animal tissue)	5 g/l
Beef extract	1 g/l
Sodium chloride	75 g/l
D-Mannitol	10 g/l
Phenol red	0,025 g/l
Agar	15 g/l
pH value	7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL81.1	500 g	plastic	83,35
Original pack 6 x 500 g			79,18/500 g

► Egg Yolk Emulsion (20 %) see page 336



Marine Broth

for microbiology

For enumeration and isolation of heterotropic marine bacteria.

Application: Use 40.1 g for 1 l broth. May be slightly opalescent and may present a light precipitation.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 2

Warning H319

Composition

Sodium chloride (NaCl)	19,4 g/l
Magnesium chloride	8,8 g/l
Peptone	5 g/l
Sodium sulphate (Na_2SO_4)	3,24 g/l
Calcium chloride	1,8 g/l
Yeast extract	1 g/l
Potassium chloride (KCl)	0,55 g/l
Sodium bicarbonate	0,16 g/l
Ferric citrate	0,1 g/l
Potassium bromide	0,08 g/l
Strontium chloride	0,034 g/l
Boric acid	0,022 g/l
Sodium silicate	0,004 g/l
Sodium fluoride	0,0024 g/l
Ammonium nitrate	0,0016 g/l
Disodium phosphate	0,008 g/l
pH value	7,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
CP73.1	500 g	plastic	117,75
Original pack 6 x 500 g			111,86/500 g
CP73.2	1 kg	plastic	201,60
Original pack 6 x 1 kg			191,52/1 kg

Maximum Recovery Solution

DIN EN ISO 6887-1, ISO 8199, ISO 11133, ISO 22718, for microbiology

For homogenization and dilution of microbiological samples.

Application: Use 9.5 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Sodium chloride	8,5 g/l
Casein peptone	1 g/l
pH value	7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
5766.1	500 g	plastic	74,20
Original pack 6 x 500 g			70,49/500 g

m-CP Agar

for microbiology

For isolation and enumeration of *Clostridium perfringens.*

Application: Use 71.1 g for 1 l agar. After autoclaving add 2 vials (2x2 ml) reconstituted *Clostridium perfringens* Supplement (Art. No. CL52.1) and other supplements.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Tryptose	30 g/l
Yeast extract	20 g/l
Saccharose	5 g/l
L-Cysteine hydrochloride	1 g/l
Magnesium sulphate heptahydrate	0,1 g/l
Bromocresol purple	0,04 g/l
Agar	15 g/l
pH-value	7,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL55.1	500 g	plastic	266,10
Original pack 6 x 500 g			252,80/500 g

► Clostridium perfringens Supplement see page 336

m-EI-chromogenic Agar (Base)

for microbiology

For detection and enumeration of *Enterococcus* in water via single step membrane filtration.



Staining of species:
Enterococcus blue (by reaction of the β-D-glucosidase).
E. coli inhibited.

For detection and enumeration of *Enterococcus* in water via single step membrane filtration.

Application: Use 71.95 g for 1 l agar. After autoclaving add 0.24 g nalidixic acid (Art. No. CN32.1) solubilised in water.

Storage temperature: +4 °C

WGK 1

Composition

Yeast extract	30 g/l
Sodium chloride	15 g/l
Peptone	10 g/l
Esculin	1 g/l
Chromogene Mixture	0,75 g/l
Sodium azide	0,15 g/l
Cycloheximide	0,05 g/l
Agar	15 g/l
pH value	7,1 ±0,2

Art. No.	Pack Qty.	Pack.	€
3014.1	100 g	plastic	186,55

Mossel EE Broth

Ph. Eur., for microbiology

For selective enrichment of enterobacteria in foods, particularly *Salmonella* and Coliforms.



Figure:
(1) Enterobacteria (here: *E. coli*), indicated by colour yellow caused by pH-shift.
(2) Uninoculated broth.

Application: Use 45 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Pancreas hydrolysate made from gelatin	10 g/l
Glucose monohydrate	5 g/l
Dehydrated ox bile	20 g/l
Potassium dihydrogen phosphate	2 g/l
di-Sodium hydrogenphosphate dihydrate	8 g/l
Brilliant green	0,015 g/l
pH value	7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE65.1	500 g	plastic	246,75
Original pack 6 x 500 g			234,41/500 g

MRSA chromogenic Agar (Base)

for microbiology

For detection of methicillin resistant staphylococci.



Staining of species:
Staphylococcus aureus ATCC 43300 blue (by reaction of the α-D-glucosidase).
Staphylococcus aureus ATCC 25923 and *E. coli* inhibited.

Application: Use 103.4 g for 1 l agar.
Do not overheat! After cooling add 2 vials (2 x5 ml) reconstituted MRSA Cefoxitin Supplement (Art. No. 2975.1).

Storage temperature: +4 °C

WGK 3

Composition

Nutrients	78 g/l
Peptone	11 g/l
Chromogene Mixture	1,9 g/l
Agar	12,5 g/l
pH value	7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
3026.1	100 g	plastic	98,40

► MRSA Cefoxitin Supplement see page 339



MRS Broth

for microbiology

For cultivation of lactobacilli. According to deMan, Rogosa and Sharpe.

Application: Use 52 g for 1 l broth.

Storage temperature: +4 °C

WGK 1

Composition

Peptone	10 g/l
Yeast extract	4 g/l
Beef extract	8 g/l
Glucose	20 g/l
Dipotassium phosphate	2 g/l
Sodium acetate	5 g/l
Ammonium citrate	2 g/l
Magnesium sulphate ($MgSO_4$)	0,2 g/l
Manganese sulphate	0,05 g/l
Polysorbate 80	1 g/l
pH value	6,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
X925.1	500 g	plastic	98,40
Original pack 6 x 500 g			93,48/500 g
X925.2	1 kg	plastic	165,05
Original pack 6 x 1 kg			156,80/1 kg
X925.3	2.5 kg	plastic	353,70

MRS Broth pH 5.7

for microbiology

For cultivation of pH sensitive lactobacilli from foods and feeding stuff. According to deMan, Rogosa and Sharpe.

MRS Broth with low pH value. For cultivation of special strains of lactobacilli, which show reduced growth under higher pH-values. Also for efficient protein expression of many proteins of *Lactobacillus*. 0.1 g/l Magnesium sulphate (anhydrous) is equivalent to 0.2 g/l Magnesium sulphate heptahydrate. 0.003 g/l Manganese sulphate (anhydrous) is equivalent to 0.05 g/l Manganese sulphate tetrahydrate.

Application: Use 54 g for 1 l broth.

Storage temperature: +4 °C

WGK 1

Guarantee analysis

Casein peptone	10 g/l
Yeast extract	4 g/l
Beef extract	10 g/l
Glucose	20 g/l
Dipotassium phosphate	2 g/l
Sodium acetate	5 g/l
Triammonium citrate	2 g/l
Magnesium sulphate heptahydrate	0,20 g/l
Mangansulphate tetrahydrate	0,05 g/l
Polysorbate 80	1,08 g/l
pH value	5,7 ±0,1

Art. No.	Pack Qty.	Pack.	€
HP64.1	500 g	plastic	101,60
Original pack 6 x 500 g			96,52/500 g



MRS Agar

for microbiology

For cultivation of lactobacilli. According to deMan, Rogosa and Sharpe.

Application: Use 62 g for 1 l agar.

Storage temperature: +4 °C

WGK 2

Composition

Peptone	10 g/l
Yeast extract	4 g/l
Beef extract	8 g/l
Glucose	20 g/l
Dipotassium phosphate	2 g/l
Sodium acetate	5 g/l
Ammonium citrate	2 g/l
Magnesium sulphate ($MgSO_4$)	0,2 g/l
Manganese sulphate	0,05 g/l
Polysorbate 80	1 g/l
Agar	10 g/l
pH value	6,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
X924.5	100 g	plastic	35,40
X924.1	500 g	plastic	101,60
Original pack 6 x 500 g			96,52/500 g
X924.2	1 kg	plastic	176,85
Original pack 6 x 1 kg			168,01/1 kg
X924.3	2.5 kg	plastic	385,95
X924.4	5 kg	plastic	762,20

MRS Agar pH 5.7

ISO 11133, ISO 15214, for microbiology

For cultivation of pH sensitive lactobacilli from foods and feeding stuff. According to deMan, Rogosa and Sharpe.

MRS Agar with low pH value. For cultivation of special strains of lactobacilli, which show reduced growth under higher pH-values. Also for efficient protein expression of many proteins of *Lactobacillus*.

0.1 g/l Magnesium sulphate (anhydrous) is equivalent to 0.2 g/l Magnesium sulphate heptahydrate. 0.003 g/l Manganese sulphate (anhydrous) is equivalent to 0.05 g/l Manganese sulphate tetrahydrate.

Application: Use 66 g for 1 l agar.

Storage temperature: +4 °C

WGK 1

Guarantee analysis

Casein peptone	10 g/l
Yeast extract	4 g/l
Beef extract	10 g/l
Glucose	20 g/l
Dipotassium phosphate	2 g/l
Sodium acetate	5 g/l
Triammonium citrate	2 g/l
Magnesium sulphate heptahydrate	0,20 g/l
Mangansulphate tetrahydrate	0,05 g/l
Polysorbate 80	1,08 g/l
Agar	12 g/l
pH value	5,7 ±0,1

Art. No.	Pack Qty.	Pack.	€
HP65.1	500 g	plastic	111,30
Original pack 6 x 500 g			105,74/500 g



MR/VP Broth

for microbiology

For the differentiation of the *Escherichia-Enterobacter* group (Methyl Red and Voges-Proskauer reactions)

Applications

MR/VP broth is used in the coloured series for the differentiation of enteric Gram-negative bacilli based on the methyl red and Voges-Proskauer reactions of the Escherichia-Enterobacter group.
The methyl red test is used to differentiate between microorganisms that produce and maintain a high acid concentration and those that produce a lower amount of acid.
Enterobacter bacteria oxidize the acetylmethylcarbinol in the Voges-Proskauer reaction and cause a red coloration, in contrast to *Escherichia coli*, which does not.

Application: Use 17 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Composition

Peptone mixture ..... 7 g/l
Dextrose ..... 5 g/l
Potassium phosphate ..... 5 g/l
pH value (25 °C) 6,7-7,1

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1E1K.1	500 g	plastic	107,00
Original pack 6 x 500 g			101,65/500 g
1E1K.2	1 kg	plastic	198,90
Original pack 6 x 1 kg			188,96/1 kg

► Barritt's reagent see page 317

► O'Meara's reagent see page 341

► Methyl red solution see page 341

Mueller Hinton Broth

ISO 16782, for microbiology

For cultivation of microorganisms and for antibiotic-sensitivity testing.

Application: Use 21 g for 1 l broth. Slightly opalescent.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Composition

Beef Infusion ..... 2 g/l
Casein peptone (acidic hydrolysate) ..... 17,5 g/l
Corn starch ..... 1,5 g/l
pH value ..... 7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
X927.1	500 g	plastic	160,20
Original pack 6 x 500 g			152,19/500 g

Mueller Hinton Agar

for microbiology

For testing of organism susceptibility to antimicrobial agents by disk diffusion method. Also for cultivation of *Neisseria*.

Application: Use 38 g for 1 l agar. Slightly opalescent.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Composition

Beef Infusion ..... 2 g/l
Casein peptone (acidic hydrolysate) ..... 17,5 g/l
Corn starch ..... 1,5 g/l
Agar ..... 17 g/l
pH value ..... 7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
X926.1	500 g	plastic	122,05
Original pack 6 x 500 g			115,95/500 g
X926.2	1 kg	plastic	220,40
Original pack 6 x 1 kg			209,38/1 kg

► McFarland Turbidity standards see page 377

Mueller Kauffmann Broth (Base)

for microbiology

For selective enrichment of *Salmonella* from meat and other foods.

Application: Use 82 g for 1 l broth. Add iodine and brilliant green.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 3

Composition

Sodium thiosulphate ..... 40,7 g/l
Calcium carbonate ..... 25 g/l
Dehydrated ox bile ..... 4,75 g/l
Sodium chloride (NaCl) ..... 4,5 g/l
Meat peptone ..... 4,5 g/l
Yeast extract ..... 1,8 g/l
Meat extract ..... 0,9 g/l
pH value ..... 7,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
8323.1	500 g	plastic	107,40
Original pack 6 x 500 g			102,03/500 g

Nutrient Broth

for microbiology

For cultivation of non-fastidious microorganisms.

Application: Use 8 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Composition

Beef extract ..... 3 g/l
Gelatine peptone ..... 5 g/l
pH value ..... 6,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
X929.1	500 g	plastic	100,55
Original pack 6 x 500 g			95,52/500 g
X929.2	1 kg	plastic	176,85
Original pack 6 x 1 kg			168,01/1 kg

Nutrient Agar

EN ISO 6579, ISO 10273, ISO 11133 , ISO 19250, for microbiology

For cultivation of non-fastidious microorganisms.

Application: Use 23 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Gelatine peptone ..... 5 g/l
Beef extract ..... 3 g/l
Agar ..... 15 g/l
pH value ..... 6,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
X928.1	500 g	plastic	117,75
Original pack 6 x 500 g			111,86/500 g
X928.2	1 kg	plastic	209,10
Original pack 6 x 1 kg			198,65/1 kg

Nutrient Agar (DEV/ISO)

DEV, EN ISO 16266:2008, for microbiology

For confirmation of *Pseudomonas aeruginosa* in water samples.

Application: Use 28 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Peptone ..... 5 g/l
Meat extract ..... 1 g/l
Yeast extract ..... 2 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar ..... 15 g/l
pH value ..... 7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
CP66.1	500 g	plastic	147,85
Original pack 6 x 500 g			140,46/500 g



Nutrient Agar (DEV)

DEV, DIN 38 411, for microbiology

For biochemical analysis of *E.coli* and Coliforms in water samples and other sample material.

Application: Use 43 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Guarantee analysis

Meat peptone ..... 10 g/l
Meat extract ..... 10 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar ..... 18 g/l
pH value ..... 7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL02.1	500 g	plastic	134,40
Original pack 6 x 500 g			127,68/500 g
CL02.2	1 kg	plastic	241,90
Original pack 6 x 1 kg			229,81/1 kg
CL02.7	5 kg	plastic	1.058,90

Orange Serum Agar

for microbiology

For isolation, detection and counting of acid-tolerant pathogenic and non-pathogenic germs in fruit juices and fruit juice concentrate, especially from citrus fruits.

Application: Use 40 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 3077 · ADR 9 III · WGK 3

Warning H315-H317-H411-EUH208

Composition

Casein peptone ..... 10 g/l
Orange extract ..... 5 g/l
Glucose ..... 4 g/l
Potassium phosphate ..... 3 g/l
Yeast extract ..... 3 g/l
Agar ..... 15 g/l
pH value ..... 5,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
HP09.1	500 g	plastic	216,65
Original pack 6 x 500 g			205,82/500 g

► Orange Serum Agar, granulated see page 333

Oxford Listeria Agar (Base)

ISO 11290-1, for microbiology

Selective medium for detection of *Listeria monocytogenes.*



Figure:
Listeria monocytogenes.

Based on Columbia Agar (Base) (Art. No. X919).

Application: Use 55.5 g for 1 l agar. After cooling add 2 vials (2 x 9 ml) reconstituted Listeria Oxford Supplement (Art. No. 5801.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Warning H302-H315-H319

Guarantee analysis

Peptone mixture ..... 23 g/l
Sodium chloride ..... 5 g/l
Starch ..... 1 g/l
Lithium chloride ..... 15 g/l
Esculin ..... 1 g/l
Ammonium iron(III) citrate ..... 0,5 g/l
Agar ..... 10 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
5767.1	500 g	plastic	203,20
Original pack 6 x 500 g			193,04/500 g

► Listeria Oxford Supplement see page 338

Palcam Listeria Agar (Base)

ISO 11290-1, for microbiology

Differential medium for detection of *Listeria ssp.*, particularly *L. monocytogenes.*



Figure:
Listeria monocytogenes.

Based on Columbia Agar (Base) (Art. No. X919).

Application: Use 68.8 g for 1 l agar. After cooling add 2 vials (2 x 6 ml) reconstituted Listeria Palcam Supplement (Art. No. 5803.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Warning H315-H319

Guarantee analysis

Peptone mixture	23 g/l
Sodium chloride	5 g/l
Starch	1 g/l
Lithium chloride	15 g/l
D-Mannitol	10 g/l
Yeast extract	3 g/l
Esculin	0,8 g/l
Glucose	0,5 g/l
Phenol red	0,08 g/l
Ammonium iron(III) citrate	0,5 g/l
Agar	10 g/l
pH value	7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
5768.1	500 g	plastic	188,15
Original pack 6 x 500 g			178,74/500 g

► Listeria Palcam Supplement see page 338

Please note our **Technical Information Brochure** on the Internet next to the products:

Clouding of Microbiological Nutrient Media
Basics, tips and tricks

► **Ready-Made Media by Carl ROTH**
see the front part of this chapter



Peptone Water, buffered

Ph. Eur., for microbiology

For dilution and homogenisation of samples during microbiological analysis of food.

Sodium peptone buffer solution pH 7,0 (Ph. Eur. 6.0) · Buffered Sodium Chloride-Peptone Solution pH 7,0 (Ph.Eur. 6.3, 7.0, 8.0 et 9.0)

Application: Use 16.1 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Potassium dihydrogen phosphate	3,6 g/l
di-Sodium hydrogenphosphate dihydrate	7,2 g/l
Sodium chloride (NaCl)	4,3 g/l
Casein peptone (Pancreas hydrolysate)	1,0 g/l
pH value	7,0 ±0,2

*Equivalent to 0.067 M phosphate.

Art. No.	Pack Qty.	Pack.	€
AE67.1	500 g	plastic	84,40
Original pack 6 x 500 g			80,18/500 g
AE67.2	1 kg	plastic	144,60
Original pack 6 x 1 kg			137,37/1 kg



Peptone Water, buffered

EN ISO 6579, EN ISO 6887, ISO 11133, ISO 11290, ISO 19250, ISO 21528, for microbiology

Diluent for homogenisation of food samples and for sample preparation for microbiological analysis.

Application: Use 20 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Pancreatic digest of casein	10 g/l
Sodium chloride (NaCl)	5 g/l
Disodium phosphate	3,5 g/l
Potassium dihydrogen phosphate	1,5 g/l
pH value	7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X917.1	500 g	plastic	75,15
Original pack 6 x 500 g			71,39/500 g
X917.2	1 kg	plastic	134,40
Original pack 6 x 1 kg			127,68/1 kg
X917.3	2.5 kg	plastic	278,45

► Peptone water, buffered, granulated see page 333



Plate Count Agar

APHA, ISO 4833:2003, for microbiology

For enumeration of the aerobic microbial flora in milk, foods and other material.

Application: Use 23.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Guarantee analysis

Casein peptone ..... 5 g/l
Yeast extract ..... 2,5 g/l
Glucose ..... 1 g/l
Agar ..... 15 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X930.1	500 g	plastic	112,35
Original pack 6 x 500 g			106,73/500 g
X930.2	1 kg	plastic	206,95
Original pack 6 x 1 kg			196,60/1 kg
X930.3	2.5 kg	plastic	424,65

► Plate Count Agar, granulated see page 333

Plate Count Agar with Powdered Milk

ISO 4833, ISO 11133, APHA, IDF, LMBG, for microbiology

For enumeration of microorganisms in milk and dairy derivatives.

Application: Use 24.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Guarantee analysis

Tryptone (Peptone from Casein) ..... 5 g/l
Yeast extract ..... 2,5 g/l
Glucose ..... 1 g/l
Skimmed Milk Powder ..... 1 g/l
Agar ..... 15 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
HP08.1	500 g	plastic	126,35
Original pack 6 x 500 g			120,03/500 g

Potato Extract Glucose Broth

for microbiology

For identification, cultivation and enumeration of yeasts and moulds.

Application: Use 26.5 g for 1 l broth. Slightly opalescent.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Composition

Potato infusion ..... 6,5 g/l
Glucose ..... 20 g/l
pH value ..... 5,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
CP74.1	500 g	plastic	88,70
Original pack 6 x 500 g			84,27/500 g
CP74.2	1 kg	plastic	160,20
Original pack 6 x 1 kg			152,19/1 kg

Potato Extract Glucose Agar

Ph. Eur., for microbiology

For cultivation and identification of yeasts and moulds.

Recommended by the Harmonized Method (Ph. Eur. 6.0, 2.6.12.B) for preperation of strains of *Aspergillus brasiliensis*.



Figure:
Aspergillus brasiliensis.

Application: Use 39 g for 1 l agar. Slightly opalescent.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Guarantee analysis

Potato infusion ..... 4 g/l
Glucose ..... 20 g/l
Agar ..... 15 g/l
pH value ..... 5,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
X931.1	500 g	plastic	127,95
Original pack 6 x 500 g			121,55/500 g
X931.2	1 kg	plastic	227,40
Original pack 6 x 1 kg			216,03/1 kg
X931.3	2.5 kg	plastic	507,95

„Infusion“

In the early days of bacteriology, so-called “**infusions**” (tissue extraction) were used in microbiological media. During the development of the dry media, these extracts were dried and used in a powdery form to produce purified and standardised extracts. Today, extracts or special, highly purified peptones are commonly used in modern media.

As simply manufactured and non-standardised natural products, “**infusion**” have a relatively low batch-to-batch constancy and vary both in composition and in nutrient content. However, they are still commonly used in several classic media.

Pseudomonas chromogenic Agar

for microbiology

For detection and isolation of *Pseudomonas*.



Staining of species:
Pseudomonas aeruginosa magenta on green-blue coloured agar.
E. coli, *Enterococcus*, *Salmonella* and *Staphylococcus* inhibited or colourless.

Application: Use 37 g for 1 l agar. Do not overheat!

Storage temperature: +4 °C

WGK 3

Composition

Nutrients	14 g/l
Peptone	10 g/l
Chromogene Mixture	1 g/l
Bromothymol blue	0,02 g/l
Agar	12 g/l
pH value	7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
3075.1	100 g	plastic	149,45

Pseudomonas Selective Agar (Base)

DEV, ISO 11133, EN ISO 16266:2008, for microbiology

For determination and enumeration of *Pseudomonas aeruginosa* from water samples by membrane filtration method.

Application: Use 50.6 g for 990 ml agar. Add 10 ml glycerol.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 3077 · ADR 9 III · WGK 3

Warning H410

Guarantee analysis

Gelatine peptone	16 g/l
Casein hydrolysed	10 g/l
Anhydrous potassium sulphate	10 g/l
Anhydrous magnesium chloride	1,4 g/l
Cetrimide	0,2 g/l
Nalidixic acid	0,015 g/l
Agar	13 g/l
pH value	7,1 ±0,2

Art. No.	Pack Qty.	Pack.	€
CP67.1	500 g	plastic	181,70
Original pack 6 x 500 g			172,62/500 g

R2A-Agar

Ph. Eur., for microbiology

For enumeration of heterotrophic bacteria from water samples.

Application: Use 18.1 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Yeast extract	0,5 g/l
Peptone	0,5 g/l
Casein hydrolysed	0,5 g/l
Glucose	0,5 g/l
Starch	0,5 g/l
di-Potassium hydrogen phosphate	0,3 g/l
Magnesium sulphate ($MgSO_4$)	0,024 g/l
Sodium pyruvate	0,3 g/l
Agar	15 g/l
pH value	7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL01.1	500 g	plastic	180,10
Original pack 6 x 500 g			171,10/500 g

► R2A-Agar, granulated see page 333

Rappaport Vassiliadis Broth

Ph. Eur., for microbiology

For selective enrichment of *Salmonellae* in foods, water- and other samples.

Recommended by the Harmonized Method (Ph. Eur. 6.0, 2.6.13.B) for proliferation of *Salmonella*.

This particular formulation is a slight modification of the original medium developed by Rappaport (Rappaport *et al.*, 1956, *J. Clin. Pathol.* 9: 261-1).

Application: Use 27.1 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Anhydrous magnesium chloride	13,58 g/l
Sodium chloride (NaCl)	8,0 g/l
Soy peptone	4,5 g/l
Potassium dihydrogen phosphate	0,6 g/l
di-Potassium hydrogen phosphate	0,4 g/l
Malachite green	0,036 g/l
pH value	5,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL03.1	500 g	plastic	126,35
Original pack 6 x 500 g			120,03/500 g

Reinforced Clostridial Medium

Ph. Eur., for microbiology

For enrichment and enumeration of *Clostridiae* and other anaerobes from foods and other specimens.

Application: Use 38 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Guarantee analysis

Beef extract	10 g/l
Peptone	10 g/l
Yeast extract	3 g/l
Soluble starch	1 g/l
Glucose monohydrate	5 g/l
Cystein hydrochloride	0,5 g/l
Sodium chloride (NaCl)	5 g/l
Sodium acetate	3 g/l
Agar	0,5 g/l
pH value	6,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE66.1	500 g	plastic	143,55
Original pack 6 x 500 g			136,37/500 g

Rogosa Agar

for microbiology

For selective cultivation of lactobacilli.

Application: Use 75 g for 1 l agar.

Storage temperature: +4 °C
Transport temperature: ambient temp.

WGK 2

Composition

Sodium acetate	15 g/l
Tryptone	10 g/l
Dextrose	10 g/l
Potassium phosphate	6 g/l
Yeast extract	5 g/l
Sucrose	5 g/l
Arabinose	5 g/l
Ammonium citrate	2 g/l
Polysorbate 80	1 g/l
Magnesium sulphate ($MgSO_4$)	0,57 g/l
Manganese sulphate	0,12 g/l
Iron sulphate	0,03 g/l
Agar	15 g/l
pH value	5,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
8329.1	500 g	plastic	183,30
Original pack 6 x 500 g			174,14/500 g

Sabouraud 2 % Glucose Broth

Ph. Eur., for microbiology

Selective media for taxonomic analysis of pathogenic fungi.

Application: Use 30 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Meat and casein peptone	10 g/l
Glucose	20 g/l
pH value	5,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE23.1	500 g	plastic	93,45
Original pack 6 x 500 g			88,78/500 g

► Sabouraud 2 % Glucose Broth, granulated
see page 333

Sabouraud 2 % Glucose Agar

for microbiology

Selective agar for taxonomic analysis of pathogenic fungi.

The low amount of glucose supports the activation of the secondary metabolism and, subsequently, pigment formation.

Application: Use 47 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Meat and casein peptone	10 g/l
Glucose	20 g/l
Agar	17 g/l
pH value	5,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE22.1	500 g	plastic	102,70
Original pack 6 x 500 g			97,57/500 g

Sabouraud 4 % Glucose Agar

Ph. Eur., ISO 11133, ISO 16212, for microbiology

For isolation, differentiation and cultivation of yeasts and fungi.

Recommended by the Harmonized Method (Ph. Eur. 6.0, 2.6.13.B) for growth and identification of *Candida albicans*.

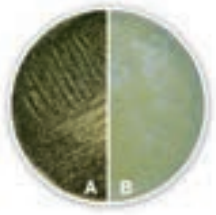


Figure:
A: *Aspergillus brasiliensis.*
B: *Candida albicans.*

Application: Use 65 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Meat and casein peptone ..... 10 g/l
Glucose monohydrate ..... 40 g/l
Agar ..... 15 g/l
pH value ..... 5,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
X932.3	100 g	plastic	31,10
X932.1	500 g	plastic	88,70
Original pack 6 x 500 g			84,27/500 g
X932.2	1 kg	plastic	158,60
Original pack 6 x 1 kg			150,67/1 kg

Sabouraud 4 % Glucose Agar (with chloroamphenicol)

Ph. Eur., ISO 11133, ISO 16212, for microbiology

Selective agar for cultivation and isolation of yeasts and pathogenic fungi.

Agar medium C with chloroamphenicol (Ph. Eur. 6.0)

Application: Use 65 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Meat and casein peptone ..... 10 g/l
Glucose ..... 40 g/l
Chloroamphenicol ..... 0,05 g/l
Agar ..... 15 g/l
pH value ..... 5,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE48.1	500 g	plastic	111,30
Original pack 6 x 500 g			105,74/500 g

Sabouraud 4 % Glucose Agar (with chloroamphenicol)

for microbiology

For selective isolation of yeasts and pathogenic fungi.

Application: Use 65.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Meat and casein peptone ..... 10 g/l
Glucose ..... 40 g/l
Chloroamphenicol ..... 0,5 g/l
Agar ..... 15 g/l
pH value ..... 5,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
X933.1	500 g	plastic	99,45
Original pack 6 x 500 g			94,48/500 g

Salmonella chromogenic Agar

for microbiology

For isolation of *Salmonella* from foods, waters and other samples.



Staining of species:
Salmonella magenta (by reaction of the ß-D-galactosidase), *E. coli* turquoise (by reaction of the ß-D-glucuronidase) other *Enterobacteriaceae* clear or inhibited

Application: Use 37.1 g for 1 l agar.

Storage temperature: +4 °C

WGK 1

Composition

Sodium citrate ..... 8,5 g/l
Casein peptone ..... 5 g/l
Beef extract ..... 5 g/l
Chromogene Mixture ..... 5,81 g/l
Agar ..... 12,8 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL46.2	100 g	plastic	223,10
CL46.1	500 g	plastic	908,40
Original pack 6 x 500 g			862,98/500 g

Salmonella-Shigella Agar

for microbiology

For isolation of pathogenic enterobacteria, especially *Salmonella* and *Shigella*.

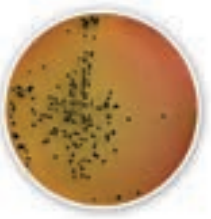


Figure:
Salmonella typhimurium.

Application: Use 60 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 2

Composition

Beef extract ..... 5 g/l
Peptone mixture ..... 5 g/l
Lactose ..... 10 g/l
Ferric citrate ..... 1 g/l
Bile salts ..... 8,5 g/l
Sodium citrate ..... 8,5 g/l
Sodium thiosulphate ..... 8,5 g/l
Brilliant green ..... 0,0003 g/l
Neutral red ..... 0,025 g/l
Agar ..... 13,5 g/l
pH-value 6,8-7,2

Art. No.	Pack Qty.	Pack.	€
X934.1	500 g	plastic	79,05
Original pack 6 x 500 g			75,10/500 g

Schaedler Broth

for microbiology

For enrichment and cultivation of anaerobic microorganisms.
Based on CASO Broth / Trypticasein Soy Broth (Art. No. X938).

Application: Use 28.4 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 3

Composition

Casein peptone	5,66 g/l
Soy peptone	1 g/l
Sodium chloride	1,66 g/l
Dipotassium hydrogen phosphate	0,83 g/l
Peptone mixture	5 g/l
Yeast extract	5 g/l
Glucose	5,83 g/l
Tris (hydroxymethyl aminomethane)	3 g/l
L-Cystine	0,4 g/l
Hemin	0,01 g/l
pH value	7,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
5772.1	500 g	plastic	147,85
Original pack 6 x 500 g			140,46/500 g

Schaedler Agar

for microbiology

For recovery and cultivation of anaerobic microorganisms.
Based on CASO Broth / Trypticasein Soy Broth (Art. No. X938).

Application: Use 41.9 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Composition

Casein peptone	5,66 g/l
Soy peptone	1 g/l
Sodium chloride	1,66 g/l
Dipotassium hydrogen phosphate	0,83 g/l
Peptone mixture	5 g/l
Yeast extract	5 g/l
Glucose	5,83 g/l
Tris (hydroxymethyl aminomethane)	3 g/l
L-Cystine	0,4 g/l
Hemin	0,01 g/l
Agar	13,5 g/l
pH value	7,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
5771.1	500 g	plastic	165,05
Original pack 6 x 500 g			156,80/500 g

Simmons Citrate Agar

ISO 10273, for microbiology

For differentiation of microorganisms on the basis of citrate utilization.

Application: Use 24.3 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Guarantee analysis

Sodium chloride	5 g/l
Sodium citrate	2 g/l
Ammonium dihydrogen phosphate	1 g/l
Dikaliumhydrogenphosphat	1 g/l
Magnesium sulphate	0,2 g/l
Bromothymol blue	0,08 g/l
Agar	15 g/l
pH value	6,9 ±0,2

Art. No.	Pack Qty.	Pack.	€
5774.1	500 g	plastic	176,85
Original pack 6 x 500 g			168,01/500 g

Slanetz-Bartley Medium (with tetrazolium chloride)

DEV, ISO 7899-2:2000, ISO 11133, for microbiology

For detection and enumeration of intestinal enterococci from water samples.



Figure:
Enterococcus faecalis.

Application: Use 41.5 g for 1 l agar. Sterilise by sterile filtration, do not autoclave.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Warning H302-H412-EUH032

Guarantee analysis

Tryptose	20 g/l
Yeast extract	5 g/l
Glucose	2 g/l
di-Potassium hydrogen phosphate	4 g/l
Sodium azide	0,4 g/l
Tetrazolium chloride (TTC)	0,1 g/l
Agar	10 g/l
pH value	7,2 ±0,1

Art. No.	Pack Qty.	Pack.	€
CP68.1	500 g	plastic	214,50
Original pack 6 x 500 g			203,78/500 g

Slanetz-Bartley Agar

ISO 7899-2, ISO 11133, for microbiology

For detection and enumeration of faecal *streptococci* by membrane filtration method or by direct plating.

Application: Use 41.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Warning H302-H412

Composition

Tryptose	20 g/l
Yeast extract	5 g/l
Glucose	2 g/l
Dipotassium phosphate	4 g/l
Sodium azide	0,4 g/l
Tetrazolium chloride (TTC)	0,1 g/l
Agar	10 g/l
pH value	7,2 ±0,1

Art. No.	Pack Qty.	Pack.	€
X935.1	500 g	plastic	198,35
Original pack 6 x 500 g			188,43/500 g

Sorbitol MacConkey Agar

ISO 11133, ISO 16654, for microbiology

Selective and differential medium for detection of sorbitol-fermenting *E. coli* O157:H7.



Figure:
A: *Escherichia coli* ATCC 25922.
B: *Escherichia coli* O157:H7.

Application: Use 51.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Casein peptone	17 g/l
Gelatine peptone	3 g/l
Sorbitol	10 g/l
Sodium chloride	5 g/l
Bile salts No. 3	1,5 g/l
Neutral red	0,03 g/l
Crystal Violet	0,001 g/l
Agar	15 g/l
pH value	7,1 ±0,2

Art. No.	Pack Qty.	Pack.	€
5778.1	500 g	plastic	134,40
Original pack 6 x 500 g			127,68/500 g

Standard Nutrient Broth I

for microbiology

For cultivation and enumeration of fastidious bacteria. Also high-base for preparing special culture media.

Application: Use 25 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Peptone	15 g/l
Yeast extract	3 g/l
Sodium chloride (NaCl)	6 g/l
Glucose	1 g/l
pH value	7,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE92.1	500 g	plastic	102,70
Original pack 6 x 500 g			97,57/500 g
AE92.2	1 kg	plastic	183,30
Original pack 6 x 1 kg			174,14/1 kg

► Standard Nutrient Broth I, granulated see page 334

Standard Nutrient Agar I

for microbiology

For cultivation and enumeration of fastidious bacteria. Also high-base for preparing special culture agars.



Figure:
A: *Escherichia coli.*
B: *Pseudomonas aeruginosa.*
C: *Staphylococcus aureus.*
D: *Streptococcus agalactiae.*

With kind permission of Nils Niederstebruch, GLOBOLAB e.V., Assling.

Application: Use 37 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Peptone	15 g/l
Yeast extract	3 g/l
Sodium chloride (NaCl)	6 g/l
Glucose	1 g/l
Agar	12 g/l
pH value	7,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE93.1	500 g	plastic	107,40
Original pack 6 x 500 g			102,03/500 g
AE93.2	1 kg	plastic	185,45
Original pack 6 x 1 kg			176,18/1 kg

► Standard Nutrient Agar I, granulated see page 334

Standard Count Agar

for microbiology

For enumeration of aerobic bacteria in milk, water and wastewaters.

Application: Use 25 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Meat extract ..... 3 g/l
Casein peptone ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar ..... 12 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE91.1	500 g	plastic	139,25
Original pack 6 x 500 g			132,29/500 g

TAT Broth (Base)

for microbiology

For proliferation and regeneration of microorganisms from a variety of matters, e.g. from cosmetics, and matters contaminated with antimicrobial reagents.

Application: Use 25 g for 1 l broth. Before autoclaving add 40 ml Tween® 20 (polysorbate).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Guarantee analysis

Casein peptone ..... 20 g/l
Soya lecithin ..... 5 g/l
pH value ..... 7,1 ±0,2

Art. No.	Pack Qty.	Pack.	€
3935.1	500 g	plastic	143,55
Original pack 6 x 500 g			136,37/500 g
3935.2	1 kg	plastic	246,75
Original pack 6 x 1 kg			234,41/1 kg

TBX chromogenic Agar

ISO 11133, ISO 16649-2 and -3, for microbiology

Selective agar for detection of *E.coli* in food samples.



Staining of species:
E. coli turquoise (by reaction of the β-D-glucuronidase); other Enterobacteriaceae (*Salmonella, Streptococcus, Klebsiella*) clear or inhibited.

Application: Use 36.6 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Casein peptone ..... 20,0 g/l
Bile salts ..... 1,5 g/l
x-β-D-Glucuronide ..... 0,075 g/l
Agar ..... 15,0 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL47.2	100 g	plastic	120,95
CL47.1	500 g	plastic	446,15
Original pack 6 x 500 g			423,84/500 g

TCBS Agar

for microbiology

For selective isolation of *Vibrio.*

Application: Use 88 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Composition

Sucrose ..... 20 g/l
Sodium chloride (NaCl) ..... 10 g/l
Sodium thiosulphate ..... 10 g/l
Sodium citrate ..... 10 g/l
Peptone ..... 10 g/l
Dehydrated ox bile ..... 8 g/l
Yeast extract ..... 5 g/l
Ferric citrate ..... 1 g/l
Bromothymol blue ..... 0,04 g/l
Thymol blue ..... 0,04 g/l
Agar ..... 14 g/l
pH value ..... 8,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
8333.1	500 g	plastic	152,15
Original pack 6 x 500 g			144,54/500 g



Thioglycolate Broth

Ph. Eur., USP, for microbiology

For the detection of microorganisms in sterility tests.

Glucose, peptone and yeast extract contained in the thioglycolate medium provide growth factors necessary for bacterial growth. The reducing agents sodium thioglycolate and L-cystine reduce the accumulation of peroxides, which are lethal to some microorganisms.

Resazurin serves as a redox indicator; on oxidation it shows a pink colour, on reduction it is colourless.

Application: Use 29.8 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Warning H317

Guarantee analysis

Casein peptone (pancreas hydrolysate)	15 g/l
Sodium chloride (NaCl)	2,5 g/l
Yeast extract	5 g/l
L-Cysteine	0,5 g/l
Glucose monohydrate	5,5 g/l
Sodium thioglycolate	0,5 g/l
Sodium resazurin	0,001 g/l
Agar-Agar	0,75 g/l
pH value (25 °C)	6,9-7,3

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1E12.1	100 g	plastic	37,10
1E12.2	500 g	plastic	123,65
Original pack 6 x 500 g			117,47/500 g
1E12.3	1 kg	plastic	218,80
Original pack 6 x 1 kg			207,86/1 kg

Todd-Hewitt-Broth

for microbiology

For cultivation of β-hemolytic streptococci for serological typing.

Application: Use 30 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Heart infusion	3,1 g/l
Peptone	20 g/l
Glucose	2 g/l
Sodium carbonate	2,5 g/l
Sodium chloride (NaCl)	2 g/l
Disodium phosphate	0,4 g/l
pH value	7,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
X936.1	500 g	plastic	115,60
Original pack 6 x 500 g			109,82/500 g

Triple Sugar Iron Agar

for microbiology

For identification and differentiation of enterobacteria and for determination of *Salmonellae*.

Application: Use 64.6 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Guarantee analysis

Beef extract	3 g/l
Yeast extract	3 g/l
Beef- and casein peptone	20 g/l
Sodium chloride (NaCl)	5 g/l
Lactose monohydrate	10 g/l
Saccharose	10 g/l
Glucose monohydrate	1 g/l
Ammonium iron(III) citrate	0,3 g/l
Sodium thiosulphate	0,3 g/l
Phenol red	0,025 g/l
Agar	12 g/l
pH value	7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE49.1	500 g	plastic	104,85
Original pack 6 x 500 g			99,61/500 g

Tryptone Bile Salts Agar

DEV, for microbiology

For detection and enumeration of *E. coli* in foods and water samples.

Application: Use 36.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Guarantee analysis

Tryptone	20 g/l
Bile salts	1,5 g/l
Agar	15 g/l
pH value	7,2 ±0,1

Art. No.	Pack Qty.	Pack.	€
CP69.1	500 g	plastic	166,65
Original pack 6 x 500 g			158,32/500 g

Tryptone Soy Agar

DEV, EN ISO 9308-1:2000, for microbiology

For the detection and enumeration of *E. coli* and other coliform bacteria in foods and water samples.

Application: Use 40 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Casein, tryptic digest	15 g/l
Soy peptone	5 g/l
Sodium chloride (NaCl)	5 g/l
Agar	15 g/l
pH value	7,2 ±0,1

Art. No.	Pack Qty.	Pack.	€
CP70.1	500 g	plastic	107,00
Original pack 6 x 500 g			101,65/500 g
CP70.2	1 kg	plastic	185,45
Original pack 6 x 1 kg			176,18/1 kg

Tryptophane Culture Broth

DEV, ISO 16654, for microbiology

For the detection of *E. coli* in foods and water samples by indole production.

Escherichia transform lactose under acid production via β-galactosidase, and are negative in oxidase test and positive in indole production test. Kovac Reagent (Art. No. 2950.1) is added to 24-48 h old cultures in a concentration of 0.2 to 0.5 ml per 5 ml broth. A colour shift to dark red shows presence of indole.

Application: Use 16 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Casein, tryptic digest	10 g/l
L-Tryptophan	1 g/l
Sodium chloride (NaCl)	5 g/l
pH value	7,5 ±0,1

Art. No.	Pack Qty.	Pack.	€
CP71.1	500 g	plastic	214,50
Original pack 6 x 500 g			203,78/500 g

► Kovacs' Reagent see page 340

TSC Agar (Base)

DEV, EN ISO 7937:2004, ISO 11133, ISO 14189, for microbiology

For detection and enumeration of *Clostridium perfringens* in foods and animal feed.

Application: Use 42 g for 1 l agar. After autoclaving add 2 vials (2x2 ml) reconstituted *Clostridium perfringens* Supplement (Art. No. CL52.1). Add 50 ml egg yolk emulsion (Art. No. 0402.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

⚠ **Warning** H319

Guarantee analysis

Tryptose	15 g/l
Soy peptone	5 g/l
Yeast extract	5 g/l
Sodium bisulfite	1 g/l
Ammonium iron(III) citrate	1 g/l
Agar	15,0 g/l
pH value	7,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL51.1	500 g	plastic	149,45
Original pack 6 x 500 g			141,98/500 g

► Clostridium perfringens Supplement see page 336

► Egg Yolk Emulsion (20 %) see page 336

TTC Chapman Agar (with sodium heptadecyl-sulphate) (Base)

DEV, ISO 11133, for microbiology

For isolation and enumeration of coliform bacteria from water samples.

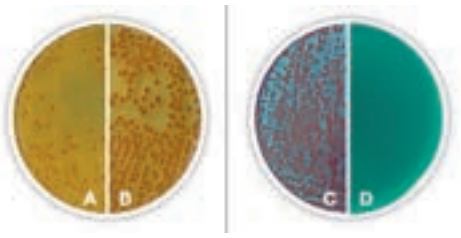


Figure:
A: *E. coli* ATCC 25922 (yellow colonies with orange centre).
B: *Klebsiella spp.* (orange colonies).
C: non-lactose fermenting species.
D: non-induced agar.

Application: Use 56.2 g for 1 l agar. Contains Tergitol. After autoclaving add TTC solution (Art. No. CP72.1) to 0.0025 %.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Lactose	20 g/l
Peptone	10 g/l
Yeast extract	6 g/l
Meat extract	5 g/l
Bromothymol blue	0,05 g/l
Sodium heptadecyl sulphate (Tergitol 7)	0,1 g/l
Agar	15 g/l
pH value	7,2 ±0,1

Art. No.	Pack Qty.	Pack.	€
CP65.1	500 g	plastic	107,00
Original pack 6 x 500 g			101,65/500 g

► TTC-Supplement see page 339

Universal Beer Agar (Base)

for microbiology

For cultivation of beer spoiling microorganisms.

Application: Use 55 g for 1 l agar. Add 250 ml beer.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Peptonised milk	15 g/l
Yeast extract	10 g/l
Dextrose	10 g/l
Tomato juice	7 g/l
Potassium phosphate	0,5 g/l
Dipotassium phosphate	0,5 g/l
Sodium chloride (NaCl)	0,01 g/l
Magnesium sulphate ($MgSO_4$)	0,01 g/l
Manganese sulphate	0,01 g/l
Iron sulphate	0,01 g/l
Agar	12 g/l
pH value	6,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
8337.1	500 g	plastic	142,90
Original pack 6 x 500 g			135,76/500 g

UTI chromogenic Agar

for microbiology

For detection and differentiation of microorganisms causing urinary tract infections.



Staining of species:
E. coli pink (by reaction of the β-D-galactosidase);
Enterobacter, Klebsiella dark blue to violet (by reaction of the β-D-galactosidase and β-D-glucosidase);
Proteus light brown (by reaction of the tryptophan deaminase);
Enterococcus light to medium blue (by reaction of the β-D-glucosidase);
Staphylococcus light beige (natural colony colour).

Application: Use 47.5 g for 1 l agar.

Storage temperature: +4 °C

WGK 3

Composition

Nutrients	13 g/l
Peptone	16 g/l
Tryptophane	2 g/l
Chromogene Mixture	0,5 g/l
Agar	16 g/l
pH value	7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
3089.1	100 g	plastic	192,45



Violet Red Bile Agar with Glucose

Ph. Eur., ISO 11133, ISO 21528, for microbiology

For cultivation and enumeration of enterobacteria in water, foods and other materials.

Recommended by the Harmonized Method (Ph. Eur. 6.0, 2.6.13.B) for growth and identification of *Escherichia coli* and *Pseudomonas aeruginosa* during testing for bile-tolerant gram-negative bacteria.

Application: Use 41.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Guarantee analysis

Yeast extract	3 g/l
Pancreas hydrolysate made from gelatin	7 g/l
Sodium chloride (NaCl)	5 g/l
Bile salts	1,5 g/l
Glucose monohydrate	10 g/l
Neutral red	0,03 g/l
Crystal Violet	0,002 g/l
Agar	15 g/l
pH value	7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
X939.1	500 g	plastic	100,55
Original pack 6 x 500 g			95,52/500 g
X939.2	1 kg	plastic	180,10
Original pack 6 x 1 kg			171,10/1 kg
X939.3	2.5 kg	plastic	375,20

► Violet Red Bile Agar with Glucose, granulated see page 334

Violet Red Bile Agar with Lactose

ISO 4832, ISO 11133, for microbiology

For detection and enumeration of coliforms in milk, foods and other materials.

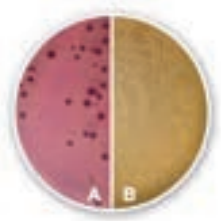


Figure:
A: *Escherichia coli.*
B: *Salmonella gallinarium.*

Application: Use 41.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Yeast extract	3 g/l
Gelatine peptone	7 g/l
Sodium chloride (NaCl)	5 g/l
Bile salts	1,5 g/l
Lactose monohydrate	10 g/l
Neutral red	0,03 g/l
Crystal Violet	0,002 g/l
Agar	15 g/l
pH value	7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
X940.1	500 g	plastic	97,30
Original pack 6 x 500 g			92,44/500 g

Violet Red Bile Agar with Dextrose and Lactose

for microbiology

For detection and enumeration of enterobacteria.

Application: Use 51.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Yeast extract	3 g/l
Pancreas hydrolysate made from gelatin	7 g/l
Cholate	1,5 g/l
Lactose monohydrate	10 g/l
Sodium chloride (NaCl)	5 g/l
Glucose monohydrate	10 g/l
Neutral red	0,03 g/l
Crystal Violet	0,002 g/l
Agar	15 g/l
pH value	7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE45.1	500 g	plastic	107,00
Original pack 6 x 500 g			101,65/500 g

Wort Broth

for microbiology

For cultivation and enumeration of fungi, particularly of yeast.

Application: Use 33 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Malt extract	15 g/l
D-Maltose	12,5 g/l
Dextrine	2,5 g/l
Casein peptone	1 g/l
Dipotassium hydrogen phosphate	1 g/l
Ammonium chloride	1 g/l
pH value	4,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
5779.1	500 g	plastic	235,45
Original pack 6 x 500 g			223,68/500 g

Wort Agar (Base)

for microbiology

For cultivation and enumeration of yeasts.

Application: Use 48.25 g for 1 l agar. Add 2.35 g (1.9 ml) glycerol.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Malt extract	15 g/l
Maltose	12,75 g/l
Dextrine	2,75 g/l
di-Potassium hydrogen phosphate	1 g/l
Ammonium chloride	1 g/l
Peptone	0,75 g/l
Agar	15 g/l
pH value	4,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL04.1	500 g	plastic	212,35
Original pack 6 x 500 g			201,73/500 g

XLD-Agar

Ph. Eur., for microbiology

For isolation of enteropathogenic bacteria, especially from the genera *Shigella* and *Salmonella*.



Figure:
Salmonella typhimurium.

Application: Use 55.2 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Xylose	3,5 g/l
Lactose monohydrate	7,5 g/l
L-Lysin	5 g/l
Saccharose	7,5 g/l
Sodium chloride (NaCl)	5 g/l
Yeast extract	3 g/l
Phenol red	0,08 g/l
Ammonium iron(III) citrate	0,8 g/l
Sodium deoxycholate	2,5 g/l
Sodium thiosulphate	6,8 g/l
Agar	13,5 g/l
pH value	7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
X941.1	500 g	plastic	147,85
Original pack 6 x 500 g			140,46/500 g
X941.2	1 kg	plastic	263,40
Original pack 6 x 1 kg			250,23/1 kg

Microbiological Quality Control

Microbiological quality control of Carl ROTH molecular biological and microbiological culture media and agar is carried out according to following guidelines:

- Plating relevant bacterial strains from standardized stock solution (as a rule in dilutions of 10-1 to 10-10) on agar plates of culture medium to be tested. The preparation of the media and agar must be carried out strictly according to the instructions, which are included.
- Plates from a checked batch of culture media are used as a reference
- The developed colonies are counted and rated after adequate incubation. Counting is always carried out using the plate with colony number 30-300.
- Standardization and validation of test: reference plates are compared with the number of bacteria expected
- Reference and test plate colonies are analysed for size, colour, appearance and possible reaction to certain chemicals
- Growth count on the test plates:

„good“ or „satisfactory“	colony number = 50 % - 99 % of expected growth
„moderate“	colony number = 30 % - 50 % of expected growth
„inhibited“	colony number ≤ 30 % of expected growth
„zero“	no growth



Yeast Extract Agar

DEV, EN ISO 6222, ISO 11133, for microbiology

For the isolation and enumeration of microorganisms in general, e.g. bacteria, moulds, or yeast. Particularly for count of microorganisms isolated from water samples.

Application: Use 24 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Guarantee analysis

Tryptone	6 g/l
Yeast extract	3 g/l
Agar	15 g/l
pH value	7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CP63.1	500 g	plastic	117,75
Original pack 6 x 500 g			111,86/500 g
CP63.2	1 kg	plastic	201,60
Original pack 6 x 1 kg			191,52/1 kg



Yeast Glucose Agar (with chloroamphenicol)

for microbiology

Selective medium for enumeration of yeasts and mould in milk and dairy products.

Application: Use 40.2 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Composition

Yeast extract	5 g/l
Glucose	20 g/l
Chloroamphenicol	0,2 g/l
Agar	15 g/l
pH value	6,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL00.1	500 g	plastic	117,20
Original pack 6 x 500 g			111,34/500 g
CL00.2	1 kg	plastic	201,60
Original pack 6 x 1 kg			191,52/1 kg

► Yeast Glucose Agar (with chloroamphenicol), granulated see page 334

Yersinia Selective Agar (Base)

ISO 10273, ISO 11133, for microbiology

Selective medium for isolation of *Yersinia*, particularly *Y. enterocolitica.*



Figure:
Yersinia enterocolitica.

Selective medium for isolation of *Yersinia*, particularly *Y. enterocolitica.*

Application: Use 57 g for 1 l agar. After cooling add 2 vials (2 x 5 ml) reconstituted Yersinia Supplement (Art. No. 4880.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 2

Guarantee analysis

D-Mannitol	20 g/l
Gelatine peptone	17 g/l
Peptone mixture	3 g/l
Yeast extract	2 g/l
Sodium pyruvate	2 g/l
Sodium chloride	1 g/l
Sodium deoxycholate	0,5 g/l
Neutral red	0,03 g/l
Magnesium sulphate anhydrous	0,01 g/l
Crystal Violet	0,001 g/l
Agar	12,5 g/l
pH value	7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
5780.1	500 g	plastic	209,65
Original pack 6 x 500 g			199,17/500 g

► Yersinia Supplement see page 339

Granulated Dehydrated Nutrient Media for Microbiology



- **Easy:** high solubility
- **Safe:** dust minimised granules reduce health risk
- **Homogeneous:** reduced formation of lumps or separation of the components
- **Fast:** improved flowability for faster processing
- **Tried and tested:** formulation equals our powder media, without any further additives
- **All-round:** suitable for enviromental analysis, cosmetic-, food- and water-industry, and many more
- **Clean:** minimised contamination of workplace



CASO Broth, granulated

Ph. Eur., granulated, for microbiology

For cultivation of fastidious and non-fastidious microorganisms.

Broth medium A (Ph. Eur. 6.0) · Soy Peptone Broth · TSB Broth · Tryptic Soy Broth · Casein Soya Bean Digest Broth (Ph. Eur. 6.3, 7.0, 8.0 and 9.0)

Granulated, dust-minimized version with high solubility and superior homogeneity.

Application: Use 30 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Guarantee analysis

Casein peptone (pancreas hydrolysate)	17 g/l
Soy peptone (papain hydrolysate)	3 g/l
di-Potassium hydrogen phosphate	2,5 g/l
Sodium chloride (NaCl)	5 g/l
Glucose monohydrate	2,5 g/l
pH value	7,3 ±0,2
Granulation	complies

Art. No.	Pack Qty.	Pack.	€
6678.1	500 g	plastic	134,40
Original pack 6 x 500 g			127,68/500 g
6678.2	1 kg	plastic	223,10
Original pack 6 x 1 kg			211,95/1 kg



CASO Agar, granulated

Ph. Eur., granulated, for microbiology

For isolation and cultivation of non-fastidious organisms.

Application: Use 40 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Guarantee analysis

Casein peptone (pancreas hydrolysate)	15 g/l
Soy peptone (papain hydrolysate)	5 g/l
Sodium chloride (NaCl)	5 g/l
Agar	15 g/l
pH value	7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
1506.1	500 g	plastic	224,70
Original pack 6 x 500 g			213,47/500 g

Columbia Agar (Base), granulated

Ph. Eur., granulated, for microbiology

For cultivation of fastidious and non-fastidious microorganisms, also for Mycoplasms.

Application: Use 44 g for 1 l agar. If required, add 50–110 ml defibr. blood.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 3

Guarantee analysis

Casein peptone (Pancreas hydrolysate)	10 g/l
Meat peptone (Pepsin hydrolysate)	5 g/l
Heart peptone (Pancreas hydrolysate)	3 g/l
Yeast extract	5 g/l
Corn starch	1 g/l
Sodium chloride (NaCl)	5 g/l
Agar	15 g/l
pH value	7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
1507.1	500 g	plastic	252,65
Original pack 6 x 500 g			240,02/500 g

MacConkey Agar, granulated

Ph. Eur., granulated, for microbiology

For selective isolation and identification of enterobacteria from waste water, foods and other samples.

Application: Use 49.53 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Guarantee analysis

Gelatin peptone (Pancreas hydrolysate)	17 g/l
Meat and casein peptone	3 g/l
Lactose monohydrate	10 g/l
Bile salt (Cholate)	1,5 g/l
Sodium chloride (NaCl)	5 g/l
Neutral red	0,03 g/l
Crystal Violet	0,001 g/l
Agar	13,5 g/l
pH value	7,1 ±0,2

Art. No.	Pack Qty.	Pack.	€
1514.1	500 g	plastic	181,70
Original pack 6 x 500 g			172,62/500 g

Orange Serum Agar, granulated

granulated, for microbiology

For isolation, detection and enumeration of acid-tolerant pathogens in fruit juices and fruit juice concentrates, particularly citrus products.

Application: Use 45.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 3077 · ADR 9 III · WGK 3

Warning H315-H317-H411-EUH208

Composition

Casein peptone	10 g/l
Orange extract	9 g/l
Glucose	4 g/l
Dipotassium phosphate	2,5 g/l
Yeast extract	3 g/l
Agar	17 g/l
pH value	5,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
1520.1	500 g	plastic	310,70
Original pack 6 x 500 g			295,17/500 g



Peptone water, buffered, granulated

EN ISO 6579, EN ISO 6887, ISO 11133, ISO 11290, EN ISO 19250, ISO 21528, granulated, for microbiology

Diluent for homogenisation of food samples and for sample preparation for microbiological analysis.

Granulated, dust-minimized version with high solubility and superior homogeneity.

Application: Use 20 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Pancreatic digest of casein	10 g/l
Sodium chloride (NaCl)	5 g/l
Disodium phosphate	3,5 g/l
Potassium dihydrogen phosphate	1,5 g/l
pH value	7,0 ±0,2
Granulation	complies

Art. No.	Pack Qty.	Pack.	€
6680.1	500 g	plastic	109,15
Original pack 6 x 500 g			103,69/500 g
6680.2	1 kg	plastic	190,85
Original pack 6 x 1 kg			181,31/1 kg

Plate Count Agar, granulated

granulated, for microbiology

For enumeration of the aerobic microbial flora in milk, foods and other material.

Application: Use 23.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Casein peptone	5 g/l
Yeast extract	2,5 g/l
Glucose	1 g/l
Agar	15 g/l
pH value	7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
1521.1	500 g	plastic	224,70
Original pack 6 x 500 g			213,47/500 g

R2A-Agar, granulated

Ph. Eur., granulated, for microbiology

For enumeration of heterotrophic bacteria from water samples.

Nutritionally reduced medium. Incubation of water samples on R2A Agar often leads to higher colony numbers of micro organisms than found for rich media, particularly when incubation is performed at lower temperatures.

Application: Use 18.1 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Yeast extract	0,5 g/l
Peptone	0,5 g/l
Casein hydrolysed	0,5 g/l
Glucose	0,5 g/l
Starch	0,5 g/l
di-Potassium hydrogen phosphate	0,3 g/l
Magnesium sulphate ($MgSO_4$)	0,024 g/l
Sodium pyruvate	0,3 g/l
Agar	15 g/l
pH value	7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
1523.1	500 g	plastic	278,45
Original pack 6 x 500 g			264,53/500 g

Sabouraud 2 % Glucose Broth, granulated

Ph. Eur., granulated, for microbiology

Selective media for taxonomic analysis of pathogenic fungi.

Application: Use 30 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Meat and casein peptone	10 g/l
Glucose	20 g/l
pH value	5,7 ±0,2

Art. No.	Pack Qty.	Pack.	€
1508.1	500 g	plastic	112,90
Original pack 6 x 500 g			107,26/500 g

Standard Nutrient Broth I, granulated

granulated, for microbiology

For cultivation and enumeration of fastidious bacteria. Also base for preparing special culture media.

Application: Use 25 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Peptone	15 g/l
Yeast extract	3 g/l
Sodium chloride (NaCl)	6 g/l
Glucose	1 g/l
pH value	7,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
1533.1	500 g	plastic	249,95
Original pack 6 x 500 g			237,45/500 g

Standard Nutrient Agar I, granulated

granulated, for microbiology

For cultivation and enumeration of fastidious bacteria. Also base for preparing special culture agars.



Figure:
A: *Escherichia coli.*
B: *Pseudomonas aeruginosa.*
C: *Staphylococcus aureus.*
D: *Streptococcus agalactiae.*

With kind permission of Nils Niederstebruch, GLOBOLAB e.V., Assling.

Application: Use 37 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Peptone	15 g/l
Yeast extract	3 g/l
Sodium chloride (NaCl)	6 g/l
Glucose	1 g/l
Agar	12 g/l
pH value	7,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
1524.1	500 g	plastic	256,95
Original pack 6 x 500 g			244,10/500 g

Violet Red Bile Agar with Glucose, granulated

Ph. Eur., granulated, for microbiology

For cultivation and enumeration of enterobacteria in water, foods and other materials.

Recommended by the Harmonized Method (Ph. Eur. 6.0, 2.6.13.B) for growth and identification of *Escherichia coli* and *Pseudomonas aeruginosa* during testing for bile-tolerant gram-negative bacteria.

Application: Use 38.53 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Guarantee analysis

Yeast extract	3 g/l
Pancreas hydrolysate made from gelatin	7 g/l
Sodium chloride (NaCl)	5 g/l
Bile salts	1,5 g/l
Glucose monohydrate	10 g/l
Neutral red	0,03 g/l
Crystal Violet	0,002 g/l
Agar	12 g/l
pH value	7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
1525.1	500 g	plastic	224,70
Original pack 6 x 500 g			213,47/500 g

Yeast Glucose Agar (with chloroamphenicol), granulated

granulated, for microbiology

Selective medium for enumeration of yeasts and mould in milk and dairy products.

Application: Use 40.1 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Yeast extract	5 g/l
Glucose	20 g/l
Chloroamphenicol	0,1 g/l
Agar	15 g/l
pH value	6,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
1526.1	500 g	plastic	286,50
Original pack 6 x 500 g			272,18/500 g

Nutrient Media Additives



S ready-to-use

Ammonium iron(III) citrate solution

12,5 %, sterile, ready-to-use

Media supplement for detection of *Listeria monocytogenes*.

Directions for use

Ammonium iron (III) citrate (ferric ammonium (III) citrate) is used as additive in nutrient media for detection of Listeria species. Hydrolysis of esculin by *Listeria* species results in 6,7-dihydroxycoumarin which reacts with ferric ions producing blackening of the medium. Additionally, ferric ammonium citrate has been shown to improve the growth of *Listeria monocytogenes* (Cowart and Foster (1985) *J. Infect. Dis.* 151:721).

Application: One vial ferric ammonium (III) citrate solution (0.25 g in 2 ml) is added to 500 ml autoclaved Fraser Broth (Art. No. HP17) or Fraser Half Broth (Art. No. HP18). Mix carefully and store cooled for 2 weeks in maximum. Fraser Broth is used in the rapid detection of Listeria from food and environmental samples (Fraser and Sperber (1988) *J. Food Protect.* 51:762).

One box of 10 vials Ammonium iron(III) citrate solution is sufficient for 10 x 500 ml Fraser Broth (Art. No. HP17) or Fraser Half Broth (Art. No. HP18).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Formulation per vial

Ammonium iron(III) citrate ..... 0,25 g

Art. No.	Pack Qty.	Packaging	Pack.	€
3130.1	20 ml	10 x 2 ml	plastic	53,65
3130.2	60 ml	30 x 2 ml	plastic	134,40

► Fraser media see page 309

Bacillus cereus Supplement

lyophilized

Media supplement for selective isolation of *Bacillus cereus*.

Application: One vial Bacillus cereus Supplement is reconstituted in 6 ml sterile distilled water, and is subsequently added to 450 ml autoclaved Mannitol Egg Yolk Polymyxin Agar (Base) (Art. No. 5765.1) plus 50 ml Egg Yolk Emulsion (Art. No. 0402.1).

One box of 10 vials Bacillus cereus Supplement is sufficient for 10 x 500 ml Mannitol Egg Yolk Polymyxin Agar (Art. No. 5765).

Storage temperature: +4 °C
Transport temperature: ambient temp.
WGK 1

Composition

Polymyxin B ..... 50 000 I.U.

per vial.

Art. No.	Pack Qty.	Pack.	€
4856.1	10 unit(s)	glass	142,45

► Mannitol Egg Yolk Polymyxin Agar (Base) see page 314

Campylobacter Preston Supplement

lyophilized

For selective isolation of *Campylobacter spp.*

Application: One vial Campylobacter Preston Supplement is reconstituted in 6 ml ethanol and is subsequently added to 500 ml autoclaved Campylobacter Selective Agar (Art. No. 8847.1) and 5–10 % defibrinated blood.

One box of 10 vials Campylobacter Preston Supplement is sufficient for 10 x 500 ml Campylobacter Selective Agar (Art. No. 8847).

Storage temperature: +4 °C
Transport temperature: ambient temp.
UN no. 2811 · ADR 6.1 II · WGK 3

Danger H300-H341-H360D-H411

Formulation per vial

Polymyxin B sulphate ..... 2500 IU
Cycloheximide ..... 50 mg
Rifampicin ..... 5 mg
Trimetoprim ..... 5 mg

per vial.

Art. No.	Pack Qty.	Pack.	€
8851.1	10 unit(s)	glass	246,20

► Campylobacter Selective Agar (Base) see page 303

Campylobacter Supplement

lyophilized

Media supplement for selective isolation of *Campylobacter jejuni, C. coli,* and *C. laridis.*

Amphotericin reduces growth of yeasts and moulds, while Cefoperazone inhibits Enterobacteriaceae.

Application: One vial Campylobacter Supplement is reconstituted in 5 ml sterile distilled water, and is subsequently added to 500 ml autoclaved Campylobacter Agar, blood-free (Base) (Art. No. 5756.1).

One box of 10 vials Campylobacter Supplement is sufficient for 10 x 500 ml Campylobacter Agar, blood-free (Art. No. 5756).

Storage temperature: +4 °C
Transport temperature: ambient temp.
WGK 3

Danger H317-H334

Composition

Cefoperazone ..... 16 mg
Amphotericin B ..... 5 mg

per vial.

Art. No.	Pack Qty.	Pack.	€
4857.1	10 unit(s)	glass	246,20

► Campylobacter Agar, blood-free (Base) see page 302



Clostridium perfringens Supplement

lyophilized

Media supplement for selective isolation of *Clostridium perfringens*.

D-cycloserine largely inhibits the accompanying bacterial flora, hence providing selective growth of small and distinct colonies of *Clostridium perfringens*.

Application: One vial Clostridium perfringens Supplement (0.2 g) is reconstituted in 6 ml sterile, demineralized water and is subsequently added to 500 ml autoclaved TSC Agar (Base) (Art. No. CL51.1) or to 500 ml autoclaved m-CP Agar (Art. No. CL55.1).

One box of 10 vials Clostridium perfringens Supplement is sufficient for 10 x 500 ml TSC Agar (Art. No. CL51) or for 10 x 500 ml m-CP Agar (Art. No. CL55).

Storage temperature: +4 °C

WGK 1

Formulation per vial

D-Cycloserine ..... 0,2 g

per vial.

Art. No.	Pack Qty.	Pack.	€
CL52.1	10 unit(s)	glass	299,95

► m-CP Agar see page 315

► TSC Agar (Base) see page 328

S

Egg Yolk Emulsion (20 %)

20 %, ISO 7932, sterile, stabilised, for microbiology

Media supplement for preparation of egg yolk agar for detection of microbial lecithinase activity.

Egg Yolk Emulsion is used as supplement in nutrient agars for detection of lecithinase activity in microbial colonies. Herewith, bacterial species like *Bacillus cereus* and *Clostridium perfringens*, or *Staphylococcus aureus* may be identified. The lecithinase activity can be noted by formation of light, sometimes whitish halos surrounding the colonies.

Application: The ISO 7932 recommends a final concentration of 10 % emulsion in the prepared medium in general, e.g. in Mannitol Egg Yolk Polymyxin Agar (Base) (Art. No. 5765.1) for examining the lecithinase activity of *Bacillus cereus*.
We recommend using TSC Agar (Base) (Art. No. CL51.1), Mannitol Salt Agar (Art. No. CL81.1) or Palcam Listeria Agar (Base) (Art. No. 5768.1) for base agar with the addition of 5 % emulsion.
Add after autoclaving.

100 ml Egg Yolk Emulsion are sufficient for 1 l agar medium.

Storage temperature: +4 °C
Transport temperature: ambient temp.

Guarantee analysis

Colour ..... yellow
Egg yolk ..... 20 %
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
0402.1	100 ml	plastic	56,45

► Mannitol Salt Agar see page 314

► Palcam Listeria Agar (Base) see page 319

► TSC Agar (Base) see page 328

NEW / +

S

Egg Yolk Tellurite Emulsion (20 %)

20 %, ISO 6888, sterile, stabilised, for microbiology

Media supplement for preparation of egg yolk tellurite agar, for detection of *Staphylococcus aureus*.

Egg Yolk Tellurite Emulsion is used as supplement in nutrient agars for detection of lecithinase activity and concurrent tellurite reduction in microbial colonies. Hence, *Staphylococcus aureus* may be identified by the dark grey to black staining of the colonies due to tellurite reduction, accompanied by lecithinase-caused formation of light, sometimes whitish halos surrounding the colonies.

Application: We recommend using Baird Parker Agar (Base) (Art. No. X913.1) for base agar.
The ISO 6888 recommends a final concentration of 5 % emulsion in the prepared medium.
Add after autoclaving.

100 ml Egg Yolk Tellurite Emulsion is sufficient for 2 l agar medium.

Storage temperature: +4 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Colour ..... yellow
Egg yolk ..... 20 %
Sterile saline solution ..... 80 %
Potassium tellurite ..... 0,21 %
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
0339.1	100 ml	plastic	67,20
0339.2	250 ml	plastic	158,60

► Baird Parker Agar (Base) see page 299



Legionella GVPC Supplement

lyophilized

Media supplement for selective isolation of *Legionella.*

The mixture of glycine and antibiotics largely inhibits the accompanying bacterial flora, hence providing selective growth of legionella.

Application: One vial Legionella GVPC Supplement is reconstituted in 10 ml of sterile, distilled water and is subsequently added to 500 ml autoclaved Legionella Agar (Art. No. CL48.1).

One box of 10 vials Legionella GVPC Supplement is sufficient for 10 x 500 ml Legionella Agar (Art. No. CL48).

Storage temperature: +4 °C

UN no. 2811 · ADR 6.1 III · WGK 3

Danger H301-H341-H360D-H412-EUH208

Composition

Glycine ..... 1,5 g
Polymyxin B ..... ~40000 IU
Cycloheximide ..... 0,04 g
Vancomycin ..... 0,5 mg

per vial.

Art. No.	Pack Qty.	Pack.	€
CL50.1	10 unit(s)	glass	248,90

Legionella BCYE Growth Supplement

lyophilized

Growth supplement for isolation of *Legionella.*

Application: Reconstitute 1 vial of BCYE selective supplement with 9 ml of sterile solvent under aseptic conditions and add to 500 ml of melted Legionella Agar Base (Cat. No. CL48.1) that has been cooled to 47 – 50 °C. Do not overheat the agar once it has been added. For selective isolation of legionella we recommend additional supplementation with Legionella GVPC Supplement (Cat. No. CL50.1).

One box with 5 tubes of Legionella growth supplement (lyophilisate) and 5 tubes of sterile solvent is sufficient for 5 x 500 ml Legionella agar (Cat. no. CL48).

Storage temperature: +4 °C

UN no. 1759 · ADR 8 II · WGK 3

Danger H290-H302-H314

Composition

ACES Buffer ..... 5,000 g
Potassium hydroxide (KOH) ..... 1,400 g
alpha-Ketoglutarate ..... 0,500 g
L-Cysteine ..... 0,200 g
Ferric pyrophosphate ..... 0,125 g

per vial.

Art. No.	Pack Qty.	Packaging	Pack.	€
CL49.1	1 set	5 x lyophilisate, 5 x solvent	glass	306,40

► Legionella Acid Buffer see page 341

► Legionella Agar (Base) see page 311





S ready-to-use

Listeria Chromo Lipase C Supplement

0,04 g/ml, sterile, ready-to-use

Media supplement for selective isolation of *Listeria*.

Application

To optimise the solubility of the Listeria Chromo Lipase C supplement, the volume was increased from 10 ml to 24 ml. For a final volume of 500 ml of Listeria chromogenic agar (base), 1 tube of Listeria chromo-lipase C addition is required, which is added to 470 ml of Listeria chromogenic agar (base).

Application: One vial Listeria Chromo Lipase C Supplement is added to 470 ml autoclaved Listeria chromogenic Agar (Art. No. 3008.1). The total volume of Listeria chromogenic agar is 500 ml. For selective isolation of *Listeriae* we recommend additional supplementation with Listeria Chromo Selective Supplement (Art. No. 2947.1).

One box of 10 vials Listeria Chromo Lipase C Supplement is sufficient for 10 x 500 ml Listeria chromogenic Agar (Art. No. 3008).

Storage temperature: +4 °C

WGK 1

Composition

Phospholipase C substrate ..... 1 g

per vial.

Art. No.	Pack Qty.	Packaging	Pack.	€
2948.1	10 unit(s)	10 x 24 ml	glass	141,40

Listeria Chromo Selective Supplement

lyophilized

Media supplement for selective isolation of *Listeria*.

Application: One vial Listeria Chromo Selective Supplement is reconstituted in 6 ml sterile distilled water and is subsequently added to 470 ml autoclaved Listeria chromogenic Agar (Art. No. 3008.1). For activation of the listerial phospholipase C we recommend additional supplementation with Listeria Chromo Lipase C Supplement (Art. No. 2948.1).

One box of 10 vials Listeria Chromo Selective Supplement is sufficient for 10 x 500 ml Listeria chromogenic Agar (Art. No. 3008).

Storage temperature: +4 °C

UN no. 2811 · ADR 6.1 II · WGK 3

Danger H300-H317-H334-H341-H360D-H411

Composition

Cycloheximide ..... 0,025 g
Polymyxin B sulphate ..... 38350 I.U.
Nalidixic acid sodium salt ..... 0,01 g
Ceftazidime (Fortam) ..... 0,01 g

per vial.

Art. No.	Pack Qty.	Pack.	€
2947.1	10 unit(s)	glass	141,40

► Listeria chromogenic Agar (Base) see page 312

► Kovacs' Reagent see page 340

Listeria Oxford Supplement

lyophilized

Media supplement for selective isolation of *Listeria monocytogenes*.

Application: One vial Listeria-Oxford Supplement is reconstituted in 9 ml of a sterile 1:1 mixture of ethanol and distilled water, and is subsequently added to 500 ml autoclaved Oxford Listeria Agar (Base) (Art. No. 5767.1).

One box of 10 vials Listeria Oxford Supplement is sufficient for 10 x 500 ml Oxford Listeria Agar (Art. No. 5767).

Storage temperature: +4 °C

UN no. 2811 · ADR 6.1 II · WGK 3

Danger H300-H341-H360D-H411

Composition

Cycloheximide ..... 200 mg
Colistinsulphate ..... 10 mg
Fosfomycin ..... 5 mg
Cefotetan ..... 1 mg
Acriflavine ..... 2,5 mg

per vial.

Art. No.	Pack Qty.	Pack.	€
5801.1	10 unit(s)	glass	255,35

► Oxford Listeria Agar (Base) see page 318

Listeria Palcam Supplement

lyophilized

Media supplement for selective isolation of *Listeria monocytogenes*.

Application: One vial Listeria-Palcam Supplement is reconstituted in 6 ml sterile distilled water, and is subsequently added to 500 ml autoclaved Palcam Listeria Agar (Base) (Art. No. 5768.1).

One box of 10 vials Listeria Palcam Supplement is sufficient for 10 x 500 ml Palcam Listeria Agar (Art. No. 5768).

Storage temperature: +4 °C

WGK 2

Danger H302-H315-H317-H319-H334-H335-H412

Composition

Ceftazidime (Fortam) ..... 10 mg
Polymyxin B ..... 5 mg
Acryflavine ..... 2,5 mg

per vial.

Art. No.	Pack Qty.	Pack.	€
5803.1	10 unit(s)	glass	160,20

► Palcam Listeria Agar (Base) see page 319





MRSA Cefoxitin Supplement

lyophilized

Media supplement for selective detection of methicillin resistent *Staphylococcus aureus*.

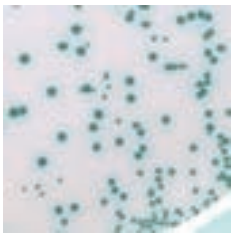


Figure: Detection of *Staphylococcus aureus* ATCC 43300 by MRSA chromogenic Agar (Art. No. 3026.1) plus MRSA Cefoxitin Supplement.

Cefoxitin inhibits growth of methicillin sensitive *Staphylococcus aureus* strains.

Application: One vial MRSA Cefoxitin Supplement is reconstituted in 5 ml sterile, distilled water, and is subsequently added to 500 ml solubilised MRSA chromogenic Agar (Base) (Art. No. 3026.1).

One box of 10 vials MRSA Cefoxitin Supplement is sufficient for 10 x 500 ml MRSA chromogenic Agar (Art. No. 3026).

Storage temperature: +4 °C

WGK 1

Warning H317

Composition

Cefoxitin ..... 0,002 g

per vial.

Art. No.	Pack Qty.	Pack.	€
2975.1	10 unit(s)	glass	98,40

► MRSA chromogenic Agar (Base) see page 315

RPF Supplement

lyophilized

Media supplement for identification and enumeration of *Staphylococcus aureus.*

Application: One vial RPF Supplement is reconstituted in 10 ml sterile distilled water, and is incubated for 10 mins. at room temperature until completely dissolved.
Subsequently add to 90 ml autoclaved Baird Parker Agar (e.g. Art. No. X913.1).

One box of 10 vials RPF Supplement is sufficient for 10x 100 ml Baird Parker Agar (Art. No. X913).

Storage temperature: +4 °C

WGK 3

Warning H302+H312+H332-EUH208

Composition

Rabbit plasma ..... 2,5 ml
Bovine fibrinogen ..... 380 mg
Trypsin inhibitor ..... 2,5 mg
Potassium tellurite ..... 2,5 mg

per vial.

Art. No.	Pack Qty.	Pack.	€
6064.1	10 unit(s)	glass	532,15

► Baird Parker Agar (Base) see page 299

TTC-Supplement

lyophilized

Media supplement for identification of coliform enterobacteria.

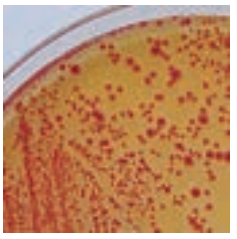


Figure: Detection of *E. coli* (wild type) by TTC Chapman Agar (Art. No. CP65.1) plus TTC supplement.

TTC is used as additive for microbiological nutrient media, in order to accelerate the identification of coliform enterobacteria, e.g. TTC Chapman Agar acc. to EN ISO 9308-1:2000 (Art. No. CP65.1).

Application: One vial TTC-Supplement (50 mg) is reconstituted in 5 ml sterile, distilled water. Store solution at 4 °C for one week in maximum. Long-term storage in aliquots at –20 °C.

One box of 10 x 50 mg TTC-Supplement is sufficient for 20 l TTC Chapman Agar (Art. No. CP65).

Storage temperature: +4 °C

WGK 1

Warning H315-H319-H335

Guarantee analysis

Triphenyltetrazolium chloride (per vial) ..... 50 mg

per vial.

Art. No.	Pack Qty.	Packaging	Pack.	€
CP72.1	500 mg	10 x 50 mg	glass	100,95

► TTC Chapman Agar (with sodium heptadecyl-sulphate) (Base) see page 328

Yersinia Supplement

lyophilized

Media supplement for selective isolation of *Yersinia enterocolitica*

Application: One vial Yersinia Supplement is reconstituted in 5 ml sterile distilled water, and is subsequently added to 500 ml autoclaved Yersinia Selective Agar (Base) (Art. No. 5780).

One box of 10 vials Yersinia Supplement is sufficient for 10 x 500 ml Yersinia Selective Agar (Art. No. 5780).

Storage temperature: +4 °C

UN no. 3077 · ADR 9 III · WGK 2

Danger H315-H317-H319-H334-H410

Composition

Cefsulodin ..... 7,5 mg
Novobiocin ..... 1,25 mg
Irgasan ..... 2 mg

per vial.

Art. No.	Pack Qty.	Pack.	€
4880.1	10 unit(s)	glass	146,75

► Yersinia Selective Agar (Base) see page 331

Identification of Microorganisms

Testing Reagents



ready-to-use

ROTITEST®Oxidase strips

ROTITEST® Bio Analysis, ready-to-use

Rapid test system for detection of cytochrome oxidase in microorganisms.

Rapid test system for detection of oxidase-positive microorganisms.

Directions for use

A green coloured area indicates the reaction zone, impregnated with detection reagent, at one end of the paper strip. The colony to be analysed is smeared onto this reaction zone. Within 15 seconds, a dark-blue to violet colouring indicates presence of oxidase-positive microorganisms.

The following microorganisms are typically oxidase-positive: *Helicobacter pylori, Vibrio cholerae, Campylobacter jejuni, Legionella pneumophila, Neisseria, Moraxella*, many *Pseudomonaceae* and *Diplococci*. Many *Enterobacteriaceae* are typically oxidase-negative.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
8469.1	100 unit(s)	tube	45,05



Kovacs' Reagent

for microbiology

Media supplement for detection of microbial indole.

Tryptophanase-positive microorganisms (e.g. *E. coli, S. faecalis, Proteus sp.*) that cleave tryptophane hereby release indole, which may be detected by reaction with dimethylamino benzaldehyde by forming a dark red dye.

Microorganisms must be incubated in a glucose-free broth with high concentrations of tryptophane present. Kovacs' Reagent is added to 24-48 h old cultures in a concentration of 0.2 to 0.5 ml per 5 ml broth. A colour shift to dark red shows presence of indole, thus confirming the inoculating colony as being indole-/tryptophanase-positive.

Application: Customary concentration in medium: 4–10 %

100 ml Kovacs' Reagent is sufficient for approx. 2 l medium.

Storage temperature: +4 °C

UN no. 2920 · ADR 8 (3) II · WGK 1

Danger H226-H290-H302-H315-H318-H335-H336

Type analysis

Appearance ..... yellowish, clear liquid
4-(Dimethylamino)benzaldehyde ..... 50 g/l
1-Butanol ..... 75 %
Hydrochloric acid (37 %) ..... 25 %

Art. No.	Pack Qty.	Pack.	€
2950.1	100 ml	glass	59,05

► Tryptophane Culture Broth see page 328

Reagents for the Kovacs indole reaction

Product name	Purity	Art. No.	Pack Qty.	€
1-Butanol	≥99,5 %, p.a., ACS	**7171.2**	1 l	69,80
		7171.1	2.5 l	138,70
		7171.3	5 l	233,85
		7171.4	10 l	418,20
		7171.5	25 l	815,95
4-(Dimethylamino)-benzaldehyde	≥98 %, p.a., ACS	**X867.1**	25 g	55,80
		X867.2	100 g	142,45
Hydrochloric acid	37 % fuming, p.a., ACS, ISO	**4625.1**	1 l	26,35
		4625.2	2.5 l	49,35
		4625.3	10 l	127,95
Isoamyl alcohol	≥98,5 %, p.a., ACS	**T870.1**	500 ml	53,65
		T870.2	1 l	99,90
		T870.3	2.5 l	209,65

For additional product data and safety information, see chapter Chemicals A–Z.



S ready-to-use

Legionella Acid Buffer

EN ISO 11731-2, sterile, ready-to-use, for microbiology

Sterile acid buffer solution for detection of legionella.

To minimize the accompanying bacterial flora, 30 ±5 ml of Legionella Acid Buffer are applied to the membrane after membrane filtration. After an exposure time of approx. 5 minutes, the buffer is vacuumed off and the membrane rinsed with sterile distilled water.
The filter is transferred sterile to a legionella selective agar, e.g. Legionella Agar (Base) (Art. No. CL48.1) and incubated.

Bottle with 50 ml graduation. With original seal.
The buffer should be used within 4 weeks after opening.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
9979.1	1 l	plastic	49,35
Original pack 6 x 1 l			46,88/1 l

► Legionella Agar (Base) see page 311

NEW/+

Methyl red solution

2 %, for microbiology

Indicator solution for testing mixed acid fermentation in enterobacteria.

Application

Acid formation during mixed acid fermentation is detected with the methyl red test (MR test).

Mixed acid fermentation produces a lot of acid (pH<4.4), which leads to a deep red colour (positive) after adding the methyl red solution. If no mixed acid fermentation takes place, little acid is present and a yellow/orange colour (negative) results.

The methyl red test is part of the Bunte series for the differentiation of bacteria, especially from the *Enterobacteriaceae* group.

$C_{15}H_{15}N_3O_2$ · M 269,31 g/mol
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

Art. No.	Pack Qty.	Pack.	€
1HHP.1	100 ml	glass	52,15

► MR/VP Broth see page 317



NEW/+

Barritt's reagent

for microbiology

For the detection of acetoin production in the Voges-Proskauer test.

Barritt's reagent is a component of the Voges-Proskauer test (VP test). The VP test is used to determine the intermediate product acetoin formed during butanediol fermentation.

Together with O'Meara's reagent (1HHX), Barritt's reagent, which contains α-naphthol, leads to a more intense red colouration.

The Voges-Proskauer test is part of the Bunte series for the differentiation of bacteria, especially from the *Enterobacteriaceae* group.

Please note: Add Barritt's reagent **before** O'Meara's reagent.

Storage temperature: +4 °C
Transport temperature: ambient temp.
UN no. 1993 · ADR 3 II · WGK 1

Danger H225-H318

Art. No.	Pack Qty.	Pack.	€
1HHT.1	100 ml	glass	52,70



NEW/+

O'Meara's reagent

for microbiology

For the detection of acetoin production in the Voges-Proskauer test.

O'Meara's reagent is a component of the Voges-Proskauer test (VP test). The VP test is used to determine the intermediate product acetoin formed during butanediol fermentation.

The O'Meara's reagent contains creatine to enhance the reaction. The high content of potassium hydroxide in this reagent is necessary for the alkaline environment of the test.

The Voges-Proskauer test is part of the Bunte series for the differentiation of bacteria, especially from the *Enterobacteriaceae* group.

Please note: Add Barritt's reagent **before** O'Meara's reagent.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
UN no. 1814 · ADR 8 II · WGK 1

Danger H290-H302-H314

Art. No.	Pack Qty.	Pack.	€
1HHX.1	100 ml	glass	51,50

RiboFlow® Kits for biomolecular detection of germs



- By SY-LAB
- Specificity comparable to PCR
- Short assay time (<30 min)
- Simple protocol
- No expensive instrumentation necessary
- Particularly convenient for testing foods, toiletries and cosmetics
- Storage temp.: +15 to +25 °C

SY-LAB´s RiboFlow® Test Kits were especially developed for detection of relevant bacterial contamination on-site, based on molecular flow technology - quickly and highly specific, without the need for sophisticated sampling , complex amplification techniques and expensive equipment.
Replicating cells are reliably detected by their ribosomal RNA in less than 30 minutes.
RiboFlow® Salmonella and RiboFlow® Listeria Twin are validated according to ISO 16140-2:2016.

The test is easily performed with usual cultures in enrichment media or with single colonies from agar plates. The sample is just mixed with the included solutions and pipetted on the test cassette. As result, a distinctive and easy to read line occurs only in the presence of the target organism.
Every kit includes a detailed manual with Standard- and Quick reference protocols.

We recommend the usage of a small laboratory centrifuge with at least 2000 x g (e.g. Art. No. CX73.1), a mini incubator, optimally with window (e.g. Art. No. YC53.1) and a tray (e.g. Art. No. YH58.1, Measures: 26 x 20 x 2 cm) as accessories for the application of the kits.



Figure:
Example result of the RiboFlow® test cassettes
A: RiboFlow®-Listeria Twin (Art. No. 9884):
Line topmost: Control line
Line in the middle: positive result for Listeria monocytogenes
Bottom line: positive result for Listeria spp.
B: RiboFlow®-Salmonella (Art. No. 9881)
Line topmost: Control line
No other line: negative result, the organism has not been detected

RiboFlow® Kits for biomolecular detection of germs

Product name	Art. No.	Pack Qty.	€
RiboFlow® Campylobacter	**9885.1**	1 kit	365,50
RiboFlow® Candida albicans	**9893.1**	1 kit	349,40
RiboFlow® Cosmetics	**9894.1**	1 kit	267,70
RiboFlow® Cronobacter	**9882.1**	1 kit	289,20
RiboFlow® E. coli	**9891.1**	1 kit	349,40
RiboFlow® Enterobacteriaceae	**9890.1**	1 kit	317,15
RiboFlow® Listeria Twin	**9884.1**	1 kit	450,45
RiboFlow® P/En	**9895.1**	1 kit	349,40
RiboFlow® Pseudomonas aeruginosa	**9892.1**	1 kit	349,40
RiboFlow® Salmonella	**9881.1**	1 kit	338,65
RiboFlow® Staphylococcus aureus	**9889.1**	1 kit	349,40
RiboFlow® Vibrio parahaemolyticus	**9888.1**	1 kit	392,40

9884.1: Within the RiboFlow® Listeria Twin Kit, one test cassette detects simultaneously the presence of *Listeria monocytogenes* and/or of other *Listeria* spp.
9894.1: The RiboFlow® Cosmetics Combi test Kit consists of 6 sets with 4 test cassettes each with whom the target organisms *Escherichia coli*, *Pseudomonas aeruginosa*, *Staphylococcus aureus* and *Candida albicans* can be tested parallely.
9895.1: Within the RiboFlow® P/En Kit, one test cassette detects simultaneously the presence of *Pseudomonas aeruginosa* and/or of enterobacteria.

Microbiological Staining

Microbiological staining is mostly applied for identification of microorganisms during microscopic analysis. Due to their affinity to certain cell structures, acidic dyes or salts of basic aniline dyes are used frequently for contrastation of cells, differential staining, or accentuation of specific structures (flagella, spores, or capsules).

For detailed information on the products please see chapters “Histology/Staining” and “Chemicals A–Z”.

Solutions for Gram Staining

Classic Staining acc. to Gram for differentiation of microorganisms.

Product name	Art. No.	Pack Qty.	€
Carbol gentian violet solution	**CN00.1**	500 ml	37,55
	CN00.2	1 l	55,40
Carbolic fuchsine solution	**A130.2**	500 ml	28,50
	A130.1	1 l	46,15
Ethanol	**P075.1**	1 l	98,80
	P075.3	1 l	96,25
	P075.2	2.5 l	208,05
	P075.4	2.5 l	204,80
	P075.5	5 l	385,95
	P075.6	10 l	622,45
	P075.7	10 l	611,70
	P075.8	25 l	1.284,65
	T171.5	1 l	17,75
	T171.1	2.5 l	33,25
	T171.3	2.5 l	30,65
	T171.4	5 l	56,45
	T171.6	10 l	100,95
	T171.7	10 l	90,20
	T171.2	25 l	176,85
	T171.8	25 l	155,35
Gram's decolourising solution	**CN02.1**	500 ml	33,25
Gram staining kit	**HP02.1**	1 kit	129,55
Iodine-potassium iodide solution acc. to Lugol	**N052.1**	250 ml	27,85
	N052.3	500 ml	34,95
	N052.2	1 l	48,30
Safranin O solution	**CN01.1**	500 ml	49,35

For additional product data and safety information, see chapter Chemicals A–Z.



Dyes for Staining of Bacteria

Product name	Art. No.	Pack Qty.	€
Alizarin red S (C.I. 58005)	**0348.1**	10 g	25,30
	0348.2	25 g	38,60
	0348.3	100 g	123,10
Carbolic fuchsine solution	**A130.2**	500 ml	28,50
	A130.1	1 l	46,15
Crystal violet (C.I. 42555)	**T123.2**	5 g	22,05
	T123.1	25 g	36,05
	T123.3	100 g	87,65
Lactophenol blue solution	**3097.1**	100 ml	36,45
LOEFFLER's methylene blue solution	**AE64.1**	500 ml	34,95
	AE64.2	1 l	49,35
	AE64.3	2.5 l	98,40
Rose Bengale B (C.I. 45440)	**3162.1**	50 g	149,45
Sudan black B (C.I. 26150)	**0292.1**	10 g	29,60
	0292.2	25 g	46,80
	0292.3	50 g	71,50

For additional product data and safety information, see chapter Chemicals A–Z.

Solutions for Neisser Staining

Routine staining method, mainly used for identification of Coryne bacteria causing Diphtheria.

Product name	Art. No.	Pack Qty.	€
Neisser's solution I	**3463.1**	100 ml	26,35
	3463.2	500 ml	52,60
Neisser's solution II	**3464.1**	100 ml	26,35
	3464.2	500 ml	52,60
Neisser's solution III	**3466.1**	100 ml	26,35
	3466.2	500 ml	52,60

For additional product data and safety information, see chapter Chemicals A–Z.

Dyes for Spore Staining

Stains spores green and bacteria red or rose.

Product name	Art. No.	Pack Qty.	€
Eosin Y (C.I. 45380)	**7089.1**	50 g	45,05
	7089.2	100 g	77,95
	7089.3	500 g	252,65
Malachite green oxalate (C.I. 42000)	**5895.2**	25 g	21,00
	5895.1	100 g	42,90
	5895.3	250 g	63,35
Safranin O (C.I. 50240)	**T129.1**	10 g	53,65

For additional product data and safety information, see chapter Chemicals A–Z.

Nutrient Media for Molecular Biology

All nutrient media for molecular biology are according to the data given in Sambrook and Russell, *Cold Spring Harbour Laboratory Press*, Cold Spring Harbour, New York, 2001.

Selective Media with Antibiotics



Nutrient media for selection and selective cultivation of recombinant *E.coli.*

- Tried and tested Standard media for molecular biology complemented with antibiotics
- Easy and uncomplicated storage of the powder at 20 °C
- With low or high salt content according to Luria/Miller or Lennox
- With antibiotics in different end concentrations
- Instruction for use: 35 g (according to the Lennox method) or 40 g (according to the Luria/Miller method) of the powder are weighed out per 1 litre of agar.



Product name	Advantage	Art. No.	Pack Qty.	€
LB-Agar (Lennox) / Amp100	Low salt content acc. to Lennox. With ampicillin: end concentration of 100 µg/ml.	**8852.1**	500 g	127,95
		8852.2	1 kg	231,15
		8852.3	2.5 kg	514,95
LB-Agar (Lennox) / Kana50	Low salt content acc. to Lennox. With kanamycin: end concentration of 50 µg/ml. Autoclavable.	**8853.1**	500 g	278,45
		8853.2	1 kg	532,15
LB-Agar (Luria/Miller) / Amp100	High salt content acc. to Luria/Miller. With kanamycin: end concentration of 50 µg/ml. Autoclavable.	**8855.1**	500 g	100,55
		8855.2	1 kg	192,45
		8855.3	2.5 kg	446,15
LB-Agar (Luria/Miller) / Amp50	High salt content acc. to Luria/Miller. With ampicillin: end concentration of 50 µg/ml.	**8858.1**	500 g	99,45
		8858.2	1 kg	188,15
		8858.3	2.5 kg	439,70
LB-Agar (Luria/Miller) / Chloramph34	High salt content acc. to Luria/Miller. With ampicillin: end concentration of 100 µg/ml.	**8861.1**	500 g	87,00
		8861.2	1 kg	156,45
		8861.3	2.5 kg	364,45
LB-Agar (Luria/Miller) / Kana50	High salt content acc. to Luria/Miller. With chloroamphenicol: end concentration of 34 µg/ml. Autoclavable.	**8860.1**	500 g	160,20
		8860.2	1 kg	295,65

For additional product data and safety information, see chapter Chemicals A–Z.

Granulated Media



LB Broth (Lennox), granulated

granulated, for molecular biology

Standard formulation used for propagation and culturing of *E. coli*. With low salt quantity for the recovery of plasmids and for phage amplification after addition of magnesium chloride.
Granulated, dust-minimized version with high solubility and superior homogeneity.

Application: Use 20 g for 1 l broth.

5 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
pH value ..... 7,0 ±0,2
Granulation ..... complies

Art. No.	Pack Qty.	Pack.	€
6669.1	500 g	plastic	115,60
Original pack 6 x 500 g			109,82/500 g
6669.2	1 kg	plastic	203,75
Original pack 6 x 1 kg			193,56/1 kg
6669.3	2.5 kg	plastic	459,60
6669.4	5 kg	plastic	857,35



LB-Agar (Lennox), granulated

granulated, for molecular biology

Granulated, dust-minimized version of the Luria-Bertani Agar formulated acc. to Lennox. With high solubility and superior homogeneity.

Application: Use 35 g for 1 l agar.

5 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar-Agar ..... 15 g/l
pH value ..... 7,0 ±0,2
Granulation ..... complies

Art. No.	Pack Qty.	Pack.	€
6671.1	500 g	plastic	127,95
Original pack 6 x 500 g			121,55/500 g
6671.2	1 kg	plastic	240,30
Original pack 6 x 1 kg			228,29/1 kg
6671.3	2.5 kg	plastic	525,70



LB Broth (Luria/Miller), granulated

granulated, for molecular biology

Standard formulation used for propagation and culturing of *E. coli*. Due to the high salt content particularly suited for bacterial proliferation prior to plasmid preparation.

Granulated, dust-minimized version with high solubility and superior homogeneity.

Application: Use 25 g for 1 l broth.

10 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Composition

Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 10 g/l
pH value ..... 7,0 ±0,2
Granulation ..... complies

Art. No.	Pack Qty.	Pack.	€
6673.1	500 g	plastic	103,75
Original pack 6 x 500 g			98,56/500 g
6673.2	1 kg	plastic	195,15
Original pack 6 x 1 kg			185,39/1 kg
6673.3	2.5 kg	plastic	424,65
6673.4	5 kg	plastic	790,15



LB Agar (Luria/Miller), granulated

granulated, for molecular biology

Granulated, dust-minimized version of the Luria-Bertani Agar formulated acc. to Luria and Miller. With high solubility and superior homogeneity.

Application: Use 40 g for 1 l agar.

10 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 10 g/l
Agar-Agar ..... 15 g/l
pH value ..... 7,0 ±0,2
Granulation ..... complies

Art. No.	Pack Qty.	Pack.	€
6675.1	500 g	plastic	117,20
Original pack 6 x 500 g			111,34/500 g
6675.2	1 kg	plastic	219,85
Original pack 6 x 1 kg			208,86/1 kg
6675.3	2.5 kg	plastic	489,15



Terrific Broth, granulated

granulated, for molecular biology

Nutricious medium for the culture and proliferation of *E. coli*.

Granulated, dust-minimized version with high solubility and superior homogeneity.

Terrific Broth is a nutritious medium for the culture and proliferation of *E. coli*. Compared to LB medium Terrific Broth supports higher cellular density, therefore increasing the yield during plasmid and protein preparations.

Application: Use 50,8 g for 1 l broth. Before autoclaving add 4 ml glycerol per litre medium.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Casein, enzymatically digested	12 g/l
Yeast extract	24 g/l
K_2HPO_4	12,54 g/l
KH_2PO_4	2,31 g/l
pH value	7,2 ±0,2
Granulation	complies

Art. No.	Pack Qty.	Pack.	€
3556.1	500 g	plastic	113,45
Original pack 6 x 500 g			107,78/500 g
3556.2	1 kg	plastic	203,75
Original pack 6 x 1 kg			193,56/1 kg
3556.3	2.5 kg	plastic	443,45
3556.4	5 kg	plastic	822,40



2x YT Broth, granulated

granulated, for molecular biology

Nutritious medium for proliferation of *E. coli*.

Granulated, dust-minimized version with high solubility and superior homogeneity.

Application: Use 31 g for 1 l broth.

WGK 1

Composition

Tryptone	16 g/l
Yeast extract	10 g/l
Sodium chloride (NaCl)	5 g/l
pH value	7,0 ±0,2
Granulation	complies

Art. No.	Pack Qty.	Pack.	€
6676.1	500 g	plastic	127,95
Original pack 6 x 500 g			121,55/500 g
6676.2	1 kg	plastic	218,80
Original pack 6 x 1 kg			207,86/1 kg
6676.3	2.5 kg	plastic	499,90

Standard Media

Yeast-Nitrogen-Base (without Amino Acids)

for molecular biology

For yeast classification based on amino acid and carbohydrate requirements.

Yeast Nitrogen Base (without amino acids) contains ammonium sulphate, all vitamins and all organic salts needed to cultivate yeasts, **except for the amino acids and carbohydrate sources**.

By selective addition of single amino acids and sugars the yeast cells are tested for sugar assimilation and for their dependency on specific amino acids, hereby revealing parameters for their classification.

Application: Add 6,7 g for 100 ml broth for 10x stock solution.
Use selected sugar/amino acid.
Do not boil, do not autoclave! Sterilise by sterile filtration!

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Ammonium sulphate	5,0 g/l
Potassium phosphate	1,0 g/l
Magnesium sulphate	0,5 g/l
Calcium chloride	0,1 g/l
Sodium chloride (NaCl)	0,1 g/l
Inositol	2,0 mg/l
Boric acid	0,5 mg/l
Niacin	0,4 mg/l
Thiamine hydrochloride	0,4 mg/l
Pyridoxin hydrochloride	0,4 mg/l
Calcium pantothenate	0,4 mg/l
Manganese sulphate	0,4 mg/l
Zinc sulphate	0,4 mg/l
p-Aminobenzoic acid	0,2 mg/l
Iron chloride	0,2 mg/l
Riboflavine	0,2 mg/l
Sodium molybdate	0,2 mg/l
Potassium iodide	0,1 mg/l
Copper sulphate	0,04 mg/l
Biotin	0,002 mg/l
Folic acid	0,002 mg/l
pH value	5,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
HP26.1	500 g	plastic	183,30
Original pack 6 x 500 g			174,14/500 g
HP26.2	1 kg	plastic	295,65
Original pack 6 x 1 kg			280,87/1 kg

► Amino Acids for drop-out mixtures see chapter Chemicals A-Z.

LB-Broth

LB-Broth is a standard medium for maintanance and propagation of *E. coli*. The LB-series of media (**L**uria and **B**ertani) includes several formulations, which differ mainly in their salt contents: Luria, Luria-Bertani, LennoxL, LennoxLB, Luria/Miller. For plasmid propagation, salt concentrations between 5 and 10 g/l are recommended.

Nutrient Media for Molecular Biology



LB Broth (Lennox)

for molecular biology

Standard formulation used for propagation and culturing of *E. coli*. The salt content was adjusted to enable high-copy plasmid proliferation and preparation. Additionally, LB medium may be supplemented with magnesium chloride in order to gain an enriched broth for phage propagation.

Application: Use 20 g for 1 l broth.

5 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Composition

Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X964.1	500 g	plastic	77,95
Original pack 6 x 500 g			74,05/500 g
X964.2	1 kg	plastic	137,10
Original pack 6 x 1 kg			130,25/1 kg
X964.3	2.5 kg	plastic	306,40
X964.4	5 kg	plastic	568,70



LB Agar (Lennox)

for molecular biology

Application: Use 35 g for 1 l agar.

5 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Composition

Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar-Agar ..... 15 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X965.1	500 g	plastic	96,65
Original pack 6 x 500 g			91,82/500 g
X965.2	1 kg	plastic	184,40
Original pack 6 x 1 kg			175,18/1 kg
X965.3	2.5 kg	plastic	424,65



LB Broth (Luria/Miller)

for molecular biology

Standard medium for propagation of *E. coli*. Due to the high salt content, this classical formulation acc. to Luria and Bertani is superior when culturing cells for plasmid preparation.

Application: Use 25 g for 1 l broth.

10 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 3

Composition

Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 10 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X968.1	500 g	plastic	68,30
Original pack 6 x 500 g			64,89/500 g
X968.2	1 kg	plastic	127,95
Original pack 6 x 1 kg			121,55/1 kg
X968.3	2.5 kg	plastic	271,45
X968.4	5 kg	plastic	507,95



LB Agar (Luria/Miller)

for molecular biology

Application: Use 40 g for 1 l agar.

10 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Composition

Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 10 g/l
Agar-Agar ..... 15 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X969.1	500 g	plastic	85,90
Original pack 6 x 500 g			81,61/500 g
X969.2	1 kg	plastic	158,60
Original pack 6 x 1 kg			150,67/1 kg
X969.3	2.5 kg	plastic	360,15
X969.4	5 kg	plastic	682,65

► IPTG see page 140

► X-β-Gal see page 190

Nutrient Media for Molecular Biology

NZCYM Broth

for molecular biology

For the cultivation of *E. coli* and phages Lambda.

A superior medium for increased yields of phage Lambda.

Application: Use 22 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Composition

Casein, enzymatically digested ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Casamino Acids ..... 1 g/l
Magnesium sulphate ($MgSO_4$), anhydrous ..... 0,98 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X974.1	500 g	plastic	77,95
Original pack 6 x 500 g			74,05/500 g

NZYM Broth

for molecular biology

For the cultivation of recombinant *E. coli* and for the replication of phages Lambda.

Designed for increased replication of phage Lambda.

Application: Use 21 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Casein, enzymatically digested ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Magnesium sulphate ($MgSO_4$), anhydrous ..... 0,98 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X973.1	500 g	plastic	70,85
Original pack 6 x 500 g			67,31/500 g

NZYM- and NZCYM Broth

These media were designed for the propagation of **bacteriophage Lambda**. In order to encourage multi phage insertion into the host cell, supplementation with 0.2 % maltose is recommended (prepare a 20 % solution and add 1 ml per 100 ml of medium), which promotes expression of LamB (lambda receptor).
If maltose is added, the medium should not be used to create phage stocks, as binding of phage particles to membrane fragments will occur because of increased LamB density.



SOB Broth

for molecular biology

Enriched broth for propagation of *E. coli*.

Particularly suited for proliferation of competent cells after transformation.

May be enriched to SOC-medium with 20 mM glucose.

Application: Use 26,64 g for 1 l broth.
May be enriched to SOC-medium with 20 mM glucose.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Tryptone ..... 20 g/l
Yeast extract ..... 5 g/l
Magnesium chloride ..... 0,96 g/l
Sodium chloride (NaCl) ..... 0,5 g/l
Potassium chloride (KCl) ..... 0,186 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE27.1	500 g	plastic	87,65
Original pack 6 x 500 g			83,27/500 g

SOB

Super **O**ptimal **B**roth (SOB) is a complex, nutritious nutrient medium which is used prior to and after transformation of E. coli bacteria. By adding 20 mM glucose it is enriched to SOC (**S**uper **O**ptimal Broth with **C**atabolite repression) which is optimal for coddling up of freshly transformed bacteria. Through this, SOC increases transformation efficiency. In order to avoid caramelisation, glucose may only be added after autoclaving.

Acc. to D. Hanahan (1983) *J. Mol. Biol.* 166/4:557-580

Nutrient Media for Molecular Biology



Terrific Broth

for molecular biology

Nutricious medium for the culture and proliferation of *E. coli.*

Terrific Broth is a nutricious medium for the culture and proliferation of *E. coli*. Compared to LB medium Terrific Broth supports higher cellular density, therefore increasing the yield during plasmid and protein preparations.

Application: Use 50,8 g for 1 l broth. Before autoclaving add 4 ml glycerol per litre medium.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Casein, enzymatically digested ..... 12 g/l
Yeast extract ..... 24 g/l
K_2HPO_4 ..... 12,54 g/l
KH_2PO_4 ..... 2,31 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
X972.1	500 g	plastic	87,65
Original pack 6 x 500 g			83,27/500 g
X972.2	1 kg	plastic	155,90
Original pack 6 x 1 kg			148,11/1 kg
X972.3	2.5 kg	plastic	327,90
X972.4	5 kg	plastic	600,95

Terrific Broth

Terrific Broth is a phosphate buffered, highly nutritious medium that is particularly used prior to plasmid isolation, in order to increase the yield. Compared with LB Broth, TB contains a nearly 5x elevated concentration of yeast extract, providing the required growth factors, vitamis and nucleotides. The phosphate buffer stabilises pH values. Hence, bacteria proliferate to high cell density, while lysation is slowed down.
The high phosphate concentration may lead to precipitation of insoluble magnesium- or calcium phosphates. After autoclaving, antibiotics, glycerine, dextrose etc. may be added for further enrichment of the broth.



Terrific Broth modified

for molecular biology

Nutricious medium for the culture and proliferation of *E. coli*.

Terrific Broth supports high cellular density and is recommended for use during cultivation of bacteria for plasmid isolation or *in vitro* protein expression.

In the formulation of Terrific Broth modified, the phosphate content has been reduced, in order to prevent precipitation of insoluble salts during autoclaving.

Application: Use 47,6 g for 1 l broth. Before autoclaving add 4 ml glycerol per litre medium.
In the formulation of Terrific Broth modified, the phosphate content has been reduced, in order to prevent precipitation of insoluble salts during autoclaving.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Casein, enzymatically digested ..... 12 g/l
Yeast extract ..... 24 g/l
K_2HPO_4 ..... 9,4 g/l
KH_2PO_4 ..... 2,2 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
HP61.1	500 g	plastic	81,20
Original pack 6 x 500 g			77,14/500 g
HP61.2	1 kg	plastic	133,85
Original pack 6 x 1 kg			127,16/1 kg
HP61.3	2.5 kg	plastic	295,10

Nutrient Media for Molecular Biology

YPD Broth

for molecular biology

For maintenance and propagation of *S. cerevisiae*.

Application: Use 50 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Peptone ..... 20 g/l
Yeast extract ..... 10 g/l
Glucose ..... 20 g/l
pH value ..... 6,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
X970.1	500 g	plastic	79,45
Original pack 6 x 500 g			75,48/500 g
X970.2	1 kg	plastic	137,10
Original pack 6 x 1 kg			130,25/1 kg
X970.3	2.5 kg	plastic	302,65

YPD Agar

for molecular biology

For the cultivation and propagation of yeasts.

Application: Use 65 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Peptone ..... 20 g/l
Yeast extract ..... 10 g/l
Glucose ..... 20 g/l
Agar-Agar ..... 15 g/l
pH value ..... 6,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
X971.1	500 g	plastic	101,60
Original pack 6 x 500 g			96,52/500 g
X971.2	1 kg	plastic	176,85
Original pack 6 x 1 kg			168,01/1 kg
X971.3	2.5 kg	plastic	401,55

YPD Medium

YPD is a rich medium for the maintenance and propagation of *S. cerevisiae.*
It is suitable if selections for auxotrophies are not intended.
Glucose is included as a carbon source.
Wild type strains of *S. cerevisiae* show a doubling time of approx. 90 min in YPD.

2xYT Broth

for molecular biology

Nutritious medium for proliferation of *E. coli*.

Application: Use 31 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Tryptone ..... 16 g/l
Yeast extract ..... 10 g/l
Sodium chloride (NaCl) ..... 5 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X966.1	500 g	plastic	84,85
Original pack 6 x 500 g			80,61/500 g
X966.2	1 kg	plastic	151,05
Original pack 6 x 1 kg			143,50/1 kg
X966.3	2.5 kg	plastic	341,35

2xYT Agar

for molecular biology

Nutritious liquid medium formulated to promote the growth of host cells (*E. coli*).

Application: Use 46 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Composition

Tryptone ..... 16 g/l
Yeast extract ..... 10 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar ..... 15 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X967.1	500 g	plastic	103,75
Original pack 6 x 500 g			98,56/500 g

2x YT Media

Very nutricious medium for proliferation of M13 and other filamentous phages in *E. coli*. 2x YT Medium (**Y**east extract / **T**ryptone) contains big amounts of vitamins, amino acids, nucleic acids and other base components, allowing phages to propagate without weakening the host bacterium.
This medium may also be used for proliferation of recombinant *E. coli*.

► Granulated Media see page 345

Nutrient Media of vegetable origin

- Nutrient media from raw materials of pure plant origin
- TSE-/BSE-free
- Certificates of origin on request

animal-free TSE-/BSE-free

LB Broth (Lennox) vegetal

animal-free, for molecular biology

Standard formulation made from compounds of pure vegetable origin, used for propagation and culturing of *E. coli*. Low salt content for plasmid isolation. Supplemented with magnesium chloride also suitable for phage propagation.

Application: Use 20 g for 1 l broth.

5 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Vegetable peptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
0155.1	500 g	plastic	89,80
Original pack 6 x 500 g			85,31/500 g
0155.2	1 kg	plastic	161,80
Original pack 6 x 1 kg			153,71/1 kg

animal-free TSE-/BSE-free

LB Agar (Lennox) vegetal

animal-free, for molecular biology

Standard formulation made from compounds of pure vegetable origin, used for propagation and culturing of *E. coli*.

Application: Use 35 g for 1 l agar.

5 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Vegetable peptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar-Agar ..... 15 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
0159.1	500 g	plastic	111,30
Original pack 6 x 500 g			105,74/500 g
0159.2	1 kg	plastic	203,75
Original pack 6 x 1 kg			193,56/1 kg

animal-free TSE-/BSE-free

Terrific Broth vegetal

animal-free, for molecular biology

Nutritious medium made from compounds of pure vegetable origin for culture and proliferation of *E. coli*.

Nutritious medium made from compounds of pure vegetable origin for culture and proliferation of *E. coli*. Terrific Broth supports very high cellular density, therefore increasing the yield during plasmid and protein preparations.

Application: Use 50,8 g for 1 l broth. Before autoclaving add 4 ml glycerol per litre medium.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Composition

Vegetable peptone ..... 12 g/l
Yeast extract ..... 24 g/l
K_2HPO_4 ..... 12,5 g/l
KH_2PO_4 ..... 2,3 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
0161.1	500 g	plastic	102,70
Original pack 6 x 500 g			97,57/500 g



Basic Reagents for Nutrient Media



High-quality compounds are vital for rapid growth and efficient selection of microorganisms. Peptones in particular are an easily accessible source of carbohydrates as well as nitrogen and amino acids. Yeast extracts additionally are very rich in vitamins, growth factors, and nucleic acids. The most common basic reagents for nutrient media have been assembled here.

Casein hydrolysate, bacteriological

acid-hydrolysed, for biochemistry

Manufactured by hydrolysation of casein by hydrochloric acid. Tryptophane-free. High-grade casein hydrolysate **with superior amino-nitrogen/total nitrogen ratio (AN/TN)**. Particularly suitable for sensitive assays and applications requiring high yields, like production of bacterial toxins or vaccines.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
A157.3	250 g	plastic	115,60
A157.1	500 g	plastic	188,15
Original pack 6 x 500 g			178,74/500 g
A157.2	1 kg	plastic	342,95
Original pack 6 x 1 kg			325,80/1 kg



Casein hydrolysate, standard

acid-hydrolysed, for molecular biology

Ingredient of molecular and microbiological nutrient media, vitamin-free.

Acidic hydrolysate of casein with low cystein and tryptophane content, free of vitamins. Excellent for the production of bacterial toxins and vaccins.

With standard amino-nitrogen/total nitrogen ratio (AN/TN).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
AE41.1	500 g	plastic	96,25
Original pack 6 x 500 g			91,44/500 g
AE41.2	1 kg	plastic	171,50
Original pack 6 x 1 kg			162,93/1 kg

Lactalbumin

for microbiology and biochemistry

Lactalbumin is produced by enzymatic hydrolysis of milk whey. It consists of peptides, amino acids and carbohydrates, simple and complex.

It is used in media for culturing of bacterial cells (e.g. *lactobacilli*), for tissue culture, production of vaccines and in fermentation procedures.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
7597.1	250 g	plastic	98,40
7597.2	500 g	plastic	175,80
Original pack 6 x 500 g			167,01/500 g



Meat extract

powdered, for culture media

High-grade nutrient media additive also ideal for supplementation of media for fermentation studies.

Corresponds to Lab-Lemco™

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
X975.1	500 g	plastic	165,05
Original pack 6 x 500 g			156,80/500 g
X975.2	1 kg	plastic	290,80
Original pack 6 x 1 kg			276,26/1 kg

Basic Reagents for Nutrient Media

Malt extract, bacteriological

powdered, for microbiology

Additive to malt containing culture media and agars.

High quality additive for nutrient media requiring a superior malt content. Optimally suited for bacteriological applications due to low pH value.

Free of nitrite. Do not overheat!

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
AE68.1	500 g	plastic	77,95
Original pack 6 x 500 g			74,05/500 g



Malt extract, standard

powdered, for culture media

Additive to malt containing culture media and agars.

Powdered malt extract for standard applications.

Malt extract possesses a very large amount of carbohydrates. The medium, therefore, turns dark brown very quickly when overheated.

Do not overheat!

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
X976.1	500 g	plastic	45,70
Original pack 6 x 500 g			43,42/500 g
X976.2	1 kg	plastic	82,25
Original pack 6 x 1 kg			78,14/1 kg

Sterilisation of media containing sugar

Media containing sugar or **malt extract**, particularly those with a low pH, must be sterilised with care. We recommend autoclaving at up to 118 °C for a maximum of 15 min. Please observe the guidelines given in the instructions for use.

The reasons are as follows:

a) Heating sugar in combination with amino acids (from peptone, meat extract, yeast extract, or similar) can result in **toxic Maillard reaction products** which may interfere with proliferation of micro-organisms.

b) Inclusion of different sugar molecules and sugar degradation products will cause premature chain termination and inhibit chain cross-linking. The **gelability of agars containing sugar** will thereby be reduced.

NZamine

for molecular biology

Component of nutrition media for molecular biological assays, particularly LB Broth.

Highly nutritive peptone, produced by pancreatic digest of Casein under distinct conditions. Best source of nitrogen and amino acids in nutrient media for molecular biological assays, particularly broth acc. to Luria/ Bertani (LB).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
CP76.2	250 g	plastic	60,75
CP76.1	500 g	plastic	98,40
Original pack 6 x 500 g			93,48/500 g

Ox Bile, bacteriological

for microbiology

Ox Bile is produced by a low dehydration process of bovine liver. It is a mixture of free and conjugated bile salts. It works as a selective agent for bile-tolerant microorganisms in culture media; gram positive bacteria are inhibited.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
7595.1	250 g	plastic	160,20
7595.2	500 g	plastic	284,90
Original pack 6 x 500 g			270,66/500 g



Peptone ex casein

tryptically digested, for microbiology

Produced by proteolytic digestion of casein with trypsin-rich pancreas extract. Low-cost peptone that is used as an additive to nutrient media in the production of toxins, vaccins, enzymes and further biological products.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
8986.1	500 g	plastic	106,45
Original pack 6 x 500 g			101,13/500 g
8986.2	1 kg	plastic	192,45
Original pack 6 x 1 kg			182,83/1 kg
8986.3	2.5 kg	plastic	418,20
8986.4	5 kg	plastic	740,70

Basic Reagents for Nutrient Media

Peptone ex gelatin

pancreatically digested, for microbiology

Peptone produced from porcine skin by digestion with pancreatic extract. Gelatin pepton is low in fermentable carbohydrates, and is used in culture media especially for non-fastidious microorganisms and for fermentation studies.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
HP99.1	500 g	plastic	92,35
Original pack 6 x 500 g			87,73/500 g



Peptone ex meat

peptically digested, for microbiology

Extremely high-grade peptone, particularly nutritive.

Peptone from meat is gained from animal tissue by peptic digestion. It is used as a biological nutrient for tissue cultures, fermentations and for the production of vaccines.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Art. No.	Pack Qty.	Pack.	€
2366.1	250 g	plastic	73,65
2366.3	500 g	plastic	134,40
Original pack 6 x 500 g			127,68/500 g
2366.2	1 kg	plastic	255,35
Original pack 6 x 1 kg			242,58/1 kg
2366.4	2.5 kg	plastic	496,15



Peptone ex pea

for microbiology

The nitrogen-rich peptone from peas is produced by the enzymatic hydrolysis from non-genetically modified plants. As an alternative to soy peptone, it is used in media for fastidious microorganisms in industry, in cell culture or in microbiological analysis.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
2122.1	250 g	plastic	96,25
2122.2	500 g	plastic	185,45
Original pack 6 x 500 g			176,18/500 g



animal-free

Peptone ex soya

papainic digested, for microbiology

Particularly broad nutrient spectrum and high content of carbohydrates and vitamins. Peptone from soya beans is gained from papainic digestion of soya bean flour and used for culture media, for fermentation and for the production of vaccines.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
2365.1	250 g	plastic	48,30
2365.3	500 g	plastic	83,75
Original pack 6 x 500 g			79,56/500 g
2365.2	1 kg	plastic	160,20
Original pack 6 x 1 kg			152,19/1 kg
2365.4	2.5 kg	plastic	306,40

The term **peptone** is used for all proteins digested by acid or enzymes. In addition, the source (e. g. 8986.1: Peptone ex Casein) and the digesting compound should be given (e. g. “tryptic”). Source of nitrogen and amino acids.

Tryptone is manufactured by digestion of casein with pancreas extract (pancreatic digest). Tryptone is rich in tryptophane, and an ideal source of nitrogen and amino acids used in a number of microbiological nutrient media (Art. No. 8952 and 6681).

NZamine also is manufactured by pancreatic digestion of casein. Being similar to tryptone it is often used as source of nitrogen and amino acids in nutrient media for bacterial growth in molecular biology (Art. No. CP76).

Proteose peptone is formed by hydrolytic cleavage of proteins from animal tissue, more complete that which occurs for peptones in general, but not strong enough to form single amino acids. Proteose peptone is rich for peptides with high molecular weight, beeing a high-grade component of microbiological nutrient media (Art. No. HP32).

Casamino acids originate from hydolysis of casein by acid. This compound is used as source of nitrogen and amino acids when completely hydrolysed protein is required, e. g. in proliferation assays or during production of vaccines and toxins (Art. No. AE41 and A157).

animal-free

Peptone ex soya (animal-free/GMO-free)

papainic digested, animal-free, GVO-free, for microbiology

Soya peptone (animal-free/GMO-free) is extracted by papainic digestion from soybean flour from non-genetically modified plants. Moreover, strict production guidelines guarantee that it is free from all animal substances, even TSE/BSE. Peptone ex soja (animal-free/GVO-free) complies with EG regulations 1829/2003 and 1830/2003. The corresponding certificates are available upon request.

Peptone ex soya is particularly characterized by its broad nutrient spectrum and high vitamin content. It is suitable for application in microbiology, tissue culture and fermentation.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
2832.1	250 g	plastic	69,80
2832.2	500 g	plastic	117,20
Original pack 6 x 500 g			111,34/500 g
2832.3	1 kg	plastic	212,35
Original pack 6 x 1 kg			201,73/1 kg
2832.4	2.5 kg	plastic	403,15

Polypeptone

for microbiology

Specially designed mixture of casein peptone and meat peptone. Polypeptone may be used as a rich source for vitamins, carbon and amino acids in many microbiological culture media formulations. For several microorganisms it is known to stimulate proliferation better than the individual petones.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Art. No.	Pack Qty.	Pack.	€
2903.1	250 g	plastic	67,20
2903.2	500 g	plastic	126,35
Original pack 6 x 500 g			120,03/500 g
2903.3	1 kg	plastic	228,45
Original pack 6 x 1 kg			217,03/1 kg

Proteose Peptone

for microbiology

Rich component of microbiological nutrition media, particularly used for production of toxins and vaccines. From enzymatic digestion of animal tissue.

Highly nutritious source for the growth of a wide range of fastidious microorganisms or when bacteria have to be well fed.

Best suited for the production of vaccines, antibiotics, and other substances like enzymes, ideal for starter cultures and well usable for bacterial stocks.

Proteose peptone has been used for, e.g., the production of Diphteria toxin, *Pneumococcus* toxin and the toxins from *Clostridium botulinum* and *Cl. perfringens*, as well as for culture of *Neisseria, Haemophilus, Salmonella, Corynebacterium* and *Staphylococcus*.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Art. No.	Pack Qty.	Pack.	€
HP32.1	500 g	plastic	158,60
Original pack 6 x 500 g			150,67/500 g

Starch

soluble

Oxidized corn starch

Important compound of many nutrient media for cultivation of fastidious microorganisms in general, and *Clostridia* in particular. Please solubilise the starch in very few cold water prior to addition to the medium.

$(C_6H_{10}O_5)_n$ · M (162,14)$_n$ g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
4701.1	1 kg	plastic	30,65
Original pack 6 x 1 kg			29,12/1 kg
4701.2	5 kg	plastic	106,45



Tryptone/Peptone ex casein

pancreatically digested, for microbiology

Rich in short-chained peptides and amino acids, including trytophane. Essential ingredient of many nutrient media like LB, 2YT. Produced by pancreatic digestion of casein. It is used as an additive to nutrient media in the production of toxins, vaccins, enzymes and further biological products.

Similar to NZamine

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
8952.1	250 g	plastic	66,15
8952.3	500 g	plastic	118,15
Original pack 6 x 500 g			112,24/500 g
8952.2	1 kg	plastic	203,20
Original pack 6 x 1 kg			193,04/1 kg
8952.4	2.5 kg	plastic	443,45
8952.5	5 kg	plastic	775,65



Tryptone/Peptone ex casein, granulated

pancreatically digested, granulated, for microbiology

Granulated, dust-minimized casein peptone made by pancreatic digestion. Rich in short-chained peptides and amino acids, including tryptophane. Essential ingredient of many nutrient media like, for instance, LB, 2YT and others.

Similar to NZamine

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
6681.1	250 g	plastic	85,90
6681.2	500 g	plastic	149,45
Original pack 6 x 500 g			141,98/500 g
6681.3	1 kg	plastic	256,95
Original pack 6 x 1 kg			244,10/1 kg
6681.4	2.5 kg	plastic	514,95
6681.5	5 kg	plastic	994,40



Yeast Extract

powdered, for bacteriology

Water-soluble. Produced through aqueous extraction of autolysed brewer´s yeast. High content of vitamins. Ideal, therefore, in many standard nutrient media, e.g. LB-medium as for vitamins, carbohydrates, and amino acids.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
2363.1	250 g	plastic	53,65
2363.3	500 g	plastic	98,80
Original pack 6 x 500 g			93,86/500 g
2363.2	1 kg	plastic	188,15
Original pack 6 x 1 kg			178,74/1 kg
2363.4	2.5 kg	plastic	349,40
2363.5	5 kg	plastic	628,90
2363.7	10 kg	plastic	1.009,45



Yeast Extract, micro-granulated

micro-granulated, for bacteriology



Figure: Close-up.

Micro-granulated, water soluble extract of selected autolysed yeast cells. Easy to handle and dust-reduced.

Yeast extract is used as a rich source for vitamins, carbon and amino acids in many microbiological culture media formulations. Rich in B-vitamines and growth factors.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
2904.1	250 g	plastic	58,60
2904.2	500 g	plastic	106,45
Original pack 6 x 500 g			101,13/500 g
2904.3	1 kg	plastic	198,90
Original pack 6 x 1 kg			188,96/1 kg
2904.4	2.5 kg	plastic	385,95
2904.5	5 kg	plastic	740,70

Gelling Agents

Agar-Agar

Agar-agar is a carbohydrate found in the cell walls of blue and red algae. Therefore, agar-agar is obtained from dried algae. The basic units of agar are agarose and sulphated agaropectin.

Agar types

The designation Agar **Kobe I** derives from the geographical origin of the agar, which is the Japanese city of Kobe on the main island of Honshu. In former times, when agar was still traded in strips, threads or squares, agar was graded into three main quality groups:

Kobe I: top quality, pure white
Korea I: slightly inferior quality, slightly yellowish to light beige
China: inferior quality, yellow-beige
These terms and the associated differences in quality are now obsolete - for some time now, agar of consistent quality has been available from all parts of Asia. However, for reasons unknown, the designation Kobe I is used today to describe ground agar of very high quality which is used as a microbiological standard agar.
BioScience Agar forms clear gels and is of high purity without any residues that could hinder growth of transformed - and therefore stressed - GMOs. Hence, it is particularly recommended for production of agar plates for bioengeneering. **BioScience Agar** is used as gelating agent in our *Anhydrous Nutrient Media for Molecular Biology*.
In addition, the designation **bacteriological agar** has become an established definition for ultra-pure agar, which represents a preliminary stage of purified agarose and is manufactured for special microbiological applications.
Danish agar, also known as Furcelleran, is a saccharide-enriched carrageenan extracted from the red algae *Furcellaria fastgiata*.

Instructions:

Culture-Plates: 15 g/l medium;
approx. 30–35 ml medium is required for a 90 mm culture plate.
Top-Agar: 7 g/l medium.
The solution should be autoclaved for 20 min and the preparation carefully swayed to distribute the agar evenly. Cool the agar down to 50 °C before adding the antibiotic. Sway the agar solution again before casting the plates.
Any air bubbles on the surface of the culture plates can be removed with a bunsen burner flame. Once the agar has hardened, the plates should be stored top-down at 4 °C.



Agar-Agar, Kobe I

Kobe I, powdered, for microbiology

Standard-Agar for application in culture media for molecular biology (e.g. LB medium) and microbiology.

Usually 15 g/l are used.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Being extracts from natural products, the properties (e.g. gelling behaviour, salt content) may vary from lot to lot.

Art. No.	Pack Qty.	Pack.	€
5210.1	250 g	plastic	49,35
5210.3	500 g	plastic	85,50
Original pack 6 x 500 g			81,23/500 g
5210.2	1 kg	plastic	158,60
Original pack 6 x 1 kg			150,67/1 kg
5210.4	2.5 kg	plastic	332,20
5210.5	5 kg	plastic	568,70
5210.6	10 kg	plastic	912,70



Agar-Agar, BioScience

BioScience Grade, powdered

Agar of high purity for all culture media used in molecular- and microbiology. Recommended for plating in genetic engineering (GMOs).

- Highly pure Agar-Agar, essentially free of impurities that could hinder bacterial growth.
- Forms very clear gels.
- Particularly recommended for preparation of culture plates used for plating of recombinant bacteria (GMOs) during genetic engineering.

Usually 15 g/l are used.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Being extracts from natural products, the properties (e.g. gelling behaviour, salt content) may vary from lot to lot.

Art. No.	Pack Qty.	Pack.	€
6494.1	250 g	plastic	74,10
6494.2	500 g	plastic	127,40
Original pack 6 x 500 g			121,03/500 g
6494.3	1 kg	plastic	231,15
Original pack 6 x 1 kg			219,59/1 kg
6494.4	2.5 kg	plastic	514,95



Agar-Agar, BioScience, granulated

BioScience Grade, granulated

Agar of high purity for all culture media used in molecular- and microbiology. Recommended for plating in genetic engineering (GMOs).

Granulated, dust-minimized Agar-Agar.

- Essentially free of impurities that could hinder bacterial growth.
- Forming very clear gels.
- Particularly recommended for preparation of culture plates used for plating of recombinant bacteria (GMOs) during genetic engineering.

Usually 15 g/l are used.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Being extracts from natural products, the properties (e.g. gelling behaviour, salt content) may vary from lot to lot.

Art. No.	Pack Qty.	Pack.	€
1347.1	250 g	plastic	89,80
1347.2	500 g	plastic	160,20
Original pack 6 x 500 g			152,19/500 g
1347.3	1 kg	plastic	292,95
Original pack 6 x 1 kg			278,30/1 kg
1347.4	2.5 kg	plastic	639,65



Agar-Agar, bacteriological

highly pure, for bacteriology

For immune diffusion and electrophoresis, culture media for tissue cultures, bacteriology, mycology and cell culture.

- Qualitatively high-grade Agar which is clearly superior to bacteriological Agar in its purity.
- Forms very clear gels.
- Essentially free of impurities that could interfere with other products in culture media formulation. Free of bacterial inhibitors.
- Recommended in media to be used for the determination of susceptibility of microorganisms to antibiotics or drugs.

Usually 15 g/l are used.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Being extracts from natural products, the properties (e.g. gelling behaviour, salt content) may vary from lot to lot.

Art. No.	Pack Qty.	Pack.	€
2266.1	250 g	plastic	138,70
2266.3	500 g	plastic	235,45
Original pack 6 x 500 g			223,68/500 g
2266.2	1 kg	plastic	428,95
Original pack 6 x 1 kg			407,50/1 kg
2266.4	2.5 kg	plastic	901,95

Agar-Agar, Noble quality

ultra pure, for bacteriology

Ideal for immunodiffusion and electrophoresis and as a medium for tissue and cell cultures, bacteriology and mycology.

Due to an addtionional purification process the product obtained has an excellent clarity, absence of color, excellent diffusion characteristics, absence of toxic inhibitors, very low ash content and other impurities.

- Excellent clarity
- Excellent diffusion properties
- No toxic inhibitors
- Very low impurities

Qualitatively high-grade Agar which is clearly superior to bacteriological Agar in its purity.

Forms very clear gels.

Essentially free of impurities that could interfere with other products in culture media formulation. Free of bacterial inhibitors.

Directions for use

Recommended in media to be used for the determination of susceptibility of microorganisms to antibiotics or drugs.

Usually 15 g/l are used.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Being extracts from natural products, the properties (e.g. gelling behaviour, salt content) may vary from lot to lot.

Art. No.	Pack Qty.	Pack.	€
3558.1	250 g	plastic	181,70
3558.2	500 g	plastic	310,70
Original pack 6 x 500 g			295,17/500 g
3558.3	1 kg	plastic	536,45
Original pack 6 x 1 kg			509,63/1 kg
3558.4	2.5 kg	plastic	1.058,90

Agar-Agar, plant

Genetic engineering quality, for plants

For plant propagation and plant cell culture.

Plant culture agar

High-pure agar recommended for propagation of ornamental and economic plant species, as for *in vitro* genetic engineering in plant research and commercial applications.

The high gel strength of the agar allows usage at low concentrations of about 0.5 %. Forms very clear and transparent gels.

Usually 15 g/l are used.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.
WGK 1

Being extracts from natural products, the properties (e.g. gelling behaviour, salt content) may vary from lot to lot.

Art. No.	Pack Qty.	Pack.	€
4807.1	250 g	plastic	105,25
4807.2	500 g	plastic	175,80
Original pack 6 x 500 g			167,01/500 g
4807.3	1 kg	plastic	301,55
Original pack 6 x 1 kg			286,47/1 kg
4807.4	2.5 kg	plastic	661,15

► Self-adhesive labels for Petri dishes, see page 376

Carrageenans

Carrageenans are agar-related hydrocolloids consisting of esters of galactose and anhydrogalactose polysaccharides and forming particularly clear gels. In order to polymerise, carrageenans require cations, while gel strength may be altered by addition of $MgCl_2$ or KCl.



Agar-Agar, danish

standardized carrageenan mixture, sugar-containing, powdered

Mixture of highly pured Carrageen extracts. For gelling of watery liquids like, e.g. media for cultivation of plants, and for special microbiological applications. Saccharated.

Each lot of this Carrageenan mixture is standardised with sugars and KCl to the gel strength noted in the type analysis.

Further information on analysis data see Chemicals A–Z.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Standardized by mono- or disaccharides and KCl.
Being extracts from natural products, the properties (e.g. gelling behaviour, salt content) may vary from lot to lot.

Art. No.	Pack Qty.	Pack.	€
4508.1	1 kg	plastic	149,45
Original pack 6 x 1 kg			141,98/1 kg
4508.2	5 kg	plastic	650,40

Please Note:

Being extracts from natural products, the properties (e. g. gelling behaviour, salt content) may vary from lot to lot. Further information on analysis data see Chemicals A–Z.



Carrageenan, kappa

highly pure

Strongly gelling Carrageenan of kappa type. Forms gels of high gel strength. For gelling of watery liquids like e.g. culture media for plants or animals. Manufactured from cultured and controlled sea weeds.

Carrageenans are agar-related hydrocolloids consisting of esters of galactose and anhydrogalactose polysaccharides.

Kappa Carrageenan is obtained by alkaline extraction from red algae (*Rhodophyceae*) of the order *Gigartinales*, purified by filtration and recovered by KCl precipitation. In ionic solutions, heat-solubilized kappa Carrageenan self-assembles into helical structures and gels during cooling, the gel parameters depending on the ions present: Potassium ions form rigid gels, calcium gels are strong but more flexibel.

WGK 1

Contains KCl.
Being extracts from natural products, the properties (e.g. gelling behaviour, salt content) may vary from lot to lot.

Art. No.	Pack Qty.	Pack.	€
3059.1	25 g	plastic	25,70
3059.2	100 g	plastic	64,40
3059.3	500 g	plastic	224,70
Original pack 6 x 500 g			213,47/500 g

Carrageenan, iota

highly pure

Weakly gelating Carrageenan of iota type. Forms soft gels. For gelling of watery liquids like culture media for plants or animals in general, and for gelling of dairy products in particular. Manufactured from cultured and controlled sea weeds.

Carrageenans are agar-related hydrocolloids consisting of esters of galactose and anhydrogalactose polysaccharides.

Iota Carrageenan is obtained by alkaline extraction from red algae (*Rhodophyceae*) of the order *Gigartinales*, purified by filtration and recovered by alcoholic precipitation. In solutions containing calcium ions, heat-solubilised iota Carrageenan self-assembles into helical structures and gels during cooling.

WGK 1

Being extracts from natural products, the properties (e.g. gelling behaviour, salt content) may vary from lot to lot.

Art. No.	Pack Qty.	Pack.	€
3675.1	25 g	plastic	25,70
3675.2	100 g	plastic	64,40
3675.3	500 g	plastic	224,70
Original pack 6 x 500 g			213,47/500 g



GELRITE®

Gelrite® for microbiology

Gelling agent for microbiological culture media. Alternative to Agar.

GELRITE® is a highly-purified, natural heteropolysaccharide which forms stable, agar-like gels when exposed to soluble salts. Compared to agar however, only about half the amount is required.

Advantages over agar:

- consistent product quality
- almost 100 % batch-to-batch conformity
- forms remarkably clear gels
- reduces preparation time as gels form faster
- remains stable even at high temperatures and is therefore also ideal for thermophilic microorganisms; gels can withstand repeated autoclaving without any changes to gel strength
- indicates no toxic contaminations (e.g. through phenols, as found in agar)
- is chemically inert against most media additives
- is resistant to enzymatic degradation
- is non-toxic (no signs of toxicity in rats exposed to a dose of 5.000 mg/kg)
- is very economical to use

GELRITE® has been specially developed as a gelling agent for microbiological culture media. It can however, replace agar in other applications, too.

Polymerisation of GELRITE® is enhanced in the presence of (bivalent) kations. It is therefore supplemented by $MgCl_2$ if a solid gel structure is required. Elevated salt concentrations increase gelling temperature (e.g. 500 mM Na^+ to approx. 68 °C with 1 % GELRITE®). When using very high salt concentrations like e.g. seawater, gelling capacity may be significantly reduced.

Chemical composition:
Linear polysaccharide comprising of O-acetylate glycuronic acid, glucose and rhamnose units.

GELRITE® is a highly-purified, natural heteropolysaccharide which forms stable, agar-like gels when exposed to soluble salts.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 2

Art. No.	Pack Qty.	Pack.	€
0039.1	500 g	plastic	321,45
Original pack 6 x 500 g			305,38/500 g
0039.2	1 kg	plastic	514,95
Original pack 6 x 1 kg			489,20/1 kg

Media preparation with GELRITE®

Dissolve the corresponding amounts of media additive, GELRITE® and $MgCl_2 \cdot 6\ H_2O$ in 1 litre of distilled water.
Autoclave mixture for 15 min at +120 °C.
Cool to 60 °C and pour the medium into Petri dishes.

Required quantities using the example of some media:

Medium	GELRITE®	$MgCl_2 \cdot 6\ H_2O$
Bismuth sulphite	10,0 g/l	0,75 g/l
Brillant green	9,0 g/l	0,75 g/l
Eosin methylene blue	7,5 g/l	0,75 g/l
MacConkey	7,0 g/l	0,75 g/l
Nutrient broth	8,0 g/l	0,75 g/l
Plant agar	2,0 g/l	-
Salmonella Shigella	5,5 g/l	-
Seawater (High Salt solution)	non recommandé	-
Triple Iron Sugar	6,0 g/l	0,75 g/l

Antibiotics/Antimycotics

ROTI®Antibiotic Discs



The range of ROTI®Antibiotic Discs is designed for the qualitative analysis of the sensitivity of bacteria or fungi to anti-microbiological reagents by means of *in vitro* diffusion methods.

A fresh starter culture is adjusted at a cell density of 1×10^6–5×10^6 cfu/ml (in acc. with McFarland Standard 0,5) and applied evenly to a culture medium plate with Mueller-Hinton agar (Art. No. X926; for fungal cultures add 2 % glucose + 0,5 µg methylene blue). The antibiotic discs are individually applied to the plate using sterile tweezers or a dispenser (Art. No. 1505).
After a suitable period of incubation, the size of the inhibiting zone around the discs is measured. The diameter of the inhibiting zone is assessed using standardised values in the available standards and databases and is an indicator of the culture's sensitivity to the antibiotic.

Product name	Activity	Concentration	Imprint on each disc	Art. No.	Pack Qty.	€
ROTI®Antibiotic Discs Amphotericin B (AP)	100 U		AP 100	**1454.2**	50 unit(s)	18,20
				1454.1	250 unit(s)	64,00
ROTI®Antibiotic Discs Ampicillin (AMP)		10 µg	AMP10	**1456.2**	50 unit(s)	13,90
				1456.1	250 unit(s)	42,50
ROTI®Antibiotic Discs Bacitracin (B)	10 U		B 10	**1458.2**	50 unit(s)	13,90
				1458.1	250 unit(s)	42,50
ROTI®Antibiotic Discs Carbenicillin (CB)		100 µg	CB 100	**1459.2**	50 unit(s)	13,90
				1459.1	250 unit(s)	42,50
ROTI®Antibiotic Discs Cefoxitin (CX)		30 µg	CX 100	**1460.2**	50 unit(s)	13,90
				1460.1	250 unit(s)	42,50
ROTI®Antibiotic Discs Chloramphenicol (C)		30 µg	C 30	**1461.2**	50 unit(s)	13,90
				1461.1	250 unit(s)	42,50
ROTI®Antibiotic Discs Colistin (CL)		10 µg	Cl 30	**1462.2**	50 unit(s)	16,05
				1462.1	250 unit(s)	49,35
ROTI®Antibiotic Discs Erythromycin (E)		15 µg	E 15	**1463.2**	50 unit(s)	13,90
				1463.1	250 unit(s)	42,50
ROTI®Antibiotic Discs Gentamicin (GEN)		10 µg	GEN 10	**1464.2**	50 unit(s)	13,90
				1464.1	250 unit(s)	42,50
ROTI®Antibiotic Discs Kanamycin (K)		5 µg	K 5	**1465.2**	50 unit(s)	16,05
				1465.1	250 unit(s)	49,35
ROTI®Antibiotic Discs Nalidixic acid (NA)		30 µg	NA 30	**1466.2**	50 unit(s)	13,90
				1466.1	250 unit(s)	42,50
ROTI®Antibiotic Discs Neomycin (N)		10 µg	N 10	**1467.2**	50 unit(s)	13,90
				1467.1	250 unit(s)	42,50
ROTI®Antibiotic Discs Novobiocin (NV)		30 µg	NV 30	**1468.2**	50 unit(s)	13,90
				1468.1	250 unit(s)	42,50
ROTI®Antibiotic Discs Nystatin (NS)	100 U		NS 100	**1476.2**	50 unit(s)	13,90
				1476.1	250 unit(s)	42,50
ROTI®Antibiotic Discs Penicillin (P)	10 U		P 10	**1494.2**	50 unit(s)	13,90
				1494.1	250 unit(s)	42,50
ROTI®Antibiotic Discs Polymyxin B (PB)	300 U		PB 300	**1495.2**	50 unit(s)	13,90
				1495.1	250 unit(s)	42,50
ROTI®Antibiotic Discs Rifampicin (RIF)		5 µg	RIF 5	**1496.2**	50 unit(s)	13,90
				1496.1	250 unit(s)	42,50
ROTI®Antibiotic Discs Streptomycin (*S*)		10 µg	S 10	**1497.2**	50 unit(s)	13,90
				1497.1	250 unit(s)	42,50
ROTI®Antibiotic Discs Tetracycline (TE)		30 µg	TE 30	**1498.2**	50 unit(s)	13,90
				1498.1	250 unit(s)	42,50
ROTI®Antibiotic Discs Ticarcillin (TI)		75 µg	TI 75	**1499.2**	50 unit(s)	13,90
				1499.1	250 unit(s)	42,50
ROTI®Antibiotic Discs Vancomycin (VA)		30 µg	VA 30	**1501.2**	50 unit(s)	13,90
				1501.1	250 unit(s)	42,50

► Accessories (McFarland Standard, Dispenser) for the ROTI®Antibiotic Discs see page 377



Reliable quality for microbiology, molecular biology and cell culture.

Denoted concentrations of working solutions are guiding values and have to be established for each application and cell type.

Actinomycin D

≥950 µg/mg, for biochemistry

Peptide antibiotic. Pure actinomycin C_1.

Specific inhibitor of DNA-dependent RNA-synthesis. Inhibition is caused by intercalation in dsDNA and, therefore, is not specific for procaryotic cells.

Standard application is the preparation of cDNA.

Actinomycin D is cytostatic, toxic and sensitive to light.

Stock solution should be kept in a bottle covered with foil.

Stock solution 10 mg/ml in DMSO or methanol.
Storage of stock solution: protected from light at –20 °C
Working concentration: 50 µg/ml

$C_{62}H_{86}N_{12}O_{16}$ · M 1255,5 g/mol

Storage temperature: +4 °C

UN no. 3462 · ADR 6.1 II · WGK 3

Danger H300-H351-H360FD

Art. No.	Pack Qty.	Pack.	€
8969.1	5 mg	glass	128,50

Amphotericin B

≥750 I.U./mg, for biochemistry

Broad-range fungicide, polyene. Alteration of cell membrane permeability by attachment to sterols.

Alteration of cell membrane permeability by attachment to sterols. High concentration causes pore formation in cell membranes in general.
Amphotericin A: ≤0,4 %

Stock solution: 40 mg/ml in DMSO.
Storage of stock solution: –20 °C
Working concentration: ≥3 µg/ml

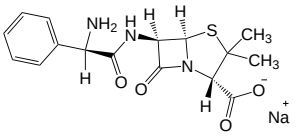
$C_{47}H_{73}NO_{17}$ · M 924,10 g/mol

Storage temperature: +4 °C

WGK 3

Warning H315-H319-H335

Art. No.	Pack Qty.	Pack.	€
0246.1	50 mg	glass	27,85
0246.2	250 mg	glass	90,85
0246.3	500 mg	glass	160,20



Ampicillin sodium salt

CELLPURE® ≥91 %

β-lactam antibiotic. Semi synthetic penicillin. For cell culture and biochemistry.

Inhibits cell wall biosynthesis in growing bacteria.

Endotoxins: <0.15 E.U./mg

Stock solution: 50 mg/ml in H_2O. Storage of stock solution: –20 °C, aliquoted.
Working concentration in LB-plates or media: 50–100 µg/ml.
Important:
Solubilised ampicillin loses approx. 65 % activity after 7 days at +4 °C.

$C_{16}H_{18}N_3NaO_4S$ · M 371,39 g/mol

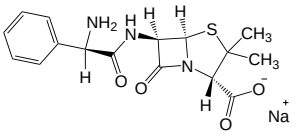
Storage temperature: +4 °C

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
HP62.1	10 g	plastic	56,90
HP62.2	50 g	plastic	209,65





Ampicillin sodium salt

≥97 %, BioScience Grade, for molecular biology

β-lactam antibiotic. Semi synthetic penicillin.

Inhibits cell wall biosynthesis in growing bacteria.

Stock solution: 50 mg/ml in H_2O. Storage of stock solution: –20 °C, aliquoted.
Working concentration in LB-plates or media: 50–100 µg/ml.
Important:
Solubilised ampicillin loses approx. 65 % activity after 7 days at +4 °C

$C_{16}H_{18}N_3NaO_4S$ · M 371,39 g/mol

Storage temperature: +4 °C

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
K029.1	10 g	plastic	28,95
K029.4	25 g	plastic	53,25
K029.5	50 g	plastic	93,45
K029.2	100 g	plastic	160,20
K029.3	250 g	plastic	342,95

► IPTG and X-ß-Gal see Life Science – Molecular Biology page 140

Bacitracin

≥60 I.U./mg, Ph. Eur., for biochemistry

Peptide antibiotic and protease inhibitor

Inhibits cell wall biosynthesis in gram-positive bacteria and *Neisseria* by interaction with murein biosynthesis. Also used as protease-inhibitor for inhibition of the gluthatione-insuline-transhydrogenase or some endopeptidases.

Working concentration: 0.1–1 mg/ml (0.07–0.7 mM).
Bacitracin is very stable in a pH range of 4–5, but is rapidly inactivated in pH of over 5 at room temperature. Do not use at a pH of over 8.

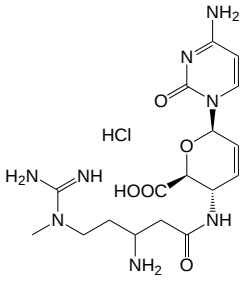
Stock solution: 100–1000 mg/ml in H_2O or ethanol.
Storage of stock solution at –20 °C.

$C_{66}H_{103}N_{17}O_{16}S$ · M 1422,72 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
5655.1	5 g	glass	62,25
5655.2	25 g	plastic	252,65



Blasticidin S hydrochloride

≥98 %, for biochemistry

Nucleoside antibiotic

Inhibits protein biosynthesis in pro- and eukaryotes by blocking of formation of peptide bonds. Selection marker for cells transfected with *brs* or *BSD* resistance genes.

Stock solution: 50 mg/ml in H_2O, PBS or HEPES.
Storage of stock solution at –20 °C.
Working concentration: 3–100 µg/ml.

$C_{17}H_{26}N_8O_5$ · HCl · M 458,90 g/mol

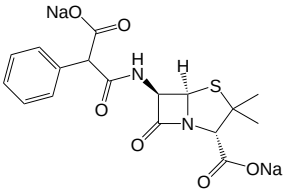
Storage temperature: +4 °C

UN no. 2811 · ADR 6.1 II · WGK 2

Danger H300

Art. No.	Pack Qty.	Pack.	€
CP14.1	10 mg	glass	96,25
CP14.2	25 mg	glass	192,45
CP14.3	50 mg	glass	306,40
CP14.4	100 mg	glass	553,65





Carbenicillin disodium salt

≥88 %, for biochemistry

β-lactam antibiotic, semi synthetic penicillin.

Carbenicillin inhibits cell wall biosynthesis in bacteria. Compared to ampicilline, carbenicillin is more resistant to hydrolysis by β-lactamase.

Stock solution: 50 mg/ml in 50 % ethanol / 50 % water.
Working concentration: 20–60 µg/ml

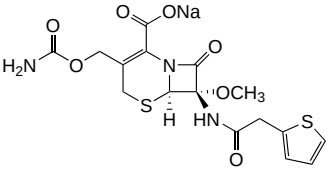
$C_{17}H_{16}N_2O_6SNa_2$ · M 422,4 g/mol

Storage temperature: +4 °C

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
6344.1	1 g	glass	37,55
6344.2	5 g	plastic	85,90
6344.4	10 g	glass	158,60
6344.3	25 g	plastic	375,20



Cefoxitin sodium salt

≥98 %, for biochemistry

Cephalosporin-antibiotic

Semi-synthetic second generation cephalosporin derivate. Cefoxitin interferes with peptidoglycan layer composition during cell wall synthesis and is effective against a broad spectrum of gram-positive bacteria. Its effectivity against gram-negative bacteria is lower. Also active against anaerobic bacteria. Zone of inhibition analysis with Cefoxitin is used to detect methicilin resistance. Stable against cleavage by β-lactamase.

Sensitive to light and temperature!
Stock solution: 100 mg/ml in water.
Store stock solution in the dark at –20 °C (durability 30 weeks).
Working concentration: 2–100 µg/ml.

$C_{16}H_{16}N_3NaO_7S_2$ · M 449,43 g/mol

Storage temperature: +4 °C

WGK 1

Danger H315-H317-H319-H334-H335

Art. No.	Pack Qty.	Pack.	€
4156.1	250 mg	glass	68,30
4156.2	500 mg	glass	114,50

Cefsulodin sodium salt

≥97 %, for biochemistry

Cephalosporin-antibiotic

Semi-synthetic third generation cephalosporin derivate. Cefsulodin interferes with peptidoglycan layer composition during cell wall synthesis and is effective against a broad spectrum of gram-positive and gram-negative bacteria. Also active against anaerobes. Stable against cleavage by β-lactamase.

Sensitive to light and temperature!
Stock solution: 20 mg/ml in water.
Store stock solution in the dark at –20 °C.
Working concentration: 2–20 µg/ml.

$C_{22}H_{19}N_4O_8S_2Na$ · M 554,53 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Danger H315-H317-H319-H334-H335

Art. No.	Pack Qty.	Pack.	€
4014.1	100 mg	glass	68,70
4014.2	250 mg	glass	117,75

Chloroamphenicol

≥98,5 %, Ph. Eur., for biochemistry

Bacteriostatic antibiotic

Broad application range against gram negative and gram positive bacteria. Bacteriostatic effect by inhibiting bacterial protein biosynthesis. Light sensitive.

Store in the dark!
Stock solution: 34 mg/ml in ethanol.
Storage of stock solution at –20 °C in the dark.
Working concentration: For plasmid amplification: 170 µg/ml. For selection of resistant bacteria: 10–30 µg/ml. For culture plates: 10–30 µg/ml (storage at +4 °C for 1–5 days).

$C_{11}H_{12}Cl_2N_2O_5$ · M 323,15 g/mol

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Danger H318-H351-H361fd

Art. No.	Pack Qty.	Pack.	€
3886.2	25 g	plastic	25,70
3886.1	50 g	plastic	42,90
3886.3	100 g	plastic	71,50

Colistinsulphate

≥19 000 I.U./mg, for biochemistry

Bacteriostatic antibiotic, peptide antibiotic

Effectual against proliferating and non-proliferating gram negative bacteria. Coupling to bacterial lipopolysaccharides results in permeabilisation of cell membranes.

Stock solution: 1–10 mg/ml in H_2O.
Storage of stock solution: –20 °C.
Working concentration: 2–200 µg/ml.

$C_{45}H_{85}N_{13}O_{10} \cdot H_2SO_4$ · M 1066,32 g/mol

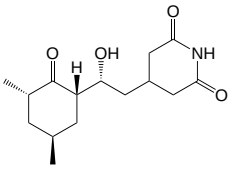
Storage temperature: +4 °C

UN no. 2811 · ADR 6.1 III · WGK 1

Danger H301

Art. No.	Pack Qty.	Pack.	€
CN31.1	100 mg	glass	33,25
CN31.2	250 mg	glass	62,25
CN31.3	1 g	glass	106,45

► For safety-relevant data and product specifications for antibiotics see chapter Chemicals A–Z.



Cycloheximide

ROTICHROM® CHR ≥98 %, for biochemistry

Glutarimid antibiotiotic, fungicidal

Antibiotic isolated from *Streptomyces griseus*. Its main biological activity is translation inhibition in eukaryotes by binding to the 60S subunit of the ribosomes. Cycloheximide inhibits binding of Aminoacyl-tRNA to the ribosomes, Peptidyltransferase, detachment of deacylated tRNA, and translocation of Aminoacyl-tRNA, resulting in cell growth arrest and apoptotic cell death.

Not effective against bacteria. Cycloheximide is widely used for selection of cycloheximide-resistant strains of yeast and fungi, for inhibition of eukaryotic contaminants in bacterial microbiology, for controlled inhibition of protein synthesis in cell culture and for detection of short-lived proteins, and for apoptosis induction or facilitation of apoptosis induction by death receptors.

Stock solution: 10 mg/ml in H_2O or acetone.
Storage of stock solution at –20 °C.
Working concentration: 1–10 µg/ml.
Note: Inactivated at basic pH values. Heat- and acid stabile. No inactivation after 15 mins. 95 °C in pH 7.0.

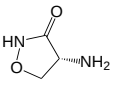
$C_{15}H_{23}NO_4$ · M 281,36 g/mol

Storage temperature: +4 °C

UN no. 2811 · ADR 6.1 II · WGK 3

Danger H300-H341-H360D-H411

Art. No.	Pack Qty.	Pack.	€
8682.1	1 g	glass	48,30
8682.3	5 g	glass	192,45
8682.4	10 g	glass	338,65



D-Cycloserine

≥90 %, for biochemistry

Bacteriostatic antibiotic

Bacteriostatic against gram negative and gram positive bacteria and some protozoans by inhibition of synthesis of the cell wall.

Stock solution: 10–100 mg/ml in H_2O and 96 % ethanol.
Stability of stock solution: Neutral or acidic solutions are unstable. Sodium carbonate buffered solutions (pH 10) may be stored at +4 °C for approx. 7 days without loosing activity.
Recommended storage of stock solution at –20 °C (6 months).
Working concentration: 20–100 µg/ml.
Note: Optimum of activity at pH 6.4–7.4. It is recommended to prepare fresh solutions each time for use.

$C_3H_6N_2O_2$ · M 102,09 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
CN37.1	1 g	glass	30,00
CN37.2	5 g	plastic	64,40
CN37.3	10 g	plastic	117,75

Erythromycin

≥93 %, for biochemistry

Macrolide antibiotic

Erythromycin is a macrolide antibiotic (macrocyclic lactone antibiotic) which is produced from an actinomycete strain (*Saccharopolyspora erythraea*, formerly known as *Streptomyces erythraeus*). Its spectrum of activity is similar to but broader than that of penicillin, which means that erythromycin is also very effective against bacteria such as legionella or mycoplasma.

Erythromycin binds to the bacterial 70s rRNA, interferes with the aminoacyl translocation and consequently inhibits biosynthesis. It is used in microbiological fungal culture to prevent bacterial growth and as a selection marker for selection on bacteria with an erythromycin resistance-mediating gene cassette (*erm*).

Stock solution: 10 mg/ml in ethanol.
Store stock solution at –20 °C (2 months).
Working concentration: 0.1–5 µg/ml.
pH-optimum at 8.5. Only stable for approx. 24 hours at pH-range 7 to 7.5. Extremely unstable below pH 6.0.

$C_{37}H_{67}NO_{13}$ · M 733,95 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
4166.1	5 g	glass	37,55
4166.2	10 g	glass	64,00

► Geldanamycin see page 183

Geneticin disulphate (G418 Sulphate)

≥650 U/mg, for biochemistry

Aminoglycoside antibiotic

Inhibits protein biosynthesis by binding to ribosomes, particularly to eukaryotic 80S ribosomes. Through interference with the tRNA docking process, sequence errors appear and the elongating peptide chain is truncated. Geneticin disulphate unspecifically effects all cells, and is highly toxic for eukaryotic cells. Resistance is mediated by the bacterial enzyme aminoglycoside–3–phosphotransferase.

Application: Selection of transfected eukaryotic cells.
Resistance gene: *Neomycin.*

Stock solution: 10–50 mg/ml in H_2O or culture medium.
Storage of stock solution: –20 °C.
Working concentration: 50–1000 µg/ml, has to be established for each cell type.

$C_{20}H_{40}N_4O_{10} \cdot 2\ H_2SO_4$ · M 692,70 g/mol

Storage temperature: +4 °C

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
0239.1	250 mg	glass	42,90
0239.2	500 mg	glass	60,10
0239.3	1 g	glass	107,40
0239.4	10 g	glass	747,15

S ready-to-use

Geneticin disulphate (G418) solution

CELLPURE® 50 mg/ml, sterile

Aminoglycoside antibiotic. Stock solution, for cell culture, biochemistry and molecular biology. Inhibits protein biosynthesis by binding to ribosomes, particularly to eukaryotic 80S ribosomes.

Through interference with the tRNA docking process, sequence errors appear and the elongating peptide chain is truncated. Geneticin disulphate unspecifically effects all cells, and is highly toxic for eukaryotic cells. Resistance is mediated by the bacterial enzyme aminoglycoside-3-phosphotransferase.

Application: Selection of transfected eukaryotic cells. Resistance gene: *Neomycin.*

Endotoxins: <10 E.U./ml.

Working concentration: 50–1000 µg/ml, has to be determined for each cell type.

$C_{20}H_{40}N_4O_{10} \cdot 2\ H_2SO_4$ · M 692,70 g/mol

Storage temperature: +4 °C

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
CP11.1	10 ml	plastic	79,45
CP11.2	20 ml	plastic	109,55
CP11.3	100 ml	plastic	439,70



S ready-to-use

Geneticin disulphate (G418) solution

50 mg/ml, BioScience Grade, sterile, ready-to-use

Aminoglycoside antibiotic.

Inhibits protein biosynthesis by binding to ribosomes, particularly to eukaryotic 80S ribosomes.
Through interference with the tRNA docking process, sequence errors appear and the elongating peptide chain is truncated. Geneticin disulphate unspecifically effects all cells, and is highly toxic for eukaryotic cells. Resistance is mediated by the bacterial enzyme aminoglycoside-3-phosphotransferase.

Extracted from *Micromonospora rhodorangea*.

Application: Selection of transfected eukaryotic cells.
Resistance gene: N*eomycin*.

Working concentration: 50–1000 µg/ml, has to be determined for each cell type.

$C_{20}H_{40}N_4O_{10} \cdot 2\ H_2SO_4$ · M 692,70 g/mol

Storage temperature: +4 °C

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
2039.1	10 ml	plastic	78,40
2039.2	20 ml	plastic	107,40
2039.3	100 ml	plastic	435,40

Gentamycin sulphate

≥590 I.U./mg, for biochemistry

Aminoglycoside antibiotic

Inhibits protein biosynthesis through binding to ribosomal 50S subunits. Effectual against gram positive and gram negative bacteria.

Stock solution: 10–20 mg/ml in H_2O or formamide.
Storage of stock solution: –20 °C.
Working concentration: 15–50 µg/ml.
Extracted from *Micromonospora purpurea*.

$C_{19-21}H_{39-43}N_5O_7 \cdot 2,5\ H_2SO_4$ · M 694,75-723,75 g/mol

Storage temperature: +4 °C

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
0233.1	1 g	glass	13,90
0233.2	5 g	glass	26,80
0233.3	10 g	glass	40,75
0233.4	25 g	glass	80,55



S ready-to-use

Gentamycin sulphate solution

CELLPURE® 50 mg/ml, sterile

Aminoglycoside antibiotic. For cell culture and biochemistry.

Inhibits protein biosynthesis through binding to ribosomal 50S subunits. Effectual against gram positive and gram negative bacteria.

Extracted from *Micromonospora purpurea*.

Endotoxins: ≤10 E.U./ml.

Stock solution, specifically suitable for cell culturing.
Working concentration: 15–50 µg/ml.

$C_{19-21}H_{39-43}N_5O_7 \cdot 2,5\ H_2SO_4$ · M 694,75-723,75 g/mol

Storage temperature: +4 °C

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
HN09.1	20 ml	plastic	118,15
HN09.2	100 ml	plastic	375,20

► ROTI®Cell media for cell culture see chapter Cell Biology

S ready-to-use

Gentamycin solution

50 mg/ml, BioScience Grade, sterile, ready-to-use

Aminoglycoside antibiotic. For cell culture and biochemistry.

Inhibits protein biosynthesis through binding to ribosomal 50S subunits. Effectual against gram positive and gram negative bacteria.

Stock solution.
Working concentration: 15–50 µg/ml

$C_{19-21}H_{39-43}N_5O_7 \cdot 2,5\ H_2SO_4$ · M 694,75-723,75 g/mol

Storage temperature: +4 °C

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
2475.1	20 ml	plastic	117,10
2475.2	100 ml	plastic	370,90

The History of Antibiotics

In the history of mankind there have always been highly developed cultures who have possessed remarkable knowledge. For example, surgeons in the ancient world and Middle Ages placed mouldy rags on wounds to prevent infection.
First observations of antibiotic effects in modern times were made by the French chemist Louis Pasteur in the 19th century, who discovered that certain bacteria could kill anthrax germs.
The German bacteriologist Rudolf von Emmerich isolated the antibiotic medium pyocyan (cholera and diptheria) around 1900 and in 1910 experiments carried out by the German doctor and chemist Paul Ehrlich led to the development of salvarsan (syphillis and tropical diseases).
Penicillin was discovered by accident in 1928 by Alexander Fleming in *Penicillium notatum* mould fungus cultures when he observed that in laboratory cultures *P. notatum* inhibited the growth of vicinal bacteria colonies. Streptomycin followed in 1943.
The first antibiotics were isolates from bacteria cultures. The preparations used nowadays, however, are almost exclusively of chemical origin, which has enabled specialisation and optimisation.

Hygromycin B

>950 µg/mg, for biochemistry

Aminoglycoside antibiotic.

Inhibits protein biosynthesis in pro– and eukaryotes by altering translocation during ribosomal chain elongation, therefore resulting in frame reading errors and abortion of chain elongation. Selection marker for *hph* transfected cells.

Stock solution: 50–400 mg/ml in H_2O or PBS.
Storage of stock solution at –20 °C.
Working concentration: 20–1000 µg/ml.

$C_{20}H_{37}N_3O_{13}$ · M 527,53 g/mol

Storage temperature: +4 °C

UN no. 3462 · ADR 6.1 I · WGK 1

Danger H300+H310+H330-H317-H318-H334

Art. No.	Pack Qty.	Pack.	€
CP13.1	250 mg	glass	75,15
CP13.2	500 mg	glass	128,50
CP13.3	1 g	glass	224,70
CP13.4	5 g	glass	779,40



S ready-to-use

Hygromycin B solution

CELLPURE® 50 mg/ml, sterile

Aminoglycoside antibiotic. For cell culture, biochemistry, molecular biology and microbiology.

Inhibits protein biosynthesis in pro- and eukaryotes by blocking translocation, therefore resulting in frame reading errors and abortion of chain elongation. Selection marker for *hph* transfected cells.

Endotoxins: <10 E.U./ml

Stock solution, specifically suitable for cell culturing.
Working concentration: 20–1000 µg/ml

$C_{20}H_{37}N_3O_{13}$ · M 527,53 g/mol

Storage temperature: +4 °C

UN no. 3172 · ADR 6.1 II · WGK 1

Danger H301-H310+H330-H317-H318-H334

Art. No.	Pack Qty.	Pack.	€
CP12.1	10 ml	plastic	131,70
CP12.2	20 ml	plastic	231,15



S ready-to-use

Hygromycin B solution

50 mg/ml in PBS, BioScience Grade, sterile, ready-to-use

Aminoglycoside antibiotic. Sterile stock solution in PBS, suitable for cell culturing and microbiology, as well as for biochemical and biomolecular assays.

Inhibits protein biosynthesis in pro- and eukaryotes by blocking translocation, therefore resulting in frame reading errors and abortion of chain elongation. Selection marker for *hph* transfected cells.

Extracted from *Streptomyces hygroscopicus*.

Sterile stock solution
Working concentration: 20–1000 µg/ml
In a septum bottle.

$C_{20}H_{37}N_3O_{13}$ · M 527,53 g/mol

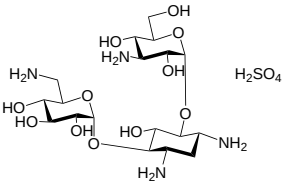
Storage temperature: +4 °C

UN no. 3172 · ADR 6.1 II · WGK 1

Danger H301-H310+H330-H317-H318-H334

Art. No.	Pack Qty.	Pack.	€
1287.1	10 ml	glass	126,35
1287.2	20 ml	glass	209,65





Kanamycin

≥750 I.U./mg, for biochemistry

Bacteriostatic antibiotic

Kanamycin inhibits protein biosynthesis and is effective against gram-negative and gram-positive bacteria.
Easily water-soluble, stable powder.

Main component: Kanamycin A
Stock solution: 10 mg/ml in H_2O
Storage of stock solution: –20 °C
Working concentration: 100 µg/ml

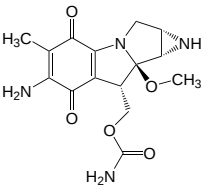
$C_{18}H_{36}N_4O_{11}$ · H_2SO_4 · M 582,58 g/mol

Storage temperature: +4 °C
Transport temperature: ambient temp.

WGK 1

Danger H360D

Art. No.	Pack Qty.	Pack.	€
T832.1	5 g	plastic	27,85
T832.5	10 g	glass	42,50
T832.2	25 g	plastic	78,40
T832.3	50 g	plastic	128,50
T832.4	100 g	plastic	217,70



Mitomycin C

≥98 %, for biochemistry

Mitosis inhibitor

Covalent linkage to DNA. Causes cross-linking of complementary DNA-strands and strand breakage.

Mitomycin C is unstable at low pH-value.
Store away from light.
Stock solution: 1 mg/ml in H_2O
Storage of stock solution: –20 °C
Working concentration: variable (1 µg/ml up to 100 µg/ml)

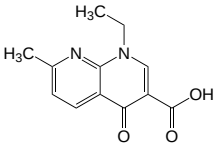
$C_{15}H_{18}N_4O_5$ · M 334,30 g/mol

Storage temperature: +4 °C

UN no. 3462 · ADR 6.1 II · WGK 3

Danger H300-H351

Art. No.	Pack Qty.	Pack.	€
4150.1	2 mg	glass	128,50



Nalidixic acid

≥99 %, for biochemistry

Quinolon antibiotiotic

Inhibits proliferation of gram-negative bacteria and coccae by inhibition of topoisomerase II (gyrase) and, therefore, of DNA replication. Also effective against mycoplasms.

Stock solution: 10 mg/ml in chloroform or toluol.
Storage of stock solution: –20 °C.
Working concentration: 2–200 µg/ml.

$C_{12}H_{12}N_2O_3$ · M 232,23 g/mol

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
CN32.1	10 g	plastic	22,05
CN32.2	25 g	plastic	44,65
CN32.3	100 g	plastic	130,65

Neomycin sulphate

≥600 µg/mg, for biochemistry

Inhibitor for protein biosynthesis, aminoglycoside antibiotic.

Antibiotic from *Streptomyces fradiae* which inhibits bacterial protein synthesis in a broad range of procaryotes (even in dormant germs). Inhibition of protein biosynthesis through binding to ribosomal 30S subunits.

Resistance: Neomycin resistance

Main component: Neomycin B
Stock solution: e.g. 100 mg/ml in H_2O
Storage of stock solution: –20 °C
Working concentration: variable

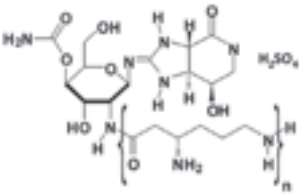
$C_{23}H_{46}N_6O_{13} \cdot 3\ H_2SO_4$

Storage temperature: +4 °C

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
8668.1	10 g	plastic	19,90
8668.2	100 g	plastic	92,35



Nourseothricin

≥85 %, for biochemistry and microbiology

Broad-band antibiotic and antimycotic of viruses, bacteria and fungi.

Antibiotic of the streptothricine family, effective against a broad spectrum of viruses, bacteria and fungi. Used as selection antibiotic for genetically modified bacteria, yeasts, filamentous fungi, protozoa and plants.

Nourseothricin inhibits biosynthesis and induces miscoding. Resistance is mediated by the *sat1* encoded N-acetyltransferase, which inactivates nourseothricin by acetylation of the β-amino group of the β-lysin.

Streptothricine F: n=1 (MW 599.59), Streptothricine D: n=3 (MW 857.95)

Recommendation: One package Nourseothricin should be solubilized in whole and the stock solution should be frozen in aliquots. By removing the overlaying argon during weighing, the stability of the lyophilsate is reduced.

Stock solution: 100 mg/ml in water
Storage of stock solution at –20 °C
Working concentration: ca. 100 µg/ml
One package Nourseothricin should be solubilized in whole and the stock solution should be frozen in aliquots.

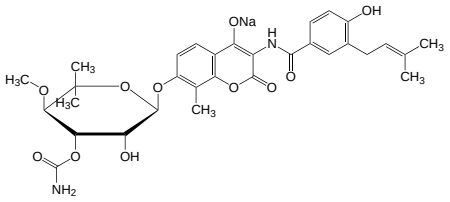
Storage temperature: +4 °C

WGK 1

Warning H302-H315-H319-H335

Packed under argon.

Art. No.	Pack Qty.	Pack.	€
3011.1	25 mg	plastic	53,65
3011.2	100 mg	plastic	125,70
3011.3	1 g	plastic	643,95



Novobiocin sodium salt

≥850 µg/mg, for biochemistry

Bacteriostatic antibiotic, HSP90 inhibitor.

Reduces growth of gram-positive bacteria by inhibition of initiation of DNA-synthesis via binding to ATP-binding sites of gyrase and topoisomerase. Novobiocin also interacts with the C-terminal ATP-binding site of HSP90, hence inhibiting its Chaperon quality.

Also well suited as additive to microbiological nutrient media. Adding 40 mg/l Novobiocin during selective detection of coliform bacteria on Brilliant Green Bile broth (Art. No. CL06.1) efficiently reduces the growth of attendant flora (Alcaide et al., 1982, *J. Appl. Bact.* 53:143-6).

Working concentration: variable

Stock solution: 100 mg/ml in H_2O.
Storage of stock solution: –20 °C

$C_{31}H_{35}N_2NaO_{11}$ · M 634,62 g/mol

Storage temperature: +4 °C

WGK 1

Warning H317-H319

Art. No.	Pack Qty.	Pack.	€
0247.1	1 g	glass	37,55
0247.2	5 g	glass	149,45
0247.3	10 g	glass	246,20

Nystatin dihydrate

≥4 400 I.U./mg, for biochemistry

Broad-range fungizide, polyene.

Alteration of cell membrane permeability by attachment to sterols. High concentration causes pore formation in cell membranes in general.

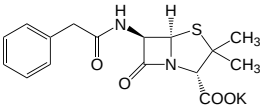
Stock solution: 5 mg/ml in DMSO or DMF.
Storage of stock solution: –20 °C.
Working concentration: 2–50 µg/ml

$C_{47}H_{75}NO_{17}$ · 2 H_2O · M 962,14 g/mol

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
0241.1	5 g	glass	46,80
0241.2	10 g	glass	80,10



Penicillin G potassium salt

CELLPURE® ≥1550 U/mg

β-Lactam antibiotic. For cell culture and biochemistry.

Endotoxins: ≤0.25 E.U./mg. Inhibits cell wall biosynthesis in gram-positive bacteria by irreversible interaction with transpeptidase. Application equivalent to Penicillin G sodium salt. Preferable when addition of sodium is to be avoided.

Stock solution: 10–100 mg/ml in H_2O.
Storage of stock solution: –20 °C.
Working concentration: 20–100 µg/ml.

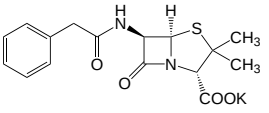
$C_{16}H_{17}KN_2O_4S$ · M 372,48 g/mol

Storage temperature: +4 °C

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
HP49.1	1 g	plastic	24,65
HP49.2	10 g	plastic	49,35
HP49.3	25 g	plastic	97,30



Penicillin G potassium salt

~1.600 U/mg, for biochemistry

β-Lactam antibiotic

Inhibits cell wall biosynthesis in gram–positive bacteria by irreversible interaction with transpeptidase. Application equivalent to Penicillin G sodium salt. Preferable when addition of sodium is to be avoided.

Stock solution: 10–100 mg/ml in H_2O.
Storage of stock solution: –20 °C.
Working concentration: 20–100 µg/ml.

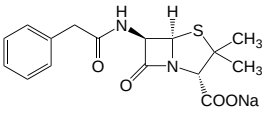
$C_{16}H_{17}KN_2O_4S$ · M 372,48 g/mol

Storage temperature: +4 °C

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
CN29.1	10 g	plastic	26,35
CN29.2	25 g	plastic	47,85
CN29.3	100 g	plastic	138,70



Penicillin G sodium salt

CELLPURE® ≥1550 U/mg

β-Lactam antibiotic. For cell culture and biochemistry.

Endotoxins: ≤0.25 E.U./mg. Inhibits cell wall biosynthesis in gram-positive bacteria by irreversible interaction with transpeptidase. Application equivalent to Penicillin G potassium salt. Preferable when addition of potassium is to be avoided.

Stock solution: 10–100 mg/ml in H_2O.
Storage of stock solution: –20 °C.
Working concentration: 20–100 µg/ml.

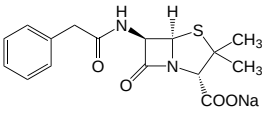
$C_{16}H_{17}N_2NaO_4S$ · M 356,37 g/mol

Storage temperature: +4 °C

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
HP48.1	1 g	plastic	19,90
HP48.2	10 g	plastic	40,75
HP48.3	25 g	plastic	80,55



Penicillin G sodium salt

≥96 %, for biochemistry

β-Lactam antibiotic

Inhibits cell wall biosynthesis in gram–positive bacteria by irreversible interaction with transpeptidase. Application equivalent to Penicillin G potassium salt. Preferable when addition of potassium is to be avoided.

Stock solution: 10–100 mg/ml in H_2O.
Storage of stock solution: –20 °C.
Working concentration: 20–100 µg/ml.

$C_{16}H_{17}N_2NaO_4S$ · M 356,37 g/mol

Storage temperature: +4 °C

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
CN28.1	10 g	plastic	21,40
CN28.2	25 g	plastic	38,60
CN28.3	100 g	plastic	107,00



Pen/Strep-PreMix

CELLPURE®

Antibiotic compound of penicillin, streptomycin and stabilising sodium chloride for application in cell culture.
For elimination and prevention of bacterial contamination in cell culture.

Mechanism

Penicillin inhibits cell wall biosynthesis in Gram-positive bacteria. Streptomycin produces the antibiotic effect in Gram-negative bacteria through inhibition of the translation.

Directions for use

The premixed powder is extremely stable during storage at room temperature and, due to the excellent solubility of the reagents in pyrogen-free water (e.g. Art. No. 3255.1), it can be mixed quickly to a 100x stock solution. The dissolved antibiotics are stable for approx. 3 days at 37 °C. 50 ml of the 100x stock solution can be obtained directly by adding 49.2 ml pyrogen-free water (Art. No. 3255).
We recommend application in a 1:100 dilution. The stock solution mix (100 ml) is sufficient for 10 l medium.

The final concentration of the 100x stock solution is:

- Penicillin: 10.000 I.U. / ml
- Streptomycin: 10 mg / ml
- Sodium chloride: 0.9 %

Endotoxins

Endotoxin content per vial: ≤210 I.U. complies ≤4.2 I.U. / ml

PreMix powder for 2x 50 ml 100x stock solution (for 10 l medium total).
Storage of stock solution: in 1–10 ml aliquots at –20 °C.
Comes with original seal.

Storage temperature: +4 °C

WGK 1

Danger H302-H317-H334-H361d

Art. No.	Pack Qty.	Packaging	Pack.	€
HP10.1	1 set	2 tubes for 50 ml 100x stock solut. each	plastic	78,40

Polymyxin B sulphate

≥80 %, for biochemistry

Bacteriostatic antibiotic, peptide antibiotic

Effectual against proliferating and non-proliferating gram-negative bacteria. Coupling to bacterial lipopolysaccharides results in permeabilisation of cell membranes. Extracted from strains of *Bacillus polymyxa*.

Stock solution: 10–20 mg/ml in H_2O or methanol. Storage of stock solution: –20 °C. Working concentration: 5–500 ng/ml.

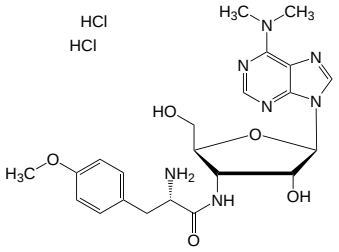
$C_{55}H_{96}N_{16}O_{13}$ · 2 H_2SO_4 · M 1385,63 g/mol

Storage temperature: +4 °C

WGK 1

Warning H302

Art. No.	Pack Qty.	Pack.	€
0235.1	1 g	glass	61,20
0235.2	5 g	glass	241,90
0235.3	10 g	glass	439,70



Puromycin dihydrochloride

≥98 %, for biochemistry

Inhibitor of proteine biosynthesis, aminonucleoside antibiotic.

Inhibits protein biosynthesis by premature release of the nascent polypeptide chain. Functions as analogon to amino acyl–tRNA molecules.

Stock solution: 1–100 mg/ml in H_2O or HEPES. Storage of stock solution: –20 °C. Working solution: 1–50 µg/ml

$C_{22}H_{29}N_7O_5$ · 2 HCl · M 544,44 g/mol

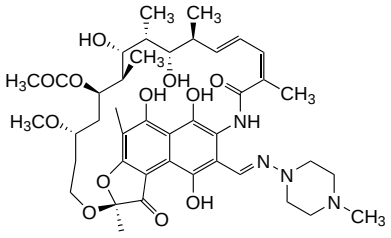
Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H302

Art. No.	Pack Qty.	Pack.	€
0240.1	5 mg	glass	27,85
0240.2	10 mg	glass	45,70
0240.3	25 mg	glass	96,25
0240.4	50 mg	glass	174,70

► Radicicol see page 185



Rifampicin

≥90 %, for biochemistry

Bacteriostatic antibiotic

Rifampicin inhibits bacterial DNA-dependent RNA-polymerase and consequently prevents transcription. Its spectrum of activity is strictly bacterial (the eukaryotic DNA-dependent RNA-polymerase can only be inhibited at extremely high concentrations) and rifampicin is particularly very effective against mycobacteria. Enterbacteria, acinetobacteria and pseudomonades are resistant against rifampicin.
The resistance-mediating genes can be applied as selection markers in molecular biology.

Light-sensitive. Store in the dark!
Stock solution: 100 mg/ml in chloroform or DMSO, 15 mg/ml in methanol, 1 mg/ml in water (pH 7,3)
Store stock solution at -20 °C, is stable for approx. 2 weeks in DMSO when stored in the dark at 4 °C
Working concentration: 20-200 µg/ml

Art. No. 4163.3: A stock solution with a concentration of 100 mg/ml can be prepared directly by adding 5 ml chloroform or DMSO.

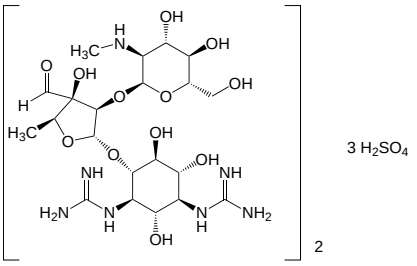
$C_{43}H_{58}N_4O_{12}$ · M 822,94 g/mol

Storage temperature: +4 °C

WGK 1

Warning H302-H315-H319-H335

Art. No.	Pack Qty.	Packaging	Pack.	€
4163.1	500 mg	500 mg	glass	40,75
4163.3	500 mg	500 mg in a 10 ml glas bottle	glass	50,45
4163.2	1 g	1 g	glass	74,10



Streptomycin sulphate

CELLPURE® ≥720 I.U./mg

Bacteriostatic antibiotic. For cell culture and biochemistry.

Effectual against mycobacteria, many gram-negative cocci and gram-negative bacteria in general. Results in translation errors by interaction with ribosomal 30S subunits.

Streptomycin B: ≤3,0 %

Endotoxins: ≤0.25 E.U./mg

Stock solution: 10–50 mg/ml in H_2O
Storage of stock solution: –20 °C
Working concentration: 10–100 µg/ml

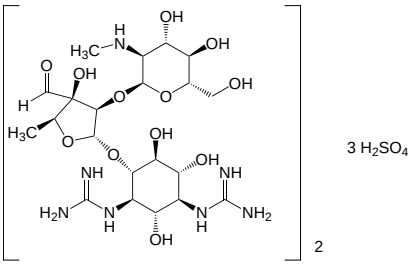
$C_{42}H_{84}N_{14}O_{36}S_3$ · M 1457,38 g/mol

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Warning H302-H361d

Art. No.	Pack Qty.	Pack.	€
HP66.1	10 g	glass	34,30
HP66.2	25 g	glass	53,65
HP66.3	50 g	glass	85,90



Streptomycin sulphate

>720 I.U./mg, for biochemistry

Bacteriostatic antibiotic

Effectual against mycobacteria, many gram-negative cocci and gram-negative bacteria in general. Results in translation errors by interaction with ribosomal 30S subunits.

Stock solution: 10–50 mg/ml in H_2O.
Storage of stock solution: –20 °C.
Working concentration: 10–100 µg/ml.

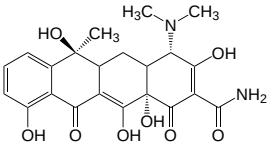
$C_{42}H_{84}N_{14}O_{36}S_3$ · M 1457,38 g/mol

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Warning H302-H361d

Art. No.	Pack Qty.	Pack.	€
0236.1	10 g	glass	24,65
0236.2	25 g	glass	40,75
0236.3	50 g	glass	65,50



HCl

Tetracycline hydrochloride

CELLPURE® ≥900 µg/mg

Bacteriostatic antibiotic. For cell culture, molecular biology and biochemistry.

Effectual against gram-positive and -negative bacteria. Inhibits bacterial protein biosynthesis by coupling to amino acyl-tRNA. Modern application: Activation or inhibition of gene expression through tetracyclin-regulated promotor systems *in vitro* and *in vivo*.

Endotoxins: ≤0.5 E.U./mg

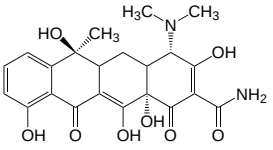
Light-sensitive.
Stock solution: 10–20 mg/ml in H_2O
Storage of stock solution: –20 °C
Working concentration: 10–50 µg/ml

$C_{22}H_{25}Cl\ N_2O_8$ · M 480,90 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Warning H319-H361d

Art. No.	Pack Qty.	Pack.	€
HP63.1	10 g	glass	59,05
HP63.2	50 g	glass	246,20



HCl

Tetracycline hydrochloride

≥900 µg/mg, for biochemistry and molecular biology

Bacteriostatic antibiotic

Effectual against gram-positive and -negative bacteria. Inhibits bacterial protein biosynthesis by coupling to amino acyl-tRNA.

Modern application: Activation or inhibition of gene expression through tetracyclin-regulated promotor systems *in vitro* and *in vivo*.

Light-sensitive.

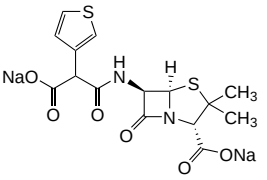
Stock solution: 10–20 mg/ml in H_2O
Storage of stock solution: –20 °C
Working concentration: 10–50 µg/ml

$C_{22}H_{25}Cl\ N_2O_8$ · M 480,90 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.
WGK 1

Warning H319-H361d

Art. No.	Pack Qty.	Pack.	€
0237.1	25 g	glass	80,10
0237.2	50 g	glass	149,45
0237.3	100 g	glass	274,15



Ticarcillin disodium salt

≥85 %, for biochemistry

β-Lactam antibiotic

Ticarcillin belongs to the carboxy penicillin family, the only difference to carbenicillin being a group of a side chain. It is inactivated through β-lactamase. Ticarcillin inhibits bacterial cell wall synthesis by inhibiting the transpeptidase.

Stock solution: 100 mg/ml in water
Store stock solution at –20 °C
Working concentration: 25–250 µg/ml
The stock solution should be cooled immediately as its activity decreases quickly and ticarcillin may precipitate.

$C_{15}H_{14}N_2Na_2O_6S_2$ · M 428,4 g/mol

Storage temperature: +4 °C
WGK 1

Danger H315-H317-H319-H334-H335

Art. No.	Pack Qty.	Pack.	€
4161.1	500 mg	glass	50,00
4161.2	1 g	glass	85,50

Vancomycin hydrochloride

CELLPURE® ≥900 U/mg

Bacteriostatic antibiotic. For cell culture and biochemistry.

Inhibits bacterial cell cleavage through binding to cell membrane pre-stages.

Endotoxins: ≤0.33 E.U./mg

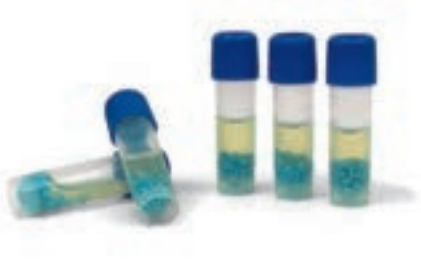
Stock solution: e.g. 100 mg/ml in H_2O.
Storage of stock solution: –20 °C
Working concentration: variable

$C_{66}H_{75}Cl_2N_9O_{24}$ · HCl · M 1485,73 g/mol
Storage temperature: +4 °C
WGK 1

Warning H317

Art. No.	Pack Qty.	Pack.	€
0242.1	250 mg	glass	43,55
0242.2	500 mg	glass	70,45
0242.3	1 g	glass	117,20
0242.7	5 g	plastic	418,20

Cryo-Conservation



S ready-to-use

ROTI®Store cryo vials

sterile, ready-to-use

Suitable for freezing all types of microorganisms, including recombinant bacteria.

ROTI®Store cryo vials are ideal for preparing freezing stocks from different microorganisms, even DMSO-sensitive organisms. The stocks are protected by a special cryo medium during freezing.

Optimally suited for cryopreservation of recombinant bacteria in genetic engineering.

- Preparation of cryogenic cultures
- Safe storage
- Simple recultivation
- Ø 12 mm, length 49 mm.

Directions for use

To freeze, pipette and mix 0.5 ml fresh culture solution into a ROTI®Store cryo vial. Remove the supernatant and freeze the vial. To recultivate, take one of the beads and inoculate the desired culture medium.



Store at –80 °C or in liquid nitrogen.
Short-term storage for a few days at –20 °C is possible.

Also suitable for conservation of marine microorganisms, even during field work (Siebert *et al.*, *Appl. Environ. Microbiol.* 2004 (70) 5912-5).

One cryo vial contains 25 beads in cryo medium suitable for 25 recultivations per cryogenic culture.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
P730.3	5 unit(s)	1 x 5 pieces	plastic	24,65
P730.1	50 unit(s)	1 x 50 pieces	plastic	205,90
P730.2	250 unit(s)	5 x 50 pieces	plastic	972,90



S ready-to-use

ROTI®Store yeast cryo vials

sterile, ready-to-use

Ideal for freezing yeast and monocellular moulds.

ROTI®Store yeast cryo vials contain a special yeast cryo medium, developed for safe storage of yeasts such as *Saccaromyces cerevisiae* or *Candida albicans*.The yeast is protected by a special yeast cryo medium during freezing.

- Preparation of cryogenic cultures
- Safe storage
- Simple recultivation
- Ø 12 mm, length 49 mm.

Directions for use

Cryo-conversation has been succesfully tested for *S. cerevisiae*, *C. albicans*, *C. sake*, *C. tropicals*, *Zygosaccharomyces rouxii*, *Dekkera bruxellensis* and *Malesezzia furfur*.



Long-term storage at –80 °C or in liquid nitrogen, short-term storage for a few days at –20 °C is possible.

Suitable for preparing 50 different cryo-cultures and for up to 25 recultivations per cryogenic culture.

Storage temperature: +4 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
X983.1	50 unit(s)	plastic	201,60

Accessories

Anaerobic Jars

Break-proof and age-resistant container made of stainless, robust stainless steel or transparent polycarbonate for monitoring colony growth without opening the container. Lid in UV-stable black plastic or transparent polycarbonate (PC).



Technical specifications:

Art. No.	2386.1	2356.1	2387.1	2364.1	2388.1	2389.1
Materialspecification	Container: Stainless steel Lid: Plastic			Container: Stainless steel Lid: PC	Container: PC Lid: PC	Container: PCl Lid: Plastic
Type	small	standard	large	eco	crystal	crystal eco
Vol.	2 l	3 l	6 l	3 l		
Ø ext.		155 mm				
Ø Internal	120 mm		175 mm	120 mm		
Outer height		340 mm				
Inner height	165 mm	270 mm	260 mm	270 mm		
Material	Stainless steel, Plastic			Stainless steel, PC	PC	PC, Plastic
Suitable for	Insert racks 2415.1, 2570.1	Insert racks 2415.1, 2390.1, 2570.1	Insert racks 2415.1, 2390.1, 2417.1, 2535.1, 2568.1, 2570.1	Insert racks 2415.1, 2390.1, 2570.1		

Anaerobic Jars with angle valves and pressure gauge

schuett biotec.

Delivery incl. two corner valves including chemical resistant hose olives for gassing and vacuum hoses (5 mm inner Ø), as well as a manometer for precise control of the vacuum or overpressure (–1 to +0.2 bar).

Delivery without insertion racks. Suitable insert racks for Petri dishes, microtiter plates or test tubes are available separately.

Pic.	Type	Capacity	Art. No.	Pack Qty.	€
(1)	small	up to 10 Petri dishes Ø60–100 mm	**2386.1**	1 unit(s)	379,50
(2)	standard	up to 15 Petri dishes Ø60–100 mm	**2356.1**	1 unit(s)	405,30
(3)	large	up to 15 Petri dishes Ø60–150 mm	**2387.1**	1 unit(s)	620,30
(5)	crystal	up to 15 Petri dishes Ø60–100 mm	**2388.1**	1 unit(s)	554,70

Anaerobic Jars without manometer

schuett biotec.

Delivery incl. ventilation screw.

Delivery without insertion racks. Suitable insert racks for Petri dishes, microtiter plates or test tubes are available separately.

Pic.	Type	Capacity	Art. No.	Pack Qty.	€
(4)	eco	up to 15 Petri dishes Ø60–100 mm	**2364.1**	1 unit(s)	334,35
	crystal eco	up to 15 Petri dishes Ø60–100 mm	**2389.1**	1 unit(s)	394,55

Accessories

Insert racks for anaorobic jars

Suitable autoclavable stainless steel insert racks for schuett biotec anaerobic vessels. For easy and safe handling of Petri dishes, microtiter plates or test tubes during anaerobic incubation.



Technical specifications:

Art. No.	2417.1	2535.1	2568.1	2415.1	2390.1	2570.1
Type	150	3x60	micro	small	standard	test tube
Ø ext.					110 mm	
Outer height					255 mm	
Suitable for	15 Petri dishes Ø150 mm	45 Petri dishes Ø60 mm	Microtiter plates	10 Petri dishes Ø60–100 mm	15 Petri dishes Ø60–100 mm	9 test tubes up to Ø18 mm

Anaerobe insert racks for microtiter plates

schuett biotec.

Type	Art. No.	Pack Qty.	€
micro	**2568.1**	1 unit(s)	119,15

Anaerobe insert racks for Petri dishes

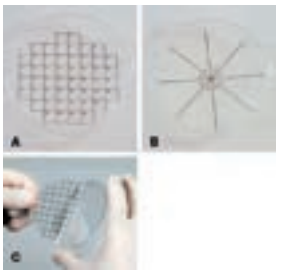
schuett biotec.

Type	Art. No.	Pack Qty.	€
150	**2417.1**	1 unit(s)	96,45
3x60	**2535.1**	1 unit(s)	127,50
small	**2415.1**	1 unit(s)	73,70
standard	**2390.1**	1 unit(s)	73,70

Anaerobe insert racks for test tubes

schuett biotec.

Type	Art. No.	Pack Qty.	€
test tube	**2570.1**	1 unit(s)	118,25



PetriSticker™

Pre-cut circular self-adhesive foils for easy and accurate labelling of 90 mm agar plates. With well legible numbers and partitions designed in two layouts and many variants. The foil is simply fixed to the bottom outside of an agar plate and the labelling is legible from the top.

PetriSticker™ Square grid

Technical specifications:

Art. No.	AE87.1	AE88.1	AE89.1	AE90.1
Type	32 arrays	50 arrays	70 arrays	100 arrays
Number of fields	32	50	70	100
Dimensions of individual field	12 x 12 mm	8,5 x 8,5 mm	7 x 7 mm	6 x 6 mm
Area of individual field	1.44 cm²	0.72 cm²	0.49 cm²	0.36 cm²
Suitable for	Standard Petri dishes with Ø 90 mm			

Type	Number of fields	Dimensions of individual field (mm)	Area of individual field (cm²)	Art. No.	Pack Qty.	€
32 arrays	32	12 x 12	1.44	**AE87.1**	36 unit(s)	34,70
50 arrays	50	8,5 x 8,5	0.72	**AE88.1**	36 unit(s)	34,70
70 arrays	70	7 x 7	0.49	**AE89.1**	36 unit(s)	34,70
100 arrays	100	6 x 6	0.36	**AE90.1**	36 unit(s)	34,70

PetriSticker™ Pie pieces

Technical specifications:

Art. No.	AE95.1	AE96.1	AE97.1	AE98.1
Type	6 arrays	8 arrays	12 arrays	16 arrays
Number of fields	6	8	12	16
Suitable for	Standard Petri dishes with Ø 90 mm			

Type	Number of fields	Art. No.	Pack Qty.	€
6 arrays	6	**AE95.1**	36 unit(s)	34,70
8 arrays	8	**AE96.1**	36 unit(s)	34,70
12 arrays	12	**AE97.1**	36 unit(s)	34,70
16 arrays	16	**AE98.1**	36 unit(s)	34,70



Replicator stamp black

The replicator stamp enables the transfer of bacterial or yeast colonies from one culture medium plate to another.

In order to duplicate the colony plates, fix one of the sterile tissues on the stamp with the aluminium ring. Then press the top side of the colony plate gently onto velvety surface of the stamp. Use a new plate to produce the duplication.

Size of one tissue: 15 x 15 cm.

Technical specifications:

Art. No.	X994.1
Ø	81 mm
Height	69 mm
Suitable for	petri dishes of 90 to 100 mm Ø

The stamps can be disinfected with ethanol.
Delivery incl. aluminium ring and 12 autoclavable tissues.

Replicator stamp black

Type	Art. No.	Pack Qty.	€
stamp (black) + aluminium ring + 12 autoclavable wipes (white)	**X994.1**	1 set	209,65

A 121 °C

Transfer tissues for replicator stamps

ROTH SELECTION.

Colour	L x W (cm)	Art. No.	Pack Qty.	€
white	15 x 15	**X995.1**	36 unit(s)	206,40
blue	15 x 15	**4670.1**	36 unit(s)	141,10

Kit for Preparation of Competent Cells



S ready-to-use

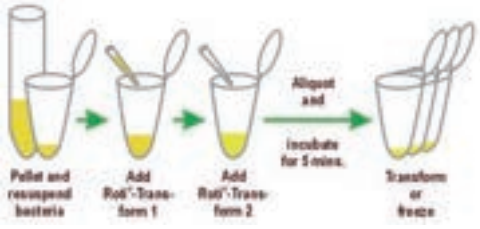
ROTI®Transform

sterile, ready-to-use

For preparation of competent *E. coli*.

Directions for use

Protocol:
1. Resuspend cells in fresh, cold LB-medium
2. Add ROTI®Transform 1
3. Add ROTI®Transform 2 and incubate for 5 minutes on ice.



The kit contains

ROTI®Transform consists of 45 ml ROTI®Transform 1 (Art. No. P041) and 5 ml ROTI®Transform 2 (Art. No. P042).

User information

Long-term Storage of the Kit at –20 °C.

Storage for use:
Reagent 1: Short-term storage may be done at 4 °C.For long-term storage of over 14 days we recommend a storage temperature of –20 °C.
Reagent 2: Storage at 4 °C.

One kit is sufficient to produce competent *E. coli* for 500 transformations.
Contents of this Kit may not be bought separately.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
P043.1	1 kit	for approx. 500 transformations	cardboard	77,95

Accessories for Antimicrobial Susceptibility Testing



McFarland turbidity standards

Turbidity Standard

The cell density is adjusted in the simple comparison to the standard. This can be directly performed visually or by measuring with a spectrophotometer.

The turbidity value of the standard of 0,5 MFU (McFarland Units) corresponds to approximately a culture density of 1,5 x 10^8 cells/ml. This cell density is specially needed as bacterial inoculum for the antibiotic susceptibility test.
The absorption is measured at a wavelength of 625 nm.

ready-to-use

McFarland BSS 0.5

for microbiology

Turbidity Standard for adjusting the density of a bacterial suspension.

The McFarland BSS Standards are used as turbidity standards since 1907 to produce an expected reproducible cell density of a bacterial suspension.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1307.1	1 unit(s)	tube	31,75

► Mueller Hinton Agar see page 317

ready-to-use

McFarland PMS 0.5

for microbiology

Turbidity Standard for adjusting the density of a bacterial suspension.

The McFarland PMS Standards are equivalent turbidity standards to the original barium sulfate standards. The optimised Polymer Microparticle Suspension (PMS) separates slower than the barium sulfate version.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1440.1	1 unit(s)	tube	31,75



Histology / Microscopy

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Intermedia

- Adequate replacement for xylene
- Miscible with IPA, butanol, ethanol
- Application as clearing agent and dewaxing medium

Xylene Alternatives

ROTI®Histol on base of limonene

The alternative solvent for histology and cytology. Excellent for all histological hand work. Replaces clearing agents like xylene or toluol without the need for changing working procedures.



ready-to-use

ROTI®Histol

ready-to-use, for histology

Clearing agent on the basis of limonene. For dewaxing of histological sections. Alternative product for xylene.

ROTI®Histol is a natural product, manufactured from untreated orange peel. It consists of 96–98 % limonene, a terpene with a characteristic odour of lemon or orange and can be mixed with IPA, butanol, ethanol and all standard embedding media. **No harmful vapours!**

- Clearing agent on the basis of limonene
- **Alternative product for xylene**
- Particularly suitable for histological work by hand
- Compatible with the mounting medium ROTI®Histokitt

ROTI®Histol replaces current clearing agents without the need for changing working procedures. The tissue samples are treated particularly gently – they remain smooth and do not become brittle.
ROTI®Histol is particularly suitable for histological work by hand which usually exposes the user to solvent vapours in high concentrations.
ROTI®Histol produces excellent results with **ROTI®Histokitt** mounting medium **(Art. No. 6638)** and special paraffins such as ROTI®Plast (Art. No. 6642).

Please contact us for your free sample!

UN no. 2319 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H411

Art. No.	Pack Qty.	Pack.	€
6640.1	1 l	glass	46,15
Original pack 6 x 1 l			43,84/1 l
6640.4	2.5 l	glass	93,45
Original pack 4 x 2.5 l			88,78/2.5 l
6640.5	5 l	aluminium	170,95
Original pack 2 x 5 l			162,40/5 l
6640.2	10 l	tinplate	317,15
6640.6	25 l	tinplate	697,70

ROTICLEAR® on the Basis of Aliphatic Hydrocarbons

The alternative product for use in histology and cytology. ROTICLEAR® is a special formulation to replace toluene, xylene and trichloromethane. Excellent for dewaxing histological sections.



ready-to-use

ROTICLEAR®

ROTICLEAR® ready-to-use, for histology

Clearing agent of aliphatic hydrocarbons, practically free from aromatic compounds. For dewaxing of histological sections.
Alternative product for xylene.

ROTICLEAR® consists of a mixture of aliphatic hydrocarbons with only little own odour. It is **practically free from aromatic compounds** (≤0,005 %) and can be mixed with IPA, butanol, ethanol and acetone.

- Clearing agent of aliphatic hydrocarbons
- **Alternative product for xylene**
- Practically free from aromatic compounds
- Short evaporation period
- Use in automates without any problems
- Compatible with the mounting medium ROTI®Mount

ROTICLEAR® can be used like xylene. The absorption capacity for paraffin is even better than that known for xylene. Therefore, water baths for removing the paraffin need not be changed so frequently. Due to a short evaporation period, ROTICLEAR® enables fast and effective working. It can also be used in automates without any problems.
ROTICLEAR® produces excellent results with the mounting medium **ROTI®Mount (Art. No. HP68)**. After clearing with ROTICLEAR® the sample can be embedded in ROTI®Mount immediately.

Please contact us for your free sample!

UN no. 3295 · ADR 3 III · WGK 3

Danger H226-H304-H336-H412-EUH066

Art. No.	Pack Qty.	Pack.	€
A538.1	1 l	glass	21,40
Original pack 6 x 1 l			20,33/1 l
A538.5	2.5 l	glass	40,75
Original pack 4 x 2.5 l			38,71/2.5 l
A538.6	5 l	aluminium	67,20
Original pack 2 x 5 l			63,84/5 l
A538.2	10 l	tinplate	126,35
A538.3	25 l	tinplate	252,65
A538.4	200 l	barrel	1.343,75

Xylene Alternatives Compared to Xylene

	ROTI®Histol	ROTICLEAR®	Xylol
Composition	natural product from limonene	mixture of different hydrocarbons, aromatic compounds ≤0.005 %	aromatic hydrocarbon
Classification as hazardous substance	yes	yes	yes
Odour	like oranges	slightly like benzine	characteristic
Vapours	not harmful	not harmful, may cause drowsiness	harmful
Flash point (°C)	50 °C – flammable	25 °C – flammable	25 °C – flammable
Boiling Range	177 °C	139 °C – 164 °C	137 °C – 143 °C
Effects to skin	irritating, may cause sensitisation	may cause skin dryness or cracking	irritating, harmful
Storage	in well-sealed glass bottles, **no plastic bottles**	in well-sealed glass bottles	in well-sealed glass bottles
Shelf life	minimum 1 year	minimum 3 years	minimum 3 years
Use	particulary suitable for manual applications	manual and automatical applications	manual and automatical applications
Immunhistochemical applications	suitable	suitable	suitable
Paraffin embedding	suitable	suitable	suitable
Dewaxing	suitable	suitable – better absorption capacity for paraffin than xylene	suitable
Mounting	suitable	suitable – short evaporation period	suitable
Mounting medium (compatibility tested)	**ROTI®Histokitt (Art. No. 6638)**	**ROTI®Mount (Art. No. HP68)**	**ROTI®Histokitt II (Art. No. T160)**
Further possible mounting media	Entellan, Eukitt, DePex	Entellan	Entellan *et al.*

► Compatible mounting media for xylene and xylene alternatives see page 420

Xylene Alternatives

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Acetic acid ethyl ester	≥99,5 %, p.a., ACS, ISO	glass	**6784.1**	1 l	43,55
		plastic	**6784.3**	1 l	40,75
		glass	**6784.2**	2.5 l	78,40
		plastic	**6784.4**	2.5 l	75,80
			6784.5	5 l	124,20
Acetone	≥99,7 %, Ph. Eur., extra pure	glass	**CP40.1**	1 l	30,00
			CP40.2	2.5 l	63,35
		plastic	**CP40.3**	2.5 l	60,10
			CP40.4	5 l	85,90
		tinplate	**CP40.5**	10 l	155,90
			CP40.6	25 l	310,70
Ammonia solution	≥25 %, p.a.	glass	**6774.1**	1 l	30,00
			6774.2	2.5 l	44,65
		plastic	**6774.3**	5 l	67,20
Benzoic acid methyl ester	≥99 %, for histology and microscopy	glass	**6944.5**	500 ml	41,85
			6944.1	1 l	75,15
			6944.2	2.5 l	149,45
1-Butanol	≥99,5 %, p.a., ACS	glass	**7171.2**	1 l	69,80
			7171.1	2.5 l	138,70
		plastic	**7171.3**	5 l	233,85
			7171.4	10 l	418,20
			7171.5	25 l	815,95
Decahydronaphthalene	≥98 %, for synthesis	glass	**4438.1**	1 l	40,35
			4438.3	2.5 l	77,30
		aluminium	**4438.4**	5 l	134,40
		tinplate	**4438.2**	10 l	252,65
N,N-Dimethylformamide (DMF)	≥99,8 %, p.a., ACS, ISO	glass	**T921.3**	250 ml	26,35
			T921.1	1 l	67,65
			T921.2	2.5 l	134,40
1,4-Dioxane	≥99,5 %, p.a., ACS, ISO, stabilised	glass	**4626.4**	100 ml	20,35
			4626.3	500 ml	64,40
			4626.1	1 l	117,20
			4626.2	2.5 l	246,20
		aluminium	**4626.5**	5 l	467,65
		tinplate	**4626.6**	25 l	2.139,25
Petroleum ether 40–60 °C	p.a., ACS, ISO	glass	**T173.1**	1 l	54,30
			T173.2	2.5 l	110,20
		aluminium	**T173.3**	5 l	198,90
		tinplate	**T173.5**	25 l	697,70
ROTICLEAR®	ready-to-use, for histology	glass	**A538.1**	1 l	21,40
			A538.5	2.5 l	40,75
		aluminium	**A538.6**	5 l	67,20
		tinplate	**A538.2**	10 l	126,35
			A538.3	25 l	252,65
		barrel	**A538.4**	200 l	1.343,75
ROTI®Histol	ready-to-use, for histology	glass	**6640.1**	1 l	46,15
			6640.4	2.5 l	93,45
		aluminium	**6640.5**	5 l	170,95
		tinplate	**6640.2**	10 l	317,15
			6640.3	22 kg	n. a.
Tetrahydrofuran	≥99,9 % (≤50 ppm H_2O)	glass	**AE07.1**	1 l	84,85
Toluene	≥99,5 %, p.a., ACS, ISO	glass	**7115.1**	1 l	48,30
			7115.2	2.5 l	95,15
		aluminium	**7115.3**	5 l	138,70
		tinplate	**7115.4**	25 l	424,65
Trichloromethane/ Chloroform	≥99 %, p.a.	glass	**3313.4**	100 ml	22,50
			3313.1	1 l	66,15
			3313.2	2.5 l	131,70
		tinplate	**3313.5**	25 l	994,40

For additional product data and safety information, see chapter Chemicals A–Z.

Xylene

Xylene is the typical solvent in histology. Carl ROTH xylenes have been used very successfully in histology for dewaxing histological sections and as clearing agent.

Xylene can be used together with **ROTI®Histokitt II mounting medium (Art. No. T160)** and Carl ROTH paraffins such as ROTI®Plast special paraffin (Art. No. 6642).

Xylene - Summary

Product name	Purity	Art. No.	Pack Qty.	€
Xylene (isomers)	≥99 %, p.a., ACS, ISO	**4436.1**	1 l	55,40
		4436.2	2.5 l	123,65
		4436.3	5 l	198,90
		4436.7	25 l	557,95
	≥98,5 %, extra pure, Ph. Helv.	**CN80.1**	1 l	35,40
		CN80.2	2.5 l	69,35
		CN80.5	5 l	104,85
		CN80.3	10 l	181,70
		CN80.4	25 l	353,70
	≥97 %, pure, for histology	**9713.1**	1 l	35,40
		9713.3	2.5 l	67,65
		9713.5	5 l	102,70
		9713.2	10 l	177,40
		9713.4	25 l	349,40
Xylene (isomers)	≥97 %, for synthesis	**2662.1**	1 l	26,35
		2662.2	2.5 l	41,95
		2662.5	5 l	74,20
		2662.3	10 l	117,20
		2662.4	25 l	241,90

For additional product data and safety information, see chapter Chemicals A–Z.

Please note:

Xylene can only dissolve a limited amount of paraffin, it should therefore be changed frequently. Please also note that the solubilizing process is often very slow at low temperatures. We recommend working in a warming cupboard at 25–30 °C.

Our Tip:

You can use a pipe wrench to open the solvent canister 10 l and 25 l. However, it's much easier and simpler with our **barrel and keg key** (Art. No. 0398).

Isopropanol as Clearing Agent

Isopropanol is well suited as clearing agent for paraffin-embedding, because it is compatible to melted paraffin: After dehydrating with isopropanol the sample is incubated in a mixture of isopropanol abs. and paraffin (1:1) at approx. 60 °C. After a further incubation step with pure paraffin, the sample is embedded as usual.
This method is particularly suitable to smooth organs. Since embedding can start immediately after alcohol step, the working process is shortened significantly.

Alcohols



Alcohols – Summary

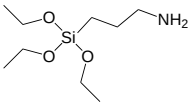
Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Ethanol	≥99,8 %, p.a.	glass	**9065.1**	1 l	112,80
		plastic	**9065.3**	1 l	111,30
		glass	**9065.2**	2.5 l	228,90
		plastic	**9065.4**	2.5 l	226,30
			9065.5	5 l	405,85
			9065.7	10 l	669,20
		tinplate	**9065.6**	25 l	1.392,15
		plastic	**9065.8**	25 l	1.370,65
	≥99,5 %, Ph. Eur., extra pure	glass	**5054.1**	1 l	100,95
		plastic	**5054.3**	1 l	98,80
		glass	**5054.2**	2.5 l	208,05
		plastic	**5054.4**	2.5 l	205,90
			5054.5	5 l	385,95
			5054.7	10 l	585,90
		tinplate	**5054.6**	25 l	1.306,15
		plastic	**5054.8**	25 l	1.284,65
	≥99,8 %, denatured	plastic	**K928.5**	1 l	19,25
		glass	**K928.1**	2.5 l	39,70
		plastic	**K928.3**	2.5 l	37,55
			K928.4	5 l	67,20
		tinplate	**K928.6**	10 l	117,75
		plastic	**K928.7**	10 l	107,00
		tinplate	**K928.2**	25 l	235,45
		plastic	**K928.8**	25 l	213,95
	96 %, Ph. Eur., extra pure	glass	**P075.1**	1 l	98,80
		plastic	**P075.3**	1 l	96,25
		glass	**P075.2**	2.5 l	208,05
		plastic	**P075.4**	2.5 l	204,80
			P075.5	5 l	385,95
		tinplate	**P075.6**	10 l	622,45
		plastic	**P075.7**	10 l	611,70
			P075.8	25 l	1.284,65
	≥96 %, denatured	plastic	**T171.5**	1 l	17,75
		glass	**T171.1**	2.5 l	33,25
		plastic	**T171.3**	2.5 l	30,65
			T171.4	5 l	56,45
		tinplate	**T171.6**	10 l	100,95
		plastic	**T171.7**	10 l	90,20
		tinplate	**T171.2**	25 l	176,85
		plastic	**T171.8**	25 l	155,35
	≥70 %, denatured	plastic	**T913.1**	1 l	16,05
			T913.2	2.5 l	28,95
			T913.3	5 l	48,30
			T913.4	10 l	79,45
			T913.5	25 l	153,20
2-Propanol	≥99,8 %, p.a., ACS, ISO	glass	**6752.1**	1 l	39,70
		plastic	**6752.3**	1 l	37,55
		glass	**6752.2**	2.5 l	94,10
		plastic	**6752.4**	2.5 l	91,95
			6752.5	5 l	152,15
		PE/steel	**6752.7**	10 l	267,70
		tinplate	**6752.6**	25 l	493,45

For additional product data and safety information, see chapter Chemicals A–Z.

Reagents

General Reagents

Essential helpers for routine histological work such as fixing, embedding, staining and so on.



γ-Aminopropyltriethoxysilane (APTES)

≥98 %, for the GC

Silylation reagent

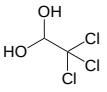
APTES is used for silanising microscope slides causing better adherence of cut to slide.

$C_9H_{23}NO_3Si$ · M 221,37 g/mol

UN no. 2735 · ADR 8 II · WGK 1

Danger H302-H314

Art. No.	Pack Qty.	Pack.	€
2328.1	25 g	glass	26,80
2328.2	100 g	glass	78,40



Chloral hydrate

≥98,5 %, Ph. Eur., BP

In botany chloralhydrate is used as clearing agent and for removing cell content of plant samples.

$C_2H_3Cl_3O_2$ · M 165,40 g/mol

UN no. 2811 · ADR 6.1 III · WGK 2

Danger H301-H315-H319

Art. No.	Pack Qty.	Pack.	€
K318.3	100 g	plastic	34,30
K318.1	500 g	plastic	138,70
Original pack 6 x 500 g			131,77/500 g
K318.2	2.5 kg	plastic	590,20

► Further standard reagents see chapter Chemicals A-Z

► ROTI®Fair buffer mixtures, ready-to-use mixtures and ready-to-use solutions PBS/TBS see chapter Biochemistry

► Buffer solutions and salts see chapter Biochemistry and chapter Chemicals A-Z

► Blocking reagents see page 217



HCl-ethanol solutions

Hydrochloric acid in ethanol

After staining tissues are rinsed with HCl-ethanol solution to remove excessive stain. This decolourisation is selective for certain tissue structures retain the stain better than others (differentiation).
HCl-ethanol solution is used for regressive hemalum staining, but also for detection of mycobacteria and other stains.

ready-to-use

HCl-ethanol solution 0.75 %

0,75 % HCl in ethanol, ready-to-use, for histology

Differentiating solution for histological staining.

Solution of 0,75 % hydrochloric acid in ethanol 70 %.

UN no. 2924 · ADR 3 (8) II · WGK 1

Danger H225-H290-H319

Art. No.	Pack Qty.	Pack.	€
9969.1	500 ml	plastic	20,35
9969.2	1 l	plastic	33,25
Original pack 6 x 1 l			31,59/1 l
9969.3	5 l	plastic	112,35
Original pack 2 x 5 l			106,73/5 l

ready-to-use

HCl-ethanol solution 3 %

3 % HCl in ethanol, ready-to-use, for histology

Differentiating solution for histological staining

Solution of 3 % hydrochloric acid in ethanol 70 %.

UN no. 2924 · ADR 3 (8) II · WGK 1

Danger H225-H290-H319

Art. No.	Pack Qty.	Pack.	€
6477.1	500 ml	plastic	21,40
6477.2	1 l	plastic	37,55
Original pack 6 x 1 l			35,67/1 l
6477.3	5 l	plastic	131,70
Original pack 2 x 5 l			125,12/5 l

Decalcifier

Tissues containing solid material such as bones or keratin are to be decalcified before paraffin embedding. Usually the specimens are treated with acids of different concentrations and mixtures.

An especially gentle method is decalcification with EDTA solution.



ready-to-use

Decalcifier soft

SOLVAGREEN® ready-to-use, for histology

Decalcifier solution on base of EDTA.
Used for gentle decalcification of bones and other calcified tissues.
The solution is also suitable for immunological applications.

The solution contains 25 % EDTA.

The process of decalcification takes more time than acid decalcification (see Decalcifier standard, Art. No. 6483), e.g. bone biopsies need approx. 3–4 days. The procedure can be accelerated by using a magnetic stirrer. The decalcification takes place in a weakly basic milieu. Nucleic acids and enzymes are not affected; therefore, the solution is also suitable for immunological applications.

UN no. 1824 · ADR 8 III · WGK 2

Danger H290-H314-H373

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
6484.1	500 ml	glass	32,80
6484.2	1 l	glass	49,35
Original pack 6 x 1 l			46,88/1 l
6484.3	2.5 l	plastic	81,60
Original pack 4 x 2.5 l			77,52/2.5 l
6484.4	5 l	plastic	145,15
Original pack 2 x 5 l			137,89/5 l



ready-to-use

Decalcifier standard

ready-to-use, for histology

Acid-based decalcifier. Contains trichloracetic acid and formalin.
Used for acid decalcification of bones and other calcified tissues.

The solution contains trichloroacetic acid and formalin and, therefore, has also fixing qualities. Nevertheless, we recommend sufficient fixing of specimens before decalcifying for trichloroacetic acid may cause morphological changes in unfixed tissue.

The length of the decalcification process depends on the specimen's size and type. Little bones (diameter a few mm) need 1–2 days for complete decalcification.
The decalcifier standard is not suitable for immunological applications. We recommend our Decalcifier soft (Art. No. 6484) on base of EDTA.

UN no. 3265 · ADR 8 III · WGK 3

Danger H314-H335-H350-H411-EUH208

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
6483.1	500 ml	glass	31,75
6483.2	1 l	glass	46,80
Original pack 6 x 1 l			44,46/1 l
6483.3	2.5 l	plastic	75,80
Original pack 4 x 2.5 l			72,01/2.5 l
6483.4	5 l	plastic	134,40
Original pack 2 x 5 l			127,68/5 l



Weise buffer concentrate 100x

Stabilized buffer concentrate for the preparation of buffer solution according to Weise.

- Ready for use immediately – no dissolving of tablets or powder
- Microfiltered solution – no disturbing suspended particles
- Economical use – **10 ml concentrate on 1 l distilled water (= working solution)**
- Demand-oriented packaging – pouches or bottles

Buffer solution for diluting staining solutions (e.g. Giemsa stock solution) and for rinsing during the staining process.

Buffer solution according to Weise is a phosphate-buffered salt solution which is mainly used for staining blood and bone marrow smears, e. g. for diluting the Giemsa stock solution in Pappenheim staining.
The buffer concentrates are available in three different pH variants. The prepared solutions are stable for approx. 4 weeks.

Weise buffer concentrate 100x pH 6.4

Product name	Purity	Art. No.	Pack Qty.	€
Weise buffer concentrate pH 6.4	100x conc., for 1 000 ml/pouch, for histology	**1665.1**	50 ml	23,55
		1665.2	100 ml	38,60
		1665.3	1,000 ml	310,70
	100x conc., for 2 000 ml/vial, for histology	**1711.1**	100 ml	38,60
		1711.2	200 ml	69,80
		1711.3	2,000 ml	575,15
	100x conc., for 25 l, for histology	**1504.1**	250 ml	42,90

Weise buffer concentrate 100x pH 6.8

Product name	Purity	Art. No.	Pack Qty.	€
Weise buffer concentrate pH 6.8	100x conc., for 1 000 ml/pouch, for histology	**1673.1**	50 ml	23,55
		1673.2	100 ml	38,60
		1673.3	1,000 ml	310,70
	100x conc., for 2 000 ml/vial, for histology	**1727.1**	100 ml	38,60
		1727.2	200 ml	69,80
		1727.3	2,000 ml	575,15
	100x conc., for 25 l, for histology	**1569.1**	250 ml	42,90

Weise buffer concentrate 100x pH 7.2

Product name	Purity	Art. No.	Pack Qty.	€
Weise buffer concentrate pH 7,2	100x conc., for 1 000 ml/pouch, for histology	**1674.1**	50 ml	25,70
		1674.2	100 ml	41,85
		1674.3	1,000 ml	338,65
	100x conc., for 2 000 ml/vial, for histology	**1740.1**	100 ml	38,60
		1740.2	200 ml	69,80
		1740.3	2,000 ml	575,15
	100x conc., for 25 l, for histology	**1675.1**	250 ml	42,90

Fixation

Formalin-free Fixing Solution

An adequate substitute for formalin on base of hexamethylene tetramine. ROTI®Histofix ECO Plus is classified as non-hazardous.



ready-to-use

ROTI®Histofix ECO Plus

SOLVAGREEN® ready-to-use, formalin-free

For fixing of histological and immunochemical specimens. Formalin substitute.

ROTI®Histofix ECO Plus is a ready-to-use, aqueous solution on the basis of hexamethylene tetramine. The solution has similar good fixation properties like formaldehyde, but is, unlike formaldehyde, classified as non-toxic.

- Formaldehyde-free, non-toxic fixative
- Good fixation properties
- pH 4,5–5,0
- No denaturing effect, e.g. shrinkage or crosslinking
- Adequate substitute for formaldehyde

The original morphology of the tissue is preserved during the fixation process. The protein molecules are cross-linked in a reversible way, their structures are preserved. That is especially important for antigen-antibody reactions. Samples are – in contrast to other fixative media – free of artefacts such as shrinkage of tissue or irreversible protein crosslinking. The solution is therefore ideal for immunohisto-chemistry. All conventional staining processes can be carried out following fixation.

ROTI®Histofix ECO Plus is provided with a fragrance for better identification (<1ppm).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Formalin-free, non-toxic solution. For fixing of histological specimens. Pleasantly aromatic odour. Formalin substitute.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
8907.1	500 ml	plastic	19,25
8907.2	2.5 l	plastic	59,70
Original pack 4 x 2.5 l			56,72/2.5 l
8907.3	5 l	plastic	111,70
Original pack 2 x 5 l			106,12/5 l

Ready-to-use Formaldehyde Solutions

ROTI®Histofix solutions are **stabilised formaldehyde solutions**. The added phosphate buffer (pH 7) neutralises formic acid formed by oxidation of formaldehyde during storage. Furthermore, a small amount of methanol is added to protect against polymerisation.



ready-to-use

ROTI®Histofix 4 %

4 % formaldehyde, ready-to-use, phosphate buffered, pH 7

Fixative for histology and immunocytochemistry, stabilised with methanol.

For better sampling of liquid we offer suitable draincocks for the 10 l and 30 l standard canisters (Art. No. 5666.2).

Storage temperature: +15 to +25 °C

WGK 3

Danger H302-H317-H341-H350

Stabilised with methanol.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
P087.4	500 ml	plastic	11,75
P087.6	1 l	plastic	16,05
Original pack 6 x 1 l			15,25/1 l
P087.5	2.5 l	plastic	22,05
Original pack 4 x 2.5 l			20,95/2.5 l
P087.3	5 l	plastic	35,40
Original pack 2 x 5 l			33,63/5 l
P087.1	10 l	plastic	64,40
P087.2	30 l	plastic	163,95

Formaldehyde, chem. methanal (methane-aldehyde).
Derived from the Latin **formica** = ant, as formic acid occurs during oxidation of the methanal.
Formaldehyde in itself is gaseous at room temperature and is called formalin when it occurs as an aqueous solution.

ready-to-use

ROTI®Histofix 4.5 %

4,5 % formaldehyde, ready-to-use, phosphate buffered, pH 7

Fixative for histology and immunocytochemistry, stabilised with methanol.

For better sampling of liquid we offer suitable draincocks for the 10 l and 30 l standard canisters (Art. No. 5666.2).

Storage temperature: +15 to +25 °C

WGK 3

Danger H302-H317-H341-H350

Stabilised with methanol.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
2213.4	500 ml	plastic	11,75
2213.6	1 l	plastic	16,05
Original pack 6 x 1 l			15,25/1 l
2213.5	2.5 l	plastic	23,55
Original pack 4 x 2.5 l			22,37/2.5 l
2213.3	5 l	plastic	36,45
Original pack 2 x 5 l			34,63/5 l
2213.1	10 l	plastic	64,40
2213.2	30 l	plastic	160,75

Our Tip:

For opening the **10-l and 30-l standard canisters** we recommend our **opening key on one side** (Art. No. TX61.1). Our **drain cocks** (Art. No. 5666.2) enable easy and simple withdrawal.

ready-to-use

ROTI®Histofix 10 %

10 % formaldehyde, ready-to-use, phosphate buffered, pH 7

Fixative for histology and immunocytochemistry, stabilised with methanol.

For better sampling of liquid we offer suitable draincocks for the 10 l and 30 l standard canisters (Art. No. 5666.2).

Storage temperature: +15 to +25 °C

WGK 3

Danger H302+H312-H315-H317-H319-H335-H341-H350-H371

Stabilised with methanol.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
A146.4	500 ml	plastic	15,60
A146.6	1 l	plastic	19,25
Original pack 6 x 1 l			18,29/1 l
A146.5	2.5 l	plastic	33,90
Original pack 4 x 2.5 l			32,21/2.5 l
A146.3	5 l	plastic	55,40
Original pack 2 x 5 l			52,63/5 l
A146.1	10 l	plastic	89,15
A146.2	30 l	plastic	220,40



ready-to-use

ROTI®Histofix 4 %, prefilled containers

4 % formaldehyde, ready-to-use, phosphate buffered, pH 7

Fixative for histology, prefilled in screw cap containers. Stabilised with methanol.

Neutral buffered formaldehyde solution (pH 7), prefilled in screw cap containers, packaged in a cardboard shipping box. The containers are labelled, specimen data can be added.

- Specimen can be added directly
- Sample is securely packaged and ready for shipment within a short time
- Reduced health risk for user because no diluting and decanting of concentrated formaldehyde solution is necessary
- Time saving, containers are ready-to-use

Storage temperature: +15 to +25 °C

WGK 3

Danger H302-H317-H341-H350

Stabilised with methanol.
Do not store under 15 °C!

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
3105.2	54 unit(s)	54 x 50 ml	cardboard	74,75
3105.1	100 unit(s)	100 x 10 ml	cardboard	112,90

Do not store formaldehyde solutions below +15 °C!

Experience shows that low temperatures support polymerisation to paraformaldehyde. Small amounts of solids (fine precipitation) can be filtered off, the formaldehyde solution is still fully functional. In case of major amounts of solids, however, the solution should be discarded, for the concentration of formaldehyde is too much reduced.

ready-to-use

ROTI®Histofix 4,5 %, prefilled containers

4,5 % formaldehyde, ready-to-use, phosphate buffered, pH 7

Fixative for histology, prefilled in screw cap containers. Stabilised with methanol.

Neutral buffered formaldehyde solution 4,5 % (pH 7), prefilled in screw cap containers, packaged in a cardboard shipping box. The containers are labelled; specimen data can be added.

- Specimen can be added directly
- Sample is securely packaged and ready for shipment within a short time
- Reduced health risk for user because no diluting and decanting of concentrated formaldehyde solution is necessary
- Time saving, containers are ready-to-use

Storage temperature: +15 to +25 °C

WGK 3

Danger H302-H317-H341-H350

Stabilised with methanol.
Do not store under 15 °C!

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
8244.3	32 unit(s)	32 x 100 ml	cardboard	67,65
8244.2	54 unit(s)	54 x 50 ml	cardboard	78,40
8244.1	100 unit(s)	100 x 10 ml	cardboard	107,40

► Formaldehyde solution 23.5 %, low-methanol, see chapter Chemicals A–Z

Concentrated Formaldehyde Solutions / Formol / Formalin

The formaldehyde solutions are stabilised with approx. 10 % methanol.

Product name	Purity	Art. No.	Pack Qty.	€
Formaldehyde solution	37 %, p.a., ACS	**4979.1**	1 l	49,35
		4979.2	2.5 l	102,05
		4979.3	5 l	170,95
Formaldehyde solution 37 %	≥37 %, Ph. Eur., USP, BP	**CP10.1**	1 l	23,15
		CP10.2	2.5 l	43,55
		CP10.3	5 l	64,40
		CP10.4	10 l	97,75
	≥37 %, for synthesis	**7398.1**	1 l	18,20
		7398.4	2.5 l	28,95
		7398.5	5 l	43,55
		7398.2	10 l	69,35
		7398.3	30 l	140,30
Formaldehyde solution 35 %	≥35 %, DAB, for histology	**4980.1**	1 l	20,35
		4980.5	2.5 l	31,10
		4980.2	5 l	48,30
		4980.4	10 l	77,30
		4980.3	30 l	149,45

For additional product data and safety information, see chapter Chemicals A–Z.



Formaldehyde solution 30 %, low-methanol

30 %

Concentrated fixative for histology, low-methanol

The solution is nearly free from methanol (≤1,5 %). It is used for sensitive assays e.g. enzyme histochemical assays. Do not store solution below 15 °C.

CH_2O · M 30,03 g/mol

Storage temperature: +15 to +25 °C

UN no. 2209 · ADR 8 III · WGK 3

Danger H302-H311+H331-H314-H317-H335-H341-H350

Do not store under 15 °C!

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
4235.1	1 l	plastic	16,05
Original pack 6 x 1 l			15,25/1 l
4235.5	2.5 l	plastic	23,55
Original pack 4 x 2.5 l			22,37/2.5 l
4235.2	5 l	plastic	38,60
Original pack 2 x 5 l			36,67/5 l
4235.3	10 l	plastic	54,75
4235.4	30 l	plastic	126,35



Formaldehyde solution, non-acidic

≥37 %, for histology

Fixative

Stabilised with calcium carbonate (acid-binding solids) and methanol (8–12 %). Do not store solution below 15 °C.

If required, filter out solids before use.

CH_2O · M 30,03 g/mol

Storage temperature: +15 to +25 °C

UN no. 2209 · ADR 8 III · WGK 3

Danger H301+H311+H331-H314-H317-H335-H341-H350-H370

Stabilised with methanol and calcium carbonate.
Please note the added acid binding sediment. You can filter it, if necessary, before use.
Do not store under 15 °C!

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
P733.1	1 l	plastic	22,05
Original pack 6 x 1 l			20,95/1 l
P733.2	2.5 l	plastic	40,75
Original pack 4 x 2.5 l			38,71/2.5 l
P733.3	30 l	plastic	155,90

Paraformaldehyde

Paraformaldehyde is a formaldehyde polymer. It is used for applications requiring a formaldehyde solution without stabilising additives.



Paraformaldehyde, granulated

granulated

Fixative

Paraformaldehyde is a formaldehyde polymer. It is used for applications requiring a formaldehyde solution without stabilising additives.
The granulated form ensures processing with as little dust as possible.

Store product below 15 °C.

$(CH_2O)_n$

Storage temperature: +4 to +15 °C
Transport temperature: ambient temp.

UN no. 2213 · ADR 4.1 III · WGK 2

Danger H228-H302+H332-H315-H317-H318-H335-H341-H350

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
0335.1	250 g	plastic	18,20
0335.2	500 g	plastic	24,20
Original pack 6 x 500 g			22,99/500 g
0335.3	1 kg	plastic	36,45
Original pack 6 x 1 kg			34,63/1 kg
0335.5	2.5 kg	plastic	73,65
0335.4	5 kg	plastic	137,10

To prepare a 4 % paraformaldhyde solution:

Mix 4 g of paraformaldehyde into 60 ml distilled water (milky liquid), heat with frequent agitation to 60 °C. Add drop wise 1 N NaOH, at pH 7 the solution becomes clear. Add distilled water until the volume reaches 100 ml then let it cool down. The solution is to be used immediately, because it is not stable at room temperature. Store in aliquots at –20 °C, is stable for approx. 6 months.

Fixing Agents

Paraformaldehyde

extra pure

Fixative

Paraformaldehyde is a formaldehyde polymer. It is used for applications requiring a formaldehyde solution without stabilising additives.

Store product below 15 °C.

$(CH_2O)_n$

Storage temperature: +4 to +15 °C
Transport temperature: ambient temp.

UN no. 2213 · ADR 4.1 III · WGK 2

Danger H228-H302+H332-H315-H317-H318-H335-H341-H350

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
0964.1	250 g	plastic	17,10
0964.2	500 g	plastic	23,15
Original pack 6 x 500 g			21,99/500 g
0964.3	1 kg	plastic	35,40
Original pack 6 x 1 kg			33,63/1 kg
0964.4	5 kg	plastic	134,40

Fixing Agents for Cytology



ready-to-use

ROTI®Fix spray fixative

ready-to-use, for cytology

For fixation of samples from cytological material.

Cytological smears must be fixed immediately in order to avoid artefacts. Therefore, the still moist specimens are sprayed about 3 times from a distance of 15-20 cm. After rehydration by descending alcohol series the samples can be stained as usual, e.g. by Papanicolaou staining.

UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

Alcoholic solution of ethanol and 2-propanol.

Art. No.	Pack Qty.	Pack.	€
CL85.1	100 ml	spray bottle	20,35

According to current knowledge, **fixation** occurs through the formation of methylene bridges and bridges through Schiff bases and, since it is non-denaturing, is at least partly reversible through heating and/or alkalisation. The penetration velocity of formalin into tissue is approximately 1 mm/h.

Fixative Mixtures



ready-to-use

Bouin's fixative

ready-to-use, for histology

For fixing of histological specimens.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Danger H302-H315-H317-H319-H335-H341-H350

Type analysis

Appearance ..... yellow liquid
Odour ..... formaldehyde
Solution contains ..... picric acid, formaldehyde, acetic acid, dem. water

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
6482.1	100 ml	glass	32,15
6482.2	250 ml	glass	60,10
6482.3	500 ml	glass	85,50
6482.4	1,000 ml	glass	137,10

► Further reagents for fixing mixtures see chapter Chemicals A-Z

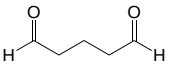
Fixation

Fixing agents: In order to stop their natural degradation process, specimens must be fixed as quickly as possible after extraction. This is usually done with pure fixing agents such as formalin or alcohol. The solutions are easy to use and lead to good results. Formalin, despite its smell and harmful properties, is still the universal fixing agent, whereas alcohol has proved to be best when fixing smears. To get fixing agents with special properties, mixtures from different fixing agents should be used. This also will compensate for the distinct handicaps of many fixing agents, e.g. shrinkage caused by high-percentage alcohol is greatly reduced when glacial acetic acid is added.

Fixing process: Alcohols, various salts and acids denature the protein molecules. The structurally altered molecules form cross-links between each other. In contrast, formalin does not denature. It binds directly to proteins and cross-links the molecules actively with each other.
Fixation of pure lipids or carbohydrates is extremely difficult. When using conventional fixing agents, they are only trapped in the tissue and often washed out in subsequent rinsing steps. Better results are achieved with frozen sections. In electron microscopy lipids can be fixed with osmium tetraoxide.

Glutaraldehyde for Electron Microscopy





Glutaraldehyde for Electron Microscopy

Glutaric dialdehyde, 1,5-Pentanedial, Glutaral

$C_5H_8O_2$

Fixation with glutaraldehyde is similar to the fixation process with formalin. Optimal results can be achieved with a concentration of 1 to 6 %.

Product name	Pack.	Art. No.	Pack Qty.	€
Glutaraldehyde 50 %	plastic	**4995.1**	500 ml	94,50
		4995.2	2.5 l	392,40
Glutaraldehyde 25 %	plastic	**3778.1**	1 l	85,50
		3778.2	5 l	354,75
	cardboard	**4157.2**	10 ml	83,35
	glass	**4157.1**	25 ml	22,50
		4157.3	50 ml	34,95

For additional product data and safety information, see chapter Chemicals A–Z.

Storage of Glutaraldehyde

Ideally at 2–8 °C under protective gas (argon or nitrogen).
Do not freeze!

Osmium Tetraoxide for Electron Microscopy



Osmium tetraoxide

Osmium(VIII) oxide, Osmic acid

OsO_4

Osmium tetraoxide is suitable for fixing lipides and proteins. Because of the low penetration power, application is primarily limited to ultra thin techniques with small tissue samples.

Product name	Pack.	Art. No.	Pack Qty.	€
Osmium tetraoxide	glass	**8371.1**	100 mg	56,90
		8371.2	500 mg	138,70
		8371.3	1 g	217,70
Osmium tetraoxide solution 2 %	glass	**7436.1**	5 ml	52,15
Osmium tetraoxide solution 4 %	glass	**8088.1**	5 ml	81,60

For additional product data and safety information, see chapter Chemicals A–Z.

To prepare a 1–4 % solution of osmium tetraoxide, Art. No. 8371:

- Score the glass ampoule in centre (e. g. with glass cutter Art. No. 8209.1)
- Open it carefully at the section
- Draw the crystals into a sealable glass jar
- Add the needed amount of distilled water
- Place the sealed jar into an ultrasonic bath, the dissolution process requires 1–2 h
- Store the solution in aliquots at –20 °C in a well-sealed container

Please note: OsO_4 vapours damage the cornea and the mucous membranes of the mouth and the nose. Therefore, working with protective equipment in a fume cupboard is required!

Embedding

Paraffins



ROTI®Plast Special paraffin

Paraffin in droplets

- High-purity paraffin
- Top-quality for routine applications
- Defined melting range
- Excellent embedding and cutting properties
- Guaranteed tested quality

ROTI®Plast is a special paraffin of highest quality without any additives. It penetrates the tissue quickly, completely and gives it its plasticity.

Also available with addition of DMSO and polymers, melting range 56–58 °C (Art. No. 6643).

ROTI®Plast

100 %, for histology

Tissue embedding medium composed of highly purified paraffin

Melting range: 54-56 °C

Paraffin in pellets

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
6642.1	1 kg	1 x 1 kg	plastic	31,10
Original pack 6 x 1 kg				29,55/1 kg
6642.5	2.5 kg	1 x 2,5 kg	plastic	62,25
6642.2	10 kg	1 x 10 kg	plastic	224,70
6642.6	20 kg	1 x 20 kg	plastic	413,90

ROTI®Plast with DMSO

for histology

Melting range: 56-58 °C

paraffin in pellets
WGK 1

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
6643.1	1 kg	1 x 1 kg	cardboard	28,95
Original pack 6 x 1 kg				27,50/1 kg
6643.2	2 kg	1 x 2 kg	plastic	48,95
6643.3	20 kg	20 x 1 kg	cardboard	421,95



Paraplast®

Paraffin in droplets

Paraplast® is recommended for general tissue embedding. It is composed of a refined mixture of highly purified paraffin containing plastic polymers of regulated molecular weights. This provides improved tissue infiltration and superior quality sections with minimal compression.
Paraplast® gives brittle, difficult-to-section tissue an innate elasticity, producing excellent, wrinkle-free sections.

Our Tip:

Heat Paraplast® paraffin to maximum 62 °C.
Higher temperatures may damage the synthetic additives.

Paraplast®

for histology

Leica.

Tissue embedding medium composed of highly purified paraffin containing complex elastomers with regulated molecular weights.

Melting point: 56 °C

Paraffin in pellets

In vitro diagnostic medical device according to IVDD

Art. No.	Pack Qty.	Packaging	Pack.	€
X880.1	1 kg	1 x 1 kg	paper bag	22,50
Original pack 6 x 1 kg				21,38/1 kg
X880.3	3 kg	3 x 1 kg	paper bag	61,85
X880.2	8 kg	8 x 1 kg	paper bag	149,45

Paraplast Plus®

for histology

Leica.

Tissue embedding medium composed of highly purified paraffin containing complex elastomers with regulated molecular weights and an addition of DMSO for large and difficult-to-infiltrate tissue samples.

Melting point: 56 °C

Paraffin in pellets

In vitro diagnostic medical device according to IVDD

Art. No.	Pack Qty.	Packaging	Pack.	€
X881.1	1 kg	1 x 1 kg	paper bag	26,35
Original pack 6 x 1 kg				25,03/1 kg
X881.3	3 kg	3 x 1 kg	paper bag	75,15
X881.2	8 kg	8 x 1 kg	paper bag	170,95

Paraplast X-tra®

for histology

Leica.

Tissue embedding medium composed of polymers with low molecular weights and highly purified paraffin for large and difficult-to-infiltrate tissue samples at low temperatures.

Melting point: 52 °C

paraffin in pellets

WGK 1

In vitro diagnostic medical device according to IVDD

Art. No.	Pack Qty.	Packaging	Pack.	€
X882.1	1 kg	1 x 1 kg	paper bag	28,95
Original pack 6 x 1 kg				27,50/1 kg
X882.2	8 kg	8 x 1 kg	paper bag	209,65

Low Melting Paraffins

These paraffins allow embedding already at temperatures below 55 °C.
If high solid tissue blocks are required, we recommend a final embedding step at standard temperature (56–58 °C).

Paraffin 50–52 °C

extra pure, for histology

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
CN48.1	500 g	plastic	26,80
Original pack 6 x 500 g			25,46/500 g
CN48.2	1 kg	plastic	43,55
Original pack 6 x 1 kg			41,37/1 kg

Paraffin 52–54 °C

extra pure, for histology

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
CN49.1	500 g	plastic	26,80
Original pack 6 x 500 g			25,46/500 g
CN49.2	1 kg	plastic	43,55
Original pack 6 x 1 kg			41,37/1 kg

Granopent® P

100 %, paraffin in pellets, for histology

Melting range: 52-54 °C

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
9279.1	1 kg	plastic	27,85
Original pack 6 x 1 kg			26,46/1 kg
9279.2	2.5 kg	plastic	60,10

Cryo-Embedding

For preparation of cryo-sections.



ready-to-use

Solidofix® Cryo spray

ready-to-use, for histology

Freezing of histological specimens. Cooling of paraffin blocks. Cooling to –45 °C.

Properties:

- Cools quickly and gently
- Temperatures down to –45 °C
- Contents: Propane/butane gas

Directions for use

The tissue is sprayed for a few seconds with Solidofix® Cryo spray. Then it can be cut.

UN no. 1950 · ADR 2 (2.1)

Danger H222-H229

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
T200.1	300 ml	1 x 300 ml	spray bottle	10,25
T200.3	400 ml	1 x 400 ml	spray bottle	
T200.2	1.5 l	5 x 300 ml	spray bottle	38,60
T200.4	1.6 l	4 x 400 ml	spray bottle	



ready-to-use

OCT Embedding Matrix

ready-to-use, for histology

CellPath.

Embedding medium for frozen tissue sections.

OCT is a cryo embedding matrix designed for cryostat sectioning of tissue specimens, at temperatures of –10 °C and below. OCT is designed as a supportive and protective aid. The resulting frozen sections are used to rapidly perform examination in laboratory.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

In vitro diagnostic medical device according to IVDD

Art. No.	Pack Qty.	Packaging	Pack.	€
6478.1	125 ml	1 x 125 ml	plastic	31,75
6478.2	375 ml	3 x 125 ml	plastic	87,65



Glycidether 100
for electron microscopy

Formerly known as Epon 812, Epoxipropyl ether of glycerol.
WGK 1
Warning H302-H315-H319-H341-H361f

Art. No.	Pack Qty.	Pack.	€
8619.1	500 g	glass	46,15
Original pack 6 x 500 g			43,84/500 g
8619.2	2.5 kg	glass	171,50

Glycidether Accelerator DMP-30
for glycidether 100

UN no. 2735 · ADR 8 II · WGK 1
Danger H302-H314

Art. No.	Pack Qty.	Pack.	€
8621.1	100 g	glass	59,05

Glycidether Hardener DBA
for glycidether 100

WGK 1
Warning H317-H319-H413

Art. No.	Pack Qty.	Pack.	€
8623.1	100 g	glass	32,15
8623.2	1 kg	glass	192,45
Original pack 6 x 1 kg			182,83/1 kg

Glycidether Hardener MNA
for glycidether 100

$C_{10}H_{10}O_3$ · M 178,15 g/mol
UN no. 2810 · ADR 6.1 III · WGK 1
Danger H302-H315-H317-H318-H331-H334

Art. No.	Pack Qty.	Pack.	€
8639.1	100 g	glass	39,70
8639.2	1 kg	glass	267,70
Original pack 6 x 1 kg			254,32/1 kg

Methacrylic acid methyl ester
≥99 %, extra pure

For electron microscopy.

$C_5H_8O_2$ · M 100,12 g/mol
UN no. 1247 · ADR 3 II · WGK 1
Danger H225-H315-H317-H335

stabilised with 100 ±10 ppm MEHQ (mequinol).

Art. No.	Pack Qty.	Pack.	€
4233.7	250 ml	glass	18,20
4233.1	1 l	glass	40,35
Original pack 6 x 1 l			38,33/1 l
4233.2	2.5 l	glass	81,60
Original pack 4 x 2.5 l			77,52/2.5 l
4233.8	25 l	tinplate	654,70



Gelatine Capsules
for electron microscopy

No. 0, length 22 mm, diameter 7 mm, volume 0,68 ml.
Capsules are made of hard gelatine, usually 200–260 Bloom.
Appearance: clear, colourless.
WGK 1

Art. No.	Pack Qty.	Pack.	€
8641.1	100 unit(s)	plastic	23,55

Hydrophilic Carbowax Embedding

This method is particularly suitable for histochemical specimens. It is based on the ability of polyethylene glycol (PEG, carbowax) to polymerise and, therefore, to build hardened blocks.

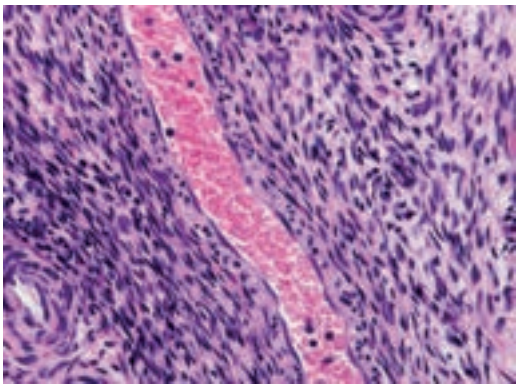
Polyethylene glycols

Product name	Pack.	Art. No.	Pack Qty.	€
Polyethylene glycol 400	plastic	**0144.1**	1 l	40,75
		0144.2	5 l	149,45
Polyethylene glycol 1000	plastic	**0150.3**	500 g	36,45
		0150.1	1 kg	57,55
		0150.2	5 kg	213,95
Polyethylene glycol 1500	plastic	**0152.3**	500 g	36,45
		0152.1	1 kg	57,55
		0152.2	5 kg	213,95
Polyethylene glycol 2000	plastic	**0154.3**	500 g	27,85
		0154.1	1 kg	42,90
		0154.2	5 kg	160,20

► Our complete range of polyethylene glycol see chapter Chemicals A–Z

► Accessories for Embedding see www.carlroth.com – Laboratory Glass, Vessels & Consumables / Microbiology, Histology & Instruments

Staining Solutions & Kits



Carl ROTH staining solutions have been developed, tested and optimised for scientific routine applications.

Ready-to-use staining solutions.

- Simple, quick and solid application
- Excellent quality
- Specially selected starting material
- Good reproducibility



Staining Methods for Blood Smears

Staining solutions for classic preparing of blood elements and for other standard assays, e. g. detection of blood parasites or bacteria.

ready-to-use

Panoptical fast staining kit

for microscopy

Staining kit for fast oversight staining of blood smears and other cytological preparations (modified method acc. to Pappenheim), incl. instructions for use.

The kit contains

Solution 1 (Art. No. 8934)
Solution 2 (Art. No. 8935)
Fixative (Art. No. 8939)
Contents of this kit may not be bought separately.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H370

Panoptical fast staining solution 1 (Art. No. 8934).
Panoptical fast staining solution 2 (Art. No. 8935).
Panoptical fast staining solution, fixative (Art. No. 8939).
Contents of this kit may not be bought separately.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
6487.1	1 kit	3 x 250 ml	plastic	99,45
6487.2	1 kit	3 x 500 ml	plastic	182,25

ready-to-use

LOEFFLER's methylene blue solution

for microscopy and cell counting

For visualising nuclei.

LÖFFLER'S methylene blue solution is an aqueous solution.

Applications

The solution is used for staining bacteria, fungi and blood parasites in blood smears, e.g. together with carbolic fuchsine solution (Art. No. A130) for Ziehl-Neelsen staining (detection of TB bacteria). Furthermore, it is used as a vital staining agent for selective staining of nuclei during counting of eukaryotic cells (e. g. yeast cells).

Cytological and bacteriological staining, vitality tests

WGK 1

Art. No.	Pack Qty.	Pack.	€
AE64.1	500 ml	glass	34,95
AE64.2	1 l	glass	49,35
Original pack 6 x 1 l			46,88/1 l
AE64.3	2.5 l	plastic	98,40
Original pack 4 x 2.5 l			93,48/2.5 l



ready-to-use

May-Gruenwald's solution

for microscopy

For differential staining of blood smears and cytological specimens.

May-Gruenwald's solution is a methanolic solution of eosin methylene blue. Due to the high concentration of methanol, the specimens are fixed at the same time (recommended residence time: 3 min). May-Gruenwald's solution is used for differential staining of blood smears and cytological specimens.

UN no. 1230 · ADR 3 (6.1) II · WGK 1

Danger H225-H301+H311+H331-H370

Art. No.	Pack Qty.	Pack.	€
T863.1	500 ml	plastic	32,80
T863.2	1 l	glass	42,90
Original pack 6 x 1 l			40,76/1 l
T863.3	2.5 l	plastic	85,50
Original pack 4 x 2.5 l			81,23/2.5 l

ready-to-use

Wright's eosin methylene blue solution

for microscopy

For differential staining of blood and bone marrow smears.

Wrights eosin methylene blue solution is used especially for staining blood and bone marrow smears. Additionally, there are various applicabilities in staining of cytological material such as urine, sputum etc.

UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H370

Art. No.	Pack Qty.	Pack.	€
CN05.1	500 ml	glass	38,20
CN05.2	1 l	glass	52,15
Original pack 6 x 1 l			49,54/1 l



ready-to-use

Giemsa stock solution

for microscopy

For differential staining of blood and bone marrow smears.

Giemsa solution contains azure, eosine, methanol and glycerol. Before staining a fixing step with methanol for about 10 min is recommended. Giemsa solution is appropriate for use in all current assays of blood and bone marrow smears.

Working solution: Dilute stock solution at a ratio of 1:20 (e. g. 0.5 ml with 9.5 ml dist. water).

UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H370

Art. No.	Pack Qty.	Pack.	€
T862.1	500 ml	plastic	37,55
T862.2	1 l	glass	55,40
Original pack 6 x 1 l			52,63/1 l
T862.3	2.5 l	plastic	116,00
Original pack 4 x 2.5 l			110,20/2.5 l

Application range:

Giemsa- and May-Grünwald-solution can be combined and then used to obtain particularly high-contrast staining ("Panoptic staining according to Pappenheim").

► Buffer solution acc. to Weise see www.carlroth.com

Elastica Staining

Carl ROTH staining solutions for preparing elastic fibres in tissue sections.



ready-to-use

Elastica van Gieson staining kit

for microscopy

Staining kit for visualising connective tissue with elastic fibres, incl. instructions for use.

The kit contains

Hematoxylin solution A acc. to Weigert (Art. No. X906)
Hematoxylin solution B acc. to Weigert (Art. No. X907)
Van Gieson's solution (Art. No. 3925)
Resorcinol-Fuchsine solution acc. to Weigert (Art. No. X877)
Contents of this kit may be bought separately.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 2924 · ADR 3 (8) II · WGK 2

Danger H225-H290-H302+H312+H332-H318-H336-H370

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
8275.1	1 kit	4 x 500 ml	glass	203,20

► Hematoxylin solution A acc. to Weigert see page 398

► Hematoxylin solution B acc. to Weigert see page 399

► Van Gieson's Solution see page 399



ready-to-use

Nuclear fast red aluminium sulphate solution

0,1 %, for microscopy

For visualising nuclei e.g. during Elastica Staining.

Nuclear fast red aluminium sulphate solution has a wide range of applications e. g. as counterstaining after histochemical reactions such as Berlin blue staining, after silver staining or during alcian blue or light green staining.
It is also used for staining of nuclei during Elastica staining – a staining method for reproducing elastic fibres in tissue samples.

Nuclear fast red aluminium sulphate solution stains cell nuclei red.

WGK 1

Danger H318

Art. No.	Pack Qty.	Pack.	€
N069.1	500 ml	glass	61,20
N069.2	1 l	glass	100,95
Original pack 6 x 1 l			95,90/1 l
N069.3	2.5 l	plastic	198,90
Original pack 4 x 2.5 l			188,96/2.5 l

ready-to-use

Resorcinol-Fuchsine-solution acc. to Weigert

for microscopy

For visualising elastic fibres.

UN no. 2924 · ADR 3 (8) II · WGK 2

Danger H225-H290-H302+H312+H332-H318-H336-H370

Art. No.	Pack Qty.	Pack.	€
X877.1	500 ml	glass	59,70
X877.2	1 l	glass	103,75
Original pack 6 x 1 l			98,56/1 l
X877.3	2.5 l	plastic	210,60
Original pack 4 x 2.5 l			200,07/2.5 l

Our Tip:

The ready-to-use staining solutions should be filtrated before use.

Hematoxylin-Eosin Staining (H&E Staining)

Simple and quick staining method for visualising nuclei and cytoplasm.



ready-to-use

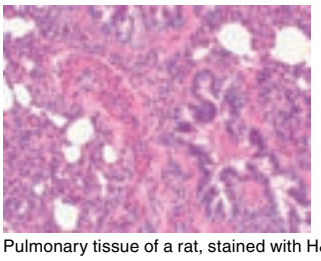
H&E fast staining kit

for microscopy

Staining kit for fast oversight staining of tissue sections. Hematoxylin-eosin staining, incl. instructions for use.

The kit contains

Solution 1 (Art. No. 8947)
Solution 2 (Art. No. 8950)
Contents of this kit may not be bought separately.



Pulmonary tissue of a rat, stained with H&E fast staining kit.

Instructions for use included.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H318-H370-H373

Fast staining H&E, solution 1 (Art. No. 8947).
Fast staining H&E, solution 2 (Art. No. 8950).
Contents of this kit may not be bought separately.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
9194.1	1 kit	2 x 250 ml	plastic	68,30
9194.2	1 kit	2 x 500 ml	plastic	99,45



ready-to-use

Hemalum solution acid acc. to Mayer

for microscopy

For visualising nuclei.
WGK 2

Warning H302-H315-H319

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
T865.1	500 ml	glass	40,75
T865.2	1 l	glass	62,25
Original pack 6 x 1 l			59,14/1 l
T865.3	2.5 l	plastic	117,10
Original pack 4 x 2.5 l			111,25/2.5 l

Eosin Y Solutions

For visualising cell structures during standard staining methods.

ready-to-use

Product name	Purity	Art. No.	Pack Qty.	€
Eosin Y solution 0.5 % in water	0,5 %, in water, for microscopy	**X883.1**	500 ml	27,85
		X883.2	1 l	42,50
Eosin Y solution 1 % in water	1 %, in water, for microscopy	**3137.1**	500 ml	32,15
		3137.2	1 l	47,85
Eosin Y solution 1 % in methanol	1 %, in methanol, for microscopy	**3139.1**	500 ml	37,55
		3139.2	1 l	55,40

For additional product data and safety information, see chapter Chemicals A–Z.

Trichrome Staining

A standard staining method for analysis of connective tissue, allowing a differentiated visualisation of various fibres of connective tissue against epithelial and muscle tissue.

ready-to-use

Van Gieson trichrome staining kit

for microscopy

Staining kit for visualising connective tissue, incl. instructions for use.

The kit contains

Hematoxylin solution A acc. to Weigert (Art. No. X906)
Hematoxylin solution B acc. to Weigert (Art. No. X907)
Van Gieson's solution (Art. No. 3925)
Contents of this kit may be bought separately.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 1219 · ADR 3 II · WGK 1

Danger H225-H290-H318-H336

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
9193.1	1 kit	3 x 500 ml	glass	155,90

ready-to-use

Masson-Goldner's trichrome staining kit

for microscopy

Staining kit for visualising connective tissue (Masson-Goldner trichrome staining), incl. instructions for use.

Directions for use

Firstly the nuclei are stained with Weigert's iron hematoxylin solution, an acidoresistant staining. Subsequently the trichrome staining is carried out with the acid stains acc. to Goldner. Every staining step is followed by a rinsing step with acetic acid 1%. This reagent is not included to the kit.
Result: Visualisation of nuclei, cytoplasm, muscle, erythrocytes, connective tissue.

The kit contains

Hematoxylin solution A acc. to Weigert (Art. No. X906)
Hematoxylin solution B acc. to Weigert (Art. No. X907)
Goldner's staining I (Art. No. 3469)
Goldner's staining II (Art. No. 3470), Goldner's staining III (Art. No. 3473)
Contents of this kit may be bought separately.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 1219 · ADR 3 II

Danger H225-H290-H315-H318-H336

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
3459.1	1 kit	5 x 500 ml	glass	223,10

Hematoxylin solutions acc. to Weigert

Haematoxylin solutions according to Weigert are used for cell nucleus staining in histology and cytology.
Furthermore, these solutions are used in Masson-Goldner trichrome staining and trichrome staining according to van Gieson.

Working concentration

Mix WEIGERT'S solution A and WEIGERT'S solution B at a ratio of 1:1 prior to use (iron hematoxylin solution).
This working solution is stable for 8 days in maximum at room temperature.



ready-to-use

Weigert's iron hematoxylin staining kit

for microscopy

Staining kit for acid resistant staining of nuclei, incl. instructions for use.

The kit contains

Hematoxylin solution A acc. to Weigert (Art. No. X906)
Hematoxylin solution B acc. to Weigert (Art. No. X907)
Contents of this kit may be bought separately.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 1219 · ADR 3 II

Danger H225-H290-H318-H336

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
9192.1	1 kit	2 x 500 ml	glass	106,45

ready-to-use

Hematoxylin solution A acc. to Weigert

for microscopy

For nuclear staining in histology and cytology

Weigert's Hematoxylin solution

UN no. 1219 · ADR 3 II · WGK 1

Danger H225-H319-H336

Working solution:
Mix Weigert's solution A and Weigert's solution B at a ratio of 1:1.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
X906.1	500 ml	glass	80,10

ready-to-use

Hematoxylin solution B acc. to Weigert

for microscopy

For nuclear staining in histology and cytology
Iron(III) chloride solution acc. to Weigert
UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H318

Working solution:
Mix Weigert's solution A and Weigert's solution B at a ratio of 1:1.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
X907.1	500 ml	glass	30,65

Application Range:

WEIGERT'S iron hematoxylin solution results in very acidoresistant staining of nuclei. Therefore, the method is particularly suitable for staining delimed tissues and for sections intended to be counter-stained with acid dyes.



Van Gieson's Solution

Van Gieson's picrofuchsin

ready-to-use

Van Gieson's Solution

for microscopy

For visualising connective tissue during van Gieson trichrome staining and Elastica van Gieson staining.

Directions for use

First the nuclei are stained with Weigert's iron hematoxylin solution (Art. No. X906.1 Hematoxylin solution A and Art. No. X907.1 Hematoxylin solution B at a ratio of 1:1). Subsequently the trichrome staining is carried out with van Gieson's picrofuchsin solution.
Result: Visualisation of nuclei, connective tissue, cytoplasm, muscle and other tissue components.
WGK 1

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
3925.1	500 ml	glass	67,20
3925.2	1 l	glass	111,70
Original pack 6 x 1 l			106,12/1 l

Goldner's staining solutions

Goldner's staining solutions are used to visualise connective tissue in Masson Goldner trichrome staining.
The dispersity, the different molecular sizes of the dyes, plays a decisive role. Finely dispersed dyes such as Ponceau and Orange G penetrate quickly into structures, more coarsely dispersed dyes such as acid fuchsin and light green penetrate more slowly and stain coarse structures first.

ready-to-use

Goldner's staining I

for microscopy

For visualising connective tissue (Masson-Goldner trichrome staining).
Ponceau-Fuchsin solution
WGK 1

Art. No.	Pack Qty.	Pack.	€
3469.1	500 ml	glass	39,70
3469.2	1 l	glass	59,70
Original pack 6 x 1 l			56,72/1 l

ready-to-use

Goldner's staining II

for microscopy

For visualising connective tissue (Masson-Goldner trichrome staining).
Phosphotungstic acid-Orange G solution
WGK 1

Danger H315-H318

Art. No.	Pack Qty.	Pack.	€
3470.1	500 ml	glass	81,60
3470.2	1 l	glass	131,70
Original pack 6 x 1 l			125,12/1 l

ready-to-use

Goldner's staining III

for microscopy

For visualising connective tissue (Masson-Goldner trichrome staining).
Light green SF yellowish solution
WGK 1

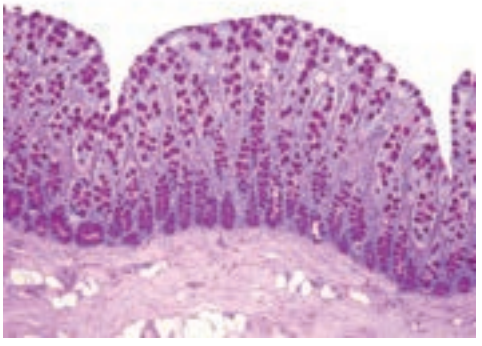
Art. No.	Pack Qty.	Pack.	€
3473.1	500 ml	glass	39,70
3473.2	1 l	glass	59,70
Original pack 6 x 1 l			56,72/1 l

Staining protocols

can be found on the internet next to the product description.

Staining PAS (Schiff's Periodic Acid)

The PAS reaction (Periodic acid-Schiff reaction) is a histochemical staining in which, in particular, carbohydrate-containing components such as glycoproteins, cellulose, mucins and glycogen are visualised. These substances are found in connective tissue fibres (collagen), basement membranes, cell walls (glycocalyx) and in neutral mucus (gastric mucus). PAS staining is also used to visualise glycogen-rich cells in the liver or in muscle tissue and to detect PAS-positive microorganisms (fungi).





ready-to-use

PAS staining kit

for microscopy

Staining kit for Periodic Acid Schiff (PAS) staining, incl. instructions for use.

Periodic Acid Schiff staining is generally used for detecting carbohydrates in tissue.

Directions for use

Staining is carried out in 3 steps: Periodic acid transforms 1.2 glycol groups to aldehyde groups, which are stained with Schiff´s reagent. Hemalum solution performs counter staining of nuclei.
Result: Carbohydrates red, nuclei blue-violet.

The kit contains

Periodic acid solution 1 % (Art. No. HP00), Schiff´s reagent (Art. No. X900), Hemalum solution acid acc. to Mayer (Art. No. T865) Contents of this kit may be bought separately.

Storage temperature: +15 to +25 °C

UN no. 1789 · ADR 8 III · WGK 3

Danger H290-H302-H315-H319-H350-H373

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
HP01.1	1 kit	3 x 500 ml	glass	117,75

► Hemalum solution acid acc. to Mayer see page 397

ready-to-use

Periodic acid solution 1 %

1 %, ready-to-use, for microscopy

For hydrolysis of carbohydrates, e.g. in PAS reaction (Periodic Acid Schiff reaction).

$H_5IO_6 + H_2O$

WGK 3

Warning H315-H319-H373

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
HP00.1	500 ml	glass	56,45

ready-to-use

Schiff's reagent

for microscopy

Staining reagent for detection of carbohydrates in tissue (PAS reaction).

Schiff´s reagent has a wide spectrum of application in PAS reaction (Periodic Acid Schiff reaction), in combined alcian blue PAS staining and as a reagent for detecting aldehydes.

Notes on storage

Store at room temperature in the dark. After the bottle has been opened store well-sealed at 4-8 °C. Discard the solution if it turns reddish.

Storage: After opening well-sealed at 4–8 °C. Discard solution if it turns reddish.

UN no. 1789 · ADR 8 III · WGK 3

Danger H290-H350

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
X900.1	500 ml	glass	32,80
X900.2	1 l	glass	46,80
Original pack 6 x 1 l			44,46/1 l
X900.3	2.5 l	plastic	97,75
Original pack 4 x 2.5 l			92,86/2.5 l

ready-to-use

Alcian blue 1 % in acetic acid 3 %

1 %, for microscopy

For selective staining of acidic mucins.

The solution stains acidic mucopolysaccharides in tissue blue. Often the staining is combined with the PAS reaction.

Often the staining is combined with the PAS reaction.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1431.1	500 ml	plastic	209,65
1431.2	1 l	plastic	321,45
Original pack 6 x 1 l			305,38/1 l

Cytological Staining

Ready-made solutions for laboratory analyses, like, e.g., staining acc. to Papanicolaou, which is mainly used for visualisation of cancer cells.

ready-to-use

PAP fast staining kit

for microscopy

Staining kit for fast staining of cytological specimens (fast staining acc. to Papanicolaou), incl. instructions for use.

The kit contains

Solution 1 (Art. No. 9197)
Solution 2 (Art. No. 9199)
Contents of this kit may not be bought separately.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 1987 · ADR 3 II · WGK 2

Danger H225-H302+H312+H332-H319-H370-H373-EUH208

PAP fast staining, solution 1 (Art. No. 9197).
PAP fast staining, solution 2 (Art. No. 9199).
Contents of this kit may not be bought separately.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
9195.1	1 kit	2 x 250 ml	plastic	76,25
9195.2	1 kit	2 x 500 ml	plastic	117,75

ready-to-use

Hematoxylin solution acc. to Delafield

20x conc., for microscopy

Working concentration

1:20 in distilled water (staining 30 min).

Dilution for use: 1:20 in distilled water (staining 30 min).

UN no. 1992 · ADR 3 (6.1) II · WGK 2

Danger H225-H302+H312+H332-H370

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
CN03.1	500 ml	glass	51,50

ready-to-use

Hematoxylin solution acid acc. to Ehrlich

for microscopy

UN no. 1993 · ADR 3 II · WGK 1

Danger H225-H319-H336-EUH208

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
CN04.1	500 ml	glass	54,75

ready-to-use

Hematoxylin solution acc. to Gill II

for microscopy

WGK 1

Danger H302-H318-H373-EUH208

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
T864.1	500 ml	glass	54,30
T864.2	1 l	glass	76,25
Original pack 6 x 1 l			72,44/1 l
T864.3	2.5 l	plastic	152,15
Original pack 4 x 2.5 l			144,54/2.5 l

ready-to-use

Hematoxylin solution acc. to Harris

for microscopy

For visualising nuclei, Papanicolaou solution 1a
WGK 1

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
X903.1	500 ml	glass	54,75
X903.2	1 l	glass	77,30
Original pack 6 x 1 l			73,44/1 l
X903.3	2.5 l	plastic	158,60
Original pack 4 x 2.5 l			150,67/2.5 l

Papanicolaou Solutions

Product name	Pack.	Art. No.	Pack Qty.	€
Papanicolaou-orange solution 2a (OG 6)	glass	**T867.1**	500 ml	38,60
		T867.2	1 l	58,60
	plastic	**T867.3**	2.5 l	120,30
Papanicolaou solution 2b Orange II solution	glass	**AE62.1**	500 ml	38,60
		AE62.2	1 l	58,60
	plastic	**AE62.3**	2.5 l	120,30
Papanicolaou polychrome solution 3a (EA31)	glass	**AE63.1**	500 ml	38,60
		AE63.2	1 l	58,60
	plastic	**AE63.3**	2.5 l	120,30
Papanicolaou polychrome solution 3b (EA 50)	glass	**T866.1**	500 ml	38,60
		T866.2	1 l	58,60
	plastic	**T866.3**	2.5 l	120,30

For additional product data and safety information, see chapter Chemicals A–Z.

► Extensive accessories for staining see Labware – Laboratory Glassware, Vessels & Consumables / Microbiology, Histology & Instruments

Bacteriological Staining

Staining of Acid-fast Bacteria

Acid-fast bacteria (e.g. Mycobacteria) cannot or only difficult be stained by usual staining methods due to the high proportion of lipids in their cell walls.
The most popular method for staining of acid-fast bacteria is the hot staining method acc. to Franz Ziehl and Friedrich Neelsen (Ziehl-Neelsen staining), in which the cell walls are “melted” by heating.

Furthermore cold staining methods have been developed like Kinyoun, Gabett or Ziehl-Neelsen (cold) to avoid harmful vapours resulting in the hot staining method.



ready-to-use

Ziehl-Neelsen staining kit

for microscopy

Staining kit for visualising acid-fast bacteria (e.g. pathogen of TB *Mycobacterium tuberculosis*), incl. instructions for use.

The kit contains

Loeffler’s methylene blue solution (Art. No. AE64)
Carbolic fuchsine solution (Art. No. A130)
Contents of this kit may be bought separately.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 1760 · ADR 8 II · WGK 2

Danger H314-H341

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
8276.1	1 kit	2 x 500 ml	glass	59,70

► LOEFFLER’s methylene blue solution see page 394

► Carbolic fuchsine solution see page 403



ready-to-use

Methylene blue solution 0.1 % aqueous

0,1 %, aqueous, for microscopy

For staining of nuclei.

Aqueous methylene blue solution without further additives for staining of nuclei.

Applications

It is used for cold staining of acid-fast bacteria (e. g. Mycobacteria). Methods are Kinyoun or Gabett’s staining. It is also used for vitality testing of cells (e.g. yeast cells). Dead cells are stained blue.

Cold staining of acid-fast bacteria (Kinyoun and Gabett's staining), vitality testing of cells.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
1433.1	250 ml	glass	25,70
1433.2	500 ml	glass	36,05
1433.3	1 l	glass	48,30
Original pack 6 x 1 l			45,89/1 l

Neisser's solutions

The Neisser stain is a microbiological stain for visualising the polar bodies in the cytoplasm of gram-positive bacteria. This staining is used to identify diphtheria bacteria.

Cells are stained with methylene blue and crystal violet in acidic solution and then counterstained with chrysoidin solution. Polyphosphate granules appear black-violet in the yellow-brown stained cells.

ready-to-use

Product name	Purity	Instructions for use	Art. No.	Pack Qty.	€
Neisser's solution I	for microscopy	Methylene blue solution 0.1 %	**3463.1**	100 ml	26,35
			3463.2	500 ml	52,60
Neisser's solution II	for microscopy	Crystal Violet solution	**3464.1**	100 ml	26,35
			3464.2	500 ml	52,60
Neisser's solution III	for microscopy	Chrysoidin solution	**3466.1**	100 ml	26,35
			3466.2	500 ml	52,60

For additional product data and safety information, see chapter Chemicals A–Z.

Gram Staining

Gram staining is the most important technique for differentiation and identification of bacteria. It was developed by the Danish bacteriologist Hans Christian Gram (1853-1938).
Due to the structure of their cell walls nearly all bacterial species can be differentiated in gram-positive and gram-negative bacteria.



ready-to-use

Gram staining kit

for microscopy

Kit for differentiation of gram-positive and gram-negative bacteria, incl. instructions for use.

This classical staining method allows a quick differentiation of gram-positive and gram-negative bacteria. Subsequently a specific treatment with antibiotics is possible.

Directions for use

In the first step bacteria are stained by Carbol gentianaviolet and Lugol solution. Afterwards gram-negative bacteria are decolourised by Gram's decolourising solution. In the last step these bacteria are counterstained by Carbol fuchsine solution.
Result: Gram-positive bacteria appear blue, gram-negative bacteria red.

The kit contains

Carbol gentianaviolet solution (Art. No. CN00)
Iodine-potassium iodide solution acc. to Lugol (Art. No. N052)
Gram's decolourising solution (Art. No. CN02)
Carbolic fuchsine solution (Art. No. A130).
Contents of this kit may be bought separately.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 2924 · ADR 3 (8) II · WGK 2

Danger H225-H314-H336-H341-H373-EUH066

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
HP02.1	1 kit	4 x 500 ml	glass	129,55

► Carbol gentian violet solution see page 404

► Safranin O solution see page 404

ready-to-use

Gram's decolourising solution

ready-to-use, for microscopy

For differentiation of bacteria during Gram staining

Ethanolic solution containing 25 % acetone
UN no. 1993 · ADR 3 II · WGK 1

Danger H225-H319-H336-EUH066

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
CN02.1	500 ml	glass	33,25



ready-to-use

Iodine-potassium iodide solution acc. to Lugol

resublimated, for microscopy

For Gram staining

1 % aqueous iodine solution. Contains ~3,3 g/l iodine and ~6,7 g/l potassium iodide.
WGK 3

Warning H373

Art. No.	Pack Qty.	Pack.	€
N052.1	250 ml	glass	27,85
N052.3	500 ml	glass	34,95
N052.2	1 l	glass	48,30
Original pack 6 x 1 l			45,89/1 l

ready-to-use

Carbolic fuchsine solution

for microscopy

For bacterial staining (Gram staining and staining of acid-fast bacteria, e.g. TB bacteria acc. to Ziehl-Neelsen).
UN no. 1760 · ADR 8 II · WGK 2

Danger H314-H341

Art. No.	Pack Qty.	Pack.	€
A130.2	500 ml	glass	28,50
A130.1	1 l	glass	46,15
Original pack 6 x 1 l			43,84/1 l

Our Tip:

The ready-to-use staining solutions should be filtrated before use.

ready-to-use

Carbol gentian violet solution

for microscopy

For Gram staining

The solution is used for the first step of Gram staining. It can be applied like crystal violet solution acc. to Gram. Gentian violet and crystal violet are two different names for the same dye.

UN no. 1993 · ADR 3 III · WGK 2

Warning H226-H319

Art. No.	Pack Qty.	Pack.	€
CN00.1	500 ml	glass	37,55
CN00.2	1 l	glass	55,40
Original pack 6 x 1 l			52,63/1 l

ready-to-use

Safranin O solution

for microscopy

For Gram staining.

1 % safranine solution in water. Replaces Carbolic fuchsine solution during staining procedure of gram-negative bacteria.

WGK 1

Art. No.	Pack Qty.	Pack.	€
CN01.1	500 ml	glass	49,35

Preparation of an Oxalate Gentian Violet Solution

Dissolve 0.8 g ammonium oxalate (Art. No. P737.1) in 80 ml dist. water. Then dissolve 2 g gentian violet (crystal violet, Art. No. T123.1) in 20 ml 96 % ethanol (Art. No. T171.1). Mix both solutions well. Filter solution before using.

Lactophenol Blue Staining

Staining method for identification and visualisation of fungal cells.

ready-to-use

Lactophenol blue solution

for microscopy

Fungal stain for microbiological material.

Lactophenol blue solution is used to visualise fungal cells in various cytological materials.

Application

Air dry and heat fix the sample material on the slide. Then add 1-2 drops of staining solution and place a cover glass on top. After about 2 min the fungal cells appear dark blue. Depending on the type of sample material to be examined, it may be necessary to extend the reaction time of the staining solution.

UN no. 3265 · ADR 8 III · WGK 2

Danger H302-H314-H341-H373-H412-EUH071

Art. No.	Pack Qty.	Pack.	€
3097.1	100 ml	glass	36,45

Staining of Cellulose According to Behrens

ready-to-use

Zinc iodine chloride solution

according to Behrens, for microscopy

Reagent for cellulose.

UN no. 1840 · ADR 8 III · WGK 3

Danger H314-H335-H373-H410

Art. No.	Pack Qty.	Pack.	€
6395.1	100 ml	glass	34,30

Performing Detection of Cellulose:

Add one drop of the solution to the section applied to a slide. After 30 min in maximum cellulose fibres are stained blue; wood, cork and cutin are stained yellow. The cellulose staining is a dichroitic staining. Depending on the polarisation direction of light different wavelengths of light are absorbed. Thus the dye changes from dark blue to colourless.

Acc. to Dieter Gerlach: *Bot. Mikrotechnik*, 2. Edition, Thieme (1977).

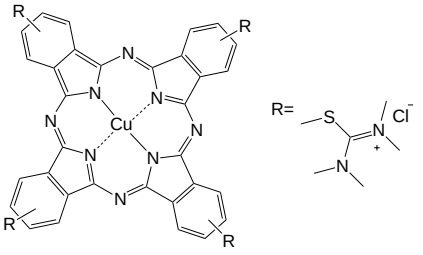
Dyes

Carl ROTH offers a wide range of staining agents in a tried and tested quality for use in botany, bacteriology, histology and cell culture.



Chromogenic Dyes





Alcian blue 8 GS (C.I. 74240)

for microscopy

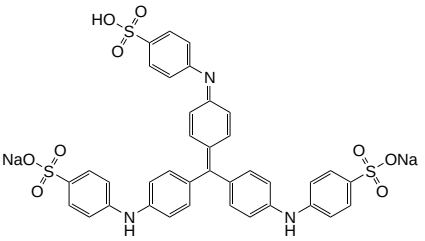
Bacteriology and histology.

Basic dye, soluble in diluted acetic acid solution (0.1 %–3 %) in concentrations of 0.05 % to 1 %. Used e.g. for staining of glycoproteins as an alternative to PAS-Staining.

Dissolve 0.05–1 % in diluted acetic acid solutions

WGK 1

Art. No.	Pack Qty.	Pack.	€
3082.2	5 g	glass	48,30
3082.1	10 g	glass	85,90
3082.3	25 g	glass	192,45
3082.4	100 g	glass	665,45



Acid blue 93 (C.I. 42780)

p.a., water-soluble

For staining of histological sections and for cytology.

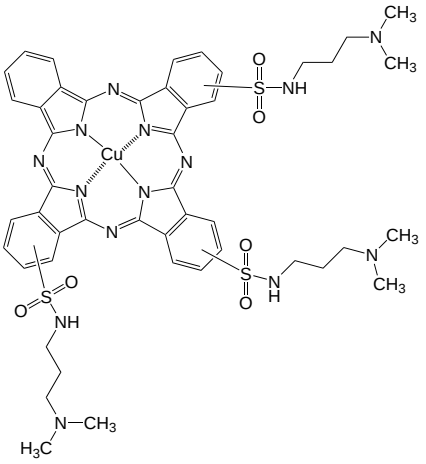
Acid blue 93 is a plasma stain. It is often used in trichome stains to visualise connective tissue.

Dissolve 1 % in water

$C_{37}H_{27}N_3O_9S_3Na_2$ · M 799,81 g/mol

WGK 2

Art. No.	Pack Qty.	Pack.	€
4002.1	10 g	glass	37,55
4002.2	25 g	glass	75,15



Astra blue FM (C.I. 48048)

for microscopy

Soluble in water (0.5 %), staining reagent for cellulose.

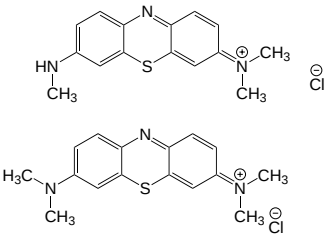
Dissolve 0.1 g in 97.5 ml water and 2.5 ml glacial acetic acid

$C_{47}H_{52}CuN_{14}O_6S_3$ · M 1068,75 g/mol

WGK 3

Warning H315-H319-H335

Art. No.	Pack Qty.	Pack.	€
5165.1	10 g	glass	30,00
5165.2	50 g	glass	92,35



Azure II

for microscopy

1:1 mixture of Azure B and Methylen blue

Azure II is a mixture of equal parts of the basic coal tar dyes methylene blue and Azure B. These dyes are mainly used for staining of blood elements (e.g. in Giemsa staining solution, Art. No. T862). In watery solution they form special salts with the acid eosin, the eosinates.

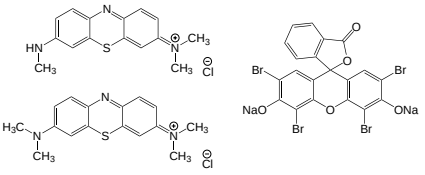
Dissolve 0.1 g in 100 ml water

$C_{16}H_{18}ClN_3S \cdot C_{15}H_{16}ClN_3S \cdot$ M 625,68 g/mol

WGK 1

Warning H302

Art. No.	Pack Qty.	Pack.	€
7640.1	1 g	glass	14,95
7640.2	10 g	glass	25,30
7640.3	50 g	glass	60,10



Azure II eosinat

for microscopy

1:1:1 mixture of Azure B, Methylen blue and Eosine Y

Azure II is a mixture of equal parts of the basic coal tar dyes methylene blue, Azure B and eosin. It is mainly used for staining of blood elements (e.g. in Giemsa staining solution, Art. No. T862).

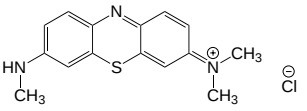
In watery solution it forms Azure B eosinates which cause the so called “Romanowsky-Giemsa effect”, a polychromatic, pH-dependent staining of chromatin.

$C_{16}H_{18}ClN_3S \cdot C_{15}H_{16}ClN_3S \cdot C_{20}H_6Br_4Na_2O_5 \cdot$ M 1317,92 g/mol

WGK 1

Danger H318

Art. No.	Pack Qty.	Pack.	€
7642.1	5 g	glass	24,20
7642.2	25 g	glass	45,70
7642.3	100 g	glass	131,70



Azure B (C.I. 52010)

for microscopy

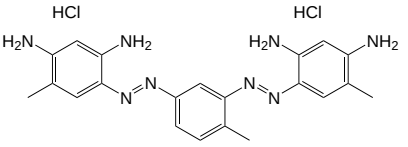
Azure B belongs to the basic coal tar dyes (methylene blue and its derivatives). These dyes are mainly used for staining of blood elements. In watery solution they form special salts with the acid eosin, the eosinates.

Besides eosin and methylene blue Azure B is the main component of Giemsa staining solution (Art. No. T862). The Azure B eosinates in the solution cause the so called “Romanowsky-Giemsa effect”, a polychromatic, pH-dependent staining of chromatin.

$C_{15}H_{16}ClN_3S \cdot$ M 305,83 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
7637.1	5 g	glass	20,35
7637.2	25 g	glass	36,05
7637.3	100 g	glass	99,45



Bismarck brown R (C.I. 21010)

for microscopy

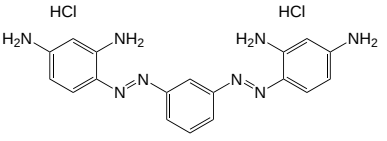
Basic azo dye, for modified Coomassie Blue-staining.

Soluble in ethanol or methanol 1–3 %, low soluble in water (0.5 %). Used for staining of brown alga, for mucus and vital staining. Ingredient of staining solutions according to Papanicolaou.

$C_{21}H_{24}N_8 \cdot 2$ HCl · M 461,40 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
0316.1	25 g	plastic	24,65



Bismarck brown Y (C.I. 21000)

for microscopy

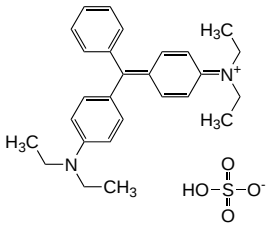
Basic azo dye

Soluble in ethanol 1–3 %, in water 1–5 %.

$C_{18}H_{18}N_8 \cdot 2$ HCl · M 418,33 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
0313.1	10 g	glass	24,65
0313.2	25 g	glass	42,50



Brilliant green (C.I. 42040)

for microscopy

Indicator pH 0.0-2.6, basic dye

Dissolve 0.1-5 g in 100 ml water or ethanol (96 %)

$C_{27}H_{34}N_2O_4S$ · M 482,64 g/mol
WGK 1

Warning H302-H319

Art. No.	Pack Qty.	Pack.	€
0324.1	25 g	glass	26,80
0324.2	100 g	plastic	82,25

Brilliant cresyl blue (C.I. 51010)

p.a.

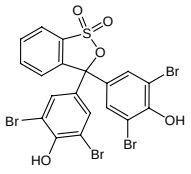
Basic vital dye

Dissolve 0.5–3 g in 100 ml water or ethanol (96 %)

$(C_{17}H_{20}N_3O)_2$ · $ZnCl_4$ · M 385,96 g/mol
WGK 1

Warning H315-H319-H335

Art. No.	Pack Qty.	Pack.	€
5162.1	5 g	glass	30,65
5162.2	10 g	glass	47,85



Bromophenol blue

ACS, for microscopy

Indicator pH 3.0-4.6

Dissolve 0.1 g in 100 ml ethanol (20 %) or 0.04 g in 0.74 ml NaOH 0.1 mol/l and make up to 100 ml with water

$C_{19}H_{10}Br_4O_5S$ · M 669,99 g/mol
WGK 1

Art. No.	Pack Qty.	Pack.	€
T116.1	5 g	glass	27,45
T116.2	10 g	glass	39,70
T116.3	25 g	glass	63,35

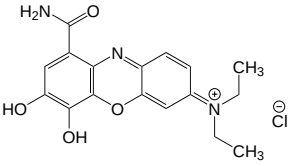
Carmine (C.I. 75470)

for microscopy

Water-insoluble natural dye, obtained from dried female scale insects (Cochenille). Main ingredient is carminic acid. For use as a dye in microscopy it is applied in conjunction with a mordant, usually based on aluminium, producing a well-staining calcium aluminium lake of carminic acid.

$C_{22}H_{20}O_{13}$ · M 492,38 g/mol
WGK 1

Art. No.	Pack Qty.	Pack.	€
6859.1	10 g	glass	59,70
6859.2	25 g	glass	119,90



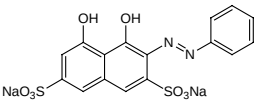
Celestine blue (C.I. 51050)

for microscopy

A watery solution of Celestine blue Hemalum is used for acid resistant staining of nuclei. It replaces Weigert's iron hematoxylin solution e.g. during trichrome staining.

$C_{17}H_{18}ClN_3O_4$ · M 363,80 g/mol
WGK 1

Art. No.	Pack Qty.	Pack.	€
7646.1	5 g	glass	42,90
7646.2	25 g	glass	155,90
7646.3	100 g	glass	514,95



Chromotrope® 2R (C.I. 16570)

for microscopy

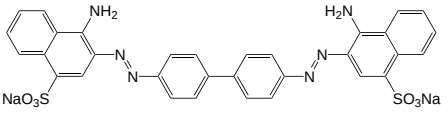
Indicator for complexometry.

Water soluble azo dye, stains cytoplasm red. Commonly used in concentrations of 0.5 to 1.0 %.

$C_{16}H_{10}N_2Na_2O_8S_2$ · M 468,39 g/mol
WGK 1

Warning H315-H319-H335

Art. No.	Pack Qty.	Pack.	€
4937.2	10 g	glass	46,15
4937.1	50 g	glass	192,45



Congo red (C.I. 22120)

for microscopy

Bacteriology, indicator pH 3.0-5.2

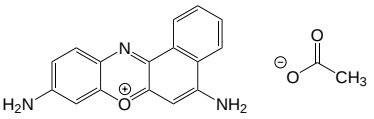
Azo dye, soluble in water (colloidal solution) and ethanol. A 1 % solution in ethanol is used for detection of amyloid proteins (= abnormally mutated proteins).

Dissolve 0.2 g in 100 ml of water

$C_{32}H_{22}N_6Na_2O_6S_2$ · M 696,66 g/mol
WGK 3

Danger H350-H361d

Art. No.	Pack Qty.	Pack.	€
0322.1	5 g	glass	22,05
0322.2	25 g	glass	36,05
0322.3	100 g	glass	87,65



Cresyl violet acetate

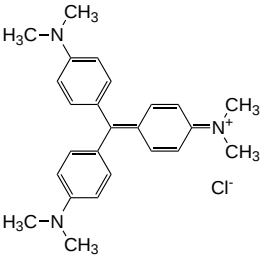
p.a.

Cresyl violet acetate is a nuclear stain. It is used for visualising nerve tissue during Nissl staining.

Used as 1% solution in water.

$C_{18}H_{15}N_3O_3$ · M 321,34 g/mol
WGK 1

Art. No.	Pack Qty.	Pack.	€
7651.1	5 g	glass	92,35
7651.2	10 g	glass	166,65
7651.3	25 g	glass	360,15



Crystal violet (C.I. 42555)

p.a.

Indicator pH 0.0-2.0

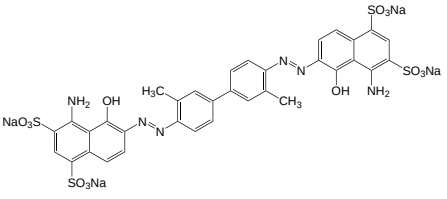
Crystal violet, also called gentian violet, is soluble in water and alcohol and is used for multiple histological stains, e.g. Gram staining.

Dissolve 0.1 g in 100 ml of ethanol (70 %)

$C_{25}H_{30}ClN_3$ · M 407,99 g/mol
UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H318-H351-H410

Art. No.	Pack Qty.	Pack.	€
T123.2	5 g	glass	22,05
T123.1	25 g	glass	36,05
T123.3	100 g	glass	87,65



Evan's blue (C.I. 23860)

for microscopy

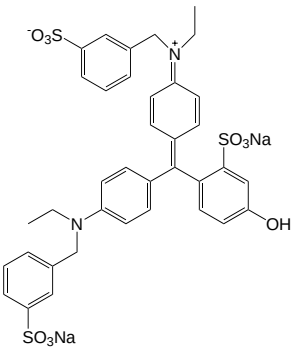
Diazo dye for intravital staining.

$C_{34}H_{24}N_6Na_4O_{14}S_4$ · M 960,82 g/mol
WGK 1

Danger H350

Art. No.	Pack Qty.	Pack.	€
7684.1	5 g	glass	35,40
7684.2	25 g	glass	73,00
7684.3	100 g	glass	235,45

► Ready-made staining solutions see from page 394



Fast Green FCF

for microscopy

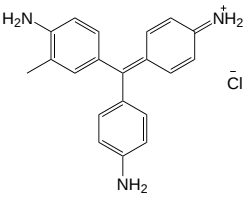
For staining proteins.

Soluble in ethanol and water, replaces light green in Masson Goldner Staining or in Papanicolaou solutions.

$C_{37}H_{34}N_2Na_2O_{10}S_3$ · M 808,84 g/mol
WGK 1

Warning H341

Art. No.	Pack Qty.	Pack.	€
0301.1	25 g	glass	107,40



Fuchsine basic (C.I. 42510)

for microscopy

Indicator pH 1.0-3.1

Soluble in ethanol and water. Multiple use in histology, e.g. carbolic fuchsine solution in Gram staining oder resorcinol fuchsine solution in elastica staining.

Dissolve 0.4 g in 100 ml water

$C_{20}H_{20}N_3Cl$ · M 337,85 g/mol
WGK 3

Warning H351

Art. No.	Pack Qty.	Pack.	€
3256.2	25 g	glass	42,50
3256.1	50 g	glass	74,75
3256.3	100 g	glass	98,40

Giemsa stain

for microscopy

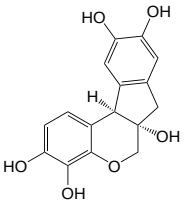
Mixture of Azure and Eosin for preparing Giemsa solution. It is used for staining blood and bone marrow smears. Ingredient of the Giemsa stock solution (Art. No. T862).

WGK 1

Warning H319

Art. No.	Pack Qty.	Pack.	€
7691.1	5 g	glass	20,35
7691.2	25 g	glass	36,45
7691.3	100 g	glass	105,25





Hematoxylin (C.I. 75290)

for microscopy

For staining of cell nuclei.

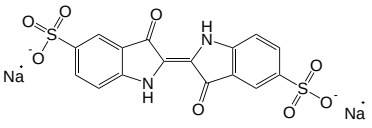
A beige natural dye which achieves its active form, the hemalum, by oxidation (e.g. with sodium iodate) and treating with a metallic mordant (e.g. alum). Hemalum lakes stain cell nuclei blue.

$C_{16}H_{14}O_6$ · M 302,29 g/mol

WGK 1

Warning H319

Art. No.	Pack Qty.	Pack.	€
3816.1	10 g	glass	62,25
3816.3	50 g	glass	244,60
3816.2	100 g	glass	439,70



Indigo carmine (C.I. 73015)

for microscopy

Indicator pH 11.5-13.0

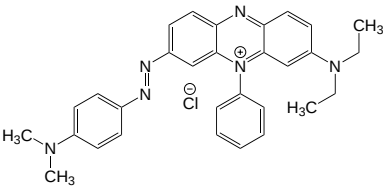
Dissolve 0.05 g in 100 ml of water

$C_{16}H_8N_2Na_2O_8S_2$ · M 466,36 g/mol

WGK 1

Warning H317

Art. No.	Pack Qty.	Pack.	€
5156.1	10 g	glass	21,40
5156.2	25 g	glass	33,25
5156.3	100 g	glass	80,55



Janus green B (C.I. 11050)

for microscopy

Vital dye for staining of leucocytes and for visualising mitochondria. Besides Janus green is used as counter stain during the modified Ziehl-Neelsen staining.

$C_{30}H_{31}ClN_6$ · M 511,07 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
7697.1	5 g	glass	36,05
7697.2	25 g	glass	94,10
7697.3	100 g	glass	342,95

Jenner Stain

for microscopy

Mixture of eosin, methylene blue, Azure A, B and C

Methylene blue eosinate (Romanowsky dye mixture) for staining blood smears, bone marrow smears et al. acc. to Jenner.

Stock solution: 1 g dye in 400 ml methanol. For use dilute 1:1 with destilled water

WGK 1

Art. No.	Pack Qty.	Pack.	€
7698.1	5 g	glass	18,85
7698.2	25 g	glass	33,25
7698.3	100 g	glass	80,55

Leishman stain

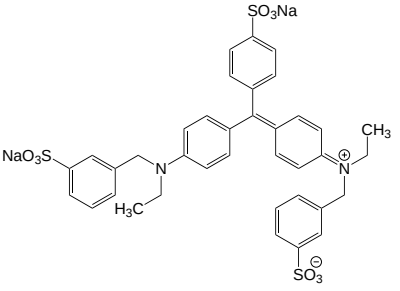
for microscopy

Mixture of methylen blue, Azure A, B and C

Eosin methylene blue mixture (Romanowsky dye) for staining blood smears, bone marrow smears et al. acc. to Leishman.

WGK 1

Art. No.	Pack Qty.	Pack.	€
7702.1	5 g	glass	18,85
7702.2	25 g	glass	33,25
7702.3	100 g	glass	80,55



Light green SF (C.I. 42095)

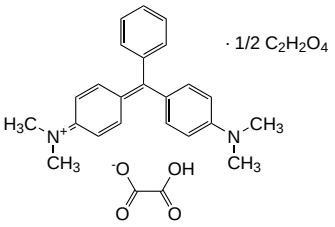
for microscopy

Water-soluble dye for visualising connective tissue during Masson-Goldner trichrome staining (ingredient of Goldner's stain III, Art. No. 3473).

$C_{37}H_{34}N_2Na_2O_9S_3$ · M 792,86 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
7706.1	5 g	glass	27,45
7706.2	25 g	glass	66,15
7706.3	100 g	glass	224,70



Malachite green oxalate (C.I. 42000)

for microscopy

Indicator pH 0.0-2.0, for protein analysis

Water soluble triphenylmethane dye; in botany used for staining bacteria and fungal infected tissues and for detection of spores.

Dissolve 0.1 g in 100 ml of water

$C_{52}H_{54}N_4O_{12}$ · M 927,02 g/mol

UN no. 2811 · ADR 6.1 III · WGK 3

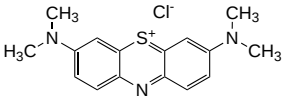
Danger H301-H318-H361d-H410

Art. No.	Pack Qty.	Pack.	€
5895.2	25 g	glass	21,00
5895.1	100 g	glass	42,90
5895.3	250 g	glass	63,35

Spore Staining acc. to Wirtz

Boil the heat fixed smear with malachite green, Art. No. 5895, (5 % solution in water) for 20 sec and allow to act for at least 30 sec. Rinse in running tap water, counterstain with safranin O, Art. No. T129, (0.5 % solution in water) for 30 sec, rinse again and dry.

Result: Spores green, other bacteria parts red



Methylene blue (C.I. 52015)

pure

For microscopy and staining of nucleic acids in polyacrylamide gels.

Watersoluble nuclear dye, does not intercalate between base pair stacks of DNA. Especially used for staining of blood cells.

Application note:

Staining of nucleic acids in PAA

Nucleic acids are visible as blue bands.

Detection limit: 20 ng/band.

- Use a 0.2 % solution of methylene blue for staining
- Stain for 20 min.
- Wash for 15 min. in distilled water

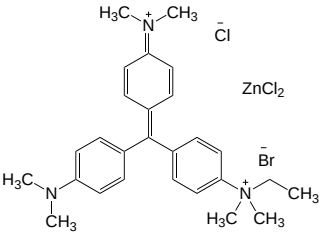
Dissolve 0.1–0.5 g in 100 ml of water

$C_{16}H_{18}ClN_3S$ · M 319,9 g/mol

WGK 1

Warning H302

Art. No.	Pack Qty.	Pack.	€
A514.1	10 g	glass	23,55
A514.2	50 g	glass	62,25
A514.3	100 g	glass	107,40



Methyl green (C. I. 42590)

for microscopy

Indicator pH 0.1-2.3

Acid nitroso dye, staining reagent for visualising nuclei, water soluble (1 %).

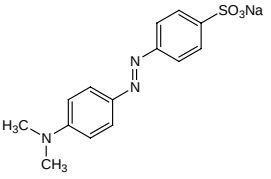
Dissolve 0.1 g in 100 ml of water

$C_{27}H_{35}Cl_2N_3 \cdot ZnCl_2$ · M 608,78 g/mol

UN no. 1759 · ADR 8 II · WGK 2

Danger H314-H351-H411

Art. No.	Pack Qty.	Pack.	€
5159.1	5 g	glass	28,50
5159.2	10 g	glass	46,15
5159.3	25 g	glass	92,35



Methyl orange (C.I. 13025)

ACS, for microscopy

Indicator pH 3.2-4.4

Azo dye, low soluble in water (5 g/l).

Ingredient of trichrom stains used for detection of connective tissue.

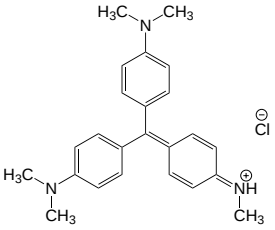
Dissolve 0.04 g in 100 ml of ethanol (20 %) or 0.4 g in 100 ml of water

$C_{14}H_{14}N_3NaO_3S$ · M 327,4 g/mol

UN no. 3143 · ADR 6.1 III · WGK 1

Danger H301

Art. No.	Pack Qty.	Pack.	€
T118.1	50 g	glass	34,30
T118.2	100 g	glass	50,45
T118.3	250 g	glass	77,95



Methyl violet 2B (C.I. 42535)

for microscopy

Water-soluble dye (30 g/l), closely related to crystal violet, used e.g. for fibrin staining acc. to Weigert.

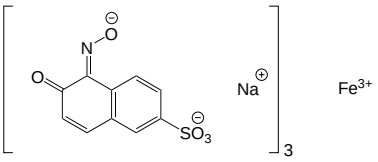
Dissolve 0.1 g in 100 ml of water or ethanol (96 %)

$C_{24}H_{28}N_3Cl$ · M 393,96 g/mol

UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H318-H351-H410

Art. No.	Pack Qty.	Pack.	€
7715.1	5 g	glass	18,85
7715.2	25 g	glass	33,25
7715.3	100 g	glass	80,55



Naphthol green B (C.I. 10020)

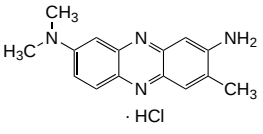
for microscopy

Acid nitroso dye, soluble in water (1 %).

$(C_{10}H_5NNaO_5S)_3Fe$ · M 878,47 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
5161.1	25 g	glass	23,55
5161.2	100 g	glass	64,00



Neutral red (C.I. 50040)

p.a.

Indicator pH 6,8-8,0

Water-soluble vital staining dye.

Dissolve 0.3 g in 100 ml of ethanol (70 %)

$C_{15}H_{17}ClN_4$ · M 288,78 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
T122.2	1 g	glass	30,00
T122.1	10 g	glass	90,85
T122.3	25 g	glass	181,70

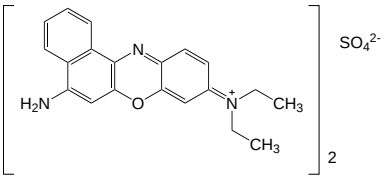
Nigrosin, water soluble (C.I. 50420)

for microscopy

Water-soluble dye (10 g/l), is used in bacteriology.

WGK 1

Art. No.	Pack Qty.	Pack.	€
7718.1	25 g	glass	18,85
7718.2	100 g	glass	46,80



Nile blue A (C.I. 51180)

~80 %

Redox indicator

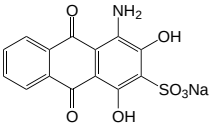
Lipid staining dye, soluble in water (acidulated with H_2SO_4). It stains neutral lipids pink and acid lipids blue.

Dissolve 0.1 g in 100 ml of water

$C_{40}H_{40}N_6O_6S$ · M 732,84 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
4377.2	5 g	glass	22,50
4377.1	10 g	glass	36,05
4377.3	25 g	glass	69,80



Nuclear fast red (C.I. 60760)

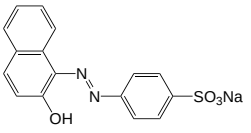
for microscopy

Nucleic acid dye, ingredient of the nuclear fast red aluminium sulphate solution (Art. No. N069).

$C_{14}H_8NNaO_7S$ · M 357,28 g/mol

WGK 3

Art. No.	Pack Qty.	Pack.	€
7728.1	1 g	glass	33,25
7728.2	5 g	glass	101,60
7728.3	10 g	glass	181,70



Orange II sodium salt (C.I. 15510)

for microscopy

Indicator pH 7.4-8.6 and pH 10.2-11.8

Water-soluble dye, is used in cytology, e.g. as ingredient of Papanicolaou solution 2b.

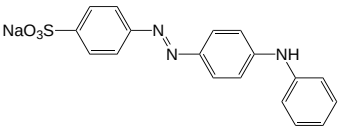
Dissolve 0.1 g in 100 ml of water

$C_{16}H_{11}N_2NaO_4S$ · M 350,33 g/mol

WGK 2

Danger H372-H412

Art. No.	Pack Qty.	Pack.	€
7729.1	5 g	glass	18,85
7729.2	25 g	glass	33,25
7729.3	100 g	glass	80,55



Orange IV sodium salt (C.I. 13080)

for microscopy

Indicator pH 1.2-2.7

Dissolve 0.1 g in 100 ml of water

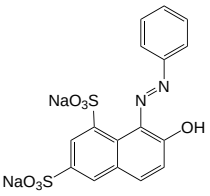
$C_{18}H_{14}N_3NaO_3S$ · M 375,39 g/mol

WGK 1

Warning H315-H319-H335

Art. No.	Pack Qty.	Pack.	€
7731.1	5 g	glass	20,35
7731.2	25 g	glass	36,05
7731.3	100 g	glass	84,40





Orange G (C.I. 16230)

for microscopy and electrophoresis

Azo dye, soluble in ethanol. Ingredient of Papanicolaou solutions used for staining of cytological material.

$C_{16}H_{10}N_2Na_2O_7S_2$ · M 452,37 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
0318.1	10 g	glass	17,75
0318.2	25 g	glass	26,35
0318.3	100 g	glass	60,10

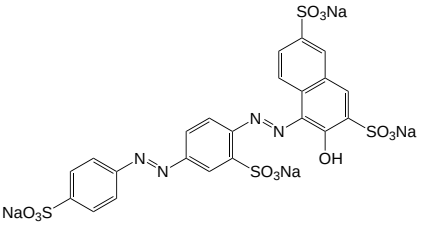
Orcein

for microscopy

Organic plant pigment, extracted from lichen. Soluble in alcohol (red) or diluted alkaline solutions (blue). Used for detection of elastic fibres.

WGK 1

Art. No.	Pack Qty.	Pack.	€
0320.2	1 g	glass	26,35
0320.3	10 g	glass	87,00
0320.1	25 g	glass	170,95



Ponceau S (C.I. 27195)

for histology and electrophoresis

For reversible protein staining on membranes and for microscopy.

Directions for use

Staining of NC membranes: 0.2-2 % Ponceau S in 3 % trichloroacetic acid (Art. No. 8789.1) + 3 % sulphosalicylic acid (Art. No. 4119.1), incubate for 1-5 mins. at room temperature. Enhance contrast by incubation in water acidified by a few drops acetic acid.

Staining of PVDF membranes: 0.1–1 % Ponceau S in 10 % acetic acid (Art. No. 6755.1), incubate 1-5 mins. at room temperature. Ponceau S stained bands on PVDF only appear bright and distinct after drying (not recommended if Western blotting shall be performed).

Prior to Western blot analysis decolourise in PBS (Art. No. 1058.1) or TBS (Art. No. 1060) for 10-20 mins. at room temperature.

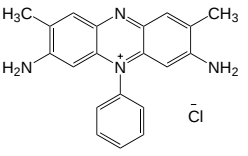
Suitable for NC and PVDF membranes as well as prior to Western analyses.

$C_{22}H_{12}N_4Na_4O_{13}S_4$ · M 760,56 g/mol

WGK 1

Warning H315-H319-H335

Art. No.	Pack Qty.	Pack.	€
5938.2	10 g	glass	32,15
5938.1	25 g	glass	65,50



Safranin O (C.I. 50240)

for microscopy

Basic azin dye, soluble in water and ethanol, well adapted to visualise chromosomes. Safranin is used for bacteria staining, e.g. during Gram-staining or spore staining acc. to Wirtz.

Dissolve 0.05 g in 100 ml of water

$C_{20}H_{19}ClN_4$ · M 350,85 g/mol

WGK 1

Warning H315-H319

Art. No.	Pack Qty.	Pack.	€
T129.1	10 g	glass	53,65

► Papanicolaou solutions see page 401



Silver nitrate

≥99 %, Ph. Eur., extra pure

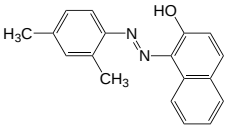
In histology silver nitrate is used for silver impregnation. It results a fine precipitation of silver visualising different structures in specimens, e.g. reticular fibres of connective tissue, fine neurocytes.

$AgNO_3$ · M 169,88 g/mol

UN no. 1493 · ADR 5.1 II · WGK 3

Danger H272-H290-H314-H410

Art. No.	Pack Qty.	Pack.	€
9370.4	10 g	plastic	40,75
9370.1	50 g	plastic	140,30
9370.9	100 g	plastic	268,75
9370.2	250 g	plastic	585,90
9370.3	1 kg	plastic	2.096,25
Original pack 6 x 1 kg			1.991,44/1 kg



Sudan II (C. I. 12140)

for microscopy

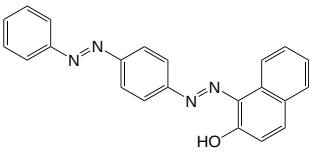
Orange, lipo-soluble azo dye, used for detection of lipids in tissue sections.

$C_{18}H_{16}N_2O$ · M 276,34 g/mol

WGK 1

Warning H315-H319-H335

Art. No.	Pack Qty.	Pack.	€
7732.1	5 g	glass	18,85
7732.2	25 g	glass	33,25
7732.3	100 g	glass	80,55



Sudan III (C. I. 26100)

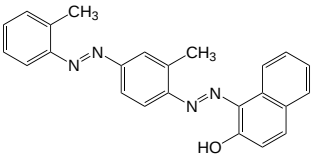
for microscopy

Fat-soluble dye used for staining of lipoids and lipids.

$C_{22}H_{16}N_4O$ · M 352,39 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
4711.2	50 g	glass	31,75
4711.1	100 g	plastic	59,70



Sudan IV (C. I. 26105)

for microscopy

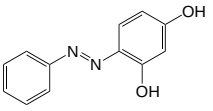
Fat-soluble azo dye, used for staining of neutral triglycerides and lipids.

$C_{24}H_{20}N_4O$ · M 380,45 g/mol

WGK 1

Warning H317

Art. No.	Pack Qty.	Pack.	€
0327.1	25 g	glass	28,95
0327.2	50 g	glass	43,55



Sudan orange G (C. I. 11920)

for microscopy

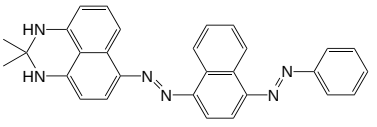
Lipo-soluble azo dye for staining of triglycerides in tissue sections.

$C_{12}H_{10}N_2O_2$ · M 214,22 g/mol

WGK 1

Warning H315-H319-H335

Art. No.	Pack Qty.	Pack.	€
7733.1	5 g	glass	18,85
7733.2	25 g	glass	33,25
7733.3	100 g	glass	80,55



Sudan black B (C.I. 26150)

for microscopy

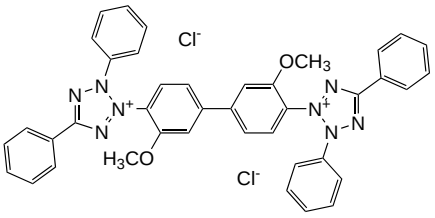
Fat-soluble azo dye, used for detection of neutral triglycerides and lipids.

$C_{29}H_{24}N_6$ · M 456,55 g/mol

WGK 1

Warning H341

Art. No.	Pack Qty.	Pack.	€
0292.1	10 g	glass	29,60
0292.2	25 g	glass	46,80
0292.3	50 g	glass	71,50



Tetrazolium blue chloride

≥95 %, for biochemistry

For vital staining of cells.

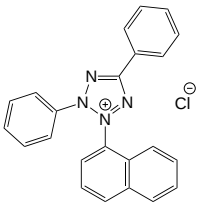
Application of tetrazolium blue chloride: histochemical detection of succinate dehydrogenase and NAD-linked enzymes, vital staining for detection of living cells through the reduction of tetrazolium to formazan, biochemical assays of glucose oxidase, analysis of various corticosteroids.

$C_{40}H_{32}Cl_2N_8O_2$ · M 727,64 g/mol

WGK 3

Danger H350

Art. No.	Pack Qty.	Pack.	€
4176.1	1 g	glass	70,45
4176.2	5 g	glass	276,85



Tetrazolium violet

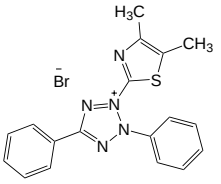
for microscopy

Redox indicator for detection of living cells.

$C_{23}H_{17}ClN_4$ · M 384,86 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
7736.1	1 g	glass	64,40
7736.2	5 g	glass	274,15
7736.3	10 g	glass	525,70



Thiazolyl blue

≥98 %, for biochemistry

MTT-reagent, used for detection of apoptosis.

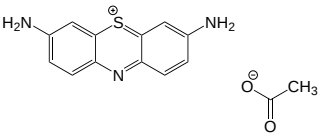
Stock solution: 5 mg/ml in PBS buffer solution, sterile filtrated (pH <5)
Stability of stock solution: approx. 1 month at +4 °C, protected from light
Working concentration: 1 mg/ml

$C_{18}H_{16}BrN_5S$ · M 414,33 g/mol

WGK 1

Warning H315-H319-H335-H341

Art. No.	Pack Qty.	Pack.	€
4022.1	1 g	glass	42,90
4022.3	5 g	glass	166,65
4022.2	10 g	glass	299,95
4022.4	25 g	glass	618,15



Thionine (acetate) (C. I. 52000)

for microscopy

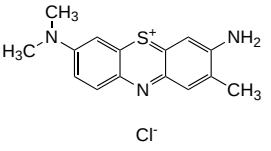
Nuclear dye

Blue nuclear dye, used e.g. for Nissl staining for detection of neutrocytes.

$C_{14}H_{13}N_3O_2S$ · M 287,34 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
9937.1	5 g	plastic	112,90
9937.2	10 g	plastic	209,65



Toluidine blue O (C.I. 52040)

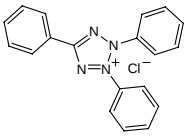
for microscopy

Basic water-soluble nuclear dye, used in solutions of 0.03–0.1 %. In histology e.g. used for staining of neurohistological specimens, in botany for detection of plant cells (solutions of 0.03–0.1 %).

$C_{15}H_{16}Cl\,N_3S$ · M 305,83 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
0300.1	5 g	glass	24,20
0300.2	10 g	glass	37,10
0300.3	25 g	glass	70,85
0300.4	100 g	glass	203,20



2,3,5-Triphenyltetrazolium chloride

≥98 %, p.a.

For microbiology and histochemistry. For vital staining of cells.

Used in biochemistry to measure the activity of dehydrogenases and in vital staining to detect living cells through the reduction of tetrazolium to formazan via the dehydrogenases of the respiratory chain. Triphenyltetrazolium chloride can be used to measure the bacterial content of liquids in food analysis and/or to determine seed vitality. In microbiology it is used to distinguish between coliform and noncoliform bacteria, whereas in thin layer chromatography it is ideal as a spray reagent on reducing sugar, corticosteroids and other reducing agents.

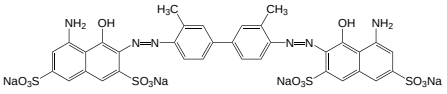
$C_{19}H_{15}ClN_4$ · M 334,79 g/mol

Storage temperature: +4 °C

WGK 1

Warning H315-H319-H335

Art. No.	Pack Qty.	Pack.	€
KK13.1	10 g	glass	69,80
KK13.2	50 g	glass	284,90



Trypan blue (C.I. 23850)

for microscopy

For vital and histological staining.

Trypan blue is a protein staining azo dye used for vital staining (vitality test of cells), based on its selective ability to pass membranes of damaged cells. Used for polychromatic staining, e.g. to visualise collagen fibres in connective tissue.

Stock solution: 0.5 % in PBS or in NaCl solution (0.9 %).
Stabile for several months when sterile filtrated and stored at room temperature.Working concentration: 0.1–0.2 % in PBS
Note: Always keep bottles tightly closed.

$C_{34}H_{24}N_6Na_4O_{14}S_4$ · M 960,82 g/mol

WGK 3

Danger H350

Art. No.	Pack Qty.	Pack.	€
CN76.1	10 g	glass	31,75
CN76.2	25 g	glass	56,45
CN76.3	50 g	glass	99,90

ready-to-use

Trypan blue solution 0.4 %

0,4 %, for microscopy

For detection of dead cells during vital staining.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Danger H350

Art. No.	Pack Qty.	Pack.	€
1680.1	100 ml	plastic	39,25

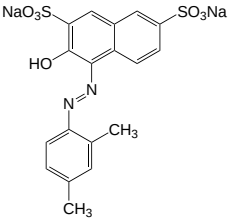
Wright's stain

for microscopy

Eosin methylene blue mixture (Romanowsky dye) for staining blood smears, bone marrow smears et al. acc. to Wright. Ingredient of Wright's eosin methylene blue solution (Art. No. CN05).

WGK 1

Art. No.	Pack Qty.	Pack.	€
7744.1	5 g	glass	20,35
7744.2	25 g	glass	36,05
7744.3	100 g	glass	84,40



Xylidine Ponceau 2R (C.I. 16150)

for microscopy

Water-soluble dye, used e.g. for Masson-Goldner trichrome staining (ingredient of Goldner's stain I, Art. No. 3469).

$C_{18}H_{14}N_2Na_2O_7S_2$ · M 480,40 g/mol

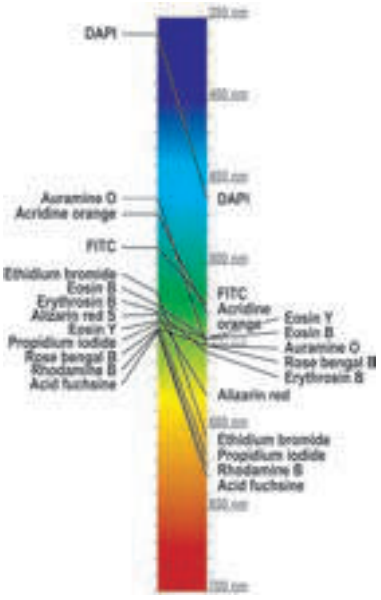
WGK 1

Warning H351

Art. No.	Pack Qty.	Pack.	€
7747.1	5 g	glass	18,85
7747.2	25 g	glass	33,25
7747.3	100 g	glass	80,55

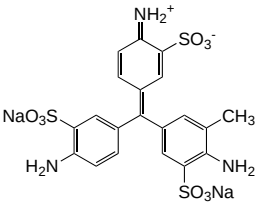
► For more details on specifications, see chapter Chemicals A–Z

Fluorescent Dyes



Fluorescent dyes are suitable for various applications in microscopy, e. g. in order to tag antibodies used in immunohistochemical assays or for counter-staining of nuclei.

Fluorescent dyes are sensitive to light, therefore they are **to be stored in the dark**.



Acid fuchsin (C. I. 42685)

for microscopy

Used as plasma stain in 0.5-1.0 % watery solution.

Excitation maximum: 540 nm

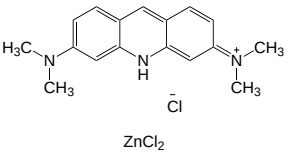
Emission maximum: 630 nm

$C_{20}H_{17}N_3Na_2O_9S_3$ · M 585,54 g/mol

UN no. 3259 · ADR 8 III · WGK 1

Danger H314

Art. No.	Pack Qty.	Pack.	€
T128.1	10 g	glass	49,35



$ZnCl_2$

Acridine orange (C.I. 46005)

for microscopy

Fluorescence indicator

Soluble in water and ethanol.

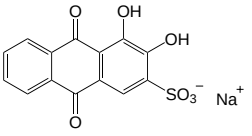
Fluorescent dye with DNA intercalating properties. Application range: Differentiation of dsDNA (green fluorescence) and ssDNA/RNA (red fluorescence), vitality test for determination of living cells. Excitation maximum: 470 nm. Emission maximum: 526 nm (green). Emission maximum: 650 nm (red)

$C_{17}H_{20}Cl_3N_3Zn$ · M 438,09 g/mol

WGK 1

Warning H341

Art. No.	Pack Qty.	Pack.	€
0249.1	10 g	glass	30,65
0249.2	25 g	glass	56,90



Alizarin red S (C.I. 58005)

pure

Indicator pH 4.3-6.3 and pH 9.4-12.0

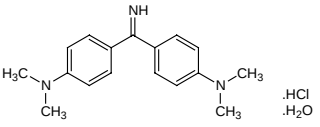
Dye for vital staining, e. g. staining of mineralized sites in bone tissue.

Dissolve 0.1-1 g in 100 ml ethanol (96 %)

$C_{14}H_7NaO_7S$ · M 342,26 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
0348.1	10 g	glass	25,30
0348.2	25 g	glass	38,60
0348.3	100 g	glass	123,10



Auramine O (C.I. 41000)

for microscopy

Used for detection of acid-fast bacteria (e.g. Mycobacteria) in histological sections.

Dissolve 1 % in ethanol (95 %)

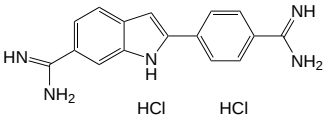
$C_{17}H_{22}ClN_3$ · M 303,84 g/mol

UN no. 3077 · ADR 9 III · WGK 3

Warning H302-H319-H351-H411

Art. No.	Pack Qty.	Pack.	€
0319.1	25 g	glass	20,35
0319.2	50 g	glass	36,05





DAPI

≥98 %, p.a.

For DNA-staining.

Fluorescent dye with specific DNA-binding capacity. For detection of mycoplasms in cell culture, for quantitative DNA measurement, and for chromosome counter staining. Store in the dark!

Working concentration

Nucleus staining in living cells: approx. 1 µg/ml in medium
Nucleus staining in fixed cells or fixed tissue sections: approx. 0.2 µg/ml in PBS, TBS or another incubation buffer
Detection of mycoplasms: 1 µg/ml in methanol
Excitation maximum: 359 nm
Emission maximum: 461 nm

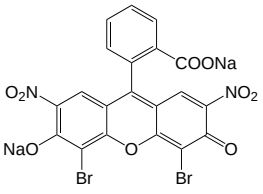
Stock solution: 1 to 10 mg/ml in sterile water.
Store in the dark! Stabile for one year when solubilised, stored at –20 °C, and protected from light.

$C_{16}H_{17}Cl_2N_5$ · M 350,3 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
6335.1	25 mg	glass	112,90
6335.2	100 mg	glass	327,90



Eosin B (C.I. 45400)

for microscopy

Like eosin Y used as a plasma stain, e.g. for hematoxylin-eosin (H&E) staining. Soluble in water and ethanol.

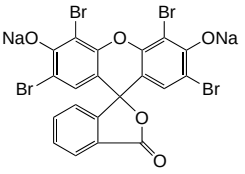
Dissolve 0.5–2.0 % in water or ethanol

$C_{20}H_6Br_2N_2Na_2O_9$ · M 624,09 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
0306.1	10 g	glass	21,40
0306.2	25 g	glass	35,40
0306.3	50 g	glass	55,80

► Accessories for Staining see chapter Labware – Laboratory Glass, Vessels & Consumables / Microbiology, Histology & Instruments



Eosin Y (C.I. 45380)

for microscopy

Eosin Y is a slightly acid fluorescent dye, which stains cytoplasm red. It is soluble in alcohol and water (usual concentrations: 0.5–2.0 %). Manifold use, e.g. for hematoxylin-eosin (H&E) staining, spore staining etc.

Excitation maximum: 534 nm
Emission maximum: 544 nm

Dissolve 0.5–2.0 % in water or ethanol

$C_{20}H_6Br_4Na_2O_5$ · M 691,86 g/mol

WGK 1

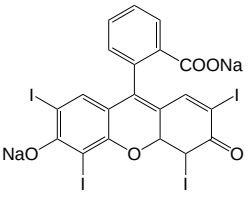
Warning H317-H319

Art. No.	Pack Qty.	Pack.	€
7089.1	50 g	glass	45,05
7089.2	100 g	glass	77,95
7089.3	500 g	glass	252,65
Original pack 6 x 500 g			240,02/500 g

Spore Staining acc. to Rakette

Boil the heat fixed smear with malachite green, Art. No. 5895, (5 % solution in water) for 20 sec and allow to act for at least 30 sec. Rinse in running tap water, counterstain with Eosin Y, Art. No. 7089, (2.5 % solution in water) for 1 min, rinse again and dry.
Result: Spores green, other bacteria parts red.

Acc. to Dieter Gerlach: *Botan. Mikrotechnik*, 2. Auflage, Thieme (1977).



Erythrosine B (C.I. 45430)

for microscopy

Water-soluble plasma stain (0.5-2.0 %), used like eosin Y, e.g. for hematoxylin-eosin (H&E) staining.

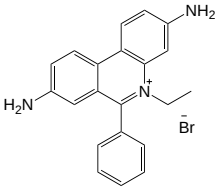
Dissolve 0.5-2 g in 100 ml water

$C_{20}H_6I_4Na_2O_5$ · M 879,84 g/mol

WGK 1

Warning H302

Art. No.	Pack Qty.	Pack.	€
0331.1	25 g	plastic	41,95



Ethidium bromide

≥98 %

For DNA-staining.

Fluorescent dye with specific DNA binding capacity. Intercalates between base pair stacks of dsDNA, causing weaker staining of ssDNA or RNA. For staining of DNA/RNA in gels and for counterstaining of nuclei in histological and cytological analyses.

Wavelength

Excitation maximum: 518 nm
Emission maximum: 605 nm

Store in the dark!

$C_{21}H_{20}BrN_3$ · M 394,33 g/mol

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 2811 · ADR 6.1 I · WGK 1

Danger H302-H330-H341

Art. No.	Pack Qty.	Pack.	€
7870.1	1 g	glass	30,00
7870.2	5 g	glass	119,90

ready-to-use

Ethidium bromide solution 0.5 % in dropper bottle

5 mg/ml in water, ready-to-use

For staining of DNA/RNA after electrophoresis and for counterstaining of nuclei in histology and cytology.

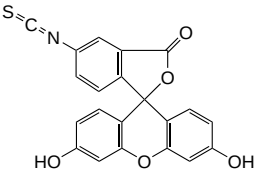
Directions for use

In order to prepare a staining solution add 5 drops of ethidium bromide solution to 500 ml water, buffer, or electrophoresis running buffer, respectively.
Nuclei / nucleic acids are stained red.

Staining solution: add 5 drops of ethidium bromide solution to 500 ml buffer.
Store solution in the dark!

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
HP46.1	15 ml	1 x 15 ml	plastic	38,60
HP46.2	75 ml	5 x 15 ml	plastic	134,40



Fluorescein isothiocyanate Isomer I

≥90 %

For the study of antigen and antibody reactions.

Used for labeling of different biomolecules in immunohistology and immunocytology. Excitation maximum: 490 nm. Emission maximum: 525 nm

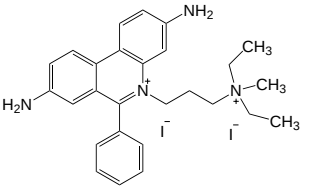
$C_{21}H_{11}NO_5S$ · M 389,39 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
3745.2	100 mg	glass	67,20
3745.1	250 mg	glass	139,25



Propidiumiodide

≥95 %, p.a.

For fluorescence staining of DNA.

Fluorescent dye with specific DNA-binding capacity. Like ethidium bromide it intercalates between base pair stacks of DNA. Used for detection of mycoplasms in cell cultures, for quantitative DNA measurement and for chromosome counter staining. In Annexin staining it is used for counter staining of the nuclei (detection of apoptotic cells).

Application: Living cells: approx. 1–5 mg/ml in medium. Fixed cells: approx. 1–50 µg/ml in PBS. Excitation maximum: 535 nm. Emission maximum: 617 nm. Note: Store solution and powder at +4 °C protected from light (stabile for approx. 6 months).

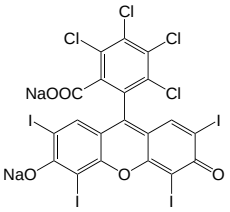
$C_{27}H_{34}I_2N_4$ · M 668,4 g/mol

Storage temperature: +4 °C

WGK 1

Warning H315-H319-H335-H341

Art. No.	Pack Qty.	Pack.	€
CN74.1	25 mg	glass	92,35
CN74.2	50 mg	glass	158,60
CN74.3	100 mg	glass	281,15



Rose Bengale B (C.I. 45440)

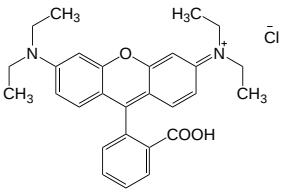
for microscopy

Water-soluble fluorescent dye, e.g. for use in bacteriological assays. Solubility: 1 % in water. Excitation maximum: 540 nm, Emission maximum: 550–600 nm

$C_{20}H_2Cl_4I_4Na_2O_5$ · M 1017,65 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
3162.1	50 g	plastic	149,45



Rhodamine B (C.I. 45170)

for microscopy

Water-soluble fluorescent dye

Water-soluble fluorescent dye for detection of acid-fast bacteria (e.g. Mycobacteria) in histological sections, usually in combination with auramine O.
Excitation maximum: 540 nm
Emission maximum: 625 nm

$C_{28}H_{31}ClN_2O_3$ · M 479,02 g/mol

WGK 1

Danger H318-H412

Art. No.	Pack Qty.	Pack.	€
T130.1	25 g	glass	42,90
T130.7	50 g	plastic	71,95

Lipid Staining Dyes

Product name	General application	Detection	Art. No.	Pack Qty.	€
Nile blue A (C.I. 51180)	Redox indicator	neutral lipids pink, acid lipids blue	**4377.2**	5 g	22,50
			4377.1	10 g	36,05
			4377.3	25 g	69,80
Sudan III (C. I. 26100)		neutral triglycerides red	**4711.2**	50 g	31,75
			4711.1	100 g	59,70
Sudan IV (C. I. 26105)		neutral triglycerides red	**0327.1**	25 g	28,95
			0327.2	50 g	43,55
Sudan black B (C.I. 26150)		neutral triglycerides dark brown	**0292.1**	10 g	29,60
			0292.2	25 g	46,80
			0292.3	50 g	71,50

For additional product data and safety information, see chapter Chemicals A–Z.

Dyes for Vital Staining

Usual stock solution: 1 % dye in distilled water. Dilute solution as required prior to use.

Product name	Use	Art. No.	Pack Qty.	€
Acridine orange (C.I. 46005)	vitality test	**0249.1**	10 g	30,65
		0249.2	25 g	56,90
Alizarin red S (C.I. 58005)	detection of mineralized sites in bone tissue	**0348.1**	10 g	25,30
		0348.2	25 g	38,60
		0348.3	100 g	123,10
Bismarck brown R (C.I. 21010)	vitality test	**0316.1**	25 g	24,65
Brilliant cresyl blue (C.I. 51010)	supravital staining	**5162.1**	5 g	30,65
		5162.2	10 g	47,85
Bromophenol blue	vitality test of spermatozoa	**T116.1**	5 g	27,45
		T116.2	10 g	39,70
		T116.3	25 g	63,35
Eosin Y (C.I. 45380)		**7089.1**	50 g	45,05
		7089.2	100 g	77,95
		7089.3	500 g	252,65
Erythrosine B (C.I. 45430)	vitality test	**0331.1**	25 g	41,95
Ethidium bromide	vitality test	**7870.1**	1 g	30,00
		7870.2	5 g	119,90
Evan's blue (C.I. 23860)	intravital staining	**7684.1**	5 g	35,40
		7684.2	25 g	73,00
		7684.3	100 g	235,45
Janus green B (C.I. 11050)	supravital staining	**7697.1**	5 g	36,05
		7697.2	25 g	94,10
		7697.3	100 g	342,95
Methylene blue (C.I. 52015)	vitality test	**A514.1**	10 g	23,55
		A514.2	50 g	62,25
		A514.3	100 g	107,40
Neutral red (C.I. 50040)	vitality test	**T122.2**	1 g	30,00
		T122.1	10 g	90,85
		T122.3	25 g	181,70
Nile blue A (C.I. 51180)	vitality test	**4377.2**	5 g	22,50
		4377.1	10 g	36,05
		4377.3	25 g	69,80
Propidiumiodide	vitality test	**CN74.1**	25 mg	92,35
		CN74.2	50 mg	158,60
		CN74.3	100 mg	281,15
Tetrazolium blue chloride	vitality test	**4176.1**	1 g	70,45
		4176.2	5 g	276,85
Thiazolyl blue	vitality test	**4022.1**	1 g	42,90
		4022.3	5 g	166,65
		4022.2	10 g	299,95
		4022.4	25 g	618,15
Toluidine blue O (C.I. 52040)	intravital staining	**0300.1**	5 g	24,20
		0300.2	10 g	37,10
		0300.3	25 g	70,85
		0300.4	100 g	203,20
2,3,5-Triphenyltetrazolium chloride	vitality test	**KK13.1**	10 g	69,80
		KK13.2	50 g	284,90
Trypan blue (C.I. 23850)	vitality test	**CN76.1**	10 g	31,75
		CN76.2	25 g	56,45
		CN76.3	50 g	99,90

For additional product data and safety information, see chapter Chemicals A–Z.

Mounting Media

Hydrophobic Mounting Media

The classical mounting media for producing durable sections in microscopy.
Carl ROTH offers **synthetic mounting media** like the proved ROTI®Histokitt and **natural balsams** like the classic Canada balsam.



ready-to-use

ROTI®Histokitt

ready-to-use, for histology

Synthetic mounting medium. Compatible with ROTI®Histol (Art. No. 6640).

- Quick drying
- Results in permanent specimens with neutral pH
- Protects against bleaching
- Not suitable for aqueous samples!

UN no. 1866 · ADR 3 III · WGK 2

Danger H225-H315-H336-H361d-H373

Art. No.	Pack Qty.	Pack.	€
6638.1	100 ml	glass	17,10
6638.2	500 ml	glass	45,70

ready-to-use

ROTI®Histokitt II

ready-to-use, for histology

Synthetic mounting medium. Compatible with xylene (e.g. Art. No. 9713).

- Quick drying
- Results in permanent specimens with neutral pH
- Protects against bleaching
- Not suitable for aqueous samples!
- Adapted for embedding machines!
- Typical refractive index: 1.4930-1.4960

UN no. 1307 · ADR 3 III · WGK 2

Warning H226-H312-H315-H319-H335-H373-EUH208

Art. No.	Pack Qty.	Pack.	€
T160.1	100 ml	glass	16,70
T160.2	500 ml	glass	46,15

► Immersion oil see page 425



ready-to-use

ROTI®Mount

ready-to-use, for histology

Synthetic mounting medium. Compatible with ROTICLEAR® (Art. No. A538) and n-Butyl acetate (Art. No. P036).

- **Free from xylene and toluene**
- Quick drying
- Results in permanent specimens with neutral pH
- Protects against bleaching
- Not suitable for aqueous samples!

For long–term storage we recommend a storage temperature of 4 °C in the dark. For use the product should have room temperature to ensure an ideal consistence.

UN no. 1993 · ADR 3 II · WGK 3

Danger H225-H304-H372-H411-EUH066

Art. No.	Pack Qty.	Pack.	€
HP68.1	100 ml	glass	26,80
HP68.2	500 ml	glass	87,65



ready-to-use

Canada balsam

ready-to-use, natural, for microscopy

UN no. 1993 · ADR 3 III · WGK 2

Warning H226

Art. No.	Pack Qty.	Pack.	€
8016.1	25 ml	glass	37,55
8016.2	100 ml	glass	106,45



ready-to-use

Euparal

ready-to-use, for microscopy

Mounting agent, alternative to Canada balsam

- Alternative to Canada Balsam
- Embedding already from alcohol 80 %
- Diluent and solvent is Euparal Essence
- **Do not use organic solvents!**
- Refractive index for liquid Euparal: 1.483
- Refractive index for completely solidified Euparal: 1.535

Euparal is an alternative to Canada balsam for mounting microscopic specimens and is used in the same way. Unlike balsam, which is very sensitive to water and can only be used after specimens have been dehydrated with high-percentage alcohol and xylene, mounting in Euparal with 80 % alcohol is possible without any cloudiness occuring. Euparal solidifies slower than Canada balsam. The duration of the solidifying process depends on the mounted object and temperature. Euparal solidifies faster when warm.

As it is a natural resin and there is no polymerisation, permanent Euparal preparations can be dissolved later under gentle heating with Euparal essence (Art. No. A145).
Euparal contains Sandarac resin, camphor and salol. Paraldehyde and eucalyptol serve as a solvent.

UN no. 1993 · ADR 3 III · WGK 2

Danger H226-H315-H317-H318-H371

Art. No.	Pack Qty.	Pack.	€
7356.1	100 g	glass	64,40
7356.2	500 g	glass	267,70
Original pack 6 x 500 g			254,32/500 g

ready-to-use

Euparal essence

ready-to-use, for microscopy

Diluent and solvent for Euparal (Art. No. 7356).

UN no. 1993 · ADR 3 III · WGK 2

Danger H226-H315-H318-H335-H371

Art. No.	Pack Qty.	Pack.	€
A145.1	100 ml	glass	55,40

Hydrophilic Mounting Media

These mounting media allow embedding without previous dehydration. Thus shrinking of specimens caused by organic solvents can be avoided. Additionally the hydrophilic milieu prevents washing out of cell ingredients like lipids, an important requirement for use in histochemistry.



ready-to-use

ROTI®Mount Aqua

ready-to-use, for microscopy

Aqueous mounting medium

ROTI®Mount Aqua is an aqueous solution of polyacrylate resin used for mounting of paraffin sections and cryostat sections directly after staining. The solution is ready to use. Colours and tissue structures are preserved in an optimal way. For long-term preserving of fluorescent dyes we recommend ROTI®Mount FluorCare (Art. No. HP19).

Directions for use

Residues of staining solution are removed by rinsing with buffer or destilled water. Afterwards the specimens are mounted with ROTI®-Mount Aqua.

Notes on storage

Store at room temperataure, protected from light.

Store protected from light.

WGK 1

Art. No.	Pack Qty.	Pack.	€
2848.1	15 ml	dropp. bottle	26,35
2848.2	50 ml	glass	51,50





ready-to-use

ROTI®Mount FluorCare

ready-to-use, for fluorescence microscopy

Aqueous mounting medium with antifading effect for fluorescent dyes.

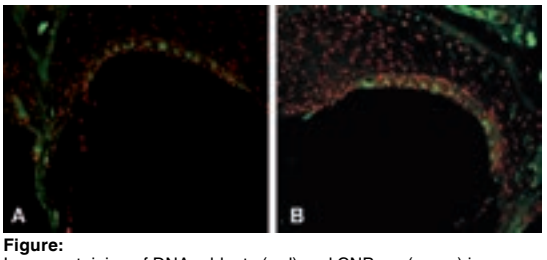


Figure:
Immunostaining of DNA adducts (red) and CNPase (green) in cryosections of the inner ear (*stria vascularis*) from mice
a) mounted in glycerol
b) mounted in ROTI®Mount FluorCare
With kind assistance of laboratory Dr. J. Thomale, DNA-Repair Group, Institute of Cell Biology, West German Cancer Centre Essen.

ROTI®Mount FluorCare has been developed especially for fluorescene microscopy and is compatible with all current fluorescent dyes. It is an aqueous mountant with an additional antifading reagent which reduces photobleaching drastically. Fluorescence will remain for many weeks. In contrast to other mounting media ROTI®Mount FluorCare does not show autofluorescence at any common wavelength.
ROTI®Mount FluorCare is also available with the dyes DAPI (HP20.1) and propidiumiodide (HP21.1) for simultaneous counter staining of nuclei.

Filled in dropper bottles.

Notes on storage

The solution should be stored at +4 °C, protected from light.

Store protected from light.

Storage temperature: +4 °C

WGK 1

Sensitive to light.

Art. No.	Pack Qty.	Pack.	€
HP19.1	15 ml	dropp. bottle	70,85

ready-to-use

ROTI®Mount FluorCare DAPI

ready-to-use, for fluorescence microscopy

Aqueous mounting medium with antifading effect for fluorescent dyes. Contains DAPI for counterstaining.

ROTI®Mount FluorCare DAPI is an aqueous mounting medium with antifading effect. Additional it contains ready-to-use DAPI allowing counterstaining of nuclei and mounting at the same time. DAPI has an excitation maximum at 359 nm and an emission maximum at 461 nm.
ROTI®Mount FluorCare is also available with the dye propidiumiodide (HP21.1) and without dye (HP19.1).

Notes on storage

The solution should be stored at +4 °C, protected from light.

Store protected from light.

Storage temperature: +4 °C

WGK 1

Sensitive to light.

Art. No.	Pack Qty.	Pack.	€
HP20.1	15 ml	dropp. bottle	87,00

ready-to-use

ROTI®Mount FluorCare PI

ready-to-use, for fluorescence microscopy

Aqueous mounting medium with antifading effect for fluorescent dyes. Contains propidiumiodide (PI) for counterstaining.

ROTI®Mount FluorCare PI is an aqueous mounting medium with antifading effect. Additional it contains ready-to-use propidiumiodide allowing counterstaining of nuclei and mounting at the same time. Propidiumiodide has an emission maximum of 535 nm and an emission maximum of 617 nm.
ROTI®Mount FluorCare is also available with the dye DAPI (Art. No. HP20.1) and without dye (Art. No. HP19.1).

Notes on storage

The solution should be stored at +4 °C, protected from light.

Store protected from light.

Storage temperature: +4 °C

WGK 1

Sensitive to light.

Art. No.	Pack Qty.	Pack.	€
HP21.1	15 ml	dropp. bottle	87,00



Mowiol® 4-88

granulated

Aqueous mounting medium in histology.

For durable preparations. Mowiol 4-88 is used as hydrophilic mounting medium, particularly for immune histochemical applications. Usually it is applied in combination with the antibleaching reagent DABCO (1.4-Diazabicyclo-(2.2.2)octane), Art. No. 0718, which conserves the colours and the fluorescence of durable samples.

$(-CH_2CHOH-)_n$ · M ~31,000 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
0713.1	50 g	plastic	14,95
0713.2	100 g	plastic	22,05





DABCO®

≥99 %

Anti–bleaching reagent in histology.

DABCO is an anti-bleaching reagent. It is combined with hydrophilic mounting media as Mowiol 4–88, Art. No. 0713, or glycerol in order to conserve the colours and the fluorescence of durable samples.

Directions for use

Solubility may change depending on the batch. If required stir solution constantly overnight at a temperature of 40–60 °C.

$C_6H_{12}N_2$ · M 112,18 g/mol

UN no. 1325 · ADR 4.1 II · WGK 1

Danger H228-H302-H315-H318

Solubility may change depending on the batch. If required stir solution constantly overnight at a temperature of 40–60 °C.

Art. No.	Pack Qty.	Pack.	€
0718.1	25 g	glass	25,70
0718.2	50 g	glass	45,05
0718.7	250 g	glass	127,95
0718.9	500 g	glass	220,40
Original pack 6 x 500 g			209,38/500 g



Kaiser's glycerol gelatine phenol-free

for microscopy

Aqueous mounting medium

It is an aqueous mounting medium which is solid at room temperature. Composition and application are according to the classical Kaiser's glycerol gelatine; however, it does not contain phenol. The added preserving agent is classified as non-hazardous. The pH value of the product is 6–7. Therefore, it is suitable also for stainings which are sensitive against acids (e.g. hematoxylin).

- Non-hazardous ingredients
- Neutral pH (6–7)
- Convenient also for sensitive stainings

Directions for use

Prior to use the glycerol gelatine is melted on a water bath (max. 50–55 °C) and then dropped onto the slide by using a pipette or a glass rod.

WGK 1

Art. No.	Pack Qty.	Pack.	€
6474.1	50 ml	glass	23,15

Glycerol-gelatine (acc. to Kaiser)

Preparation:

Dissolve 10 g gelatine gold in 60 ml water and add 70 ml glycerol.

Add 0.1 g phenol to 100 g mixture, heat 10–25 minutes in the water bath while stirring until purification, then filter hot over glass wool or paper.

Avoid heating much beyond 60 °C, because overheated gelatine loses its ability to solidify.

► For further glycerines and gelatines see chapter Chemicals A-Z



ready-to-use

Phytohistol® plus

ready-to-use, for microscopy

Botanical mounting medium based on sugar

Phytohistol® plus is an aqueous mounting medium based on sugar with the consistency of liquid honey. It is especially suitable for plant materials. After evaporation of the water a rubber-like film remains.

- New compound
- High stability
- No hazardous ingredients
- Neutral pH 6–7

Directions for use

Drop on slide, add specimen. When free from air bubbles place cover slip.

Notes on storage

For producing durable specimens we recommend to seal the edges of the cover slip with our ROTI®Seal cover slip sealant (Art. No. 6473).
Shelf life: The solution contains a preserving agent and is stable for minimum 4 years after manufacture.

WGK 1

Art. No.	Pack Qty.	Pack.	€
6471.1	15 ml	dropp. bottle	25,30
6471.2	50 ml	plastic	70,85

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- Available on all devices

Accessories



ready-to-use

Immersion oil

ready-to-use, for microscopy

For use in the space between specimen and objective lens (immersion oil microscopy).

An immersion oil with low viscosity and low background fluorescence, especially suitable for fluorescence microscopy.

UN no. 3082 · ADR 9 III · WGK 2

Warning H302-H410

Art. No.	Pack Qty.	Pack.	€
X899.4	15 ml	dropp. bottle	12,40
X899.1	50 ml	glass	19,25
X899.2	100 ml	glass	28,95
X899.3	500 ml	glass	107,40



ready-to-use

Oil of cedar wood

ready-to-use, for microscopic purposes

The classical medium for immersion microscopy

UN no. 3082 · ADR 9 III · WGK 3

Danger H304-H410

Art. No.	Pack Qty.	Pack.	€
5308.1	100 ml	glass	31,10



ROTI®Seal

for microscopy

Aqueous cover slip sealant.

ROTI®Seal is used to seal the edges of the coverslip. Therefore, it protects the mounted specimen reliably against damages caused by air humidity. ROTI®Seal is solid at room temperature.

- Non–hazardous ingredients
- Solvent–free
- Solidification by light

Directions for use

Prior to use it is melted on a water bath (max. 50–55 °C), then it is applied around the edges of the coverslip by using a pipette or a glass rod. Exposure to light (day-light is sufficient) allows the sealant to harden within a short time.

Melt on a water bath (50–55 °C) prior to use.

WGK 1

Art. No.	Pack Qty.	Pack.	€
6473.1	20 ml	glass	18,20



ready-to-use

Protein glycerol

ready-to-use, for microscopy

For fixing and stretching of the cuts.

WGK 1

Art. No.	Pack Qty.	Pack.	€
P049.1	100 ml	glass	24,65

Please Note:

Protein glycerol (Art. No. P049) contains egg albumin, colloidally dissolved in glycerol. At room temperature it may flocculate. But it will redissolve by gentle warming.



ROTI®Liquid Barrier Markers

With ROTI®Liquid Barrier Marker you can surround samples on a slide with water–repellent circles and thus separate them from each other. In this way several samples can be processed simultaneously. Or different stainings can be performed on one slide. Application areas are immunological, histological and molecular biological investigations.

Directions for use

The solution is applied to slides or other glass surfaces. After drying, a resistant hydrophobic film remains providing a barrier to aqueous liquids.
The barrier film can be wiped off the glass surface with a dry cloth or a cloth impregnated with xylene.

ready-to-use

ROTI®Liquid Barrier Marker, colourless

ready-to-use, for microscopy

For immunology, histology and molecular biology. Glass bottle with brush.

For use with aqueous liquids and organic solvents as ethanol or acetone.
Also available: ROTI®Liquid Barrier Marker, red (Art. No. AN92) for use without organic solvents.

UN no. 1268 · ADR 3 II · WGK 3

Danger H225-H304-H315-H319-H336-H411

Art. No.	Pack Qty.	Packaging	Pack.	€
AN91.1	10 ml	1 x 10 ml	glass	41,85
AN91.2	50 ml	5 x 10 ml	glass	160,20

ready-to-use

ROTI®Liquid Barrier Marker, red

ready-to-use, for microscopy

For immunology, histology and molecular biology. Glass bottle with brush.

For use with aqueous liquids only. The red dye is not solvent resistant.
Also available: ROTI®Liquid Barrier Marker, colourless (Art. No. AN91) for use with organic solvents.

UN no. 1268 · ADR 3 II · WGK 3

Danger H225-H304-H315-H319-H336-H411

Art. No.	Pack Qty.	Packaging	Pack.	€
AN92.1	10 ml	1 x 10 ml	glass	41,85
AN92.2	50 ml	5 x 10 ml	glass	160,20



Adhesion slides ROTI®Bond

Fast and highly efficient immobilisation of cellular material with optimal structure conservation.
The new adhesive coating of the ROTI®Bond adhesion slides reacts to natural surface structures of cells and tissues, anchoring them securely to the glass surface. Due to this procedure, based on different binding principles, the cells do not lose their antigenicity, their cell functionality and their three-dimensional structure.

- Assays using only several hundred cells possible
- No cell loss even during harsh incubation procedures
- Excellent recovery rate
- Compatible with all standard and modern assay systems and all fluorescent dyes
- Particularly adapted to assays using stem cells

Directions for use

Immobilisation of cells or tissue sections occurs immediately after contact to the glass surface. Drying of the samples is therefore not necessary. The cellular material can then be fixed with all common fixatives.
Cell cultivation can be continued in appropriate culture medium after cell adhesion, allowing *in-vivo* live assays, e.g. with a multiphoton or laserscan microscope.
At present, there is no evidence of any preferential cell type binding in heterogenous cellular material.
Dimensions: L 75 mm × W 25 mm, dikte 1 mm.

ROTI®Bond adhesion slides 50 and 100 are delivered in ROTILABO®-slide boxes.

A 121 °C

Adhesion slides ROTI®Bond

Carl ROTH.

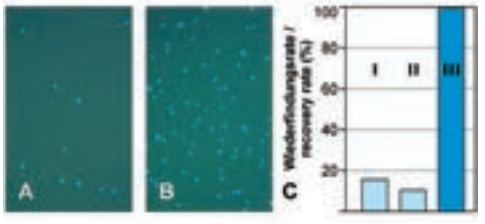


Figure:
Brand comparison of efficient cell immobilisation.
1800 murine myeloma cells in 30 µl PBS were applied to each slide.
Cells were counted after full immunohistochemical assay including alkali treatment (70 mM NaOH, 150 mM NaCl, 40% ethanol, 5 min, RT) and DAPI-counterstaining of the remaining nuclei.
A: Other adhesion slide,
B: ROTI®Bond Adhesion Slide,
C: Recovery rate in percent
(I and II: other adhesion slides, III: ROTI®Bond)

Version	Art. No.	Pack Qty.	€
With frosted edge	**CL20.1**	5 unit(s)	12,35
With frosted edge	**CL20.2**	50 unit(s)	97,35
With frosted edge	**CL20.3**	100 unit(s)	151,95

Chemicals



Organic & Bioorganic Chemicals

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Amino Acids 444
Peptide Synthesis 451
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Labelling acc. to GHS 1435



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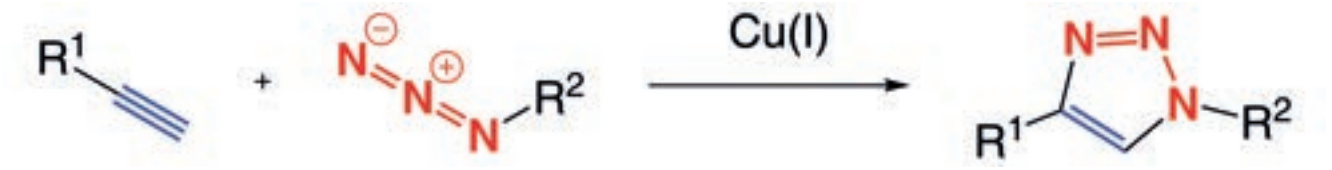
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Click Chemistry

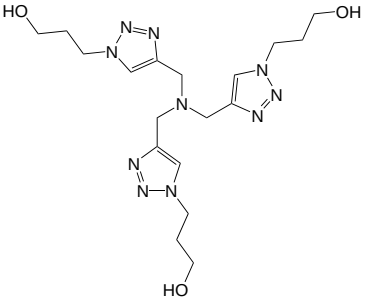


Schematic representation of the copper(I)-catalysed azide-alkyne cycloaddition (CuAAC).

The copper(I)-catalysed azide-alkyne cycloaddition (CuAAC) is the most prominent example of a group of reactions named click reactions. According to Sharpless' definition, these reactions are characterised by high yields, mild reaction conditions, and by their tolerance of a broad range of functional groups.[1–3] Typically, the reactions require simple or no workup or purification of the product. The most important characteristic of the CuAAC reaction is its unique bioorthogonality as neither azide nor terminal alkyne functional groups are generally present in natural systems.

References:
1 H. C. Kolb, M.G. Finn, K. B. Sharpless, Angew. Chem. Int. Ed. 2001, 40, 2004-2021.
2 C.W. Tornoe, C. Christensen, M. Meldal, J. Org. Chem. 2002, 67, 3057-3064.
3 V. V. Rostovtsev, L. G. Green, V. V. Fokin, K. B. Sharpless, Angew. Chem. 2002, 114, 2708-2711; Angew. Chem. Int. Ed. 2002, 41, 2596-2599.

Reagents for Click Chemistry



Starting from diverse copper catalyst sources, over Cu(I) stabilising ligands to buffer additives and solvents, you will find all necessary reagents in the special ROTI®Click quality to perform your click reactions here.

Catalysts, Ligands, Additives and Solvents

Product name	Purity	Art. No.	Pack Qty.	€
L(+)-Ascorbic acid sodium salt	≥99 %, ROTI®Click Grade	**7819.1**	10 mg	20,35
		7819.2	50 mg	52,60
Copper(I) bromide	≥99,999 %, ROTI®Click Grade	**7813.1**	5 mg	18,85
		7813.2	50 mg	106,45
Copper(II) sulphate	≥98 %, anhydrous, ROTI®Click Grade	**7816.1**	10 mg	18,85
		7816.2	50 mg	52,60
DMSO/*t*-Butanol Solvent	ROTI®Click Grade	**7815.1**	1 ml	17,10
		7815.2	10 ml	94,10
Tris[(1-benzyl-1*H*-1,2,3-triazol-4-yl)methyl]amine (TBTA)	≥95 %, ROTI®Click Grade	**7814.1**	5 mg	42,90
		7814.2	10 mg	59,70
		7814.3	50 mg	94,50
		7814.4	100 mg	178,45
Tris(3-hydroxypropyltriazolylmethyl)amine (THPTA)	≥95 %, ROTI®Click Grade	**7822.1**	5 mg	31,75
		7822.2	10 mg	46,80
		7822.3	50 mg	94,10
		7822.4	100 mg	154,30

For additional product data and safety information, see chapter Chemicals A-Z.

Tip:

TBTA (Art.No. 7814) is suitable as copper-stabilising ligand for reactions in organic solvents.
THPTA (Art.No. 7822) on the other hand is an optimal ligand for reactions in aqueous media.

Azides & Alkynes

PEGylation and Linker

Click chemistry opens the door to introduce polyethylene glycols (PEGs) or other linkers in very sophisticated manner into your sample, which are still active for following reaction by the means of amine, carboxyl, malemide or NHS-functional terminal groups. You can choose between alkyne and azide structured PEGs and linkers which you find in the table below.

PEG and Linker Azides

Product name	Purity	Art. No.	Pack Qty.	€
4-Azidobenzoic acid	≥97 %	**7835.1**	10 mg	54,30
Aminooxy-PEG3-Azide	≥90 %	**7832.1**	5 mg	99,45
		7832.2	10 mg	150,40
H_2N-PEG3-Azide	≥90 %	**7830.1**	5 mg	51,10
		7830.2	10 mg	82,25
NHS-PEG4-Azide	≥90 %	**7823.1**	5 mg	76,25
		7823.2	10 mg	113,85
		7823.3	50 mg	396,70

For additional product data and safety information, see chapter Chemicals A-Z.

Important information on refrigerated transports

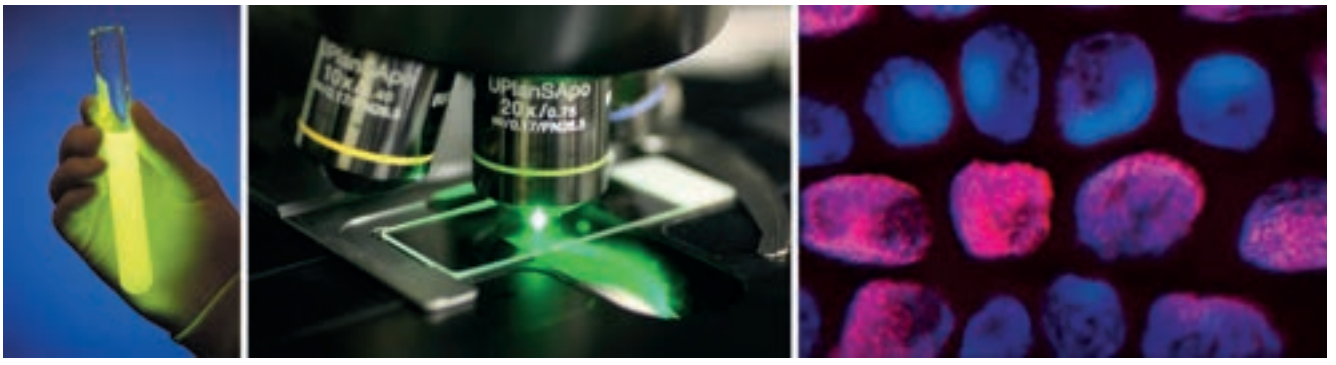
All products identified as being particularly temperature-sensitive are shipped in **special ice boxes with freezer packs or in dry ice.**

Additional costs resulting from such, **will be invoiced** (further information on request).

Please note: In order to guarantee optimum product quality, the dispatch of refrigerated transport products will be carried out **on Mon and Tue only outside Germany!**
Slight delays in delivery are therefore possible.

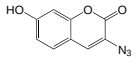
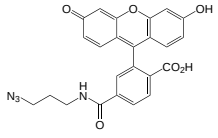
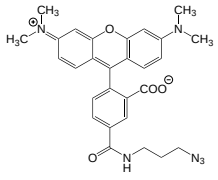
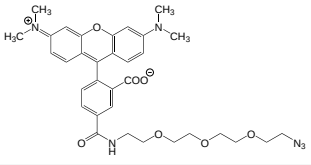
Tags

Fluorescent Tags



Carl ROTH offers a selection of fluorescent tags for labelling of (bio-)molecules via click chemistry. All available tags are suitable for fluorescence spectroscopy applications due to their excellent absorption properties and good solubility. Tags with PEG-spacer are beneficial for applications with as little interaction between the analyte and the tag as possible. The coumarine derivative (Art No. 7811) offers a unique feature: fluorescence is only detected after the coupling via click reaction.

Fluorescent Tags with Azide Function

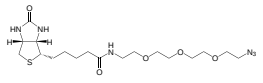
Structural formula	Product name	Purity	Absorption maximum	Emissions maximum	Mol. extinction coefficient ε	Art. No.	Pack Qty.	€
	3-Azido-7-hydroxycoumarin	≥98 %	404 nm (after click reaction)	480 nm (after click reaction)		**7811.1**	1 mg	71,50
						7811.2	5 mg	173,10
	6-Carboxy-fluorescein Azide (6-FAM-Azide)	≥95 %	496 nm	516 nm	83 000 cm $^{-1}$M^{-1}	**7806.1**	1 mg	54,30
						7806.2	5 mg	94,10
						7806.3	10 mg	144,60
						7806.4	100 mg	532,15
	5-Carboxy-tetramethyl-rhodamine Azide (5-TAMRA-Azide)	≥95 %	546 nm	579 nm	91 000 cm $^{-1}$M^{-1}	**7807.1**	1 mg	50,00
						7807.2	5 mg	104,85
						7807.3	10 mg	155,80
						7807.4	100 mg	532,15
	5-Carboxy-tetramethyl-rhodamine-PEG3-Azide (5-TAMRA-PEG3-Azide)	≥90 %	546 nm	579 nm	91 000 cm $^{-1}$M^{-1}	**7808.1**	1 mg	52,15
						7808.2	5 mg	94,10
						7808.3	10 mg	144,60
						7808.4	100 mg	568,70

► Further Fluorescent Tags see www.carlroth.com

Non-Fluorescent Tags

Besides fluorescent tags other non-fluorescent labels play an important role in biochemistry and microbiology. Incorporation of such functional groups into your sample with high yields and selectivity is easily possible by click chemistry.

Non-Fluorescent Tags

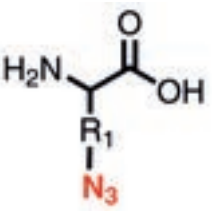
Structural formula	Product name	Purity	Art. No.	Pack Qty.	€
	Biotin-PEG3-Azide	≥90 %	**7804.1**	1 mg	121,40
			7804.2	5 mg	203,20

For additional product data and safety information, see chapter Chemicals A-Z.

Click Chemistry

Azido Amino Acids

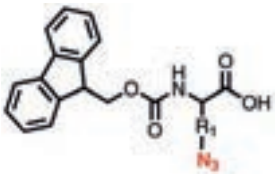
With the emergence of click chemistry the use of azide- and alkyne-derivatised *α*-amino acids has found high interest e.g. in the area of peptide synthesis as a powerful tool in the development of new therapeutics and biological chemistry fundamental research. Peptide labelling mostly requires reactions which are running close to physiological conditions (neutral pH, aqueous solution, ambient temperature). Cu(I)-catalysed alkyne-azide cycloaddition (CuAAC) is optimal for such biological compounds, here the advantages of click chemistry once again show their potential. The low reactant concentrations, low background labelling, the quantitative and rapid labelling, plus the mild reaction conditions fit the necessary reactivity, selectivity and biocompatibility criteria for the peptide labelling and thus ensure the preservation of biological function. Carl ROTH provides high quality azido amino acids. In this form they can easily undergo click reaction when an alkyne functional reporter molecule is present.



Azido Amino Acids

Product name	Brand/Purity	Alternative Name	CAS No.	Art. No.	Pack Qty.	€
D-β-Azidoalanine hydrochloride	≥99 %	H-D-Aza-OH · HCl	1379690-01-3	**7856.3**	100 mg	184,90
L-β-Azidoalanine hydrochloride	≥98 %	H-L-Aza-OH · HCl	105661-40-3	**7854.3**	100 mg	246,20
D-γ-Azidohomoalanine hydrochloride	≥99 %	H-D-Aha-OH · HCl	120042-14-0	**7858.3**	100 mg	246,20
L-γ-Azidohomoalanine hydrochloride	≥98 %	H-L-Aha-OH · HCl	942518-29-8	**7857.1**	5 mg	37,55
				7857.2	10 mg	65,50
				7857.3	100 mg	184,90
				7857.4	500 mg	649,30
L-Azidolysine hydrochloride	≥98 %	H-L-Lys(N_3)-OH · HCl	159610-92-1	**7861.1**	5 mg	51,10
				7861.2	10 mg	82,25
				7861.3	100 mg	162,35
				7861.4	500 mg	639,65
D-Azidoornithine hydrochloride	≥99 %	H-D-Phe(4-N_3)-OH		**7860.3**	100 mg	249,95
L-Azidoornithine hydrochloride	≥99 %	H-L-Phe(4-N_3)-OH	156463-09-1	**7859.3**	100 mg	249,95
D-4-Azidophenylalanine	≥98 %	H-D-Orn(N_3)-OH · HCl	1241681-80-0	**7853.3**	100 mg	246,20
L-4-Azidophenylalanine	≥98 %	H-L-Orn(N_3)-OH · HCl	33173-53-4	**7850.3**	100 mg	246,20

Fmoc Protected Azido Amino Acids



Fmoc Protected Azido Amino Acids

Product name	Brand/Purity	Alternative Name	CAS No.	Art. No.	Pack Qty.	€
Fmoc-L-β-Azidoalanine	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Aza-OH	684270-46-0	**7369.1**	250 mg	134,40
				7369.2	1 g	439,70
Fmoc-L-γ-Azidohomoalanine	PEPTIPURE® ≥99 %, for biochemistry	Fmoc-L-Aha-OH	942518-20-9	**7363.1**	250 mg	107,00
				7363.2	1 g	375,20
Fmoc-L-Azidolysine	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Lys(N_3)-OH	159610-89-6	**7357.1**	250 mg	117,20
				7357.2	1 g	385,95
Fmoc-L-Azidoornithine	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Orn(N_3)-OH	1097192-04-5	**7362.1**	250 mg	134,40
				7362.2	1 g	439,70
Fmoc-L-4-Azidophenylalanine	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Phe(4-N_3)-OH	163217-43-4	**7485.1**	100 mg	67,20
				7485.2	250 mg	141,40
Fmoc-L-4-Azidoproline (2S,4R)	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Pro(4-N_3)-OH	702679-55-8	**7367.1**	100 mg	112,90
				7367.2	250 mg	220,40
				7367.3	1 g	725,65

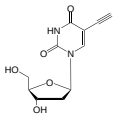
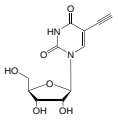
For additional product data and safety information, see chapter Chemicals A-Z.

Nucleosides and Nucleotides

Nucleosides

The detection of cell proliferation is of utmost importance for monitoring cell vitality, determining genotoxicity or evaluating anticancer drugs. The feeding of cells with EdU (5-Ethynyl-2'-deoxyuridine) or EU (5-Ethynyl uridine) can be used in cell proliferation studies.

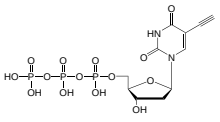
Nucleosides

	Product name	Purity	Art. No.	Pack Qty.	€
	5-Ethynyl-2'-deoxyuridine (EdU)	≥98 %	**7845.1**	5 mg	29,60
			7845.3	50 mg	87,65
			7845.4	100 mg	132,80
			7845.5	500 mg	520,30
	5-Ethynyl uridine (EU)	≥98 %	**7848.1**	5 mg	53,65
			7848.2	10 mg	85,90

Nucleotides

Our modified nucleotides for click chemistry complement our range of unmodified standard nucleotides. You can use our alkyne-triphosphates in your nucleotide mixture to incorporate alkyne groups into your PCR fragment. These alkyne groups can be used to label the PCR fragment in a subsequent click reaction.

Nucleotides

Structural formula	Product name	Purity	Art. No.	Pack Qty.	€
	5-Ethynyl-dUTP	≥98 %, 100 mM in water	**7802.1**	5 µl	117,20
			7802.2	25 µl	385,95
			7802.3	50 µl	365,50

For additional product data and safety information, see chapter Chemicals A-Z.

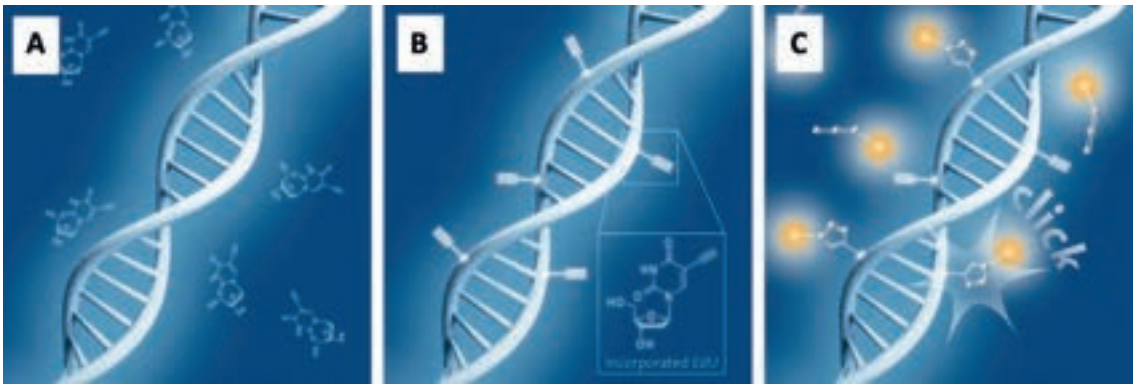
► Further nucleosides and nucleotides see page 440
► dNTP solutions see www.carlroth.com

Click Chemistry

Cell Proliferation Assays

Our ROTI®Kits for EdU mediated detection of cell proliferation provide a superior alternative to time-consuming and less sensitive bromodeoxyuridine (BrdU) assays. Similar to BrdU assays, our assays utilise a uracil derivative (in this case ethynyldeoxyuridine, EdU) which is incorporated into the replicating DNA. EdU is not detected via antibodies; instead fluorescent dyes are coupled directly via click reaction. This fast and elegant approach allows for direct labelling of replicating DNA with the desired fluorescent dye. Thus, the assay is perfectly adaptable to the present facilities and to the assay situation (e.g. for double or triple detection). Furthermore, the click reaction is highly selective and therefore prevents any unspecific labelling. The protocol includes only few steps and decreases the total amount of time.

Advantages of the click chemistry based approach:



Schematic illustration of the click chemistry based EdU cell proliferation assay.
A) Incubation of cells with EdU. EdU is a thymidine analogue and is incorporated in DNA during active DNA synthesis.
B) After DNA synthesis, EdU was incorporated in the DNA strands.
C) Detection of proliferating cells via click chemistry. This reaction is finished within 30 minutes, whereby a variety of different fluorescent dye azides can be used.

Advantages of the Click Assay:

- Highly reliable
- Easy handling
- Fast detection procedure (only 30 min.)
- Mild conditions, no DNA denaturation required
- Compatible with various dyes
- Modular system in click chemistry
- Compatible with multiplexing

Kits available for:

• Fluorescence microscopy
(ROTI®Kits for Imaging)
• Flow Cytometry
(ROTI®Kits for Flow Cytometry)
• High Throughput Screening
(ROTI®Kits for High Throughput Screening)

Code in product name	Markers	Absorption (nm)	Emission (nm)	Filter configuration
-488	6-FAM azide	496	516	FITC
-555	5-TAMRA azide	546	579	Cy3™
-594	5/6 Sulforhodamine	584	603	Texas Red®
-647	Eterneon red (analogous to cyanine 5 azide)	643	662	Cy5T™

Tip:

The number at the end of the product name specifies the excitation wavelength of the included fluorescent marker.
Suitable excitation source are:

- 488 nm (blue-green argon laser 488 nm, blue diode laser 473 nm)
- 555 nm (green Nd:YAG laser 532 nm, green helium-neon-laser 543 nm)
- 594 nm (yellow helium-neon-laser 594 nm, yellow diode laser 594 nm)
- 647 nm (red krypton laser 647 nm, red helium-neon-laser 633 nm, red diode laser 635 or 650 nm)

ROTI®Kits for Imaging

The detection of cell proliferation is of utmost importance for monitoring of cell vitality, determining genotoxicity or evaluating anticancer drugs. Carl ROTH's cell proliferation assays based on EdU (5-ethynyl-2'-deoxyuridine) provide a superior alternative to BrdU (bromodeoxyuridine) assays. Carl ROTH's EdU Click assays are not antibody based and therefore do not require DNA denaturation for detection of the incorporated nucleoside. Instead, the EdU Click assay utilizes click chemistry for detection in a variety of dye fluorescent readouts. Furthermore, the streamlined detection protocol both reduces the total number of steps and significantly decreases the total amount of time.

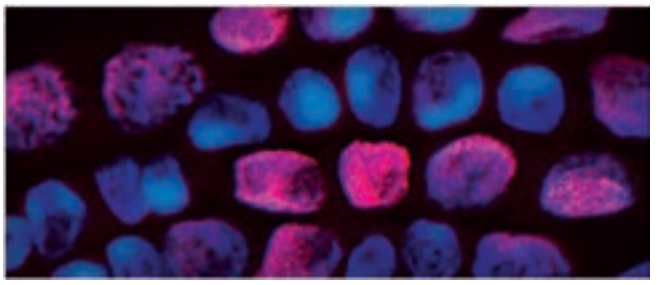


Figure: Proliferating tissue of barley meristem labelled via EdU Click-555 kit (Art. No. 7775.1). Dividing cells incorporated EdU and were labelled via click reaction with TAMRA (pink stained cells). Nuclei were counterstained with DAPI (blue). Magnification: 100x; Filterset: Sp. Aqua HC mFISH; Sp. Green HC mFISH.

ready-to-use

ROTI®Kits for Imaging

Product name	Markers	λ	Instructions for use	Art. No.	Pack Qty.	€
EdU Click-488	6-FAM	488 nm	For 100 Assays.	**7773.1**	1 kit	418,20
EdU Click-555	5-TAMRA	555 nm	For 100 Assays.	**7775.1**	1 kit	418,20
EdU Click-594	5/6 Sulforhodamine	594 nm	For 100 Assays.	**7776.1**	1 kit	439,70
EdU Click-647	Eterneon Red	647 nm	For 100 Assays.	**7777.1**	1 kit	439,70

For additional product data and safety information, see chapter Chemicals A-Z.

► Cell culture media and further reagents for cell culture see www.carlroth.com

References:
1 S. Vidak et al., Proliferation of progeria cells is enhanced by lamina-associated polypeptide 2α (LAP2α) through expression of extracellular matrix proteins, Genes & Development 2015, 29, 2022-2036.
EdU Click-488:
2 V. Fock et al., Trophoblast subtype-specific EGFR/ ERBB4 expression correlates with cell cycle progression and hyperplasia in complete hydatidiform moles. Human Reproduction 2015, 30, 4, 789-799.
3 K. Plessl et al., Expression pattern and function of Notch2 in different subtypes of first trimester cytotrophoblast. Placenta 2015, 36, 365-371.
4 G. Meinhardt et al., Wingless ligand 5a is a critical regulator of placental growth and survival. Scientific reports 2016, 6, 28127.
5 V. Ziegler, A. Albers, G. Fritz, Lovastatin protects keratinocytes from DNA damage-related pro-apoptotic stress responses stimulated by anticancer therapeutics. Biochimica et Biophysica Acta 2016, 1863, 1082-1092.
EdU Click-555:
6 S. Barberán, S. Fraguas and F. Cebrià, The EGFR signaling pathway controls gut progenitor differentiation during planarian regeneration and homeostasis. Development 2016, 143, 2089-2102.
7 M. Hennenberg et al., Cooperative effects of EGF, FGF, and FGF-ß1 in prostate stromal cells are different from responses to single growth factors. Life Sciences 2015, 123, 18-24.
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Instructions for use

can be found in our webshop in the product description under "Downloads".



ROTI®Kits for Flow Cytometry (FC)

The ROTI®Kits for Flow Cytometry by Carl ROTH use click chemistry to detect cell proliferation by means of a large number of fluorescent stain read-outs. In the detection procedure both, the total number of steps and the processing time are significantly reduced. The simple click chemistry detection procedure is complete within 30 minutes.



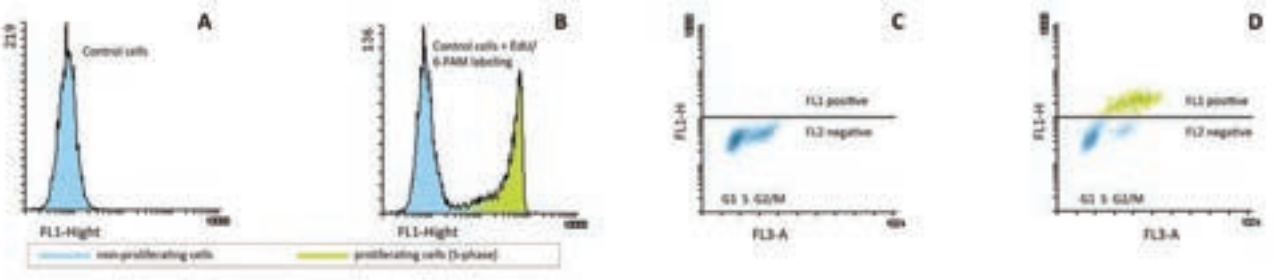


Figure: HeLa cells, treated without (A) and with (B) 10µM EdU for 2 h. Click reaction was performed using 6-FAM-Azide.
A: negative control, cells without EdU incorporation.
B: non-proliferating cells without EdU incorporation (blue coloured left peak) and proliferating cells (S-phase) having incorporated EdU and are labeled with 6-FAM Azide (green coloured right peak).
Density blots of PI (propidium iodide) stained samples without (**C**) and with (**D**) EdU incubation and followed click reaction. The y-axis presents the FL1-Fluorescence intensity and the x-axis the content of DNA measured with FL3-area. Cell cycle phases are indicated as G1, S and G2/M phase.

ready-to-use

ROTI®Kits for Flow Cytometry (FC)

Product name	Markers	λ	Instructions for use	Art. No.	Pack Qty.	€
EdU Click FC-488	6-FAM	488 nm	For 50 assays.	**7779.1**	1 kit	424,65
EdU Click FC-555	5-TAMRA	555 nm	For 50 assays.	**7780.1**	1 kit	424,65
EdU Click FC-594	5/6 Sulforhodamine	594 nm	For 50 assays.	**7781.1**	1 kit	424,65
EdU Click FC-647	Eterneon Red	647 nm	For 50 assays.	**7783.1**	1 kit	424,65

For additional product data and safety information, see chapter Chemicals A-Z.

References:
1 N. Dinh Van et al., Modulation of HCV reinfection after orthotopic liver transplantation by fibroblast growth factor-2 and other non-interferon mediators. Gut 2016, 65, 1015-1023.
2 L. Pisarsky et al., Targeting Metabolic Symbiosis to Overcome Resistance to Anti-angiogenic Therapy. Cell Reports 2016, 15, 1-14.

ROTI®Kits for High Throughput Screening (HTS)

The ROTI®Kits for High Throughput Screening allow the measurement of DNA synthesis adherent cells in 96-well plate format. Similar to BrdU assays, our assays utilise an uracil derivative (in this case ethynyl-deoxyuridine, EdU) which is incorporated into the replicating DNA. EdU is not detected via antibodies; instead fluorescent dyes are coupled directly via click reaction. This fast and elegant approach allows for direct labelling of replicating DNA with the desired fluorescent dye. Thus, the assay is perfectly adaptable to the present facilities. Furthermore, the click reaction is highly selective and therefore prevents any unspecific labelling. The protocol includes only few steps and decreases the total amount of time.



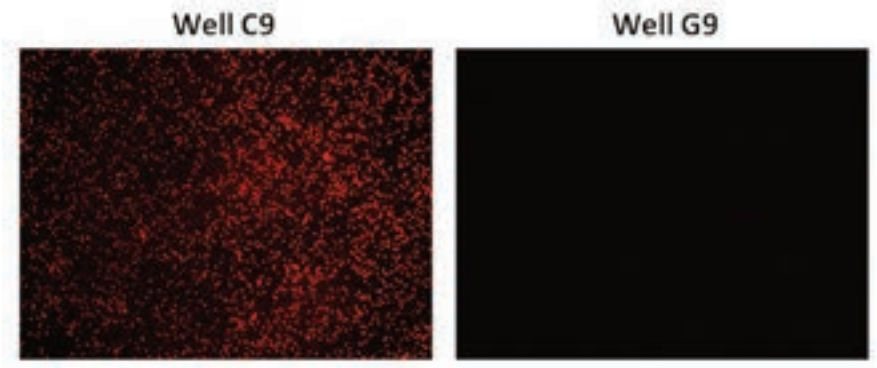


Figure: Fluorescence imaging of 2 wells: Well C9 incubated for 6 h with EdU; Well G9: Incubation without EdU.

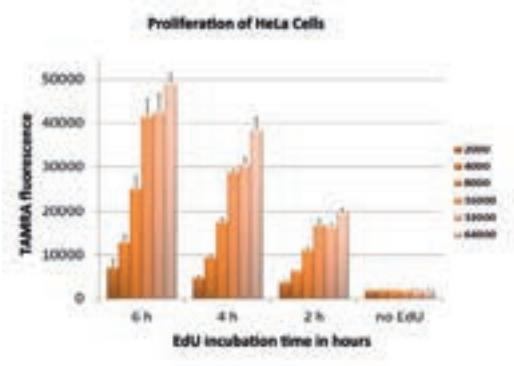


Figure: HeLa cells incubated without and with 10 µM EdU for 2, 4 or 6 h in 96 well plate. EdU incorporation was detected over time and for different cell numbers using a fluorescence plate reader. Control: Without EdU no fluorescence was detected after 6 h incubation time.

ready-to-use

ROTI®Kits for High Throughput Screening (HTS)

Product name	Markers	λ	Instructions for use	Art. No.	Pack Qty.	€
EdU Click HTS 2-488	6-FAM	488 nm	For 200 reactions or 2 x 96 well plates.	**7786.1**	1 kit	241,90
EdU Click HTS 4-488	6-FAM	488 nm	For 400 reactions or 4 x 96 well plates.	**7787.1**	1 kit	375,20
EdU Click HTS 2-555	5-TAMRA	555 nm	For 200 reactions or 2 x 96 well plates.	**7789.1**	1 kit	252,65
EdU Click HTS 4-555	5-TAMRA	555 nm	For 400 reactions or 4 x 96 well plates.	**7791.1**	1 kit	396,70

For additional product data and safety information, see chapter Chemicals A-Z.

► 96-well plates (microplates) see www.carlroth.com

DNA Synthesis



Nucleobases & Derivatives

Product name	Purity	Art. No.	Pack Qty.	€
Adenine	≥98 %, for biochemistry	**3025.1**	5 g	21,40
		3025.2	25 g	55,80
6-Azauracil	≥98 %, for biochemistry	**5488.1**	5 g	83,75
		5488.2	10 g	140,30
6-Benzylaminopurine	≥98 %, for biochemistry	**5552.1**	1 g	21,40
		5552.2	5 g	53,65
		5552.3	25 g	203,20
Cytosine	≥99 %, for biochemistry	**7295.1**	5 g	39,70
		7295.2	25 g	93,00
		7295.3	100 g	246,20
Guanine	≥97 %, for biochemistry	**7505.1**	10 g	24,65
		7505.2	25 g	45,05
Guanine hydrochloride	≥98 %, for biochemistry	**3814.2**	5 g	18,85
		3814.1	10 g	27,45
		3814.3	50 g	95,70
Hypoxanthine	≥98 %, for biochemistry	**6416.1**	5 g	96,25
Kinetin	≥98 %, for biochemistry	**4142.1**	1 g	25,70
		4142.2	5 g	69,35
Orotic acid	≥99 %, anhydrous	**6820.2**	25 g	40,75
		6820.1	100 g	91,30
Theobromine	≥99 %, Ph. Eur., for biochemistry	**8963.1**	10 g	23,55
		8963.2	100 g	96,65
2-Thiouracil	≥98 %, for biochemistry	**5245.1**	50 g	51,10
		5245.2	100 g	93,00
Thymine	≥99 %, for biochemistry	**7289.1**	5 g	30,65
		7289.2	25 g	50,00
		7289.3	100 g	113,45
Uracil	≥98 %, for biochemistry	**7288.1**	5 g	20,35
		7288.2	25 g	35,40
		7288.3	100 g	94,10

For additional product data and safety information, see chapter Chemicals A-Z.

Nucleosides

Product name	Purity	Art. No.	Pack Qty.	€
Adenosine	≥99 %, p.a.	**6122.1**	5 g	21,00
		6122.2	10 g	32,80
		6122.3	25 g	64,40
		6122.7	100 g	222,00
5-Bromo-2'-deoxyuridine	≥99 %, for biochemistry	**3243.1**	250 mg	42,50
Cytidine	≥99 %, for biochemistry	**0717.1**	10 g	49,35
		0717.2	25 g	96,65
5-Ethynyl-2'-deoxyuridine (EdU)	≥98 %	**7845.1**	5 mg	29,60
		7845.3	50 mg	87,65
		7845.4	100 mg	132,80
		7845.5	500 mg	520,30
5-Ethynyl uridine (EU)	≥98 %	**7848.1**	5 mg	53,65
		7848.2	10 mg	85,90
Guanosine	≥98 %, for biochemistry	**0715.1**	10 g	27,45
		0715.2	25 g	52,15
Inosine	≥98 %, for biochemistry	**6770.1**	5 g	26,35
Thymidine	≥99 %, p.a.	**3005.2**	500 mg	23,55
		3005.1	1 g	30,00
		3005.3	5 g	64,00
		3005.4	25 g	192,45
Uridine	≥99 %, for biochemistry	**0714.1**	5 g	30,00
		0714.2	10 g	52,15
		0714.3	25 g	93,00
		0714.4	100 g	267,70

Nucleotides

Product name	Purity	Art. No.	Pack Qty.	€
Adenosin-5'-triphosphate disodium salt (ATP)	≥98 %, for biochemistry	**HN35.1**	5 g	30,00
		HN35.2	10 g	42,90
		HN35.3	25 g	81,60
		HN35.4	100 g	267,70
ATP	≥98 %, lyophilized	**K054.1**	1 g	37,55
		K054.3	10 g	149,45
		K054.6	100 g	607,40
CTP	≥98 %, lyophilized	**K057.1**	100 mg	75,80
		K057.4	1 g	303,70
		K057.5	10 g	1.192,20
GTP	≥90 %, lyophilized	**K056.1**	100 mg	75,80
		K056.4	1 g	303,70
		K056.5	10 g	1.192,20
UTP	≥90 %, lyophilized	**K055.1**	100 mg	75,80
		K055.3	1 g	303,70

For additional product data and safety information, see chapter Chemicals A-Z.

DNA Synthesis

CPG/Supports

Support material for DNA-Synthesis

Derivated Controlled Pore Glass (CPG) is used as support material for DNA-synthesis. The 500 Å supports are ideal for virtually all applications. In order to avoid steric hindrance between the growing oligo-nucleotide chains and to gain a maximum yield of full-length chains, a long-chained alkylamine “spacer arm” is used.
500 Å supports are loaded with 30–40 µmol/g

CPG/Supports

Product name	Purity	Art. No.	Pack Qty.	€
Adenosine-CPG-Support	500 Å pore size	**2318.3**	1 g	74,75
Cytidine-CPG-Support	500 Å pore size	**2319.3**	1 g	74,75
Guanosine-CPG-Support	500 Å pore size	**2320.3**	1 g	74,75
Thymidine-CPG-Support	500 Å pore size	**2321.3**	1 g	74,75

BCE-Phosphoramidites

for PerSeptive Expedite™ and PolyGen® Synthesizer

Phosphoramidites are used as nucleotide analogues for the chemical synthesis of oligonucleotides. To avoid side reactions at other reactive nucleophilic groups (e.g. hydroxy or amino groups) they are provided with protective groups.

BCE-Phosphoramidites

Product name	Purity	Art. No.	Pack Qty.	€
Adenosine-BCE-phosphoramidite	for DNA synthesis	**K921.1**	1 g	44,65
Cytidine-BCE-phosphoramidite	for DNA synthesis	**K922.1**	1 g	44,65
Guanosine-BCE-phosphoramidite	for DNA synthesis	**K923.1**	1 g	44,65
Thymidine-BCE-phosphoramidite	for DNA synthesis	**K924.1**	1 g	44,65

Reagents

for ABI™ and PolyGen® Synthesizer



Molecular sieve 3 Å

activated, under argon, for DNA synthesis

Thread size 27 mm

Suitable for Expedite™89xx and Polygen®

WGK 1

Art. No.	Pack Qty.	Pack.	€
N893.1	100 ml	glass	15,60

ready-to-use

Activation reagent

for DNA synthesis

Thread sizes: 200 ml – 27 mm, 450 ml – 27 mm

Suitable for Expedite™89xx and Polygen®

UN no. 1648 · ADR 3 II · WGK 2

Danger H225-H302+H312+H332-H319

Art. No.	Pack Qty.	Pack.	€
2253.1	200 ml	glass	133,85
2253.2	450 ml	glass	267,70

Capping reagent I

for DNA synthesis

Mixture of acetic anhydride, pyridine and tetrahydrofuran

Thread sizes: 200 ml – 27 mm, 450 ml – 27 mm. The 2.5 l bottle can be used with all instruments.

Suitable for Expedite™89xx and Polygen®

Storage temperature: +4 °C

UN no. 2924 · ADR 3 (8) II · WGK 2

Danger H225-H302+H332-H315-H318-H335-H351-EUH019

Art. No.	Pack Qty.	Pack.	€
2255.1	200 ml	glass	46,80
2255.2	450 ml	glass	96,65
2255.3	2.5 l	glass	256,95
Original pack 4 x 2.5 l			244,10/2.5 l

Capping reagent II

for DNA synthesis

Mixture of 1-methylimidazole and tetrahydrofuran

Thread sizes: 200 ml – 27 mm, 450 ml – 27 mm. The 2.5 l bottle can be used with all instruments.

Suitable for Expedite™89xx and Polygen®

Storage temperature: +4 °C

UN no. 2924 · ADR 3 (8) II · WGK 1

Danger H225-H302-H314-H335-H351-EUH019

Art. No.	Pack Qty.	Pack.	€
2256.1	200 ml	glass	45,05
2256.2	450 ml	glass	93,45
2256.3	2.5 l	glass	244,60
Original pack 4 x 2.5 l			232,37/2.5 l

DMT Removal DCE

for DNA synthesis

Dimethoxytrityl is a protective group for hydroxy groups which is used to protect the 5' OH group of the individual nucleotides in DNA synthesis. The protective group is acid labile and is removed in the ongoing synthesis reaction by the addition of trifluoroacetic acid (deprotection) to enable the coupling of the subsequent nucleotide.

We offer DMT-Removal-Reagent in dichloroethane (K060) as well as in dichloromethane (2257). DMT in DCE is used for synthesizers which draw the solution from the bottles by vacuum pumps and push it through the reaction columns. Since these vacuum pumps apply a significant force, the DCE is more suitable due to its high boiling pressure, as it is absorbed and introduced into the reaction without the formation of gas bubbles. The use of DMT in DCM could interfere with the reaction by creating gas bubbles.

3 % TCA in DCE. Thread sizes: 450 ml – 27 mm. The 2.5 l bottle can be used with all instruments.

Suitable for Expedite™89xx and Polygen®

UN no. 2924 · ADR 3 (8) II · WGK 3

Danger H225-H302-H315-H318-H335-H350-H411

Art. No.	Pack Qty.	Pack.	€
K060.1	450 ml	glass	46,15
K060.2	2.5 l	glass	160,20
Original pack 4 x 2.5 l			152,19/2.5 l

DMT removal reagent

for DNA synthesis

for DNA synthesis with ABI™ Synthesizer

Dimethoxytrityl is a protective group for hydroxy groups which is used to protect the 5' OH group of the individual nucleotides in DNA synthesis. The protective group is acid labile and is removed in the ongoing synthesis reaction by the addition of trifluoroacetic acid (deprotection) to enable the coupling of the subsequent nucleotide.

We offer DMT-Removal-Reagent in dichloroethane (K060) as well as in dichloromethane (2257). DMT in DCE is used for synthesizers which draw the solution from the bottles by vacuum pumps and push it through the reaction columns. Since these vacuum pumps apply a significant force, the DCE is more suitable due to its high boiling pressure, as it is absorbed and introduced into the reaction without the formation of gas bubbles. The use of DMT in DCM could interfere with the reaction by creating gas bubbles.

3 % TCA in DCM. Thread sizes: 450 ml – 27 mm. The 2.5 l bottle can be used with all instruments.

UN no. 2927 · ADR 6.1 (8) II · WGK 2

Danger H315-H318-H335-H336-H351-H373-H411

Art. No.	Pack Qty.	Pack.	€
2257.2	2.5 l	glass	177,40
Original pack 4 x 2.5 l			168,53/2.5 l

Oxidation reagent

for DNA synthesis

0,05 M Iodine

The phosphite triester linkage formed during oligonucleotide synthesis is of limited stability and has to stabilised. Treatment of the support-bound material with iodine and water in the presence of a weak base oxidizes the phosphite triester into a tetracoordinated phosphate triester, a protected precursor of the naturally occurring phosphate diester internucleosidic linkage.

0.05 M iodine. Thread sizes: 200 ml – 27 mm, 450 ml – 27 mm. The 2.5 l bottle can be used with all instruments.

Suitable for Expedite™89xx and Polygen®

UN no. 1993 · ADR 3 II · WGK 2

Danger H225-H302-H315-H319-H335-H351-H373-EUH019

Art. No.	Pack Qty.	Pack.	€
2254.1	200 ml	glass	34,30
2254.2	450 ml	glass	66,15
2254.3	2.5 l	glass	271,45
Original pack 4 x 2.5 l			257,88/2.5 l

Fast Oxidation reagent

for DNA synthesis

For DNA-synthesis with ABI™ and PolyGen® Synthesizer.

0,02 M Iode

The phosphite triester linkage formed during oligonucleotide synthesis is of limited stability and has to stabilised. Treatment of the support-bound material with iodine and water in the presence of a weak base oxidizes the phosphite triester into a tetracoordinated phosphate triester, a protected precursor of the naturally occurring phosphate diester internucleosidic linkage.

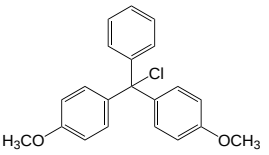
For quick separating phosphoramidites.
Thread sizes: 450 ml – 27 mm.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 1993 · ADR 3 II · WGK 2

Danger H225-H302-H315-H319-H335-H351-H373-EUH019

Art. No.	Pack Qty.	Pack.	€
A133.2	450 ml	glass	65,50



4,4'-Dimethoxytrityl chloride (DMT-Cl)

≥98 %, for synthesis

Protective group reagent

$C_{21}H_{19}ClO_2$ · M 338,83 g/mol

UN no. 1759 · ADR 8 II · WGK 2

Danger H314-H317-H411

Art. No.	Pack Qty.	Pack.	€
9671.1	5 g	glass	34,30
9671.2	25 g	glass	93,45
9671.3	50 g	glass	170,95
9671.4	100 g	glass	278,45

DNA Synthesis

DNA Synthesis Starter Kit for approx. 100 × 30mers



Product name	Recommended order quantity	Art. No.	Pack Qty.	€
Acetonitrile	2	**8824.2**	2.5 l	149,45
	5	**3620.1**	100 ml	35,40
Activation reagent	1	**2253.2**	450 ml	267,70
Adenosine-BCE-phosphoramidite	5	**K921.1**	1 g	44,65
Adenosine-CPG-Support	1	**2318.3**	1 g	74,75
Ammonia solution	1	**A990.1**	200 ml	22,05
Capping reagent I	2	**2255.2**	450 ml	96,65
Capping reagent II	1	**2256.2**	450 ml	93,45
Cytidine-BCE-phosphoramidite	5	**K922.1**	1 g	44,65
Cytidine-CPG-Support	1	**2319.3**	1 g	74,75
Disposable needles Sterican® long bevel facet	1	**C721.1**	100 unit(s)	8,15
DMT Removal DCE	1	**K060.1**	450 ml	46,15
Guanosine-BCE-phosphoramidite	5	**K923.1**	1 g	44,65
Guanosine-CPG-Support	1	**2320.3**	1 g	74,75
Molecular sieve 3 Å	5	**N893.1**	100 ml	15,60
Oxidation reagent	1	**2254.2**	450 ml	66,15
PCR reaction vials	1	**XT87.1**	1,000 unit(s)	71,45
Thymidine-BCE-phosphoramidite	5	**K924.1**	1 g	44,65
Thymidine-CPG-Support	1	**2321.3**	1 g	74,75
Disposable syringe, with Luer fitting	1	**0059.1**	100 unit(s)	26,95

For additional product data and safety information, see chapter Chemicals A-Z.

Solvents for DNA Synthesis

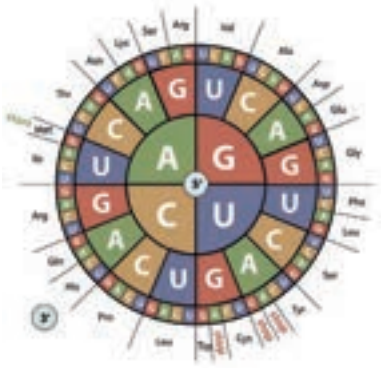
- Each reagent is specially purified for DNA synthesis
- Each batch is tested on a synthesizer to determine maximum yield
- Extremely careful manufacturing, testing and packing guarantee a standard of quality for the **DNA Synthesis Grade**

Solvents for DNA Synthesis

Product name	Purity	Art. No.	Pack Qty.	€
Acetonitrile	≥99,9 % (≤10 ppm H_2O)	**AE00.1**	1 l	51,10
		AE00.2	2.5 l	101,60
		AE00.3	4 l	155,90
	≥99,9 % (≤10 ppm H_2O), for DNA synthesis	**8824.2**	2.5 l	149,45
	≥99,9 % (≤30 ppm H_2O), for DNA synthesis	**2216.2**	2.5 l	115,60
	≥99,9 % (≤30 ppm H_2O), for DNA synthesis, in a septum bottle	**3620.1**	100 ml	35,40
Ammonia solution	30–33 %, for DNA synthesis	**A990.1**	200 ml	22,05

For additional product data and safety information, see chapter Chemicals A-Z.

Amino acids



Our amino acids are of the highest purity and suitable for a broad range of applications in biochemistry. Besides the natural occurring L-amino acids, we offer a selection of unnatural D-amino acids and DL-amino acids.



Alanine

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
D-Alanine	≥98 %, for biochemistry	plastic	**7866.1**	5 g	26,80
			7866.2	25 g	83,75
			7866.3	100 g	246,20
DL-Alanine	≥98,5 %, for biochemistry	plastic	**9798.2**	25 g	17,10
			9798.1	100 g	42,50
			9798.3	250 g	85,90
L-Alanine	≥98,5 %, for biochemistry	plastic	**3076.1**	25 g	26,35
			3076.2	250 g	134,40



Arginine

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
DL-Arginine	≥98,5 %, for biochemistry	plastic	**8592.1**	5 g	24,65
			8592.2	25 g	75,15
			8592.3	100 g	241,90
L-Arginine	CELLPURE® ≥99 %	plastic	**1655.1**	25 g	13,45
			1655.2	100 g	33,25
			1655.3	500 g	109,15
	≥98,5 %, USP, for biochemistry	plastic	**3144.1**	50 g	21,40
			3144.3	250 g	55,80
			3144.2	1 kg	174,70
D-Arginine monohydro-chloride	≥99 %, for biochemistry	plastic	**7868.1**	1 g	30,00
			7868.2	5 g	85,90
			7868.3	25 g	246,20
DL-Arginine monohydro-chloride	≥98 %, for biochemistry	plastic	**4925.1**	5 g	98,80
L-Arginine monohydro-chloride	CELLPURE® ≥98,5 %	plastic	**1689.1**	25 g	19,25
			1689.2	100 g	34,30
			1689.3	500 g	112,35
	≥98,5 %, Ph. Eur., USP	plastic	**3145.1**	50 g	21,40
			3145.2	250 g	59,70



Asparagine

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
D-Asparagine monohydrate	≥98 %, for biochemistry	plastic	**7872.1**	5 g	30,00
			7872.2	25 g	85,90
DL-Asparagine monohydrate	≥98 %, for biochemistry	plastic	**5495.1**	100 g	52,60
			5495.2	250 g	112,35
L-Asparagine monohydrate	CELLPURE® ≥99 %	plastic	**KK37.1**	50 g	32,15
			KK37.2	250 g	117,20
			KK37.3	500 g	213,95
	≥99 %, Ph. Eur., for biochemistry	plastic	**HN23.1**	100 g	46,80
			HN23.2	500 g	198,35
			HN23.3	1 kg	332,20



Aspartic acid

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
D-Aspartic acid	≥98 %, for biochemistry	plastic	**7873.1**	5 g	24,65
			7873.2	25 g	73,00
			7873.3	100 g	177,40
DL-Aspartic acid	≥98 %, for biochemistry	plastic	**8593.1**	100 g	60,10
			8593.2	500 g	256,95
L-Aspartic acid	CELLPURE® ≥99 %	plastic	**1690.1**	25 g	21,00
			1690.2	100 g	42,50
			1690.3	500 g	152,15
	≥98,5 %, Ph. Eur., for biochemistry	plastic	**T202.1**	100 g	28,95
			T202.2	500 g	128,50
			T202.3	1 kg	231,15

For additional product data and safety information, see chapter Chemicals A-Z.

Amino acids



Cysteine

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
DL-Cysteine	≥98 %, for biochemistry	plastic	**8594.1**	5 g	55,80
			8594.2	25 g	138,70
			8594.3	100 g	370,90
L-Cysteine	CELLPURE® ≥99 %	plastic	**1693.1**	25 g	32,15
			1693.2	100 g	82,25
			1693.3	500 g	352,10
	≥98 %, for biochemistry	glass	**3467.1**	10 g	19,25
			3467.2	50 g	37,55
		plastic	**3467.3**	250 g	138,70
L-Cysteine hydrochloride	≥99 %, p.a., anhydrous	plastic	**3468.1**	10 g	19,25
			3468.2	50 g	35,40
			3468.3	250 g	106,45
D-Cysteine hydrochloride monohydrate	≥98,5 %, for biochemistry	glass	**7874.1**	1 g	30,00
		plastic	**7874.2**	5 g	94,10
L-Cysteine hydrochloride monohydrate	CELLPURE® ≥99 %	plastic	**1694.1**	25 g	23,55
			1694.2	100 g	52,70
			1694.3	500 g	222,00
	≥98,5 %, for biochemistry	plastic	**T203.1**	50 g	32,15
			T203.2	100 g	50,45
			T203.3	500 g	205,90

Cystine (disulfide of cysteine)

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
DL-Cystine	≥98,5 %	glass	**5565.1**	1 g	27,85
L-Cystine	CELLPURE® ≥98,5 %	plastic	**1695.1**	25 g	34,30
			1695.2	100 g	88,05
			1695.3	500 g	360,15
	≥98,5 %, for biochemistry	plastic	**3471.1**	100 g	78,40
			3471.2	500 g	338,65



Glutamine

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
D-Glutamine	≥98,5 %, for biochemistry	glass	**7876.1**	1 g	29,60
		plastic	**7876.2**	5 g	85,90
			7876.3	25 g	246,20
DL-Glutamine	≥98,5 %, for biochemistry	glass	**8595.1**	1 g	52,60
		plastic	**8595.2**	5 g	99,45
			8595.3	25 g	306,40
L-Glutamine	CELLPURE® ≥99 %	plastic	**HN08.1**	25 g	23,55
			HN08.2	100 g	46,15
			HN08.3	500 g	162,90
	≥99 %, USP, for biochemistry	plastic	**3772.1**	100 g	37,55
			3772.2	500 g	123,65
			3772.3	1 kg	224,70
			3772.4	2.5 kg	471,95



Glutamic acid

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
D-Glutamic acid	≥99 %, for biochemistry	plastic	**7879.1**	5 g	30,00
			7879.2	25 g	89,15
			7879.3	100 g	209,65
DL-Glutamic acid	≥98,5 %, for biochemistry	plastic	**8596.1**	25 g	70,85
			8596.2	100 g	224,70
L-Glutamic acid	CELLPURE® ≥99 %	plastic	**1743.1**	25 g	18,85
			1743.2	100 g	31,10
			1743.3	500 g	98,40
	≥98,5 %, Ph. Eur., for biochemistry	plastic	**3774.1**	250 g	45,05
			3774.2	1 kg	134,40



Glycine

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
Glycine	≥99 %, Blotting Grade	plastic	**0079.1**	250 g	31,75
			0079.2	500 g	59,05
			0079.3	1 kg	101,60
			0079.4	2.5 kg	196,20
	PUFFERAN® ≥99 %, p.a.	plastic	**3908.1**	250 g	29,60
			3908.2	1 kg	96,65
			3908.4	2.5 kg	180,10
			3908.3	5 kg	267,70
			3908.6	10 kg	471,95
			3908.5	25 kg	1.037,40
	CELLPURE® ≥99 %	plastic	**HN07.1**	100 g	21,40
			HN07.2	500 g	62,90
			HN07.3	1 kg	112,90
	Ph. Eur., USP, JP	plastic	**T873.1**	250 g	32,80
			T873.3	500 g	60,10
			T873.2	1 kg	104,85
			T873.4	2.5 kg	231,15
	≥99 %, for biochemistry	plastic	**3187.1**	250 g	23,55
			3187.2	500 g	33,90
			3187.3	1 kg	51,10
			3187.5	2.5 kg	101,60
			3187.4	5 kg	192,45
			3187.6	10 kg	332,20
			3187.7	25 kg	633,20
	≥99 %, for synthesis	plastic	**3790.1**	250 g	21,40
			3790.2	1 kg	45,05
			3790.4	2.5 kg	91,30
			3790.3	5 kg	160,20
			3790.5	10 kg	295,65
			3790.6	25 kg	579,45

For additional product data and safety information, see chapter Chemicals A-Z.



Histidine

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
D-Histidine	≥98 %, for biochemistry	plastic	**7880.1**	5 g	59,05
			7880.2	25 g	170,95
DL-Histidine	≥98,5 %, for biochemistry	plastic	**8597.1**	5 g	37,10
			8597.2	25 g	107,40
			8597.3	100 g	353,70
L-Histidine	CELLPURE® ≥99 %	plastic	**1696.1**	25 g	32,15
			1696.2	100 g	70,85
			1696.3	500 g	289,20
	≥98,5 %, Ph. Eur., for biochemistry	plastic	**3852.1**	25 g	21,40
			3852.3	100 g	59,05
			3852.2	1 kg	435,40
L-Histidine hydrochloride monohydrate	CELLPURE® ≥99 %	plastic	**1697.1**	25 g	27,85
			1697.2	100 g	67,65
			1697.3	500 g	267,70
	≥98,5 %, Ph. Eur., for biochemistry	plastic	**9455.1**	100 g	50,45
			9455.3	250 g	107,40
			9455.2	500 g	203,20



Isoleucine

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
DL-Isoleucine	≥98,5 %, for biochemistry	plastic	**8598.1**	10 g	29,60
			8598.2	50 g	107,40
			8598.3	100 g	188,15
L-Isoleucine	CELLPURE® ≥99 %	plastic	**1698.1**	25 g	30,00
			1698.2	100 g	73,00
			1698.3	500 g	292,95
	≥98,5 %, USP, for biochemistry	glass	**3922.1**	10 g	18,20
		plastic	**3922.2**	100 g	56,90
			3922.4	500 g	213,95
			3922.3	1 kg	418,20



Leucine

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
D-Leucine	≥99 %, for biochemistry	plastic	**7882.1**	5 g	35,40
			7882.2	25 g	105,25
			7882.3	100 g	317,15
DL-Leucine	≥98,5 %, for biochemistry	plastic	**8599.1**	25 g	27,85
			8599.2	50 g	46,15
			8599.3	250 g	192,45
L-Leucine	CELLPURE® ≥99 %	plastic	**1699.1**	25 g	25,70
			1699.2	100 g	62,25
			1699.3	500 g	231,15
	≥98,5 %, Ph. Eur., for biochemistry	plastic	**3984.1**	100 g	49,35
			3984.3	250 g	96,65
			3984.4	500 g	177,40
			3984.2	1 kg	332,20



Lysine

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
L-Lysine monohydrate	CELLPURE® ≥98,5 %	plastic	**6829.1**	25 g	64,40
			6829.2	100 g	138,70
			6829.3	500 g	532,15
	≥98,5 %, for biochemistry	plastic	**4207.1**	25 g	60,10
			4207.2	100 g	127,95
D-Lysine hydrochloride	≥99 %, for biochemistry	glass	**7883.1**	1 g	30,00
		plastic	**7883.2**	5 g	67,20
			7883.3	25 g	160,20
DL-Lysine hydrochloride	≥98 %, for biochemistry	glass	**8600.1**	500 mg	22,50
			8600.2	1 g	37,10
		plastic	**8600.3**	5 g	67,20
L-Lysine hydrochloride	CELLPURE® ≥99 %	plastic	**1700.1**	25 g	20,35
			1700.2	100 g	42,90
			1700.3	500 g	149,45
	≥98,5 %, Ph. Eur., USP, JP, for biochemistry	plastic	**9357.1**	100 g	27,85
			9357.3	250 g	53,65
			9357.4	500 g	96,65
			9357.2	1 kg	177,40

For additional product data and safety information, see chapter Chemicals A-Z.

Amino acids



Methionine

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
D-Methionine	≥98 %, for biochemistry	plastic	**7885.1**	5 g	24,65
			7885.2	25 g	75,15
			7885.3	100 g	198,90
DL-Methionine	≥99 %, for biochemistry	plastic	**8602.1**	100 g	33,90
			8602.2	500 g	134,40
			8602.3	1 kg	82,70
			8602.4	2.5 kg	170,95
L-Methionine	CELLPURE® ≥99 %	plastic	**1702.1**	25 g	21,40
			1702.2	100 g	45,05
			1702.3	500 g	174,70
	≥99 %, for biochemistry	plastic	**9359.1**	100 g	37,10
			9359.3	250 g	74,20
			9359.4	500 g	137,10
			9359.2	1 kg	252,65



Ornithine

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
L-Ornithine monohydro-chloride	CELLPURE® ≥99 %	plastic	**1703.1**	25 g	28,95
			1703.2	100 g	65,50
			1703.3	500 g	246,20
	≥99 %, for biochemistry	plastic	**T204.1**	25 g	18,20
			T204.2	100 g	47,20
			T204.3	500 g	166,65



Phenylalanine

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
D-Phenyl-alanine	≥98,5 %, for biochemistry	plastic	**7886.1**	5 g	26,35
			7886.2	25 g	81,60
			7886.3	100 g	198,90
DL-Phenyl-alanine	≥98,5 %, for biochemistry	plastic	**8603.1**	25 g	39,70
			8603.2	100 g	126,35
			8603.3	250 g	256,95
L-Pheny-alanine	CELLPURE® ≥99 %	plastic	**1709.1**	25 g	23,15
			1709.2	100 g	52,70
			1709.3	500 g	209,65
L-Phenyl-alanine	≥98,5 %, Ph. Eur., for biochemistry	plastic	**4491.3**	25 g	18,20
			4491.1	100 g	47,85
			4491.4	250 g	99,90
			4491.2	1 kg	349,40



Proline

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
D-Proline	≥98,5 %, for biochemistry	glass	**7888.1**	1 g	29,60
		plastic	**7888.2**	5 g	85,90
			7888.3	25 g	224,70
DL-Proline	≥99 %, for biochemistry	plastic	**5267.1**	5 g	32,15
			5267.2	10 g	58,60
			5267.3	25 g	117,20
L-Proline	CELLPURE® ≥98,5 %	plastic	**1713.1**	25 g	37,10
			1713.2	100 g	93,45
			1713.3	500 g	349,40
	≥98,5 %, Ph. Eur., for biochemistry	plastic	**T205.1**	25 g	31,10
			T205.2	100 g	79,05
			T205.3	500 g	299,95



Serine

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
D-Serine	≥99 %, for biochemistry	glass	**7531.2**	1 g	14,95
		plastic	**7531.1**	5 g	23,15
			7531.3	25 g	93,45
DL-Serine	≥99 %, for biochemistry	plastic	**8606.1**	100 g	55,80
			8606.2	500 g	235,45
L-Serine	CELLPURE® ≥99 %	plastic	**1714.1**	25 g	31,75
			1714.2	100 g	80,55
			1714.3	500 g	310,70
	≥98,5 %, Ph. Eur.	plastic	**4682.1**	100 g	56,90
			4682.3	250 g	112,35
			4682.4	500 g	203,20
			4682.2	1 kg	360,15

For additional product data and safety information, see chapter Chemicals A-Z.



Threonine

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
D-Threonine	≥98,5 %, for biochemistry	plastic	**7889.1**	5 g	30,00
			7889.2	25 g	93,45
			7889.3	100 g	295,65
DL-Threonine	≥98 %, for biochemistry	plastic	**7532.1**	10 g	26,80
			7532.4	50 g	58,60
			7532.2	100 g	94,10
			7532.3	500 g	403,15
L-Threonine	CELLPURE® ≥99 %	plastic	**1738.1**	25 g	24,20
			1738.2	100 g	49,35
			1738.3	500 g	192,45
	≥99 %, Ph. Eur., for biochemistry	plastic	**T206.1**	25 g	19,25
			T206.2	100 g	38,60
			T206.4	250 g	78,40
			T206.3	500 g	145,15



Tryptophan

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
D-Tryptophan	≥98,5 %, for biochemistry	plastic	**7700.1**	5 g	61,85
			7700.2	25 g	177,40
DL-Tryptophan	≥98 %, for biochemistry	plastic	**5236.1**	10 g	19,90
			5236.2	25 g	38,20
			5236.3	100 g	123,65
L-Tryptophan	CELLPURE® ≥99 %	plastic	**1739.1**	25 g	36,45
			1739.2	100 g	104,85
			1739.3	500 g	428,95
	≥98,5 %, Ph. Eur., for biochemistry	glass	**4858.1**	10 g	18,20
		plastic	**4858.2**	100 g	89,15
			4858.4	250 g	192,45
			4858.3	1 kg	708,45



Tyrosine

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
D-Tyrosine	≥98 %, for biochemistry	glass	**7890.1**	1 g	24,65
		plastic	**7890.2**	5 g	74,75
			7890.3	25 g	220,40
DL-Tyrosine	≥98,5 %, for biochemistry	plastic	**8608.1**	10 g	30,65
			8608.2	50 g	89,15
			8608.3	250 g	332,20
L-Tyrosine	CELLPURE® ≥99 %	plastic	**1741.1**	25 g	28,95
			1741.2	100 g	78,40
			1741.3	500 g	310,70
	≥99 %, Ph. Eur., for biochemistry	plastic	**T207.1**	25 g	20,35
			T207.2	100 g	51,50
			T207.3	500 g	205,90



Valine

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
D-Valine	≥98,5 %, for biochemistry	plastic	**7891.1**	5 g	28,95
			7891.2	25 g	89,15
			7891.3	100 g	278,45
DL-Valine	≥99 %, for biochemistry	plastic	**7540.1**	50 g	73,65
			7540.2	100 g	213,95
			7540.3	250 g	289,20
L-Valine	CELLPURE® ≥99 %	plastic	**1742.1**	25 g	24,65
			1742.2	100 g	51,50
			1742.3	500 g	188,15
	≥98,5 %, USP, for biochemistry	plastic	**4879.1**	25 g	21,00
			4879.3	100 g	48,30
			4879.4	250 g	94,10
			4879.5	500 g	149,45
			4879.2	1 kg	274,15

For additional product data and safety information, see chapter Chemicals A-Z.

Amino Acid Derivatives

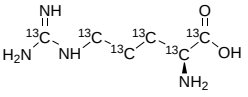
Product name	Brand/Purity	Art. No.	Pack Qty.	€
N-Acetyl-L-cysteine	≥98 %, for biochemistry	**4126.1**	25 g	31,10
		4126.2	100 g	99,45
N-Acetylglycine	≥99 %, for biochemistry	**5526.1**	25 g	22,05
		5526.2	100 g	46,80
		5526.3	500 g	198,90
β-Alanine	≥99 %, for biochemistry	**3078.2**	50 g	32,15
		3078.1	250 g	99,45
L-Alaninol	≥98 %, for biochemistry	**5521.1**	1 g	31,10
		5521.2	5 g	117,20
		5521.3	10 g	198,90
L-Alanyl-L-glutamine	CELLPURE® ≥99 %	**6831.1**	5 g	37,55
		6831.2	10 g	56,90
		6831.3	25 g	112,80
		6831.4	100 g	375,20
	≥98 %, for biochemistry	**6830.1**	10 g	49,35
		6830.2	50 g	170,95
Alliin	ROTICHROM® HPLC	**K031.1**	10 mg	332,20
2-Amino-5-bromo-benzoic acid	≥95 %, for biochemistry	**5519.1**	5 g	30,00
		5519.2	25 g	100,95
DL-2-Aminobutyric acid	≥97 %, for biochemistry	**5518.1**	25 g	58,60
		5518.2	100 g	174,70
2-Amino-4-chloro-benzoic acid	≥98 %, for biochemistry	**5516.1**	10 g	23,15
		5516.2	25 g	44,00
		5516.3	100 g	145,15
6-Aminohexanoic acid	≥99 %, for synthesis	**3113.1**	100 g	36,45
		3113.3	250 g	76,25
		3113.2	500 g	138,70
4-Aminohippuric acid	≥98 %, for biochemistry	**6187.1**	10 g	129,55
		6187.2	100 g	1.030,95
2-Aminoisobutyric acid	≥97 %, for biochemistry	**5514.1**	50 g	52,60
		5514.2	100 g	91,95
5-Aminolevulinic acid hydrochloride	≥98 %, for biochemistry	**8451.1**	500 mg	31,10
		8451.2	1 g	46,15
		8451.3	5 g	149,45
DL-Carnitinchloride	≥98 %, for biochemistry	**7212.1**	25 g	77,30
L-Carnosine	≥98 %, for biochemistry	**4148.1**	1 g	34,95
		4148.2	5 g	112,90
Cysteamine hydro-chloride	≥99 %, for biochemistry	**7625.1**	25 g	34,30
		7625.2	100 g	91,30
		7625.3	250 g	160,20
		7625.8	500 g	278,45
DL-2,3-Diamino-propionic acid hydrochloride	≥99 %, for biochemistry	**5431.1**	1 g	31,75
		5431.2	5 g	109,15
N-Formyl-L-Leucine	≥98 %, for biochemistry	**6665.1**	500 mg	24,65
		6665.2	1 g	48,30
		6665.3	5 g	181,70
Glutathione oxidized	≥98 %, for biochemistry	**6378.1**	1 g	46,15
		6378.2	5 g	188,15
L-Glutathione reduced	CELLPURE® ≥99 %	**6832.1**	2.5 g	32,15
		6832.2	5 g	45,05
		6832.3	10 g	69,80
		6832.4	25 g	138,70
	≥98 %, for biochemistry	**6382.1**	5 g	36,45
		6382.2	25 g	117,20
		6382.3	50 g	209,65
		6382.4	100 g	392,40
Glycinamide hydrochloride	≥95 %, for biochemistry	**5543.1**	10 g	30,00
		5543.2	25 g	58,60
		5543.3	50 g	104,85
Glycine anhydride	extra pure	**5542.1**	25 g	56,90
Glycylglycine	PUFFERAN® ≥99 %, Ultra Quality	**3794.1**	10 g	21,40
		3794.2	100 g	134,40
		3794.3	250 g	267,70
		3794.4	500 g	493,45
	PUFFERAN® ≥98,5 %, Buffer Grade	**HN74.1**	50 g	42,50
		HN74.2	100 g	70,85
		HN74.3	250 g	153,20
		HN74.4	500 g	278,45
Hippuric acid sodium salt hydrate	≥99 %, cryst.	**7507.1**	25 g	192,45
L-4-Hydroxyproline	≥99 %, for biochemistry	**3893.1**	5 g	53,65
L-Kynurenine	≥98 %, for biochemistry	**8456.1**	100 mg	73,65
		8456.2	250 mg	141,40
		8456.3	500 mg	256,95
L-*tert*-Leucine methyl-ester hydrochloride	≥98 %, for biochemistry	**6664.1**	500 mg	38,60
		6664.2	1 g	60,10
3-Nitro-L-tyrosine	≥98 %, for biochemistry	**5275.1**	5 g	78,40
		5275.2	10 g	134,40
L-Norvalinol	≥98 %, for biochemistry	**6663.2**	1 g	n. a.
N-Phenylglycine	≥97 %, for biochemistry	**5939.1**	10 g	61,20
Serotonin creatinine sulphate monohydrate	≥99 %, for biochemistry	**8385.1**	1 g	174,70
Serotonin hydrochloride	≥98 %, for biochemistry	**8367.1**	100 mg	26,35
		8367.2	1 g	49,35
		8367.3	5 g	192,45
Taurine	≥99 %, for biochemistry	**4721.1**	100 g	23,55
		4721.2	500 g	69,35
Tyramine	≥98 %, for biochemistry	**4862.2**	1 g	19,90
		4862.1	5 g	29,60
		4862.3	25 g	80,10

For additional product data and safety information, see chapter Chemicals A-Z.

Isotope Labelled Amino Acids (SILAC)

Stable Isotope Labelling with Amino Acids in Cell Culture (SILAC) is a metabolic labelling technique for mass spectrometric (MS)-based quantitative proteomics. For this purpose originally identical cell cultures are cultivated with different nutrient media. One of the cell populations is fed with growth medium containing unlabelled amino acids. In contrast, the second cell culture is fed with a medium containing one or two amino acids labelled with stable (non-radioactive) heavy isotopes. For example, the medium may contain arginine labelled with ^{13}C carbon instead of the normal ^{12}C carbon. The cells growing in this medium incorporate the heavy arginine into all their proteins. Then all peptides containing a single arginine are 6 Dalton heavier than their normal counterparts. The proteins from both cell populations are then mixed together in a ratio of 1:1 and analysed by mass spectroscopy. Pairs of chemically identical peptides of different isotopic compositions can be distinguished in a mass spectrometer on the basis of their mass difference. The ratio of the intensities in the mass spectrum for such peptide pairs reflects the frequency ratio for the two proteins.

References:
S.-E. Ong and M. Mann, A practical recipe for stable isotope labeling by amino acids in cell culture (SILAC). Nature Protocols 2006, 1, 2650-2660.



· HCl

L-Arginine $^{13}C_6$ monohydrochloride

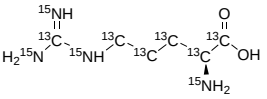
≥98 % ^{13}C

For proteomics by mass spectrometry.

$^{13}C_6H_{14}N_4O_2$ · HCl · M 216,7 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
2061.1	100 mg	glass	349,40



· HCl

L-Arginine $^{13}C_6{}^{15}N_4$ monohydrochloride

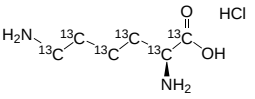
≥98 % $^{13}C^{15}N$

For proteomics by mass spectrometry.

$^{13}C_6H_{14}{}^{15}N_4O_2$ · HCl · M 216,7 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
2063.1	100 mg	glass	310,70



L-Lysine $^{13}C_6$ hydrochloride

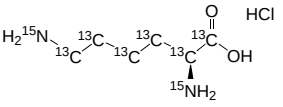
≥98 % ^{13}C

For proteomics by mass spectrometry.

$^{13}C_6H_{14}N_2O_2$ · HCl · M 188,7 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
2083.1	100 mg	glass	353,70



L-Lysine $^{13}C_6{}^{15}N_2$ hydrochloride

≥98 % $^{13}C^{15}N$

For proteomics by mass spectrometry.

$^{13}C_6H_{14}{}^{15}N_2O_2$ · HCl · M 190,7 g/mol

WGK 1

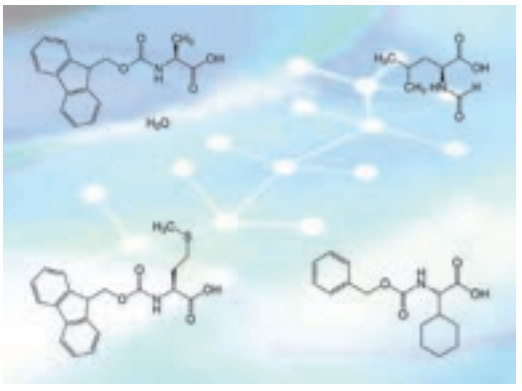
Art. No.	Pack Qty.	Pack.	€
2085.1	100 mg	glass	418,20

PEPTIPURE®-Reagents

Our Brand for Peptide Synthesis

Peptide synthesis reagents must meet very high requirements to ensure that no by-products are produced during peptide synthesis and that very high yields can be achieved. Under the brand name PEPTIPURE® you will find all reagents that are especially suitable for peptide synthesis.

Protected Amino Acids



We supply protected amino acids of the highest quality and purity for standard applications in biochemistry and specifically for peptide synthesis.

Ala

Alanine

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Alanine	PEPTIPURE® ≥98,5 %, for biochemistry	Boc-L-Ala-OH	**6907.1**	5 g	21,00
			6907.2	25 g	70,45
			6907.3	100 g	222,00
Fmoc-L-Alanine monohydrate	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Ala-OH	**6646.1**	10 g	23,55
			6646.2	50 g	69,35
			6646.3	250 g	278,45
			6646.4	500 g	525,70
			6646.5	1 kg	987,95
Fmoc-L-β-Azidoalanine	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Aza-OH	**7369.1**	250 mg	134,40
			7369.2	1 g	439,70
Fmoc-L-γ-Azidohomo-alanine	PEPTIPURE® ≥99 %, for biochemistry	Fmoc-L-Aha-OH	**7363.1**	250 mg	107,00
			7363.2	1 g	375,20

Arg

Arginine

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Arginine hydrochloride monohydrate	PEPTIPURE® ≥98 %, for biochemistry	Boc-L-Arg-OH	**6914.1**	5 g	35,40
			6914.2	25 g	96,65
			6914.3	100 g	278,45
Fmoc-L-Arginine	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Arg-OH	**6896.1**	5 g	38,60
			6896.2	25 g	149,45
Fmoc-L-Arginine-(Pbf)	PEPTIPURE® ≥85 %, for biochemistry	Fmoc-L-Arg(Pbf)-OH	**8833.1**	5 g	49,35
			8833.2	25 g	181,70
			8833.3	100 g	568,70
Z-L-Arginine	PEPTIPURE® ≥98,5 %, for biochemistry	Cbz-L-Arginin	**1914.1**	5 g	20,35
			1914.2	25 g	50,45
			1914.3	100 g	138,70

Asn

Asparagine

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Asparagine	PEPTIPURE® ≥98 %, for biochemistry	Boc-L-Asn-OH	**6915.1**	5 g	17,75
			6915.2	25 g	50,45
			6915.3	100 g	166,65
Fmoc-L-Asparagine	PEPTIPURE® ≥98,5 %, for biochemistry	Fmoc-L-Asn-OH	**6897.1**	5 g	21,40
			6897.2	25 g	64,40
			6897.3	100 g	209,65
Fmoc-L-Asparagine-(Trityl)	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Asn(Trt)-OH	**9652.1**	5 g	24,65
			9652.2	25 g	78,40
			9652.3	100 g	256,95

Asp

Aspartic acid

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Aspartic acid-(O-Benzyl)	PEPTIPURE® ≥98,5 %, for biochemistry	Boc-L-Asp(OBzl)-OH	**8846.1**	5 g	46,15
			8846.2	25 g	149,45
			8846.3	100 g	482,70
Fmoc-L-Aspartic acid-(OAllyl)	PEPTIPURE® ≥98,5 %, for biochemistry	Fmoc-L-Asp(OAll)-OH	**6641.1**	500 mg	24,65
			6641.2	1 g	38,60
			6641.3	5 g	158,60
Fmoc-L-Aspartic acid-(OtBu)	PEPTIPURE® ≥96 %, for biochemistry	Fmoc-L-Asp(OtBu)-OH	**9654.1**	5 g	28,50
			9654.2	25 g	85,90
			9654.3	100 g	278,45
Z-L-Aspartic acid	PEPTIPURE® ≥98,5 %, for biochemistry	Z-L-Asp-OH	**1894.1**	5 g	23,55
			1894.2	25 g	66,55
			1894.3	100 g	177,40

For additional product data and safety information, see chapter Chemicals A-Z.



Cysteine

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Cysteine-(4-Mbzl)	PEPTIPURE® ≥98,5 %, for biochemistry	Boc-Cys-(4-Mbzl)-OH	**2042.1**	5 g	29,60
			2042.2	10 g	55,80
			2042.3	25 g	117,20
Fmoc-L-Cysteine-	PEPTIPURE® ≥99 %, for biochemistry	Fmoc-L-Cys(Acm)-OH	**8842.1**	5 g	42,90
			8842.2	25 g	138,70
			8842.3	100 g	439,70
Fmoc-L-Cysteine-(Trityl)	PEPTIPURE® ≥98,5 %, for biochemistry	Fmoc-L-Cys(Trt)-OH	**8841.1**	5 g	23,55
			8841.2	25 g	71,95
			8841.3	100 g	220,40



Dioxaoctanioc acid

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Fmoc-8-Amino-3,6-dioxaoctanoic acid	PEPTIPURE® ≥99 %, for biochemistry	Fmoc-O_2Oc-OH	**7400.1**	500 mg	89,15
			7400.2	1 g	145,15



Glutamine

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Glutamine	PEPTIPURE® ≥97 %, for biochemistry	Boc-L-Gln-OH	**6916.1**	5 g	21,00
			6916.2	25 g	70,45
			6916.3	100 g	222,00
Fmoc-L-Glutamine	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Gln-OH	**6898.1**	5 g	23,15
			6898.2	25 g	71,95
			6898.3	100 g	241,90
Fmoc-L-Glutamine-(Trityl)	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Gln(Trt)-OH	**9653.1**	5 g	31,10
			9653.2	25 g	103,10
			9653.3	100 g	342,95

For additional product data and safety information, see chapter Chemicals A-Z.



Glutamic acid

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Glutamic acid	PEPTIPURE® ≥99 %, for biochemistry	Boc-L-Glu-OH	**6917.1**	5 g	24,20
			6917.2	25 g	77,30
			6917.3	100 g	256,95
Fmoc-L-Glutamic acid-(OtBu) monohydrate	PEPTIPURE® ≥99 %, for biochemistry	Fmoc-L-Glu(OtBu)-OH	**9655.1**	5 g	26,35
			9655.2	25 g	85,90
			9655.3	100 g	278,45
Z-L-Glutamic acid	PEPTIPURE® ≥98,5 %, for biochemistry	Z-L-Glu-OH	**1885.1**	5 g	22,50
			1885.2	25 g	55,80
			1885.3	100 g	170,95



Glycine

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-Glycine	PEPTIPURE® ≥98 %, for biochemistry	Boc-Gly-OH	**6918.1**	5 g	14,95
			6918.2	25 g	40,75
			6918.3	100 g	128,50
Cbz-Cyclohexyl-L-glycine	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-Gly-OH	**6636.1**	500 mg	25,30
			6636.2	1 g	40,75
			6636.3	5 g	160,20
Fmoc-Glycine	PEPTIPURE® ≥99 %, for biochemistry	Cbz-L-Chg-OH	**6899.1**	5 g	15,60
			6899.2	25 g	42,50
			6899.3	100 g	149,45



Histidine

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Histidine	PEPTIPURE® ≥98 %, for biochemistry	Boc-L-His-OH	**6920.1**	5 g	42,90
			6920.2	25 g	188,15
Boc-L-Histidine-(Dnp)	PEPTIPURE® ≥97,5 %, for biochemistry	Boc-L-His-(Dnp)-OH	**1994.1**	1 g	27,85
			1994.2	5 g	59,05
			1994.3	10 g	106,45
Fmoc-L-Histidine-(Trityl)	PEPTIPURE® ≥97 %, for biochemistry	Fmoc-L-His(Trt)-OH	**8843.1**	5 g	26,35
			8843.2	25 g	85,90
			8843.3	100 g	278,45



Hydroxyproline

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Hydroxy-proline	PEPTIPURE® ≥98 %, for biochemistry	Boc-L-Hyp-OH	**6921.1**	5 g	55,80
			6921.2	25 g	192,45



Isoleucine

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Isoleucine hemihydrate	PEPTIPURE® ≥98 %, for biochemistry	Boc-L-Ile-OH	**6923.1**	5 g	17,75
			6923.2	25 g	50,45
			6923.3	100 g	166,65
Fmoc-L-Isoleucine	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Ile-OH	**6647.1**	10 g	23,15
			6647.2	50 g	60,10
			6647.3	250 g	235,45



Leucine

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Leucine monohydrate	PEPTIPURE® ≥98 %, for biochemistry	Boc-L-Leu-OH	**6924.1**	5 g	17,75
			6924.2	25 g	50,45
			6924.3	100 g	166,65
Boc-L-*tert*-Leucine	PEPTIPURE® ≥98,5 %, for biochemistry	Boc-L-Tle-OH	**6942.1**	1 g	31,10
			6942.2	5 g	117,20
			6942.3	10 g	214,50
Fmoc-L-Leucine	PEPTIPURE® ≥95 %, for biochemistry	Fmoc-L-Leu-OH	**6654.1**	10 g	23,15
			6654.2	50 g	60,10
			6654.3	250 g	235,45
			6654.4	500 g	450,45
Z-L-Leucine	PEPTIPURE® ≥94 %, for biochemistry	Z-L-Leu-OH	**1859.1**	5 g	20,35
			1859.2	25 g	51,10
			1859.3	100 g	160,20



Lysine

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Lysine	PEPTIPURE® ≥98 %, for biochemistry	Boc-L-Lys-OH	**6926.1**	1 g	22,50
			6926.2	5 g	73,00
			6926.3	10 g	126,35
Fmoc-L-Azidolysine	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Lys(N_3)-OH	**7357.1**	250 mg	117,20
			7357.2	1 g	385,95
Fmoc-L-Lysine	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Lys-OH	**6900.1**	1 g	21,00
			6900.2	5 g	66,15
			6900.3	10 g	117,20
Fmoc-L-Lysine-(Boc)	PEPTIPURE® ≥98,5 %, for biochemistry	Fmoc-L-Lys-(Boc)-OH	**8840.1**	5 g	23,55
			8840.2	25 g	73,65
			8840.3	100 g	220,40
Z-L-Lysine	PEPTIPURE® ≥98 %, for biochemistry	Z-L-Lys-OH	**1907.1**	1 g	27,85
			1907.2	5 g	83,75
			1907.3	10 g	149,45



Methionine

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Methionine	PEPTIPURE® ≥99 %, for biochemistry	Boc-L-Met-OH	**6928.1**	5 g	25,30
			6928.2	25 g	81,60
			6928.3	100 g	263,40
Fmoc-L-Methionine	PEPTIPURE® ≥95 %, for biochemistry	Fmoc-L-Met-OH	**6656.1**	10 g	23,55
			6656.2	50 g	66,55
			6656.3	250 g	267,70



Ornithine

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Fmoc-L-Azidoornithine	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Orn(N_3)-OH	**7362.1**	250 mg	134,40
			7362.2	1 g	439,70
Fmoc-L-Ornithine-(Boc)	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Orn-(Boc)-OH	**1932.1**	1 g	21,40
			1932.2	5 g	67,20
			1932.3	10 g	117,20



Phenylalanine

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Phenyl-alanine	PEPTIPURE® ≥99 %, for biochemistry	Boc-L-Phe-OH	**6931.1**	5 g	23,55
			6931.2	25 g	70,45
			6931.3	100 g	222,00
Fmoc-L-4-Azidophenyl-alanine	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Phe(4-N_3)-OH	**7485.1**	100 mg	67,20
			7485.2	250 mg	141,40
Fmoc-L-Phenylalanine	PEPTIPURE® ≥98,5%, for biochemistry	Fmoc-L-Phe-OH	**6658.1**	10 g	23,15
			6658.2	50 g	62,25
			6658.3	250 g	246,20
Z-L-Phenyl-alanine	PEPTIPURE® ≥98 %, for biochemistry	Z-L-Phe-OH	**1865.1**	5 g	27,85
			1865.2	25 g	75,15
			1865.3	100 g	209,65

For additional product data and safety information, see chapter Chemicals A-Z.



Proline

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Proline	PEPTIPURE® ≥98 %, for biochemistry	Boc-L-Pro-OH	**6932.1**	5 g	14,95
			6932.2	25 g	40,75
			6932.3	100 g	128,50
Fmoc-L-4-Azidoproline (2S,4R)	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Pro-(4-N_3)-OH	**7367.1**	100 mg	112,90
			7367.2	250 mg	220,40
			7367.3	1 g	725,65
Fmoc-L-Proline	PEPTIPURE® ≥99 %, for biochemistry	Fmoc-L-Pro-OH	**6659.1**	10 g	21,40
			6659.2	50 g	53,65
			6659.3	250 g	203,20



Propargylglycine

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Fmoc-L-Pro-pargylglycine	PEPTIPURE® ≥99 %, for biochemistry	Fmoc-L-Pra-OH	**7491.1**	100 mg	62,25
			7491.2	250 mg	117,20



Serine

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Serine	PEPTIPURE® ≥99 %, for biochemistry	Boc-L-Ser-OH	**6933.1**	5 g	25,70
			6933.2	25 g	85,90
			6933.3	100 g	289,20
Fmoc-L-Serine monohydrate	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Ser-OH	**6901.1**	5 g	62,25
			6901.2	25 g	198,90
Fmoc-L-Serine-(tBu)	PEPTIPURE® ≥99 %, for biochemistry	Fmoc-L-Ser(t-Bu)-OH	**9666.1**	5 g	28,95
			9666.2	25 g	88,70
			9666.3	100 g	289,20



Threonine

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Threonine	PEPTIPURE® ≥98 %, for biochemistry	Boc-L-Thr-OH	**6935.1**	5 g	32,15
			6935.2	25 g	123,65
Fmoc-L-Threonine-(tBu)	PEPTIPURE® ≥99 %, for biochemistry	Fmoc-L-Thr(tBu)-OH	**9659.1**	5 g	28,95
			9659.2	25 g	88,70
			9659.3	100 g	289,20



Tryptophan

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Tryptophan	PEPTIPURE® ≥95 %, for biochemistry	Boc-L-Trp-OH	**6945.1**	5 g	17,75
			6945.2	25 g	50,45
			6945.3	100 g	166,65
Fmoc-L-Tryptophan	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Trp-OH	**6903.1**	5 g	21,40
			6903.2	25 g	64,40
			6903.3	100 g	213,95
Fmoc-L-Tryptophan-(Boc)	PEPTIPURE® ≥97 %, for biochemistry	Fmoc-L-Trp(Boc)-OH	**9668.1**	5 g	42,50
			9668.2	25 g	145,15
			9668.3	100 g	489,15



Tyrosine

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Tyrosine	PEPTIPURE® ≥98 %, for biochemistry	Boc-L-Tyr-OH	**6949.1**	5 g	37,10
			6949.2	25 g	145,15
Fmoc-L-Tyrosine	PEPTIPURE® ≥98 %, for biochemistry	Fmoc-L-Tyr-OH	**6906.1**	1 g	41,95
			6906.2	5 g	96,65
			6906.3	10 g	170,95
Fmoc-L-Tyrosine-(tBu)	PEPTIPURE® ≥99 %, for biochemistry	Fmoc-L-Tyr(tBu)-OH	**9669.1**	5 g	28,95
			9669.2	25 g	88,70
			9669.3	100 g	289,20



Valine

Product name	Brand/Purity	Alternative Name	Art. No.	Pack Qty.	€
Boc-L-Valine	PEPTIPURE® ≥98 %, for biochemistry	Boc-L-Val-OH	**6950.1**	5 g	17,75
			6950.2	25 g	50,45
			6950.3	100 g	166,65
Fmoc-L-Valine	PEPTIPURE® ≥95 %, for biochemistry	Fmoc-L-Val-OH	**6660.1**	10 g	23,15
			6660.2	50 g	62,25
			6660.3	250 g	246,20
			6660.4	500 g	450,45

For additional product data and safety information, see chapter Chemicals A-Z.

Coupling Reagents

Our range of traditional and innovative coupling reagents is suited for standard coupling reactions. We offer premium quality products and excellent value for money.

PEPTIPURE® Coupling Reagents

Product name	Brand/Purity	Synonymous	Art. No.	Pack Qty.	€
Benzotriazole-1-yl-oxy-tris-(dimethylamino)-phosphonium hexafluorophosphate (BOP)	PEPTIPURE® ≥99 %	BOP	**2168.1**	5 g	23,55
			2168.2	25 g	62,25
			2168.3	100 g	181,70
1,1'-Carbonyldiimidazole (CDI)	PEPTIPURE® ≥98 %	CDI	**6992.1**	10 g	35,40
			6992.2	25 g	67,65
			6992.3	100 g	160,20
			6992.4	500 g	600,95
1-[(1-(Cyano-2-ethoxy-2-oxoethylidene-aminooxy) dimethylaminomorpholino)] uronium hexafluorophosphate (COMU®)	PEPTIPURE® ≥99 %	COMU®	**2100.1**	5 g	46,15
			2100.2	25 g	166,65
			2100.3	100 g	525,70
N,*N*'-Dicyclohexylcarbodiimide (DCC)	PEPTIPURE® ≥98 %	DCC	**4193.1**	100 g	24,20
			4193.2	250 g	48,95
			4193.3	500 g	85,90
			4193.4	1 kg	160,20
			4193.5	2.5 kg	342,95
N,*N*'-Diisopropylcarbodiimide (DIC)	PEPTIPURE® ≥99 %	DIC	**6981.1**	5 ml	23,55
			6981.2	25 ml	64,40
			6981.3	100 ml	181,70
			6981.4	500 ml	618,15
4-(Dimethylamino)pyridine (DMAP)		DMAP	**6988.1**	5 g	17,75
			6988.2	25 g	34,95
			6988.3	100 g	106,45
			6988.4	500 g	375,20
N,*N*'-Disuccinimidyl carbonate (DSC)		DSC	**2110.1**	5 g	35,40
			2110.2	25 g	93,45
			2110.3	100 g	342,95
1-Ethyl-3-(3-dimethylaminopropyl)carbodi-imide hydrochloride (EDC-HCl)		EDC-HCl	**2156.1**	5 g	28,95
			2156.2	25 g	82,70
			2156.3	100 g	246,20
			2156.5	1 kg	2.069,40
O-(7-Azabenzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium hexafluorophosphate (HATU)		HATU	**2131.1**	5 g	67,65
			2131.2	25 g	252,65
O-(Benzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium hexafluorophosphate (HBTU)		HBTU	**2132.1**	5 g	26,80
			2132.2	25 g	63,35
			2132.3	100 g	192,45
			2132.5	1 kg	1.558,75
O-(1*H*-6-Chlorobenzotriazole-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium hexafluorophosphate (HCTU)		HCTU	**2112.1**	5 g	28,95
			2112.2	25 g	92,35
			2112.3	100 g	317,15
			2112.5	1 kg	2.596,15
1-[(Dimethylamino)(morpholino)methyle-ne]-1*H*-[1,2,3]triazolo[4,5-b]pyridine-1-ium 3-oxide hexafluorophosphate (HDMA)	PEPTIPURE® ≥98 %	HDMA	**6888.1**	5 g	52,60
			6888.2	25 g	174,70
			6888.3	100 g	557,95
4-((6-Chloro-1*H*-benzo{d}[1,2,3] triazol-1-yloxy)(dimethylamino)methylene) morpholin-4-ium hexafluorophosphate (HDMC)	PEPTIPURE® ≥99 %	HDMC	**6893.1**	5 g	54,75
			6893.2	25 g	213,95
			6893.3	100 g	747,15
Ethyl cyanoglyxylate-2-oxyme potassium salt (K-Oxyma)	PEPTIPURE® ≥99 %	K-Oxyma	**6891.1**	25 g	93,00
			6891.2	50 g	170,95
			6891.3	250 g	729,95
Ethyl(hydroxyimino)cyanoacetate (Oxyma Pure)	PEPTIPURE® ≥99,5 %	Oxyma Pure	**2118.1**	25 g	39,70
			2118.2	100 g	114,95
Benzotriazole-1-yl-oxy-tris-pyrrolidino-phos-phonium hexafluorophosphate (PyBOP®)	PEPTIPURE® ≥98,5 %	PyBOP®	**2178.1**	5 g	38,60
			2178.2	25 g	117,20
			2178.3	100 g	342,95
			2178.5	1 kg	2.526,25
Bromo-tris-pyrrolidino-phosphonium hexafluorophosphate (PyBroP®)		PyBrOP®	**2200.1**	5 g	57,55
			2200.2	25 g	209,65
			2200.3	100 g	693,40
			2200.5	1 kg	4.246,25
6-Chloro-benzotriazole-1-yl-oxy-tris-pyrrolidinophosphonium hexafluorophosphate (PyClock®)		PyClock®	**2123.1**	5 g	34,95
			2123.2	25 g	107,40
			2123.3	100 g	364,45
			2123.5	1 kg	2.311,25

Peptide synthesis

Product name	Brand/Purity	Synonymous	Art. No.	Pack Qty.	€
(Ethylcyano(hydroxyimino)-acetato-O_2) tri-1-pyrrolidinylphosphonium hexafluoro-phosphate (PyOxim)	PEPTIPURE® ≥99 %	PyOxim	**2120.1**	5 g	34,95
			2120.2	25 g	107,40
			2120.3	100 g	364,45
			2120.5	1 kg	2.311,25
O-(Benzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium tetrafluorobo-rate (TBTU)		TBTU	**2140.1**	5 g	26,80
			2140.2	25 g	67,65
			2140.3	100 g	209,65
			2140.5	1 kg	1.709,25
O-(6-Chlorobenzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium tetrafluoroborate (TCTU)	PEPTIPURE® ≥98 %	TCTU	**6890.1**	5 g	40,75
			6890.2	25 g	138,70
			6890.3	100 g	375,20
O-(*N*-Succinimidyl)-*N*,*N*,*N*',*N*'-tetramethyluronium tetrafluoroborate (TSTU)	PEPTIPURE® ≥99 %	TSTU	**2130.1**	5 g	81,60
			2130.2	25 g	342,95

For additional product data and safety information, see chapter Chemicals A-Z.



Tip:

- There is no single coupling reagent that is suitable for every coupling reaction. Therefore, Carl ROTH offers a broad range of established and reactive coupling reagents.
- Besides the „gold standard“ HATU (Art. No. 2131), we also offer the greener alternative COMU® (Art. No. 2100), which is known to mediate the coupling in most cases at least as efficient as HATU.
- Oxyma Pure (Art. No. 2118) and K-Oxyma (Art. No. 6891) were developed as less hazardous alternatives for HOBt and HOAt, thus being a perfect one-to-one replacement in most syntheses.

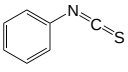
Peptide synthesis





Resins for Peptide Synthesis

Product name	Brand/Purity	Art. No.	Pack Qty.	€
2-Chlorotrityl chloride resin	PEPTIPURE® 100–200 mesh, 1 % DVB	**7405.1**	5 g	98,40
		7405.2	25 g	375,20
Rink amide resin	PEPTIPURE® 100–200 mesh, 1 % DVB	**7515.1**	1 g	42,90
		7515.2	5 g	181,70
Sieber amide resin	PEPTIPURE® 100–200 mesh	**7408.1**	1 g	106,45
		7408.2	5 g	428,95
Wang resin	PEPTIPURE® 100–200 mesh, 1 % DVB	**7506.1**	1 g	21,40
		7506.2	5 g	51,50
		7506.3	25 g	213,95



Phenyl isothiocyanate

PEPTIPURE® ≥99 %, for biochemistry

C_7H_5NS · M 135,17 g/mol

UN no. 2922 · ADR 8 (6.1) II · WGK 3

Danger H301-H314-H317-H334-H410

Art. No.	Pack Qty.	Pack.	€
7296.1	25 ml	glass	26,80
7296.2	100 ml	glass	63,45
7296.3	500 ml	glass	278,45

Tip:

A well-known method for protein sequencing is the Edman degradation. Herein, the peptide is degraded using **phenyl-isothiocyanate (Art. No. 7296)** starting from the N-terminus. Phenylisothiocyanate reacts with the N-terminal amino acid resulting in cleavage from the peptide and formation of a phenylthiohydantoin derivative. Subsequently, the phenyl-thiohydantoin derivative is identified by chromatographic methods through comparison with standards and the next amino acid can be addressed. Through repetition of this procedure stepwise degradation of the peptide is achieved, thus enabling sequencing of peptides with up to 50 residues.

Reactors for Peptide Synthesis

With plunger and frit.
Pore size 25 µm, temperature resistant until +90 °C.
Column outlet: luer (male).

Delivery incl. plunger and frit.

Reactors for Peptide Synthesis

ROTH SELECTION.

Volume (ml)	Art. No.	Pack Qty.	€
2	**7926.2**	10 unit(s)	11,30
2	**7926.1**	100 unit(s)	96,25
5	**7927.2**	10 unit(s)	14,55
5	**7927.1**	100 unit(s)	115,60
10	**7944.2**	10 unit(s)	17,10
10	**7944.1**	100 unit(s)	127,95
20	**9261.2**	10 unit(s)	19,25
20	**9261.1**	100 unit(s)	160,20

Frits for Reactors

ROTH SELECTION.

Ø (mm)	Suitable for	Art. No.	Pack Qty.	€
9.1	2 ml reactors	**7946.1**	100 unit(s)	85,90
12.3	5 ml reactors	**7960.1**	100 unit(s)	96,65
14.6	10 ml reactors	**7962.1**	100 unit(s)	110,20

Protecting Groups for Peptide Synthesis

Product name	Brand/Purity	Protecting group (short name)	Removal	Possible removal reagents	Art. No.	Pack Qty.	€
9-Fluorenylmethoxy-carbonyl chloride (Fmoc-Cl)	PEPTIPURE® ≥98 %	Fluorenylmethyl (Fmoc)	alkaline	Piperidine (A122) in dimethylformamide (A529) Morpholine (9691) in diethylformamide (A529)	**2201.1** **2201.2** **2201.3**	5 g 25 g 100 g	24,65 56,90 166,65
Trimethylchlorosilane (TMCS)	PEPTIPURE® ≥99 %, for the GC	Trimethylsilyl (TMS)	acidic, alkaline, fluoride ions	Acetic acid (4340 oder 4341) Potassium carbonate (P743) in methanol (8388) Potassium fluoride (CN83)	**2338.1**	25 g	61,85

Reagents for Peptide Synthesis

for Washing/Deprotection/Splitting

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
Acetic acid anhydride	≥99 %, for synthesis	glass	**4483.1**	1 l	42,90
			4483.2	2.5 l	75,15
		plastic	**4483.3**	5 l	105,90
			4483.4	10 l	188,15
			4483.5	25 l	385,95
Acetonitrile	≥99,5 %, for synthesis	glass	**4380.1**	1 l	43,55
			4380.2	2.5 l	90,85
		tinplate	**4380.3**	10 l	309,10
			4380.4	25 l	599,35
Dichloromethane	PEPTIPURE® ≥99,9 %, for peptide synthesis	glass	**P089.1**	2.5 l	83,35
N,*N*-Diisopropylethylamine (DIPEA)	PEPTIPURE® ≥99,5 %, for peptide synthesis	glass	**2474.1**	100 ml	32,15
			2474.2	250 ml	58,60
			2474.3	1 l	198,90
			2474.4	2.5 l	407,45
N,*N*-Dimethylacetamide (DMA)	≥99 %, for synthesis	glass	**3617.1**	250 ml	15,60
			3617.2	1 l	45,70
			3617.3	2.5 l	66,55
		plastic	**3617.4**	10 l	231,15
			3617.5	25 l	482,70
N,*N*-Dimethylformamide (DMF)	PEPTIPURE® ≥99,8 %, for peptide synthesis	glass	**A529.3**	500 ml	51,10
			A529.1	2.5 l	152,15
		plastic	**A529.7**	10 l	256,95
			A529.2	25 l	482,70
1,1,1,3,3,3-Hexafluoro-2-propanol (HFIP)	PEPTIPURE® ≥99 %, for peptide synthesis	glass	**2473.1**	10 ml	52,70
			2473.2	25 ml	106,45
			2473.3	100 ml	385,95
N-Methyl-2-pyrrolidone (NMP)	PEPTIPURE® ≥99,8 %, for peptide synthesis	glass	**P052.1**	2.5 l	192,45
Morpholine	≥99 %, for synthesis	glass	**9691.1**	100 ml	17,10
			9691.2	500 ml	24,20
			9691.3	1 l	37,10
			9691.4	2.5 l	57,95
		PE/steel	**9691.5**	10 l	198,90
Piperidine	PEPTIPURE® ≥99,5 %, for peptide synthesis	glass	**A122.1**	200 ml	40,75
			A122.2	500 ml	76,90
			A122.3	1 l	127,95
			A122.4	2.5 l	220,40
Trifluoroacetic acid (TFA)	PEPTIPURE® ≥99,9 %, for peptide synthesis	glass	**P088.1**	100 ml	94,50
			P088.2	500 ml	439,70
			P088.3	1 l	762,20
Water	doubly distilled	plastic	**3478.1**	1 l	9,15
			3478.4	5 l	25,30
			3478.2	10 l	40,75
			3478.3	30 l	106,45

For additional product data and safety information, see chapter Chemicals A-Z.

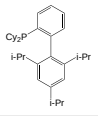
Adamantanes and Derivatives

Structural formula	Product name	Purity	Molecular formula	CAS No.	Art. No.	Pack Qty.	€
	1-Adamantanamine hydrochloride	≥99 %, for synthesis	$C_{10}H_{17}N \cdot HCl$	665-66-7	**7621.1**	25 g	29,60
					7621.2	100 g	83,75
	Adamantane	≥99 %, for synthesis	$C_{10}H_{16}$	281-23-2	**7620.1**	25 g	21,40
					7620.2	100 g	47,85
	1-Adamantanecarboxylic acid	≥99 %, for synthesis	$C_{11}H_{16}O_2$	828-51-3	**7622.1**	25 g	29,60
					7622.2	100 g	78,40
	1-Adamantanol	≥99 %, for synthesis	$C_{10}H_{16}O$	768-95-6	**7745.1**	10 g	19,90
					7745.2	50 g	40,75
					7745.3	250 g	145,15
	2-Adamantanol	≥98 %, for synthesis	$C_{10}H_{16}O$	700-57-2	**7863.1**	5 g	32,80
					7863.2	25 g	87,00
					7863.3	50 g	141,40
	2-Adamantanone	≥99 %, for synthesis	$C_{10}H_{14}O$	700-58-3	**8406.1**	25 g	33,25
					8406.2	100 g	105,25
	1-Chloroadamantane	≥98 %, for synthesis	$C_{10}H_{15}Cl$	935-56-8	**7627.1**	5 g	17,75
					7627.2	25 g	30,65
					7627.3	100 g	87,00
	5-Hydroxy-2-adamantanone	≥98 %, for synthesis	$C_{10}H_{14}O_2$	20098-14-0	**7628.1**	1 g	30,00
					7628.2	5 g	99,45
	2-Methyl-2-adamantanol	≥98 %, for synthesis	$C_{11}H_{18}O$	702-98-7	**7630.1**	1 g	19,90
					7630.2	5 g	51,10
	3-Noradamantanecar-boxylic acid	≥99 %, for synthesis	$C_{10}H_{14}O_2$	16200-53-6	**7631.1**	1 g	29,60
					7631.2	5 g	99,45

Phosphine Ligands

Transition metal-catalysed cross-couping reactions are an efficient method for building new C-C, C-N and C-O bonds in the organic synthesis. Ligands, particularly phosphine ligands, play a key role in the stabilisation and activation of metal ions in the transition metal complexes. By selection of the correct phosphine ligands important factors can be influenced: for example the reactivity and lifetime of the catalyst, the electron density at the metal atom and sterical properties of the catalyst.

Phosphine Ligands

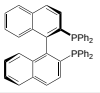
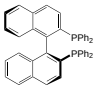
Structural formula	Product name	Purity	CAS No.	Art. No.	Pack Qty.	€
	(*rac*)-BINAP	≥97 %	98327-87-8	**1845.1**	1 g	39,70
				1845.2	5 g	106,45
				1845.3	10 g	160,20
	SPhos	≥98 %	657408-07-6	**1911.1**	1 g	32,15
				1911.2	5 g	123,65
	Triphenylphosphine	≥99,5 %, for synthesis	603-35-0	**4110.1**	10 g	15,60
				4110.2	100 g	27,85
				4110.3	250 g	53,65
				4110.4	1 kg	170,95
	Xantphos	≥98 %	161265-03-8	**2058.1**	1 g	40,75
				2058.2	5 g	134,40
	XPhos	≥97 %	564483-18-7	**1445.1**	1 g	34,30
				1445.2	5 g	123,65
				1445.3	10 g	209,65

For additional product data and safety information, see chapter Chemicals A-Z.

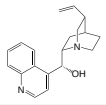
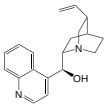
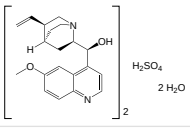
Chiral Phosphine Ligands

When using chiral phosphine ligands, it is also possible to achieve enantioselectivity of a reaction.

Chiral Phosphine Ligands

Structural formula	Product name	Purity	CAS No.	Art. No.	Pack Qty.	€
	(*R*)-BINAP	≥98 %	76189-55-4	**2040.1**	250 mg	23,55
				2040.2	1 g	53,65
				2040.3	5 g	149,45
	(*S*)-BINAP	≥98 %	76189-56-5	**1950.1**	250 mg	22,50
				1950.2	1 g	46,80
				1950.3	5 g	133,85

Chiral Building Blocks and Auxiliares

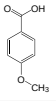
Structural formula	Product name	Purity	Molecular formula	CAS No.	Art. No.	Pack Qty.	€
	(*R*)-1-[3,5-Bis(trifluoro-methyl)phenyl]ethanol	≥99 %	$C_{10}H_8F_6O$	127852-28-2	**7481.1**	1 g	34,30
					7481.2	5 g	81,60
					7481.3	25 g	274,15
	Cinchonidine	≥99 %	$C_{19}H_{22}N_2O$	485-71-2	**8872.1**	25 g	138,70
	Cinchonine	≥99 %	$C_{19}H_{22}N_2O$	118-10-5	**8875.1**	50 g	180,10
	(*R*)-(+)-2-Methyl-2-propanesulfinamide	≥97 %	$C_4H_{11}NOS$	196929-78-9	**0610.1**	1 g	21,40
					0610.2	5 g	64,40
					0610.3	25 g	203,20
	(*S*)-(−)-2-Methyl-2-propanesulfinamide	≥98 %	$C_4H_{11}NOS$	343338-28-3	**1442.1**	1 g	26,80
					1442.2	5 g	81,60
					1442.3	25 g	241,90
	(−)-α-Pinene	≥98 %, for synthesis	$C_{10}H_{16}$	7785-26-4	**5647.1**	100 ml	42,90
	β-Pinene	pure	$C_{10}H_{16}$	127-91-3	**7106.1**	250 ml	27,85
	(−)-Quinic acid	≥98 %	$C_7H_{12}O_6$	77-95-2	**8835.1**	25 g	123,65
					8835.2	100 g	396,70
	Quinidine sulphate dihydrate	≥99 %	$(C_{20}H_{24}N_2O_2)_2 \cdot H_2SO_4 \cdot 2\ H_2O$	6591-63-5	**3348.1**	10 g	38,60
	(*R*)-3-Quinuclidinol	≥99 %	$C_7H_{13}NO$	25333-42-0	**7483.1**	1 g	24,20
					7483.2	5 g	88,05
					7483.3	10 g	163,95
	D(−)-Tartaric acid	≥99 %, for biochemistry	$C_4H_6O_6$	147-71-7	**5529.1**	25 g	65,50
	L(+)-Tartaric acid	≥99 %, for biochemistry	$C_4H_6O_6$	87-69-4	**4890.3**	500 g	32,15
					4890.1	1 kg	59,05
					4890.2	5 kg	213,95
					4890.5	25 kg	854,65

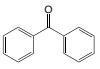
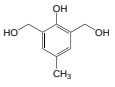
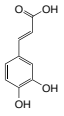
For additional product data and safety information, see chapter Chemicals A-Z.

Aromatic Building Blocks

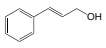
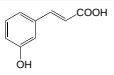
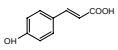
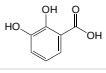
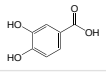
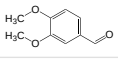
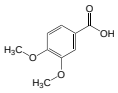
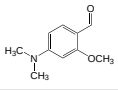
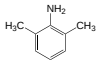


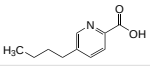
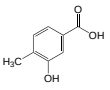
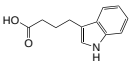
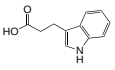
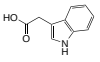
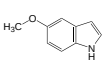
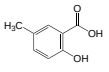
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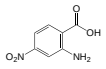
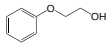
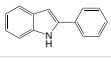
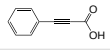
Structural formula	Product name	Purity	Molecular formula	Art. No.	Pack Qty.	€
	Acetanilide	≥98,5 %, for synthesis	C_8H_9NO	**1HK2.1**	100 g	23,55
				1HK2.2	500 g	70,45
				1HK2.3	1 kg	126,35
				1HK2.4	2.5 kg	274,15
	Acetophenone	≥98 %, for synthesis	C_8H_8O	**0986.1**	250 ml	21,40
				0986.2	1 l	50,45
				0986.3	2.5 l	100,95
				0986.4	5 l	188,15
				0986.5	10 l	317,15
	3-Acetylpyridine	≥98 %, for synthesis	C_7H_7NO	**8740.1**	10 g	22,50
				8740.2	50 g	64,40
				8740.3	100 g	110,20
	3-Aminobenzoic acid	≥98 %, for synthesis	$C_7H_7NO_2$	**1E70.1**	50 g	20,35
				1E70.2	250 g	55,40
				1E70.3	1 kg	160,20
	4-Aminobenzoic acid	≥98,5 %, for synthesis	$C_7H_7NO_2$	**0979.1**	50 g	21,00
				0979.2	250 g	40,75
				0979.3	1 kg	117,75
	4-Aminobenzonitrile	≥98 %, for synthesis	$C_7H_6N_2$	**8721.1**	10 g	21,40
				8721.2	50 g	96,65
				8721.3	100 g	160,20
	2-Amino-5-bromobenzoic acid	≥95 %, for biochemistry	$C_7H_6BrNO_2$	**5519.1**	5 g	30,00
				5519.2	25 g	100,95
	2-Aminophenol	≥99 %, for synthesis	C_6H_7NO	**0879.1**	100 g	34,30
				0879.2	500 g	120,95
	3-Aminophenol	≥99 %, for synthesis	C_6H_7NO	**0957.1**	100 g	34,30
				0957.2	500 g	120,95
	4-Aminophenol	≥98 %, for synthesis	C_6H_7NO	**0950.1**	100 g	26,35
				0950.2	500 g	72,60
	Aniline	≥99,5 %, p.a.	C_6H_7N	**9846.1**	100 ml	23,15
				9846.2	500 ml	53,25
				9846.3	1 l	79,45
		≥99 %, for synthesis	C_6H_7N	**9931.1**	250 ml	18,20
				9931.2	1 l	43,55
				9931.3	2.5 l	91,30
	4-Anisic acid	≥98 %	$C_8H_8O_3$	**3631.1**	100 g	49,35
				3631.2	250 g	94,10
				3631.3	500 g	174,70
	*o*-Anisidine	≥98 %, for synthesis	C_7H_9NO	**1E8E.1**	250 ml	26,35
				1E8E.2	1 l	72,60
				1E8E.3	2.5 l	160,20
	*p*-Anisidine	≥98 %, for synthesis	C_7H_9NO	**1E96.1**	250 g	30,00
				1E96.2	1 kg	75,15
				1E96.3	2.5 kg	166,65
	Anisole	≥99 %, for synthesis	C_7H_8O	**4417.1**	100 ml	17,10
				4417.2	500 ml	33,25
				4417.3	1 l	55,40
				4417.4	2.5 l	110,20

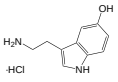
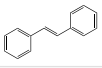
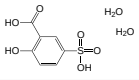
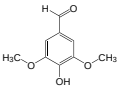
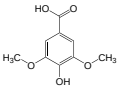
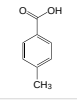
Structural formula	Product name	Purity	Molecular formula	Art. No.	Pack Qty.	€
	Anthracene	≥96 %, for synthesis	$C_{14}H_{10}$	**1E10.1**	100 g	32,15
				1E10.2	250 g	66,55
				1E10.3	1 kg	224,70
	7-Azaindole	≥98 %	$C_7H_6N_2$	**5490.1**	1 g	23,15
				5490.2	5 g	77,95
				5490.3	10 g	138,70
	Barbituric acid	≥99 %, extra pure	$C_4H_4N_2O_3$	**4927.1**	100 g	99,45
				4927.2	500 g	381,65
	Benzaldehyde	≥99,5 %, for synthesis	C_7H_6O	**4372.1**	100 ml	17,10
				4372.2	500 ml	28,95
				4372.3	1 l	39,25
				4372.4	2.5 l	73,00
	Benzene	≥99,5 %, extra pure	C_6H_6	**5785.3**	100 ml	25,70
				5785.1	1 l	63,35
				5785.4	2.5 l	134,40
				5785.2	10 l	493,45
	Benzophenone	≥99 %, for synthesis	$C_{13}H_{10}O$	**0963.1**	250 g	19,90
				0963.2	1 kg	53,65
	Benzoylacetone	≥99 %	$C_{10}H_{10}O_2$	**5484.1**	25 g	117,20
				5484.2	100 g	407,45
	Benzoyl chloride	≥99 %, for synthesis	C_7H_5ClO	**7456.1**	100 ml	18,20
				7456.2	500 ml	37,55
				7456.3	1 l	56,45
				7456.4	2.5 l	110,20
	Benzyl alcohol	≥98 %, for synthesis	C_7H_8O	**4478.1**	500 ml	27,85
				4478.2	1 l	40,75
				4478.3	2.5 l	90,20
	Benzylamine	≥99 %, for synthesis	C_7H_9N	**3549.1**	250 ml	32,15
				3549.2	1 l	91,30
				3549.3	2.5 l	195,15
	Biphenyl	≥99 %, for synthesis	$C_{12}H_{10}$	**3216.1**	250 g	14,95
				3216.2	1 kg	38,60
				3216.3	2.5 kg	78,40
	2,6-Bis(hydroxymethyl)-*p*-cresol	≥97 %	$C_9H_{12}O_3$	**7299.1**	25 g	34,30
				7299.2	100 g	95,70
	3-Brombenzoic acid	≥99 %, for synthesis	$C_7H_5BrO_2$	**4273.1**	25 g	42,50
				4273.2	100 g	106,45
	5-Bromoindole	≥99,5 %	C_8H_6BrN	**5469.1**	5 g	38,60
				5469.2	25 g	160,20
	Caffeic acid	≥98 %	$C_9H_8O_4$	**5869.3**	5 g	25,70
				5869.1	10 g	44,65
				5869.2	50 g	174,70
	2-Chloroaniline	≥98 %, for synthesis	C_6H_6ClN	**1C3C.1**	250 ml	29,60
				1C3C.2	1 l	88,70
				1C3C.3	2.5 l	195,15
	3-Chloroaniline	≥98 %, for synthesis	$C_6H_4NH_2Cl$	**1C3E.1**	100 ml	24,20
				1C3E.2	250 ml	45,05
				1C3E.3	1 l	134,40
	4-Chloroaniline	≥98 %, for synthesis	$C_6H_4NH_2Cl$	**1C3A.1**	250 g	30,65
				1C3A.2	1 kg	87,65
	Chlorobenzene	≥99,5 %, for synthesis	C_6H_5Cl	**KK01.1**	100 ml	18,20
				KK01.2	500 ml	38,60
				KK01.3	1 l	61,20
	2-Chlorobenzoic acid	≥98 %, for synthesis	$C_7H_5ClO_2$	**1E71.1**	250 g	33,25
				1E71.2	1 kg	101,60
				1E71.3	2.5 kg	213,95
	3-Chlorobenzoic acid	≥98 %, for synthesis	$C_7H_5ClO_2$	**1K17.1**	50 g	33,25
				1K17.2	250 g	125,25
				1K17.3	500 g	241,90

Building Blocks

Structural formula	Product name	Purity	Molecular formula	Art. No.	Pack Qty.	€
	4-Chlorobenzoic acid	≥99 %, for synthesis	$C_7H_5ClO_2$	**1K18.1**	100 g	20,35
				1K18.2	250 g	38,60
				1K18.3	1 kg	106,35
	3-Chloro-4-fluoroaniline	≥95 %	C_6H_5ClFN	**5461.1**	25 g	26,80
				5461.2	100 g	69,35
	5-Chloro-2-nitrobenzoic acid	≥98 %, for synthesis	$C_7H_4ClNO_4$	**5456.1**	25 g	30,65
				5456.2	100 g	87,65
	2-Chlorophenol	≥98 %, for synthesis	C_6H_4ClOH	**1C31.1**	250 ml	34,30
				1C31.2	1 l	101,60
				1C31.3	2.5 l	213,95
	3-Chlorophenol	≥98 %, for synthesis	C_6H_4ClOH	**1C32.1**	25 g	25,30
				1C32.2	100 g	69,35
				1C32.3	250 g	149,45
				1C32.4	1 kg	439,70
	4-Chlorophenol	≥98 %, for synthesis	C_6H_4ClOH	**1C33.1**	250 g	29,60
				1C33.2	1 kg	88,70
				1C33.3	2.5 kg	195,15
	Cinnamaldehyde	≥98 %, for synthesis	C_9H_8O	**5549.1**	250 ml	32,15
	Cinnamyl alcohol	≥98 %, for synthesis	$C_9H_{10}O$	**4905.1**	100 g	18,20
	*m*-Coumaric acid	≥98 %	$C_9H_8O_3$	**9904.1**	5 g	74,75
	*p*-Coumaric acid	≥98 %	$C_9H_8O_3$	**9908.1**	10 g	49,35
				9908.2	50 g	149,45
	*m*-Cresol	≥99 %, for synthesis	C_7H_8O	**9269.2**	250 ml	49,35
				9269.7	1 l	142,45
	1,2-Dichlorobenzene	≥98 %, for synthesis	$C_6H_4Cl_2$	**4374.1**	100 ml	17,75
				4374.2	500 ml	35,40
				4374.3	1 l	54,30
	1,4-Dichlorobenzene	≥99 %, for synthesis	$C_6H_4Cl_2$	**1E73.1**	250 g	16,05
				1E73.2	1 kg	35,40
				1E73.3	2.5 kg	60,75
	*N*,*N*-Diethylaniline	≥98,5 %, for synthesis	$C_{10}H_{15}N$	**1CA2.1**	250 ml	22,50
				1CA2.2	1 l	69,35
				1CA2.3	2.5 l	144,60
	2,3-Dihydroxybenzaldehyde	≥98 %	$C_7H_6O_3$	**7274.1**	1 g	19,90
				7274.2	5 g	37,55
				7274.3	25 g	120,95
	2,4-Dihydroxy benzaldehyde	≥98 %, for synthesis	$C_7H_6O_3$	**4039.1**	25 g	50,00
				4039.2	100 g	145,05
				4039.3	250 g	284,90
	3,4-Dihydroxybenzaldehyde	≥98 %	$C_7H_6O_3$	**5424.1**	5 g	21,40
				5424.2	25 g	50,00
				5424.3	100 g	138,70
	2,3-Dihydroxybenzoic acid	≥98 %	$C_7H_6O_4$	**6057.1**	5 g	35,40
	3,4-Dihydroxybenzoic acid	≥97 %	$C_7H_6O_4$	**8274.1**	10 g	59,05
	3,4-Dimethoxybenzaldehyde	≥99 %, for synthesis	$C_9H_{10}O_3$	**9651.1**	100 g	58,60
				9651.2	500 g	228,45
	3,4-Dimethoxybenzoic acid	≥99 %, for synthesis	$C_9H_{10}O_4$	**4230.1**	100 g	71,50
				4230.2	250 g	149,45
				4230.3	1 kg	557,95
	4-Dimethylamino-2-methoxy-benzaldehyde	≥98 %, for biochemistry	$C_{10}H_{13}NO_2$	**8412.1**	1 g	58,60
				8412.2	5 g	233,85
	2,6-Dimethylaniline	≥98 %, for synthesis	$C_8H_{11}N$	**1CAA.1**	100 ml	25,70
				1CAA.2	500 ml	94,50
				1CAA.3	1 l	170,95

Structural formula	Product name	Purity	Molecular formula	Art. No.	Pack Qty.	€
	*N*,*N*-Dimethylaniline	≥99 %, for synthesis	$C_8H_{11}N$	**1CA6.1**	250 ml	20,35
				1CA6.2	1 l	52,15
				1CA6.3	2.5 l	107,00
	Fusaric acid	≥99 %	$C_{10}H_{13}NO_2$	**5561.1**	250 mg	46,15
				5561.2	1 g	146,75
	Guaiacol	≥98 %, extra pure	$C_7H_8O_2$	**7308.1**	100 ml	50,45
	4-Hydrazinobenzoic acid	≥97 %, for synthesis	$C_7H_8N_2O_2$	**4539.1**	10 g	40,75
				4539.2	50 g	107,00
				4539.3	100 g	174,70
	3-Hydroxybenzaldehyde	≥97 %, for synthesis	$C_7H_6O_2$	**4493.1**	50 g	32,15
				4493.2	100 g	45,05
				4493.3	250 g	96,25
	4-Hydroxybenzaldehyde	≥98 %, for synthesis	$C_7H_6O_2$	**3870.2**	50 g	23,55
				3870.1	250 g	101,60
	4-Hydroxybenzoic acid	≥98 %, for synthesis	$C_7H_6O_3$	**3872.1**	100 g	25,30
				3872.2	500 g	85,90
				3872.3	1 kg	160,20
	4-Hydroxybenzoic acid methyl ester	≥98 %, Ph. Eur.	$C_8H_8O_3$	**3646.1**	100 g	21,00
				3646.2	250 g	29,60
				3646.3	500 g	51,50
				3646.4	1 kg	92,35
	4-Hydroxybenzyl alcohol	≥99,5 %	$C_7H_8O_2$	**6257.1**	5 g	17,10
	3-Hydroxy-4-methylbenzoic acid	≥98 %, for synthesis	$C_8H_8O_3$	**4298.1**	1 g	38,20
				4298.2	5 g	61,20
				4298.3	25 g	166,65
	Indole-3-butyric acid	≥99 %, for biochemistry	$C_{12}H_{13}NO_2$	**4143.1**	5 g	24,65
				4143.2	25 g	81,20
	Indole-3-carboxaldehyde	≥98 %	C_9H_7NO	**5538.1**	25 g	65,50
				5538.2	50 g	117,20
	Indole-3-propionic acid	≥99 %, for biochemistry	$C_{11}H_{11}NO_2$	**4144.1**	10 g	40,75
				4144.2	50 g	153,20
	Indolyl 3-acetic acid	≥99 %, for biochemistry	$C_{10}H_9NO_2$	**7280.1**	5 g	23,55
				7280.2	25 g	82,25
				7280.3	50 g	138,70
	5-Methoxyindole	≥98 %, for synthesis	C_9H_9NO	**6546.1**	1 g	36,05
				6546.2	5 g	66,15
				6546.3	25 g	203,20
	3-Methoxysalicylic acid	≥97 %, for synthesis	$C_8H_8O_4$	**4504.1**	5 g	25,30
				4504.2	25 g	66,15
	1-Methylimidazole	≥99 %, for synthesis	$C_4H_6N_2$	**N353.1**	100 ml	24,65
				N353.2	1 l	145,15
	4-Methyl-3-nitroaniline	≥99 %, for synthesis	$C_7H_8N_2O_2$	**5532.1**	25 g	50,45
				5532.2	50 g	91,95
	3-Methylsalicylic acid	≥98,5 %, for synthesis	$C_8H_8O_3$	**4525.1**	100 g	38,20
				4525.2	500 g	138,70
	5-Methylsalicylic acid	≥98 %, for synthesis	$C_8H_8O_3$	**6547.1**	1 g	16,05
				6547.2	5 g	26,80
				6547.3	25 g	85,90
	Naphthalene	≥99 %, for synthesis	$C_{10}H_8$	**6714.1**	100 g	18,20
				6714.2	500 g	39,25
				6714.3	1 kg	64,40
				6714.4	2.5 kg	115,60
				6714.5	5 kg	195,15

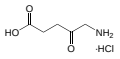
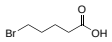
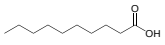
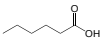
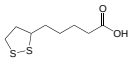
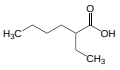
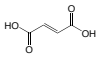
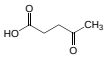
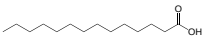
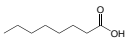
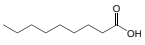
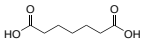
Structural formula	Product name	Purity	Molecular formula	Art. No.	Pack Qty.	€
	2-Nitroaniline	≥98 %, for synthesis	$C_6H_6N_2O_2$	**9878.1**	100 g	21,40
				9878.2	500 g	52,15
				9878.3	1 kg	81,60
	3-Nitroaniline	≥99 %, for synthesis	$C_6H_6N_2O_2$	**9867.1**	100 g	23,55
				9867.2	500 g	66,55
				9867.3	1 kg	111,30
	4-Nitroaniline	≥98,5 %, for synthesis	$C_6H_6N_2O_2$	**9850.1**	100 g	28,50
				9850.2	500 g	57,55
				9850.3	1 kg	103,75
	4-Nitroanthranilic acid	≥98 %, for synthesis	$C_7H_6N_2O_4$	**4543.1**	1 g	56,45
				4543.2	5 g	109,55
	2-Nitrobenzaldehyde	≥98 %, for synthesis	$C_7H_5NO_3$	**4224.1**	25 g	41,40
				4224.2	100 g	85,50
				4224.3	250 g	146,75
	4-Nitrobenzaldehyde	≥98 %, for synthesis	$C_7H_5NO_3$	**5667.1**	25 g	33,25
				5667.2	100 g	67,20
				5667.3	250 g	123,55
	Nitrobenzene	≥99 %, for synthesis	$C_6H_5NO_2$	**4394.2**	500 ml	40,75
				4394.1	1 l	69,80
	3-Nitrobenzoic acid	≥99 %, for synthesis	$C_7H_5NO_4$	**0445.1**	100 g	18,20
				0445.2	500 g	55,80
				0445.3	1 kg	99,90
	4-Nitrobenzoic acid	≥99,5 %, for synthesis	$C_7H_5NO_4$	**0450.1**	100 g	18,20
				0450.2	500 g	44,65
				0450.3	1 kg	80,10
	3-Nitrobenzonitrile	≥98 %, for synthesis	$C_7H_4N_2O_2$	**4530.1**	25 g	55,40
				4530.2	100 g	120,30
	4-Nitrobenzylalcohol	≥99 %, for synthesis	$C_7H_7NO_3$	**6522.1**	25 g	37,10
				6522.2	100 g	77,95
				6522.3	250 g	134,40
	4-Nitrobenzyl bromide	≥99 %, for synthesis	$C_7H_6NO_2Br$	**5680.1**	25 g	34,95
				5680.2	100 g	68,30
				5680.3	250 g	125,25
	4-Nitrobenzyl chloride	≥98 %, for synthesis	$C_7H_6NO_2Cl$	**5697.1**	10 g	22,50
				5697.2	50 g	51,50
	2-Nitrophenol	pure	$C_6H_5NO_3$	**1LAH.1**	25 g	17,75
				1LAH.2	100 g	32,15
				1LAH.3	500 g	99,45
	3-Nitrophenol	≥99 %, for synthesis	$C_6H_5NO_3$	**4533.1**	25 g	69,80
				4533.2	100 g	174,70
				4533.3	250 g	370,90
	4-Nitrophenol	≥99 %, for synthesis	$C_6H_5NO_3$	**6524.1**	25 g	16,70
				6524.2	100 g	30,00
				6524.3	500 g	77,95
	*o*-Nitrotoluene	≥99 %, for synthesis	$C_7H_7NO_2$	**0961.1**	100 ml	19,25
				0961.2	1 l	57,55
	*p*-Nitrotoluene	≥98 %, for synthesis	$C_7H_7NO_2$	**0881.1**	100 g	22,50
				0881.2	1 kg	63,35
	2-Phenoxyethanol	≥99 %, for synthesis	$C_8H_{10}O_2$	**4348.1**	250 ml	30,00
				4348.2	1 l	60,75
				4348.3	10 l	317,15
	1,4-Phenylenediamine	≥99 %, for synthesis	$C_6H_8N_2$	**4499.2**	50 g	31,10
				4499.1	100 g	46,80
				4499.3	250 g	74,20
	2-Phenylethanol	≥99 %, for synthesis	$C_8H_{10}O$	**4422.1**	5 ml	13,90
				4422.2	250 ml	22,05
				4422.3	1 l	58,60
	2-Phenylindole	≥94,5 %	$C_{14}H_{11}N$	**6279.1**	50 g	60,75
	Phenylpropiolic acid	≥98 %, for synthesis	$C_9H_6O_2$	**5271.1**	5 g	64,40
				5271.2	25 g	267,70

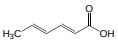
Structural formula	Product name	Purity	Molecular formula	Art. No.	Pack Qty.	€
	*o*-Phthaldialdehyde	≥98 %, for synthesis	$C_8H_6O_2$	**5980.1**	25 g	145,15
	Phthalic acid	≥99 %, p.a.	$C_8H_4O_4$	**3560.1**	100 g	17,10
				3560.2	250 g	26,35
				3560.3	1 kg	72,60
	Phthalic anhydride	≥98 %, for synthesis	$C_8H_4O_3$	**3544.1**	250 g	16,05
				3544.2	1 kg	37,10
				3544.3	2.5 kg	75,15
	Phthalimide	≥98 %, for synthesis	$C_8H_5NO_2$	**1E88.1**	250 g	16,05
				1E88.2	1 kg	38,20
				1E88.3	2.5 kg	76,25
	Pyrogallol	≥98 %, for synthesis	$C_6H_6O_3$	**3963.2**	50 g	33,25
				3963.1	100 g	62,25
				3963.3	250 g	117,20
				3963.4	1 kg	428,95
	Salicylaldehyde	≥99 %, for synthesis	$C_7H_6O_2$	**4662.1**	100 ml	26,35
	Salicylic acid	≥99 %, for biochemistry	$C_7H_6O_3$	**9268.2**	500 g	40,75
				9268.1	1 kg	69,80
				9268.3	2.5 kg	123,10
	Serotonin hydrochloride	≥98 %, for biochemistry	$C_{10}H_{12}N_2O \cdot HCl$	**8367.1**	100 mg	26,35
				8367.2	1 g	49,35
				8367.3	5 g	192,45
	Skatole	>99 %	C_9H_9N	**4696.1**	10 g	104,85
	*trans*-Stilbene	≥97 %	$C_{14}H_{12}$	**5246.1**	50 g	82,25
				5246.2	100 g	149,45
	Styrene	≥99,5 %, for synthesis, stabilised	C_8H_8	**2641.7**	100 ml	13,45
				2641.1	500 ml	25,70
				2641.2	1 l	38,60
				2641.3	2.5 l	72,60
	5-Sulphosalicylic acid dihydrate	≥99 %, for biochemistry	$C_7H_6O_6S \cdot 2\ H_2O$	**4119.1**	100 g	23,55
				4119.2	500 g	66,55
				4119.7	1 kg	113,45
	Syringaldehyde	≥98 %	$C_9H_{10}O_4$	**5359.1**	5 g	58,60
	Syringic acid	≥97 %	$C_9H_{10}O_5$	**5361.1**	10 g	85,90
	*o*-Toluic acid	≥98 %, for synthesis	$C_8H_8O_2$	**1AHA.1**	250 g	32,15
				1AHA.2	1 kg	102,70
				1AHA.3	2.5 kg	219,85
	*m*-Toluic acid	≥98 %, for synthesis	$C_8H_8O_2$	**1AH9.1**	250 g	34,30
				1AH9.2	1 kg	107,00
				1AH9.3	2.5 kg	235,45
	*p*-Toluic acid	≥98 %, for synthesis	$C_8H_8O_2$	**1AN4.1**	250 g	32,15
				1AN4.2	1 kg	102,70
				1AN4.3	2.5 kg	219,85
	1,2,4-Triazole	≥99 %	$C_2H_3N_3$	**5242.1**	25 g	28,95
				5242.2	100 g	82,25
	Vanillic acid	≥98 %	$C_8H_8O_4$	**3685.1**	10 g	48,95
	Vanillin	≥99 %, for biochemistry	$C_8H_8O_3$	**7887.1**	100 g	22,50
				7887.2	1 kg	117,20

For additional product data and safety information, see chapter Chemicals A-Z.

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Aliphatic Carboxylic Acids

Structural formula	Product name	Purity	Molecular formula	Art. No.	Pack Qty.	€
	5-Aminolevulinic acid hydro-chloride	≥98 %, for biochemistry	$C_5H_9NO_3 \cdot HCl$	**8451.1**	500 mg	31,10
				8451.2	1 g	46,15
				8451.3	5 g	149,45
	5-Bromovaleric acid	≥96 %	$C_5H_9BrO_2$	**5466.1**	10 g	23,55
				5466.2	50 g	91,95
	Butyric acid	≥99 %, for synthesis	$C_4H_8O_2$	**3277.1**	100 ml	20,35
				3277.2	1 l	81,60
	Capric acid	≥98 %, for synthesis	$C_{10}H_{20}O_2$	**8797.1**	100 g	25,30
				8797.3	500 g	63,35
				8797.2	1 kg	107,00
	Caproic acid	≥98 %, for synthesis	$C_6H_{12}O_2$	**8799.1**	100 ml	21,40
				8799.3	500 ml	38,60
				8799.2	1 l	67,20
				8799.4	2.5 l	134,40
	Crotonic acid	≥99 %, for biochemistry	$C_4H_6O_2$	**1HHN.1**	100 g	16,70
				1HHN.2	500 g	46,15
				1HHN.3	1 kg	80,55
				1HHN.4	2.5 kg	181,70
	Cyclobutane-1,1-dicarboxylic acid	≥98 %	$C_6H_8O_4$	**5451.1**	5 g	46,80
				5451.2	25 g	162,90
	DL-6,8-Dithiooctanoic acid	≥98 %	$C_8H_{14}O_2S_2$	**6229.1**	5 g	145,15
	2-Ethylhexanoic acid	≥99 %, for synthesis	$C_8H_{16}O_2$	**1CNA.1**	250 ml	20,35
				1CNA.2	1 l	45,70
				1CNA.3	2.5 l	91,30
	Fumaric acid	≥99,5 %, for biochemistry	$C_4H_4O_4$	**3748.1**	500 g	19,25
				3748.2	2.5 kg	64,40
				3748.3	10 kg	181,70
	Glycolic acid	70 %, for synthesis	$C_2H_4O_3$	**1LEY.1**	250 ml	14,95
				1LEY.2	1 l	31,75
				1LEY.3	2.5 l	62,25
	Isobutyric acid	≥99 %, for synthesis	$C_4H_8O_2$	**1HA9.1**	250 ml	17,75
				1HA9.2	1 l	41,85
				1HA9.3	2.5 l	78,40
				1HA9.4	10 l	203,20
				1HA9.5	25 l	392,40
	L-Lactic acid	≥98 %, for biochemistry	$C_3H_6O_3$	**8360.1**	5 g	45,70
				8360.2	10 g	71,95
				8360.3	25 g	138,70
	Levulinic acid	≥98 %, for synthesis	$C_5H_8O_3$	**3976.1**	50 g	16,05
				3976.2	500 g	64,40
				3976.3	1 kg	85,90
				3976.4	2.5 kg	160,20
	Maleic acid	≥99 %, for synthesis	$C_4H_4O_4$	**3538.2**	100 g	21,40
				3538.1	500 g	41,85
				3538.3	1 kg	67,65
				3538.4	2.5 kg	138,70
				3538.5	5 kg	246,20
	Malonic acid	≥99 %, for synthesis	$C_3H_4O_4$	**9851.1**	100 g	19,25
				9851.2	500 g	72,60
				9851.3	1 kg	127,95
	Myristic acid	≥98 %, for biochemistry	$C_{14}H_{28}O_2$	**6469.2**	100 g	15,60
				6469.3	500 g	39,70
				6469.1	1 kg	64,40
	Octanoic acid	≥99,5 %, for synthesis	$C_8H_{16}O_2$	**2613.1**	100 ml	18,20
				2613.2	500 ml	28,95
				2613.3	1 l	41,85
				2613.4	2.5 l	83,75
	Pelargonic acid	≥97 %	$C_9H_{18}O_2$	**7015.1**	50 ml	44,65
	Pimelic acid	≥99 %	$C_7H_{12}O_4$	**5270.1**	25 g	42,50
				5270.2	50 g	76,25
	Propionic acid	≥99,5 %, for synthesis	$C_3H_6O_2$	**6026.2**	500 ml	21,00
				6026.1	1 l	30,65
				6026.3	2.5 l	62,25

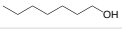
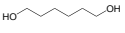
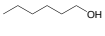
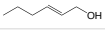
Structural formula	Product name	Purity	Molecular formula	Art. No.	Pack Qty.	€
	Sorbic acid	≥99 %, Ph. Eur.	$C_6H_8O_2$	**7158.1**	250 g	55,80
				7158.2	500 g	105,25
				7158.3	1 kg	198,90
	*n*-Valeric acid	≥98 %	$C_5H_{10}O_2$	**4874.1**	250 ml	40,35

For additional product data and safety information, see chapter Chemicals A-Z.

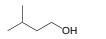
Aliphatic Aldehydes

Structural formula	Product name	Purity	Molecular formula	Art. No.	Pack Qty.	€
	2-Butenal	≥98 %, for synthesis	C_4H_6O	**3425.1**	250 ml	60,75
	Capric aldehyde	≥97 %, for synthesis	$C_{10}H_{20}O$	**7547.1**	100 ml	145,15
	Caproic aldehyde	≥97 %, for synthesis	$C_6H_{12}O$	**3327.1**	100 ml	48,30
	Dodecyl aldehyde	≥98 %, for synthesis	$C_{12}H_{24}O$	**3754.1**	50 ml	64,00
	*trans*-Hexen-2-al	≥98,5 %, for synthesis	$C_6H_{10}O$	**3757.1**	25 ml	84,40

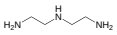
Aliphatic Alcohols

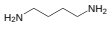
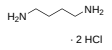
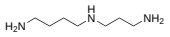
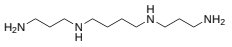
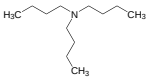
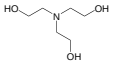
Structural formula	Product name	Purity	Molecular formula	Art. No.	Pack Qty.	€
	1,3-Butanediol	≥99 %, for synthesis	$C_4H_{10}O_2$	**7473.1**	250 ml	20,35
				7473.2	500 ml	n. a.
				7473.3	1 l	42,90
				7473.4	2.5 l	85,90
				7473.5	10 l	256,95
				7473.6	25 l	564,40
	1,4-Butanediol	≥99 %, for synthesis	$C_4H_{10}O_2$	**4211.1**	1 l	46,15
				4211.2	2.5 l	92,35
				4211.3	10 l	299,95
	1-Butanol	≥99,5 %, for synthesis	$C_4H_{10}O$	**7724.4**	250 ml	21,40
				7724.1	1 l	37,55
				7724.3	2.5 l	66,55
				7724.6	5 l	110,20
				7724.2	10 l	174,70
				7724.5	25 l	342,95
	2-Butanol	≥98,5 %, for synthesis	$C_4H_{10}O$	**KK02.1**	500 ml	34,30
				KK02.2	1 l	57,95
				KK02.3	2.5 l	98,80
				KK02.4	5 l	160,20
				KK02.7	10 l	299,95
				KK02.5	25 l	568,70
	*tert*-Butanol	≥99 %, for synthesis	$C_4H_{10}O$	**4323.1**	1 l	31,10
				4323.3	2.5 l	55,80
				4323.2	10 l	188,15
				4323.7	25 l	381,65
	Cetyl alcohol	≥95 %, for synthesis	$C_{16}H_{34}O$	**5762.1**	1 kg	76,25
	Cyclohexanol	≥99 %, for synthesis	$C_6H_{12}O$	**7756.1**	1 l	37,10
				7756.2	2.5 l	70,45
				7756.7	25 l	461,20
	1-Decanol	≥99 %, for synthesis	$C_{10}H_{22}O$	**4151.1**	1 l	69,80
	Diacetone alcohol	≥98 %, for synthesis	$C_6H_{12}O_2$	**3546.1**	250 ml	19,25
				3546.2	1 l	46,15
				3546.3	2.5 l	92,35
	2,2-Dimethyl-1,3-propanediol	≥99 %, for synthesis	$C_5H_{12}O_2$	**7349.1**	100 g	17,10
				7349.2	500 g	38,60
				7349.3	1 kg	62,25
				7349.4	2.5 kg	127,95
	1-Dodecanol	≥98 %, for synthesis	$C_{12}H_{26}O$	**9853.1**	250 ml	17,75
				9853.2	1 l	47,85
				9853.3	2.5 l	99,45
	1,7-Heptanediol	≥98 %	$C_7H_{16}O_2$	**5541.1**	5 g	127,95
				5541.2	10 g	235,45
	1-Heptanol	≥99 %, for synthesis	$C_7H_{16}O$	**3827.1**	500 ml	91,30
	1,6-Hexanediol	≥96 %, for synthesis	$C_6H_{14}O_2$	**1CP5.1**	250 g	21,00
				1CP5.2	1 kg	60,75
				1CP5.3	2.5 kg	128,50
	1-Hexanol	≥98 %, for synthesis	$C_6H_{14}O$	**3847.1**	1 l	56,90
				3847.2	2.5 l	123,65
	*trans*-2-Hexen-1-ol	≥97 %	$C_6H_{12}O$	**3756.1**	5 ml	35,40

Building Blocks

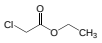
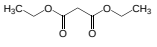
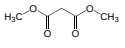
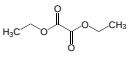
Structural formula	Product name	Purity	Molecular formula	Art. No.	Pack Qty.	€
	Isoamyl alcohol	≥98,5 %, for synthesis	$C_5H_{12}O$	**8930.1**	1 l	56,90
				8930.2	2.5 l	107,40
	1-Octanol	≥99 %, for synthesis	$C_8H_{18}O$	**4439.1**	100 ml	22,50
				4439.2	500 ml	46,80
				4439.3	1 l	80,55
	Pentaerythritol	≥98 %, for synthesis	$C_5H_{12}O_4$	**7522.2**	100 g	22,50
				7522.1	500 g	70,85
	1-Pentanol	≥98 %, for synthesis	$C_5H_{12}O$	**8949.2**	500 ml	33,90
				8949.1	1 l	56,45
	1,2-Propanediol	≥99,5 %, for synthesis	$C_3H_8O_2$	**0340.1**	1 l	34,30
				0340.2	2.5 l	65,50
				0340.3	5 l	117,20
				0340.4	10 l	209,65
				0340.5	25 l	456,90
	1,3-Propanediol	≥98 %, for synthesis	$C_3H_8O_2$	**0958.1**	100 ml	26,35
				0958.2	500 ml	90,85
				0958.3	1 l	166,65
				0958.4	2.5 l	353,70
	1-Propanol	≥99,5 %, for synthesis	C_3H_8O	**9169.1**	1 l	35,40
				9169.2	2.5 l	67,65
				9169.3	10 l	169,35
				9169.4	25 l	321,45
	2-Propanol	≥99,5 %, for synthesis	C_3H_8O	**9866.1**	1 l	28,95
				9866.2	2.5 l	66,55
				9866.5	2.5 l	64,40
				9866.6	5 l	105,90
				9866.3	10 l	170,95
				9866.4	25 l	342,95
	2,2,2-Trifluoroethanol	>99,8 %, for synthesis	CF_3CH_2OH	**CP29.1**	100 ml	45,05
				CP29.2	250 ml	85,90
				CP29.3	1 l	263,40

Aliphatic Amines

Structural formula	Product name	Purity	Molecular formula	Art. No.	Pack Qty.	€
	2-(2-Aminoethylamino)ethanol	≥98 %, for synthesis	$C_4H_{12}N_2O$	**6717.1**	100 ml	20,35
				6717.2	500 ml	38,20
				6717.3	1 l	61,20
				6717.4	2.5 l	129,55
	Diethanolamine	≥99 %, for synthesis	$C_4H_{11}NO_2$	**HN99.1**	500 ml	35,40
				HN99.2	1 l	48,30
				HN99.3	2.5 l	92,35
				HN99.4	5 l	138,70
				HN99.5	10 l	241,90
	Diethylamine	≥99,5 %, for synthesis	$C_4H_{11}N$	**KK00.1**	100 ml	16,70
				KK00.2	500 ml	23,55
				KK00.3	1 l	33,90
				KK00.4	2.5 l	59,05
	Diethylene triamine	≥98 %, for synthesis	$C_4H_{13}N_3$	**6723.1**	100 ml	24,65
				6723.2	500 ml	69,35
				6723.3	1 l	121,40
				6723.4	2.5 l	252,65
				6723.5	25 l	2.073,70
	Diisopropylamine	≥99,5 %, for synthesis	$C_6H_{15}N$	**4369.1**	100 ml	17,10
				4369.2	500 ml	35,40
				4369.3	1 l	60,10
	Ethanolamine	≥99 %, for synthesis	C_2H_7NO	**4376.1**	100 ml	16,05
				4376.2	500 ml	24,65
				4376.3	1 l	42,90
				4376.4	2.5 l	73,65
				4376.5	10 l	213,95
	Ethylenediamine	≥99,5 %, for synthesis	$C_2H_8N_2$	**4218.1**	100 ml	17,10
				4218.2	500 ml	23,55
				4218.3	1 l	40,75
				4218.4	2.5 l	80,55
				4218.5	10 l	267,70
	Hexamethylene diamine	≥99,5 %, for synthesis	$C_6H_{16}N_2$	**4465.1**	100 g	21,00
				4465.2	250 g	35,40
				4465.3	1 kg	71,95
	Methylamine	40 % in water, for synthesis	CH_5N	**1E51.1**	250 ml	16,05
				1E51.2	1 l	31,75
				1E51.3	2.5 l	60,75

Structural formula	Product name	Purity	Molecular formula	Art. No.	Pack Qty.	€
	Propionic anhydride	≥98,5 %, for synthesis	$C_6H_{10}O_3$	**7432.1**	100 ml	18,20
				7432.2	500 ml	40,75
				7432.3	1 l	67,65
				7432.4	2.5 l	144,60
	Putrescin	≥99 %, for biochemistry	$C_4H_{12}N_2$	**8379.1**	25 g	26,80
				8379.2	100 g	55,40
				8379.3	500 g	174,70
	Putrescine dihydrochloride	≥97 %, for biochemistry	$C_4H_{12}N_2 \cdot 2\ HCl$	**4141.1**	10 g	32,80
				4141.2	25 g	64,00
				4141.3	50 g	114,50
	Spermidine	≥99 %, for biochemistry	$C_7H_{19}N_3$	**7161.2**	1 g	55,40
				7161.1	2.5 g	103,75
				7161.3	5 g	180,10
	Spermine	≥99 %, for biochemistry	$C_{10}H_{26}N_4$	**7162.2**	1 g	46,80
				7162.1	2.5 g	100,95
				7162.3	5 g	174,70
	Tributylamine	≥99 %, for synthesis	$C_{12}H_{27}N$	**4089.1**	100 ml	19,25
				4089.2	500 ml	34,30
				4089.3	1 l	46,15
				4089.4	2.5 l	83,35
	Triethanolamine	≥99 %, for synthesis	$C_6H_{15}NO_3$	**6300.1**	1 l	33,90
				6300.3	2.5 l	58,60
				6300.2	10 l	193,50
	Triethylamine (TEA)	≥99,5 %, for synthesis	$C_6H_{15}N$	**X875.1**	100 ml	14,95
				X875.2	500 ml	23,55
				X875.3	1 l	38,60
				X875.4	2.5 l	73,00

Aliphatic Building Blocks

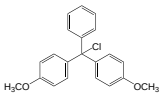
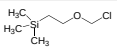
Structural formula	Product name	Purity	Molecular formula	Art. No.	Pack Qty.	€
	1-Bromo-3-chloropropane	≥99 %, for synthesis	C_3H_6BrCl	**1LEX.1**	100 ml	25,30
				1LEX.2	250 ml	52,15
				1LEX.3	1 l	170,95
	Chloroacetic acid ethyl ester	≥98 %, for synthesis	$C_4H_7ClO_2$	**1EA8.1**	250 ml	30,00
				1EA8.2	1 l	75,15
				1EA8.3	2.5 l	166,65
	Cyclohexanone	≥99,5 %, extra pure	$C_6H_{10}O$	**CP27.1**	1 l	42,90
				CP27.2	2.5 l	81,60
				CP27.5	5 l	137,10
				CP27.3	10 l	246,20
				CP27.4	25 l	450,45
	Cyclohexene	≥99 %, for synthesis	C_6H_{10}	**3451.1**	500 ml	93,00
	Decahydronaphthalene	≥98 %, for synthesis	$C_{10}H_{18}$	**4438.1**	1 l	40,35
				4438.3	2.5 l	77,30
				4438.4	5 l	134,40
				4438.2	10 l	252,65
	Diethyl malonate	≥99 %, for synthesis	$C_7H_{12}O_4$	**3070.1**	250 ml	25,30
				3070.2	1 l	79,45
				3070.3	2.5 l	158,60
	Dimethyl malonate	≥99 % for synthesis	$C_5H_8O_4$	**3205.1**	250 ml	28,95
				3205.2	1 l	83,35
				3205.3	2.5 l	170,95
	Maleic anhydride	≥99,5 %, for synthesis	$C_4H_2O_3$	**0975.1**	250 g	23,15
				0975.2	1 kg	57,55
	Nitromethane	≥98,5 %, for synthesis	CH_3NO_2	**4406.1**	500 ml	42,90
				4406.2	25 l	1.005,15
	Oxalic acid diethylester	≥99 %, for synthesis	$C_6H_{10}O_4$	**1E83.1**	250 ml	20,35
				1E83.2	1 l	52,15
				1E83.3	2.5 l	103,75
	Propionic anhydride	≥98,5 %, for synthesis	$C_6H_{10}O_3$	**7432.1**	100 ml	18,20
				7432.2	500 ml	40,75
				7432.3	1 l	67,65
				7432.4	2.5 l	144,60
	Propyl bromide	≥98 %, for synthesis	C_3H_7Br	**4631.1**	100 ml	18,20
				4631.2	250 ml	35,40
				4631.3	1 l	106,45
				4631.4	2.5 l	241,90

For additional product data and safety information, see chapter Chemicals A-Z.

Protecting Groups

Today, protecting groups have become an important tool in the multistep, organic synthesis of complex compounds. The task of a protecting group is to protect a functional group from undesirable reactions with other functional groups. Then the protecting group should be cleaved under as mild conditions as possible. Good protecting groups should be specific, highly selective and both introduceable and cleavable in high yields, and stable under as many reaction conditions as possible.

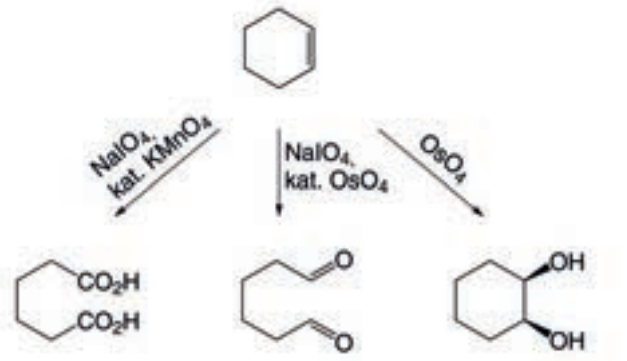
Protecting Groups

Structural formula	Product name	Brand/Purity	Protecting group (short name)	Removal	Art. No.	Pack Qty.	€
	Benzoyl chloride	≥99 %, for synthesis	Benzoyl (Bz)	alkaline	**7456.1**	100 ml	18,20
					7456.2	500 ml	37,55
					7456.3	1 l	56,45
					7456.4	2.5 l	110,20
	4,4'-Dimethoxytrityl chloride (DMT-Cl)	≥98 %, for synthesis	Dimethoxytrityl (DMT)	with TFA	**9671.1**	5 g	34,30
					9671.2	25 g	93,45
					9671.3	50 g	170,95
					9671.4	100 g	278,45
	9-Fluorenylmethoxy-carbonyl chloride (Fmoc-Cl)	PEPTIPURE® ≥98 %	Fluorenylmethyl (Fmoc)	alkaline	**2201.1**	5 g	24,65
					2201.2	25 g	56,90
					2201.3	100 g	166,65
	Trimethylchlorosilane (TMCS)	PEPTIPURE® ≥99 %, for the GC	Trimethylsilyl (TMS)	acidic, alkaline, fluoride ions	**2338.1**	25 g	61,85
	2-(Trimethylsilyl) ethoxymethyl chloride	≥95 %, for synthesis	β-(Trimethylsilyl) ethoxymethyl (SEM)	acidic, alkaline, fluoride ions	**1444.1**	1 ml	49,35
					1444.2	5 ml	128,50

For additional product data and safety information, see chapter Chemicals A-Z.

Oxidising Agents

Oxidation reactions play an important role – not only in inorganic chemistry but also in many organic synthesis processes. Several examples are shown here: Lemieux-von-Rudloff oxidation, Lemieux-Johnson oxidation and dihydroxylation. Carl ROTH offers a selection of well-known and commonly available oxidants in this area.



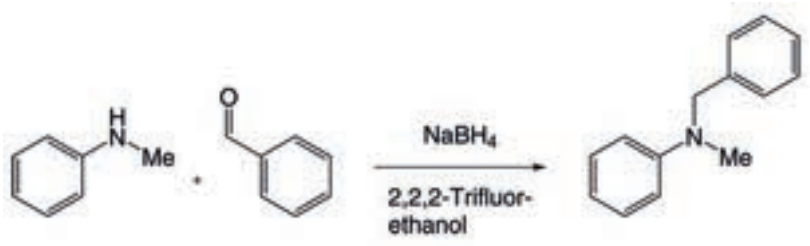
Oxidising Agents

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Hydrogen peroxide	50 %, technical, stabilised	plastic	**0034.1**	500 ml	21,00
			0034.2	1 l	28,95
			0034.3	2.5 l	43,55
			0034.4	5 l	74,10
			0034.5	10 l	131,70
	35 %, pure, stabilised	plastic	**9683.4**	500 ml	20,35
			9683.1	1 l	26,80
			9683.3	2.5 l	39,70
			9683.5	5 l	67,20
			9683.2	10 l	109,15
			9683.8	25 l	220,40
	30 %, for synthesis, stabilised	plastic	**CP26.5**	500 ml	19,25
			CP26.1	1 l	25,70
			CP26.4	2.5 l	37,55
			CP26.2	10 l	76,25
			CP26.3	25 l	147,85
Manganese(IV) oxide	≥90 %, precipitated, active	glass	**4486.1**	250 g	41,85
Osmium tetraoxide	≥99,95 %, p.a., for electron microscopy	glass	**8371.1**	100 mg	56,90
			8371.2	500 mg	138,70
			8371.3	1 g	217,70
Potassium chromate	≥99 %, p.a., ACS	plastic	**HN33.1**	100 g	46,80
			HN33.2	250 g	89,15
			HN33.3	500 g	158,60
			HN33.4	1 kg	267,70
Potassium dichromate	≥99,5 %, cryst.	plastic	**7953.3**	100 g	22,50
			7953.1	1 kg	114,50
			7953.2	5 kg	448,85
Potassium permanganate	≥99 %, Ph. Eur., USP, BP	plastic	**8004.1**	250 g	30,00
			8004.2	1 kg	76,25
			8004.3	5 kg	268,75
Sodium bismuthate dihydrate	≥99 %, p.a.	plastic	**4401.1**	50 g	59,05
			4401.2	100 g	109,15
			4401.3	250 g	224,70
Sodium hypochlorite solution	12 % Cl, technical	plastic	**9062.3**	1 l	25,70
			9062.4	2.5 l	40,35
			9062.1	10 l	68,70
	5–10 % Cl, technical	plastic	**6846.1**	1 l	17,10
			6846.2	2.5 l	25,70
			6846.3	10 l	49,35
Sodium iodate	≥99 %, p.a.	plastic	**HN17.1**	50 g	72,60
			HN17.2	100 g	125,25
TEMPO	≥98 %, for synthesis	glass	**6801.1**	1 g	18,85
			6801.2	5 g	34,95
			6801.3	25 g	89,15

For additional product data and safety information, see chapter Chemicals A-Z.

Synthesis reagents

Reducing Agents



As with oxidation reactions, reduction reactions are also widely used in organic synthesis. An example of this reductive amination, which is shown above. You can find commonly used reducing agents here:

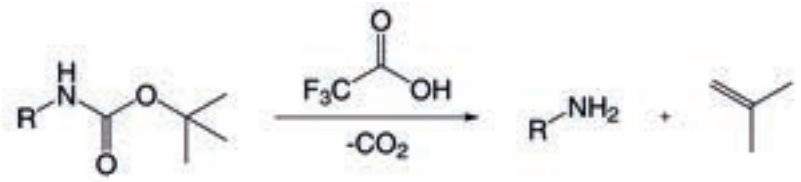
Reducing Agents

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Formic acid	≥98 %, for synthesis	glass	**4742.1**	1 l	30,00
			4742.2	2.5 l	56,90
		plastic	**4742.4**	5 l	83,75
			4742.3	10 l	128,50
Magnesium turnings	≥99,9 %, for synthesis, acc. to Grignard	tin	**AE61.1**	250 g	21,40
			AE61.2	500 g	34,30
			AE61.3	1 kg	55,80
Sodium	≥99 %, rods, in paraffin wax oil	glass	**4469.1**	250 g	198,90
Sodium borohydride	≥97 %, extra pure	glass	**4051.1**	25 g	49,35
			4051.2	100 g	107,40
Sodium sulphite	≥98 %, anhydrous	plastic	**8637.1**	1 kg	26,80
			8637.3	5 kg	82,25
			8637.2	10 kg	147,85
			8637.4	25 kg	284,90
Triphenylphosphine	≥99,5 %, for synthesis	plastic	**4110.1**	10 g	15,60
			4110.2	100 g	27,85
			4110.3	250 g	53,65
			4110.4	1 kg	170,95
Zinc granules	≥99,99 %, p.a., 0,3–1,5 mm	plastic	**3093.1**	100 g	41,85
			3093.2	250 g	96,25
			3093.3	500 g	177,40
	≥99,99 %, p.a., 5–15 mm	plastic	**AE99.1**	250 g	45,05
			AE99.2	500 g	78,40
			AE99.3	1 kg	134,40
Zinc dust	≥98 %, <63 µm, stabilised	glass	**9524.2**	500 g	37,55
			9524.3	1 kg	55,80
			9524.1	2.5 kg	101,60

For additional product data and safety information, see chapter Chemicals A-Z.



(Lewis) Acids



Acids are commonly used in synthesis protocols for processing reactions. In addition, acids (usually Lewis acids) can also serve as catalysts for various reactions. The removal of the Boc protecting group shown here is formally catalysed by the acids used (in this case, trifluoroacetic acid). In addition to conventional inorganic acids, Carl ROTH can supply other acids and Lewis acids commonly used in organic synthesis.

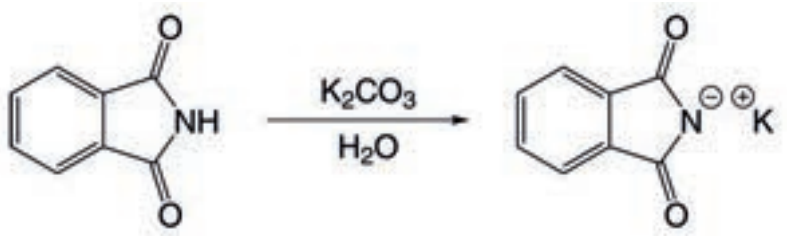
(Lewis) Acids

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Acetic acid	≥99 %, for synthesis	plastic	**7332.1**	1 l	25,70
			7332.4	2.5 l	52,60
			7332.2	5 l	99,90
			7332.3	10 l	170,95
			7332.5	25 l	338,65
Aluminium chloride	≥99 %, anhydrous, sublimated	glass	**CN86.1**	100 g	17,10
			CN86.2	500 g	37,55
			CN86.3	1 kg	63,45
Ammonium chloride	≥99 %, cryst.	plastic	**5470.1**	1 kg	24,65
			5470.4	2.5 kg	48,30
			5470.2	5 kg	72,60
			5470.3	10 kg	120,95
			5470.5	25 kg	241,90
Hydrochloric acid	37 % fuming, extra pure	glass	**9277.1**	1 l	24,65
		plastic	**9277.4**	1 l	22,50
		glass	**9277.2**	2.5 l	42,90
		plastic	**9277.5**	2.5 l	40,75
			9277.3	10 l	117,20
Iron(III) chloride	≥98,5 %, anhydrous, extra pure	glass	**5192.1**	250 g	24,65
			5192.2	500 g	38,60
			5192.3	1 kg	64,40
Nitric acid	68 %, extra pure	glass	**2616.1**	250 ml	18,20
			2616.2	1 l	32,15
			2616.3	2.5 l	53,65
ortho-Phosphoric acid	85 %, extra pure	plastic	**9079.1**	1 l	64,40
			9079.2	2.5 l	127,95
			9079.3	10 l	342,95
Potassium hydrogen sulphate	≥98 %, extra pure	plastic	**X989.1**	500 g	28,50
			X989.2	1 kg	49,35
			X989.3	2.5 kg	99,90
			X989.7	25 kg	837,45
Sodium hydrogen sulphate	≥93 %, pearls	plastic	**2373.1**	1 kg	21,00
			2373.2	5 kg	53,65
Sulphuric acid	96 %, technical	plastic	**0971.1**	1 l	21,40
			0971.2	2.5 l	35,40
			0971.3	10 l	71,95
			0971.4	25 l	149,45
Trifluoroacetic acid (TFA)	≥99,9 %	glass	**6957.1**	500 ml	138,70
			6957.2	1 l	256,95
			6957.3	2.5 l	557,95

For additional product data and safety information, see chapter Chemicals A-Z.

Synthesis reagents

Bases



Many reaction mechanisms require deprotonation so that the desired reaction can take place. The strength of the required bases depends entirely on the application. Carl ROTH supplies a wide selection of bases which play an important role in organic synthesis.

Bases

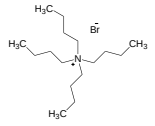
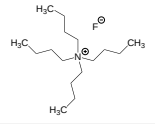
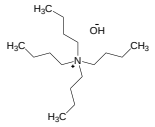
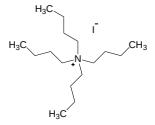
Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Ammonia solution	≥25 %, extra pure	plastic	**5460.1**	1 l	24,20
			5460.2	5 l	50,00
			5460.3	10 l	71,95
			5460.4	30 l	179,00
Barium hydroxide octahydrate	≥98 %, extra pure	plastic	**HN75.1**	500 g	39,25
			HN75.2	1 kg	67,65
			HN75.3	2.5 kg	147,85
Caesium carbonate	≥99,9 %, p.a.	plastic	**6873.1**	5 g	20,35
			6873.2	25 g	46,15
			6873.3	100 g	145,15
			6873.4	500 g	461,20
1,8-Diazabicyclo[5.4.0]undec-7-ene (DBU)	≥98 %, for synthesis	glass	**6869.1**	25 ml	38,20
			6869.2	100 ml	112,35
			6869.3	250 ml	209,65
			6869.4	500 ml	370,90
N,*N*-Diisopropylethylamine (DIPEA)	≥99 %, for synthesis	glass	**4105.1**	100 ml	21,40
			4105.2	250 ml	38,60
			4105.3	1 l	107,40
			4105.4	2.5 l	220,40
Imidazole	≥99 %	plastic	**3899.1**	50 g	21,40
			3899.2	250 g	60,75
			3899.3	500 g	85,50
			3899.4	1 kg	123,10
Methylamine	40 % in water, for synthesis	glass	**1E51.1**	250 ml	16,05
		plastic	**1E51.2**	1 l	31,75
			1E51.3	2.5 l	60,75
1-Methylimidazole	≥99 %, for synthesis	glass	**N353.1**	100 ml	24,65
			N353.2	1 l	145,15
2-Methylimidazole	≥98 %, for synthesis	glass	**1C4A.1**	100 g	25,30
			1C4A.2	500 g	100,95
			1C4A.3	1 kg	170,95
N-Methylmorpholine	≥99 %, for synthesis	glass	**9672.1**	100 ml	18,20
			9672.2	250 ml	31,10
			9672.3	1 l	83,75
			9672.4	2.5 l	160,20
Piperidine	≥99,5 %, for peptide synthesis	glass	**A122.1**	200 ml	40,75
			A122.2	500 ml	76,90
			A122.3	1 l	127,95
			A122.4	2.5 l	220,40
	≥99 %, for synthesis	glass	**0976.1**	250 ml	26,80
			0976.2	1 l	71,50
			0976.3	2.5 l	141,40
Potassium carbonate	≥98 %	plastic	**7956.1**	1 kg	21,40
			7956.2	5 kg	85,90
			7956.5	25 kg	299,95
Potassium hydrogen carbonate	≥99 %, Ph. Eur.	plastic	**X887.1**	500 g	21,40
			X887.2	1 kg	33,25
			X887.3	2.5 kg	66,55
Potassium hydroxide	≥85 %, in sheds	plastic	**7986.1**	1 kg	38,60
			7986.3	2.5 kg	70,45
			7986.4	5 kg	117,20
			7986.2	10 kg	209,65
			7986.5	25 kg	446,15

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Pyridine	≥99 %, for synthesis	glass	**CP07.1**	500 ml	42,90
			CP07.2	1 l	81,60
			CP07.3	2.5 l	171,50
Sodium carbonate	≥99 %, anhydrous	plastic	**8563.1**	1 kg	20,35
			8563.2	10 kg	80,10
			8563.5	25 kg	149,45
Sodium hydrogen carbonate	≥99 %	plastic	**0965.1**	500 g	14,55
			0965.2	1 kg	21,00
			0965.3	5 kg	59,05
Triethylamine (TEA)	≥99,5 %, for synthesis	glass	**X875.1**	100 ml	14,95
			X875.2	500 ml	23,55
			X875.3	1 l	38,60
			X875.4	2.5 l	73,00

Quaternary Ammonium Compounds

Quaternary ammonium compounds are organic ammonium compounds, for which all four valences of a nitrogen atom are bonded organically. These ammonium compounds are often used as phase-transfer catalysts and ion pair reagents.

Quaternary Ammonium Compounds

Structural formula	Product name	Purity	Molecular formula	CAS No.	Art. No.	Pack Qty.	€
	Tetrabutylammonium bromide (TBAB)	≥99 %, for synthesis	$C_{16}H_{36}BrN$	1643-19-2	**6633.1**	50 g	34,95
					6633.2	250 g	99,90
					6633.3	500 g	170,95
	Tetrabutylammonium-fluoride (TBAF)	1 mol/l in THF, stabilised	$(C_4H_9)_4NF$	429-41-4	**1448.1**	25 ml	32,15
					1448.2	100 ml	96,25
					1448.3	250 ml	181,70
	Tetrabutylammonium hydroxide (TBAH)	40 % in water	$C_{16}H_{37}NO$	2052-49-5	**5026.1**	25 ml	28,95
					5026.2	100 ml	63,35
					5026.3	250 ml	115,60
					5026.4	1 l	396,70
	Tetrabutylammonium iodide (TBAI)	≥99 %, p.a.	$C_{16}H_{36}IN$	311-28-4	**4735.1**	25 g	19,90
					4735.2	100 g	52,70
					4735.3	500 g	220,40
	Tetramethylammonium chloride (TMAC)	≥98 %, for synthesis	$C_4H_{12}ClN$	75-57-0	**4747.1**	100 g	34,30
					4747.2	500 g	134,40

For additional product data and safety information, see chapter Chemicals A-Z.

ROTIDRY® Dried Solvents



Due to their very low water content, ROTIDRY® solvents are ideal for use in organic synthesis, DNA synthesis and analysis.
ROTIDRY® solvents can be used wherever a low water content is important, e.g. chromatographic purification methods.

Properties:

- Very low water content
- Extremely high product purity
- Low evaporation residue
- Filled under inert gas

ROTIDRY® Dried solvents

Product name	Purity	Art. No.	Pack Qty.	€
Acetic acid ethyl ester	≥99,8 % (≤100 ppm H_2O)	**4424.1**	1 l	37,55
Acetonitrile	≥99,9 % (≤10 ppm H_2O)	**AE00.1**	1 l	51,10
		AE00.2	2.5 l	101,60
		AE00.3	4 l	155,90
Dichloromethane	≥99,8 % (≤50 ppm H_2O)	**AE03.1**	1 l	46,15
Diethyl ether	≥99,5 % (≤50 ppm H_2O), stabilised	**AE04.1**	1 l	59,05
Dimethyl sulphoxide (DMSO)	≥99,5 % (≤200 ppm H_2O)	**AE02.1**	1 l	107,00
1,4-Dioxane	≥99,8 % (≤100 ppm H_2O)	**4429.1**	1 l	91,95
n-Hexane	≥99 % (≤50 ppm H_2O)	**AE05.1**	1 l	87,00
Methanol	≥99,9 % (≤50 ppm H_2O)	**AE01.1**	1 l	38,60
		AE01.2	2.5 l	70,85
Tetrahydrofuran	≥99,9 % (≤50 ppm H_2O)	**AE07.1**	1 l	84,85
Toluene	≥99,5 % (≤50 ppm H_2O)	**AE06.1**	1 l	53,25
Trichloromethane/ Chloroform	≥99,8 % (≤50 ppm H_2O)	**4423.1**	1 l	34,95

For additional product data and safety information, see chapter Chemicals A–Z.

ROTIDRY® Sept Dried Solvents in Septum Bottle



Advantages of the septum bottle:
- Additional product quality assurance
- No ingress of water during removal
- Ideal for small quantities
- Removable septum for removal of large quantities
- Special cap permits multiple puncture points

ROTIDRY® Sept Dried Solvents in Septum Bottle

Product name	Purity	Art. No.	Pack Qty.	€
Acetonitrile	≥99,9 % (≤50 ppm H_2O)	**5175.1**	250 ml	64,40
Dichloroethane	≥99,9 % (≤50 ppm H_2O)	**5176.1**	250 ml	51,50
Diethyl ether	≥99,5 % (≤50 ppm H_2O), stabilised	**5177.1**	250 ml	78,40
Dimethyl sulphoxide (DMSO)	≥99,8 % (≤100 ppm H_2O)	**5179.1**	250 ml	85,50
n-Hexane	≥99 % (≤30 ppm H_2O)	**5180.1**	250 ml	58,60
Methanol	≥99,9 % (≤50 ppm H_2O)	**5181.1**	250 ml	48,30
Tetrahydrofuran	≥99,8 % (≤50 ppm H_2O)	**5182.1**	250 ml	70,45
Toluene	≥99,5 % (≤30 ppm H_2O)	**5191.1**	250 ml	52,60

For additional product data and safety information, see chapter Chemicals A–Z.

ROTIDRY® plus – Dried Solvents with Molecular Sieve



Properties:

- Very low water content
- Extremely high product purity
- Good price-performance ratio
- Contains molecular sieve 3Å

Product name	Purity	Art. No.	Pack Qty.	€
Acetic acid ethyl ester	≥99,8 % (≤50 ppm H_2O), with molecular sieve	**1A9P.1**	1 l	64,40
Dichloromethane	≥99,9 % (≤30 ppm H_2O), with molecular sieve	**1A9K.1**	1 l	64,40
Diethyl ether	≥99,5 % (≤50 ppm H_2O), with molecular sieve, stabilised	**1A9X.1**	1 l	80,10
Methanol	≥99,8 % (≤50 ppm H_2O), with molecular sieve	**1A9L.1**	1 l	73,00
Tetrahydrofuran	≥99,5 % (≤50 ppm H_2O), with molecular sieve, stabilised	**1A9Y.1**	1 l	82,70
Toluene	≥99,5 % (≤50 ppm H_2O), with molecular sieve	**1A9T.1**	1 l	77,30
Trichloromethane/ Chloroform	≥99,9 % (≤30 ppm H_2O), with molecular sieve, stabilised	**1A9N.1**	1 l	75,15

For additional product data and safety information, see chapter Chemicals A–Z.

Solvents for Synthesis

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Acetic acid ethyl ester	≥99,5 %, for synthesis	glass	**7338.1**	1 l	32,15
			7338.3	2.5 l	55,40
		plastic	**7338.5**	5 l	91,30
		tinplate	**7338.2**	10 l	149,45
			7338.4	25 l	299,95
Acetone	≥99,5 %, for synthesis	glass	**5025.1**	1 l	23,55
			5025.2	2.5 l	52,15
		plastic	**5025.5**	2.5 l	50,00
			5025.6	5 l	70,85
		tinplate	**5025.3**	10 l	123,65
			5025.4	25 l	255,35
Acetonitrile	≥99,5 %, for synthesis	glass	**4380.1**	1 l	43,55
			4380.2	2.5 l	90,85
		tinplate	**4380.3**	10 l	309,10
			4380.4	25 l	599,35
Cyclohexane	≥99,5 %, for synthesis	glass	**6570.1**	1 l	30,00
			6570.3	2.5 l	45,05
		aluminium	**6570.5**	5 l	76,25
		tinplate	**6570.2**	10 l	127,95
			6570.4	25 l	256,95
Dichloro-methane	≥99,5 %, for synthesis	glass	**8424.4**	100 ml	13,90
			8424.1	1 l	31,10
			8424.2	2.5 l	62,25
		tinplate	**8424.3**	10 l	182,25
			8424.5	25 l	349,40
Diethyl ether	≥99,5 %, for synthesis, stabilised	glass	**5920.2**	1 l	46,15
		aluminium	**5920.3**	5 l	160,20
		tinplate	**5920.4**	25 l	456,90
N,N-Dimethyl-formamide (DMF)	≥99,5 %, for synthesis	glass	**6251.1**	1 l	52,15
			6251.2	2.5 l	105,90
		plastic	**6251.3**	2.5 l	103,75
			6251.5	10 l	295,65
			6251.4	25 l	600,95
N,N'-Dimethyl-propylene urea	≥99 %, for synthesis	glass	**0662.1**	25 ml	26,80
			0662.2	100 ml	61,85
			0662.3	500 ml	181,70
Dimethyl sulphoxide (DMSO)	≥99,5 %, for synthesis	glass	**7029.1**	1 l	74,20
			7029.2	2.5 l	149,45
		plastic	**7029.4**	5 l	278,45
			7029.3	10 l	510,65
			7029.5	25 l	1.177,15
1,4-Dioxane	≥99,5 %, for synthesis, stabilised	glass	**4229.1**	500 ml	30,00
			4229.2	1 l	42,90
			4229.3	2.5 l	88,05
		aluminium	**4229.5**	5 l	153,20
		tinplate	**4229.6**	10 l	278,45
			4229.4	25 l	618,15
n-Hexane	≥99 %, for synthesis	glass	**CP47.1**	1 l	56,90
			CP47.2	2.5 l	126,75
		aluminium	**CP47.4**	5 l	224,70
		PE/steel	**CP47.3**	10 l	419,25
		tinplate	**CP47.5**	25 l	854,65
Methanol	≥99 %, for synthesis	glass	**8388.1**	1 l	19,90
			8388.2	2.5 l	39,70
		plastic	**8388.5**	2.5 l	26,80
			8388.6	5 l	56,45
		tinplate	**8388.3**	10 l	90,20
			8388.4	25 l	149,45
n-Pentane	≥99 %, for synthesis	glass	**8720.1**	1 l	46,15
			8720.3	2.5 l	92,35
		aluminium	**8720.4**	5 l	162,90
		tinplate	**8720.2**	10 l	310,70
			8720.5	25 l	654,70
Piperidine	≥99 %, for synthesis	glass	**0976.1**	250 ml	26,80
			0976.2	1 l	71,50
			0976.3	2.5 l	141,40

Solvents

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Tetrahydro-furan	≥99,5 %, for synthesis	glass	**4745.1**	250 ml	28,95
			4745.2	1 l	51,50
			4745.3	2.5 l	103,10
		tinplate	**4745.4**	10 l	311,75
			4745.5	25 l	547,20
Toluene	≥99,5 %, for synthesis	glass	**9558.1**	1 l	34,30
			9558.3	2.5 l	59,70
		tinplate	**9558.2**	10 l	145,15
			9558.4	25 l	289,20
Trichloro-methane/ Chloroform	≥99 %, for synthesis	glass	**Y015.1**	1 l	34,30
			Y015.2	2.5 l	67,65
		tinplate	**Y015.3**	10 l	235,45
			Y015.4	25 l	471,95
Xylene (isomers)	≥97 %, for synthesis	glass	**2662.1**	1 l	26,35
			2662.2	2.5 l	41,95
		aluminium	**2662.5**	5 l	74,20
		tinplate	**2662.3**	10 l	117,20
			2662.4	25 l	241,90

For additional product data and safety information, see chapter Chemicals A-Z.

- ► Further solvents see chapter Chemicals A–Z
- ► Pliers wrench see www.carlroth.com
- ► For 10 l and 25 l tins, the opening wrench 0398.1 resp. 1L9H.1 is required. Please order separately.
- ► How to open a **ROTITAINER®?** You can find our technical brochures or our instruction video (only in German) at: www.carlroth.com/de/en/Rotitainer
- ► Barrel and keg key Tri-Sure® 0398.1 & 1L9H.1 see www.carlroth.com



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Ionic Liquids

Ionic liquids are salts which are available in a liquid state over a wide temperature range. They constitute a new generation of solvents with considerable potential for being able to replace classic organic solvents. Ionic liquids are composed of organic cations and organic or inorganic anions. Due to their fully ionized composition they exhibit no vapor pressure over the entire liquid range.

- Low-melting with melting point under 100 °C
- Thermally, mechanically and electrochemically stable
- Neither volatile nor combustible
- Negligible vapor pressure
- High solubility of many different kinds of chemicals



Ionic Liquids

Product name	Synonymous	Art. No.	Pack Qty.	€
1-Butyl-3-methyl-imidazolium-chloride (BMIM Cl)	BMIM Cl	**2010.1**	25 g	203,20
		2010.2	100 g	428,95
1-Butyl-3-methyl-imidazolium-hexafluorophosphate (BMIM PF_6)	BIMI PF_6	**2012.1**	25 g	112,80
		2012.2	100 g	246,20
1-Butyl-3-methyl-imidazolium-tetrafluoroborate (BMIM BF_4)	BMIM BF_4	**2014.1**	25 g	112,80
		2014.2	100 g	246,20
1-Butyl-3-methyl-imidazolium-trifluoromethanesulphonate (BMIM OTf)	BMIM OTf	**2015.1**	25 g	246,20
		2015.2	100 g	514,95
1-Butyl-1-methyl-pyrrolidinium-bis-(trifluoromethylsulphonyl)-imide (BMPyrr BTA)	BMPyrr NTf_2, BMPyrr BTA	**2021.1**	25 g	203,20
		2021.2	100 g	428,95
1-Butyl-1-methyl-pyrrolidinium-dicyanamide (BMPyrr DCA)	BMPyrr $N(CN)_2$, BMPyrr DCA	**2022.1**	25 g	396,70
		2022.2	100 g	843,90
Butyl-trimethyl-ammonium-bis-(trifluoromethylsulphonyl)-imide (N1114 BTA)	N1114 BTA	**2025.1**	25 g	267,70
		2025.2	100 g	665,45
Choline-dihydrogenphosphate (Choline DHP)	Choline DHP, Choline DHP	**2028.1**	25 g	267,70
		2028.2	100 g	665,45
Ethylammonium-nitrate (EAN)	EAN	**2035.1**	25 g	185,45
		2035.2	100 g	439,70
1-Ethyl-3-methyl-imidazolium-bromide (EMIM Br)	EMIM Br	**2037.1**	25 g	203,20
		2037.2	100 g	428,95
1-Ethyl-3-methyl-imidazolium-dicyanamide (EMIM DCA)	EMIM $N(CN)_2$, EMIM DCA	**2053.1**	25 g	267,70
		2053.2	100 g	622,45
1-Ethyl-3-methyl-imidazolium-ethylsulphate (EMIM $EtOSO_3$)	EMIM $EtOSO_3$	**2054.1**	25 g	112,80
		2054.2	100 g	246,20
1-Ethyl-3-methyl-imidazolium-methanesulphonate (EMIM OMs)	EMIM OMs	**2056.1**	25 g	289,20
		2056.2	100 g	697,70
1-Ethyl-3-methyl-imidazolium-thiocyanate (EMIM SCN)	EMIM SCN	**2059.1**	25 g	246,20
		2059.2	100 g	514,95
1-Ethyl-3-methyl-imidazolium-trifluoromethansulphonate (EMIM OTf)	EMIM OTf	**2062.1**	25 g	246,20
		2062.2	100 g	514,95
1-Hexyl-3-methyl-imidazolium chloride (HMIM Cl)	HMIM Cl	**2064.1**	25 g	289,20
		2064.2	100 g	704,15
1-Hexyl-3-methyl-imidazolium-hexafluorophosphate (HMIM PF_6)	HMIM PF_6	**2069.1**	25 g	203,20
		2069.2	100 g	428,95
1-Hexyl-3-methyl-imidazolium-tetrafluoroborate (HMIM BF_4)	HMIM BF_4	**2070.1**	25 g	203,20
		2070.2	100 g	428,95
1-Methyl-3-octyl-imidazolium-hexafluorophosphate (OMIM PF_6)	OMIM PF_6	**2076.1**	25 g	246,20
		2076.2	100 g	514,95
1-Methyl-3-octyl-imidazolium-tetrafluoroborate (OMIM BF_4)	OMIM BF_4	**2081.1**	25 g	246,20
		2081.2	100 g	514,95
1-Methyl-3-propyl-imidazolium-iodide (PMIM I)	PMIM I	**2091.1**	25 g	203,20
		2091.2	100 g	428,95
1-Methyl-1-propyl-piperidinium-bis-(trifluoromethylsulphonyl)- imide (PMPip BTA)	PMPip BTA	**2095.1**	25 g	246,20
		2095.2	100 g	514,95
Triethylsulfonium-bis-(trifluoromethylsulphonyl)-imide (S222 BTA)	S222 BTA	**2096.1**	25 g	504,20
		2096.2	100 g	951,40

For additional product data and safety information, see chapter Chemicals A-Z.

► For information on solubility as well as the chemical and physical properties of the ionic liquids, refer to www.carlroth.com

Green Chemistry



More sustainable and environmentally friendly products are becoming increasingly important in the chemical industry. Carl ROTH offers a variety of products which are classified as less hazardous or are made from renewable raw materials. The solvents that are relevant to these principles are grouped together in the SOLVAGREEN® brand at Carl ROTH.
The 12 principles of Green Chemistry were summarised in by Paul Anastas – as consultant at the EPA (*Environmental Protection Agency*) – and John C. Warner as follows:
1. Avoid waste
2. Atom-efficient syntheses and reactions
3. Safer chemical synthesis
4. Development and use of safer substances and minimisation of their toxicity
5. Safer solvents and additives
6. Perform processes as energy efficient as possible at room temperature and atmospheric pressure
7. Give preference to renewable resources
8. Shorter synthesis routes
9. Catalysts instead of stoichiometric reagents
10. Naturally degradable products
11. Real-time monitoring of waste prevention
12. Basic risk avoidance in chemical processes

Lit.: *Green Chemistry Pocket Guide - The 12 Principles of Green Chemistry www.acs.org/greenchemistry*

SOLVAGREEN® – Our Brand for Alternative Solvents

Green Solvents

The sustainable solvents listed below – Green Solvents – serve as substitutes for environmentally hazardous and harmful reagents and help minimize risk. Sustainability is also achieved through the use of renewable resources or environmentally compatible manufacturing and recycling processes.

Products from renewable raw materials

Product name	Brand/Purity	Basic material	Pack.	Art. No.	Pack Qty.	€
Bioethanol	SOLVAGREEN® 96 %, Ph. Eur.	Wheat	glass	**6724.1**	1 l	101,60
				6724.2	2.5 l	209,65
			plastic	**6724.3**	2.5 l	205,90
				6724.4	5 l	370,90
				6724.5	10 l	693,40
				6724.6	25 l	1.392,15
	SOLVAGREEN® 96 %, denatured	Wheat	plastic	**6726.1**	1 l	19,25
				6726.2	2.5 l	33,25
				6726.3	5 l	60,75
				6726.4	10 l	94,10
				6726.5	25 l	208,05
Glycerol	SOLVAGREEN® ≥98 %, anhydrous, Ph. Eur.	Vegetables	plastic	**7530.1**	1 l	53,25
				7530.4	2.5 l	91,30
				7530.5	5 l	166,65
				7530.2	10 l	299,95
	SOLVAGREEN® ~86 %, Ph. Eur., extra pure	Vegetables	plastic	**7533.1**	1 l	51,50
				7533.3	2.5 l	88,05
				7533.4	5 l	160,20
				7533.2	10 l	289,20
				7533.5	25 l	557,95

For additional product data and safety information, see chapter Chemicals A-Z.

Bioethanol

Our bioethanol is manufactured by fermentation of organic wheat followed by distillation and rectification.

Advantages:

- Made from wheat grown in a controlled organic environment in accordance with EU organic farming regulation 834/2007
- Non-synthetically manufactured ethanol
- Low toxicity thanks to safe production methods
- Suitable for synthesis and other laboratory applications

Denaturated using a non-organic denaturant **(Art. No. 6726)**

SOLVAGREEN® – Alternative Solvents

Alternative products for environmentally hazardous and harmful reagents

Product name	Brand/Purity	General application	Pack.	Art. No.	Pack Qty.	€
Acetic acid *iso*-propyl ester	SOLVAGREEN® ≥99 %, for synthesis	Alternative for dichloromethane	glass	**1A9C.1**	1 l	31,10
				1A9C.2	2.5 l	61,85
Acetic acid *n*-propyl ester	SOLVAGREEN® ≥99,5 %, for synthesis	Alternative for MEK (mixture 40:60 with acetone)	plastic	**1A9A.1**	1 l	31,10
				1A9A.2	2.5 l	61,85
tert-Amyl methyl ether	SOLVAGREEN® ≥99 %, for synthesis	Alternative for diethyl ether	glass	**1A92.1**	100 ml	19,25
				1A92.2	250 ml	30,00
			plastic	**1A92.3**	1 l	69,35
				1A92.4	2.5 l	117,20
				1A92.5	10 l	317,15
Anisole	SOLVAGREEN® ≥99 %, for synthesis	Alternative for chlorobenzene, toluene	glass	**4417.1**	100 ml	17,10
				4417.2	500 ml	33,25
				4417.3	1 l	55,40
				4417.4	2.5 l	110,20
N-Butyl-2-pyrrolidone (NBP)	SOLVAGREEN® ≥99,5 %, for synthesis	Dipolar aprotic solvent. Alternative for NMP, NEP, DMSO	plastic	**1E8A.1**	100 ml	24,20
				1E8A.2	500 ml	48,95
				1E8A.3	1 l	73,65
				1E8A.4	2.5 l	149,45
Cyclopentyl methyl ether	SOLVAGREEN® ≥99 %, extra pure	Alternative for diethyl ether, tBME/MTBE, THF.	glass	**7763.1**	250 ml	45,05
				7763.2	500 ml	78,40
				7763.3	1 l	120,95
				7763.4	2.5 l	241,90
Diacetone alcohol	SOLVAGREEN® ≥98 %, for synthesis	Alternative for acetone, chlorinated solvents.	glass	**3546.1**	250 ml	19,25
				3546.2	1 l	46,15
				3546.3	2.5 l	92,35
Dibasic ester	SOLVAGREEN® ≥99 %, pure	Alternative for acetone, benzene, toluene, dichloromethane.	plastic	**7973.1**	1 l	32,15
				7973.2	2.5 l	62,25
				7973.3	5 l	104,85
Diethyl carbonate	SOLVAGREEN® ≥99,9 %	Alternative for DMF, phosgene.	glass	**2627.1**	100 ml	19,25
				2627.2	500 ml	32,15
				2627.3	1 l	46,15
				2627.4	2.5 l	88,05
Dihydrolevoglucosenone	SOLVAGREEN® ≥98,5 %, for synthesis	Dipolar aprotic solvent. Alternative for NMP, NEP, DMF, DMAC, DMSO	plastic	**1E89.1**	100 ml	49,35
				1E89.2	500 ml	134,40
				1E89.3	1 l	252,65
Dimethyl carbonate	SOLVAGREEN® ≥99,8 %	Alternative for DMF, phosgene.	glass	**2625.1**	100 ml	16,05
				2625.2	500 ml	25,70
				2625.3	1 l	40,75
				2625.4	2.5 l	70,45
N,*N*'-Dimethylpropylene urea	SOLVAGREEN® ≥99 %, for synthesis	Polar aprotic solvent, alternative for DMF and hexamethyl-phosphoramide (HMPA).	glass	**0662.1**	25 ml	26,80
				0662.2	100 ml	61,85
				0662.3	500 ml	181,70
Diphenyl carbonate	SOLVAGREEN® ≥99 %	Alternative for DMF, phosgene.	plastic	**2626.1**	100 g	17,10
				2626.2	500 g	32,80
				2626.3	1 kg	57,95
2-Methyltetrahydrofuran	SOLVAGREEN® ≥99 %, extra pure	Alternative for THF, dichloro-methane, DMSO, tBME/MTBE.	glass	**6845.1**	250 ml	32,15
				6845.2	500 ml	52,60
				6845.3	1 l	74,20
				6845.4	2.5 l	138,70
			PE/steel	**6845.5**	10 l	467,65
N-Octyl-2-pyrrolidone (NOP)	SOLVAGREEN® ≥99 %, for synthesis	Alternative for NMP, NEP.	glass	**0358.1**	100 ml	25,70
			plastic	**0358.2**	500 ml	59,05
				0358.3	1 l	91,30
				0358.4	2.5 l	170,95
Propylene carbonate	SOLVAGREEN® ≥99,7 %, for synthesis	Alternative for acetone, DMF, chlorinated solvents.	glass	**5022.2**	100 ml	17,10
				5022.1	250 ml	30,00
				5022.3	1 l	50,00
				5022.4	2.5 l	96,65
2-Pyrrolidone	SOLVAGREEN® ≥99,5 %, for synthesis	Alternative for NMP, NEP.	plastic	**8779.1**	500 ml	45,05
				8779.2	1 l	81,20
				8779.3	2.5 l	162,90
				8779.4	5 l	299,95

For additional product data and safety information, see chapter Chemicals A-Z.

SOLVAGREEN® – Green Solvents

Acetals

Acetals are made from an alcohol and an aldehyde. They form a chemical family with linear or cyclic structures that is stable in a neutral and basic environment.
Carl ROTH offers you a wide range of acetals with different properties. All acetals are easily miscible with organic solvents and most surfactants. The water miscibility, on the other hand, varies and depends strongly on the structure of the acetals.
Due to their high solubility, acetals are often used as solvents.
Fields of application:
• Replacement of more dangerous solvents
• Cleaning
• Synthesis



Acetals

Product name	Purity	General application	Pack.	Art. No.	Pack Qty.	€
Butylal	≥99 %, for synthesis	Alternative for D-limonene, cyclic hydrocarbons, perchloroethylene.	glass	**0796.1**	100 ml	21,00
				0796.2	500 ml	47,20
				0796.3	1 l	69,35
				0796.4	2.5 l	138,70
1,3-Dioxolane	≥90 %, for synthesis	Alternative for NMP, NEP, glycols, aromatics.	glass	**0447.1**	100 ml	18,20
				0447.2	500 ml	42,50
				0447.3	1 l	70,85
				0447.4	2.5 l	140,30
Ethylal	≥99,5 %, for synthesis	Alternative for ethanol, MEK, aromatics, butyl acetate.	glass	**0787.1**	100 ml	21,00
				0787.2	500 ml	45,70
				0787.3	1 l	67,20
				0787.4	2.5 l	134,40
2-Ethylhexylal	≥99 %, for synthesis	Alternative for toluene, xylene.	glass	**0797.1**	100 ml	20,35
				0797.2	500 ml	46,15
				0797.3	1 l	67,65
				0797.4	2.5 l	134,40
Glycerol Formal	≥99 %, for synthesis	Solvent for many applications, completely miscible with water.	glass	**0798.1**	100 ml	20,35
				0798.2	500 ml	45,70
				0798.3	1 l	67,20
				0798.4	2.5 l	131,70
Methylal	≥99,9 %, for synthesis	Acetal and protecting group. Alternative for dichloromethane, acetone, MEK.	glass	**3154.1**	100 ml	24,65
				3154.2	500 ml	51,10
				3154.3	1 l	70,45
				3154.4	2.5 l	138,70
	≥99,5 %, for synthesis	Acetal and protecting group. Alternative for dichloromethane, acetone, MEK.	glass	**0783.1**	100 ml	21,00
				0783.2	500 ml	45,70
				0783.3	1 l	66,55
				0783.4	2.5 l	132,15
Propylal	≥99 %, for synthesis	Alternative for aromatics.	glass	**0795.1**	100 ml	20,35
				0795.2	500 ml	44,00
				0795.3	1 l	64,40
				0795.4	2.5 l	127,40
Tetraoxaundecane	≥99 %, for synthesis	Alternative for NMP, NEP, glycols, aromatics.	glass	**0786.1**	100 ml	21,00
				0786.2	500 ml	46,15
				0786.3	1 l	69,35
				0786.4	2.5 l	131,70

For additional product data and safety information, see chapter Chemicals A-Z.

Tip:
Not every alternative solvent is suitable for every application. Carl ROTH offers you a wide range of alternative solvents to address the most diverse solvent problems. The acetals can also be used as an additive to normal, classic solvents.

NMR Spectroscopy

Deuterated Solvents

Deuterated reagents are used primarily in NMR spectroscopy.

Application examples:

- Routine tasks such as structure determination and identity verification in research and development laboratories.
- High degree of deuteration
- Defined water content
- Extremely cost effective



NEW / +

Deuterated Solvents

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Acetone D6	100 Atom%D	glass ampoule	**1K3E.1**	7.5 ml	181,70
	99,8 Atom%D	glass ampoule	**AE51.3**	7.5 ml	75,15
		glass	**AE51.1**	10 ml	73,00
		septum bottle	**AE51.4**	10 ml	74,10
		glass	**AE51.5**	25 ml	160,20
			AE51.2	50 ml	278,45
	99,5 Atom%D	glass	**7909.1**	10 ml	65,50
			7909.2	50 ml	256,95
Acetonitrile D3	100 Atom%D	glass ampoule	**1K3H.1**	7.5 ml	220,40
	99,8 Atom%D	glass ampoule	**7911.2**	7.5 ml	100,95
		glass	**7911.1**	10 ml	98,80
			7911.3	25 ml	203,20
	99,5 Atom%D	glass	**AE52.1**	10 ml	89,15
		septum bottle	**AE52.3**	10 ml	91,30
		glass	**AE52.2**	25 ml	188,15
Benzene D6	99,8 Atom%D	glass ampoule	**7912.3**	7.5 ml	128,50
		glass	**7912.1**	10 ml	126,35
			7912.2	25 ml	289,20
	99,5 Atom%D	glass	**AE53.1**	10 ml	82,70
		septum bottle	**AE53.3**	10 ml	85,50
		glass	**AE53.4**	25 ml	181,70
			AE53.2	50 ml	332,20
			AE53.5	100 ml	622,45
Bromobenzene D5	99,5 Atom%D	glass	**HN93.1**	10 ml	174,70
Chlorobenzene D5	99 Atom%D	glass	**9905.1**	5 ml	185,45
Cyclohexane D12	99,5 Atom%D	glass	**5200.1**	5 ml	127,95
Deuterium oxide	100 Atom%D	glass ampoule	**HN81.3**	7.5 ml	67,65
		glass	**HN81.1**	10 ml	63,35
		septum bottle	**HN81.4**	10 ml	66,55
		glass	**HN81.2**	50 ml	213,95
	99,9 Atom%D	glass ampoule	**6672.6**	7.5 ml	53,65
		glass	**6672.1**	10 ml	45,05
		septum bottle	**6672.5**	10 ml	48,30
		glass	**6672.2**	25 ml	77,30
			6672.3	100 ml	235,45
			6672.4	500 ml	1.106,20
			6672.7	1 l	2.105,95
1,2-Dichlorobenzene D4	99 Atom%D	glass	**HN82.2**	1 ml	78,40
			HN82.1	5 ml	256,95
Dichloromethane D2	99,8 Atom%D	glass ampoule	**7913.2**	7.5 ml	180,10
		glass	**7913.1**	10 ml	177,40
	99,5 Atom%D	glass	**AE55.3**	5 ml	80,55
		glass ampoule	**AE55.5**	7.5 ml	142,45
		glass	**AE55.1**	10 ml	138,70
			AE55.2	25 ml	317,15
			AE55.4	50 ml	600,95
Diethyl ether D10	99 Atom%D	glass ampoule	**9907.1**	1 ml	149,45
N,*N*-Dimethylformamide D7	99,5 Atom%D	glass ampoule	**CP92.2**	1 ml	96,25
		glass	**CP92.1**	5 ml	317,15

Solvents

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Dimethyl sulphoxide D6	100 Atom%D	glass ampoule	**1K3K.1**	7.5 ml	115,60
	99,9 Atom%D	glass ampoule	**7915.3**	7.5 ml	73,00
		glass	**7915.1**	10 ml	68,70
		septum bottle	**7915.2**	10 ml	71,50
	99,8 Atom%D	glass ampoule	**AE56.3**	7.5 ml	61,20
		glass	**AE56.1**	10 ml	59,05
		septum bottle	**AE56.4**	10 ml	60,10
		glass	**AE56.6**	25 ml	117,20
			AE56.2	50 ml	213,95
			AE56.5	100 ml	403,15
Dimethyl sulphoxide D6 with TMS (0.03 vol.%)	99,9 Atom%D	glass ampoule	**7916.1**	7.5 ml	70,85
	99,8 Atom%D	glass ampoule	**AE60.3**	7.5 ml	61,20
		glass	**AE60.1**	10 ml	59,05
			AE60.4	25 ml	120,95
			AE60.2	50 ml	224,70
Ethanol D1	99,5 Atom%D	glass	**HN84.1**	50 ml	171,50
Ethanol D6	99 Atom%D	glass	**CP93.2**	1 ml	70,85
			CP93.1	5 ml	224,70
Methanol D1	99,5 Atom%D	glass	**HN86.1**	25 ml	85,90
			HN86.2	100 ml	287,60
Methanol D3	99,5 Atom%D	glass ampoule	**9910.1**	1 ml	41,85
		glass	**9910.2**	5 ml	127,95
Methanol D4	100 Atom%D	glass ampoule	**7918.2**	7.5 ml	181,70
		glass	**7918.1**	10 ml	177,40
	99,8 Atom%D	glass ampoule	**AE57.3**	7.5 ml	88,05
		glass	**AE57.1**	10 ml	83,75
		septum bottle	**AE57.4**	10 ml	85,90
		glass	**AE57.5**	25 ml	188,15
			AE57.2	50 ml	353,70
Methanol D4 with TMS (0.03 vol.%)	99,8 Atom%D	glass ampoule	**7919.3**	7.5 ml	81,60
		glass	**7919.1**	10 ml	78,40
			7919.2	25 ml	181,70
Methylcyclohexane D14	99,5 Atom%D	glass	**9913.1**	5 ml	146,75
Nitrobenzene D5	99,5 Atom%D	glass	**9914.1**	5 ml	99,90
			9914.2	10 ml	176,85
Nitromethane D3	99 Atom%D	glass	**HN91.2**	5 ml	110,20
			HN91.1	10 ml	196,20
2-Propanol D1	98 Atom%D	glass	**9917.1**	25 ml	155,90
2-Propanol D8	99,5 Atom%D	glass	**9919.1**	5 ml	152,15
Pyridine D5	99,8 Atom%D	glass ampoule	**7922.2**	7.5 ml	193,40
		glass	**7922.1**	10 ml	191,25
	99,5 Atom%D	glass ampoule	**CP94.3**	7.5 ml	171,90
		glass	**CP94.1**	10 ml	166,65
		septum bottle	**CP94.2**	10 ml	169,35
Styrene D8	99 Atom%D, stabilised with 4-*tert*-butylcatechol	glass ampoule	**9921.1**	1 g	157,50
1,1,2,2-Tetrachloroethane D2	99,5 Atom%D	glass ampoule	**CP96.2**	7.5 ml	147,85
		glass	**CP96.1**	10 ml	145,15
Tetrahydrofuran D8	99,5 Atom%D	glass	**AE58.3**	5 ml	145,15
		glass ampoule	**AE58.5**	7.5 ml	268,25
		glass	**AE58.1**	10 ml	263,40
		septum bottle	**AE58.2**	10 ml	266,10
		glass	**AE58.4**	25 ml	611,70
Toluene D8	99,8 Atom%D	glass ampoule	**7924.2**	7.5 ml	201,60
		glass	**7924.1**	10 ml	198,90
	99,5 Atom%D	glass ampoule	**CP95.2**	7.5 ml	137,10
		glass	**CP95.1**	10 ml	134,40
Trichloromethane/Chloroform D1	100 Atom%D	glass ampoule	**CP91.1**	7.5 ml	37,55
	99,8 Atom%D	glass ampoule	**7903.1**	7.5 ml	30,00
	99,8 Atom%D, stabilised with Ag	glass	**AE54.4**	25 ml	33,90
			AE54.1	100 ml	73,00
		septum bottle	**AE54.3**	100 ml	75,15
		glass	**AE54.2**	500 ml	299,95
Trichloromethane/Chloroform D1 with TMS (0.03 vol.%)	99,8 Atom%D	glass ampoule	**7905.1**	7.5 ml	30,00
	99,8 Atom%D, stabilised with Ag	glass	**AE59.1**	100 ml	74,75

For additional product data and safety information, see chapter Chemicals A-Z.

NEW / +

Deuterated Acids and Bases

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Acetic acid D1	99 Atom%D	glass	**9902.1**	50 ml	139,25
Acetic acid D4	99,5 Atom%D	glass	**HN83.1**	10 ml	134,40
Ammonia-D3 solution 25 % in D_2O	99 Atom%D	glass	**9903.1**	10 ml	117,20
Deuterium chloride 38 % solution in D_2O	99,5 Atom%D	glass	**HN80.1**	10 ml	67,65
Deuterium chloride 20 % solution in D_2O	99,5 Atom%D	glass	**1K3L.1**	25 ml	153,20
Formic acid D 95 % solution in D_2O	98 Atom%D	glass	**1L35.1**	5 ml	164,40
Formic acid D2 95 % solution in D_2O	98 Atom%D	glass	**HN92.1**	5 ml	160,20
ortho-Phosphoric acid D3, 85 % solution in D_2O	99 Atom%D	glass	**9915.1**	10 ml	77,95
			9915.2	25 ml	166,65
Pyridine D5	99,8 Atom%D	glass ampoule	**7922.2**	7.5 ml	193,40
		glass	**7922.1**	10 ml	191,25
	99,5 Atom%D	glass ampoule	**CP94.3**	7.5 ml	171,90
		glass	**CP94.1**	10 ml	166,65
		septum bottle	**CP94.2**	10 ml	169,35
Sodium deuterium oxide 40 % solution in D_2O	99,5 Atom%D	glass	**1K3N.1**	10 g	60,10
Sodium deuterium oxide 30 % solution in D_2O	99,5 Atom%D	glass	**HN90.1**	10 ml	91,30
Sulphuric acid D2 98 % solution in D_2O	99,5 Atom%D	glass	**HN87.1**	10 ml	73,00
			HN87.2	50 ml	295,65
Trifluoroacetic acid D	99,5 Atom%D	glass ampoule	**CP97.1**	10 ml	73,00

NEW / +

Deuterated Special Compounds

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Acetyl chloride D3	99 Atom%D	glass	**1L34.1**	5 ml	169,35
Biphenyl D10	99 Atom%D	glass	**1L36.1**	1 g	144,60
1,4-Dichlorobenzene D4	98 Atom%D	glass	**1L37.1**	1 g	92,35
Dimethyl carbonate D6	99,5 Atom%D	glass	**1L38.1**	1 ml	177,40
1,1,1,3,3,3-Hexafluoro-2-propanol D2 (HFIP-D2)	99 Atom%D	glass ampoule	**9909.1**	1 ml	149,45
Iodomethane D3	99,5 Atom%D, stabilised with Cu	glass	**HN88.2**	5 g	64,00
			HN88.1	25 g	228,45
Phenylboronic acid D5	98 Atom%D	glass	**1L3A.1**	1 g	192,45
Sodium borodeuteride	98 Atom%D	glass	**HN89.1**	1 g	138,70
Sodium formate D	99,5 Atom%D	glass	**1L39.1**	10 g	66,55
3-(Trimethylsilyl)propionic-2,2,3,3 acid sodium salt D4 (TSP-D4)	99 Atom%D	plastic	**9922.1**	1 g	166,65

For additional product data and safety information, see chapter Chemicals A-Z.

► Isotope-labelled amino acids (SILAC) see page 450

Reagents for NMR Calibration



Tetramethylsilane

≥99,9 %, for NMR spectroscopy

For the calibration of NMR spectra; calibration substance.

$C_4H_{12}Si$ · M 88,22 g/mol
Storage temperature: +4 °C
UN no. 2749 · ADR 3 I · WGK 2

Danger H224-H411

Art. No.	Pack Qty.	Pack.	€
CP18.1	25 ml	glass	38,60
CP18.2	100 ml	glass	105,90

► Further NMR tubes, see www.carlroth.com



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Reference Materials

Reference Standards

The reference standards are offered as powders with good flowability and crystallinity to guarantee efficient handling in the laboratory.
All products of this product line are filled in brown glass vials with screw caps and are packed in foil bags. This packaging provides optimum protection against environmental influences, even when stored over a long period of time. The reference standards are delivered as “ready-to-use” portions and are stored under controlled conditions.



Primary Standards

ROTI®Star Primary Standards for pharmaceutical and food analysis



ROTI®Star Primary Standards are extensively characterised by the analytical methods listed below and are supplied with a Primary Standard Certificate.
The certificate contains:

- Proof of identity with spectra, e.g. ^{1}H NMR, ^{13}C NMR, MS, UV
- Content determined with two independent validated methods, e.g. chromatographic purity and quantitative NMR
- Content of residual solvent determined with two different validated GC methods
- Water determination by Karl Fischer titration

Working Standards

ROTICHROM® Working Standards for Analysis



The **ROTICHROM® Working Standards** are traceable to established primary standards which are characterised extensively concerning identity and content. Therefore they can be used in all areas of analytics and they are a cost-saving alternative to primary standards. The standard comes with a certificate of analysis which includes proof of identity and defined assay. The substances are protected optimally against external influences with a high-quality glass and foil bag packaging.

► You can find our entire range of reference standards in our webshop under *Primary Standards ROTICHROM®* and *Working Standards ROTICHROM®*.

Exclusively for you in our webshop !



Reference Substances for Chromatography

ROTICHROM® HPLC/TLC/GC



Pure reference substances are essential for precise analysis. They are used for identifying compounds by retention time, for calibrating detectors, and for eliminating errors in quantification of the sample compounds.
Peak areas are proportional to sample quantity in all chromatographic methods. For precise quantitative analysis, however, it is necessary to calibrate the detector as the signal may significantly vary with different substances.
To avoid errors during sample preparation and injection, an internal standard should be used in any case. The standard must not be present in the sample, however, its chemical and physical properties ought to be the closest possible to the analytical targets. It must be well resolved in the chromatogram within the same range of retention time as the sample. Before sample analysis, a given volume of standard is added, and all clean-up procedures are made with the sample containing the standard. Quantitative errors may be compensated by comparing the peak-areas of the sample with that of the internal standard.

Reference substances
- ROTICHROM® HPLC
- ROTICHROM® TLC
- ROTICHROM® GC

are supplied with an HPLC-chromatogram, TLC-chromatogram and GC-chromatogram respectively, which is enclosed in the covering box.

Reference substances
- ROTICHROM® CHR

are delivered without chromatogram.

Reference Substances with Analytical Documentation

TLC, HPLC, ^{1}H-NMR, ^{13}C-NMR, UV, IR, MS
The high-purity substances in this product range are supplied with detailed analytical documentation. The documentation comprises approx. 20 pages and contains all important data on the analytical methods used. The results are usually confirmed by at least one-additional method. This ensures the greatest possible certainty in determining the content and checking the identity.



Product name	Purity (HPLC)	Art. No.	Pack Qty.	€
Acetoxyvalerenic acid	≥99,0 %	**T890.1**	25 mg	762,20
Acteoside	>98 %	**T891.1**	20 mg	654,70
Cynarin	>99 %	**T892.1**	10 mg	532,15
(+)-Dihydroquercetin	>99 %	**T893.1**	20 mg	471,95
Hydroxyvalerenic acid	>99 %	**4710.2**	50 mg	424,65
		4710.1	100 mg	751,45
Primin	>99 %	**T898.1**	20 mg	590,20
Quercetin	>99 %	**1210.1**	50 mg	590,20
Seneciphylline	>99 %	**1214.1**	20 mg	654,70
Valerenic acid	≥99,0 %	**4712.2**	50 mg	639,65
		4712.1	100 mg	1.177,15

For additional product data and safety information, see chapter Chemicals A–Z.

Reference Substances for HPLC



ROTICHROM® HPLC
Carl ROTH offers a broad range of reference substances for HPLC. These highly pure substances predominantly have a high HPLC purity level, which allows a meaningful analysis. You will find the certificate of analysis with HPLC chromatogram in the outer packaging.
ROTICHROM® HPLC – first choice for reference substances for chromatography.



Anthocyanins

Product name	Purity (HPLC)	Art. No.	Pack Qty.	€
Apigeninidin chloride	≥97 %	**3939.2**	10 mg	461,20
Cyanidin 3-arabinoside chloride	≥97 %	**0641.1**	10 mg	493,45
Cyanidin chloride	≥96 %	**4545.1**	10 mg	252,65
Cyanin chloride	>98 %	**1133.1**	20 mg	295,65
Delphinidin chloride	≥97 %	**4537.1**	10 mg	332,20
Delphinidin 3-galactoside chloride	≥95 %	**0643.1**	10 mg	514,95
Delphinidin 3-glucoside chloride	≥95 %	**0644.1**	10 mg	439,70
Delphinidin 3-rutinoside chloride	≥97 %	**0977.1**	20 mg	456,90
Diosmetinidin chloride	≥97 %	**9326.1**	10 mg	360,15
Idaein chloride	≥97 %	**3967.1**	5 mg	385,95
Keracyanine chloride	≥96,5 %	**6134.2**	10 mg	289,20
Kuromanin chloride	≥97 %	**6136.2**	10 mg	289,20
Luteolinidin chloride	≥91 %	**9325.1**	10 mg	499,90
Malvidin chloride	≥97 %	**6140.1**	10 mg	364,45
Malvin chloride	≥95 %	**K013.1**	10 mg	310,70
Oenin chloride	≥97 %	**K030.1**	5 mg	353,70
Pelargonidin chloride	≥99 %	**4541.1**	10 mg	375,20
Pelargonidin 3,5-diglucoside chloride	≥97 %	**1646.1**	5 mg	332,20
Peonidin chloride	≥97,0 %	**4540.1**	5 mg	375,20
Peonidin 3,5-diglucoside chloride	≥95 %	**1413.1**	10 mg	504,20
Peonidin 3-glucoside chloride	≥97 %	**1619.1**	5 mg	353,70
Petunidin 3-glucoside chloride	≥97 %	**1469.1**	5 mg	338,65
Primulin chloride	≥95 %	**K014.1**	5 mg	671,90

For additional product data and safety information, see chapter Chemicals A–Z.



Glucosinolates

Product name	Purity (HPLC)	Art. No.	Pack Qty.	€
Epiprogoitrin	≥97 %	**2273.1**	10 mg	332,20
Glucobrassicanapin	≥98 %	**2276.1**	10 mg	364,45
Glucobrassicin	≥97 %	**2279.1**	20 mg	600,95
Glucoerucin	≥97 %	**2280.1**	10 mg	370,90
Glucoiberin	≥99 %	**2281.1**	10 mg	310,70
Gluconapin	≥97 %	**2282.1**	10 mg	310,70
Gluconasturtiin	≥97 %	**2357.1**	20 mg	553,65
Glucoraphanin	≥97,0 %	**2374.1**	10 mg	327,90
Progoitrin	≥97,0 %	**2436.1**	10 mg	310,70
Sinalbin potassium salt	≥97 %	**6694.1**	20 mg	306,40
Sinigrin monohydrate	≥99 %	**4542.2**	50 mg	375,20

For additional product data and safety information, see chapter Chemicals A–Z.



Pyrrolizidine Alkaloids

Product name	Purity (HPLC)	Art. No.	Pack Qty.	€
7-*O*-Acetylintermedine	≥95 %	**7975.1**	5 mg	461,20
7-*O*-Acetylintermedine *N*-oxide	≥95 %	**7980.1**	5 mg	467,65
Echimidine	≥95 %	**7992.1**	5 mg	424,65
Echimidine *N*-oxide	≥97 %	**8011.1**	5 mg	456,90
(*Z*)-Erucifoline	≥97,0 %	**1657.1**	5 mg	381,65
(*Z*)-Erucifoline *N*-oxide	≥97,0 %	**1664.1**	5 mg	482,70
Europine hydrochloride	≥97 %	**1676.1**	10 mg	482,70
Europine-*N*-oxide	≥97,0 %	**1687.1**	10 mg	482,70
Heliotrine	≥98,0 %	**1929.1**	20 mg	385,95
Heliotrine *N*-oxide	≥97 %	**1944.1**	10 mg	342,95
Indicine hydrochloride	≥97 %	**1960.1**	10 mg	439,70
Indicine *N*-oxide	≥96,0 %	**1961.1**	10 mg	482,70
Intermedine	≥95,0 %	**1962.1**	5 mg	424,65
Intermedine *N*-oxide	≥95 %	**8018.1**	5 mg	456,90
Jacobine	≥98,0 %	**1963.1**	5 mg	396,70
Jacobine *N*-oxide	≥96,0 %	**1970.1**	5 mg	407,45
Lasiocarpine	≥96,0 %	**2090.1**	10 mg	396,70
Lasiocarpine *N*-oxide	≥96,0 %	**2202.1**	10 mg	396,70
Lycopsamine	≥95,0 %	**2208.1**	5 mg	418,20
Lycopsamine *N*-oxide	≥95 %	**8022.1**	5 mg	471,95
Monocrotaline *N*-oxide	≥98,0 %	**2249.1**	10 mg	493,45
Retrorsine	>98 %	**1213.1**	20 mg	332,20
Retrorsine-*N*-oxide	≥97 %	**6733.1**	10 mg	338,65
Senecionine		**2261.1**	10 mg	142,45
Senecionine *N*-oxide	≥95 %	**6734.1**	10 mg	514,95
Seneciphylline	>99 %	**1214.1**	20 mg	654,70
Seneciphylline *N*-oxide	≥97 %	**6735.1**	10 mg	590,20
Senecivernine	≥95,0 %	**2209.1**	5 mg	364,45
Senecivernine *N*-oxide	≥95,0 %	**2215.1**	5 mg	381,65
Senkirkine	≥95 %	**4934.1**	10 mg	407,45

For additional product data and safety information, see chapter Chemicals A–Z.

Further Reference Substances for HPLC

Product name	Purity (HPLC)	Art. No.	Pack Qty.	€
Acacetin	≥99 %	**6531.1**	10 mg	252,65
Acetoxyvalerenic acid	>99 %	**4446.1**	25 mg	607,40
6-*O*-Acetylacteoside	>99 %	**1072.1**	20 mg	428,95
3-Acetyl-α-boswellic acid	>99 %	**1073.1**	10 mg	547,20
3-Acetyl-β-boswellic acid	>99 %	**1074.1**	10 mg	532,15
3-Acetyl-11-keto-β-boswellic acid	>99 %	**1075.1**	10 mg	482,70
3-*O*-Acetyl-9-11-dehydro-β-boswellic acid	≥98 %	**6269.1**	5 mg	504,20
Actein	>99 %	**1080.1**	5 mg	467,65
Acteoside	>98 %	**4451.1**	20 mg	514,95
Agnuside	>98 %	**1081.1**	10 mg	353,70
Alliin	≥98 %	**K031.1**	10 mg	332,20
Aloe-emodin	≥98,5 %	**6004.2**	20 mg	299,95
Aloenin A	>99 %	**1082.1**	20 mg	564,40
Aloin A	≥98 %	**4744.1**	25 mg	126,35
Amarogentin	≥99 %	**6488.1**	10 mg	375,20
α-Amyrin	≥98,5 %	**7000.1**	10 mg	295,65
β-Amyrin	≥98,5 %	**7001.1**	10 mg	471,95
Apigenin-7-glucoside	>99 %	**6348.1**	10 mg	180,10
Apiin	>99 %	**1085.1**	10 mg	424,65
Aristolochic acid I	>99 %	**1086.1**	20 mg	381,65
Aristolochic acid II	>99 %	**1088.1**	20 mg	471,95
Asiaticoside	≥99 %	**3972.1**	10 mg	241,90
Aucubin	>98,5 %	**7004.1**	25 mg	177,40
Azadirachtin	≥96 %	**4314.1**	1 mg	252,65
		4314.2	5 mg	1.058,90
Baicalein	>99 %	**1110.1**	20 mg	364,45
Baicalin	>99 %	**1121.1**	20 mg	295,65
Bavachinin A	≥99 %	**8898.1**	5 mg	246,20
Bergamottin	≥99 %	**8889.1**	25 mg	209,65
Bergaptene	≥99 %	**7006.2**	20 mg	192,45
Betulinic acid	≥99 %	**7007.1**	25 mg	246,20
Bilobalid	>98 %	**1122.1**	20 mg	489,15
α-Boswellic acid	>99 %	**1123.1**	10 mg	493,45
β-Boswellic acid	>99 %	**1124.1**	10 mg	510,65
11-keto-β-Boswellic acid	>99 %	**1155.1**	10 mg	467,65
Caffeine	≥95%	**1EX4.1**	20 mg	160,75
Caftaric acid	≥98 %	**1125.1**	10 mg	471,95
β-Carotene		**5669.1**	10 mg	267,70
Casticin	>98 %	**1126.1**	20 mg	532,15
Catalpol	>99 %	**1127.1**	25 mg	360,15
Caulophyllogenin	≥99 %	**7439.1**	5 mg	639,65
(–)-α-Chaconine	≥98 %	**4192.1**	5 mg	317,15
Chelidonine	>98 %	**1129.1**	25 mg	342,95
Chrysanthellin A	≥96 %	**5261.1**	10 mg	499,90
Chrysoeriol	≥99 %	**6044.1**	5 mg	338,65
Chrysophanic acid	≥99 %	**7442.2**	20 mg	274,15
Cichoric acid	>98 %	**1130.1**	10 mg	482,70
Cnicin	≥98 %	**2823.1**	10 mg	289,20
Coptisin chloride	>99 %	**1131.1**	10 mg	278,45
Cucurbitacin E	≥98 %	**9741.1**	10 mg	375,20
Cucurbitacin I	≥95 %	**9032.3**	10 mg	504,20
Curcumin	>98 %	**1132.1**	20 mg	461,20
Cynarin	>99 %	**4457.1**	10 mg	403,15
Daidzein	≥99,0 %	**6047.2**	20 mg	203,20
Datiscetin	≥99 %	**7444.1**	10 mg	299,95
27-Deoxyactein	>98 %	**1134.1**	5 mg	514,95
Dhurrin	≥98 %	**3866.1**	1 mg	64,40
		3866.2	5 mg	177,40
		3866.3	25 mg	568,70
Didymin	≥99 %	**7445.2**	10 mg	467,65
(+)-Dihydroquercetin	>99 %	**4464.1**	20 mg	317,15
		4464.2	50 mg	590,20
Diosmetin	≥99 %	**7446.2**	20 mg	255,35
Diosmin	≥99 %	**7447.2**	20 mg	246,20
Echinacoside	>98 %	**1135.1**	10 mg	461,20

Product name	Purity (HPLC)	Art. No.	Pack Qty.	€
Echinocystic acid 3-glucoside	≥92 %	**6995.2**	10 mg	321,45
β-Elemonic acid	≥98 %	**6491.1**	10 mg	568,70
Elenolic acid glucoside	>98 %	**1136.1**	20 mg	375,20
Eleutheroside B	>99 %	**1137.1**	5 mg	299,95
Eleutheroside E	>96 %	**1138.1**	5 mg	299,95
Emodin	≥99 %	**7451.2**	20 mg	235,45
Englerin A	≥96,0 %	**6492.1**	10 mg	557,95
(–)-Epicatechin	>99 %	**1139.1**	20 mg	252,65
(–)-Epicatechin gallate	≥98 %	**6358.1**	10 mg	317,15
(–)-Epigallocatechin	≥99 %	**6359.1**	10 mg	321,45
(–)-Epigallocatechin gallate	≥98 %	**6361.1**	10 mg	203,20
Eriodictyol	≥99 %	**6990.1**	10 mg	231,15
Eriodictyol-7-glucoside	≥99 %	**6521.1**	10 mg	342,95
Erythrodiol	≥98 %	**7455.1**	10 mg	246,20
Eupatorin	≥99 %	**6493.1**	20 mg	332,20
Fisetin	≥99 %	**7457.1**	10 mg	241,90
Flavanomarein	≥99 %	**7458.1**	10 mg	424,65
Formononetin	≥99 %	**9570.1**	10 mg	169,35
Frangulin A	>98 %	**1140.1**	20 mg	364,45
Frangulin B	>98 %	**1142.1**	10 mg	364,45
Fraxin	≥99 %	**9364.1**	10 mg	321,45
Friedelin	≥98 %	**7459.2**	20 mg	224,70
Galangin	≥99 %	**7460.2**	20 mg	252,65
(–)-Gallocatechin	≥99 %	**4480.1**	10 mg	306,40
		4480.2	20 mg	482,70
Genistin	≥99 %	**9374.2**	20 mg	332,20
Geraldol	≥99 %	**7461.2**	5 mg	364,45
[6]-Gingerol	>98 %	**T895.1**	10 mg	342,95
[8]-Gingerol	>98 %	**1143.1**	10 mg	396,70
Ginkgolic acids RN	>90 %	**1148.1**	5 mg	375,20
Ginkgolide A	>98 %	**1145.1**	20 mg	381,65
Ginkgolide B	>99 %	**1146.1**	20 mg	439,70
Ginkgolide C	>95 %	**1147.1**	20 mg	482,70
Ginsenoside Rb1	≥98 %	**7462.2**	10 mg	364,45
Ginsenoside Rb2	≥94 %	**7463.2**	10 mg	661,15
Ginsenoside Rc	≥98 %	**7465.2**	10 mg	439,70
Ginsenoside Rd	≥98 %	**7466.2**	10 mg	370,90
Ginsenoside Re	≥98 %	**7468.2**	10 mg	255,35
Ginsenoside Rf	≥98 %	**4552.2**	10 mg	682,65
Ginsenoside Rg1	≥98 %	**7467.2**	10 mg	364,45
Glucotropaeolin	>99 %	**1149.1**	50 mg	547,20
18-β-Glycyrrhetinic acid	≥99 %	**7469.2**	20 mg	203,20
Hamamelitannin	>99 %	**1151.1**	20 mg	321,45
Harpagid	>99 %	**1152.1**	10 mg	353,70
Harpagoside	>98 %	**7471.1**	10 mg	123,55
Hederacoside C	≥99 %	**7472.1**	10 mg	149,45
α-Hederin	≥98 %	**7486.1**	10 mg	209,65
Hesperetin	≥99 %	**7570.1**	10 mg	181,70
Hesperidin	≥98 %	**7577.1**	10 mg	213,95
		7577.2	20 mg	263,40
Homoeriodictyol	≥99 %	**7585.1**	10 mg	224,70
Homoorientin	≥99 %	**6002.1**	5 mg	278,45
4-Hydroxybenzoic acid ethyl ester	≥99 %	**4746.1**	1 g	38,20
4-Hydroxybenzoic acid methyl ester	≥99 %	**4748.1**	1 g	40,35
4-Hydroxybenzoic acid propyl ester	≥99 %	**4749.1**	1 g	39,25
Hydroxytyrosol	>98 %	**1153.1**	25 mg	317,15
Hydroxyvalerenic acid	>99 %	**4481.1**	25 mg	407,45
		4481.2	50 mg	665,45
		4481.3	100 mg	1.095,45
Hyperfori/ Adhyperforin Dicyclo-hexylammonium salt, Mixture 4:1	≥95 %	**6495.1**	5 mg	396,70
Hypericin	≥98 %	**L543.1**	1 mg	153,20
Hypericin sodium salt	>98 %	**1154.1**	5 mg	424,65
Hyperoside	>99 %	**7932.1**	10 mg	127,95
Isoacteoside	>99 %	**T896.1**	20 mg	439,70

Product name	Purity (HPLC)	Art. No.	Pack Qty.	€
Isopimpinellin	≥99 %	**8854.1**	10 mg	224,70
Isoquercitrin	>99 %	**7586.1**	10 mg	145,15
Isorhamnetin	≥99 %	**7589.1**	10 mg	284,90
Isorhamnetin-3-rutinoside	≥99 %	**9388.2**	10 mg	349,40
Isorhoifolin	≥98 %	**6989.1**	10 mg	461,20
Isosakuranetin	≥99 %	**7498.1**	10 mg	213,95
Isovitexin	≥99 %	**6412.1**	5 mg	278,45
Isoxanthohumol	≥99 %	**2824.1**	10 mg	284,90
Kaempferide	≥99 %	**7501.1**	10 mg	220,40
Kaempferol	>99 %	**7503.1**	10 mg	134,40
Kaempferol-3-glucoside	≥99 %	**9321.1**	5 mg	274,15
Kaempferol-3-rhamnosidoglucoside	≥98 %	**4526.1**	10 mg	532,15
Leiocarposide	≥99 %	**2825.1**	5 mg	310,70
Loganic acid	≥99 %	**4158.2**	20 mg	299,95
Loganin	≥99 %	**4162.1**	10 mg	231,15
Lupeol	≥99 %	**8863.2**	20 mg	224,70
Luteolin	>99 %	**4546.1**	10 mg	164,40
Luteolin-7-glucoside	≥98 %	**4164.1**	10 mg	246,20
Lycopene	>90 %	**1180.1**	5 mg	317,15
(–)-Maackiain	≥98 %	**6496.1**	10 mg	338,65
Madecassoside	≥97 %	**6138.1**	10 mg	375,20
Manassantin A	≥98 %	**6497.1**	10 mg	482,70
Manassantin B	≥98 %	**6684.1**	10 mg	424,65
Marein	≥99 %	**4171.1**	5 mg	342,95
Maritimein	≥98 %	**4172.1**	5 mg	489,15
Myricetin	≥99 %	**4187.2**	20 mg	289,20
Narciclasine	≥97 %	**6689.1**	10 mg	504,20
Naringenin	>98 %	**1186.1**	50 mg	504,20
Naringenin-7-glucoside	≥99 %	**8865.1**	10 mg	213,95
Naringin	≥99 %	**4200.2**	20 mg	198,90
Neoeriocitrin	≥99 %	**4206.1**	10 mg	403,15
Neohesperidin	≥99 %	**6767.1**	10 mg	299,95
Oleanolic acid	≥99 %	**7402.2**	20 mg	192,45
Oleuropein	>98 %	**1191.1**	20 mg	317,15
Ononin	≥99 %	**9411.2**	10 mg	381,65
Orientin	≥99 %	**6151.1**	5 mg	317,15
Peltatoside	≥99 %	**7406.1**	10 mg	392,40
Phloretin	≥99,0 %	**7051.4**	50 mg	321,45
Picrosid II	>98 %	**1197.1**	20 mg	289,20
Poncirin	≥97 %	**7413.1**	10 mg	289,20
Primulaverin	>99 %	**1201.1**	10 mg	342,95
Primverin	>99 %	**1203.1**	10 mg	342,95
Protopine	≥98 %	**6690.1**	10 mg	317,15
Pseudohypericin	≥97 %	**2846.1**	5 mg	590,20
Psoralen	≥98,5 %	**7415.1**	10 mg	209,65
Quercetin dihydrate	>99 %	**7417.1**	10 mg	123,65
		7417.7	25 mg	220,40
Quercitrin	≥99 %	**9417.1**	10 mg	241,90
Rhamnetin	≥99 %	**7418.1**	10 mg	274,15
Rhein	≥99 %	**7419.2**	20 mg	299,95
Rhoifolin	≥99 %	**7420.2**	20 mg	332,20
Robinetin	≥99 %	**7421.1**	10 mg	263,40
Rosmarinic acid	≥99 %	**N816.2**	20 mg	256,95
Rutin trihydrate	≥99 %	**7422.2**	50 mg	224,70
Saponarin	≥98 %	**6413.1**	5 mg	241,90
Sciadopitysin	≥99 %	**9410.2**	10 mg	349,40
Sennoside A	>98 %	**7423.1**	10 mg	149,45
Sennoside A1	≥95 %	**6693.1**	10 mg	375,20
Sennoside B	≥98 %	**7424.1**	10 mg	246,20
Silybin	>98 %	**1215.1**	50 mg	493,45
α-Solanine	≥98 %	**2826.1**	10 mg	317,15
Spiraeoside	>98 %	**1216.1**	20 mg	471,95
Sulphuretin	≥99 %	**7569.1**	5 mg	353,70
Sutherlandioside B	≥97 %	**6695.1**	10 mg	375,20
Sutherlandioside D	≥95 %	**6696.1**	10 mg	392,40
Syringetin-3-glucoside	≥99 %	**9432.1**	5 mg	413,90
Tamarixetin	≥99 %	**7425.1**	10 mg	349,40
Theobromine	≥95 %	**1EX2.1**	20 mg	160,75
Theophylline	≥95%	**1EX3.1**	20 mg	160,75
Tiliroside	≥98 %	**3268.1**	10 mg	396,70
Umckalin	≥99 %	**2827.1**	5 mg	317,15
Ursolic acid	≥99,0 %	**7429.1**	10 mg	188,15
Ursolic acid methyl ester	≥99 %	**7430.2**	10 mg	252,65
Uvaol	≥98 %	**7433.2**	10 mg	349,40
Valerenic acid	>99 %	**4488.1**	25 mg	450,45
		4488.2	50 mg	747,15
ε-Viniferin	≥98 %	**6697.1**	20 mg	618,15
Vitexin	≥99 %	**6418.1**	5 mg	252,65
Xanthohumol	≥99 %	**2828.1**	10 mg	246,20

For additional product data and safety information, see chapter Chemicals A–Z.

► Other substances and container sizes on request. Please contact us!



► Various HPLC columns can be found on page 543 ff. and in our webshop.

Reference Substances for TLC



ROTICHROM® TLC et CHR$_{TLC}$
ROTICHROM® TLC reference substances are supplied with a certificate of analysis and a description of the chromatographic method, enclosed in the outer package.

A compound in this catalogue is designated as being thin-layer chromatographically pure (**CHR$_{TLC}$**) if no impurities can be detected during test conditions with 20 µg sample.

For products with impurities which under our conditions, (**CHR$_{TLC}$**), allow the main compound to be designated; such products can be identified as being "almost thin-layer chromatographically pure" (~**CHR$_{TLC}$**).

Product name	Quality	Art. No.	Pack Qty.	€
Acacetin	~CHR$_{TLC}$	**5010.1**	25 mg	145,15
Aloe-emodin	TLC	**3524.1**	100 mg	482,70
Aloin	TLC	**5555.1**	50 mg	71,95
Apigenin	TLC	**5611.1**	25 mg	52,70
Apigenin-7-glucoside	TLC	**5557.1**	100 mg	177,40
Bergamottin	TLC	**1217.1**	50 mg	364,45
Betulin	~CHR$_{TLC}$	**8763.1**	1 g	80,55
Boldine	~CHR$_{TLC}$	**8900.1**	100 mg	155,90
Brucine *N*-oxide	CHR$_{TLC}$	**4255.1**	5 g	64,40
Caffeic acid	TLC	**5574.1**	100 mg	42,90
Capsanthin	~CHR$_{TLC}$	**5674.2**	5 mg	478,40
(–)-Carvone	~CHR$_{TLC}$	**8811.1**	100 ml	96,65
(+)-Catechin	~CHR$_{TLC}$	**6200.1**	1 g	46,15
Chelidonine	TLC	**6235.1**	25 mg	206,95
Chlorogenic acid	TLC	**5558.1**	50 mg	52,15
Cnicin	~CHR$_{TLC}$	**4560.1**	10 mg	93,45
p-Coumaric acid	CHR$_{TLC}$	**9906.1**	1 g	23,55
β-Cryptoxanthin	CHR$_{TLC}$	**5675.1**	1 mg	364,45
Cyanin chloride	TLC	**5568.1**	25 mg	68,30
Cytisine	TLC	**5615.1**	25 mg	134,40
Daphnetin	~CHR$_{TLC}$	**6618.1**	10 mg	306,40
Digitoxin	~CHR$_{TLC}$	**7359.1**	50 mg	48,30
Digoxin	~CHR$_{TLC}$	**7323.1**	50 mg	90,85
Dihydroouabain	~CHR$_{TLC}$	**7197.1**	50 mg	177,40
(+)-Dihydroquercetin	~CHR$_{TLC}$	**5797.2**	100 mg	263,40
Dihydrorobinetin	~CHR$_{TLC}$	**6960.1**	100 mg	75,15
6,7-Dihydroxyflavone	~CHR$_{TLC}$	**8066.1**	10 mg	407,45
3,4-Dimethoxy cinnamic acid	CHR$_{TLC}$	**9918.1**	5 g	28,50
Emodin	~CHR$_{TLC}$	**7272.1**	100 mg	34,30
		7272.2	500 mg	117,20
(–)-Epicatechin	~CHR$_{TLC}$	**5798.1**	50 mg	69,35
Fisetin	~CHR$_{TLC}$	**7383.1**	250 mg	85,90
Frangulin (A+B)	~CHR$_{TLC}$	**7404.1**	25 mg	50,00
Frangulin B	~CHR$_{TLC}$	**7655.1**	10 mg	295,65
Harmine	~CHR$_{TLC}$	**9968.1**	500 mg	51,50
Hederagenin	~CHR$_{TLC}$	**9141.2**	250 mg	284,90
Helenien	~CHR$_{TLC}$	**4452.2**	10 mg	375,20
Hesperidin	TLC	**5800.1**	10 mg	69,80
	~CHR$_{TLC}$	**7737.1**	10 g	52,60
Hydrocotarnine hydrobromide	~CHR$_{TLC}$	**4268.1**	100 mg	32,15
Hyperoside	TLC	**4215.1**	25 mg	61,20
		4215.2	100 mg	188,15
Isoquercitrin	TLC	**5573.1**	50 mg	89,15
	~CHR$_{TLC}$	**6527.1**	250 mg	342,95
Isorhamnetin	CHR$_{TLC}$	**6528.1**	100 mg	471,95
Isoscopoletin	CHR$_{TLC}$	**5883.2**	10 mg	223,10
Kaempferol	~CHR$_{TLC}$	**5859.1**	500 mg	295,65
Kaempferol-7-neohe-speridoside	~CHR$_{TLC}$	**9467.1**	10 mg	212,35
Lobeline sulphate	CHR$_{TLC}$	**8997.1**	100 mg	21,40
Lycopene	CHR$_{TLC}$	**5670.1**	5 mg	461,20
Pelargonidin chloride	~CHR$_{TLC}$	**6853.1**	25 mg	112,35
Piperine	~CHR$_{TLC}$	**7099.1**	5 g	112,90
Quercetin-3-*O*-gluco-se-6''-acetate	~CHR$_{TLC}$	**9419.1**	10 mg	364,45
Quinine hydrochloride dihydrate	CHR$_{TLC}$	**6225.1**	25 g	53,65
Rauwolscine hydrochloride	~CHR$_{TLC}$	**7144.1**	100 mg	21,40
		7144.2	1 g	127,95
Reserpic acid hydrochloride hemihydrate	~CHR$_{TLC}$	**4295.1**	100 mg	53,65
Rhaponticin	~CHR$_{TLC}$	**7152.1**	1 g	53,65
Rhein	CHR$_{TLC}$	**8868.1**	50 mg	68,70
Rosmarinic acid	~CHR$_{TLC}$	**A558.1**	100 mg	299,95
Sennidine A	~CHR$_{TLC}$	**7012.1**	10 mg	241,90
Sennidine B	~CHR$_{TLC}$	**7016.1**	10 mg	349,40
Silybin	CHR$_{TLC}$	**5578.1**	100 mg	77,95
Sinigrin monohydrate	CHR$_{TLC}$	**5319.1**	250 mg	112,80
α-Solanine	TLC	**4180.1**	10 mg	267,70
Spiraeoside	~CHR$_{TLC}$	**4564.1**	10 mg	117,75
Stachydrine hydrochloride	~CHR$_{TLC}$	**9457.2**	20 mg	317,15
Strychnine *N*-oxide	~CHR$_{TLC}$	**4277.1**	500 mg	59,05
Taurocholic acid sodium salt	TLC	**5817.1**	100 mg	68,30
Tomatin	HPLC	**5676.1**	25 mg	66,15
Trifolirhizin	~CHR$_{TLC}$	**4738.1**	25 mg	203,20
(+)-Usnic acid	~CHR$_{TLC}$	**4565.1**	10 g	138,70
Vitexin	TLC	**5579.1**	10 mg	49,35
	~CHR$_{TLC}$	**4173.1**	10 mg	46,15
Vitexin-2''-*O*-rhamnoside	TLC	**5819.1**	10 mg	102,05
Zeaxanthin	CHR$_{TLC}$	**5672.2**	5 mg	482,70

For additional product data and safety information, see chapter Chemicals A–Z.

► Practical accessories for thin layer chromatography can be found on page 536 ff. and in our webshop.

Reference Substances for GC



ROTICHROM® GC
Carl ROTH offers an extensive range of reference substances for gaschromatography from the substance groups of alkanes, alcohols, ketones, esters, aromatic compounds, and much more. Their GC purity allows an accurate analysis.
The **ROTICHROM® GC** substances come with a certificate of analysis and a GC chromatogram enclosed in the outer packaging.

Product name	Purity (GC)	Art. No.	Pack Qty.	€
Acetic acid L-bornyl ester	≥95 %	**9009.2**	100 mg	123,10
Acetic acid linalyl ester	≥95 %	**5199.2**	100 mg	107,40
Acetic acid (L)-menthyl ester	≥98 %	**5189.1**	1 g	105,25
Benzene	≥99 %	**4898.1**	1 g	39,70
(–)-Borneol	≥98 %	**8495.2**	100 mg	105,25
(+)-Borneol	≥96 %	**8903.1**	100 mg	181,70
Butyric acid methyl ester	≥96 %	**5186.1**	1 g	107,40
Camphene	≥90 %	**5288.2**	100 mg	102,70
(+/–)-Camphor	≥95 %	**4329.1**	1 g	107,00
δ-3-Carene	≥90 %	**3572.1**	1 g	51,10
(+)-Carvone	≥98 %	**6947.2**	100 mg	107,00
β-Caryophyllene	≥98 %	**7232.2**	100 mg	170,95
(–)-α-Cedrene	≥96 %	**8908.1**	100 mg	246,20
1,4-Cineole	≥98 %	**5833.2**	100 mg	181,70
Citral	≥95 %	**5292.1**	1 g	149,45
Coumarin	≥99 %	**5284.1**	1 g	128,50
Eucalyptol	≥98 %	**6938.2**	100 mg	102,70
Eugenol	≥99 %	**6941.1**	1 g	107,40
Eugenol methyl ether	≥95 %	**5073.1**	1 g	107,40
(–)-Fenchone	≥96 %	**9377.2**	100 mg	212,35
α-Humulene	≥93 %	**9385.1**	100 mg	224,70
Isomenthone	≥85 %	**6458.1**	1 g	99,90
Isopulegol	≥99 %	**8030.2**	100 mg	107,00
D-(+)-Limonene	≥98 %	**5198.2**	100 mg	162,90
Linalool	≥96,5 %	**5201.2**	100 mg	138,70
Linoleic acid	≥94 %	**5315.1**	1 g	80,55
Linoleic acid ethyl ester	≥98,5 %	**3198.1**	1 g	40,35
Linoleic acid methyl ester	≥99 %	**3199.1**	1 g	44,65
Linolenic acid	≥99 %	**5320.1**	1 g	241,90
Menthofuran	≥90 %	**5188.1**	1 g	105,25
(–)-Menthol	≥95 %	**9061.1**	1 g	111,70
Methylchavicol	≥97 %	**9413.2**	100 mg	105,25
1-Octanol	≥98 %	**3182.1**	1 g	114,50
Oleic acid	≥99 %	**5362.1**	1 g	46,15
Oleic acid methyl ester	≥99 %	**3186.1**	1 g	42,50
(+)-α-Pinene	≥98 %	**3857.2**	100 mg	107,00
(–)-α-Pinene	≥99 %	**5170.2**	100 mg	104,85
β-Pinene	≥90 %	**5172.1**	1 g	107,40
Piperitone	≥96 %	**5174.1**	1 g	100,95
(+)-Pulegone	≥98 %	**5168.2**	100 mg	160,20
Sabinene	≥98,5 %	**7188.2**	100 mg	192,45
Senecionine	≥96 %	**2261.1**	10 mg	142,45
Squalene	≥98 %	**3185.1**	1 g	32,15
α-Terpinene	≥95 %	**8038.2**	100 mg	198,90
γ-Terpinene	≥97,0 %	**8039.2**	100 mg	192,45
α-Terpineol	≥96 %	**5152.2**	100 mg	104,85
Terpinolene	≥95 %	**5166.2**	100 mg	107,40
Thymol	≥96 %	**3209.1**	1 g	102,05
Vanillin	≥99 %	**5108.1**	1 g	105,25

For additional product data and safety information, see chapter Chemicals A–Z.

► Suitable GC columns for your applications can be found on page 517 ff. and in our webshop.



Phytochemicals



Further reference substances

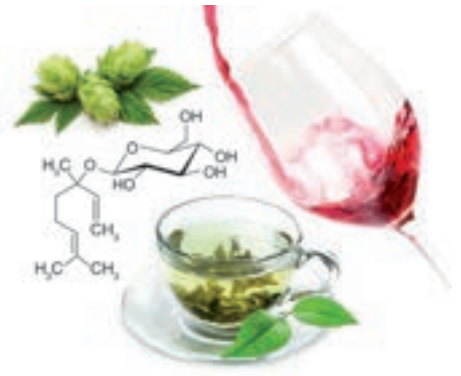
The substances are delivered **without** chromatogram!

Product name	Art. No.	Pack Qty.	€
Abietic acid	**5008.1**	25 g	54,30
Ajmalicine	**6192.1**	250 mg	78,40
Anethole	**5131.1**	25 ml	25,70
	5131.2	250 ml	75,15
p-Arbutin	**6115.1**	10 g	61,20
	6115.2	50 g	192,45
Aristolochic acid sodium salt (I and II)	**7268.1**	500 mg	736,40
Aucubin	**9149.1**	250 mg	579,45
6-Benzylaminopurine	**5552.1**	1 g	21,40
	5552.2	5 g	53,65
	5552.3	25 g	203,20
Berberine chloride hydrate	**3192.1**	1 g	31,10
	3192.2	5 g	99,90
	3192.3	25 g	385,95
Bergaptene	**8899.1**	1 g	407,45
Bromelain	**5950.1**	10 g	26,35
	5950.2	100 g	117,20
5-Bromo-2'-deoxyuridine	**3243.1**	250 mg	42,50
Caffeic acid	**5869.3**	5 g	25,70
	5869.1	10 g	44,65
	5869.2	50 g	174,70
Capsaicin	**8804.1**	100 mg	80,55
Carvacrol	**8808.1**	10 ml	42,90
DL-Catechin hydrate	**8822.1**	1 g	145,15
Chlorophyll B	**6365.2**	5 mg	1.714,65
Chrysin	**6475.1**	500 mg	24,65
m-Coumaric acid	**9904.1**	5 g	74,75
Cycloheximide	**8682.1**	1 g	48,30
	8682.3	5 g	192,45
	8682.4	10 g	338,65
Digitonin	**4005.1**	100 mg	53,65
	4005.2	500 mg	177,40
	4005.3	1 g	321,45
	4005.4	5 g	1.236,25
(–)-Epicatechin	**7293.1**	500 mg	177,40
Esculin sesquihydrate	**8704.1**	5 g	25,30
	8704.2	25 g	107,40
	8704.3	50 g	181,70
	8704.4	100 g	332,20
Eucalyptol	**7244.1**	25 ml	35,40
Eugenol	**7292.1**	50 ml	21,40
trans-Ferulic acid	**9936.1**	10 g	44,65
	9936.2	100 g	256,95
Fipronil	**0925.1**	100 mg	192,45
Gallic acid monohydrate	**7300.1**	50 g	38,60
	7300.2	100 g	45,05
	7300.3	500 g	160,20
Gibberellic acid	**7464.1**	250 mg	20,45
	7464.2	1 g	38,60
Glycyrrhizic acid ammonium salt hydrate	**6247.1**	10 g	53,65
	6247.2	50 g	209,65
Guaiacol	**7308.1**	100 ml	50,45
Herniarin	**7734.1**	1 g	38,20
Hesperetin	**7743.1**	1 g	78,40
L-Hyoscyamine	**8914.1**	1 g	106,45
Isorhamnetin-3-glucoside	**9386.2**	10 mg	482,70
Khellin	**5911.1**	10 g	56,90
	5911.2	50 g	213,95
Lanatoside C	**1N3P.1**	10 mg	177,40
	1N3P.2	50 mg	790,15
Linolenic acid	**6039.1**	5 ml	115,60
Menthone	**4226.1**	50 ml	46,15
	4226.2	250 ml	160,20
(–)-Menthone	**6930.1**	25 ml	117,75
Myricetin	**6461.1**	25 mg	39,25
Naringenin	**8524.1**	2.5 g	89,15
Naringin	**6481.1**	10 g	36,45
	6481.2	50 g	107,40
	6481.3	100 g	198,90
Oleuropein	**7018.2**	1 g	579,45
Phlorizin dihydrate	**4196.1**	2.5 g	58,60
	4196.2	10 g	166,65
	4196.3	100 g	951,40
Picrotoxin	**7093.1**	1 g	145,15
Pilocarpin nitrate	**7523.1**	1 g	170,95
Quercetin dihydrate (C.I. 75670)	**7138.1**	25 g	63,35
	7138.2	100 g	203,20
	2629.1	25 g	49,35
	2629.2	50 g	92,35
	2629.3	100 g	170,95
(–)-Quinic acid	**8835.1**	25 g	123,65
	8835.2	100 g	396,70
Quinidine sulphate dihydrate	**3348.1**	10 g	38,60
Resveratrol	**N811.1**	500 mg	55,80
	N811.2	1 g	90,20
	N811.3	5 g	224,70
Rutin trihydrate	**5154.1**	25 g	37,10
	5154.2	100 g	117,75
D(–)-Salicin	**7192.1**	5 g	37,55
	7192.2	50 g	256,95
Scopoletin	**7210.3**	50 mg	111,30
	7210.1	100 mg	175,15
	7210.2	1 g	1.284,65
Shikimic acid	**7305.2**	250 mg	28,95
	7305.1	1 g	96,65
Sinapic acid	**5317.1**	1 g	80,55
	5317.2	10 g	536,45
Stigmasterol	**9468.1**	1 g	32,15
Strychnine	**4843.1**	10 g	21,40
Strychnine hydrochloride	**4845.1**	10 g	24,65
Syringic acid	**5361.1**	10 g	85,90
Taurocholic acid sodium salt	**8149.1**	500 mg	21,00
	8149.2	1 g	28,95
	8149.3	10 g	145,15
	8149.4	50 g	557,95
	8149.5	100 g	1.048,15
4-Terpinenol	**6309.1**	1 g	125,25
Theobromine	**8963.1**	10 g	23,55
	8963.2	100 g	96,65
α,β-Thujone (isomers)	**9540.1**	5 g	25,70
	9540.2	50 g	181,70
Umbelliferone	**5437.1**	10 g	46,80
	5437.2	100 g	332,20

For additional product data and safety information, see chapter Chemicals A–Z.

Aroma Glucosides

Flavour, fragrance and aroma substances have a decisive influence on our perception. Since many odorous and flavouring substances are very volatile and their chemical stability is limited, the desired effect quickly wears off in many cases. In many foods, hygiene products such as deodorants, liners and pads, as well as in perfumes and cosmetics, substances are already used that can be activated at the push of a button, so to speak, when they are needed – in other words, "flavour-on-demand". This principle has long been known in nature – "flowers do not need to smell at night".
In plants, corresponding odour and taste substances such as those found in fruits, wine or tea are linked by enzymes (glycosyltransferases) with various sugars (e.g. glucose) and thus converted into correspondingly inactive precursors, so-called "aromaglucosides".
Triggers such as heating, enzymes (glucosidases) or their activation during use or microbial degradation, the flavour and fragrance substances are released again in their active form, thus releasing the desired aroma. The only by-product of this release is glucose, i.e. dextrose.
The targeted release of flavour and fragrance compounds can give products an enhanced sensory profile and thus unparalleled performance.



Advantages:

- readily soluble in water
- no longer volatile
- chemically stable
- can be stored for longer

With our **ROTICHROM® HPLC standards** you can now identify these additives.

NEW

Product name	Released Aroma Compound, Name	Released Aroma Compound, CAS No.	Released Aroma Compound, Occurrence	Released Aroma Compound, Aroma	Art. No.	Pack Qty.	€
Benzyl alcohol glucoside	Benzyl alcohol	100-51-6	balsam bush (*Cedronella canariensis*)	sweet, fruity	**1K58.1**	25 mg	181,70
(–)-Borneol glucoside	(–)-Borneol	464-45-9	thyme (*Thymus vulgaris*)	balsamic, camphor-like, herbs, woody	**1K4H.1**	25 mg	181,70
Carvacrol glucoside	Carvacrol	499-75-2	oregano (*Origanum vulgare*), *Lavandula multifida*, *Monarda punctata*, Sesame oil	spicy, cooling, thyme, herbs	**1K51.1**	25 mg	181,70
L-Carveol glucoside	L-Carveol	99-48-9	*Citrus sp.*, *Hibiscus sabdariffa*	mint, caraway	**1K4L.1**	25 mg	181,70
Cinnamyl alcohol glucoside	Cinnamyl alcohol	104-54-1	precursors of and occurrences besides cinnamaldehyde (*Cinnamomum sp.*), *Rhodiola sachalinensis*	sweetly balsamic, hyacinth-scented needles	**1K4N.1**	25 mg	181,70
Citronellol glucoside	Citronellol	106-22-9	tea (*Camellia sinensis*), wine (*Vitis vinifera*), hops (*Humulus lupulus*)	citrus, rose, floral	**1K5C.1**	25 mg	181,70
Ethylmaltol glucoside	Ethylmaltol	4940-11-8	flavour enhancer (E 637)	sweet, sugary, caramel, marmalade-like, strawberry-like	**1K52.1**	25 mg	181,70
Eugenol glucoside	Eugenol	97-53-0	*Citrus sp.*, many plant species	pleasant, spicy, clove-like	**1K55.1**	25 mg	181,70
Furaneol glucoside	Furaneol	3658-77-3	pineapple (*Ananas comosus*)	caramel	**1K4T.1**	25 mg	181,70
Geraniol glucoside	Geraniol	106-24-1	tea (*Camellia sinensis*), wine (*Vitis vinifera*), hops (*Humulus lupulus*), *Ephedra sp.*, Chinese medicinal plants	floral, sweet, rose	**1K4X.1**	25 mg	181,70
Guaiacol glucoside	Guaiacol	90-05-1	anise (*Pimpinella anisum*), willow (*Salix caprea*), *Acanthopanax brachypus*	smoky-medicinal scent	**1K56.1**	25 mg	181,70
1-Hexanol glucoside	1-Hexanol	111-27-3	guava aroma, seeds of the hogweed and in the fusel oil during alcoholic fermentation, etc.	sweet with a fresh green top note, herbaceous leg note	**1K4K.1**	25 mg	181,70
cis-3-Hexen-1-ol glucoside	*cis*-3-Hexen-1-ol	928-96-1	tea (*Camellia sinensis*), thyme (*Thymus vulgaris*), Chinese medicinal plants, many plant species	freshly cut grass	**1K5E.1**	25 mg	181,70
Homofuraneol glucoside, isomer mixture	Homofuraneol, isomer mixture	27538-09-6	unknown	caramel	**1K57.1**	25 mg	181,70
L-Linalool glucoside	L-Linalool	126-91-0	tea (*Camellia sinensis*), wine (*Vitis vinifera*), hops (*Humulus lupulus*)	citrus, orange, floral, rose	**1K54.1**	25 mg	181,70
Maltol glucoside	Maltol	118-71-8	pomegranate (*Punica granatum*), various plants	sweet, caramel, candyfloss	**1K5L.1**	25 mg	181,70
L-Menthol glucoside	L-Menthol	2216-51-5	peppermint (*Mentha x piperata*), spearmint (*Mentha spicata*)	mint, cool	**1K5K.1**	25 mg	181,70

Aromaglucosides

Product name	Released Aroma Compound, Name	Released Aroma Compound, CAS No.	Released Aroma Compound, Occurrence	Released Aroma Compound, Aroma	Art. No.	Pack Qty.	€
Methyl anthranilate glucoside	Methylanthranilate	134-20-3	cocoa, coffee, grapes, grapefruit, jasmine, lemons, limes, strawberries and tangerines as well as in many flower oils (e.g. neroli, ylang-ylang oil)	fruity, grape, orange blossom	**1K59.1**	25 mg	181,70
Myrtenol glucoside	Myrtenol	515-00-4	*Perilla frutescens*, *Platychaete aucheri* (as 6'-*O*-actetate)	camphor, woody, cooling	**1K4E.1**	25 mg	181,70
Nerol glucoside	Nerol	106-25-2	tea (*Camellia sinensis*), wine (*Vitis vinifera*), hops (*Humulus lupulus*)	fresh, citrus, floral, green	**1K4P.1**	25 mg	181,70
1-Octen-3-ol glucoside	1-Octen-3-ol	3391-86-4	oregano (*Origanum vulgare*), clover (*Trifolium sp.*), *Sanchezia nobilis*	mushroom, musty scent	**1K53.1**	25 mg	181,70
Paracetamol glucoside	Paracetamol	103-90-2	produced in paracetamol-contaminated waste water by plant roots	bitter	**1K50.1**	25 mg	181,70
S-(–)-Perillyl alcohol glucoside	*S*-(–)-Perillyl alcohol	18457-55-1	*Perilla frutescens*	floral	**1K5N.1**	25 mg	181,70
2-Phenylethanol glucoside	2-Phenylethanol	60-12-8	oregano (*Origanum vulgare*), many plants, Chinese and Tibetan medicinal plants	rose, floral	**1K5P.1**	25 mg	181,70
Raspberry ketone glucoside	Raspberry ketone	5471-51-2	raspberry (*Rubus idaeus*), rhubarb relatives (*Rheum sp.*)	raspberry, sweet, woody, fruity	**1K5A.1**	25 mg	181,70
Sesamol glucoside	Sesamol	533-31-3	sesame oil	sesame	**1K5X.1**	25 mg	181,70
α-Terpineol glucoside	α-Terpineol	98-55-5	*Citrus sp.*	piney, woody, resinous	**1K5T.1**	25 mg	181,70
Thymol glucoside	Thymol	89-83-8	thyme (*Thymus vulgaris*), oregano (*Origanum vulgare*), *Ziziphus jujuba*	herbs, thyme, medicinal camphor	**1K4Y.1**	25 mg	181,70
Vanillin alcohol glucoside	Vanillin alcohol	498-00-0	occurrence next to vanilloside, vanilla (*Vanilla planifolia*)	sweet, creamy vanilla	**1K5H.1**	25 mg	181,70

For additional product data and safety information, see chapter Chemicals A–Z.



Fatty Acid References

ROTICHROM®



In the field of lipid analysis we put an extensive collection of reference substances and reference mixtures at the analyst's disposal.
All reference mixtures are prepared from pure components which are carefully tested for purity by TLC and GC.
Precise weighing and a final check guarantee the precision of the mixture. A certificate comes with each product.

Free Fatty Acids

Product name	Purity (GC)	Art. No.	Pack Qty.	€
Capric acid	≥99 %	**3164.1**	1 g	32,15
Caprylic acid	≥99 %	**3168.1**	1 g	52,70
Linoleic acid	≥94 %	**5315.1**	1 g	80,55
Linolenic acid	≥99 %	**5320.1**	1 g	241,90
Oleic acid	≥99 %	**5362.1**	1 g	46,15

Free acid mixture

Product name	Short designation	Composition of the mixture (percent by weight)	Art. No.	Pack Qty.	€
Free fatty acid mixture	FA 1	6 : 0 (20), 8 : 0 (20), 10 : 0 (20), 12 : 0 (20), 14 : 0 (20)	**8792.1**	100 mg	224,70

Fatty Acid Methyl Ester Mixtures

Product name	Art. No.	Pack Qty.	€
Butyric acid methyl ester	**5186.1**	1 g	107,40
Linoleic acid methyl ester	**3199.1**	1 g	44,65
Oleic acid methyl ester	**3186.1**	1 g	42,50

Free Acid-Lipid Mixture

Short designation	Composition of the mixture (percent by weight)	Art. No.	Pack Qty.	€
TLC 8	MG:C 16:1 (20), DG:C 16:1 (20), TG:C 16:1 (20), ME:C 16:1 (20), FA:C 16:1 (20)	**8823.1**	100 mg	252,65
TLC 10	MG:C 18:1 (20), DG:C 18:1 (20), TG:C 18:1 (20), ME:C 18:1 (20), FA:C 18:1 (20)	**8827.1**	100 mg	289,20

For additional product data and safety information, see chapter Chemicals A–Z.

Fatty acid methyl ester mixtures according to Ph. Eur.

Product name	Purity	Composition of the mixture (percent by weight)	Art. No.	Pack Qty.	€
Fatty acid methyl ester mixture	Ph. Eur., Chapter 2.4.22-1	12 : 0 (5), 14 : 0 (5), 16 : 0 (10), 18 : 0 (20), 18 : 1 (20), 20 : 0 (40)	**1HC4.1**	100 mg	150,00
	Ph. Eur., Chapter 2.4.22-2	6 : 0 (10), 8 : 0 (10), 10 : 0 (20), 12 : 0 (20), 14 : 0 (40)	**1HC5.1**	100 mg	150,00
	Ph. Eur., Chapter 2.4.22-3	14 : 0 (5), 16 : 0 (10), 18 : 0 (15), 18 : 1 (20), 20 : 0 (20), 20 : 1 (10), 22 : 0 (10), 24 : 0 (10)	**1HC6.1**	100 mg	220,40

Fatty Acid Methyl Ester Mixtures

Short designation	Mixture	Art. No.	Pack Qty.	€
ME 11	saturated	**8632.1**	100 mg	228,45
ME 12	saturated	**8636.1**	100 mg	228,45
ME 13	saturated	**8642.1**	100 mg	228,45
ME 14	saturated	**8644.1**	100 mg	228,45
ME 15	saturated	**8650.1**	100 mg	228,45
ME 16	saturated	**8661.1**	100 mg	228,45
ME 17	saturated	**8666.1**	100 mg	228,45
ME 18	saturated	**8667.1**	100 mg	228,45
ME 19	saturated	**8669.1**	100 mg	228,45
ME 21	saturated	**8676.1**	100 mg	228,45
ME 22	saturated	**8677.1**	100 mg	228,45
ME 24	saturated	**8679.1**	100 mg	228,45
ME 26	saturated/unsaturated	**8685.1**	100 mg	187,60
ME 28	saturated/unsaturated	**8691.1**	100 mg	246,20
ME 29	unsaturated	**8692.1**	100 mg	246,20
ME 30	saturated/unsaturated	**8693.1**	100 mg	246,20
ME 32	saturated/unsaturated	**8697.1**	100 mg	213,95
ME 35	saturated/unsaturated	**8701.1**	100 mg	295,65
ME 36	saturated/unsaturated	**8702.1**	100 mg	295,65
ME 37	saturated/unsaturated	**8703.1**	100 mg	295,65
ME 38	saturated/unsaturated	**8705.1**	100 mg	295,65
ME 39	saturated/unsaturated	**8709.1**	100 mg	295,65
ME 46	saturated/unsaturated	**8730.1**	100 mg	246,20
ME 51	saturated/unsaturated	**8737.1**	100 mg	295,65

Fatty Acid Methyl Ester Mixtures for Special Applications

Short designation	Use	Art. No.	Pack Qty.	€
FO 3	For testing of coconut, rape seed and mustard seed oils.	**8756.1**	100 mg	228,45
FO 4	For testing of olive and tea seed oils.	**8758.1**	100 mg	187,60
FO 5	For testing of coconut, palm kernel and babassu oils.	**8759.1**	100 mg	228,45
FO 7	For testing of rape seed oil.	**8761.1**	100 mg	267,70
FO 12	For testing of rape seed oil.	**3052.1**	100 mg	228,45

For additional product data and safety information, see chapter Chemicals A–Z.

► See chart for information on the composition of the individual mixtures.

Fatty Acid References

Narrow-spectrum fatty acid mixtures

Carbon number/percent by weight	ME 11	ME 18	ME 15	ME 19	ME 12	ME 26	ME 16	ME 13	ME 28	ME 46	ME 14	ME 30	ME 32	ME 17
Art. No.	**8632.1**	**8667.1**	**8650.1**	**8669.1**	**8636.1**	**8685.1**	**8661.1**	**8642.1**	**8691.1**	**8730.1**	**8644.1**	**8693.1**	**8697.1**	**8666.1**
6 : 0	20	20												
7 : 0	20													
8 : 0	20	20	20	20										
9 : 0	20		20											
10 : 0	20	20	20	20					20					
11 : 0			20		20									
12 : 0		20	20	20	20	20								
13 : 0					20		20							
14 : 0		20		20	20	20	20							
14 : 1						20								
15 : 0					20		20							
16 : 0				20		20	20	20	20	10				
16 : 1						20								
17 : 0							20	20						
18 : 0								20	20	5	20	20		
18 : 1									20	30		20		
18 : 2									20	50		20		
18 : 3									20	5		20		
19 : 0								20			20			
20 : 0								20			20		20	20
20 : 1													20	
20 : 2													20	
20 : 3													20	
20 : 4												20	20	
21 : 0											20			20
22 : 0											20			20
22 : 1														
23 : 0														20
24 : 0														20

Broad-spectrum fatty acid mixtures

Carbon number/percent by weight	ME 35	ME 36	ME 37	ME 38	ME 39	ME 22	ME 24	ME 21	ME 51	ME 29	FO 5	FO 3	FO 7	FO 12	FO 4
Best-Nr.	**8701.1**	**8702.1**	**8703.1**	**8705.1**	**8709.1**	**8677.1**	**8679.1**	**8676.1**	**8737.1**	**8692.1**	**8759.1**	**8756.1**	**8761.1**	**3052.1**	**8758.1**
4 : 0	4	4	7,7												
5 : 0															
6 : 0	3	2	7,7												
7 : 0															
8 : 0	2	1	7,7	2							7				
9 : 0															
10 : 0	3	3	7,7	3							5				
11 : 0															
12 : 0	3	4	7,7	4	2	20					48				
13 : 1							20								
14 : 0	12	10	7,7	8	2	20					15	1	1	1	
14 : 1		2			1										
15 : 0							20								
16 : 0	30	25	7,7	10	22	20		20	4		7	4	4	4	1
16 : 1		5			5					20					
17 : 0					10		20								
18 : 0	10	10	7,7	7	10	20		20	1		3	3	3	3	3
18 : 1	30	25	7,7	8	32				58	20	12	45	60	45	80
18 : 2	2	3	7,7	8	8				20		3	15	12	15	6
18 : 3	1	4	7,7	10	4				10			3	5	3	
19 : 0							20								
20 : 0		2	7,7	8		20		20	1			3	3	3	
20 : 1									2	20			1		
20 : 2															
20 : 3															
20 : 4					4										
21 : 0							20								
22 : 0			7,7	10				20	1			3	3	3	
22 : 1				10					2	20		20	5	20	
23 : 0															
24 : 0				12				20	1				3	3	
24 : 1										20					

Oils and Greases

Carl ROTH oils and greases are carefully manufactured from selected raw materials. They are of high purity and extensively specified. Therefore, they are suitable for a broad range of applications.



Product name	Brand/Purity	Synonymous	Art. No.	Pack Qty.	€
Avocado oil	refined	Oleum Perseae	**9341.1**	1 l	78,40
Castor oil	Ph. Eur., extra pure, virgin	Oleum Ricini	**4702.1**	1 l	37,55
			4702.3	2.5 l	67,65
			4702.4	5 l	112,90
			4702.2	10 l	209,65
Jojoba oil	all-natural		**7526.1**	100 ml	27,85
			7526.2	1 l	166,65
Lanolin	Ph. Eur., low in pesticides	Wool fat, Adeps Lanae anhydricum	**5314.2**	500 g	40,75
			5314.1	1 kg	71,95
	technical	Wool fat, Adeps Lanae anhydricum	**5313.2**	500 g	27,85
			5313.1	1 kg	45,70
Linseed oil	virgin, cold-pressed	Oleum Lini	**9338.2**	500 ml	34,30
			9338.1	1 l	52,70
			9338.3	2.5 l	99,45
Maize oil	Ph. Eur., refined	Oleum Maydis	**6212.1**	1 l	49,35
			6212.3	5 l	138,70
Oil of evening primrose	refined	Oleum Oenotherae	**3691.1**	50 ml	18,85
			3691.2	500 ml	83,75
Oil of sweet almond	refined	Oleum Amygdalae dulcis	**9342.1**	1 l	52,60
			9342.3	2.5 l	110,20
			9342.2	10 l	375,20
Oil of theobroma	pure, double filtered	Oleum Cacao	**3515.2**	100 g	21,40
			3515.1	500 g	68,70
Olive oil	Ph. Eur., virgin	Oleum Olivarum	**8873.1**	500 ml	31,10
			8873.2	2.5 l	107,40
Peanut oil	refined		**9332.2**	500 ml	21,40
			9332.1	1 l	32,15
			9332.3	2.5 l	59,05
Rapeseed oil	extra pure, refined	Colza oil, Oleum Rapae	**0754.1**	500 ml	17,10
			0754.2	1 l	25,70
			0754.3	2.5 l	53,25
			0754.4	10 l	139,25
			0754.5	25 l	289,20
Soybean oil	extra pure, refined	Oleum Sojae	**3686.1**	1 l	28,95
			3686.3	2.5 l	51,10
			3686.4	5 l	81,60
			3686.2	10 l	149,45
Stearic oil	technical		**9460.1**	1 l	37,55
Sunflower oil	extra pure, refined	Helianthi annui oleum	**1AAP.1**	1 l	25,70
			1AAP.2	2.5 l	53,25
			1AAP.3	10 l	139,25
			1AAP.4	25 l	289,20
Vaseline	Ph. Eur.		**5775.2**	500 g	23,55
			5775.1	1 kg	36,05
			5775.4	10 kg	198,90
Vaseline oil	technical, white	Oleum Vaselini album	**9336.1**	1 l	30,65
			9336.2	2.5 l	52,70
			9336.3	5 l	85,90

For additional product data and safety information, see chapter Chemicals A–Z.

Fatty Acids and Derivatives

Product name	Brand/Purity	Synonymous	Art. No.	Pack Qty.	€
Arachidic acid	≥99 %, synthetic	*n*-Eicosanoic acid	**8736.1**	1 g	67,65
Arachidic acid calcium salt	DAB	Calcium arachinate/-behenate	**9264.1**	500 g	53,65
			9264.2	1 kg	99,45
Arachidonic acid	>99 %		**4717.2**	10 mg	60,10
			4717.1	100 mg	145,15
			4717.3	1 g	686,95
Azelaic acid	≥80 %	Nonanedioic acid	**5487.1**	25 g	28,95
			5487.2	100 g	69,80
5-Bromovaleric acid	≥96 %	5-Bromopentanoic acid	**5466.1**	10 g	23,55
			5466.2	50 g	91,95
Butyric acid	≥99 %, for synthesis	Butanoic acide	**3277.1**	100 ml	20,35
			3277.2	1 l	81,60
Butyric acid methyl ester	ROTICHROM® GC	Methyl butyrate	**5186.1**	1 g	107,40
Capric acid	≥98 %, for synthesis	Decanoic acid	**8797.1**	100 g	25,30
			8797.3	500 g	63,35
			8797.2	1 kg	107,00
	ROTICHROM® GC	Decanoic acid	**3164.1**	1 g	32,15
Capric acid methyl ester	≥98 %, for synthesis	Decanoic acid methyl ester, Methyldecanoate	**3325.1**	100 ml	80,10
Capric aldehyde	≥97 %, for synthesis	Decanal	**7547.1**	100 ml	145,15
Caproic acid	≥98 %, for synthesis	Hexanoic acid	**8799.1**	100 ml	21,40
			8799.3	500 ml	38,60
			8799.2	1 l	67,20
			8799.4	2.5 l	134,40
Caproic aldehyde	≥97 %, for synthesis	Hexanal	**3327.1**	100 ml	48,30
Caprylic acid	ROTICHROM® GC	*n*-Octanoic acid	**3168.1**	1 g	52,70
Caprylic acid methyl ester	≥99 %, for synthesis	Methyl caprylate, Octanoic acid methylester, Methyloctanoate	**3331.1**	10 ml	32,15
Cetyl alcohol	≥95 %, for synthesis	1-Hexadecanol, Alcohol C 16	**5762.1**	1 kg	76,25
Cetyl palmitate	synthetic	Spermaceti, Cetaceum	**9229.2**	100 g	21,40
			9229.1	1 kg	145,15
Cholesterol palmitate	≥97 %, pure		**3404.1**	5 g	145,15
Cholesterol stearate	≥97 %, pure		**3405.1**	5 g	42,90
Crotonic acid	≥99 %, for biochemistry	trans-Crotonic acid, (E)-2-Butenoic acid, (E)-β-Methylacrylic acid	**1HHN.1**	100 g	16,70
			1HHN.2	500 g	46,15
			1HHN.3	1 kg	80,55
			1HHN.4	2.5 kg	181,70
Dodecyl aldehyde	≥98 %, for synthesis	Dodecanal, Lauraldehyde	**3754.1**	50 ml	64,00
Glyceryl monostearate	pure		**3787.1**	500 g	26,35
Lanolin alcohols	Ph. Eur.		**5085.2**	500 g	106,45
			5085.1	1 kg	188,15
Lecithin	≥97 %, made from soybeans, GVO-free, for biochemistry	Phosphatidylcholine	**AE81.1**	100 g	19,25
			AE81.2	250 g	33,25
			AE81.3	1 kg	87,00
	≥97 %, made from soybeans, for biochemistry	Phosphatidylcholine	**9812.1**	250 g	26,80
			9812.3	1 kg	70,85
			9812.2	2.5 kg	163,95
			9812.8	25 kg	994,40
	from eggs, for biochemistry	Phosphatidylcholine	**7514.1**	25 g	55,80
			7514.2	100 g	155,35
Levulinic acid	≥98 %, for synthesis	4-Oxopentanoic acid, 3-Acetopropionic acid	**3976.1**	50 g	16,05
			3976.2	500 g	64,40
			3976.3	1 kg	85,90
			3976.4	2.5 kg	160,20
Linoleic acid	ROTICHROM® GC		**5315.1**	1 g	80,55
Linoleic acid ethyl ester	ROTICHROM® GC		**3198.1**	1 g	40,35
Linoleic acid methyl ester	≥99 %		**7217.1**	5 ml	61,85
			7217.2	50 ml	514,95
	ROTICHROM® GC		**3199.1**	1 g	44,65
Linolenic acid	ROTICHROM® CHR ~94 %	9,12,15-Octadecatrienoic acid	**6039.1**	5 ml	115,60
	ROTICHROM® GC	9,12,15-Octadecatrienoic acid	**5320.1**	1 g	241,90
Myristic acid	≥98 %, for biochemistry	Tetradecanoic acid	**6469.2**	100 g	15,60
			6469.3	500 g	39,70
			6469.1	1 kg	64,40
Myristic acid isopropyl ester	≥92 %, extra pure	IPM, Isopropyl myristate	**5527.1**	500 ml	42,90
			5527.2	1 l	75,15
			5527.3	2.5 l	139,65
Myristic acid methyl ester	≥99 %	Methyl myristate, Methyl tetradecanoate	**3753.1**	50 ml	42,90

Oiles and Greases

Product name	Brand/Purity	Synonymous	Art. No.	Pack Qty.	€
Oleic acid	≥99 %, natural	*cis*-9-Octadecenoic acid	**7213.1**	5 ml	41,40
			7213.2	50 ml	295,65
	≥78 %, pure	*cis*-9-Octadecenoic acid	**3589.1**	250 ml	23,15
			3589.2	1 l	53,65
			3589.3	2.5 l	107,00
	technical	*cis*-9-Octadecenoic acid	**3562.1**	250 ml	16,05
			3562.2	1 l	33,25
			3562.3	2.5 l	69,80
	ROTICHROM® GC	*cis*-9-Octadecenoic acid	**5362.1**	1 g	46,15
Oleic acid methyl ester	ROTICHROM® GC	Methyl oleate	**3186.1**	1 g	42,50
Oleic acid sodium salt	~90 %	Sodium oleate	**8856.1**	500 g	49,35
Palmitic acid	≥98 %, extra pure	Hexadecanoic acid	**5907.3**	500 g	24,65
			5907.1	1 kg	37,10
			5907.2	5 kg	128,50
Palmitic acid methyl ester	≥97 %	Methyl palmitate	**4459.1**	25 g	31,10
			4459.2	100 g	82,70
			4459.3	500 g	317,15
Pelargonic acid	≥97 %	Nonanoic acid	**7015.1**	50 ml	44,65
Pelargonic acid vanillylamide	≥97 %	Nonivamide, Nonylvanylamide, so called synth. Capsaicin	**4462.1**	10 g	41,85
			4462.2	50 g	160,20
Pimelic acid	≥99 %	Heptanedioic acid	**5270.1**	25 g	42,50
			5270.2	50 g	76,25
Stearic acid	≥98 %	Carboxylic acid C18, Octadecanoic acid	**9459.1**	1 kg	34,30
			9459.2	5 kg	138,70
Stearic acid butyl ester	for synthesis	Butyl stearate, Butyl octadecanoate	**8150.2**	100 ml	17,10
			8150.1	1 l	52,15
			8150.3	2.5 l	100,55
Stearic acid lithium salt	for biochemistry	Lithium stearate, Lithium octadecanoate	**8238.1**	500 g	34,30
Stearic acid methyl ester	for synthesis	Methyl stearate, Methyl octadecanoate	**4704.1**	5 g	42,90
			4704.2	25 g	91,30
			4704.3	50 g	127,95
Stearic acid sodium salt	≥88 %, for biochemistry	Sodium stearate, Sodium octadecanoate	**8628.1**	1 kg	51,50
Stearyl alcohol	≥95 %	1-Octadecanol	**8663.2**	500 g	32,15
			8663.1	1 kg	53,65
Tributyrin	≥97 %, for biochemistry	Glyceryl tributyrate	**4813.1**	100 ml	96,65
Tricaprin	≥98 %	Glyceryl tricaprinate	**7252.1**	10 g	155,90
Undecanoic acid methyl ester	≥98 %		**4866.1**	10 ml	94,50
n-Valeric acid	≥98 %	Pentanoic acid	**4874.1**	250 ml	40,35
n-Valeric acid methyl ester	≥98 %	Methyl-valerate	**4876.1**	100 ml	69,35
Zinc stearate	for biochemistry	Stearic acid zinc salt, Zinc octadecanoate	**9295.1**	1 kg	73,00
			9295.5	25 kg	891,20

For additional product data and safety information, see chapter Chemicals A–Z.

Essential Oils

Essential oils

Essential oils form in the oil glands of plants and are stored in the plant tissue. They can be found in blossoms, leaves, seeds, husks, roots, resins and bark or in the wood of a plant. Essential oils are generally extracted from plant components by steam distillation.

Our essential oils are carefully manufactured from selected raw materials. Our **natural oils** are composed of 80 % mother plant extracts. **Artificial oils** are manufactured from synthetic aromatic substances. The origin of the plant is specified via the country code.








Product name	Brand/Purity	Synonymous	Art. No.	Pack Qty.	€
Hypericon oil	pure	Oleum Hyperici	**9404.1**	250 ml	34,30
Laurel oil	essential, natural	Oleum Lauri aetherum	**6609.1**	100 ml	80,55
	artificial	Oleum Lauri	**3314.1**	250 ml	64,00
Musk oil	artificial		**3364.1**	100 ml	51,50
Oil of angelica roots	Hungarian, natural	Oleum Angelicae e seminis	**6587.1**	10 ml	104,85
Oil of anise	natural	Oleum Anisi	**7036.1**	100 ml	40,35
	artificial	Oleum Anisi	**3278.2**	100 ml	21,40
			3278.1	500 ml	64,00
Oil of balm	natural	Oleum Melissae indicum	**6507.1**	100 ml	21,40
Oil of basil	all-natural		**7039.1**	25 ml	56,45
Oil of bergamot	natural	Oleum Bergamottae	**6501.1**	50 ml	40,35
	artificial	Oleum Bergamottae	**3282.2**	100 ml	27,85
			3282.1	250 ml	45,70
Oil of cajeput	natural	Oleum Cajeput	**6105.1**	100 ml	34,30
			6105.2	500 ml	117,20
Oil of camphor	all-natural	Oleum Camphorae	**3357.1**	1 l	69,35
Oil of caraway	natural	Oleum Carvi	**7050.1**	25 ml	27,85
	artificial	Oleum Carvi	**3307.1**	250 ml	45,70
Oil of cassia	Chinese, natural	Oleum Cassiae	**6593.1**	100 ml	51,50
Oil of cedar leaf	pure	Oleum Foliorum cedri	**6594.1**	100 ml	104,85
	artificial	Oleum Foliorum cedri	**3291.2**	50 ml	24,65
			3291.1	250 ml	74,75
Oil of cedar wood	ready-to-use, for microscopic purposes	Oleum Ligni cedri	**5308.1**	100 ml	31,10
			5308.2	250 ml	64,40
			5308.3	500 ml	115,60
Oil of celery		Oleum Apii, Apium graveoleus oil	**7040.2**	5 ml	27,85
			7040.1	25 ml	74,75
Oil of cembra pine	pure	Oleum Cembrae	**4208.2**	25 ml	21,40
			4208.1	100 ml	56,45
Oil of chamomile	blue	Oleum Chamomillae	**6504.1**	10 ml	80,55
	Roman, natural	Oleum Chamomillae	**3354.1**	5 ml	45,70
	artificial	Oleum Chamomillae	**3305.1**	50 ml	69,35
Oil of cinnamon	natural	Oleum Cinnamomi ceylanici	**A432.2**	10 ml	21,40
			A432.1	50 ml	74,75
	artificial	Oleum Cinnamomi ceylanici	**6512.1**	50 ml	34,30
Oil of citronella	natural	Oleum Citronellae	**6502.1**	250 ml	51,50
	artificial	Oleum Citronellae	**3292.1**	500 ml	40,35
Oil of clary-sage	natural	Oleum Salviae sclareae	**3355.1**	25 ml	56,45
Oil of cloves	≥80 %, natural, rectified	Oleum Caryophyllorum	**8662.1**	250 ml	46,15
			8662.2	1 l	149,45
Oil of coriander	natural	Oleum Coriandri	**7052.1**	25 ml	27,85
Oil of cubeb	natural	Litsea, Oleum Cubebarum	**6608.1**	100 ml	34,30
Oil of cypress	French, natural	Oleum Cupressi	**6596.1**	100 ml	56,45
Oil of dill herb	all-natural	Oleum Anethi e herba	**6597.1**	100 ml	56,45
Oil of dill seed	extra pure	Oleum Anethi e seminis	**3352.1**	100 ml	56,45

Essential Oils

Product name	Brand/Purity	Synonymous	Art. No.	Pack Qty.	€
Oil of estragon	pure	Oleum Dracunculi	**6602.1**	50 ml	91,95
Oil of eucalyptus	nature identical	Oleum Eucalypti artificiale	**3297.2**	500 ml	40,35
			3297.1	1 l	69,35
Oil of fennel	artificial		**3299.2**	100 ml	21,40
			3299.1	500 ml	56,45
Oil of fir needles	artificial	Oleum Pini	**3301.1**	500 ml	45,70
Oil of gardensage	natural, Dalmatian	Oleum Salviae	**7075.1**	50 ml	34,30
Oil of garlic	natural	Oleum Allii sativi	**3540.2**	50 ml	80,55
			3540.1	100 ml	149,45
Oil of geranium	natural	Oleum Geranii	**7054.1**	25 ml	27,85
Oil of grapefruit	natural		**6718.1**	250 ml	115,60
Oil of juniper	pure	Oleum Juniperi e baccis	**7059.1**	25 ml	40,35
Oil of juniper wood	natural	Oleum Juniperi e ligno	**7057.1**	25 ml	24,65
Oil of lavandin	French		**6603.1**	100 ml	34,30
Oil of lavender	natural	Oleum Lavendulae	**3367.1**	250 ml	64,00
Oil of lemon	natural	Oleum Citri	**5213.1**	100 ml	46,80
	artificial	Oleum Citri	**3346.1**	500 ml	56,45
Oil of lemon-grass	all-natural	Cochin, Oleum Lemon-grass	**6606.1**	100 ml	34,30
Oil of lime	natural	Oleum Limettae	**6721.1**	50 ml	34,95
Oil of lovage	pure	Oleum Levistici	**6607.1**	10 ml	127,95
Oil of mandarin	Italian	Oleum Mandarinae	**3796.1**	100 ml	58,60
Oil of mint	Chinese, crude	Oleum Menthae arvensis	**6730.2**	50 ml	32,80
			6730.1	250 ml	129,55
	Japanese, natural	Oleum Menthae arvensis	**6731.2**	50 ml	24,65
			6731.1	250 ml	69,35
	rectified twice	Oleum Menthae arvensis	**6732.1**	50 ml	67,20
			6732.2	250 ml	252,65
Oil of niaouli	natural	Melaleuca viridiflora	**6610.1**	100 ml	40,35
Oil of nutmeg	essential	Oleum Myristicae aethereum	**7064.1**	50 ml	34,30
Oil of orange	bitter, Italian	Oleum Aurantii amari	**6509.1**	100 ml	45,70
	Brazilian	Oleum Aurantii	**3803.1**	100 ml	91,30
	Floridian	Oleum Aurantii amari	**6728.2**	250 ml	37,55
			6728.3	500 ml	69,80
			6728.1	1 l	127,95
	sweet, natural	Oleum Aurantii dulcis	**6611.1**	100 ml	56,45
Oil of orange flowers	artificial	Oleum Neroli	**3323.1**	50 ml	80,55
Oil of origanum	natural	Oleum Origani cretici	**6612.2**	25 ml	27,85
			6612.1	100 ml	74,75
Oil of palmarosa	East Indian	Oleum Palmae rosae	**6613.2**	25 ml	27,85
			6613.1	100 ml	56,45
Oil of parsley	French	Oleum Petroselini	**7072.1**	10 ml	27,85
Oil of patchouli	artificial		**6511.2**	25 ml	27,85
			6511.1	100 ml	74,75
Oil of pepper	natural	Oleum Piperis	**6616.2**	25 ml	40,35
			6616.1	100 ml	117,20
Oil of peppermint	pure, Italian	Oil of mint, Oleum Menthae piperitae	**7063.1**	25 ml	34,30
	pure	Oil of mint, Oleum Menthae piperitae	**9318.1**	50 ml	34,95
	artificial	Oil of mint, Oleum Menthae piperitae	**3329.2**	100 ml	21,40
			3329.1	500 ml	56,45
Oil of petitgrain	South American	Oleum Petigrain americ.	**6614.1**	100 ml	56,45
Oil of rose	Bulgarian, natural	Oleum Rosae	**5733.1**	1 ml	56,45
			5733.2	10 ml	407,45
	artificial	Oleum Rosae	**4092.1**	10 ml	34,30
Oil of rosemary	Spanish	Oleum Rosmarini	**6514.1**	100 ml	34,30
	artificial	Oleum Rosmarini	**3336.2**	100 ml	21,40
			3336.1	500 ml	64,00
Oil of rose-wood	nature identical	Oleum Ligni Rhodii	**3275.2**	50 ml	52,15
			3275.1	100 ml	94,10
Oil of sandal-wood	West Indian	Oleum Santali	**6620.2**	25 ml	21,40
			6620.1	100 ml	56,45
	artificial	Oleum Santali	**3341.2**	50 ml	24,65
			3341.1	250 ml	69,35
Oil of Scotch pine needles	natural	Oleum Pini silvestris	**7073.1**	100 ml	40,35
	artificial	Oleum Pini silvestris	**3306.2**	250 ml	27,85
			3306.1	500 ml	56,45
Oil of silver fir	artificial	Oleum Abietis	**3295.1**	250 ml	34,30
Oil of silver fir cones	natural	Oleum Templini	**6598.1**	100 ml	64,00
Oil of silver fir needles	natural	Oleum Abietis	**3353.1**	100 ml	51,50
Oil of spike	all-natural	Oleum Spicae	**7079.1**	50 ml	34,30
Oil of tansy	pure	Oleum Tanaceti	**7081.2**	5 ml	21,40
			7081.1	25 ml	62,25
Oil of tea tree	Australian, natural	Melaleuca alternifolia aetheroleum	**K032.1**	50 ml	34,30

Essential Oils

Product name	Brand/Purity	Synonymous	Art. No.	Pack Qty.	€
Oil of thyme	natural	Oleum Thymi	**K500.1**	50 ml	51,50
	nature identical	Oleum Thymi	**6513.1**	100 ml	27,85
Oil of valerian	all-natural	Oleum Valerianae	**6588.2**	10 ml	56,45
			6588.3	25 ml	117,20
			6588.1	50 ml	224,70
	artificial	Oleum Valerianae	**3279.1**	100 ml	40,35
Oil of vetiver	natural	Oleum Vetiverae	**6622.2**	10 ml	27,85
			6622.1	50 ml	104,85
Oil of wintergreen	artificial	Oleum Gaultheriae	**7053.1**	100 ml	40,35
Oil of ylang-ylang	comoric, all-natural	Oleum Anonae	**6624.2**	25 ml	56,45
			6624.1	100 ml	188,15
	artificial	Oleum Anonae	**3343.2**	50 ml	21,40
			3343.1	250 ml	74,75

For additional product data and safety information, see chapter Chemicals A–Z.

Sugar (Carbohydrates)

Carbohydrates or Saccharides make up 50 % of the dry biomass of the earth and are therefore the most frequent class of biomolecules. Besides at least two hydroxy groups, they also have an aldehyde or a ketone group and can be subdivided according to the number of monomeric components in mono-, di-, oligo and polysaccharides.

Whereas mono-, di- and oligosaccharides are soluble in water, taste sweet and are therefore called as sugar, polysaccharides are hardly, or not at all, soluble in water and have a neutral taste.

Carbohydrates, together with fats and proteins make up a large percentage of nutrition. In addition to their central role as an energy source, they are also an important structural component especially in plants (e.g. Cellulose). Ribose, a monosaccaride with five carbons ($C_5H_{10}O_5$) is an essential element of coenzymes (such as ATP, FAD and NAD) and a structural component of RNA. Desoxyribose (a ribose derivative) is a structural component of DNA.



Monosaccharides

Monosaccharides are the simplest carbohydrates that cannot be hydrolysed further. They consist of one sugar unit (monosaccharide). The general formula for unmodified monosaccharides is $C_n(H_2O)_m$. The most important representatives of monosaccharides are glucose and fructose.

Product name	Brand/Purity	Art. No.	Pack Qty.	€
N-Acetyl-D-galactosamine	≥99 %, for biochemistry	**4114.1**	250 mg	42,50
		4114.2	1 g	128,50
N-Acetyl-D-glucosamine	≥98 %, for biochemistry	**8993.3**	5 g	20,35
		8993.2	25 g	52,15
		8993.1	50 g	93,00
		8993.4	100 g	145,15
N-Acetyl-D-mannosamine	≥98 %	**5525.1**	250 mg	19,90
		5525.2	1 g	58,60
		5525.3	5 g	198,90
N-Acetylneuraminic acid	≥98 %, for biochemistry	**7480.1**	100 mg	29,60
		7480.2	500 mg	88,05
		7480.3	1 g	145,70
		7480.4	5 g	456,90
D-Allose	≥99 %	**6010.2**	50 mg	38,60
		6010.1	100 mg	55,80
DL-Arabinose	≥99 %, for biochemistry	**8954.1**	10 g	42,50
		8954.2	50 g	120,95
L(+)-Arabinose	≥99 %, for biochemistry	**5118.1**	50 g	52,60
		5118.2	100 g	81,60
		5118.3	250 g	160,20
		5118.4	500 g	241,90
		5118.5	1 kg	385,95
D(+)-Arabitol	≥99 %, for biochemistry	**5510.3**	5 g	48,30
		5510.1	25 g	153,20
		5510.2	50 g	241,90
L(–)-Arabitol	≥99 %, for biochemistry	**7738.1**	1 g	28,95
		7738.2	5 g	77,30
α-Chloralose	(≤20 % β-anomer)	**3363.2**	25 g	25,70
		3363.1	100 g	85,90
		3363.3	250 g	174,70
2-Deoxy-D-galactose	≥99 %, for biochemistry	**9916.1**	250 mg	31,10
		9916.2	1 g	63,45
		9916.3	5 g	241,90
2-Deoxy-D-glucose	≥98 %, for biochemistry	**CN96.1**	50 mg	21,40
		CN96.2	1 g	52,70
		CN96.3	5 g	181,70
2-Deoxy-D-ribose	≥99 %, for biochemistry	**CN97.1**	5 g	53,65
		CN97.2	10 g	91,30
		CN97.3	25 g	192,45
Dulcitol	≥99 %, for biochemistry	**4944.2**	10 g	22,50
		4944.1	50 g	74,75
Esculin sesquihydrate	≥97,5 %, DAB, for biochemistry	**8704.1**	5 g	25,30
		8704.2	25 g	107,40
		8704.3	50 g	181,70
		8704.4	100 g	332,20

Carbohydrates

Product name	Brand/Purity	Art. No.	Pack Qty.	€
D(–)-Fructose	≥99,5 %, for biochemistry	**4981.1**	500 g	21,00
		4981.4	1 kg	34,30
		4981.2	2.5 kg	67,65
		4981.5	5 kg	101,60
		4981.6	10 kg	149,45
		4981.3	25 kg	289,20
D-Fructose-1,6-diphosphate trisodium salt octahydrate	≥98 %, for biochemistry	**4982.1**	1 g	23,55
		4982.2	5 g	44,65
		4982.3	25 g	134,40
L(–)-Fucose	≥99 %, for biochemistry	**KK10.1**	1 g	37,55
		KK10.2	5 g	117,20
		KK10.3	25 g	482,70
D(+)-Galactose	CELLPURE® ≥99 %	**8878.1**	10 g	37,55
		8878.2	25 g	72,60
		8878.3	50 g	123,65
		8878.4	100 g	241,90
	≥98 %, for biochemistry	**4987.1**	100 g	33,25
		4987.2	500 g	114,95
		4987.3	1 kg	194,05
		4987.7	5 kg	876,15
α-D-Galactose-1-phosphate dipotassium salt pentahydrate	≥99 %, for biochemistry	**5550.1**	25 mg	38,20
		5550.2	100 mg	127,95
D(+)-Glucose	p.a., ACS, anhydrous	**X997.1**	250 g	20,35
		X997.2	1 kg	53,65
		X997.3	2.5 kg	112,90
		X997.4	5 kg	203,20
		X997.5	25 kg	886,90
	CELLPURE® ≥98 %, anhydrous	**HN06.1**	250 g	17,10
		HN06.2	500 g	27,85
		HN06.3	1 kg	42,90
		HN06.4	5 kg	138,70
D(+)-Glucose monohydrate	≥99,5 %, Ph. Eur.	**6780.1**	1 kg	26,80
		6780.2	5 kg	99,90
		6780.4	10 kg	166,65
		6780.3	50 kg	514,95
	for microbiology	**6887.1**	1 kg	25,70
		6887.2	2.5 kg	56,90
		6887.3	5 kg	96,65
		6887.5	25 kg	278,45
L(–)-Glucose	≥98 %, for biochemistry	**7509.1**	100 mg	38,60
		7509.2	500 mg	95,70
		7509.3	1 g	160,20
α-D-Glucose-1-phosphate disodium salt tetrahydrate	≥98 %, for biochemistry	**6119.1**	1 g	81,60
		6119.2	10 g	639,65
D-Glucose-6-phosphate monosodium salt	≥98 %, for biochemistry	**5544.1**	1 g	65,50
		5544.2	5 g	266,10
D-Glucose-6-phosphate disodium hydrate	≥98 %, for biochemistry	**CN72.1**	1 g	56,90
		CN72.2	5 g	203,20
		CN72.3	10 g	375,20
D-Glucuronic acid	≥98 %, for biochemistry	**4124.1**	1 g	23,55
		4124.2	5 g	50,45
		4124.3	10 g	85,90
		4124.4	25 g	145,15
D-Glucuronic acid sodium salt monohydrate	≥99 %, for biochemistry	**4355.1**	10 g	53,65
		4355.2	25 g	94,10
3-Indoxyl-β-D-glucopyranoside	≥99 %, for biochemistry	**4243.1**	250 mg	94,10
		4243.2	500 mg	174,70
		4243.3	1 g	332,20
meso-Inositol	≥99 %, p.a.	**6329.2**	10 g	31,75
		6329.1	100 g	220,40
	≥99 %, for biochemistry	**4191.1**	50 g	34,95
		4191.2	100 g	58,60
		4191.3	250 g	117,20
D(–)-Mannitol	CELLPURE® ≥97 %	**8883.1**	100 g	32,15
		8883.3	250 g	64,40
		8883.2	500 g	117,75
	≥98 %, Ph. Eur., USP, BP, for biochemistry	**4175.3**	250 g	34,30
		4175.1	1 kg	112,80
		4175.4	2.5 kg	231,15
		4175.2	5 kg	439,70

Carbohydrates

Product name	Brand/Purity	Art. No.	Pack Qty.	€
D(+)-Mannose	CELLPURE® ≥99 %	**8887.1**	10 g	34,30
		8887.2	25 g	67,65
		8887.3	50 g	117,20
		8887.4	100 g	209,65
	≥99,5 %, for biochemistry	**4220.1**	10 g	24,65
		4220.2	50 g	64,00
Methyl-α-D-mannopyranoside	≥99 %, for biochemistry	**1K5Y.1**	25 g	37,55
		1K5Y.2	100 g	112,90
		1K5Y.3	250 g	256,95
L(+)-Rhamnose monohydrate	≥98 %, for biochemistry	**4655.1**	5 g	39,70
		4655.2	25 g	107,00
D(–)-Ribose	≥98 %, for biochemistry	**7168.1**	10 g	24,65
		7168.3	25 g	48,95
		7168.2	100 g	128,50
D-Sorbitol	≥98 %, for biochemistry	**6213.1**	1 kg	33,25
		6213.2	5 kg	96,65
		6213.3	10 kg	177,40
		6213.7	25 kg	353,70
L(–)-Sorbose	≥98 %, for biochemistry	**4028.2**	25 g	60,75
		4028.3	50 g	105,25
		4028.1	100 g	160,20
D-Tagatose	≥98,5 %, for biochemistry	**6161.1**	1 g	209,65
		6161.2	5 g	891,20
Xylitol	≥98,5 %, Ph. Eur., for biochemistry	**9711.1**	250 g	28,50
		9711.3	500 g	53,25
		9711.2	1 kg	103,10
		9711.4	2.5 kg	198,90
D(+)-Xylose	≥99 %, for biochemistry	**5537.1**	100 g	29,60
		5537.2	500 g	95,70
		5537.3	1 kg	145,15
L-Xylose	≥99 %, for biochemistry	**4061.3**	1 g	36,45
		4061.1	5 g	134,40
		4061.2	10 g	217,70

For additional product data and safety information, see chapter Chemicals A–Z.

Disaccharides

Disaccharides consist of two monosaccharide units. These are interlinked covalently via a glycocide bond. The most familiar representatives are saccharose, lactose and maltose.

Product name	Brand/Purity	Art. No.	Pack Qty.	€
D(+)-Cellobiose	≥98 %, for biochemistry	**5840.1**	5 g	23,55
		5840.3	25 g	73,00
		5840.2	100 g	256,95
β-D-Gentiobiose	≥98 %, for biochemistry	**4123.4**	100 mg	58,60
		4123.1	250 mg	120,95
		4123.2	500 mg	233,85
		4123.3	1 g	446,15
Isomaltulose	≥99 %, for biochemistry	**8400.1**	25 g	36,45
		8400.2	100 g	104,85
Lactobionic acid	≥97 %	**9242.1**	10 g	46,15
α-Lactose monohydrate	Ph. Eur., for biochemistry	**8921.1**	1 kg	28,95
		8921.2	5 kg	105,25
		8921.3	10 kg	177,40
		8921.5	25 kg	385,95
	for microbiology	**6868.1**	1 kg	32,15
		6868.2	5 kg	112,35
		6868.4	10 kg	188,15
		6868.3	50 kg	719,20
Lactulose	≥98 %, for biochemistry	**CN98.1**	10 g	32,15
		CN98.2	25 g	64,00
		CN98.3	50 g	114,50
D(+)-Maltose monohydrate	CELLPURE® ≥97 %	**8882.1**	25 g	33,90
		8882.2	100 g	79,45
		8882.3	250 g	160,75
		8882.4	500 g	289,20
	≥92 %, for biochemistry	**8951.1**	100 g	26,35
		8951.2	250 g	45,05
		8951.3	500 g	81,60
		8951.4	1 kg	126,35
D(+)-Melibiose monohydrate	≥99 %, for biochemistry	**4223.1**	2.5 g	37,55
		4223.3	10 g	94,10
		4223.2	50 g	332,20
D(+)-Saccharose	CELLPURE®	**8890.1**	50 g	23,55
		8890.2	100 g	39,25
		8890.3	250 g	78,40
		8890.4	500 g	145,15
	≥99,5 %, p.a.	**4621.1**	1 kg	25,70
		4621.2	5 kg	112,35
		4621.3	10 kg	144,60
		4621.5	25 kg	266,10
	≥99,5 %, Ph. Eur.	**4661.1**	1 kg	24,65
		4661.2	5 kg	96,65
		4661.4	10 kg	134,40
		4661.3	50 kg	439,70
	≥99,7 %, powdered	**9286.1**	1 kg	23,55
		9286.2	5 kg	85,90
	≥99,5 %, RNAse/DNAse free	**9097.1**	1 kg	46,15
		9097.2	5 kg	203,20
D(+)-Trehalose dihydrate	CELLPURE® ≥98 %	**8897.1**	10 g	42,90
		8897.2	25 g	81,60
		8897.3	50 g	138,70
		8897.4	100 g	256,95
	≥98 %, for biochemistry	**5151.1**	5 g	17,10
		5151.2	25 g	46,15
		5151.4	50 g	78,40
		5151.3	250 g	353,70

For additional product data and safety information, see chapter Chemicals A–Z.

Oligo- and polysaccharides

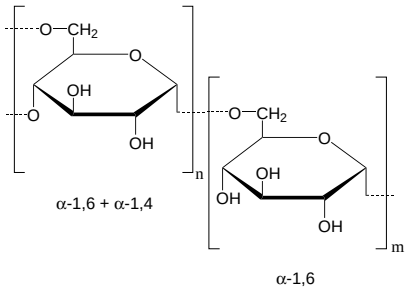
Oligosaccharides consist of three to nine monosaccharide units.
Polysaccharides are macromolecular substances that consist of ≥10 monosaccharide units. A distinction is made between homoglycans, which are made up of only one type of monosaccharides (e.g. starch) and heteroglycans, which consist of at least two different monomeric components (e.g. xanthan).

Product name	Brand/Purity	Art. No.	Pack Qty.	€
Alginic acid	≥98 %, for biochemistry	**8696.1**	250 g	36,45
		8696.3	1 kg	117,20
		8696.2	2.5 kg	235,45
Alginic acid sodium salt	for biochemistry	**9180.1**	250 g	47,85
		9180.2	1 kg	134,40
Amylopectin	for biochemistry	**8545.1**	500 g	32,15
		8545.2	1 kg	45,05
		8545.3	2.5 kg	73,00
Cellulose	for column chromatography	**5873.3**	100 g	21,00
		5873.1	500 g	51,50
		5873.2	1 kg	81,20
Cellulose acetate	pure	**4458.1**	250 g	36,45
Chitin	from crab shells	**8845.1**	100 g	51,50
		8845.2	1 kg	381,65
Chitosan	for biochemistry	**5375.1**	10 g	42,90
α-Cyclodextrin	≥98 %, for biochemistry	**4122.1**	5 g	28,95
		4122.2	25 g	89,15
		4122.3	50 g	149,45
Dextrin	extra pure, white	**6778.3**	500 g	22,05
		6778.1	1 kg	34,95
		6778.4	2.5 kg	70,45
		6778.2	5 kg	130,65
	extra pure, yellow	**6777.3**	500 g	18,20
		6777.1	1 kg	27,45
		6777.4	2.5 kg	56,90
		6777.2	5 kg	104,85
	for microbiology	**3488.2**	100 g	25,70
		3488.1	250 g	46,80
Glycogen	lyophilized, made of oysters	**HP51.1**	1 g	31,10
		HP51.2	5 g	123,65
		HP51.3	10 g	213,95
		HP51.4	25 g	461,20
Heparin sodium salt	≥180 I.U./mg, Ph. Eur., from pork intestine mucosa	**7692.1**	1 g	126,35
		7692.2	5 g	536,45
		7692.3	25 g	2.338,15
Maltodextrin 4.0–7.1	for biochemistry	**2260.1**	25 g	20,35
		2260.2	100 g	51,10
		2260.3	250 g	104,85
Maltodextrin 16.5–19.6	for biochemistry	**2270.1**	25 g	18,85
		2270.2	100 g	40,75
		2270.3	500 g	138,70
D(+)-Melezitose monohydrate	≥99 %, for biochemistry	**4222.1**	2.5 g	29,60
		4222.2	25 g	117,75
		4222.3	50 g	217,70
		4222.4	100 g	405,85
D(+)-Raffinose pentahydrate	≥98 %, for biochemistry	**5241.1**	10 g	26,80
		5241.4	25 g	49,35
		5241.2	50 g	85,90
		5241.3	100 g	138,70
		5241.5	250 g	246,20
		5241.6	500 g	403,15
Starch from potatoes, soluble	p.a., ACS	**2045.1**	100 g	28,95
		2045.2	250 g	49,35
		2045.3	1 kg	163,95
Starch	soluble	**4701.1**	1 kg	30,65
		4701.2	5 kg	106,45
Starch from potatoes	extra pure	**9441.1**	1 kg	23,55
		9441.2	5 kg	81,60
Starch from corn	extra pure	**9444.1**	1 kg	32,15
		9444.2	5 kg	118,15
Starch from rice	extra pure	**9368.1**	1 kg	31,10
		9368.2	5 kg	113,45
Starch from wheat	extra pure	**9447.1**	1 kg	32,15
		9447.2	5 kg	118,15

Product name	Brand/Purity	Art. No.	Pack Qty.	€
Xanthan	extra pure	**3557.2**	100 g	26,35
		3557.1	500 g	81,20
Xylan	from beechwood	**4414.2**	10 g	35,40
		4414.1	50 g	78,40
		4414.3	100 g	134,40
		4414.4	250 g	278,45
	≥95 % xylooligosaccharides, from corncob	**8659.2**	10 g	16,05
		8659.1	50 g	45,70
		8659.3	250 g	181,70

For additional product data and safety information, see chapter Chemicals A–Z.

Dextrans



Dextrans are highly branched macromolecular biopolysaccharides. They consist exclusively of glucose monomers and belong to the homoglycans. Natural dextrans have molecular masses between 10 and 50000 kg/mol. Dextrans are soluble in water, whereby the solubility depends on the molecular mass. Here, highly viscous, gel-like liquids are formed. Due to the very broad molecular mass distribution of the various dextrans and the associated differences in terms of solubility in water, dextrans have numerous applications.
Thanks to their special properties, dextrans play an important role in many areas. For e.g. dextrans are used in chromatography, both as a carrier in affinity chromatography and (in modified form) for Gel Permeation Chromatography (GPC). Furthermore, they are used as a measurement standard in membrane technology and in adhesives as well as coatings, or as an auxiliary material for paper and textile manufacture.

Product name	Purity	Art. No.	Pack Qty.	€
DEAE Dextran	for biochemistry	**4198.1**	25 g	73,00
		4198.2	100 g	238,15
Dextran 2.5	for biochemistry	**8718.1**	10 g	37,10
		8718.2	100 g	149,45
		8718.3	500 g	557,95
Dextran 6	for biochemistry	**7615.1**	10 g	20,35
		7615.2	100 g	75,15
		7615.3	500 g	310,70
Dextran 10	for biochemistry	**7616.1**	10 g	21,40
		7616.2	100 g	106,45
		7616.3	500 g	439,70
Dextran 20	for biochemistry	**7617.1**	10 g	23,15
		7617.2	100 g	134,40
		7617.3	500 g	557,95
Dextran 35	for biochemistry	**8943.2**	10 g	19,25
		8943.1	50 g	57,95
		8943.3	100 g	96,65
Dextran 40	for biochemistry	**7626.1**	10 g	14,95
		7626.2	100 g	47,20
		7626.3	250 g	96,65
		7626.4	500 g	170,95
Dextran 60	for biochemistry	**2247.1**	10 g	18,20
		2247.2	100 g	67,20
		2247.3	250 g	123,10
		2247.4	500 g	228,45
Dextran 70	extra pure	**9228.3**	10 g	21,40
		9228.1	100 g	93,45
		9228.4	250 g	170,95
		9228.2	500 g	321,45
Dextran 100	for biochemistry	**7618.1**	10 g	21,40
		7618.2	100 g	106,45
		7618.3	500 g	439,70
Dextran 150	for biochemistry	**7619.1**	10 g	20,35
		7619.2	100 g	75,15
		7619.3	500 g	310,70
Dextran 250	for biochemistry	**9233.3**	10 g	45,05
		9233.1	100 g	231,15
		9233.2	500 g	962,15

Carbohydrates

Product name	Purity	Art. No.	Pack Qty.	€
Dextran 500	for biochemistry	**9219.3**	10 g	32,15
		9219.1	100 g	107,40
		9219.2	500 g	439,70
Dextran sulphate 8 sodium salt	for biochemistry	**7610.1**	10 g	40,35
		7610.2	25 g	76,25
		7610.3	50 g	138,70
		7610.4	100 g	256,95
Dextran sulphate 40 sodium salt	for biochemistry	**7612.1**	10 g	39,70
		7612.2	25 g	75,15
		7612.3	50 g	134,40
		7612.4	100 g	246,20
Dextran sulphate 500 sodium salt	for biochemistry and molecular biology	**5956.5**	10 g	41,85
		5956.3	25 g	78,40
		5956.4	50 g	145,15
		5956.1	100 g	274,15
		5956.2	500 g	1.279,25

For additional product data and safety information, see chapter Chemicals A–Z.

Vitamins

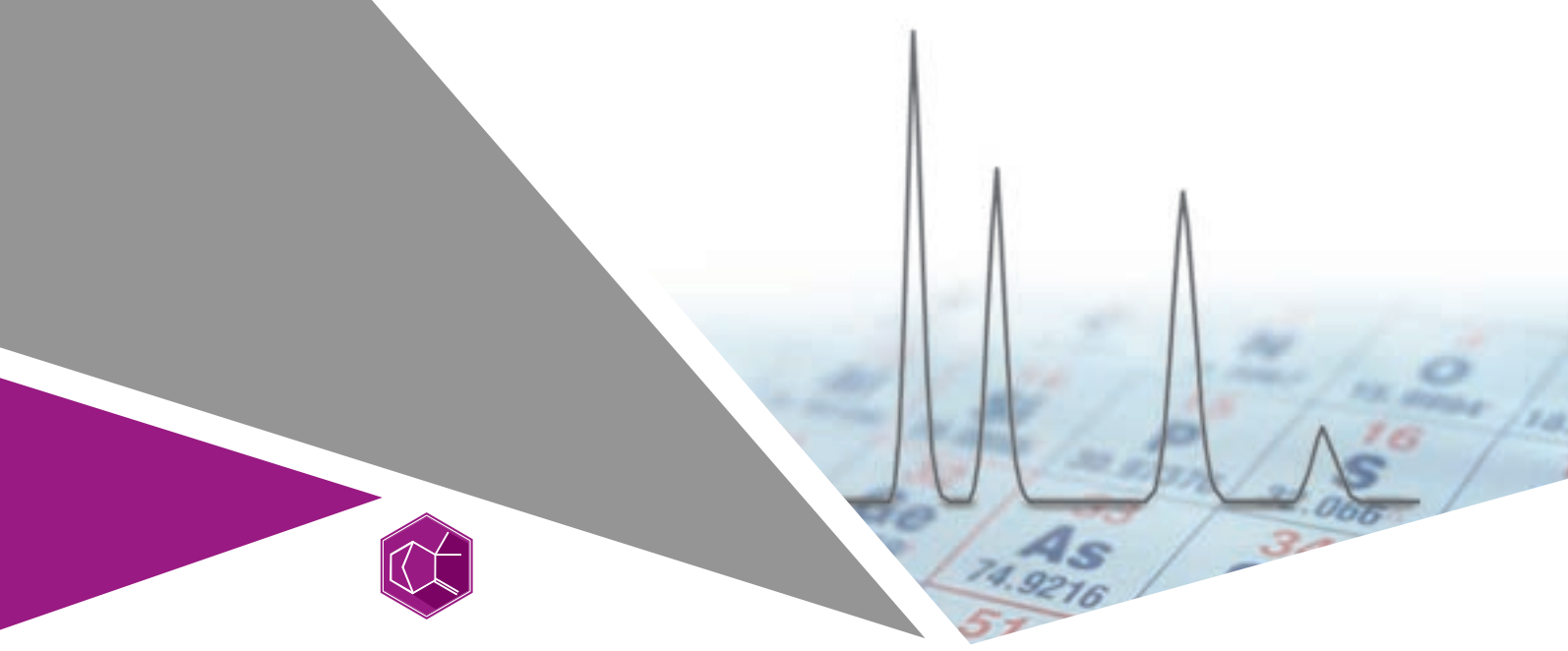


Vitamins are involved in many metabolic reactions. We can supply a range of high-purity substances suitable for biochemical applications in research and development.

Vitamins

Product name	Purity	Synonymous	Art. No.	Pack Qty.	€
4-Aminobenzoic acid	≥98,5 %, for synthesis	PABA, Vitamin B_{10}, *p*-Aminobenzoic acid	**0979.1**	50 g	21,00
			0979.2	250 g	40,75
			0979.3	1 kg	117,75
L(+)-Ascorbic acid	≥99 %, p.a.	Vitamin C	**3525.1**	100 g	16,05
			3525.2	250 g	22,50
			3525.3	500 g	38,20
	≥99 %, Ph. Eur., USP, BP	Vitamin C	**6288.1**	100 g	16,70
			6288.2	250 g	24,65
			6288.3	1 kg	80,55
L(+)-Ascorbic acid sodium salt	≥99 %, USP, for biochemistry	Sodium L(+)-ascorbate	**3149.1**	100 g	28,95
			3149.2	500 g	85,90
D(+)-Biotin	≥98,5 %, Ph. Eur., for biochemistry	Vitamin H	**3822.2**	500 mg	38,60
			3822.1	1 g	70,85
			3822.3	5 g	203,20
			3822.4	10 g	342,95
			3822.5	25 g	654,70
Calcium D(+)-pantothenate	≥98 %, Ph. Eur., for biochemistry	D(+)-Pantothenic acid calcium salt, Vitamin B_5 calcium salt	**3812.2**	100 g	45,05
			3812.1	250 g	90,85
Folic acid	≥96 %, for biochemistry	Pteroyl glutamic acid, Vitamin B_9	**T912.1**	25 g	53,65
			T912.2	50 g	99,90
Nicotinic acid	≥99,5 %, for biochemistry	3-Pyridine carboxylic acid, Niacin, Vitamin B_3	**3815.1**	100 g	44,65
			3815.2	250 g	89,15
Pyridoxine hydrochloride	≥99 %, for biochemistry	Adermine hydrochloride, Vitamin B_6 hydrochloride	**T914.1**	50 g	37,10
			T914.2	100 g	64,40
Riboflavine	≥97 %, Ph. Eur., for biochemistry	Lactoflavine, Vitamin B_2	**9607.1**	25 g	38,60
			9607.2	50 g	67,65
			9607.3	100 g	115,60
			9607.4	250 g	224,70
Thiamine hydrochloride	≥98,5 %, for biochemistry	Aneurine hydrochloride, Thiamine chloride hydrochloride, Vitamin B_1 hydrochloride	**T911.1**	25 g	27,45
			T911.2	100 g	75,80
			T911.3	250 g	166,65
DL-α-Tocopherol	≥96 %, Ph. Eur., oily	Vitamin E	**3806.2**	25 g	42,50
			3806.1	100 g	120,95
			3806.3	250 g	256,95
DL-α-Tocopherol acetate	≥96,5 %, Ph. Eur., oily	Vitamin E acetate	**3805.2**	25 g	38,60
			3805.1	100 g	107,00
			3805.3	250 g	213,95
Vitamin B_{12}	≥96 %, for biochemistry	Cyanocobalamin	**T915.1**	500 mg	53,65
			T915.2	1 g	92,35
			T915.3	2.5 g	192,45
Vitamin K_1	≥97 %, for biochemistry	Phylloquinone, Phytomenadione	**3804.1**	1 g	35,40
			3804.3	5 g	117,20
			3804.2	10 g	209,65

Pour de plus amples informations et les données relevant de la sécurité, voir le chapitre « produits chimiques A–Z ».



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ROTI®Cap High Performance Capillary Columns

The proved Carl ROTH series of high performance capillary columns for gas chromatography.



ROTI®Cap capillary columns set standards:
Low column bleed
Modern manufacturing processes offer capillaries with lower bleed levels, which are especially suitable for GC-MS. Less column bleed yields increased sensitivity and accuracy through a better signal to noise ratio for any kind of detector. Further reduced column bleed improves detectability of solutes in qualitative and quantitative GC-MS analyses.
High thermal stability
Due to high temperature stability ROTI®Cap capillary columns can be operated at about 40 °C higher temperatures compared to standard phases. Thanks to these elevated working temperatures, high-boiling components, which exhibit very long retention times and wide peaks on standard phases, elute earlier and with a more well-formed peak.
High inert columns due to optimised deactivation
Polar compounds are frequently difficult to analyse because they often give broad tailing peaks. Advances in deactivation technology for the ROTI®Cap capillaries result in an excellent chromatographic performance yielding improved peak shapes of polar compounds combined with improved efficiency and sensitivity.
In order to guarantee best industry standard capillaries with highest reproducibility from column to column ROTI®Cap capillary columns have to meet high specifications.
Within the **quality control** the following parameters are determined:

- **Separation Efficiency** by measuring the separation number (acc. to Kaiser) in a temperature programme phases
- **Polarity** by measuring retention indices
- **Bleeding** in a temperature programme with a test mixture including high-boiling hydrocarbons
- **Inertness** by measuring the peak height ratio for decylamine/C_{12} (for non-polar to medium polar phases)

Overview ROTI®Cap capillary columns:

GC capillary column	Configuration of the column	USP phase	Similar phases	Polarity
ROTI®Cap-1	100 % dimethylpolysiloxane	G1/G2/G38	OV-1, DB-1, SE-30, HP-1, SPB®-1, CP-Sil 5 CB, Rtx®-1, 007-1, BP1, MDN-1, AT™-1, ZB 1, OV 101	lowest
ROTI®Cap-1 MS	100 % dimethylpolysiloxane	G1/G2/G38	Ultra 1, DB-1 MS, Rtx®-1 MS, HP-1 MS, Equity®-1, AT™-1 MS, VF-1 MS, CP-Sil 5 CBMS	
ROTI®Cap-5	5 % phenyl - 95 % methylpolysiloxane	G27/G36	SE-54, SE-52, HP-5, SPB®-5, CP-Sil 8, Rtx®-5, 007-5, BP5, MDN-5, AT™-5, ZB-5	
ROTI®Cap-5 MS	5 % phenyl - 95 % dimethylpolysiloxane	G27/G36	DB-5, B-5 MS, HP-5 MS, Ultra-2, Equity®-5, CP-Sil 8CB low bleed/MS, Rtx®-5SIL-MS, Rtx®-5 MS, 007-5 MS, BPX-5, MDN-5S, AT™-5 MS, VF-5MS	
ROTI®Cap-5 MS Ultra	silarylene phase with selectivity similar to 5 % phenyl - 95 % methylpolysiloxane	27/G36	DB-5, B-5 MS, HP-5 MS, Ultra-2, Equity®-5, CP-Sil 8CB low bleed/MS, Rtx®-5SIL-MS, Rtx®-5 MS, 007-5 MS, BPX-5, MDN-5S, AT™-5 MS, VF-5MS	
ROTI®Cap-5 HT	silarylene phase with selectivity similar to 5 % phenyl - 95 % methylpolysiloxane	27/G36	DB-5 HT, VF-5 HT, HT-5, XTI-5HT, ZB-5HT	
ROTI®Cap-624	6 % cyanopropyl-phenyl - 94 % dimethylpolysiloxane	G43	HP-624, HP-VOC, DB-624, DB-VRX, SPB-624, CP-624, Rtx®-624, Rtx®-Volatiles, 007-624, BP624, VOCO	
ROTI®Cap-1701	14 % cyanopropyl-phenyl - 86 % dimethylpolysiloxane	G46	OV-1701, DB-1701, CP Sil 19 CB, HP-1701, Rtx®-1701, SPB®-1701, 007-1701, BP10, ZB-1701	
ROTI®Cap-1701 MS	silylarylene phase with selectivity similar to 14 % cyanopropyl-phenyl - 86 % dimethylpolysiloxane	46	VF-1701ms, TG-1701MS, OV-1701, DB-1701, HP-1701, Rtx®-1701, SPB®-1701, CP-Sil 19 CB, 007-1701, BP10, ZB-1701	
ROTI®Cap-35 MS	silylarylene phase with selectivity similar to 35 % phenyl - 65 % methylpolysiloxane	42/G28/G32	DB-35 MS, HP-35, SPB®-35, Rtx®-35, 007-35, BPX-35, MDN-35, AT™-35 MS, ZB-35, OV-11, VF-35 MS	
ROTI®Cap-WAX	polyethylene glycol 20000 dalton	G16	DB-Wax, Supelcowax®, HP-Wax, HP-INNOWax, Rtx®-Wax, Stabilwax®, CP-Wax 52 CB, 007-CW, BP20, AT™-Wax, ZB-Wax	
ROTI®Cap-FFAP	Polyethylenglykol-2-nitroterephthalsäureester	G35/G25	DB-FFAP, HP-FFAP, CP-Wax 58 FFAP CB, 007-FAP, CP-FFAP CB, Nukol, AT 1000, SPB®-1000, BP 21, OV-351	highest

GC Capillary Columns ROTI®Cap-1

100 % Dimethylpolysiloxane

- **Non-polar**
- Solvent rinsing applicable
- **Working temperature limits:**
  for columns with 0.10–0.32 mm inner diameter and films <3 µm:
  340 °C for isothermal operation
  360 °C for short isotherms in a temperatur programme
  for columns with 0,53 mm inner diameter and films <3 µm:
  320 °C for isothermal operation
  340 °C for short isotherms in a temperature programme
  for thick film columns with films ≥3 µm:
  300 °C for isothermal operation
  320 °C for short isotherms in a temperature programme
- **Application areas:** Excellent column for routine applications.

Similar phases:

- OV-1, DB-1, SE-30, HP-1, SPB®-1, CP-SIL 5 CB, Rtx®-1, 007-1, BP1, MDN-1, AT™-1, ZB-1, OV-101
- Equivalent to USP phases G1/G2/G38

Column length	Ø Internal	Film thickness	Art. No.	Pack Qty.	€
10 m	0.10 mm	0.10 µm	**6077.1**	1 unit(s)	295,65
	0.25 mm		**6079.1**	1 unit(s)	246,20
		0.25 µm	**6081.1**	1 unit(s)	246,20
		0.50 µm	**6085.1**	1 unit(s)	246,20
	0.32 mm	0.10 µm	**6086.1**	1 unit(s)	256,95
		0.25 µm	**6087.1**	1 unit(s)	256,95
		0.50 µm	**6088.1**	1 unit(s)	256,95
		1.00 µm	**6095.1**	1 unit(s)	256,95
		5.00 µm	**6097.1**	1 unit(s)	256,95
	0.53 mm	1.00 µm	**6099.1**	1 unit(s)	306,40
		2.00 µm	**6100.1**	1 unit(s)	306,40
		5.00 µm	**6101.1**	1 unit(s)	303,15
12 m	0.20 mm	0.20 µm	**6103.1**	1 unit(s)	278,45
		0.35 µm	**6106.1**	1 unit(s)	278,45
15 m	0.53 mm	1.00 µm	**2849.1**	1 unit(s)	364,45
	0.32 mm	0.25 µm	**6074.1**	1 unit(s)	338,65
	0.25 mm	0.10 µm	**6107.1**	1 unit(s)	327,90
		0.25 µm	**6112.1**	1 unit(s)	327,90
	0.32 mm	1.00 µm	**6113.1**	1 unit(s)	338,65
20 m	0.10 mm	0.10 µm	**6125.1**	1 unit(s)	489,15
		0.40 µm	**6126.1**	1 unit(s)	489,15
25 m	0.20 mm	0.10 µm	**6127.1**	1 unit(s)	532,15
		0.20 µm	**6129.1**	1 unit(s)	532,15
		0.35 µm	**6130.1**	1 unit(s)	532,15
	0.25 mm	0.10 µm	**6131.1**	1 unit(s)	532,15
		0.25 µm	**6135.1**	1 unit(s)	532,15
		0.50 µm	**6137.1**	1 unit(s)	532,15
		1.00 µm	**6141.1**	1 unit(s)	532,15
	0.32 mm	0.10 µm	**6143.1**	1 unit(s)	564,40
		0.25 µm	**6148.1**	1 unit(s)	564,40
		0.35 µm	**6152.1**	1 unit(s)	564,40
		0.50 µm	**6154.1**	1 unit(s)	564,40
		1.00 µm	**6156.1**	1 unit(s)	564,40
		3.00 µm	**6157.1**	1 unit(s)	564,40
		5.00 µm	**6158.1**	1 unit(s)	564,40
	0.53 mm	0.50 µm	**6164.1**	1 unit(s)	654,70
		1.00 µm	**6165.1**	1 unit(s)	654,70
		2.00 µm	**6168.1**	1 unit(s)	654,70
		5.00 µm	**6172.1**	1 unit(s)	654,70
30 m	0.32 mm	0.25 µm	**1220.1**	1 unit(s)	564,40
	0.25 mm	0.10 µm	**1358.1**	1 unit(s)	532,15
		0.50 µm	**1362.1**	1 unit(s)	532,15
		1.00 µm	**1363.1**	1 unit(s)	564,40
	0.32 mm	0.10 µm	**1370.1**	1 unit(s)	564,40
		0.35 µm	**1371.1**	1 unit(s)	564,40
		0.50 µm	**1372.1**	1 unit(s)	564,40
		1.00 µm	**1373.1**	1 unit(s)	564,40
		3.00 µm	**1374.1**	1 unit(s)	564,40
		5.00 µm	**1375.1**	1 unit(s)	564,40
	0.53 mm	2.00 µm	**1376.1**	1 unit(s)	654,70
		5.00 µm	**1377.1**	1 unit(s)	654,70
		0.50 µm	**6180.1**	1 unit(s)	654,70
		1.00 µm	**6182.1**	1 unit(s)	654,70
	0.25 mm	0.25 µm	**CN10.1**	1 unit(s)	532,15
50 m	0.20 mm	0.20 µm	**6184.1**	1 unit(s)	876,15
		0.35 µm	**6185.1**	1 unit(s)	876,15
		0.50 µm	**6199.1**	1 unit(s)	876,15
	0.25 mm	0.25 µm	**6202.1**	1 unit(s)	876,15
		0.50 µm	**6204.1**	1 unit(s)	876,15
		1.00 µm	**6206.1**	1 unit(s)	876,15
	0.32 mm	0.10 µm	**6208.1**	1 unit(s)	940,65
		0.25 µm	**6209.1**	1 unit(s)	940,65
		0.35 µm	**6211.1**	1 unit(s)	940,65
		0.50 µm	**6214.1**	1 unit(s)	940,65
		1.00 µm	**6216.1**	1 unit(s)	940,65
		3.00 µm	**6218.1**	1 unit(s)	940,65
		5.00 µm	**6221.1**	1 unit(s)	940,65
	0.53 mm		**6222.1**	1 unit(s)	1.009,45
60 m	0.25 mm	0.25 µm	**1378.1**	1 unit(s)	919,15
	0.32 mm		**1379.1**	1 unit(s)	1.005,15
	0.25 mm	0.10 µm	**6223.1**	1 unit(s)	919,15
		0.50 µm	**6224.1**	1 unit(s)	919,15
		1.00 µm	**6226.1**	1 unit(s)	919,15
	0.32 mm	0.10 µm	**6227.1**	1 unit(s)	1.009,45
		0.35 µm	**6228.1**	1 unit(s)	1.009,45
		0.50 µm	**6234.1**	1 unit(s)	1.009,45
		1.00 µm	**6236.1**	1 unit(s)	1.009,45
		3.00 µm	**6237.1**	1 unit(s)	1.009,45

Pre-columns available on request



Each column is individually tested and supplied with test certificate and test chromatogramm. Columns have fused ends or are sealed with septa, to protect them from atmospheric oxygen. Ferrules or fittings are not included.

GC Capillary Columns ROTI®Cap-1 MS

100 % Dimethylpolysiloxane

- **Non-polar**
- Low column bleed
- Selectivity identical to -1
- **Working temperature limits:**
  340 °C for isothermic operation
  360 °C for short isothermes in a temperature programme
- **Application areas:** Ideal for GC-MS- and ECD applications and general analysis at trace level

Similar phases:

- Ultra 1, DB-1 MS, Rtx®-1 MS, HP-1 MS, Equity®-1, AT™-1 MS, VF-1 MS, CP-Sil 5 CB MS
- Equivalent to USP phases G1/G2/G38

Column length	Ø Internal	Film thickness	Art. No.	Pack Qty.	€
12 m	0.20 mm	0.35 µm	**6242.1**	1 unit(s)	317,15
15 m	0.25 mm	0.25 µm	**6243.1**	1 unit(s)	375,20
25 m	0.20 mm	0.20 µm	**6244.1**	1 unit(s)	611,70
30 m	0.32 mm	0.25 µm	**1381.1**	1 unit(s)	650,40
	0.25 mm		**CN14.1**	1 unit(s)	611,70
50 m	0.20 mm	0.20 µm	**6246.1**	1 unit(s)	994,40
60 m	0.25 mm	0.25 µm	**1382.1**	1 unit(s)	1.052,45
	0.32 mm		**6250.1**	1 unit(s)	1.166,40

GC Capillary Columns ROTI®Cap-5

5 % Phenyl – 95 % Methylpolysiloxane

- **Non-polar**
- Solvent rinsing applicable
- **Working temperature limits:**
  for columns with 0,10–0,32 mm inner diameter and films <3 µm:
  340 °C for isothermal operation
  360 °C for short isotherms in a temperatur programme
  for columns with 0,53 mm inner diameter and films <3 µm:
  320 °C for isothermal operation
  340 °C for short isotherms in a temperature programme
  for thick film columns with films ≥3 µm:
  300 °C for isothermal operation
  320 °C for short isotherms in a temperature programme
- **Application areas:** standard phase with large range of applications

Similar phases:

- SE-54, SE-52, HP-5, SPB®-5, CP-SIL 8, Rtx-5, 007-5, BP5, MDN-5, AT™-5, ZB-5
- Équivalent aux phases USP G27 / G36

Column length	Ø Internal	Film thickness	Art. No.	Pack Qty.	€
10 m	0.10 mm	0.10 µm	**6252.1**	1 unit(s)	295,65
	0.25 mm	0.25 µm	**6253.1**	1 unit(s)	246,20
	0.32 mm	0.10 µm	**6254.1**	1 unit(s)	256,95
	0.53 mm	0.50 µm	**6260.1**	1 unit(s)	306,40
		1.00 µm	**6266.1**	1 unit(s)	306,40
		2.00 µm	**6267.1**	1 unit(s)	306,40
		5.00 µm	**6268.1**	1 unit(s)	306,40
15 m		1.00 µm	**1231.1**	1 unit(s)	370,90
		0.50 µm	**6075.1**	1 unit(s)	349,40
	0.25 mm	0.25 µm	**6270.1**	1 unit(s)	327,90
	0.32 mm	0.10 µm	**6271.1**	1 unit(s)	338,65
		0.25 µm	**6273.1**	1 unit(s)	338,65
		1.00 µm	**6274.1**	1 unit(s)	338,65
		5.00 µm	**6275.1**	1 unit(s)	338,65

Column length	Ø Internal	Film thickness	Art. No.	Pack Qty.	€
25 m	0.20 mm	0.10 µm	**6277.1**	1 unit(s)	532,15
		0.20 µm	**6281.1**	1 unit(s)	532,15
		0.35 µm	**6282.1**	1 unit(s)	532,15
		0.50 µm	**6283.1**	1 unit(s)	532,15
	0.25 mm	0.10 µm	**6284.1**	1 unit(s)	532,15
		0.25 µm	**6285.1**	1 unit(s)	532,15
	0.53 mm	0.50 µm	**6289.1**	1 unit(s)	654,70
	0.25 mm		**6291.1**	1 unit(s)	532,15
		1.00 µm	**6292.1**	1 unit(s)	532,15
	0.32 mm	0.10 µm	**6293.1**	1 unit(s)	564,40
		0.25 µm	**6295.1**	1 unit(s)	564,40
		0.35 µm	**6296.1**	1 unit(s)	564,40
		0.50 µm	**6297.1**	1 unit(s)	564,40
		1.00 µm	**6298.1**	1 unit(s)	564,40
		3.00 µm	**6299.1**	1 unit(s)	564,40
		5.00 µm	**6302.1**	1 unit(s)	564,40
	0.53 mm	1.00 µm	**6303.1**	1 unit(s)	654,70
		2.00 µm	**6304.1**	1 unit(s)	654,70
		5.00 µm	**6305.1**	1 unit(s)	654,70
30 m	0.32 mm	0.25 µm	**1227.1**	1 unit(s)	564,40
	0.25 mm	0.10 µm	**1383.1**	1 unit(s)	532,15
		0.35 µm	**1384.1**	1 unit(s)	532,15
		0.50 µm	**1385.1**	1 unit(s)	532,15
		1.00 µm	**1386.1**	1 unit(s)	532,15
	0.32 mm	0.10 µm	**1387.1**	1 unit(s)	564,40
		0.35 µm	**1388.1**	1 unit(s)	564,40
		0.50 µm	**1389.1**	1 unit(s)	564,40
		1.00 µm	**1390.1**	1 unit(s)	564,40
		3.00 µm	**1402.1**	1 unit(s)	564,40
		5.00 µm	**1403.1**	1 unit(s)	564,40
	0.53 mm	1.00 µm	**1406.1**	1 unit(s)	654,70
		2.00 µm	**1434.1**	1 unit(s)	654,70
		5.00 µm	**1435.1**	1 unit(s)	654,70
		0.50 µm	**6306.1**	1 unit(s)	654,70
	0.25 mm	0.25 µm	**CN11.1**	1 unit(s)	532,15
50 m	0.20 mm	0.20 µm	**6307.1**	1 unit(s)	876,15
		0.35 µm	**6308.1**	1 unit(s)	876,15
		0.50 µm	**6312.1**	1 unit(s)	876,15
	0.25 mm	0.10 µm	**6313.1**	1 unit(s)	876,15
		0.25 µm	**6314.1**	1 unit(s)	876,15
		0.35 µm	**6316.1**	1 unit(s)	876,15
		0.50 µm	**6318.1**	1 unit(s)	876,15
		1.00 µm	**6319.1**	1 unit(s)	876,15
	0.32 mm	0.10 µm	**6320.1**	1 unit(s)	944,95
		0.25 µm	**6321.1**	1 unit(s)	944,95
		0.35 µm	**6322.1**	1 unit(s)	944,95
		0.50 µm	**6323.1**	1 unit(s)	944,95
		1.00 µm	**6324.1**	1 unit(s)	944,95
		3.00 µm	**6325.1**	1 unit(s)	944,95
		5.00 µm	**6326.1**	1 unit(s)	944,95
	0.53 mm	2.00 µm	**6328.1**	1 unit(s)	1.009,45
		5.00 µm	**6339.1**	1 unit(s)	1.009,45
60 m	0.25 mm	0.25 µm	**1436.1**	1 unit(s)	919,15
	0.32 mm		**1437.1**	1 unit(s)	1.009,45
	0.25 mm	0.10 µm	**6341.1**	1 unit(s)	919,15
		0.35 µm	**6343.1**	1 unit(s)	919,15
		0.50 µm	**6345.1**	1 unit(s)	919,15
		1.00 µm	**6346.1**	1 unit(s)	919,15
	0.32 mm	0.10 µm	**6347.1**	1 unit(s)	1.009,45
		0.35 µm	**6349.1**	1 unit(s)	1.009,45
		0.50 µm	**6353.1**	1 unit(s)	1.009,45
		1.00 µm	**6354.1**	1 unit(s)	1.009,45
		3.00 µm	**6355.1**	1 unit(s)	1.009,45
	0.53 mm	2.00 µm	**6357.1**	1 unit(s)	1.112,65

GC Capillary Columns ROTI®Cap-5 MS

5 % Diphenyl – 95 % Dimethylpolysiloxane

- **Non-polar**
- Low column bleed
- Selectivity identical to ROTI®Cap-5
- **Working temperature limits:**
  340 °C for isothermal operation
  360 °C for short isothermes in a temperature programme
- **Application areas:** ideal for GC-MS and ECD applications and general analysis at trace level

Similar phases:

- DB-5, DB-5 MS, HP-5 MS, Ultra-2, Equity™-5, CP-SIL 8 CB low bleed/MS, Rtx®-5SIL-MS, Rtx®-5 MS, Rxi®-5 MS, 007-5 MS, BPX™5, MDN-5S, AT™-5 MS, VF-5 MS
- Equivalent to USP phases G27/G36

Column length	Ø Internal	Film thickness	Art. No.	Pack Qty.	€
12 m	0.20 mm	0.20 µm	**6362.1**	1 unit(s)	317,15
		0.35 µm	**6363.1**	1 unit(s)	317,15
15 m	0.25 mm	0.25 µm	**6364.1**	1 unit(s)	381,65
25 m	0.20 mm	0.20 µm	**6369.1**	1 unit(s)	607,40
		0.35 µm	**6371.1**	1 unit(s)	607,40
	0.32 mm	1.00 µm	**6372.1**	1 unit(s)	650,40
30 m	0.25 mm	0.50 µm	**1438.1**	1 unit(s)	611,70
		1.00 µm	**1439.1**	1 unit(s)	611,70
	0.32 mm	0.25 µm	**1478.1**	1 unit(s)	650,40
		0.50 µm	**1492.1**	1 unit(s)	650,40
	0.25 mm	0.25 µm	**CN15.1**	1 unit(s)	611,70
50 m	0.20 mm	0.20 µm	**6373.1**	1 unit(s)	998,70
		0.35 µm	**6380.1**	1 unit(s)	998,70
	0.32 mm	1.00 µm	**6381.1**	1 unit(s)	1.080,40
60 m	0.25 mm	0.25 µm	**1509.1**	1 unit(s)	1.052,45
		0.50 µm	**1519.1**	1 unit(s)	1.052,45
	0.32 mm	1.00 µm	**6384.1**	1 unit(s)	1.166,40
	0.25 mm		**6727.1**	1 unit(s)	1.052,45

GC Capillary Columns ROTI®Cap-5 MS Ultra

Silarylene Phase

- **Non-polar**
- Polarity similar to a **5 % diphenyl – 95 % dimethylpolypropylene phase**
- **Extremely low column bleed**
- Solvent rinsing applicable for removing impurities
- **Working temperature limits:**
  340 °C for isothermal runs
  360 °C for short isothermal runs in a temperature programme
  for columns with film thickness >0,5 µm:
  320 °C for isothermal runs
  340 °C for short isothermal runs in a temerature programme
- **Application areas:** all-round phase for environmental analysis, trace analysis, EPA methods, pesticides, PCBs, food and drug analysis. Ideal for ion-trap and quadrupol detectors

Similar phases:

- DB-5 MS, HP-5 MS, Ultra-2, Equity™-5, CP-SIL 8 CB low bleed/MS, Rtx®-5SIL-MS, Rtx®-5 MS, Rxi®-5 MS, 007-5 MS, BPX™5, MDN-5S, AT™-5 MS, VF-5 MS
- Equivalent to USP phases G27/G36

Column length	Ø Internal	Film thickness	Art. No.	Pack Qty.	€
12 m	0.20 mm	0.35 µm	**6455.1**	1 unit(s)	439,70
15 m	0.25 mm	0.25 µm	**6456.1**	1 unit(s)	521,40
25 m	0.20 mm	0.20 µm	**6457.1**	1 unit(s)	768,65
	0.32 mm	1.00 µm	**6460.1**	1 unit(s)	826,70
30 m	0.25 mm	0.25 µm	**2959.1**	1 unit(s)	768,65
		0.50 µm	**2960.1**	1 unit(s)	768,65
		1.00 µm	**2961.1**	1 unit(s)	768,65
	0.32 mm	0.25 µm	**2962.1**	1 unit(s)	826,70
		0.50 µm	**2963.1**	1 unit(s)	826,70
50 m	0.20 mm	0.20 µm	**6462.1**	1 unit(s)	1.213,70
60 m	0.25 mm	0.25 µm	**2969.1**	1 unit(s)	1.392,15
	0.20 mm	0.35 µm	**6463.1**	1 unit(s)	1.213,70
	0.25 mm	0.50 µm	**6466.1**	1 unit(s)	1.288,95
		1.00 µm	**6467.1**	1 unit(s)	1.288,95
	0.32 mm	0.25 µm	**6468.1**	1 unit(s)	1.428,70
		1.00 µm	**6470.1**	1 unit(s)	1.428,70

GC Capillary Columns ROTI®Cap-5 HT

Silarylene Phase

- **Non-polar**
- Selectivity similar to a **5 % phenyl – 95 % methylpolysiloxane phase**
- Low column bleed
- Solvent rinsing applicable
- **Working temperature limits:**
  380 °C for isothermal operation
  400 °C for short isothermal operation in a temperature programme
- **Application areas:** simulated distillation, hydrocarbon, fuel, oil analysis, high boiling analytes, ideal for MS detectors

Similar phases:

- DB-5HT, VF-5HT, HT-5, XTI-5HT, ZB-5HT
- Equivalent to USP phases G27/G36

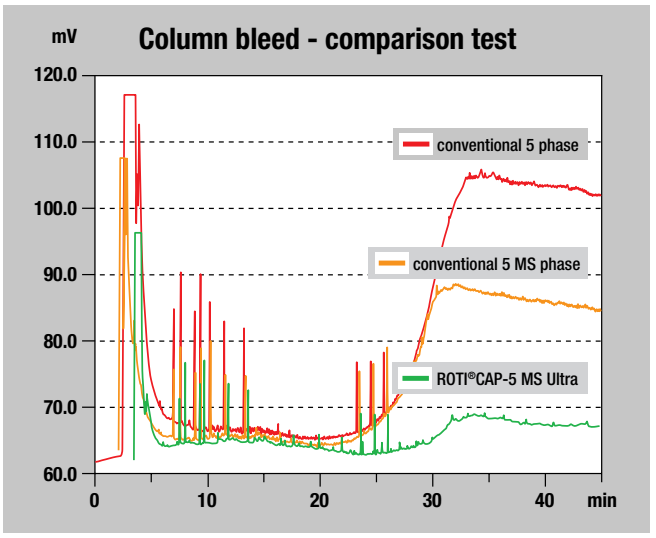


Fig.: The bleed comparison test of the **ROTI®CAP 5 MS Ultra** with a conventional 5 phase and 5 MS phase shows the outstanding performance of the silarylene phase.

Column length	Ø Internal	Film thickness	Art. No.	Pack Qty.	€
15 m	0.25 mm	0.10 µm	**3883.1**	1 unit(s)	381,65
	0.32 mm		**3884.1**	1 unit(s)	392,40
	0.25 mm	0.25 µm	**3885.1**	1 unit(s)	381,65
	0.32 mm		**3888.1**	1 unit(s)	392,40
30 m	0.25 mm	0.10 µm	**3889.1**	1 unit(s)	607,40
	0.32 mm		**3890.1**	1 unit(s)	650,40
	0.25 mm	0.25 µm	**3891.1**	1 unit(s)	611,70
	0.32 mm		**3892.1**	1 unit(s)	650,40

GC Capillary Columns ROTI®Cap-XLB

Silarylene phase with optimised silarylene content for lowest column bleed

- **Non-polar**
- Very low column bleed
- **Working temperature limits**:
  340 °C for isothermic operation
  360 °C for short isothermes in a temperature programme
- Ideal for ion trap and quadrupol analyzers
- Perfect inertness for basic compounds
- Solvent rinsing applicable for removing impurities
- **Application areas**: highly selective for environmental and trace analyses, pesticides
- Recommended for the separation of PCBs

Similar phases:

- DB-XLB, Rtx®-XLB, Rxi®-XLB, MDN-12, VF-XMS

Column length	Ø Internal	Film thickness	Art. No.	Pack Qty.	€
30 m	0.25 mm	0.25 µm	**3044.1**	1 unit(s)	762,20
60 m			**3046.1**	1 unit(s)	1.392,15

GC Capillary Columns ROTI®Cap-624

6 % Cyanopropylphenyl – 94 % Dimethylpolysiloxane

- **Medium polar**
- **Working temperature limits:**
  280 °C for isothermal operations
  300 °C for short isotherms in a temperature programme
- **Application areas:** recommended for environmental analysis

Similar phases:

- HP-624, HP-VOC, DB-624, DB-VRX, SBP®-624, CP-624, Rtx®-624, Rtx®-Volatiles, 007-624, BP624, VOCOL®
- Equivalent to USP phase G43

Column length	Ø Internal	Film thickness	Art. No.	Pack Qty.	€
25 m	0.20 mm	1.10 µm	**6393.1**	1 unit(s)	532,15
	0.25 mm	1.40 µm	**6398.1**	1 unit(s)	532,15
	0.32 mm	1.80 µm	**6400.1**	1 unit(s)	564,40
	0.53 mm	3.00 µm	**6401.1**	1 unit(s)	654,70
30 m	0.25 mm	1.40 µm	**1872.1**	1 unit(s)	532,15
	0.53 mm	3.00 µm	**1874.1**	1 unit(s)	654,70
	0.32 mm	1.80 µm	**CN16.1**	1 unit(s)	564,40
50 m	0.25 mm	1.40 µm	**6403.1**	1 unit(s)	876,15
	0.32 mm	1.80 µm	**6404.1**	1 unit(s)	944,95
60 m	0.25 mm	1.40 µm	**1875.1**	1 unit(s)	919,15
	0.32 mm	1.80 µm	**1876.1**	1 unit(s)	1.005,15

GC Capillary Columns ROTI®Cap-1701

14 % Cyanopropylphenyl – 86 % Dimethylpolysiloxane

- **Medium-polar**
- **Working temperature limits:**
  280 °C for isothermal runs
  300 °C for short isothermal runs in a temperature programme
- **Application areas:** reference column for structure determination, e.g. in combination with ROTI®Cap-5; columns with film thickness ≥1 µm are used for solvent analysis

Similar phases:

- OV-1701, DB-1701, CP Sil 19 CB, HP-1701, Rtx®-1701, SPB®-1701, 007-1701, BP10, ZB-1701
- Equivalent to USP phase G46

Column length	Ø Internal	Film thickness	Art. No.	Pack Qty.	€
10 m	0.25 mm	0.25 µm	**6406.1**	1 unit(s)	246,20
	0.32 mm		**6407.1**	1 unit(s)	256,95
	0.53 mm	1.00 µm	**6408.1**	1 unit(s)	306,40
15 m			**3698.1**	1 unit(s)	364,45
	0.25 mm	0.25 µm	**6409.1**	1 unit(s)	327,90
	0.32 mm		**6411.1**	1 unit(s)	338,65
	0.53 mm	2.00 µm	**6415.1**	1 unit(s)	370,90
25 m	0.20 mm	0.20 µm	**6417.1**	1 unit(s)	532,15
	0.25 mm	0.25 µm	**6419.1**	1 unit(s)	532,15
	0.32 mm		**6433.1**	1 unit(s)	564,40
		0.35 µm	**6434.1**	1 unit(s)	564,40
		0.50 µm	**6435.1**	1 unit(s)	564,40
		1.00 µm	**6436.1**	1 unit(s)	564,40
	0.53 mm		**6438.1**	1 unit(s)	654,70
		2.00 µm	**6440.1**	1 unit(s)	654,70
30 m	0.25 mm	0.25 µm	**3700.1**	1 unit(s)	532,15
		0.50 µm	**3703.1**	1 unit(s)	532,15
		1.00 µm	**3706.1**	1 unit(s)	532,15
	0.32 mm	0.25 µm	**3708.1**	1 unit(s)	564,40
		0.35 µm	**3709.1**	1 unit(s)	564,40
		0.50 µm	**3714.1**	1 unit(s)	564,40
		1.00 µm	**3715.1**	1 unit(s)	564,40
	0.53 mm		**3716.1**	1 unit(s)	654,70
		2.00 µm	**3717.1**	1 unit(s)	654,70
50 m	0.20 mm	0.20 µm	**6441.1**	1 unit(s)	876,15
	0.25 mm	0.25 µm	**6442.1**	1 unit(s)	876,15
	0.32 mm		**6443.1**	1 unit(s)	944,95
		0.35 µm	**6444.1**	1 unit(s)	944,95
		0.50 µm	**6446.1**	1 unit(s)	944,95
		1.00 µm	**6447.1**	1 unit(s)	944,95
	0.53 mm	2.00 µm	**6449.1**	1 unit(s)	1.009,45
60 m	0.25 mm	0.25 µm	**3724.1**	1 unit(s)	912,70
	0.32 mm		**3725.1**	1 unit(s)	1.005,15
	0.25 mm	0.50 µm	**6450.1**	1 unit(s)	919,15
	0.32 mm	0.35 µm	**6452.1**	1 unit(s)	1.009,45
		0.50 µm	**6453.1**	1 unit(s)	1.009,45
		1.00 µm	**6454.1**	1 unit(s)	1.009,45

GC Capillary Columns ROTI®Cap 1701-MS

Silarylene Phase

- **Medium polar**
- Silarylene phase with selectivity analogue to a **14 % cyanopropyl-phenyl – 86 % dimethyl polysiloxane**
- **Very low column bleed**
- **Working temperature limits:**
  280 °C for isothermal runs
  300 °C for short isothermal runs in a temperature programme
- **Application areas:** Reference column for structure determination, e.g., in combination with ROTI®Cap-5 MS; suitable for environmental analysis (e.g. PAHs, PCBs, pesticides)

Similar phases:

- VF-1701ms, TG-1701MS, OV-1701, DB-1701, HP-1701, Rtx®-1701, SPB®-1701, CP-Sil 19 CB, 007-1701, BP10, ZB-1701
- Equivalent to USP phase G46

Column length	Ø Internal	Film thickness	Art. No.	Pack Qty.	€
30 m	0.25 mm	0.25 µm	**8047.1**	1 unit(s)	611,70
		0.50 µm	**8050.1**	1 unit(s)	611,70
	0.32 mm	0.25 µm	**8052.1**	1 unit(s)	650,40
		0.50 µm	**8053.1**	1 unit(s)	650,40
60 m	0.25 mm	0.25 µm	**8067.1**	1 unit(s)	1.052,45
		0.50 µm	**8068.1**	1 unit(s)	1.052,45
	0.32 mm	0.25 µm	**8078.1**	1 unit(s)	1.166,40
		0.50 µm	**8080.1**	1 unit(s)	1.166,40

GC Capillary Columns ROTI®Cap-35 MS

Silarylene Phase

- **Medium polar**
- Selectivity analogue to
  35 % phenyl – 65 % methylpolysiloxane
- **Very low column bleeding**
- **Working temperature limits:**
  360 °C for isothermal runs
  370 °C for short isothermal runs in a temperature programme
- **Application areas:** Reference column in combination with a 1 MS or 5 MS (e.g. 1 MS or 5 MS) column; all-round phase for environmental analysis, ultra-trace analysis, EPA methods, pesticides, PCBs, food and drug analysis

Similar phases:

- DB-35 MS, HP-35, SPB®-35, Rtx®-35, 007-35, BPX35, MDN-35, AT™-35 MS, ZB-35, OV-11, VF-35 MS
- Equivalent to USP phase G42, close equivalent to USP phases G28/G32

Column length	Ø Internal	Art. No.	Pack Qty.	€
30 m	0.25 mm	**4794.1**	1 unit(s)	611,70
	0.32 mm	**4800.1**	1 unit(s)	650,40
60 m	0.25 mm	**4801.1**	1 unit(s)	1.052,45
	0.32 mm	**4802.1**	1 unit(s)	1.166,40

GC Capillary Columns ROTI®Cap-WAX

Polyethylene glycol 20000 dalton

- **Polar**
- **Working temperature limits:**
  for columns with 0,25–0,32 mm inner diameter:
  240 °C for isothermal operation
  250 °C for short isotherms in a temperatur programme
  for columns with 0,53 mm inner diameter:
  220 °C for isothermal operation
  240 °C for short isotherms in a temperature programme
- **Application areas:** recommended for solvent analysis and alcohols, suitable for aqueous solutions

Similar phases:

- DB-Wax, Supelcowax®, HP-Wax, HP-INNOWAX, Rtx®-Wax, CP-Wax 52 CB, Stabilwax®, 007-CW, BP20, AT-Wax, ZB-Wax
- Equivalent to USP phase G16

Column length	Ø Internal	Film thickness	Art. No.	Pack Qty.	€
25 m	0.25 mm	0.25 µm	**1531.1**	1 unit(s)	532,15
	0.32 mm		**1545.1**	1 unit(s)	564,40
		0.50 µm	**1546.1**	1 unit(s)	564,40
	0.53 mm	1.00 µm	**6386.1**	1 unit(s)	654,70
30 m	0.32 mm	0.50 µm	**1228.1**	1 unit(s)	564,40
		0.25 µm	**1618.1**	1 unit(s)	564,40
	0.53 mm	1.00 µm	**1651.1**	1 unit(s)	654,70
		2.00 µm	**1877.1**	1 unit(s)	654,70
50 m	0.25 mm	0.25 µm	**CN12.1**	1 unit(s)	532,15
			1882.1	1 unit(s)	876,15
	0.32 mm		**1918.1**	1 unit(s)	940,65
		0.50 µm	**6387.1**	1 unit(s)	944,95
60 m	0.25 mm	0.25 µm	**1925.1**	1 unit(s)	919,15
	0.32 mm		**1945.1**	1 unit(s)	1.005,15
		0.50 µm	**6388.1**	1 unit(s)	1.009,45

GC Capillary Columns ROTI®Cap-FFAP

Polyethylene glycol 2-nitroterephthalate

- **Polar**
- **Working temperature limits:**
  for columns with 0,10–0,32 mm inner diameter:
  250 °C for isothermal operation
  260 °C for short isotherms in a temperatur programme
  for columns with 0,53 mm inner diameter:
  220 °C for isothermal operation
  240 °C for short isotherms in a temperature programme
- **Application areas:** recommended for FAMEs, free carboxylic acids

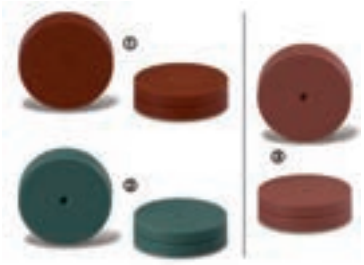
Similar phases:

- DB-FFAP, HP-FFAP, CP-Wax 58 FFAP CB, 007-FFAP, CP-FFAP CB, Nukol™,AT 1000, SPB®-1000, BP21, OV-351
- Equivalent to USP phase G35, close equivalent to G25

Column length	Ø Internal	Film thickness	Art. No.	Pack Qty.	€
10 m	0.10 mm	0.10 µm	**6390.1**	1 unit(s)	295,65
25 m	0.25 mm	0.25 µm	**1828.1**	1 unit(s)	532,15
	0.32 mm	0.50 µm	**1830.1**	1 unit(s)	564,40
	0.53 mm	1.00 µm	**1836.1**	1 unit(s)	654,70
30 m	0.32 mm	0.25 µm	**6391.1**	1 unit(s)	564,40
			1229.1	1 unit(s)	564,40
		0.50 µm	**1854.1**	1 unit(s)	564,40
	0.53 mm		**1856.1**	1 unit(s)	654,70
50 m	0.25 mm	0.25 µm	**CN13.1**	1 unit(s)	532,15
			1858.1	1 unit(s)	876,15
	0.32 mm	0.50 µm	**6392.1**	1 unit(s)	944,95
60 m		0.25 µm	**1860.1**	1 unit(s)	940,65
	0.25 mm		**1864.1**	1 unit(s)	919,15
	0.32 mm		**1866.1**	1 unit(s)	1.005,15

GC Accessories

Injection Port Septa



GC Septa CenterGuide™

Advantages:

- Produced individually using injection moulding procedure
- CenterGuide™ for centred needle guidance and thus perfect fit
- Precision indentations for perfect seat
- Special coating for easy replacement without fixed jaw on the injector
- Blister pack for clean and immediately usable septa

CenterGuide™ BTO Septa

For highest demand in GC and GC-MS

Type	Pack.	Art. No.	Pack Qty.	€
N 9	Blister	**9528.1**	25 unit(s)	54,00
N 11	Blister	**9529.1**	25 unit(s)	54,00
N 11.5	Blister	**9530.1**	25 unit(s)	54,00
Shimadzu Plug	Blister	**9532.1**	25 unit(s)	54,00

CenterGuide™ AG3 Septa

With higher durability than BTO

Type	Pack.	Art. No.	Pack Qty.	€
N 9	Blister	**9535.1**	25 unit(s)	50,65
N 11	Blister	**9537.1**	25 unit(s)	50,65
N 11.5	Blister	**9539.1**	25 unit(s)	50,65
Shimadzu Plug	Blister	**9542.1**	25 unit(s)	50,65

CenterGuide™ Marathon Septa

with extreme durability for >400 injections

Type	Pack.	Art. No.	Pack Qty.	€
N 9	Blister	**9873.1**	25 unit(s)	71,20
N 11	Blister	**9876.1**	25 unit(s)	71,20
N 11.5	Blister	**9877.1**	25 unit(s)	71,20
Shimadzu Plug	Blister	**9879.1**	25 unit(s)	71,20

Features

BTO Septa (1)	AG3 Septa (2)	Marathon Septa (3)
for highest demand inGC and GC-MS	with higher durability than BTO	with extreme durability for >400 injections
soft	pierced, hard	pierced
CenterGuide™	CenterGuide™	CenterGuide™

Selection guide for CenterGuide™ Septa

Manufacturer	GC instrument	Injector Type	Diameter of Septa
Agilent (HP)	5850, 5880A, 5890, 6850, 6890, 7890, PTV		11 mm
Thermo Scientific	TRACE GC Ultra and Focus, 8000 series	Large Volume Splitless Injector	11 mm
		Purged Packed Column Injector	11 mm
		Packed Column Injector	11 mm
Shimadzu	all instruments		Shimadzu Plug
Tracor	540		11.5 mm
Bruker, Varian	1177		9 mm
	1093, 1075, 1077, SPI, 1078, 1079		11.5 mm

Product name	Type	Art. No.	Pack Qty.	€
CenterGuide™ BTO Septa	N 9	**9528.1**	25 unit(s)	54,00
	N 11	**9529.1**	25 unit(s)	54,00
	N 11.5	**9530.1**	25 unit(s)	54,00
	Shimadzu Plug	**9532.1**	25 unit(s)	54,00
CenterGuide™ AG3 Septa	N 9	**9535.1**	25 unit(s)	50,65
	N 11	**9537.1**	25 unit(s)	50,65
	N 11.5	**9539.1**	25 unit(s)	50,65
	Shimadzu Plug	**9542.1**	25 unit(s)	50,65
CenterGuide™ Marathon Septa	N 9	**9873.1**	25 unit(s)	71,20
	N 11	**9876.1**	25 unit(s)	71,20
	N 11.5	**9877.1**	25 unit(s)	71,20
	Shimadzu Plug	**9879.1**	25 unit(s)	71,20



Diamond file for cutting of fused silica capillaries

Diamond file is used for cutting capillaries and smoothing ends of capillaries. Square capillary ends without protruding particles are especially important for butt connections (e.g., in Valco unions).

Designation	Art. No.	Pack Qty.	€
Diamond file	**1K2E.1**	1 unit(s)	88,30

► For reference substances for the GC see page 494

Derivatisation Reagents for GC

Derivatisation reagents are used mainly in gas chromatography when adequate volatility or stability of the substances to be separated is required. Detection sensitivity can also be increased through derivatisation.
Our range of derivatisation reagents is ideal for acylation, alkylation and silylation of reagents.



Reagents for Silylation

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
γ-Aminopropyltriethoxysilane (APTES)	≥98 %, for the GC	glass	**2328.1**	25 g	26,80
			2328.2	100 g	78,40
N,*O*-Bis(trimethylsilyl) acetamide (BSA)	≥98 %, for the GC	glass	**2330.1**	25 g	84,40
N,*O*-Bis(trimethylsilyl)-trifluoroacetamide	≥98 %, for the GC	glass	**2331.1**	10 g	46,15
N,*O*-Bis(trimethylsilyl)-trifluoroacetamide with 1 % trimethylchlorosilane	for the GC	septum bottle	**9935.1**	10 ml	92,35
1,1,1,3,3,3-Hexamethyldisilazane (HMDS)	≥98 %, for the GC	glass	**3840.3**	10 ml	16,70
			3840.1	50 ml	22,50
			3840.2	250 ml	47,20
			3840.5	500 ml	64,40
			3840.4	1 l	112,90
N-Methyl-*N*-(trimethylsilyl)-trifluoroacetamide (MSTFA)	≥99 %, for the GC	septum bottle	**9933.1**	10 ml	116,10
	≥97 %, for the GC	glass	**8007.1**	5 g	66,55
Trimethylchlorosilane (TMCS)	≥99 %, for the GC	glass	**2338.1**	25 g	61,85
N-(Trimethylsilyl)-diethylamine (TMSDEA)	≥98 %, for the GC	glass	**0013.1**	25 g	169,35
N-(Trimethylsilyl)-imidazole (TSIM)	≥98 %, for the GC	glass	**0012.1**	10 g	53,25

For additional product data and safety information, see chapter Chemicals A–Z.

Reagents for Acylation

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Heptafluorobutyric acid anhydride (HFBA)	≥98 %, for the GC	glass	**0026.1**	5 g	111,30
Trifluoroacetic anhydride (TFAA)	≥99 %, for the GC	glass	**0027.1**	100 g	117,20

For additional product data and safety information, see chapter Chemicals A–Z.

Reagents for Alkylation/Methylation

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
N,*N*-Dimethylformamide dimethyl acetal (DMF-DMA)	≥98 %, for the GC	glass	**6870.1**	5 ml	28,95
			6870.2	25 ml	45,05
			6870.3	100 ml	149,45
			6870.4	500 ml	542,90
Trimethylsulfonium hydroxide in methanol	~0,2 M, GC	septum bottle	**9934.1**	10 ml	152,65

For additional product data and safety information, see chapter Chemicals A–Z.

Septum bottle: Aluminium seal with PTFE-lined rubber disc (septum). The pierced septum is no longer absolutely air-tight, therefore we suggest to use up the content as quickly as possible and keep the vial standing upright. Otherwise the reagents come in contact with the rubber which results in their contamination to the point of making them useless.

Solvents for MOSH/MOAH Analysis

For identifying petroleum-derived saturated and aromatic hydrocarbons.



The analysis and quantitative identification of MOSH/MOAH constituents is performed as a sum parameter. The sample is extracted using *n*-hexane and verified using coupled liquid chromatography-gas chromatography.
MOSH: Mineral oil saturated hydrocarbons (paraffins and naphthenes)
MOAH: Mineral oil aromatic hydrocarbons (mono- or polyaromatic rings)

n-Hexane

ROTISOLV® ≥99 %, MOSH/MOAH

Suitable for MOSH/MOAH analysis.

C_6H_{14} · M 86,18 g/mol

UN no. 1208 · ADR 3 II · WGK 2

Danger H225-H304-H315-H336-H361f-H373-H411

Art. No.	Pack Qty.	Pack.	€
0840.1	2.5 l	glass	160,20
Original pack 4 x 2.5 l			152,19/2.5 l

Dichloromethane

ROTISOLV® ≥99,9 %, MOSH/MOAH

Suitable for MOSH/MOAH analysis

CH_2Cl_2 · M 84,93 g/mol

UN no. 1593 · ADR 6.1 III · WGK 2

Warning H315-H319-H336-H351

Art. No.	Pack Qty.	Pack.	€
0770.1	2.5 l	glass	124,60
Original pack 4 x 2.5 l			118,37/2.5 l

ROTISOLV® GC Ultra Grade Solvents

for gaschromatographic and residue analysis



In order to monitor and analyse environmentally relevant substances such as pesticides, dioxins, furans, PAH, PCB etc. in trace analysis, solvents with exceedingly high purity specifications are required. Carl ROTH's ROTISOLV® GC Ultra Grade solvents have been developed specially for this application area and are produced with the most sophisticated production processes. Extensive quality checks guarantee the same high-grade quality from batch to batch.

Properties:

- Highest purity
- Very low water content
- Non-volatile matter less than 2 ppm
- Quality control by means of ECD and NPD
- PAH-test
- Filtered through 0,2 µm membrane
- Bottled under protective gas

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Acetic acid ethyl ester	≥99,9 %, GC Ultra Grade	glass	**KK42.1**	2.5 l	98,80
Acetone	≥99,9 %, GC Ultra Grade	glass	**KK40.1**	2.5 l	88,70
Cyclohexane	≥99,9 %, GC Ultra Grade	glass	**KK41.1**	2.5 l	117,75
Dichloro-methane	≥99,9 %, GC Ultra Grade	glass	**KK47.1**	2.5 l	91,30
n-Hexane	≥95 %, GC Ultra Grade	glass	**KK48.1**	2.5 l	138,70
Methanol	≥99,9 %, GC Ultra Grade	glass	**KK44.1**	2.5 l	66,15
n-Pentane	≥99 %, GC Ultra Grade	glass	**KK45.1**	2.5 l	270,40
Toluene	≥99,8 %, GC Ultra Grade	glass	**KK46.1**	2.5 l	99,45

For additional product data and safety information, see chapter Chemicals A–Z.

Safety data sheets
can be found on the Internet next to the product description.

ROTISOLV® Pestilyse® plus Solvents

for determination of dioxines, furanes, PCBs, pesticides, hydrocarbons and further pollutants



Carl ROTH created this product line (ROTISOLV® Pestilyse® plus) especially to address the growing requirements in residue analysis. Several relevant parameters are specified for these solvents which allow the use in various applications. With this product line, Carl ROTH sets the benchmark for residue analysis solvents in terms of purity and quality.

Properties:

- Highest purity
- Controlled by FID, ECD and NP
- PAH tested
- Tested for hydrocarbons C_{14}-C_{40}
- Tested for fluorescence
- Volatile impurities: max. 5 ppm
- Non-volatile impurities: max. 5 ppm

Product name	Purity	Art. No.	Pack Qty.	€
Acetic acid ethyl ester	≥99,9 %	**7565.1**	2.5 l	94,50
Acetone	≥99,9 %	**7535.1**	2.5 l	78,40
Acetonitrile	≥99,9 %	**1HP5.1**	2.5 l	142,45
Cyclohexane	≥99,9 %	**7542.1**	2.5 l	118,80
Dichloromethane	≥99,9 %	**7562.1**	2.5 l	99,45
Ethanol	≥99,9 %	**1HP6.1**	2.5 l	223,10
n-Heptane	≥99 %	**7566.1**	2.5 l	141,40
n-Hexane	≥99 %	**7573.1**	2.5 l	163,95
	≥96 %	**7567.1**	2.5 l	133,85
Isooctane	≥99,7 %	**7580.1**	2.5 l	149,45
Methanol	≥99,9 %	**7583.1**	2.5 l	56,90
n-Pentane	≥99 %	**7587.1**	2.5 l	160,20
Petroleum ether 40–60 °C		**7588.1**	2.5 l	96,25
2-Propanol	≥99,9 %	**7590.1**	2.5 l	73,00
Tetrahydrofuran	≥99,9 % unstabilised	**1K09.1**	2.5 l	224,70
Toluene	≥99,8 %	**7591.1**	2.5 l	85,90
Trichloromethane/ Chloroform	≥99,9 %	**7554.1**	2.5 l	101,60

For additional product data and safety information, see chapter Chemicals A–Z.

ROTISOLV® Pestilyse® Solvents

for residue and environmental analysis



Field of application: 'Pesticide Residue Analysis' (via ECD, PND detection) in sectors environment, foodstuff, water, etc. ROTISOLV® Pestilyse® solvents are ideal as extraction agents and for sample preparation.

Properties:

- Highest purity
- Quality control via ECD and PND
- Non-volatile parts: 5 ppm or less
- Specially purified for application in pesticide residue analysis

Product name	Purity	Art. No.	Pack Qty.	€
Acetic acid ethyl ester	≥99,8 %	**T164.2**	1 l	38,60
		T164.1	2.5 l	83,75
		T164.3	4 l	115,60
Acetone	≥99,8 %	**T161.2**	1 l	37,10
		T161.1	2.5 l	71,50
		T161.3	4 l	99,45
Acetonitrile	≥99,9 %	**T168.1**	2.5 l	102,70
		T168.3	4 l	154,30
Cyclohexane	≥99,5 %	**T163.2**	1 l	46,15
		T163.1	2.5 l	101,60
		T163.3	4 l	134,95
Dichloromethane	≥99,8 %	**T162.2**	1 l	44,65
		T162.1	2.5 l	91,30
		T162.3	4 l	120,95
Diethyl ether	≥99,8 %, stabilised	**T900.1**	2.5 l	107,40
n-Heptane	≥99 %	**X878.1**	2.5 l	127,95
n-Hexane	≥99 %	**T861.2**	1 l	64,40
		T861.1	2.5 l	152,15
	≥97,5 %	**T165.2**	1 l	55,80
		T165.1	2.5 l	126,35
		T165.3	4 l	149,45
Isohexane	≥99 %	**T904.1**	2.5 l	123,65
Isooctane	≥99,5 %	**T167.1**	2.5 l	142,45
Methanol	≥99,9 %	**T169.2**	1 l	30,65
		T169.1	2.5 l	42,90
		T169.3	4 l	64,00
n-Pentane	≥99 %	**T903.2**	1 l	66,15
		T903.1	2.5 l	131,70
Petroleum ether 40–60 °C		**T170.2**	1 l	44,65
		T170.1	2.5 l	88,70
		T170.3	4 l	125,25
2-Propanol	≥99,8 %	**T902.1**	2.5 l	71,50
Toluene	≥99,8 %	**T166.2**	1 l	42,90
		T166.1	2.5 l	77,95
		T166.3	4 l	117,20
Trichloromethane/ Chloroform	≥99,8 %	**T901.1**	2.5 l	98,80
Water		**T905.1**	2.5 l	64,40

For additional product data and safety information, see chapter Chemicals A–Z.

ROTISOLV® Headspace Grade Solvents

for analyses of organic volatile impurities (O.V.I.)



Headspace gas chromatography is a major quality control procedure particularly in the pharmaceutical and food industry. The regulations for this method can be found both in the European as well as the American Pharmacopoeia.
High-boiling solvents of excellent purity, which show no background due to organic volatile impurities on the GC-column, are required for determining solvent residue.

Properties:

- Highest purity (mostly ≥99,99 %)
- High boiling point
- Non volatile matter: ≤0,001 %
- Tested for headspace suitability
- Bottled under protective gas
- Microfiltered

Product name	Purity	Art. No.	Pack Qty.	€
N,*N*-Dimethylacetamide (DMA)	≥99,99 %, Headspace Grade	**HN45.1**	1 l	327,90
N,*N*-Dimethylformamide (DMF)	≥99,99 %, Headspace Grade	**HN46.1**	1 l	309,10
1,3-Dimethyl-2-imidazolidinone (DMI)	≥99,5 %, Headspace Grade	**HN48.1**	500 ml	1.177,15
Dimethyl sulphoxide (DMSO)	≥99,99 %, Headspace Grade	**HN47.1**	1 l	327,90

For additional product data and safety information, see chapter Chemicals A–Z.

► Headspace vials ROTILABO® with beaded rim ND20 and Crimp caps ROTILABO® ND20 Headspace with borehole see www.carlroth.com

All products for your chromatography lab you can also find in our webshop!



www.carlroth.com/Chromatographie

Thin Layer Chromatography (TLC)

Although the principle of thin-layer chromatography is more than a century old, it did not make its breakthrough as an analytical method until about 50 years ago.
Thanks to the development of new sorbents and supports, as well as increasing instrumentation and automation, TLC has become a versatile separation method. It is used both in qualitative analysis and in quantitative analysis.
Applications range from simple manual separation processes in classic TLC to automated processes in HPTLC (high performance thin layer chromatography).
Advantages of thin layer chromatography:

- Higher sample throughput in less time
- Suitable for screening tests
- Pilot process for HPLC
- The ready-to-use TLC layer functions as a data storage device for separation results
- The separated substances can be used later for further analysis (e.g. IR, MS)
- By switching the mobile and the stationary phases, the separation process can be optimised quickly and cost-efficient

TLC Plates ROTI®ChromaPlate with Standard Silica Gel 60

Optimum adhesion of silica gel to the plate by using a highly resistant polymer-based binder (resistant to water and organic solvents and dyeing reagents).

- Specific surface: approx. 500 m^2/g
- Medium pore width: 60 Å
- Specific pore volume: 0,75 ml/g
- Particle size: 5–17 µm



Properties:

- Reproducibly good separation performance due to complete wettability with organic and aqueous solvents.
- Mechanical cutting without cracks or chipping of silica gel.

NEW/+

Made in Germany

TLC Plates ROTI®ChromaPlate Alu 60 UV

Material: Aluminium sheet with silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Pack.	Art. No.	Pack Qty.	€
4 x 8	0.2		**1A19.1**	40 unit(s)	30,65
4 x 8	0.2	Big Pack, 10 x 40 units	**1A19.2**	400 unit(s)	284,90
20 x 20	0.2		**1A18.1**	20 unit(s)	102,05

NEW/+

Made in Germany

TLC Plates ROTI®ChromaPlate Poly 60 UV

Material: Polyester sheet with silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Pack.	Art. No.	Pack Qty.	€
4 x 8	0.2		**1A17.1**	40 unit(s)	30,65
4 x 8	0.2	Big Pack, 10 x 40 units	**1A17.2**	400 unit(s)	284,90
20 x 20	0.2		**1A16.1**	20 unit(s)	102,05

► For reference substances for the TLC see page 493

TLC Plates by Macherey Nagel



Layers for TLC at a glance

Code	Layer	Recommended application(s)
Standard silica		
ADAMANT	silica 60 with improved binder system and optimised particle size distribution	Anthrachinone dyes, Barbiturates, Flavonoids, Normal phase (NP), Pain killers, Trace analysis, Vitamins
SIL G	silica 60, standard grade	Aflatoxins, Alkaloids, Amines, Amino acids, Analgetics, Antibiotics, Hormones, Marihuana compounds, Normal phase (NP), Patulin, Standard TLC applications, Steroids, Sweeteners, Vitamins
Unmodified silica for HPTLC		
Nano-SIL	nano silica 60, particle size 2–10 µm, standard grade	Aflatoxins, Alkaloids, Amines, Amino acids, Analgetics, Antibiotics, Hormones, Marihuana compounds, Normal phase (NP), Patulin, Steroids, Sweeteners, Vitamins
Modified silica for TLC/HPTLC		
Nano-SIL DIOL	diol-modified nano silica	steroids, pesticides and plant constituents; for critical separations an alternative to silica, since it is less sensitive to the water content of the environment; leads to more reproducible results compared to silica.
Nano-SIL NH_2	amino-modified nano silica	vitamins, sugars, steroids, purine derivatives, xanthines, phenols, nucleotides and pesticides
Nano-SIL CN	cyano-modified nano silica	steroid hormones, phenols, preservatives
RP-2 / UV_{254}	silanised silica = dimethyl-modified silica 60	plant constituents, steroids
R-18 W/UV_{254}	nano silica with partial octadecyl modification, wetable with water	aminophenols, barbiturates, preservatives, nucleobases, PAHs, steroids, tetracyclines, phthalates
Aluminium oxide		
ALOX N	aluminium oxide	terpenes, alkaloids, steroids, aliphatic and aromatic compounds
Cellulose		
CEL 300	native fibrous cellulose MN 300	partition chromatography of polar substances such as amino acids, carboxylic acids or carbohydrates
CEL 400	microcrystalline cellulose MN 400 (AVICEL®)	carboxylic acids, lower alcohols, urea and purine derivatives

Supports for TLC layers

Physical/chemical properties	Glass plates	POLYGRAM® Polyester foils	ALUGRAM®/ALUGRAM® XTRA Aluminium foils
Thickness	~1,3 mm	~0,2 mm	~0,15 mm
Torsional stability	ideal	low	relatively high
Temperature stability	high	max. 185 °C	high
Can be cut with scissors	no	yes	yes
Resistance to solvents	high	high	high
Resistance to mineral acids and concentrated ammonia	high	high	low
Suitable for aqueous tracing reagents	depending on phase	ideally suited	ALUGRAM®: limited, ALUGRAM® Xtra: ideally suited

TLC Plates with Standard Silica Gel 60

- Specific surface: approx. 500 m²/g
- Medium pore width: 60 Å
- Specific pore volume: 0,75 ml/g
- Particle size: 5–17 µm

TLC Plates ADAMANT

Macherey-Nagel. Material: Glass plate with silica gel 60.

With improved binder system and optimised grain distribution.

Properties:

- Outstanding hardness and abrasion resistance due to an optimised binder system
- Increased separation efficiency due to an optimised particle size distribution
- High suitability for trace analysis resulting from an UV indicator with increased brilliance and a low noise background of the layer

Plate format (cm)	Art. No.	Pack Qty.	€
5 x 10	**N086.1**	50 unit(s)	141,90
10 x 10	**N087.1**	25 unit(s)	78,50
20 x 20	**N088.1**	25 unit(s)	184,90

TLC Plates ADAMANT UV_{254}

Macherey-Nagel. Material: Glass plate with silica gel 60, with fluorescence indicator.

With improved binder system and optimised grain distribution.

Properties:

- Outstanding hardness and abrasion resistance due to an optimised binder system
- Increased separation efficiency due to an optimised particle size distribution
- High suitability for trace analysis resulting from an UV indicator with increased brilliance and a low noise background of the layer

Plate format (cm)	Pack.	Art. No.	Pack Qty.	€
5 x 10		**N089.1**	50 unit(s)	141,90
5 x 10	Big Pack, 4 x 50 units	**N089.2**	200 unit(s)	307,45
5 x 20		**N090.1**	100 unit(s)	235,45
10 x 10		**N091.1**	25 unit(s)	78,50
10 x 20		**N092.1**	50 unit(s)	207,50
20 x 20		**N093.1**	25 unit(s)	184,90

TLC Plates SIL G-25

Macherey-Nagel. Material: Glass plate with silica gel 60.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
5 x 10	0.25	**K795.1**	50 unit(s)	141,90
5 x 20	0.25	**K796.1**	100 unit(s)	235,45
10 x 20	0.25	**K797.1**	50 unit(s)	207,50
20 x 20	0.25	**K798.1**	25 unit(s)	184,90

TLC Plates SIL G-25 / UV_{254}

Macherey-Nagel. Material: Glass plate with silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
5 x 10	0.25	**K799.1**	50 unit(s)	141,90
5 x 20	0.25	**K800.1**	100 unit(s)	235,45
10 x 10	0.25	**K801.1**	25 unit(s)	78,50
10 x 20	0.25	**K802.1**	50 unit(s)	207,50
20 x 20	0.25	**K803.1**	25 unit(s)	184,90

► Silica gel 60 types for in-house production of DC panels see page 535

TLC Plates ALUGRAM® SIL G

Macherey-Nagel. Material: Aluminium sheet with silica gel 60.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
5 x 10	0.2	**N726.1**	50 unit(s)	60,35
5 x 20	0.2	**N727.1**	50 unit(s)	79,55
20 x 20	0.2	**N728.1**	25 unit(s)	145,15

TLC Plates ALUGRAM® SIL G / UV_{254}

Macherey-Nagel. Material: Aluminium sheet with silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thick-ness (mm)	Pack.	Art. No.	Pack Qty.	€
4 x 8	0.2		**N729.1**	50 unit(s)	39,70
4 x 8	0.2	Big Pack, 4 x 50 units	**N729.2**	200 unit(s)	149,45
5 x 7,5	0.2		**1334.1**	20 unit(s)	26,25
5 x 10	0.2		**N730.1**	50 unit(s)	60,35
10 x 20	0.2		**N731.1**	20 unit(s)	69,80
20 x 20	0.2		**N732.1**	25 unit(s)	145,15

TLC Plates POLYGRAM® SIL G

Macherey-Nagel. Material: Polyester sheet with silica gel 60.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
4 x 8	0.2	**N733.1**	50 unit(s)	39,70
5 x 20	0.2	**N734.1**	50 unit(s)	79,55
20 x 20	0.2	**N735.1**	25 unit(s)	145,15

TLC Plates POLYGRAM® SIL G / UV_{254}

Macherey-Nagel. Material: Polyester sheet with silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thick-ness (mm)	Pack.	Art. No.	Pack Qty.	€
4 x 8	0.2		**0816.1**	50 unit(s)	39,70
4 x 8	0.2	Big Pack, 4 x 50 units	**0816.2**	200 unit(s)	146,20
5 x 20	0.2		**N736.1**	50 unit(s)	79,55
20 x 20	0.2		**N737.1**	25 unit(s)	145,15

TLC Plates ALUGRAM® Xtra SIL G

Macherey-Nagel. Material: Aluminium sheet with silica gel 60.

Silica gel 60
Improved binder system for enhanced cutting and wettability.

The ready-to-use foils are produced with a special, highly polymeric binder, which is resistant towards almost all organic solvents and aggressive visualisation reagents. It is also completely stable in pure aqueous eluents.

Properties:

- Easy cutting of foils, **no flaking of silica**
- Outstanding wettability, precise colourisation even with 100 % aqueous eluents
- Excellent separation efficiency and reproducibility from lot to lot

Plate format (cm)	Art. No.	Pack Qty.	€
5 x 7,5	**3868.1**	20 unit(s)	26,25
5 x 10	**3869.1**	50 unit(s)	60,35
5 x 20	**3871.1**	50 unit(s)	79,55
20 x 20	**3873.1**	25 unit(s)	145,15

TLC Plates ALUGRAM® Xtra SIL G / UV_{254}

Macherey-Nagel. Material: Aluminium sheet with silica gel 60, with fluorescence indicator.

Silica gel 60
Improved binder system for enhanced cutting and wettability.

The ready-to-use foils are produced with a special, highly polymeric binder, which is resistant towards almost all organic solvents and aggressive visualisation reagents. It is also completely stable in pure aqueous eluents.

Properties:

- Easy cutting of foils, **no flaking of silica**
- Outstanding wettability, precise colourisation even with 100 % aqueous eluents
- Excellent separation efficiency and reproducibility from lot to lot

Plate format (cm)	Art. No.	Pack Qty.	€
4 x 8	**3874.1**	50 unit(s)	39,70
5 x 7,5	**3875.1**	20 unit(s)	26,25
5 x 10	**3876.1**	50 unit(s)	60,35
5 x 20	**3877.1**	50 unit(s)	79,55
10 x 20	**3878.1**	20 unit(s)	69,80
20 x 20	**3879.1**	25 unit(s)	145,15



TLC Plates for Preparative Applications with Standard Silica Gel 60

These TLC plates are particularly suitable for separating larger sample amounts due to the layer thickness of 1 mm and 2 mm respectively.

- Specific surface: approx. 500 m^2/g
- Medium pore width: 60 Å
- Specific pore volume: 0,75 ml/g
- Particle size: 5–17 µm

TLC Plates SIL G-100 for Preparative Applications

Macherey-Nagel. Material: Glass plate with silica gel 60.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
20 x 20	1.00	**3375.1**	15 unit(s)	254,80

TLC Plates SIL G-100 / UV_{254} for Preparative Applications

Macherey-Nagel. Material: Glass plate with silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
20 x 20	1.00	**3377.1**	15 unit(s)	254,80

TLC Plates SIL G-200 for Preparative Applications

Macherey-Nagel. Material: Glass plate with silica gel 60.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
20 x 20	2.00	**CN40.1**	12 unit(s)	275,20

TLC Plates SIL G-200 / UV_{254} for Preparative Applications

Macherey-Nagel. Material: Glass plate with silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
20 x 20	2.00	**CN41.1**	12 unit(s)	275,20

HPTLC Plates with Nano Silica Gel

HPTLC Plates with Nano Silica Gel

Nano silica gel:

- Specific surface: approx. 500 m^2/g
- Medium pore width: 60 Å
- Specific pore volume: 0,75 ml/g
- Particle size: 2–10 µm

Advantages over the standard plates:

- Higher separation effect
- Shorter separation times and distances
- Smaller sample amounts of 0.01–0.1 µl (10–100 nanolitre)
- Lower diffusion due to extremely small amounts
- Higher detection sensitivity

HPTLC Plates Nano-SIL-20 with Nano Silica Gel

Material: Glass plate with nano silica gel 60.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
5 x 5	0.20	**N080.1**	100 unit(s)	246,20
10 x 10	0.20	**N081.1**	25 unit(s)	188,15
10 x 20	0.20	**N082.1**	50 unit(s)	441,85

HPTLC Plates Nano-SIL-20 / UV_{254} with Nano Silica Gel

Material: Glass with nano silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
5 x 5	0.20	**N083.1**	100 unit(s)	246,20
10 x 10	0.20	**N084.1**	25 unit(s)	188,15
10 x 20	0.20	**N085.1**	50 unit(s)	441,85

HPTLC Plates ALUGRAM® Nano-SIL G with Nano Silica Gel

Material: Aluminium sheet with nano silica gel 60.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
5 x 20	0.20	**AE82.1**	50 unit(s)	158,05
20 x 20	0.20	**AE83.1**	25 unit(s)	268,75

HPTLC Plates ALUGRAM® Nano-SIL G / UV_{254} with Nano Silica Gel

Material: Aluminium sheet with nano silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
5 x 20	0.20	**AE84.1**	50 unit(s)	158,05
20 x 20	0.20	**AE85.1**	25 unit(s)	268,75

HPTLC Plates ALUGRAM® Xtra Nano-SIL G with Nano Silica Gel

Material: Aluminium sheet with nano silica gel 60.

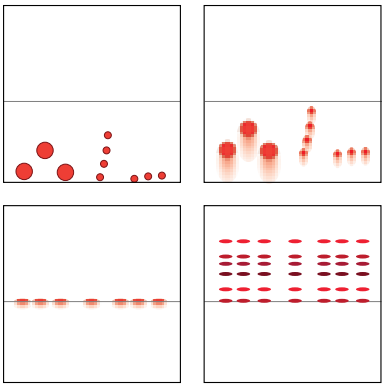
Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
5 x 20	0.20	**3863.1**	50 unit(s)	158,05
20 x 20	0.20	**3895.1**	25 unit(s)	268,75

HPTLC Plates ALUGRAM® Xtra Nano-SIL G / UV_{254} with Nano Silica Gel

Material: Aluminium sheet with nano silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
5 x 20	0.20	**3952.1**	50 unit(s)	158,05
20 x 20	0.20	**3988.1**	25 unit(s)	268,75

TLC / HPTLC Plates with Concentration Zone



Concentrating zone as “rapid application zone” – quantitative evaluation of chromatograms is possible, even if samples applied irregular.

- better resolution due to focused bands
- excellent separation performance
- easier handling
- time saving during analysis

Diatomaceous earth zone for rapid sample application: because diatomaceous earth is completely inert towards a large number of compounds, the samples form a narrow band at the interface of the two adsorbents, irrespective of shape, size or position of the spots in the concentrating zone. The sample concentrates within seconds as a narrow band at the interface of the two adsorbents. Separation then takes place in the silica layer.

TLC Plates ALUGRAM® Xtra SILGUR / UV_{254} with Standard Silica Gel 60 and concentration zone

Macherey-Nagel. Material: Aluminium sheet with silica gel 60, with fluorescence indicator.

Plate format (cm)	Art. No.	Pack Qty.	€
10 x 20	**1HAK.1**	20 unit(s)	78,50
20 x 20	**1HAL.1**	25 unit(s)	151,60

HPTLC Plates ALUGRAM® Xtra Nano-SILGUR / UV_{254} with Nano Silica Gel and concentration zone

Material: Aluminium sheet with nano silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
10 x 10	0.20	**1HAH.1**	25 unit(s)	235,45

► For comparative substances for the TLC see page 493

TLC / HPTLC Plates with Modified Silica Gel

Order of polarity:
silica > DIOL > NH_2 > CN > RP-2 > RP-18 W

HPTLC Plates – diol-modified

Diol modification
Carbon content 5,5 %

Order of polarity:
silica > **DIOL** > NH_2 > CN > RP-2 > RP-18 W

Layer can be equally well wetted by pure water and organic solvents, respectively.
Tip: for critical separations an alternative to silica, since it is less sensitive to the water content of the environment; leads to more reproducible results compared to silica.

HPTLC Plates Nano-SIL DIOL / UV_{254} – diol-modified

Macherey-Nagel. Material: Glass plate with diol-modified nano silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
10 x 10	0.20	**4699.1**	25 unit(s)	374,10

HPTLC Plates – amino-modified

Aminopropyl modification
Carbon content 3,5 %

- pH stability: 2–8
- Layer can be equally well wetted by pure water and organic solvents, respectively.

Order of polarity:
silica > DIOL > **NH_2** > CN > RP-2 > RP-18 W

HPTLC Plates Nano-SIL NH_2 – amino-modified

Macherey-Nagel. Material: Glass plate with amino-modified nano silica gel 60.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
10 x 10	0.20	**3500.1**	25 unit(s)	374,10

HPTLC Plates Nano-SIL NH_2 / UV_{254} – amino-modified

Macherey-Nagel. Material: Glass plate with amino-modified nano silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
10 x 10	0.20	**3652.1**	25 unit(s)	374,10
10 x 20	0.20	**3660.1**	25 unit(s)	569,75

HPTLC Plates ALUGRAM® Nano-SIL NH2 / UV_{254} – amino-modified

Macherey-Nagel. Material: Aluminium sheet with amino-modified nano silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
4 x 8	0.15	**3723.1**	50 unit(s)	210,70
20 x 20	0.15	**3767.1**	25 unit(s)	569,75

HPTLC Plates – cyano-modified

Cyanopropyl modification
Carbon content 5,5 %

Order of polarity:
silica > DIOL > NH_2 > **CN** > RP-2 > RP-18 W

Normal phase or reversed phase separation modes depending on the polarity of the developing solvent

HPTLC Plates Nano-SIL CN / UV_{254} – cyano-modified

Macherey-Nagel. Material: Glass plate with cyano-modied nano silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
10 x 10	0.20	**4554.1**	25 unit(s)	374,10
10 x 20	0.20	**4569.1**	25 unit(s)	569,75

HPTLC PlatesALUGRAM® Nano-SIL CN / UV_{254} – cyano-modified

Macherey-Nagel. Material: Aluminium sheet with cyano-modied nano silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
4 x 8	0.15	**4598.1**	50 unit(s)	210,70

TLC Plates – dimethyl-modified

Silanized silica 60 with dimethylmodification
Carbon content 4 %

- Specific surface: ~500 m^2/g
- Mean pore size: 60 Å
- Specific pore volume: 0,75 ml/g
- Particle size: 5–17 µm
- pH stability: 2–10

Order of polarity:
silica > DIOL > NH_2 > CN > **RP-2** > RP-18 W

Recommended application: active plant constituents, steroids

TLC Plates RP-2 / UV_{254} – dimethyl-modified

Macherey-Nagel. Material: Glass plate with dimethyl-modiefied silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
10 x 10	0.25	**3496.1**	25 unit(s)	188,15
10 x 20	0.25	**3498.1**	50 unit(s)	401,00
20 x 20	0.25	**3499.1**	25 unit(s)	296,70

TLC Plates ALUGRAM® RP-2 / UV_{254} – dimethyl-modified

Macherey-Nagel. Material: Aluminium sheet with dimethyl-modiefied silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
4 x 8	0.15	**3590.1**	50 unit(s)	109,65
20 x 20	0.15	**3591.1**	25 unit(s)	278,45





HPTLC Plates – octadecyl-modified

Reversed Phase (RP) plates
Carbon content 7.5 %
Partial octadecyl (C_{18}) modification

Order of polarity:
silica > DIOL > NH_2 > CN > RP-2 > **RP-18 W**

Wettable with water

HPTLC Plates RP-18 W / UV_{254} – octadecyl-modified

Macherey-Nagel. Material: Glass plate with octadecyl-modified nano silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
5 x 20	0.25	**CP23.1**	50 unit(s)	355,85
10 x 10	0.25	**3380.1**	25 unit(s)	269,85
10 x 20	0.25	**3383.1**	50 unit(s)	634,25
20 x 20	0.25	**3399.1**	25 unit(s)	496,65
20 x 20	1.00	**1886.1**	15 unit(s)	645,00

HPTLC Plates ALUGRAM® RP-18 W / UV_{254} – octadecyl-modified

Macherey-Nagel. Material: Aluminium sheet with octadecyl-modified nano silica gel 60, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
4 x 8	0.15	**CP24.1**	50 unit(s)	130,10
5 x 10	0.15	**3434.1**	50 unit(s)	155,90
5 x 20	0.15	**CP25.1**	50 unit(s)	287,05
10 x 10	0.15	**3436.1**	25 unit(s)	150,50
20 x 20	0.15	**3487.1**	25 unit(s)	379,50

TLC Plates with Aluminium Oxide

Aluminium oxide (ALOX)

- Specific surface: approx. 200 m^2/g
- Indicator: manganese-activated zinc silicate
- Mean pore width: 60 Å
- Inert organic binder

Tip: We recommend to activate aluminium oxide layers before use by heating at 120 °C for10 minutes.

TLC Plates ALUGRAM® ALOX N / UV_{254}

Macherey-Nagel. Material: Aluminium sheet with aluminium oxide, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
5 x 20	0.2	**N738.1**	50 unit(s)	100,45
20 x 20	0.2	**N739.1**	25 unit(s)	150,50

TLC Plates POLYGRAM® ALOX N / UV_{254}

Macherey-Nagel. Material: Polyester sheet with aluminium oxide, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
4 x 8	0.2	**0817.1**	50 unit(s)	43,25
5 x 20	0.2	**N740.1**	50 unit(s)	100,45
20 x 20	0.2	**N741.1**	25 unit(s)	150,50

TLC / HPTLC plates with Cellulose, Unmodified and Modified



TLC Plates with cellulose MN 300 CEL 300

Native fibrous cellulose, cellulose MN 300 layer

- Fibre length (95 %): 2–20 µm
- Average degree of polymerisation: 400–500
- Specific surface acc. to Blaine: 15000 cm^2/g

TLC Plates CEL 300

Macherey-Nagel. Material: Glass plate with Cellulose MN 300 (AVICEL®).

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
5 x 20	0.1	**1320.1**	100 unit(s)	313,90
10 x 20	0.1	**1321.1**	50 unit(s)	261,25
20 x 20	0.1	**1322.1**	25 unit(s)	188,15

TLC Plates CEL 300 / UV_{254}

Macherey-Nagel. Material: Glass plate with Cellulose MN 300 (AVICEL®), with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
5 x 20	0.1	**1323.1**	100 unit(s)	313,90
10 x 20	0.1	**1324.1**	50 unit(s)	261,25
20 x 20	0.1	**1325.1**	25 unit(s)	188,15

TLC Plates POLYGRAM® CEL 300

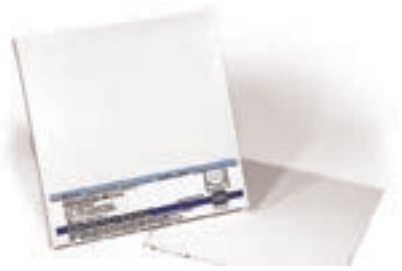
Macherey-Nagel. Material: Polyester sheet with Cellulose MN 300 (AVICEL®).

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
4 x 8	0.1	**0818.1**	50 unit(s)	42,50

TLC Plates POLYGRAM® CEL 300 / UV_{254}

Macherey-Nagel. Material: Polyester sheet with Cellulose MN 300 (AVICEL®), with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
5 x 20	0.1	**N742.1**	50 unit(s)	103,95
20 x 20	0.1	**N743.1**	25 unit(s)	163,40



TLC Plates with Cellulose CEL 400 (AVICEL®) CEL 400

Microcrystalline cellulose, cellulose MN 400 (AVICEL®)

- Prepared by hydrolysis of high puritiy cellulose with HCl
- Mean degree of polymerisation: 40–200

TLC Plates CEL 400

Macherey-Nagel. Material: Glass plate with Cellulose MN 400 (AVICEL®).

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
10 x 20	0.1	**1326.1**	50 unit(s)	261,25
20 x 20	0.1	**1327.1**	25 unit(s)	188,15

TLC Plates CEL 400 / UV_{254}

Macherey-Nagel. Material: Glass plate with Cellulose MN 400 (AVICEL®), with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
10 x 20	0.1	**1328.1**	50 unit(s)	261,25
20 x 20	0.1	**1329.1**	25 unit(s)	188,15

TLC Plates POLYGRAM® CEL 400

Macherey-Nagel. Material: Polyester sheet with Cellulose MN 400 (AVICEL®).

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
5 x 20	0.1	**1330.1**	50 unit(s)	103,75
20 x 20	0.1	**1331.1**	25 unit(s)	163,40

TLC Plates POLYGRAM® CEL 400 / UV_{254}

Macherey-Nagel. Material: Polyester sheet with Cellulose MN 400 (AVICEL®), with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
5 x 20	0.1	**1332.1**	50 unit(s)	103,75
20 x 20	0.1	**1333.1**	25 unit(s)	163,40

Silica Gel 60 for TLC



Silica gels are the most important base material for thin layer chromatography. We therefore offer a range of specially selected silica gels 60 for preparing your own TLC plates. Our programme ranges from G-types (with gypsum) to a P-type (for preparative applications).

Properties:

- Spec. surface: ~400–500 m^2/g
- Mean pore diameter: 60 Å
- Pore volume: ~0,8 ml/g
- Particle size: 0-20 µm or 0–40 µm (preparative)
- Loss on drying: <9 %
- pH-value (5 % suspension): ~7

Product name	Purity	Art. No.	Pack Qty.	€
Silica gel 60 G	for TLC, with gypsum	**CN44.3**	250 g	50,00
		CN44.1	500 g	89,15
		CN44.2	1 kg	165,05
Silica gel 60 N	for TLC, contains no binder	**CN46.1**	500 g	94,10
		CN46.2	1 kg	162,90
Silica gel 60 G/F_{254}	for TLC, with gypsum	**CN45.3**	250 g	44,00
		CN45.1	500 g	83,35
		CN45.2	1 kg	152,15
Silica gel 60 P/F_{254}	for preparative TLC	**CN47.3**	250 g	51,10
		CN47.1	500 g	91,95
		CN47.2	1 kg	162,90

For additional product data and safety information, see chapter Chemicals A–Z.

Coating of TLC Plates with Silica Gel G:

Suspend 25 g Silica Gel G in 50 ml distilled water under frequent agitation. The fluid suspension will harden after a short time, due to the amount of gypsum, and can immediately be applied to a glass plate that is free of grease.

The plates should be rested for about 10 minutes until the surface is completely dim. Afterwards, preferably after predrying the plates exposed to air over night, the plates are dried (activated) for 30 minutes at 105–110 °C in a drying cabinet.

Until usage the plates should be stored in a desiccator above a desiccant like Silica Gel Orange (Art. No. P077).

Solvents for TLC
ROTISOLV® UV/IR-Grade Solvents

for Chromatography and Spectroscopy



ROTISOLV® UV/IR-Grade solvents are specially adapted for spectrophotometric processes and other chromatographic applications which require high spectroscopic purity.

Properties:

- High chemical purity
- Spectroscopically tested for UV and IR
- High UV-permeability
- Low fluorescence

Product name	Max. permeability at	Art. No.	Pack Qty.	€
Acetic acid ethyl ester	280 nm	**4442.1**	2.5 l	74,75
Acetone	350 nm	**T906.1**	2.5 l	70,85
Acetonitrile	230 nm	**T907.1**	2.5 l	127,95
1-Butanol	270 nm	**4431.1**	2.5 l	160,20
Cyclohexane	250 nm	**CP81.1**	2.5 l	112,80
N,*N*-Dimethyl-formamide (DMF)	330 nm	**CP79.1**	2.5 l	120,95
n-Heptane	245 nm	**CP78.1**	2.5 l	137,10
n-Hexane	245 nm	**T908.1**	2.5 l	136,00
Isooctane	255 nm	**CP80.1**	2.5 l	139,25
Methanol	260 nm	**T909.1**	2.5 l	45,05
n-Pentane	240 nm	**4443.1**	2.5 l	139,25
2-Propanol	260 nm	**T910.1**	2.5 l	93,00
Tetrachloroethylene	305 nm	**CP83.1**	2.5 l	106,45
Tetrahydrofuran	310 nm	**CP82.1**	2.5 l	166,65
Toluene	350 nm	**4445.1**	2.5 l	75,15
Trichloromethane/ Chloroform	280 nm	**4432.1**	2.5 l	80,10

For additional product data and safety information, see chapter Chemicals A–Z.



Developing chambers for TLC

Technical specifications:

Art. No.	3134.1	3133.1
Suitable for	up to 2 plates up to 10 x 10 cm plate size	up to 5 plates up to 20 x 20 cm plate size
W x D x H, external	146 x 91 x 127 mm	235 x 116 x 220 mm
W x D x H, interior	124 x 83 x 110 mm	207 x 84.4 x 207.7 mm

Developing chamber for TLC

Macherey-Nagel.

Simultaneous developing chamber made of glass.

Delivery incl. glass cabinet with lid

Pic.	Usable for	Art. No.	Pack Qty.	€
(1)	up to 2 plates up to 10 x 10 cm plate size	**3134.1**	1 unit(s)	181,70
(2)	up to 5 plates up to 20 x 20 cm plate size	**3133.1**	1 unit(s)	385,95



TLC separation chamber

For immersing pre-treated TLC ready-to-use foils (size 8 x 4 cm) in the solvent. Cylindrical glass beaker with loose-fitting glass lid. Inner height 100 mm, Ø 60 mm.

A 121 °C

TLC separation chamber

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
60	100	**0823.1**	1 unit(s)	43,55



Spotting guide for TLC plates

Macherey-Nagel. Material: Plastic.

For the easy sample application. Size: 4 x 6 cm. Marks for 4 spots with a distance of 8 mm and 3 spots with a distance of 10 mm, respectively.

Designation	Art. No.	Pack Qty.	€
Spotting guide	**3661.1**	2 unit(s)	27,20

All products for your chromatography lab you can also find in our webshop!



www.carlroth.com/Chromatographie

TLC Spray Solutions



Carl ROTH's ready-to-use spray solutions make thin-layer chromatography operations considerably easier.
For these ready-to-use spray solutions the staining/derivative reagent was dissolved in ethanol, 2-propanol or in water.

ready-to-use

Product name	General application	Art. No.	Pack Qty.	€
Aniline phthalate spray solution	Ready-to-use spray solution for detection of reducing sugars. 0,9 ml Anilin and 1,66 g phthalic acid dissolved in 100 ml ethanol / 2-propanol (1/1 v/v).	**CP35.1**	100 ml	42,90
Bromocresol green spray solution	Ready-to-use spray solution for organic acids.	**1H05.1**	100 ml	40,10
2',7'-Dichloro-fluorescein spray solution	Ready-to-use spray solution for detection of Lipids (saturated, unsaturated). 0,2 g 2',7'-Dichloro-fluorescein dissolved in 100 ml 2-propanol.	**CP36.1**	100 ml	42,90
4-(Dimethylamino) benzaldehyde spray solution	Ready-to-use spray solution for detection of terpenes, sugars and steroids. 0,5 g 4-(Dimethyl-amino)-benzaldehyde dissolved in 100 ml 2-propanol.	**CP38.1**	100 ml	42,90
Dragendorff-Munier spray solution	Ready-to-use spray solution for detection of nitrogen compounds and alkaloids. 1 % basic Bismuth nitrate, 16,5 % tartaric acid, 20 % potassium iodide dissolved in water. Occurring sediment is tartaric acid contained in excess.	**CP33.1**	100 ml	42,90
Iron(III) chloride spray solution	Ready-to-use spray solution for detection of acetylsalicylic acid and paracetamol. 2 g Iron(III) chloride dissolved in 100 ml water.	**CP34.1**	100 ml	42,90
Molybdatophosphoric acid spray solution	Ready-to-use spray solution for detection of reducing compound lipids, fatty acids and steroids. 4 g Molybdatophos-phoric acid dissolved in 100 ml ethanol.	**CP31.1**	100 ml	42,90
Ninhydrin spray solution	Ready-to-use spray solution for detection of amino acids, amines and amino sugars. 0,5 g Ninhydrin dissolved in 100 ml ethanol.	**CP30.1**	100 ml	42,90
Potassium hexacyanoferrate(III) spray solution	In combination with iron(III) chloride for visualisation of e.g., acetylsalicylic acid and paracetamol.	**1H06.1**	100 ml	40,10
Rhodamine B spray solution	Ready-to-use spray solution for detection of lipids. 0,1 g Rhodamine B dissolved in 100 ml ethanol.	**CP37.1**	100 ml	42,90
Rubeanic acid spray solution	Ready-to-use spray solution for detection of heavy metal ions. 0,2 g Rubeanic acid dissolved in 100 ml ethanol	**CP32.1**	100 ml	42,90
Spray solution for xanthine visualisation (caffeine, theophylline, theobromine)	Ready-to-use spray solution for detection of purine alkaloids (caffeine, theophylline, theobromine). Solution of tartaric acid, iodine and ferric chloride in acetone.	**1H07.1**	100 ml	40,10

For additional product data and safety information, see chapter Chemicals A–Z.

Ammonium molybdate spray reagent:

For detecting hydroxycarboxylic acids.
Mix 2 ml **ammonium molybdate solution** 25 % +
2 ml ascorbic acid 10 % + 2 ml sulphuric acid 29,5 % and
add 4 ml H_2O.

Dragendorff's spray reagent:

For detecting tertiary amines and nitrogen heterocycles.
Mix 0,85 g **bismuth(III) nitrate basic** + 40 ml H_2O +
10 ml acetic acid with 20 ml KI-solution (40 %).

Bromcresol green spray reagent:

For detecting hydroxycarboxylic acids.
Dilute 25 mg **bromcresol green** + 0,36 ml 0,1 N NaOH +
10 ml ethanol 96 % to 50 ml with H_2O.

Ehrlich's spray reagent:

For detecting sulphonamides and primary aromatic amines.
Mix 0,5 g **4-(dimethylamino)-benzaldehyde** +
25 ml hydrochloric acid 36 % + 25 ml ethanol 96 %.

Natural substance reagent A as a spray reagent:

According to Wagner natural substance A is an excellent reagent for fluorometry to quantitate thin layer chomatogrammes.

Application:
Natural substance-polyethylene glycol reagent (NST/PEG). Spray a 1 % methanol solution of natural substance reagent A and a 5 % ethanol PEG 4000 solution, one after the other onto the TLC plate (approx. 10 ml and 8 ml). Intensive fluorescent colours will appear immediately or after 15 min in UV-365 nm. Adding PEG will lead to an increase in detection sensitivity (from 10 µg to 2,5 µg). The fluorescence behaviour depends on the constitution. The reagent must be freshly prepared before use (1 % in methanol). Spray under the fume hood!

Ninhydrin spray reagent:

For detecting amino acids and primary aliphatic amines.

0,15 g **ninhydrin** + 47,5 ml 2-propanol +
2,5 ml acetic acid 96 %.



Detection Reagents for TLC

Staining and derivatisation reagents for preparing your own spray solutions.
Application examples:
tracing organic acids, lipids, steroids, terpenes, flavonoids, amino acids, peptides.

Product name	Purity	Art. No.	Pack Qty.	€
Ammonium heptamolybdate tetrahydrate	≥99 %, p.a.	**3666.1**	250 g	107,40
		3666.2	500 g	192,45
		3666.3	1 kg	353,70
		3666.7	25 kg	3.708,75
Antimony(III) chloride	≥99 %, p.a., ACS	**9819.1**	100 g	40,35
		9819.2	500 g	149,45
		9819.3	1 kg	263,40
Bismuth(III) nitrate	≥71 % Bi, p.a., alkaline	**4447.1**	50 g	56,90
		4447.2	100 g	92,35
Bromocresol green	ACS	**T115.1**	1 g	20,35
		T115.2	5 g	35,40
		T115.3	10 g	60,75
		T115.4	25 g	114,50
2',7'-Dichlorofluorescein	p.a., ACS	**X866.2**	1 g	25,30
		X866.1	5 g	45,05
		X866.3	25 g	125,70
		X866.4	50 g	224,70
Molybdatophosphoric acid hydrate	≥99 %, p.a., ACS	**4440.1**	25 g	49,35
		4440.2	50 g	77,30
		4440.3	100 g	138,70
		4440.7	1 kg	1.170,70
Natural product reagent A	≥98 %, p.a.	**9920.1**	5 g	70,45
		9920.2	25 g	192,45
		9920.3	50 g	332,20
Ninhydrin	≥99 %, p.a., ACS	**4378.1**	25 g	51,50
		4378.2	100 g	131,70
		4378.3	500 g	504,20
Rhodamine B (C.I. 45170)	for microscopy	**T130.1**	25 g	42,90
		T130.7	50 g	71,95
2,3,5-Triphenyltetrazolium chloride	≥98 %, p.a.	**KK13.1**	10 g	69,80
		KK13.2	50 g	284,90
Vanillin	≥99 %, for biochemistry	**7887.3**	5 g	11,75
		7887.1	100 g	22,50
		7887.4	250 g	45,05
		7887.2	1 kg	117,20

For additional product data and safety information, see chapter Chemicals A–Z.



Spray unit

Versatile spray unit with gas cartridge for spraying reagents and other aqueous liquids. Constant spray pressure approx. 4.4 bar. Eco-friendly propellant mixture of dimethyl ether, propane and isobutane. Sufficient for approx. 500 ml liquid.
Easy to clean: Unscrew the cartridge, immerse the riser in a container with cleaning liquid and spray until the spray jet contains no residue.
Propellants: Dimethyl ether, isobutane, propane.

Delivery incl. propellant cartridge (55 g or 94 ml), glass reservoir bottle 170 ml, suction tube and screw cap.

Spray unit

Haubold.

UN no. 1950 · ADR 2 (2.1) · WGK 3

Danger H222-H229

Vol. (ml)	Art. No.	Pack Qty.	€
170	**YC44.1**	1 unit(s)	15,30

Accessories for spray unit

Designation	Art. No.	Pack Qty.	€
Spare cartridges with spray head and suction tube	**YC45.1**	5 unit(s)	46,25
Replacement 170 ml glass bottle	**YC46.1**	1 unit(s)	7,55

For additional product data and safety information, see chapter Chemicals A–Z.



TLC atomiser with test tube

Autoclavable without rubber hose.

Delivery incl. clamp for ground joint and rubber ball.

A 121 °C

TLC atomiser with test tube

Lenz.

Vol. (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
6	14/23	**TK61.1**	1 unit(s)	61,85
12	19/26	**TK62.1**	1 unit(s)	63,35



TLC atomiser with Erlenmeyer flask

NS 19/26, volume 100 ml. Total height 160 mm.
Autoclavable without rubber hose.

Delivery incl. erlenmeyer flask, clamp for ground joint and rubber ball with 20 cm rubber hose.

A 121 °C

TLC atomiser with Erlenmeyer flask

Lenz.

Vol. (ml)	Height (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
100	160	19/26	**0707.1**	1 unit(s)	82,25

Accessories for TLC atomiser

Designation	Art. No.	Pack Qty.	€
Replacement atomiser attachment for TK61.1	**TK63.1**	1 unit(s)	62,90
Replacement atomiser attachment for TK62.1	**TK64.1**	1 unit(s)	66,65
Replacement rubber ball, incl. hose, length 20 cm	**5914.1**	1 unit(s)	17,75
Replacement spray nozzle	**H451.1**	1 unit(s)	56,65
Replacement test tube for TK61.1	**TK65.1**	1 unit(s)	13,05
Replacement test tube for TK62.1	**TK66.1**	1 unit(s)	14,20

For additional product data and safety information, see chapter Chemicals A–Z.

Paper Chromatography



Paper chromatography (PC) is the oldest chromatographic technique. Like other chromatographic applications, separation is based upon the partition of the material mixture, which is to be separated, between two immiscible phases.
While the chromatographic paper is, strictly speaking, only the carrier for the liquid mobile phase, the properties of the paper do, in fact, have considerable influence on the quality of the separation.
The most important characteristics of chromatographic papers are the **weight (g/m²),** the **thickness (mm)** and the **migration distance**.
When specifying the migration distance, it is common practice in the paper industry to apply the Klemm method. This method indicates the extent of dampness of a 15 cm wide paper strip (dipped in 20 °C dist. water) after 10 minutes. You will, however, frequently find the migration distance of chromatographic paper specified in mm/30 min.

Chromatography Papers

Smooth papers

Macherey-Nagel.

Type	L x W (cm)	Art. No.	Pack Qty.	€
MN 261	60 x 58	**1236.1**	100 unit(s)	236,50
MN 260	60 x 58	**1238.1**	100 unit(s)	236,50
MN 260	17 x 7.5	**2940.1**	100 unit(s)	35,40
MN 214	60 x 58	**1239.1**	100 unit(s)	342,95
MN 218	60 x 58	**1246.1**	100 unit(s)	434,30

Defatted paper

Macherey-Nagel.

This paper is extracted with organic solvents.

Type	L x W (cm)	Art. No.	Pack Qty.	€
MN 214 ff	58 x 56	**1254.1**	100 unit(s)	779,40

Soft cartons

Macherey-Nagel.

Type	L x W (cm)	Art. No.	Pack Qty.	€
MN 827	60 x 58	**1265.1**	100 unit(s)	482,70
MN 866	38 x 38	**1273.1**	100 unit(s)	402,05

► For further information see www.carlroth.com



Chromatography-Papers Whatman®

Papers for blotting, chromatography and filtration.
Made from specially selected cellulose.

Chromatography-Papers Whatman® 1CHR Thickness 0,18 mm

Cytiva.

Particularly thin, for maximum variability in application.

- **Also available in convenient rolls!**

L x W	Art. No.	Pack Qty.	€
30 x 10	**CL37.1**	100 sheet	75,90
20 x 20	**CL38.1**	100 sheet	84,40
57 x 46	**CL40.1**	100 sheet	287,05
100 m x 2 cm	**7606.1**	1 roll(s)	47,05
100 m x 4 cm	**CL43.1**	1 roll(s)	71,25
100 m x 10 cm	**CL44.1**	1 roll(s)	159,80

Chromatography-Papers Whatman® 3CHR Thickness 0,36 mm

Cytiva.

For general applications with medium/heavy solute loadings.
May also be used in blotting transfers.

L x W (cm)	Art. No.	Pack Qty.	€
57 x 46	**7604.1**	100 sheet	561,15

Chromatography-Papers Whatman® 17CHR Thickness 0,92 mm

Cytiva.

For the heaviest solute loadings. May also be used in blotting transfers.

L x W (cm)	Art. No.	Pack Qty.	€
9 x 7	**7600.1**	100 sheet	109,30
22 x 2.5	**7601.1**	100 sheet	111,70
57 x 46	**7602.1**	25 sheet	420,35

Application instructions:

Chromatography paper and cardboard must always be handled carefully. Your fingers should not touch the paper as the separation process will be disrupted by skin excretion, such as salt, grease and amino acids. Please avoid folding or creasing the paper as this will impair the capillary action.

Ion Chromatography

ROTI®Star Standards for IC

Carl ROTH has an extensive range of products which meets the highest standards of quality in the field of ion standards. The solutions and mixtures are made using materials of the highest purity, and therefore meet the requirements for instrumental analysis by IC. All solutions are certified and can be traced to NIST or BAM standard reference solutions. Solutions are produced according to **ISO 17034** in an accredited environment. The solutions are tested in a laboratory accredited to **ISO/IEC 17025** and supplied with a detailed, batch-specific certificate of analysis.



Ion Standards for IC

Each standard solution is made of high-purity starting materials, and its content is determined gravimetrically and by ion chromatography. They come with certificates of analysis and an ion chromatogram.

- Single and multi-element-standards
- Anion and cation multi-element-standards
- Container sizes: 100 ml and 500 ml



ready-to-use

Anionic Standards for IC 1000 mg/l (1 g/l)

Product name	Ion	Matrix	Art. No.	Pack Qty.	€
Acetate IC Standard Solution	CH_3COO^-	H_2O	**1989.1**	100 ml	56,45
			1989.2	500 ml	114,50
Benzoate IC Standard Solution	$C_6H_5COO^-$	H_2O	**8168.1**	100 ml	56,90
			8168.2	500 ml	114,50
Bromate IC Standard Solution	BrO_3^-	H_2O	**8170.1**	100 ml	56,90
			8170.2	500 ml	114,50
Bromide IC Standard Solution	Br^-	H_2O	**2655.1**	100 ml	56,90
			2655.2	500 ml	114,50
Chlorate IC Standard Solution	ClO_3^-	H_2O	**8171.1**	100 ml	56,90
			8171.2	500 ml	114,50
Chloride IC Standard Solution	Cl^-	H_2O	**2656.1**	100 ml	56,90
			2656.2	500 ml	114,50
Chlorite IC Standard Solution	ClO_2^-	0.1% NaOH	**8172.1**	100 ml	56,90
Chromate IC Standard Solution	CrO_4^{2-}	H_2O	**2657.1**	100 ml	56,90
			2657.2	500 ml	114,50
Citrate IC Standard Solution	$C_3H_4(OH)(COO)_3^{3-}$	H_2O	**8173.1**	100 ml	56,90
			8173.2	500 ml	114,50
Cyanide IC Standard Solution	CN^-	0,1 % KOH	**2658.1**	100 ml	56,90
			2658.2	500 ml	114,50
Fluoride IC Standard Solution	F^-	H_2O	**2659.1**	100 ml	56,90
			2659.2	500 ml	114,50
Formate IC Standard Solution	$HCOO^-$	H_2O	**1999.1**	100 ml	56,90
			1999.2	500 ml	114,50
Iodate IC Standard Solution	IO_3^-	H_2O	**8174.1**	100 ml	56,90
			8174.2	500 ml	114,50
Iodide IC Standard Solution	I^-	H_2O	**2660.1**	100 ml	56,90
			2660.2	500 ml	114,50
Lactate IC Standard Solution	$C_2H_4(OH)COO^-$	H_2O	**8176.1**	100 ml	56,90
			8176.2	500 ml	114,50
Maleate IC Standard Solution	$C_2H_2(COO)_2^{2-}$	H_2O	**8181.1**	100 ml	56,90
			8181.2	500 ml	114,50
Nitrate IC Standard Solution	NO_3^-	H_2O	**2661.1**	100 ml	56,90
			2661.2	500 ml	114,50
Nitrite IC Standard Solution	NO_2^-	H_2O	**2664.1**	100 ml	56,90
			2664.2	500 ml	114,50
Oxalate IC Standard Solution	$C_2O_4^{2-}$	H_2O	**2008.1**	100 ml	56,90
			2008.2	500 ml	114,50
Perchlorate IC Standard Solution	ClO_4^-	H_2O	**8186.1**	100 ml	56,90
			8186.2	500 ml	114,50

Product name	Ion	Matrix	Art. No.	Pack Qty.	€
Phosphate IC Standard Solution	PO_4^{3-}	H_2O	**2665.1**	100 ml	56,90
			2665.2	500 ml	114,50
Propionate IC Standard Solution	$C_2H_5COO^-$	H_2O	**8183.1**	100 ml	56,90
			8183.2	500 ml	114,50
Succinate IC Standard Solution	$C_2H_4(COO)_2^{2-}$	H_2O	**8187.1**	100 ml	56,90
			8187.2	500 ml	114,50
Sulphate IC Standard Solution	SO_4^{2-}	H_2O	**2666.1**	100 ml	56,90
			2666.2	500 ml	114,50
Sulphite IC Standard Solution	SO_3^{2-}	H_2O	**8192.1**	100 ml	56,90
			8192.2	500 ml	114,50
Tartrate IC Standard Solution	$C_2H_4O_2(COO)_2^{2-}$	H_2O	**8201.1**	100 ml	53,25
			8201.2	500 ml	114,50
Thiocyanate IC Standard Solution	SCN^-	H_2O	**8205.1**	100 ml	56,90
			8205.2	500 ml	114,50
Thiosulphate IC Standard Solution	$S_2O_3^{2-}$	0,1 % $C_5H_{12}O$ (pentan-1-ol)	**8207.1**	100 ml	56,90
			8207.2	500 ml	114,50

For additional product data and safety information, see chapter Chemicals A–Z.

ready-to-use

Cationic Standards for IC 1000 mg/l (1 g/l)

Product name	Ion	Matrix	Art. No.	Pack Qty.	€
Ammonium IC Standard Solution	NH^{4+}	H_2O	**2654.1**	100 ml	56,45
			2654.2	500 ml	114,50
Barium IC Standard Solution	Ba^{2+}	H_2O	**8167.1**	100 ml	56,90
			8167.2	500 ml	114,50
Caesium IC Standard Solution	Cs^+	H_2O	**8166.1**	100 ml	56,90
Calcium IC Standard Solution	Ca^{2+}	H_2O	**1986.1**	100 ml	56,90
			1986.2	500 ml	114,50
Lithium IC Standard Solution	Li^+	H_2O	**8158.1**	100 ml	56,90
			8158.2	500 ml	114,50
Magnesium IC Standard Solution	Mg^{2+}	H_2O	**1987.1**	100 ml	56,90
			1987.2	500 ml	114,50
Potassium IC Standard Solution	K^+	H_2O	**1985.1**	100 ml	56,90
			1985.2	500 ml	114,50
Sodium IC Standard Solution	Na^+	H_2O	**1984.1**	100 ml	56,90
			1984.2	500 ml	114,50
Strontium IC Standard Solution	Sr^{2+}	H_2O	**1988.1**	100 ml	56,90
			1988.2	500 ml	114,50

For additional product data and safety information, see chapter Chemicals A–Z.

ready-to-use

Ion Multi-Element Standards for IC

Product name	Composition	Matrix	Art. No.	Pack Qty.	€
Anion Multi-Element Standard I (IC, 3 anions, 1000 mg/l)	Cl^-, NO_3^-, SO_4^{2-}	H_2O	**2026.1**	100 ml	170,95
			2026.2	500 ml	332,20
Anion Multi-Element Standard II (IC, 3 anions, 1000 mg/l)	F^-, Br^-, PO_4^{3-}	H_2O	**2029.1**	100 ml	181,70
			2029.2	500 ml	360,15
Anion Multi-Element Standard (IC, 6 anions, 10 mg/l)	F^-, Cl^-, Br^-, NO_3^-, PO_4^{3-}, SO_4^{2-}	H_2O	**2030.1**	100 ml	160,20
			2030.2	500 ml	282,20
Anion Multi-Element Standard (IC, 7 anions, concentration in mg/l)	F^- (5), Cl^- (10), NO_2^- (15), Br^- (25), NO_3^- (25), PO_4^{3-} (40), SO_4^{2-} (30)	H_2O	**2668.1**	100 ml	106,45
			2668.2	500 ml	209,65
Cation Multi-Element Standard (IC, 4 cations, 10 mg/l)	Na^+, K^+, Mg^{2+}, Ca^{2+}	H_2O	**2032.1**	100 ml	130,65
			2032.2	500 ml	240,30
Cation Multi-Element Standard (IC, 6 cations, concentration in mg/l)	NH^{4+} (40), Ca^{2+} (40), K^+ (20), Li^+ (10), Mg^{2+} (20), Na^+ (20)	0,1 % HNO_3	**2669.1**	100 ml	103,10
			2669.2	500 ml	205,90

For additional product data and safety information, see chapter Chemicals A–Z.

► Ultra pure acids, alkaline solutions and water for IC see page 650
► High-purity salts for preparing eluent mixtures, see page 576

NUCLEODUR® Columns for HPLC



NUCLEODUR® as a state-of-the-art silica is the ideal base material for modern HPLC phases. We offer two phases **NUCLEODUR® Gravity** which is ideal for sophisticated analytical separations and **NUCLEODUR® ec** suitable for routine HPLC analysis.

HPLC Columns NUCLEODUR® "Gravity"

The ideal phase for overall sophisticated analytical separations

This high density phase with its endcapping suppresses any unwanted polar interactions between the silica surface and the sample, which makes "Gravity" particularly suitable for the separation of basic and other ionizable analytes.

Properties:

- Suitable for LC/MS and HPLC at pH extremes (pH 1–11)
- Ideal for method development
- Superior base deactivation
- Multi-Endcapping

Recommended application(s):

- In general, compounds with ionisable functional groups such as basic pharmaceuticals and pesticides e.g. analgesics, anti-inflammatories, antidepressants, herbicides, phytopharmaceuticals, immunosuppressants.
- USP L1 (C_{18}) · USP L7 (C_8)

HPLC column NUCLEODUR® C_{18} Gravity

Properties:

- Octadecyl phase, multi-endcapped
- Carbon content: 18.0 %
- Pore size: 110 Å
- pH stability: 1–11
- Eluent on column: acetonitrile/water

Applications:
Pharmaceuticals, e.g. analgesics, antiinflammatory drugs, antidepressants, herbicides, immunosuppressants, USP L1, suitable for LC-MS.

Similar phases:
Zorbax® Extend C_{18}, Synergi™ und Max RP, Phenomenex Luna® C_{18} (2), Waters Xterra® RP_{18} / MS C_{18}, Inertsil® ODS III, Purospher® RP-18, Star RP-18.

HPLC column NUCLEODUR® C_{18} Gravity 3 µm

Macherey-Nagel.

Particle size (µm)	Column length (mm)	Column inner diameter (mm)	Art. No.	Pack Qty.	€
3	250	4	**KK86.1**	1 unit(s)	886,90
3	150	4.6	**KK87.1**	1 unit(s)	843,90
3	250	4.6	**KK88.1**	1 unit(s)	929,90

HPLC column NUCLEODUR® C_{18} Gravity 5 µm

Macherey-Nagel.

Particle size (µm)	Column length (mm)	Column inner diameter (mm)	Art. No.	Pack Qty.	€
5	250	4	**KK89.1**	1 unit(s)	709,50
5	150	4.6	**KK90.1**	1 unit(s)	682,65
5	250	4.6	**KK91.1**	1 unit(s)	752,50

HPLC column NUCLEODUR® C_8 Gravity

Reduced retention of non-polar compounds.

Properties:

- Octyl phase, multi-endcapped
- Carbon content: 11.0 %
- Pore size: 110 Å
- pH stability: 1–11
- Eluent on column: acetonitrile/water

Applications:
analgesics, antidepressants, antiinflammatory drugs, herbicides, immunosuppressants, pharmaceuticals, phytopharmaceuticals, USP L7, suitable for LC/MS.

Similar phases:
NUCLEOSIL® C_8 HD; Xterra® RP_8 / MS C_8; Luna® C_8; Zorbax® Eclipse XDB-C_8.

HPLC column NUCLEODUR® C_8 Gravity 3 µm

Macherey-Nagel.

Particle size (µm)	Column length (mm)	Column inner diameter (mm)	Art. No.	Pack Qty.	€
3	150	4	**1HL5.1**	1 unit(s)	779,40
3	150	4.6	**1HL6.1**	1 unit(s)	843,90
3	250	4	**1HL7.1**	1 unit(s)	886,90
3	250	4.6	**1HL8.1**	1 unit(s)	929,90

HPLC column NUCLEODUR® C_8 Gravity 5 µm

Macherey-Nagel.

Particle size (µm)	Column length (mm)	Column inner diameter (mm)	Art. No.	Pack Qty.	€
5	150	4	**1HLA.1**	1 unit(s)	623,50
5	150	4.6	**1HLC.1**	1 unit(s)	682,65
5	250	4	**1HLE.1**	1 unit(s)	709,50
5	250	4.6	**1HLH.1**	1 unit(s)	752,50

► For reference substances for the HPLC see page 489 ff.

HPLC Columns NUCLEODUR® "Pyramid"

The polar endcapping makes this C_{18} phase suitable for aqueous eluents and is also referred to as an "aqua column".

HPLC column NUCLEODUR® C_{18} Pyramid

Properties:

- Octadecyl phase with polar endcapping
- Carbon content: 14.0 %
- Pore size: 110 Å
- pH stability: 1–9
- Eluent on column: acetonitrile/water

Applications:
Basic pharmaceuticals, very polar compounds, organic acids, analgesics, complexing agents, nucleic acid bases, organic acids, penicillin antibiotics, water-soluble vitamins, USP L1, suitable for 100 % aqueous eluents, suitable for LC-MS.

Similar phases:
Aqua, Synergi® Hydro-RP; AQ; Atlantis® dC_{18}; Polaris® C18-A.

HPLC column NUCLEODUR® C_{18} Pyramid

Macherey-Nagel.

Particle size (µm)	Column length (mm)	Column inner diameter (mm)	Art. No.	Pack Qty.	€
5	250	4	**1L7E.1**	1 unit(s)	709,50

The Egyptian pyramids were built near the Nile so that the stone blocks could be transported by water.

HPLC Columns NUCLEODUR® ec

Non-polar phases for routine analysis

Standard RP phase (110 Å) for daily routine analysis and up-scaling to preparative HPLC. Also available wide-pore (300 Å) for separation of biomolecules in analytical columns.

Properties:

- Cost-effective and reliable
- Long-life columns
- For all standard routine applications in modern RP-chromatography

Recommended application(s):

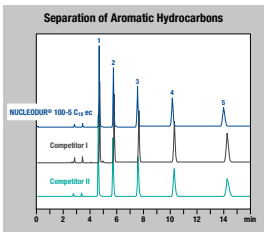
- Pore size 100 Å:
  Basic, neutral and acidic pharmaceuticals, derivatised amino acids, pesticides, fat-soluble vitamins, aldehydes and ketones, phenolic compounds.
- Pore size 300 Å:
  Biological macromolecules, such as proteins or peptides.
- USP L1 (C_{18}) · USP L7 (C_8) · USP L26 (C_4)

HPLC column NUCLEODUR® C_{18} ec

The ideal phase for routine HPLC analysis.

Properties:

- Octadecyl phase, endcapped
- Carbon content: 17.5 %
- Pore size: 110 Å
- pH stability: 1–9
- Eluent on column: acetonitrile/water



Conditions:
Eluent: acetonitril/water (75/25, v/v); Flow: 1,3 ml/min; Temperature: 30 °C; Detection: UV, 254 nm
Legend:
1. Toluene, 2. Ethylbenzene, 3. Propylbenzene, 4. Butylbenzene, 5. Pentylbenzene

Similar phases:
For many applicatons the following phases can be replaced with identical or even better results: NUCLEOSIL® C_{18}, Spherisorb® ODS I und II, Hypersil® ODS, Waters Symmetry®C_{18}, Inertsil® ODS II, Kromasil® C_{18}, LiChrospher® RP_{18} und RP C_{18} ec.

HPLC column NUCLEODUR® 100-3 C_{18} ec 3 µm

Macherey-Nagel.

Particle size (µm)	Column length (mm)	Column inner diameter (mm)	Art. No.	Pack Qty.	€
3	100	4	**1K1N.1**	1 unit(s)	524,60
3	250	4	**KK80.1**	1 unit(s)	602,00
3	150	4.6	**KK81.1**	1 unit(s)	548,25
3	250	4.6	**KK82.1**	1 unit(s)	634,25

HPLC column NUCLEODUR® 100-5 C_{18} ec 5 µm

Macherey-Nagel.

Particle size (µm)	Column length (mm)	Column inner diameter (mm)	Art. No.	Pack Qty.	€
5	250	4	**KK83.1**	1 unit(s)	439,70
5	150	4.6	**KK84.1**	1 unit(s)	381,65
5	250	4.6	**KK85.1**	1 unit(s)	464,40

HPLC column NUCLEODUR® C_8 ec

Standard RP phase for daily routine analysis and up-scaling for preparative HPLC.

C_8 has a lower retention of hydrophobic compounds compared to C_{18} (octadecyl silane, ODS).

Properties:

- Octyl phase, endcapped
- Carbon content: 10.5 %
- Pore size: 110 Å
- pH stability: 1–9
- Eluent on column: acetonitrile/water

Similar phases:
NUCLEOSIL® C_8 ec / C_8; Spherisorb® C_8; Symmetry® C_8; Hypersil® MOS; Kromasil® C_8; LiChrospher® RP_8.

HPLC column NUCLEODUR® 100-3 C_8 ec

Macherey-Nagel.

Particle size (µm)	Column length (mm)	Column inner diameter (mm)	Art. No.	Pack Qty.	€
3	150	4.6	**1HKP.1**	1 unit(s)	548,25
3	250	4	**1HKT.1**	1 unit(s)	602,00
3	250	4.6	**1HKY.1**	1 unit(s)	634,25

HPLC column NUCLEODUR® 100-5 C_8 ec

Macherey-Nagel.

Particle size (µm)	Column length (mm)	Column inner diameter (mm)	Art. No.	Pack Qty.	€
5	150	4.6	**1HL1.1**	1 unit(s)	381,65
5	250	4	**1HL2.1**	1 unit(s)	439,70
5	250	4.6	**1HL3.1**	1 unit(s)	464,40

HPLC column NUCLEODUR® 300-5 C_4 ec

Wide pore RP phase for daily routine analysis. The medium density butyl modification is based on high purity NUCLEODUR® silica gel and is often used for the separation of biomolecules.

Butyl (C_4) modifications have a lower retention for hydrophobic compounds compared to C_{18} (octadecyl silane, ODS) or C_8 (octyl, MOS) modifications.

Properties:

- Butyl phase, endcapped
- Carbon content: 2.5 %
- Pore size: 300 Å
- pH stability: 1–9
- Eluent on column: acetonitrile/water

Similar phases:
Jupiter® C_4; ACE® C_4.

HPLC column NUCLEODUR® 300-5 C_4 ec

Macherey-Nagel.

Particle size (µm)	Column length (mm)	Column inner diameter (mm)	Art. No.	Pack Qty.	€
5	150	4	**1HKE.1**	1 unit(s)	361,20
5	150	4.6	**1HKH.1**	1 unit(s)	381,65
5	250	4	**1HKK.1**	1 unit(s)	439,70
5	250	4.6	**1HKL.1**	1 unit(s)	464,40

Further HPLC columns from Macherey-Nagel available on request.

All products for your chromatography lab you can also find in our webshop!



www.carlroth.com/Chromatographie

Guard Columns Systems



HPLC Guard Columns (analytical)

For protection of your main HPLC column from contamination, it is recommended to use guard columns. These short columns are placed into a guard column holder. The guard column holder in combination with a guard column inside is installed between the injector and the HPLC column. This installation prevents chemical impurities to reach the main column. Because a contamination could form an irreversible bond with the column packing material (stationary phase) and this can result in shorter column life. If you want to prolong the lifetime of your main column, then these short columns can help you.

Designation	Column inner diameter	Art. No.	Pack Qty.	€
NUCLEODUR® 100-3 C_{18} ec	3 mm	**1K1P.1**	3 unit(s)	149,45
NUCLEODUR® 100-5 C_{18} ec	5 mm	**1K6X.1**	3 unit(s)	149,45
NUCLEODUR® C_{18} Gravity	3 mm	**1K6Y.1**	3 unit(s)	149,45
NUCLEODUR® C_{18} Pyramid	5 mm	**1L7H.1**	3 unit(s)	149,45
NUCLEODUR® 100-3 C_8 ec	3 mm	**1HL0.1**	3 unit(s)	149,45
NUCLEODUR® 100-5 C_8 ec	5 mm	**1HL4.1**	3 unit(s)	149,45
NUCLEODUR® C_8 Gravity	3 mm	**1HL9.1**	3 unit(s)	149,45
NUCLEODUR® C_8 Gravity	5 mm	**1HLK.1**	3 unit(s)	149,45
NUCLEODUR® 300-5 C_4 ec	5 mm	**1HKN.1**	3 unit(s)	149,45
UNIVERSAL RP for main columns with 2 mm ID	2 mm	**6049.1**	3 unit(s)	149,45
UNIVERSAL RP for main columns with 3, 4 and 4.6 mm ID	3 mm	**6050.1**	3 unit(s)	149,45

Column length = 4 mm



Column Protection System

Innovative and universal screw-on guard column holder system
Suitable for all analytical HPLC columns with 1/16″ fittings

- Ideal protection for your analytical main column → significant increase in column lifetime
- Minimised void volume → suitable also for ultra fast HPLC
- Special ferrules → pressure stability up to 1300 bar (18850 psi)
- Visual contamination check → in-time changing of the guard column
- Guard column length 4 mm, ID 2 mm (for main columns with 2 mm ID) or ID 3 mm (for main columns with 3, 4 and 4,6 mm ID)
- UNIVERSAL RP guard columns suitable for all HPLC columns under RP conditions

Contents of the column protection system:

- Cartridge holder (1 piece)
- Capillaries (2 pieces)
- Ferrules (3 pieces)
- Wrenches (2 pieces)
- Manual

Column Protection System

Macherey-Nagel.

Type	Art. No.	Pack Qty.	€
Column Protection System	**6041.1**	1 set	155,90

Column Protection System Replacement parts

Macherey-Nagel.

Type	Art. No.	Pack Qty.	€
Replacement capillary tubes, nuts and metal ferrules	**6045.1**	3 unit(s)	68,95
Replacement connector including O-ring	**6043.1**	1 unit(s)	30,55
Replacement ferrules	**6042.1**	5 unit(s)	48,60

Ion Pair Reagents



Ion pair reagents are strongly hydrophobic ions which form neutral ion pairs with oppositely charched sample molecules. This way, the simultaneous separation of charged and non-charged molecules is possible.
By adding ion pair reagents to the sample solution in RP-HPLC, strong bases are "masked" and retard in neutral form on RP surfaces.

Properties:

- High purity
- High UV-permeability
- Broad range of products
- Excellent price/performance ratio

Product name	Purity	Art. No.	Pack Qty.	€
Butane-1-sulphonic acid sodium salt	≥99 %, for ion pair chromatography	**KK50.1**	10 g	64,40
		KK50.2	25 g	126,35
		KK50.3	100 g	370,90
Decane-1-sulphonic acid sodium salt	≥99 %, for ion pair chromatography	**KK51.1**	10 g	64,40
		KK51.2	25 g	126,35
		KK51.3	100 g	370,90
Dodecane-1-sulphonic acid sodium salt	≥99 %, for ion pair chromatography	**KK52.1**	10 g	64,40
		KK52.2	25 g	126,35
		KK52.3	100 g	370,90
Heptane-1-sulphonic acid sodium salt	≥98 %, for ion pair chromatography	**KK53.1**	10 g	64,40
		KK53.2	25 g	126,35
		KK53.3	100 g	370,90
Hexane-1-sulphonic acid sodium salt	≥98 %, for ion pair chromatography	**KK54.1**	10 g	64,40
		KK54.2	25 g	126,35
		KK54.3	100 g	370,90
Octane-1-sulphonic acid sodium salt	≥98 %, for ion pair chromatography	**KK55.1**	10 g	64,40
		KK55.2	25 g	126,35
		KK55.3	100 g	370,90
Pentane-1-sulphonic acid sodium salt	≥98 %, for ion pair chromatography	**KK56.1**	10 g	64,40
		KK56.2	25 g	126,35
		KK56.3	100 g	370,90
Propane-1-sulphonic acid sodium salt	≥98 %, for ion pair chromatography	**KK57.1**	10 g	64,40
		KK57.2	25 g	126,35
		KK57.3	100 g	370,90

For additional product data and safety information, see chapter Chemicals A–Z.

ROTISOLV® Ultra LC-MS Solvents



Short analysis times in ultrafast HPLC as well as systems coupled to a mass spectrometer require solvents which offer utmost reliability, sensitivity and reproducibility. Our ROTISOLV® Ultra LC-MS solvents are specially suited for meeting these demands and have undergone extremely intensive production and quality controls.

Properties:

- Filtered through 0.1 µm membrane
- Highest purity (≥99.98 %)
- Filled under inert gas
- High UV transmittance
- Low fluorescence
- Tested for LC-MS suitability
- Evaporation residue of max. 1 ppm
- Metallic contamination max. 100 ppb

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Acetic acid ethyl ester	≥99,9 %, Ultra LC-MS	glass	**1HP7.1**	1 l	85,90
			1HP7.2	2.5 l	160,75
Acetonitrile	≥99,98 %, Ultra LC-MS	glass	**HN40.1**	1 l	117,75
			HN40.2	2.5 l	224,70
Ethanol	≥99,95 %, Ultra LC-MS	glass	**1HP8.1**	1 l	124,60
			1HP8.2	2.5 l	257,50
Methanol	≥99,98 %, Ultra LC-MS	glass	**HN41.1**	1 l	45,70
			HN41.2	2.5 l	103,75
2-Propanol	≥99,95 %, Ultra LC-MS	glass	**0733.1**	1 l	74,75
			0733.2	2.5 l	133,85
Tetrahydro-furan	≥99,9 %, Ultra LC-MS, unstabilised	glass	**0739.1**	1 l	155,90
Water	Ultra LC-MS	glass	**HN43.1**	1 l	51,10
			HN43.2	2.5 l	106,45

For additional product data and safety information, see chapter Chemicals A–Z.

Safety data sheets
can be found on the Internet next to the product description.

ROTISOLV® LC-MS-Grade Solvents



Modern analysis methods such as LC-MS call for a special solvent quality which has the required purity and which has been tested under application-oriented conditions. Very high purity and very low metal concentrations are features of these products which allow exact interpretations of the mass spectra.

Properties:

- Highest purity (≥99,95 %)
- High UV transmittance
- Low fluorescence
- Excellent gradient baseline
- Trace elements: ≤0.05 ppm per element
- Tested for LC-MS suitability
- Particle filtration (0.2 µm membrane)
- Filled under inert gas

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Acetic acid ethyl ester	≥99,9 %, LC-MS Grade	glass	**AE69.1**	1 l	67,65
			AE69.2	2.5 l	145,15
Acetone	≥99,9 %, LC-MS Grade	glass	**3153.1**	2.5 l	133,85
Acetonitrile	≥99,95 %, LC-MS Grade	glass	**AE70.1**	1 l	106,45
			AE70.2	2.5 l	176,85
Methanol	≥99,95 %, LC-MS Grade	glass	**AE71.1**	1 l	39,70
			AE71.2	2.5 l	85,50
2-Propanol	≥99,95 %, LC-MS Grade	glass	**AE73.1**	1 l	52,60
			AE73.2	2.5 l	104,85
Water	LC-MS Grade	plastic	**AE72.1**	1 l	38,60
		glass	**AE72.3**	2.5 l	94,10
		plastic	**AE72.2**	5 l	181,70

For additional product data and safety information, see chapter Chemicals A–Z.

ROTISOLV® LC-MS-Eluent Mixtures



Properties:

- *Ready-to-use* solvent blends for easy handling
- High chemical purity of the used raw material: HPLC solvents (≥99.9 %) and acids (≥99.9 %)
- High accuracy of the ratio of ingredients
- High UV-permeability
- Trace elements: ≤0.05 ppm per element
- LC-MS suitability tested
- Filtered through 0.2 µm membrane
- Bottled under inert gas

ready-to-use

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Acetonitrile with 0.1 % formic acid	≥99,9 %, LC-MS Grade	glass	**CP00.1**	1 l	102,70
			CP00.2	2.5 l	260,70
Acetonitrile with 0.1 % acetic acid	≥99,9 %, LC-MS Grade	glass	**CP01.1**	1 l	102,70
			CP01.2	2.5 l	260,70
Acetonitrile with 0.1 % trifluoroacetic acid	≥99,9 %, LC-MS Grade	glass	**CP02.1**	1 l	116,65
			CP02.2	2.5 l	260,70
Methanol with 0.1 % trifluoroacetic acid	≥99,9 %, LC-MS Grade	glass	**CP06.1**	1 l	54,75
Water with 0.1 % formic acid	LC-MS Grade	glass	**CP03.1**	1 l	58,60
			CP03.2	2.5 l	112,35
Water with 0.1 % acetic acid	LC-MS Grade	glass	**CP04.2**	2.5 l	102,05
Water with 0.1 % trifluoro-acetic acid	LC-MS Grade	glass	**CP05.2**	2.5 l	112,35

For additional product data and safety information, see chapter Chemicals A–Z.

ROTISOLV® HPLC Solvents



Properties:

- High chemical purity
- High UV-permeability
- Low fluorescence
- Low residue from evaporation
- Low water and acid content
- Filtered through 0,2 µm membrane
- Bottled under inert gas

Product name	Purity	Art. No.	Pack Qty.	€
Acetic acid ethyl ester	HPLC	**7336.2**	1 l	51,10
		7336.1	2.5 l	99,90
Acetone	HPLC	**7328.1**	1 l	41,85
		7328.2	2.5 l	74,10
Acetonitrile	HPLC Ultra Gradient Grade	**T195.1**	1 l	107,00
		T195.2	2.5 l	176,85
	HPLC Gradient Grade	**8825.1**	1 l	66,55
		8825.2	2.5 l	137,10
	HPLC Gradient	**HN44.1**	1 l	60,10
		HN44.2	2.5 l	123,65
	HPLC	**7330.1**	1 l	56,90
		7330.2	2.5 l	105,25
	HPLC, isocratic	**CN20.1**	1 l	54,75
		CN20.2	2.5 l	102,70
	≥99,8 %, for preparative HPLC	**6827.1**	2.5 l	85,90
		6827.2	25 l	618,15
1-Butanol	HPLC	**T178.1**	2.5 l	132,80
tert-Butyl methyl ether	HPLC	**T175.2**	1 l	60,10
		T175.1	2.5 l	134,40
Cyclohexane	HPLC	**7333.2**	1 l	65,50
		7333.1	2.5 l	118,80
Dichloromethane	HPLC	**7334.2**	1 l	48,30
		7334.1	2.5 l	82,70
N,*N*-Dimethyl-formamide (DMF)	HPLC	**0702.1**	2.5 l	150,00
Dimethyl sulphoxide (DMSO)	HPLC	**0728.1**	2.5 l	198,90
1,4-Dioxane	HPLC, unstabilised	**X949.1**	1 l	89,80
		X949.2	2.5 l	177,40
Ethanol	HPLC Gradient Grade	**P076.1**	1 l	118,80
		P076.2	2.5 l	246,75
n-Heptane	≥99 %, HPLC	**6828.1**	2.5 l	145,15
	≥95 %, HPLC	**7337.2**	1 l	64,40
		7337.1	2.5 l	140,30
n-Hexane	HPLC	**7339.2**	1 l	55,40
		7339.1	2.5 l	113,45
Isohexane	HPLC	**T176.1**	2.5 l	145,15
Isooctane	HPLC	**7340.1**	2.5 l	145,15
Methanol	HPLC Ultra Gradient Grade	**X948.1**	1 l	33,25
		X948.2	2.5 l	59,05
	HPLC Gradient Grade	**7342.2**	1 l	30,00
		7342.1	2.5 l	51,50
	HPLC Gradient	**KK39.2**	2.5 l	42,90
	HPLC	**P717.2**	1 l	25,30
		P717.1	2.5 l	42,90
n-Pentane	HPLC	**CN99.1**	1 l	88,05
		CN99.2	2.5 l	181,70
Petroleum ether 40–60 °C	HPLC	**0731.1**	2.5 l	85,90
1-Propanol	HPLC	**T177.1**	2.5 l	155,35
2-Propanol	HPLC	**7343.2**	1 l	43,55
		7343.1	2.5 l	92,35
Tetrahydrofuran	HPLC, unstabilised	**7344.1**	1 l	77,95
		7344.2	2.5 l	160,20
Toluene	HPLC	**7346.2**	1 l	50,00
		7346.1	2.5 l	106,45
Trichloromethane/ Chloroform	HPLC	**7331.2**	1 l	51,50
		7331.1	2.5 l	112,90
Water	HPLC Gradient Grade	**A511.1**	1 l	23,55
		A511.2	2.5 l	44,00
		A511.3	5 l	80,10
		A511.7	20 l	278,45
	HPLC	**1C5K.1**	1 l	18,20
		1C5K.2	2.5 l	30,00

For additional product data and safety information, see chapter Chemicals A–Z.

TIP



Starting Material for Eluent Mixtures

For the preperation of individual eluent mixtures we offer acids and salts of highest purity:

Product name	Purity	Art. No.	Pack Qty.	€
Acetic acid	≥99,9 %, LC-MS Grade	**1EHL.1**	50 ml	60,75
Ammonium acetate	≥97 %, p.a., ACS	**7869.2**	500 g	37,55
		7869.1	1 kg	51,50
		7869.3	2.5 kg	94,50
Formic acid	≥99 %, LC-MS Grade	**1EHK.1**	50 ml	60,75
Trifluoroacetic acid (TFA)	≥99,9 %, LC-MS Grade	**1EHN.1**	50 ml	60,75

For additional product data and safety information, see chapter Chemicals A–Z.

Overview of ROTISOLV® acetonitriles

We supply you with the ideal acetonitrile for any LC application, from our proven HPLC grade acetonitriles for simple, routine tasks and preparative separations to our premium grade for efficient and super-fast Ultra LC-MS applications.

Specification	ROTISOLV® Ultra LC-MS	ROTISOLV® LC-MS Grade	ROTISOLV® HPLC Ultra Gradient Grade	ROTISOLV® HPLC Gradient Grade	ROTISOLV® HPLC Gradient	ROTISOLV® HPLC	ROTISOLV® HPLC, isocratic	ROTISOLV® for preparative HPLC
Assay	≥99,98 %	≥99,98%	≥99,98%	≥99,9%	≥99,9%	≥99,9%	≥99,9%	≥99,8%
Water (KF)	≤0,01 %	≤0,01 %	≤0,01 %	≤0,02 %	≤0,02 %	≤0,03 %	≤0,015%	≤0,05%
free acid (as CH_3COOH)/ acidity	≤0,001 %	≤0,001 %	≤0,001 %	≤0,001 %	≤0,002 %	≤0,002 %		≤0,005 %
free alkali (as NH_3)/alkalinity	≤0,0001 %	≤0,0001 %	≤0,0001 %		≤0,0002 %			≤0,0005 %
Non volatile matter	≤0,0001 %	≤0,0001 %	≤0,0001 %	≤0,0002 %	≤0,0002 %	≤0,0003 %	≤0,0005 %	
UV transmission:								
254 nm					≥99 %			
≥240 nm							≥99 %	
240 nm		≥99 %						
>230 nm						≥99 %		
230 nm	≥99 %		≥99 %				≥96 %	≥96 %
≥220 nm				≥99 %				
220 nm		≥98 %		≥98 %	≥98 %			≥90 %
215 nm	≥98 %		≥98 %			≥95 %		
200 nm	≥97 %	≥95 %	≥96 %	≥96 %	≥95 %		≥80 %	
195 nm	≥85 %	≥78 %	≥85 %	≥85 %	≥80 %	≥80 %		
193 nm					≥60 %			
192 nm				≥50 %				
191 nm	≥30 %		≥25 %					
190 nm				≥10 %				
Gradient test: UV absorption of the greatest eluated peak								
210 nm	≤0,001 AU	≤0,0005 AU	≤1,0 mAU	≤1,0 mAU	≤2,0 mAU			
254 nm	≤0,0003 AU	≤0,0002 AU	≤0,2 mAU	≤0,5 mAU				
Fluorescence (as quinine):								
254 nm	≤0,25 ppb	≤0,2 ppb	≤0,2 ppb	≤1,0 ppb	≤0,5 ppb			
365 nm	≤0,25 ppb	≤0,2 ppb	≤0,2 ppb	≤0,5 ppb	≤0,5 ppb			
PAH-test (<2 ppb, HPLC)			complies					
Trace elements:								
Aluminium (Al)	≤20 ppb	≤0,05 ppm						
Calcium (Ca)	≤50 ppb	≤0,05 ppm						
Iron (Fe)	≤20 ppb	≤0,05 ppm						
Potassium (K)	≤50 ppb	≤0,05 ppm						
Magnesium (Mg)	≤20 ppb	≤0,05 ppm						
Sodium (Na)	≤100 ppb	≤0,05 ppm						
Particle filtration through membrane	0,1 µm	0,2 µm	0,2 µm	0,2 µm	0,2 µm	0,2 µm	0,2 µm	0,2 µm
Pack quantities and order numbers:								
1 l (glass)	HN40.1	AE70.1	T195.1	8825.1	HN44.1	7330.1	CN20.1	–
2,5 l (glass)	HN40.2	AE70.2	T195.2	8825.2	HN44.2	7330.2	CN20.2	6827.1
25 l (tinplate)	–	–	–	–	–	–	–	6827.2

Physical Data of ROTISOLV® HPLC Solvents

Sorted according to the polarity parameter P(1)

	P	X_e	X_d	X_n	Group
n-Hexane	0,1				
Isooctane	0,1				
n-Heptane	0,2				
Cyclohexane	0,2				
Tetrachlormethane	1,6				
Toluene	2,4	0,25	0,28	0,47	VII
Benzene	2,7	0,23	0,32	0,45	VII
Dichloromethane	3,1	0,29	0,18	0,53	V
Isopropanol	3,9	0,55	0,19	0,27	II
Tetrahydrofuran	4,0	0,38	0,20	0,42	III
Trichloromethane	4,1	0,25	0,41	0,33	VIII
Ethyl acetate	4,4	0,34	0,23	0,43	VI
Acetone	5,1	0,35	0,23	0,42	VI
Methanol	5,1	0,48	0,22	0,31	II
Acetonitrile	5,8	0,31	0,27	0,42	VI

P = Polarity index acc. to Snyder
X = Selectivity parameter
X_e = Index for proton acceptor effect
X_d =Index for proton donator effect
X_n = Index für die Dipol-Dipol-Wechselwirkung des Lösungsmittels

(1) L.R. Snyder J. Chromatogr. Sci 16, 223 (1978).

Sorted according to solvent strenght(1)

	A	B	C	D	E	F	G
n-Hexane	0,01		1,88	0,30	1,3751	69	
n-Heptane	0,01		1,92	0,40	1,3878	98,4	
Isooctane	0,01		1,94	0,47	1,3915	99,2	
Cyclohexane	0,04		2,02	0,90	1,4266	80,7	
Tetrachloromet-hane	0,18		2,24	0,90	1,4601	76,5	0
Toluene	0,29		2,4	0,55	1,4961	110,6	0,36
Benzene	0,32		2,3	0,60	1,5011	80,1	0
Trichloromethane	0,40		4,8	0,53	1,4459	61,7	1,01
Dichloromethane	0,42		8,9	0,41	1,4242	40	1,6
Acetone	0,56	3,4	21,4	0,30	1,3588	56,2	2,88
Tetrahydrofurane	0,57	4,4	7,6	0,46	1,4050	67	1,63
Ethyl acetate	0,58		6,0	0,43	1,3723	77,1	1,78
Acetonitrile	0,65	3,1	37,5	0,34	1,3442	81,6	3,92
2-Propanol	0,82	4,2	20,3	1,9	1,3776	82,4	1,66
Methanol	0,95	3,0	32,7	0,54	1,3288	65	1,7
Water		0,0	80	0,89	1,333	100	1,82

A = ε_o(A)(2)
B = ε_o(RP)(3,4)
C = relative permittivity(1) ε (20 °C)
D = viscosity h in cp (25 °C)
E = refractive index(5) n_D^{20}
F = boiling point(5) Kp in °C
G = Dipolmoment

(1) L.R. Snyder and J.J. Kirkland: Introduction to Modern Liquid Chromatography, 2nd Ed. (Wiley-Interscience, New York, 1979).
(2) aluminium oxide as stationary phase
(3) RP silica gel as stationary phase
(4) L.R. Snyder, J.W. Dolan and J.R. Gant: J. Chromatogr. 165, 3 (1979).
(5) Handbook of Chemistry and Physics, 65th 1983 CRC Press, Boca Raton, Florida.

UV Cut-off and miscibility of some HPLC solvents

UV cut-off (nm)	Solvents	Acetone	Acetonitrile	1-Butanol	*tert*-Butyl methyl ether	Cyclohexane	Dichloromethane	1,4-Dioxane	Esthyl actetate	Ethanol	*n*-Heptane	*n*-Hexane	Isooctane	Methanol	*n*-Pentane	2-Propanol	Tetrahydrofuran	Toluene	Trichloromethane	Water
330	Acetone																			
190	Acetonitrile					X														
215	1-Butanol										X	X	X		X					X
210	*tert*-Butyl methyl ether																			X
200	Cyclohexane		X											X						X
233	Dichloromethane																			X
215	1,4-Dioxane																			
256	Ethyl acetate																			X
210	Ethanol																			
200	*n*-Heptane		X											X						X
195	*n*-Hexane		X											X						X
215	Isooctane		X											X						X
206	Methanol					X					X	X	X		X					
190	*n*-Pentane		X											X						X
205	2-Propanol																			
212	Tetrahydrofuran																			
284	Toluene																			X
245	Trichloromethane																			X
190	Water			X	X	X	X		X		X	X	X		X			X	X	

☐ miscible
X not miscible

► For reference substances for the HPLC see page 489 ff.



Sorbents for Column Chromatography

We offer a wide range of sorbents for conventional column chromatography. A variety of different particle sizes and modifications means that the right filling material is available for all your separation applications.

Silica Gels



Silica gels are the most important sorbents in the purification and separation processes used in column chromatography. Our extensive range of silica gels with various different pore and particle sizes means that we always have the right material for any separation procedure. In addition to standard 60 Å silica gel, our range includes silica gels with pore sizes between 150 Å and 4500 Å, as well 22 Å and 35 Å for separating particularly small molecules. A selection of modified silica gel 60 grades completes the range.

Advantages:

- Extensive range
- Stringent quality control of the starting materials and the end products
- High purity; optimised to meet the needs of chromatography applications
- Large surface area for a high load-bearing capacity
- Tight particle size distribution for optimal efficiency and low pressure variations

3 Steps to the appropriate silica gel

Step 1: The pore size is selected based on the molar mass of the sample.

Molar mass (g/mol)	Pore size (Å)
<350	35
<800	60
<15000	150
<100000	250
<250000	500
<250000	1000–4500

Step 2: The grain size is selected in relation to the pressure in the system.

Pressure (bar)	Grain size (mm)
65	0.01
20	0.016–0.024
15	0.02–0.045
5	0.04–0.063
2	0.07–0.2
<1	>0.2

Step 3: The surface functionality is adapted to the solubility of the sample and the required degree of separation.
Polarity series: Silica gel > Diol > Amino > Cyano > C_{18}

Mobile phase	Stationary phase
Nonpolar to medium polar solvents (normal phase)	Silica gel
Nonpolar to polar solvents (normal phase, reversed phase)	Diol
	Amino
	Cyano
Polar solvents (reversed phase)	C_{18}

Silica Gels, unmodified

Product name	Purity	Art. No.	Pack Qty.	€
Silica gel 22 Grade 12	0,07–0,21 mm (200–70 mesh)	**9698.1**	250 g	73,65
		9698.2	500 g	111,30
		9698.3	1 kg	198,90
		9698.4	2.5 kg	385,95
Silica gel 35	0,04–0,063 mm (400–230 mesh)	**5400.1**	250 g	59,70
		5400.2	500 g	105,90
		5400.3	1 kg	174,70
		5400.4	2.5 kg	338,65
Silica gel 60	0,006–0,035 mm	**9779.1**	250 g	46,80
		9779.2	500 g	82,25
		9779.3	1 kg	150,00
		9779.4	2.5 kg	268,75
Silica gel 60 Grade 710 NW	0,010–0,014 mm	**9859.1**	25 g	67,20
		9859.2	50 g	120,30
		9859.3	100 g	222,00
Silica gel 60	0,016–0,024 mm	**9817.1**	250 g	97,75
		9817.2	500 g	174,70
		9817.3	1 kg	321,45
		9817.4	2.5 kg	693,40
	0,02–0,045 mm	**0712.1**	250 g	40,75
		0712.2	500 g	64,40
		0712.4	1 kg	112,35
		0712.3	2.5 kg	256,95
	0,03–0,2 mm	**P090.1**	500 g	45,70
		P090.2	1 kg	82,25
		P090.3	2.5 kg	186,55
		P090.4	5 kg	292,95
		P090.5	25 kg	876,15
	0,035–0,07 mm (400–220 mesh)	**5401.1**	250 g	40,75
		5401.2	500 g	67,65
		5401.3	1 kg	117,20
		5401.4	2.5 kg	252,65
	0,04–0,063 mm (400–230 mesh)	**P091.1**	250 g	44,00
		P091.2	1 kg	127,95
		P091.3	2.5 kg	292,95
		P091.4	5 kg	439,70
		P091.5	25 kg	1.558,75
	0,07–0,2 mm	**9820.1**	250 g	40,75
		9820.2	500 g	70,45
		9820.3	1 kg	113,45
		9820.4	2.5 kg	194,05
	0,09–0,13 mm	**0399.1**	250 g	50,45
		0399.2	500 g	87,65
		0399.3	1 kg	158,60
		0399.4	2.5 kg	321,45
	0,2–0,5 mm	**CN18.1**	500 g	64,00
		CN18.2	1 kg	111,30
		CN18.3	2.5 kg	246,20
	1,0–3,0 mm	**9833.1**	250 g	51,10
		9833.2	500 g	94,10
		9833.3	1 kg	162,90
		9833.4	2.5 kg	304,80
Silica gel 150	0,035–0,07 mm (400–220 mesh)	**5402.1**	250 g	39,70
		5402.2	500 g	63,35
		5402.3	1 kg	109,15
		5402.4	2.5 kg	246,20
	0,07–0,2 mm (220–70 mesh)	**5403.1**	250 g	39,70
		5403.2	500 g	63,35
		5403.3	1 kg	109,15
		5403.4	2.5 kg	246,20
	0,315–0,5 mm	**0485.1**	250 g	45,70
		0485.2	500 g	85,90
		0485.3	1 kg	152,15
		0485.4	2.5 kg	281,15
	0,6–1,4 mm	**9856.1**	250 g	46,15
		9856.2	500 g	82,25
		9856.3	1 kg	140,30
		9856.4	2.5 kg	256,95

Product name	Purity	Art. No.	Pack Qty.	€
Silica gel 250	0,04–0,063 mm (400–230 mesh)	**5405.1**	250 g	70,45
		5405.2	500 g	128,50
		5405.3	1 kg	246,20
		5405.4	2.5 kg	547,10
Silica gel 500	0,035–0,07 mm (400–220 mesh)	**5407.5**	100 g	198,90
		5407.1	250 g	352,10
		5407.2	500 g	676,20
		5407.3	1 kg	1.170,70
		5407.4	2.5 kg	2.633,75
	0,09–0,13 mm	**0512.1**	50 g	80,10
		0512.2	100 g	131,70
		0512.3	250 g	268,75
		0512.4	500 g	514,95
	0,1–0,3 mm	**0524.1**	50 g	79,05
		0524.2	100 g	131,70
		0524.3	250 g	268,75
		0524.4	500 g	493,45
Silica gel 1000	0,016–0,024 mm	**0533.1**	10 g	39,70
		0533.2	50 g	104,85
		0533.3	100 g	182,25
		0533.4	250 g	364,45
	0,035–0,07 mm (400–220 mesh)	**5409.5**	100 g	131,70
		5409.1	250 g	281,15
		5409.2	500 g	532,15
		5409.3	1 kg	1.037,40
		5409.4	2.5 kg	2.176,90
	0,09–0,13 mm	**0153.1**	10 g	28,95
		0153.2	50 g	79,05
		0153.3	100 g	128,50
		0153.4	250 g	281,15
Silica gel 1500	0,016–0,024 mm	**0559.1**	10 g	38,60
		0559.2	50 g	94,10
		0559.3	100 g	174,70
		0559.4	250 g	346,70
	0,09–0,13 mm	**0171.1**	10 g	38,60
		0171.2	50 g	128,50
		0171.3	100 g	192,45
		0171.4	250 g	478,40
Silica gel 2500	0,09–0,13 mm	**0177.1**	10 g	38,60
		0177.2	50 g	128,50
		0177.3	100 g	192,45
Silica gel 4500	0,1–0,3 mm	**0186.1**	10 g	44,65
		0186.2	50 g	141,40
		0186.3	100 g	256,95

Applications

Pore size	Fields	Applications
35-150 Å	Pharmacy	Vitamins Antibiotics Vaccines Organic synthesis Lubricants Functional Food
	Foods and Cosmetics	Oils and Fats Natural Products Stripping Agents Chemical Synthesis
	Chemistry	Pesticides Lipids
250-4500 Å	Biotechnology	Vaccines DNA Enzymes Carriers Biomolecules

Silica Gels 60, modified

Product name	Purity	Art. No.	Pack Qty.	€
Silica gel 60 amino	0,010–0,014 mm	**0600.1**	10 g	62,25
		0600.2	50 g	222,00
		0600.3	100 g	392,40
Silica gel 60 Amino	0,035–0,07 mm (400–220 mesh)	**5475.1**	50 g	198,90
		5475.2	100 g	360,15
		5475.3	250 g	740,70
Silica gel 60 C_{18}	0,01–0,014 mm	**5509.1**	50 g	205,90
		5509.2	100 g	396,70
		5509.3	250 g	833,15
Silica gel C_{18}	0,035–0,07 mm (400–220 mesh)	**5504.1**	50 g	158,60
		5504.2	100 g	299,95
		5504.3	250 g	622,45
Silica gel cyano	0,01–0,014 mm	**5531.1**	50 g	253,20
		5531.2	100 g	446,15
		5531.3	250 g	951,40
	0,035–0,07 mm (400–220 mesh)	**5499.1**	50 g	222,00
		5499.2	100 g	407,45
		5499.3	250 g	891,20
Silica gel diol	0,010–0,014 mm	**0567.1**	10 g	62,25
		0567.2	50 g	222,00
		0567.3	100 g	392,40
	0,035–0,07 mm (400–220 mesh)	**5458.1**	50 g	198,90
		5458.2	100 g	352,10
		5458.3	250 g	815,95

For additional product data and safety information, see chapter Chemicals A–Z.

► **Carl Roth and Grace:** Strategic partnership for an extended silica gel range!
For more information see www.carlroth.com/Grace

Silica Gels 60 for Special Applications*

Product name	Purity	General application	Art. No.	Pack Qty.	€
Silica gel 60 C_{18} ec	0,02–0,05 mm	For SPE and QuEChERS method	**6070.1**	10 g	88,70
			6070.2	25 g	170,95
Silica gel 60 diamino	0,045 mm	For the QuEChERS method. Aminopro-pylmodified silica gel for pesticide residue analysis in food.	**4878.1**	10 g	105,90
			4878.2	25 g	224,70
Silica gel 60 G	for TLC, with gypsum	For preparation of TLC plates.	**CN44.3**	250 g	50,00
			CN44.1	500 g	89,15
			CN44.2	1 kg	165,05
Silica gel 60 N	for TLC, contains no binder	For preparation of TLC plates.	**CN46.1**	500 g	94,10
			CN46.2	1 kg	162,90
Silica gel 60 G/F_{254}	for TLC, with gypsum	For preparation of TLC plates.	**CN45.3**	250 g	44,00
			CN45.1	500 g	83,35
			CN45.2	1 kg	152,15
Silica gel 60 P/F_{254}	for preparative TLC	For preparation of TLC plates.	**CN47.3**	250 g	51,10
			CN47.1	500 g	91,95
			CN47.2	1 kg	162,90

For additional product data and safety information, see chapter Chemicals A–Z.
* No Grace DAVISIL® products.

Aluminium Oxide



Our range of aluminium oxides (neutral – alkaline – acidic) for conventional column chromatography most certainly includes the right one for you.
All aluminium oxides are available in activity grade I. Activity grades II to V can be set up by adding water:
Activity grade I - 0 % water
Activity grade II - 3 % water
Activity grade III - 6 % water
Activity grade IV - 10 % water
Activity grade V - 15 % water

Product name	Art. No.	Pack Qty.	€
Aluminium oxide 90 neutral	**P092.1**	500 g	85,90
	P092.2	1 kg	149,45
	P092.3	2.5 kg	317,15
Aluminium oxide 90 basic	**X908.1**	500 g	85,90
	X908.2	1 kg	149,45
	X908.3	2.5 kg	317,15
Aluminium oxide 90 acidic	**X909.1**	500 g	85,90
	X909.2	1 kg	149,45
	X909.3	2.5 kg	317,15

For additional product data and safety information, see chapter Chemicals A–Z.

Cellulose

Cellulose powders are used mainly for qualitative and preparative separation and purification in column chromatography.

Cellulose
for column chromatography

Fibre length 0,02-0,1 mm.
WGK 1

Art. No.	Pack Qty.	Pack.	€
5873.3	100 g	plastic	21,00
5873.1	500 g	plastic	51,50
Original pack 6 x 500 g			48,93/500 g
5873.2	1 kg	plastic	81,20
Original pack 6 x 1 kg			77,14/1 kg

► Our range of **coupled agarose beads and columns for isolation of proteins** by affinity chromatography see www.carlroth.com

Celite® - Silicate Basis

Prepared and standardized Celite® is used as a filtering aid or as adsobent in column chromatography.
Composition:
approx. 90 % SiO_2, 2–5 % Al_2O_3, 1–4 % Fe_2O_3 and various other oxides in a low concentration, that is why the Celite® may be slightly tinted.

The complete Celite® range at a glance

Product name	Permeability (darcy)	Art. No.	Pack Qty.	€
Celite® 503	1.27 – 2.4	**0007.2**	1 kg	32,15
		0007.1	2.5 kg	64,40
Celite® 535	1.8 – 3.9	**0009.2**	1 kg	26,80
		0009.1	2.5 kg	59,05
Celite® 545	3.5 – 5.5	**0011.3**	250 g	14,55
		0011.2	1 kg	24,65
		0011.1	2.5 kg	46,15
		0011.4	10 kg	134,40
		0011.5	25 kg	263,40
Celite® Hyflo Super Cel®	0.73 – 1.64	**0005.2**	1 kg	32,15
		0005.1	2.5 kg	64,40
Celite® 512	0.28 – 0.76	**0050.2**	1 kg	32,15
		0050.1	2.5 kg	64,40
Celite® Standard Super Cel®	0.16 – 0.36	**0003.2**	1 kg	32,15
		0003.1	2.5 kg	64,40

For additional product data and safety information, see chapter Chemicals A–Z.

Florisil®

Highly selective magnesium silicate adsorbent for preparative and analytical chromatography. Ideal for sample preparation, column chromatography, clean-up methods and isolating, purifying and separating samples.

Product name	Purity	Art. No.	Pack Qty.	€
Florisil®	for hydrocarbon index analysis, 60–100 mesh	**CN39.1**	100 g	64,40
		CN39.3	500 g	235,45
		CN39.2	1 kg	439,70
		CN39.4	2.5 kg	843,90
Florisil® PR	for (pesticide) residue analysis, 60–100 mesh	**T201.1**	100 g	138,70
		T201.2	500 g	532,15
		T201.3	1 kg	994,40
Florisil®	60–100 mesh, for chromatography	**0101.1**	100 g	60,10
		0101.2	500 g	213,95
		0101.3	1 kg	396,70
	100–200 mesh, for chromatography	**0102.1**	100 g	56,90
		0102.2	500 g	185,45
		0102.3	1 kg	317,15

For additional product data and safety information, see chapter Chemicals A–Z.

Polyamide

Polyamide 6 (ε-aminopolycaprolactam) is used in conventional column chromatography for separating, purifying and isolating samples.

Polyamide
for column chromatography

Particle size 0,05-0,16 mm. Excellent for purification of plant extracts.
WGK 1

Art. No.	Pack Qty.	Pack.	€
9620.2	100 g	plastic	78,40
9620.1	250 g	plastic	166,65

Flash Chromatography

Flash chromatography is, on account of its superior properties, replacing column chromatography in many laboratories for chemical synthesis, pharmacokinetics and combinatorial chemistry. Flash chromatography can be used to clean samples inexpensively and quickly on a preparative scale up to approximately 100 g. A key factor here is the automation capacity of flash chromatography and the reduced solvent consumption compared to column chromatography.
Thin-layer chromatography is often used for the development of a selective and reproducible method. This way, it is possible to determine the optimal combination of various eluents and sorbents within a short space of time. The quality of the Carl ROTH product range is reflected in the fact that our TLC plates and foils are coated with the same basic silica gel as that used in CHROMABOND® flash columns. This enables the developed method to be perfectly applied to flash chromatography.

CHROMABOND® Flash RS SiOH Cartridges

ready-to-use

CHROMABOND® Flash RS SiOH are known for fast and economical chromatographic purifications in industry. The ready-to-use Flash columns (cartridges) are packed with highly pure silica (acid washed).

- **Increased analytical safety:** Organic solvent restistant, low bleed cartridges, thick column walls, one piece body, sophisticated length-to-diameter ratio for high plate numbers and excellent separation efficiencies. Distribution of eluent stream via highly porous frits.
- **High pressure stability:** Up to 21 bar for cartridges <40 bar, up to 15 bar for 80 g and 120 g cartridges, up to 12 bar for cartridges >200 g
- **High quality standard:** All flash cartridges and adsorbents undergo comprehensive during- and after-production quality assurance measures to ensure that the products conform to the specification.
- **Adsorbent weights:** 15 g to 330 g.

CHROMABOND® Flash RS SiOH Cartridges

CHROMABOND Flash RS SiOH are known for fast and economical chromatographic purifications in industry. The ready-to-use Flash columns (cartridges) are packed with highly pure silica (acid washed).



CHROMABOND® Flash RS SiOH Cartridges

Macherey-Nagel.

- Female Luer lock inlet and male Luer outlet
- Adsorbent: standard silica, unmodified (SiOH)
- Particle size: 40–63 µm, specific surface 500 m²/g
- pH stability: 2–8

Type	Column length (cm)	Column inner diameter (mm)	Filling quantity (g)	Art. No.	Pack Qty.	€
CHROMABOND® Flash RS 15 SiOH	11.6	21.2	15	**8664.1**	20 unit(s)	202,10
CHROMABOND® Flash RS 25 SiOH	16.5	21.2	25	**8670.1**	15 unit(s)	202,10
CHROMABOND® Flash RS 40 SiOH	17.1	26.4	40	**8674.1**	15 unit(s)	262,30
CHROMABOND® Flash RS 80 SiOH	24.0	30.8	80	**8675.1**	12 unit(s)	335,40
CHROMABOND® Flash RS 120 SiOH	25.2	36.0	120	**8681.1**	10 unit(s)	334,35
CHROMABOND® Flash RS 200 SiOH	20.0	60.0	200	**8708.1**	6 unit(s)	482,70
CHROMABOND® Flash RS 330 SiOH	27.0	60.0	330	**8714.1**	4 unit(s)	559,00

CHROMABOND® Flash DL Empty Columns

CHROMABOND® Flash DL empty columns can be used as solid injection system or for self-filling (direct load) and packing of flash cartridges. Column connection – female Luer lock inlet and male Luer lock outlet. Each cartridge comes with 3 filter elements – one already inserted, two more filters aside.

Delivery incl. Empty flash columns with 3 filter elements each.



CHROMABOND® Flash DL Empty Columns

Macherey-Nagel.

- Suitable as solid injection system or for self-filling and packaging of flash cartridges
- Female Luer lock inlet and male Luer outlet
- Each cartridge comes with 3 filter elements: one already inserted, two more filters aside

Type	Column length (cm)	Column inner diameter (mm)	For SiOH filling quantity (g)	For infusorial earth filling quantity (g)	Column volume (ml)	Art. No.	Pack Qty.	€
CHROMABOND® Flash DL 4	9.8	12.4	4	3	8	**8909.1**	50 unit(s)	181,70
CHROMABOND® Flash DL 15	11.6	21.2	15	10	30	**8910.1**	50 unit(s)	360,15
CHROMABOND® Flash DL 25	16.5	21.2	25	15	45	**8912.1**	50 unit(s)	542,90
CHROMABOND® Flash DL 40	17.1	26.4	40	30	75	**8917.1**	20 unit(s)	275,20
CHROMABOND® Flash DL 80	24.0	30.8	80	60	160	**8920.1**	20 unit(s)	542,90
CHROMABOND® Flash DL 120	25.2	36.0	120	80	220	**8924.1**	20 unit(s)	725,65
CHROMABOND® Flash DL 200	20.0	60.0	200	150	410	**8928.1**	10 unit(s)	453,65
CHROMABOND® Flash DL 330	27.0	60.0	330	250	600	**8932.1**	10 unit(s)	720,25

► Sorbents for filling the empty columns see page 552
► Products for affinity chromatography see www.carlroth.com

Accessories for Flash Chromatography



Macherey-Nagel.

Product name	Items supplied	Art. No.	Pack Qty.	€
CHROMABOND® Flash Starter Kit	1× 1/8″ PTFE tubing, ID 1.5 mm, length 3 m, 5x 1/4″-28 PP nuts, 5x 1/8″ ETFE ferrules, 5x 1/4″-28 nylon unions, 2x 1/4″-28 PP Luer locks female, 1 x 1/4″-28 PP Luer locks male, 1× 1/4″-28 PP Luer tip male.	**1L8P.1**	1 kit	118,25
CHROMABOND® Flash Stand Alone Kit, Luer	1× 1/4″-28 PP Luer lock female, 1× 1/4″-28 PP Luer lock male, 2x 1/8″ ETFE ferrules, 2x 1/4″-28 nylon unions, 2x 1/4″-28 PP nuts.	**1L8T.1**	1 kit	36,55

SPE (Solid Phase Extraction)

A fast, effective and inexpensive system for sample preparation. SPE columns enable samples to be processed for HPLC, GC, TLC, UV/IR spectroscopy, etc.

Applications:

- Food analysis
- Environmental analysis
- Organic chemistry
- Pharmaceutical analysis
- Biochemical analysis



All **CHROMABOND® columns** are made of polypropylene (PP) with very low content of extractable substances (plasticisers, stabilisers, ...) and thus allow blank-free results when using all common solvents.
The high quality CHROMABOND® sorbents are confined by chemically very inert polyethylene filter elements.
Various sizes from 1, 3, 6 to 150 ml.
Glass columns with chemically very inert glass fibre filter elements (nominal pore size 1 µm).
Two different sizes: 3 and 6 ml.
Exclude any influence of the column material (e. g. plasticiser).

CHROMAFIX® cartridges offer an alternative way of handling using positive pressure by syringes or peristaltic pumps..
Especially suited for convenient solid phase extraction of small sample volumes. Female Luer fitting at the inlet, male Luer tip as exit.

Three different sizes with different filling quantities:
S = small (0.4 ml), M = medium (0.8 ml), L = large (1.8 ml)

The **CHROMABOND® HR-*Xpert* concept** comprises 5 polymer-based RP and mixed-mode ion exchange phases. Depending on the character of the analytes it offers suitable adsorbents and optimal methods for sample preparation, cleaning and concentration.

State-of-the-art spherical polymer:
- Particle size: 85 µm
- Broad spectrum of application with special suitability for enrichment of pharmaceuticals from biological matrices
- Ideal flow properties due to low content of particulate matter

Optimized pore structure and high specific surface:
- High loadability and outstanding elution properties in RP as well as mixed-mode
- Low solvent consumption
- Rapid, economical analyses

High purity adsorber material:
- Allows high reproducibility with extremely low blind values
- Reliable analyses at ultra trace level
- No method adaptation for new batches necessary

HR-Xpert Phase	Properties	Application areas
CHROMABOND® HR-X	hydrophobic PS/DVB copolymer	neutral and polar active ingredients and analytes such as pesticides, drugs, phenols, PAHs, PCBs
CHROMABOND® HR-XC	strong acidic mixed-mode benzenesulfonic acid cation exchanger	basic active ingredients and analytes such as amines (melamine), . . . bases with pKa 2–10
CHROMABOND® HR-XA	strong basic mixed-mode quaternary ammonium anion exchanger	acidic active ingredients and analytes such as herbicides, . . . acids with pKa 2–8
CHROMABOND® HR-XCW	weak acidic mixed-mode carboxylic acid cation exchanger	strongly basic active ingredients and analytes such as quaternary amines, . . . bases with pKa > 10
CHROMABOND® HR-XAW	weak basic mixed-mode secondary/tertiary ammonium anion exchanger	



Our range of phases for SPE:

Code	Matrix	Modification / Application	Similar phases **
Reversed phases			
HR-X	PS/DVB*	–	Supelclean™ ENVI-Chrom P, Strata™-X, Oasis® HLB, Bond Elut Nexus
Easy	PS/DVB*	Polar, bifunctional	Strata™-X, Oasis® HLB, Sep-Pak®, Porapak™ RDX, Bond Elut PPL, Styre Screen® DVB, Bakerbond™ H2O philic DVB, Isolute® ENV+
HR-P	PS/DVB*	–	Strata™ SDB-L, Bond Elut ENV, Bond Elut LMS, Bakerbond™ H2O-phobic DVB, Isolute® 101, LiChrolut® EN
PS-RP	PS/DVB*	Removal of organic components	like HR-P
C_{18} ec	Silica	Octadecyl, endcapped	Strata™ C18-E, Sep-Pak® tC18, Bond Elut C18, Discovery® DSC-18(Lt); Supelclean™ ENVI-18, LC-18, CLEAN-UP® C18, Bakerbond™ Octadecyl, Isolute® C18(EC), LiChrolut® RP-18 E
C_{18}	Silica	Octadecyl, not endcapped	Strata™ C18-U, AccuBond® C18, Bakerbond™ PolarPlus, Isolute® C18, LiChrolut® RP-18
C_{18} Hydra	Silica	Octadecyl, not endcapped / for polar analytes	–
C_8	Silica	Octyl, not endcapped	Strata™ C8, Sep-Pak® C8, Bond Elut® C8, DSC-8, ENVI-8, LC-8, CLEAN-UP® C8, AccuBond® C8, Bakerbond™ Octyl, Isolute® C8(EC)
C_4	Silica	Butyl, not endcapped	–
Normal phases			
SiOH	Silica	unmodified	Strata™ Si-1, Bond Elut silica, Discovery® DSC-Si, Supelclean™ LC-Si, CLEAN-UP® silica, Bakerbond™ silica gel, Isolute® silica, LiChrolut® Si
NH_2	Silica	Aminopropyl	Strata™ NH2, Sep-Pak® NH2, Bond Elut NH2, Discovery® DSC-NH2, LC-NH2, CLEAN-UP® aminopropyl, Bakerbond™ amino, Isolute® NH2, LiChrolut® NH2
Alox N	Aluminium oxide	neutral	LC-Alumina-N, AccuBond® Aluminiumoxid N
Florisil®	Magnesiumsilicate	–	Strata™ FL-PR Florisil®, Sep-Pak® Florisil®, Bond Elut® Florisil®, Supelclean™ NVI-Florisil®, Supelclean™ LC- Florisil®, CLEAN-UP® Florisil®, Bakerbond™ Florisil®, Isolute® FL, LiChrolut®Florisil®
PA	Polyamide 6	–	DPA-6S
Ion exchangers			
SA	Silica	Benzene sulfonic acid cation exchanger (SCX)	Strata™ SCX, Bond Elut SCX, Discovery® DSC-SCX, Supelclean™ LC-SCX, CLEAN-UP® Benzenesulfonic Acid, Bakerbond™ Aromatic Sulfonic Acid, Isolute® SCX, LiChrolut® SCX
SB	Silica	Qauternary ammonium anion exchanger (SAX)	Strata™ SAX, Sep-Pak® SAX, Bond Elut SAX, Discovery® DSC-SAX, Supelclean™ LC-SAX, CLE-AN-UP® Quaternary Amine, Bakerbond™ Quarternary Amine, Isolute® SAX, LiChrolut® SAX
HR-XA	PS/DVB*	Strong mixed mode anion exchanger for acidic analytes (MAX)	Oasis® MAX, HyperSep™ Retain AX, Styre Screen® QAX, Strata™-X-A
HR-XAW	PS/DVB*	Weak basic mixed mode anion exchanger	Oasis® WAX, Strata™-X-AW
HR-XC	PS/DVB*	Strong mixed mode - cation exchanger for basic analytes (MCX)	Oasis® MCX, Strata™-X-C, Styre Screen® DBX, HyperSep™ Retain™-CX
HR-XCW	PS/DVB*	Weak acidic mixed mode cation exchanger	Oasis® WCX, Strata™-X-CW
PS-OH^-	PS/DVB*	Strong PS-DVB anion exchanger (OH^- form) for removing or concentrating anions from water and for increasing the pH value in acidic samples.	–
PS-H^+	PS/DVB*	Strong PS-DVB cation exchanger (H^+-form) to remove or concentrate cations from water and to lower the pH of basic samples.	–
PS-Mix	PS/DVB*	Mixture of H^+ form (strong cation exchanger) and OH^- form (strong anion exchanger) for desalination of water.	–
PS-Ag^+	PS/DVB*	Strong PS-DVB cation exchanger (Ag^+ form) for removing halide ions from water.	–
PS-Ba^{2+}	PS/DVB*	Strong PS-DVB cation exchanger, Ba^{2+} form to remove sulphate ions from water.	–

* polystyrene/divinylbenzene
** Phases from other manufacturers showing similar selectivity due to their chemical or physical properties (list not exhaustive).

Our range of phases for SPE (Continuation):

Code	Matrix	Modification / Application	Similar phases **
Phasen for special applications Phasen for special applications			
Na_2SO_4/Florisil®	-	Combination phase for extraction of hydrocarbons for water (DIN H 53 / ISO DIS 9377-4)	–
SA/SiOH	Silica	Combination phase for enrichment of PCBs from waste oil	Bakerbond™ PCB-N
NAN	Silica / $AgNO_3$ + Na_2SO_4	Special combination phase for SPE analysis of PCBs from sludge	–
SiOH-H_2SO_4/SA	Silica	Combination phase used together with SiOH for enrichment of PCBs from oil	–
CN/SiOH	Silica	Combination phase for enrichment of PAHs from soil	–
C_{18} PAH	Silica	Octadecyl silica for for enrichment of PAH from water	Bakerbond™ Octadecyl Lightload
NH_2/C_{18}	Silica	Combination phase for SPE analysis of PAHs from water containing humic acid	–
HR-P-AOX	PS/DVB*	For extraction of AOX from water (DIN 38409 - H22)	–
Drug	Silica	Bifunctional C8/SA, for enrichment of drugs form urine	Strata™ Screen-C, Bond Elut Certify I, Discovery® DSC-MCAX, Clean Screen® DAU, Bakerbond™ Narc-2, Isolute® HCX, LiChrolut® TSC, HyperSep™ Verify CX
Drug II	Silica	Bifunctional C8/SB, for extraction of THC and derivatives as well as acidic analytes from biological fluids	Strata™ Screen-A, Bond Elut Certify II, Clean Screen® THC, Bakerbond™ Narc-1, Isolute® HAX, HyperSep™ Verify AX
ABC 18	Silica	Octydecyl, with ion exchange character, for acrylamide analysis	Isolute® M-M (Multimode)
Dry	Na_2SO_4	For drying organic samples	–
PTL/PTS	Special membrane	Phase separation	–
XTR	Kieselguhr	Liquid-liquid extraction	EXtrelut®, Chem Elut™, Hydromatrix™, Isolute® SLE +

Selection schematic for SPE phases and solvents

Matrix / solubility of sample	Polarity of sample	Solubility of analytes	Polarity of sample	For the adsorption of recommended phases	For the elution recommended solvents ROTISOLV® Pestilyse®, Pestilyse® plus and GC Ultra Grade
aqueous	non-ionic	aqueous	non-polar	HR-X, Easy, HR-P, C18 ec, C18 Hydra	Hexane Dichloromethane Acetonitrile Alcohols
			medium polar	SiOH, NH_2	Ethyl acetate Alcohols
			polar	NH_2	Ethyl acetate Alcohols
	ionic	aqueous	cationic	HR-XC, HR-XCW, SA	Acids, saline solutions, buffers
			anionic	HR-XA, HR-XAW, SB, NH_2	Acids, saline solutions, buffers
organic		aqueous	non-polar	HR-X, Easy, HR-P, C18 ec, C18 Hydra	Hexane Dichloromethane Acetonitrile Alcohols
		organic	medium polar	SiOH, NH_2	Ethyl acetate Alcohols
		organic	polar	NH2	

Solvents ROTISOLV® GC Ultra Grade, Pestilyse® plus and Pestilyse® for SPE

Polarity	Solvent	Art. No.	Water Miscibillity
nonpolar	n-Heptane	X878, 7566	no
	n-Hexane	T165, KK48, 7573	no
	n-Pentane	T903, KK45, 7587	no
	Isooctane	T167, 7580	no
	Petroleum ether	T170, 7588	no
	Cyclohexane	T163, KK41, 7542	no
	Toluene	KK46, T166, 7591	no
	Diethy ether	T900	no
	2-Propanol	T902, 7590	yes
	Trichlormethane/Chloroform	T901, 7554	no
	Acetic acid ethyl ester	T164, KK42, 7565	weak
	Methanol	KK44, T169, 7583	yes
	Acetone	T161, KK40, 7535	yes
	Acetonitrile	T168	yes
	Dichlormethane	KK47, 7562	no
polar	Water	T905	yes

RP Phases



SPE polypropylene column CHROMABOND® HR-X

Macherey-Nagel. Material: PP columns with PE filter elements.

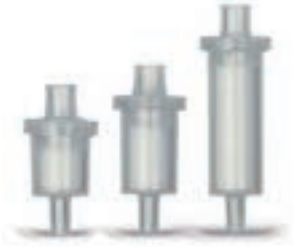
Spherical, hydrophobic polystyrene/divinylbenzene copolymer

Especially for the enrichment of pharmaceuticals and active ingredients.

Please note: high-purity material with homogenous surface and optimised pore structure – due to optimised production process – enables lowest blanks, outstanding recovery rates and highest reproducibility.

Similar phases: Supelclean™ ENVI-Chrom P, Strata™-X, Oasis® HLB, Bond Elut Nexus

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
1	30	1 × 30 units	**3079.1**	30 unit(s)	74,85
3	200	1 × 30 units	**3081.1**	30 unit(s)	117,20
3	200	5 × 50 units	**3081.2**	250 unit(s)	774,00
6	200	1 × 30 units	**3086.1**	30 unit(s)	158,05
6	200	5 × 50 units	**3086.2**	250 unit(s)	1.053,50
6	500	1 × 30 units	**3087.1**	30 unit(s)	240,80



SPE Cartridges CHROMAFIX® HR-X

Macherey-Nagel.

Spherical, hydrophobic polystyrene/divinylbenzene copolymer

Especially for the enrichment of pharmaceuticals and active ingredients.

Please note: high-purity material with homogenous surface and optimised pore structure – due to optimised production process – enables lowest blanks, outstanding recovery rates and highest reproducibility.

Similar phases: Supelclean™ ENVI-Chrom P, Strata™-X, Oasis® HLB, Bond Elut Nexus

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Medium	0.8	10 × 5 units	**1K98.1**	50 unit(s)	242,95
Large	1.8	10 × 5 units	**1K99.1**	50 unit(s)	270,90

SPE polypropylene column CHROMABOND® Easy

Macherey-Nagel. Material: PP columns with PE filter elements.

Polar modified polystyrene/divinylbenzene copolymer with a week ion exchanger.

Please note: Due to its bifunctional modification it is much more hydrophilic than conventional polystyrene/divinylbenzene polymers and thus easily wettable with water.

Similar phases: Strata™-X, Oasis® HLB, Sep-Pak® Porapak RDX, Nexus, Bond Elut® PPL, Styre Screen® DVB, Bakerbond™ H_2O philic DVB, Isolute® ENV+

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	60	1 × 30 units	**1335.1**	30 unit(s)	110,75
3	200	1 × 30 units	**1336.1**	30 unit(s)	117,20
3	200	5 × 50 units	**1336.2**	250 unit(s)	774,00
3	500	1 × 30 units	**1337.1**	30 unit(s)	166,65
6	200	1 × 30 units	**1338.1**	30 unit(s)	158,05
6	200	5 × 50 units	**1338.2**	250 unit(s)	1.053,50
6	500	1 × 30 units	**1339.1**	30 unit(s)	240,80



SPE polypropylene column CHROMABOND® HR-P

Macherey-Nagel. Material: PP columns with PE filter elements.

Highly porous polystyrene/divinylbenezene copolymer

- Particle size: 50–100 µm
- Spec. surface: 1200 m^2/g

Similar phases: Strata® SDB-L, Bond Elut ENV, Bond Elut LMS, Bakerbond™ H_2O-phobic DVB, Isolute® 101, LiChrolut® EN

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	200	1 × 30 units	**N760.1**	30 unit(s)	117,20
3	200	5 × 50 units	**N760.2**	250 unit(s)	774,00
3	500	1 × 30 units	**N761.1**	30 unit(s)	139,75
6	500	1 × 30 units	**N762.1**	30 unit(s)	170,95
6	1000	1 × 30 units	**N763.1**	30 unit(s)	245,10



SPE Cartridges CHROMAFIX® HR-P

Macherey-Nagel.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Small	0.4	10 × 5 units	**1K78.1**	50 unit(s)	184,90
Medium	0.8	10 × 5 units	**1K79.1**	50 unit(s)	213,95
Large	1.8	10 × 5 units	**1K7A.1**	50 unit(s)	275,20



SPE polypropylene column CHROMABOND® C18 ec

Macherey-Nagel. Material: PP columns with PE filter elements.

Octadecyl-silica gel, endcapped

Please note: Extremely non-polar, hydrophobic interaction with many organic compounds

Similar phases: Strata® C18-E, Sep-Pak® tC18, Bond Elut C18, Discovery® DSC-18(Lt); Supelclean™ ENVI-18, Supelclean™ LC-18, CLEAN-UP® C18, Bakerbond™ Octadecyl, Isolute® C18(EC), LiChrolut® RP-18 E

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
1	100	1 × 100 units	**N745.1**	100 unit(s)	204,25
3	200	1 × 50 units	**N746.1**	50 unit(s)	156,95
3	500	1 × 50 units	**N747.1**	50 unit(s)	174,15
3	500	5 × 50 units	**N747.2**	250 unit(s)	693,40
6	500	1 × 30 units	**N748.1**	30 unit(s)	117,20
6	500	5 × 50 units	**N748.2**	250 unit(s)	774,00
6	1000	1 × 30 units	**N749.1**	30 unit(s)	151,60
6	1000	5 × 50 units	**N749.2**	250 unit(s)	1.015,90

SPE glass columns CHROMABOND® C18 ec

Macherey-Nagel. Material: Glass (borosilicate type I) with glass fiber (GF) filter elements.

Octadecyl-silica gel, endcapped

Ideal for the determination of phthalates

Please note: Extremely non-polar, hydrophobic interaction with many organic compounds.

Similar phases: Strata® C18-E, Sep-Pak® tC18, Bond Elut C18, Discovery® DSC-18(Lt), Supelclean™ ENVI-18, Supelclean™ LC-18, CLEAN-UP® C18, Bakerbond™ Octadecyl, Isolute® C18(EC), LiChrolut® RP-18 E

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	200	1 × 50 units	**9617.1**	50 unit(s)	294,55
6	500	1 × 30 units	**9619.1**	30 unit(s)	236,50
6	1000	1 × 30 units	**9623.1**	30 unit(s)	260,15



SPE Cartridges CHROMAFIX® C18 ec

Macherey-Nagel.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Small	0.4	10 × 5 units	**1K70.1**	50 unit(s)	169,85
Medium	0.8	10 × 5 units	**1K71.1**	50 unit(s)	203,20
Large	1.8	10 × 5 units	**1K72.1**	50 unit(s)	270,90

SPE polypropylene column CHROMABOND® C18

Macherey-Nagel. Material: PP columns with PE filter elements.

Octadecyl-silica gel, not endcapped

Please note: Extremely non-polar, hydrophobic interaction with many organic compounds

Similar phases: Strata™ C18-U, AccuBond® C18, Bakerbond™ PolarPlus, Isolute® C18, LiChrolut® RP-18

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
1	100	1 × 50 units	**1LT9.1**	100 unit(s)	204,25
3	200	1 × 50 units	**1LTA.1**	50 unit(s)	156,95
3	500	1 × 50 units	**1LTC.1**	50 unit(s)	174,15
6	500	1 × 30 units	**1LTE.1**	30 unit(s)	117,20
6	500	1 × 30 units	**1LTH.1**	30 unit(s)	151,60

SPE Cartridges CHROMAFIX® C18

Macherey-Nagel.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Small	0.4	10 × 5 units	**1K8Y.1**	50 unit(s)	169,85
Medium	0.8	10 × 5 units	**1K90.1**	50 unit(s)	203,20
Large	1.8	10 × 5 units	**1K91.1**	50 unit(s)	270,90

SPE polypropylene column CHROMABOND® C18 Hydra

Macherey-Nagel. Material: PP columns with PE filter elements.

Octadecyl modified silica gel, not endcapped

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	200	1 × 50 units	**N751.1**	50 unit(s)	156,95
3	500	1 × 50 units	**N752.1**	50 unit(s)	174,15
6	500	1 × 30 units	**N753.1**	30 unit(s)	117,20
6	1000	1 × 30 units	**N754.1**	30 unit(s)	151,60

SPE Cartridges CHROMAFIX® C8

Macherey-Nagel.

Silica gel based octyl phase, not endcapped similar to C_{18}. Secondary interactions with polar compounds are more pronounced due to shorter alkyl chains.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Medium	0.8	10 × 5 units	**1K97.1**	50 unit(s)	203,20

SPE Cartridges CHROMAFIX® C4

Macherey-Nagel.

Silica gel based butyl phase, not endcapped similar to the C_8. Secondary interactions with polar compounds are more pronounced due to shorter alkyl chains. For compounds that are too strongly retarded at C_{18} or C_8.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Medium	0.8	10 × 5 units	**1K7L.1**	50 unit(s)	203,20

Normal Phases

SPE polypropylene column CHROMABOND® SiOH

Macherey-Nagel. Material: PP columns with PE filter elements.

Unmodified, slightly acidic silica gel

Please note: Extremely polar! Adsorbs air humidity. Should be kept well closed and if necessary dried prior to use. Due to its high affinity for polar compounds it should not be conditioned with polar (e.g. methanol) or water containing solvents.

Similar phases: Strata® Si-1, Bond Elut silica, Discovery® DSC-Si, Supelclean™ LC-Si, CLEAN-UP® silica, Bakerbond™ silica gel, Isolute® silica, LiChrolut® Si

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
1	100	1 × 100 units	**N755.1**	100 unit(s)	175,25
3	200	1 × 50 units	**N756.1**	50 unit(s)	147,30
3	500	1 × 50 units	**N757.1**	50 unit(s)	160,20
3	500	5 × 50 units	**N757.2**	250 unit(s)	650,40
6	500	1 × 30 units	**N758.1**	30 unit(s)	109,65
6	1000	1 × 30 units	**N759.1**	30 unit(s)	123,65
6	1000	5 × 50 units	**N759.2**	250 unit(s)	800,90



SPE Cartridges CHROMAFIX® SiOH

Macherey-Nagel.

Unmodified, slightly acidic silica gel

Please note: Extremely polar! Adsorbs air humidity. Should be kept well closed and if necessary dried prior to use. Due to its high affinity for polar compounds it should not be conditioned with polar (e.g. methanol) or water containing solvents.

Similar phases: Strata® Si-1, Bond Elut silica, Discovery® DSC-Si, Supelclean™ LC-Si, CLEAN-UP® silica, Bakerbond™ silica gel, Isolute® silica, LiChrolut® Si

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Large	1.8	10 × 5 units	**1HP4.1**	50 unit(s)	207,50

SPE polypropylene column CHROMABOND® NH_2

Macherey-Nagel. Material: PP columns with PE filter elements.

Aminopropyl modified silica gel

Polar weak anion exchanger

Carbon content 3.5 %

- Pore size: 60 Å
- Particle size: 45 µm
- Spec. surface: 500 m^2/g
- pH stability: 2–8

Similar phases: Strata® NH_2, Sep-Pak® NH_2, Bond Elut NH_2, Discovery® DSC-NH_2, Supelclean™ LC-NH_2, CLEAN-UP® aminopropyl, Bakerbond™ amino, Isolute® NH_2, LiChrolut® NH_2

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
1	100	1 × 100 units	**1340.1**	100 unit(s)	255,85
3	500	1 × 50 units	**1342.1**	50 unit(s)	219,30
6	500	1 × 30 units	**1343.1**	30 unit(s)	146,20
6	1000	1 × 30 units	**1344.1**	30 unit(s)	213,95

SPE Cartridges CHROMAFIX® Alox N

Macherey-Nagel.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Medium	0.8	10 × 5 units	**1K7C.1**	50 unit(s)	264,45
Large	1.8	10 × 5 units	**1K7E.1**	50 unit(s)	306,40

SPE polypropylene column CHROMABOND® Florisil®

Macherey-Nagel. Material: PP columns with PE filter elements.

Magnesium silicate, high-purity
MgO – SiOH (15:85)

- Particle size: 150–250 µm

Similar phases: Strata® FL-PR, Sep-Pak® Florisil®, Bond Elut Florisil®, Supelclean™ ENVI-Florisil®, Supelclean™ LC- Florisil®, CLEAN-UP® Florisil®, Bakerbond™ Florisil®, Isolute® FL, LiChrolut® Florisil®

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	200	1 × 50 units	**N764.1**	50 unit(s)	147,30
3	500	1 × 50 units	**N765.1**	50 unit(s)	160,20
6	1000	1 × 30 units	**1291.1**	30 unit(s)	123,65
6	1000	5 × 50 units	**1291.2**	250 unit(s)	800,90

SPE Cartridges CHROMAFIX® Florisil

Macherey-Nagel.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Large	1.8	10 × 5 units	**1HXH.1**	50 unit(s)	207,50

SPE Cartridges CHROMAFIX® PA

Macherey-Nagel.

For sample preparation of flavonoids and PAHs.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Small	0.4	10 × 5 units	**1K92.1**	50 unit(s)	179,55
Large	1.8	10 × 5 units	**1K93.1**	50 unit(s)	279,50

Ion Exchangers

SPE polypropylene column CHROMABOND® SA (SCX)

Macherey-Nagel. Material: PP columns with PE filter elements.

Benzenesulphonic acid modified silica gel, strong acidic cation exchanger (SCX)

Please note: Adsorbent with hydrophobic and π-π-interactions (benzene ring); Ion exchange of organic compounds from aqueous matrix; Elution of interesting compounds with solvent systemes, which compensate the ionic and nonpolar interactions, e.g. methanolic HCl.

Similar phases: Strata® SCX, Bond Elut SCX, Discovery® DSC-SCX, Supelclean™ LC-SCX, CLEAN-UP® Benzenesulfonic Acid, Bakerbond™ Aromatic Sulfonic Acid, Isolute® SCX, LiChrolut® SCX

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
1	100	1 × 100 units	**1293.1**	100 unit(s)	255,85
3	500	1 × 50 units	**1295.1**	50 unit(s)	219,30
3	500	5 × 50 units	**1295.2**	250 unit(s)	876,15
6	1000	1 × 30 units	**1297.1**	30 unit(s)	213,95

SPE Cartridges CHROMAFIX® SA (SCX)

Macherey-Nagel.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Small	0.4	10 × 5 units	**1K84.1**	50 unit(s)	179,55
Medium	0.8	10 × 5 units	**1K85.1**	50 unit(s)	210,70
Large	1.8	10 × 5 units	**1K86.1**	50 unit(s)	279,50

SPE polypropylene column CHROMABOND® SB (SAX)

Macherey-Nagel. Material: PP columns with PE filter elements.

Quat. ammonium modified silica gel, strong basic anion exchanger (SAX)

Please note: Not suitable for very strong anions such as sulphonic acids because they are difficult to elute.

Similar phases: Strata® SAX, Sep-Pak® SAX, Bond Elut SAX, Discovery® DSC-SAX, Supelclean™ LC-SAX, CLEAN-UP® Quaternary Amine, Bakerbond™ Quarternary Amine, Isolute® SAX, LiChrolut® SAX

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
1	100	1 × 100 units	**1346.1**	100 unit(s)	255,85
3	200	1 × 50 units	**1350.1**	50 unit(s)	196,75
3	500	1 × 50 units	**1351.1**	50 unit(s)	219,30
3	500	5 × 50 units	**1351.2**	250 unit(s)	876,15
6	500	1 × 30 units	**1352.1**	30 unit(s)	146,20
6	1000	1 × 30 units	**1353.1**	30 unit(s)	213,95

SPE Cartridges CHROMAFIX® SB (SAX)

Macherey-Nagel.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Medium	0.8	10 × 5 units	**1K76.1**	50 unit(s)	210,70
Large	1.8	10 × 5 units	**1K77.1**	50 unit(s)	279,50

SPE polypropylene column CHROMABOND® HR-XC

Macherey-Nagel. Material: PP columns with PE filter elements.

Benzenesulphonic acid modified spherical polystyrene/divinylbenzene copolymer, cation exchanger (mixed mode)

Especially for the enrichment of basic analytes (pK_a 2–10).

Please note: high-purity material with homogenous surface and optimised pore structure – due to optimised production process – enables lowest blanks, outstanding recovery rates and highest reproducibility.

Similar phases: Oasis® MCX, Strata™ X-C, Styre Screen® DBX, HyperSep™ Retain CX

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	60	1 × 30 units	**3090.1**	30 unit(s)	112,90
3	200	1 × 30 units	**3092.1**	30 unit(s)	126,85
6	500	1 × 30 units	**3095.1**	30 unit(s)	264,45



SPE Cartridges CHROMAFIX® HR-XC

Macherey-Nagel.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Small	0.4	10 × 5 units	**1K81.1**	50 unit(s)	233,30
Medium	0.8	10 × 5 units	**1K82.1**	50 unit(s)	260,15
Large	1.8	10 × 5 units	**1K83.1**	50 unit(s)	332,20

SPE polypropylene column CHROMABOND® HR-XA

Macherey-Nagel. Material: PP columns with PE filter elements.

Quat. ammonium modified spherical polystyrene/divinylbenzene copolymer, strong anion exchanger (mixed mode)

Especially for the enrichment of acidic analytes (pK_a 2–8).

Please note: high-purity material with homogenous surface and optimised pore structure – due to optimised production process – enables lowest blanks, outstanding recovery rates and highest reproducibility.

Similar phases: Oasis® MAX, HyperSep™ Retain AX, StyreScreen® QAX, Strata™-X-A

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	60	1 × 30 units	**3069.1**	30 unit(s)	112,90
3	200	1 × 30 units	**3071.1**	30 unit(s)	126,85
6	500	1 × 30 units	**3072.1**	30 unit(s)	264,45

SPE Cartridges CHROMAFIX® HR-XA

Macherey-Nagel.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Small	0.4	10 × 5 units	**1K7N.1**	50 unit(s)	233,30
Medium	0.8	10 × 5 units	**1K7P.1**	50 unit(s)	260,15
Large	1.8	10 × 5 units	**1K7T.1**	50 unit(s)	332,20

SPE polypropylene column CHROMABOND® HR-XCW

Macherey-Nagel. Material: PP columns with PE filter elements.

Carboxylic acid modified spherical polystyrene/divinylbenzene copolymer, weak acidic cation exchanger (mixed mode)

Especially for the enrichment of strong basic analytes (pK_a >10).

Please note: high-purity material with homogenous surface and optimised pore structure – due to optimised production process – enables lowest blanks, outstanding recovery rates and highest reproducibility.

Similar phases: Oasis® WCX, Strata™-X-CW

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	60	1 × 30 units	**3917.1**	30 unit(s)	112,90
3	200	1 × 30 units	**3919.1**	30 unit(s)	126,85
3	500	1 × 30 units	**3924.1**	30 unit(s)	186,00

SPE Cartridges CHROMAFIX® HR-XCW

Macherey-Nagel.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Small	0.4	10 × 5 units	**1K8P.1**	50 unit(s)	233,30
Medium	0.8	10 × 5 units	**1K8T.1**	50 unit(s)	260,15
Large	1.8	10 × 5 units	**1K8X.1**	50 unit(s)	332,20



SPE polypropylene column CHROMABOND® HR-XAW

Macherey-Nagel. Material: PP columns with PE filter elements.

Sec./tert. ammonium modified spherical polystyrene/divinylbenzene copoloymer, weak basic anion exchanger (mixed mode)

Especially for the enrichment of strongly acidic analytes (pK_a <1).

Please note: high-purity material with homogenous surface and optimised pore structure – due to optimised production process – enables lowest blanks, outstanding recovery rates and highest reproducibility.

Similar phases: Oasis® WAX, Strata™-X-AW

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	60	1 × 30 units	**3905.1**	30 unit(s)	112,90
3	200	1 × 30 units	**3911.1**	30 unit(s)	126,85
3	500	1 × 30 units	**3912.1**	30 unit(s)	186,00

SPE Cartridges CHROMAFIX® HR-XAW

Macherey-Nagel.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Small	0.4	10 × 5 units	**1K94.1**	50 unit(s)	233,30
Medium	0.8	10 × 5 units	**1K95.1**	50 unit(s)	260,15
Large	1.8	10 × 5 units	**1K96.1**	50 unit(s)	332,20

SPE Cartridges CHROMAFIX® PS-H$^+$

Macherey-Nagel.

Strong PS-DVB cation exchanger (H^+-form) to remove or concentrate cations from water and to lower the pH of basic samples.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Small	0.4	10 × 5 units	**1K73.1**	50 unit(s)	233,30
Medium	0.8	10 × 5 units	**1K74.1**	50 unit(s)	260,15
Large	1.8	10 × 5 units	**1K75.1**	50 unit(s)	332,20

SPE Cartridges CHROMAFIX® PS-OH$^-$

Macherey-Nagel.

Strong PS-DVB anion exchanger (OH^- form) for removing or concentrating anions from water and for increasing the pH value in acidic samples.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Small	0.4	10 × 5 units	**1K87.1**	50 unit(s)	233,30
Medium	0.8	10 × 5 units	**1K88.1**	50 unit(s)	260,15
Large	1.8	10 × 5 units	**1K89.1**	50 unit(s)	332,20

SPE Cartridges CHROMAFIX® PS-Mix (PS-H$^+$ + PS-OH$^-$)

Macherey-Nagel.

Mixture of PS-DVB copolymer in H^+ form (strong cation exchanger) and OH^- form (strong anion exchanger) for desalination of water.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Small	0.4	10 × 5 units	**1EE1.1**	50 unit(s)	263,40

SPE Cartridges CHROMAFIX® PS-Ag$^+$

Macherey-Nagel.

Strong PS-DVB cation exchanger (Ag^+ form) for removing halide ions from water.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Small	0.4	10 × 5 units	**1K8A.1**	50 unit(s)	291,35
Medium	0.8	10 × 5 units	**1K8C.1**	50 unit(s)	313,90

SPE Cartridges CHROMAFIX® PS-Ba^{2+}

Macherey-Nagel.

Strong PS-DVB cation exchanger, Ba^{2+} form to remove sulphate ions from water.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Small	0.4	10 × 5 units	**1K7H.1**	50 unit(s)	233,30
Medium	0.8	10 × 5 units	**1K7K.1**	50 unit(s)	260,15

SPE Cartridges CHROMAFIX® PS-RP

Macherey-Nagel.

Hydrophobic PS-DVB copolymer for removing organic interfering components from water.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Small	0.4	10 × 5 units	**1K8E.1**	50 unit(s)	213,95
Medium	0.8	10 × 5 units	**1K8H.1**	50 unit(s)	251,55

SPE Phases for Environmental Analysis



SPE glass column CHROMABOND® Na_2SO_4/Florisil®

Macherey-Nagel. Material: Glass (borosilicate type I) with glass fiber (GF) filter elements.

For environmental analysis

Extraction of hydrocarbons from water according to DIN H53 / ISO DIS 9377-4

Special combination phase of sodium sulphate and Florisil®

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
6	2000/2000	1 × 30 units	**N744.1**	30 unit(s)	233,30
6	2000/2000	5 × 50 units	**N744.2**	250 unit(s)	1.558,75

TIP

Recommended chemicals

for method H53 with SPE-glass columns CHROMABOND® Na_2SO_4/ Florisil®.

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
Acetone	ROTISOLV® Pestilyse® plus ≥99,9 %	glass	**7535.1**	2.5 l	78,40
n-Hexane	ROTISOLV® Pestilyse® plus ≥96 %	glass	**7567.1**	2.5 l	133,85
Magnesium sulphate heptahydrate	≥99 %, p.a., ACS	plastic	**P027.1**	500 g	31,75
			P027.2	1 kg	50,45
			P027.3	2.5 kg	96,65
Petroleum ether 40–60 °C	ROTISOLV® Pestilyse® plus	glass	**7588.1**	2.5 l	96,25
Sodium sulphate	≥99 %, p.a., ACS, ISO, anhydrous, powdered	plastic	**8560.3**	500 g	31,75
			8560.1	1 kg	46,15
			8560.2	5 kg	170,95
			8560.5	25 kg	697,70

For additional product data and safety information, see chapter Chemicals A–Z.

SPE polypropylene column CHROMABOND® HR-P-AOX

Macherey-Nagel. Material: PP columns with PE filter elements.

Extraction of AOX from water containing high salt loads (DIN 38409 – H22)

Special polystyrene/divinylbenzene phase

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
6	500	1 × 30 units	**CN43.1**	30 unit(s)	211,80

SPE polypropylene column CHROMABOND® C18 PAH

Macherey-Nagel. Material: PP columns with PE filter elements.

Enrichment of PAHs from water

Special octadecyl modified silica, not endcapped

Similar phases: Bakerbond™ Octadecyl Lightload

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
6	2000	1 × 30 units	**4713.1**	30 unit(s)	293,50

SPE polypropylene column CHROMABOND® NH_2/C_{18}

Macherey-Nagel. Material: PP columns with PE filter elements.

Enrichment of PAHs from water containing humic acid

Special combination phase:

- **NH_2:** aminopropyl phase for removal of interfering humic acids
- **C_{18}:** octadecyl phase for enrichment of PAHs

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
6	500/500	1 × 30 units	**4783.1**	30 unit(s)	233,30
6	500/1000	1 × 30 units	**4785.1**	30 unit(s)	284,90

SPE polypropylene column CHROMABOND® CN/ SiOH

Macherey-Nagel. Material: PP columns with PE filter elements.

Enrichment of PAHs from soil

Special combination phase:

- **CN:** Cyanopropyl phase for selective adsorption of polycyclic aromatics via π-π interactions
- **SiOH:** Unmodified silica phase for removal of polar components

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
6	500/1000	1 × 30 units	**2995.1**	30 unit(s)	284,90
6	500/1000	5 × 50 units	**2995.2**	250 unit(s)	1.897,40

TIP

Recommended chemicals

Recommended chemicals for analysis of PAHs from soil samples with SPE-Polypropylen columns CHROMABOND® CN/SiOH.

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
Acetonitrile	ROTISOLV® Pestilyse® ≥99,9 %	glass	**T168.1**	2.5 l	102,70
			T168.3	4 l	154,30
Petroleum ether 40–60 °C	ROTISOLV® Pestilyse® plus	glass	**7588.1**	2.5 l	96,25
	ROTISOLV® Pestilyse®	glass	**T170.2**	1 l	44,65
			T170.1	2.5 l	88,70
			T170.3	4 l	125,25
Sodium sulphate	≥99 %, p.a., ACS, ISO, anhydrous, powdered	plastic	**8560.3**	500 g	31,75
			8560.1	1 kg	46,15
			8560.2	5 kg	170,95
			8560.5	25 kg	697,70
Toluene	ROTISOLV® Pestilyse® plus ≥99,8 %	glass	**7591.1**	2.5 l	85,90
	ROTISOLV® Pestilyse® ≥99,8 %	glass	**T166.2**	1 l	42,90
			T166.1	2.5 l	77,95
			T166.3	4 l	117,20

For additional product data and safety information, see chapter Chemicals A–Z.

SPE polypropylene column CHROMABOND® SiOH-H_2SO_4/SA

Macherey-Nagel. Material: PP columns with PE filter elements.

Enrichment of PCBs from oil

Special combination phase:

- **SiOH-H_2SO_4:** H_2SO_4-impregnated silica phase for oxidation of accompanying compounds to ionic and/or polar compounds
- **SA:** strongly acidic cation exchanger based on silica with benzenesulphonic acid modification for removal of ionic and sulphur containing compounds

This combination column is used together with a SiOH column. Also available as Kombi-Kit (Art. No. 4793.1) together with SiOH columns.

Storage temperature: +4 °C

UN no. 3316 · ADR 9 II · WGK 1

Danger H314

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	500/500	1 × 50 units	**4792.1**	50 unit(s)	347,25
3	500/500	5 × 50 units	**4792.2**	250 unit(s)	1.381,40

SPE polypropylene column CHROMABOND® Combi-Kit PCB

Macherey-Nagel. Material: PP columns with PE filter elements.

Extraction of PCBs from oil with reference to DIN 51527, part 1

Components

CHROMABOND® SiOH-H_2SO_4/SA and CHROMABOND® SiOH (25 pieces each)

- **SiOH-H_2SO_4:** H_2SO_4-impregnated silica phase for oxidation of accompanying compounds to ionic and/or polar compounds
- **SA:** strongly acidic cation exchanger based on silica with benzenesulphonic acid modification for removal of ionic and sulphur containing compounds
- **SiOH:** Unmodified, slightly acidic silica gel

Storage temperature: +4 °C

UN no. 3316 · ADR 9 II · WGK 1

Danger H314

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	SiOH-H_2SO_4/ SA: 500/500 mg + SiOH: 500	25× SiOH-H_2SO_4/SA, 25× SiOH	**4793.1**	1 set	262,30

SPE polypropylene column CHROMABOND® SA/ SiOH

Macherey-Nagel. Material: PP columns with PE filter elements.

Extraction of PCBs from waste oil

Special combination phase:

- **SA:** strongly acidic cation exchanger based on silica with benzene-sulphonic acid modification
- **SiOH:** unmodified silica for removal of polar compounds

Similar phases: Bakerbond™ PCB-N

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	500/500	1 × 50 units	**CN42.1**	50 unit(s)	284,90
3	500/500	5 × 50 units	**CN42.2**	250 unit(s)	1.134,15



SPE polypropylene column CHROMABOND® NAN

Macherey-Nagel. Material: PP columns with PE filter elements.

Enrichment of PCBs from sludge

Special combination phase:

- **N:** sodium sulphate for removal of trace water
- **A:** SiOH/$AgNO_3$ phase for removal of sulphur, sulphur-containing and polar compounds

UN no. 3316 · ADR 9 II · WGK 3

Danger H290-H314-H411

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	400/1400/400	1 × 50 units	**4786.1**	50 unit(s)	480,55
6	700/2000/700	1 × 30 units	**4789.1**	30 unit(s)	379,50
6	700/2000/700	5 × 50 units	**4789.2**	250 unit(s)	2.526,25

SPE Phases for Pharmaceutical Applications



SPE polypropylene column CHROMABOND® Drug

Macherey-Nagel. Material: PP columns with PE filter elements.

Drug analysis

Special silica gel phase:
Bifunctional modification – C_8 / SA (strong cation exchanger – benzene sulphonic acid)

Similar phases: Strata® Screen-C, Bond Elut Certify I, Discovery® DSC-MCAX, Clean Screen® DAU, Bakerbond™ Narc-2, Isolute® HCX, LiChrolut® TSC, HyperSep™ Verify CX

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
1	100	1 × 100 units	**1354.1**	100 unit(s)	236,50
3	200	1 × 50 units	**1355.1**	50 unit(s)	192,45
3	200	5 × 50 units	**1355.2**	250 unit(s)	757,90

SPE polypropylene column CHROMABOND® Drug II

Macherey-Nagel. Material: PP columns with PE filter elements.

Extraction of THC and derivatives, acidic analytes from biological fluid (urine, blood...)

Special silica gel phase:
Bifunctional modification – C_8 / SB (strong anion exchanger – quaternary amine)

Similar phases: Strata® Screen-A, Bond Elut Certify II, Clean Screen® THC, Bakerbond™ Narc-1, Isolute® HAX, HyperSep™ Verify AX

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
1	100	1 × 100 units	**1EP0.1**	100 unit(s)	222,55
3	200	1 × 50 units	**3063.1**	50 unit(s)	192,45

SPE Phases for Food Analysis





SPE polypropylene column CHROMABOND® ABC18

Macherey-Nagel. Material: PP columns with PE filter elements.

For the determination of acrylamide in foodstuff

Special phase:
Octadecyl silica phase with ion exchange character

Important note:
Minimum concentration of acrylamide should be 70 µg/kg.
The procedure includes no concentration step.

Similar phases: Isolute® M-M (Multimode)

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
6	500	1 × 30 units	**2991.1**	30 unit(s)	144,05

Special Phases



SPE Cartridges CHROMAFIX® Dry (Na_2SO_4)

Macherey-Nagel.

Anhydrous, high-purity sodium sulphate for drying organic samples.

- For removal of larger quantities of water several cartridges can be combined in series.

Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Small	0.4	10 × 5 units	**1K7X.1**	50 unit(s)	131,15
Medium	0.8	10 × 5 units	**1K7Y.1**	50 unit(s)	166,65
Large	1.8	10 × 5 units	**1K80.1**	50 unit(s)	207,50



SPE polypropylene column CHROMABOND® HLB

Macherey-Nagel. Material: PP columns with PE filter elements.

"Hydrophilic-lipophilic balanced" (HLB) *N*-vinylpyrrolidone-divinylbenzene copolymer. State-of-the-art spherical polymer for highest demands in solid phase extraction.

Advantages:

- Improved retention for polar substances.
- High loadability and excellent performance.
- Water wettable – even if the column bed runs dry, SPE can be continued.
- Applicable for a wide range of analyte polarities.

The alternative to Oasis HLB.

The hydrophilic-lipophilic balance of the copolymer (spherical part) shows a better retention for polar compounds.
SPE at its best!

Version	Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
30 µm	1	30	1 × 30 units	**1EX5.1**	30 unit(s)	79,55
30 µm	1	100	1 × 30 units	**1EX6.1**	30 unit(s)	100,95
60 µm	1	30	1 × 30 units	**1EXA.1**	30 unit(s)	79,55
60 µm	1	100	1 × 30 units	**1EXC.1**	30 unit(s)	100,95
30 µm	3	60	1 × 30 units	**1EX7.1**	30 unit(s)	117,20
30 µm	3	200	1 × 30 units	**1EX8.1**	30 unit(s)	124,70
60 µm	3	60	1 × 30 units	**1EXE.1**	30 unit(s)	117,20
60 µm	3	200	1 × 30 units	**1EXH.1**	30 unit(s)	124,70
30 µm	6	200	1 × 30 units	**1EX9.1**	30 unit(s)	166,65
60 µm	6	200	1 × 30 units	**1EXK.1**	30 unit(s)	166,65
60 µm	6	500	1 × 30 units	**1EXL.1**	30 unit(s)	253,70
60 µm	15	500	1 × 20 units	**1EXN.1**	20 unit(s)	206,40

SPE Cartridges CHROMAFIX® HLB (60 µm)

Macherey-Nagel.

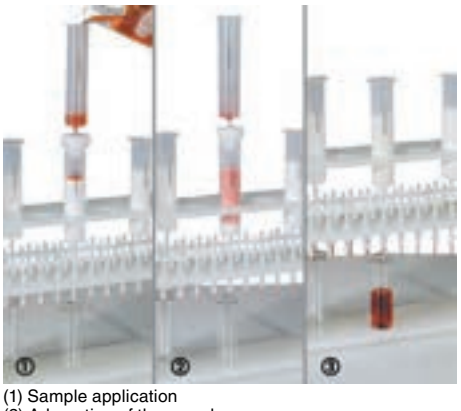
Version	Column volume (ml)	Pack.	Art. No.	Pack Qty.	€
Small	0.4	10 × 5 units	**1K8K.1**	50 unit(s)	202,10
Medium	0.8	10 × 5 units	**1K8L.1**	50 unit(s)	222,55
Large	1.8	10 × 5 units	**1K8N.1**	50 unit(s)	283,80

Liquid-Liquid Extraction / SLE

(Solid-Supported Liquid-Liquid Extraction)

You replace the complex liquid-liquid extraction (LLE) with solid-liquid extraction (SLE).
These columns guarantee a far greater yield and better reproducible extraction process, from column to column, when compared to historical liquid/ liquid extraction techniques usually using water and an organic solvent into a conventional separation funnel.

- Fast and effective sample preparation technique
- Higher reproducibility and recovery rates compared to LLE methods
- No problems with phase boundaries - Prevents the emulsion formation that often occurs in LLE, since the water-immiscible solvents do not come into direct contact with the sample
- Reduced solvent requirements compared to LLE



(1) Sample application
(2) Adsorption of the sample
(3) Elution of the sample

Automatic separation of a two-phase mixture without separation funnel. Two-phase mixtures are completely applied to the column and the phase boundary is determined without further work. The special membrane automatically stops the flow when the lower phase has passed. The upper phase remains in the column, thus both phases are available for futher analysis.

Important note: Columns must not be run with vacuum or pressure. SPE columns for phase separation by gravity only.

Solvents applicable for elution:

Diethyl ether (T900)
tert-Butyl methyl ether (T175)
Ethyl acetate (T164)
n-Hexane (T165)
Cyclohexane (T163)
Toluene (T166)
Dichloromethane (T901)
Trichloromethane (chloroform) (T901)
Trichloromethane/methanol (90/10 or 85/15, v/v) (T901/T909)
Diethyl ether/ethanol (90/10 or 80/20, v/v) (T900/9065)
Dichloromethane/2-propanol (90/10 or 85/15, v/v) (T901/T902)

Polypropylene Columns CHROMABOND® for Phase Separation

Polypropylene columns CHROMABOND® PTS

Macherey-Nagel. Material: PP with special membrane.

PTS for solvents heavier than water, e.g., for trichloromethane, dichloromethane.

Column volume (ml)	Art. No.	Pack Qty.	€
3	**1H18.1**	100 unit(s)	151,60
15	**1H19.1**	100 unit(s)	217,15
45	**1H1A.1**	50 unit(s)	166,65
150	**1H1C.1**	20 unit(s)	174,15

Polypropylene columns CHROMABOND® PTL

Macherey-Nagel. Material: PP with special membrane.

PTL for solvents lighter than water, e.g., for diethyl ether, hexane.

Column volume (ml)	Art. No.	Pack Qty.	€
3	**1H1E.1**	100 unit(s)	173,10
15	**1H1H.1**	100 unit(s)	255,85
45	**1H1K.1**	50 unit(s)	193,50
70	**1H1L.1**	50 unit(s)	199,95



Polypropylene columns CHROMABOND® XTR

Macherey-Nagel. Material: PP columns with PE filter elements.

Kieselguhr phase for liquid-liquid extraction
Base material coarse-grained kieselguhr (also known as diatomaceous earth, hydromatrix, celite®)

Application:

- Liquid-liquid extraction of highly viscous aqueous solutions such as physiological fluids (blood, plasma, and serum), dyes in textiles, environmental and food analysis without use of a separation funnel
- High water loadability without breakthrough of water during elution with organic solvents
- Also suitable for removing small amounts of water from solvents which are not miscible with water
- pH stability: 1–13

Advantages:

- Fast, reproducible and economical
- Simultaneous preparation of several samples
- No problems with phase separation, no formation of emulsions
- High recovery rates
- Saves of time and solvents
- Organic solutions don't need to be dried after separation
- Large pore size, high pore volume, constantly high batch-to-batch quality

Similar phases: EXtrelut®, Chem Elut™. Isolute® SLE+, Hydromatrix™

Column volume (ml)	Filling quantity (g)	Pack.	Art. No.	Pack Qty.	€
6	1	1 x 30 units	**3677.1**	30 unit(s)	74,85
6	1	5 x 50 units	**3677.2**	250 unit(s)	498,80
30	4,5	1 x 30 units	**3678.1**	30 unit(s)	96,25
70	14,5	1 x 30 units	**3679.1**	30 unit(s)	197,80
70	14,5	5 x 20 units	**3679.2**	100 unit(s)	518,15

For additional product data and safety information, see chapter Chemicals A–Z.

General column parameters:

Depending on the concentration of the analytes eluates can be analysed immediately, or the organic solvent is evaporated. The pH value of the aqueous solution can be altered on the column, which enables elution of different compounds of a sample under optimised conditions. Under certain circumstances, acidic, neutral, and basic compounds can be fractionated in this way.

Volume	Filling quantity	Max. Loadability with aqueous solution	Waiting time before elution	Elution volume
6 ml	1 g	1 ml	5–10 min	8 ml
30 ml	4,5 g	5 ml	5–10 min	16 ml
70 ml	14,5 g	20 ml	10–15 min	40 ml

Eluents with higher alcohol contents cause an increase in volume of the aqueous phase on the CHROMABOND® XTR. In such case, the column might be overloaded which leads to a displacement of the aqueous phase from the column. Therefore a greater capacity column should be used.

Extraction of analytes form an aqueous to an organic phase:

Column conditioning: Not required

Sample application: Aqueous solutions are applied to the dry CHROMABOND® XTR adsorbent. They are soaked up by the solid within a few minutes and spread over the surface of the kieselguhr material as a thin film.

Elution: Lipophilic analytes are eluted with water-immiscible organic solvents; the aqueous phase remains on the CHROMABOND® XTR adsorbent. Polar, water-soluble analytes, which remain in the aqueous phase on the XTR adsorbent, can be eluted e.g. with saturated NaCl.

Warning: Never exceed the volume capacities listed for each column size!

SPE Accessories CHROMABOND®



SPE Vacuum Manifold CHROMABOND®

Macherey-Nagel.

For **filtration** and solid **extraction**. Ideal for rapid **sample preparation**. Each tube position is equipped with a valve and can therefore be evacuated either individually or with the others. Each individual valve contains a Luer fitting, enabling filtration with a syringe filter or mounting of a disposable syringe. Inner body makes exact positioning of test tubes under each available opening.

Delivery incl. Glass cabinet with lid, lid gasket, plastic needles, vacuum gauge, control valve, Luer fittings, Luer valves (stopcocks), caps, variable rack, PP tank.

Version	Art. No.	Pack Qty.	€
for 12 positions, complete	**1ECC.1**	1 set	983,65
for 24 positions, complete	**1ECE.1**	1 set	1.445,90

For additional product data and safety information, see chapter Chemicals A–Z.

► We recommend the diaphragm vacuum pump ROTILABO® CR-MV100 (Art. No. ECK4.1) as a suitable vacuum pump.

Replacement parts for SPE Vacuum Manifolds CHROMABOND®

Macherey-Nagel.

Designation	Art. No.	Pack Qty.	€
Glass cabinet without accessories (12 positions)	**1H0L.1**	1 unit(s)	208,55
Glass cabinet without accessories (24 positions)	**1H0N.1**	1 unit(s)	324,65
Lid made of PP with gasket (12 positions)	**1H0P.1**	1 unit(s)	388,10
Lid made of PP with gasket (24 positions)	**1H0T.1**	1 unit(s)	596,65
Gaskets for lid (12 positions)	**1H0X.1**	2 unit(s)	45,80
Gaskets for lid (24 positions)	**1H0Y.1**	2 unit(s)	54,65
Luer fittings (female)	**1H10.1**	12 unit(s)	109,65
Luer fittings (male)	**1H11.1**	12 unit(s)	109,65
Stopcock (Luer valve), plastic	**1H12.1**	12 unit(s)	111,80
Stopcock (Luer valve), chrome-plated brass	**1H13.1**	12 unit(s)	453,65
Stopcock (Luer valve), chrome-plated brass	**1H13.2**	1 unit(s)	47,10
Stainless steel needles (cannula)	**1H14.1**	12 unit(s)	86,45
Polypropylene needles (cannulas)	**1H15.1**	12 unit(s)	75,60
Polypropylene tank (12 positions)	**1H16.1**	2 unit(s)	56,05
Polypropylene tank (24 positions)	**1HN6.1**	2 unit(s)	103,55
Vacuum Gauge with accessories	**1H17.1**	1 unit(s)	233,30

For additional product data and safety information, see chapter Chemicals A–Z.

► Diaphragm vacuum pumps see www.carlroth.com

Drying Attachment CHROMABOND®

Macherey-Nagel.

For evaporating and concentrating eluates. This special lid has a gas connector on one side, from which the gas is fed simultaneously to the different positions of the vacuum chamber. Thus several eluates can be evaporated simultaneously by just changing the lid and applying a stream of inert gas, e.g., nitrogen.

Designation	Version	Art. No.	Pack Qty.	€
Drying Attachment	12 positions	**1H0H.1**	1 unit(s)	491,30
Drying Attachment	24 positions	**1H0K.1**	1 unit(s)	628,90

For additional product data and safety information, see chapter Chemicals A–Z.

Collection Rack CHROMABOND®

Macherey-Nagel.

To accommodate a variety of collection vessels for collecting eluates.

Version	Art. No.	Pack Qty.	€
12 positions	**1H09.1**	1 unit(s)	280,60
24 positions	**1H0A.1**	1 unit(s)	280,60
XTR	**1HN7.1**	1 set	919,15

Products to protect against cross-contamination CHROMABOND®

Macherey-Nagel.

For special applications, which require maximum protection from cross contamination. These special connectors are fitted through the lid. Thus the sample only has contact with the inert connector and can flow directly into the receptacle.

Designation	Art. No.	Pack Qty.	€
PTFE connectors (Luer)	**1H0E.1**	12 unit(s)	136,55
Stainless steel connectors (Luer)	**1H0C.1**	12 unit(s)	246,20

For additional product data and safety information, see chapter Chemicals A–Z.

Luer caps CHROMABOND®

Macherey-Nagel. Material: PP.

To fit standard Luer (male) outlets, and for all column and cartridge sizes.

Designation	Art. No.	Pack Qty.	€
Luer caps, blue	**1ECT.1**	12 unit(s)	75,60



Adapters for SPE Columns CHROMABOND®

Macherey-Nagel.

For coupling of several CHROMABOND® columns of the same or different sizes or for coupling of dispoable syringes with CHROMABOND® columns.

Version	Art. No.	Pack Qty.	€
For 1, 3, 6 ml PP columns	**2996.2**	10 unit(s)	96,35
For 3 and 6 ml glass columns	**1L16.1**	10 unit(s)	199,95



Tube adapters for SPE Columns CHROMABOND®

Macherey-Nagel. Material: PTFE.

For feeding large sample volumes to 1, 3 ml and 6 ml columns.
Tube length: approx. 1 m

Version	Art. No.	Pack Qty.	€
For 1, 3, 6 ml PP columns (incl. tube, weight)	**N867.1**	4 unit(s)	164,50
For 3, 6 ml glass columns (incl. tube, weight)	**N866.1**	4 unit(s)	255,85

Empty SPE columns CHROMABOND®

Macherey-Nagel.

Can be used with SPE vacuum manifolds (1ECC.1 or 1ECE.1) and other vacuum systems with Luer system. Excellent chemical resistance. Column outlet: Luer (male).

Delivery incl. filter elements.

Version	Ø x L (mm)	Art. No.	Pack Qty.	€
1 ml, polypropylene	7.5 x 65.8	**1ECH.1**	100 unit(s)	199,95
3 ml, polypropylene	10.7 x 74.7	**1ECK.1**	50 unit(s)	127,95
6 ml, polypropylene	14.5 x 77.9	**1ECL.1**	30 unit(s)	89,05
15 ml, polypropylene	17.5 x 90.4	**1K1T.1**	20 unit(s)	103,55
30 ml, polypropylene	22.6 x 98.6	**1K1X.1**	20 unit(s)	108,60
3 ml, glass	10.8 x 82.9	**1ECN.1**	50 unit(s)	254,80
6 ml, glass	14.4 x 80.0	**1ECP.1**	30 unit(s)	199,95

For additional product data and safety information, see chapter Chemicals A–Z.

Filter Elements for Empty SPE Columns CHROMABOND®

Macherey-Nagel.

Designation	Version	Art. No.	Pack Qty.	€
PE Filter Elements	for empty SPE PP columns 1 ml	**1EC6.1**	250 unit(s)	129,00
PE Filter Elements	for empty SPE PP columns 3 ml	**1EC7.1**	250 unit(s)	182,75
PE Filter Elements	for empty SPE PP columns 6 ml	**1EC8.1**	250 unit(s)	224,70
Glass fiber filter elements	for empty SPE glass columns 3 ml	**1EC9.1**	250 unit(s)	195,65
Glass fiber filter elements	for empty SPE glass columns 6 ml	**1ECA.1**	250 unit(s)	237,60

For additional product data and safety information, see chapter Chemicals A–Z.

QuEChERS Products

For pesticide residue analysis in food



Within a few years after its development the **QuEChERS** method (**Qu**ick, **E**asy, **Ch**eap, **E**fficient, **R**ugged, **S**afe) has gained a leading position for determination of pesticide residues in food samples by GC-MS or LC-MS, allowing rapid and cheap clean-up of strongly matrix-contaminated samples. For optimizing the extraction of pH-dependent compounds, for minimizing decomposition of sensitive substances, and for broadening the matrix spectrum,different modifications of the QuEChERS method have been elaborated.
In addition to the required adsorbent Silica gel 60 diamino a number of individually weighed and premixed buffer and extraction mixtures is offered, specially composed for different sample matrices.
For extraction, the European standard EN 15662 recommends a citrate extraction mix (Mix I), while AOAC standard 2007.1 uses an acetate extraction mix (Mix II). For clean-up, the Diamino phase (PSA) removes, e.g., sugars and organic acids. Magnesium sulfate removes water, C_{18} ec removes non-polar interferences such as fats and the carbon phase removes pigments, sterols, and non-polar interferences. For selection of the proper clean-up mix see table below.

For selection of the proper QuEChERS mix see table below.

Step 1 - Extraction and salting-out				
Method	**Mix**	**Content of Mix**	**Sample weight**	**Solvent**
EN 15662:2008, citrate-buffered	**Mix I**	4 g $MgSO_4$, 1 g NaCl, 0,5 g Na_2H citrat · 1,5 H_2O, 1 g Na_3 citrat · 2 H_2O	10 g	10 ml acetonitrile
AOAC 2007.01, acetate-buffered	**Mix II**	6 g $MgSO_4$, 1,5 g NaOAc	15 g	15 ml 1 % acetic acid in acetonitrile
Step 2 - Clean up				
Sample property	**Low fat content** (e.g. pineapple, apples, pear, broccoli, strawberries, asparagus)	**Moderate content of chlorophyll and carotinoids** (e.g. carrots, lettuce)	**High content of chlorophyll and carotinoids** (e.g. blackberry, bell pepper, raspberry, spinach)	**High fat content** (e.g. avocado, baby food, meat, dairy products, muesli, nuts, oil)
Content of Mix	$MgSO_4$, Diamino (PSA)	$MgSO_4$, Diamino (PSA), Carbon	$MgSO_4$, Diamino (PSA), Carbon	$MgSO_4$, Diamino (PSA), C_{18} ec
EN 15662:2008	**Mix III** Diamino Clean up	**Mix VI** Diamino/C_{18} ec Clean up	**Mix V** Diamino/Carbon Clean up (higher carbon content)	**Mix VI** Diamino/C_{18} ec Clean up
AOAC 2007.01	**Mix XX** Diamino Clean up	**Mix XVII** Diamino/C_{18} ec Clean up	–	**Mix XIX** Diamino/C_{18} ec Clean up

QuEChERS Extraction mixes

Product name	Purity	Method	Composition	Packaging	Art. No.	Pack Qty.	€
QuEChERS Extraction Mix I	Citrat mix	EN 15662	4 g $MgSO_4$ 1 g NaCl 0.5 g $C_6H_6Na_2O_7$ · 1,5 H_2O 1 g $C_6H_5Na_3O_7$ · 2 H_2O	50 x 15 ml tubes	**4867.1**	50 unit(s)	167,70
QuEChERS Extraction Mix II	Acetate mix	AOAC 2007.01	6 g $MgSO_4$ 1.5 g $C_2H_3NaO_2$	50 x 15 ml tubes	**4868.1**	50 unit(s)	167,70

QuEChERS Clean-up mixes

Product name	Purity	Method	Composition	Packaging	Art. No.	Pack Qty.	€
QuEChERS Clean-up Mix III	Diamino mix	EN 15662	0.9 g $MgSO_4$ 0.15 g Diamino (PSA)	50 x 15 ml tubes	**4870.1**	50 unit(s)	112,90
QuEChERS Clean-up Mix IV	Diamino/Carbon mix	EN 15662	0.9 g $MgSO_4$ 0.15 g Diamino (PSA) 0.015 g Carbon (GCB)	50 x 15 ml tubes	**4871.1**	50 unit(s)	140,85
QuEChERS Clean-up Mix V	Diamino/Carbon mix	EN 15662	0.9 g $MgSO_4$ 0.15 g Diamino (PSA) 0.045 g Carbon (GCB)	50 x 15 ml tubes	**4875.1**	50 unit(s)	140,85
QuEChERS Clean-up Mix VI	Diamino/C_{18} ec mix	EN 15662	0.9 g $MgSO_4$ 0.15 g Diamino (PSA) 0.15 g C_{18} ec	50 x 15 ml tubes	**4877.1**	50 unit(s)	112,90
QuEChERS Clean up-Mix XVII	Diamino/Carbon mix	AOAC 2007.01	0.15 g $MgSO_4$ 50 mg Diamino (PSA) 50 mg Carbon (GCB)	50 x 2 ml tubes	**1LNX.1**	50 unit(s)	104,40
QuEChERS Clean-up Mix XIX	Diamino/C_{18} ec mix	AOAC 2007.01	0.15 g $MgSO_4$ 50 mg Diamino (PSA) 50 mg C_{18} ec	50 x 15 ml tubes	**1LNP.1**	50 unit(s)	112,90
QuEChERS Clean-up Mix XX	Diamino mix	AOAC 2007.01	1.20 g $MgSO_4$ 0.40 g Diamino (PSA)	50 x 15 ml tubes	**1LNT.1**	50 unit(s)	112,90

For additional product data and safety information, see chapter Chemicals A–Z.

► Products for preparation of individual QuECHERS mixes see page 573

Products for preparation of individual QuEChERS mixes

Product name	Purity	Art. No.	Pack Qty.	€
Magnesium sulphate	≥99 %, p.a., anhydrous	**0682.1**	100 g	24,65
		0682.2	500 g	67,65
		0682.3	1 kg	123,65
		0682.4	2.5 kg	241,90
	≥98 %, p.a., anhydrous, granulated	**2278.1**	100 g	23,55
		2278.2	500 g	55,80
		2278.3	1 kg	98,80
Silica gel 60 C_{18} ec	0,02–0,05 mm	**6070.1**	10 g	88,70
		6070.2	25 g	170,95
Silica gel 60 diamino	0,045 mm	**4878.1**	10 g	105,90
		4878.2	25 g	224,70
Sodium acetate	≥99 %, p.a., ACS, anhydrous	**6773.1**	250 g	40,75
		6773.2	1 kg	107,40
		6773.3	2.5 kg	235,45
		6773.5	25 kg	1.666,25
Sodium chloride	≥99,5 %, p.a., ACS, ISO	**3957.3**	500 g	18,20
		3957.1	1 kg	22,05
		3957.2	5 kg	80,55
		3957.4	10 kg	120,95
		3957.5	25 kg	241,90
tri-Sodium citrate dihydrate	≥99 %, p.a., ACS	**3580.4**	250 g	24,65
		3580.3	500 g	33,25
		3580.1	1 kg	53,65
		3580.2	5 kg	213,95
		3580.5	25 kg	564,40
di-Sodium hydrogen citrate 1,5-hydrate	≥99 %, cryst.	**2611.1**	250 g	26,80
		2611.2	500 g	40,35
		2611.3	1 kg	67,65

For additional product data and safety information, see chapter Chemicals A–Z.

► Centrifuge tubes see www.carlroth.com

Standard clean-up in food samples:

10 g sample are homogenised with 10 ml acetonitrile. After adding the internal standard the sample is shaken with 4 g magnesium sulphate and 1 g sodium chloride and afterwards centrifuged. 1 ml of the supernatant is spiked with 25 mg CHROMABOND® Diamino and 150 mg magnesium sulphate and shaken again. After centrifugation, the supernatant is analysed by GC/MS or LC/MS.

Adsorbents and what their use

$MgSO_4$	Removes excess of water
NaCl	For phase separation
Silica Gel 60 Diamino (PSA) (Primary Secondary Amine)	Removes organic and fatty acids, sugars and anthocyanin pigments
Silica Gel 60 C_{18} ec (reversed phase modified silica)	Traps nonpolar compounds, e.g., lipids
Carbon (GCB) (Activated Charcoal / Graphitized Carbon Black)	Removes pigments and sterols (please note: planar pesticides are also removed)

For further information see www.quechers.com

All products for your chromatography lab you can also find in our webshop!

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Salts for Analysis



Our salts for analysis are manufactured under strict production guidelines. Analytical purity and best quality reliably characterize each batch. Salts in p.a. quality made by Carl ROTH meet the high requirements for reproducible results. Most of our salts are additionally specified according to international standards like ACS and ISO.

Definition:
p.a.: pro analysi (for analysis)
ACS: American Chemical Society
ISO: International Standard Organisation

Aluminium salts, Al

Product name	Purity	Art. No.	Pack Qty.	€
Aluminium ammonium sulphate dodecahydrate	≥98 %, p.a., ACS	**X862.1**	500 g	41,40
		X862.2	1 kg	65,50
		X862.3	2.5 kg	130,00
Aluminium nitrate nonahydrate	≥98 %, p.a.	**CN85.1**	500 g	30,00
		CN85.2	1 kg	47,20
		CN85.3	2.5 kg	95,15
Aluminium sulphate hexadecahydrate	≥98 %, p.a., ACS	**5340.2**	100 g	23,55
		5340.1	500 g	59,05
		5340.3	1 kg	110,20
Potassium aluminium sulphate dodecahydrate	≥98 %, p.a., ACS	**P724.2**	500 g	34,30
		P724.1	1 kg	60,10
		P724.3	2.5 kg	123,65

Ammonium salts, NH_4^+

Product name	Purity	Art. No.	Pack Qty.	€
Ammonium acetate	≥97 %, p.a., ACS	**7869.2**	500 g	37,55
		7869.1	1 kg	51,50
		7869.3	2.5 kg	94,50
Ammonium bromide	≥99 %, p.a., ACS	**HN14.1**	500 g	40,75
		HN14.2	1 kg	70,85
		HN14.3	2.5 kg	145,15
Ammonium carbonate	≥30 % NH_3, p.a., ACS	**CP98.1**	500 g	30,00
		CP98.2	1 kg	49,35
		CP98.4	2.5 kg	106,45
		CP98.3	5 kg	198,90
Ammonium cerium(IV) sulphate dihydrate	≥99 %, p.a.	**4386.1**	100 g	57,55
		4386.2	250 g	125,25
		4386.3	500 g	203,20
Ammonium chloride	≥99,7 %, p.a., Ultra Quality	**K298.1**	500 g	32,15
		K298.2	1 kg	59,05
		K298.3	2.5 kg	99,90
		K298.4	5 kg	142,45
		K298.6	10 kg	235,45
		K298.5	25 kg	471,95
Ammonium dihydrogen phosphate	≥99 %, p.a., ACS	**P727.1**	500 g	63,45
		P727.2	1 kg	120,95
		P727.3	2.5 kg	263,40
Ammonium dimolybdate	≥99 %, p.a.	**3246.1**	100 g	29,60
		3246.2	500 g	96,65
		3246.3	1 kg	162,90
Ammonium fluoride	≥98 %, p.a., ACS	**6549.1**	250 g	76,90
		6549.2	500 g	131,70
		6549.3	1 kg	235,45
Ammonium heptamolybdate tetrahydrate	≥99 %, p.a.	**3666.1**	250 g	107,40
		3666.2	500 g	192,45
		3666.3	1 kg	353,70
		3666.7	25 kg	3.708,75
Ammonium hydrogen carbonate	≥99 %, p.a.	**T871.1**	500 g	30,00
		T871.2	1 kg	46,15
		T871.3	2.5 kg	76,25
		T871.4	5 kg	129,55
		T871.5	25 kg	482,70
di-Ammonium hydrogen citrate	≥98 %, p.a., ACS	**P735.1**	500 g	123,65
		P735.2	1 kg	231,15
		P735.3	2.5 kg	467,65
di-Ammonium hydrogen phosphate	≥98 %, p.a., ACS	**P736.1**	500 g	78,40
		P736.2	1 kg	137,10
		P736.3	2.5 kg	295,65
Ammonium hydrogen sulphate	≥98,5 %, p.a.	**5485.2**	250 g	36,45
		5485.1	500 g	61,20
		5485.3	1 kg	110,65
Ammonium iodide	≥99 %, p.a., ACS	**9818.1**	100 g	149,45
		9818.2	250 g	299,95
		9818.3	500 g	564,40
Ammonium iron(II) sulphate hexahydrate	≥99 %, p.a., ISO	**P728.1**	500 g	35,40
		P728.2	1 kg	61,20
		P728.3	2.5 kg	137,10
Ammonium iron(III) sulphate dodecahydrate	≥98,5 %, p.a., ACS, ISO	**P734.1**	500 g	55,80
		P734.2	1 kg	103,10
		P734.3	2.5 kg	213,95
Ammonium monovanadate	≥99,8 %, p.a.	**4232.1**	50 g	31,75
		4232.2	100 g	46,80
		4232.3	250 g	94,50
		4232.4	1 kg	306,40
Ammonium nitrate	≥98 %, p.a., ACS	**K299.1**	500 g	38,60
		K299.2	1 kg	64,00
		K299.3	2.5 kg	138,15
di-Ammonium oxalate monohydrate	≥99,5 %, p.a., ACS	**P737.1**	500 g	75,15
		P737.2	1 kg	126,35
		P737.3	2.5 kg	281,15
Ammonium peroxydisulphate	≥98 %, p.a., ACS	**9592.3**	50 g	16,05
		9592.2	100 g	25,70
		9592.5	500 g	69,80
		9592.1	1 kg	117,75
		9592.4	2.5 kg	231,15
tri-Ammonium phosphate trihydrate	≥98 %, p.a.	**1LK4.1**	100 g	21,40
		1LK4.2	500 g	67,65
		1LK4.3	1 kg	117,20
		1LK4.4	2.5 kg	235,45
Ammonium sulphate	≥99,5 %, p.a., ACS, ISO	**3746.2**	250 g	17,10
		3746.1	1 kg	39,25
		3746.3	2.5 kg	75,15
		3746.4	5 kg	127,95
		3746.6	10 kg	198,90
		3746.5	25 kg	424,65
Ammonium thiocyanate	≥99 %, p.a., ACS, ISO	**4477.1**	100 g	20,35
		4477.2	250 g	30,00
		4477.3	500 g	45,05
		4477.4	1 kg	71,95
		4477.7	25 kg	1.069,65

For additional product data and safety information, see chapter Chemicals A-Z.

Antimony salts, Sb

Product name	Purity	Art. No.	Pack Qty.	€
Antimony(III) chloride	≥99 %, p.a., ACS	**9819.1**	100 g	40,35
		9819.2	500 g	149,45
		9819.3	1 kg	263,40
Antimony(III) oxide	≥99 %, p.a.	**9826.1**	100 g	28,95
		9826.2	500 g	107,00
		9826.3	1 kg	206,95

Barium salts, Ba

Product name	Purity	Art. No.	Pack Qty.	€
Barium acetate	≥99 %, p.a., ACS	**2553.1**	250 g	47,85
		2553.2	500 g	80,10
		2553.3	1 kg	131,70
Barium carbonate	≥99 %, p.a., ACS	**P008.2**	25 g	17,10
		P008.3	100 g	33,25
		P008.1	500 g	117,75
Barium chloride dihydrate	≥99 %, p.a., ACS, ISO	**4453.1**	250 g	23,55
		4453.2	500 g	36,45
		4453.3	1 kg	64,00
		4453.4	2.5 kg	140,30
		4453.6	5 kg	257,50
		4453.5	25 kg	1.192,20
Barium hydroxide octahydrate	≥98 %, p.a., ACS, ISO	**P009.2**	250 g	34,95
		P009.1	500 g	58,60
		P009.3	1 kg	101,60
Barium nitrate	≥99 %, p.a., ACS	**4387.1**	250 g	34,95
		4387.2	500 g	54,75
		4387.3	1 kg	81,20

Bismuth salts, Bi

Product name	Purity	Art. No.	Pack Qty.	€
Bismuth(III) nitrate	≥71 % Bi, p.a., alkaline	**4447.1**	50 g	56,90
		4447.2	100 g	92,35
Bismuth(III) nitrate pentahydrate	≥98 %, p.a., ACS	**2554.1**	250 g	61,85
		2554.2	500 g	112,90
		2554.3	1 kg	203,20
Bismuth(III) oxide	≥99,5 %, p.a.	**6555.1**	50 g	46,80
		6555.2	100 g	66,55
		6555.3	500 g	209,65
Sodium bismuthate dihydrate	≥99 %, p.a.	**4401.1**	50 g	59,05
		4401.2	100 g	109,15
		4401.3	250 g	224,70

Bor salts, B

Product name	Purity	Art. No.	Pack Qty.	€
di-Sodium tetraborate decahydrate	≥99,5 %, p.a., ACS, ISO	**T880.1**	500 g	40,35
		T880.2	1 kg	62,25
		T880.3	2.5 kg	123,10
Sodium tetraphenyl borate	≥99,5 %, p.a., ACS	**4385.1**	10 g	50,45
		4385.2	25 g	110,20
		4385.3	100 g	349,40

Cadmium salts, Cd

Product name	Purity	Art. No.	Pack Qty.	€
Cadmium acetate dihydrate	≥99 %, p.a.	**KK06.1**	100 g	41,40
		KK06.2	250 g	87,65
Cadmium sulphate hydrate	≥99 %, p.a., ACS	**4482.2**	25 g	21,40
		4482.1	100 g	67,20
		4482.3	250 g	111,70
		4482.4	500 g	171,50
		4482.5	1 kg	317,15

Caesium salts, Cs

Product name	Purity	Art. No.	Pack Qty.	€
Caesium carbonate	≥99,9 %, p.a.	**6873.1**	5 g	20,35
		6873.2	25 g	46,15
		6873.3	100 g	145,15
		6873.4	500 g	461,20
Caesium chloride	≥99,999 %, p.a., Ultra Quality	**8627.4**	10 g	28,95
		8627.3	50 g	78,40
		8627.1	100 g	134,40
		8627.5	250 g	252,65
		8627.2	1 kg	934,20
Caesium sulphate	≥99,99 %, p.a.	**9355.3**	25 g	51,50
		9355.1	100 g	160,20
		9355.2	1 kg	1.069,65

Calcium salts, Ca

Product name	Purity	Art. No.	Pack Qty.	€
Calcium acetate monohydrate	≥99 %, p.a., ACS	**P011.3**	100 g	24,65
		P011.1	500 g	66,55
		P011.2	1 kg	123,65
Calcium carbonate	≥99 %, p.a., precipitated	**P012.4**	100 g	15,60
		P012.1	500 g	42,90
		P012.2	1 kg	76,25
		P012.3	2.5 kg	149,45
Calcium chloride dihydrate	≥99 %, p.a., ACS	**5239.2**	500 g	21,40
		5239.1	1 kg	31,75
		5239.3	2.5 kg	67,20
Calcium chloride hexahydrate	≥98 %, p.a.	**T886.2**	500 g	39,70
		T886.1	1 kg	67,65
		T886.3	2.5 kg	137,10
Calcium hydroxide	≥96 %, p.a.	**CN87.1**	500 g	51,50
		CN87.2	1 kg	88,05
		CN87.3	2.5 kg	177,40
Calcium nitrate tetrahydrate	≥99 %, p.a., ACS	**P740.1**	500 g	32,15
		P740.2	1 kg	53,65
		P740.3	2.5 kg	117,20
Calcium sulphate dihydrate	≥98 %, p.a., ACS	**P741.1**	500 g	60,10
		P741.2	1 kg	103,75
		P741.3	2.5 kg	220,40

Cerium salts, Ce

Product name	Purity	Art. No.	Pack Qty.	€
Ammonium cerium(IV) sulphate dihydrate	≥99 %, p.a.	**4386.1**	100 g	57,55
		4386.2	250 g	125,25
		4386.3	500 g	203,20
Cerium(IV) ammonium nitrate	≥99,5 %, p.a.	**HN28.1**	50 g	58,60
		HN28.2	100 g	107,00
		HN28.3	250 g	198,90
Cerium(III) nitrate hexahydrate	≥99,5 %, p.a.	**HN18.1**	100 g	94,10
		HN18.2	500 g	364,45
Cerium(IV) oxide	≥99,9 %, p.a.	**9837.1**	100 g	42,50
		9837.2	500 g	125,25
		9837.3	1 kg	206,95
Cerium(IV) sulphate tetrahydrate	≥98 %, p.a.	**P014.2**	50 g	96,65
		P014.1	100 g	180,10

For additional product data and safety information, see chapter Chemicals A-Z.

Chromium salts, Cr

Product name	Purity	Art. No.	Pack Qty.	€
Chromium(III) chloride hexahydrate	≥97 %, p.a.	**9832.1**	100 g	23,15
		9832.2	500 g	66,55
		9832.3	1 kg	107,00
Chromium(III) potassium sulphate dodecahydrate	≥98 %, p.a., ACS	**4389.1**	250 g	41,40
		4389.2	500 g	72,60
		4389.3	1 kg	125,70
Potassium chromate	≥99 %, p.a., ACS	**HN33.1**	100 g	46,80
		HN33.2	250 g	89,15
		HN33.3	500 g	158,60
		HN33.4	1 kg	267,70
Potassium dichromate	≥99,5 %, p.a., ACS, ISO	**P744.3**	100 g	33,90
		P744.1	500 g	119,90
		P744.2	1 kg	220,40
Reinecke salt monohydrate	≥93 %, p.a., ACS	**6629.1**	25 g	78,40
		6629.2	100 g	224,70

Cobalt salts, Co

Product name	Purity	Art. No.	Pack Qty.	€
Cobalt(II) acetate tetrahydrate	≥98 %, p.a., ACS	**HN29.1**	50 g	35,40
		HN29.2	100 g	53,65
		HN29.3	250 g	114,50
Cobalt(II) chloride hexahydrate	≥99 %, p.a., ACS, ISO	**T889.2**	50 g	75,15
		T889.3	100 g	117,20
		T889.1	250 g	220,40
Cobalt(II) nitrate hexahydrate	≥98 %, p.a., ACS	**HN16.1**	50 g	37,10
		HN16.2	100 g	59,70
		HN16.3	250 g	123,65
Cobalt(II,III) oxide	≥71 % Co, p.a.	**9834.1**	25 g	21,40
		9834.2	100 g	67,65
		9834.3	500 g	289,20
Cobalt(II) sulphate heptahydrate	≥97 %, p.a.	**4390.1**	100 g	46,15
		4390.2	250 g	96,65
		4390.3	500 g	170,95
Sodium hexanitro-cobaltate(III)	p.a., ACS	**4409.1**	25 g	25,30
		4409.2	100 g	71,95
		4409.3	250 g	149,45

Copper salts, Cu

Product name	Purity	Art. No.	Pack Qty.	€
Copper(II) acetate monohydrate	≥99 %, p.a., ACS	**HN30.1**	50 g	27,45
		HN30.2	100 g	41,40
		HN30.3	250 g	87,65
Copper(I) chloride	≥98 %, p.a., ACS	**4391.1**	100 g	28,95
		4391.2	250 g	58,60
		4391.3	500 g	107,40
		4391.4	1 kg	198,90
Copper(II) chloride dihydrate	≥99 %, p.a.	**CN82.1**	250 g	46,80
		CN82.2	500 g	81,60
		CN82.3	1 kg	152,15
		CN82.7	25 kg	3.241,15
Copper(II) nitrate trihydrate	≥99,5 %, p.a., ACS	**P754.1**	500 g	80,55
		P754.2	1 kg	209,65
Copper(II) oxide	p.a., ACS, wire	**4467.2**	25 g	26,80
		4467.1	100 g	86,55
		4467.3	250 g	185,45
Copper(II) sulphate	≥99 %, p.a., anhydrous	**P023.1**	250 g	41,85
		P023.2	1 kg	131,70
		P023.3	2.5 kg	278,45
Copper(II) sulphate pentahydrate	≥99,5 %, p.a., ACS, ISO	**P024.1**	500 g	35,40
		P024.2	1 kg	61,20
		P024.3	2.5 kg	117,20

Gallium salts, Ga

Product name	Purity	Art. No.	Pack Qty.	€
Gallium(III) oxide	≥99,99 %, p.a.	**1E11.1**	50 g	115,60
		1E11.2	100 g	185,90
		1E11.3	500 g	768,65
		1E11.4	1 kg	1.316,90

Gold salts, Au

Product name	Purity	Art. No.	Pack Qty.	€
Tetrachloroauric(III) acid trihydrate	≥99,9 %, p.a., Ultra Quality	**0689.1**	500 mg	145,15
		0689.2	1 g	231,15
		0689.3	5 g	897,65
	≥99,5 %, p.a.	**3867.1**	1 g	190,85
		3867.2	5 g	779,40

Indium salts, In

Product name	Purity	Art. No.	Pack Qty.	€
Indium(III) chloride	≥99,9 %, p.a.	**0307.1**	5 g	33,90
		0307.2	10 g	56,90
		0307.3	25 g	110,20
		0307.4	50 g	198,90
Indium(III) sulphate	≥99,99 %, p.a.	**0314.1**	5 g	34,30
		0314.2	10 g	55,40
		0314.3	25 g	98,80
		0314.4	50 g	181,70

Iron salts, Fe

Product name	Purity	Art. No.	Pack Qty.	€
Ammonium iron(II) sulphate hexahydrate	≥99 %, p.a., ISO	**P728.1**	500 g	35,40
		P728.2	1 kg	61,20
		P728.3	2.5 kg	137,10
Ammonium iron(III) sulphate dodeca-hydrate	≥98,5 %, p.a., ACS, ISO	**P734.1**	500 g	55,80
		P734.2	1 kg	103,10
		P734.3	2.5 kg	213,95
Iron(III) chloride hexahydrate	≥99 %, p.a.	**P742.1**	250 g	37,55
		P742.2	1 kg	115,60
		P742.5	25 kg	1.106,20
Iron(II) sulphate heptahydrate	≥99 %, p.a., ACS	**P015.1**	500 g	31,75
		P015.2	1 kg	49,35
		P015.3	2.5 kg	102,70
		P015.4	5 kg	181,70
		P015.6	10 kg	335,95
		P015.5	25 kg	714,90
Iron(III) sulphate hydrate	≥21 % Fe, p.a.	**1HEL.1**	100 g	24,20
		1HEL.2	500 g	53,65
		1HEL.3	1 kg	96,65
		1HEL.4	2.5 kg	198,90
Potassium hexacyano-ferrate(II) trihydrate	≥99 %, p.a., ACS, ISO	**P745.1**	500 g	110,20
		P745.2	1 kg	203,20
		P745.3	2.5 kg	456,90
Potassium hexacyano-ferrate(III)	≥99 %, p.a., ACS	**P746.3**	100 g	39,70
		P746.1	500 g	139,65
		P746.2	1 kg	267,70
Sodium nitroprusside dihydrate	≥99 %, p.a., ACS	**HN34.1**	25 g	36,45
		HN34.2	100 g	95,60
		HN34.3	500 g	364,45

Lanthanum salts, La

Product name	Purity	Art. No.	Pack Qty.	€
Lanthanum(III) nitrate hexahydrate	≥99,99 %, p.a.	**8358.2**	50 g	64,40
		8358.1	100 g	117,20
		8358.3	250 g	246,20
Lanthanum(III) oxide	≥99,99 %, p.a.	**8373.2**	50 g	38,60
		8373.1	100 g	64,40
		8373.3	250 g	134,40

For additional product data and safety information, see chapter Chemicals A-Z.

Lead salts, Pb

Product name	Purity	Art. No.	Pack Qty.	€
Lead(II) acetate, basic	≥33 % PbO, p.a., ACS	**2559.3**	25 g	19,25
		2559.1	500 g	47,85
		2559.2	1 kg	74,75
Lead(II) acetate trihydrate	≥99,5 %, p.a., ACS, ISO	**P739.1**	500 g	117,20
		P739.2	1 kg	205,90
		P739.3	2.5 kg	424,65
Lead(II) carbonate	≥98 %, p.a., ACS	**2558.1**	100 g	46,15
		2558.2	250 g	73,00
		2558.3	500 g	118,15
Lead(II) nitrate	≥99 %, p.a., ACS	**HN32.1**	100 g	23,55
		HN32.2	250 g	46,80

Lithium salts, Li

Product name	Purity	Art. No.	Pack Qty.	€
Lithium carbonate	≥99 %, p.a., ACS	**3995.1**	250 g	149,45
		3995.2	500 g	274,15
Lithium chloride	≥99 %, p.a., Ultra Quality	**3739.1**	250 g	192,45
		3739.2	1 kg	676,20
	≥99 %, p.a., ACS	**6698.1**	50 g	65,50
		6698.2	100 g	110,65
		6698.3	500 g	428,95
		6698.4	1 kg	762,20
Lithium fluoride	≥99 %, p.a.	**6715.1**	25 g	23,55
		6715.2	100 g	42,90
		6715.3	250 g	82,70
Lithium hexafluoro-phosphate	≥99,9 %, p.a.	**2243.1**	5 g	37,55
		2243.2	25 g	134,40
		2243.3	100 g	403,15
Lithium metaborate	≥98 %, p.a., ACS, anhydrous	**9840.1**	50 g	58,60
		9840.2	100 g	103,75
Lithium sulphate monohydrate	≥99 %, p.a.	**4393.1**	250 g	53,65
		4393.2	500 g	95,70
		4393.3	1 kg	160,20

Magnesium salts, Mg

Product name	Purity	Art. No.	Pack Qty.	€
Magnesium acetate tetrahydrate	≥99,5 %, p.a., ACS	**P026.1**	500 g	64,40
		P026.2	1 kg	117,20
Magnesium chloride hexahydrate	≥99 %, p.a., ACS	**2189.2**	250 g	20,35
		2189.1	1 kg	38,60
		2189.3	2.5 kg	71,95
		2189.5	25 kg	542,90
Magnesium nitrate hexahydrate	≥98 %, p.a., ACS	**HN31.1**	500 g	50,45
		HN31.2	1 kg	91,30
		HN31.3	2.5 kg	203,20
Magnesium sulphate	≥99 %, p.a., anhydrous	**0682.1**	100 g	24,65
		0682.2	500 g	67,65
		0682.3	1 kg	123,65
		0682.4	2.5 kg	241,90
	≥98 %, p.a., anhydrous, granulated	**2278.1**	100 g	23,55
		2278.2	500 g	55,80
		2278.3	1 kg	98,80
Magnesium sulphate heptahydrate	≥99 %, p.a., ACS	**P027.1**	500 g	31,75
		P027.2	1 kg	50,45
		P027.3	2.5 kg	96,65

Manganese salts, Mn

Product name	Purity	Art. No.	Pack Qty.	€
Manganese(II) carbonate	≥44 % Mn, p.a.	**9927.1**	250 g	25,70
		9927.2	500 g	42,90
		9927.3	1 kg	75,15
		9927.4	2.5 kg	147,85
Manganese(II) chloride monohydrate	≥99 %, p.a.	**4320.1**	100 g	17,10
		4320.2	500 g	36,45
		4320.3	1 kg	59,70
		4320.4	2.5 kg	117,20
		4320.5	25 kg	794,45
Manganese(II) chloride tetrahydrate	≥99 %, p.a.	**T881.3**	100 g	21,00
		T881.1	500 g	52,15
		T881.2	1 kg	91,30
Manganese(II) nitrate tetrahydrate	≥98 %, p.a.	**HN26.1**	250 g	31,75
		HN26.2	500 g	52,70
		HN26.3	1 kg	94,50
		HN26.4	2.5 kg	201,60
Manganese(II) sulphate monohydrate	≥99 %, p.a., ACS	**4487.1**	250 g	40,75
		4487.2	500 g	73,65
Potassium permanganate	≥99 %, p.a., ACS	**P752.1**	500 g	67,65
		P752.2	1 kg	112,90
		P752.3	2.5 kg	224,70

Mercury salts, Hg

Product name	Purity	Art. No.	Pack Qty.	€
Mercury(II) acetate	≥99 %, p.a., ACS	**KK05.1**	50 g	75,15
		KK05.2	100 g	134,95
Mercury(II) bromide	≥98 %, p.a., ACS	**6581.1**	50 g	70,45
		6581.2	250 g	274,15
Mercury(I) chloride	≥99,5 %, p.a., ACS	**6601.1**	50 g	71,95
		6601.2	100 g	120,95
		6601.3	500 g	456,90
Mercury(II) chloride	≥99,5 %, p.a., ACS	**KK04.1**	50 g	86,55
		KK04.2	100 g	160,20
Mercury(II) iodide	≥99 %, p.a., ACS, red	**6590.1**	50 g	69,80
		6590.2	100 g	112,90
		6590.3	500 g	471,95
Mercury(I) nitrate dihydrate	≥97 %, p.a.	**6605.1**	50 g	60,10
		6605.2	100 g	99,90
		6605.3	500 g	461,20
Mercury(II) nitrate monohydrate	≥98 %, p.a., ACS	**6595.1**	50 g	63,45
		6595.2	250 g	235,45
		6595.3	1 kg	901,95
Mercury(II) oxide	≥99 %, p.a., red	**4470.2**	25 g	57,55
		4470.1	50 g	101,60
Mercury(II) sulphate	≥98 %, p.a., ACS	**T112.1**	100 g	96,65
		T112.2	500 g	349,40
Mercury(II) thiocyanate	≥99 %, p.a.	**6600.1**	25 g	56,45
		6600.2	100 g	181,70
		6600.3	500 g	794,45

Molybdenum salts, Mo

Product name	Purity	Art. No.	Pack Qty.	€
Ammonium dimolybdate	≥99 %, p.a.	**3246.1**	100 g	29,60
		3246.2	500 g	96,65
		3246.3	1 kg	162,90
Ammonium heptamolybdate tetrahydrate	≥99 %, p.a.	**3666.1**	250 g	107,40
		3666.2	500 g	192,45
		3666.3	1 kg	353,70
		3666.7	25 kg	3.708,75
Molybdenum(VI) oxide	≥99,8 %, p.a.	**0142.1**	50 g	22,50
		0142.2	250 g	53,65
		0142.3	500 g	99,90
		0142.4	1 kg	188,15
Sodium molybdate dihydrate	≥99,5 %, p.a.	**0274.1**	50 g	22,50
		0274.2	100 g	34,95
		0274.3	250 g	62,90
		0274.4	1 kg	224,70

For additional product data and safety information, see chapter Chemicals A-Z.

Nickel salts, Ni

Product name	Purity	Art. No.	Pack Qty.	€
Nickel(II) chloride hexahydrate	≥98 %, p.a.	**4489.1**	100 g	58,60
		4489.2	250 g	117,20
Nickel(II) nitrate hexahydrate	≥99 %, p.a.	**4395.1**	100 g	37,10
		4395.2	250 g	75,15
		4395.3	500 g	138,70
Nickel(II) oxide	≥78 % Ni, p.a., green, 325 mesh	**9996.1**	100 g	28,95
		9996.2	500 g	82,25
		9996.3	1 kg	140,30
	≥75 % Ni, p.a., black, 400 mesh	**9925.1**	100 g	28,95
		9925.2	500 g	82,25
		9925.3	1 kg	140,30
Nickel(II) sulphate hexahydrate	≥99 %, p.a., ACS	**T111.1**	250 g	83,75
		T111.2	1 kg	289,20

Osmium salts, Os

Product name	Purity	Art. No.	Pack Qty.	€
Osmium tetraoxide	≥99,95 %, p.a., for electron microscopy	**8371.1**	100 mg	56,90
		8371.2	500 mg	138,70
		8371.3	1 g	217,70

Platinum salts, Pt

Product name	Purity	Art. No.	Pack Qty.	€
Potassium hexachloro-platinate(IV)	≥99,9 %, p.a.	**1H54.1**	500 mg	73,00
		1H54.2	1 g	120,95
		1H54.3	5 g	499,90

Potassium salts, K

Product name	Purity	Art. No.	Pack Qty.	€
Potassium acetate	≥99 %, p.a.	**T874.1**	500 g	42,90
		T874.2	1 kg	78,40
		T874.3	2.5 kg	160,20
		T874.5	25 kg	1.279,25
Potassium aluminium sulphate dodeca-hydrate	≥98 %, p.a., ACS	**P724.2**	500 g	34,30
		P724.1	1 kg	60,10
		P724.3	2.5 kg	123,65
Potassium bromate	≥99,8 %, p.a., ACS, ISO	**4396.1**	100 g	61,85
		4396.2	250 g	134,40
		4396.3	500 g	246,20
Potassium bromide	≥99 %, p.a., ACS	**A137.1**	100 g	26,80
		A137.2	500 g	52,60
		A137.3	1 kg	93,45
Potassium chlorate	≥99 %, p.a., ACS	**HN27.1**	100 g	19,25
		HN27.2	250 g	30,00
		HN27.3	500 g	46,15
Potassium chloride	≥99,5 %, p.a., ACS, ISO	**6781.3**	500 g	23,55
		6781.1	1 kg	38,60
		6781.2	5 kg	155,90
		6781.5	25 kg	600,95
Potassium chromate	≥99 %, p.a., ACS	**HN33.1**	100 g	46,80
		HN33.2	250 g	89,15
		HN33.3	500 g	158,60
		HN33.4	1 kg	267,70
Potassium dichromate	≥99,5 %, p.a., ACS, ISO	**P744.3**	100 g	33,90
		P744.1	500 g	119,90
		P744.2	1 kg	220,40
Potassium dihydrogen phosphate	≥99 %, p.a., ACS	**3904.2**	250 g	25,70
		3904.1	1 kg	81,60
		3904.3	5 kg	338,65
		3904.5	25 kg	1.558,75
Potassium disulphite	≥96 %, p.a.	**P019.1**	500 g	31,75
		P019.2	1 kg	47,85
		P019.3	5 kg	188,15
Potassium fluoride	≥99 %, p.a.	**CN83.1**	100 g	23,55
		CN83.2	250 g	45,70
		CN83.3	500 g	82,25
		CN83.4	1 kg	150,00
Potassium hexachloro-platinate(IV)	≥99,9 %, p.a.	**1H54.1**	500 mg	73,00
		1H54.2	1 g	120,95
		1H54.3	5 g	499,90
Potassium hexacyano-ferrate(II) trihydrate	≥99 %, p.a., ACS, ISO	**P745.1**	500 g	110,20
		P745.2	1 kg	203,20
		P745.3	2.5 kg	456,90
Potassium hexacyano-ferrate(III)	≥99 %, p.a., ACS	**P746.3**	100 g	39,70
		P746.1	500 g	139,65
		P746.2	1 kg	267,70
Potassium hydrogen carbonate	≥99,7 %, p.a., ACS	**P748.1**	500 g	39,70
		P748.2	1 kg	70,85
		P748.3	2.5 kg	160,20
di-Potassium hydrogen phosphate	≥99 %, p.a., anhydrous	**P749.1**	500 g	37,55
		P749.2	1 kg	67,65
		P749.3	2.5 kg	138,70
		P749.5	25 kg	1.069,65
di-Potassium hydrogen phosphate trihydrate	≥99 %, p.a.	**6878.2**	250 g	45,05
		6878.1	1 kg	134,40
		6878.3	2.5 kg	278,45
Potassium hydrogen phthalate	≥99,5 %, p.a., ISO	**P750.1**	500 g	92,35
		P750.2	1 kg	170,95
		P750.3	2.5 kg	370,90
Potassium hydrogen sulphate	≥99 %, p.a.	**P020.1**	500 g	37,55
		P020.2	1 kg	67,65
		P020.3	2.5 kg	149,45
Potassium iodate	≥99,4 %, p.a., ACS	**P751.1**	100 g	46,15
		P751.2	250 g	99,90
Potassium iodide	≥99,5 %, p.a., ISO	**6750.4**	50 g	26,80
		6750.1	250 g	107,00
		6750.3	500 g	198,90
		6750.2	1 kg	375,20
		6750.5	2.5 kg	740,70
		6750.6	5 kg	1.392,15
Potassium nitrate	≥99 %, p.a., ISO	**P021.1**	500 g	42,90
		P021.2	1 kg	83,75
		P021.3	2.5 kg	181,70
di-Potassium oxalate monohydrate	≥98,5 %, p.a., ACS	**HN38.1**	250 g	36,45
		HN38.2	500 g	58,60
		HN38.3	1 kg	106,45
Potassium periodate	≥99,8 %, p.a., ACS	**2588.1**	25 g	36,05
		2588.2	100 g	85,90
		2588.3	500 g	317,15
Potassium permanganate	≥99 %, p.a., ACS	**P752.1**	500 g	67,65
		P752.2	1 kg	112,90
		P752.3	2.5 kg	224,70
tri-Potassium phosphate trihydrate	≥99 %, p.a.	**1HEE.1**	100 g	23,55
		1HEE.2	500 g	53,65
		1HEE.3	1 kg	91,30
		1HEE.4	2.5 kg	170,95
Potassium sodium tartrate tetrahydrate	≥99 %, p.a., ACS, ISO	**8087.2**	500 g	53,25
		8087.1	1 kg	89,15
		8087.3	2.5 kg	192,45
Potassium sulphate	≥99 %, p.a., ACS, ISO	**P022.1**	500 g	50,00
		P022.2	1 kg	84,95
		P022.3	2.5 kg	188,15
Potassium thiocyanate	≥98,5 %, p.a., ACS	**P753.1**	500 g	96,65
		P753.2	1 kg	170,95
		P753.3	2.5 kg	403,15

Rubidium salts, Rb

Product name	Purity	Art. No.	Pack Qty.	€
Rubidium chloride	≥99 %, p.a.	**4471.2**	5 g	46,15
		4471.1	10 g	81,60
		4471.3	25 g	169,35
		4471.4	50 g	317,15

For additional product data and safety information, see chapter Chemicals A-Z.

Selenium salts, Se

Product name	Purity	Art. No.	Pack Qty.	€
Selenium(IV) oxide	≥99,5 %, p.a.	**1L0N.1**	100 g	37,10
		1L0N.2	250 g	81,20
		1L0N.3	500 g	146,75
		1L0N.4	1 kg	268,75
Sodium selenate	≥99 %, p.a.	**1EH9.1**	50 g	42,90
		1EH9.2	100 g	67,65
		1EH9.3	250 g	134,40
		1EH9.4	500 g	246,20
Sodium selenite	≥99 %, p.a.	**1E0Y.1**	100 g	37,55
		1E0Y.2	250 g	75,15
		1E0Y.3	500 g	123,65
		1E0Y.4	1 kg	224,70

Silver salts, Ag

Product name	Purity	Art. No.	Pack Qty.	€
Silver nitrate	≥99,9 %, p.a., Ultra Quality	**6874.1**	10 g	49,35
		6874.2	50 g	193,50
		6874.3	250 g	698,75
	≥99,9 %, p.a.	**7908.1**	50 g	149,45
		7908.2	250 g	628,90
		7908.3	1 kg	2.203,75
Silver oxide	≥99 %, p.a.	**5309.1**	10 g	73,65
		5309.2	50 g	268,75
Silver sulphate	≥99 %, p.a.	**6791.1**	25 g	145,15
		6791.2	100 g	504,20

Sodium salts, Na

Product name	Purity	Art. No.	Pack Qty.	€
Potassium sodium tartrate tetrahydrate	≥99 %, p.a., ACS, ISO	**8087.2**	500 g	53,25
		8087.1	1 kg	89,15
		8087.3	2.5 kg	192,45
Sodium acetate	≥99 %, p.a., ACS, anhydrous	**6773.1**	250 g	40,75
		6773.2	1 kg	107,40
		6773.3	2.5 kg	235,45
		6773.5	25 kg	1.666,25
Sodium acetate trihydrate	≥99,5 %, p.a., ACS, ISO	**6779.2**	500 g	34,30
		6779.1	1 kg	61,85
		6779.3	5 kg	209,65
		6779.5	25 kg	880,45
Sodium ammonium hydrogen phosphate tetrahydrate	≥99 %, p.a.	**T882.1**	500 g	127,95
		T882.2	1 kg	241,90
		T882.3	2.5 kg	514,95
Sodium azide	≥99 %, p.a.	**K305.1**	100 g	60,10
		K305.2	250 g	115,60
		K305.3	500 g	203,20
		K305.4	1 kg	349,40
Sodium bismuthate dihydrate	≥99 %, p.a.	**4401.1**	50 g	59,05
		4401.2	100 g	109,15
		4401.3	250 g	224,70
Sodium bromide	≥99 %, p.a., ACS	**HN15.1**	250 g	23,55
		HN15.2	1 kg	70,45
		HN15.3	2.5 kg	146,75
		HN15.7	25 kg	1.284,65
Sodium carbonate	≥99,5 %, p.a., ACS, anhydrous	**A135.1**	500 g	27,85
		A135.2	1 kg	51,10
		A135.3	5 kg	209,65
Sodium carbonate monohydrate	≥99,5 %, p.a., ACS	**2597.1**	100 g	21,00
		2597.2	500 g	39,25
Sodium carbonate decahydrate	≥99 %, p.a., ISO	**K303.2**	500 g	40,75
		K303.1	1 kg	74,10
		K303.3	2.5 kg	158,60
Sodium chloride	≥99,5 %, p.a., ACS, ISO	**3957.3**	500 g	18,20
		3957.1	1 kg	22,05
		3957.2	5 kg	80,55
		3957.4	10 kg	120,95
		3957.5	25 kg	241,90

Product name	Purity	Art. No.	Pack Qty.	€
tri-Sodium citrate dihydrate	≥99 %, p.a., ACS	**3580.4**	250 g	24,65
		3580.3	500 g	33,25
		3580.1	1 kg	53,65
		3580.2	5 kg	213,95
		3580.5	25 kg	564,40
Sodium dihydrogen phosphate mono-hydrate	≥98 %, p.a., ACS	**K300.1**	500 g	34,30
		K300.2	1 kg	51,10
		K300.3	2.5 kg	103,10
		K300.5	25 kg	697,70
Sodium dihydrogen phosphate dihydrate	≥99 %, p.a.	**T879.1**	500 g	37,55
		T879.2	1 kg	62,25
		T879.3	2.5 kg	134,40
		T879.5	25 kg	1.171,75
tetra-Sodium diphosphate decahydrate	≥99 %, p.a.	**T883.1**	500 g	55,80
		T883.2	1 kg	92,35
		T883.3	2.5 kg	188,15
Sodium fluoride	≥99 %, p.a., ACS, ISO	**P756.1**	500 g	62,25
		P756.2	1 kg	117,20
		P756.3	2.5 kg	246,20
Sodium formate	≥99 %, p.a., ACS	**4404.1**	250 g	40,75
		4404.2	500 g	71,95
		4404.3	1 kg	128,50
Sodium hexanitro-cobaltate(III)	p.a., ACS	**4409.1**	25 g	25,30
		4409.2	100 g	71,95
		4409.3	250 g	149,45
Sodium hydrogen carbonate	≥99,5 %, p.a., ACS, ISO	**6885.2**	500 g	23,55
		6885.1	1 kg	38,60
		6885.3	5 kg	149,45
		6885.5	25 kg	579,45
di-Sodium hydrogen phosphate	≥99 %, p.a., ACS, anhydrous	**P030.1**	500 g	67,65
		P030.2	1 kg	117,20
		P030.3	2.5 kg	246,20
di-Sodium hydrogen phosphate dihydrate	≥99,0 %, p.a.	**4984.2**	500 g	32,15
		4984.1	1 kg	53,65
		4984.3	2.5 kg	107,40
		4984.4	5 kg	170,95
		4984.5	10 kg	299,95
		4984.7	25 kg	564,40
di-Sodium hydrogen phosphate hepta-hydrate	≥98 %, p.a., ACS	**X987.1**	500 g	27,85
		X987.2	1 kg	44,65
		X987.3	2.5 kg	92,35
di-Sodium hydrogen phosphate dodeca-hydrate	≥99 %, p.a., ISO	**T106.1**	500 g	52,60
		T106.2	1 kg	92,35
		T106.3	2.5 kg	198,90
Sodium iodate	≥99 %, p.a.	**HN17.1**	50 g	72,60
		HN17.2	100 g	125,25
Sodium iodide	≥99,5 %, p.a., ACS	**A134.3**	100 g	107,40
		A134.1	250 g	235,45
		A134.2	1 kg	854,65
Sodium metabisulphite	≥97 %, p.a., ACS	**P755.1**	500 g	23,55
		P755.2	1 kg	37,10
		P755.3	2.5 kg	67,65
		P755.4	5 kg	117,20
		P755.5	25 kg	396,70
Sodium molybdate dihydrate	≥99,5 %, p.a.	**0274.1**	50 g	22,50
		0274.2	100 g	34,95
		0274.3	250 g	62,90
		0274.4	1 kg	224,70
Sodium nitrate	≥99 %, p.a., ACS, ISO	**A136.1**	500 g	34,95
		A136.2	1 kg	55,80
		A136.3	2.5 kg	123,65
Sodium nitrite	≥98 %, p.a., ACS	**4411.1**	100 g	21,40
		4411.2	500 g	61,20
		4411.3	1 kg	107,40
		4411.4	2.5 kg	241,90
di-Sodium oxalate	≥99,5 %, p.a., ACS	**HN39.1**	100 g	35,40
		HN39.2	250 g	75,15
		HN39.3	500 g	138,70
Sodium periodate	≥99,8 %, p.a., ACS	**2603.1**	50 g	55,40
		2603.2	250 g	192,45
		2603.3	500 g	346,70

Product name	Purity	Art. No.	Pack Qty.	€
Sodium peroxide	≥95 %, p.a., ACS, grained	**4412.1**	100 g	112,90
		4412.2	250 g	252,65
		4412.3	500 g	461,20
tri-Sodium phosphate dodecahydrate	≥98 %, p.a., ACS	**T107.2**	500 g	46,15
		T107.1	1 kg	83,35
		T107.3	2.5 kg	170,95
		T107.7	25 kg	1.451,25
Sodium polytungstate hydrate	≥99,9 %, p.a.	**1K08.1**	50 g	67,65
		1K08.2	250 g	241,90
		1K08.3	1 kg	805,20
Sodium salicylate	≥99 %, p.a.	**CP39.1**	250 g	32,15
		CP39.2	1 kg	101,60
Sodium selenate	≥99 %, p.a.	**1EH9.1**	50 g	42,90
		1EH9.2	100 g	67,65
		1EH9.3	250 g	134,40
		1EH9.4	500 g	246,20
Sodium selenite	≥99 %, p.a.	**1E0Y.1**	100 g	37,55
		1E0Y.2	250 g	75,15
		1E0Y.3	500 g	123,65
		1E0Y.4	1 kg	224,70
Sodium sulphate	≥99 %, p.a., ACS, ISO, anhydrous, powdered	**8560.3**	500 g	31,75
		8560.1	1 kg	46,15
		8560.2	5 kg	170,95
		8560.5	25 kg	697,70
	≥99 %, p.a., ACS, anhydrous, grained	**0966.1**	500 g	25,70
		0966.2	1 kg	38,60
		0966.3	5 kg	158,60
Sodium sulphate decahydrate	≥99 %, p.a., ACS	**T108.2**	500 g	23,15
		T108.1	1 kg	38,20
		T108.3	2.5 kg	76,90
Sodium sulphite	≥98 %, p.a., ACS, anhydrous	**P033.1**	500 g	22,50
		P033.2	1 kg	35,40
		P033.3	2.5 kg	64,40
di-Sodium tartrate dihydrate	≥99 %, p.a.	**T110.1**	500 g	69,35
		T110.2	1 kg	126,35
		T110.3	2.5 kg	267,70
		T110.5	25 kg	2.252,15
di-Sodium tetraborate decahydrate	≥99,5 %, p.a., ACS, ISO	**T880.1**	500 g	40,35
		T880.2	1 kg	62,25
		T880.3	2.5 kg	123,10
Sodium tetraphenyl borate	≥99,5 %, p.a., ACS	**4385.1**	10 g	50,45
		4385.2	25 g	110,20
		4385.3	100 g	349,40
Sodium thiocyanate	≥98 %, p.a., ACS	**2724.1**	100 g	22,50
		2724.2	500 g	54,30
		2724.3	1 kg	90,20
Sodium thiosulphate	≥99 %, p.a., anhydrous	**HN25.1**	250 g	37,55
		HN25.2	500 g	62,25
		HN25.3	1 kg	105,25
		HN25.4	2.5 kg	209,65
Sodium thiosulphate pentahydrate	≥99,5 %, p.a., ACS	**P034.1**	500 g	26,35
		P034.2	1 kg	42,90
		P034.3	2.5 kg	85,90
		P034.5	25 kg	622,45
Sodium tungstate dihydrate	≥99 %, p.a., ACS	**2604.1**	100 g	61,20
		2604.2	250 g	120,95
		2604.3	500 g	224,70

Strontium salts, Sr

Product name	Purity	Art. No.	Pack Qty.	€
Strontium chloride hexahydrate	≥99 %, p.a.	**4473.1**	100 g	29,60
		4473.2	500 g	79,45
		4473.3	1 kg	140,30
Strontium nitrate	≥99 %, p.a., ACS	**4413.1**	100 g	33,25
		4413.2	250 g	64,40
		4413.3	500 g	117,20

Tellurium salts, Te

Product name	Purity	Art. No.	Pack Qty.	€
Tellurium(IV) oxide	≥99,9 %, p.a.	**0321.1**	10 g	40,75
		0321.2	25 g	83,75
		0321.3	50 g	153,20

Tin salts, Sn

Product name	Purity	Art. No.	Pack Qty.	€
Tin(II) chloride dihydrate	≥98 %, p.a., max. 0,05 ppm Hg	**KK07.1**	100 g	64,40
		KK07.2	250 g	134,40
	≥98 %, p.a., ACS	**4977.3**	100 g	48,30
		4977.1	250 g	99,90
		4977.2	1 kg	342,95
Tin(IV) oxide	≥99,5 %, p.a.	**9929.1**	100 g	31,10
		9929.2	500 g	98,80
		9929.3	1 kg	188,15
Tin(II) sulphate	≥99 %, p.a.	**4382.1**	100 g	40,75
		4382.2	250 g	79,05
		4382.3	1 kg	235,45

For additional product data and safety information, see chapter Chemicals A-Z.

Tungsten salts, W

Product name	Purity	Art. No.	Pack Qty.	€
Ammonium meta-tungstate hydrate	≥90 % WO_3, p.a.	**0742.1**	25 g	38,60
		0742.2	100 g	73,00
		0742.3	500 g	278,45
Sodium polytungstate hydrate	≥99,9 %, p.a.	**1K08.1**	50 g	67,65
		1K08.2	250 g	241,90
		1K08.3	1 kg	805,20
Sodium tungstate dihydrate	≥99 %, p.a., ACS	**2604.1**	100 g	61,20
		2604.2	250 g	120,95
		2604.3	500 g	224,70
Tungsten(VI) oxide	≥99,5 %, p.a.	**0760.1**	50 g	37,10
		0760.2	100 g	55,80
		0760.3	500 g	222,00
Tungstic acid	≥99 %, p.a.	**0747.1**	25 g	34,30
		0747.2	100 g	55,80
		0747.3	500 g	193,50

Vanadium salts, V

Product name	Purity	Art. No.	Pack Qty.	€
Ammonium monovanadate	≥99,8 %, p.a.	**4232.1**	50 g	31,75
		4232.2	100 g	46,80
		4232.3	250 g	94,50
		4232.4	1 kg	306,40

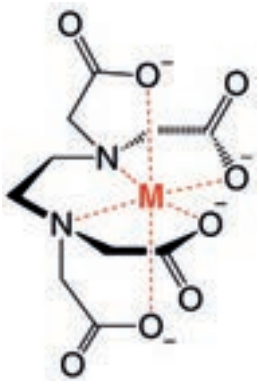
Zinc salts, Zn

Product name	Purity	Art. No.	Pack Qty.	€
Zinc acetate dihydrate	≥99,5 %, p.a., ACS	**P035.1**	500 g	56,90
		P035.2	1 kg	92,35
Zinc bromide	≥98 %	**9743.1**	250 g	134,40
Zinc chloride	≥97 %, p.a.	**T887.1**	500 g	64,40
		T887.2	1 kg	107,40
Zinc iodide	≥99 %, p.a.	**9839.1**	50 g	53,25
		9839.2	100 g	99,45
		9839.3	250 g	181,70
Zinc nitrate hexahydrate	≥98 %, p.a.	**6634.1**	100 g	23,55
		6634.2	500 g	51,50
		6634.3	1 kg	80,10
Zinc oxide	≥99 %, p.a., ACS	**T114.1**	500 g	83,75
		T114.2	1 kg	127,95
Zinc sulphate heptahydrate	≥99,5 %, p.a., ACS	**K301.1**	500 g	32,15
		K301.2	1 kg	56,90
		K301.3	2.5 kg	106,45
		K301.5	25 kg	876,15

For additional product data and safety information, see chapter Chemicals A-Z.

► For more qualities please see Chapter Chemicals A-Z.

Complexometry



Salts for Complexometry

Product name	Purity	Synonymous	Art. No.	Pack Qty.	€
trans-1,2-Diaminocyclohexane-*N*,*N*,*N*',*N*'-tetracetic acid monohydrate	≥99 %, p.a., ACS	1,2-Cyclohexane dinitrilo tetraacetic acid, CDTA, Titration complex IV	**1412.1**	25 g	41,40
			1412.2	100 g	121,40
			1412.3	250 g	263,40
			1412.4	500 g	493,45
	≥99 %, for synthesis	1,2-Cyclohexane dinitrilo tetraacetic acid, CDTA, Titration complex IV	**1411.1**	100 g	89,15
			1411.2	250 g	203,20
			1411.3	500 g	364,45
			1411.4	1 kg	665,45
Diethylene triamine pentaacetic acid	≥99 %, for synthesis	DTPA, Titration complex V, Pentetic acid	**1407.1**	100 g	23,15
			1407.2	250 g	41,40
			1407.3	500 g	69,35
			1407.4	1 kg	123,65
EGTA	≥99 %, p.a.	Ethylene glycol bis(β-aminoethylether) tetraacetic acid, Titration complex VI	**3054.1**	10 g	42,50
			3054.2	50 g	166,65
			3054.3	100 g	289,20
Ethylenediamine tetraacetic acid	≥99 %, p.a., ACS	EDTA, Ethylenedinitrilo tetraacetic acid, Titration complex II	**8040.1**	100 g	23,55
			8040.3	500 g	74,10
			8040.2	1 kg	115,60
			8040.4	2.5 kg	231,15
			8040.5	25 kg	1.881,25
	≥99 %	EDTA, Ethylenedinitrilo tetraacetic acid, Titration complex II	**CN06.1**	250 g	31,75
			CN06.2	500 g	56,90
			CN06.3	1 kg	97,30
			CN06.5	2.5 kg	203,20
			CN06.4	5 kg	385,95
			CN06.6	10 kg	686,95
Ethylenediamine tetraacetic acid calcium disodium salt hydrate	≥98 %, Ph. Eur., USP	EDTA-$CaNa_2 \cdot 2\ H_2O$, Calcium EDTA disodium salt dihydrate, EDTA calcium disodium salt dihydrate	**6506.1**	250 g	61,20
			6506.2	500 g	115,60
			6506.3	1 kg	213,95
Ethylenediamine tetraacetic acid copper disodium salt dihydrate	≥99 %, for synthesis	EDTA-$CuNa_2 \cdot 2\ H_2O$, EDTA copper disodium salt dihydrate, Copper EDTA disodium salt dihydrate	**6499.1**	250 g	53,25
			6499.2	500 g	96,25
			6499.3	1 kg	166,65
Ethylenediamine tetraacetic acid dipotassium salt dihydrate	≥99 %, p.a.	EDTA-$K_2 \cdot 2\ H_2O$, EDTA Dipotassium salt dihydrate	**3053.1**	100 g	31,10
			3053.2	250 g	65,50
			3053.3	500 g	117,20
			3053.4	1 kg	209,65
			3053.5	5 kg	837,45
	≥99 %, for synthesis	EDTA-$K_2 \cdot 2\ H_2O$, EDTA Dipotassium salt dihydrate	**1408.1**	250 g	37,10
			1408.2	500 g	66,55
			1408.3	1 kg	117,20
			1408.4	5 kg	521,40
Ethylenediamine tetraacetic acid disodium salt dihydrate	≥99 %, p.a., ACS	EDTA-$Na_2 \cdot 2\ H_2O$, EDTA disodium salt dihydrate, Titration complex III	**8043.3**	100 g	31,10
			8043.1	250 g	49,35
			8043.2	1 kg	160,20
			8043.6	2.5 kg	306,40
			8043.4	5 kg	600,95
			8043.5	25 kg	1.714,65
	≥99 %, USP	EDTA-$Na_2 \cdot 2\ H_2O$, EDTA disodium salt dihydrate, Titration complex III	**X986.1**	250 g	33,25
			X986.2	1 kg	91,30
			X986.4	2.5 kg	192,45
			X986.3	5 kg	364,45
			X986.5	25 kg	1.607,15

Classics

Product name	Purity	Synonymous	Art. No.	Pack Qty.	€
Ethylenediamine tetraacetic acid iron(III) sodium salt trihydrate	≥98 %, for synthesis	EDTA-$FeNa_3 \cdot 3\ H_2O$, EDTA iron(III) sodium salt trihydrate, Iron(III) EDTA sodium salt trihydrate	**6498.1**	250 g	53,25
			6498.2	500 g	96,25
			6498.3	1 kg	166,65
Ethylenediamine tetraacetic acid magnesium disodium salt dihydrate	≥90 %, for synthesis	EDTA-$MgNa_2 \cdot 2\ H_2O$, EDTA magnesium disodium salt dihydrate, Magnesium EDTA disodium salt dihydrate	**6508.1**	250 g	47,20
			6508.2	500 g	88,05
			6508.3	1 kg	160,75
Ethylenediamine tetraacetic acid manganese disodium salt dihydrate	≥93 %, for synthesis	EDTA-$MnNa_2 \cdot 2\ H_2O$, EDTA manganese disodium salt dihydrate, Manganese EDTA disodium salt dihydrate	**6510.1**	250 g	47,20
			6510.2	500 g	88,05
			6510.3	1 kg	160,75
Ethylenediamine tetraacetic acid tetrasodium salt dihydrate	≥99 %	EDTA-Na_4, EDTA tetrasodium salt	**1410.1**	250 g	24,65
			1410.2	500 g	45,05
			1410.3	1 kg	80,55
			1410.4	5 kg	338,65
Ethylenediamine tetraacetic acid tetrasodium salt hydrate	84–88 %	EDTA-Na_4, EDTA tetrasodium salt	**3619.2**	500 g	34,30
			3619.1	1 kg	61,20
			3619.4	2.5 kg	n. a.
			3619.3	5 kg	224,70
Ethylenediamine tetraacetic acid tetrasodium salt tetrahydrate	≥99 %, p.a.	EDTA-Na_4, EDTA tetrasodium salt	**CP87.1**	250 g	37,10
			CP87.2	500 g	65,50
			CP87.3	1 kg	115,60
			CP87.4	5 kg	482,70
Ethylenediamine tetraacetic acid tripotassium salt dihydrate	≥99 %	EDTA-$K_3 \cdot 2\ H_2O$, EDTA tripotassium salt dihydrate	**1409.1**	100 g	36,45
			1409.2	250 g	67,20
			1409.3	1 kg	203,20
			1409.4	5 kg	794,45
Ethylenediamine tetraacetic acid zinc disodium salt dihydrate	≥96 %, for synthesis	EDTA-$ZnNa_2 \cdot 2\ H_2O$, EDTA zinc disodium salt dihydrate, Zinc EDTA disodium salt dihydrate	**6518.1**	250 g	53,25
			6518.2	500 g	96,25
			6518.3	1 kg	166,65
Nitrilotriacetic acid	≥99 %, p.a., ACS	Komplexon®, NTA, Titration complex I, Tris(carboxymethyl)-amine	**4384.1**	100 g	83,75
	≥99 %, extra pure	Komplexon®, NTA, Titration complex I, Tris(carboxymethyl)-amine	**8653.1**	100 g	25,70
			8653.2	500 g	81,60
			8653.3	1 kg	149,45
Nitrilotriacetic acid trisodium salt monohydrate	≥99 %, extra pure	NTA-Na_3, Sodium nitrilotriacetate tribasic monohydrate	**8242.1**	100 g	24,65
			8242.2	500 g	77,30
			8242.3	1 kg	138,70
			8242.4	2.5 kg	321,45

For additional product data and safety information, see chapter Chemicals A-Z.

Complexing Agents

Product name	Purity	Art. No.	Pack Qty.	€
Acetyl acetone	≥98 %, for synthesis	**6716.1**	100 ml	19,25
		6716.2	500 ml	43,55
		6716.3	1 l	75,15
		6716.4	2.5 l	160,20
2-(2-Aminoethyl-amino)ethanol	≥98 %, for synthesis	**6717.1**	100 ml	20,35
		6717.2	500 ml	38,20
		6717.3	1 l	61,20
		6717.4	2.5 l	129,55
Citric acid	≥99,5 %, p.a., ACS, anhydrous	**X863.1**	500 g	28,95
		X863.2	1 kg	48,30
		X863.3	2.5 kg	98,80
		X863.4	5 kg	174,70
		X863.6	10 kg	332,20
		X863.5	25 kg	639,65
	≥99,5 %, Ph. Eur., anhydrous	**6490.3**	500 g	25,70
		6490.1	1 kg	46,15
		6490.4	2.5 kg	96,65
		6490.2	5 kg	181,70
		6490.6	10 kg	327,90
		6490.5	25 kg	654,70
Citric acid monohydrate	≥99,5 %, p.a., ACS, ISO	**3958.2**	500 g	41,85
		3958.1	1 kg	75,15
		3958.3	2.5 kg	149,45
		3958.4	5 kg	278,45
		3958.6	10 kg	504,20
		3958.5	25 kg	1.069,65
Citric acid mono-hydrate	≥99,5 %, Ph. Eur.	**5110.3**	500 g	24,65
		5110.1	1 kg	42,90
		5110.4	2.5 kg	85,90
		5110.2	5 kg	153,20
		5110.6	10 kg	289,20
		5110.5	25 kg	579,45
Diethylene triamine	≥98 %, for synthesis	**6723.1**	100 ml	24,65
		6723.2	500 ml	69,35
		6723.3	1 l	121,40
		6723.4	2.5 l	252,65
Dimethylglyoxim	≥99 %, p.a., ACS	**2677.1**	50 g	54,30
		2677.2	100 g	87,65
		2677.3	500 g	321,45
Dimethylglyoxime disodium salt octahydrate	≥98 %, p.a.	**KK24.1**	25 g	54,30
		KK24.2	50 g	95,70
2,2'-Dipyridyl	≥95 %, for biochemistry	**4153.1**	5 g	20,35
		4153.2	25 g	62,25
Ethylenediamine	≥99,5 %, p.a., anhydrous	**3049.1**	250 ml	67,65
	≥99,5 %, for synthesis	**4218.1**	100 ml	17,10
		4218.2	500 ml	23,55
		4218.3	1 l	40,75
		4218.4	2.5 l	80,55
		4218.5	10 l	267,70
1-Hydroxyethane-1,1-diphosphonic acid (HEDP)	≥90 %	**0878.1**	100 g	34,30
		0878.2	500 g	69,80
		0878.3	1 kg	127,95

Product name	Purity	Art. No.	Pack Qty.	€
8-Hydroxyquinoline	p.a., ACS	**2557.1**	50 g	56,90
		2557.2	100 g	103,75
		2557.3	250 g	231,15
Iminodisuccinic acid tetrasodium salt (IDS)	≥75 %	**0853.1**	100 g	37,55
		0853.2	500 g	62,25
		0853.3	1 kg	112,90
Methylglycinediacetic acid trisodium salt (MGDA)	≥85 %	**0877.1**	100 g	24,65
		0877.2	500 g	49,35
		0877.3	1 kg	76,90
Oxalic acid dihydrate	≥99,5 %, p.a., ACS, ISO	**T113.1**	500 g	53,65
		T113.2	1 kg	95,70
		T113.3	2.5 kg	209,65
	≥99 %, cryst.	**8879.1**	1 kg	28,95
		8879.3	5 kg	107,40
		8879.2	10 kg	198,90
1,10-Phenanthroline monohydrate	≥99 %, p.a., ACS	**9113.2**	5 g	37,10
		9113.3	25 g	131,70
		9113.1	50 g	235,45
1,10-Phenanthroline hydrochloride monohydrate	≥99 %, p.a.	**KK21.1**	5 g	34,30
		KK21.2	10 g	60,75
		KK21.3	50 g	246,20
2-Phosphonobutane-1,2,4-tricarboxylic acid (PBTC)	≥47 %	**0854.1**	100 ml	38,60
		0854.2	500 ml	117,20
		0854.3	1 l	209,65
Potassium hydrogen tartrate	≥99,5 %, extra pure	**8645.1**	100 g	16,05
		8645.2	500 g	38,60
		8645.3	1 kg	63,45
Potassium sodium tartrate tetrahydrate	≥99 %, p.a., ACS, ISO	**8087.2**	500 g	53,25
		8087.1	1 kg	89,15
		8087.3	2.5 kg	192,45
	≥99 %, USP	**7998.3**	500 g	37,10
		7998.1	1 kg	67,65
		7998.2	5 kg	246,20
di-Sodium tartrate dihydrate	≥99 %, p.a.	**T110.1**	500 g	69,35
		T110.2	1 kg	126,35
		T110.3	2.5 kg	267,70
		T110.5	25 kg	2.252,15
	≥98 %, extra pure	**0254.1**	500 g	48,30
		0254.2	1 kg	85,90
		0254.3	5 kg	385,95
D(–)-Tartaric acid	≥99 %, for biochemistry	**5529.1**	25 g	65,50
DL-Tartaric acid	≥99,5 %, anhydrous	**4891.2**	25 g	19,90
		4891.1	100 g	33,90
		4891.3	500 g	112,35
L(+)-Tartaric acid	≥99,5 %, p.a., ACS, ISO	**K302.1**	250 g	34,30
		K302.2	1 kg	110,65
		K302.5	25 kg	1.639,40
	≥99 %, for biochemistry	**4890.3**	500 g	32,15
		4890.1	1 kg	59,05
		4890.2	5 kg	213,95
		4890.5	25 kg	854,65

For additional product data and safety information, see chapter Chemicals A-Z.

Volumetric Standard Solutions

A volumetric standard solution is a solution containing a precisely known concentration of a substance. The concentration of a volumetric standard solution is determined using a primary standard, which is accurately weighed and dissolved to make a specific volume. Volumetric standard solutions are made using reagent-grade (p.a.) substances as source materials.

Volumetric Standard Solutions, ready-to-use

The advantages of this over making them yourself are:

- Manufactured and tested using modern manufacturing and analytical methods
- Ready-to-use solutions
- High accuracy for precise analyses
- Application of NIST-certified reference substances for checking
- Connection to standard titrators is possible



ready-to-use

Volumetric standard solutions, ready-to-use

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Acetic acid	1 mol/l – 1 N, volumetric standard solution	plastic	**KK62.1**	1 l	36,05
	2 mol/l – 2 N, volumetric standard solution	plastic	**9883.1**	500 ml	49,35
			9883.2	1 l	74,10
	5 mol/l – 5 N, volumetric standard solution	plastic	**1E33.1**	1 l	109,15
Ammonia solution	4 mol/l – 4 N, volumetric standard solution	plastic	**9897.1**	500 ml	71,50
			9897.2	1 l	117,75
Ammonium iron(II) sulphate solution	0,12 mol/l – 0,12 N, volumetric standard solution, for COD determination	plastic	**KK60.1**	1 l	59,70
Ammonium thiocyanate solution	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**P718.1**	1 l	27,45
Barium chloride solution	0,05 mol/l – 0,1 N, volumetric standard solution	plastic	**0468.1**	500 ml	38,60
Barium hydroxide solution	0,05 mol/l – 0,1 N, volumetric standard solution	plastic	**N054.1**	1 l	59,70
Bariumperchlorate solution	0,005 mol/l – 0,005 N, volumetric standard solution, in 2-propanol/water	glass	**KK61.1**	1 l	64,40
Benzethonium chloride solution	0,004 mol/l – 0,004 M, volumetric standard solution	plastic	**9217.1**	1 l	33,90
Bromide bromate solution	0,01 mol Br_2/l – 0,02 N, volumetric standard solution, 1/300 mol $KBrO_3$/l	plastic	**1E25.1**	1 l	65,50
	0,05 mol Br_2/l – 0,1 N, volumetric standard solution, 1/60 mol $KBrO_3$	plastic	**8131.1**	1 l	40,75
	0,25 mol Br_2/l – 0,5 N, volumetric standard solution, 1/12 mol $KBrO_3$/l	plastic	**1E24.1**	1 l	85,90
CDTA disodium salt solution	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**0243.1**	1 l	261,80
Cerium(IV) sulphate solution	0,1 mol/l – 0,1 N, volumetric standard solution	glass	**P719.1**	1 l	87,65
		plastic	**P719.7**	5 l	310,70
Copper(II) sulphate solution	0,01 mol/l – 0,01 N, volumetric standard solution	plastic	**1E30.1**	1 l	54,75
	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**9948.1**	1 l	47,85
Dibutylamine in xylene	0,1 mol/l – 0,1 N, volumetric standard solution	glass	**2998.1**	1 l	155,90
EDTA disodium salt solution	0,01 mol/l – 0,01 N, volumetric standard solution	plastic	**CN34.1**	1 l	32,80
		ROTI®CUBE	**CN34.2**	5 l	105,90
			CN34.3	10 l	180,10
	0,02 mol/l – 0,02 N, volumetric standard solution	plastic	**1E23.1**	1 l	39,70
	0,05 mol/l – 0,05 N, volumetric standard solution	plastic	**KK75.1**	1 l	38,60
			KK75.2	5 l	128,50
		ROTI®CUBE	**KK75.3**	5 l	134,95
	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**K714.1**	1 l	27,85
			K714.2	5 l	85,90
		ROTI®CUBE	**K714.3**	5 l	97,75
			K714.4	10 l	167,60
	0,2 mol/l – 0,2 N, volumetric standard solution	plastic	**8084.1**	1 l	56,90
		ROTI®CUBE	**8084.2**	5 l	186,95
EDTA disodium salt solution A	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**T136.1**	1 l	42,90
EDTA disodium salt solution B	0,01783 mol/l – 0,01783 N, volumetric standard solution	plastic	**T137.1**	1 l	30,65
		ROTI®CUBE	**T137.2**	5 l	105,90
			T137.3	10 l	175,15
Hanus solution	0,1 mol IBr/l – 0,2 N, volumetric standard solution	glass	**KK63.1**	1 l	76,25

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Hydrochloric acid	0,01 mol/l – 0,01 N, volumetric standard solution	plastic	**N075.1**	1 l	24,65
	0,02 mol/l – 0,02 N, volumetric standard solution	plastic	**1E2H.1**	1 l	40,75
	0,05 mol/l – 0,05 N, volumetric standard solution	plastic	**8085.1**	1 l	26,35
			8085.2	2.5 l	45,70
		ROTI®CUBE	**8085.3**	5 l	87,65
	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**K024.5**	500 ml	19,90
			K024.1	1 l	25,70
			K024.2	5 l	76,25
		ROTI®CUBE	**K024.3**	5 l	81,20
			K024.4	10 l	117,75
		plastic	**K024.7**	25 l	209,65
	0,2 mol/l – 0,2 N, volumetric standard solution	plastic	**4120.1**	1 l	23,55
	0,5 mol/l – 0,5 N, volumetric standard solution	plastic	**P708.1**	1 l	24,65
			P708.2	5 l	76,25
		ROTI®CUBE	**P708.3**	5 l	82,25
			P708.4	10 l	140,30
	1 mol/l – 1 N, volumetric standard solution	plastic	**K025.1**	1 l	24,65
			K025.2	5 l	76,25
		ROTI®CUBE	**K025.3**	5 l	81,20
			K025.4	10 l	117,75
	2 mol/l – 2 N, volumetric standard solution	plastic	**T134.4**	500 ml	22,05
			T134.1	1 l	26,80
			T134.2	5 l	81,20
		ROTI®CUBE	**T134.3**	5 l	90,20
	3 mol/l – 3 N, volumetric standard solution	plastic	**1E2E.1**	1 l	43,55
	4 mol/l – 4 N, volumetric standard solution	plastic	**N076.1**	1 l	40,75
			N076.2	2.5 l	67,65
			N076.3	5 l	110,20
			N076.4	10 l	163,95
			N076.5	25 l	319,85
	5 mol/l – 5 N, volumetric standard solution	plastic	**1E2C.1**	1 l	58,60
	6 mol/l – 6 N, volumetric standard solution	plastic	**0281.1**	1 l	39,70
	10 mol/l – 10 N, volumetric standard solution	plastic	**0226.1**	1 l	138,15
Hydrochloric acid in ethanol	0,1 mol/l – 0,1 N, volumetric standard solution	glass	**3080.1**	1 l	91,95
	0,5 mol/l – 0,5 N, volumetric standard solution	glass	**3091.1**	1 l	91,95
	1 mol/l – 1 N, volumetric standard solution	glass	**2988.1**	1 l	146,75
Hydrochloric acid in 2-propanol	0,1 mol/l – 0,1 N, volumetric standard solution	glass	**2943.1**	1 l	68,30
	0,5 mol/l – 0,5 N, volumetric standard solution	glass	**2980.1**	1 l	91,95
Iodid-iodate solution	1/128 mol I_2/l – 1/64 N, volumetric standard solution	plastic	**KK65.1**	1 l	39,70
			KK65.2	2.5 l	76,25
	0,05 mol I_2/l – 0,1 N, volumetric standard solution	plastic	**0228.1**	1 l	43,55
Iodine solution	0,005 mol I_2/l – 0,01 N, volumetric standard solution	glass	**1K3T.1**	1 l	53,65
	0,05 mol I_2/l – 0,1 N, volumetric standard solution	glass	**K016.1**	1 l	44,65
			K016.2	2.5 l	91,30
Magnesium chloride solution	0,1 mol/l – 0,1 M, volumetric standard solution	plastic	**1E2Y.1**	1 l	152,15
Magnesium sulphate solution	0,1 mol/l – 0,1 M, volumetric standard solution	plastic	**1E2X.1**	1 l	152,15
Mercury(II) nitrate solution	0,05 mol/l – 0,1 N, volumetric standard solution	plastic	**KK72.1**	1 l	73,00
Mercury(II) sulphate solution 80 g/l	0,02 mol $K_2Cr_2O_7$/l, volumetric standard solution, potassium dichromate in sulphuric acid, for COD determination	glass	**X871.1**	1 l	128,90
			X871.2	2.5 l	256,95
Nitric acid	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**KK73.1**	1 l	25,70
	1 mol/l – 1 N, volumetric standard solution	plastic	**N070.1**	1 l	27,85
	2 mol/l – 2 N, volumetric standard solution	plastic	**9887.1**	500 ml	34,95
			9887.2	1 l	49,35
Oxalic acid solution	0,05 mol/l – 0,1 N, volumetric standard solution	plastic	**CN35.1**	1 l	32,15
	0,1 mol/l – 0,2 N, volumetric standard solution	plastic	**0764.1**	1 l	58,60
	0,25 mol/l – 0,5 N, volumetric standard solution	plastic	**1E2L.1**	1 l	37,55
Perchloric acid	0,1 mol/l – 0,1 N, volumetric standard solution, in anhydrous acetic acid	glass	**K023.1**	1 l	100,95
	1 mol/l – 1 N, volumetric standard solution, in water	glass	**1E2K.1**	1 l	134,40

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
ortho-Phosphoric acid	0,1 mol/l – 0,3 N, volumetric standard solution	plastic	**8089.1**	1 l	69,35
	1/6 mol/l – 0,5 N, volumetric standard solution	plastic	**8091.1**	1 l	69,35
	1 mol/l – 3 N, volumetric standard solution	plastic	**8141.1**	1 l	69,35
Potassium bromide solution	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**8130.1**	1 l	113,85
Potassium chloride solution	0,2 mol/l – 0,2 N, volumetric standard solution	plastic	**4117.1**	1 l	34,95
	3 mol/l – 3 N, volumetric standard solution	plastic	**T138.1**	250 ml	23,55
			T138.2	1 l	36,45
	3 mol/l – 3 N, volumetric standard solution, saturated with AgCl	plastic	**9880.1**	250 ml	29,60
			9880.2	1 l	49,35
Potassium dichromate solution	0,02 mol/l – 0,12 N, volumetric standard solution, for COD determination	plastic	**P720.1**	1 l	33,90
	1/24 mol/l – 0,25 N, volumetric standard solution, for COD determination	plastic	**P721.1**	1 l	67,20
Potassium hydroxide solution	0,01 mol/l – 0,01 N, volumetric standard solution	plastic	**1E31.1**	1 l	47,85
	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**K018.1**	1 l	29,60
			K018.2	5 l	94,10
		ROTI®CUBE	**K018.3**	5 l	97,75
	0,5 mol/l – 0,5 N, volumetric standard solution	plastic	**N071.1**	1 l	35,40
			N071.2	5 l	114,50
		ROTI®CUBE	**N071.3**	5 l	117,20
	1 mol/l – 1 N, volumetric standard solution	plastic	**K017.1**	1 l	29,60
			K017.2	5 l	80,10
		ROTI®CUBE	**K017.3**	5 l	84,40
	3 mol/l – 3 N, volumetric standard solution	plastic	**1E32.1**	1 l	46,80
Potassium hydroxide solution in ethanol	0,05 mol/l – 0,05 N, volumetric standard solution	glass	**0765.1**	1 l	73,00
	0,1 mol/l – 0,1 N, volumetric standard solution	glass	**P706.1**	1 l	52,60
	0,5 mol/l – 0,5 N, volumetric standard solution	glass	**P707.1**	1 l	73,00
Potassium hydroxide solution in methanol	0,1 mol/l – 0,1 N, volumetric standard solution	glass	**KK66.1**	1 l	40,75
	0,5 mol/l – 0,5 N, volumetric standard solution	glass	**KK67.1**	1 l	40,75
Potassium hydroxide solution in isopropanol	0,1 mol/l – 0,1 N, volumetric standard solution	glass	**KK68.1**	1 l	65,50
Potassium nitrate solution	1 mol/l – 1 N, volumetric standard solution	plastic	**9898.1**	500 ml	46,80
			9898.2	1 l	77,30
Potassium permanganate solution	0,02 mol/l – 0,1 N, volumetric standard solution	glass	**K019.1**	1 l	30,65
	0,1 mol/l – 0,5 N, volumetric standard solution	glass	**KK69.1**	1 l	43,55
Potassium thiocyanate solution	1 mol/l – 1 N, volumetric standard solution	plastic	**9899.1**	1 l	77,30
Silver nitrate solution	0,01 mol/l – 0,01 N, volumetric standard solution	plastic	**6838.3**	1 l	42,50
	0,05 mol/l – 0,05 N, volumetric standard solution	plastic	**6835.3**	1 l	76,25
	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**K713.2**	250 ml	44,65
			K713.4	500 ml	58,60
			K713.1	1 l	98,80
			K713.3	2.5 l	155,90
	0,5 mol/l – 0,5 N, volumetric standard solution	plastic	**6839.3**	1 l	281,15
	1 mol/l – 1 N, volumetric standard solution	plastic	**6841.1**	250 ml	128,50
			6841.2	500 ml	216,65
			6841.3	1 l	385,95
Silver sulphate solution	10 g/l in sulphuric acid, for COD determination	glass	**X870.1**	1 l	91,95
			X870.2	2.5 l	194,05
Sodium acetate solution	0,1 mol/l – 0,1 N, volumetric standard solution, in acetic acid	plastic	**0151.1**	1 l	55,80
Sodium carbonate solution	0,05 mol/l – 0,1 N, volumetric standard solution	plastic	**0187.1**	1 l	135,35
	0,5 mol/l – 1 N, volumetric standard solution	plastic	**0211.1**	1 l	147,20
Sodium chloride solution	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**1E2T.1**	1 l	40,75
	1 mol/l – 1 N, volumetric standard solution	plastic	**8115.1**	1 l	36,45

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Sodium hydroxide solution	0,01 mol/l – 0,01 N, volumetric standard solution	plastic	**N073.1**	1 l	24,20
	0,02 mol/l – 0,02 N, volumetric standard solution	plastic	**0763.1**	1 l	32,80
	0,05 mol/l – 0,05 N, volumetric standard solution	plastic	**0224.1**	1 l	26,80
	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**K020.1**	1 l	23,55
			K020.2	5 l	76,90
		ROTI®CUBE	**K020.3**	5 l	81,60
			K020.4	10 l	117,20
	0,2 mol/l – 0,2 N, volumetric standard solution	plastic	**N074.1**	1 l	25,70
		ROTI®CUBE	**N074.2**	5 l	103,75
			N074.3	10 l	163,95
	0,25 mol/l – 0,25 N, volumetric standard solution	plastic	**P711.1**	1 l	25,30
		ROTI®CUBE	**P711.2**	5 l	79,05
			P711.3	10 l	131,70
	0,33 mol/l – 0,33 N, volumetric standard solution	plastic	**0755.1**	1 l	42,50
	0,5 mol/l – 0,5 N, volumetric standard solution	plastic	**P710.1**	1 l	25,30
			P710.2	5 l	74,10
		ROTI®CUBE	**P710.3**	5 l	79,05
			P710.4	10 l	131,70
	1 mol/l – 1 N, volumetric standard solution	plastic	**K021.1**	1 l	23,55
			K021.2	5 l	76,90
		ROTI®CUBE	**K021.3**	5 l	81,60
			K021.4	10 l	117,20
	2 mol/l – 2 N, volumetric standard solution	plastic	**T135.1**	1 l	25,30
			T135.2	5 l	85,90
		ROTI®CUBE	**T135.3**	5 l	91,95
	4 mol/l – 4 N, volumetric standard solution	plastic	**T198.1**	1 l	46,80
	5 mol/l – 5 N, volumetric standard solution	plastic	**KK71.1**	1 l	40,75
	6 mol/l – 6 N, volumetric standard solution	plastic	**0214.1**	1 l	126,75
	10 mol/l – 10 N, volumetric standard solution	plastic	**1E2N.1**	500 ml	37,55
Sodium thiosulphate solution	0,05 mol/l – 0,05 N, volumetric standard solution	plastic	**1E2P.1**	1 l	39,70
	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**K022.1**	1 l	23,55
			K022.2	5 l	65,50
		ROTI®CUBE	**K022.3**	5 l	70,45
			K022.4	10 l	108,05
	1 mol/l – 1 N, volumetric standard solution	plastic	**9900.1**	1 l	55,40
Sulphuric acid	0,01 mol/l – 0,02 N, volumetric standard solution	plastic	**X872.1**	1 l	39,70
	0,05 mol/l – 0,1 N, volumetric standard solution	plastic	**K026.1**	1 l	24,65
			K026.2	5 l	76,25
		ROTI®CUBE	**K026.3**	5 l	82,25
			K026.4	10 l	120,95
		plastic	**K026.7**	25 l	198,90
	0,1 mol/l – 0,2 N, volumetric standard solution	plastic	**N072.1**	1 l	24,65
			N072.2	5 l	76,25
	0,125 mol/l – 0,25 N, volumetric standard solution	plastic	**1E2A.1**	1 l	52,15
	0,25 mol/l – 0,5 N, volumetric standard solution	plastic	**P709.1**	1 l	24,65
		ROTI®CUBE	**P709.2**	5 l	82,25
			P709.3	10 l	120,95
	0,5 mol/l – 1 N, volumetric standard solution	plastic	**K027.1**	1 l	24,65
			K027.2	5 l	76,25
		ROTI®CUBE	**K027.3**	5 l	82,25
			K027.4	10 l	120,95
	1 mol/l – 2 N, volumetric standard solution	plastic	**X873.1**	1 l	31,10
			X873.2	5 l	97,30
	1,5 mol/l – 3 N, volumetric standard solution	plastic	**1E29.1**	1 l	37,55
	2 mol/l – 4 N, volumetric standard solution	plastic	**9896.1**	500 ml	37,10
			9896.2	1 l	55,40
	2,5 mol/l – 5 N, volumetric standard solution	plastic	**KK74.1**	1 l	37,10
	7,5 mol/l – 15 N, volumetric standard solution	plastic	**1E28.1**	1 l	124,20
Wijs-solution	0,1 mol ICl/l – 0,2 N	glass	**CN36.1**	1 l	100,95
Zinc chloride solution	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**9901.1**	500 ml	119,90
Zinc sulphate solution	0,01 mol/l – 0,01 N, volumetric standard solution	plastic	**1E27.1**	1 l	47,85
	0,05 mol/l – 0,05 N, volumetric standard solution	plastic	**1E26.1**	1 l	38,20
	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**P723.1**	1 l	34,95

For additional product data and safety information, see chapter Chemicals A-Z.

Volumetric Standard Solutions, ready-to-use, Reag. Ph.Eur.



Solutions are produced and tested according to chapter 4.2 of the european pharmacopoeia. Traceable to SRM from NIST.

ready-to-use

Volumetric Standard Solutions, ready-to-use, Reag. Ph. Eur.

Product name	Purity	Art. No.	Pack Qty.	€
EDTA disodium salt solution	0,1 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.	**6764.1**	1 l	40,75
Hydrochloric acid	0,1 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.	**6789.1**	1 l	27,85
	1 mol/l – 1 N, volumetric standard solution, Reag. Ph. Eur.	**6792.1**	1 l	27,85
Iodine solution	0,05 mol I_2/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.	**6765.1**	1 l	55,40
Perchloric acid	0,1 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur., in anhydrous acetic acid	**9525.1**	1 l	105,90
Potassium hydroxide solution	1 mol/l – 1 N, volumetric standard solution, Reag. Ph. Eur.	**9522.1**	1 l	57,55
Potassium per-manganate solution	0,02 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.	**9523.1**	1 l	56,45
Silver nitrate solution	0,1 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.	**9526.1**	1 l	140,30
Sodium hydroxide solution	0,1 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.	**6783.1**	1 l	28,95
	1 mol/l – 1 N, volumetric standard solution, Reag. Ph. Eur.	**6785.1**	1 l	28,95
Sodium thiosulphate solution	0,1 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.	**6782.1**	1 l	40,75
Sulphuric acid	0,05 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.	**6793.1**	1 l	31,75
	0,5 mol/l – 1 N, volumetric standard solution, Reag. Ph. Eur.	**6794.1**	1 l	31,75

For additional product data and safety information, see chapter Chemicals A-Z.

ROTI®Volum, Volumetric Solutions in Ampoules



Advantages:

- Concentrated standard solutions packaged in practical and low-cost ampoules
- Designed for flexible and easy handling, and as a space-saving alternative to ready-to-use custom solutions
- Standard solutions are prepared through dilution to a final volume of exactly one litre.
- Exactly defined molar concentration (±0,2 %) according to the preparation
- High accuracy for precise analyses

ROTI®Volum, volumetric solutions in ampoules

Product name	Purity	Art. No.	Pack Qty.	€
EDTA disodium salt solution	0,1 mol/l – 0,1 N	**CN51.1**	1 unit(s)	35,40
Hydrochloric acid	0,1 mol/l – 0,1 N, volumetric standard solution	**CN61.1**	1 unit(s)	27,45
	0,5 mol/l – 0,5 N, volumetric standard solution	**CN62.1**	1 unit(s)	28,95
	1 mol/l – 1 N, volumetric standard solution	**CN63.1**	1 unit(s)	28,95
Oxalic acid solution	0,05 mol/l – 0,1 N	**CN59.1**	1 unit(s)	27,45
Potassium hydroxide solution	0,1 mol/l – 0,1 N	**CN53.1**	1 unit(s)	26,35
Silver nitrate solution	0,1 mol/l – 0,1 N	**CN66.1**	1 unit(s)	85,50
Sodium chloride solution	0,1 mol/l – 0,1 N	**CN67.1**	1 unit(s)	27,45
Sodium hydroxide solution	0,1 mol/l – 0,1 N	**CN56.1**	1 unit(s)	27,45
	0,5 mol/l – 0,5 N	**CN57.1**	1 unit(s)	27,45
	1 mol/l – 1 N	**CN58.1**	1 unit(s)	28,95
Sodium thiosulphate solution	0,1 mol/l – 0,1 N	**CN55.1**	1 unit(s)	27,45
Sulphuric acid	0,05 mol/l – 0,1 N, volumetric standard solution	**CN64.1**	1 unit(s)	27,45
	0,5 mol/l – 1 N, volumetric standard solution	**CN65.1**	1 unit(s)	28,95

For additional product data and safety information, see chapter Chemicals A-Z.

Titer details: Many of our standard solutions also provide the corresponding titer details on the certificate of analysis, in addition to the amount of substance concentrations. If this is not the case, you can assume that the titer is as follows:
1 ± variation from specification.
Example: Amount of substance concentration 0,1 mol/l ±0,2 %
It follows that the titer is 1 ±0,2 %, i.e. 0,998–1,002.
We recommend the regular checking of the titer prior to application for opened products.



Indicators and Dyes

Carl ROTH offers many indicators and dyes of high purity, which can be used in special applications.

ready-to-use

Indicator and dye solutions

Product name	Purity	General application	Transition range pH	Colour conversion	Art. No.	Pack Qty.	€
Bromocresol green indicator solution	0,1 % in ethanol, denatured	Indicator pH 3.8-5.4	3,8 – 5,4	yellow - blue	**9949.1**	100 ml	30,65
Bromocresol purple indicator solution	0,1 % in water	Indicator pH 5.2-6.8	5,2 – 6,8	yellow - purple	**9955.1**	100 ml	58,60
Bromophenol blue indicator solution	0,1 % in ethanol, denatured	Indicator pH 3.0-4.6	3,0 – 4,6	yellow - blue	**9952.1**	100 ml	30,65
Bromophenol red indicator solution	0,1 % in ethanol, denatured	Indicator pH 5.2-7.0	5,2 – 7,0	yellow red - purple	**9956.1**	100 ml	55,40
Bromothymol blue indicator solution	0,04 % in water	Indicator pH 6.0-7.6	6,0 – 7,6	yellow - blue	**9947.1**	100 ml	46,80
Calconcarboxylic acid indicator solution	0,4 % in methanol	For metal titration.			**1E05.1**	100 ml	80,10
Chrome azurol S indicator solution	0,5 % in diluted 2-Propanol	Indicator for metal ions			**1CYY.1**	100 ml	67,20
o-Cresolphthaleine indicator solution	0,1 % in Ethanol, denatured	Inidcator pH 8.2-9.8, alternative for Phenol-phthaleine	8,2 – 9,8	colourless - red violet	**1LAE.1**	250 ml	85,90
Dimethyl yellow indicator solution	0,2 % in ethanol, denatured	Indicator pH 2.9-4.0	2,9 – 4,0	red - yellow	**1E00.1**	100 ml	39,70
Eriochrome black T indicator solution	0,1 % in ethanol, denatured	Metal indicator			**1E01.1**	100 ml	57,95
Ferroin indicator solution	for sewage analysis, for COD determination	According to DIN 38409 part H41, H43 and H44.		red - blue	**T131.1**	100 ml	43,55
Ferroin solution	1/40 mol/l (1/40 M) Redox indicator	Redox indicator		red - blue	**T132.1**	100 ml	50,45
Litmus indicator solution	2,5 %, in ethanol	Indicator pH 4.5-8.3	4,5 – 8,3	red - blue	**1EE2.1**	250 ml	37,10
Methylene blue indicator solution	0,01 mol/l in water	Redox indicator		colurless - blue	**9953.1**	100 ml	41,85
Methyl orange indicator solution	0,1 % in water	Indicator pH 3.2-4.4	3,2 – 4,4	pink - yellow	**T119.1**	500 ml	24,65
					T119.2	1 l	43,55
Methyl red indicator solution	0,1 % in ethanol, denatured	Indicator pH 4.2-6.2	4,2 – 6,2	pink - yellow	**T121.1**	250 ml	36,45
					T121.2	1 l	94,10
Mixed indicator 5	for ammonia titration		4,5 – 5,5	red- green	**T125.1**	250 ml	96,65
Phenolphthalein indicator solution	0,1 % in ethanol 90 %, denatured	Indicator pH 8.0-10.0	8,0 – 10,0	colourless - purple	**8145.1**	250 ml	24,20
					8145.2	500 ml	36,45
Phenolphthalein indicator solution	1 % in ethanol 90 %, denatured	Indicator pH 8.0-10.0	8,0 – 10,0	colourless - purple	**K034.1**	250 ml	26,35
					K034.2	500 ml	37,10
					K034.3	1 l	54,30
Rhodamine B solution	0,5 % in 2-Propanol	Fluorescent dye			**1E02.1**	100 ml	77,30
Starch indicator solution	1 % in water, stabilised			colourless - blue	**T133.1**	500 ml	31,75
					T133.2	1 l	51,50
Sudan III solution	saturated, in acetone and ethanol	Fat-soluble azo dye			**1EE3.1**	250 ml	37,10
Tashiro's indicator solution	0,75 g/l methyl red sodium salt + 0,375 g/l methylene blue in ethanol 50 % (v/v), denatured	pH indicator, mixed indicator	4,2 – 6,2	violet - green	**2624.1**	250 ml	22,05
Thymol blue indicator solution	0,1 % in ethanol, denatured	Indicator pH 1.2-2.8 and pH 8.0-9.2	1,2 – 2,8, 8,0 – 9,2	red - yellow, yellow - blue	**9954.1**	250 ml	56,45
Thymolphthalein indicator solution	0,1 % in ethanol, denatured	Indicator pH 8.8-10.5	8,8 – 10,5	colourless - blue	**8152.1**	500 ml	58,60
	1 % in ethanol, denatured	Indicator pH 8.8-10.5	8,8 – 10,5	colourless - blue	**1E03.1**	100 ml	72,60
Victoria blue B solution	0,04 %, in ethanol	blue violet dye			**1EE4.1**	250 ml	37,10

For additional product data and safety information, see chapter Chemicals A-Z.



Indicator buffer tablets

for the determination of water hardness with EDTA

Non-binding application proposal:
Dissolve one tablet in 50 ml water sample and bring to pH 11 with approx. 1 ml ammonia solution 30 % (art. CP17). Titrate with EDTA disodium salt volumetric solution (art. T136 or T137) from red to green.

WGK 1

Warning H302-H317-H319

Art. No.	Pack Qty.	Pack.	€
7649.1	100 unit(s)	plastic	31,10
7649.2	500 unit(s)	plastic	82,70



Indicator solution UNISOL

For pH measurement in weak buffered solutions, in pure water, in surface water and in highly diluted acids or alkalis. Droplets of an indicator solution are added to the sample and the reaction colour is compared to a colour chart.

Delivery incl. 100 ml dropper bottle containing reagent (sufficient for approx. 500 pH measurements), colour chart and one type 13/72 measuring cuvette.

Indicator solution UNISOL 410

Macherey-Nagel.

UN no. 3316 · ADR 9 II

Danger H225

pH measuring range	Gradation	Art. No.	Pack Qty.	€
4.0 to 10.0	4,0-4,5-5,0-5,5-6,0-6,5-7,0-7,5-8,0-8,5-9,0-9,5-10,0	**TK45.1**	1 unit(s)	32,90

Indicator solution UNISOL 113

Macherey-Nagel.

UN no. 3316 · ADR 9 II · WGK 1

Danger H225

pH measuring range	Gradation	Art. No.	Pack Qty.	€
1 to 13	1-2-3-4-5-6-7-8-9-10-11-12-13	**TK46.1**	1 unit(s)	32,10

► pH indicator paper and pH indicator see www.carlroth.com

NEW / +

pH Indicators

Product name	Purity	Transition range pH	Colour conversion	Instructions for use	Art. No.	Pack Qty.	€
Crystal violet (C.I. 42555)	p.a.	0,0 – 2,0	yellow - blue-violet	Dissolve 0.1 g in 100 ml of ethanol (70 %)	**T123.2**	5 g	22,05
					T123.1	25 g	36,05
					T123.3	100 g	87,65
Malachite green hydrochloride	p.a.	0,0 – 2,0 11,6 – 14,0	yellow - green, green - colourless	Dissolve 0.1 g in 100 ml of water	**7710.1**	5 g	18,85
					7710.2	25 g	33,25
					7710.3	100 g	80,55
Malachite green oxalate (C.I. 42000)	for microscopy	0,0 – 2,0 11,6 – 14,0	yellow - green, green - colourless	Dissolve 0.1 g in 100 ml of water	**5895.2**	25 g	21,00
					5895.1	100 g	42,90
					5895.3	250 g	63,35
Brilliant green (C.I. 42040)	for microscopy	0,0 – 2,6	yellow - green	Dissolve 0.1-5 g in 100 ml water or ethanol (96 %)	**0324.1**	25 g	26,80
					0324.2	100 g	82,25
Eosin Y (C.I. 45380)	for microscopy	0,0 – 3,0	yellow - red	Dissolve 0.5–2.0 % in water or ethanol	**7089.1**	50 g	45,05
					7089.2	100 g	77,95
					7089.3	500 g	252,65
Ethyl violet (C.I. 42600)	extra pure	0,0 – 3,5	yellow - blue	Dissolve 0.1 g in 100 ml ethanol (50 %)	**7680.1**	5 g	18,85
					7680.2	25 g	33,25
					7680.3	100 g	80,55
Methyl green (C. I. 42590)	for microscopy	0,1 – 2,3	yellow - green blue	Dissolve 0.1 g in 100 ml of water	**5159.1**	5 g	28,50
					5159.2	10 g	46,15
					5159.3	25 g	92,35
Methyl violet 2B (C.I. 42535)	for microscopy	0,15 – 3,2	yellow - violet	Dissolve 0.1 g in 100 ml of water or ethanol (96 %)	**7715.1**	5 g	18,85
					7715.2	25 g	33,25
					7715.3	100 g	80,55
o-Cresol red	p.a.	0,2 – 1,8 7,0 – 8,8	red - yellow, orange - purple	Dissolve 0.1 g in 100 ml ethanol (20 %) or 0.04 g in 1.05 ml NaOH 0.1 mol/l and make up to 100 ml with water	**KK15.1**	5 g	23,55
					KK15.2	10 g	39,70
					KK15.3	25 g	80,10
Cresol red sodium salt	p.a.	0,2 – 1,8 7,0 – 8,8	red - yellow, orange - purple	Dissolve 0.1 g in 100 ml of water	**5534.1**	5 g	40,75
					5534.2	25 g	163,95
Fuchsine basic (C.I. 42510)	for microscopy	1,0 – 3,1	black violet - violet pink	Dissolve 0.4 g in 100 ml water	**3256.2**	25 g	42,50
					3256.1	50 g	74,75
					3256.3	100 g	98,40
Metanil yellow (C. I. 13065)	p.a.	1,2 – 2,3	violet-red - yellow	Dissolve 0.1 g in 100 ml of water	**7714.1**	5 g	18,85
					7714.2	25 g	33,25
					7714.3	100 g	80,55
4-(Phenylazo) diphenylamine	≥97 %, p.a.	1,2 – 2,5	red - yellow	Insoluble in water, soluble in methanol	**4538.1**	5 g	42,90
					4538.2	25 g	115,60
m-Cresol purple	p.a.	1,2 – 2,8 7,4 – 9,0	red - yellow, yellow - purple	Dissolve 0.04 g in 100 ml ethanol (20 %) or 0.04 g in 1.05 ml NaOH 0.1 mol/l and make up to 100 ml with water	**5160.1**	1 g	17,10
					5160.2	5 g	46,80
					5160.3	10 g	82,25
Thymol blue	p.a., ACS	1,2 – 2,8 8,0 – 9,2	red - yellow, yellow - blue	Dissolve 0.04 g in 100 ml ethanol (20 %) or 0.04 g in 0.86 ml NaOH 0.1 mol/l and make up to 100 ml with water	**KK16.1**	5 g	22,50
					KK16.2	10 g	33,25
					KK16.3	25 g	67,20
Thymol blue sodium salt	p.a., ACS	1,2 – 2,8 8,0 – 9,2	red - yellow, yellow - blue	Dissolve 0.1 g in 100 ml of water	**2606.1**	5 g	26,35
					2606.2	25 g	69,80
Xylenolblue	p.a.	1,2 – 2,8 8,0 – 9,8	red - yellow, yellow - violet	Dissolve 0.1 g in 100 ml of ethanol (50 %)	**7746.1**	1 g	21,40
					7746.2	5 g	52,60
					7746.3	10 g	96,25
Orange IV sodium salt (C.I. 13080)	for microscopy	1,4 – 2,6	red - yellow	Dissolve 0.1 g in 100 ml of water	**7731.1**	5 g	20,35
					7731.2	25 g	36,05
					7731.3	100 g	84,40
Quninaldine red	pure	1,4 – 3,2	colourless - red violet	Dissolve 0.1 g in 100 ml ethanol	**1LA9.1**	1 g	23,15
					1LA9.2	5 g	57,55
					1LA9.3	10 g	102,70
Eosin B (C.I. 45400)	for microscopy	1,7 – 1,8	colourless - pink fluorescent	Dissolve 0.5–2.0 % in water or ethanol	**0306.1**	10 g	21,40
					0306.2	25 g	35,40
					0306.3	50 g	55,80
Martius yellow (C. I. 10315)	extra pure	2,0 – 3,2	colourless - yellow	Dissolve 0.1 g in 100 ml of water or ethanol	**7713.1**	5 g	25,30
					7713.2	25 g	47,85
					7713.3	100 g	131,70
Dimethyl yellow (C.I. 11020)	pure	2,9 – 4,0	red - yellow	Dissolve 0.1 g in 100 ml ethanol (96 %)	**9982.1**	10 g	19,90
					9982.2	50 g	57,55
					9982.3	100 g	102,70

Classics

Product name	Purity	Transition range pH	Colour conversion	Instructions for use	Art. No.	Pack Qty.	€
Bromophenol blue	ACS, for microscopy	3,0 – 4,6	yellow - blue	Dissolve 0.1 g in 100 ml ethanol (20 %) or 0.04 g in 0.74 ml NaOH 0.1 mol/l and make up to 100 ml with water	**T116.1**	5 g	27,45
					T116.2	10 g	39,70
					T116.3	25 g	63,35
Bromophenol blue sodium salt	for electrophoresis	3,0 – 4,6	yellow - blue	Dissolve 0.1 g in 100 ml water	**A512.2**	5 g	28,95
					A512.1	10 g	55,40
					A512.3	25 g	93,45
Congo red (C.I. 22120)	for microscopy	3,0 – 5,2	blue - red	Dissolve 0.2 g in 100 ml of water	**0322.1**	5 g	22,05
					0322.2	25 g	36,05
					0322.3	100 g	87,65
Methyl orange (C.I. 13025)	ACS, for microscopy	3,2 – 4,4	pink - yellow	Dissolve 0.04 g in 100 ml of ethanol (20 %) or 0.4 g in 100 ml of water	**T118.1**	50 g	34,30
					T118.2	100 g	50,45
					T118.3	250 g	77,95
Bromochlorophenol blue sodium salt	p.a.	3,2 – 4,8	yellow - purple	Dissolve 0.1 g in 100 ml water	**6558.1**	1 g	51,50
					6558.2	5 g	126,35
Ethyl orange sodium salt	p.a.	3,4 – 4,8	pink - yellow	Dissolve 0.1 g in 100 ml water	**7667.1**	5 g	23,55
					7667.2	25 g	46,15
					7667.3	100 g	97,30
Bromocresol green	ACS	3,8 – 5,4	yellow - blue	Dissolve 0.1 g in 100 ml ethanol (20 %) or 0.04 g in 0.58 ml NaOH 0.1 mol/l and fill up with water to 100 ml	**T115.1**	1 g	20,35
					T115.2	5 g	35,40
					T115.3	10 g	60,75
					T115.4	25 g	114,50
Bromocresol green sodium salt	ACS	3,8 – 5,4	yellow - blue	Dissolve 0.04 g in 100 ml water	**KK18.1**	1 g	16,70
					KK18.2	5 g	44,00
					KK18.3	25 g	149,45
Methyl red (C. I. 13020)	p.a., ACS	4,2 – 6,2	pink - yellow	Dissolve 0.1 g in 100 ml ethanol (96 %)	**T120.1**	10 g	22,50
					T120.2	25 g	36,05
Methyl red hydrochloride (C.I. 13020)	p.a.	4,2 – 6,2	red - yellow	Dissolve 0.1 g in 100 ml ethanol (96 %)	**2562.1**	25 g	33,25
					2562.2	100 g	80,55
Methyl red sodium salt (C.I. 13020)	p.a., water-soluble	4,2 – 6,2	red - yellow	Dissolve 0.1 g in 100 ml water	**5003.1**	25 g	30,65
					5003.2	100 g	89,15
Alizarin red S (C.I. 58005)	pure	4,3 – 6,3 9,4 – 12,0	yellow - red violet, brown orange - violet	Dissolve 0.1-1 g in 100 ml ethanol (96 %)	**0348.1**	10 g	25,30
					0348.2	25 g	38,60
					0348.3	100 g	123,10
Ethyl red	p.a.	4,5 – 6,5	red-yellow	Dissolve 0.1 g in 100 ml ethanol (96 %)	**7677.1**	5 g	26,35
					7677.2	25 g	69,80
					7677.3	100 g	220,40
Litmus (C.I. 1242)	p.a.	4,5 – 8,3	red - blue	Dissolve 4 g in 100 ml water	**0248.1**	5 g	17,10
					0248.2	25 g	44,00
Chlorophenol red	p.a.	4,8 – 6,4	yellow - red violet	Dissolve 0.1 g in 100 ml ethanol (20 %) or 0.04 g in 0.94 ml NaOH 0.1 mol/l and fill up with water to 100 ml	**0347.1**	5 g	37,55
					0347.2	10 g	59,05
					0347.3	25 g	134,40
Aurin (C. I. 43800)	extra pure	5,0 – 6,8	yellow - pink	Dissolve 0.1 g in 100 ml ethanol (96 %)	**1H58.1**	5 g	23,15
					1H58.2	25 g	46,15
2-Nitrophenol	pure	5,0 – 7,0	colourless - yellow	Dissolve 2 g in 100 ml ethanol	**1LAH.1**	25 g	17,75
					1LAH.2	100 g	32,15
					1LAH.3	500 g	99,45
Resazurin sodium salt	extra pure	5 – 7	orange - violet	Dissolve 0.1 g in 100 ml water, freshly made	**1H5X.1**	1 g	27,45
					1H5X.2	5 g	76,25
					1H5X.3	10 g	137,10
Bromocresol purple	p.a., ACS	5,2 – 6,8	yellow - purple	Dissolve 0.1 g in 100 ml ethanol (20 %) or 0.04 g in 0.74 ml NaOH 0.1 mol/l and fill up with water to 100 ml	**0317.1**	5 g	27,45
					0317.2	25 g	86,55
Bromocresol purple sodium salt	p.a., ACS	5,2 – 6,8	yellow - violet	Dissolve 0.1 g in 100 ml water	**2555.1**	5 g	25,70
					2555.2	25 g	65,50
Bromophenol red free acid	p.a.	5,2 – 7,0	yellow red - purple	Dissolve 0.1 g in 100 ml ethanol (20 %)	**6573.1**	1 g	26,35
					6573.2	5 g	51,50
					6573.3	50 g	239,20
Bromophenol red sodium salt	p.a.	5,2 – 7,0	yellow red - purple	Dissolve 0.1 g in 100 ml water	**6579.1**	1 g	25,30
					6579.2	5 g	50,00
					6579.3	50 g	214,50
4-Nitrophenol	≥99 %, for synthesis	5,4 – 7,5	colourless - yellow	Dissolve 0.25 g in 100 ml ethanol (50 %)	**6524.1**	25 g	16,70
					6524.2	100 g	30,00
					6524.3	500 g	77,95
Alizarin (C.I. 58000)	p.a.	5,5 – 6,8 10,1 – 12,1	yellow - violet, purple - purple	Dissolve 0.5 g in 100 ml ethanol (96 %)	**4476.2**	25 g	30,00
					4476.1	50 g	45,70
					4476.3	100 g	62,25
Nitrazine yellow (C.I. 14890)	p.a.	6,0 – 7,2	yellow - blue	Dissolve 0.1 g in 100 ml water	**7727.1**	1 g	24,20
					7727.2	5 g	88,70
					7727.3	10 g	166,65

Product name	Purity	Transition range pH	Colour conversion	Instructions for use	Art. No.	Pack Qty.	€
Bromothymol blue	p.a., ACS	6,0 – 7,6	yellow - blue	Dissolve 0.1 g in 100 ml ethanol (20 %) or 0.04 g in 0.64 ml NaOH 0.1 mol/l and fill up with water to 100 ml	**T117.1**	5 g	30,00
					T117.2	25 g	75,15
					T117.3	50 g	127,95
					T117.7	100 g	224,70
Bromothymol blue sodium salt	p.a., ACS	6,0 – 7,6	yellow - blue	Dissolve 0.04 g in 100 ml water	**KK19.1**	5 g	25,70
					KK19.2	10 g	41,40
					KK19.3	25 g	75,80
Bromoxylenol blue	p.a.	6,0 – 7,6	yellow - blue	Dissolve 0.1 g in 100 ml ethanol (96 %)	**KK27.1**	1 g	17,10
					KK27.2	5 g	49,35
					KK27.3	10 g	81,60
Brilliant yellow (C.I. 24890)	p.a.	6,4 – 8,0	yellow - red orange	Dissolve 0.1 g in 100 ml water	**7645.1**	5 g	24,20
					7645.2	25 g	42,90
					7645.3	100 g	99,90
Xylenol orange tetrasodium salt	p.a., ACS	6,4 – 10,4	yellow - orange-red	Dissolve 0.1 g in 100 ml water	**2727.1**	1 g	37,10
					2727.2	5 g	85,50
					2727.3	10 g	137,10
					2727.4	50 g	471,95
Phenol red	p.a., ACS	6,5 – 8,2	yellow - red	Dissolve 0.1 g in 100 ml ethanol (20 %) or 0.04 g in 1.13 ml NaOH 0.1 mol/l and fill up with water to 100 ml	**T127.1**	5 g	19,25
					T127.2	25 g	45,70
					T127.3	100 g	126,35
	extra pure	6,5 – 8,2	yellow - red	Dissolve 0.1 g in 100 ml ethanol (20 %) or 0.04 g in 1.13 ml NaOH 0.1 mol/l and fill up with water to 100 ml	**1HA8.1**	5 g	20,35
					1HA8.2	25 g	51,50
Neutral red (C.I. 50040)	p.a.	6,8 – 8,0	red - orange yellow	Dissolve 0.3 g in 100 ml of ethanol (70 %)	**T122.2**	1 g	30,00
					T122.1	10 g	90,85
					T122.3	25 g	181,70
Phenol red sodium salt	p.a., ACS	6,8 – 8,2	yellow - red	Dissolve 0.1 g in 100 ml water	**2566.1**	5 g	26,35
					2566.2	25 g	65,05
3-Nitrophenol	≥99 %, for synthesis	6,8 – 8,6	colourless - yellow-orange	Dissolve 0.3 g in 100 ml ethanol (50 %)	**4533.1**	25 g	69,80
					4533.2	100 g	174,70
					4533.3	250 g	370,90
1-Naphtholphthalein	extra pure	7,1 – 8,3	pink - blue	Dissolve 0.1 g in 100 ml ethanol (96 %)	**1H5A.1**	5 g	34,30
					1H5A.2	10 g	57,55
					1H5A.3	25 g	102,70
Orange II sodium salt (C.I. 15510)	for microscopy	7,4 – 8,6 10,2 – 11,8	amber - orange, orange - red	Dissolve 0.1 g in 100 ml of water	**7729.1**	5 g	18,85
					7729.2	25 g	33,25
					7729.3	100 g	80,55
Curcumin	≥90 %, natural, powdered, oil-soluble	7,8 – 9,2	yellow - reddish brown	Dissolve 0.1 g in 100 ml ethanol (96 %)	**9469.1**	10 g	33,90
					9469.2	25 g	61,85
					9469.3	50 g	101,60
Phenolphthalein (C.I. 764)	≥99 %, p.a.	8,0 – 10,0	colourless - purple	Dissolve 0.1 g in 100 ml ethanol (96 %)	**T126.2**	50 g	21,40
					T126.1	100 g	30,00
					T126.3	500 g	81,60
o-Cresolphthaleine	pure	8,2 – 9,8	colourless - red violet	Dissolve 0.1 g in 100 ml ethanol	**1LAC.1**	5 g	11,30
					1LAC.2	25 g	46,15
					1LAC.3	100 g	114,50
1-Naphtholbenzein	extra pure	8,5 – 9,8	yellow - blue-green	Dissolve 0.1 g in 100 ml 2-propanol	**1H56.1**	5 g	23,15
					1H56.2	10 g	40,35
					1H56.3	25 g	80,55
Thymolphthalein	p.a., ACS	8,8 – 10,5	colourless - blue	Dissolve 0.1 g in 100 ml of ethanol (50 %)	**HN97.1**	5 g	25,30
					HN97.2	10 g	42,90
					HN97.3	50 g	155,90
Nile blue chloride (C.I. 51180)	extra pure	9,4 – 11,0	blue - red	Dissolve 0.1 g in 100 ml ethanol or water	**7723.1**	5 g	33,25
					7723.2	25 g	96,25
					7723.3	100 g	263,40
Alkali blue 6B (C.I. 42765)	p.a.	9,4 – 14,0	blue - red	Dissolve 0.1 g in 100 ml water	**5155.1**	10 g	26,80
					5155.2	25 g	51,50
					5155.3	100 g	149,45
β-Naphthol violet	extra pure	10 – 12	brown - violet	Dissolve 0.1 g in 100 ml water	**1H5K.1**	10 g	28,95
					1H5K.2	25 g	52,15
					1H5K.3	50 g	86,55
Nile blue A (C.I. 51180)	~80 %	10,2 – 13,0	blue - violet-red	Dissolve 0.1 g in 100 ml of water	**4377.2**	5 g	22,50
					4377.1	10 g	36,05
					4377.3	25 g	69,80
Resorcinol yellow (C.I. 14270)	extra pure	11,0 – 12,7	yellow - orange	Dissolve 0.1 g in 100 ml ethanol or water	**7741.1**	5 g	18,85
					7741.2	25 g	33,25
					7741.3	100 g	80,55
4-(4-Nitrophenylazo)-resorcinol	p.a.	11,0 – 13,0	yellow - violet	Dissolve 0.1 g in dil. NaOH	**2563.1**	10 g	34,30
					2563.2	25 g	52,15

Product name	Purity	Transition range pH	Colour conversion	Instructions for use	Art. No.	Pack Qty.	€
Titan yellow (C. I. 19540)	extra pure	11,0 – 13,0	yellow - red	Dissolve 0.1 g in 100 ml ethanol (20 %)	**7739.1**	5 g	21,00
					7739.2	25 g	37,10
					7739.3	100 g	91,30
Indigo carmine (C.I. 73015)	≥80 %, p.a.	11,5 – 14,0	blue - yellow	Dissolve 0.25 g in 100 ml ethanol (50 %) or 1 g in 100 ml water	**2700.1**	25 g	32,15
					2700.2	100 g	83,75
	for microscopy	11,5 – 14,0	blue - yellow	Dissolve 0.05 g in 100 ml of water	**5156.1**	10 g	21,40
					5156.2	25 g	33,25
					5156.3	100 g	80,55

For additional product data and safety information, see chapter Chemicals A-Z.

Redox indicators

Product name	Purity	Redox potential E_0[V] at pH=0 and 20 °C	Ox. colour	Red. colour	Instructions for use	Art. No.	Pack Qty.	€
Amido black 10 B (C.I. 20470)	p.a.	+0.57	yellow-brown	blue	Dissolve 0.2 g in 100 ml water	**9590.1**	25 g	50,45
Barium diphenyl-amine sulfonate	p.a., ACS		red-violet	colourless	Dissolve 0.2 g in 100 ml water	**2674.1**	5 g	39,25
						2674.2	25 g	107,00
Brilliant cresyl blue (C.I. 51010)	p.a.	+0.58	blue	colourless	Dissolve 0.5–3 g in 100 ml water or ethanol (96 %)	**5162.1**	5 g	30,65
						5162.2	10 g	47,85
2,6-Dichlorophenol-indophenol sodium salt hydrate	p.a., ACS	+0.67	blue	colourless	Dissolve 0.02 g in 100 ml water	**HN79.1**	1 g	23,55
						HN79.2	5 g	59,70
						HN79.3	25 g	235,45
Diphenylamine	≥99 %, p.a., ACS	+0.67	blue-violet	colourless	Dissolve 1.0 g in 100 ml of sulfuric acid (96 %)	**9865.1**	25 g	22,05
						9865.2	100 g	53,25
						9865.3	500 g	146,75
Diphenylamine-4-sulphonic acid sodium salt	p.a., ACS	+0.84 in 1 M Sulphuric acid	red-violet	colourless	Dissolve 0.2 g in 100 ml water	**2602.3**	1 g	21,40
						2602.1	10 g	96,65
						2602.2	25 g	170,95
1,5-Diphenyl-carbazide	≥97 %, p.a., ACS	-	colourless	violet	Dissolve 1 g of 1,5-diphenyl-carbazide (DPC) in 100 ml of acetone and acidify with a drop of glacial acetic acid	**2696.1**	10 g	30,65
						2696.2	25 g	52,70
						2696.3	100 g	155,90
2,2'-Dipyridyl	≥95 %, for biochemistry	+1.03	pale blue	red	Dissolve 0.695 g $FeSO_4 \cdot 7\ H_2O$ and 1.171 g 2,2'-dipyridyl in 100 ml water	**4153.1**	5 g	20,35
						4153.2	25 g	62,25
Ferroin indicator solution	for sewage analysis,	1,06	blue	red	ready-to-use	**T131.1**	100 ml	43,55
Ferroin solution	1/40 mol/l (1/40 M) Redox indicator	1,06	blue	red	ready-to-use	**T132.1**	100 ml	50,45
Indigo carmine (C.I. 73015)	for microscopy	+0.29	blue	yellowish	Dissolve 0.05 g in 100 ml of water	**5156.1**	10 g	21,40
						5156.2	25 g	33,25
						5156.3	100 g	80,55
Methylene blue (C.I. 52015)	pure	+0.53 (30 °C)	blue	colourless	Dissolve 0.1–0.5 g in 100 ml of water	**A514.1**	10 g	23,55
						A514.2	50 g	62,25
						A514.3	100 g	107,40
Methylene blue indicator solution	0,01 mol/l in water	+0.53 (30 °C)	blue	colourless	ready-to-use	**9953.1**	100 ml	41,85
Neutral red (C.I. 50040)	p.a.	+0.25	red-violet	colourless	Dissolve 0.3 g in 100 ml of ethanol (70 %)	**T122.2**	1 g	30,00
						T122.1	10 g	90,85
						T122.3	25 g	181,70
Nile blue A (C.I. 51180)	~80 %	+0.41	blue-red	colourless	Dissolve 0.1 g in 100 ml of water	**4377.2**	5 g	22,50
						4377.1	10 g	36,05
						4377.3	25 g	69,80
1,10-Phenanthroline monohydrate	≥99 %, p.a., ACS	+1.14	pale blue	red	Dissolve 0.695 g $FeSO_4 \cdot 7\ H_2O$ and 1.487 g 1,10-phen-anthroline in 100 ml water	**9113.2**	5 g	37,10
						9113.3	25 g	131,70
						9113.1	50 g	235,45
N-Phenylanthranilic acid	≥97 %, p.a.	+0.89	purple-red	colourless	Dissolve 0.1 g in 5 ml of 0.1 M sodium hydroxide solution and make up to 100 ml with water. Alternatively: Dissolve 0.107 g in 20 ml sodium carbonate solution (5 %) and make up to 100 ml water	**9858.1**	25 g	33,25
						9858.2	50 g	57,55
						9858.3	100 g	102,70
Resazurin sodium salt	extra pure		blue	pink	Dissolve 0.1 g in 100 ml water, freshly made	**1H5X.1**	1 g	27,45
						1H5X.2	5 g	76,25
						1H5X.3	10 g	137,10
Safranin O (C.I. 50240)	for microscopy	+0.24	blue-violet (acid), brown (alkaline)	colourless	Dissolve 0.05 g in 100 ml of water	**T129.1**	10 g	53,65

Product name	Purity	Redox potential E_0[V] at pH=0 and 20 °C	Ox. colour	Red. colour	Instructions for use	Art. No.	Pack Qty.	€
Xylene cyanole (C.I. 42135)	for electrophoresis	+1.00	yellow	pink	Dissolve 0.2 g in 100 ml of water	**A513.2**	5 g	31,75
						A513.1	10 g	53,65
						A513.3	25 g	106,45
						A513.4	50 g	188,15

For additional product data and safety information, see chapter Chemicals A-Z.

NEW / +

Metal indicators

Product name	Determination of	Instructions for use	Art. No.	Pack Qty.	€
Alizarin red S (C.I. 58005)	Al, B, Ce, Cr, Hf, La, Mo, Zr, Sc, Th, Y	Dissolve 0.1-1 g in 100 ml ethanol (96 %)	**0348.1**	10 g	25,30
			0348.2	25 g	38,60
			0348.3	100 g	123,10
Arsenazo III	Ca	Dissolve 0.1 g in 100 ml water	**KK22.1**	1 g	64,40
			KK22.2	5 g	241,90
Aurin tricarboxylic acid ammonium salt	Al, Ca, Fe(III), Mg	Dissolve 0.2 g in 100 ml water	**2670.1**	10 g	23,55
			2670.2	25 g	35,40
			2670.3	100 g	86,55
Cacotheline	Sn, V, Ca, Fe(III)	Dissolve 0.1 g in 100 ml ethanol (96 %)	**1H42.1**	1 g	20,35
			1H42.2	10 g	69,35
			1H42.3	25 g	114,50
Calcein	Mg, Ba, Ca, Cr, Sr, SO_4^{2-}	Prepare trituration with KNO_3 (1:99)	**7688.1**	5 g	47,20
			7688.2	25 g	138,70
			7688.3	100 g	407,45
Calconcarboxylic acid	Ca	Prepare trituration avec Na_2SO_4 (1:99) or dissolve 0.04 g in 100 ml methanol	**2676.1**	5 g	34,95
			2676.2	10 g	50,00
			2676.3	50 g	134,40
Calconcarboxylic acid indicator solution	Ca	ready-to-use	**1E05.1**	100 ml	80,10
Calmagite	Ca, Mg	Dissolve 0.1 g in 100 ml water	**1H59.1**	5 g	23,15
			1H59.2	10 g	40,35
			1H59.3	25 g	80,55
Chrome azurol S (C. I. 43825)	Al, Ca, Cu, Fe, Mg, Ni, Th	Dissolve 0.1 g in 100 ml water	**1H43.1**	1 g	19,25
			1H43.2	10 g	41,40
			1H43.3	25 g	78,40
Chrome azurol S indicator solution	Al, Ca, Cu, Fe, Mg, Ni, Th	ready-to-use	**1CYY.1**	100 ml	67,20
Chromotrope® 2B (C.I. 16575)	boric acid	Dissolve 0.005 g in H_2SO_4	**7647.1**	5 g	18,85
			7647.2	25 g	33,25
			7647.3	100 g	80,55
Dimethylglyoxim	Ni	Dissolve 0.1 g in 100 ml water	**2677.1**	50 g	54,30
			2677.2	100 g	87,65
			2677.3	500 g	321,45
Dimethylglyoxime disodium salt octahydrate	Ni	Dissolve 0.1 g in 100 ml water	**KK24.1**	25 g	54,30
			KK24.2	50 g	95,70
1,5-Diphenylcarbazide	Cr(VI), Fe, Cd, Hg, Mg	Dissolve 1 g of 1,5-diphenylcarbazide (DPC) in 100 ml of acetone and acidify with a drop of glacial acetic acid	**2696.1**	10 g	30,65
			2696.2	25 g	52,70
			2696.3	100 g	155,90
Diphenylcarbazone	Cd, Hg, In, Mn, Ni, Pb, V	Dissolve 0.2 g in 100 ml ethanol (96 %)	**2678.1**	10 g	79,45
			2678.2	25 g	154,30
			2678.3	50 g	263,40
Dithizone	heavy metal ions	Dissolve 0.025–0.05 g in 100 ml methanol	**2697.1**	5 g	42,90
			2697.2	25 g	137,10
			2697.3	50 g	220,40
Eriochrome black T (C.I. 14645)	Ba, Cd, In, Mg, Mn, Pb, Sc, Sr, Zn, Zr, rare earth metals	Dissolve 0.1 g in water	**0112.1**	25 g	20,35
			0112.2	50 g	36,05
			0112.3	100 g	64,40
	Ba, Cd, In, Mg, Mn, Pb, Sc, Sr, Zn, Zr, rare earth metals	Trituration with NaCl (1:99), ready-to-use	**K860.2**	25 g	26,80
			K860.1	50 g	40,75
			K860.3	100 g	70,45
Eriochrome black T indicator solution	Ba, Cd, In, Mg, Mn, Pb, Sc, Sr, Zn, Zr, rare earth metals	ready-to-use	**1E01.1**	100 ml	57,95
Eriochrome blue black B (C.I. 14640)	Ca, Cd, Mg, U(IV), Zn, Zr	Dissolve 0.2–0.4 g in 100 ml methanol	**7661.1**	5 g	18,85
			7661.2	25 g	33,25
			7661.3	100 g	80,55
Eriochrome blue black R (C.I. 15705)	Al, Ca, Cu, Fe, Ga, Zr	Dissolve 0.4 g in 100 ml methanol or ethanol	**7663.1**	5 g	18,85
			7663.2	25 g	33,25
			7663.3	100 g	80,55
Fast sulphon black F (C.I. 26990)	Cu	Dissolve 0.1 g in 100 ml water	**7685.1**	5 g	20,35
			7685.2	25 g	36,05
			7685.3	100 g	96,65

Product name	Determination of	Instructions for use	Art. No.	Pack Qty.	€
Glyoxal-bis-(2-hydroxyanil)	Ca, Sc, U	Dissolve 0.4 g in 100 ml ethanol	**1LAA.1**	1 g	16,05
			1LAA.2	5 g	34,30
			1LAA.3	10 g	57,55
Hydroxy naphthol blue disodium salt	Ca	Dissolve 0.1 g in 100 ml water	**2556.1**	5 g	25,30
			2556.2	25 g	51,50
8-Hydroxyquinoline	Mg	Dissolve 0.1 g in 100 ml ethanol	**2557.1**	50 g	56,90
			2557.2	100 g	103,75
			2557.3	250 g	231,15
Metal phthaleine	Ba, Ca, Cd, Mg, Sr	Dissolve 0.1 g in dil. NH_3	**4231.1**	1 g	31,10
			4231.2	5 g	61,20
Methylthymol blue sodium salt	Ba, Bi, Ca, Cd, Cu, Fe(II), Hg, In, Mg, Mn, Pb, rare earth metals, Se, Sn(II), Th, Tl(II), Zn, Zr	Prepare trituration with KNO_3 (1:99)	**KK17.1**	1 g	19,90
			KK17.2	5 g	58,60
Morin hydrate	Al, Be, B, Ga, In, Mo, Nb, Sc, Ta, Th, Ti, W, Sn, Zr	Dissolve 0.1 g in 100 ml methanol	**6459.1**	5 g	138,70
			6459.2	50 g	1.177,15
Murexide (C. I. 56085)	Ag, Ca, Co, Cu, Mn, Ni, Sc, Th, Zn	freshly made saturated solution in water	**T124.1**	5 g	33,25
			T124.2	25 g	77,30
			T124.3	50 g	127,95
4-(4-Nitrophenylazo)-1-naphthol	Mg	Dissolve 0.1 g in 100 ml ethanol (96 %)	**1H46.1**	10 g	37,55
			1H46.2	25 g	64,40
			1H46.3	100 g	203,20
4-(4-Nitrophenylazo)-resorcinol	Mg	Dissolve 0.1 g in dil. NaOH	**2563.1**	10 g	34,30
			2563.2	25 g	52,15
1-(2-Pyridylazo)-2-naphthol	Al, Ba, Bi, Ca, Cd, Co, Cu, Fe, Ga, Hg, In, Mg, Mn, Ni, Pb, Sc, Th, Tl, V, Zn	Dissolve 0.01–0.1 g in 100 ml ethanol (96 %)	**KK12.1**	1 g	24,65
			KK12.2	5 g	85,90
4-(2'-Pyridylazo)-resorcinol	Al, Ba, Bi, Cd, Cu, Fe, Hg, In, Mn, Ni, Pb, Sr, Th, Tl(III), Zn, rare earth metals	Dissolve 0.1 g in 100 ml water	**2564.1**	5 g	105,90
			2564.2	25 g	370,90
Pyrocatechol violet	Sn	Dissolve 0.1 g in 100 ml water	**1H5P.1**	1 g	18,20
			1H5P.2	5 g	40,35
			1H5P.3	10 g	68,30
Pyrogallol red	Bi, Co, Ni, Pb	Dissolve 0.05 g in ethanol (96 %)	**0287.1**	1 g	33,25
			0287.2	5 g	66,15
Silver diethyldithiocarbamate	As	Dissolve 0.5 % in pyridine	**KK25.1**	5 g	68,70
			KK25.2	10 g	125,70
Sodium diethyldithiocarbamate trihydrate	Cu	Dissolve 0.1 g in 100 ml water	**2601.1**	25 g	28,95
			2601.2	100 g	52,60
			2601.3	500 g	177,40
Sodium nitroprusside dihydrate	Zn	Dissolve 0.1 g in 100 ml ethanol or water	**HN34.1**	25 g	36,45
			HN34.2	100 g	95,60
			HN34.3	500 g	364,45
5-Sulphosalicylic acid dihydrate	Fe(III)	Dissolve 1.0–5.0 g in 100 ml water	**4119.1**	100 g	23,55
			4119.2	500 g	66,55
			4119.7	1 kg	113,45
Thorin	Bi, Th, U(IV), Sc, Y(III)	Dissolve 0.5 g in 100 ml water	**KK34.1**	5 g	220,40
			KK34.2	10 g	410,15
Thymolphthalein complexon	Ba, Ca, Sr	Dissolve 0.1 g in 100 ml ethanol (96 %)	**1H60.1**	5 g	23,15
			1H60.2	10 g	40,35
			1H60.3	25 g	80,55
Tiron	Fe(III)	Dissolve 2 g in 100 ml water	**7302.1**	10 g	21,40
			7302.2	25 g	33,25
			7302.3	100 g	85,50
Titan yellow (C. I. 19540)	Mg	Dissolve 0.1 g in 100 ml ethanol (20 %)	**7739.1**	5 g	21,00
			7739.2	25 g	37,10
			7739.3	100 g	91,30
Xylenol orange tetrasodium salt	Bi, Cd, Co, Cu, Fe, Hg, In, Pb, Sc, Th, Tl(III), V(V), Zn, Zr, rare earth metals	Dissolve 0.1 g in 100 ml water	**2727.1**	1 g	37,10
			2727.2	5 g	85,50
			2727.3	10 g	137,10
			2727.4	50 g	471,95
Xylidyl blue sodium salt	Mg	Dissolve 0.1 g in 100 ml water	**KK35.1**	1 g	50,45
			KK35.2	5 g	209,65
Zincon	Cu, Zn	Dissolve 0.1 g in 100 ml ethanol (96 %)	**5563.1**	1 g	50,45
			5563.2	5 g	198,90

For additional product data and safety information, see chapter Chemicals A-Z.



NEW / +

Dyes

Product name	Soluble in	Art. No.	Pack Qty.	€
Acid blue 93 (C.I. 42780)	Water	**4002.1**	10 g	37,55
		4002.2	25 g	75,15
Alizarine cyanine green (C. I. 61570)	Water	**1LA8.1**	5 g	23,15
		1LA8.2	25 g	57,55
		1LA8.3	100 g	114,50
Allura red (C. I. 16035)	Water	**1H3X.1**	10 g	19,25
		1H3X.2	25 g	34,30
		1H3X.3	100 g	69,35
Amaranth (C. I. 16185)	Water	**1H3Y.1**	10 g	19,25
		1H3Y.2	25 g	34,30
		1H3Y.3	100 g	69,35
Azocarmine G (C. I. 50085)	Ethanol	**1H40.1**	1 g	34,30
		1H40.2	5 g	68,30
		1H40.3	10 g	114,50
Azure II	Water	**7640.1**	1 g	14,95
		7640.2	10 g	25,30
		7640.3	50 g	60,10
Azure II eosinat	Methanol, acetic acid	**7642.1**	5 g	24,20
		7642.2	25 g	45,70
		7642.3	100 g	131,70
Biebrich scarlet (C. I. 26905)	Water, ethanol	**1H41.1**	5 g	23,15
		1H41.2	25 g	52,15
		1H41.3	100 g	102,70
Brilliant black BN (C.I. 28440)	Water	**7643.1**	5 g	25,30
		7643.2	25 g	47,85
		7643.3	100 g	130,65
Brilliant blue FCF (C.I. 42090)	Water	**2981.1**	10 g	17,10
		2981.2	25 g	31,75
		2981.3	100 g	67,65
		2981.4	1 kg	342,95
Brilliant yellow (C.I. 24890)	Water	**7645.1**	5 g	24,20
		7645.2	25 g	42,90
		7645.3	100 g	99,90
Chromotrope® FB (C.I. 14720)	Water	**7648.1**	5 g	18,85
		7648.2	25 g	33,25
		7648.3	100 g	80,55
Chrysoidine R (C. I. 11320)	Fat/oil, ethanol	**1H47.1**	10 g	12,40
		1H47.2	50 g	42,50
		1H47.3	100 g	79,45
Chrysoidine Y (C. I. 11270)	Water	**1H44.1**	10 g	12,40
		1H44.2	50 g	42,50
		1H44.3	100 g	79,45
Crocein orange G (C.I. 15970)	Water	**7652.1**	5 g	18,85
		7652.2	25 g	33,25
		7652.3	100 g	80,55
Curcumin	Ethanol, acetic acid, DMSO	**9469.1**	10 g	33,90
		9469.2	25 g	61,85
		9469.3	50 g	101,60

Classics

Product name	Soluble in	Art. No.	Pack Qty.	€
Fat brown RR (C.I. 11285)	Fat/oil	**7687.1**	5 g	18,85
		7687.2	25 g	33,25
		7687.3	100 g	80,55
Fluorescein disodium salt (C.I. 45350)	Ethanol, water	**5283.3**	25 g	27,85
		5283.1	100 g	46,15
		5283.2	500 g	152,15
Indigo (C.I. 73000)	Acetic acid	**3903.1**	50 g	49,35
		3903.3	100 g	76,90
		3903.2	500 g	310,70
Jenner Stain	Methanol	**7698.1**	5 g	18,85
		7698.2	25 g	33,25
		7698.3	100 g	80,55
Lissamine green B (C.I. 44090)	Water	**7707.1**	5 g	21,00
		7707.2	25 g	38,20
		7707.3	100 g	96,25
New fuchsin (C. I. 42520)	Water	**1H5E.1**	25 g	28,95
		1H5E.2	50 g	46,15
		1H5E.3	100 g	75,15
Nigrosin, soluble in alcohol (C.I. 50415)	Ethanol	**7716.1**	5 g	18,85
		7716.2	25 g	33,25
		7716.3	100 g	80,55
Nigrosin, water soluble (C.I. 50420)	Water	**7718.1**	25 g	18,85
		7718.2	100 g	46,80
Nile blue A (C.I. 51180)	Fat/oil	**4377.2**	5 g	22,50
		4377.1	10 g	36,05
		4377.3	25 g	69,80
Oil red O (C. I. 26125)	Fat/oil	**1H5H.1**	25 g	23,15
		1H5H.2	100 g	57,55
Pararosaniline base (C. I. 42500)	Ethanol	**1H5L.1**	5 g	23,15
		1H5L.2	10 g	40,35
		1H5L.3	25 g	68,30
Patent blue VF (C. I. 42045)	Water, ethanol	**1H5N.1**	10 g	23,15
		1H5N.2	25 g	40,35
		1H5N.3	100 g	92,35
Pyronin B (C. I. 45010)	Water	**1H57.1**	1 g	28,95
		1H57.2	5 g	57,55
		1H57.3	10 g	102,70
Pyronin G (C. I. 45005)	Ethanol	**1H5T.1**	1 g	38,20
		1H5T.2	5 g	107,00
		1H5T.3	10 g	202,00
Quercetin dihydrate (C.I. 75670)	Acetic acid, hot ethanol	**7138.1**	25 g	63,35
		7138.2	100 g	203,20
Sudan I (C. I. 12055)	Fat/oil	**1H5Y.1**	25 g	23,15
		1H5Y.2	100 g	52,15
Sudan II (C. I. 12140)	Fat/oil	**7732.1**	5 g	18,85
		7732.2	25 g	33,25
		7732.3	100 g	80,55
Sudan III (C. I. 26100)	Fat/oil	**4711.2**	50 g	31,75
		4711.1	100 g	59,70
Sudan IV (C. I. 26105)	Fat/oil	**0327.1**	25 g	28,95
		0327.2	50 g	43,55
Sudan black B (C.I. 26150)	Fat/oil	**0292.1**	10 g	29,60
		0292.2	25 g	46,80
		0292.3	50 g	71,50
Sudan orange G (C. I. 11920)	Chloroform	**7733.1**	5 g	18,85
		7733.2	25 g	33,25
		7733.3	100 g	80,55
Tartrazine (C. I. 19140)	Water	**2982.1**	10 g	12,80
		2982.2	25 g	24,65
		2982.3	100 g	53,65
		2982.4	1 kg	274,15
Tetrazolium violet	Methanol	**7736.1**	1 g	64,40
		7736.2	5 g	274,15
		7736.3	10 g	525,70
Victoria blue B (C. I. 44045)	Ethanol	**1H61.1**	10 g	20,35
		1H61.2	25 g	40,35
		1H61.3	100 g	114,50

For additional product data and safety information, see chapter Chemicals A-Z.

NEW / +

Further detection reagents

Product name	Purity	General application	Art. No.	Pack Qty.	€
Alizarin complexone dihydrate	≥97 %, p.a.	Detection reagent for fluoride	**7634.1**	1 g	42,90
			7634.2	5 g	139,25
			7634.3	10 g	263,40
4'-Aminoacetophenone	≥99 %	For determination of nicotinic acid and vitamin B	**3973.2**	10 g	17,10
			3973.1	25 g	29,60
4-Aminoantipyrine	≥98 %, p.a., ACS	Reagent for phenol detection	**2671.1**	10 g	30,65
			2671.2	25 g	46,15
			2671.3	100 g	81,20
1-Amino-2-hydroxy-4-naphthalenesulfonic acid	≥90 %, p.a., ACS	For determination of phosphate	**2672.1**	25 g	51,10
			2672.2	100 g	130,65
Ammonium benzoate	≥98 %, extra pure	For precipitation of aluminium and iron	**9836.1**	100 g	21,40
			9836.2	500 g	57,55
			9836.3	1 kg	102,70
Azomethine H hydrate	≥95 %, p.a.	Reagent for the determination of boron	**CP99.2**	1 g	25,30
			CP99.1	5 g	79,45
			CP99.3	25 g	306,40
Chromotropic acid disodium salt dihydrate	≥98,5 %, p.a., ACS	Reagents for silver, boron, chrome, mercury, titanium, chromate, formaldehyde, nitrile and nitrate	**KK30.1**	10 g	68,70
			KK30.2	25 g	125,70
1,8-Dihydroxy-2-(4-sulfophenylazo)-naphthalene-3,6-disulfonic acid trisodium salt	p.a., ACS	Reagent for fluoride.	**2605.1**	10 g	34,30
			2605.2	25 g	60,10
4-(Dimethylamino)-benzaldehyde	≥98 %, p.a., ACS	Reagent for the detection of nitrogen containing compounds.	**X867.1**	25 g	55,80
			X867.2	100 g	142,45
5-(4-Dimethylaminobenzylidene)rhodanine	p.a.	Analytical reagent for silver.	**KK23.1**	5 g	37,10
			KK23.2	10 g	62,90
			KK23.3	50 g	252,65
5,5'-Dithio-bis-(2-nitrobenzoic acid)	≥98 %, p.a.	For determination of thiol groups	**6334.1**	1 g	25,30
			6334.2	5 g	73,00
			6334.3	25 g	278,45
Eriochrome cyanine R (C. I. 43820)	extra pure	Reagent for Al	**1H5C.1**	1 g	12,40
			1H5C.2	10 g	28,95
			1H5C.3	25 g	56,45
Hydrazinium sulphate	≥99 %, p.a., ACS	Reducing agent; reagent for separation of Po and Te.	**HN96.1**	100 g	26,35
			HN96.2	500 g	74,75
Isatin	≥98 %, for biochemistry	Reagent for the spectrophotometric determination of thiophene and proline.	**4155.1**	25 g	16,05
			4155.2	100 g	44,65
3-Methyl-2-benzothiazolinone hydrazone hydrochloride	≥98 %, p.a.	Analytical reagent for the qualitative determination of aldehydes.	**8413.1**	10 g	181,70
1-Naphthol	≥99 %, p.a.	Reagent for carbohydrates.	**KK14.1**	50 g	66,55
			KK14.2	100 g	114,50
N-(1-Naphthyl)-ethylenediamine dihydrochloride	≥99 %, p.a.	For the detection of sulphonamide and the determination of nitrite.	**4342.2**	10 g	49,35
			4342.1	25 g	112,90
			4342.3	50 g	209,65
New fuchsin (C. I. 42520)	extra pure	Dye and detection reagent for aldehydes	**1H5E.1**	25 g	28,95
			1H5E.2	50 g	46,15
			1H5E.3	100 g	75,15
Ninhydrin	≥99 %, p.a., ACS	For the detection of amino acids.	**4378.1**	25 g	51,50
			4378.2	100 g	131,70
			4378.3	500 g	504,20
Pararosaniline base (C. I. 42500)	extra pure	Dye and detection reagent for aldehydes	**1H5L.1**	5 g	23,15
			1H5L.2	10 g	40,35
			1H5L.3	25 g	68,30
Phenylhydrazine hydrochloride	≥99 %, p.a.	Reagent for detection of sugar.	**KK20.1**	25 g	24,65
			KK20.2	100 g	66,55
			KK20.3	250 g	149,45
meta-Phosphoric acid	p.a., pieces (hyaline)	Reagent for protein, vitamines, urea and glucose. Stabilised with sodium metaphosphate $(NaPO_3)_n$.	**CN91.1**	100 g	39,25
			CN91.2	250 g	80,55
			CN91.3	500 g	147,85
			CN91.4	1 kg	267,70
Potassium hexacyanoferrate(II) trihydrate	≥99 %, p.a., ACS, ISO	Reagent for the determination of Fe, Cu, Zn, protein. For preparation of Berlin blue.	**P745.1**	500 g	110,20
			P745.2	1 kg	203,20
			P745.3	2.5 kg	456,90
Potassium hexacyanoferrate(III)	≥99 %, p.a., ACS	Oxidizing agent in organic synthesis. Reagent for the determination to Co, Zn and alkaloids.	**P746.3**	100 g	39,70
			P746.1	500 g	139,65
			P746.2	1 kg	267,70
Potassium hexahydroxoantimonate(V)	≥98 %	Reagent for the detection of sodium (precipitation).	**1HEK.1**	100 g	37,55
			1HEK.2	500 g	117,20
			1HEK.3	1 kg	209,65

Classics

Product name	Purity	General application	Art. No.	Pack Qty.	€
Potassium hydrogen sulphate	≥99 %, p.a.	For disintegration of ores and silicates, detection of acetate. Cleaning of Pt crucibles.	**P020.1**	500 g	37,55
			P020.2	1 kg	67,65
			P020.3	2.5 kg	149,45
di-Potassium oxalate monohydrate	≥98,5 %, p.a., ACS	For determination of Manganese.	**HN38.1**	250 g	36,45
			HN38.2	500 g	58,60
			HN38.3	1 kg	106,45
Resorcinol	≥99 %, for biochemistry	Reagent on alkaloids, aldehydes and invert sugar.	**5727.1**	100 g	28,95
			5727.2	500 g	85,90
			5727.3	1 kg	149,45
			5727.4	2.5 kg	317,15
Semicarbazide hydrochloride	≥98 %, p.a.	Reagent for aldehydes and ketones.	**4681.1**	100 g	42,50
			4681.2	500 g	152,15
Silver diethyldithiocarbamate	≥97 %, p.a.	Reagent for arsenic.	**KK25.1**	5 g	68,70
			KK25.2	10 g	125,70
Silver nitrate	≥99,9 %, p.a.	For detection of halogenides. For volumetric solutions in argentometry. For protein staining. For molecular biology.	**7908.1**	50 g	149,45
			7908.2	250 g	628,90
			7908.3	1 kg	2.203,75
Sodium ammonium hydrogen phosphate tetrahydrate	≥99 %, p.a.	Reagent for Mg; phosphorus salt bead	**T882.1**	500 g	127,95
			T882.2	1 kg	241,90
			T882.3	2.5 kg	514,95
Sodium bismuthate dihydrate	≥99 %, p.a.	Oxidation reagent, determination of manganese in iron and steel.	**4401.1**	50 g	59,05
			4401.2	100 g	109,15
			4401.3	250 g	224,70
Sodium diethyldithiocarbamate trihydrate	p.a., ACS	Reagent for copper.	**2601.1**	25 g	28,95
			2601.2	100 g	52,60
			2601.3	500 g	177,40
Sodium hexanitrocobaltate(III)	p.a., ACS	Determination of potassium.	**4409.1**	25 g	25,30
			4409.2	100 g	71,95
			4409.3	250 g	149,45
di-Sodium hydrogen phosphate	≥99 %, p.a., ACS, anhydrous	Molecular biology ; Reagent for the detection of Mg, Li, Pb and uric acid.	**P030.1**	500 g	67,65
			P030.2	1 kg	117,20
			P030.3	2.5 kg	246,20
Sodium molybdate dihydrate	≥99,5 %, p.a.	Reagent for alkaloids and for biochemical purposes.	**0274.1**	50 g	22,50
			0274.2	100 g	34,95
			0274.3	250 g	62,90
			0274.4	1 kg	224,70
Sodium nitroprusside dihydrate	≥99 %, p.a., ACS	Reagent for Zn, SO_2, aldehydes	**HN34.1**	25 g	36,45
			HN34.2	100 g	95,60
			HN34.3	500 g	364,45
Sodium salicylate	≥99 %, p.a.	Preservative; for determination of glucose at urine.	**CP39.1**	250 g	32,15
			CP39.2	1 kg	101,60
Sodium sulphite	≥98 %, p.a., ACS, anhydrous	For removal of chlorine and dissolution of cellulose, reagent for detection of iodate in the presence of chlorate and bromate, for absorption of NO_x in gas analysis.	**P033.1**	500 g	22,50
			P033.2	1 kg	35,40
			P033.3	2.5 kg	64,40
Sodium tetraphenyl borate	≥99,5 %, p.a., ACS	Reagent for K, Pb, Cs, NH_4 and Alkaloids.	**4385.1**	10 g	50,45
			4385.2	25 g	110,20
			4385.3	100 g	349,40
Sodium thiosulphate pentahydrate	≥99,5 %, p.a., ACS	Photographic fixer; for volumetric solutions in iodometry; for detection of hydrocyanic acid, quinine, chlorate hydrate and cobalt.	**P034.1**	500 g	26,35
			P034.2	1 kg	42,90
			P034.3	2.5 kg	85,90
			P034.5	25 kg	622,45

For additional product data and safety information, see chapter Chemicals A-Z.

Karl Fischer Reagents ROTI®Hydroquant



There are two established Karl Fischer methods of calculating the water content of a substance: Volumetric analysis and coulometric analysis. Which method is chosen depends primarily on the water content that the sample is expected to have. Making the right choice is vital for obtaining reliable and reproducible results. Carl ROTH offers compatible reagents for both of these methods.

Volumetric Reagents

Karl Fischer volumetric analysis is recommended if the water content of a sample ought to be between 0,1 % and 100 %. Volumetric analysis is performed by measuring the amount of Karl Fischer reagent that needs to be added to a substance until the end point of the titration has been reached. In alcoholic solutions, water reacts 1:1 with iodine in the presence of sulphur dioxide. Methanol and sulphur dioxide form an acid ester that is neutralised by the base (e.g. imidazole, hereafter referred to as „RN“ for simplicity).
$CH_3OH + SO_2 + RN \rightarrow [RNH]SO_3CH_3$
In the titration process, iodine is added which reacts with water to be reduced to colourless iodide:
$[RNH]SO_3CH_3 + H_2O + I_2 + 2\ RN \rightarrow [RNH]SO_4CH_3 + 2\ [RNH]I$
This reaction continues until there is no water left. The end point is determined by a change in colour due to a surplus of iodine and measured using a potentiometer.

Single-component Reagents

Single-component reagents contain all the substances required for the Karl Fischer reaction in a single solution. They are easy to use and provide for a high level of flexibility when choosing a solvent for the sample type. The high reactivity of the components means that the titre for single-component reagents must always be determined before titration is carried out. Reactions with standard reagents containing methanol are not possible for samples that contain aldehydes or ketones, as the methanol will react with them to produce extra water in a secondary reaction. Carl ROTH offers methanol-free reagents that are suitable for substances containing aldehydes and ketones.

Single-component Reagents

Product name	Purity	General application	Art. No.	Pack Qty.	€
Karl Fischer ROTI®Hydroquant Working Medium K	for KF titration, for aldehydes and ketones	Solvent component. For use with article number 5211.	**5215.1**	1 l	85,90
Karl Fischer ROTI®Hydroquant C5 K	5 mg H_2O/ml, for KF titration, for aldehydes and ketones	Single-component reagent. For use with article number 5215.	**5211.1**	1 l	203,20
Karl Fischer ROTI®Hydroquant C2	2 mg H_2O/ml, pyridine-free	Single-component reagent. For use with article number T193.	**T194.1**	1 l	160,20
Karl Fischer ROTI®Hydroquant C5	5 mg H_2O/ml, pyridine-free	Single-component reagent. For use with article number T193.	**T190.1**	1 l	181,70
Karl Fischer methanol ROTI®Hydroquant D	for KF titration, dry	Solvent component. For use with article number T194 or T190.	**T193.1**	1 l	38,20
			T193.2	2.5 l	64,40

For additional product data and safety information, see chapter Chemicals A-Z.

Two-components Reagents

In two-component systems, the substances crucial for the reaction are separated, with some in the solvent component and some in the titration component. Separating the substances gives the system a longer shelf life and means that the titre needs to be determined less frequently.

Two-components Reagents

Product name	Purity	General application	Art. No.	Pack Qty.	€
Karl Fischer ROTI®Hydroquant S	for KF titration	Solvent component. For use with article number X947 or T191.	**T192.1**	1 l	64,40
Karl Fischer ROTI®Hydroquant S CM	for KF titration	Solvent component. For use with article number X947 or T191.	**5218.1**	1 l	49,35
Karl Fischer ROTI®Hydroquant T2	2 mg H_2O/ml, pyridine-free	Titrant component. Two-components reagent. For use with article number T192 or 5218.	**X947.1**	1 l	69,80
Karl Fischer ROTI®Hydroquant T5	5 mg H_2O/ml, pyridine-free	Titrant component. Two-components reagent. For use with article number T192 or 5218.	**T191.1**	1 l	77,30

For additional product data and safety information, see chapter Chemicals A-Z.

The volumetric Karl Fischer reagents are suitable for water contents between 0,1 % and 100 %. Free water and water of hydration can be determined, respectively. Our solutions are based on methanol and free of pyridine.

Using single-component reagents:
Add methanol to the reaction vessel and titrate to dryness with the C-component. Then add the sample and titrate again to dryness.

Using two-component reagents:
Add solvent S to the reaction vessel and titrate to dryness with the T-component. Then add the sample and titrate again to dryness.

Table illustrating the uses of Karl Fischer ROTI®Hydroquant volumetric reagents:

Titration components		Solvent components			
		Methanol (T193)	Working medium K (5215)	S (T192)	S CM (5218)
	C2 (T194)	X			
	C5 (T190)	X			
	C5 K (5211)		X		
	T2 (X947)			X	X
	T5 (T191)			X	X

Standards



Water standards with a defined water content are required to determine the titre for the reagents used. Either a solid or a liquid standard can be chosen.

Karl Fischer ROTI®Hydroquant standard sodium tartrate dihydrate

≥99 %, for KF titration

Primary standard substance for Karl Fischer titration. Water standard for KF volumetry.

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.	€
5229.1	100 g	100 g	glass	89,15

Karl Fischer ROTI®Hydroquant water standard 10.0

10 mg H_2O/g

Water standard for KF volumetry

UN no. 1993 · ADR 3 III · WGK 2

Danger H226-H304-H315-H318-H335-H336-H373

Art. No.	Pack Qty.	Packaging	Pack.	€
5219.2	10 unit(s)	10 x 8 ml ampoules	glass	99,90

NEW / +

Karl Fischer ROTI®Hydroquant water standard 5.0

5,0 mg H_2O/ml

Water standard for KF volumetry

UN no. 1993 · ADR 3 III · WGK 2

Danger H226-H302+H312+H332-H304-H315-H318-H335-H336-H373

Store under inert gas.

Art. No.	Pack Qty.	Packaging	Pack.	€
1KPX.1	500 ml	500 ml	glass	70,85

Karl Fischer ROTI®Hydroquant water standard 1.0

1 mg H_2O/g

Water standard for KF coulometry.

UN no. 2222 · ADR 3 III · WGK 2

Warning H226

Art. No.	Pack Qty.	Packaging	Pack.	€
9971.1	10 unit(s)	10 x 4 ml ampoules	glass	67,65

NEW / +

Karl Fischer ROTI®Hydroquant water standard 0.1

0,1 mg H_2O/g

Water standard for KF coulometry.

UN no. 1307 · ADR 3 III · WGK 2

Danger H226-H304-H312+H332-H315-H319-H335-H373

Art. No.	Pack Qty.	Packaging	Pack.	€
1KPT.1	10 unit(s)	10 x 8 ml ampoules	glass	90,20

Coulometric Reagents

Karl Fischer coulometric titration is suitable for substances with a low water content (i.e. <0,1 %) and, for example, for expensive substances that can only be examined in small quantities.

In the coulometric titration process, the iodine required is produced directly in situ at the electrode in the reaction vessel through the anodic oxidation of iodide. Hydrogen is produced at the cathode. The measuring cell contains an anode and cathode chamber, which can be separated by a diaphragm. This means that the titration cell can be equipped with diaphragms or be diaphragm-free. Carl ROTH offers suitable reagents for both models.



NEW / +

For cells with diaphragms:

Anolyte:

Product name	Purity	General application	Pack.	Art. No.	Pack Qty.	€
Karl Fischer ROTI®Hydroquant coulo A	for KF titration, coulometric	Anolyte for cells with diaphragm. Use with Karl Fischer ROTI®Hydroquant coulo CG.	glass	**9957.1**	500 ml	94,10
Karl Fischer ROTI®Hydroquant coulo AK	for KF titration, coulometric, for aldehydes and ketones	Anolyte for cells with diaphragm. Use with Karl Fischer ROTI®Hydroquant coulo CG-K.	glass	**1KPN.1**	500 ml	181,70
Karl Fischer ROTI®Hydroquant coulo Oil	for KF titration, coulometric	Anolyte for cells with diaphragm. Use with Karl Fischer ROTI®Hydroquant coulo CG.	glass	**9960.1**	100 ml	37,55

NEW / +

Catholyte:

Product name	Purity	General application	Pack.	Art. No.	Pack Qty.	€
Karl Fischer ROTI®Hydroquant coulo CG	for KF titration, coulometric	Catholyte for cells with diaphragm. Use with Karl Fischer ROTI®Hydroquant coulo A or coulo Oil.	glass	**9861.1**	100 ml	149,45
Karl Fischer ROTI®Hydroquant coulo CG-K	for KF titration, coulometric, for aldehydes and ketones	Catholyte for cells with diaphragm. Use with Karl Fischer ROTI®Hydroquant coulo AK.	glass	**1KPP.1**	10 unit(s)	155,90

NEW / +

For cells without diaphragms:

Product name	Purity	General application	Pack.	Art. No.	Pack Qty.	€
Karl Fischer ROTI®Hydroquant coulo AD	for KF titration, coulometric	Single-component reagent for cells without diaphragm	glass	**1KPL.1**	500 ml	85,90
Karl Fischer ROTI®Hydroquant coulo AG	for KF titration, coulometric	Single-component reagent for cells without diaphragm	glass	**9854.1**	500 ml	94,10

For additional product data and safety information, see chapter Chemicals A-Z.

Table illustrating the uses of Karl Fischer Roti®Hydroquant coulometric reagents:

	coulo CG (9861)	coulo CG-K (1KPP)	
coulo A (9957)	X for cells with diaphragms.		
coulo Oil (9960)	X for cells with diaphragms.		
coulo AK (1KPN)		X for cells with diaphragm, for aldehydes and ketones.	
coulo AD (1KPL)			Can be used without additional reagents. For cells without diaphragms.
coulo AG (9854)			Can be used without additional reagents. For cells without diaphragms.

Water analysis

Carl ROTH offers the essential reagents for your water analysis.
On the following pages you find

- determination of water hardness
- determination of adsorbable organic halogen compounds (AOX)
- determination of chemical oxygen demand (COD)
- determination of biological oxygen demand (BOD)
- potassium permanganate index
- determination of surfactants
- hydrocarbon index



Determination of Water Hardness

Water contains a whole host of salts and other compounds in addition to the gases dissolved in it (oxygen, nitrogen, carbon dioxide). Its most important constituents are magnesium and calcium in the form of their chlorides, sulphates and bicarbonates. These dissolved salts are known as hardeners. The bicarbonates precipitate in the heat (during boiling) as carbonates and are known as carbonate hardness or temporary hardness. The sulphate and chloride compounds are known as permanent hardness or non-carbonate hardness. Total hardness describes the concentration of alkaline earth metal ions in water.
The unit of measurement for water hardness used to be 1 °dH (German degrees of hardness), which corresponds to 10,00 mg CaO or 7,19 mg MgO in one litre of water. Today we use millimoles per litre (mmol/l), whereby 1 °dH corresponds to 0,18 mmol/l of earth metal ions and 1 mmol/l corresponds to 5,6 °dH.

Determination of Water Hardness

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Buffer solution pH 10.00 for complexometry	buffer solution, ready to use	plastic	**T188.1**	1 l	32,15
EDTA disodium salt solution	0,01 mol/l – 0,01 N, volumetric standard solution	plastic	**CN34.1**	1 l	32,80
		ROTI®CUBE	**CN34.2**	5 l	105,90
			CN34.3	10 l	180,10
	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**K714.1**	1 l	27,85
			K714.2	5 l	85,90
		ROTI®CUBE	**K714.3**	5 l	97,75
			K714.4	10 l	167,60
EDTA disodium salt solution A	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**T136.1**	1 l	42,90
EDTA disodium salt solution B	0,01783 mol/l – 0,01783 N, volumetric standard solution	plastic	**T137.1**	1 l	30,65
		ROTI®CUBE	**T137.2**	5 l	105,90
			T137.3	10 l	175,15
Eriochrome black T (C.I. 14645)	p.a.	glass	**0112.1**	25 g	20,35
			0112.2	50 g	36,05
			0112.3	100 g	64,40
	1 % in NaCl, trituration	plastic	**K860.2**	25 g	26,80
			K860.1	50 g	40,75
			K860.3	100 g	70,45
Eriochrome black T indicator solution	0,1 % in ethanol, denatured	glass	**1E01.1**	100 ml	57,95
Hydrochloric acid	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**K024.5**	500 ml	19,90
			K024.1	1 l	25,70
			K024.2	5 l	76,25
		ROTI®CUBE	**K024.3**	5 l	81,20
			K024.4	10 l	117,75
		plastic	**K024.7**	25 l	209,65
	1 mol/l – 1 N, volumetric standard solution	plastic	**K025.1**	1 l	24,65
			K025.2	5 l	76,25
		ROTI®CUBE	**K025.3**	5 l	81,20
			K025.4	10 l	117,75
Indicator buffer tablets	for the determination of water hardness with EDTA	plastic	**7649.1**	100 unit(s)	31,10
			7649.2	500 unit(s)	82,70
Murexide (C. I. 56085)	ACS	glass	**T124.1**	5 g	33,25
			T124.2	25 g	77,30
			T124.3	50 g	127,95

For additional product data and safety information, see chapter Chemicals A-Z.

► Measuring set Water hardness see www.carlroth.com

Determination of adsorbable organic halogen compounds (AOX)

AOX (adsorbable organic halogens, where X = Cl, Br, I) is a sum parameter that describes the amount of organic halogen compounds in substances such as water, soil and sewage sludge. This parameter is used primarily in waste water analysis. The method for calculating AOX levels is set out in **DIN EN ISO 9562**. The quantity of organically bound halogens in a water sample is measured using either the shaking method or the column method. In the shaking method, the AOX in a sample are bound to activated carbon by shaking. In the column method, the AOX in a sample are bound to activated carbon by the action of flushing the sample through a glass column filled with activated carbon. The quantity of activated carbon, which is defined precisely in each case, is then burned in an oxygen chamber and the hydrogen halide released is measured by means of argentometry. The amount of fluoroorganic compounds present cannot be measured argentometrically.

Determination of adsorbable organic halogen compounds (AOX)

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Charcoal	for AOX determination (column method)	glass	**1299.1**	10 g	100,55
	for AOX determination (shaking method)	glass	**1319.1**	10 g	95,70
4-Chlorophenol solution	200 mg AOX/l	glass	**2495.1**	100 ml	117,20
Hydrochloric acid	0,01 mol/l – 0,01 N, volumetric standard solution	plastic	**N075.1**	1 l	24,65
Nitric acid	≥65 %, p.a., ISO	glass	**4989.3**	250 ml	24,65
			4989.1	1 l	44,65
			4989.2	2.5 l	91,95
		plastic	**4989.4**	2.5 l	89,15
Potassium iodide	≥99,5 %, p.a., ISO	glass	**6750.4**	50 g	26,80
			6750.1	250 g	107,00
			6750.3	500 g	198,90
			6750.2	1 kg	375,20
			6750.5	2.5 kg	740,70
		plastic	**6750.6**	5 kg	1.392,15
Sodium nitrate	≥99 %, p.a., ACS, ISO	plastic	**A136.1**	500 g	34,95
			A136.2	1 kg	55,80
			A136.3	2.5 kg	123,65
Sodium sulphite	≥98 %, p.a., ACS, anhydrous	plastic	**P033.1**	500 g	22,50
			P033.2	1 kg	35,40
			P033.3	2.5 kg	64,40
Starch indicator solution	1 % in water, stabilised	plastic	**T133.1**	500 ml	31,75
			T133.2	1 l	51,50
Sulphuric acid	96 %, p.a., ISO	glass	**4623.3**	250 ml	24,20
			4623.1	1 l	40,75
		plastic	**4623.4**	1 l	38,60
		glass	**4623.2**	2.5 l	83,75
		plastic	**4623.5**	2.5 l	85,90
			4623.6	10 l	163,95

For additional product data and safety information, see chapter Chemicals A-Z.

Determination of chemical oxygen demand (COD)

COD (chemical oxygen demand) is a measure of all the oxidisable components in water under specific conditions. The water sample is mixed with sulphuric acid and heated together with a defined quantity of potassium dichromate, with silver sulphate added as the catalyst. Chloride must be removed beforehand or masked with mercury sulphate. The remaining potassium dichromate is measured by means of titration, using an ammonium iron(II) sulphate solution and ferroin as the indicator. The equivalent amount of oxygen can then be calculated from the amount of potassium dichromate that is used up.



Determination of chemical oxygen demand (COD)

Product name	Purity	General application	Pack.	Art. No.	Pack Qty.	€
Ammonium iron(II) sulphate solution	0,12 mol/l – 0,12 N, volumetric standard solution, for COD determination	According to DIN 38409 part H41.	plastic	**KK60.1**	1 l	59,70
Ferroin indicator solution	for sewage analysis, for COD determination	According to DIN 38409 part H41, H43 and H44.	glass	**T131.1**	100 ml	43,55
Mercury(II) sulphate solution 80 g/l	0,02 mol $K_2Cr_2O_7$/l, volumetric standard solution, potassium dichromate in sulphuric acid, for COD determination	According to DIN 38409 part H41.	glass	**X871.1**	1 l	128,90
				X871.2	2.5 l	256,95
Potassium dichromate solution	0,02 mol/l – 0,12 N, volumetric standard solution, for COD determination	According to DIN 38409 part H41 and H43.	plastic	**P720.1**	1 l	33,90
	1/24 mol/l – 0,25 N, volumetric standard solution, for COD determination		plastic	**P721.1**	1 l	67,20
Potassium hydrogen phthalate solution	200 mg CSB/l (0,170 g $C_8H_5KO_4$/l)	For determination of COD; DIN 38409-41:1980, DEV H41; DIN 38409-44:1992, DEV H44	plastic	**2055.1**	250 ml	61,85
				2055.2	500 ml	77,30
Silver sulphate solution	10 g/l in sulphuric acid, for COD determination	According to DIN 38409 part H41.	glass	**X870.1**	1 l	91,95
				X870.2	2.5 l	194,05

For additional product data and safety information, see chapter Chemicals A-Z.

Potassium permanganate Index

The permanganate index measuring method is carried out in the same way as the COD method, only with potassium permanganate instead of potassium dichromate. This technique is used in drinking water analysis.

Potassium permanganate Index

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Oxalic acid dihydrate	≥99,5 %, p.a., ACS, ISO	plastic	**T113.1**	500 g	53,65
			T113.2	1 kg	95,70
			T113.3	2.5 kg	209,65
Potassium permanganate solution	0,02 mol/l – 0,1 N, volumetric standard solution	glass	**K019.1**	1 l	30,65
	0,1 mol/l – 0,5 N, volumetric standard solution	glass	**KK69.1**	1 l	43,55
Sulphuric acid	96 %, p.a., ISO	glass	**4623.3**	250 ml	24,20
			4623.1	1 l	40,75
		plastic	**4623.4**	1 l	38,60
		glass	**4623.2**	2.5 l	83,75
		plastic	**4623.5**	2.5 l	85,90
			4623.6	10 l	163,95

For additional product data and safety information, see chapter Chemicals A-Z.

Determination of biological oxygen demand (BOD)

BOD (biochemical oxygen demand) is a measure of the amount of oxygen that microorganisms need to break down the organic material in a water sample over a specific period of time. It is important to calculate the oxygen concentration at the start and end of the measuring time, which is usually five days and is expressed as an index (BOD_5). Chemical, electrochemical or physical methods are used for this calculation.

Determination of biological oxygen demand (BOD)

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Manganese(II) chloride tetrahydrate	≥99 %, p.a.	plastic	**T881.3**	100 g	21,00
			T881.1	500 g	52,15
			T881.2	1 kg	91,30
Manganese(II) sulphate monohydrate	≥99 %, p.a., ACS	plastic	**4487.1**	250 g	40,75
			4487.2	500 g	73,65
Sodium azide	≥99 %, p.a.	plastic	**K305.1**	100 g	60,10
			K305.2	250 g	115,60
			K305.3	500 g	203,20
			K305.4	1 kg	349,40
Sodium hydroxide	≥98 %, p.a., ISO, in pellets	plastic	**6771.3**	500 g	25,70
			6771.1	1 kg	42,90
			6771.4	2.5 kg	85,90
			6771.2	5 kg	160,20
			6771.6	10 kg	299,95
			6771.5	25 kg	639,65
Sodium thiosulphate pentahydrate	≥99,5 %, p.a., ACS	plastic	**P034.1**	500 g	26,35
			P034.2	1 kg	42,90
			P034.3	2.5 kg	85,90
			P034.5	25 kg	622,45
Starch indicator solution	1 % in water, stabilised	plastic	**T133.1**	500 ml	31,75
			T133.2	1 l	51,50
Sulphuric acid	96 %, p.a., ISO	glass	**4623.3**	250 ml	24,20
			4623.1	1 l	40,75
		plastic	**4623.4**	1 l	38,60
		glass	**4623.2**	2.5 l	83,75
		plastic	**4623.5**	2.5 l	85,90
			4623.6	10 l	163,95
Zinc iodide	≥98 %, powdered	glass	**2730.1**	25 g	34,30
			2730.2	100 g	83,75
			2730.3	250 g	170,95

For additional product data and safety information, see chapter Chemicals A-Z.

Determination of Surfactants

Benzethonium chloride solution is used to measure anionic detergents. In this method, the anionic detergent and the cationic detergent form a 1:1 salt in dichloromethane. The end point of the titration is indicated by methylene blue.

Determination of Surfactants

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Benzethonium chloride solution	0,004 mol/l – 0,004 M, volumetric standard solution	plastic	**9217.1**	1 l	33,90
Dichloromethane	≥99,5 %, p.a., ACS, ISO	glass	**6053.3**	100 ml	19,90
			6053.1	1 l	53,25
			6053.2	2.5 l	98,80
		tinplate	**6053.4**	10 l	256,95
			6053.5	25 l	504,20
Dimidium bromide	≥95 %, for biochemistry	glass	**2217.1**	500 mg	117,20
Methylene blue (C.I. 52015)	pure	glass	**A514.1**	10 g	23,55
			A514.2	50 g	62,25
			A514.3	100 g	107,40
Methylene blue indicator solution	0,01 mol/l in water	glass	**9953.1**	100 ml	41,85

For additional product data and safety information, see chapter Chemicals A-Z.

Determination of the Hydrocarbon Index

The hydrocarbon index is defined as the total of all organic substances that can be extracted with hexane, but cannot be adsorbed in Florisil® (magnesium silicate). On a covalent GC column, these elute between *n*-decane and *n*-tetracontane and have a boiling range of 175–525 °C. These include heating oils, diesel fuels, kerosene, lubricants and transmission fluids. Petrols are not detected using this method. Carl ROTH offers an extensive range of products for the determination of the hydrocarbon index in accordance with **EN ISO 9377-2-Mod. (DIN H53).**



Standards
According to **EN ISO 9377-2-Mod. (DIN H53)**

- Manufactured in accordance with **ISO 17034** in an accredited environment
- Tested in a laboratory accredited to **ISO/IEC 17025**
- Ideal for calibration of GC-FID, GC-TCD, GC-ECD, GC-MS, GC-MS/MS, LC-UV, LC-MS and LC-MS/MS
- With an detailed, batch-related certificate of analysis

NEW / +

Determination of the Hydrocarbon Index

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
n-Alkane standard solution (C_{10}–C_{40}, all even)	16 components (each 50 mg/l) in *n*-hexane	glass ampoule	**1772.1**	1 ml	137,10
			1772.2	5 ml	205,90
	16 components (each 100 mg/l) in *n*-hexane/ petroleum ether	glass ampoule	**9331.1**	5 ml	256,95
n-Alkane standard solution (C_7, C_8, C_9, C_{10}–C_{40}, all even)	19 components (each 50 mg/l) in isooctane	glass ampoule	**9629.1**	5 ml	1.138,45
Extraction solvent stock solution	20 µl/l *n*-decane and 20 mg/l *n*-tetracontane in *n*-hexane	glass ampoule	**1750.2**	10 ml	105,90
Florisil® quality control standard	1 000 mg/l mineral oil and diesel in *n*-hexane	glass ampoule	**9334.1**	5 ml	79,45
Standard mixture of mineral oils	500 mg/l mineral oil and diesel in acetone	glass ampoule	**1774.2**	5 ml	125,25
	50 000 mg/l mineral oil and diesel in *n*-hexane	glass ampoule	**1LCE.1**	1 ml	216,65
			1LCE.2	5 ml	815,95
	50/50 mineral oil and diesel, solvent-free	glass ampoule	**1LCH.1**	1 ml	134,40
			1LCH.2	5 ml	240,30
	5 000 mg/l mineral oil and diesel in *n*-hexane	glass ampoule	**1773.2**	5 ml	110,20
Stearyl stearate test solution	2 000 mg/l in *n*-hexane	glass ampoule	**1760.2**	10 ml	147,85

For additional product data and safety information, see chapter Chemicals A-Z.

Additional Chemicals for Determination of the Hydrocarbon Index

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
Acetone	ROTISOLV® Pestilyse® plus ≥99,9 %	glass	**7535.1**	2.5 l	78,40
Florisil®	for hydrocarbon index analysis, 60–100 mesh	plastic	**CN39.1**	100 g	64,40
			CN39.3	500 g	235,45
			CN39.2	1 kg	439,70
			CN39.4	2.5 kg	843,90
n-Hexane	ROTISOLV® ≥95 %, GC Ultra Grade	glass	**KK48.1**	2.5 l	138,70
	ROTISOLV® Pestilyse® ≥97,5 %	glass	**T165.2**	1 l	55,80
			T165.1	2.5 l	126,35
			T165.3	4 l	149,45
	ROTISOLV® Pestilyse® plus ≥96 %	glass	**7567.1**	2.5 l	133,85
Hydrochloric acid	ROTIPURAN® ≥25 %, p.a., ISO	glass	**6331.1**	1 l	25,70
		plastic	**6331.3**	1 l	23,55
		glass	**6331.2**	2.5 l	45,05
		plastic	**6331.4**	2.5 l	42,90
			6331.7	25 l	263,40
Magnesium sulphate heptahydrate	≥99 %, p.a., ACS	plastic	**P027.1**	500 g	31,75
			P027.2	1 kg	50,45
			P027.3	2.5 kg	96,65
Petroleum ether 40–60 °C	ROTISOLV® Pestilyse® plus	glass	**7588.1**	2.5 l	96,25
	ROTISOLV® Pestilyse®	glass	**T170.2**	1 l	44,65
			T170.1	2.5 l	88,70
			T170.3	4 l	125,25
Sodium sulphate	≥99 %, p.a., ACS, anhydrous, grained	plastic	**0966.1**	500 g	25,70
			0966.2	1 kg	38,60
			0966.3	5 kg	158,60

For additional product data and safety information, see chapter Chemicals A-Z.

► Further GC columns can be found in the chapter Chromatography see page 517
► Further SPE glass columns can be found in the chapter Chromatography see page 565

Analysis of Food

Carl ROTH also offers reagents suitable for food analysis.
On the following pages, you will find the determination of
• Nitrogen according to Kjeldahl
• Sugar
• Mercury
• Trichinae
• Fat
and the determination of the
• Iodine value
• Acid value
• Peroxide value
• Saponification value
as well as other determining factors such as
• Viscosity
• Density
• Hydroxyl value
• Fluoride ions

Determination of Nitrogen according to Kjeldahl



The most common technique for measuring the amount of nitrogen in organic matter is the Kjeldahl method, which is used in a wide range of sectors such as environmental analysis, food analysis, water analysis and agricultural analysis, as well as in the pharmaceutical and chemical industries. In this traditional method, a precisely weighed sample is broken down using concentrated sulphuric acid, a process which digests its organic contents and reacts nitrogen to form ammonium sulphate.
$(CHNO)_{(s)} \rightarrow CO_{2\,(g)} + SO_{2\,(g)} + H_2O_{\,(g)} + NH_4SO_{4\,(solv,\,H_2SO_4)}$
A catalyst or catalyst mixture consisting of copper, selenium, mercury and/or titanium is added to speed up the reaction. Sodium or potassium sulphate is used to give the sulphuric acid a higher boiling point. If the nitrogen is contained in a nitro, nitroso or azo compound, however, the mixture must be reduced with zinc before digestion takes place.
The nitrogen is now present in the sulphuric acid as ammonium sulphate. Adding a strong base (such as NaOH) neutralises the sulphuric acid and liberates ammonia from the solution.
$NH_4SO_{4\,(solv)} + 2\,NaOH_{\,(aq)} \rightarrow Na_2SO_{4\,(aq)} + 2\,NH_{3\,(g)} + 2\,H_2O_{\,(l)}$
The ammonia is led into an acid (such as boric acid) by means of steam distillation.
$B(OH)_{3\,(aq)} + 2\,H_2O_{\,(l)} + NH_{3\,(g)} \rightarrow B(OH)_4^-{}_{(aq)} + NH_4^+{}_{(aq)}$
The resulting strong base (borate ion) is back-titrated with a strong acid (hydrochloric acid or sulphuric acid). The excess weak boric acid is not captured in the process. A Tashiro's indicator that changes colour in the acid is used for titration. The amount of acid that has been used up can then be converted into the amount of nitrogen in the sample.
$NH_4^+{}_{(aq)} + B(OH)_4^-{}_{(aq)} + HCl_{\,(l)} \rightarrow NH_4Cl_{\,(aq)} + B(OH)_{3\,(aq)} + H_2O_{\,(l)}$
To calculate the protein content of the sample, the varying nitrogen content of the amino acids must be checked and the relevant conversion factors applied. The nitrogen contained in food derives mainly from proteins, but different samples may also contain other sources of nitrogen.

Kjeldahl tablets

Product name	Purity	Art. No.	Pack Qty.	€
Kjeldahl tablets antifoam	tablet 1 g	**8225.1**	250 unit(s)	127,95
		8225.2	1,000 unit(s)	407,45
Kjeldahl tablets C	tablet 5,1 g	**8241.1**	250 unit(s)	149,45
		8241.2	1,000 unit(s)	467,65
Kjeldahl tablets CK	tablet 3,9 g	**8243.1**	250 unit(s)	149,45
		8243.2	1,000 unit(s)	467,65
Kjeldahl tablets CT	tablet 5,3 g	**9637.1**	250 unit(s)	149,45
		9637.2	1,000 unit(s)	467,65
Kjeldahl tablets CX	tablet 5,5 g	**8236.1**	250 unit(s)	149,45
		8236.2	1,000 unit(s)	467,65
Kjeldahl tablets (free of mercury and selenium)	tablet 5 g	**HN19.1**	250 unit(s)	177,40
		HN19.2	1,000 unit(s)	628,90
Kjeldahl tablets (free of mercury and selenium)	tablet 2,5 g	**HN20.1**	250 unit(s)	149,45
		HN20.2	1,000 unit(s)	467,65
Kjeldahl tablets (Missouri catalyst)	tablet 2,5 g	**HN22.1**	250 unit(s)	149,45
		HN22.2	1,000 unit(s)	467,65
Kjeldahl tablets ST	tablet 3,5 g	**9693.1**	250 unit(s)	149,45
		9693.2	1,000 unit(s)	467,65
Kjeldahl tablets TCT	tablet 3.71 g	**9763.1**	250 unit(s)	149,45
		9763.2	1,000 unit(s)	467,65
Kjeldahl tablets (Wieninger catalyst)	tablet 2,5 g	**HN21.1**	250 unit(s)	149,45
		HN21.2	1,000 unit(s)	467,65

For additional product data and safety information, see chapter Chemicals A-Z.

Composition of the Kjeldahl tablets:

			Typical composition						
Art. No.	**Designation**	**Weight of tablet (g)**	**K_2SO_4**	**Na_2SO_4**	**$CuSO_4$**	**$CuSO_4 \cdot 5 H_2O$**	**TiO_2**	**Se**	**Anti-foam**
HN19	Kjeldahl tablets (mercury and selenium-free)	5	23,10 %	69,30 %	1,80 %	–	2,80 %	–	–
HN20	Kjeldahl tablets (mercury and selenium-free)	2,5	23,10 %	69,30 %	1,80 %	–	2,80 %	–	–
HN21	Kjeldahl tablets (Wieninger catalyst)	2,5	–	96,25 %	1,50 %	–	–	1,50 %	–
HN22	Kjeldahl tablets (Missouri catalyst)	2,5	48,40 %	48,30 %	0,30 %	–	–	–	–
8225	Kjeldahl tablets, anti-foam	1	–	97,00 %	–	–	–	–	3,00 %
8236	Kjeldahl tablets CX	5,5	90,91%	–	–	9,09 %	–	–	–
8241	Kjeldahl tablets C	5,1	98,04 %	–	–	1,96 %	–	–	–
8243	Kjeldahl tablets CK	3,9	89,74 %	–	–	10,26 %	–	–	–
9637	Kjeldahl tablets CT	5,3	94,34 %	–	–	2,83 %	2,83 %	–	–
9693	Kjeldahl tablets ST	3,5	99,90 %	–	–	–	–	0,10 %	–
9763	Kjeldahl tablets TCT	3,71	94,34 %	–	–	2,83 %	2,83 %	–	–

Note: 8225 Kjeldahl anti-foam tablets do not contain a catalyst.
Please use additional Kjeldahl tablet with catalyst.

► Kjeldahl flasks see page www.carlroth.com
► Weighing boats see www.carlroth.com

Reagents for the determination of nitrogen acc. to Kjeldahl

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Ammonium sulphate	≥99,5 %, p.a., ACS, ISO	plastic	**3746.2**	250 g	17,10
			3746.1	1 kg	39,25
			3746.3	2.5 kg	75,15
			3746.4	5 kg	127,95
			3746.6	10 kg	198,90
			3746.5	25 kg	424,65
Boric acid	≥99,8 %, p.a., ACS, ISO	plastic	**6943.2**	250 g	26,80
			6943.4	500 g	37,10
			6943.1	1 kg	58,60
			6943.6	2.5 kg	115,60
			6943.3	5 kg	209,65
			6943.5	25 kg	962,15
Boric acid solution	4 %, p.a.	plastic	**HN24.1**	1 l	22,05
			HN24.4	2.5 l	35,40
			HN24.2	5 l	51,50
			HN24.3	10 l	84,40
Bromocresol green	ACS	glass	**T115.1**	1 g	20,35
			T115.2	5 g	35,40
			T115.3	10 g	60,75
			T115.4	25 g	114,50
Copper(II) sulphate pentahydrate	≥99,5 %, p.a., ACS, ISO	plastic	**P024.1**	500 g	35,40
			P024.2	1 kg	61,20
			P024.3	2.5 kg	117,20
Hydrochloric acid	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**K024.5**	500 ml	19,90
			K024.1	1 l	25,70
			K024.2	5 l	76,25
		ROTI®CUBE	**K024.3**	5 l	81,20
			K024.4	10 l	117,75
		plastic	**K024.7**	25 l	209,65
L-Lysine hydrochloride	≥98,5 %, Ph. Eur., USP, JP, for biochemistry	plastic	**9357.1**	100 g	27,85
			9357.3	250 g	53,65
			9357.4	500 g	96,65
			9357.2	1 kg	177,40
Methyl red (C. I. 13020)	p.a., ACS	glass	**T120.1**	10 g	22,50
			T120.2	25 g	36,05
Mixed indicator 5	for ammonia titration	glass	**T125.1**	250 ml	96,65
Potassium sulphate	≥99 %, p.a., ACS, ISO	plastic	**P022.1**	500 g	50,00
			P022.2	1 kg	84,95
			P022.3	2.5 kg	188,15
D(+)-Saccharose	≥99,5 %, Ph. Eur.	plastic	**4661.1**	1 kg	24,65
			4661.2	5 kg	96,65
			4661.4	10 kg	134,40
		cardboard	**4661.3**	50 kg	439,70
Sodium hydroxide	≥98 %, p.a., ISO, in pellets	plastic	**6771.3**	500 g	25,70
			6771.1	1 kg	42,90
			6771.4	2.5 kg	85,90
			6771.2	5 kg	160,20
			6771.6	10 kg	299,95
			6771.5	25 kg	639,65
Sodium hydroxide solution	≥32 %, p.a.	plastic	**T196.1**	1 l	37,55
			T196.2	2.5 l	72,60
			T196.3	5 l	116,65
			T196.7	25 l	439,70
Sulphuric acid	98 %, for nitrogen determination	glass	**X945.1**	1 l	40,35
			X945.2	2.5 l	82,25
	0,05 mol/l – 0,1 N, volumetric standard solution	plastic	**K026.1**	1 l	24,65
			K026.2	5 l	76,25
		ROTI®CUBE	**K026.3**	5 l	82,25
			K026.4	10 l	120,95
		plastic	**K026.7**	25 l	198,90
	0,1 mol/l – 0,2 N, volumetric standard solution	plastic	**N072.1**	1 l	24,65
			N072.2	5 l	76,25
Tashiro's indicator solution	0,75 g/l methyl red sodium salt + 0,375 g/l methylene blue in ethanol 50 % (v/v), denatured	plastic	**2624.1**	250 ml	22,05
L-Tryptophan	≥98,5 %, Ph. Eur., for biochemistry	glass	**4858.1**	10 g	18,20
		plastic	**4858.2**	100 g	89,15
			4858.4	250 g	192,45
			4858.3	1 kg	708,45

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Water	p.a., ACS	plastic	**T172.1**	1 l	13,90
			T172.2	2.5 l	27,45
			T172.3	5 l	42,90
			T172.5	30 l	170,95

For additional product data and safety information, see chapter Chemicals A-Z.

Kjeldahl method for determining the nitrogen content of milk

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Ammonium sulphate	≥99,5 %, p.a., ACS, ISO	plastic	**3746.2**	250 g	17,10
			3746.1	1 kg	39,25
			3746.3	2.5 kg	75,15
			3746.4	5 kg	127,95
			3746.6	10 kg	198,90
			3746.5	25 kg	424,65
Boric acid solution	4 %, p.a.	plastic	**HN24.1**	1 l	22,05
			HN24.4	2.5 l	35,40
			HN24.2	5 l	51,50
			HN24.3	10 l	84,40
Bromocresol green	ACS	glass	**T115.1**	1 g	20,35
			T115.2	5 g	35,40
			T115.3	10 g	60,75
			T115.4	25 g	114,50
Copper(II) sulphate pentahydrate	≥99,5 %, p.a., ACS, ISO	plastic	**P024.1**	500 g	35,40
			P024.2	1 kg	61,20
			P024.3	2.5 kg	117,20
Ethanol	≥96 %, denatured	plastic	**T171.5**	1 l	17,75
		glass	**T171.1**	2.5 l	33,25
		plastic	**T171.3**	2.5 l	30,65
			T171.4	5 l	56,45
		tinplate	**T171.6**	10 l	100,95
		plastic	**T171.7**	10 l	90,20
		tinplate	**T171.2**	25 l	176,85
		plastic	**T171.8**	25 l	155,35
Hydrochloric acid	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**K024.5**	500 ml	19,90
			K024.1	1 l	25,70
			K024.2	5 l	76,25
		ROTI®CUBE	**K024.3**	5 l	81,20
			K024.4	10 l	117,75
		plastic	**K024.7**	25 l	209,65
L-Lysine hydrochloride	≥98,5 %, Ph. Eur., USP, JP, for biochemistry	plastic	**9357.1**	100 g	27,85
			9357.3	250 g	53,65
			9357.4	500 g	96,65
			9357.2	1 kg	177,40
Methyl red (C. I. 13020)	p.a., ACS	glass	**T120.1**	10 g	22,50
			T120.2	25 g	36,05
Potassium sulphate	≥99 %, p.a., ACS, ISO	plastic	**P022.1**	500 g	50,00
			P022.2	1 kg	84,95
			P022.3	2.5 kg	188,15
D(+)-Saccharose	≥99,5 %, Ph. Eur.	plastic	**4661.1**	1 kg	24,65
			4661.2	5 kg	96,65
			4661.4	10 kg	134,40
		cardboard	**4661.3**	50 kg	439,70
Sodium hydroxide	≥98 %, p.a., ISO, in pellets	plastic	**6771.3**	500 g	25,70
			6771.1	1 kg	42,90
			6771.4	2.5 kg	85,90
			6771.2	5 kg	160,20
			6771.6	10 kg	299,95
			6771.5	25 kg	639,65
Sulphuric acid	0,05 mol/l – 0,1 N, volumetric standard solution	plastic	**K026.1**	1 l	24,65
			K026.2	5 l	76,25
		ROTI®CUBE	**K026.3**	5 l	82,25
			K026.4	10 l	120,95
		plastic	**K026.7**	25 l	198,90
L-Tryptophan	≥98,5 %, Ph. Eur., for biochemistry	glass	**4858.1**	10 g	18,20
		plastic	**4858.2**	100 g	89,15
			4858.4	250 g	192,45
			4858.3	1 kg	708,45

For additional product data and safety information, see chapter Chemicals A-Z.

Determining the nitrogen content of sludge, biowaste and soil

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Boric acid	≥99,8 %, p.a., ACS, ISO	plastic	**6943.2**	250 g	26,80
			6943.4	500 g	37,10
			6943.1	1 kg	58,60
			6943.6	2.5 kg	115,60
			6943.3	5 kg	209,65
			6943.5	25 kg	962,15
Bromocresol green	ACS	glass	**T115.1**	1 g	20,35
			T115.2	5 g	35,40
			T115.3	10 g	60,75
			T115.4	25 g	114,50
Ethanol	≥96 %, denatured	plastic	**T171.5**	1 l	17,75
		glass	**T171.1**	2.5 l	33,25
		plastic	**T171.3**	2.5 l	30,65
			T171.4	5 l	56,45
		tinplate	**T171.6**	10 l	100,95
		plastic	**T171.7**	10 l	90,20
		tinplate	**T171.2**	25 l	176,85
		plastic	**T171.8**	25 l	155,35
Hydrochloric acid	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**K024.5**	500 ml	19,90
			K024.1	1 l	25,70
			K024.2	5 l	76,25
		ROTI®CUBE	**K024.3**	5 l	81,20
			K024.4	10 l	117,75
		plastic	**K024.7**	25 l	209,65
Kjeldahl tablets (free of mercury and selenium)	tablet 5 g	plastic	**HN19.1**	250 unit(s)	177,40
			HN19.2	1,000 unit(s)	628,90
Methyl red (C. I. 13020)	p.a., ACS	glass	**T120.1**	10 g	22,50
			T120.2	25 g	36,05
Sulphuric acid	0,05 mol/l – 0,1 N, volumetric standard solution	plastic	**K026.1**	1 l	24,65
			K026.2	5 l	76,25
		ROTI®CUBE	**K026.3**	5 l	82,25
			K026.4	10 l	120,95
		plastic	**K026.7**	25 l	198,90
	0,1 mol/l – 0,2 N, volumetric standard solution	plastic	**N072.1**	1 l	24,65
			N072.2	5 l	76,25
Water	p.a., ACS	plastic	**T172.1**	1 l	13,90
			T172.2	2.5 l	27,45
			T172.3	5 l	42,90
			T172.5	30 l	170,95

For additional product data and safety information, see chapter Chemicals A-Z.

Determination of Sugar

Fehling's test:

Fehling's test is used to identify reducing agents, such as aldehydes and reducing sugars. Combining the two separate solutions (Fehling's I and Fehling's II) produces a deep-blue tartrate-copper(II) complex. Adding a reducing sample then causes a red pigment consisting mainly of copper(I) oxide to precipitate out of the mixture. This change in colour does not happen in the presence of sucrose or ketones.



Product name	Brand/Purity	Synonymous	Pack.	Art. No.	Pack Qty.	€
Fehling's solution I	Reag. Ph. Eur., for sugar determination	Copper(II) sulphate solution	plastic	**N055.1**	1 l	39,25
Fehling's solution II	Reag. Ph. Eur., for sugar determination	Potassium sodium tartrate solution	plastic	**N056.1**	1 l	58,60

Benedict reagent:

As variant for Fehling's test, also for verification of reduced sugars. Due to the different composition, the Benedict reagent is less alkaline and more stable (due to the citrate) than the Fehling solutions.

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
Benedict's reagent	for sugar determination	dropp. bottle	**0010.1**	100 ml	24,65

Luff-Schoorl method:

This method can be used to calculate the amount of reducing sugars, such as D-glucose, D-fructose, D-lactose and D-maltose, that a sample contains. In this method, the copper(II) ions in an alkaline solution are reduced by the sugar and determined by means of back-titration of the excess reagent added. Non-reducing sugars, such as D-sucrose, are not captured by this method. To determine the amount of this sugar present, it must first be broken down into reducing monosaccharides via acid hydrolysis.

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
Luff-Schoorl's solution	for sugar determination	plastic	**X874.1**	1 l	42,50

Carrez clarification:

The Carrez clarification technique is used primarily in sugar analysis to eliminate turbidity. Two solutions in equal parts are added to the solution to be clarified, which removes any disruptive colloids.

Product name	Brand/Purity	Synonymous	Pack.	Art. No.	Pack Qty.	€
Carrez solution I	for the determination of sugar and starch	Zinc acetate and acetic acid solution	plastic	**9944.1**	500 ml	46,80
Carrez solution II	for the determination of sugar and starch	Potassium hexacyanoferrate(II) solution	plastic	**9950.1**	500 ml	46,80

For additional product data and safety information, see chapter Chemicals A-Z.

Selivanov's test:

Selivanov's test involves acidifying a sugar solution with concentrated hydrochloric acid, adding an ethanolic resorcinol solution and heating. Ketoses react quickly to form a red-coloured dye, while aldoses do not react at all, or only react slowly.

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
Ethanol	ROTIPURAN® ≥99,8 %, p.a.	glass	**9065.1**	1 l	112,80
		plastic	**9065.3**	1 l	111,30
		glass	**9065.2**	2.5 l	228,90
		plastic	**9065.4**	2.5 l	226,30
			9065.5	5 l	405,85
			9065.7	10 l	669,20
		tinplate	**9065.6**	25 l	1.392,15
		plastic	**9065.8**	25 l	1.370,65
Hydrochloric acid	ROTIPURAN® 37 % fuming, p.a., ACS, ISO	glass	**4625.1**	1 l	26,35
			4625.2	2.5 l	49,35
		plastic	**4625.3**	10 l	127,95
Resorcinol	≥99 %, for biochemistry	plastic	**5727.1**	100 g	28,95
			5727.2	500 g	85,90
			5727.3	1 kg	149,45
			5727.4	2.5 kg	317,15

Barfoed's test:

Barfoed's test is used to distinguish monosaccharides from disaccharides, oligosaccharides and polysaccharides. Barfoed's reagent is added to the sugar solution, which is then heated for a few minutes in a water bath. Monosaccharides turn a reddish colour, while disaccharides only react after they have been boiled for a longer period.

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
Acetic acid	ROTIPURAN® 100 %, p.a.	glass	**3738.1**	1 l	34,95
		plastic	**3738.4**	1 l	32,80
		glass	**3738.2**	2.5 l	76,25
		plastic	**3738.5**	2.5 l	74,10
			3738.6	5 l	128,50
			3738.3	10 l	231,15
Copper(II) acetate monohydrate	≥99 %, p.a., ACS	plastic	**HN30.1**	50 g	27,45
			HN30.2	100 g	41,40
			HN30.3	250 g	87,65
Sodium acetate	≥99 %, p.a., ACS, anhydrous	plastic	**6773.1**	250 g	40,75
			6773.2	1 kg	107,40
			6773.3	2.5 kg	235,45
			6773.5	25 kg	1.666,25

Molisch's test:

Molisch's reagent is added to a diluted sample of monosaccharide and concentrated sulphuric acid is added down the sides of the test tube to form a layer beneath the solution. A purple ring forms at the interface between the layers. Since nucleic acids and glycoproteins also contain monosaccharides, they may react as well.

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
Ethanol	ROTIPURAN® ≥99,8 %, p.a.	glass	**9065.1**	1 l	112,80
		plastic	**9065.3**	1 l	111,30
		glass	**9065.2**	2.5 l	228,90
		plastic	**9065.4**	2.5 l	226,30
			9065.5	5 l	405,85
			9065.7	10 l	669,20
		tinplate	**9065.6**	25 l	1.392,15
		plastic	**9065.8**	25 l	1.370,65
1-Naphthol	≥99 %, p.a.	glass	**KK14.1**	50 g	66,55
			KK14.2	100 g	114,50
Sulphuric acid	ROTIPURAN® 96 %, p.a., ISO	glass	**4623.3**	250 ml	24,20
			4623.1	1 l	40,75
		plastic	**4623.4**	1 l	38,60
		glass	**4623.2**	2.5 l	83,75
		plastic	**4623.5**	2.5 l	85,90
			4623.6	10 l	163,95

For additional product data and safety information, see chapter Chemicals A-Z.

Tollens' test or silver-mirror test:

Some ammoniacal silver nitrate solution is added to an aqueous test solution, which is then heated for several minutes. If reducing substances are present, elemental silver deposits on the glass wall, resulting in the mirror effect.

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
Ammonia solution	ROTIPURAN® 30 %, p.a., ACS	glass	**CP17.1**	1 l	31,10
			CP17.2	2.5 l	50,45
		PE/steel	**CP17.3**	5 l	94,10
			CP17.4	10 l	160,20
			CP17.5	25 l	295,65
Silver nitrate	≥99,9 %, p.a.	plastic	**7908.1**	50 g	149,45
			7908.2	250 g	628,90
			7908.3	1 kg	2.203,75

Sugar determination according to Horne

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
Anthrone	p.a., ACS	plastic	**2673.1**	10 g	34,30
			2673.2	25 g	53,65
			2673.3	100 g	145,15
Lead(II) acetate, basic	≥33 % PbO, p.a., ACS	plastic	**2559.3**	25 g	19,25
			2559.1	500 g	47,85
			2559.2	1 kg	74,75

Determination of sucrose and glucose content using the enzymatic method in accordance with DIN 10326.

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Adenosin-5'-triphosphate disodium salt (ATP)	≥98 %, for biochemistry	glass	**HN35.1**	5 g	30,00
			HN35.2	10 g	42,90
			HN35.3	25 g	81,60
			HN35.4	100 g	267,70
Citric acid monohydrate	≥99,5 %, p.a., ACS, ISO	plastic	**3958.2**	500 g	41,85
			3958.1	1 kg	75,15
			3958.3	2.5 kg	149,45
			3958.4	5 kg	278,45
			3958.6	10 kg	504,20
			3958.5	25 kg	1.069,65
Magnesium sulphate heptahydrate	≥99 %, p.a., ACS	plastic	**P027.1**	500 g	31,75
			P027.2	1 kg	50,45
			P027.3	2.5 kg	96,65
NADP disodium salt	≥85 %, for biochemistry	glass	**AE13.1**	250 mg	45,05
			AE13.2	500 mg	81,60
			AE13.3	1 g	155,90
Potassium hexacyanoferrate(II) trihydrate	≥99 %, p.a., ACS, ISO	plastic	**P745.1**	500 g	110,20
			P745.2	1 kg	203,20
			P745.3	2.5 kg	456,90
tri-Sodium citrate dihydrate	≥99 %, Ph. Eur.	plastic	**4088.3**	500 g	20,35
			4088.1	1 kg	34,30
			4088.2	5 kg	138,70
			4088.5	25 kg	456,90
Sodium hydrogen carbonate	≥99,5 %, p.a., ACS, ISO	plastic	**6885.2**	500 g	23,55
			6885.1	1 kg	38,60
			6885.3	5 kg	149,45
			6885.5	25 kg	579,45
Sodium hydroxide solution	2 mol/l – 2 N, volumetric standard solution	plastic	**T135.1**	1 l	25,30
			T135.2	5 l	85,90
		ROTI®CUBE	**T135.3**	5 l	91,95
Triethanolamine hydrochloride	≥99 %, for biochemistry	plastic	**4804.1**	100 g	75,15
Water	p.a., ACS	plastic	**T172.1**	1 l	13,90
			T172.2	2.5 l	27,45
			T172.3	5 l	42,90
			T172.5	30 l	170,95
Zinc sulphate heptahydrate	≥99,5 %, p.a., ACS	plastic	**K301.1**	500 g	32,15
			K301.2	1 kg	56,90
			K301.3	2.5 kg	106,45
			K301.5	25 kg	876,15

For additional product data and safety information, see chapter Chemicals A-Z.

Determination of mercury



Mercury has been used in technical applications since ancient times. Its high mobility means that it is particularly prevalent in the environment. Yet huge amounts of it are continuously being released into the atmosphere, for example through combustion reactions. Mercury forms organic compounds that are fat-soluble, which enables them to enter the food chain. The two most commonly used standard methods for analysing mercury are the AAS (atomic absorption spectroscopy) procedure and the ICP (inductively coupled plasma) technique. It goes without saying that the reagents used to prepare samples must not contain mercury. Carl ROTH offers these reagents with a mercury content of less than 0,05 ppm.

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Hydrochloric acid	37 % fuming, p.a., ISO, max. 0,005 ppm Hg	glass	**X942.1**	1 l	38,60
			X942.2	2.5 l	67,65
Nitric acid	≥65 %, p.a., ISO, max. 0,005 ppm Hg	glass	**X943.1**	1 l	40,75
			X943.2	2.5 l	80,10
Sulphuric acid	95–98 %, p.a., ISO, max. 0,005 ppm Hg	glass	**X944.1**	1 l	46,15
			X944.2	2.5 l	85,90
		plastic	**X944.3**	10 l	218,80
			X944.4	25 l	424,65
Tin(II) chloride dihydrate	≥98 %, p.a., max. 0,05 ppm Hg	glass	**KK07.1**	100 g	64,40
			KK07.2	250 g	134,40

For additional product data and safety information, see chapter Chemicals A-Z.

Determination of Trichina

Trichina (*Trichinella spp.*) are small roundworms approximately 1 mm long that live as parasites in the skeletal muscles of mammals, birds and reptiles. They can be transferred to a new host (human or animal) through the consumption of raw meat containing infectious larvae in the muscle tissue. Meat intended for human consumption must be inspected in accordance with **Regulation (EU) No. 2075/2005**. Carl ROTH offers reagents suitable for this purpose.

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
Ammonia solution	20 %, pure	plastic	**6753.1**	1 l	20,35
			6753.2	5 l	41,85
			6753.3	10 l	56,45
			6753.4	25 l	112,35
Hydrochloric acid	ROTIPURAN® ≥25 %, p.a., ISO	glass	**6331.1**	1 l	25,70
		plastic	**6331.3**	1 l	23,55
		glass	**6331.2**	2.5 l	45,05
		plastic	**6331.4**	2.5 l	42,90
			6331.7	25 l	263,40
Pepsin	≥2 000 FIP-U/g, for biochemistry	plastic	**KK38.1**	50 g	77,95
			KK38.2	100 g	128,50
			KK38.3	250 g	278,45
			KK38.4	1 kg	1.048,15

For additional product data and safety information, see chapter Chemicals A-Z.



Aluminium foil ROTILABO® Refill rolls

ROTH SELECTION.

Delivery without cutter box.

Film thickness (µm)	Width (mm)	Length (m)	Art. No.	Pack Qty.	€
13	300	20	**0192.1**	6 unit(s)	36,05
16	300	100	**1770.2**	4 unit(s)	132,80

Determination of Fat

Fat analysis is used to determine the fat content and fat composition of foodstuffs. Individual components or total fats levels can be calculated depending on the purpose of testing. Different components are subject to different procedures by law, such as the Gerber method or the Van Gulik technique.



Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
Diethyl ether	ROTIPURAN® ≥99,5 %, p.a., stabilised	glass	**3942.1**	1 l	60,10
			3942.6	2.5 l	107,40
		aluminium	**3942.4**	5 l	203,20
		tinplate	**3942.5**	25 l	607,40
Isoamyl alcohol	ROTIPURAN® ≥98,5 %, p.a., ACS	glass	**T870.1**	500 ml	53,65
			T870.2	1 l	99,90
			T870.3	2.5 l	209,65
Petroleum ether 40–60 °C	ROTIPURAN® p.a., ACS, ISO	glass	**T173.1**	1 l	54,30
			T173.2	2.5 l	110,20
		aluminium	**T173.3**	5 l	198,90
		tinplate	**T173.5**	25 l	697,70
Sulphuric acid	ROTIPURAN® 90–91 %, for fat determination	plastic	**X946.1**	1 l	28,95
			X946.2	2.5 l	54,30
	ROTIPURAN® 62 %, p.a., for fat determination in cheese (d 1,52) according to van Gulik	plastic	**CN89.1**	1 l	33,25
			CN89.2	2.5 l	55,40
			CN89.3	5 l	89,15
			CN89.4	10 l	148,90
			CN89.5	25 l	319,85

For additional product data and safety information, see chapter Chemicals A-Z.

Fat- and protein-containing samples should be cleared using Carrez reagents:

- Add sample to 60 ml water
- Subsequently add, while mixing after each step:
  a) 5 ml Carrez-I-solution, Art. No. 9944
  (or 7,2 g zinc sulphate heptahydrate, Art. No. K301 ad 100 ml)
  b) 5 ml Carrez-II-solution, Art. No. 9950
  (or 3,6 g potassium hexacyanoferrate(II), Art. No. P745 ad 100 ml)
- Adjust pH to 7,5 - 8,5 by adding NaOH (0,1 M) Art.No. K020
- Fill volumetric flask up to mark, mix, and filter

Iodine Value Determination

The iodine value is a measure of the unsaturated fatty acids in glycerides. The more olefinic double bonds there are in the fat, the higher the iodine value.

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Acetic acid	100 %, p.a.	glass	**3738.1**	1 l	34,95
		plastic	**3738.4**	1 l	32,80
		glass	**3738.2**	2.5 l	76,25
		plastic	**3738.5**	2.5 l	74,10
			3738.6	5 l	128,50
			3738.3	10 l	231,15
Cyclohexane	≥99,5 %, p.a., ACS, ISO	glass	**6886.1**	1 l	75,15
			6886.2	2.5 l	149,45
		aluminium	**6886.3**	5 l	256,95
		tinplate	**6886.4**	10 l	428,95
			6886.5	25 l	854,65
Iodine	≥99,8 %, p.a., ACS, resublimated	glass	**X864.1**	100 g	88,05
			X864.2	250 g	160,20
			X864.3	1 kg	564,40
Mercury(II) acetate	≥99 %, p.a., ACS	glass	**KK05.1**	50 g	75,15
			KK05.2	100 g	134,95
Potassium iodide solution	10 %, p.a.	plastic	**8121.1**	1 l	65,50
Sodium thiosulphate solution	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**K022.1**	1 l	23,55
			K022.2	5 l	65,50
		ROTI®CUBE	**K022.3**	5 l	70,45
			K022.4	10 l	108,05
Starch indicator solution	1 % in water, stabilised	plastic	**T133.1**	500 ml	31,75
			T133.2	1 l	51,50
Trichloro-methane/ Chloroform	≥99 %, p.a.	glass	**3313.4**	100 ml	22,50
			3313.1	1 l	66,15
			3313.2	2.5 l	131,70
		tinplate	**3313.5**	25 l	994,40
Wijs-solution	0,1 mol ICl/l – 0,2 N	glass	**CN36.1**	1 l	100,95

For additional product data and safety information, see chapter Chemicals A-Z.

Acid Value Determination

The acid number characterises the acidic components of the fats. For this purpose, the sample is dissolved in a solvent and titrated against phenolphthalein with potassium hydroxide solution. Only free fatty acids are recorded. The fatty acids bound in the glycerides are not determined.

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Alkali blue 6B (C.I. 42765)	p.a.	glass	**5155.1**	10 g	26,80
			5155.2	25 g	51,50
			5155.3	100 g	149,45
tert-Butyl methyl ether	≥99,5 %, p.a.	glass	**8462.1**	1 l	48,30
			8462.2	2.5 l	98,40
		tinplate	**8462.3**	10 l	321,45
			8462.4	25 l	704,15
Diethyl ether	≥99,5 %, p.a., stabilised	glass	**3942.1**	1 l	60,10
			3942.6	2.5 l	107,40
		aluminium	**3942.4**	5 l	203,20
		tinplate	**3942.5**	25 l	607,40
Ethanol	96 %, Ph. Eur., extra pure	glass	**P075.1**	1 l	98,80
		plastic	**P075.3**	1 l	96,25
		glass	**P075.2**	2.5 l	208,05
		plastic	**P075.4**	2.5 l	204,80
			P075.5	5 l	385,95
		tinplate	**P075.6**	10 l	622,45
		plastic	**P075.7**	10 l	611,70
			P075.8	25 l	1.284,65
Methanol	≥99,9 %, p.a., ACS, ISO	glass	**4627.1**	1 l	32,80
		plastic	**4627.4**	1 l	30,65
		glass	**4627.2**	2.5 l	57,95
		plastic	**4627.5**	2.5 l	55,40
			4627.6	5 l	103,75
		tinplate	**4627.3**	25 l	232,75
Petroleum ether 40–60 °C	p.a., ACS, ISO	glass	**T173.1**	1 l	54,30
			T173.2	2.5 l	110,20
		aluminium	**T173.3**	5 l	198,90
		tinplate	**T173.5**	25 l	697,70
Phenol-phthalein indicator solution	1 % in ethanol 90 %, denatured	glass	**K034.1**	250 ml	26,35
			K034.2	500 ml	37,10
			K034.3	1 l	54,30
Potassium hydroxide solution in ethanol	0,1 mol/l – 0,1 N, volumetric standard solution	glass	**P706.1**	1 l	52,60
	0,5 mol/l – 0,5 N, volumetric standard solution	glass	**P707.1**	1 l	73,00
Potassium hydroxide solution in methanol	0,1 mol/l – 0,1 N, volumetric standard solution	glass	**KK66.1**	1 l	40,75
	0,5 mol/l – 0,5 N, volumetric standard solution	glass	**KK67.1**	1 l	40,75
2-Propanol	≥99,8 %, p.a., ACS, ISO	glass	**6752.1**	1 l	39,70
		plastic	**6752.3**	1 l	37,55
		glass	**6752.2**	2.5 l	94,10
		plastic	**6752.4**	2.5 l	91,95
			6752.5	5 l	152,15
		PE/steel	**6752.7**	10 l	267,70
		tinplate	**6752.6**	25 l	493,45
Thymol-phthalein	p.a., ACS	glass	**HN97.1**	5 g	25,30
			HN97.2	10 g	42,90
			HN97.3	50 g	155,90
Toluene	≥99,5 %, p.a., ACS, ISO	glass	**7115.1**	1 l	48,30
			7115.2	2.5 l	95,15
		aluminium	**7115.3**	5 l	138,70
		tinplate	**7115.4**	25 l	424,65
Water	p.a., ACS	plastic	**T172.1**	1 l	13,90
			T172.2	2.5 l	27,45
			T172.3	5 l	42,90
			T172.5	30 l	170,95

For additional product data and safety information, see chapter Chemicals A-Z.

Peroxide Value Determination

The peroxide value of a substance denotes how much peroxide it contains. In a mixture of glacial acetic acid and chloroform, the peroxide oxidises the iodide into elementary iodine. The resulting quantity of iodine is then back-titrated using a thiosulphate solution (where a starch solution is used as the indicator). The blank solution tested in parallel is used to calculate the results.

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Acetic acid	100 %, p.a.	glass	**3738.1**	1 l	34,95
		plastic	**3738.4**	1 l	32,80
		glass	**3738.2**	2.5 l	76,25
		plastic	**3738.5**	2.5 l	74,10
			3738.6	5 l	128,50
			3738.3	10 l	231,15
Potassium iodide solution	10 %, p.a.	plastic	**8121.1**	1 l	65,50
Sodium thiosulphate solution	0,1 mol/l – 0,1 N, volumetric standard solution	plastic	**K022.1**	1 l	23,55
			K022.2	5 l	65,50
		ROTI®CUBE	**K022.3**	5 l	70,45
			K022.4	10 l	108,05
Starch indicator solution	1 % in water, stabilised	plastic	**T133.1**	500 ml	31,75
			T133.2	1 l	51,50
Trichloro-methane/ Chloroform	≥99 %, p.a.	glass	**3313.4**	100 ml	22,50
			3313.1	1 l	66,15
			3313.2	2.5 l	131,70
		tinplate	**3313.5**	25 l	994,40

For additional product data and safety information, see chapter Chemicals A-Z.

Saponification Value

The saponification value denotes the amount of potassium hydroxide required to neutralise free fatty acids and saponify bound fatty acids. The lower the average molar mass of the fat, the higher the saponification value. The sample is heated under reflux in a defined quantity of ethanolic potassium hydroxide solution and the non-used alkaline solution is titrated with hydrochloric acid.

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Alkali blue 6B (C.I. 42765)	p.a.	glass	**5155.1**	10 g	26,80
			5155.2	25 g	51,50
			5155.3	100 g	149,45
Ethanol	96 %, Ph. Eur., extra pure	glass	**P075.1**	1 l	98,80
		plastic	**P075.3**	1 l	96,25
		glass	**P075.2**	2.5 l	208,05
		plastic	**P075.4**	2.5 l	204,80
			P075.5	5 l	385,95
		tinplate	**P075.6**	10 l	622,45
		plastic	**P075.7**	10 l	611,70
			P075.8	25 l	1.284,65
Hydrochloric acid	0,5 mol/l – 0,5 N, volumetric standard solution	plastic	**P708.1**	1 l	24,65
			P708.2	5 l	76,25
		ROTI®CUBE	**P708.3**	5 l	82,25
			P708.4	10 l	140,30
Phenol-phthalein indicator solution	0,1 % in ethanol 90 %, denatured	glass	**8145.1**	250 ml	24,20
			8145.2	500 ml	36,45
Potassium hydroxide solution in ethanol	0,5 mol/l – 0,5 N, volumetric standard solution	glass	**P707.1**	1 l	73,00

For additional product data and safety information, see chapter Chemicals A-Z.

Determination of Viscosity

Viscosity is the measure of a fluid's resistance to flow. The lower a liquid's viscosity, the thinner it is and the more easy it is to pour; the higher a liquid's viscosity, the thicker it is and the harder it is to pour. The particles in viscous liquids are less mobile as they have to overcome the van der Waals forces and the bonds between the particles in them are stronger.

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
m-Cresol	≥99 %, for synthesis	glass	**9269.2**	250 ml	49,35
			9269.7	1 l	142,45
Formic acid	≥98 %, p.a., ACS	glass	**4724.3**	500 ml	28,50
			4724.1	1 l	53,65
			4724.2	2.5 l	107,40
		PE/steel	**4724.4**	10 l	342,95
			4724.5	25 l	697,70
Phenol	≥99,5 %, p.a., detached crystals	glass	**0040.1**	250 g	52,70
			0040.2	1 kg	163,95
ortho-Phosphoric acid	≥85 %, p.a., ISO	plastic	**6366.3**	500 ml	50,45
			6366.1	1 l	85,90
			6366.2	2.5 l	174,70
			6366.4	5 l	299,95
Sulphuric acid	96 %, for viscosity determination according to DIN EN ISO 307	glass	**4363.5**	500 ml	34,95
			4363.1	1 l	58,60
			4363.2	2.5 l	116,65

For additional product data and safety information, see chapter Chemicals A-Z.

► Viscosity standards can be found on page 633

Hydroxyl Value

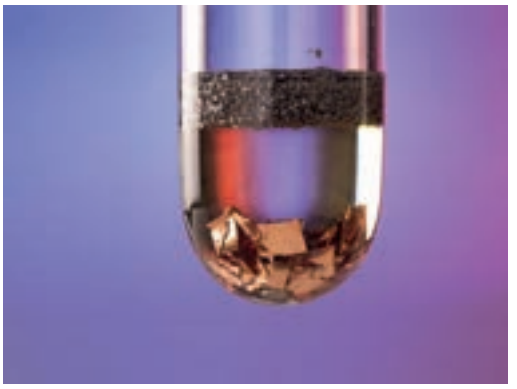
The hydroxyl value is a measure of the hydroxy group content of organic materials such as paints, resins, polystyrenes, solvents and lipids. It represents the amount in milligrams of potassium hydroxide required to neutralise the quantity of acetic acid that combines on acetylation of one gram of the substance being tested.

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Acetic acid anhydride	≥99 %, p.a., ACS, ISO	glass	**CP28.1**	1 l	134,40
			CP28.2	2.5 l	267,70
		plastic	**CP28.3**	5 l	493,45
			CP28.4	10 l	923,45
			CP28.5	25 l	2.117,75
Alkali blue 6B (C.I. 42765)	p.a.	glass	**5155.1**	10 g	26,80
			5155.2	25 g	51,50
			5155.3	100 g	149,45
Ethanol	96 %, Ph. Eur., extra pure	glass	**P075.1**	1 l	98,80
		plastic	**P075.3**	1 l	96,25
		glass	**P075.2**	2.5 l	208,05
		plastic	**P075.4**	2.5 l	204,80
			P075.5	5 l	385,95
		tinplate	**P075.6**	10 l	622,45
		plastic	**P075.7**	10 l	611,70
			P075.8	25 l	1.284,65
Phenol-phthalein indicator solution	1 % in ethanol 90 %, denatured	glass	**K034.1**	250 ml	26,35
			K034.2	500 ml	37,10
			K034.3	1 l	54,30
Potassium hydroxide solution in ethanol	0,1 mol/l – 0,1 N, volumetric standard solution	glass	**P706.1**	1 l	52,60
	0,5 mol/l – 0,5 N, volumetric standard solution	glass	**P707.1**	1 l	73,00
Pyridine	≥99,5 %, p.a., ACS	glass	**9729.3**	500 ml	83,75
			9729.1	1 l	155,35
			9729.2	2.5 l	321,45

For additional product data and safety information, see chapter Chemicals A-Z.

Density determination

Sodium polytungstate (SPT) is perfect for preparation of heavy liquids. Carl ROTH offers an environmentally friendly alternative to using zinc chloride and mercury saline solutions or highly toxic halogenated hydrocarbons to conduct the sink or swim analyses required for density determination.



Properties:

- Highly water soluble
- pH-neutral solution adjustable
- Maximum achievable density of the solution is 3,1 g/cm³ at 25 °C

Advantages:

- Non-toxic
- Non-flammable
- Odourless
- Low viscosity
- Easy to use
- Extremely easy cleaning of the sinking and floating material with water
- Environmentally friendly

Manufacture of aqueous sodium polytungstate solutions with the following densities and consequent viscosities at 25 °C

Mass of SPT used [g]	Mass of H_2O [g]	End volume of solution [ml]	Concentration c in [wt.-%]	Density p [g/cm³]	Viscosity η [mPa•s]
5,00	48,80	50	9,3	1,08	0,99
10,00	47,66	50	17,3	1,15	1,05
15,08	46,63	50	24,4	1,23	1,13
20,00	45,87	50	30,4	1,32	1,19
25,02	44,98	50	35,7	1,40	1,29
35,01	42,94	50	44,9	1,56	1,51
45,15	41,10	50	52,3	1,73	1,83
55,01	38,93	50	58,6	1,88	2,27
65,17	36,99	50	63,8	2,04	2,90
75,00	34,68	50	68,4	2,19	3,93
85,00	32,54	50	72,3	2,35	5,15
95,00	30,10	50	75,9	2,50	8,19
105,01	28,42	50	78,7	2,67	12,18
115,01	25,92	50	81,6	2,82	20,55
125,12	23,72	50	84,1	2,98	36,65
133,00	22,00	50	85,8	3,10	59,52

Sodium polytungstate hydrate

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Sodium polytungstate hydrate	≥99,9 %, p.a.	plastic	**1K08.1**	50 g	67,65
			1K08.2	250 g	241,90
			1K08.3	1 kg	805,20
	≥99,9 %	plastic	**8828.1**	50 g	59,05
			8828.2	250 g	213,95
			8828.3	1 kg	747,15

ready-to-use

Heavy liquid, ready-to-use

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Alkali polytungstate solution	3,00 g/cm³, low viscosity	plastic	**1KYT.1**	100 ml	233,85
			1KYT.2	500 ml	1.091,15
Sodium polytungstate solution	3,00 g/cm³	plastic	**0741.1**	100 ml	267,70
			0741.2	500 ml	1.037,40

For additional product data and safety information, see chapter Chemicals A-Z.

► Viscosity standards can be found on page 631

Fluoride Value Determination

In quantitative assays, TISABs (total ionic strength adjustment buffers) are used to set the ionic strength of a solution to a stable level using ion-selective electrodes. The ionic strength must be kept stable during the measuring process in order to prevent the potential from changing regardless of the molar concentration. The measurement of fluoride ions is highly susceptible to error; high pH values or aluminium(III) and iron(III) ions will falsify the results.

TISAB solution I

for fluoride determination

WGK 1

Formulation: Acetic acid, Sodium chloride, tri-Sodium citrate dihydrate, Water.

Art. No.	Pack Qty.	Pack.	€
0252.1	500 ml	plastic	59,70

TISAB solution II

for fluoride determination

WGK 1

Formulation: Sodium chloride, tri-Sodium citrate dihydrate, Acetic acid, Water.

Art. No.	Pack Qty.	Pack.	€
9945.1	1 l	plastic	74,75
Original pack 6 x 1 l			71,01/1 l

TISAB solution III

for fluoride determination

WGK 1

Warning H319

Formulation: Ammonium chloride, CDTA, Water, Cresol red sodium salt.

Art. No.	Pack Qty.	Pack.	€
0259.1	500 ml	plastic	134,40

TISAB solution IV

for fluoride determination

WGK 1

Warning H315-H319

Formulation: Hydrochloric acid, Tris-(hydroxymethyl)-aminomethane, Tartaric acid, Sodium hydroxide, Water.

Art. No.	Pack Qty.	Pack.	€
9951.1	1 l	plastic	194,05
Original pack 6 x 1 l			184,35/1 l

Further Determination Solutions

NEW / +

Boutron-Boudet's reagent

for determination of water hardness according to Boutron and Boudet

Soap solution to determine the water hardness, 2,4 ml corresponds to 22 °fH (French degrees) = 12,3 °dH (German degrees)

The water hardness according to Boutron-Boudet is determined with various water samples of known and unknown hardness. It is a comparison of the amount of foam on different samples.
HINT: A few drops of the solution are added to 40 ml distilled water and shaken. The samples with known and unknown water hardness are also mixed with the solution drop by drop and shaken until there is the same amount of foam with the same stability as in the distilled water sample. The water hardness can be calculated from this.

UN no. 1987 · ADR 3 II · WGK 1

Danger H225-H319

Art. No.	Pack Qty.	Pack.	€
1EPX.1	500 ml	glass	37,10

NEW / +

Folin-Ciocalteu's reagent

2 mol/l, for determination of phenols

Mixture of Phosphomolybdic acid and Phosphotungstic acid

UN no. 3264 · ADR 8 II · WGK 1

Danger H290-H302-H314

Art. No.	Pack Qty.	Pack.	€
1EPY.1	500 ml	glass	91,30

NEW / +

Griess reagent

for determination of nitrites

Reagent for colorimetric determination of nitrites

UN no. 2790 · ADR 8 III · WGK 1

Danger H314-EUH208

Art. No.	Pack Qty.	Pack.	€
1ET0.1	500 ml	glass	37,10

NEW / +

Tauber's reagent

for determination of ascorbic acid

Detection reagent for ascorbic acid in flour

UN no. 1805 · ADR 8 III · WGK 2

Warning H290

Art. No.	Pack Qty.	Pack.	€
1ET1.1	500 ml	glass	107,00

Acids and Bases for Analysis (p.a.)

Carl ROTH provides suitable acids and bases for different requirements!

- High purity
- High batch consistancy
- Detailed specifications
- Good price-performance ratio



Acids and Bases for Analysis (p.a.)

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Acetic acid	100 %, p.a.	glass	**3738.1**	1 l	34,95
		plastic	**3738.4**	1 l	32,80
		glass	**3738.2**	2.5 l	76,25
		plastic	**3738.5**	2.5 l	74,10
			3738.6	5 l	128,50
			3738.3	10 l	231,15
	≥95,9 %, p.a.	plastic	**T179.1**	1 l	31,75
			T179.2	2.5 l	70,45
			T179.4	5 l	119,90
			T179.3	10 l	217,70
Ammonia solution	30 %, p.a., ACS	glass	**CP17.1**	1 l	31,10
			CP17.2	2.5 l	50,45
		PE/steel	**CP17.3**	5 l	94,10
			CP17.4	10 l	160,20
			CP17.5	25 l	295,65
	≥25 %, p.a.	glass	**6774.1**	1 l	30,00
			6774.2	2.5 l	44,65
		plastic	**6774.3**	5 l	67,20
Boric acid solution	4 %, p.a.	plastic	**HN24.1**	1 l	22,05
			HN24.4	2.5 l	35,40
			HN24.2	5 l	51,50
			HN24.3	10 l	84,40
Formic acid	≥98 %, p.a., ACS	glass	**4724.3**	500 ml	28,50
			4724.1	1 l	53,65
			4724.2	2.5 l	107,40
		PE/steel	**4724.4**	10 l	342,95
			4724.5	25 l	697,70
	≥85 %, p.a.	glass	**CP16.1**	500 ml	30,65
			CP16.2	1 l	46,15
			CP16.3	2.5 l	96,65
		plastic	**CP16.4**	10 l	274,15
Hydrochloric acid	37 % fuming, p.a., ACS, ISO	glass	**4625.1**	1 l	26,35
			4625.2	2.5 l	49,35
		plastic	**4625.3**	10 l	127,95
	≥32 %, p.a., ISO	glass	**P074.1**	1 l	25,70
		plastic	**P074.3**	1 l	23,55
		glass	**P074.2**	2.5 l	46,15
		plastic	**P074.4**	2.5 l	44,00
	≥25 %, p.a., ISO	glass	**6331.1**	1 l	25,70
		plastic	**6331.3**	1 l	23,55
		glass	**6331.2**	2.5 l	45,05
		plastic	**6331.4**	2.5 l	42,90
			6331.7	25 l	263,40
Molybdatophosphoric acid hydrate	≥99 %, p.a., ACS	glass	**4440.1**	25 g	49,35
		plastic	**4440.2**	50 g	77,30
			4440.3	100 g	138,70
			4440.7	1 kg	1.170,70
Nitric acid	68–70 %, p.a., ACS, ISO	glass	**1C8Y.1**	1 l	42,50
			1C8Y.2	2.5 l	80,10
	≥65 %, p.a., ISO	glass	**4989.3**	250 ml	24,65
			4989.1	1 l	44,65
			4989.2	2.5 l	91,95
		plastic	**4989.4**	2.5 l	89,15
Perchloric acid	70 %, p.a.	glass	**9216.1**	500 ml	90,20
			9216.2	1 l	150,00

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Periodic acid	≥99 %, p.a.	glass	**3257.3**	50 g	45,05
			3257.1	100 g	85,90
			3257.2	500 g	299,95
			3257.4	1 kg	547,20
meta-Phosphoric acid	p.a., pieces (hyaline)	plastic	**CN91.1**	100 g	39,25
			CN91.2	250 g	80,55
			CN91.3	500 g	147,85
			CN91.4	1 kg	267,70
ortho-Phosphoric acid	≥85 %, p.a., ISO	plastic	**6366.3**	500 ml	50,45
			6366.1	1 l	85,90
			6366.2	2.5 l	174,70
			6366.4	5 l	299,95
Potassium hydroxide	≥85 %, p.a., in pellets	plastic	**6751.3**	250 g	21,00
			6751.1	1 kg	42,50
			6751.4	2.5 kg	85,90
			6751.2	5 kg	160,20
			6751.6	10 kg	289,20
			6751.5	25 kg	579,45
Sodium hydroxide	≥98 %, p.a., ISO, in pellets	plastic	**6771.3**	500 g	25,70
			6771.1	1 kg	42,90
			6771.4	2.5 kg	85,90
			6771.2	5 kg	160,20
			6771.6	10 kg	299,95
			6771.5	25 kg	639,65
	≥97 %, p.a., ACS	plastic	**1CCX.1**	500 g	19,25
			1CCX.2	1 kg	30,65
			1CCX.3	2.5 kg	60,75
			1CCX.4	5 kg	112,90
			1CCX.5	10 kg	198,90
			1CCX.6	25 kg	418,20
Sulphuric acid	96 %, p.a., ISO	glass	**4623.3**	250 ml	24,20
			4623.1	1 l	40,75
		plastic	**4623.4**	1 l	38,60
		glass	**4623.2**	2.5 l	83,75
		plastic	**4623.5**	2.5 l	85,90
			4623.6	10 l	163,95

For additional product data and safety information, see chapter Chemicals A-Z.

Products in VLSI quality



Carl ROTH's VLSI (Very Large Scale Integration) product line offers solvents and acids for cleaning and etching wafers for the semi-conductor industry. Both processes are essential for chip manufacture. Carl ROTH offers a selected range of products.

Solvents

Properties:

- High purity
- Trace metal content generally between 10-50 ppb
- Particle-filtered, maximal 250 particles/ml

Product name	Purity	Art. No.	Pack Qty.	€
Acetone	≥99,5 %, VLSI Grade	**9780.1**	2.5 l	90,85
		9780.2	5 l	153,20
2-Butanone	≥99,5 %, VLSI Grade	**0051.1**	2.5 l	123,10
Isobutyl methylketone	≥99,5 %, VLSI Grade	**0061.1**	2.5 l	95,15
Methanol	≥99,5 %, VLSI Grade	**9785.1**	2.5 l	77,95
		9785.2	5 l	145,15
2-Propanol	≥99,9 %, VLSI Grade	**9781.1**	2.5 l	89,15
		9781.2	5 l	146,75

For additional product data and safety information, see chapter Chemicals A-Z.

Solvents

Properties:

- High purity
- Trace metal content usually below 100 ppb
- Particle-filtered, maximal 250 particles/ml

Product name	Purity	Art. No.	Pack Qty.	€
Hydrochloric acid	37 % fuming, VLSI Grade	**9787.1**	2.5 l	78,40
Hydrogen peroxide	30 %, VLSI Grade	**9790.1**	2.5 l	106,45
ortho-Phosphoric acid	85 %, VLSI Grade	**9788.1**	2.5 l	181,70
Sulphuric acid	96 %, VLSI Grade	**9789.1**	2.5 l	101,60

For additional product data and safety information, see chapter Chemicals A-Z.

VLSI or Very Large Scale Integration means that a large number of transistors (now several 100 million) are located on one chip. Since the gaps are very small, roughly 3 µm, the solvents and acids must be of a correspondingly high purity and be particle-filtered. For VLSI, the number of particles is limited to 250 p/ml.

ROTI®Calipure standards for your calibration needs

Carl ROTH offers an extensive range of calibration and control standards. These products are manufactured from highly pure starting material and are specially tested for each application. The corresponding batch-specific certificate of analysis is available online. Each product series offers excellent value for money.

Melting point standards ROTI®Calipure



The melting point of a substance is the temperature at which the transition from a solid phase to a liquid phase occurs. The determination of melting point is a quick and easy method of determining the basic purity of substances. As the melting point is a characteristic variable for pure substances, it is also used for the identification of organic compounds. Carl ROTH offers a selected range of melting point standards. To allow easy handling and ensure maximum safety, the standards are filled in small quantities protected from light and are ready-to-use straight away.

Properties:

- Suitable for checking purity
- Max. measurement inaccuracy ±0.3 °C
- Suitable for use independent of instrument type
- *Ready-to-use*

ready-to-use

Melting point standards

Product name	Purity	Art. No.	Pack Qty.	€
4-Acetylbenzonitrile	melting point standard 56–59 °C	**2902.1**	1 g	85,90
Anthraquinone	melting point standard 283–286 °C	**9754.1**	1 g	40,75
Benzoic acid	melting point standard 121–123 °C	**9722.1**	1 g	40,75
Benzophenone	melting point standard 47–49 °C	**9709.1**	1 g	40,75
Caffeine	anhydrous, melting point standard 235–238 °C	**9739.1**	1 g	40,75
Carbazole	melting point standard 243–247 °C	**9752.1**	1 g	40,75
p-Nitrotoluene	melting point standard 52–54 °C	**9712.1**	1 g	40,75
Phenacetin	melting point standard 133–135 °C	**9728.1**	1 g	40,75
Phenolphthalein (C.I. 764)	melting point standard 258–263 °C	**2919.1**	1 g	40,75
Salicylic acid	melting point standard 158–160 °C	**9731.1**	1 g	40,75
Sulphanilamide	melting point standard 164–166 °C	**9734.1**	1 g	40,75
m-Toluic acid	melting point standard 107–113 °C	**2916.1**	1 g	40,75
Vanillin	melting point standard 81–83 °C	**9714.1**	1 g	40,75

For additional product data and safety information, see chapter Chemicals A-Z.

Melting point standard set 1

ROTI®Calipure

Set contains Caffeine, Sulphanilamide, Vanillin

WGK 1

Warning H302-H319

Art. No.	Pack Qty.	Packaging	Pack.	€
2921.1	1 set	3 x 1 g	glass	85,90

Melting point standard set 2

ROTI®Calipure

Set contains Anthraquinone, Benzophenone, Benzoic acid

Danger H315-H317-H318-H350-H372-H412

Art. No.	Pack Qty.	Packaging	Pack.	€
2942.1	1 set	3 x 1 g	glass	85,90

Melting point standard set 3

ROTI®Calipure

Set contains Caffeine, Phenacetin, Vanillin

Danger H302-H319-H350

Art. No.	Pack Qty.	Packaging	Pack.	€
2928.1	1 set	3 x 1 g	glass	85,90

Density standards ROTI®Calipure

Our Density standards are made of high-quality reagents and are tested by Bingham Pycnometer. They can be used with any brand or type of density measuring instrument. The batch specific Certificates of Analysis are available online.

Properties:

- No toxic metals are used in the products
- Calibration standard for density measurement by pycnometric, vibrational or hydrometer based techniques
- Usable with any brand or type of density measuring instrument
- Consistently high quality from batch to batch
- For testing of Density or Relative Density



Density Standards ROTI®Calipure

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Density Standard	0,6919 g/ml (20 °C)	glass	**2951.1**	100 ml	153,20
	0,7033 g/ml (20 °C)	glass	**2964.1**	100 ml	153,20
	0,8668 g/ml (20 °C)	glass	**2965.1**	100 ml	153,20
	1,0005 g/ml (20 °C)	glass	**2966.1**	100 ml	153,20
	1,0301 g/ml (20 °C)	glass	**2971.1**	100 ml	346,70
	1,0792 g/ml (20 °C)	glass	**2972.1**	100 ml	346,70
	1,1651 g/ml (20 °C)	glass	**2973.1**	100 ml	346,70
	1,2486 g/ml (20 °C)	glass	**2974.1**	100 ml	346,70
	1,3304 g/ml (20 °C)	glass	**2976.1**	100 ml	346,70
	1,7470 g/ml (20 °C)	glass	**2979.1**	100 ml	346,70

For additional product data and safety information, see chapter Chemicals A-Z.

Refractive index standards ROTI®Calipure

Our refractive index standards are manufactured from high-quality reagents. They can be used with all refractometers. They are solvent based and are supplied in bottles with an additional pipette. The batch specific certificates of analysis are available online.



Refractive Index Standards ROTI®Calipure

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Refractive Index Standard	1,38779 (20 °C)	glass	**3100.1**	15 ml	153,20
	1,40485 (20 °C)	glass	**3102.1**	15 ml	153,20
	1,42345 (20 °C)	glass	**3103.1**	15 ml	153,20
	1,44468 (20 °C)	glass	**3106.1**	15 ml	153,20
	1,46768 (20 °C)	glass	**3120.1**	15 ml	153,20
	1,49672 (20 °C)	glass	**3124.1**	15 ml	153,20
	1,50044 (20 °C)	glass	**3125.1**	15 ml	153,20
	1,51726 (20 °C)	glass	**3126.1**	15 ml	153,20
	1,53660 (20 °C)	glass	**3143.1**	15 ml	153,20
	1,65808 (20 °C)	glass	**3152.1**	15 ml	153,20

For additional product data and safety information, see chapter Chemicals A-Z.

Conductivity standards ROTI®Calipure



Our conductivity standard solutions are made from high-quality reagents and therefore ensure maximum precision during calibration.

Properties:

- Variation in conductivity ±1 % (25 °C)
- Traceable to SRM from NIST
- Aqueous solutions

ready-to-use

Conductivity standards ROTI®Calipure

Product name	Brand/Purity	Art. No.	Pack Qty.	€
Conductivity Standard	ROTI®Calipure 5 µS/cm (25 °C)	**2462.1**	500 ml	209,65
	ROTI®Calipure 10 µS/cm (25 °C)	**0810.1**	250 ml	147,85
		0810.2	500 ml	256,95
	ROTI®Calipure 20 µS/cm (25 °C)	**0811.1**	500 ml	96,25
	ROTI®Calipure 50 µS/cm (25 °C)	**0812.1**	500 ml	174,70
	ROTI®Calipure 84 µS/cm (25 °C)	**2432.1**	500 ml	36,45
		2432.2	1 l	48,95
	ROTI®Calipure 100 µS/cm (25 °C)	**2463.1**	500 ml	96,25
	ROTI®Calipure 147 µS/cm (25 °C)	**2433.1**	500 ml	36,45
		2433.2	1 l	48,95
	ROTI®Calipure 500 µS/cm (25 °C)	**2464.1**	500 ml	96,25
	ROTI®Calipure 1000 µS/cm (25 °C)	**2465.1**	500 ml	96,25
	ROTI®Calipure 1413 µS/cm (25 °C)	**2434.1**	500 ml	36,45
		2434.2	1 l	48,95
	ROTI®Calipure 5000 µS/cm (25 °C)	**0814.1**	500 ml	96,25
	ROTI®Calipure 10 000 µS/cm (25 °C)	**2466.1**	500 ml	133,85
	ROTI®Calipure 12 880 µS/cm (25 °C)	**2435.1**	500 ml	36,45
		2435.2	1 l	48,95
	ROTI®Calipure 20 000 µS/cm (25 °C)	**0822.1**	500 ml	133,85
	ROTI®Calipure 50 000 µS/cm (25 °C)	**0831.1**	500 ml	96,25
	ROTI®Calipure 100 000 µS/cm (25 °C)	**0832.1**	500 ml	96,25
	ROTI®Calipure 500 000 µS/cm (25 °C)	**2467.1**	500 ml	133,85

For additional product data and safety information, see chapter Chemicals A-Z.

Viscosity standards ROTI®Calipure

Our viscosity standards are manufactured from high-quality reagents and tested using Ubbelohde Master Viscometers. All standards are tested for kinematic viscosity (mm²/s, cSt) as well as dynamic viscosity (mPa·s, cP) and density (g/ml) at different temperatures up to 100 °C. They can be used for calibration, control, verification, qualification or method validation of kinematic and dynamic viscosity. The batch specific Certificates of Analysis are available online.



Viscosity Standards ROTI®Calipure

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Standard for Viscosity S3	4,5 cSt (20 °C)	glass	**3385.1**	500 ml	182,25
Standard for Viscosity S6	10 cSt (20 °C)	glass	**3387.1**	500 ml	182,25
Standard for Viscosity N10	22 cSt (20 °C)	glass	**3342.1**	500 ml	182,25
Standard for Viscosity S20	43 cSt (20 °C)	glass	**3360.1**	500 ml	182,25
Standard for Viscosity N35	88 cSt (20 °C)	glass	**3349.1**	500 ml	182,25
Standard for Viscosity S60	160 cSt (20 °C)	glass	**3388.1**	500 ml	182,25
Standard for Viscosity N75	210 cSt (20 °C)	glass	**3356.1**	500 ml	182,25
Standard for Viscosity N100	320 cSt (20 °C)	glass	**3344.1**	500 ml	182,25
Standard for Viscosity S200	540 cSt (20 °C)	glass	**3366.1**	500 ml	182,25
Standard for Viscosity N250	790 cSt (20 °C)	glass	**3345.1**	500 ml	182,25

For additional product data and safety information, see chapter Chemicals A-Z.

Redox Standards ROTI®Calipure

Carl ROTH offers you a comprehensive portfolio of redox standards, which are produced from high-quality reagents and tested with an Ag/AgCl (3 M KCl) reference electrode. They can be used as control standards and thus check the functionality of the electrodes and measuring instruments.
The standards are temperature-dependent, so it is important to ensure the correct temperature for the control. The corresponding temperature/redox table can be found on the labels and the batch-specific Certificates of Analysis available online. The batch values are within a very small deviation from the nominal value (±5 mV).



Redox Standards ROTI®Calipure

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
	124 mV (25 °C)	plastic	**1C5X.1**	500 ml	102,70
	200 mV (25 °C)	plastic	**1C5Y.1**	500 ml	102,70
	220 mV (25 °C)	plastic	**1C60.1**	500 ml	102,70
	250 mV (25 °C)	plastic	**1C61.1**	500 ml	102,70
	300 mV (25 °C)	plastic	**1C62.1**	500 ml	102,70
	358 mV (25 °C)	plastic	**1C63.1**	500 ml	102,70
Redox Standard	400 mV (25 °C)	plastic	**1C64.1**	500 ml	102,70
	440 mV (25 °C)	plastic	**1C65.1**	500 ml	102,70
	465 mV (25 °C)	plastic	**1C66.1**	500 ml	102,70
	468 mV (25 °C)	plastic	**1C67.1**	500 ml	142,45
	475 mV (25 °C)	plastic	**1C68.1**	500 ml	102,70
	600 mV (25 °C)	plastic	**1C69.1**	500 ml	102,70
	650 mV (25 °C)	plastic	**1C6A.1**	500 ml	102,70

For additional product data and safety information, see chapter Chemicals A-Z.

Colour Standards Pt/Co ROTI®Calipure



The platinum-cobalt colour scale (Pt/Co for short) or APHA-Hazen colour scale is used for colour assessment of almost water-clear solutions. It is defined as mg platinum per 1 l solution. The samples are compared colorimetrically against the corresponding standard solution.
Our Pt/Co (Hazen) colour standards are prepared from high-quality reagents by weighing (weight %) according to ASTM D 1209. The standards are checked by means of a spectrophotometer. The batch specific Certificates of Analysis are available online.

Properties:

- Calibration and/or quality control standard
- Consistently high quality from batch to batch
- *Ready-to-use*

Colour Standards Pt/Co (Hazen) ROTI®Calipure

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Colour Standard Pt/Co	0 Hazen	plastic	**1EE5.1**	100 ml	103,10
	5 Hazen	plastic	**1EE6.1**	100 ml	78,40
	10 Hazen	plastic	**1EE7.1**	100 ml	73,65
	15 Hazen	plastic	**1EE8.1**	100 ml	73,65
	20 Hazen	plastic	**1EE9.1**	100 ml	73,65
	25 Hazen	plastic	**1EEA.1**	100 ml	73,65
	30 Hazen	plastic	**1EEC.1**	100 ml	73,65
	40 Hazen	plastic	**1EEE.1**	100 ml	128,50
	50 Hazen	plastic	**1EEH.1**	100 ml	128,50
	80 Hazen	plastic	**1EEK.1**	100 ml	97,30
	100 Hazen	plastic	**1EEL.1**	100 ml	103,10
	150 Hazen	plastic	**1EEN.1**	100 ml	103,10
	200 Hazen	plastic	**1EEP.1**	100 ml	103,10
	250 Hazen	plastic	**1EET.1**	100 ml	103,10
	400 Hazen	plastic	**1EEX.1**	100 ml	103,10
	500 Hazen	plastic	**1EEY.1**	100 ml	103,10
	1000 Hazen	plastic	**1EH0.1**	100 ml	385,95

For additional product data and safety information, see chapter Chemicals A-Z.

Colour Standards according to Ph.Eur. ROTI®Calipure



The European Pharmacopoeia (Ph.Eur.) specifies the visual colour comparison method in chapter 2.2.2. In this method, 5 further colour reference solutions are prepared from the 3 primary solutions red, yellow and blue with 1 % hydrochloric acid. Carl ROTH offers you both the primary solutions and the ready-mixed colour reference solutions yellow, greenish-yellow, brownish-yellow, brown and red.
Our colour standards according to Ph.Eur. are prepared from high-quality reagents by weighing (weight %). The standards are checked by means of a spectrophotometer. The batch specific Certificates of Analysis are available online.

Properties:

- Consistently high quality from batch to batch
- *Ready-to-use*

NEW / +

Colour Standards Ph. Eur. ROTI®Calipure

Product name	Brand/Purity	Art. No.	Pack Qty.	€
Colour Standard diluting solution	ROTI®Calipure 10 g/l HCl	**1HC3.1**	1 l	160,20
Colour Standard	ROTI®Calipure Reag. Ph. Eur., Primary solution, blue	**1HAN.1**	100 ml	153,20
	ROTI®Calipure Reag. Ph. Eur., Primary solution, red	**1HAT.1**	100 ml	223,10
	ROTI®Calipure Reag. Ph. Eur., Primary solution, yellow	**1HAP.1**	100 ml	153,20
	ROTI®Calipure Reag. Ph. Eur., standard solution brown	**1HAX.1**	100 ml	223,10
	ROTI®Calipure Reag. Ph. Eur., standard solution brownish-yellow	**1HAY.1**	100 ml	188,15
	ROTI®Calipure Reag. Ph. Eur., standard solution greenish-yellow	**1HC1.1**	100 ml	188,15
	ROTI®Calipure Reag. Ph. Eur., standard solution red	**1HC2.1**	100 ml	223,10
	ROTI®Calipure Reag. Ph. Eur., standard solution yellow	**1HC0.1**	100 ml	188,15

For additional product data and safety information, see chapter Chemicals A-Z.

Colour Standards according to ASTM ROTI®Calipure



Our ASTM colour standards are prepared from high-quality reagents by weighing (weight %) according to ASTM D 1500. The standards are checked by means of a spectrophotometer. The batch specific Certificates of Analysis are available online.

Properties:

- Calibration and/or quality control standard
- Consistently high quality from batch to batch
- *Ready-to-use*

NEW / +

Colour Standards ASTM ROTI®Calipure

Product name	Brand/Purity	Art. No.	Pack Qty.	€
Colour Standard	ROTI®Calipure ASTM <0,5	**1H62.1**	100 ml	153,20
	ROTI®Calipure ASTM A1	**1H63.1**	100 ml	117,20
	ROTI®Calipure ASTM A3	**1H64.1**	100 ml	117,20
	ROTI®Calipure ASTM A5	**1H65.1**	100 ml	160,20
	ROTI®Calipure ASTM A7	**1H66.1**	100 ml	160,20

For additional product data and safety information, see chapter Chemicals A-Z.

Colour Standards according to Gardner ROTI®Calipure



The light yellow Gardner colour numbers 1-8 are based on potassium chloroplatinate solutions, the colour numbers 9-18 on iron(III) chloride, cobalt(II) chloride and hydrochloric acid solutions. They can be used to determine the colour number of similarly coloured liquids, such as vegetable oils or mineral oils.
Our colour standards according to Gardner are prepared from high-quality reagents by weighing (weight %). The standards are checked by means of a spectrophotometer. The batch specific Certificates of Analysis are available online.

Properties:

- Calibration and/or quality control standard
- Consistently high quality from batch to batch
- *Ready-to-use*

NEW / +

Colour Standards Gardner ROTI®Calipure

Product name	Brand/Purity	Art. No.	Pack Qty.	€
Colour Standard	ROTI®Calipure Gardner 1	**1HT7.1**	100 ml	338,65
	ROTI®Calipure Gardner 2	**1HT8.1**	100 ml	231,15
	ROTI®Calipure Gardner 3	**1HT9.1**	100 ml	182,25
	ROTI®Calipure Gardner 4	**1HTA.1**	100 ml	231,15
	ROTI®Calipure Gardner 5	**1HTC.1**	100 ml	182,25
	ROTI®Calipure Gardner 6	**1HTE.1**	100 ml	231,15
	ROTI®Calipure Gardner 7	**1HTH.1**	100 ml	182,25
	ROTI®Calipure Gardner 8	**1HTK.1**	100 ml	231,15
	ROTI®Calipure Gardner 9	**1HTL.1**	100 ml	182,25
	ROTI®Calipure Gardner 10	**1HTN.1**	100 ml	182,25
	ROTI®Calipure Gardner 11	**1HTP.1**	100 ml	182,25
	ROTI®Calipure Gardner 12	**1HTT.1**	100 ml	231,15
	ROTI®Calipure Gardner 13	**1HTX.1**	100 ml	335,95
	ROTI®Calipure Gardner 14	**1HTY.1**	100 ml	231,15
	ROTI®Calipure Gardner 15	**1HX0.1**	100 ml	182,25
	ROTI®Calipure Gardner 16	**1HX1.1**	100 ml	231,15
	ROTI®Calipure Gardner 17	**1HX2.1**	100 ml	182,25
	ROTI®Calipure Gardner 18	**1HX3.1**	100 ml	182,25

For additional product data and safety information, see chapter Chemicals A-Z.

Colour Standards according to Saybolt ROTI®Calipure



The Saybolt scale is used for the evaluation of water-clear, colourless to slightly yellowish liquids, such as paraffins or mineral oils.
Our colour standards according to Saybolt are prepared from high-quality reagents by weighing (weight %). The standards are checked by means of a spectrophotometer. The batch specific Certificates of Analysis are available online.

Properties:

- Calibration and/or quality control standard
- Consistently high quality from batch to batch
- *Ready-to-use*

NEW / +

Colour Standards Saybolt ROTI®Calipure

Product name	Brand/Purity	Art. No.	Pack Qty.	€
Colour Standard	ROTI®Calipure Saybolt +30	**1KNH.1**	100 ml	123,65
	ROTI®Calipure Saybolt +25	**1KNK.1**	100 ml	231,15
	ROTI®Calipure Saybolt +19	**1KNL.1**	100 ml	231,15
	ROTI®Calipure Saybolt +15	**1KNN.1**	100 ml	123,65
	ROTI®Calipure Saybolt +12	**1KNP.1**	100 ml	231,15
	ROTI®Calipure Saybolt +0	**1KNT.1**	100 ml	231,15
	ROTI®Calipure Saybolt -15	**1KNX.1**	100 ml	231,15

For additional product data and safety information, see chapter Chemicals A-Z.

pH-Buffer Solutions, ROTI®Calipure, ready-to-use

Properties:

- Manufactured from high purity buffer substances
- No need for time-consuming drying and weighing of reagents
- The buffer solutions are adjusted to their respective pH values by comparison with standard buffer solutions (according to DIN 19266 and based on primary reference materials of the NIST)
- Quick and precise calibration of measuring equipment
- Stabilised against algae and bacterial action
- The batch specific Certificates of Analysis are available online



ready-to-use

pH-Buffer Solutions ROTI®Calipure, ready-to-use

Product name	Version	Pack.	Art. No.	Pack Qty.	€
Buffer solution pH 1.00 ±0.05 (20 °C)	colourless	plastic	**T180.2**	500 ml	22,05
			T180.1	1 l	32,15
Buffer solution pH 1.679 ±0.03 (25 °C)	colourless	plastic	**8112.1**	1 l	54,30
Buffer solution pH 2.00 ±0.02 (20 °C)	colourless	plastic	**P715.2**	500 ml	22,05
			P715.1	1 l	32,15
Buffer solution pH 3.00 ±0.02 (20 °C)	colourless	plastic	**T181.2**	500 ml	22,05
			T181.1	1 l	32,15
Buffer solution pH 3.776 ±0.012 (25 °C)	colourless	plastic	**4280.1**	500 ml	36,05
			4280.2	1 l	49,35
Buffer solution pH 4.00 ±0.02 (20 °C)	colourless	plastic	**P712.3**	500 ml	22,05
			P712.1	1 l	32,15
			P712.2	10 l	198,90
	red	twin neck bottle	**A517.3**	250 ml	18,85
		plastic	**A517.2**	500 ml	22,05
		twin neck bottle	**A517.4**	500 ml	24,65
		plastic	**A517.1**	1 l	32,15
			A517.5	10 l	198,90
Buffer solution pH 4.005 ±0.02 (25 °C)	colourless	plastic	**4281.1**	500 ml	23,55
			4281.2	1 l	36,05
Buffer solution pH 4.62 ±0.02 (20 °C)	colourless	plastic	**T182.1**	1 l	34,95
Buffer solution pH 5.00 ±0.02 (20 °C)	colourless	plastic	**T183.2**	500 ml	22,05
			T183.1	1 l	32,15
Buffer solution pH 6.00 ±0.02 (20 °C)	colourless	plastic	**T184.2**	500 ml	22,05
			T184.1	1 l	32,15
Buffer solution pH 6.865 ±0.02 (25 °C)	colourless	plastic	**4284.1**	500 ml	23,55
			4284.2	1 l	36,05
Buffer solution pH 6.88 ±0.02 (20 °C)	colourless	plastic	**T185.1**	1 l	32,15
Buffer solution pH 7.00 ±0.02 (20 °C)	colourless	plastic	**A518.3**	500 ml	22,05
			A518.1	1 l	32,15
			A518.2	10 l	198,90
	green	twin neck bottle	**P713.3**	250 ml	18,85
		plastic	**P713.2**	500 ml	22,05
		twin neck bottle	**P713.4**	500 ml	24,65
		plastic	**P713.1**	1 l	32,15
			P713.5	10 l	198,90
Buffer solution pH 7.413 ±0.02 (25 °C)	colourless	plastic	**4285.1**	500 ml	23,55
			4285.2	1 l	41,40
Buffer solution pH 8.00 ±0.02 (20 °C)	colourless	plastic	**T186.2**	500 ml	22,05
			T186.1	1 l	32,15
Buffer solution pH 9.00 ±0.02 (20 °C)	colourless	plastic	**A519.3**	500 ml	22,05
			A519.1	1 l	32,15
	blue	twin neck bottle	**P714.3**	250 ml	18,85
		plastic	**P714.2**	500 ml	22,05
			P714.1	1 l	32,15
Buffer solution pH 9.180 ±0.02 (25 °C)	colourless	plastic	**4294.1**	500 ml	23,55
			4294.2	1 l	36,05
Buffer solution pH 9.22 ±0.02 (20 °C)	colourless	plastic	**0466.1**	500 ml	31,10

Product name	Version	Pack.	Art. No.	Pack Qty.	€
Buffer solution pH 10.00 ±0.02 (20 °C)	colourless	plastic	**P716.2**	500 ml	22,05
			P716.1	1 l	32,15
	blue	twin neck bottle	**8086.1**	250 ml	22,05
		plastic	**8086.2**	500 ml	26,80
		twin neck bottle	**8086.3**	500 ml	29,60
		plastic	**8086.4**	1 l	34,95
			8086.5	10 l	256,95
Buffer solution pH 10.00 for complexometry	colourless	plastic	**T188.1**	1 l	32,15
Buffer solution pH 11.00 ±0.05 (20 °C)	colourless	plastic	**T187.2**	500 ml	22,05
			T187.1	1 l	32,15
Buffer solution pH 12.00 ±0.05 (20 °C)	colourless	plastic	**T189.2**	500 ml	22,05
			T189.1	1 l	32,15
Buffer solution pH 13.00 ±0.05 (20 °C)	colourless	plastic	**0762.1**	500 ml	25,70

For additional product data and safety information, see chapter Chemicals A-Z.



pH-Buffer Solutions ROTI®Star

- Tested in an accredited laboratory in accordance with **ISO 17025**
- Can be traced back to standard reference materials by NIST
- Certificate of analysis complete with information on measuring accuracy available online
- Produced according to a special recipe for maximum shelf life

pH-Buffer Solutions ROTI®Star

Product name	Brand/Purity	Art. No.	Pack Qty.	€
Buffer solution pH 4.00 ±0.01 (20 °C)	ROTI®Star	**9974.1**	500 ml	23,55
Buffer solution pH 7.00 ±0.01 (20 °C)	ROTI®Star	**9977.1**	500 ml	22,50
Buffer solution pH 10.00 ±0.01 (20 °C)	ROTI®Star	**9983.1**	500 ml	23,55

For additional product data and safety information, see chapter Chemicals A-Z.



pH buffer solution ROTILABO® in sachets

The quantity of reagent contained in a sachet (25 ml) is sufficient for a single calibration.

- Traceable thanks to comparison with standard references from the National Institute of Standards and Technology (NIST) and the National Metrology Institute of Germany (PTB)
- With certificate of analysis for documenting the quality, traceability and accuracy

pH buffer solution ROTILABO® pH 4,01 in sachets

ROTILABO®

ROTH SELECTION.
WGK 1

pH value	pH accuracy	Art. No.	Pack Qty.	€
4,01	± 0.01	**KAY0.1**	20 unit(s)	32,20

pH buffer solution ROTILABO® pH 7,00 in sachets

ROTILABO®

ROTH SELECTION.
WGK 1

pH value	pH accuracy	Art. No.	Pack Qty.	€
7,00	± 0.01	**KAY1.1**	20 unit(s)	32,20

pH buffer solution ROTILABO® pH 10,01 in sachets

ROTILABO®

ROTH SELECTION.
WGK 1

pH value	pH accuracy	Art. No.	Pack Qty.	€
10,01	± 0.02	**KAY2.1**	20 unit(s)	32,20

► pH-Buffer Solutions ROTI®Calipure, ready-to-use see page 638



pH buffer tablets

For pH tester.

Application:

Dissolve one pH buffer tablet in 20 ml of deionised/distilled water.

pH buffer tablets pH 4

ROTH SELECTION.
WGK 1

pH value	pH accuracy	Art. No.	Pack Qty.	€
4	±0.05	**YT50.1**	100 unit(s)	25,95

pH buffer tablets pH 7

ROTH SELECTION.
WGK 1

pH value	pH accuracy	Art. No.	Pack Qty.	€
7	±0.05	**YT51.1**	100 unit(s)	25,95

pH buffer tablets pH10

ROTH SELECTION.
WGK 1

pH value	pH accuracy	Art. No.	Pack Qty.	€
10	±0.05	**YT52.1**	100 unit(s)	25,95

► pH meter see www.carlroth.com

ROTI®Star Standards for AAS and ICP

Carl ROTH has an extensive range of products which meets the highest standards of quality in the field of element standards and ion standards. The solutions and mixtures are made using materials of the highest purity, and therefore meet the requirements for instrumental analysis by AAS and ICP. All solutions are certified and can be traced to NIST standard reference materials. Solutions are produced according to **ISO 17034** in an accredited environment. The solutions are tested in a laboratory accredited to **ISO/IEC 17025** and supplied with a detailed, batch-specific certificate of analysis.

Single Element Standards for AAS

(Atomic Absorption Spectroscopy)



AAS standard solutions are made from high-quality reagents, and therefore ensure maximum precision during calibration. Accuracy and precision for reliable measurement results.

Properties:

- Concentration 1000 mg/l (1 g/l)
- Container sizes: 100 ml and 500 ml
- 24 months shelf life for unopened bottle & 12 months after the bottle has been opened

ready-to-use

Single Element Standards for AAS 1000 mg/l (1 g/l) – ready to use

Element	Matrix	Art. No.	Pack Qty.	€
Aluminum (Al)	2 % HNO_3	**2212.1**	100 ml	26,35
		2212.2	500 ml	45,70
Antimony (Sb)	20 % HCl	**2223.1**	100 ml	26,35
		2223.2	500 ml	45,70
Arsenic (As)	2 % HNO_3	**2224.1**	100 ml	26,35
		2224.2	500 ml	45,70
Barium (Ba)	1 % HNO_3	**2225.1**	100 ml	26,35
		2225.2	500 ml	45,70
Beryllium (Be)	2 % HNO_3 / 0,5 % HF	**2226.1**	100 ml	109,15
		2226.2	500 ml	228,45
Bismuth (Bi)	3 % HNO_3	**2227.1**	100 ml	26,35
		2227.2	500 ml	45,70
Boron (B)	H_2O	**2237.1**	100 ml	26,35
		2237.2	500 ml	45,70
Cadmium (Cd)	2 % HNO_3	**2238.1**	100 ml	26,35
		2238.2	500 ml	45,70
Cesium (Cs)	2 % HNO_3	**2239.1**	100 ml	32,15
		2239.2	500 ml	60,75
Calcium (Ca)	2 % HNO_3	**2240.1**	100 ml	26,35
		2240.2	500 ml	45,70
Chromium (Cr)	2 % HNO_3	**2250.1**	100 ml	26,35
		2250.2	500 ml	45,70
Cobalt (Co)	2 % HNO_3	**2251.1**	100 ml	26,35
		2251.2	500 ml	45,70
Copper (Cu)	2 % HNO_3	**2329.1**	100 ml	26,35
		2329.2	500 ml	45,70
Gold (Au)	2 % HCl	**2258.1**	100 ml	105,25
		2258.2	500 ml	256,95
Indium (In)	2 % HNO_3	**2284.1**	100 ml	43,55
Iron (Fe)	2 % HNO_3	**2252.1**	100 ml	26,35
		2252.2	500 ml	45,70
Lead (Pb)	2 % HNO_3	**2228.1**	100 ml	26,35
		2228.2	500 ml	45,70
Lithium (Li)	2 % HNO_3	**2332.1**	100 ml	26,35
		2332.2	500 ml	45,70
Magnesium (Mg)	2 % HNO_3	**2333.1**	100 ml	26,35
		2333.2	500 ml	45,70
Manganese (Mn)	2 % HNO_3	**2334.1**	100 ml	26,35
		2334.2	500 ml	45,70
Mercury (Hg)	10 % HNO_3	**2346.1**	100 ml	26,35
		2346.2	500 ml	45,70
Molybdenum (Mo)	4 % NH_3	**2335.1**	100 ml	26,35
		2335.2	500 ml	45,70
Nickel (Ni)	2 % HNO_3	**2339.1**	100 ml	26,35

Instrumental

Element	Matrix	Art. No.	Pack Qty.	€
Palladium (Pd)	3 % HNO_3	**2340.1**	100 ml	160,20
Phosphorus (P)	H_2O	**2599.1**	100 ml	26,35
		2599.2	500 ml	45,70
Platinum (Pt)	10 % HCl	**2341.1**	100 ml	188,15
		2341.2	500 ml	568,70
Potassium (K)	2 % HNO_3	**2327.1**	100 ml	26,35
		2327.2	500 ml	45,70
Scandium (Sc)	2 % HNO_3	**2347.1**	100 ml	103,10
		2347.2	500 ml	284,90
Selenium (Se)	2 % HNO_3	**2348.1**	100 ml	26,35
		2348.2	500 ml	45,70
Silicon (Si)	H_2O	**2350.1**	100 ml	26,35
		2350.2	500 ml	45,70
Silicon (Si)	0.5 % NaOH	**2351.1**	100 ml	26,35
Silver (Ag)	2 % HNO_3	**2349.1**	100 ml	26,35
		2349.2	500 ml	45,70
Sodium (Na)	2 % HNO_3	**2337.1**	100 ml	26,35
		2337.2	500 ml	45,70
Strontium (Sr)	2 % HNO_3	**2352.1**	100 ml	26,35
		2352.2	500 ml	45,70
Tellurium (Te)	2 % HNO_3	**2353.1**	100 ml	33,25
		2353.2	500 ml	64,40
Thallium (Tl)	2 % HNO_3	**2354.1**	100 ml	33,25
		2354.2	500 ml	64,40
Tin (Sn)	10 % HCl	**2384.1**	100 ml	26,35
		2384.2	500 ml	45,70
Titanium (Ti)	2 % HNO_3 / 0,1 % HF	**2355.1**	100 ml	26,35
		2355.2	500 ml	45,70
Tungsten (W)	4 % NH_3	**2361.1**	100 ml	33,25
		2361.2	500 ml	64,40
Vanadium (V)	2 % HNO_3	**2360.1**	100 ml	26,35
		2360.2	500 ml	45,70
Yttrium (Y)	2 % HNO_3	**2371.1**	100 ml	33,25
		2371.2	500 ml	64,40
Zinc (Zn)	2 % HNO_3	**2383.1**	100 ml	26,35
		2383.2	500 ml	45,70
Zirconium (Zr)	5 % HCl / 0,5 % HF	**2396.1**	100 ml	33,25
		2396.2	500 ml	64,40

For additional product data and safety information, see chapter Chemicals A-Z.

Multi-Element Standards for Graphite Furnace AAS

This multi-element standard is produced from ultra-pure raw materials and in accordance with strict quality guidelines. The traceability and standard reference material of the NIST is documented on the comprehensive certificate of analysis. The standard is suitable for the calibration of graphite furnace AAS units.

ready-to-use

Multi-Element Standards for Graphite Furnace AAS

Product name	Number of elements	Composition	Matrix	Art. No.	Pack Qty.	€
GF AAS Multi-Element Standard Solution XVIII	16	Ag (10), Al (100), As (100), Ba (50), Be (5), Cd (5), Co (50), Cr (20), Cu (50), Fe (20), Mn (20), Ni (50), Pb (100), Sb (100), Se (100), Tl (100)	5 % HNO_3	**9778.1**	100 ml	228,45

For additional product data and safety information, see chapter Chemicals A-Z.

Matrix Modifer Solutions for Graphite Furnace AAS



Matrix modifier solutions by Carl ROTH are made from high purity starting materials (≥99,999 %) and delivered with a detailed batch specific certificate of analysis. The solutions can be used either diluted or as mixtures, and are suitable for eliminating matrix effects in graphite furnace AAS.

Properties:

- Up to 70 measured trace impurities in ppm range and lower
- Guaranteed accuracy: ±1 %
- Container size: 50 ml

Matrix Modifer Solutions for Graphite Furnace AAS

Product name	Concentration	Matrix	Art. No.	Pack Qty.	€
Ammonium dihydrogen phosphate matrix modifier solution	20 g/l	1 % HNO_3	**5150.1**	50 ml	102,05
	100 g/l	1 % HNO_3	**5148.1**	50 ml	192,45
Ammonium nitrate matrix modifier solution	50 g/l	1 % HNO_3	**5145.1**	50 ml	170,95
Magnesium nitrate matrix modifier solution	10 g/l	H_2O	**5140.1**	50 ml	102,05
	20 g/l	H_2O	**5142.1**	50 ml	171,50
Nickel nitrate matrix modifier solution	10 g/l	1 % HNO_3	**5146.1**	50 ml	107,00
Palladium nitrate matrix modifier solution	2 g/l	1 % HNO_3	**5143.1**	50 ml	188,15
	5 g/l	1 % HNO_3	**5144.1**	50 ml	332,20
	10 g/l	1 % HNO_3	**4842.1**	50 ml	618,15
Palladium nitrate & Magnesium nitrate matrix modifier solution	2 g/l & 10 g/l	1 % HNO_3	**5139.1**	50 ml	278,45

For additional product data and safety information, see chapter Chemicals A-Z.

Single Element Standards for ICP-OES

(Inductively Coupled Plasma – Optical Emission Spectrometry)



The solutions and mixtures are made using materials of the highest purity, and therefore meet the requirements for instrumental analysis by AAS and ICP. All solutions are certified and can be traced to NIST standard reference solutions (excluded: iridium, osmium and ruthenium). Solutions are produced according to **ISO 17034** in an accredited environment. The solutions are tested in a laboratory accredited to **ISO/IEC 17025** and supplied with a detailed, batch-specific certificate of analysis. Each standard solution is made of high purity starting materials (mostly ≥99,999 %), and its content is determined gravimetrically and by ICP. High quality acids (purified by subboiling distillation) and water are used for production of the solutions. This gives you first-class reference materials of the highest purity and quality.

- 68 single element standards
- Concentration 1000 mg/l (1 g/l) and 10 000 mg/l (10 g/l)
- Up to 70 measured trace impurities in the ppt range
- 24 months shelf life for unopened bottle & 12 months after the bottle has been opened

ready-to-use New size

Single Element Standards for ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry)

Element	Purity	Matrix	Art. No.	Pack Qty.	€
Aluminum (Al)	1 000 mg/l Al	2 % HNO_3	**2397.1**	100 ml	68,70
			2397.2	500 ml	146,75
	10 000 mg/l Al	2 % HNO_3	**2488.1**	100 ml	122,05
			2488.2	500 ml	370,90
Antimony (Sb)	1 000 mg/l Sb	20 % HCl	**2398.1**	100 ml	68,70
	10 000 mg/l Sb	20 % HCl	**2489.1**	100 ml	122,05
Arsenic (As)	1 000 mg/l As	2 % HNO_3	**2399.2**	30 ml	48,30
			2399.1	100 ml	68,70
	10 000 mg/l As	2 % HNO_3	**2491.1**	100 ml	122,05
Barium (Ba)	1 000 mg/l Ba	1 % HNO_3	**2400.1**	100 ml	68,70
			2400.2	500 ml	147,85
	10 000 mg/l Ba	1 % HNO_3	**2492.1**	100 ml	122,05
			2492.2	500 ml	263,40
Beryllium (Be)	1 000 mg/l Be	2–5 % HNO_3 / 0,5 % HF	**2401.1**	100 ml	130,65
	10 000 mg/l Be	2–5 % HNO_3 / 0,5 % HF	**2496.1**	100 ml	569,25
Bismuth (Bi)	1 000 mg/l Bi	3 % HNO_3	**2402.1**	100 ml	68,70
	10 000 mg/l Bi	3 % HNO_3	**2497.1**	100 ml	122,05
Boron (B)	1 000 mg/l B	H_2O	**2404.1**	100 ml	68,70
			2404.2	500 ml	147,85
	10 000 mg/l B	H_2O	**2500.1**	100 ml	122,05
			2500.2	500 ml	224,70
Cadmium (Cd)	10 000 mg/l Cd	2 % HNO_3	**2501.1**	100 ml	122,05
	1 000 mg/l Cd	2 % HNO_3	**2405.1**	100 ml	68,70
Cesium (Cs)	1 000 mg/l Cs	2 % HNO_3	**2406.1**	100 ml	72,60
	10 000 mg/l Cs	2 % HNO_3	**2502.1**	100 ml	137,10
Calcium (Ca)	1 000 mg/l Ca	2 % HNO_3	**2407.1**	100 ml	68,70
			2407.3	250 ml	97,75
			2407.2	500 ml	147,85
	10 000 mg/l Ca	2 % HNO_3	**2503.1**	100 ml	122,05
			2503.2	500 ml	263,40
Cerium (Ce)	1 000 mg/l Ce	2–3 % HNO_3	**2408.1**	100 ml	68,70
			2408.2	250 ml	114,50
	10 000 mg/l Ce	2–3 % HNO_3	**2504.1**	100 ml	122,05
Chromium (Cr)	1 000 mg/l Cr	2–3 % HNO_3	**2409.1**	100 ml	68,70
			2409.3	250 ml	100,95
			2409.2	500 ml	147,85
	10 000 mg/l Cr	2–3 % HNO_3	**2505.1**	100 ml	122,05
			2505.2	500 ml	263,40
Cobalt (Co)	1 000 mg/l Co	2–3 % HNO_3	**2410.1**	100 ml	68,70
	10 000 mg/l Co	2–3 % HNO_3	**2506.1**	100 ml	122,05
Copper (Cu)	1 000 mg/l Cu	2–3 % HNO_3	**2426.1**	100 ml	68,70
	10 000 mg/l Cu	2–3 % HNO_3	**2520.1**	100 ml	122,05
Dysprosium (Dy)	1 000 mg/l Dy	2–3 % HNO_3	**2411.1**	100 ml	72,60
	10 000 mg/l Dy	2–3 % HNO_3	**2507.1**	100 ml	137,10
Erbium (Er)	1 000 mg/l Er	2–3 % HNO_3	**2413.1**	100 ml	72,60
	10 000 mg/l Er	2–3 % HNO_3	**2509.1**	100 ml	137,10
Europium (Eu)	1 000 mg/l Eu	2 % HNO_3	**2414.1**	100 ml	72,60
	10 000 mg/l Eu	2 % HNO_3	**2510.1**	100 ml	160,20

Element	Purity	Matrix	Art. No.	Pack Qty.	€
Gadolinium (Gd)	1 000 mg/l Gd	2–3 % HNO_3	**2416.1**	100 ml	72,60
	10 000 mg/l Gd	2–3 % HNO_3	**2511.1**	100 ml	160,20
Gallium (Ga)	1 000 mg/l Ga	2–3 % HNO_3	**2418.1**	100 ml	72,60
	10 000 mg/l Ga	2–3 % HNO_3	**2512.1**	100 ml	137,10
Germanium (Ge)	1 000 mg/l Ge	2 % HNO_3 / 0,5 % HF	**2419.1**	100 ml	72,60
	10 000 mg/l Ge	2 % HNO_3 / 0,5 % HF	**2513.1**	100 ml	160,20
Gold (Au)	1 000 mg/l Au	2–5 % HCl	**2420.1**	100 ml	201,60
	10 000 mg/l Au	2–5 % HCl	**2514.1**	100 ml	697,70
Hafnium (Hf)	1 000 mg/l Hf	2 % HCl / 0,5 % HF 5 % HNO_3 / 0,5 % HF	**2421.1**	100 ml	216,65
	10 000 mg/l Hf	2 % HCl / 0,5 % HF 5 % HNO_3 / 0,5 % HF	**2515.1**	100 ml	697,70
Holmium (Ho)	1 000 mg/l Ho	2–3 % HNO_3	**2422.1**	100 ml	97,75
	10 000 mg/l Ho	2–3 % HNO_3	**2516.1**	100 ml	137,10
Indium (In)	10 000 mg/l In	2–3 % HNO_3	**2517.1**	100 ml	137,10
	1 000 mg/l In	2–3 % HNO_3	**2423.1**	100 ml	72,60
Iridium (Ir)	1 000 mg/l Ir	10 % HCl	**2424.1**	100 ml	240,30
	10 000 mg/l Ir	10 % HCl	**2518.1**	100 ml	998,70
Iron (Fe)	1 000 mg/l Fe	2–4 % HNO_3	**2412.1**	100 ml	68,70
			2412.3	250 ml	100,95
			2412.2	500 ml	147,85
	10 000 mg/l Fe	2–4 % HNO_3	**2508.1**	100 ml	122,05
			2508.2	500 ml	263,40
	30 000 mg/l Fe	5 % HNO_3	**1LE6.1**	1 l	869,70
Lanthanum (La)	1 000 mg/l La	2–3 % HNO_3	**2427.1**	100 ml	68,70
			2427.2	250 ml	114,50
	10 000 mg/l La	2–3 % HNO_3	**2521.1**	100 ml	122,05
Lead (Pb)	1 000 mg/l Pb	2–3 % HNO_3	**2403.1**	100 ml	68,70
	10 000 mg/l Pb	2–3 % HNO_3	**2499.1**	100 ml	122,05
Lithium (Li)	1 000 mg/l Li	2–3 % HNO_3	**2428.1**	100 ml	68,70
			2428.2	250 ml	114,50
	10 000 mg/l Li	2–3 % HNO_3	**2522.1**	100 ml	122,05
Lutetium (Lu)	1 000 mg/l Lu	2–3 % HNO_3	**2429.1**	100 ml	171,50
	10 000 mg/l Lu	2–3 % HNO_3	**2523.1**	100 ml	700,40
Magnesium (Mg)	1 000 mg/l Mg	2 % HNO_3	**2430.1**	100 ml	68,70
			2430.2	500 ml	147,85
	10 000 mg/l Mg	2 % HNO_3	**2524.1**	100 ml	122,05
			2524.2	500 ml	263,40
Manganese (Mn)	1 000 mg/l Mn	2–3 % HNO_3	**2437.1**	100 ml	68,70
			2437.2	500 ml	147,85
	10 000 mg/l Mn	2–3 % HNO_3	**2525.1**	100 ml	122,05
			2525.2	500 ml	246,20
Mercury (Hg)	1 000 mg/l Hg	10 % HNO_3	**2453.1**	100 ml	68,70
	10 000 mg/l Hg	10 % HNO_3	**2537.1**	100 ml	122,05
Molybdenum (Mo)	1 000 mg/l Mo	4 % NH_3	**2438.1**	100 ml	68,70
	10 000 mg/l Mo	4 % NH_3	**2526.1**	100 ml	122,05
Neodymium (Nd)	1 000 mg/l Nd	2–3 % HNO_3	**2443.1**	100 ml	68,70
			2443.2	250 ml	131,70
	10 000 mg/l Nd	2–3 % HNO_3	**2528.1**	100 ml	137,10
Nickel (Ni)	1 000 mg/l Ni	2–3 % HNO_3	**2444.1**	100 ml	68,70
			2444.2	250 ml	114,50
	10 000 mg/l Ni	2–3 % HNO_3	**2529.1**	100 ml	122,05
Niobium (Nb)	1 000 mg/l Nb	2–5 % HNO_3 / 0,5 % HF	**2445.1**	100 ml	68,70
	10 000 mg/l Nb	2–5 % HNO_3 / 0,5 % HF	**2531.1**	100 ml	137,10
Osmium (Os)	1 000 mg/l Os	2 % HCl	**2446.2**	30 ml	205,90
			2446.1	100 ml	367,15
Palladium (Pd)	1 000 mg/l Pd	3–4 % HNO_3	**2447.1**	100 ml	252,65
	10 000 mg/l Pd	3–4 % HNO_3	**2532.1**	100 ml	1.284,65
Phosphorus (P)	1 000 mg/l P	H_2O	**2451.1**	100 ml	68,70
	10 000 mg/l P	H_2O	**2534.1**	100 ml	122,05
Platinum (Pt)	1 000 mg/l Pt	10 % HCl	**2448.1**	100 ml	263,40
	10 000 mg/l Pt	10 % HCl	**2533.1**	100 ml	1.138,45
Potassium (K)	1 000 mg/l K	2 % HNO_3	**2425.1**	100 ml	68,70
			2425.3	250 ml	100,95
			2425.2	500 ml	147,85
	10 000 mg/l K	2 % HNO_3	**2519.1**	100 ml	122,05
			2519.2	500 ml	263,40
Praseodymium (Pr)	1 000 mg/l Pr	2–3 % HNO_3	**2452.1**	100 ml	72,60
	10 000 mg/l Pr	2–3 % HNO_3	**2536.1**	100 ml	137,10
Rhenium (Re)	1 000 mg/l Re	2 % HNO_3	**2454.1**	100 ml	170,95
	10 000 mg/l Re	2 % HNO_3	**2538.1**	100 ml	514,95

Element	Purity	Matrix	Art. No.	Pack Qty.	€
Rhodium (Rh)	1 000 mg/l Rh	5 % HCl	**2455.2**	30 ml	263,40
			2455.1	100 ml	525,70
Rubidium (Rb)	1 000 mg/l Rb	2 % HNO_3	**2456.1**	100 ml	68,70
	10 000 mg/l Rb	2 % HNO_3	**2539.1**	100 ml	182,25
Ruthenium (Ru)	1 000 mg/l Ru	5–10 % HNO_3	**2457.1**	100 ml	274,15
	10 000 mg/l Ru	5–10 % HNO_3	**2540.1**	100 ml	568,70
Samarium (Sm)	1 000 mg/l Sm	2 % HNO_3	**2458.1**	100 ml	72,60
	10 000 mg/l Sm	2 % HNO_3	**2541.1**	100 ml	137,10
Scandium (Sc)	1 000 mg/l Sc	2 % HNO_3	**2459.1**	100 ml	122,05
Selenium (Se)	1 000 mg/l Se	2–3 % HNO_3	**2461.1**	100 ml	68,70
	10 000 mg/l Se	2–3 % HNO_3	**2543.1**	100 ml	122,05
Silicon (Si)	1 000 mg/l Si	H_2O	**2469.1**	100 ml	68,70
	10 000 mg/l Si	H_2O	**2546.1**	100 ml	122,05
Silver (Ag)	1 000 mg/l Ag	2–4 % HNO_3	**2468.1**	100 ml	68,70
	10 000 mg/l Ag	2–4 % HNO_3	**2544.1**	100 ml	122,05
Sodium (Na)	1 000 mg/l Na	2 % HNO_3	**2439.1**	100 ml	68,70
			2439.3	250 ml	97,75
			2439.2	500 ml	147,85
	10 000 mg/l Na	2 % HNO_3	**2527.1**	100 ml	122,05
			2527.2	500 ml	263,40
Strontium (Sr)	1 000 mg/l Sr	2 % HNO_3	**2470.1**	100 ml	68,70
			2470.2	500 ml	147,85
	10 000 mg/l Sr	2 % HNO_3	**2547.1**	100 ml	122,05
			2547.2	500 ml	224,70
Sulfur (S)	1 000 mg/l S	H_2O	**2460.1**	100 ml	68,70
	10 000 mg/l S	H_2O	**2542.1**	100 ml	122,05
Tantalum (Ta)	1 000 mg/l Ta	1 % HNO_3 / 0,5 % HF	**2471.1**	100 ml	72,60
	10 000 mg/l Ta	1 % HNO_3 / 0,5 % HF	**2548.1**	100 ml	137,10
Tellurium (Te)	1 000 mg/l Te	2 % HNO_3	**2472.1**	100 ml	74,10
	10 000 mg/l Te	2 % HNO_3	**2549.1**	100 ml	137,10
Terbium (Tb)	1 000 mg/l Tb	2–3 % HNO_3	**2476.1**	100 ml	119,90
	10 000 mg/l Tb	2–3 % HNO_3	**2550.1**	100 ml	263,40
Thallium (Tl)	1 000 mg/l Tl	2–5 % HNO_3	**2477.1**	100 ml	68,70
	10 000 mg/l Tl	2–5 % HNO_3	**2552.1**	100 ml	122,05
Thulium (Tm)	1 000 mg/l Tm	2–5 % HNO_3	**2478.1**	100 ml	119,90
Tin (Sn)	1 000 mg/l Sn	10 % HCl	**2486.1**	100 ml	68,70
			2486.2	250 ml	114,50
	10 000 mg/l Sn	10 % HCl	**2583.1**	100 ml	122,05
Titanium (Ti)	1 000 mg/l Ti	2 % HNO_3 / 0,5 % HF	**2479.1**	100 ml	68,70
			2479.2	250 ml	114,50
	10 000 mg/l Ti	2 % HNO_3 / 0,5 % HF	**2561.1**	100 ml	122,05
Tungsten (W)	1 000 mg/l W	4–10 % NH_3	**2482.1**	100 ml	74,10
	10 000 mg/l W	4–10 % NH_3	**2571.1**	100 ml	122,05
Vanadium (V)	1 000 mg/l V	2–3 % HNO_3	**2480.1**	100 ml	68,70
	10 000 mg/l V	2–3 % HNO_3	**2567.1**	100 ml	122,05
Ytterbium (Yb)	1 000 mg/l Yb	2–3 % HNO_3	**2483.1**	100 ml	74,10
	10 000 mg/l Yb	2–3 % HNO_3	**2572.1**	100 ml	137,10
Yttrium (Y)	1 000 mg/l Y	2–3 % HNO_3	**2484.1**	100 ml	74,10
	10 000 mg/l Y	2–3 % HNO_3	**2574.1**	100 ml	160,20
Zinc (Zn)	1 000 mg/l Zn	2–3 % HNO_3	**2485.1**	100 ml	68,70
			2485.3	250 ml	97,75
			2485.2	500 ml	147,85
	10 000 mg/l Zn	5 % HNO_3	**2576.1**	100 ml	122,05
			2576.2	500 ml	263,40
Zirconium (Zr)	1 000 mg/l Zr	5 % HCl / 0,5 % HF	**2487.1**	100 ml	74,10
			2487.2	250 ml	131,70
	10 000 mg/l Zr	5 % HCl / 0,5 % HF	**2584.1**	100 ml	160,20

For additional product data and safety information, see chapter Chemicals A-Z.

Multi Element Standards for ICP-OES

(Inductively Coupled Plasma – Optical Emission Spectrometry)



All solutions are certified and can be traced to NIST standard reference solutions. Solutions are produced according to **ISO 17034** in an accredited environment. The solutions are tested in a laboratory accredited to **ISO/IEC 17025** and supplied with a detailed, batch-specific certificate of analysis. A series of mixtures of different element combinations and concentrations for standard environmental analyses.

Properties:

- Quality control standards
- Surface water analysis (Art.No. 2642)
- Sewage sludge analysis (Art.No. 2643)
- 12 months shelf life for unopened bottle & 6 months after the bottle has been opened

ready-to-use NEW/+

Multi Element Standards for ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry)

Product name	Number of elements	Composition	Matrix	Art. No.	Pack Qty.	€
ICP Multi-Element Standard Solution I (19 elements, concentration in mg/l)	19	Ag (50), Al (100), B (15), Ba (5), Be (1), Bi (200), Cd (20), Co (20), Cr (25), Cu (20), Fe (15), Ga 150), In (200), Mn (5), Ni (50), Pb (200), Sr (1), Tl (400), Zn (20)	5 % HNO_3	**2636.1**	100 ml	203,20
ICP Multi-Element Standard Solution III (4 elements, 1000 mg/l)	4	Ba, Ca, Mg, Sr	2 % HNO_3	**2637.1**	100 ml	192,45
ICP Multi-Element Standard Solution IV (23 elements, 1000 mg/l)	23	Ag, Al, B, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, In, K, Li, Mg, Mn, Na, Ni, Pb, Sr, Tl, Zn	2 % HNO_3	**2638.1**	100 ml	353,70
ICP Multi-Element Standard Solution VIII (24 elements, 100 mg/l)	24	Al, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, Li, Mg, Mn, Na, Ni, Pb, Se, Sr, Te, Tl, Zn	2 % HNO_3	**2639.1**	100 ml	338,65
ICP Multi-Element Standard Solution IX (9 elements, 100 mg/l)	9	As, Be, Pb, Cd, Cr, Ni, Hg, Se, Tl	2 % HNO_3	**2640.1**	100 ml	203,20
ICP Multi-Element Standard Solution X (23 elements, concentration in mg/l)	23	Ca (35000), Mg (15000), Na (8000), K (3000), B (100), Fe (100), Mo (100), Sr (100), As (50), Ba (50), Ni (50), V (50), Zn (50), Mn (30), Co (25), Pb (25), Be (20), Cd (20), Cr (20), Cu (20), Bi (10), Se (10), Tl (10)	2 % HNO_3	**2642.1**	100 ml	327,35
ICP Multi-Element Standard Solution XI (7 elements, concentration in mg/l)	7	Cd (10), Cr (900), Cu (800), Hg (8), Ni (200), Pb (900), Zn (2500)	2 % HNO_3	**2643.1**	100 ml	203,20
ICP Multi-Element Standard Solution XIII (15 elements, concentration in mg/l)	15	Al (500), As (100), Be (100), Cd (25), Co (100), Cr (100), Cu (100), Fe (100), Hg (5), Mn (100), Ni (100), Pb (100), Se (25), V (250), Zn (100)	2 % HNO_3	**2644.1**	100 ml	338,65
ICP Multi-Element Standard Solution XVI (21 elements, 100 mg/l)	21	As, Be, Ca, Cd, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sr, Ti, Tl, V, Zn	2 % HNO_3	**2645.1**	100 ml	327,90
ICP Multi-Element Standard Solution XVII (7 elements, 100 mg/l)	7	Hf, Ir, Sb, Sn, Ta, Ti, Zr	15 % HCl	**2646.1**	100 ml	203,20
ICP Multi-Element Standard Solution A (24 elements, concentration in mg/l)	24	Al (1000), As (100), B (500), Ba (500), Ca (1000), Cd (100), Co (500), Cr (500), Cu (500), Fe (1000), Hg (10), K (1000), Li (100), Mg (1000), Mn (500), Na (1000), Ni (500), Pb (500), Rb (500), Sr (500), Te (500), Ti (500), V (500), Zn (500)	5 % HNO_3	**8248.1**	100 ml	682,65
ICP Multi-Element Standard Solution B (25 elements, concentration in mg/l)	25	Al (200), As (5), B (20), Ba (50), Ca (500), Cd (5), Co (20), Cr (40), Cu (20), Fe (100), Hg (0,5), K (100), Li (10), Mg (500), Mn (10), Na (100), Ni (40), P (40), Pb (10), Rb (10), Sr (100), Te (10), Ti (10), V (40), Zn (50)	5 % HNO_3	**8249.1**	100 ml	568,70
ICP Multi-Element Standard Solution (5 elements, 1000 mg/l)	5	Ca, K, Mg, Na, P	2 % HNO_3	**1HP0.1**	100 ml	360,15
ICP Multi-Element Standard Solution (9 elements, 1000 mg/l)	9	As, Cd, Cr, Cu, Mo, Ni, Sb, Se, Zn	5 % HNO_3	**9987.1**	100 ml	342,95
ICP Multi-Element Standard Solution (22 elements, 1 mg/l)	22	As, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sr, Ti, Tl, V, Zn	5 % HNO_3	**2647.1**	100 ml	91,95
ICP Multi-Element Standard Solution (22 elements, 100 mg/l)	22	As, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sr, Ti, Tl, V, Zn	5 % HNO_3	**2648.1**	100 ml	377,90

Product name	Number of elements	Composition	Matrix	Art. No.	Pack Qty.	€
ICP Multi-Element Standard Solution (28 elements, 1 mg/l)	28	Al, Ag, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Sr, Ti, Tl, V, Zn	5 % HNO_3	**2649.1**	100 ml	110,20
ICP Multi-Element Standard Solution (28 elements, 100 mg/l)	28	Al, Ag, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Sr, Ti, Tl, V, Zn	5 % HNO_3	**2650.1**	100 ml	375,20
ICP Multi-Element Standard Solution CR-01 (17 elements, concentration in mg/l)	17	Ag (25), Al (25), As (10), Ba (25), Ca (25), Cd (2), Cr (25), Cu (25), Fe (25), K (25), Mg (25), Mn (25), Na (25), Ni (25), Pb (25), Ti (25), Zn (25)	5 % HNO_3	**1K38.1**	100 ml	375,20
				1K38.2	250 ml	504,20
ICP Multi-Element Standard Solution CR-02 (15 elements, concentration in mg/l)	15	Ag (250), Al (250), As (75), Ba (250), Ca (250), Cd (20), Cr (250), Cu (250), Fe (250), K (250), Na (250), Ni (250), Pb (250), Ti (250), Zn (250)	5 % HNO_3	**1K39.1**	100 ml	349,40
				1K39.2	250 ml	499,90
ICP Multi-Element Standard Solution CR-03 (2 elements, concentration in mg/l)	2	P (75), S (1000)	H_2O	**1K3C.1**	100 ml	177,40
				1K3C.2	250 ml	198,90
ICP Multi-Element Standard Solution CR-04 (18 elements, concentration in mg/l)	18	As (100), Ca (500), Cd (25), Co (100), Cr (100), Cu (100), K (100), Li (100), Mg (100), Mn (100), Mo (500), Na (500), Ni (100), Pb (100), Sb (20), Se (25), Sr (100), Zn (100)	5 % HNO_3	**1L18.1**	100 ml	467,65
ICP Multi-Element Standard Solution CR-05 (19 elements, concentration in mg/l)	19	Al (500), As (500), B (500), Ba (500), Ca (5000), Cd (500), Co (500), Cr (500), Cu (500), Fe (500), K (5000), Li (500), Mg (5000), Mn (500), Na (5000), Ni (500), Pb (500), Sr (500), Zn (500)	5 % HNO_3	**1LHP.1**	100 ml	665,45

For additional product data and safety information, see chapter Chemicals A-Z.

Multi Element Standards for ICP-MS

(Inductively Coupled Plasma – Mass spectrometry)

The standard solutions are manufactured from high-purity starting material (usually ≥99,999 %) under clean room conditions.
Acids (purified by means of sub-boiling distillation) and water of highest quality are used to manufacture the solutions.
The solutions are certified and can be traced to NIST standard reference solutions. Solutions are produced according to **ISO 17034** in an accredited environment. The solutions are tested in a laboratory accredited to **ISO/IEC 17025** and supplied with a detailed, batch-specific certificate of analysis.
The range encompasses different multi-element standards in various compositions for tuning, calibration and interference tests.

ready-to-use NEW / +

Multi-element standards for the ICP-MS (Inductively Coupled Plasma – Mass spectrometry)

Product name	Number of elements	Composition	Matrix	Art. No.	Pack Qty.	€
ICP-MS Multi-Element Standard Solution (3 elements, concentration in mg/l)	3	Cr (4), Fe (20), Sr (4)	2 % HNO_3	**0381.1**	100 ml	126,35
				0381.2	500 ml	228,45
ICP-MS Multi-Element Standard Solution (4 elements, 1000 mg/l)	4	Ca, K, Mg, Na	2 % HNO_3	**6803.1**	100 ml	114,50
ICP-MS Multi-Element Standard Solution (4 elements, 10 mg/l)	4	Mo, Sb, Sn, Ti	2 % HNO_3, 0,1 % HF	**6807.1**	100 ml	114,50
				6807.2	500 ml	213,95
ICP-MS Calibration Standard Solution (5 elements, 1000 mg/l)	5	Ca, Fe, K, Mg, Na	2 % HNO_3	**0409.1**	100 ml	342,95
				0409.2	500 ml	256,95
ICP-MS Tuning Solution (5 elements, 10 mg/l)	5	Ce, Co, Li, Tl, Y	2 % HNO_3	**6819.1**	100 ml	114,50
ICP-MS Tuning Solution (6 elements, 1 µg/l)	6	Ce, Co, Li, Mg, Tl, Y	2 % HNO_3	**6806.1**	100 ml	146,75
				6806.2	500 ml	270,40
ICP-MS Tuning Solution A (6 elements, concentration in µg/l)	6	Be (10), Bi (2), Ce (2), Co (5), In (2), Mn (5)	1 % HNO_3	**0900.2**	250 ml	327,90
ICP-MS Tuning Solution B (6 elements, concentration in µg/l)	6	Be (1000), Bi (200), Ce (200), Co (500), In (200), Mn (500)	1 % HNO_3	**0902.1**	100 ml	235,45
ICP-MS Multi-Element Standard Solution (8 elements, concentration in mg/l)	8	As (2), Cd (2), Cr (3), Cu (10), Fe (4), Ni (2), Pb (5), Zn (10)	2 % HNO_3	**6814.1**	100 ml	263,40
				6814.2	500 ml	271,45
ICP-MS Calibration Standard Solution (8 elements, 10 mg/l)	8	Ge, Hf, Mo, Sb, Sn, Te, W, Zr	2 % HNO_3, 0,1 % HF	**6816.1**	100 ml	137,10
				6816.2	500 ml	246,20
ICP-MS Multi-Element Standard Solution (10 elements, 10 mg/l)	10	Au, Hf, Ir, Pd, Pt, Rh, Ru, Sb, Sn, Te	10 % HCl, 1 % HNO_3	**0429.1**	100 ml	155,90
ICP-MS Multi-Element Standard Solution (10 elements, concentration in mg/l)	10	Mo (50), Pd (40), Pt (40), Rh (40), Sb (80), Si (40), Sn (80), Te (40), W (40), Zr (40)	2 % HCl	**6815.1**	100 ml	338,65
				6815.2	500 ml	600,95
ICP-MS Interference Check Solution A – 6020 (12 elements, concentration in µg/l)	12	Cl^- (20000), Ca (3000), Fe (2500), Na (2500), C (2000), Al (1000), Mg (1000), P (1000), K (1000), S (1000), Mo (20), Ti (20)	5 % HNO_3	**6808.1**	100 ml	364,45
				6808.2	500 ml	600,95

Product name	Number of elements	Composition	Matrix	Art. No.	Pack Qty.	€
ICP-MS Multi-Element Standard Solution (12 elements, concentration in mg/l)	12	As (2,5), Ba (2,5), Cd (0,5), Cr (5), Cu (5), Hg (0,2), Mo (3), Ni (5), Pb (5), Sb (0,5), Se (0,7), Zn (5)	2 % HNO_3	**6810.1**	100 ml	407,45
				6810.2	500 ml	332,20
ICP-MS Multi-Element Standard Solution (16 elements, 10 mg/l)	16	As, Be, Co, Cr, Cs, Cu, Li, Mn, Ni, Pb, Rb, Sc, Se, Sr, V, Zn	5 % HNO_3	**0416.1**	100 ml	489,15
				0416.2	500 ml	891,20
ICP-MS Multi-Element Standard Solution (21 elements, 100 mg/l)	21	Al, Ag, As, Ba, Be, Cd, Co, Cr, Cu, Fe, K, Mn, Mo, Ni, Pb, Sb, Se, Sn, Tl, V, Zn	5 % HNO_3	**6811.1**	100 ml	327,90
ICP-MS Multi-Element Standard Solution (22 elements, concentration in mg/l)	22	Ag (5), Al (30), As (10), B (30), Ba (10), Be (3), Cd (3), Co (5), Cr (10), Cu (10), Mn (5), Mo (3), Ni (10), Pb (5), Se (5), Sn (10), Sr (100), Te (10), Ti (3), Tl (2), V (10), Zn (100)	2 % HNO_3	**0383.1**	100 ml	396,70
				0383.2	500 ml	719,20
ICP-MS Multi-Element Standard Solution (27 elements, concentration in mg/l)	27	Ag (50), Al (80), As (80), B (40), Ba (50), Be (40), Ca (80), Cd (40), Co (50), Cr (50), Cu (50), Fe (50), In (40), K (80), Li (40), Mg (80), Mn (50), Na (80), Ni (50), P (200), Pb (80), Se (40), Sr (50), Ti (40), Tl (40), V (50), Zn (50)	2 % HNO_3	**6813.1**	100 ml	467,65
				6813.2	500 ml	740,70
	27	Ag (10), Al (10), As (100), B (100), Ba (10), Be (100), Bi (10), Ca (1000), Cd (10), Co (10), Cr (10), Cu (10), Fe (100), Ga (10), K (10), Li (10), Mg (10), Mn (10), Mo (10), Na (10), Ni (10), Pb (10), Rb (10), Se (100), Sr (10), Te (10), Tl (10), U (10), V (10), Zn (100)	2 % HNO_3	**1LC5.1**	100 ml	585,90
				1LC5.2	250 ml	826,70
ICP-MS Multi-Element Standard Solution (28 elements, 10 mg/l)	28	Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cs, Cu, Fe, Ga, In, K, Li, Mg, Mn, Na, Ni, Pb, Rb, Se, Sr, Tl, V, Zn	5 % HNO_3	**6802.1**	100 ml	607,40
ICP-MS Multi-Element Standard Solution VI (30 elements, concentration in mg/l)	30	Ag (10), Al (10), As (100), B (100), Ba (10), Be (100), Bi (10), Ca (1000), Cd (10), Co (10), Cr (10), Cu (10), Fe (100), Ga (10), K (10), Li (10), Mg (10), Mn (10), Mo (10), Na (10), Ni (10), Pb (10), Rb (10), Se (100), Sr (10), Te (10), Tl (10), U (10), V (10), Zn (100)	2 % HNO_3	**1L4K.1**	100 ml	790,15

For additional product data and safety information, see chapter Chemicals A-Z.

Single Element Standards for ICP-MS

Product name	Element	Purity	Matrix	Art. No.	Pack Qty.	€
Mercury ICP-MS Standard Solution	Mercury (Hg)	10 mg/l Hg	5 % HNO_3	**5017.1**	100 ml	72,60

For additional product data and safety information, see chapter Chemicals A-Z.

ROTIPURAN® Ultra/Supra

Acids, Alkaline Solutions and Water for trace analysis via ICP-OES, ICP-MS, AAS and IC

Carl ROTH provides two high quality product lines, ROTIPURAN® Ultra & Supra specially for research, trace analysis and electronics. These ultrapure reagents are produced using a technologically complex distillation process (subboiling distillation) and are filled only into specially selected, suitable containers under clean room conditions. Very extensive production and quality controls guarantee extremely high quality.

ROTIPURAN® Ultra



This ultrapure product line is characterised for its especially high purity (in ppt-quality) and fulfils the highest purity requirements. The metal content of these products is below 100 ppt [parts per trillion=10^{-12}] while key metals are under 10 ppt. These products are used in ultra trace analysis (via ICP-OES, ICP-MS, AAS, IC) and for applications in the electronics industry. The reagents are bottled and offered in high class fluoropolymer plastic bottles (PFA and FEP).

Features:

- Specified metal content: less than 100 ppt
- Preponderant metals are under 10 ppt
- More than 65 analysed metals
- Produced and bottled under clean room conditions
- Continuous process control for highest product purity
- Bottled exclusively in purified fluoropolymer bottles
- Highest purity and maximum product safety

ppt Quality

ROTIPURAN® Ultra products at a glance

Product name	Brand/Purity	Thread	Pack.	Art. No.	Pack Qty.	€
Acetic acid	ROTIPURAN®Ultra 100 %	38-430	plastic (FEP)	**HN65.2**	250 ml	489,15
				HN65.1	500 ml	708,45
				HN65.3	1 l	1.112,65
Ammonia solution	ROTIPURAN®Ultra 20 %	38-430	HDPE	**HN66.2**	250 ml	310,70
				HN66.1	500 ml	521,40
				HN66.3	1 l	854,65
Hydrobromic acid	ROTIPURAN®Ultra 48 %	38-430	plastic (FEP)	**HN67.3**	250 ml	779,40
				HN67.1	500 ml	1.052,45
				HN67.2	1 l	1.666,25
				HN67.4	2 l	2.418,75
Hydrochloric acid	ROTIPURAN®Ultra 34 %	38-430	plastic (FEP)	**HN63.1**	250 ml	467,65
				HN63.2	500 ml	708,45
				HN63.3	1 l	1.159,95
				HN63.4	2 l	1.789,90
Hydrofluoric acid	ROTIPURAN®Ultra 48 %	38-430	plastic (FEP)	**HN64.2**	250 ml	622,45
				HN64.1	500 ml	934,20
				HN64.3	1 l	1.521,15
Hydrogen peroxide	ROTIPURAN®Ultra 31 %	38-430	plastic (FEP)	**HN69.1**	500 ml	682,65
Nitric acid	ROTIPURAN®Ultra 69 %	38-430	plastic (FEP)	**HN60.1**	250 ml	489,15
				HN60.2	500 ml	686,95
				HN60.3	1 l	1.106,20
				HN60.4	2 l	1.772,70
Perchloric acid	ROTIPURAN®Ultra 70 %	38-430	plastic (FEP)	**HN61.2**	250 ml	611,70
				HN61.1	500 ml	854,65
				HN61.3	1 l	1.386,75
Sulphuric acid	ROTIPURAN®Ultra 95 %	38-430	plastic (FEP)	**HN62.1**	250 ml	514,95
				HN62.2	500 ml	751,45
				HN62.3	1 l	1.245,95
				HN62.4	2 l	2.133,90
Water	ROTIPURAN®Ultra	38-430	LDPE	**HN68.1**	500 ml	69,80
				HN68.2	1 l	104,85
				HN68.3	2 l	197,30

For additional product data and safety information, see chapter Chemicals A-Z.

ROTIPURAN® Supra

This supra quality line (**ppb-quality**) is perfectly suitable for sample preparation in trace analysis (e.g. via ICP-OES, AAS, IC, etc.). Over 60 elements are specified and their content is below 1 ppb [parts per billion =10^{-9}]. Bottled and delivered in special plastic bottles.



Features:

- Maximum metal contamination: <1 ppb
- 60 specified metals
- Produced and filled under clean room conditions
- Bottled in special lightweight bottles for greater safety and easier handling. 2,5 liter bottles have got a handle
- HF is delivered with additional drop spout for safe handling
- Extremely economical purity for most analytic applications

ppb Quality

ROTIPURAN® Supra products at a glance

Product name	Brand/Purity	Thread	Pack.	Art. No.	Pack Qty.	€
Acetic acid	ROTIPURAN®Supra 100 %	GL 45	HDPE	**HN55.1**	500 ml	106,45
				HN55.3	1 l	162,90
				HN55.4	2.5 l	206,95
		38-430		**HN55.5**	4 l	319,85
Ammonia solution	ROTIPURAN®Supra 20 %	38-430	HDPE	**HN56.1**	500 ml	91,95
				HN56.3	4 l	499,90
Hydrochloric acid	ROTIPURAN®Supra 35 %	GL 45	HDPE	**HN53.1**	500 ml	99,90
				HN53.2	1 l	153,20
				HN53.3	2.5 l	170,95
		38-430		**HN53.4**	4 l	256,95
	ROTIPURAN®Supra 30 %	GL 45	HDPE	**NE57.2**	1 l	130,65
				NE57.3	2.5 l	177,40
Hydrofluoric acid	ROTIPURAN®Supra 48 %	38-430	LDPE	**HN54.1**	500 ml	188,15
Nitric acid	ROTIPURAN®Supra 69 %	GL 45	HDPE	**HN50.1**	500 ml	101,60
				HN50.2	1 l	155,90
				HN50.3	2.5 l	188,15
Perchloric acid	ROTIPURAN®Supra 70 %	GL 45	HDPE	**HN51.1**	500 ml	220,40
				HN51.3	1 l	356,40
				HN51.4	2.5 l	532,15
Sulphuric acid	ROTIPURAN®Supra 95 %	GL 45	HDPE	**HN52.1**	500 ml	103,75
				HN52.2	1 l	166,65
				HN52.5	2.5 l	213,95

For additional product data and safety information, see chapter Chemicals A-Z.

ROTIPURAN® Low organic

Product name	Brand/Purity	Thread	Pack.	Art. No.	Pack Qty.	€
Water	ROTIPURAN® Low organic	38-430	glass	**HN57.1**	1 l	90,20
				HN57.2	4 l	147,85

For additional product data and safety information, see chapter Chemicals A-Z.

ROTIPURAN® Low Organic:
TOC (Total Organic Carbon) - content: <20 ppb



Dispenser Ultra / Ultra HF

For dispensing highly pure acids and alkalis.
Suitable for use in ultra trace analysis.

General features of all models:

- **Free of metals**
- Made of high quality and highly pure plastics (PTFE, TFM and PFA)
- Calibrated and mechanically tested for precision and accuracy
- 38-430 thread (fits ROTIPURAN® Ultra products)

When using bottles with a GL45 thread, please order fastening for dispenser KK11.1 separately.

Dispenser Ultra

ROTH SELECTION.

Properties:

- Acid cleansed
- Manufactured in cleanroom (class 100)

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
0,5–5	0,5	±0,02	**KK97.1**	1 unit(s)	3.601,25

Dispenser Ultra HF

ROTH SELECTION.

Properties:

- Specially for dispensing hydrofluoric acids
- Also suitable for analytical acids

Volume (ml)	Graduation (ml)	Tolerance (ml)	Art. No.	Pack Qty.	€
0,5–5	0,5	±0,02	**KK98.1**	1 unit(s)	2.843,40

Accessories for Ultra/Ultra HF dispensers



Accessories Bottle holder for Ultra/Ultra HF dispensers

ROTH SELECTION.

Stabilises bottles when using a dispenser. The four-screw system is suitable for both square bottles and round bottles. The bottle holder is designed for ROTIPURAN® Supra and Ultra bottles with capacities from 250 ml to 2 litres. Also suitable for bottles with a diameter from approx. 7.0 cm to 11.5 cm.

Version	Art. No.	Pack Qty.	€
Bottle holder	**KK99.1**	1 unit(s)	147,85

Accessories Adapter to GL 45 for Ultra/Ultra HF dispensers

ROTH SELECTION. Material: PTFE.

For bottles with GL45 thread, specially for the use of ROTIPURAN® Supra products with Ultra and Ultra HF dispensers.

Version	Art. No.	Pack Qty.	€
Adapter	**KK11.1**	1 unit(s)	418,20

ROTI®METIC (Metal Inorganic Compounds)

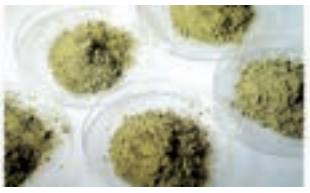
Ultra Pure Metals and Inorganic Compounds



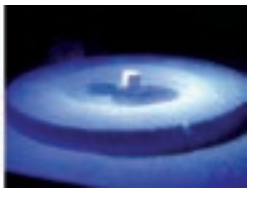
The ROTI®METIC product range comprises more than 180 high purity inorganic metals and metal compounds with purity levels ranging from 99,9 % (3N) to 99,9999 % (6N). Modern production technology as well as high quality and safety standards make it possible to achieve these high purity levels of metal traces from 100 ppm to 1 ppm. Up to 60 trace metal compounds are analysed by HR-ICP, ICP-OES, AA, GD-MS and documented in the batch specific certificate of analysis supplied with the product. Our ultra high purity metals and metal compounds are ideal for the following applications:

- Instrumental analytics
- Chemical analyses & syntheses
- Crystal growth technology
- Nanotechnology
- Laser and Photovoltaic technology
- Optical fibres
- Photonics
- Fuel cells
- Catalysis

Our mission is to offer the quality and service you require in research & development and in production. Excellent value for money and the option of ordering in semi-bulk are strong arguments in favour of the ROTI®METIC product range.



NEW / +

Ultra Pure Metals and Inorganic Compounds

Product name	Purity	CAS No.	Art. No.	Pack Qty.	€
Aluminium granulate	99,995 % (4N5)	7429-90-5	**5577.1**	25 g	60,75
			5577.2	100 g	163,95
Aluminium chloride hexahydrate	99,9999 % (6N)	7784-13-6	**5368.1**	25 g	127,95
			5368.2	100 g	471,95
Aluminium fluoride	99,99 % (4N), anhydrous	7784-18-1	**5395.1**	10 g	113,45
			5395.2	50 g	396,70
Aluminium nitrate nonahydrate	99,999 % (5N)	7784-27-2	**5567.1**	10 g	54,75
			5567.2	50 g	157,50
Aluminium oxide	99,995 % (4N5)	1344-28-1	**5575.1**	5 g	54,75
			5575.2	25 g	149,45
Aluminium sulphate	99,99 % (4N)	10043-01-3	**1L4Y.1**	5 g	73,00
			1L4Y.2	25 g	209,65
Ammonium bromide	99,999 % (5N)	12124-97-9	**1L5E.1**	5 g	54,30
			1L5E.2	25 g	169,35

Product name	Purity	CAS No.	Art. No.	Pack Qty.	€
Ammonium carbonate	99,999 % (5N)	506-87-6	**1L58.1**	10 g	70,45
			1L58.2	50 g	169,35
Ammonium chloride	99,999 % (5N)	12125-02-9	**5050.1**	50 g	145,15
			5050.2	100 g	241,90
Ammonium dihydrogen phosphate	99,999 % (5N)	7722-76-1	**5580.1**	25 g	70,45
			5580.2	100 g	161,80
Ammonium hexachlororhodate(III)	99,995 % (4N5)	15336-18-2	**5586.1**	1 g	676,20
Ammonium hexafluorosilicate	99,999 % (5N)	16919-19-0	**5587.1**	10 g	80,10
			5587.2	25 g	157,50
			5587.3	50 g	274,15
Ammonium hydrogen fluoride	99,999 % (5N)	1341-49-7	**5363.1**	25 g	149,45
di-Ammonium hydrogen phosphate	99,999 % (5N)	7783-28-0	**5596.1**	100 g	310,70
Ammonium iodide	99,999 % (5N)	12027-06-4	**1L79.1**	5 g	103,75
			1L79.2	25 g	377,90
Ammonium iron(II) sulphate hexahydrate	99,999 % (5N)	7783-85-9	**1L75.1**	5 g	83,35
			1L75.2	25 g	254,25
Ammonium molybdate(VI)	99,99 % (4N)	13106-76-8	**5591.1**	5 g	60,75
			5591.2	25 g	205,90
Ammonium monovanadate	99,995 % (4N5)	7803-55-6	**5590.3**	1 g	32,80
			5590.2	25 g	532,15
Ammonium perrhenate	99,999 % (5N)	13598-65-7	**1L6P.1**	1 g	80,55
			1L6P.2	5 g	335,95
Ammonium sulphate	99,999 % (5N)	7783-20-2	**5606.1**	10 g	39,70
			5606.2	50 g	107,40
Ammonium tetraborate tetrahydrate	99,999 % (5N)	12228-87-4	**5396.1**	25 g	132,80
Ammonium tetrachloroaurate(III) hydrate	99,999 % (5N)	13874-04-9	**1L6Y.1**	1 g	286,50
Ammonium tetrachloroplatinate(II)	99,99 % (4N)	13820-41-2	**1L6E.1**	1 g	254,25
Ammonium tetrathiomolybdate	99,99 % (4N)	15060-55-6	**5608.1**	1 g	54,30
			5608.2	5 g	104,85
Antimony shot	99,999 % (5N)	7440-36-0	**4516.2**	50 g	254,25
Antimony(III) oxide	99,999 % (5N)	1309-64-4	**1L6T.1**	5 g	54,75
			1L6T.2	25 g	181,70
Antimony(V) oxide	99,999 % (5N)	1314-60-9	**1L5A.1**	5 g	62,25
			1L5A.2	25 g	238,15
Barium carbonate	99,999 % (5N)	513-77-9	**5321.1**	25 g	163,95
			5321.2	100 g	518,70
Barium chloride	99,999 % (5N), anhydrous	10361-37-2	**5051.1**	25 g	132,80
Barium chloride dihydrate	99,999 % (5N)	10326-27-9	**5115.3**	25 g	194,05
			5115.1	50 g	217,70
			5115.2	100 g	303,70
Barium fluoride	99,995 % (4N5)	7787-32-8	**5055.1**	25 g	169,35
Barium nitrate	99,9995 % (5N5)	10022-31-8	**5138.1**	50 g	201,60
			5138.2	100 g	352,10
Barium sulphate	99,99 % (4N)	7727-43-7	**1L70.1**	5 g	51,10
			1L70.2	25 g	203,75
Beryllium acetate basic	99,999 % (5N)	19049-40-2	**5612.1**	5 g	64,00
			5612.2	25 g	224,70
Bismuth pieces	99,999 % (5N)	7440-69-9	**1L6H.1**	10 g	103,75
Bismuth(III) oxide	99,999 % (5N)	1304-76-3	**1L6X.1**	10 g	46,15
			1L6X.2	50 g	144,60
Boric acid	99,999 % (5N)	10043-35-3	**5614.1**	25 g	71,50
			5614.2	100 g	176,85
Cadmium acetate	99,999 % (5N), anhydrous	543-90-8	**5247.1**	10 g	122,05
			5247.2	25 g	205,90
Cadmium oxide	99,995 % (4N5)	1306-19-0	**1L63.1**	5 g	45,70
			1L63.2	25 g	113,45
Cadmium sulphate	99,995 % (4N5)	10124-36-4	**1L74.1**	5 g	80,10
			1L74.2	25 g	292,95
Caesium carbonate	99,995 % (4N5)	534-17-8	**5618.1**	5 g	46,15
Caesium chloride	99,999 % (5N)	7647-17-8	**5061.1**	10 g	85,50
			5061.2	50 g	210,20
Caesium nitrate	99,999 % (5N)	7789-18-6	**4505.1**	10 g	127,95
			4505.2	50 g	461,20
Caesium sulphate	99,99 % (4N)	10294-54-9	**1L77.1**	10 g	70,45
			1L77.2	50 g	170,95
Calcium carbonate	99,999 % (5N)	471-34-1	**5616.1**	5 g	60,75
			5616.2	25 g	198,35
Calcium chloride	99,999 % (5N)	10043-52-4	**1L72.1**	1 g	73,00
			1L72.2	10 g	238,15
Calcium chloride hydrate	99,999 % (5N)	22691-02-7	**5056.1**	10 g	161,80
Calcium fluoride	99,99 % (4N)	7789-75-5	**1L59.1**	5 g	192,45

High Purity

Product name	Purity	CAS No.	Art. No.	Pack Qty.	€
Calcium nitrate hydrate	99,999 % (5N)	35054-52-5	**5058.1**	5 g	70,45
			5058.2	25 g	217,70
Cerium(III) acetate hydrate	99,999 % (5N)	17829-82-2	**5372.1**	10 g	109,15
			5372.2	50 g	424,65
Cerium(III) nitrate hexahydrate	99,999 % (5N)	10294-41-4	**5312.1**	5 g	88,70
			5312.2	25 g	262,85
Cerium(III) sulphate	99,99 % (4N), anhydrous	13454-94-9	**5603.1**	25 g	260,70
Cerium(III) sulphate octahydrate	99,995 % (4N5)	10450-59-6	**5601.1**	50 g	249,95
			5601.2	250 g	955,70
Chromium(III) nitrate nonahydrate	99,999 % (5N)	7789-02-8	**5619.1**	5 g	83,35
			5619.2	25 g	246,20
Chromium(III) oxide	99,9 % (3N)	1308-38-9	**4498.1**	5 g	48,95
			4498.2	25 g	194,05
Cobalt powder	99,999 % (5N)	7440-48-4	**5620.1**	5 g	118,80
			5620.2	25 g	376,25
Cobalt(II) chloride hexahydrate	99,999 % (5N)	7791-13-1	**1L57.1**	5 g	95,60
			1L57.2	25 g	230,60
Cobalt(II) nitrate hexahydrate	99,999 % (5N)	10026-22-9	**5291.1**	10 g	278,45
			5291.2	25 g	669,20
Cobalt(II) sulphate hydrate	99,999 % (5N)	60459-08-7	**5326.1**	10 g	102,05
Copper pellets	99,999 % (5N)	7440-50-8	**5621.1**	25 g	74,75
			5621.2	100 g	182,25
Copper powder	99,999 % (5N)	7440-50-8	**5386.1**	10 g	176,85
			5386.2	50 g	755,20
Copper(II) acetate monohydrate	99,995 % (4N5)	6046-93-1	**1L64.1**	5 g	88,05
			1L64.2	25 g	340,25
Copper(II) chloride dihydrate	99,999 % (5N)	10125-13-0	**1L60.1**	5 g	62,25
			1L60.2	25 g	233,85
Copper(II) nitrate hydrate	99,999 % (5N)	13778-31-9	**1L67.1**	5 g	46,15
			1L67.2	25 g	109,15
Copper(II) oxide	99,999 % (5N)	1317-38-0	**1L5Y.1**	5 g	87,65
			1L5Y.2	25 g	340,25
Copper(II) sulphate pentahydrate	99,999 % (5N)	7758-99-8	**1L53.1**	5 g	54,30
			1L53.2	25 g	170,95
Europium(III) oxide	99,995 % (4N5)	1308-96-9	**5394.1**	5 g	384,35
Gallium(III) nitrate hydrate	99,9995 % (5N5)	69365-72-6	**5548.1**	25 g	364,45
Gallium(III) oxide	99,999 % (5N)	12024-21-4	**5377.1**	10 g	188,15
Germanium pieces	99,999 % (5N)	7440-56-4	**1L54.1**	1 g	46,15
			1L54.2	5 g	153,20
Germanium(IV) oxide	99,999 % (5N)	1310-53-8	**1L52.1**	5 g	79,05
			1L52.2	25 g	292,95
Gold shot	99,999 % (5N)	7440-57-5	**5622.1**	1 g	493,45
			5622.2	5 g	2.338,15
Holmium(III) oxide	99,99 % (4N)	12055-62-8	**5338.1**	10 g	303,70
			5338.2	50 g	912,70
Hydrogen hexachloroplatinate(IV) hydrate	99,995 % (4N5)	26023-84-7	**5626.1**	1 g	230,60
			5626.2	5 g	1.066,95
Hydrogen tetrachloroaurate(III) hydrate	99,999 % (5N)	27988-77-8	**5628.1**	1 g	249,95
Indium shot	99,999 % (5N)	7440-74-6	**5629.1**	5 g	74,10
			5629.2	25 g	249,95
Indium(III) bromide	99,999 % (5N)	13465-09-3	**5322.1**	5 g	59,70
			5322.2	25 g	211,25
Indium(III) fluoride	99,999 % (5N)	7783-52-0	**1L51.1**	1 g	69,80
			1L51.2	5 g	153,20
Indium(III) iodide	99,999 % (5N)	13510-35-5	**1L5K.1**	1 g	71,50
			1L5K.2	5 g	169,35
Indium(III) nitrate pentahydrate	99,999 % (5N)	207398-97-8	**5384.1**	10 g	125,25
Indium(III) oxide	99,999 % (5N)	1312-43-2	**5630.1**	5 g	64,40
			5630.2	25 g	217,70
Iodine(V) oxide	99,99 % (4N)	12029-98-0	**5364.1**	5 g	55,40
			5364.2	25 g	206,95
Iron granules	99,99 % (4N)	7439-89-6	**5631.1**	5 g	49,35
			5631.2	25 g	160,20
Iron(III) nitrate nonahydrate	99,999 % (5N)	7782-61-8	**5632.1**	5 g	109,15
			5632.2	25 g	407,45
Iron(III) oxide	99,98 % (3N8)	1309-37-1	**5634.1**	5 g	48,95
			5634.2	25 g	154,30
Lanthanum(III) nitrate hexahydrate	99,995 % (4N5)	10277-43-7	**5366.1**	25 g	130,65
			5366.2	100 g	327,90
Lead(II) acetate trihydrate	99,999 % (5N)	6080-56-4	**1L50.1**	5 g	30,65
			1L50.2	25 g	127,95

Product name	Purity	CAS No.	Art. No.	Pack Qty.	€
Lead(II) iodide	99,99 % (4N)	10101-63-0	**1L5P.1**	5 g	38,60
			1L5P.2	25 g	140,30
Lead(II) nitrate	99,999 % (5N)	10099-74-8	**1L4N.1**	10 g	55,80
			1L4N.2	50 g	213,95
Lithium bromide	99,999 % (5N)	7550-35-8	**5062.1**	25 g	166,65
			5062.2	50 g	265,00
Lithium carbonate	99,999 % (5N)	554-13-2	**5635.1**	10 g	54,75
			5635.2	25 g	97,30
			5635.3	100 g	298,35
Lithium chloride	99,999 % (5N)	7447-41-8	**5079.1**	25 g	166,65
			5079.2	50 g	265,00
Lithium fluoride	99,99 % (4N)	7789-24-4	**5082.1**	5 g	74,10
			5082.2	25 g	230,60
Lithium hydroxide	99,995 % (4N5)	1310-65-2	**1L5X.1**	5 g	80,10
			1L5X.2	25 g	254,25
Lithium hydroxide monohydrate	99,999 % (5N)	1310-66-3	**1L73.1**	5 g	64,40
			1L73.2	25 g	157,50
Lithium nitrate	99,999 % (5N), anhydrous	7790-69-4	**5281.1**	10 g	99,90
			5281.2	25 g	198,35
Lutetium(III) oxide	99,995 % (4N5)	12032-20-1	**5296.1**	1 g	118,80
Magnesium granulate	99,99 % (4N)	7439-95-4	**1L6K.1**	10 g	46,15
			1L6K.2	50 g	169,35
Magnesium chloride hexahydrate	99,999 % (5N)	7791-18-6	**5347.1**	25 g	265,00
			5347.2	100 g	779,40
Magnesium nitrate hexahydrate	99,999 % (5N)	13446-18-9	**5420.1**	10 g	67,65
			5420.2	50 g	140,30
Magnesium oxide	99,999 % (5N)	1309-48-4	**5639.1**	10 g	145,15
			5639.2	50 g	661,15
Manganese flakes	99,98 % (3N8)	7439-96-5	**4509.1**	25 g	120,95
			4509.2	50 g	177,40
Manganese(II) acetate tetrahydrate	99,999 % (5N)	6156-78-1	**5641.1**	5 g	69,35
			5641.2	25 g	209,65
Manganese(II) carbonate	99,98 % (3N8)	598-62-9	**1L68.1**	5 g	67,20
			1L68.2	25 g	254,25
Manganese(II) chloride tetrahydrate	99,995 % (4N5)	13446-34-9	**5304.1**	25 g	149,45
			5304.2	100 g	450,45
Manganese(II) nitrate hydrate	99,995 % (4N5)	15710-66-4	**5392.1**	10 g	120,95
			5392.2	25 g	241,90
Manganese(II) oxide	99,99 % (4N)	1344-43-0	**1L4X.1**	5 g	120,95
			1L4X.2	10 g	181,70
Manganese(IV) oxide	99,995 % (4N5)	1313-13-9	**5383.1**	5 g	59,05
			5383.2	25 g	194,05
Molybdenum pieces	99,98 % (3N8)	7439-98-7	**1L4T.1**	10 g	38,60
			1L4T.2	50 g	157,50
Molybdenum(VI) oxide	99,98 % (3N8)	1313-27-5	**4548.1**	5 g	64,40
			4548.2	10 g	107,40
Nickel powder	99,995 % (4N5)	7440-02-0	**5643.1**	25 g	104,20
			5643.2	100 g	328,45
Nickel(II) chloride hexahydrate	99,999 % (5N)	7791-20-0	**5373.1**	50 g	446,15
Nickel(II) nitrate hexahydrate	99,999 % (5N)	13478-00-7	**5387.1**	100 g	298,35
			5387.2	500 g	998,70
Nickel(II) oxide	99,999 % (5N)	1313-99-1	**5388.1**	50 g	303,70
			5388.2	100 g	557,95
Palladium powder	99,999 % (5N)	7440-05-3	**5648.1**	1 g	335,95
Palladium(II) chloride	99,999 % (5N)	7647-10-1	**5653.1**	1 g	267,15
			5653.2	5 g	1.091,15
Palladium(II) oxide	99,995 % (4N5)	1314-08-5	**5393.1**	1 g	218,15
			5393.2	5 g	779,95
Phosphotungstic acid hydrate	99,995 % (4N5)	12501-23-4	**1L78.1**	5 g	87,65
Platinum powder	99,999 % (5N)	7440-06-4	**5654.1**	1 g	575,15
Platinum(II) chloride	99,999 % (5N)	10025-65-7	**1L76.1**	250 mg	335,95
			1L76.2	1 g	536,45
Potassium bromide	99,995 % (4N5)	7758-02-3	**5064.1**	10 g	132,80
			5064.2	50 g	438,10
Potassium carbonate	99,995 % (4N5)	584-08-7	**5335.1**	10 g	64,00
			5335.2	50 g	203,20
Potassium chloride	99,995 % (4N5)	7447-40-7	**5346.1**	25 g	102,05
			5346.2	100 g	298,35
Potassium dihydrogen phosphate	99,99 % (4N)	7778-77-0	**1L6N.1**	5 g	80,55
			1L6N.2	25 g	213,95
Potassium fluoride	99,99 % (4N)	7789-23-3	**5656.1**	5 g	72,60
			5656.2	25 g	249,95

High Purity

Product name	Purity	CAS No.	Art. No.	Pack Qty.	€
Potassium hexacyanoferrate(II) trihydrate	99,99 % (4N)	14459-95-1	**1L7C.1**	5 g	71,95
			1L7C.2	25 g	169,35
Potassium hexacyanoferrate(III)	99,99 % (4N)	13746-66-2	**1L6A.1**	5 g	88,70
			1L6A.2	25 g	254,25
di-Potassium hydrogen phosphate	99,99 % (4N), anhydrous	7758-11-4	**5066.1**	25 g	205,90
Potassium hydroxide	99,98 % (3N8)	1310-58-3	**5658.1**	100 g	153,20
Potassium iodide	99,999 % (5N)	7681-11-0	**5067.1**	25 g	167,20
Potassium nitrate	99,999 % (5N)	7757-79-1	**5659.1**	10 g	70,45
			5659.2	50 g	224,70
Potassium sulphate	99,995 % (4N5)	7778-80-5	**5071.1**	10 g	122,05
Potassium tetrachloroaurate(III)	99,995 % (4N5)	13682-61-6	**5114.1**	1 g	335,95
			5114.2	5 g	1.370,65
Potassium tetrachloroplatinate(II)	99,95 % (3N5)	10025-99-7	**5660.1**	1 g	315,55
Rhodium(III) chloride hydrate	99,95 % (3N5)	20765-98-4	**5668.1**	1 g	1.822,15
Rubidium carbonate	99,99 % (4N)	584-09-8	**1L65.1**	5 g	206,95
Rubidium chloride	99,98 % (3N8)	7791-11-9	**5679.1**	5 g	286,50
			5679.2	10 g	486,45
Rubidium nitrate	99,99 % (4N)	13126-12-0	**5293.1**	5 g	205,90
			5293.2	25 g	901,95
Rubidium sulphate	99,99 % (4N)	7488-54-2	**1L71.1**	1 g	56,90
Ruthenium(III) chloride	99,9 % (3N), anhydrous	10049-08-8	**5686.1**	1 g	120,95
			5686.2	5 g	542,90
Scandium(III) oxide	99,995 % (4N5)	12060-08-1	**5735.1**	1 g	209,65
Selenium pellets	99,999 % (5N)	7782-49-2	**4547.1**	10 g	64,00
			4547.2	50 g	238,15
Selenium(IV) oxide	99,999 % (5N)	7446-08-4	**5324.1**	10 g	181,70
Silicon dioxide	99,998 % (4N8)	60676-86-0	**5738.1**	5 g	52,15
			5738.2	25 g	144,60
Silver bromide	99,999 % (5N)	7785-23-1	**5739.1**	5 g	82,70
			5739.2	25 g	298,35
Silver chloride	99,9999 % (6N)	7783-90-6	**5302.1**	1 g	60,10
			5302.2	5 g	103,75
			5302.3	25 g	401,55
Silver iodide	99,999 % (5N)	7783-96-2	**1L5C.1**	5 g	87,65
			1L5C.2	25 g	254,25
Silver nitrate	99,9999 % (6N)	7761-88-8	**4500.1**	10 g	99,90
			4500.2	50 g	450,45
Silver sulphate	99,999 % (5N)	10294-26-5	**1L6C.1**	5 g	87,65
			1L6C.2	25 g	254,25
Sodium acetate	99,99 % (4N), anhydrous	127-09-3	**5380.1**	25 g	111,30
Sodium bromide	99,999 % (5N)	7647-15-6	**5086.1**	25 g	194,05
Sodium carbonate	99,999 % (5N), anhydrous	497-19-8	**5740.1**	5 g	56,90
			5740.2	25 g	205,90
Sodium chloride	99,999 % (5N)	7647-14-5	**5741.1**	5 g	51,50
			5741.2	25 g	102,05
			5741.3	100 g	352,10
Sodium fluoride	99,995 % (4N5)	7681-49-4	**4503.1**	10 g	73,00
			4503.2	50 g	238,15
Sodium nitrate	99,999 % (5N)	7631-99-4	**5742.1**	25 g	230,60
Sodium nitrite	99,99 % (4N)	7632-00-0	**1L4P.1**	10 g	87,00
			1L4P.2	100 g	340,25
Sodium perrhenate	99,99 % (4N)	13472-33-8	**1L62.1**	250 mg	38,60
			1L62.2	1 g	87,65
Sodium sulphate	99,999 % (5N)	7757-82-6	**5076.1**	10 g	104,85
			5076.2	25 g	216,65
Sodium tetrachloropalladate(II)	99,99 % (4N)	13820-53-6	**1L56.1**	1 g	254,25
Strontium acetate hydrate	99,999 % (5N)	543-94-2	**1L69.1**	1 g	45,05
			1L69.2	10 g	169,35
Strontium carbonate	99,998 % (4N8)	1633-05-2	**5376.1**	5 g	68,30
			5376.2	25 g	176,85
Strontium chloride hexahydrate	99,999 % (5N)	10025-70-4	**1L5H.1**	5 g	103,75
			1L5H.2	25 g	340,25
Strontium nitrate	99,999 % (5N)	10042-76-9	**5078.1**	25 g	205,90
Tantalum powder	99,99 % (4N)	7440-25-7	**1L6L.1**	5 g	n. a.
			1L6L.2	25 g	n. a.
Tantalum(V) oxide	99,99 % (4N)	1314-61-0	**1L5L.1**	5 g	51,10
			1L5L.2	25 g	176,85
Tellurium pices	99,999 % (5N)	13494-80-9	**1L5N.1**	10 g	54,30
			1L5N.2	50 g	169,35
Tellurium(IV) oxide	99,999 % (5N)	7446-07-3	**5745.1**	5 g	59,05
			5745.2	10 g	107,00
			5745.3	50 g	360,15

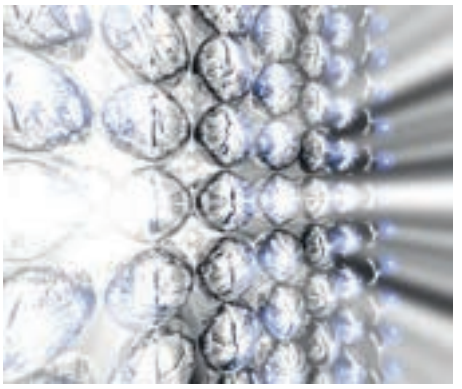
Product name	Purity	CAS No.	Art. No.	Pack Qty.	€
Tetraammineplatinum(II) nitrate	99,995 % (4N5)	20634-12-2	**5746.1**	1 g	450,45
Tin shot	99,999 % (5N)	7440-31-5	**5097.1**	5 g	98,80
			5097.2	10 g	161,80
Tin(IV) oxide	99,999 % (5N)	18282-10-5	**1L61.1**	5 g	144,60
			1L61.2	25 g	585,90
Titanium pieces	99,99 % (4N)	7440-32-6	**1L66.1**	10 g	87,65
Titanium(IV) oxide	99,999 % (5N)	13463-67-7	**5747.1**	5 g	72,60
			5747.2	25 g	213,95
Tungsten(VI) oxide	99,995 % (4N5)	1314-35-8	**5399.1**	50 g	376,80
			5399.2	100 g	639,65
Vanadium(V) oxide	99,995 % (4N5)	1314-62-1	**5370.1**	5 g	104,85
			5370.2	25 g	401,55
Ytterbium(III) chloride hexahydrate	99,999 % (5N)	10035-01-5	**5749.1**	10 g	238,15
Ytterbium(III) oxide	99,999 % (5N)	1314-37-0	**5303.1**	5 g	104,20
			5303.2	25 g	352,10
Yttrium(III) oxide	99,999 % (5N)	1314-36-9	**5751.1**	10 g	91,30
			5751.2	50 g	265,00
Zinc shot	99,999 % (5N)	7440-66-6	**5345.1**	25 g	61,85
			5345.2	100 g	194,05
Zinc bromide	99,999 % (5N)	7699-45-8	**1L55.1**	10 g	140,30
			1L55.2	50 g	418,20
Zinc chloride	99,999 % (5N)	7646-85-7	**1L5T.1**	5 g	87,65
			1L5T.2	25 g	254,25
Zinc oxide	99,999 % (5N)	1314-13-2	**5421.1**	25 g	161,80
			5421.2	100 g	532,15
Zirconyl chloride octahydrate	99,995 % (4N5)	13520-92-8	**4502.1**	10 g	82,70
Zirconyl nitrate hydrate	99,99 % (4N)	14985-18-3	**5415.1**	25 g	327,90
			5415.2	100 g	1.009,45

For additional product data and safety information, see chapter Chemicals A–Z.

► Ultra pure acids, alkaline solutions and water see page 650

ROTI®REMETIC

Rare Earth Metal Inorganic Compounds



Our ultra high purity rare earth metal compounds work excellent for:

- Instrumental analytics
- Chemical analyses & syntheses
- Crystal growth technology
- Catalysis
- Doping agents
- Luminescent & fluorescent compounds
- Glas fibre technology
- Laser technology
- Fuel cells
- Oxidizing agents
- Electronic industry
- Ceramic manufacturing

Our mission is to offer the quality and service you require in research & development and in production. Excellent value for money and the option of ordering in semi-bulk are strong arguments in favour of the ROTI®REMETIC product range.

Ultra-high-purity metals compounds

Purity refers to TREO (Total Rare Earth Oxides).

Product name	Purity	CAS No.	Art. No.	Pack Qty.	€
Cerium(III) nitrate hexahydrate	99,9 %	10294-41-4	**7049.1**	5 g	48,30
			7049.2	25 g	92,35
Cerium(III) oxalate hydrate	99,9 %	15750-47-7	**7067.1**	10 g	80,10
			7067.2	50 g	278,45
Cerium(IV) oxide	99,99 %	1306-38-3	**7042.1**	10 g	58,60
			7042.2	50 g	155,90
Dysprosium(III) oxide	99,9 %	1308-87-8	**7145.1**	5 g	52,15
			7145.2	25 g	91,95
Erbium(III) oxide	99,9 %	12061-16-4	**7160.1**	5 g	47,85
			7160.2	25 g	117,20
Gadolinium(III) oxide	99,99 %	12064-62-9	**7136.1**	1 g	39,70
			7136.2	5 g	56,90
			7136.3	25 g	142,90
			7136.4	100 g	370,90
Lanthanum(III) acetate hydrate	99,9 %	25721-92-0	**7031.1**	100 g	104,85
			7031.2	250 g	222,00
Lanthanum(III) nitrate hexahydrate	99,999 %	10277-43-7	**7019.1**	25 g	104,20
			7019.2	100 g	315,55
	99,99 %	10277-43-7	**7180.1**	50 g	127,95
			7180.2	250 g	418,20
Lanthanum(III) oxide	99,999 %	1312-81-8	**7410.1**	25 g	81,60
			7410.2	100 g	267,70
Lutetium(III) oxide	99,99 %	12032-20-1	**7177.1**	1 g	91,30
			7177.2	5 g	375,20
Neodymium(III) acetate hydrate	99,9 %	6192-13-8	**7107.1**	50 g	117,20
			7107.2	100 g	203,20
Neodymium(III) nitrate hexahydrate	99,9 %	16454-60-7	**7097.1**	25 g	83,75
			7097.2	100 g	192,45
Neodymium(III) oxide	99,999 %	1313-97-9	**7092.2**	25 g	235,45
Samarium(III) oxide	99,95 %	12060-58-1	**7108.1**	5 g	55,80
			7108.2	25 g	123,55
Ytterbium(III) oxide	99,99 %	1314-37-0	**7353.1**	10 g	112,90
			7353.2	25 g	198,90
			7353.3	50 g	349,40
Yttrium(III) oxide	99,99 %	1314-36-9	**7352.1**	25 g	75,15
			7352.2	100 g	193,50

For additional product data and safety information, see chapter Chemicals A–Z.

► Ultra pure acids, alkaline solutions and water see page 650

ROTI®nanoMETIC

Nanoparticles

Our nanoparticles are well suited for many applications and are mainly supplied as a hydrophilic powder that can be easily suspended in aqueous solutions.

Nanoparticles

Product name	Purity	Art. No.	Pack Qty.	€
Aluminium oxide, nano	≥99,9 %, 40 nm	**8250.1**	10 g	31,75
		8250.2	50 g	124,20
		8250.3	100 g	209,65
Copper, nano	≥99 %, ≥80 nm	**8279.1**	5 g	55,40
		8279.2	25 g	222,00
		8279.3	100 g	805,20
Copper(II) oxide, nano	≥99 %, 15–50 nm	**8251.1**	10 g	36,45
		8251.2	50 g	155,90
		8251.3	100 g	278,45
Titanium(IV) oxide, nano	≥99,9 %, 4–8 nm	**8254.1**	10 g	73,65
		8254.2	50 g	317,15
Zinc oxide, nano	≥99 %, 25 nm	**8278.1**	10 g	62,25
		8278.2	50 g	241,90
		8278.3	100 g	446,15
Zirconium(IV) oxide, nano	3 nm, hydrophobic	**1776.1**	1 g	60,75
		1776.2	5 g	246,20
	3 nm, hydrophilic	**2097.1**	1 g	50,45
		2097.2	5 g	209,65

For additional product data and safety information, see chapter Chemicals A–Z.
For information on handling nanomaterials, see the WHO homepage.

Phosphonic acids

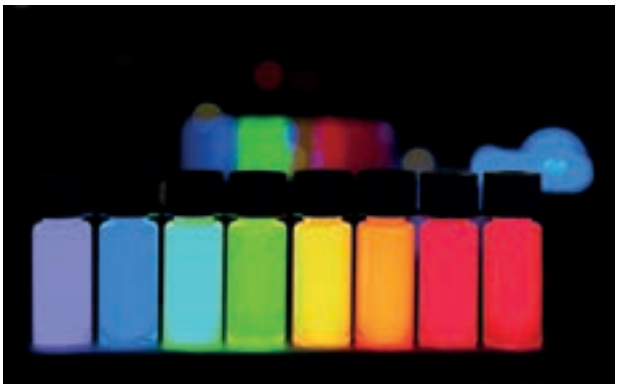
Alkylphosphonic acids are perfect hydrophobization ligands, owing to their classical bifunctional chemical structure. They contain an non-polar organic hydrophobic alkyl chain and an active hydrophilic phosphonic acid group. These molecules are capable to strongly bind to the surface of different inorganic materials (SiO_2, Al_2O_3, TiO_2, Fe_xO_y, ZrO_2, ZnS etc.) forming a selfassembled coating layer. Phosphonic acids can also be used as ligands for the synthesis of nanoparticles to control the size and hydrophobic properties of the particles. Further they are well soluble in non-polar and many polar solvents. The acids are also soluble in water (especially upon addition of alkali) at lower concentrations.

Phosphonic acids suitable for the production and modification of nanoparticles

Product name	Art. No.	Pack Qty.	€
Hexadecylphosphonic acid	**8466.1**	1 g	42,90
	8466.2	5 g	160,75
Octadecylphosphonic acid	**8468.1**	1 g	67,65
	8468.2	5 g	278,45
Tetradecylphosphonic acid	**8465.1**	1 g	45,70
	8465.2	5 g	160,20

For additional product data and safety information, see chapter Chemicals A–Z.

Quantum Dots (QD)



Quantum dots are fluorescent nanoparticles of certain semiconducting materials, whose electronic properties closely depend on the size of the particles. The fluorescence wavelength shifts towards red for larger particles, and to blue for the smaller ones. This allows coverage of the complete visible colour spectrum with quantum dots of different sizes and yet the same material. The possibility to control the size of the particles during their manufacturing, allows to precisely adjust their electronic and fluorescent properties. The inorganic nature of quantum dots makes them far more stable than organic fluorescent dyes. Moreover, the surface of quantum dot particles is modified with carboxylic groups, which makes them highly soluble in water and enables covalent conjugation with proteins and other molecules.

Quantum Dots, hydrophilic

Product name	Purity	Art. No.	Pack Qty.	€
Cadmium telluride	λ max. 510 ±5 nm	**8256.1**	5 mg	131,70
		8256.2	10 mg	241,90
	λ max. 570 ±5 nm	**8257.1**	5 mg	131,70
		8257.2	10 mg	241,90
	λ max. 610 ±5 nm	**8258.1**	5 mg	131,70
		8258.2	10 mg	241,90
	λ max. 710 ±5 nm	**8260.1**	5 mg	131,70
		8260.2	10 mg	241,90
	λ max. 780 ±5 nm	**8261.1**	5 mg	131,70
		8261.2	10 mg	241,90

For additional product data and safety information, see chapter Chemicals A–Z.

Quantum Dots, hydrophobic

Product name	Purity	Art. No.	Pack Qty.	€
Zn-Cu-In-S/ZnS	λ max. 530 ±15 nm	**8609.1**	5 mg	64,00
		8609.2	10 mg	96,25
	λ max. 560 ±15 nm	**8610.1**	5 mg	64,00
		8610.2	10 mg	96,25
	λ max. 590 ±15 nm	**8618.1**	5 mg	64,00
		8618.2	10 mg	96,25
	λ max. 610 ±15 nm	**8614.1**	5 mg	64,00
		8614.2	10 mg	96,25
	λ max. 650 ±15 nm	**8616.1**	5 mg	64,00
		8616.2	10 mg	96,25
	λ max. 700 ±15 nm	**8615.1**	5 mg	64,00
		8615.2	10 mg	96,25

For additional product data and safety information, see chapter Chemicals A–Z.

Elements



Alloys

Product name	Purity	Art. No.	Pack Qty.	€
Alloy acc. to Devarda	p.a.	**1H45.1**	100 g	45,70
		1H45.2	250 g	76,25
		1H45.3	500 g	137,10
		1H45.4	1 kg	241,90
Alloy acc. to Wood	Use as metal bath	**1980.1**	250 g	56,45
		1980.2	1 kg	174,70
Brass wool	~66 % Cu, ~33 % Zn	**0753.1**	100 g	25,70
		0753.2	250 g	46,15
		0753.3	500 g	78,40
		0753.4	1 kg	134,40
Nickel-aluminium alloy	50/50 % Ni/Al, for synthesis, powder	**0663.1**	50 g	32,15
		0663.2	250 g	120,95
		0663.3	500 g	224,70

Al

Aluminium

Product name	Purity	Art. No.	Pack Qty.	€
Aluminium granulate	99,995 % (4N5)	**5577.1**	25 g	60,75
		5577.2	100 g	163,95
	≥99 %, ~1–5 mm	**5280.1**	250 g	23,15
		5280.2	1 kg	46,15
Aluminium powder	≥99 %, <160 µm	**5285.1**	250 g	37,10
		5285.2	1 kg	99,45
Aluminium wool	~99 %, fine	**2272.1**	100 g	31,20
		2272.2	500 g	85,90
		2272.3	1 kg	155,90
	~99 %, coarse	**2630.1**	100 g	26,80
		2630.2	500 g	78,40
		2630.3	1 kg	134,40

Sb

Antimony

Product name	Purity	Art. No.	Pack Qty.	€
Antimony shot	99,999 % (5N)	**4516.2**	50 g	254,25
Antimony powder	≥99,5 %, ~325 mesh	**9258.1**	100 g	60,10
		9258.2	500 g	220,40
	≥99,5 %	**1HX4.1**	100 g	44,65
		1HX4.2	250 g	82,25
		1HX4.3	500 g	150,00

Bi

Bismuth

Product name	Purity	Art. No.	Pack Qty.	€
Bismuth pieces	99,999 % (5N)	**1L6H.1**	10 g	103,75
Bismuth powder	≥99,5 %, ~200 mesh	**2735.1**	50 g	64,00
		2735.2	100 g	107,00

Ca

Calcium

Product name	Purity	Art. No.	Pack Qty.	€
Calcium granulate	≥99,5 %, ~6 mesh	**2729.1**	50 g	90,85

C

Carbon

Product name	Purity	Art. No.	Pack Qty.	€
Graphite	natural, amorphous	**7614.2**	500 g	21,40
		7614.3	1 kg	32,15
		7614.1	3 kg	58,60

Cr

Chromium

Product name	Purity	Art. No.	Pack Qty.	€
Chromium shot	≥99,95 %	**0886.1**	10 g	40,75
		0886.2	25 g	88,05
		0886.3	50 g	160,20
		0886.4	100 g	289,20

For additional product data and safety information, see chapter Chemicals A–Z.

Co

Cobalt

Product name	Purity	Art. No.	Pack Qty.	€
Cobalt powder	99,999 % (5N)	**5620.1**	5 g	118,80
		5620.2	25 g	376,25

For additional product data and safety information, see chapter Chemicals A–Z.



Cu

Copper

Product name	Purity	Art. No.	Pack Qty.	€
Copper foil	p.a.	**1KNE.1**	250 g	49,35
		1KNE.2	1 kg	127,95
		8540.1	250 g	46,15
		8540.2	1 kg	117,20
Copper beads	≥99,9 %	**2728.1**	100 g	51,10
Copper, nano	≥99 %, ≥80 nm	**8279.1**	5 g	55,40
		8279.2	25 g	222,00
		8279.3	100 g	805,20
Copper pellets	99,999 % (5N)	**5621.1**	25 g	74,75
		5621.2	100 g	182,25
Copper powder	99,999 % (5N)	**5386.1**	10 g	176,85
		5386.2	50 g	755,20
	≥99,7 %, p.a., <63 µm	**CP21.1**	100 g	21,40
		CP21.2	500 g	68,70
Copper wool	~99 %	**9597.1**	100 g	23,55
		9597.2	250 g	42,90
		9597.3	500 g	75,15
		9597.4	1 kg	145,15

Ga

Gallium

Product name	Purity	Art. No.	Pack Qty.	€
Gallium	99,9999 %	**3761.1**	5 g	96,65
	99,99 %	**1HN8.1**	5 g	32,15
		1HN8.2	10 g	53,65
		1HN8.3	25 g	107,40

Ge

Germanium

Product name	Purity	Art. No.	Pack Qty.	€
Germanium pieces	99,999 % (5N)	**1L54.1**	1 g	46,15
		1L54.2	5 g	153,20

Au

Gold

Product name	Purity	Art. No.	Pack Qty.	€
Gold shot	99,999 % (5N)	**5622.1**	1 g	493,45
		5622.2	5 g	2.338,15
	≥99,95 %, 1–6 mm	**0882.1**	1 g	246,20
		0882.2	5 g	1.030,95
Gold leaf		**7605.1**	25 sheet	170,95

In

Indium

Product name	Purity	Art. No.	Pack Qty.	€
Indium wire	99,99 %, Ø 0,5 mm	**1HN9.1**	25 cm	24,65
		1HN9.2	50 cm	37,10
		1HN9.3	1 m	62,25
Indium foil	99,99 % (4N)	**9803.1**	1 unit(s)	349,40
Indium shot	99,999 % (5N)	**5629.1**	5 g	74,10
		5629.2	25 g	249,95
Indium granules	>99,97 %	**3906.1**	10 g	64,40
Indium powder	≥99 %, p.a.	**1EHP.1**	5 g	56,45
		1EHP.2	25 g	209,65

I

Iodine

Product name	Purity	Art. No.	Pack Qty.	€
Iodine	≥99,8 %, p.a., ACS, resublimated	**X864.1**	100 g	88,05
		X864.2	250 g	160,20
		X864.3	1 kg	564,40
	≥99,5 %, Ph. Eur., resublimated	**7935.3**	100 g	67,65
		7935.1	250 g	145,15
		7935.2	1 kg	514,95
	≥99,5 %, resublimated	**7335.1**	250 g	112,90
		7335.2	500 g	203,20
		7335.3	1 kg	385,95
		7335.4	2.5 kg	747,15



Fe

Iron

Product name	Purity	Art. No.	Pack Qty.	€
Iron foil	99,99 % (4N)	**0540.1**	1 unit(s)	134,40
		0540.2	5 unit(s)	568,70
Iron granules	99,99 % (4N)	**5631.1**	5 g	49,35
		5631.2	25 g	160,20
Iron powder	≥99,5 %, p.a., ~10 µm	**3718.3**	100 g	28,95
		3718.1	250 g	56,90
		3718.4	1 kg	153,20
		3718.2	2.5 kg	321,45
Iron powder reduced	≥96 %, extra pure, <149 µm	**9454.1**	250 g	22,50
		9454.2	1 kg	56,90
		9454.3	2.5 kg	107,40
Iron wool	~97 %	**9588.1**	100 g	14,95
		9588.2	250 g	25,70

Pb

Lead

Product name	Purity	Art. No.	Pack Qty.	€
Lead foil	≥99,8 %	**1HEC.1**	10 cm	23,15
		1HEC.2	20 cm	34,30
		1HEC.3	50 cm	57,55
Lead granulate	≥99,9 %, ~20 mesh	**2734.1**	50 g	55,80
		2734.2	100 g	94,50
Lead wool	~99 %, fine	**2248.1**	250 g	28,95
		2248.2	500 g	41,85
		2248.3	1 kg	69,35
		2248.4	2.5 kg	134,40

Li

Lithium

Product name	Purity	Art. No.	Pack Qty.	€
Lithium	≥99,5 %, Ø 70 mm, h: 55 mm	**1HEA.1**	100 g	671,90

Mg

Magnesium

Product name	Purity	Art. No.	Pack Qty.	€
Magnesium ribbon	≥99,5 %	**4468.1**	1 roll(s)	120,95
Magnesium turnings	≥99,9 %, for synthesis, acc. to Grignard	**AE61.1**	250 g	21,40
		AE61.2	500 g	34,30
		AE61.3	1 kg	55,80
Magnesium granulate	99,99 % (4N)	**1L6K.1**	10 g	46,15
		1L6K.2	50 g	169,35
Magnesium powder	≥99,8 %, <75 µm	**CP20.1**	100 g	18,20
		CP20.2	500 g	55,80

Mn

Manganese

Product name	Purity	Art. No.	Pack Qty.	€
Manganese powder	≥99,6 %, <100 mesh	**1HX8.1**	50 g	42,90
		1HX8.2	100 g	69,35
		1HX8.3	250 g	134,40
Manganese flakes	99,98 % (3N8)	**4509.1**	25 g	120,95
		4509.2	50 g	177,40

For additional product data and safety information, see chapter Chemicals A–Z.

Hg

Mercury

Product name	Purity	Art. No.	Pack Qty.	€
Mercury	≥99,9995 %, p.a.	**8530.1**	100 g	n. a.
		8530.2	1 kg	n. a.
	≥99,999 %	**7593.1**	100 g	n. a.
		7593.3	500 g	n. a.
		7593.2	1 kg	n. a.
	≥99,9 %	**7594.2**	100 g	n. a.
		7594.1	1 kg	n. a.

Mo

Molybdenum

Product name	Purity	Art. No.	Pack Qty.	€
Molybdenum pieces	99,98 % (3N8)	**1L4T.1**	10 g	38,60
		1L4T.2	50 g	157,50

Nickel

Product name	Purity	Art. No.	Pack Qty.	€
Nickel foil	99,99 % (4N)	**0529.1**	1 unit(s)	112,35
		0529.2	5 unit(s)	493,45
Nickel powder	99,995 % (4N5)	**5643.1**	25 g	104,20
		5643.2	100 g	328,45
	≥99 %, <63 µm	**CP22.1**	100 g	37,55

Palladium

Product name	Purity	Art. No.	Pack Qty.	€
Palladium powder	99,999 % (5N)	**5648.1**	1 g	335,95



Platinum

Product name	Purity	Art. No.	Pack Qty.	€
Platinum black	98,2–98,7 %	**8408.1**	250 mg	44,65
		8408.2	1 g	155,35
Platinum powder	99,999 % (5N)	**5654.1**	1 g	575,15
Platinum wire	≥99,95 %, Ø 0,2 mm	**0737.1**	25 cm	103,10
		0737.2	50 cm	192,45
		0737.3	1 m	364,45
	≥99,9 %, Ø 0,3 mm	**8415.1**	10 cm	88,05
		8415.2	50 cm	340,25
	≥99,95 %, Ø 0,5 mm	**0803.1**	5 cm	96,25
		0803.2	10 cm	177,40
		0803.3	25 cm	385,95

Selenium

Product name	Purity	Art. No.	Pack Qty.	€
Selenium pellets	99,999 % (5N)	**4547.1**	10 g	64,00
		4547.2	50 g	238,15

For additional product data and safety information, see chapter Chemicals A–Z.

Silver

Product name	Purity	Art. No.	Pack Qty.	€
Silver sheet	100 × 100 × 0,1 mm	**8816.1**	1 unit(s)	92,35
Silver wire	≥99,9 %, Ø 0,1 mm	**8819.1**	350 m	193,50
	≥99,9 %, Ø 0,5 mm	**8821.1**	25 g	222,00
		8821.2	100 g	725,65
Silver pellets	≥99,99 %	**0884.1**	5 g	46,15
		0884.2	10 g	85,90
		0884.3	25 g	193,50
		0884.4	50 g	370,90
Silver wool	≥99,9 %, for elemental analysis	**9373.1**	10 g	106,45

Sodium

Product name	Purity	Art. No.	Pack Qty.	€
Sodium	≥99 %, rods, in paraffin wax oil	**4469.1**	250 g	198,90

Sulphur

Product name	Purity	Art. No.	Pack Qty.	€
Sulphur	≥99,999 %	**4669.1**	10 g	80,10
	≥99,5 %, ground	**9304.1**	1 kg	22,50
		9304.2	5 kg	70,85
		9304.5	25 kg	203,20

Tantalum

Product name	Purity	Art. No.	Pack Qty.	€
Tantalum powder	99,99 % (4N)	**1L6L.1**	5 g	n. a.
		1L6L.2	25 g	n. a.

Auxiliary Reagents



Tellurium

Product name	Purity	Art. No.	Pack Qty.	€
Tellurium pices	99,999 % (5N)	**1L5N.1**	10 g	54,30
		1L5N.2	50 g	169,35



Tin

Product name	Purity	Art. No.	Pack Qty.	€
Tin foil	98 % Sn, 2 % Sb, pure	**1L7Y.1**	250 g	85,50
Tin shot	99,999 % (5N)	**5097.1**	5 g	98,80
		5097.2	10 g	161,80
Tin granules	≥99,8 %, p.a., ~1-4 mm	**4016.2**	50 g	56,90
		4016.1	250 g	209,65
	≥99,9 %, p.a., ~5-12 mm	**1ET2.1**	50 g	58,60
		1ET2.2	100 g	107,00
		1ET2.3	250 g	224,70
Tin beads	≥99,8 %, 8-20 mesh	**2731.1**	50 g	47,85
		2731.2	100 g	87,65

For additional product data and safety information, see chapter Chemicals A–Z.



Titanium

Product name	Purity	Art. No.	Pack Qty.	€
Titanium pieces	99,99 % (4N)	**1L66.1**	10 g	87,65



Tungsten

Product name	Purity	Art. No.	Pack Qty.	€
Tungsten powder	≥99 %, ~325 mesh	**9835.1**	50 g	38,20
		9835.2	100 g	66,55
		9835.3	500 g	274,15



Vanadium

Product name	Purity	Art. No.	Pack Qty.	€
Vanadium powder	99,5 %	**1HT6.1**	5 g	30,00
		1HT6.2	25 g	95,60



Zinc

Product name	Purity	Art. No.	Pack Qty.	€
Zinc shot	99,999 % (5N)	**5345.1**	25 g	61,85
		5345.2	100 g	194,05
Zinc granules	≥99,99 %, p.a., 0,3–1,5 mm	**3093.1**	100 g	41,85
		3093.2	250 g	96,25
		3093.3	500 g	177,40
	≥99,99 %, p.a., 5–15 mm	**AE99.1**	250 g	45,05
		AE99.2	500 g	78,40
		AE99.3	1 kg	134,40
Zinc dust	≥98 %, <63 µm, stabilised	**9524.2**	500 g	37,55
		9524.3	1 kg	55,80
		9524.1	2.5 kg	101,60

Desiccants

Desiccants can absorb water and bind it chemically (reversibly or irreversibly) or physically.
The main desiccants can be subdivided into four categories:

- non-renewable chemical desiccants
- renewable chemical desiccants
- silica gels
- molecular sieves



Non-renewable desiccant

Product name	Purity	Suitable (as desiccant) for	Not suitable (as desiccant) for	Pack.	Art. No.	Pack Qty.	€
Aluminium granulate	≥99 %, ~1–5 mm	Alcohols	-	plastic	**5280.1**	250 g	23,15
					5280.2	1 kg	46,15
Aluminium powder	≥99 %, <160 µm	Alcohols	-	glass	**5285.1**	250 g	37,10
					5285.2	1 kg	99,45
Calcium granulate	≥99,5 %, ~6 mesh	Alcohols	-	glass	**2729.1**	50 g	90,85
Magnesium ribbon	≥99,5 %	Alcohols	-	box	**4468.1**	1 roll(s)	120,95
Magnesium turnings	≥99,9 %, for synthesis, acc. to Grignard	Alcohols	-	tin	**AE61.1**	250 g	21,40
					AE61.2	500 g	34,30
					AE61.3	1 kg	55,80
Magnesium powder	≥99,8 %, <75 µm	Alcohols	-	plastic	**CP20.1**	100 g	18,20
					CP20.2	500 g	55,80
Phosphorus pentoxide	≥99 %, powdered	Neutral and acidic gases, saturated aliphatic and aromatic hydrocarbons, acetylene, anhydrides, nitriles, alkyl and aryl halides, hydrogen sulphide	Alcohols, amines, acids, ketones, ethers, hydrogen chloride, hydrogen fluoride	plastic	**9076.1**	500 g	32,15
					9076.2	1 kg	49,35
					9076.3	2.5 kg	107,00
Potassium hydroxide	≥85 %, p.a., in pellets	Alkaline fluids (e.g. amines)	Acids, esters, amides, phenols	plastic	**6751.3**	250 g	21,00
					6751.1	1 kg	42,50
					6751.4	2.5 kg	85,90
					6751.2	5 kg	160,20
					6751.6	10 kg	289,20
					6751.5	25 kg	579,45
	≥85 %, Ph. Eur., in pellets	Alkaline fluids (e.g. amines)	Acids, esters, amides, phenols	plastic	**P747.1**	500 g	27,85
					P747.2	1 kg	47,20
					P747.6	2.5 kg	95,60
					P747.3	5 kg	177,40
					P747.5	10 kg	332,20
					P747.4	25 kg	665,45
	≥85 %, in sheds	Alkaline fluids (e.g. amines)	Acids, esters, amides, phenols	plastic	**7986.1**	1 kg	38,60
					7986.3	2.5 kg	70,45
					7986.4	5 kg	117,20
					7986.2	10 kg	209,65
					7986.5	25 kg	446,15
Sodium	≥99 %, rods, in paraffin wax oil	Ethers, saturated aliphatic and aromatic hydrocarbons, tertiary amines	Acids, acid derivatives, alcohols, aldehydes, ketones, alkyl and aryl halides	glass	**4469.1**	250 g	198,90

Auxiliary Reagents

Product name	Purity	Suitable (as desiccant) for	Not suitable (as desiccant) for	Pack.	Art. No.	Pack Qty.	€
Sodium hydroxide	≥98 %, p.a., ISO, in pellets	Alkaline fluids (e.g. amines)	Acids, acid derivatives, phenols	plastic	**6771.3**	500 g	25,70
					6771.1	1 kg	42,90
					6771.4	2.5 kg	85,90
					6771.2	5 kg	160,20
					6771.6	10 kg	299,95
					6771.5	25 kg	639,65
	≥98 %, Ph. Eur., USP, BP, in pellets	Alkaline fluids (e.g. amines)	Acids, acid derivatives, phenols	plastic	**P031.1**	500 g	24,65
					P031.2	1 kg	40,75
					P031.4	2.5 kg	81,60
					P031.3	5 kg	149,45
					P031.5	10 kg	289,20
					P031.7	25 kg	622,45
	≥99 %, beads	Alkaline fluids (e.g. amines)	Acids, acid derivatives, phenols	plastic	**9356.1**	1 kg	23,55
					9356.4	2.5 kg	48,30
					9356.3	5 kg	81,60
					9356.2	10 kg	149,45
					9356.5	25 kg	267,70
Sulphuric acid	96 %, p.a., ISO	Inert neutral and acidic gases and in dessicators	Unsaturated and other organic compounds, hydrogen sulphide, hydrogen iodide	glass	**4623.3**	250 ml	24,20
					4623.1	1 l	40,75
				plastic	**4623.4**	1 l	38,60
				glass	**4623.2**	2.5 l	83,75
				plastic	**4623.5**	2.5 l	85,90
					4623.6	10 l	163,95

For additional product data and safety information, see chapter Chemicals A–Z.



Regenerable desiccants

Product name	Purity	Suitable (as desiccant) for	Not suitable (as desiccant) for	Regeneration	Pack.	Art. No.	Pack Qty.	€
Calcium chloride	≥98 %, dehydrated, powder	Saturated, olefin and aromatic hydrocarbons, alkyl halides, ethers, multiple esters, acetone	Ammonia, amines, alcohols, aldehydes, phenols, several esters, ketones	250 °C	plastic	**CN93.1**	500 g	39,25
						CN93.2	1 kg	69,35
						CN93.3	2.5 kg	149,45
						CN93.4	5 kg	274,15
						CN93.5	25 kg	901,95
	≥96 %, dehydrated, granules	Saturated, olefin and aromatic hydrocarbons, alkyl halides, ethers, multiple esters, acetone	Ammonia, amines, alcohols, aldehydes, phenols, several esters, ketones	250 °C	plastic	**CN92.1**	500 g	40,75
						CN92.2	1 kg	60,10
						CN92.3	2.5 kg	137,10
						CN92.4	10 kg	375,20
	≥95 %, technical	Saturated, olefin and aromatic hydrocarbons, alkyl halides, ethers, multiple esters, acetone	Ammonia, amines, alcohols, aldehydes, phenols, several esters, ketones	250 °C	plastic	**1C34.1**	1 kg	30,00
						1C34.2	2.5 kg	47,85
						1C34.3	5 kg	74,20
						1C34.4	10 kg	123,65
						1C34.5	25 kg	246,20
	≥94 %, dehydrated	Saturated, olefin and aromatic hydrocarbons, alkyl halides, ethers, multiple esters, acetone	Ammonia, amines, alcohols, aldehydes, phenols, several esters, ketones	250 °C	plastic	**A119.1**	1 kg	22,50
						A119.3	2.5 kg	41,95
						A119.2	5 kg	68,70
						A119.4	10 kg	106,45
						A119.5	25 kg	162,90
Calcium oxide	≥96 %, extra pure	Ammonia, amines, alcohols, nitrous oxide, ether	Acids, acid derivatives, aldehydes, ketones, ester	1000 °C	plastic	**CN88.1**	500 g	19,25
						CN88.2	1 kg	31,10
						CN88.4	2.5 kg	58,60
						CN88.3	5 kg	106,45
Copper(II) sulphate	≥99 %, p.a., anhydrous	Low fatty acids, alcohols, ester	Amines, nitriles, ammonia	Above 50 °C under vacuum	plastic	**P023.1**	250 g	41,85
						P023.2	1 kg	131,70
						P023.3	2.5 kg	278,45
	≥99 %, Ph. Eur., anhydrous	Low fatty acids, alcohols, ester	Amines, nitriles, ammonia	Above 50 °C under vacuum	plastic	**CP86.1**	250 g	28,95
						CP86.2	500 g	46,80
						CP86.3	1 kg	82,70
						CP86.4	2.5 kg	174,70
						CP86.5	5 kg	332,20
						CP86.7	25 kg	1.536,20
Magnesium oxide	≥98 %, Ph. Eur., light	Alkaline fluids, hydrocarbons, alcohols	Acidic compounds	800 °C	plastic	**8280.2**	500 g	35,40
						8280.1	1 kg	62,90
						8280.3	5 kg	256,95
Magnesium sulphate	≥99 %, p.a., anhydrous	Almost all compounds including acids, acid derivatives, aldehydes, esters, nitriles and ketones		First 200 °C, then red heat	glass	**0682.1**	100 g	24,65
						0682.2	500 g	67,65
						0682.3	1 kg	123,65
					plastic	**0682.4**	2.5 kg	241,90
Magnesium sulphate hydrate	≥99 %, extra pure, dried	Almost all compounds including acids, acid derivatives, aldehydes, esters, nitriles and ketones		First 200 °C, then red heat	plastic	**0261.1**	500 g	21,40
						0261.2	1 kg	30,00
						0261.3	2.5 kg	55,80
						0261.7	25 kg	353,70

Auxiliary Reagents

Product name	Purity	Suitable (as desiccant) for	Not suitable (as desiccant) for	Regeneration	Pack.	Art. No.	Pack Qty.	€
Potassium carbonate	≥99 %, p.a., ACS	Alkaline solvents (e.g. ammonia, amines), nitriles, chlorinated hydrocarbons, acetone	Acids	158 °C, finely powdered from as low as 100 °C	plastic	**P743.1**	500 g	42,90
						P743.2	1 kg	71,95
						P743.3	2.5 kg	160,20
	≥99 %, Ph. Eur.	Alkaline solvents (e.g. ammonia, amines), nitriles, chlorinated hydrocarbons, acetone	Acids	158 °C, finely powdered from as low as 100 °C	plastic	**X894.1**	500 g	24,65
						X894.2	1 kg	38,60
						X894.3	2.5 kg	85,50
	≥98 %	Alkaline solvents (e.g. ammonia, amines), nitriles, chlorinated hydrocarbons, acetone	Acids	158 °C, finely powdered from as low as 100 °C	plastic	**7956.1**	1 kg	21,40
						7956.2	5 kg	85,90
						7956.5	25 kg	299,95
Sodium sulphate	≥99 %, p.a., ACS, ISO, anhydrous, powdered	Alkyl and aryl halides, fatty acids, ester, aldehydes, ketones		150 °C	plastic	**8560.3**	500 g	31,75
						8560.1	1 kg	46,15
						8560.2	5 kg	170,95
						8560.5	25 kg	697,70
	≥99 %, p.a., ACS, anhydrous, grained	Alkyl and aryl halides, fatty acids, ester, aldehydes, ketones		150 °C	plastic	**0966.1**	500 g	25,70
						0966.2	1 kg	38,60
						0966.3	5 kg	158,60
	≥98,5 %, Ph. Eur., anhydrous	Alkyl and aryl halides, fatty acids, ester, aldehydes, ketones		150 °C	plastic	**P032.1**	500 g	18,20
						P032.2	1 kg	26,80
						P032.3	5 kg	117,20
						P032.5	25 kg	467,65
	≥99 %, anhydrous	Alkyl and aryl halides, fatty acids, ester, aldehydes, ketones		150 °C	plastic	**8631.2**	1 kg	19,25
						8631.1	2.5 kg	40,75
						8631.5	25 kg	131,70

For additional product data and safety information, see chapter Chemicals A–Z.

Drying methods for solvents

Solvent	Molecular sieve	Potassium carbonate	Calcium chloride	Phosphous pentoxide
Acetic acid	-	-	-	+
Acetic acid anhydride	-	-	+	-
Acetic acid ethyl ester	**4 Å**	+	-	+
Acetic acid methyl ester	**4 Å**	+	-	+
Acetone	**3 Å**	+	+	-
Acetonitrile	**3 Å**	+	+	+
Benzene	**4 Å**	-	+	-
1-Butanol	-	+	-	-
2-Butanol	-	+	-	-
1-Butanone	-	+	+	-
Chloroform	**4 Å**	-	+	+
Cyclohexane	**4 Å**	-	-	-
Dichloremethane	**4 Å**	-	-	-
Diethylether	**4 Å**	-	+	-
Diisopropyl ether	**4 Å**	-	+	-
Dimethyl formamide	**4 Å**	-	-	-
Dioxan	**4 Å**	-	+	-
Ethanol	**3 Å**	-	-	-
Ethyle formate	-	-	+	-
n-Hexane	**4 Å**	-	-	-
Methanol	**3 Å**	-	+	-
2-Propanol	**3 Å**	-	-	-
Pyridine	**4 Å**	-	-	-
Tetrahydrofurane	**4 Å**	-	+	-
Toluene	**4 Å**	-	+	-
Trichloroethylene	-	+	-	-
Xylene (Isomer compound)	**4 Å**	-	+	-

Silica Gels

Silica gels protect moisture sensitive goods or chemicals during storage and transport. They are suitable for drying virtually all gases and solids. Silica gels have a broad spectrum of application in the laboratory and in technical and industrial sectors:

- Possible applications in the laboratory are in desiccators, drying towers and in absorption tubes
- In the industrial sector they are mainly used in drying plants and with various types of packaging
- Are not suitable for drying liquids and alkaline substances



Silica gels with humidity indicator

Silica gel with humidity indicator

Alternative product: environmentally friendly silica gel.

- Patented, organic humidity indicator – **heavy metal free**
- Reversible colour change



Silica gel blue

2–4 mm, with indicator, beads

Drying agent

Silica gel with humidity indicator · Drying pearls blue

Properties:

- Free of cobalt(II) chloride
- Regeneration in drying cabinet at approx. 80–100 °C for approx. 2–4 hours
- Colour change from blue to fuchsia

Filled under protective gas. Change in colour from blue to fuchsia. Regeneration at ca. 80–100 °C, approximately 2–4 hours.

Art. No.	Pack Qty.	Pack.	€
2440.1	500 g	plastic	21,40
Original pack 6 x 500 g			20,33/500 g
2440.2	1 kg	plastic	34,95
Original pack 6 x 1 kg			33,20/1 kg
2440.3	2.5 kg	plastic	70,45
2440.4	10 kg	plastic	233,85

For additional product data and safety information, see chapter Chemicals A–Z.



Silica Gel yellow/blue

2.5–6 mm, with indicator, fractured

Drying agent

Drying pearls yellow/blue · Silica gel with humidity indicator

Properties:

- Regeneration at 120 °C for approx. 4 hours
- Adsorptive capacity: at 90 % rel. humidity approx. 34 wt%
- Colour change from yellow to blue

Filled under protective gas. Change in colour from yellow to blue. Regeneration at max. 120 °C, approx. 4 hours.

Art. No.	Pack Qty.	Pack.	€
3650.1	500 g	plastic	26,35
Original pack 6 x 500 g			25,03/500 g
3650.2	1 kg	plastic	46,15
Original pack 6 x 1 kg			43,84/1 kg
3650.3	2.5 kg	plastic	96,25
3650.4	10 kg	plastic	317,15

For additional product data and safety information, see chapter Chemicals A–Z.



Silica Gel orange/green

2–5 mm, with indicator, beads

Drying agent

Drying pearls orange/green · Silica gel with humidity indicator

Properties:

- Regeneration at max. 110 °C, approximately 3–4 hours
- Adsorptive capacity: at 60 % rel. humidity approx. 35 wt%
- Colour change from orange to green

Filled under protective gas. Change in colour from orange to green. Regeneration at max. 110 °C, approx. 3–4 hours.

Art. No.	Pack Qty.	Pack.	€
1779.1	500 g	plastic	24,65
Original pack 6 x 500 g			23,42/500 g
1779.2	1 kg	plastic	42,90
Original pack 6 x 1 kg			40,76/1 kg
1779.3	2.5 kg	plastic	85,90
1779.4	10 kg	plastic	268,75

For additional product data and safety information, see chapter Chemicals A–Z.



Silica gel orange

2–5 mm, with indicator, beads

Drying agent

Silica gel with humidity indicator · Drying pearls orange

Properties:

- Regeneration at max. 130 °C, approximately 4 hours
- Adsorption capacity: at 80 % relative humidity approx. 40 wt%
- **Colour change from orange to colourless at approx. 6 wt% load**
- Large surface (approx. 750 m^2/g), enables high absorption capacity of steam
- Total adsorption capacity is similar to blue gel (Silica Gel Blue)

Filled under protective gas. Colour change from orange to colourless at approx. 6 weight-% load. Regeneration at 130 °C, approx. 4 hours.

Art. No.	Pack Qty.	Pack.	€
P077.4	500 g	plastic	32,15
Original pack 6 x 500 g			30,54/500 g
P077.1	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg
P077.2	2.5 kg	plastic	107,40
P077.3	10 kg	plastic	332,20

For additional product data and safety information, see chapter Chemicals A–Z.



Silica Gel red/yellow

1–3 mm, with indicator, beads

Drying agent

Drying pearls red/yellow · Silica gel with humidity indicator

Properties:

- Regeneration at 120 °C, approx. 4 hours
- Adsorptive capacity: at 40 % rel. humidity approx. 20 wt%
- Colour change from red to yellow

Filled under protective gas. Change in colour from red to yellow. Regeneration at max. 120 °C, approx. 4 hours.

Art. No.	Pack Qty.	Pack.	€
3955.1	500 g	plastic	24,65
Original pack 6 x 500 g			23,42/500 g
3955.2	1 kg	plastic	42,90
Original pack 6 x 1 kg			40,76/1 kg
3955.3	2.5 kg	plastic	85,90
3955.4	10 kg	plastic	268,75

For additional product data and safety information, see chapter Chemicals A–Z.



Silica Gel red/yellow

3–6 mm, with indicator, beads

Drying agent

Drying pearls red/yellow · Silica gel with humidity indicator

Properties:

- Regeneration at 120 °C, approx. 4 hours
- Adsorptive capacity: at 40 % rel. humidity approx. 20 wt%
- Colour change from red to yellow

Filled under protective gas. Change in colour from red to yellow. Regeneration at max. 120 °C, approx. 4 hours.

Art. No.	Pack Qty.	Pack.	€
4111.1	500 g	plastic	21,40
Original pack 6 x 500 g			20,33/500 g
4111.2	1 kg	plastic	34,95
Original pack 6 x 1 kg			33,20/1 kg
4111.3	2.5 kg	plastic	70,45
4111.4	10 kg	plastic	233,85

For additional product data and safety information, see chapter Chemicals A–Z.



Silica gel Orange – Desiccant Sachet

Desiccant Sachets Silica Gel Orange

Desiccant sachets protect valuable and sensitive goods against dampness.

Properties:

- Manufactured from white long fiber paper
- Filling: Silica Gel Orange
- The different sized bags and different volumes enable multi-purpose application
- Colour change from orange to colourless at 15-20 wt% shows the degree of saturation of the sachet

Application examples

Used in packaging for storage and transport to protect sensitive electronic instruments, equipment, machine parts, chemical products and goods against dampness.

Silica gel orange – Desiccant Sachets

10 g (4 × 9 cm), with indicator

Desiccant sachet made of white long fiber paper with Silica gel orange filling. **Regeneration is not possible.**

WGK 1

Colour change from orange to colourless. Regeneration is not possible.

Art. No.	Pack Qty.	Packaging	€
N077.2	75 unit(s)	10 g sachets (4 x 9 cm)	42,50

Silica gel orange – Desiccant Sachets

25 g (10 × 10 cm), with indicator

Desiccant sachet made of white long fiber paper with Silica gel orange filling. **Regeneration is not possible.**

WGK 1

Colour change from orange to colourless. Regeneration is not possible.

Art. No.	Pack Qty.	Packaging	€
N078.1	30 unit(s)	25 g sachets (10 x 10 cm)	35,40

Silica gel orange – Desiccant Sachets

50 g (9 × 12 cm), with indicator

Desiccant sachet made of white long fiber paper with Silica gel orange filling. **Regeneration is not possible.**

WGK 1

Colour change from orange to colourless. Regeneration is not possible.

Art. No.	Pack Qty.	Packaging	€
N079.1	20 unit(s)	50 g sachets (9 x 12 cm)	50,45

For additional product data and safety information, see chapter Chemicals A–Z.

Regeneration:

Is not possible for the desiccant bags, as the long fiber paper is not temperature-stable.

Silica Gel without colour indicator



- Non toxic
- Regeneration at 130–150 °C; approx. 4 hours
- Easy to handle
- Can be mixed with coloured Silica Gels
- Unproblematic disposal

Silica gel industry grade

broken beads, w/o indicator

Universal drying agent, drying of buildings.

Suitable, for example, for:

- Drying buildings
- Drying carpets and furniture
- And much more

Application:

- Distribute approx. 6-8 kg/m². Caution! Standing water must be removed beforehand
- Keep windows and doors closed. Turn off heating.
- Depending on moisture level, the dry pearls can be removed after approx. 1-10 days
- Control for water absorption: dry 1 kg of moist product in oven for approx. 4 hours at 130-150 °C and weigh subsequently. If the weight difference (=water absorption) is approx. 360 g, the product should be replaced

Regeneration at 130–150 °C.

Art. No.	Pack Qty.	Pack.	€
CN70.1	1 kg	plastic	45,05
Original pack 6 x 1 kg			42,80/1 kg
CN70.2	5 kg	plastic	160,20
CN70.3	10 kg	plastic	299,95
CN70.4	25 kg	plastic	639,65

In order to achieve low residual water content over the silica gel, the capacity can only be utilised partially. The less silica gel is loaded with water the more intensively it dries. For example, to achieve a residual water content of 1 mg/l the loading must not be higher than 5,2 g water / 100 g silica gel.

Silica gel white

0,5–1 mm, granules

Drying agent

SiO_2

Regeneration at ca. 130 °C, approximately 4 hours.

Art. No.	Pack Qty.	Pack.	€
9376.1	1 kg	plastic	46,15
Original pack 6 x 1 kg			43,84/1 kg
9376.2	5 kg	plastic	162,90

Silica gel white

1–3 mm, granules

Drying agent

SiO_2

Regeneration at ca. 130 °C, approximately 4 hours.

Art. No.	Pack Qty.	Pack.	€
T858.1	1 kg	plastic	51,50
Original pack 6 x 1 kg			48,93/1 kg
T858.2	5 kg	plastic	170,95



Silica gel water resistant

2–5 mm, beads

Drying agent water resistant

Properties:

- water resistant
- regeneration at 130–150 °C for approx. 4 hours
- can be mixed with other Silica gels
- protects other Silica gels from liquid water

Regeneration at 130–150 °C.

Art. No.	Pack Qty.	Pack.	€
8109.1	500 g	plastic	33,90
Original pack 6 x 500 g			32,21/500 g
8109.2	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg
8109.3	2.5 kg	plastic	101,60
8109.4	10 kg	plastic	299,95

For additional product data and safety information, see chapter Chemicals A–Z.

Desiccator set DURAN® without porcelain plate

Designed for use up to the maximum technically possible vacuum (0 mbar).



Delivery without porcelain plate, please order separately.

DURAN WHEATON KIMBLE

Desiccator set DURAN® with knob in lid, without connection

DWK Life Sciences.

For drying moist products and storage of moisture-sensitive substances.

Type	Nominal volume (l)	Outer flange Ø (mm)	Inner flange Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DN 100	0.7	153 ±2	118.5	187	**AHK8.1**	1 unit(s)	158,00
DN 150	2.4	215 ±2	172	252	**AHK9.1**	1 unit(s)	186,00
DN 200	5.8	270 ±2	222	209	**AHL0.1**	1 unit(s)	228,00
DN 250	10.5	320 ±2	272	357	**AHL1.1**	1 unit(s)	347,00
DN 300	18.5	380 ±2	332	433	**AHL2.1**	1 unit(s)	533,00

DURAN WHEATON KIMBLE

Desiccator set DURAN® NOVUS with tube and stopcock in the lid

DWK Life Sciences.

To accelerate the drying process or to degas samples, a vacuum can be applied to the tap.

Type	Nominal volume (l)	Outer flange Ø (mm)	Inner flange Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
DN 100	0.7	153 ±2	118.5	174	**AHL3.1**	1 unit(s)	240,00
DN 150	2.4	215 ±2	172	239	**AHL4.1**	1 unit(s)	254,00
DN 200	5.8	270 ±2	222	296	**AHL5.1**	1 unit(s)	305,00
DN 250	10.5	320 ±2	272	344	**AHL6.1**	1 unit(s)	452,00
DN 300	18.5	380 ±2	332	420	**AHL7.1**	1 unit(s)	647,00

Auxiliary Reagents

Molecular Sieves



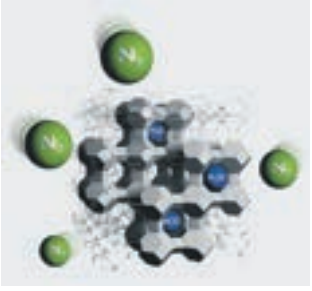
For drying, cleaning or separating liquids and gases.

Properties:

- Spherical metal aluminium silicates
- Spheres Ø 1,6–2,5 mm and 2,5–5,0 mm
- Active surface: 600–700 m^2/g
- Activated at 500–600 °C; we nevertheless recommend activating the molecular sieve again before using it for the first time

Application:

- In desiccators, drying tubes, columns
- For drying streaming gases
- For absoluting organic solvents
- For separating organic solvents



Regenerating:

- In drying cabinets at 200-300 °C
- Through pressure change or rinsing

Critical molecular diameter for frequently occurring molecules, in Å (1 angstrom = 10^{-10} m = 0.1 nm)

Molecule	Size [Å]	Molecule	Size [Å]
Acetylene	3,3	Methane	3,8
Ammoniac	2,9	Propane	4,3
Argon	3,8	Methanol	3,6
Benzole/toluene	5,8	Methyl mercaptan	3,8
n-butanes and higher nhydrocarbons	4,3	Propane	4,3
i-butane and higher ihydrocarbons	5,1	Propylene	4,0
i-butene	4,0	Oxygen	3,5
trans-2-butene	5,1	Hydrogen sulphide	3,6
1.3 butadiene	5,8	Nitrogen	3,6
Cyclohexane	6,0	Carbon tetrachloride	5,9
Dimethylpropane	6,2	Thiophene	5,3
Ethane	4,2	Triethylamine	7,8
Ethanol	4,2	Trichlormethane/ Chloroform	6,9
Ethylene	3,9	Water	2,6
Ethyl mercaptan	3,8	Hydrogen	2,4
Helium	2,0	o-Xylol	6,6
Carbon monoxide	3,7	m-Xylol	6,3
Carbon dioxide	3,3	p-Xylol	5,9

Molecular Sieves

Product name	Purity	Ball diameter	Pack.	Art. No.	Pack Qty.	€
Molecular sieve 3 Å	activated, under argon, for DNA synthesis		glass	**N893.1**	100 ml	15,60
	0,3 nm, type 564, beads	1,6-2,5 mm	glass	**8487.1**	250 g	37,55
				8487.2	750 g	88,05
			plastic	**8487.3**	2.5 kg	231,15
				8487.7	5 kg	424,65
	0,3 nm, type 562 C, beads	2,5-5,0 mm	glass	**P729.1**	250 g	37,55
				P729.2	750 g	88,05
			plastic	**P729.3**	2.5 kg	231,15
Molecular sieve 4 Å	0,4 nm, type 514, beads	1,6-2,5 mm	glass	**8471.1**	250 g	40,35
				8471.2	750 g	90,20
			plastic	**8471.3**	2.5 kg	235,45
Molecular sieve 5 Å	0,5 nm, type 522, beads	1,6-2,5 mm	glass	**8475.1**	250 g	40,35
				8475.2	750 g	90,20
			plastic	**8475.3**	2.5 kg	235,45
Molecular sieve 10 Å	1,0 nm, type 544, beads	1,6-2,5 mm	glass	**8483.1**	250 g	40,35
				8483.2	750 g	90,20
			plastic	**8483.3**	2.5 kg	235,45

For additional product data and safety information, see chapter Chemicals A–Z.

Ion Exchanger

The ion exchanger offered in our range differ depending on their application and requirements. Three different types are available:

- Mixed bed ion exchanger
- Cation and anion exchanger
- Cation and anion exchanger for analytical purposes

Applications:

- Water treatment
- Pharmaceutical industry and biochemistry
- Production and purifying of chemicals
- Classical laboratory analysis

Amberjet™ Mixed Bed Ion Exchanger



Amberjet™

highly pure, Mixed bed ion exchanger

Mixed bed resin made of highly regenerated strongly acidic cation exchanger and strongly basic anion exchanger. Especially suited for all demanding applications, e.g. for disposable cartridges in systems with highly purified water in the electronics industry. Manufactured by a special process allowing the production of highly purified water as far as organic impurities and others are concerned. Contains stoichiometric amounts of cation and anion exchanger capacities.

WGK 1

Art. No.	Pack Qty.	Pack.	€
K306.1	100 g	plastic	37,55
K306.2	500 g	plastic	78,40
Original pack 6 x 500 g			74,48/500 g

Dowex® Ion Exchanger



• Anion exchanger, highly basic
Ion exchanger on a microporous styrene DVB copolymerisate base
Active group: quaternary ammonium compound type I
• Cation exchanger, highly acidic
Matrix: polystyrene - DVB
Active group: sulphonate

DOWEX® Resin Properties

Description	DOWEX® 1 X	DOWEX® 50 WX
Type	Strongly basic anion exchanger	Strongly acid cation exchanger
Functional Group	Trimethyl ammonium	Sulphonic acid
Cross linkage (% DVB)	2 or 8	2 or 8
Ion form	Cl^-	H^+
Volume charge (%)	$Cl^- \rightarrow OH^-$ + 20 %	$Na^+ \rightarrow H^+$ + 8 %
Effective working range (pH)	0–14	0–14
Selectivity for ions	$I^- > NO_3^- > Br^- > Cl^- >$ Acetat$^- > OH^- > F^-$	$Ag+ > Cs^+ > Rb^+ > K^+ > NH_{4+} > Na^+ > Li+ > Ba^{2+} > Sn^{2+} > Ca^{2+} > Mg^{2+} > Be^{2+}$
Total exchange capacity (eq/l)	approx. 0,6–1,4	approx. 0,6–1,7
Thermal stability	OH^- form max. 50 °C Cl^- form max. 150 °C	Na^+ form max. 120 °C H^+ form max. 80 °C
Moisture (%)	39–80	40–82

Auxiliary Reagents

Dowex® Anion exchanger

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Dowex® 1 X 2	50–100 mesh, Cl^--form	plastic	**0302.3**	50 g	81,20
			0302.1	100 g	139,65
			0302.4	250 g	321,45
			0302.2	1 kg	1.127,70
	100–200 mesh, Cl^--form	plastic	**0303.3**	50 g	67,65
			0303.1	100 g	121,40
			0303.4	250 g	266,10
			0303.2	1 kg	919,15
	200–400 mesh, Cl^--form	plastic	**0304.2**	50 g	67,65
			0304.1	100 g	121,40
			0304.3	250 g	266,10
			0304.4	1 kg	919,15
Dowex® 1 X 8	50–100 mesh, Cl^--form	plastic	**0310.3**	50 g	67,65
			0310.1	250 g	266,10
			0310.2	1 kg	919,15
	100–200 mesh, Cl^--form	plastic	**0311.3**	50 g	67,65
			0311.1	100 g	121,40
			0311.4	250 g	266,10
			0311.2	1 kg	919,15
	200–400 mesh, Cl^--form	plastic	**0312.3**	50 g	89,15
			0312.1	100 g	153,65
			0312.4	250 g	353,70
			0312.2	1 kg	1.236,25

For additional product data and safety information, see chapter Chemicals A–Z.

Dowex® Cation exchanger

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Dowex® 50 W X 2	50–100 mesh, H^+-form	plastic	**6800.1**	50 g	67,65
			6800.2	250 g	266,10
			6800.3	1 kg	919,15
	100–200 mesh, H^+-form	plastic	**0334.2**	50 g	67,65
			0334.1	100 g	121,40
			0334.3	250 g	266,10
			0334.4	1 kg	919,15
	200–400 mesh, H^+-form	plastic	**N099.3**	50 g	67,65
			N099.1	100 g	121,40
			N099.4	250 g	266,10
			N099.2	1 kg	919,15
Dowex® 50 W X 4	200–400 mesh, H^+-form	plastic	**6821.1**	50 g	67,65
			6821.2	250 g	266,10
			6821.3	1 kg	919,15
Dowex® 50 W X 8	50–100 mesh, H^+-form	plastic	**0344.2**	50 g	89,15
			0344.1	250 g	353,70
			0344.3	1 kg	1.236,25
	100–200 mesh, H^+-form	plastic	**0345.2**	50 g	80,10
			0345.1	100 g	149,45
			0345.3	250 g	321,45
			0345.4	1 kg	1.015,90
	200–400 mesh, H^+-form	plastic	**0346.2**	50 g	67,65
			0346.1	100 g	121,40
			0346.3	250 g	266,10
			0346.4	1 kg	919,15

For additional product data and safety information, see chapter Chemicals A–Z.

ROTI®Change Ion Exchanger



Our product range ROTI®Change contains ion exchanger, which are particularly suitable for analytical purposes. The corresponding polystyrene based resins were specially purified to reduce extractable residues to less than 1 mg/g resin.

Cation exchange resins

Our cation exchange resins are available as 4 % and 8 % divinylbenzene (DVB) cross-linked polymers with sulphonate as active group. All cation exchange resins are provided in hydrogen (H^+) form. Typical applications are: removal of ethidium bromide/propidium iodide from DNA samples; separation and preconcentration of amino acids, peptides and nucleotides; desalting (removal of cations) and separation of metal ions.

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Ion exchange resin ROTI®Change 50 W x 2	50–100 mesh, analytical grade, H^+-form	plastic	**1A5E.1**	25 g	28,95
			1A5E.2	100 g	102,05
			1A5E.3	250 g	220,40
			1A5E.4	500 g	418,20
	100–200 mesh, analytical grade, H^+-form	plastic	**1A5H.1**	25 g	28,95
			1A5H.2	100 g	102,05
			1A5H.3	250 g	220,40
			1A5H.4	500 g	418,20
	200–400 mesh, analytical grade, H^+-form	plastic	**1A5Y.1**	25 g	28,95
			1A5Y.2	100 g	102,05
			1A5Y.3	250 g	220,40
			1A5Y.4	500 g	418,20
Ion exchange resin ROTI®Change 50 W x 4	50–100 mesh, analytical grade, H^+-form	plastic	**1A60.1**	25 g	28,95
			1A60.2	100 g	102,05
			1A60.3	250 g	220,40
			1A60.4	500 g	418,20
	100–200 mesh, analytical grade, H^+-form	plastic	**6864.4**	25 g	28,95
			6864.1	100 g	102,05
			6864.2	250 g	220,40
			6864.3	500 g	418,20
	200–400 mesh, analytical grade, H^+-form	plastic	**1A61.1**	25 g	28,95
			1A61.2	100 g	102,05
			1A61.3	250 g	220,40
			1A61.4	500 g	418,20
Ion exchange resin ROTI®Change 50 W x 8	50–100 mesh, analytical grade, H^+-form	plastic	**6865.4**	25 g	28,95
			6865.1	100 g	102,05
			6865.2	250 g	220,40
			6865.3	500 g	418,20
	100–200 mesh, analytical grade, H^+-form	plastic	**6866.4**	25 g	28,95
			6866.1	100 g	102,05
			6866.2	250 g	220,40
			6866.3	500 g	418,20
	200–400 mesh, analytical grade, H^+-form	plastic	**6867.4**	25 g	28,95
			6867.1	100 g	102,05
			6867.2	250 g	220,40
			6867.3	500 g	418,20

For additional product data and safety information, see chapter Chemicals A–Z.

Anion exchange resins

Our anion exchange resins are available as 4 % and 8 % divinylbenzene (DVB) cross-linked polymers but with quaternary amines as active groups. All anion exchange resins are provided in chloride (Cl^-) form. Typical applications are: exchange of anions of salts; cyclic nucleotide assays and fractionation of organic acids.

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Ion exchange resin ROTI®Change 1 x 2	50–100 mesh, analytical grade, Cl^--form	plastic	**1A2C.1**	25 g	28,95
			1A2C.2	100 g	102,05
			1A2C.3	250 g	220,40
			1A2C.4	500 g	418,20
	100–200 mesh, analytical grade, Cl^--form	plastic	**1A2E.1**	25 g	28,95
			1A2E.2	100 g	102,05
			1A2E.3	250 g	220,40
			1A2E.4	500 g	418,20
	200–400 mesh, analytical grade, Cl^--form	plastic	**1A2H.1**	25 g	28,95
			1A2H.2	100 g	102,05
			1A2H.3	250 g	220,40
			1A2H.4	500 g	418,20
Ion exchange resin ROTI®Change 1 x 4	50–100 mesh, analytical grade, Cl^--form	plastic	**6849.4**	25 g	28,95
			6849.1	100 g	102,05
			6849.2	250 g	220,40
			6849.3	500 g	418,20
	100–200 mesh, analytical grade, Cl^--form	plastic	**6851.4**	25 g	28,95
			6851.1	100 g	102,05
			6851.2	250 g	220,40
			6851.3	500 g	418,20
	200–400 mesh, analytical grade, Cl^--form	plastic	**1A2K.1**	25 g	28,95
			1A2K.2	100 g	102,05
			1A2K.3	250 g	220,40
			1A2K.4	500 g	418,20
Ion exchange resin ROTI®Change 1 x 8	20–50 mesh, analytical grade, Cl^--form	plastic	**6852.4**	25 g	28,95
			6852.1	100 g	102,05
			6852.2	250 g	220,40
			6852.3	500 g	418,20
	50–100 mesh, analytical grade, Cl^--form	plastic	**6854.4**	25 g	28,95
			6854.1	100 g	102,05
			6854.2	250 g	220,40
			6854.3	500 g	418,20
	100–200 mesh, analytical grade, Cl^--form	plastic	**6855.4**	25 g	28,95
			6855.1	100 g	102,05
			6855.2	250 g	220,40
			6855.3	500 g	418,20
	200–400 mesh, analytical grade, Cl^--form	plastic	**6856.4**	25 g	28,95
			6856.1	100 g	102,05
			6856.2	250 g	220,40
			6856.3	500 g	418,20

For additional product data and safety information, see chapter Chemicals A–Z.

Filtering Agents and Extractants

Charcoal, activated

Filter aids

Activated charcoals are used in many areas within the chemical and pharmaceutical industry. The charcoal is available in powder or broken coal format and as extruded charcoal, depending on the application.

Charcoal

p.a., powder, activated

Adsorbent

Analytic activated carbon with extensive trace analysis.

C · M 12,01 g/mol

Art. No.	Pack Qty.	Pack.	€
X865.1	250 g	plastic	31,10
X865.2	500 g	plastic	48,30
Original pack 6 x 500 g			45,89/500 g
X865.3	1 kg	plastic	87,65
Original pack 6 x 1 kg			83,27/1 kg

Charcoal

powdered, phosphoric acid activated, for decolourisation

Activated carbon with high absorption capacity and excellent filtering quality. Primarily used for the absorption of organic substances of high molecular weight, e.g. proteins and large colour molecules.

C · M 12,01 g/mol

UN no. 1362 · ADR 4.2 III

Warning H252

Art. No.	Pack Qty.	Pack.	€
5963.3	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
5963.1	1 kg	plastic	66,55
Original pack 6 x 1 kg			63,22/1 kg
5963.4	2.5 kg	plastic	127,95
5963.2	5 kg	plastic	235,45
5963.5	10 kg	plastic	439,70

Charcoal

1–3 mm, made from peat, grey, steam activated

Fractured coal

C · M 12,01 g/mol

Art. No.	Pack Qty.	Pack.	€
5966.1	1 kg	plastic	73,00
Original pack 6 x 1 kg			69,35/1 kg
5966.3	2.5 kg	plastic	134,40
5966.2	5 kg	plastic	233,85
5966.5	10 kg	plastic	418,20
5966.4	25 kg	plastic	891,20

Charcoal

~3 mm, steam-activated

For gas cleaning. Extruded charcoal.

C · M 12,01 g/mol

Art. No.	Pack Qty.	Pack.	€
0998.1	500 g	plastic	55,40
Original pack 6 x 500 g			52,63/500 g
0998.2	1 kg	plastic	94,50
Original pack 6 x 1 kg			89,78/1 kg
0998.4	2.5 kg	plastic	192,45
0998.3	5 kg	plastic	349,40
0998.5	10 kg	plastic	643,95

Activated carbon and its application

Qualities of activated carbon	Art. No.	Air purification	Gas purification	Water purification	Chemical industry	Pharmaceutical industry
Powder carbon	**X865 5963**	-	-	-	x	x
Carbon mould block	**0998**	x	x	-	-	-
Broken carbon	**5966**	-	x	x	x	-

Charcoal for determination of AOX

Charcoal

for AOX determination (column method)

M 12,01 g/mol

Art. No.	Pack Qty.	Pack.	€
1299.1	10 g	glass	100,55

Charcoal

for AOX determination (shaking method)

M 12,01 g/mol

Art. No.	Pack Qty.	Pack.	€
1319.1	10 g	glass	95,70

Auxiliary Reagents

Additional Filtering Agents



Product name	Purity	General application	Art. No.	Pack Qty.	€
Diatomaceous earth	natural	For filtration of organic solutions.	**8019.3**	1 kg	21,40
			8019.4	2.5 kg	36,45
			8019.1	5 kg	61,20
			8019.5	10 kg	102,05
			8019.2	20 kg	174,70
Glass wool	8 µm, made of chemically resistant , acc. to DIN 1259-1	Filter aid, for laboratory work.	**0691.1**	500 g	28,95
			0691.2	1 kg	48,30
	11 µm, made of chemically resistant , acc. to DIN 1259-1	Filter aid, for laboratory work. Type N (filter glass wool)	**6574.1**	500 g	23,55
			6574.2	1 kg	41,40
	25 µm, made of chemically resistant , acc. to DIN 1259-1	Filter aid, for laboratory work.	**0700.1**	500 g	26,80
			0700.2	1 kg	44,00
Pumice stone	fine grained, <0,5 mm	Filtration aids. Bulk density 350-900 g/l	**5832.2**	1 kg	23,15
			5832.1	2.5 kg	40,35
	2–5 mm	Filtration aids	**1HHY.1**	1 kg	23,15
			1HHY.2	2.5 kg	40,35
			1HHY.3	5 kg	64,00
Quartz	≥99 %, powdered, <125 µm	Resistant to chemicals (except very strong alkalis).	**4651.2**	500 g	21,40
			4651.1	1 kg	30,65
			4651.3	5 kg	69,80
	fine, cryst., 0,4–0,8 mm	Filtration aids	**7897.1**	2.5 kg	23,55
			7897.2	20 kg	81,60
	cryst., 0,6–1,3 mm	Filtration aids	**7898.1**	2.5 kg	24,65
			7898.2	20 kg	85,90
Quartz wool	chemically pure	Ideal for elementary analysis or as a final stopper in chromatography columns; filter aid.	**9208.1**	10 g	26,80
			9208.2	100 g	188,15
			9208.3	250 g	403,15
Sea sand	p.a., cleaned with acid, annealed	Filtration aids	**4309.2**	500 g	67,20
			4309.1	1 kg	117,75
			4309.3	2.5 kg	209,65
			4309.4	5 kg	407,45
			4309.5	10 kg	779,40
	extra pure, cleaned with acid	Filtration aids	**8441.3**	500 g	37,55
			8441.1	1 kg	59,70
			8441.4	2.5 kg	117,20
			8441.2	5 kg	220,40
			8441.5	10 kg	418,20
			8441.6	25 kg	848,20
Silicic acid	for chromatography	Acc. to Ramsey and Patterson.	**0201.1**	250 g	28,95
			0201.2	1 kg	78,40

For additional product data and safety information, see chapter Chemicals A–Z.

Celite® - Kieselguhr



Prepared and standardised celite is used as a filtering aid or as adsobent in column chromatography.
Composition:
approx. 90 % SiO_2, 2–5 % Al_2O_3, 1–4 % Fe_2O_3 and various other oxides in a low concentration, that is why the Celite® may be slightly tinted.

The complete Celite® Program at a glance

Product name	Permeability (darcy)	Art. No.	Pack Qty.	€
Celite® 503	1.27 – 2.4	**0007.2**	1 kg	32,15
		0007.1	2.5 kg	64,40
Celite® 535	1.8 – 3.9	**0009.2**	1 kg	26,80
		0009.1	2.5 kg	59,05
Celite® 545	3.5 – 5.5	**0011.3**	250 g	14,55
		0011.2	1 kg	24,65
		0011.1	2.5 kg	46,15
		0011.4	10 kg	134,40
		0011.5	25 kg	263,40
Celite® Hyflo Super Cel®	0.73 – 1.64	**0005.2**	1 kg	32,15
		0005.1	2.5 kg	64,40
Celite® 512	0.28 – 0.76	**0050.2**	1 kg	32,15
		0050.1	2.5 kg	64,40
Celite® Standard Super Cel®	0.16 – 0.36	**0003.2**	1 kg	32,15
		0003.1	2.5 kg	64,40

For additional product data and safety information, see chapter Chemicals A–Z.

► Chromatography columns made of Duran® see www.carlroth.com
► For further sorbents see page 552

Preliminary tests for qualitative determination
Flame colouration
Platinum wire

Product name	Purity	Art. No.	Pack Qty.	€
Platinum wire	≥99,95 %, Ø 0,2 mm	**0737.1**	25 cm	103,10
		0737.2	50 cm	192,45
		0737.3	1 m	364,45
	≥99,9 %, Ø 0,3 mm	**8415.1**	10 cm	88,05
		8415.2	50 cm	340,25
	≥99,95 %, Ø 0,5 mm	**0803.1**	5 cm	96,25
		0803.2	10 cm	177,40
		0803.3	25 cm	385,95

For additional product data and safety information, see chapter Chemicals A–Z.

Flame colours of some metals

Metal	without glass	with glass
Barium (Ba)	yellow green	blue green
Calcium (Ca)	brick red	light green
Caesium (Cs)	blue	-
Potassium (K)	violet	crimson
Copper (Cu)	green	-
Lithium (Li)	red	-
Sodium (Na)	yellow	-
Rubidium (Rb)	violet	-
Strontium (Sr)	crimson	violet

Auxiliary Reagents

Oxidizing melt



Magnesia scoops

ROTH SELECTION.

For annealing and incineration of samples, as well as for the production of oxygen melts for the detection of chromium, manganese, etc. and for bead tests.

Dimensions: Length 100 mm x width 9 mm.

WGK 1

Type	Art. No.	Pack Qty.	€
Magnesia scoops	**6537.1**	25 unit(s)	30,00



Potassium nitrate

≥99 %, p.a., ISO

Reagent for the oxidative disintegration of anorganic and organic samples.

KNO_3 · M 101,11 g/mol

UN no. 1486 · ADR 5.1 III · WGK 1

Warning H272

Art. No.	Pack Qty.	Pack.	€
P021.1	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
P021.2	1 kg	plastic	83,75
Original pack 6 x 1 kg			79,56/1 kg
P021.3	2.5 kg	plastic	181,70

Potassium carbonate

≥99 %, p.a., ACS

Drying agent, disintegrating agent.

K_2CO_3 · M 138,21 g/mol

WGK 1

Warning H315-H319-H335

Art. No.	Pack Qty.	Pack.	€
P743.1	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
P743.2	1 kg	plastic	71,95
Original pack 6 x 1 kg			68,35/1 kg
P743.3	2.5 kg	plastic	160,20

Phosphorous salt bead/borax bead



Magnesia rods

Ø 1,5 mm x L 140 mm

ROTH SELECTION.

For flame colouration when detecting sodium, etc. For producing borax beads when detecting cobalt. For bead tests.

Dimensions: Ø 1.5 x length 140 mm.

WGK 1

Type	Art. No.	Pack Qty.	€
Magnesia rods	**6543.1**	25 unit(s)	28,10

Sodium ammonium hydrogen phosphate tetrahydrate

≥99 %, p.a.

Reagent for Mg; phosphorus salt bead

$NaNH_4HPO_4 \cdot 4\ H_2O$ · M 209,07 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
T882.1	500 g	plastic	127,95
Original pack 6 x 500 g			121,55/500 g
T882.2	1 kg	plastic	241,90
Original pack 6 x 1 kg			229,81/1 kg
T882.3	2.5 kg	plastic	514,95

di-Sodium tetraborate decahydrate

≥99,5 %, p.a., ACS, ISO

For qualitative analysis. Decomposition agent.

$Na_2B_4O_7 \cdot 10\ H_2O$ · M 381,37 g/mol

WGK 1

Danger H319-H360FD

Art. No.	Pack Qty.	Pack.	€
T880.1	500 g	plastic	40,35
Original pack 6 x 500 g			38,33/500 g
T880.2	1 kg	plastic	62,25
Original pack 6 x 1 kg			59,14/1 kg
T880.3	2.5 kg	plastic	123,10

Other reagents



Hexamethylene tetramine

ROTIPURAN® ≥99 %, p.a., ACS

$C_6H_{12}N_4$ · M 140,19 g/mol
UN no. 1328 · ADR 4.1 III · WGK 1
Warning H228-H317

Art. No.	Pack Qty.	Pack.	€
4366.1	100 g	plastic	24,65
4366.2	500 g	plastic	53,25
Original pack 6 x 500 g			50,59/500 g
4366.3	1 kg	plastic	94,10
Original pack 6 x 1 kg			89,40/1 kg
4366.4	2.5 kg	plastic	188,15

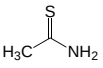


Hexamethylene tetramine

≥99 %, extra pure

$C_6H_{12}N_4$ · M 140,19 g/mol
UN no. 1328 · ADR 4.1 III · WGK 1
Warning H228-H317

Art. No.	Pack Qty.	Pack.	€
4484.1	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
4484.2	1 kg	plastic	80,55
Original pack 6 x 1 kg			76,52/1 kg
4484.3	2.5 kg	plastic	160,20
4484.7	25 kg	plastic	1.343,75



Thioacetamide

≥99 %, p.a.

C_2H_5NS · M 75,13 g/mol
WGK 3
Danger H302-H315-H319-H350-H412

Art. No.	Pack Qty.	Pack.	€
8646.1	50 g	plastic	57,55
8646.2	100 g	plastic	102,70
8646.3	250 g	plastic	217,70
8646.4	500 g	plastic	413,90
Original pack 6 x 500 g			393,21/500 g

► Test sticks see www.carlroth.com



Fermentation tube ROTILABO®

With two spheres and extension.
Total length 200 mm, tube Ø approx. 10–11 mm.

A 121 °C

Fermentation tube ROTILABO®

Hecht.

Length (mm)	Art. No.	Pack Qty.	€
200	**CKY8.1**	1 unit(s)	3,95



Fermentation tube ROTILABO®

With NS 29/32 ground joint. Height 200 mm.

A 121 °C

Fermentation tube ROTILABO®

ROTH SELECTION.

Standard ground glass joint core	Height (mm)	Art. No.	Pack Qty.	€
29/32	200	**ACL2.1**	1 unit(s)	132,70

Auxiliary Reagents

Anion detection



Carbonate CO_3^{2-}

Product name	Purity	Art. No.	Pack Qty.	€
Barium hydroxide octahydrate	≥98 %, p.a., ACS, ISO	**P009.2**	250 g	34,95
		P009.1	500 g	58,60
		P009.3	1 kg	101,60

Chloride Cl^-

Product name	Purity	Art. No.	Pack Qty.	€
Silver nitrate	≥99,9 %, p.a., Ultra Quality	**6874.1**	10 g	49,35
		6874.2	50 g	193,50
		6874.3	250 g	698,75
	≥99,9 %, p.a.	**7908.1**	50 g	149,45
		7908.2	250 g	628,90
		7908.3	1 kg	2.203,75

Nitrate NO_3^-

Product name	Purity	Art. No.	Pack Qty.	€
Sulphanilic acid	≥98 %, p.a., ACS	**4496.1**	100 g	41,40
		4496.2	500 g	155,90
Zinc granules	≥99,99 %, p.a., 0,3–1,5 mm	**3093.1**	100 g	41,85
		3093.2	250 g	96,25
		3093.3	500 g	177,40
	≥99,99 %, p.a., 5–15 mm	**AE99.1**	250 g	45,05
		AE99.2	500 g	78,40
		AE99.3	1 kg	134,40
Zinc dust	≥98 %, <63 µm, stabilised	**9524.2**	500 g	37,55
		9524.3	1 kg	55,80
		9524.1	2.5 kg	101,60

For additional product data and safety information, see chapter Chemicals A–Z.

Phosphate PO_4^{3-}

Product name	Purity	Art. No.	Pack Qty.	€
Zirconyl chloride octahydrate	99,995 % (4N5)	**4502.1**	10 g	82,70
Zirconyl nitrate hydrate	99,99 % (4N)	**5415.1**	25 g	327,90
		5415.2	100 g	1.009,45

Sulphate SO_4^{2-}

Product name	Purity	Art. No.	Pack Qty.	€
Barium chloride dihydrate	≥99 %, p.a., ACS, ISO	**4453.1**	250 g	23,55
		4453.2	500 g	36,45
		4453.3	1 kg	64,00
		4453.4	2.5 kg	140,30
		4453.6	5 kg	257,50
		4453.5	25 kg	1.192,20

For additional product data and safety information, see chapter Chemicals A–Z.

► Cation detection and metal indicators see page 598
► Acids p.a. see page 627



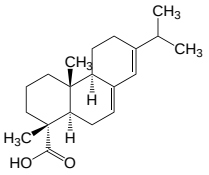
Chemicals & Natural Reagents A–Z

A 688
B 763
C 802
D 863
E 904
F 930
G 951
H 974
I 1004
J 1025
K 1026
L 1031
M 1055
N 1098
O 1118
P 1135
Q 1196
R 1200
S 1249
T 1355
U 1392
V 1394
W 1401
X 1407
Y 1411
Z 1413

AAS standards

▸ Standards for AAS (Atom Absorption Spectroscopy): Element Standards 1000 mg/l see page 1326

Abietic acid



Sylvic acid

$C_{20}H_{30}O_2$ · mp 164 to 175 °C · bp 250 °C
CAS No. 514-10-3 · EC no. 208-178-3
UN no. 3077 · ADR 9 III · WGK 2

Warning H315-H319-H335-H410

Abietic acid
ROTICHROM® CHR ≥70 %

Type analysis
Appearance ..... yellow powder
Assay (GC) ..... ≥70,0 %

Art. No.	Pack Qty.	Pack.	€
5008.1	25 g	plastic	54,30

Abietic acid
pure

Type analysis
Appearance ..... yellow pellets
Softening point ..... 92-98 °C
Acid value ..... ≤15

Art. No.	Pack Qty.	Pack.	€
5005.2	500 g	plastic	32,80
Original pack 6 x 500 g			31,16/500 g
5005.1	1 kg	plastic	54,30
Original pack 6 x 1 kg			51,59/1 kg

Absinthon

▸ α,β-Thujone see page 1367

Absorbents, see Labware chapter Occupational Safety and Personal Protection

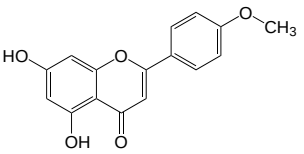
H-DL-Abu-OH

▸ DL-2-Aminobutyric acid see page 727

ACAC

▸ Acetyl acetone see page 700

Acacetin



5,7-Dihydroxy-4'-methoxyflavone · Linarigenin

$C_{16}H_{12}O_5$ · mp 260 to 265 °C
CAS No. 480-44-4 · EC no. 207-552-3
WGK 1

Warning H315-H319-H335

Acacetin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
6531.1	10 mg	glass	252,65

Acacetin
ROTICHROM® ~CHR$_{TLC}$

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
5010.1	25 mg	glass	145,15

Acacia

▸ Gum arabic see page 973

ACC

▸ *N*-Acetyl-L-cysteine see page 701

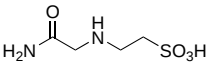
Accelerator DMP-30

▸ Glycidether Accelerator DMP-30 see page 967

Ac-Cys-OH

▸ *N*-Acetyl-L-cysteine see page 701

ACES



N-(2-Acetamido)-2-aminoethanesulphonic acid

$C_4H_{10}N_2O_4S$ · D 1,559 to 1,562 g/cm³ ·
mp 168 °C · bp 404,5 °C
CAS No. 7365-82-4 · EC no. 230-908-4
WGK 1

ACES
PUFFERAN® ≥99 %

Guarantee analysis
Appearance ..... white powder
Assay (titr.) ..... ≥99,0 %
Loss on drying ..... ≤1,0 %
pH value (1 % solution) 3,6-4,4

Absorbance:
260 nm ..... ≤0,05
280 nm ..... ≤0,05

Art. No.	Pack Qty.	Pack.	€
9138.1	10 g	plastic	26,80
9138.2	100 g	plastic	204,25

Acetaldehyde



Ethanal

C_2H_4O · D 0,785 g/cm³ · mp -123,5 °C · bp 20 to 21 °C · flp -40 °C
CAS No. 75-07-0 · EC no. 200-836-8
UN no. 1089 · ADR 3 I · WGK 1

Danger H224-H302-H319-H335-H341-H350

Acetaldehyde
≥99,5 %, p.a.

Storage temperature: +4 °C

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Aluminium (Al) ..... ≤0,00005 %
Barium (Ba) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,00001 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,0001 %
Potassium (K) ..... ≤0,00005 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Lithium (Li) ..... ≤0,00001 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Molybdenum (Mo) ..... ≤0,00001 %
Sodium (Na) ..... ≤0,00005 %
Nickel (Ni) ..... ≤0,000002 %
Strontium (Sr) ..... ≤0,00001 %
Bismuth (Bi) ..... ≤0,00001 %
Zinc (Zn) ..... ≤0,00001 %
Refractive index n_D^{20} 1,331-1,333
Evaporation residue ..... ≤0,002 %
Free acid (as CH_3COOH) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
3004.1	100 ml	glass	32,80

Acetamide Broth (Solution A)

CAS No. 60-35-5 · EC no. 200-473-5
WGK 1

Warning H351

Acetamide Broth (Solution A)
DEV, EN ISO 16266:2008, for microbiology

For confirmation of *Pseudomonas aeruginosa* in water samples.

Application: Use 3.4 g for 1 l broth. Solubilise in 900 ml, add freshly prepared solution B (sodium molybdate, Art. No. 0274.1, and iron sulfat, Art. No. P015.1) and adjust with water to 1 l.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Potassium dihydrogen phosphate ..... 1 g/l
Magnesium sulphate ($MgSO_4$) ..... 0,2 g/l
Acetamide ..... 2 g/l
Sodium chloride (NaCl) ..... 0,2 g/l
pH value ..... 7,0 ±0,5

Art. No.	Pack Qty.	Pack.	€
CP61.1	500 g	plastic	251,05
Original pack 6 x 500 g			238,50/500 g

N-(2-Acetamido)-2-aminoethane-sulphonic acid

▸ ACES see page 688

2-Acetamido-2-deoxy-D-galactose

▸ *N*-Acetyl-D-galactosamine see page 702

2-Acetamido-2-deoxy-D-glucopyranose

▸ *N*-Acetyl-D-glucosamine see page 702

2-Acetamido-2-deoxy-D-mannopyranose

▸ *N*-Acetyl-D-mannosamine see page 703

N-(2-Acetamido)-iminodiacetic acid

▸ ADA see page 707

2-Acetamido-3-mercaptopropionic acid

▸ *N*-Acetyl-L-cysteine see page 701

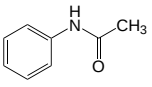
L-α-Acetamido-β-mercaptopropionic acid

▸ *N*-Acetyl-L-cysteine see page 701

Acetanhydride

▸ Acetic acid anhydride see page 692

Acetanilide



N-Phenylaceamide

C_8H_9NO · D 1,121 g/cm³ · mp 113 to 115 °C · bp 304 °C · flp 161 °C
CAS No. 103-84-4 · EC no. 203-150-7
WGK 1

Warning H302

Acetanilide
≥98,5 %, for synthesis

Type analysis

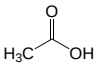
Assay	≥98,5 %
Melting range	113 - 116 °C
Sulphated ash	≤0,1 %

Art. No.	Pack Qty.	Pack.	€
1HK2.1	100 g	plastic	23,55
1HK2.2	500 g	plastic	70,45
Original pack 6 x 500 g			66,93/500 g
1HK2.3	1 kg	plastic	126,35
Original pack 6 x 1 kg			120,03/1 kg
1HK2.4	2.5 kg	plastic	274,15

Acetate Standards

▸ Acetate IC Standard Solution see page 1333

Acetic acid



CAS No. 64-19-7 · EC no. 200-580-7

Acetic acid Ultra-quality

Acetic acid
ROTIPURAN®Ultra 100 %

Extra highpure acid (ppt quality) for sample preparation in ultra trace analysis.

Ethanoic acid · Glacial acetic acid · Methanecarboxylic acid

$C_2H_4O_2$ · D 1,04 g/cm³ · mp 16,64 °C · bp 117,9 °C · flp 39 °C

UN no. 2789 · ADR 8 (3) II · WGK 1

Danger H226-H314

Guarantee analysis

Assay (w/w)	≥99 %
Aluminium (Al)	≤50 ppt
Antimony (Sb)	≤50 ppt
Arsenic (As)	≤50 ppt
Barium (Ba)	≤10 ppt
Beryllium (Be)	≤10 ppt
Lead (Pb)	≤10 ppt
Cadmium (Cd)	≤10 ppt
Cesium (Cs)	≤10 ppt
Calcium (Ca)	≤50 ppt
Cerium (Ce)	≤10 ppt
Chromium (Cr)	≤10 ppt
Dysprosium (Dy)	≤1 ppt
Iron (Fe)	≤50 ppt
Erbium (Er)	≤1 ppt
Europium (Eu)	≤1 ppt
Gadolinium (Gd)	≤1 ppt
Gallium (Ga)	≤10 ppt
Germanium (Ge)	≤10 ppt
Hafnium (Hf)	≤10 ppt
Holmium (Ho)	≤1 ppt
Indium (In)	≤1 ppt
Potassium (K)	≤50 ppt
Cobalt (Co)	≤10 ppt
Copper (Cu)	≤10 ppt
Lanthanum (La)	≤1 ppt
Lithium (Li)	≤10 ppt
Lutetium (Lu)	≤10 ppt
Magnesium (Mg)	≤50 ppt
Manganese (Mn)	≤10 ppt
Molybdenum (Mo)	≤10 ppt
Sodium (Na)	≤100 ppt
Neodymium (Nd)	≤1 ppt
Nickel (Ni)	≤50 ppt
Platinum (Pt)	≤50 ppt
Praseodymium (Pr)	≤1 ppt
Rhenium (Re)	≤10 ppt
Rhodium (Rh)	≤50 ppt
Rubidium (Rb)	≤10 ppt
Ruthenium (Ru)	≤50 ppt
Samarium (Sm)	≤1 ppt
Scandium (Sc)	≤10 ppt
Silver (Ag)	≤50 ppt
Strontium (Sr)	≤10 ppt
Tellur (Te)	≤1 ppt
Terbium (Tb)	≤1 ppt
Thallium (Tl)	≤10 ppt
Thorium (Th)	≤1 ppt
Thulium (Tm)	≤1 ppt
Titanium (Ti)	≤10 ppt
Uranium (U)	≤1 ppt
Vanadium (V)	≤10 ppt
Bismuth (Bi)	≤10 ppt
Tungsten (W)	≤10 ppt
Ytterbium (Yb)	≤1 ppt
Yttrium (Y)	≤1 ppt
Zinc (Zn)	≤50 ppt
Tin (Sn)	≤50 ppt
Zirconium (Zr)	≤10 ppt

Art. No.	Pack Qty.	Pack.	€
HN65.2	250 ml	plastic (FEP)	489,15
HN65.1	500 ml	plastic (FEP)	708,45
HN65.3	1 l	plastic (FEP)	1.112,65
Original pack 6 x 1 l			1.057,02/1 l

Acetic acid Supra-quality

Acetic acid
ROTIPURAN®Supra 100 %

Highpure acid (ppb quality) for sample preparation in trace analysis (e.g. using ICP, AAS, Ion chromatography etc.).

Ethanoic acid · Glacial acetic acid · Methanecarboxylic acid

$C_2H_4O_2$ · D 1,05 g/cm³ · mp 16,64 °C · bp 117,9 °C · flp 39 °C

UN no. 2789 · ADR 8 (3) II · WGK 1

Danger H226-H314

Guarantee analysis

Assay (w/w)	≥99 %
Colour (APHA)	≤10
Chloride (Cl)	≤0,0001 %
Phosphate (PO_4)	≤0,0001 %
Sulphate (SO_4)	≤0,00005 %
Aluminium (Al)	≤1 ppb
Antimony (Sb)	≤0,5 ppb
Arsenic (As)	≤0,5 ppb
Barium (Ba)	≤0,5 ppb
Beryllium (Be)	≤0,1 ppb
Lead (Pb)	≤0,1 ppb
Cadmium (Cd)	≤0,5 ppb
Cesium (Cs)	≤0,1 ppb
Calcium (Ca)	≤1 ppb
Cerium (Ce)	≤0,1 ppb
Chromium (Cr)	≤1 ppb
Dysprosium (Dy)	≤0,1 ppb
Iron (Fe)	≤1 ppb
Erbium (Er)	≤0,1 ppb
Europium (Eu)	≤0,1 ppb
Gadolinium (Gd)	≤0,1 ppb
Gallium (Ga)	≤0,1 ppb
Germanium (Ge)	≤0,5 ppb
Hafnium (Hf)	≤0,1 ppb
Holmium (Ho)	≤0,1 ppb
Indium (In)	≤0,1 ppb
Potassium (K)	≤1 ppb
Cobalt (Co)	≤0,1 ppb
Copper (Cu)	≤0,5 ppb
Lanthanum (La)	≤0,1 ppb
Lithium (Li)	≤0,1 ppb
Lutetium (Lu)	≤0,1 ppb
Magnesium (Mg)	≤0,5 ppb
Manganese (Mn)	≤0,5 ppb
Molybdenum (Mo)	≤0,5 ppb
Sodium (Na)	≤1 ppb
Neodymium (Nd)	≤0,1 ppb
Nickel (Ni)	≤0,5 ppb
Platinum (Pt)	≤0,5 ppb
Praseodymium (Pr)	≤0,1 ppb
Mercury (Hg)	≤1 ppb
Rhenium (Re)	≤0,1 ppb
Rhodium (Rh)	≤0,5 ppb
Rubidium (Rb)	≤0,1 ppb
Ruthenium (Ru)	≤0,5 ppb
Samarium (Sm)	≤0,1 ppb
Scandium (Sc)	≤0,1 ppb
Selenium (Se)	≤1 ppb
Silver (Ag)	≤1 ppb
Strontium (Sr)	≤0,5 ppb
Tellur (Te)	≤0,5 ppb
Terbium (Tb)	≤0,1 ppb
Thallium (Tl)	≤0,1 ppb
Thorium (Th)	≤0,1 ppb
Thulium (Tm)	≤0,1 ppb
Titanium (Ti)	≤0,5 ppb
Uranium (U)	≤0,1 ppb
Vanadium (V)	≤0,5 ppb
Bismuth (Bi)	≤0,1 ppb
Tungsten (W)	≤0,5 ppb
Ytterbium (Yb)	≤0,1 ppb
Yttrium (Y)	≤0,1 ppb
Zinc (Zn)	≤1 ppb
Tin (Sn)	≤0,5 ppb
Zirconium (Zr)	≤0,1 ppb
$KMnO_4$ reducing substances	complies
$K_2Cr_2O_7$ reducing substances	complies

Art. No.	Pack Qty.	Pack.	€
HN55.1	500 ml	HDPE	106,45
HN55.3	1 l	HDPE	162,90
Original pack 6 x 1 l			154,76/1 l
HN55.4	2.5 l	HDPE	206,95
Original pack 4 x 2.5 l			196,60/2.5 l
HN55.5	4 l	HDPE	319,85

Acetic acid 100 %

Acetic acid
ROTIPURAN® ≥99,9 %, LC-MS Grade

Ethanoic acid · Glacial acetic acid · Methanecarboxylic acid

$C_2H_4O_2$ · D 1,04 g/cm³ · mp 16,64 °C · bp 117,9 °C · flp 39 °C

UN no. 2789 · ADR 8 (3) II · WGK 1

Danger H226-H314

Type analysis

Appearance	clear, colourless liquid
Assay (GC)	≥99,9 %
Evaporation residue	≤0,0005 %
Al (Aluminium)	≤0,000005 %
Ca (Calcium)	≤0,00002 %
Fe (Iron)	≤0,00002 %
K (Potassium)	≤0,00001 %
Mg (Magnesium)	≤0,00001 %
Na (Sodium)	≤0,00005 %

Transmission:

254 nm	≥30 %
260 nm	≥80 %
270 nm	≥95 %
280 nm	≥97 %

Fill level for technical reasons.

Art. No.	Pack Qty.	Pack.	€
1EHL.1	50 ml	glass	60,75

Acetic acid
ROTIPURAN® 100 %, p.a.

Ethanoic acid · Glacial acetic acid · Methanecarboxylic acid

$C_2H_4O_2$ · D 1,04 g/cm³ · mp 16,64 °C · bp 117,9 °C · flp 39 °C

UN no. 2789 · ADR 8 (3) II · WGK 1

Danger H226-H314

Guarantee analysis

Assay	≥99,8 %
Colour (Hazen)	≤5
Aldehydes/acetaldehyde	≤0,005 %
Sulphate (SO_4)	≤0,0002 %
Chloride (Cl)	≤0,0001 %
Calcium (Ca)	≤0,00001 %
Sodium (Na)	≤0,00005 %
Potassium (K)	≤0,00005 %
Mercury (Hg)	≤0,000001 %
Aluminium (Al)	≤0,000005 %
Cadmium (Cd)	≤0,000001 %
Copper (Cu)	≤0,000001 %
Iron (Fe)	≤0,00001 %
Lead (Pb)	≤0,000001 %
$KMnO_4$ reducing substances	complies
Evaporation residue	≤0,003 %
Solidification point	≥16,35 °C

Art. No.	Pack Qty.	Pack.	€
3738.1	1 l	glass	34,95
Original pack 6 x 1 l			33,20/1 l
3738.4	1 l	plastic	32,80
Original pack 6 x 1 l			31,16/1 l
3738.2	2.5 l	glass	76,25
Original pack 4 x 2.5 l			72,44/2.5 l
3738.5	2.5 l	plastic	74,10
Original pack 4 x 2.5 l			70,40/2.5 l
3738.6	5 l	plastic	128,50
Original pack 2 x 5 l			122,08/5 l
3738.3	10 l	plastic	231,15

Acetic acid
100 %, Ph. Eur., extra pure

Ethanoic acid · Glacial acetic acid · Methanecarboxylic acid

$C_2H_4O_2$ · D 1,04 g/cm³ · mp 16,64 °C · bp 117,9 °C · flp 39 °C

UN no. 2789 · ADR 8 (3) II · WGK 1

Danger H226-H314

Guarantee analysis

Appearance	clear, colourless liquid
Assay	99,8-100,5 %
Identity	complies
Colour (Hazen)	≤5
Formic acid	≤0,05 %
Iron (Fe)	≤0,0005 %
Heavy metals (as Pb)	≤0,0005 %
Chloride (Cl)	≤0,0025 %
Sulphate (SO_4)	≤0,005 %
Aldehydes/acetaldehyde	≤0,005 %
Potassium permanganate red. matter	complies
Evaporation residue	≤0,01 %
Solidification point	≥14,8 °C

Art. No.	Pack Qty.	Pack.	€
6755.1	1 l	glass	30,65
Original pack 6 x 1 l			29,12/1 l
6755.2	2.5 l	glass	64,40
Original pack 4 x 2.5 l			61,18/2.5 l
6755.3	5 l	plastic	109,15
Original pack 2 x 5 l			103,69/5 l
6755.4	10 l	plastic	188,15
6755.5	25 l	plastic	364,45

Acetic acid
≥99 %, for synthesis

Ethanoic acid · Glacial acetic acid · Methanecarboxylic acid

$C_2H_4O_2$ · D 1,04 g/cm³ · mp 16,64 °C · bp 117,9 °C · flp 39 °C

UN no. 2789 · ADR 8 (3) II · WGK 1

Danger H226-H314

Type analysis

Assay	≥99 %
Colour (Hazen)	≤5
Formic acid	≤0,05 %

Art. No.	Pack Qty.	Pack.	€
7332.1	1 l	plastic	25,70
Original pack 6 x 1 l			24,42/1 l
7332.4	2.5 l	plastic	52,60
Original pack 4 x 2.5 l			49,97/2.5 l
7332.2	5 l	plastic	99,90
Original pack 2 x 5 l			94,91/5 l
7332.3	10 l	plastic	170,95
7332.5	25 l	plastic	338,65

Acetic acid 96 %

Acetic acid
ROTIPURAN® ≥95,9 %, p.a.

Ethanoic acid · Methanecarboxylic acid

$C_2H_4O_2$ · D 1,04 g/cm³ · mp 16,64 °C · bp 117,9 °C · flp 39 °C

UN no. 2789 · ADR 8 (3) II · WGK 1

Danger H226-H314

Guarantee analysis

Assay	≥95,9 %
Colour (Hazen)	≤10
Aldehydes/acetaldehyde	≤0,0002 %
Formic acid, formiate	≤0,01 %
Chloride (Cl)	≤0,00005 %
Sulphate (SO_4)	≤0,00005 %

Aluminium (Al) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,000005 %
Iron (Fe) ..... ≤0,00001 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00002 %
Potassium (K) ..... ≤0,0001 %
Copper (Cu) ..... ≤0,000001 %
Magnesium (Mg) ..... ≤0,00001 %
Sodium (Na) ..... ≤0,0001 %
Zinc (Zn) ..... ≤0,000005 %
$KMnO_4$ reducing substances (as O) ..... ≤0,002 %
$K_2Cr_2O_7$ reducing substances ..... ≤0,003 %
Non volatile matter ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
T179.1	1 l	plastic	31,75
Original pack 6 x 1 l			30,16/1 l
T179.2	2.5 l	plastic	70,45
Original pack 4 x 2.5 l			66,93/2.5 l
T179.4	5 l	plastic	119,90
Original pack 2 x 5 l			113,91/5 l
T179.3	10 l	plastic	217,70

Acetic acid
≥95,9 %, extra pure

Ethanoic acid · Methanecarboxylic acid

$C_2H_4O_2$ · D 1,04 g/cm³ · mp 16,64 °C · bp 117,9 °C · flp 39 °C

UN no. 2789 · ADR 8 (3) II · WGK 1

Danger H226-H314

Type analysis
Assay ..... ≥95,9 %
Colour (Hazen) ..... ≤10
Formic acid, formiate ..... ≤0,01 %
Chloride (Cl) ..... ≤0,0001 %
Sulphate (SO_4) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,0001 %
Copper (Cu) ..... ≤0,00001 %
Non volatile matter ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
X895.1	1 l	plastic	28,95
Original pack 6 x 1 l			27,50/1 l
X895.2	2.5 l	plastic	58,60
Original pack 4 x 2.5 l			55,67/2.5 l
X895.4	5 l	plastic	100,95
Original pack 2 x 5 l			95,90/5 l
X895.3	10 l	plastic	174,70

Acetic acid 80 %

Acetic acid
80 %, pure

Ethanoic acid · Methanecarboxylic acid

$C_2H_4O_2$ · D 1,06 to 1,07 g/cm³ · mp <-7 °C · bp >100 °C · flp >65 °C

UN no. 2790 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Assay ..... 79,0-81,0 %
Colour (Hazen) ..... ≤5
Formic acid ..... ≤0,05 %
Iron (Fe) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
6740.1	1 l	plastic	22,50
Original pack 6 x 1 l			21,38/1 l
6740.2	2.5 l	plastic	42,90
Original pack 4 x 2.5 l			40,76/2.5 l
6740.3	5 l	plastic	62,25
Original pack 2 x 5 l			59,14/5 l
6740.4	10 l	plastic	99,90

Acetic acid 60 %

Acetic acid
60 %, pure

Ethanoic acid · Methanecarboxylic acid

$C_2H_4O_2$ · D 1,06 to 1,07 g/cm³ · mp <-7 °C · bp >100 °C · flp >65 °C

UN no. 2790 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Assay ..... 59-61 %
Colour (APHA) ..... ≤30
Density (20 °C) ..... 1,062-1,080 g/cm³

Art. No.	Pack Qty.	Pack.	€
7329.1	1 l	plastic	22,05
Original pack 6 x 1 l			20,95/1 l
7329.4	2.5 l	plastic	31,10
Original pack 4 x 2.5 l			29,55/2.5 l
7329.3	5 l	plastic	51,10
Original pack 2 x 5 l			48,55/5 l
7329.2	10 l	plastic	74,75
7329.5	25 l	plastic	166,65

Acetic acid 40 %

Acetic acid
40 %, pure

Ethanoic acid · Methanecarboxylic acid

$C_2H_4O_2$ · D 1,03 to 1,05 g/cm³ · bp >100 °C · flp >88 °C

UN no. 2790 · ADR 8 III · WGK 1

Danger H290-H314

Type analysis
Assay ..... 39,0-41,0 %

Art. No.	Pack Qty.	Pack.	€
1EE0.1	1 l	plastic	21,40
Original pack 6 x 1 l			20,33/1 l
1EE0.2	2.5 l	plastic	31,10
Original pack 4 x 2.5 l			29,55/2.5 l
1EE0.3	5 l	plastic	49,35
Original pack 2 x 5 l			46,88/5 l
1EE0.4	10 l	plastic	73,00
1EE0.5	25 l	plastic	160,20

Acetic acid 30 %

Acetic acid
30 %, pure

Ethanoic acid · Methanecarboxylic acid

$C_2H_4O_2$ · D 1,03 to 1,05 g/cm³ · bp >100 °C · flp >60 °C

UN no. 2790 · ADR 8 III · WGK 1

Danger H314

Type analysis
Assay ..... 29,0-31,0 %

Art. No.	Pack Qty.	Pack.	€
1ECY.1	1 l	plastic	21,00
Original pack 6 x 1 l			19,95/1 l
1ECY.2	2.5 l	plastic	30,00
Original pack 4 x 2.5 l			28,50/2.5 l
1ECY.3	5 l	plastic	47,20
Original pack 2 x 5 l			44,84/5 l
1ECY.4	10 l	plastic	68,30
1ECY.5	25 l	plastic	149,45

Acetic acid 25 %

Acetic acid
25 %, pure

Ethanoic acid · Methanecarboxylic acid

$C_2H_4O_2$ · D 1,03 g/cm³ · bp >100 °C · flp >60 °C

UN no. 2790 · ADR 8 III · WGK 1

Danger H314

Type analysis
Assay ..... ~25,0 %

Art. No.	Pack Qty.	Pack.	€
4340.1	1 l	plastic	20,35
Original pack 6 x 1 l			19,33/1 l
4340.5	2.5 l	plastic	29,60
Original pack 4 x 2.5 l			28,12/2.5 l
4340.2	5 l	plastic	46,15
Original pack 2 x 5 l			43,84/5 l
4340.3	10 l	plastic	64,00
4340.4	25 l	plastic	138,70

Acetic acid 20 %

Acetic acid
20 %, pure

Ethanoic acid · Methanecarboxylic acid

$C_2H_4O_2$ · D 1,03 to 1,05 g/cm³ · bp >100 °C

UN no. 2790 · ADR 8 III · WGK 1

Warning H315-H319

Type analysis
Assay ..... 19,0 - 21,0 %

Art. No.	Pack Qty.	Pack.	€
1ECX.1	1 l	plastic	19,90
Original pack 6 x 1 l			18,91/1 l
1ECX.2	2.5 l	plastic	28,95
Original pack 4 x 2.5 l			27,50/2.5 l
1ECX.3	5 l	plastic	45,05
Original pack 2 x 5 l			42,80/5 l
1ECX.4	10 l	plastic	61,85
1ECX.5	25 l	plastic	127,95

Acetic acid 10 %

Acetic acid
10 %, pure

Ethanoic acid · Methanecarboxylic acid

$C_2H_4O_2$ · D 1,013 to 1,015 g/cm³ · bp >100 °C

UN no. 2790 · ADR 8 III · WGK 1

Warning H315-H319

Type analysis
Assay (titr.) ..... 10-11 %
Density (20 °C) ..... 1,013-1,015 g/cm³
Colour number (Hazen) ..... ≤30

Art. No.	Pack Qty.	Pack.	€
4341.1	1 l	plastic	18,20
Original pack 6 x 1 l			17,29/1 l
4341.5	2.5 l	plastic	26,80
Original pack 4 x 2.5 l			25,46/2.5 l
4341.2	5 l	plastic	42,50
Original pack 2 x 5 l			40,38/5 l
4341.3	10 l	plastic	58,60
4341.4	25 l	plastic	117,20

Acetic acid (1 N)

Acetic acid
1 mol/l – 1 N, volumetric standard solution

Ethanoic acid · Methanecarboxylic acid

$C_2H_4O_2$ · D 1,003 g/cm³ · bp 100 °C

WGK 1

Type analysis
Amount-of-substance conc. (20 °C) ..... 1 mol/l ±0,3 %
Titer 0,997-1,003

Art. No.	Pack Qty.	Pack.	€
KK62.1	1 l	plastic	36,05
Original pack 6 x 1 l			34,25/1 l

Acetic acid (2 N)

Acetic acid
2 mol/l – 2 N, volumetric standard solution

Ethanoic acid · Methanecarboxylic acid

$C_2H_4O_2$ · D 1,014 g/cm³ · bp >100 °C

UN no. 2790 · ADR 8 III · WGK 1

Warning H315-H319

Type analysis
Amount-of-substance conc. (20 °C) ..... 2 mol/l ±0,2 %
Titer 0,9970-1,0030

Art. No.	Pack Qty.	Pack.	€
9883.1	500 ml	plastic	49,35
9883.2	1 l	plastic	74,10
Original pack 6 x 1 l			70,40/1 l

Acetic acid (5 N)

Acetic acid
5 mol/l – 5 N, volumetric standard solution

Ethanoic acid · Methanecarboxylic acid

$C_2H_4O_2$ · D 1,037 g/cm³ · bp >100 °C · flp >60 °C

UN no. 2790 · ADR 8 III · WGK 1

Danger H314

Type analysis
Titer 0,0997-1,003
Amount-of-substance conc. (20 °C) ..... 5,0 mol/l ±0,3 %

Art. No.	Pack Qty.	Pack.	€
1E33.1	1 l	plastic	109,15
Original pack 6 x 1 l			103,69/1 l

Acetic acid D1

Ethanoic acid · Methanecarboxylic acid

CH_3COOD · D 1,06 g/cm³ · mp 16 °C · bp 116 to 118 °C · flp 40 °C
CAS No. 758-12-3 · EC no. 212-059-1
UN no. 2789 · ADR 8 (3) II · WGK 1

Danger H226-H314

Acetic acid D1
99 Atom%D

For nuclear magnetic resonance spectroscopy.

Type analysis
Deuterising degree ..... ≥99,0 %
Water (KF, H_2O+D_2O) ..... ≤1 %

Art. No.	Pack Qty.	Pack.	€
9902.1	50 ml	glass	139,25

Acetic acid D4

Ethanoic acid · Methanecarboxylic acid

$C_2D_4O_2$ · D 1,12 g/cm³ · mp 17 °C · bp 116 to 118 °C · flp 39 °C
CAS No. 1186-52-3 · EC no. 214-693-4
UN no. 2789 · ADR 8 (3) II · WGK 1

Danger H226-H314

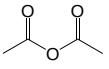
Acetic acid D4
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

Guarantee analysis
Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
HN83.1	10 ml	glass	134,40

Acetic acid anhydride



Acetanhydride

$C_4H_6O_3$ · D 1,08 g/cm³ · mp -73 °C · bp 139,5 °C · flp 49 °C
CAS No. 108-24-7 · EC no. 203-564-8
UN no. 1715 · ADR 8 (3) II · WGK 1

Danger H226-H302+H332-H314

Acetic acid anhydride
ROTIPURAN® ≥99 %, p.a., ACS, ISO

Acetylation reagent.

Guarantee analysis
Assay (titr.) ..... ≥99,0 %
Chloride (Cl) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,0005 %
Phosphate (PO_4) ..... ≤0,001 %
Non volatile matter ..... ≤0,003 %
Heavy metals (as Pb) ..... ≤0,0002 %
$KMnO_4$ red. matter ..... complies
Aluminium (Al) ..... ≤0,00005 %
Boron (B) ..... ≤0,00005 %
Barium (Ba) ..... ≤0,00001 %
Bismuth (Bi) ..... ≤0,000005 %
Cadmium (Cd) ..... ≤0,000002 %
Cobalt (Co) ..... ≤0,000002 %
Chromium (Cr) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,00001 %
Sodium (Na) ..... ≤0,00005 %
Tin (Sn) ..... ≤0,000005 %
Strontium (Sr) ..... ≤0,000005 %
Zinc (Zn) ..... ≤0,00001 %

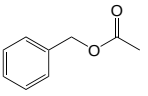
Art. No.	Pack Qty.	Pack.	€
CP28.1	1 l	glass	134,40
Original pack 6 x 1 l			127,68/1 l
CP28.2	2.5 l	glass	267,70
Original pack 4 x 2.5 l			254,32/2.5 l
CP28.3	5 l	plastic	493,45
Original pack 2 x 5 l			468,78/5 l
CP28.4	10 l	plastic	923,45
CP28.5	25 l	plastic	2.117,75

Acetic acid anhydride
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99 %
Density (20 °C) 1,080-1,082
Refractive index (20 °C) 1,3890-1,3910

Art. No.	Pack Qty.	Pack.	€
4483.1	1 l	glass	42,90
Original pack 6 x 1 l			40,76/1 l
4483.2	2.5 l	glass	75,15
Original pack 4 x 2.5 l			71,39/2.5 l
4483.3	5 l	plastic	105,90
Original pack 2 x 5 l			100,61/5 l
4483.4	10 l	plastic	188,15
4483.5	25 l	plastic	385,95

Acetic acid benzyl ester



Benzylacetate

$C_9H_{10}O_2$ · D 1,06 g/cm³ · mp -51 °C · bp 213 to 214 °C · flp 102 °C
CAS No. 140-11-4 · EC no. 205-399-7
WGK 1

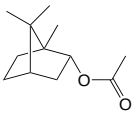
H412

Acetic acid benzyl ester
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99 %
Density (d 20 °C/4 °C) 1,052-1,057

Art. No.	Pack Qty.	Pack.	€
4368.1	100 ml	glass	20,35
4368.2	500 ml	glass	42,90
4368.3	1 l	glass	67,20
Original pack 6 x 1 l			63,84/1 l
4368.4	2.5 l	glass	104,20
Original pack 4 x 2.5 l			98,99/2.5 l

Acetic acid L-bornyl ester



L-Bornyl acetate

$C_{12}H_{20}O_2$ · D 0,982 g/cm³ · bp 223 to 224 °C · flp 97 °C
CAS No. 5655-61-8 · EC no. 227-101-4
WGK 1

Acetic acid L-bornyl ester
ROTICHROM® GC

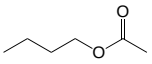
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
9009.2	100 mg	glass	123,10

Acetic acid *n*-butyl ester



n-Butyl acetate

$C_6H_{12}O_2$ · D 0,881 g/cm³ · mp <-90 °C · bp 126,2 °C · flp 27 °C
CAS No. 123-86-4 · EC no. 204-658-1
UN no. 1123 · ADR 3 III · WGK 1

Warning H226-H336-EUH066

Acetic acid *n*-butyl ester
ROTIPURAN® ≥99,5 %, p.a., ACS

Guarantee analysis

Assay (GC)	≥99,5 %
Density (d 20 °C/4 °C)	0,879-0,882
Non volatile matter	≤0,001 %
1-Butanol (GC)	≤0,2 %
n-Butyl formiate (GC)	≤0,1 %
n-Butyl propionate (GC)	≤0,1 %
Matter discoloured by H_2SO_4	complies
Acidity	≤0,0016 meq/g
Colour (APHA)	≤10
Water (KF)	≤0,1 %
Lead (Pb)	≤0,00001 %
Cadmium (Cd)	≤0,000005 %
Calcium (Ca)	≤0,00005 %
Chromium (Cr)	≤0,000002 %
Iron (Fe)	≤0,00001 %
Cobalt (Co)	≤0,000002 %
Copper (Cu)	≤0,000002 %
Magnesium (Mg)	≤0,00001 %
Manganese (Mn)	≤0,000002 %
Nickel (Ni)	≤0,000002 %
Zinc (Zn)	≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
P036.1	1 l	glass	76,25
Original pack 6 x 1 l			72,44/1 l
P036.2	2.5 l	glass	160,75
Original pack 4 x 2.5 l			152,71/2.5 l

Acetic acid *n*-butyl ester
≥99 %, for synthesis

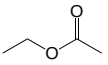
Type analysis

Appearance	clear, colourless liquid
Assay (GC)	≥99 %
Water	≤0,1 %
Density (20 °C)	0,878-0,882
Refractive index n_D^{20}	1,393-1,396

Art. No.	Pack Qty.	Pack.	€
4600.1	1 l	glass	40,75
Original pack 6 x 1 l			38,71/1 l
4600.3	2.5 l	glass	69,80
Original pack 4 x 2.5 l			66,31/2.5 l
4600.5	5 l	aluminium	115,60
Original pack 2 x 5 l			109,82/5 l
4600.2	10 l	tinplate	192,45
4600.4	25 l	tinplate	403,15

Acetic acid dimethylamide
▸ *N,N*-Dimethylacetamide (DMA) see page 885

Acetic acid ethyl ester



Acetic esther · Ethyl acetate

$C_4H_8O_2$ · D 0,9003 g/cm³ · mp -83,6 °C · bp 77,1 °C · flp -4 °C
CAS No. 141-78-6 · EC no. 205-500-4
UN no. 1173 · ADR 3 II · WGK 1

Danger H225-H319-H336-EUH066

Acetic acid ethyl ester
ROTISOLV® ≥99,9 %, Ultra LC-MS

Guarantee analysis

Assay (GC)	≥99,9 %
Colour (APHA)	≤10
Water (KF)	≤0,02 %
Acidity (as CH_3COOH)	≤0,002 %
Alkalinity (as NH_3)	≤0,0005 %
Evaporation residue	≤0,0003 %

Absorbance:

255 nm	≥25 %
260 nm	≤0,10 AU
275 nm	≤0,01 AU

Fluorescence (as quinine):

254 nm	≤2 ppb
365 nm	≤1 ppb

Trace impurities:

Al (Aluminium)	≤20 ppb
Ca (Calcium)	≤50 ppb
Fe (Iron)	≤20 ppb
K (Potassium)	≤50 ppb
Mg (Magnesium)	≤20 ppb
Na (Sodium)	≤50 ppb

Filtered through 0.1 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
1HP7.1	1 l	glass	85,90
Original pack 6 x 1 l			81,61/1 l
1HP7.2	2.5 l	glass	160,75
Original pack 4 x 2.5 l			152,71/2.5 l

Acetic acid ethyl ester
ROTISOLV® ≥99,9 %, LC-MS Grade

Guarantee analysis

Assay (GC)	≥99,9 %
Colour (APHA)	≤5
Water (KF)	≤0,05 %
Free acid (as CH_3COOH)	≤0,001 %
Free alkali (as NH_3)	≤0,0005 %
Non volatile matter	≤0,0001 %
275 nm	≥98 %
260 nm	≥75 %
Aluminium (Al)	≤0,05 ppm
Calcium (Ca)	≤0,05 ppm
Iron (Fe)	≤0,05 ppm
Potassium (K)	≤0,05 ppm
Magnesium (Mg)	≤0,05 ppm
Sodium (Na)	≤0,05 ppm
LC-MS suitability test	complies

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
AE69.1	1 l	glass	67,65
Original pack 6 x 1 l			64,27/1 l
AE69.2	2.5 l	glass	145,15
Original pack 4 x 2.5 l			137,89/2.5 l

Acetic acid ethyl ester
ROTISOLV® HPLC

Guarantee analysis

Assay (GC)	≥99,9 %
Water (KF)	≤0,05 %
Free acid	≤0,005 %
Non volatile matter	≤0,0002 %

Transmission:

300 nm	≥99 %
270 nm	≥95 %
260 nm	≥75 %
255 nm	≥20 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
7336.2	1 l	glass	51,10
Original pack 6 x 1 l			48,55/1 l
7336.1	2.5 l	glass	99,90
Original pack 4 x 2.5 l			94,91/2.5 l

Acetic acid ethyl ester
ROTISOLV® ≥99,9 %, GC Ultra Grade

For gaschromatographic residue analysis.

Guarantee analysis

Assay (GC)	≥99,9 %
Colour (APHA)	≤10
Water (KF)	≤0,02 %
Free acid (as CH_3COOH)	≤0,005 %
Evaporation residue	≤0,0002 %
GC/ECD dioxins, furans and PCBs (as lindane)	≤5 ng/l
GC/ECD pesticides (as lindane)	≤5 ng/l
GC/NPD pesticides (as parathion)	≤5 ng/l
PAH-test (less than 2 ppb, HPLC)	complies

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
KK42.1	2.5 l	glass	98,80
Original pack 4 x 2.5 l			93,86/2.5 l

Acetic acid ethyl ester
ROTISOLV® Pestilyse® plus ≥99,9 %

For determination of dioxins, furans, PCBs, pesticides, hydrocarbons etc.

Guarantee analysis

Assay (GC)	≥99,9 %
Colour (APHA)	≤10
Water (KF)	≤0,05 %
Free acid (as CH_3COOH)	≤0,003 %
Evaporation residue	≤0,0001 %
GC/FID suitability (as 2-octanol)	≤15 ng/ml
GC/ECD suitability (as heptachloro epoxide)	≤10 ng/l
GC/ECD dioxins, furans and PCBs (as lindane)	≤5 ng/l
GC/ECD pesticides (as lindane)	≤5 ng/l
GC/NPD pesticides (as parathion)	≤5 ng/l
GC/ECD volatile impurities (as ethylene dibromide)	≤5 ng/ml
PAH-test (less than 2 ppb, HPLC)	complies

Fluorescence (as quinine):

254 nm	≤1,5 ppb
365 nm	≤1 ppb

Transmission:

260 nm	≥75 %

Art. No.	Pack Qty.	Pack.	€
7565.1	2.5 l	glass	94,50
Original pack 4 x 2.5 l			89,78/2.5 l

Acetic acid ethyl ester
ROTISOLV® Pestilyse® ≥99,8 %

For residue and environmental analysis.

Guarantee analysis

Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,05 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %
GC/ECD (individual signal as lindane) ..... ≤5 ng/l
GC/PND (individual signal as ethylparathion) ..... ≤10 ng/l

Art. No.	Pack Qty.	Pack.	€
T164.2	1 l	glass	38,60
Original pack 6 x 1 l			36,67/1 l
T164.1	2.5 l	glass	83,75
Original pack 4 x 2.5 l			79,56/2.5 l
T164.3	4 l	glass	115,60

Acetic acid ethyl ester
ROTISOLV® ≥99,8 %, UV/IR Grade

For chromatography and spectroscopy.

Guarantee analysis

Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,02 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

Transmission:
280 nm ..... ≥98 %
270 nm ..... ≥95 %
260 nm ..... ≥75 %

Art. No.	Pack Qty.	Pack.	€
4442.1	2.5 l	glass	74,75
Original pack 4 x 2.5 l			71,01/2.5 l

Acetic acid ethyl ester
ROTIDRY® plus ≥99,8 % (≤50 ppm H_2O), with molecular sieve

Type analysis

Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,005 %
Relative density (20/20 °C) 0,898-0,902
Ethanol (GC) ..... ≤0,1 %
Methanol (GC) ..... ≤0,1 %
Methyl acetate (GC) ..... ≤0,01 %
Cu (Copper) ..... ≤0,00002 %
Fe (Iron) ..... ≤0,00005 %
Ni (Nickel) ..... ≤0,00002 %
Pb (Lead) ..... ≤0,00002 %
Heavy metals (as Pb) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
1A9P.1	1 l	glass	64,40
Original pack 6 x 1 l			61,18/1 l

Acetic acid ethyl ester
ROTIDRY® ≥99,8 % (≤100 ppm H_2O)

Dried, for analysis and organic synthesis.

Guarantee analysis

Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,01 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4424.1	1 l	glass	37,55
Original pack 6 x 1 l			35,67/1 l

Acetic acid ethyl ester
ROTIPURAN® ≥99,5 %, p.a., ACS, ISO

Guarantee analysis

Assay (GC) ..... ≥99,5 %
Colour (Hazen) ..... ≤10
Water ..... ≤0,1 %
Acidity ..... ≤0,0008 meq/g
Density (d 20 °C/4 °C) 0,898-0,902
Matter discoloured by H_2SO_4 ..... complies
Evaporation residue ..... ≤0,001 %
Ethanol (GC) ..... ≤0,1 %
Methanol (GC) ..... ≤0,1 %
Methyl acetate (GC) ..... ≤0,1 %
Lead (Pb) ..... ≤0,00001 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
6784.1	1 l	glass	43,55
Original pack 6 x 1 l			41,37/1 l
6784.3	1 l	plastic	40,75
Original pack 6 x 1 l			38,71/1 l
6784.2	2.5 l	glass	78,40
Original pack 4 x 2.5 l			74,48/2.5 l
6784.4	2.5 l	plastic	75,80
Original pack 4 x 2.5 l			72,01/2.5 l
6784.5	5 l	plastic	124,20
Original pack 2 x 5 l			117,99/5 l

Acetic acid ethyl ester
≥99,5 %, Ph. Eur., extra pure

Guarantee analysis

Assay (GC) ..... ≥99,5 %
Identity ..... complies
Appearance of solution ..... clear, colorless
Acid react. substances ..... complies
Density (d 20 °C/20 °C) 0,898-0,902
Refractive index n_D^{20} 1,370-1,373
Related substances (GC) ..... ≤0,2 %
Reaction with H_2SO_4 ..... complies
Evaporation residue ..... ≤0,003 %
Water (KF) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
CP42.1	1 l	glass	31,10
Original pack 6 x 1 l			29,55/1 l
CP42.2	2.5 l	glass	54,75
Original pack 4 x 2.5 l			52,01/2.5 l
CP42.3	2.5 l	plastic	52,60
Original pack 4 x 2.5 l			49,97/2.5 l
CP42.4	5 l	plastic	89,15
Original pack 2 x 5 l			84,69/5 l
CP42.5	10 l	tinplate	158,60
CP42.6	25 l	tinplate	332,20

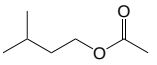
Acetic acid ethyl ester
≥99,5 %, for synthesis

Type analysis

Assay (GC) ..... ≥99,5 %
Water ..... <0,05 %
Density (20 °C) ..... 0,899-0,903 g/cm³
Refractive index n_D^{20} 1,371-1,374

Art. No.	Pack Qty.	Pack.	€
7338.1	1 l	glass	32,15
Original pack 6 x 1 l			30,54/1 l
7338.3	2.5 l	glass	55,40
Original pack 4 x 2.5 l			52,63/2.5 l
7338.5	5 l	plastic	91,30
Original pack 2 x 5 l			86,74/5 l
7338.2	10 l	tinplate	149,45
7338.4	25 l	tinplate	299,95

Acetic acid isoamyl ester



3-Methylbutyl acetate · Isoamyl acetate

$C_7H_{14}O_2$ · D 0,876 g/cm³ · mp -78,5 °C · bp 142,5 °C · flp 33 °C
CAS No. 123-92-2 · EC no. 204-662-3
UN no. 1104 · ADR 3 III · WGK 1

Warning H226-EUH066

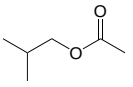
Acetic acid isoamyl ester
≥98 %, extra pure

Type analysis

Appearance . clear, colorless to pale yellow liquid
Assay (GC) ..... ≥98 %
Density (d 20 °C/4 °C) 0,866-0,880
Refractive index n_D^{20} 1,398-1,404

Art. No.	Pack Qty.	Pack.	€
7341.1	1 l	glass	69,80
Original pack 6 x 1 l			66,31/1 l
7341.2	10 l	tinplate	407,45

Acetic acid isobutyl ester



Isobutyl acetate

$C_6H_{12}O_2$ · D 0,871 g/cm³ · mp -90 °C · bp 117 °C · flp 22 °C
CAS No. 110-19-0 · EC no. 203-745-1
UN no. 1213 · ADR 3 II · WGK 1

Danger H225-H336-EUH066

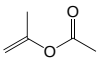
Acetic acid isobutyl ester
≥99 %, for synthesis

Type analysis

Assay (GC) ..... ≥99,0 %
Density (20 °C) 0,868-0,873
Water ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
4370.1	100 ml	glass	16,05
4370.2	500 ml	glass	23,55
4370.3	1 l	glass	38,60
Original pack 6 x 1 l			36,67/1 l
4370.4	2.5 l	glass	66,55
Original pack 4 x 2.5 l			63,22/2.5 l

Acetic acid isopropenyl ester



Acetonenol acetate · Isopropenyl acetate

$C_5H_8O_2$ · D 0,92 g/cm³ · mp -93 °C · bp 96,8 °C · flp 8,5 °C
CAS No. 108-22-5 · EC no. 203-562-7
UN no. 2403 · ADR 3 II · WGK 1

Danger H225-H335

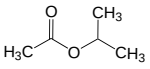
Acetic acid isopropenyl ester
≥98 %, for synthesis

Storage temperature: +4 °C

Type analysis
Assay (GC) ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
3012.1	250 ml	glass	61,20

Acetic acid *iso*-propyl ester



Isopropyl acetate

$C_5H_{10}O_2$ · D 0,872 g/cm³ · mp -73,4 °C · bp 88,6 °C · flp 5 °C
CAS No. 108-21-4
UN no. 1220 · ADR 3 II · WGK 1

Danger H225-H319-H336-EUH066

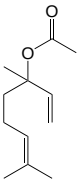
Acetic acid *iso*-propyl ester
SOLVAGREEN® ≥99 %, for synthesis

Alternative for dichloromethane

Type analysis
Assay ..... ≥99,0 %
Refractive index 1,376-1,379
Density (20 °C) ..... 0,871-0,875 g/cm³

Art. No.	Pack Qty.	Pack.	€
1A9C.1	1 l	glass	31,10
Original pack 6 x 1 l			29,55/1 l
1A9C.2	2.5 l	glass	61,85
Original pack 4 x 2.5 l			58,76/2.5 l

Acetic acid linalyl ester



Bergamol · Linalylacetate

$C_{12}H_{20}O_2$ · D 0,902 g/cm³ · mp <-100 °C · bp 220 °C · flp 85 °C
CAS No. 115-95-7 · EC no. 204-116-4
WGK 1

Warning H315-H317-H319

Acetic acid linalyl ester
ROTICHROM® GC

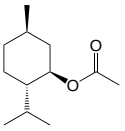
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
5199.2	100 mg	glass	107,40

Acetic acid (L)-menthyl ester



Menthyl acetate

$C_{12}H_{22}O_2$ · D 0,925 g/cm³ · bp 229 to 230 °C · flp 77 °C
CAS No. 2623-23-6 · EC no. 220-076-0
WGK 2

Acetic acid (L)-menthyl ester
ROTICHROM® GC

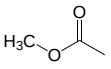
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
5189.1	1 g	plastic	105,25

Acetic acid methyl ester



Methyl acetate

$C_3H_6O_2$ · D 0,93 g/cm³ · mp -98 °C · bp 57 °C · flp -13 °C
CAS No. 79-20-9 · EC no. 201-185-2
UN no. 1231 · ADR 3 II · WGK 1

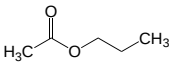
Danger H225-H319-H336-EUH066

Acetic acid methyl ester
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99 %
Refractive index n_D^{20} 1,360-1,363
Water (KF) ..... ≤0,3 %

Art. No.	Pack Qty.	Pack.	€
3730.3	500 ml	glass	22,50
3730.1	1 l	glass	41,85
Original pack 6 x 1 l			39,76/1 l
3730.2	2.5 l	glass	78,40
Original pack 4 x 2.5 l			74,48/2.5 l
3730.4	5 l	aluminium	117,20
Original pack 2 x 5 l			111,34/5 l

Acetic acid *n*-propyl ester



n-Propyl acetat · *n*-Propyl ethanoate

D 0,89 g/cm³ · mp -93 °C · bp 101,3 °C · flp 11,8 °C
CAS No. 109-60-4
UN no. 1276 · ADR 3 II · WGK 1

Danger H225-H319-H336-EUH066

Acetic acid *n*-propyl ester
SOLVAGREEN® ≥99,5 %, for synthesis

Alternative for MEK (mixture 40:60 with acetone)

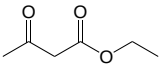
Type analysis
Assay ..... ≥99,5 %
Refractive index 1,384-1,396
Density (20 °C) ..... 0,887-0,889 g/cm³

Art. No.	Pack Qty.	Pack.	€
1A9A.1	1 l	plastic	31,10
Original pack 6 x 1 l			29,55/1 l
1A9A.2	2.5 l	plastic	61,85
Original pack 4 x 2.5 l			58,76/2.5 l

Acetic esther

▸ Acetic acid ethyl ester see page 693

Acetoacetic acid ethyl ester



Ethyl acetoacetate

$C_6H_{10}O_3$ · D 1,03 g/cm³ · mp -53,3 °C · bp 180,6 °C · flp 73,5 °C
CAS No. 141-97-9 · EC no. 205-516-1
WGK 1

Warning H319

Acetoacetic acid ethyl ester
≥98 %

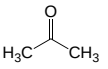
Type analysis
Assay (GC) ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
4474.1	500 ml	glass	54,75

Acetoacetophenone

▸ Benzoylacetone see page 770

Acetone



2-Propanone · Dimethyl ketone

C_3H_6O · D 0,79 g/cm³ · mp -94,8 °C · bp 56,05 °C · flp -17 °C
CAS No. 67-64-1 · EC no. 200-662-2
UN no. 1090 · ADR 3 II · WGK 1

Danger H225-H319-H336-EUH066

A

Acetone
ROTISOLV® ≥99,9 %, LC-MS Grade

Guarantee analysis

Assay (GC) ..... ≥99,9 %
Colour (APHA) ..... ≤10
Acidity ..... ≤0,0002 meq/g
Alkalinity ..... ≤0,0002 meq/g
Evaporation residue ..... ≤0,0001 %
Water (KF) ..... ≤0,2 %
LC-MS suitability test ..... complies

Gradient test UV absorption of the greatest eluated peak:
345 nm ..... ≤0,0005 AU

Trace impurities:
Al (Aluminium) ..... ≤0,05 ppm
Ca (Calcium) ..... ≤0,05 ppm
Fe (Iron) ..... ≤0,05 ppm
K (Potassium) ..... ≤0,05 ppm
Mg (Magnesium) ..... ≤0,05 ppm
Na (Sodium) ..... ≤0,05 ppm

Transmission:
350 nm ..... ≥98 %
342 nm ..... ≥90 %
339 nm ..... ≥80 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
3153.1	2.5 l	glass	133,85
Original pack 4 x 2.5 l			127,16/2.5 l

Acetone
ROTISOLV® HPLC

Guarantee analysis

Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,2 %
Free acid ..... ≤0,003 %
Non volatile matter ..... ≤0,0002 %

Transmission:
350 nm ..... ≥99 %
340 nm ..... ≥80 %
335 nm ..... ≥60 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
7328.1	1 l	glass	41,85
Original pack 6 x 1 l			39,76/1 l
7328.2	2.5 l	glass	74,10
Original pack 4 x 2.5 l			70,40/2.5 l

Acetone
ROTISOLV® ≥99,9 %, GC Ultra Grade

For gaschromatographic residue analysis.

Guarantee analysis

Assay (GC) ..... ≥99,9 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,25 %
Free acid (as CH_3COOH) ..... ≤0,002 %
Evaporation residue ..... ≤0,0002 %
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD pesticides (as lindane) ..... ≤5 ng/l
GC/NPD pesticides (as parathion) ..... ≤5 ng/l
PAH-test (less than 2 ppb, HPLC) ..... complies

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
KK40.1	2.5 l	glass	88,70
Original pack 4 x 2.5 l			84,27/2.5 l

Acetone
ROTISOLV® Pestilyse® plus ≥99,9 %

For determination of dioxins, furans, PCBs, pesticides, hydrocarbons etc.

Guarantee analysis

Assay (GC) ..... ≥99,9 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,3 %
Free acid (as CH_3COOH) ..... ≤0,002 %
Evaporation residue ..... ≤0,0003 %
GC/FID suitability (as 2-octanol) ..... ≤10 ng/ml
GC/ECD suitability (as heptachloro epoxide) ..... ≤10 ng/l
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD pesticides (as lindane) ..... ≤5 ng/l
GC/NPD pesticides (as parathion) ..... ≤10 ng/l
Oil index (any hydrocarbon C_{10}-C_{40}) ..... ≤0,1 mg/l
GC/ECD volatile impurities (as ethylene dibromide) ..... ≤5 ng/ml
PAH-test (less than 2 ppb, HPLC) ..... complies

Fluorescence (as quinine):
254 nm ..... ≤1 ppb
365 nm ..... ≤1 ppb

Art. No.	Pack Qty.	Pack.	€
7535.1	2.5 l	glass	78,40
Original pack 4 x 2.5 l			74,48/2.5 l

Acetone
ROTISOLV® Pestilyse® ≥99,8 %

For residue and environmental analysis.

Guarantee analysis

Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,2 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %
GC/ECD (individual signal as lindane) ..... ≤5 ng/l
GC/PND (individual signal as ethylparathion) ..... ≤10 ng/l

Art. No.	Pack Qty.	Pack.	€
T161.2	1 l	glass	37,10
Original pack 6 x 1 l			35,25/1 l
T161.1	2.5 l	glass	71,50
Original pack 4 x 2.5 l			67,93/2.5 l
T161.3	4 l	glass	99,45

Acetone
ROTISOLV® ≥99,9 %, UV/IR Grade

For chromatography and spectroscopy.

Guarantee analysis

Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,2 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

Fluorescence (as quinine):
365 nm ..... ≤1,0 ppb

Transmission:
350 nm ..... ≥98 %
342 nm ..... ≥90 %
339 nm ..... ≥80 %
335 nm ..... ≥50 %
330 nm ..... ≥10 %

Art. No.	Pack Qty.	Pack.	€
T906.1	2.5 l	glass	70,85
Original pack 4 x 2.5 l			67,31/2.5 l

Acetone
≥99,5 %, VLSI Grade

Semiconductor grade

Guarantee analysis

Assay ..... ≥99,5 %
Bead number (≥0,5 µm) ..... ≤250 p/ml
Water ..... ≤0,5 %
Alkalinity ..... <0,5 µeq/g
Acidity ..... <0,2 µeq/g
Colour (APHA) ..... ≤10
Chloride (Cl) ..... ≤0,00001 %
Phosphate (PO_4) ..... ≤0,00005 %
Ash content ..... ≤0,0005 %
Aluminium (Al) ..... ≤50 ppb
Antimony (Sb) ..... ≤10 ppb
Arsenic (As) ..... ≤10 ppb
Barium (Ba) ..... ≤20 ppb
Beryllium (Be) ..... ≤10 ppb
Bismuth (Bi) ..... ≤10 ppb
Lead (Pb) ..... ≤10 ppb
Boron (B) ..... ≤20 ppb
Cadmium (Cd) ..... ≤10 ppb
Calcium (Ca) ..... ≤50 ppb
Chromium (Cr) ..... ≤10 ppb
Iron (Fe) ..... ≤50 ppb
Gallium (Ga) ..... ≤10 ppb
Gold (Au) ..... ≤10 ppb
Potassium (K) ..... ≤20 ppb
Cobalt (Co) ..... ≤10 ppb
Copper (Cu) ..... ≤30 ppb
Lithium (Li) ..... ≤10 ppb
Magnesium (Mg) ..... ≤20 ppb
Manganese (Mn) ..... ≤10 ppb
Molybdenum (Mo) ..... ≤10 ppb
Sodium (Na) ..... ≤50 ppb
Nickel (Ni) ..... ≤10 ppb
Silver (Ag) ..... ≤10 ppb
Strontium (Sr) ..... ≤10 ppb
Titanium (Ti) ..... ≤10 ppb
Vanadium (V) ..... ≤10 ppb
Zinc (Zn) ..... ≤20 ppb
Tin (Sn) ..... ≤10 ppb
Zirconium (Zr) ..... ≤10 ppb

Art. No.	Pack Qty.	Pack.	€
9780.1	2.5 l	plastic	90,85
Original pack 4 x 2.5 l			86,31/2.5 l
9780.2	5 l	plastic	153,20
Original pack 2 x 5 l			145,54/5 l

Acetone
ROTIPURAN® ≥99,8 %, p.a., ACS, ISO

Guarantee analysis

Assay (GC) ..... ≥99,8 %
Colour (Hazen) ..... ≤10
Density (20 °C) 0,790-0,793
Water ..... ≤0,05 %
Acidity ..... ≤0,0002 meq/g
Alkalinity ..... ≤0,0002 meq/g
Ethanol (GC) ..... ≤0,01 %
Methanol (GC) ..... ≤0,05 %
2-Propanol (GC) ..... ≤0,05 %
Aldehydes (as CH_2O) ..... ≤0,001 %
Aluminium (Al) ..... ≤0,00005 %
Barium (Ba) ..... ≤0,00001 %
Boron (B) ..... ≤0,000002 %
Calcium (Ca) ..... ≤0,00005 %
Iron (Fe) ..... ≤0,00001 %
Copper (Cu) ..... ≤0,000002 %
Manganese (Mn) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %
Tin (Sn) ..... ≤0,00001 %
Cadmium (Cd) ..... ≤0,000005 %
Cobalt (Co) ..... ≤0,000002 %
Chromium (Cr) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Nickel (Ni) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,00001 %

Solubility in H_2O ..... complies
Evaporation residue ..... ≤0,0005 %
$KMnO_4$ reducing substances (as O) . ≤0,00025 %

Art. No.	Pack Qty.	Pack.	€
9372.1	1 l	glass	34,95
Original pack 6 x 1 l			33,20/1 l
9372.4	1 l	plastic	31,75
Original pack 6 x 1 l			30,16/1 l
9372.2	2.5 l	glass	73,00
Original pack 4 x 2.5 l			69,35/2.5 l
9372.5	2.5 l	plastic	68,70
Original pack 4 x 2.5 l			65,27/2.5 l
9372.6	5 l	plastic	117,20
Original pack 2 x 5 l			111,34/5 l
9372.7	10 l	PE/steel	198,90
9372.3	25 l	tinplate	360,15

Acetone
≥99,7 %, Ph. Eur., extra pure

Guarantee analysis
Assay (GC) ..... ≥99,7 %
Identity ..... complies
Appearance of solution ..... complies
Acid or alkaline react. substances ..... complies
Relative density (20/20 °C) 0,790-0,793
Water ..... ≤0,3 %
Refractive index n_D^{20} 1,358-1,361
In H_2O insoluble matter ..... complies
Reducing substances ..... complies
Evaporation residue ..... ≤0,005 %

Related Substances:
Methanol (GC) ..... ≤0,05 %
Benzene (GC) ..... ≤0,0002 %
2-Propanol (GC) ..... ≤0,05 %
Related substances (GC) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
CP40.1	1 l	glass	30,00
Original pack 6 x 1 l			28,50/1 l
CP40.2	2.5 l	glass	63,35
Original pack 4 x 2.5 l			60,18/2.5 l
CP40.3	2.5 l	plastic	60,10
Original pack 4 x 2.5 l			57,10/2.5 l
CP40.4	5 l	plastic	85,90
Original pack 2 x 5 l			81,61/5 l
CP40.5	10 l	tinplate	155,90
CP40.6	25 l	tinplate	310,70

Acetone
≥99,5 %, for synthesis

Type analysis
Appearance ..... clear, colourless liquid
Assay (GC) ..... ≥99,5 %
Density (20 °C) ..... 0,788-0,793 g/cm³
Water (KF) ..... ≤0,3 %
Refractive index (20 °C) 1,358-1,360

Art. No.	Pack Qty.	Pack.	€
5025.1	1 l	glass	23,55
Original pack 6 x 1 l			22,37/1 l
5025.2	2.5 l	glass	52,15
Original pack 4 x 2.5 l			49,54/2.5 l
5025.5	2.5 l	plastic	50,00
Original pack 4 x 2.5 l			47,50/2.5 l
5025.6	5 l	plastic	70,85
Original pack 2 x 5 l			67,31/5 l
5025.3	10 l	tinplate	123,65
5025.4	25 l	tinplate	255,35

Acetone D6

Hexadeuteroacetone

C_3D_6O · D 0,88 g/cm³ · mp -95,4 °C · bp 56,2 °C · flp -17 °C
CAS No. 666-52-4 · EC no. 211-563-9
UN no. 1090 · ADR 3 II · WGK 1

Danger H225-H319-H336-EUH066

Acetone D6
100 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging for 1K3E.1: 10 x 0,75 ml in ampoules

Guarantee analysis
Deuterising degree ..... ≥99,95 %
Water (KF, H_2O+D_2O) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
1K3E.1	7.5 ml	glass ampoule	181,70

Acetone D6
99,8 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging for AE51.3: 10 x 0,75 ml in ampoules

Guarantee analysis
Deuterising degree ..... ≥99,8 %
Water (KF, H_2O+D_2O) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
AE51.3	7.5 ml	glass ampoule	75,15
AE51.1	10 ml	glass	73,00
AE51.4	10 ml	septum bottle	74,10
AE51.5	25 ml	glass	160,20
AE51.2	50 ml	glass	278,45

Acetone D6
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

Type analysis
Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
7909.1	10 ml	glass	65,50
7909.2	50 ml	glass	256,95

Acetonenol acetate
▸ Acetic acid isopropenyl ester see page 695

Acetonitrile

$H_3C—C≡N$

Cyanomethane · Methyl cyanide

C_2H_3N · D 0,79 g/cm³ · mp -45,7 °C · bp 81,65 °C · flp 2 °C
CAS No. 75-05-8 · EC no. 200-835-2
UN no. 1648 · ADR 3 II · WGK 2

Danger H225-H302+H312+H332-H319

Acetonitrile
ROTISOLV® ≥99,98 %, Ultra LC-MS

Guarantee analysis
Assay (GC) ..... ≥99,98 %
Colour (APHA) ..... ≤5
Water (KF) ..... ≤0,01 %
Free acid (as CH_3COOH) ..... ≤0,001 %
Free alkali (as NH_3) ..... ≤0,0001 %
Non volatile matter ..... ≤0,0001 %
Aluminium (Al) ..... ≤20 ppb
Calcium (Ca) ..... ≤50 ppb
Iron (Fe) ..... ≤20 ppb
Potassium (K) ..... ≤50 ppb
Magnesium (Mg) ..... ≤20 ppb
Sodium (Na) ..... ≤100 ppb

Fluorescence (as quinine):
254 nm ..... ≤0,25 ppb
365 nm ..... ≤0,25 ppb

Gradient test UV absorption of the greatest eluated peak:
210 nm ..... ≤0,001 AU
254 nm ..... ≤0,0003 AU

Transmission:
230 nm ..... ≥99 %
215 nm ..... ≥98 %
200 nm ..... ≥97 %
195 nm ..... ≥85 %
191 nm ..... ≥30 %

Filtered through 0.1 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
HN40.1	1 l	glass	117,75
Original pack 6 x 1 l			111,86/1 l
HN40.2	2.5 l	glass	224,70
Original pack 4 x 2.5 l			213,47/2.5 l

Acetonitrile
ROTISOLV® ≥99,95 %, LC-MS Grade

Guarantee analysis
Assay (GC) ..... ≥99,95 %
Colour (APHA) ..... ≤5
Water (KF) ..... ≤0,01 %
Free acid (as CH_3COOH) ..... ≤0,001 %
Free alkali (as NH_3) ..... ≤0,0001 %
Non volatile matter ..... ≤0,0001 %
240 nm ..... ≥99 %
220 nm ..... ≥98 %
200 nm ..... ≥95 %
195 nm ..... ≥78 %
Aluminium (Al) ..... ≤0,05 ppm
Calcium (Ca) ..... ≤0,05 ppm
Iron (Fe) ..... ≤0,05 ppm
Potassium (K) ..... ≤0,05 ppm
Magnesium (Mg) ..... ≤0,05 ppm
Sodium (Na) ..... ≤0,05 ppm
LC-MS suitability test ..... complies

Fluorescence (as quinine):
254 nm ..... ≤0,2 ppb
365 nm ..... ≤0,2 ppb

Gradient test:
210 nm ..... ≤0,005 AU
254 nm ..... ≤0,002 AU

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
AE70.1	1 l	glass	106,45
Original pack 6 x 1 l			101,13/1 l
AE70.2	2.5 l	glass	176,85
Original pack 4 x 2.5 l			168,01/2.5 l
AE70.70	2.5 l	glass	

Acetonitrile
ROTISOLV® HPLC Ultra Gradient Grade

Guarantee analysis
Assay (GC) ..... ≥99,95 %
Colour (Hazen) ..... ≤5
Water (KF) ..... ≤0,01 %
Free acid (as CH_3COOH) ..... ≤0,001 %
Free alkali (as NH_3) ..... ≤0,0001 %
Non volatile matter ..... ≤0,0001 %
PAH-test (less than 2 ppb, HPLC) ..... complies

Fluorescence:
Em: 250-700 nm, Ex: 240-600 nm ..... ≤1 ppb

Fluorescence (quinine):
254 nm ..... ≤0,2 ppb
365 nm ..... ≤0,2 ppb

Gradient test UV absorption of the greatest eluated peak:
210 nm ..... ≤1,0 mAU
254 nm ..... ≤0,2 mAU

Transmission:
230 nm ..... ≥99 %
215 nm ..... ≥98 %
200 nm ..... ≥96 %
195 nm ..... ≥85 %
191 nm ..... ≥25 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
T195.1	1 l	glass	107,00
Original pack 6 x 1 l			101,65/1 l
T195.2	2.5 l	glass	176,85
Original pack 4 x 2.5 l			168,01/2.5 l

Acetonitrile
ROTISOLV® HPLC Gradient Grade

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,02 %
Free acid ..... ≤0,001 %
Non volatile matter ..... ≤0,0002 %

Fluorescence (quinine):
254 nm ..... ≤1,0 ppb
365 nm ..... ≤0,5 ppb

Gradient test:
210 nm ..... ≤1,0 mAU
254 nm ..... ≤0,5 mAU

Transmission:
>220 nm ..... ≥99 %
220 nm ..... ≥98 %
200 nm ..... ≥96 %
195 nm ..... ≥85 %
192 nm ..... ≥50 %
190 nm ..... ≥10 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
8825.1	1 l	glass	66,55
Original pack 6 x 1 l			63,22/1 l
8825.2	2.5 l	glass	137,10
Original pack 4 x 2.5 l			130,25/2.5 l

Acetonitrile
ROTISOLV® HPLC Gradient

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,02 %
Free alkali (as NH_3) ..... ≤0,0002 %
Free acid (as CH_3COOH) ..... ≤0,002 %
Evaporation residue ..... ≤0,0002 %
LC-gradient (at 210 nm) ..... ≤2,0 mAU

Absorbance:
254 nm ..... ≥99 %
220 nm ..... ≥98 %
200 nm ..... ≥95 %
195 nm ..... ≥80 %
193 nm ..... ≥60 %

Fluorescence (as quinine):
254 nm ..... ≤0,5 ppb
365 nm ..... ≤0,5 ppb

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
HN44.1	1 l	glass	60,10
Original pack 6 x 1 l			57,10/1 l
HN44.2	2.5 l	glass	123,65
Original pack 4 x 2.5 l			117,47/2.5 l

Acetonitrile
ROTISOLV® HPLC

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,03 %
Free acid ..... ≤0,002 %
Non volatile matter ..... ≤0,0003 %

Transmission:
>230 nm ..... ≥99 %
215 nm ..... ≥95 %
195 nm ..... ≥80 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
7330.1	1 l	glass	56,90
Original pack 6 x 1 l			54,06/1 l
7330.2	2.5 l	glass	105,25
Original pack 4 x 2.5 l			99,99/2.5 l

Acetonitrile
ROTISOLV® HPLC, isocratic

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,015 %

Transmission:
>240 nm ..... ≥99 %
230 nm ..... ≥96 %
200 nm ..... ≥80 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
CN20.1	1 l	glass	54,75
Original pack 6 x 1 l			52,01/1 l
CN20.2	2.5 l	glass	102,70
Original pack 4 x 2.5 l			97,57/2.5 l

Acetonitrile
ROTISOLV® ≥99,8 %, for preparative HPLC

Guarantee analysis
Purity (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,05 %
Acidity (as CH_3COOH) ..... ≤0,005 %
Alkalinity (as NH_3) ..... ≤0,0005 %

Transmission:
230 nm ..... ≥96 %
220 nm ..... ≥90 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
6827.1	2.5 l	glass	85,90
Original pack 4 x 2.5 l			81,61/2.5 l
6827.2	25 l	tinplate	618,15

Acetonitrile
ROTISOLV® Pestilyse® plus ≥99,9 %

For determination of dioxins, furans, PCBs, pesticides, hydrocarbons etc.

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,02 %
Acidity (as CH_3COOH) ..... ≤0,002 %
Evaporation residue ..... ≤0,0003 %
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD suitability (as heptachloro epoxide) ..... ≤10 ng/l
GC/ECD volatile impurities (as ethylene dibromide) ..... ≤5 ng/ml
GC/ECD pesticides (as lindane) ..... ≤5 ng/l
GC/NPD pesticides (as parathion) ..... ≤10 ng/l
Oil index (any hydrocarbon C_{10}-C_{40}) ..... ≤0,1 mg/l
PAH-test (less than 2 ppb, HPLC) ..... complies

Fluorescence (quinine):
254 nm ..... ≤0,5 ppb
365 nm ..... ≤0,5 ppb

Transmission:
200 nm ..... ≥96 %

Art. No.	Pack Qty.	Pack.	€
1HP5.1	2.5 l	glass	142,45
Original pack 4 x 2.5 l			135,33/2.5 l

Acetonitrile
ROTISOLV® Pestilyse® ≥99,9 %

For residue and environmental analysis.

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,2 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %
GC/ECD (individual signal as lindane) ..... ≤5 ng/l
GC/PND (individual signal as ethylparathion) ..... ≤10 ng/l

Art. No.	Pack Qty.	Pack.	€
T168.1	2.5 l	glass	102,70
Original pack 4 x 2.5 l			97,57/2.5 l
T168.3	4 l	glass	154,30

Acetonitrile
ROTISOLV® ≥99,9 %, UV/IR Grade

For chromatography and spectroscopy.

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,01 %
Acidity ..... ≤0,005 meq/g
Evaporation residue ..... ≤0,005 %

Fluorescence (quinine):
254 nm ..... ≤1,0 ppb
365 nm ..... ≤1,0 ppb

Transmission:
230 nm ..... ≥98 %
215 nm ..... ≥90 %
200 nm ..... ≥80 %
195 nm ..... ≥50 %
190 nm ..... ≥10 %

Art. No.	Pack Qty.	Pack.	€
T907.1	2.5 l	glass	127,95
Original pack 4 x 2.5 l			121,55/2.5 l

Acetonitrile
ROTIDRY®Sept ≥99,9 % (≤50 ppm H_2O)

Dried; in a septum bottle

Guarantee analysis

Assay (GC) ..... ≥99,9 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,005 %
Acidity (as CH_3COOH) ..... ≤0,002 %
Evaporation residue ..... ≤0,0003 %

Art. No.	Pack Qty.	Pack.	€
5175.1	250 ml	septum bottle	64,40

Acetonitrile
ROTIDRY® ≥99,9 % (≤10 ppm H_2O)

Dried; for DNA synthesis and analysis.

Guarantee analysis

Assay (GC) ..... ≥99,9 %
Colour (Hazen) ..... ≤10
Water (KF) ..... ≤0,001 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

Filtered through a membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
AE00.1	1 l	glass	51,10
Original pack 6 x 1 l			48,55/1 l
AE00.2	2.5 l	glass	101,60
Original pack 4 x 2.5 l			96,52/2.5 l
AE00.3	4 l	glass	155,90

Acetonitrile
ROTIPURAN® ≥99,5 %, p.a., ACS

Guarantee analysis

Assay (GC) ..... ≥99,5 %
Colour (Hazen) ..... ≤10
Water (KF) ..... ≤0,1 %
Acidity ..... ≤0,008 meq/g
Alkalinity ..... ≤0,0006 meq/g
Aluminium (Al) ..... ≤0,00005 %
Barium (Ba) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,00001 %
Boron (B) ..... ≤0,000002 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %
Tin (Sn) ..... ≤0,00001 %
Evaporation residue ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
4722.1	1 l	glass	51,10
Original pack 6 x 1 l			48,55/1 l
4722.2	2.5 l	glass	115,60
Original pack 4 x 2.5 l			109,82/2.5 l

Acetonitrile
≥99,5 %, for synthesis

Type analysis

Assay (GC) ..... ≥99,5 %
Density (d 20 °C/20 °C) 0,780-0,785
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,1 %
Evaporation residue ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
4380.1	1 l	glass	43,55
Original pack 6 x 1 l			41,37/1 l
4380.2	2.5 l	glass	90,85
Original pack 4 x 2.5 l			86,31/2.5 l
4380.3	10 l	tinplate	309,10
4380.4	25 l	tinplate	599,35

Acetonitrile
ROTISOLV® ≥99,9 % (≤10 ppm H_2O), for DNA synthesis

Water content ≤10 ppm

Suitable for all synthesizers

Guarantee analysis

Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,001 %
Non volatile matter ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
8824.2	2.5 l	glass	149,45
Original pack 4 x 2.5 l			141,98/2.5 l

Acetonitrile
ROTISOLV® ≥99,9 % (≤30 ppm H_2O), for DNA synthesis

Water content ≤30 ppm

Suitable for all synthesizers

Guarantee analysis

Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,003 %
Free acid ..... ≤0,002 %
Non volatile matter ..... ≤0,0003 %

Art. No.	Pack Qty.	Pack.	€
2216.2	2.5 l	glass	115,60
Original pack 4 x 2.5 l			109,82/2.5 l

Acetonitrile
ROTISOLV® ≥99,9 % (≤30 ppm H_2O), for DNA synthesis, in a septum bottle

Water content ≤30 ppm

Sealed with septum cap. Suitable for ABI™ and LGC Biosearch™ sythesizers

Guarantee analysis

Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,003 %

Art. No.	Pack Qty.	Pack.	€
3620.1	100 ml	septum bottle	35,40

Acetonitrile with 0.1 % formic acid

C_2H_3N · D 0,79 g/cm³ · mp -45,7 °C · bp 81,65 °C · flp 12,8 °C
UN no. 1648 · ADR 3 II · WGK 2

Danger H225-H302+H312+H332-H319

Acetonitrile with 0.1 % formic acid
ROTISOLV® ≥99,9 %, LC-MS Grade

Eluent mixture for high performance liquid chromatography.

Guarantee analysis

Assay ..... ≥99,9 %
Formic acid (v/v) ..... 0,095-0,105 %
Aluminium (Al) ..... ≤0,05 ppm
Calcium (Ca) ..... ≤0,05 ppm
Iron (Fe) ..... ≤0,05 ppm
Potassium (K) ..... ≤0,05 ppm
Magnesium (Mg) ..... ≤0,05 ppm
Sodium (Na) ..... ≤0,05 ppm
LC-MS suitability test ..... complies
254 nm ..... ≥90 %
230 nm ..... ≥15 %
210 nm ..... ≥5 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
CP00.1	1 l	glass	102,70
Original pack 6 x 1 l			97,57/1 l
CP00.2	2.5 l	glass	260,70
Original pack 4 x 2.5 l			247,67/2.5 l

Acetonitrile with 0.1 % acetic acid

C_2H_3N · D 0,79 g/cm³ · mp -45,7 °C · bp 81,65 °C · flp 12,8 °C
UN no. 1648 · ADR 3 II · WGK 2

Danger H225-H302+H312+H332-H319

Acetonitrile with 0.1 % acetic acid
ROTISOLV® ≥99,9 %, LC-MS Grade

Eluent mixture for high performance liquid chromatography.

Guarantee analysis

Assay (GC) ..... ≥99,9 %
Acetic acid (v/v) ..... 0,095-0,105 %
Aluminium (Al) ..... ≤0,05 ppm
Calcium (Ca) ..... ≤0,05 ppm
Iron (Fe) ..... ≤0,05 ppm
Potassium (K) ..... ≤0,05 ppm
Magnesium (Mg) ..... ≤0,05 ppm
Sodium (Na) ..... ≤0,05 ppm
LC-MS suitability test ..... complies
254 nm ..... ≥90 %
230 nm ..... ≥50 %
210 nm ..... ≥20 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
CP01.2	2.5 l	glass	260,70
Original pack 4 x 2.5 l			247,67/2.5 l

Acetonitrile with 0.1 % trifluoro-acetic acid

C_2H_3N · D 0,79 g/cm³ · mp -45,7 °C · bp 81,65 °C · flp 12,8 °C
UN no. 1648 · ADR 3 II · WGK 2

Danger H225-H302+H312+H332-H319

Acetonitrile with 0.1 % trifluoroacetic acid
ROTISOLV® ≥99,9 %, LC-MS Grade

Eluent mixture for high performance liquid chromatography.

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Trifluoroacetic acid (v/v) ..... 0,095-0,105 %
Calcium (Ca) ..... ≤0,05 ppm
Aluminium (Al) ..... ≤0,05 ppm
Iron (Fe) ..... ≤0,05 ppm
Potassium (K) ..... ≤0,05 ppm
Magnesium (Mg) ..... ≤0,05 ppm
Sodium (Na) ..... ≤0,05 ppm
LC-MS suitability test ..... complies
254 nm ..... ≥90 %
230 nm ..... ≥50 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
CP02.1	1 l	glass	116,65
Original pack 6 x 1 l			110,82/1 l
CP02.2	2.5 l	glass	260,70
Original pack 4 x 2.5 l			247,67/2.5 l

Acetonitrile D3

Methyl cyanide deuterated

CD_3CN · D 0,84 g/cm³ · mp -45 °C · bp 81 °C · flp 2 °C
CAS No. 2206-26-0 · EC no. 218-616-5
UN no. 1648 · ADR 3 II · WGK 1

Danger H225-H302+H312+H332-H319

Acetonitrile D3
100 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging for 1K3H.1: 10 x 0,75 ml in ampoules

Guarantee analysis
Deuterising degree ..... ≥99,95 %
Water (KF, H_2O+D_2O) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
1K3H.1	7.5 ml	glass ampoule	220,40

Acetonitrile D3
99,8 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging for 7911.2: 10 x 0,75 ml in ampoules

Type analysis
Deuterising degree ..... ≥99,8 %
Water (KF, H_2O+D_2O) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
7911.2	7.5 ml	glass ampoule	100,95
7911.1	10 ml	glass	98,80
7911.3	25 ml	glass	203,20

Acetonitrile D3
99,5 Atom%D

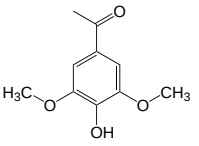
For nuclear magnetic resonance spectroscopy.

Guarantee analysis
Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
AE52.1	10 ml	glass	89,15
AE52.3	10 ml	septum bottle	91,30
AE52.2	25 ml	glass	188,15

3-Acetopropionic acid
▸ Levulinic acid see page 1042

Acetosyringone



3,5-Dimethoxy-4-hydroxyacetophenone

$C_{10}H_{12}O_4$ · mp 125 to 127 °C
CAS No. 2478-38-8 · EC no. 219-610-5
WGK 1

Warning H315-H319-H335

Acetosyringone
≥98 %

Type analysis
Appearance ..... white to brown powder
Assay (GC) ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
6003.1	500 mg	glass	34,30
6003.2	1 g	glass	55,40

1-Acetoxy-2-butoxyethane
▸ 2-Butoxyethyl acetate see page 798

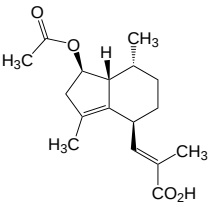
(3α,4β)-3-Acetoxy-olean-12-en-23-acid
▸ 3-Acetyl-α-boswellic acid see page 701

Acetoxyphenyl mercury
▸ Phenyl mercuric acetate see page 1153

(3α,4β)-3-Acetoxy-urs-12-en-23-acid
▸ 3-Acetyl-β-boswellic acid see page 701

(3α,4β)-3-Acetoxy-urs-12-en-11-keto-23-acid
▸ 3-Acetyl-11-keto-β-boswellic acid see page 701

Acetoxyvalerenic acid



$C_{17}H_{24}O_4$ · D 1 g/cm³
CAS No. 81397-67-3 · EC no. 617-228-7
UN no. 3082 · ADR 9 III · WGK 2

Warning H410

Acetoxyvalerenic acid
ROTICHROM® with analytical records

From *Valeriana officinalis*.

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Purity (HPLC) ..... ≥99,0 %

Analytical records: HPLC, TLC, ^{1}H NMR, ^{13}C NMR, UV, IR, MS.

Art. No.	Pack Qty.	Pack.	€
T890.1	25 mg	glass	762,20

Acetoxyvalerenic acid
ROTICHROM® HPLC

Reference substance for HPLC.
From *Valeriana officinalis*.

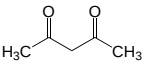
Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
4446.1	25 mg	glass	607,40

Aceturic acid
▸ *N*-Acetylglycine see page 702

Acetyl acetone



Pentane-2,4-dione · ACAC

$C_5H_8O_2$ · D 0,97 g/cm³ · mp -47,5 to -17,6 °C · bp 139,5 °C · flp 35 °C
CAS No. 123-54-6 · EC no. 204-634-0
UN no. 2310 · ADR 3 (6.1) III · WGK 1

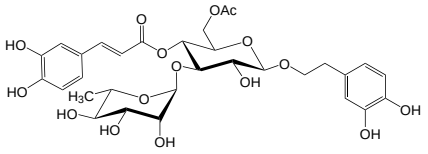
Danger H226-H302-H311+H331

Acetyl acetone
≥98 %, for synthesis

Type analysis
Appearance ..... clear colourless to slightly yellow liquid
Assay (GC) ..... ≥98,0 %
Density 0,971-0,974
Refractive index n_D^{20} 1,451-1,453

Art. No.	Pack Qty.	Pack.	€
6716.1	100 ml	glass	19,25
6716.2	500 ml	glass	43,55
6716.3	1 l	glass	75,15
Original pack 6 x 1 l			71,39/1 l
6716.4	2.5 l	glass	160,20
Original pack 4 x 2.5 l			152,19/2.5 l

6-*O*-Acetylacteoside



$C_{31}H_{38}O_{16}$ · mp >180 °C
CAS No. 441769-43-3
WGK 1

6-*O*-Acetylacteoside
ROTICHROM® HPLC

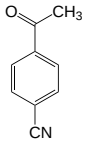
Reference substance for HPLC.
From *Harpagophytum procumbens.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1072.1	20 mg	glass	428,95

4-Acetylbenzonitrile



$CH_3COC_6H_4CN$ · D 1,555 g/cm³ · mp ≥57 to ≤58 °C · bp 264,3 °C · flp 131,2 °C
CAS No. 1443-80-7 · EC no. 215-885-0
WGK 1

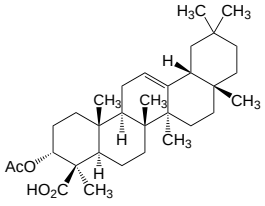
Warning H302

4-Acetylbenzonitrile
ROTI®Calipure melting point standard 56–59 °C

Type analysis
Meniscus formation ..... 56-59 °C
Complete liquefaction ..... 56-59 °C
Measurement uncertainty ..... ±0,3 °C

Art. No.	Pack Qty.	Pack.	€
2902.1	1 g	glass	85,90

3-Acetyl-α-boswellic acid



(3α,4β)-3-Acetoxy-olean-12-en-23-acid

$C_{32}H_{50}O_4$ · mp >200 °C
CAS No. 89913-60-0
WGK 1

3-Acetyl-α-boswellic acid
ROTICHROM® HPLC

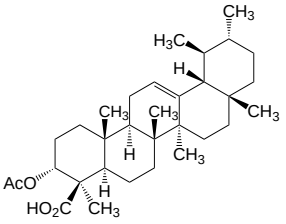
Reference substance for HPLC.
From *Boswellia serrata.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1073.1	10 mg	glass	547,20

3-Acetyl-β-boswellic acid



(3α,4β)-3-Acetoxy-urs-12-en-23-acid

$C_{32}H_{50}O_4$ · mp >200 °C
CAS No. 5968-70-7
WGK 1

3-Acetyl-β-boswellic acid
ROTICHROM® HPLC

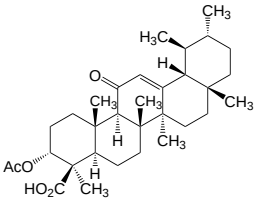
Reference substance for HPLC.
From *Boswellia serrata.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1074.1	10 mg	glass	532,15

3-Acetyl-11-keto-β-boswellic acid



(3α,4β)-3-Acetoxy-urs-12-en-11-keto-23-acid

$C_{32}H_{48}O_5$ · mp 270 °C
CAS No. 67416-61-9
WGK 1

3-Acetyl-11-keto-β-boswellic acid
ROTICHROM® HPLC

Reference substance for HPLC.
From *Boswellia serrata.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1075.1	10 mg	glass	482,70

Acetyl-γ-boswellic acid

▸ 3-*O*-Acetyl-9-11-dehydro-β-boswellic acid see page 702

Acetylcellulose

▸ Cellulose acetate see page 824

Acetyl chloride D3



Acylchloride deuterated · Ethanoyl chloride deuterated

C_2D_3ClO · D 1,15 g/cm³ · mp -112 °C · bp 50 to 52 °C · flp -12 °C
CAS No. 19259-90-6 · EC no. 242-925-4
UN no. 1717 · ADR 3 (8) II · WGK 1

Danger H225-H314-EUH014

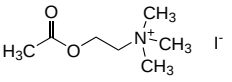
Acetyl chloride D3
99 Atom%D

For nuclear magnetic resonance spectroscopy.

Guarantee analysis
Deuterising degree ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
1L34.1	5 ml	glass	169,35

Acetylcholine iodide



ACh

$C_7H_{16}NO_2I$ · D 0,67 g/cm³ · mp 161 to 164 °C
CAS No. 2260-50-6 · EC no. 218-862-3
WGK 1

Warning H302-H315-H319-H335

Acetylcholine iodide
≥98 %

Storage temperature: +4 °C

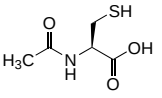
Guarantee analysis
Assay (titr.) ..... ≥98,0 %
Melting point ..... 162-168 °C

Art. No.	Pack Qty.	Pack.	€
5528.1	5 g	plastic	32,15
5528.2	25 g	plastic	134,40

N-Acetylchondrosamine

▸ *N*-Acetyl-D-galactosamine see page 702

N-Acetyl-L-cysteine



2-Acetamido-3-mercaptopropionic acid · ACC · Ac-Cys-OH · L-α-Acetamido-β-mercaptopropionic acid · NAC

$C_5H_9NO_3S$ · D 1,48 g/cm³ · mp 110,4 °C · bp 143,9 to 145,3 °C · flp 200,4 °C
CAS No. 616-91-1 · EC no. 210-498-3
WGK 2

Warning H319

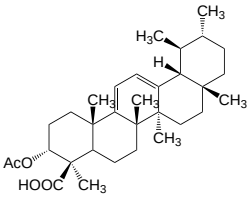
N-Acetyl-L-cysteine
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (H-NMR) ..... ≥98 %
Loss on drying (70 °C, vacuum) ..... ≤2,0 %
Specific rotation $[\alpha]_D^{20}$ (c=5 at pH 7) .. +21° to +27°
pH value (c=1 in water) 2,0-2,8

Art. No.	Pack Qty.	Pack.	€
4126.1	25 g	glass	31,10
4126.2	100 g	glass	99,45

3-*O*-Acetyl-9-11-dehydro-β-boswellic acid



Acetyl-γ-boswellic acid

$C_{32}H_{48}O_4$ · mp >200 °C
CAS No. 122651-20-1
WGK 1

3-*O*-Acetyl-9-11-dehydro-β-boswellic acid
ROTICHROM® HPLC

Reference substance for HPLC.
From *Boswellia serrata*.

Storage temperature: +4 °C

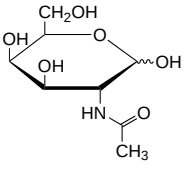
Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6269.1	5 mg	glass	504,20

2-Acetyl-1,3-dihydroxybenzene
▸ 2,6-Dihydroxyacetophenone see page 881

Acetylene trichloride
▸ Trichloroethylene see page 1376

N-Acetyl-D-galactosamine



2-Acetamido-2-deoxy-D-galactose · D-GalNAc · *N*-Acetyl-D-galactosaminide · *N*-Acetylchondrosamine

$C_8H_{15}NO_6$ · mp 160 °C · bp 636,4 °C · flp 338,7 °C
CAS No. 1811-31-0
WGK 1

N-Acetyl-D-galactosamine
≥99 %, for biochemistry

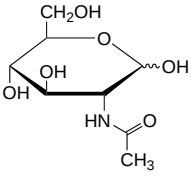
Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (HPLC) ..... ≥99 %
Solution (5 % in water) ..... clear, colourless
Water (KF) ..... ≤7 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in water after 5 h) +80° to +90°
Methanol (GC) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4114.1	250 mg	glass	42,50
4114.2	1 g	glass	128,50

N-Acetyl-D-galactosaminide
▸ *N*-Acetyl-D-galactosamine see page 702

N-Acetyl-D-glucosamine



2-Acetamido-2-deoxy-D-glucopyranose

$C_8H_{15}NO_6$ · mp 195 to 215 °C
CAS No. 7512-17-6 · EC no. 231-368-2
WGK 1

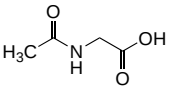
N-Acetyl-D-glucosamine
≥98 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white to whitish cryst. powder
Assay (HPLC) ..... ≥98 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in H_2O) ..... +39,0° to +43,0°
Sulphated ash ..... ≤0,1 %
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
8993.3	5 g	plastic	20,35
8993.2	25 g	glass	52,15
8993.1	50 g	plastic	93,00
8993.4	100 g	plastic	145,15

N-Acetylglycine



Ac-Gly-OH · Aceturic acid

$C_4H_7NO_3$ · mp 208 °C · bp >300 °C
CAS No. 543-24-8 · EC no. 208-839-6
WGK 1

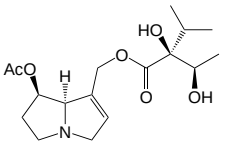
N-Acetylglycine
≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (titr.) ..... ≥99,0 %
Appearance of solution (1 % in H_2O) ... colourless
Loss on drying ..... ≤1,0 %
Melting point ..... 205-211 °C

Art. No.	Pack Qty.	Pack.	€
5526.1	25 g	plastic	22,05
5526.2	100 g	plastic	46,80
5526.3	500 g	plastic	198,90
Original pack 6 x 500 g			188,96/500 g

7-*O*-Acetylintermedine



$C_{17}H_{27}NO_6$
CAS No. 74243-01-9
WGK 1

Warning H302

7-*O*-Acetylintermedine
ROTICHROM® HPLC

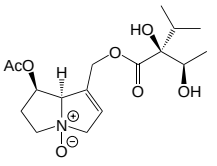
Reference substance for HPLC.
From *Symphytum*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
7975.1	5 mg	glass	461,20

7-*O*-Acetylintermedine *N*-oxide



$C_{17}H_{27}NO_7$
WGK 1

Warning H302

7-*O*-Acetylintermedine *N*-oxide
ROTICHROM® HPLC

Reference substance for HPLC.
From *Symphythum officinale*.

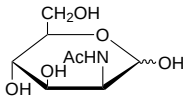
Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
7980.1	5 mg	glass	467,65

Acetyl-Leu-Leu-Arginal
▸ Leupeptin hemisulphate see page 1041

N-Acetyl-D-mannosamine



2-Acetamido-2-deoxy-D-mannopyranose · ManNAc · *N*-Acetyl-D-mannosaminide

$C_8H_{15}NO_6$ · mp 125 °C
CAS No. 7772-94-3
WGK 1

N-Acetyl-D-mannosamine
≥98 %

Storage temperature: –20 °C
Transport temperature: ambient temp.

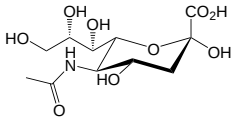
Type analysis
Assay (HPLC) ..... ≥98,0 %
Solution (1 % in H_2O) ..... colourless
Water (KF) ..... 6,5-8,5 %

Art. No.	Pack Qty.	Pack.	€
5525.1	250 mg	glass	19,90
5525.2	1 g	glass	58,60
5525.3	5 g	plastic	198,90

N-Acetyl-D-mannosaminide
▸ *N*-Acetyl-D-mannosamine see page 703

N-Acetyl-5-methoxytryptamine
▸ Melatonin see page 1071

N-Acetylneuraminic acid



Sialic acid

$C_{11}H_{19}NO_9$ · D 1 g/cm³ · mp 184 to 186 °C
CAS No. 131-48-6 · EC no. 205-023-1
WGK 2

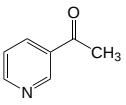
N-Acetylneuraminic acid
≥98 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white to off-white solid powder
Assay (dry substance) ..... ≥98 %
Appearance of solution ..... clear, colourless to slightly turbid and faint yellow

Art. No.	Pack Qty.	Pack.	€
7480.1	100 mg	glass	29,60
7480.2	500 mg	glass	88,05
7480.3	1 g	glass	145,70
7480.4	5 g	glass	456,90

3-Acetylpyridine



1-(3-Pyridinyl)-ethanone · Methyl 3-pyridyl ketone

C_7H_7NO · D 1,11 g/cm³ · mp 11 to 13 °C · bp 220 °C · flp 104 °C
CAS No. 350-03-8 · EC no. 206-496-7
UN no. 2810 · ADR 6.1 III · WGK 1

Danger H301-H315

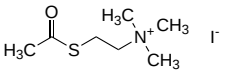
3-Acetylpyridine
≥98 %, for synthesis

Type analysis
Appearance ..... colourless to light yellow brown liquid
Assay (GC) ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
8740.1	10 g	glass	22,50
8740.2	50 g	glass	64,40
8740.3	100 g	glass	110,20

2-Acetylresorcinol
▸ 2,6-Dihydroxyacetophenone see page 881

Acetylthiocholine iodide



S-Acetylthiocholine iodide

$C_7H_{16}NOSI$ · mp 205 to 210 °C
CAS No. 1866-15-5 · EC no. 217-474-1
UN no. 2811 · ADR 6.1 III · WGK 3

Danger H301+H311-H315-H319-H335

Acetylthiocholine iodide
≥99 %, for biochemistry

Substrate

Storage temperature: +4 °C

Type analysis
Assay (arg.) ..... ≥99 %
Solution (10 % in H_2O) ..... colourless
Water (KF) ..... ≤0,5 %
Sulphated ash ..... ≤0,1 %
Thiocholine ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4001.1	1 g	glass	34,30
4001.2	5 g	glass	140,30
4001.3	10 g	glass	256,95

Ac-Gly-OH
▸ *N*-Acetylglycine see page 702

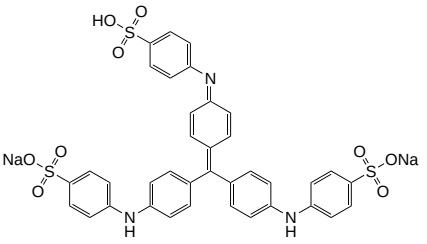
ACh
▸ Acetylcholine iodide see page 701

Achromycin hydrochloride
▸ Tetracycline see page 1360

Acid black 2
▸ Nigrosin, water soluble (C.I. 50420) see page 1105

Acid black 32
▸ Fast sulphon black F (C.I. 26990) see page 930

Acid blue 93 (C.I. 42780)



Methyl blue · Aniline blue water soluble

$C_{37}H_{27}N_3O_9S_3Na_2$
CAS No. 28983-56-4 · EC no. 249-352-9
WGK 2

Acid blue 93 (C.I. 42780)
p.a., water-soluble

For staining of histological sections and for cytology.

Dissolve 1 % in water

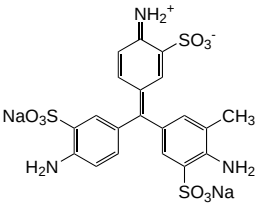
Guarantee analysis
Appearance ..... brownish crystals
Solubility (water) ..... complies
Absorption max. (in H_2O) ..... 594-610 nm

Art. No.	Pack Qty.	Pack.	€
4002.1	10 g	glass	37,55
4002.2	25 g	glass	75,15

Acid blue 1
▸ Patent blue VF see page 1138

Acid buffer pH 2.2
▸ Legionella Acid Buffer see page 1039

Acid fuchsin (C. I. 42685)



Fuchsine acidic

$C_{20}H_{17}N_3Na_2O_9S_3$ · D 1,74 g/cm³ · mp 130 °C
CAS No. 3244-88-0 · EC no. 221-816-5
UN no. 3259 · ADR 8 III · WGK 1

Danger H314

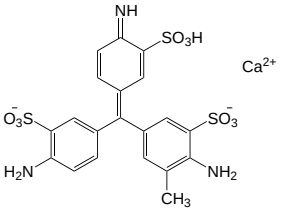
A

Acid fuchsin (C. I. 42685)
for microscopy

Type analysis
Absorption max. (HCl 0,005 mol/l) ... 540-545 nm
Loss on drying (135 °C) ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
T128.1	10 g	glass	49,35

Acid fuchsin calcium salt (C.I. 42685)



$C_{20}H_{17}N_3O_9S_3Ca$
CAS No. 123334-10-1
WGK 1

Acid fuchsin calcium salt (C.I. 42685)
extra pure

Type analysis
Appearance ..... green cryst. powder
Appearance of solution (H_2O) ..... clear, violet

Art. No.	Pack Qty.	Pack.	€
7690.1	5 g	glass	18,85
7690.2	25 g	glass	34,30
7690.3	100 g	glass	89,15

Acid green 1
▸ Naphthol green B (C.I. 10020) see page 1099

Acid green 3
▸ Guinea green B (C.I. 42085) see page 973

Acid green 5
▸ Light green SF (C.I. 42095) see page 1042

Acid green 25
▸ Alizarine cyanine green see page 717

Acid green 50
▸ Lissamine green B (C.I. 44090) see page 1044

Acid orange 7
▸ Orange II sodium salt (C.I. 15510) see page 1131

Acid orange 10
▸ Orange G (C.I. 16230) see page 1131

Acid orange 12
▸ Crocein orange G (C.I. 15970) see page 854

Acid red 14
▸ Chromotrope® FB (C.I. 14720) see page 837

Acid red 27
▸ Amaranth see page 723

Acid red 29
▸ Chromotrope® 2R (C.I. 16570) see page 837

Acid red 51
▸ Erythrosine B (C.I. 45430) see page 914

Acid red 66
▸ Biebrich scarlet see page 773

Acid red 101
▸ Azocarmine G see page 761

Acids in Ultra Quality

Art. No.	Description	Page
HN65	Acetic acid, ROTIPURAN®Ultra, 100 %	689
HN67	Hydrobromic acid, ROTIPURAN®Ultra, 48 %	988
HN63	Hydrochloric acid, ROTIPURAN®Ultra, 34 %	989
HN64	Hydrofluoric acid, ROTIPURAN®Ultra, 48 %	995
HN60	Nitric acid, ROTIPURAN®Ultra, 69 %	1106
HN61	Perchloric acid, ROTIPURAN®Ultra, 70 %	1145
HN62	Sulphuric acid, ROTIPURAN®Ultra, 95 %	1346

Acids in Supra Quality

Art. No.	Description	Page
HN55	Acetic acid, ROTIPURAN®Supra, 100 %	690
HN53	Hydrochloric acid, ROTIPURAN®Supra, 35 %	989
NE57	Hydrochloric acid, ROTIPURAN®Supra, 30 %	989
HN54	Hydrofluoric acid, ROTIPURAN®Supra, 48 %	995
HN50	Nitric acid, ROTIPURAN®Supra, 69 %	1107
HN51	Perchloric acid, ROTIPURAN®Supra, 70 %	1145
HN52	Sulphuric acid, ROTIPURAN®Supra, 95 %	1347

Acids for Analysis

Art. No.	Description	Page
3738	Acetic acid, ROTIPURAN®, 100 %, p.a.	690
T179	Acetic acid, ROTIPURAN®, ≥95,9 %, p.a.	691
3525	L(+)-Ascorbic acid, ≥99 %, p.a.	755
P738	Benzoic acid, ≥99,5 %, p.a., ACS	768
6943	Boric acid, ≥99,8 %, p.a., ACS, ISO	783
HN24	Boric acid solution, 4 %, p.a.	783
X863	Citric acid, ≥99,5 %, p.a., ACS, anhydrous	840
3958	Citric acid monohydrate, ≥99,5 %, p.a., ACS, ISO	840
4724	Formic acid, ROTIPURAN®, ≥98 %, p.a., ACS	947
CP16	Formic acid, ROTIPURAN®, ≥85 %, p.a.	947
X942	Hydrochloric acid, ROTIPURAN®, 37 % fuming, p.a., ISO, max. 0,005 ppm Hg	990
4625	Hydrochloric acid, ROTIPURAN®, 37 % fuming, p.a., ACS, ISO	990
P074	Hydrochloric acid, ROTIPURAN®, ≥32 %, p.a., ISO	991
6331	Hydrochloric acid, ROTIPURAN®, ≥25 %, p.a., ISO	991
4440	Molybdatophosphoric acid hydrate, ≥99 %, p.a., ACS	1092
2722	Molybdic acid, ≥85 %, p.a., ACS	1093
1C8Y	Nitric acid, ROTIPURAN®, 68–70 %, p.a., ACS, ISO	1107
X943	Nitric acid, ROTIPURAN®, ≥65 %, p.a., ISO, max. 0,005 ppm Hg	1107
4989	Nitric acid, ROTIPURAN®, ≥65 %, p.a., ISO	1107
T113	Oxalic acid dihydrate, ≥99,5 %, p.a., ACS, ISO	1133
9216	Perchloric acid, ROTIPURAN®, 70 %, p.a.	1145
3257	Periodic acid, ≥99 %, p.a.	1146
CN91	*meta*-Phosphoric acid, p.a., pieces (hyaline)	1155
6366	*ortho*-Phosphoric acid, ROTIPURAN®, ≥85 %, p.a., ISO	1155
2635	Phosphotungstic acid hydrate, p.a., cryst.	1157
2723	Salicylic acid, ≥99 %, p.a., ACS	1249
2725	Succinic acid, ≥99 %, p.a., ACS	1343
P725	Sulphamic acid, ≥99,3 %, p.a., ACS	1345
4496	Sulphanilic acid, ≥98 %, p.a., ACS	1345
X945	Sulphuric acid, ROTIPURAN®, 98 %, for nitrogen determination	1347
X944	Sulphuric acid, ROTIPURAN®, 95–98 %, p.a., ISO, max. 0,005 ppm Hg	1347
4623	Sulphuric acid, ROTIPURAN®, 96 %, p.a., ISO	1347
X946	Sulphuric acid, ROTIPURAN®, 90–91 %, for fat determination	1348
CN89	Sulphuric acid, ROTIPURAN®, 62 %, p.a., for fat determination in cheese (d 1,52) according to van Gulik	1348
K302	L(+)-Tartaric acid, ≥99,5 %, p.a., ACS, ISO	1354
8789	Trichloroacetic acid, ≥99 %, p.a.	1376
7437	Trichloroacetic acid solution, 20 % in water, p.a.	1376
9383	Trichloroacetic acid solution, 10 % in water, p.a.	1376
0747	Tungstic acid, ≥99 %, p.a.	1388

Acids in Pharmacopoeia Quality

Art. No.	Description	Page
6755	Acetic acid, 100 %, Ph. Eur., extra pure	690
3254	Aluminium hydroxide, ≥76,5 %, Ph. Eur., USP	722
P010	Boric acid, ≥99,5 %, Ph. Eur., USP, BP	783
6490	Citric acid, ≥99,5 %, Ph. Eur., anhydrous	840
5110	Citric acid monohydrate, ≥99,5 %, Ph. Eur.	840
2607	Hydrochloric acid , 37 % fuming, Ph. Eur.	990
2608	*ortho*-Phosphoric acid, 85 %, Ph. Eur.	1155
2609	Sulphuric acid, 95–98 %, Ph. Eur.	1347
3744	Trichloroacetic acid, ≥99 %, Ph. Eur., extra pure	1376

Acids in Standard Quality

Art. No.	Description	Page
7332	Acetic acid, ≥99 %, for synthesis	690
X895	Acetic acid, ≥95,9 %, extra pure	691
6740	Acetic acid, 80 %, pure	691
7329	Acetic acid, 60 %, pure	691
1EE0	Acetic acid, 40 %, pure	691
1ECY	Acetic acid, 30 %, pure	691
4340	Acetic acid, 25 %, pure	691
1ECX	Acetic acid, 20 %, pure	691
4341	Acetic acid, 10 %, pure	691
5935	Boric acid, ≥99,8 %	783
4742	Formic acid , ≥98 %, for synthesis	947
5355	Formic acid, ≥85 %, pure	947
6739	Formic acid, 45 %, pure	947
9277	Hydrochloric acid, 37 % fuming, extra pure	990
7476	Hydrochloric acid, 37 % fuming, technical	991
X896	Hydrochloric acid, 32 %, extra pure	991
9280	Hydrochloric acid, ≥30 %, technical	991
X897	Hydrochloric acid, 25 %, extra pure	991
0992	Hydrochloric acid, 25 %, technical	991
4326	Hydrochloric acid , 20 %, technical	992
4322	Hydrochloric acid, 15 %, technical	992
0710	Hydrochloric acid, 10 %, technical	992
4328	Hydrochloric acid, 5 %, technical	992
2616	Nitric acid, 68 %, extra pure	1107
X898	Nitric acid, 65 %, pure	1107
6745	Nitric acid, 60 %, pure	1108
9274	Nitric acid, 53 %, pure	1108
6748	Nitric acid, 40 %, pure	1108
4339	Nitric acid, 25 %, pure	1108
4337	Nitric acid, 20 %, pure	1108
2612	Periodic acid, ≥99 %, for synthesis	1146
9079	*ortho*-Phosphoric acid, 85 %, extra pure	1155
2614	*ortho*-Phosphoric acid, 75 %, extra pure	1156
4336	*ortho*-Phosphoric acid, 50 %, extra pure	1156
4334	*ortho*-Phosphoric acid, 40 %, extra pure	1156
4332	*ortho*-Phosphoric acid, 25 %, extra pure	1156
2620	Phosphorous acid, ≥98 %, cryst.	1156
6026	Propionic acid, ≥99,5 %, for synthesis	1187
9316	Sulphuric acid, 96 %, pure	1348
0971	Sulphuric acid, 96 %, technical	1348
4363	Sulphuric acid, 96 %, for viscosity determination according to DIN EN ISO 307	1348
4319	Sulphuric acid, 75 %, pure	1348
4318	Sulphuric acid, 50 %, pure	1348
4316	Sulphuric acid, 40 %, pure	1348
4312	Sulphuric acid, 37 %, technical, battery acid, accumulator acid	1348
X876	Sulphuric acid, 30 %, pure	1348
0967	Sulphuric acid, 25 %, extra pure	1349
4300	Sulphuric acid, 20 %, pure	1349
3526	Sulphuric acid, 10 %, pure	1349
2800	Sulphuric acid, 2 %, pure	1349
9328	Sulphurous acid, ~6 % SO_2 in H_2O	1350
P088	Trifluoroacetic acid (TFA), PEPTIPURE®, ≥99,9 %, for peptide synthesis	1379
6957	Trifluoroacetic acid (TFA), ≥99,9 %	1379

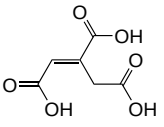
Acid Yellow 23

▸ Tartrazine (C. I. 19140) see page 1355

Acid yellow 36

▸ Metanil yellow (C. I. 13065) see page 1076

trans-Aconitic acid



1,2,3-Propenetricarboxylic acid · *trans*-Propene-1,2,3-tricarboxylic acid

$C_6H_6O_6$ · D 0,56 g/cm³ · mp 190 °C · bp 542,6 °C
CAS No. 4023-65-8 · EC no. 223-688-6
WGK 1

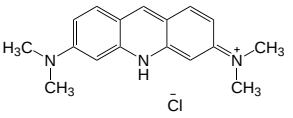
trans-Aconitic acid
≥98 %

Storage temperature: +4 °C

Guarantee analysis
Assay (HPLC) ..... ≥98,0 %
Solution (5 % in water) ..... colourless to slightly yellow
Water (KF) ..... ≤1,0 %
Sulphated ash ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
5523.1	10 g	plastic	46,80
5523.2	25 g	plastic	95,60

Acridine orange (C.I. 46005)



$ZnCl_2$

Acridine orange zinc chloride double salt · Basic orange 14

$C_{17}H_{20}Cl_3N_3Zn$ · mp 165 °C
CAS No. 10127-02-3 · EC no. 233-353-6
WGK 1

Warning H341

Acridine orange (C.I. 46005)
for microscopy

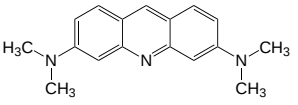
Fluorescence indicator

Fluorescent dye with DNA intercalating properties. Application range: Differentiation of dsDNA (green fluorescence) and ssDNA/RNA (red fluorescence), vitality test for determination of living cells. Excitation maximum: 470 nm. Emission maximum: 526 nm (green). Emission maximum: 650 nm (red)

Type analysis
Appearance ..... orange to brown powder
Loss on drying (105 °C, 1 h) ..... ≤3 %

Art. No.	Pack Qty.	Pack.	€
0249.1	10 g	glass	30,65
0249.2	25 g	glass	56,90

Acridine orange base (C.I. 46005)



Basic orange 14

$C_{17}H_{19}N_3$ · mp 165 °C
CAS No. 494-38-2
WGK 1

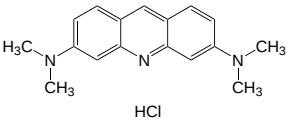
Acridine orange base (C.I. 46005)
for microscopy

Fluorescence indicator.

Type analysis
Appearance ..... brown to orange brown powder
Appearance of solution (0,1 % in 1 M HCl) .. clear orange to orange red

Art. No.	Pack Qty.	Pack.	€
7632.1	5 g	glass	26,80
7632.2	10 g	glass	42,90
7632.3	25 g	glass	92,35

Acridine orange hydrochloride hydrate (C.I. 46005)



HCl

$C_{17}H_{19}N_3$ · HCl · x H_2O · mp 284 to 287 °C
CAS No. 65-61-2
WGK 1

Warning H341

Acridine orange hydrochloride hydrate (C.I. 46005)
for microscopy

Type analysis
Appearance ..... burnt orange to brick red powder
Appearance of solution (0,1 % in H_2O) ..... clear orange to orange red

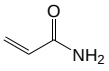
Art. No.	Pack Qty.	Pack.	€
7633.1	1 g	glass	31,10
7633.2	5 g	glass	64,40
7633.3	10 g	glass	103,10

Acridine orange zinc chloride double salt
▸ Acridine orange (C.I. 46005) see page 705

Acriflavinium chloride
▸ Trypaflavine see page 1384

Acriflavinium hydrochloride
▸ Trypaflavine see page 1384

Acrylamide



Propenamide · 2-Propenamide

C_3H_5NO · D 1,13 g/cm³ · mp 84,5 °C · bp 232 °C · flp 138 °C
CAS No. 79-06-1 · EC no. 201-173-7
UN no. 2074 · ADR 6.1 III · WGK 3

Danger H301-H312+H332-H315-H317-H319-H340-H350-H361f-H372

Acrylamide, BioScience
≥99 %, BioScience Grade, 4x cryst.

For molecular biology and sequencing

Storage temperature: +4 °C

Type analysis
Appearance ..... white crystals
Assay (HPLC) ..... ≥99 %
Conductivity (40 % in H_2O) ..... ≤20 µS/cm
pH value (5 % in H_2O) 5,0-8,0
Acrylic acid ..... ≤0,002 %
A (5 % in water, 1 cm/290 nm) ..... ≤0,6
Polymerizing time (15 % gel, 3 mM APS/ TEMED, 25 °C) ..... ≤30 min

Art. No.	Pack Qty.	Pack.	€
0189.1	100 g	plastic	59,05
0189.2	500 g	plastic	228,45
Original pack 6 x 500 g			217,03/500 g

Acrylamide, 4x cryst.
≥99 %, p.a., 4x cryst.

For gel electrophoresis.

Storage temperature: +4 °C

Type analysis
Appearance ..... white crystals
Assay (HPLC) ..... ≥99 %
Appearance of solution (5 % in H_2O) ..... clear, colorless
Acrylic acid ..... ≤0,002 %
pH (5 % in H_2O) 5,0-8,0
A (5 % in water, 1 cm/290 nm) ..... ≤0,6

Art. No.	Pack Qty.	Pack.	€
7906.1	100 g	plastic	52,70
7906.3	250 g	plastic	106,45
7906.4	500 g	plastic	198,90
Original pack 6 x 500 g			188,96/500 g
7906.2	1 kg	plastic	353,70
Original pack 6 x 1 kg			336,02/1 kg

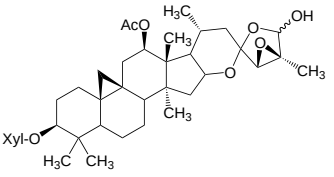
Acrylamide, 2x cryst.
≥98 %, extra pure, 2x cryst.

For gel electrophoresis

Type analysis
Appearance ..... white crystals
Assay ..... ≥98 %
Water ..... ≤2,0 %
Acrylic acid ..... ≤0,1 %
pH (5 % in H_2O) ..... ~6
Solution (5 % in H_2O) ..... clear and colourless
A (5 % in water, 1 cm/290 nm) ..... <0,7

Art. No.	Pack Qty.	Pack.	€
7871.1	500 g	plastic	62,25
Original pack 6 x 500 g			59,14/500 g
7871.2	1 kg	plastic	85,90
Original pack 6 x 1 kg			81,61/1 kg
7871.3	2.5 kg	plastic	163,95
7871.4	5 kg	plastic	278,45

Actein



$C_{37}H_{56}O_{11}$ · mp 246 to 250 °C
CAS No. 18642-44-9
WGK 1

Actein
ROTICHROM® HPLC

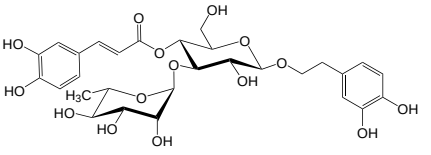
Reference substance for HPLC.
From *Cimicifuga racemosa*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1080.1	5 mg	glass	467,65

Acteoside



Verbascoside

$C_{29}H_{36}O_{15}$ · mp >150 °C
CAS No. 61276-17-3
WGK 1

Acteoside
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥90,0 %
Residual solvents (GC) ..... ≤6,0 %
Water (KF) ..... ≤9,0 %
Assay (qNMR) ..... ≥80,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE33.1	10 mg	glass	1.030,95

Acteoside
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥80,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC33.2	25 mg	glass	822,40

Acteoside
ROTICHROM® with analytical records

From *Paulownia tormentosa*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Analytical records: HPLC, TLC, ^{1}H NMR, ^{13}C NMR, UV, IR, MS.

Art. No.	Pack Qty.	Pack.	€
T891.1	20 mg	glass	654,70

Acteoside
ROTICHROM® HPLC

Reference substance for HPLC.
From *Paulownia tormentosa*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
4451.1	20 mg	glass	514,95

Actidione
▸ Cycloheximide see page 858

Actinomycin D

Actinomycine IV · Actinomycine C_1 · Dactinomycine

$C_{62}H_{86}N_{12}O_{16}$ · mp 245 to 250 °C
CAS No. 50-76-0 · EC no. 200-063-6
UN no. 3462 · ADR 6.1 II · WGK 3

Danger H300-H351-H360FD

Actinomycin D
≥950 µg/mg, for biochemistry

Peptide antibiotic. Pure actinomycin C_1.

Stock solution 10 mg/ml in DMSO or methanol.
Storage of stock solution: protected from light at –20 °C
Working concentration: 50 µg/ml

Storage temperature: +4 °C

Type analysis
Appearance ..... red to orange powder

Activity ..... ≥950 µg/mg

Art. No.	Pack Qty.	Pack.	€
8969.1	5 mg	glass	128,50

Actinomycine C_1

▸ Actinomycin D see page 706

Actinomycine IV

▸ Actinomycin D see page 706

Activated carbon

▸ Sekuroka® Decon-Bags see page 1255

Activation reagent

D 0,78 g/cm³ · mp -45,7 °C · bp 81 °C · flp 5 °C
UN no. 1648 · ADR 3 II · WGK 2

Danger H225-H302+H312+H332-H319

Activation reagent
for DNA synthesis

Thread sizes: 200 ml – 27 mm, 450 ml – 27 mm

Suitable for Expedite™89xx and Polygen®

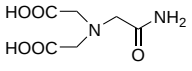
Type analysis
Appearance ..... clear, colorless solution
Assay (tetrazole) ..... 0,43-0,46 mol/l
Water (KF) ..... ≤0,003 %

Art. No.	Pack Qty.	Pack.	€
2253.1	200 ml	glass	133,85
2253.2	450 ml	glass	267,70

Acylchloride deuterated

▸ Acetyl chloride D3 see page 701

ADA



N-(2-Acetamido)-iminodiacetic acid

$C_6H_{10}N_2O_5$ · D 1,53 g/cm³
CAS No. 26239-55-4 · EC no. 247-530-0
WGK 1

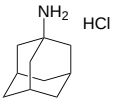
Warning H302

ADA
PUFFERAN® ≥98 %

Guarantee analysis
Appearance ..... white to off-white powder
Assay (titr.) ..... ≥98,0 %
Water content (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
0250.1	50 g	plastic	32,15
0250.2	100 g	plastic	56,90
0250.3	500 g	plastic	222,00
Original pack 6 x 500 g			210,90/500 g

1-Adamantanamine hydrochloride



Amantadine hydrochloride

$C_{10}H_{17}N$ · HCl · mp >300 °C
CAS No. 665-66-7 · EC no. 211-560-2
UN no. 1759 · ADR 8 II · WGK 2

Danger H302-H314-H361fd-H412

1-Adamantanamine hydrochloride
≥99 %, for synthesis

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥99,0 %
Identity ..... complies
pH value (20 % in H_2O) 3,0-5,5
Heavy metals (as Pb) ..... ≤0,001 %
Residual solvent (Acetone) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
7621.1	25 g	plastic	29,60
7621.2	100 g	plastic	83,75

Adamantane



Tricyclo[3.3.1.1^{3,7}]decane

$C_{10}H_{16}$ · mp 209 to 212 °C
CAS No. 281-23-2 · EC no. 206-001-4
UN no. 3077 · ADR 9 III · WGK 2

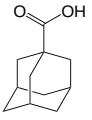
Warning H410

Adamantane
≥99 %, for synthesis

Type analysis
Appearance ..... white to beige cryst. powder
Assay (GC) ..... ≥99,0 %
Identity (IR) ..... complies
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
7620.1	25 g	glass	21,40
7620.2	100 g	glass	47,85

1-Adamantanecarboxylic acid



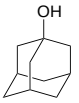
$C_{11}H_{16}O_2$ · mp 172 to 176 °C
CAS No. 828-51-3 · EC no. 212-584-6
WGK 1

1-Adamantanecarboxylic acid
≥99 %, for synthesis

Type analysis
Appearance ..... white, crystalline powder
Assay (titr.) ..... ≥99,0 %
Loss on drying ..... ≤0,5 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
7622.1	25 g	plastic	29,60
7622.2	100 g	plastic	78,40

1-Adamantanol



1-Hydroxyadamantane

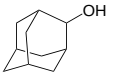
$C_{10}H_{16}O$ · mp >240 °C
CAS No. 768-95-6 · EC no. 212-202-8
WGK 1

1-Adamantanol
≥99 %, for synthesis

Type analysis
Appearance ..... white to off-white crystalline solid
Assay (GC) ..... ≥99 %
Loss on drying ..... ≤1 %

Art. No.	Pack Qty.	Pack.	€
7745.1	10 g	glass	19,90
7745.2	50 g	glass	40,75
7745.3	250 g	glass	145,15

2-Adamantanol



2-Hydroxyadamantane

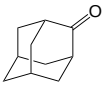
$C_{10}H_{16}O$ · mp 260 to 265 °C
CAS No. 700-57-2 · EC no. 211-846-7
WGK 1

2-Adamantanol
≥98 %, for synthesis

Type analysis
Appearance ..... white to yellow solid
Assay ..... ≥98,0 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
7863.1	5 g	glass	32,80
7863.2	25 g	glass	87,00
7863.3	50 g	glass	141,40

2-Adamantanone



$C_{10}H_{14}O$ · mp 256 to 258 °C
CAS No. 700-58-3 · EC no. 211-847-2
WGK 1

H412

2-Adamantanone
≥99 %, for synthesis

Type analysis
Appearance ..... white to off-white cryst. powder
Assay (GC) ..... ≥99,0 %
Identity ..... complies
Loss on drying ..... ≤0,5 %
Sulphated ash ..... ≤0,1 %

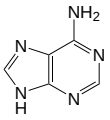
A

Art. No.	Pack Qty.	Pack.	€
8406.1	25 g	glass	33,25
8406.2	100 g	glass	105,25

ADCP

▸ 2-Amino-4,6-dichloropyrimidine see page 727

Adenine



1*H*-Purine-6-amine · 6-Aminopurine

$C_5H_5N_5$ · mp 360 °C
CAS No. 73-24-5 · EC no. 200-796-1
UN no. 2811 · ADR 6.1 III · WGK 1

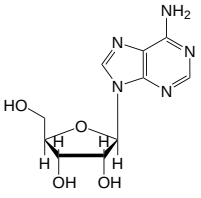
Danger H301

Adenine
≥98 %, for biochemistry

Type analysis
Appearance ..... white to off-white cryst. powder
Purity (HPLC) ..... ≥98 %
Ash content ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
3025.1	5 g	glass	21,40
3025.2	25 g	glass	55,80

Adenosine



9-β-D-Ribofuranosyladenine

$C_{10}H_{13}N_5O_4$ · mp 235,5 °C
CAS No. 58-61-7 · EC no. 200-389-9
WGK 1

Adenosine
≥99 %, p.a.

Storage temperature: +4 °C

Guarantee analysis
Appearance white to off-white crystalline powder
Assay (titr.) ..... ≥99,0 %
Specific rotation $[\alpha]_D^{20}$ ..... -72 - -68 °
Melting point ..... 233-238 °C

Art. No.	Pack Qty.	Pack.	€
6122.1	5 g	plastic	21,00
6122.2	10 g	plastic	32,80
6122.3	25 g	plastic	64,40
6122.7	100 g	glass	222,00

Adenosine-BCE-phosphoramidite

DMT-dA(*N*-Bz)P-(OCH_2CH_2CN)-N($iPr)_2$ · Phosphoramidites · BCE phosphoramidites

$C_{47}H_{52}N_7O_7P$
WGK 1

Adenosine-BCE-phosphoramidite
for DNA synthesis

Thread size 19 mm

Suitable for Polygen®

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
K921.1	1 g	glass	44,65

Adenosine-CPG-Support

dA-Icaa-CPG · CPG support

WGK 1

Adenosine-CPG-Support
500 Å pore size

Support material for DNA-synthesis.

Loading: 30–40 µmol/g

Storage temperature: +4 °C

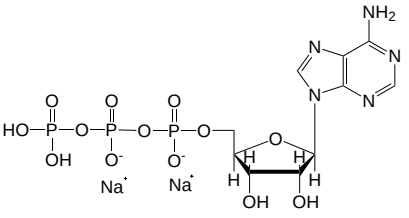
Type analysis
Purity (HPLC) ..... ≥98,0 %
CPG loading ..... 30-40 µmol/g
Coupling efficiency ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
2318.3	1 g	plastic	74,75

Adenosine-5-triphosphate

▸ ATP solution see page 757
▸ ATP see page 757

Adenosin-5'-triphosphate disodium salt (ATP)



ATP disodium salt

$C_{10}H_{14}N_5Na_2O_{13}P_3$
CAS No. 987-65-5 · EC no. 213-579-1
WGK 1

Adenosin-5'-triphosphate disodium salt (ATP)
≥98 %, for biochemistry

Coenzyme of kinases.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (HPLC, dry substance) ..... ≥98 %
pH value 2,5-3,5
Chloride (Cl) ..... ≤0,05 %
Heavy metals ..... ≤0,002 %
Arsenic (As) ..... ≤0,0001 %
Loss on drying ..... 6,0-12,0 %

Art. No.	Pack Qty.	Pack.	€
HN35.1	5 g	glass	30,00
HN35.2	10 g	glass	42,90
HN35.3	25 g	glass	81,60
HN35.4	100 g	glass	267,70

Adeps Lanae anhydricum

▸ Lanolin see page 1034

Adermine hydrochloride

▸ Pyridoxine hydrochloride see page 1191

ADF solution (acidic detergent solution)

D 1,027 g/cm³ · bp 100 °C
UN no. 1760 · ADR 8 III · WGK 3

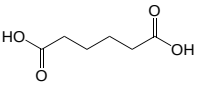
Warning H290-H315-H319-H410

ADF solution (acidic detergent solution)
for the determination of acid detergent fibre (ADF)

acc. to VDLUFA method book, volume 3.

Art. No.	Pack Qty.	Pack.	€
9942.1	1 l	plastic	99,90
Original pack 6 x 1 l			94,91/1 l
9942.2	5 l	plastic	306,40
Original pack 2 x 5 l			291,08/5 l

Adipic acid



Hexanedioic acid

$C_6H_{10}O_4$ · D 1,37 g/cm³ · mp 150 to 156 °C · bp 337 °C · flp 196 °C
CAS No. 124-04-9 · EC no. 204-673-3
WGK 1

Warning H319

Adipic acid
≥99,5 %, for biochemistry

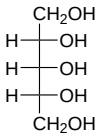
Type analysis
Assay (dry substance) ..... ≥99,5 %
Water ..... ≤0,2 %
Nitrate (NO_3) ..... ≤0,0004 %
Ash ..... ≤0,0002 %
Iron (Fe) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
4475.2	100 g	plastic	14,95
4475.1	500 g	plastic	32,80
Original pack 6 x 500 g			31,16/500 g
4475.3	1 kg	plastic	56,45
Original pack 6 x 1 kg			53,63/1 kg

Adonite

▸ Adonitol see page 709

Adonitol



Adonite · Ribitol

$C_5H_{12}O_5$ · mp 101 to 105 °C
CAS No. 488-81-3 · EC no. 207-685-7
WGK 1

Adonitol
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥98 %
Solution (10 % in water) ..... colourless
Water (KF) ..... ≤0,5 %
Melting point ..... 101-105 °C
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
5522.1	1 g	glass	21,40
5522.2	5 g	plastic	54,75

AEBSF hydrochloride

4-(2-Aminoethyl)benzenesulfonyl fluoride hydrochloride

$C_8H_{10}FNO_2S$ · HCl · mp 174 to 178 °C
CAS No. 30827-99-7
UN no. 3261 · ADR 8 III · WGK 1

Danger H314

AEBSF hydrochloride
≥98 %, for biochemistry

Inhibitor of serine proteases

Easily water-soluble, resulting in an acidic pH-value.
Stock solution: 5–50 mg/ml (20–200 mM) in H_2O.
Storage of stock solution: at –20 °C max. 6 months

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (HPLC) ..... ≥98 %
No protected amines ..... complies
Solubility (20 % in H_2O) ..... clear, colourless

Art. No.	Pack Qty.	Pack.	€
2931.1	25 mg	plastic	24,65
2931.2	100 mg	plastic	53,65
2931.3	500 mg	plastic	217,70

Aerosil®

Silica, pyrogenic · Pyrogenous silicic acid

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C
CAS No. 112945-52-5 · EC no. 231-545-4

Aerosil®
≥99,8 %, powdered

hydrophilic type

Type analysis
Silicate (SiO_2) ..... ≥99,8 %
Specific surface (BET) ..... 200 ±25 m²/g
pH value (4 % dispersion) 3,7-4,7
Loss on drying (2 h, 105 °C) ..... ≤1,5 %

Art. No.	Pack Qty.	Pack.	€
9235.2	500 g	plastic	65,50
Original pack 6 x 500 g			62,23/500 g
9235.1	1 kg	plastic	117,75
Original pack 6 x 1 kg			111,86/1 kg

Aerosporin
▸ Polymyxin B sulphate see page 1163

Aesculetine
▸ Esculetin see page 914

Aesculin
▸ Esculin sesquihydrate see page 914

Affinity chromatography colums
▸ ROTI®Garose-His/Ni HPCartridges see page 1225
▸ ROTI®Garose-Glu/GST Cartridges see page 1224
▸ ROTI®Garose-His/Ni Columns see page 1225
▸ ROTI®Garose-His/Co Columns see page 1224

Agar-Agar

CAS No. 9002-18-0 · EC no. 232-658-1
WGK 1

Agar-Agar, bacteriological
highly pure, for bacteriology

For immune diffusion and electrophoresis, culture media for tissue cultures, bacteriology, mycology and cell culture.

Usually 15 g/l are used.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Water content ..... ≤12 %
Ash ..... ≤1,6 %
Gel strength (1,5 % Nikan) ..... 500-1200 g/cm²
Gelling temperature (1,5 % gel) ..... 34-38 °C
Melting temperature (1,5 % gel) ..... 85-90 °C
Turbidity (1,5 % solution) ..... ≤10 NTU
pH (1,5 % gel) before autoclaving 5,0-7,0

Being extracts from natural products, the properties (e.g. gelling behaviour, salt content) may vary from lot to lot.

Art. No.	Pack Qty.	Pack.	€
2266.1	250 g	plastic	138,70
2266.3	500 g	plastic	235,45
Original pack 6 x 500 g			223,68/500 g
2266.2	1 kg	plastic	428,95
Original pack 6 x 1 kg			407,50/1 kg
2266.4	2.5 kg	plastic	901,95

Agar-Agar, BioScience
BioScience Grade, powdered

Agar of high purity for all culture media used in molecular- and microbiology. Recommended for plating in genetic engineering (GMOs).

Usually 15 g/l are used.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Water content ..... ≤12 %
Ash ..... ≤5,0 %
Gel strength (1,5 % Nikan) ..... 800-1100 g/cm²
Gelling temperature (1,5 % gel) ..... 35 ±3 °C
Melting temperature (1,5 % gel) ..... 85 ±5 °C
Turbidity (1,5 % solution) ..... ≤8 NTU
Absorption (450 nm) ..... ≤0,300
pH (1,5 % gel) before autoclaving 6,0-7,5

Being extracts from natural products, the properties (e.g. gelling behaviour, salt content) may vary from lot to lot.

Art. No.	Pack Qty.	Pack.	€
6494.1	250 g	plastic	74,10
6494.2	500 g	plastic	127,40
Original pack 6 x 500 g			121,03/500 g
6494.3	1 kg	plastic	231,15
Original pack 6 x 1 kg			219,59/1 kg
6494.4	2.5 kg	plastic	514,95

Agar-Agar, BioScience, granulated
BioScience Grade, granulated

Agar of high purity for all culture media used in molecular- and microbiology. Recommended for plating in genetic engineering (GMOs).

Usually 15 g/l are used.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Water content ..... ≤12 %
Ash ..... ≤5,0 %
Gel strength (1,5 % Nikan) ..... 800-1100 g/cm²
Gelling temperature (1,5 % gel) ..... 35 ±3 °C
Melting temperature (1,5 % gel) ..... 85 ±5 °C
Turbidity (1,5 % solution) ..... ≤8 NTU
Absorption (450 nm) ..... ≤0,30
pH (1,5 % gel) before autoclaving 6,0-7,5
Granulation ..... complies

Being extracts from natural products, the properties (e.g. gelling behaviour, salt content) may vary from lot to lot.

Art. No.	Pack Qty.	Pack.	€
1347.1	250 g	plastic	89,80
1347.2	500 g	plastic	160,20
Original pack 6 x 500 g			152,19/500 g
1347.3	1 kg	plastic	292,95
Original pack 6 x 1 kg			278,30/1 kg
1347.4	2.5 kg	plastic	639,65

Agar-Agar, Kobe I
Kobe I, powdered, for microbiology

Standard-Agar for application in culture media for molecular biology (e.g. LB medium) and microbiology.

Usually 15 g/l are used.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Gel strength (1,5 % gel) ..... ≥1000 g/cm²
Gelling temperature ..... 35-42 °C
Moisture ..... ≤22 %
pH-value 5,0-8,0
Ash ..... ≤1,5 %

Being extracts from natural products, the properties (e.g. gelling behaviour, salt content) may vary from lot to lot.

Art. No.	Pack Qty.	Pack.	€
5210.1	250 g	plastic	49,35
5210.3	500 g	plastic	85,50
Original pack 6 x 500 g			81,23/500 g
5210.2	1 kg	plastic	158,60
Original pack 6 x 1 kg			150,67/1 kg
5210.4	2.5 kg	plastic	332,20
5210.5	5 kg	plastic	568,70
5210.6	10 kg	plastic	912,70

Agar-Agar, plant
Genetic engineering quality, for plants

For plant propagation and plant cell culture.

Plant culture agar

Usually 15 g/l are used.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Loss on drying ..... ≤16 %
Ash ..... ≤6,5 %
Gel strength (1,5 % Nikan) ..... ≥900 g/cm²
pH (1,5 % solution) 6,0-7,5
Gelling temperature ..... 36 ±2 °C
Melting temperature ..... 85-90 °C
Turbidity (1,5 % gel) ..... ≤15 NTU

Being extracts from natural products, the properties (e.g. gelling behaviour, salt content) may vary from lot to lot.

Art. No.	Pack Qty.	Pack.	€
4807.1	250 g	plastic	105,25
4807.2	500 g	plastic	175,80
Original pack 6 x 500 g			167,01/500 g
4807.3	1 kg	plastic	301,55
Original pack 6 x 1 kg			286,47/1 kg
4807.4	2.5 kg	plastic	661,15

Agar-Agar, danish

CAS No. 9002-18-0 · EC no. 232-658-1
WGK 1

Agar-Agar, danish
standardized carrageenan mixture, sugar-containing, powdered

Mixture of highly pured Carrageen extracts. For gelling of watery liquids like, e.g. media for cultivation of plants, and for special microbiological applications. Saccharated.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... cream-coloured powder
Moisture ..... <12 %
Sulphate (as SO_4, dry substance) ..... 15-40 %
Gel strength (1,5 % sol.) ..... 400-500 g/cm²
Viscosity (1,5 % sol., 75 °C) ..... ≥0,005 Pas
pH value (1,5 % sol.) 7,0-10,5
Arsenic (As) ..... ≤0,0003 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0002 %
Mercury (Hg) ..... ≤0,0001 %
Methanol, ethanol, isopropanol ..... ≤1 %
Ash insoluble in 1 % H_2SO_4 (dry substance) ≤2 %

Standardized by mono- or disaccharides and KCl. Being extracts from natural products, the properties (e.g. gelling behaviour, salt content) may vary from lot to lot.

Art. No.	Pack Qty.	Pack.	€
4508.1	1 kg	plastic	149,45
Original pack 6 x 1 kg			141,98/1 kg
4508.2	5 kg	plastic	650,40

Agar medium B (Ph. Eur. 6.0)
▸ CASO Agar see page 820

Agar medium C (Ph. Eur. 6.0)
▸ Sabouraud 4 % Glucose Agar see page 1247

Agar medium C with chloroamphenicol (Ph. Eur. 6.0)
▸ Sabouraud 4 % Glucose Agar (with chloroamphenicol) see page 1247

Agar medium F (Ph. Eur. 6.0)
▸ Violet Red Bile Agar with Dextrose and Lactose see page 1395

Agar medium H (Ph. Eur. 6.0)
▸ MacConkey Agar see page 1055

Agar medium J (Ph. Eur. 6.0)
▸ Deoxycholate Citrate Agar see page 867

Agarmedium K (Ph. Eur. 6.0)
▸ XLD-Agar see page 1406

Agar medium L (Ph. Eur. 6.0)
▸ Brilliant Green Lactose Sucrose Agar see page 786

Agar medium M (Ph. Eur. 6.0)
▸ Triple Sugar Iron Agar see page 1381

Agar medium N (Ph. Eur. 6.0)
▸ Cetrimide Agar (Base) see page 826

Agar medium O (Ph. Eur. 6.0)
▸ Baird Parker Agar (Base) see page 763

Agar medium S (Ph. Eur. 6.0)
▸ R2A-Agar see page 1198

Agarmedium with Xylose, Lysin and Desoxycholat (Ph.Eur. 6.3, 7.0, 8.0 and 9.0)
▸ XLD-Agar see page 1406

Agarose

mp 80 to 95 °C
CAS No. 9012-36-6 · EC no. 232-731-8

Agarose Broad Range
ROTI®Garose BioScience Grade

For gel electrophoresis, total size range (200 bp-40 kb).

Guarantee analysis
Electroendosmosis (EEO) ..... ≤0,12
Ash content ..... ≤0,25 %
Sulphate (SO_4) ..... ≤0,12 %
Turbidity (1,5 % solution) ..... ≤4 NTU
Loss on drying ..... ≤7 %
Gel strength (1 % gel) ..... ≥1800 g/cm²
Gel strength (1,5 % gel) ..... ≥3200 g/cm²
Gelling temperature ..... 34,5-37,5 °C
Melting temperature ..... 86,5-89,5 °C
DNA-separation (≥1000 bp) ..... complies
DNases, RNases ..... none detected

Art. No.	Pack Qty.	Pack.	€
T846.1	10 g	plastic	31,75
T846.2	100 g	plastic	162,90
T846.3	500 g	plastic	697,70
Original pack 6 x 500 g			662,82/500 g

Agarose GTQ
ROTI®Garose Genetic engineering quality

Especially tested agarose for gel elution and biomolecular approaches (500 bp-20 kb).

Guarantee analysis
Electroendosmosis (EEO) ..... ≤0,11
Water content ..... ≤8 %
Ash ..... ≤0,5 %
Sulphate (SO_4) ..... ≤0,1 %
Gel strength (1 % gel) ..... ≥1200 g/cm²
Gel strength (1,5 % gel) ..... ≥2300 g/cm²
Gelling temperature ..... 36 ±2,0 °C
Melting temperature ..... 92 ±2,0 °C
DNases, RNases ..... none detected
DNA binding ..... none detected

Art. No.	Pack Qty.	Pack.	€
6352.1	10 g	plastic	33,25
6352.2	100 g	plastic	201,60
6352.4	500 g	plastic	833,15
Original pack 6 x 500 g			791,49/500 g

Agarose HEEO ultra-quality
ROTI®Garose high electroendosmosis (EEO = 0,23–0,26)

Special agarose for protein separation and countercurrent electrophoresis.

Guarantee analysis
Electroendosmosis (EEO) 0,23-0,26
Water content ..... ≤10 %
Ash ..... ≤1,0 %
Sulphate (SO_4) ..... ≤0,2 %
Gel strength (1 % gel) ..... ≥750 g/cm²
Gel strength (1,5 % gel) ..... ≥1200 g/cm²
Gelling temperature (1,5 % gel) ..... 36 ±1,5 °C
Melting temperature (1,5 % gel) ..... 88 ±1,5 °C
Turbidity (1,5 % solution) ..... ≤4 NTU

Art. No.	Pack Qty.	Pack.	€
2269.1	10 g	plastic	28,95
2269.2	100 g	plastic	158,60
2269.3	1 kg	plastic	1.091,15
Original pack 6 x 1 kg			1.036,59/1 kg

Agarose High Resolution
ROTI®Garose for small fragments

Special agarose for PCR gels and small DNA fragments (50 bp–1 kb).

Guarantee analysis
Electroendosmosis (EEO) ..... ≤0,12
Water content ..... ≤7 %
Ash ..... ≤0,35 %
Sulphate (SO_4) ..... ≤0,11 %
Gel strength (1,5 % gel) ..... ≥600 g/cm²
Gel strength (3 % gel) ..... ≥1500 g/cm²
Gelling temperature (3 % gel) ..... ≤35,5 °C
Melting temperature (3 % gel) ..... ≤80 °C
Turbidity (1,5 % solution) ..... ≤5 NTU
DNases, RNases ..... none detected

Art. No.	Pack Qty.	Pack.	€
K297.1	10 g	plastic	70,45
K297.2	100 g	plastic	453,15
K297.3	500 g	plastic	1.881,25
Original pack 6 x 500 g			1.787,19/500 g

Agarose HR-PLUS
ROTI®Garose for analytical gels

Special agarose for use in the main analytical range (100 bp-3 kb).

Guarantee analysis
Electroendosmosis (EEO) ..... ≤0,12
Water content ..... ≤8,5 %
Ash ..... ≤0,6 %
Sulphate (SO_4) ..... ≤0,14 %
Gel strength (1,5 % gel) ..... ≥1500 g/cm²
Gelling temperature (1,5 % gel) ..... ~36 °C
Melting temperature (1,5 % gel) ..... ~88 °C
Turbidity (1,5 % solution) ..... ≤4 NTU
DNases, RNases ..... none detected
DNA binding ..... very low

Art. No.	Pack Qty.	Pack.	€
HP30.1	10 g	plastic	58,60
HP30.2	100 g	plastic	360,15
HP30.3	500 g	plastic	1.392,15
Original pack 6 x 500 g			1.322,54/500 g

Agarose MEEO ultra-quality
ROTI®Garose middle electroendosmosis (EEO = 0,16–0,19)

Special agarose for immuno, countercurrent, serum and antibody electrophoresis (500 bp-10 kb).

Guarantee analysis
Electroendosmosis (EEO) 0,16-0,19
Water content ..... ≤7 %
Ash ..... ≤0,5 %
Sulphate (SO_4) ..... ≤0,14 %
Gel strength (1 % gel) ..... ≥1000 g/cm²
Gel strength (1,5 % gel) ..... ≥2200 g/cm²
Gelling temperature (1,5 % gel) ..... 36 ±1,5 °C
Melting temperature (1,5 % gel) ..... 88 ±1,5 °C
Turbidity (1,5 % solution) ..... ≤4 NTU

Art. No.	Pack Qty.	Pack.	€
2268.1	10 g	plastic	26,80
2268.2	100 g	plastic	150,00
2268.4	500 g	plastic	618,15
Original pack 6 x 500 g			587,24/500 g
2268.3	1 kg	plastic	1.021,25
Original pack 6 x 1 kg			970,19/1 kg

Agarose NEEO ultra-quality
ROTI®Garose low electroendosmosis (EEO = 0.05–0.13)

High-quality agarose for all general applications (500 bp-20 kb).

Guarantee analysis
Electroendosmosis (EEO) ..... ≤0,12
Water content ..... ≤8,5 %
Ash ..... ≤0,6 %
Sulphate (SO_4) ..... ≤0,14 %
Gel strength (1 % gel) ..... ≥1200 g/cm²
Gelling temperature (1,5 % gel) ..... 36 ±2,0 °C
Melting temperature (1,5 % gel) ..... ≥ 90°C
DNases, RNases ..... none detected

Art. No.	Pack Qty.	Pack.	€
2267.1	10 g	plastic	24,65
2267.2	100 g	plastic	122,05
2267.5	250 g	plastic	268,75
2267.4	500 g	plastic	514,95
Original pack 6 x 500 g			489,20/500 g
2267.3	1 kg	plastic	880,45
Original pack 6 x 1 kg			836,43/1 kg

Agarose Pulsed-Field
ROTI®Garose Genetic engineering quality, for pulsed field electrophoresis

Special agarose for separation of large fragments (20-50 kb).

Guarantee analysis
Electroendosmosis (EEO) ..... ≤0,05
Sulphate (SO_4) ..... ≤0,10 %
Loss on drying ..... ≤10 %
Gel strength (1 % gel) ..... ≥1800 g/cm²
Gelling temperature ..... 36 ±1,5 °C
Melting temperature ..... ≥90 °C
DNases, RNases ..... none detected

Art. No.	Pack Qty.	Pack.	€
3771.1	10 g	plastic	38,60
3771.2	25 g	plastic	70,45
3771.3	100 g	plastic	217,70
3771.4	250 g	plastic	439,70

Agarose Standard
ROTI®Garose for DNA/RNA electrophoresis

General agarose for routine gels, student's courses, and standard analyses (1 kb-20 kb).

Guarantee analysis
Electroendosmosis (EEO) ..... ≤0,12
Sulphate (SO_4) ..... ≤0,15 %
Loss on drying ..... ≤10 %
Ash ..... ≤0,6 %
Gel strength (1 % gel) ..... ≥1100 g/cm²
Gelling temperature (1,5 % gel) ..... 36 ±2 °C
DNases, RNases ..... none detected
Melting temperature (1,5 % gel) ..... 90-95 °C

Art. No.	Pack Qty.	Pack.	€
3810.1	10 g	plastic	22,05
3810.2	100 g	plastic	87,65
3810.5	250 g	plastic	174,70
3810.3	500 g	plastic	340,25
Original pack 6 x 500 g			323,24/500 g
3810.4	1 kg	plastic	552,05
Original pack 6 x 1 kg			524,45/1 kg

Agarose-Tablets
ROTI®Garose 0,5 g agarose/tablet

Standard agarose with low EEO, for routine analyses (≥300 bp).

Guarantee analysis
Electroendosmosis (EEO) 0,05-0,1
Water content ..... ≤10 %
Sulphate (SO_4) ..... <0,2 %
Gel strength (1 % gel) ..... ≥1200 g/cm²
Gelling temperature ..... 36 ± 1,5 °C
Melting temperature ..... 88 ± 1,5 °C
DNases, RNases ..... none detected

Art. No.	Pack Qty.	Pack.	€
HP67.6	20 unit(s)	blister	34,30
HP67.7	200 unit(s)	blister	246,20
HP67.8	600 unit(s)	blister	698,75

Agarose Low Melt

Hydroxyethyl agarose

CAS No. 39346-81-1

Agarose LM/PCR
ROTI®Garose Genetic engineering quality, with low melting and gelling temperature

Particularly for gel elution of small fragments (50 bp–1500 bp).

Note: gels of 2 % agarose and lower are fragile!

Guarantee analysis
Electroendosmosis (EEO) ..... ≤0,13
Water content ..... ≤7 %
Ash ..... ≤0,45 %
Sulphate (SO_4) ..... ≤0,12 %
Gel strength (4 % gel) ..... ≥800 g/cm²
Gelling temperature (4 % gel) ..... ≤35 °C
Melting temperature (4 % gel) ..... ≤65 °C
Turbidity (4 % solution) ..... ≤6 NTU
DNases, RNases ..... none detected
DNA binding ..... none detected
In-gel-processing ..... complies
Agarase digest ..... complies

Art. No.	Pack Qty.	Pack.	€
HP31.1	5 g	plastic	52,15
HP31.2	100 g	plastic	704,15
HP31.3	250 g	plastic	1.349,15

Agarose Low Melt
ROTI®Garose with low melting and gelling temperature

Particularly for gel elution and in-gel-application in a wide size range (500 bp–20kb).

Guarantee analysis
Electroendosmosis (EEO) ..... ≤0,12
Water content ..... ≤10 %
Ash ..... ≤0,4 %
Sulphate (SO_4) ..... ≤0,12 %
Gel strength (1,5 % gel) ..... ≥500 g/cm²
Gelling temperature (1,5 % gel) ..... ≤28 °C
Melting temperature (1,5 % gel) ..... ≤65,5 °C
Turbidity (1,5 % solution) ..... ≤4 NTU
DNases, RNases ..... none detected

Art. No.	Pack Qty.	Pack.	€
6351.1	5 g	plastic	48,95
6351.5	25 g	plastic	198,80
6351.2	100 g	plastic	693,40
6351.4	500 g	plastic	2.768,15
Original pack 6 x 500 g			2.629,74/500 g

Agarose Super LM
ROTI®Garose with particularly low melting and gelling temperature

Particularly for gel elution from melted agarose, capillary electrophoresis and in-gel processing (≥1000 bp).

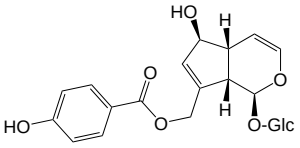
Guarantee analysis
Electroendosmosis (EEO) ..... ≤0,12
Water content ..... ≤7 %
Ash ..... ≤0,35 %
Sulphate (SO_4) ..... ≤0,14 %
Gel strength (1,5 % gel) ..... ≥300 g/cm²
Gelling temperature (1,5 % gel) ..... ≤20 °C
Melting temperature (1,5 % gel) ..... ≤62 °C
Turbidity (1,5 % solution) ..... ≤4 NTU
DNases, RNases ..... none detected

Art. No.	Pack Qty.	Pack.	€
HP45.1	5 g	plastic	52,60
HP45.2	100 g	plastic	714,90
HP45.3	250 g	plastic	1.392,15

Agarose beads for affinity chromatography

- ROTI®Garose-His/Ni HPBeads see page 1224
- ROTI®Garose-His *uncharged* HPBeads see page 1225
- ROTI®Garose-Protein A/G HPBeads see page 1226
- ROTI®Garose-His/Ni HPBeads plus see page 1224
- ROTI®Garose-His/Ni NTA-Beads see page 1225
- ROTI®Garose-Protein G HPBeads see page 1226
- ROTI®Garose-Protein A Beads see page 1226
- ROTI®Garose-Streptavidin Beads see page 1225
- ROTI®Garose-His/Ni NTA-Cartridges see page 1225
- ROTI®Garose-Biotin Beads see page 1223
- ROTI®Garose-Glu/GST Beads see page 1223
- ROTI®Garose-His/Co Beads see page 1224
- ROTI®Garose-His/Co HPBeads see page 1224
- ROTI®Garose-His/Ni Beads see page 1224
- ROTI®Garose-His/Ni NTA-HPBeads see page 1225

Agnuside



10-*p*-Hydroxybenzoylaucubin

$C_{22}H_{26}O_{11}$ · mp 144 to 147 °C
CAS No. 11027-63-7
WGK 1

Warning H319

Agnuside
ROTICHROM® HPLC

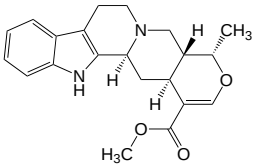
Reference substance for HPLC.
From *Vitex agnus castus*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1081.1	10 mg	glass	353,70

Ajmalicine



δ-Yohimbine · Raubasine

$C_{21}H_{24}N_2O_3$ · mp 258 °C
CAS No. 483-04-5 · EC no. 207-589-5
WGK 1

Warning H302

Ajmalicine
ROTICHROM® CHR ≥98 %

Type analysis
Appearance ..... white to yellow powder
Assay (titr.) ..... ≥98 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6192.1	250 mg	glass	78,40

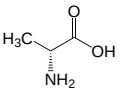
H-β-Ala-His-OH

- L-Carnosine see page 818

H-Ala(Me)-OH

- 2-Aminoisobutyric acid see page 728

D-Alanine



2-Aminopropionic acid · H-D-Ala-OH

$C_3H_7NO_2$ · D 1,4 g/cm³ · mp 295 to 297 °C
CAS No. 338-69-2 · EC no. 206-418-1
WGK 1

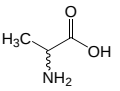
D-Alanine
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to almost white crystalline powder
Assay (TLC) ..... ≥98 %
Specific rotation $[\alpha]_D^{25}$ (c=10 in 6 M HCl) -16,5° to -13,0°
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
7866.1	5 g	plastic	26,80
7866.2	25 g	plastic	83,75
7866.3	100 g	plastic	246,20

DL-Alanine



2-Aminopropionic acid

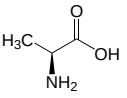
D 1,424 g/cm³ · mp 244 to 300 °C
CAS No. 302-72-7 · EC no. 206-126-4
WGK 1

DL-Alanine
≥98,5 %, for biochemistry

Type analysis
Appearance ..... white powder
Assay (titr.) ..... ≥98,5 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
9798.2	25 g	plastic	17,10
9798.1	100 g	plastic	42,50
9798.3	250 g	plastic	85,90

L-Alanine



2-Aminopropionic acid · H-L-Ala-OH

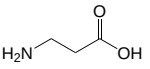
$C_3H_7NO_2$ · D 1,43 g/cm³ · mp 295 to 297 °C
CAS No. 56-41-7 · EC no. 200-273-8
WGK 1

L-Alanine
≥98,5 %, for biochemistry

Guarantee analysis
Appearance ..... white, cryst. powder
Assay (dry substance) ..... ≥98,5 %
Specific rotation $[\alpha]_D^{20}$ ..... +13,5° to 15,5°
Ammonium (NH_4) ..... ≤0,05 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,05 %
Loss on drying (3 h, 105 °C) ..... ≤0,5 %
Loss on ignition ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
3076.1	25 g	plastic	26,35
3076.2	250 g	plastic	134,40

β-Alanine



3-Aminopropionic acid

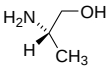
D 1,437 g/cm³ · mp 202 °C
CAS No. 107-95-9 · EC no. 203-536-5
WGK 1

β-Alanine
≥99 %, for biochemistry

Type analysis
Assay (perchloric acid titration) ..... ≥99 %
Heavy metals ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
3078.2	50 g	plastic	32,15
3078.1	250 g	plastic	99,45

L-Alaninol



S(+)-2-Amino-1-propanol

C_3H_9NO · D 0,965 g/cm³ · bp 173 to 176 °C · flp 62 °C
CAS No. 2749-11-3 · EC no. 220-388-7
UN no. 2735 · ADR 8 II · WGK 1

Danger H314

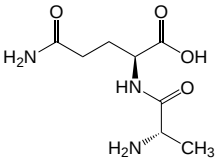
L-Alaninol
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (titr.) ..... ≥98 %
Specific rotation $[\alpha]_D^{20}$ (c=2 in ethanol) +20,0° to +24,0°
Refractive index n_D^{20} 1,445-1,455
Water (KF) ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
5521.1	1 g	plastic	31,10
5521.2	5 g	glass	117,20
5521.3	10 g	glass	198,90

L-Alanyl-L-glutamine



$C_8H_{15}N_3O_4$ · mp 199,9 to 206,9 °C · bp 360 °C
CAS No. 39537-23-0
WGK 1

L-Alanyl-L-glutamine
CELLPURE® ≥99 %

Type analysis
Appearance ..... white cryst. powder
Assay (dry substance) ..... ≥99 %
Endotoxins ..... ≤12,0 E.U./g
Specific rotation $[\alpha]_D^{20}$ ..... +9,0° to +11,0°
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,03 %
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As_2O_3) ..... ≤0,0001 %
Loss on drying ..... ≤0,5 %
Ash content ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
6831.1	5 g	plastic	37,55
6831.2	10 g	plastic	56,90
6831.3	25 g	plastic	112,80
6831.4	100 g	plastic	375,20

L-Alanyl-L-glutamine
≥98 %, for biochemistry

Type analysis
Assay (dry substance) ..... ≥98 %
Specific rotation $[\alpha]_D^{20}$ ..... +9,0° to +11,0°
Ammonium (NH_4) ..... ≤0,05 %
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,05 %
Heavy metals (as Pb) ..... ≤0,001 %
Loss on drying ..... ≤1 %

Art. No.	Pack Qty.	Pack.	€
6830.1	10 g	plastic	49,35
6830.2	50 g	plastic	170,95

Alanyl-L-glutamine solution
▸ ROTI®Cell Glutamine solution see page 1213

N-β-Alanyl-L-histidine
▸ L-Carnosine see page 818

Albumin/BSA

BSA

CAS No. 9048-46-8 · EC no. 232-936-2
WGK 1

Albumin, fatty acid-free, NZ-Origin
≥98 %, fatty acid-free, for biochemistry and molecular biology

Suitable as blocking or stabilising reagent in all fatty acid-sensitive assays.

Heatshock albumin.
Recommended if BSA with origin Australia or New Zealand is required.

Storage temperature: +4 °C

Guarantee analysis
Appearance ..... powder to flakes
Colour ..... pale yellow to greenish
Origin ..... Australia/New Zealand
Assay ..... ≥98 %
Protein ..... ≥98 %
Loss on drying ..... ≤5 %
Solution (4 % in H_2O) ..... complies
pH value (10 % in H_2O) 6,5-7,5
Sulphated ash ..... ≤2 %
Heavy metals ..... ≤10 ppm
IgG (COBAS) ..... none detected
Total fatty acids ..... ≤0,01 %
Endotoxin content ..... ≤3 E.U./mg

Art. No.	Pack Qty.	Pack.	€
1ETC.1	1 g	plastic	27,45
1ETC.2	10 g	plastic	70,85
1ETC.3	50 g	plastic	228,45
1ETC.4	200 g	plastic	514,95
1ETC.5	500 g	plastic	1.073,95
Original pack 6 x 500 g			1.020,25/500 g

Albumin, fatty acid-free, US-Origin
≥98 %, fatty acid-free, for biochemistry and molecular biology

Suitable as blocking or stabilising reagent in all fatty acid-sensitive assays.

Heatshock albumin.
Recommended if BSA with US-Origin is required.

Storage temperature: +4 °C

Guarantee analysis
Appearance ..... flakes
Colour ..... pale yellow to beige
Origin ..... USA
Assay ..... ≥98 %
Protein ..... ≥96 %
Water content ..... ≤3 %
Heavy metals ..... ≤2 ppm
pH value (10 % in H_2O) 6,0-7,5
IgG (COBAS) ..... none detected
Endotoxin content ..... ≤5 E.U./mg
Total fatty acids ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
9638.1	1 g	plastic	32,80
9638.2	10 g	plastic	76,25
9638.3	50 g	plastic	252,65
9638.4	100 g	plastic	532,15

Albumin, IgG free, NZ-Origin
>98 %, IgG-free, for biochemistry and molecular biology

Recommended as blocking and stabilising reagent in all antibody-mediated detection systems.

Heatshock albumin.
Recommended if BSA with origin Australia or New Zealand is required.

Storage temperature: +4 °C

Guarantee analysis
Appearance ..... flakes
Colour ..... yellow to beige
Assay (HPLC) ..... >98 %
Dry extract ..... ≥94 %
Iron (Fe) ..... <15 mg/g
Sodium (Na) ..... <10 mg/g
Chloride (Cl) ..... <0,5 %
Solution (2 % in H_2O) ..... soluble
pH value (2 % in H_2O) 6,5-7,5
IgG (HPLC) ..... none detected
Protease ..... none detected
DNAse ..... none detected
RNAse ..... none detected
Origin ..... Australia/New Zealand

Art. No.	Pack Qty.	Pack.	€
3737.1	10 g	plastic	69,35
3737.2	50 g	plastic	190,85
3737.3	200 g	plastic	579,45
3737.4	500 g	plastic	1.177,15
Original pack 6 x 500 g			1.118,29/500 g

Albumin, IgG free, US-Origin
≥98 %, IgG-free, for biochemistry and molecular biology

Recommended as blocking and stabilising reagent in all antibody-mediated detection systems.

Heatshock albumin.
Recommended if BSA with US-Origin is required.

Storage temperature: +4 °C

Guarantee analysis
Appearance ..... powder to flakes
Colour ..... pale yellow to greenish
Origin ..... USA
Assay ..... ≥98 %
Protein ..... ≥98 %
Loss on drying ..... ≤5 %
Solution (4 % in H_2O) ..... complies
pH value (10 % in H_2O) 6,5-7,5
Sulphated ash ..... ≤2 %
Sodium (Na) ..... tested
Chloride (Cl) ..... tested
Calcium (Ca) ..... tested
Potassium (K) ..... tested
Phosphor (P) ..... tested
Heavy metals ..... ≤10 ppm
IgG (COBAS) ..... none detected
Protease ..... ≤0,005 U/mg

Art. No.	Pack Qty.	Pack.	€
1ET9.1	10 g	plastic	74,10
1ET9.2	50 g	plastic	201,60
1ET9.3	200 g	plastic	579,45
1ET9.4	500 g	plastic	1.187,90
Original pack 6 x 500 g			1.128,51/500 g

Albumin, pH 5.2, US-Origin

≥96 %, for protein analysis

Non-neutralized albumin. Suitable as protein standard or hapten carrier, recommmended for use in ELISA and Western-Blotting.

Heatshock albumin.
Recommended if BSA with US-Origin is required.

Storage temperature: +4 °C

Guarantee analysis

Appearance ..... powder to flakes
Colour ..... off-white to beige
Origin ..... USA
Assay ..... ≥96 %
Protein ..... ≥96 %
Loss on drying ..... ≤5 %
Solution (4 % in H_2O) ..... complies
pH value (10 % in H_2O) 5,0-5,6
Sulphated ash ..... ≤3 %

Art. No.	Pack Qty.	Pack.	€
1ET8.1	10 g	plastic	61,20
1ET8.2	50 g	plastic	158,60
1ET8.3	200 g	plastic	504,20
1ET8.4	500 g	plastic	1.064,25
Original pack 6 x 500 g			1.011,04/500 g

Albumin, protease-free, NZ-Origin

≥98 %, protease-free, for protein analysis and molecular biology

For all sensitive enzymatic assays.

Heatshock albumin.
Recommended if BSA with origin Australia or New Zealand is required.

Storage temperature: +4 °C

Guarantee analysis

Appearance ..... powder to flakes
Colour ..... pale yellow to greenish
Origin ..... Australia/New Zealand
Assay ..... ≥98 %
Protein ..... ≥98 %
Loss on drying ..... ≤5 %
Solution (4 % in H_2O) ..... complies
pH value (10 % in H_2O) 6,5-7,5
Sulphated ash ..... ≤2 %
Heavy metals ..... ≤10 ppm
Protease ..... none detected

Art. No.	Pack Qty.	Pack.	€
1ET7.1	10 g	plastic	63,35
1ET7.2	50 g	plastic	152,15
1ET7.3	200 g	plastic	499,90
1ET7.4	500 g	plastic	1.052,45
Original pack 6 x 500 g			999,83/500 g

Albumin, protease-free, US-Origin

≥98 %, protease-free, for protein analysis and molecular biology

For all sensitive enzymatic assays.

Heatshock albumin.
Recommended if BSA with US-Origin is required.

Storage temperature: +4 °C

Guarantee analysis

Appearance ..... powder to flakes
Colour ..... pale yellow to greenish
Origin ..... USA
Assay ..... ≥98 %
Protein ..... ≥98 %
Loss on drying ..... ≤5 %
Solution (4 % in H_2O) ..... complies
pH value (10 % in H_2O) 6,5-7,5
Sulphated ash ..... ≤2 %
Heavy metals ..... ≤10 ppm
Protease ..... ≤0,005 U/mg

Art. No.	Pack Qty.	Pack.	€
1ET5.1	10 g	plastic	69,35
1ET5.2	50 g	plastic	162,90
1ET5.3	200 g	plastic	510,65
1ET5.4	500 g	plastic	1.069,65
Original pack 6 x 500 g			1.016,17/500 g

Albumin, sulfhydryl blocked, NZ-Origin

≥98 %, for biochemistry and molecular biology

Monomeric albumin for all sensitive assays.

Heatshock albumin.
Constant properties over longer storage time.
Recommended if BSA with origin Australia or New Zealand is required.

Storage temperature: +4 °C

Guarantee analysis

Appearance ..... powder to flakes
Colour ..... pale yellow to greenish
Origin ..... Australia/New Zealand
Assay ..... ≥98 %
Protein ..... ≥98 %
Loss on drying ..... ≤5 %
pH-Value (7 % in H2O) 6,5-7,5
Sodium (Na) ..... ≤15 mg/g
Chloride (Cl) ..... ≤6 mg/g
IgG (COBAS) ..... none detected
Protease ..... none detected
Free sulfhydryl ..... ≤0,1 mol/mol
Extinction (DTNB assay) ..... ≤1,0

Art. No.	Pack Qty.	Pack.	€
1ET3.1	1 g	plastic	31,75
1ET3.2	10 g	plastic	74,10
1ET3.3	50 g	plastic	201,60
1ET3.4	200 g	plastic	579,45

Albumin, very low endotoxin, NZ-Origin

CELLPURE® ≥98 %, very low endotoxin, for cell biology

With extremely low endotoxin content. Recommended for the culture of primary cells and cell lines. Also suitable for sensitive cell culture assays.

Heatshock albumin.
Recommended if BSA with origin Australia or New Zealand is required.

Storage temperature: +4 °C

Guarantee analysis

Appearance ..... powder to flakes
Colour ..... pale yellow to greenish
Origin ..... Australia/New Zealand
Assay ..... ≥98 %
Protein ..... ≥98 %
Loss on drying ..... ≤5 %
Solution (4 % in H_2O) ..... complies
pH value (10 % in H_2O) 6,5-7,5
Sulphated ash ..... ≤2 %
Heavy metals ..... ≤10 ppm
Protease ..... none detected
Endotoxin content ..... ≤3 E.U./mg
Bioburden (TAMC) ..... ≤1000 cfu/g

Art. No.	Pack Qty.	Pack.	€
1ET4.1	1 g	plastic	27,45
1ET4.2	10 g	plastic	65,50
1ET4.3	50 g	plastic	209,65
1ET4.4	200 g	plastic	493,45

Albumin, very low endotoxin, US-Origin

CELLPURE® ≥98 %, very low endotoxin, for cell biology

With extremely low endotoxin content. Recommended for the culture of primary cells and cell lines. Also suitable for sensitive cell culture assays.

Heatshock albumin.
Recommended if BSA with US-Origin is required.

Storage temperature: +4 °C

Guarantee analysis

Appearance ..... flakes
Colour ..... pale yellow to beige
Origin ..... USA
Assay ..... ≥98 %
Protein ..... ≥98 %
Loss on drying ..... ≤5 %
pH value (10 % in H_2O) 6,5-7,5
Sulphated ash ..... ≤2 %
Sodium (Na) ..... tested
Chloride (Cl) ..... tested
Calcium (Ca) ..... tested
Potassium (K) ..... tested
Phosphor (P) ..... tested
Heavy metals ..... ≤10 ppm
Protease ..... ≤0,005 U/mg
Endotoxin content ..... ≤3 E.U./mg
Solution (4 % in H_2O) ..... complies

Art. No.	Pack Qty.	Pack.	€
1ET6.1	1 g	plastic	32,80
1ET6.2	10 g	plastic	72,60
1ET6.3	50 g	plastic	229,55
1ET6.4	200 g	plastic	532,15

Albumin Fraction V

BSA

CAS No. 90604-29-8 · EC no. 292-322-5
WGK 1

Albumin Fraction V, biotin-free, NZ-Origin

≥98 %, biotin-free, for biochemistry and molecular biology

Excellent as blocking and stabilising reagent in all biotin/streptavidin-mediated detection systems.

Cohn/ethanol lyophilsate
Recommended if BSA with origin Australia or New Zealand is required.

Storage temperature: +4 °C

Guarantee analysis

Appearance ..... fine to coarse powder
Colour ..... beige
Assay ..... ≥98 %

Solution (2 % in H_2O) ..... soluble
pH value (2 % in H_2O) 6,5-7,6
Loss on drying ..... ≤6 %
Sulphated ash ..... ≤3 %
Nitrogen (N) ..... ≥14 %
Fat ..... ≤1 %
Biotin ..... ≤20 ng/g
Origin ..... Australia/New Zealand

Art. No.	Pack Qty.	Pack.	€
0163.1	10 g	plastic	42,90
0163.2	50 g	plastic	136,00
0163.4	200 g	plastic	444,55
0163.3	500 g	plastic	923,45
Original pack 6 x 500 g			877,28/500 g

Albumin Fraction V, Europe

≥98 %, for biochemistry and molecular biology

Wide range of applications, e.g. as protein standard or blocking reagent.

Cohn/ethanol lyophilsate

Storage temperature: +4 °C

Guarantee analysis

Appearance ..... powder to flakes
Colour ..... pale yellow to beige
Origin ..... Europe
Assay ..... ≥98 %
Protein ..... ≥96 %
Loss on drying ..... ≤3 %
pH value (10 % in H_2O) 6,5-7,5

Art. No.	Pack Qty.	Pack.	€
1ETA.1	10 g	plastic	37,10
1ETA.2	50 g	plastic	113,45
1ETA.3	200 g	plastic	378,95
1ETA.4	500 g	plastic	822,40
Original pack 6 x 500 g			781,28/500 g
1ETA.5	1 kg	plastic	1.353,45
Original pack 6 x 1 kg			1.285,78/1 kg

Albumin Fraction V, fatty acid-free, Europe

≥98 %, fatty acid-free, for biochemistry and molecular biology

Excellent when working with membrane-associated proteins.

Cohn/ethanol lyophilsate

Storage temperature: +4 °C

Guarantee analysis

Appearance ..... flakes
Colour ..... pale yellow
Assay ..... ≥98 %
Protein ..... ≥97 %
Water content ..... <3 %
pH value (10 % in water) 6,5-7,4
Total fatty acids ..... <0,01 %
Origin ..... Europe

Art. No.	Pack Qty.	Pack.	€
0052.1	1 g	glass	23,55
0052.2	10 g	plastic	73,65
0052.3	50 g	plastic	239,20

Albumin Fraction V, NZ-Origin

≥98 %, for biochemistry and molecular biology

Wide range of applications, e.g. as protein standard or blocking reagent.

Cohn/ethanol lyophilsate
Recommended if BSA with origin Australia or New Zealand is required.

Storage temperature: +4 °C

Guarantee analysis

Appearance ..... beige, fine powder
Assay (HPLC) ..... ≥98 %
Solution (2 % in H_2O) ..... clear
pH value (2 % in H_2O) 6,5-7,6
Loss on drying ..... ≤6 %
Sulphated ash ..... ≤3 %
Nitrogen (N) ..... ≥14 %
Fat ..... ≤1 %
Origin ..... Australia/New Zealand

Art. No.	Pack Qty.	Pack.	€
8076.1	10 g	plastic	34,95
8076.2	50 g	plastic	107,00
8076.4	200 g	plastic	352,10
8076.3	500 g	plastic	775,65
Original pack 6 x 500 g			736,87/500 g
8076.5	1 kg	plastic	1.267,45
Original pack 6 x 1 kg			1.204,08/1 kg

Albumin Fraction V, pH 5.2, Europe

>97 %, for protein analysis

Non-neutralized albumin. Suitable as protein standard or hapten carrier, recommmended for use in ELISA and Western-Blotting.

Cohn/ethanol lyophilsate

Storage temperature: +4 °C

Guarantee analysis

Appearance ..... flakes
Colour ..... pale yellow to greenish
Assay ..... >97 %
Protein ..... >92 %
Dry extract ..... >95 %
pH value (10 % solution) ..... 5,2 ±0,4
Origin ..... Europe

Art. No.	Pack Qty.	Pack.	€
2834.1	10 g	plastic	50,00
2834.2	50 g	plastic	156,45
2834.3	200 g	plastic	481,10
2834.4	500 g	plastic	1.009,45
Original pack 6 x 500 g			958,98/500 g

Albumin Fraction V, protease-free, Europe

≥98 %, protease-free, for protein analysis and molecular biology

For all sensitive enzymatic assays.

Cohn/ethanol lyophilsate

Storage temperature: +4 °C

Guarantee analysis

Appearance ..... flakes
Colour ..... yellow to beige
Assay ..... ≥98 %
Protein ..... ≥92 %
Loss on drying ..... ≤5,0 %
pH value (10 % in water) 6,5-7,4
Protease (hemoglobine hydrolysis) . not detected
Origin ..... Europe

Art. No.	Pack Qty.	Pack.	€
T844.1	10 g	plastic	61,20
T844.2	50 g	plastic	158,60
T844.4	200 g	plastic	504,20
T844.3	500 g	plastic	1.064,25
Original pack 6 x 500 g			1.011,04/500 g

Albumin Fraction V, US-Origin

≥96 %, for biochemistry and molecular biology

Suitable as blocking or stabilising reagent in all general assays.

Cohn/ethanol lyophilsate.
Recommended if BSA with US-Origin is required.

Storage temperature: +4 °C

Guarantee analysis

Appearance ..... powder to flakes
Colour ..... off-white to beige
Origin ..... USA
Assay ..... ≥96,0 %
Protein ..... ≥96,0 %
Dry extract ..... ≥95,0 %
Sodium (Na) ..... ≤11,5 mg/g
Chloride (Cl) ..... ≤17,7 mg/g
Calcium (Ca) ..... ≤0,5 mg/g
Potassium (K) ..... ≤2 mg/g
Phosphorus (P) ..... ≤0,3 mg/g
Heavy metals ..... ≤10 ppm
pH-value (10 % solution) 6,0-7,5

Art. No.	Pack Qty.	Pack.	€
3854.1	10 g	plastic	48,30
3854.2	50 g	plastic	160,20
3854.3	200 g	plastic	525,70
3854.4	500 g	plastic	1.138,45
Original pack 6 x 500 g			1.081,53/500 g
3854.5	1 kg	plastic	1.988,75
Original pack 6 x 1 kg			1.889,31/1 kg

Albumin Fraction V, very low endotoxin, Europe

CELLPURE® >98 %, very low endotoxin, for cell biology

With extremely low endotoxin content. Recommended for the culture of primary cells and cell lines. Also suitable for sensitive cell culture assays.

Cohn/ethanol lyophilsate

Storage temperature: +4 °C

Guarantee analysis

Appearance ..... light flakes
Colour ..... pale yellow
Assay ..... >98 %
Protein ..... >920 mg/g
Water content ..... <5,0 %
pH value (10 % in H_2O) 6,5-7,4
Endotoxin content ..... <2 EU/mg
Origin ..... Europe

Art. No.	Pack Qty.	Pack.	€
CP77.1	10 g	plastic	166,10

Albumin/BSA solutions

BSA

D 1,1 g/cm³
WGK 1

Albumin solution 20 %

20 %, sterile, for biochemistry and cell biology

Wide range of applications, e.g. as protein standard or blocking reagent.

Heatshock albumin.
Long-term storage in aliquots at –20 °C possible.

Storage temperature: +4 °C
Transport temperature: cooled

Guarantee analysis

Appearance ..... off-white to amber
Assay (HPLC) ..... >98 %
Calcium (Ca) ..... ≤0,025 mg/ml
Iron (Fe) ..... ≤0,5 µg/ml
pH value ..... tested
Conductivity ..... ≤3000 µS
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
9400.1	20 ml	plastic	49,35
9400.2	100 ml	plastic	107,40
9400.3	500 ml	plastic	428,95

Albumin solution 30 %

30 %, sterile, for biochemistry and cell biology

Wide range of applications, e.g. as protein standard or blocking reagent.

Heatshock albumin.
Long-term storage in aliquots at –20 °C possible.

Storage temperature: +4 °C
Transport temperature: cooled

Guarantee analysis

Appearance ..... off-white to amber
Assay (HPLC) ..... >98 %
Calcium (Ca) ..... ≤0,025 mg/ml
Iron (Fe) ..... ≤0,5 µg/ml
pH value ..... checked
Conductivity ..... ≤3000 µS
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
9401.1	20 ml	plastic	50,45
9401.2	100 ml	plastic	123,55
9401.3	500 ml	plastic	482,70

Albumin solution 30 %, with azide, US-Origin

30 %, sterile, with azide, US-Origin, for biochemistry

Suitable as blocking or stabilising reagent in all general assays.

Heatshock albumin.
Long-term storage in aliquots at –20 °C possible.
Recommended if BSA with US-Origin is required.

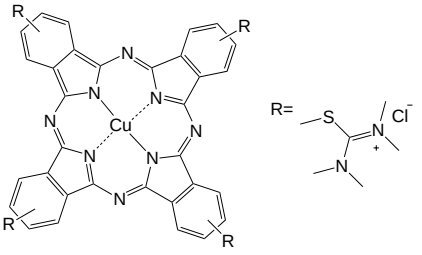
Storage temperature: +4 °C
Transport temperature: cooled

Guarantee analysis

Appearance ..... off-white to amber
Assay (HPLC) ..... >98 %
Calcium (Ca) ..... ≤0,05 mg/ml
Iron (Fe) ..... ≤0,5 µg/ml
pH (3 % solution) ..... tested
Azids ..... ≥0,1 %

Art. No.	Pack Qty.	Pack.	€
9414.1	100 ml	plastic	213,95
9414.2	500 ml	plastic	697,70

Alcian blue 8 GS (C.I. 74240)



mp 148 °C
CAS No. 33864-99-2 · EC no. 251-705-7
WGK 1

Alcian blue 8 GS (C.I. 74240)

for microscopy

Bacteriology and histology.

Dissolve 0.05–1 % in diluted acetic acid solutions

Type analysis

Appearance ..... dark blue powder
λ max. ..... 610-630 nm
Suitability for microscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
3082.2	5 g	glass	48,30
3082.1	10 g	glass	85,90
3082.3	25 g	glass	192,45
3082.4	100 g	glass	665,45

Alcian blue 1 % in acetic acid 3 %

D 1 g/cm³
WGK 1

Alcian blue 1 % in acetic acid 3 %

1 %, for microscopy

For selective staining of acidic mucins.

Often the staining is combined with the PAS reaction.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Type analysis

Appearance ..... deep blue liquid
Odour ..... of acetic acid

Art. No.	Pack Qty.	Pack.	€
1431.1	500 ml	plastic	209,65
1431.2	1 l	plastic	321,45
Original pack 6 x 1 l			305,38/1 l

Alcohol C 16

▸ Cetyl alcohol see page 826

sec- Alcohol ethoxylate

▸ Tergitol™ 15-S-9 see page 1357

Alcohols

Art. No.	Description	Page
0336	Benzyl alcohol, ROTIPURAN®, ≥99 %, p.a.	771
4478	Benzyl alcohol, ≥98 %, for synthesis	771
7473	1,3-Butanediol, ≥99 %, for synthesis	795
4211	1,4-Butanediol, ≥99 %, for synthesis	796
T178	1-Butanol, ROTISOLV®, HPLC	796
7171	1-Butanol, ROTIPURAN®, ≥99,5 %, p.a., ACS	796
7724	1-Butanol, ≥99,5 %, for synthesis	796
KK02	2-Butanol, ≥98,5 %, for synthesis	796
AE16	*tert*-Butanol, ROTIPURAN®, ≥99,5 %, p.a., ACS	797
4323	*tert*-Butanol, ≥99 %, for synthesis	797
5762	Cetyl alcohol, ≥95 %, for synthesis	826
4104	4-Chloro-1-naphthol, ≥97 %, for biochemistry	833
7756	Cyclohexanol, ≥99 %, for synthesis	858
4151	1-Decanol, ≥99 %, for synthesis	865
3546	Diacetone alcohol, SOLVAGREEN®, ≥98 %, for synthesis	871
9853	1-Dodecanol, ≥98 %, for synthesis	899
1HP8	Ethanol, ROTISOLV®, ≥99,95 %, Ultra LC-MS	915
P076	Ethanol, ROTISOLV®, HPLC Gradient Grade	915
1HP6	Ethanol, ROTISOLV® Pestilyse® plus, ≥99,9 %	916
1HPH	Ethanol, ≥99,8 %, for molecular biology	916
9065	Ethanol, ROTIPURAN®, ≥99,8 %, p.a.	916
0911	Ethanol, ROTIPURAN®, ≥99,8 %, p.a., denatured	916
5054	Ethanol, ≥99,5 %, Ph. Eur., extra pure	916
K928	Ethanol, ≥99,8 %, denatured	916
6724	Bioethanol, SOLVAGREEN®, 96 %, Ph. Eur.	917
6726	Bioethanol, SOLVAGREEN®, 96 %, denatured	917
P075	Ethanol, 96 %, Ph. Eur., extra pure	917
T171	Ethanol, ≥96 %, denatured	917
9474	Ethanol, ≥80 %, denatured	917
T868	Ethanol, ROTIPURAN®, ≥70 %, p.a.	917
7301	Ethanol, 70 %, DAB	918
T913	Ethanol, ≥70 %, denatured	918
5127	2-Ethoxyethanol, ≥99 %, for synthesis	919
3827	1-Heptanol, ≥99 %, for synthesis	980
3847	1-Hexanol, ≥98 %, for synthesis	984
3756	*trans*-2-Hexen-1-ol, ≥97 %	984
6257	4-Hydroxybenzyl alcohol, ≥99,5 %	999
T870	Isoamyl alcohol, ROTIPURAN®, ≥98,5 %, p.a., ACS	1019
8930	Isoamyl alcohol, ≥98,5 %, for synthesis	1020
6029	Lignoceryl alcohol, ≥98 %, for biochemistry	1042
4227	2-Mercaptoethanol, ≥99 %, p.a.	1073
HN41	Methanol, ROTISOLV®, ≥99,98 %, Ultra LC-MS	1077

Art. No.	Description	Page
AE71	Methanol, ROTISOLV®, ≥99,95 %, LC-MS Grade	1077
X948	Methanol, ROTISOLV®, HPLC Ultra Gradient Grade	1077
7342	Methanol, ROTISOLV®, HPLC Gradient Grade	1077
KK39	Methanol, ROTISOLV®, HPLC Gradient	1078
P717	Methanol, ROTISOLV®, HPLC	1078
KK44	Methanol, ROTISOLV®, ≥99,9 %, GC Ultra Grade	1078
7583	Methanol, ROTISOLV® Pestilyse® plus, ≥99,9 %	1078
T169	Methanol, ROTISOLV® Pestilyse®, ≥99,9 %	1078
T909	Methanol, ROTISOLV®, ≥99,9 %, UV/IR Grade	1078
5181	Methanol, ROTIDRY®Sept, ≥99,9 % (≤50 ppm H_2O)	1078
1A9L	Methanol, ROTIDRY® plus, ≥99,8 % (≤50 ppm H_2O), with molecular sieve	1078
AE01	Methanol, ROTIDRY®, ≥99,9 % (≤50 ppm H_2O)	1078
0082	Methanol, ≥99,9 %, Blotting Grade	1079
9785	Methanol, ≥99,5 %, VLSI Grade	1079
4627	Methanol, ROTIPURAN®, ≥99,9 %, p.a., ACS, ISO	1079
CP43	Methanol, ≥99,5 %, Ph. Eur., extra pure	1079
8388	Methanol, ≥99 %, for synthesis	1079
9976	Methanol, 60 %, for synthesis	1079
CP08	2-Methoxyethanol, ROTIPURAN®, ≥99,5 %, p.a., ACS	1081
4379	2-Methyl-1-butanol, ≥97,5 %, for synthesis	1083
6772	2-Methyl-1-propanol, ROTIPURAN®, ≥99 %, p.a., ACS	1087
CP09	2-Methyl-1-propanol, ≥99 %, for synthesis	1087
4439	1-Octanol, ≥99 %, for synthesis	1118
3182	1-Octanol, ROTICHROM®, GC	1119
8949	1-Pentanol, ≥98 %, for synthesis	1142
4348	2-Phenoxyethanol, ≥99 %, for synthesis	1151
4422	2-Phenylethanol, ≥99 %, for synthesis	1152
T177	1-Propanol, ROTISOLV®, HPLC	1184
6776	1-Propanol, ROTIPURAN®, ≥99,5 %, p.a.	1185
9169	1-Propanol, ≥99,5 %, for synthesis	1185
AE73	2-Propanol, ROTISOLV®, ≥99,95 %, LC-MS Grade	1185
7343	2-Propanol, ROTISOLV®, HPLC	1185
7590	2-Propanol, ROTISOLV® Pestilyse® plus, ≥99,9 %	1185
T902	2-Propanol, ROTISOLV® Pestilyse®, ≥99,8 %	1185
T910	2-Propanol, ROTISOLV®, ≥99,9 %, UV/IR Grade	1185
9781	2-Propanol, ≥99,9 %, VLSI Grade	1186
1HPK	2-Propanol, ≥99,5 %, for molecular biology	1186
6752	2-Propanol, ROTIPURAN®, ≥99,8 %, p.a., ACS, ISO	1186
CP41	2-Propanol, ≥99,5 %, Ph. Eur., extra pure	1186
9866	2-Propanol, ≥99,5 %, for synthesis	1186
0080	2-Propanol only available in Germany, 70 %, Biocide Grade	
3510	2-Propanol, 70 %, USP	1186
CN09	2-Propanol, 70 %, pure	1186
8663	Stearyl alcohol, ≥95 %	1340

sec- Alcoxy polyethylene glycol

▸ Tergitol™ 15-S-9 see page 1357

Alginic acid

$(C_6H_8O_6)_n$ · D 0,56 g/cm³ · mp 300 °C
CAS No. 9005-32-7 · EC no. 232-680-1
WGK 1

Alginic acid
≥98 %, for biochemistry

Type analysis
Assay ..... ≥98 %
Heavy metals ..... ≤0,004 %
Loss on drying ..... ≤15 %

Art. No.	Pack Qty.	Pack.	€
8696.1	250 g	plastic	36,45
8696.3	1 kg	plastic	117,20
Original pack 6 x 1 kg			111,34/1 kg
8696.2	2.5 kg	plastic	235,45

Alginic acid sodium salt

Sodium alginate

mp >300 °C
CAS No. 9005-38-3
WGK 1

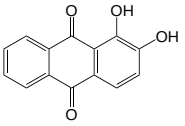
Alginic acid sodium salt
for biochemistry

From brown algae.

Type analysis
Appearance ..... white to light beige powder
Loss on drying ..... ≤15 %
pH-value (1 % solution) 5,5-8,0
Viscosity (1 % solution, 20 °C) ..... 350-550 mPas
Arsenic (As) ..... ≤0,0003 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0001 %
Mercury (Hg) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
9180.1	250 g	plastic	47,85
9180.2	1 kg	plastic	134,40
Original pack 6 x 1 kg			127,68/1 kg

Alizarin (C.I. 58000)



1,2-Dihydroxyantraquinone

$C_{14}H_8O_4$ · D 1,575 g/cm³ · mp 289 to 290 °C · bp 430 °C
CAS No. 72-48-0 · EC no. 200-782-5
UN no. 3077 · ADR 9 III · WGK 2
Danger H317-H318-H410

Alizarin (C.I. 58000)
p.a.

Indicator pH 5,5-6,8 and 10,1-12,1

Dissolve 0.5 g in 100 ml ethanol (96 %)

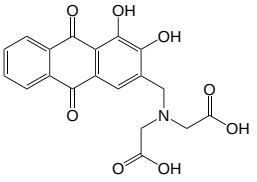
Type analysis
Appearance ..... orange powder
Loss on drying (105 °C) ..... ≤1,5 %
Sulphated ash ..... ≤1 %
pH transition range ..... 5,5 (yellow)-6,8 (violet)
Transition range ..... 10,1 (violet)-12,1 (purple)

Art. No.	Pack Qty.	Pack.	€
4476.2	25 g	glass	30,00
4476.1	50 g	glass	45,70
4476.3	100 g	glass	62,25

Alizarin carmine

▸ Alizarin red S (C.I. 58005) see page 718

Alizarin complexone dihydrate



Alizarin-3-methyliminodiacetic acid · Alizarin fluorine blue

$C_{19}H_{15}NO_8$ · 2 H_2O · mp 190 °C
CAS No. 3952-78-1
WGK 1

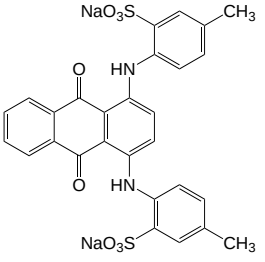
Alizarin complexone dihydrate
≥97 %, p.a.

Detection reagent for fluoride

Type analysis
Appearance ..... yellow to brown powder
Appearance of solution (1 % in 1 M NaOH) .. blue to purple
Assay (dry substance) ..... ≥97 %
Water (KF) ..... ≤9,5 %
Sulphated ash ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
7634.1	1 g	glass	42,90
7634.2	5 g	glass	139,25
7634.3	10 g	glass	263,40

Alizarine cyanine green



Acid green 25

$C_{28}H_{20}N_2Na_2O_8S_2$ · mp >440 °C
CAS No. 4403-90-1 · EC no. 224-546-6
WGK 2

Alizarine cyanine green (C. I. 61570)
pure

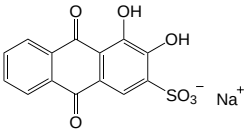
water-soluble anthraquinone dye, for dyeing textile fibres

Type analysis
Appearance ..... dark green powder
Maximum absorption ..... 608-642 nm
Melting point ..... 235-238 °C

Art. No.	Pack Qty.	Pack.	€
1LA8.1	5 g	glass	23,15
1LA8.2	25 g	glass	57,55
1LA8.3	100 g	glass	114,50

Alizarin-3-methyliminodiacetic acid
▸ Alizarin complexone dihydrate see page 717

Alizarin red S (C.I. 58005)



Alizarin carmine · Alizarin sulphonic acid sodium salt

$C_{14}H_7NaO_7S$
CAS No. 130-22-3 · EC no. 204-981-8
WGK 1

Alizarin red S (C.I. 58005)
pure

Indicator pH 4.3-6.3 and pH 9.4-12.0

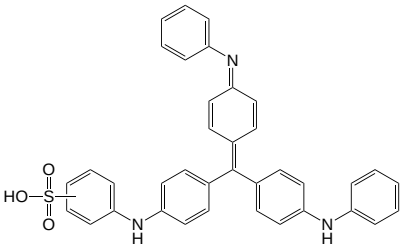
Dissolve 0.1-1 g in 100 ml ethanol (96 %)

Type analysis
Absorption max. (in H_2O) ..... 550-560 nm
Loss on drying (110 °C) ..... ≤10,0 %
pH-transition range ... 4,3 (yellow)-6,3 (red violet)
Transition range . 9,4 (brown orange)-12,0 (violet)
Suitability as indicator ..... complies

Art. No.	Pack Qty.	Pack.	€
0348.1	10 g	glass	25,30
0348.2	25 g	glass	38,60
0348.3	100 g	glass	123,10

Alizarin sulphonic acid sodium salt
▸ Alizarin red S (C.I. 58005) see page 718

Alkali blue 6B (C.I. 42765)



Alkali blue

$C_{37}H_{29}N_3O_3S$ · mp >300 °C
CAS No. 1324-76-1 · EC no. 215-385-2
WGK 1

Alkali blue 6B (C.I. 42765)
p.a.

Indicator pH 9.4-14.0

Dissolve 0.1 g in 100 ml water

Type analysis
Appearance ..... Brownish black powder
Appearance of solution (0,1 % in H_2O) . Dark blue solution
Loss on drying (1 h, 110 °C) ..... ≤6 %
Transition range ..... 9,4 (blue)-14,0 (red)

Art. No.	Pack Qty.	Pack.	€
5155.1	10 g	glass	26,80
5155.2	25 g	glass	51,50
5155.3	100 g	glass	149,45

Alkali metatungstate solution
▸ Alkali polytungstate solution see page 718

Alkaline phosphatase

AP · Phosphatase, alkaline · ALP

D 1,1 g/cm³
CAS No. 9001-78-9 · EC no. 232-631-4
WGK 1

Alkaline phosphatase
≥2 000 Glycin U/mg protein (approx. 6000 DEA U/mg protein)

From bovine intestinal mucosa. Solution in 50 % glycerol, 5 mM Tris/HCl, 5 mM $MgCl_2$ and 0.1 mM $ZnCl_2$, pH approx. 7.0.

Packaging: 10 KU

Storage temperature: +4 °C

Type analysis
Activity ..... ≥2000 Glycin U/mg Protein
Protein concentration ..... 10-20 mg/ml

Art. No.	Pack Qty.	Pack.	€
6024.1	1 unit(s)	plastic	697,70

Alkali polytungstate solution

Hexaalkali polytungstate solution · Alkali metatungstate solution

D 2,95 g/cm³
WGK 2

Danger H318-H412

Alkali polytungstate solution
3,00 g/cm³, low viscosity

Heavy liquid for separation of minerals. Low viscosity.

Type analysis
Viscosity (25 °C, density 3,00 g/cm³) 14-20 mPas
Density (20 °C) ..... 2,95-3,05 g/cm³
Tubidity (density 3,00 g/ml) ..... ≤10 NTU
pH value 1,5-3,0

Art. No.	Pack Qty.	Pack.	€
1KYT.1	100 ml	plastic	233,85
1KYT.2	500 ml	plastic	1.091,15

Alkalis

Art. No.	Description	Page
HN66	Ammonia solution , ROTIPURAN®Ultra, 20 %	730
HN56	Ammonia solution, ROTIPURAN®Supra, 20 %	731
P093	Ammonia solution, 30–33 %, extra pure	731
A990	Ammonia solution , 30–33 %, for DNA synthesis	731
CP17	Ammonia solution, ROTIPURAN®, 30 %, p.a., ACS	731
6774	Ammonia solution, ROTIPURAN®, ≥25 %, p.a.	731
5460	Ammonia solution, ≥25 %, extra pure	732
6753	Ammonia solution, 20 %, pure	732
4346	Ammonia solution, 15 %, extra pure	732
6756	Ammonia solution, 10 %, pure	732
P009	Barium hydroxide octahydrate, ≥98 %, p.a., ACS, ISO	765
HN75	Barium hydroxide octahydrate, ≥98 %, extra pure	765
CN87	Calcium hydroxide, ≥96 %, p.a.	808
3529	Calcium hydroxide, ≥96 %, powdered	808
9864	Copper(II) hydroxide, ≥97,5 %, extra pure	849
6705	Lithium hydroxide, ≥99 %, anhydrous	1047
3997	Lithium hydroxide monohydrate, ≥56,5 % LiOH	1047
A122	Piperidine, PEPTIPURE®, ≥99,5 %, for peptide synthesis	1159
0976	Piperidine, ≥99 %, for synthesis	1159
5658	Potassium hydroxide, ROTI®METIC, 99,98 % (3N8)	1175
6751	Potassium hydroxide, ≥85 %, p.a., in pellets	1175
7986	Potassium hydroxide, ≥85 %, in sheds	1175
7949	Potassium hydroxide solution, 50 %, extra pure	1175
0995	Potassium hydroxide solution, 45 %, extra pure	1175
4330	Potassium hydroxide solution, 20 %, pure	1175
6771	Sodium hydroxide, ≥98 %, p.a., ISO, in pellets	1286
1CCX	Sodium hydroxide, ≥97 %, p.a., ACS	1286
9356	Sodium hydroxide, ≥99 %, beads	1287
8655	Sodium hydroxide solution, 50 %, extra pure	1287
0993	Sodium hydroxide solution, 45 %, extra pure	1287
4347	Sodium hydroxide solution, 40 %, extra pure	1287
T196	Sodium hydroxide solution, ROTIPURAN®, ≥32 %, p.a.	1287
T197	Sodium hydroxide solution, ≥32 %, extra pure	1287
4351	Sodium hydroxide solution, 25 %, extra pure	1287
4357	Sodium hydroxide solution, 20 %, extra pure	1287
4358	Sodium hydroxide solution, 10 %, extra pure	1288
4359	Sodium hydroxide solution, 5 %, extra pure	1288
2864	Sodium hydroxide solution, 0,5 %, extra pure	1288

Alkalis in Pharmacopoeia Quality

Art. No.	Description	Page
3254	Aluminium hydroxide, ≥76,5 %, Ph. Eur., USP	722
2610	Ammonia solution, 25 %, Ph. Eur.	731
KK03	Calcium hydroxide, ≥95 %, Ph. Eur., USP, BP	808
9453	Magnesium hydroxide, ≥95 %, Ph. Eur.	1058
P747	Potassium hydroxide, ≥85 %, Ph. Eur., in pellets	1175
P031	Sodium hydroxide, ≥98 %, Ph. Eur., USP, BP, in pellets	1286

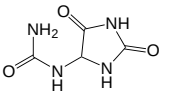
Alkaloids

Art. No.	Description	Page
7975	7-*O*-Acetylintermedine, ROTICHROM®, HPLC	702
7980	7-*O*-Acetylintermedine *N*-oxide, ROTICHROM®, HPLC	702
6192	Ajmalicine, ROTICHROM® CHR, ≥98 %	712
3192	Berberine chloride hydrate, ≥97 %, for biochemistry	772
8900	Boldine, ROTICHROM®, ~CHR_{TLC}	783
4255	Brucine *N*-oxide, ROTICHROM®, CHR_{TLC}	792
N815	Caffeine, ≥98,5 %, anhydrous, for biochemistry	804
7212	DL-Carnitinchloride, ≥98 %, for biochemistry	818
4192	(–)-α-Chaconine, ROTICHROM®, HPLC	827
6235	Chelidonine, ROTICHROM®, TLC	828
3406	Choline hydroxide, 48–50 % in water	835
8872	Cinchonidine, ≥99 %	839
8875	Cinchonine, ≥99 %	839
8884	Colchicine, ≥94 %, for biochemistry	844
5615	Cytisine, ROTICHROM®, TLC	861
7992	Echimidine, ROTICHROM®, HPLC	904
8011	Echimidine *N*-oxide, ROTICHROM®, HPLC	904
1657	(*Z*)-Erucifoline, ROTICHROM®, HPLC	914
1664	(*Z*)-Erucifoline *N*-oxide, ROTICHROM®, HPLC	914
1676	Europine hydrochloride, ROTICHROM®, HPLC	928
1687	Europine-*N*-oxide, ROTICHROM®, HPLC	928
6571	Gelsemine hydrochloride, ~90 %	954
9968	Harmine, ROTICHROM®, ~CHR_{TLC}	974
1929	Heliotrine, ROTICHROM®, HPLC	976
1944	Heliotrine *N*-oxide, ROTICHROM®, HPLC	976
4268	Hydrocotarnine hydrobromide, ROTICHROM®, ~CHR_{TLC}	994
8914	L-Hyoscyamine, ROTICHROM® CHR, ≥98 %, for biochemistry	1002
6416	Hypoxanthine, ≥98 %, for biochemistry	1004
1960	Indicine hydrochloride, ROTICHROM®, HPLC	1006
1961	Indicine *N*-oxide, ROTICHROM®, HPLC	1006
1962	Intermedine, ROTICHROM®, HPLC	1011
8018	Intermedine *N*-oxide, ROTICHROM®, HPLC	1011
1963	Jacobine, ROTICHROM®, HPLC	1025
1970	Jacobine *N*-oxide, ROTICHROM®, HPLC	1025
2090	Lasiocarpine, ROTICHROM®, HPLC	1035
2202	Lasiocarpine *N*-oxide, ROTICHROM®, HPLC	1035
8997	Lobeline sulphate, ROTICHROM®, CHR_{TLC}	1049
2208	Lycopsamine, ROTICHROM®, HPLC	1052
8022	Lycopsamine *N*-oxide, ROTICHROM®, HPLC	1052
2249	Monocrotaline *N*-oxide, ROTICHROM®, HPLC	1093
8746	(–)-Nicotine, ≥99 %, for biochemistry	1105
9113	1,10-Phenanthroline monohydrate, ≥99 %, p.a., ACS	1149
7523	Pilocarpin nitrate, ≥98,5 %, extra pure	1158
7099	Piperine, ROTICHROM®, ~CHR_{TLC}	1159
6690	Protopine, ROTICHROM®, HPLC	1189
3348	Quinidine sulphate dihydrate, ≥99 %	1197
6225	Quinine hydrochloride dihydrate, ROTICHROM®, CHR_{TLC}	1198
7144	Rauwolscine hydrochloride, ROTICHROM®, ~CHR_{TLC}	1199
4295	Reserpic acid hydrochloride hemihydrate, ROTICHROM®, ~CHR_{TLC}	1202
1213	Retrorsine, ROTICHROM®, HPLC	1203
6733	Retrorsine-*N*-oxide, ROTICHROM®, HPLC	1203
7153	Scopolamine hydrobromide trihydrate, ≥98 %	1253
2261	Senecionine, ROTICHROM®, GC	1255
6734	Senecionine *N*-oxide, ROTICHROM®, HPLC	1256
1214	Seneciphylline, ROTICHROM®, with analytical records	1256
6735	Seneciphylline *N*-oxide, ROTICHROM®, HPLC	1256
2209	Senecivernine, ROTICHROM®, HPLC	1256
2215	Senecivernine *N*-oxide, ROTICHROM®, HPLC	1256
4934	Senkirkine, ROTICHROM®, HPLC	1256
4696	Skatole, >99 %	1275
2826	α-Solanine, ROTICHROM®, HPLC	1299
4180	α-Solanine, ROTICHROM®, TLC	1299
9457	Stachydrine hydrochloride, ROTICHROM®, ~CHR_{TLC}	1305
4843	Strychnine, ROTICHROM® CHR, ≥95 %, for biochemistry	1342
4845	Strychnine hydrochloride, for biochemistry	1342
4277	Strychnine *N*-oxide, ROTICHROM®, ~CHR_{TLC}	1342
8963	Theobromine, ROTICHROM® CHR, ≥99 %, Ph. Eur., for biochemistry	1364
5676	Tomatin, ROTICHROM®, HPLC	1375
5413	Trigonelline hydrochloride, ≥97,5 %, for biochemistry	1380
4049	Tropine, ≥99 %, pure	1384

Alkane C30

▸ Squalane see page 1305

Allantoin



5-Ureidohydantoin · Glyoxyldiureide

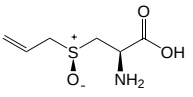
$C_4H_6N_4O_3$ · D 1,71 g/cm³ · mp 229 °C
CAS No. 97-59-6 · EC no. 202-592-8
WGK 1

Allantoin
≥99 %

Type analysis
Appearance white to off-white crystalline powder
Assay ..... ≥99,0 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6327.2	100 g	plastic	38,20
6327.1	250 g	plastic	79,45

Alliin



(*S*)-3-(Allylsulphinyl)-L-alanine

$C_6H_{11}NO_3S$ · mp 164 to 166 °C
CAS No. 556-27-4 · EC no. 209-118-9
WGK 1

Warning H315-H319-H335

Alliin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

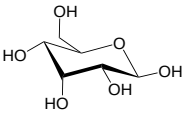
Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
K031.1	10 mg	plastic	332,20

β-D-Allopyranose

▸ D-Allose see page 719

D-Allose



β-D-Allopyranose

$C_6H_{12}O_6$ · mp 143 to 146 °C
CAS No. 2595-97-3 · EC no. 219-994-4
WGK 1

D-Allose
≥99 %

Type analysis
Appearance ..... white powder
Assay ..... ≥99 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in H_2O) .. 13,5° to 16,5°
Sulphated ash ..... ≤0,05 %
Heavy metals ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
6010.2	50 mg	glass	38,60
6010.1	100 mg	glass	55,80

Alloy acc. to Devarda

mp 550 °C
CAS No. 8049-11-4
UN no. 3089 · ADR 4.1 II · WGK 1

Danger H228

Alloy acc. to Devarda
p.a.

Reducing agent

Type analysis
Appearance ..... grey powder
Total nitrogen (N) ..... ≤0,001 %
Al (Aluminium) ..... 40-50 %
Cu (Copper) ..... 45-55 %
Zn (Zinc) ..... 3-7 %

Art. No.	Pack Qty.	Pack.	€
1H45.1	100 g	glass	45,70
1H45.2	250 g	glass	76,25
1H45.3	500 g	glass	137,10
Original pack 6 x 500 g			130,25/500 g
1H45.4	1 kg	glass	241,90
Original pack 6 x 1 kg			229,81/1 kg

Alloy acc. to Wood

Woods metal

D ~9,6 g/cm³ · mp ~70 °C
UN no. 2570 · ADR 6.1 II · WGK 3

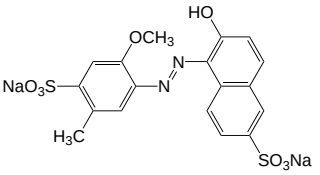
Danger H330-H341-H350-H360Df-H362-H372-H410

Alloy acc. to Wood
Use as metal bath

Low melting point, Bi 50 %/ Cd 12,5 %/ Pb 25 %/ Sn 12,5 %. Can be used for manufacturing metal heating baths, for sealing and as a lead fuse.

Art. No.	Pack Qty.	Pack.	€
1980.1	250 g	plastic	56,45
1980.2	1 kg	plastic	174,70
Original pack 6 x 1 kg			165,97/1 kg

Allura red



Allura red AC

$C_{18}H_{14}N_2Na_2O_8S_2$ · D 0,448 g/cm³ ·
mp 245,3 °C · bp 310 °C
CAS No. 25956-17-6 · EC no. 247-368-0
WGK 1

Allura red (C. I. 16035)
extra pure

red, water soluble azo dye

Dissolve 0.1 g in 100 ml water

Type analysis
Appearance ..... red to maroon powder
Dye content ..... ≥80 %
Absorption max. (in H_2O) ..... 501-507 nm

Art. No.	Pack Qty.	Pack.	€
1H3X.1	10 g	glass	19,25
1H3X.2	25 g	glass	34,30
1H3X.3	100 g	glass	69,35

Allura red AC
▸ Allura red see page 720

4-Allyl anisole
▸ Methylchavicol see page 1083

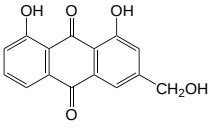
4-Allyl-1,2-dimethoxybenzene
▸ Eugenol methyl ether see page 927

4-Allyl-2-methoxyphenol
▸ Eugenol see page 927

(*S*)-3-(Allylsulphinyl)-L-alanine
▸ Alliin see page 719

ALOA
▸ Listeria chromogenic Agar (Base) see page 1044

Aloe-emodin



$C_{15}H_{10}O_5$ · mp 222 to 229 °C
CAS No. 481-72-1 · EC no. 207-571-7
WGK 1

Aloe-emodin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98,5 %

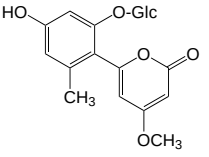
Art. No.	Pack Qty.	Pack.	€
6004.2	20 mg	glass	299,95

Aloe-emodin
ROTICHROM® TLC

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
3524.1	100 mg	plastic	482,70

Aloenin A



$C_{19}H_{22}O_{10}$ · mp 135 °C
CAS No. 38412-46-3
WGK 1

Aloenin A
ROTICHROM® HPLC

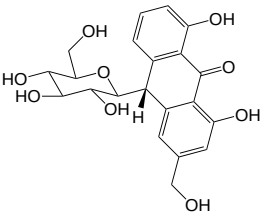
Reference substance for HPLC.
From *Aloe arborescens.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1082.1	20 mg	glass	564,40

Aloin



$C_{21}H_{22}O_9$ · mp 148 to 150 °C
CAS No. 5133-19-7
WGK 1

Warning H302

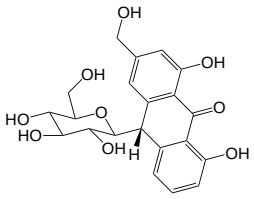
Aloin
ROTICHROM® TLC

Reference substance for thin layer chromatography

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
5555.1	50 mg	glass	71,95

Aloin A



$C_{21}H_{22}O_9$ · D 1,65 g/cm³ · mp 302 °C · bp 753 °C
CAS No. 1415-73-2
WGK 1

Warning H302

Aloin A
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
4744.1	25 mg	glass	126,35

Alum
▸ Potassium aluminium sulphate dodecahydrate see page 1167

Alum chrome
▸ Chromium(III) potassium sulphate dodecahydrate see page 837

Alumina
▸ Aluminium oxide, nano see page 723
▸ Aluminium oxide see page 722
▸ Aluminium oxide see page 722

Aluminium

Al · D 2,7 g/cm³ · mp 660 °C · bp 2500 °C
CAS No. 7429-90-5 · EC no. 231-072-3

Aluminium granulate
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5577.1	25 g	plastic	60,75
5577.2	100 g	plastic	163,95

Aluminium granulate
≥99 %, ~1–5 mm

Type analysis
Assay (Al) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
5280.1	250 g	plastic	23,15
5280.2	1 kg	plastic	46,15
Original pack 6 x 1 kg			43,84/1 kg

Aluminium powder
≥99 %, <160 µm

Type analysis
Assay (Al) ..... ≥99,0 %

Filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
5285.1	250 g	glass	37,10
5285.2	1 kg	glass	99,45
Original pack 6 x 1 kg			94,48/1 kg

Aluminium wool
~99 %, fine

Fiber strength approx. 0,08 x 0,15 mm²

Type analysis
Assay (Al) ..... ≥99,0 %
Cu (Copper) ..... ≤0,05 %
Fe (Iron) ..... ≤0,5 %
Silicon (Si) ..... ≤0,25 %
Ti (Titanium) ..... ≤0,05 %
Zn (Zinc) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
2272.1	100 g	plastic	31,20
2272.2	500 g	plastic	85,90
Original pack 6 x 500 g			81,61/500 g
2272.3	1 kg	plastic	155,90
Original pack 6 x 1 kg			148,11/1 kg

Aluminium wool
~99 %, coarse

Fiber strength approx. 0,10 x 1,00 mm²

Type analysis
Assay (Al) ..... ≥99,0 %
Cu (Copper) ..... ≤0,05 %
Fe (Iron) ..... ≤0,5 %
Silicon (Si) ..... ≤0,25 %
Ti (Titanium) ..... ≤0,05 %
Zn (Zinc) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
2630.1	100 g	plastic	26,80
2630.2	500 g	plastic	78,40
Original pack 6 x 500 g			74,48/500 g
2630.3	1 kg	plastic	134,40
Original pack 6 x 1 kg			127,68/1 kg

Aluminium Standards
▸ Aluminium ICP Standard Solution see page 1312
▸ Aluminium AAS Standard Solution see page 1312
▸ Aluminium ICP Standard Solution see page 1312

Aluminium acetate, basic hydrate

Aluminium diacetate · Aluminium subacetate

$AlC_4H_7O_5$ · x H_2O · D 1,43 g/cm³
CAS No. 142-03-0 · EC no. 205-518-2
UN no. 3077 · ADR 9 III · WGK 1

Danger H318-H400

Aluminium acetate, basic hydrate
≥98 %, pure

Type analysis
Assay (dry substance) ..... ≥98,0 %
Assay (Al) ..... 15-17 %
Sulphate (SO_4) ..... ≤0,05 %
Fe (Iron) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
1HE9.1	100 g	plastic	23,55
1HE9.2	500 g	plastic	70,45
Original pack 6 x 500 g			66,93/500 g
1HE9.3	1 kg	plastic	117,20
Original pack 6 x 1 kg			111,34/1 kg
1HE9.4	2.5 kg	plastic	235,45

Aluminium ammonium sulphate dodecahydrate

Ammonium alum · Ammonium aluminium sulphate

$NH_4Al(SO_4)$ · 12 H_2O · D 1,65 g/cm³ ·
mp 94,5 °C · bp 280 °C
CAS No. 7784-26-1 · EC no. 232-055-3
WGK 1

Aluminium ammonium sulphate dodecahydrate
≥98 %, p.a., ACS

Guarantee analysis
Assay (compl.) ..... ≥98,0 %
pH value (5 % solution) ..... ≥3,0
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,001 %
Nitrate (NO_3) ..... ≤0,001 %
Silicate (SiO_3) ..... ≤0,002 %
Phosphate (PO_4) ..... ≤0,0025 %
Arsenic (As) ..... ≤0,00005 %
Calcium (Ca) ..... ≤0,05 %
Iron (Fe) ..... ≤0,001 %
Copper (Cu) ..... ≤0,0005 %
Potassium (K) ..... ≤0,05 %
Sodium (Na) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
X862.1	500 g	plastic	41,40
Original pack 6 x 500 g			39,33/500 g
X862.2	1 kg	plastic	65,50
Original pack 6 x 1 kg			62,23/1 kg
X862.3	2.5 kg	plastic	130,00

Aluminium carbide

Carbide

Al_4C_3 · D 2,36 g/cm³ · bp 2100 °C
CAS No. 1299-86-1 · EC no. 215-076-2
UN no. 1394 · ADR 4.3 II · WGK 1

Danger H261-H315-H319-H335

Aluminium carbide
pure, powdered

Type analysis
Aluminium (Al) ..... ≥72 %
Carbon (C) ..... ≥24 %
Nitrogen (N) ..... ≤0,9 %
Iron (Fe) ..... ≤0,2 %
Oxygen (O_2) ..... ≤1,7 %

Art. No.	Pack Qty.	Pack.	€
3094.2	25 g	glass	112,35
3094.1	100 g	glass	381,65

Aluminium chloride

Hydrochloric acid aluminium salt

$AlCl_3$ · D 2,44 g/cm³ · mp 190 °C
CAS No. 7446-70-0 · EC no. 231-208-1
UN no. 1726 · ADR 8 II · WGK 1

Danger H314-EUH014 EUH071

Aluminium chloride
≥99 %, anhydrous, sublimated

Type analysis

Assay	≥99 %
In H_2O insoluble matter	≤0,1 %
Lead (Pb)	≤0,005 %
Iron (Fe)	≤0,01 %
Copper (Cu)	≤0,001 %
Nickel (Ni)	≤0,005 %
Zinc (Zn)	≤0,005 %

Art. No.	Pack Qty.	Pack.	€
CN86.1	100 g	glass	17,10
CN86.2	500 g	glass	37,55
Original pack 6 x 500 g			35,67/500 g
CN86.3	1 kg	glass	63,45
Original pack 6 x 1 kg			60,28/1 kg

Aluminium chloride hexahydrate

$AlCl_3 \cdot 6\ H_2O$ · D ~2,4 g/cm³ · mp 100 °C
CAS No. 7784-13-6 · EC no. 231-208-1
UN no. 3260 · ADR 8 II · WGK 1

Danger H314-EUH071

Aluminium chloride hexahydrate
ROTI®METIC 99,9999 % (6N)

Type analysis

Assay (metals basis)	99,9999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5368.1	25 g	plastic	127,95
5368.2	100 g	plastic	471,95

Aluminium chloride hexahydrate
≥95 %, Ph. Eur., USP

Guarantee analysis

Assay (compl.)	95,0-101,0 %
Identity	complies
Appearance of solution	complies
Alkali and alkaline earth metals	≤0,5 %
SO_4 content	≤0,01 %
Sulphate (SO_4)	complies
Water (KF)	42-48 %
Heavy metals (as Pb)	≤0,002 %
Iron (Fe)	≤0,001 %

Art. No.	Pack Qty.	Pack.	€
CP88.1	500 g	plastic	40,75
Original pack 6 x 500 g			38,71/500 g
CP88.2	1 kg	plastic	68,30
Original pack 6 x 1 kg			64,89/1 kg
CP88.3	2.5 kg	plastic	138,70

Aluminium diacetate

▸ Aluminium acetate, basic hydrate see page 721

Aluminium dihydrogen phosphate solution 50 %

prim.-Aluminium phosphate · Aluminum phosphate monobasic

$Al(H_2PO_4)_3$ · D 1,4 g/cm³
CAS No. 13530-50-2 · EC no. 236-875-2
WGK 1

Danger H318

Aluminium dihydrogen phosphate solution 50 %
~50 %, pure

Type analysis

Assay	48,0-52,0 %
Chloride (Cl)	≤0,005 %
Sulphate (SO_4)	≤0,005 %
Ca (Calcium)	≤0,01 %
Fe (Iron)	≤0,005 %
pH (5 % H2O, 25 °C)	1,0-2,0

Art. No.	Pack Qty.	Pack.	€
1HKX.1	500 ml	plastic	34,95
1HKX.2	1 l	plastic	52,70
Original pack 6 x 1 l			50,07/1 l
1HKX.3	2.5 l	plastic	107,00
Original pack 4 x 2.5 l			101,65/2.5 l
1HKX.4	5 l	plastic	188,15
Original pack 2 x 5 l			178,74/5 l

Aluminium fluoride

Aluminium trifluoride

AlF_3 · D 3,1 g/cm³
CAS No. 7784-18-1 · EC no. 232-051-1
WGK 1

Aluminium fluoride
ROTI®METIC 99,99 % (4N), anhydrous

Type analysis

Assay (metals basis)	99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5395.1	10 g	plastic	113,45
5395.2	50 g	plastic	396,70

Aluminium fluoride trihydrate
≥97 %, pure

Type analysis

Assay	≥97,0 %
Sulphate (SO_4)	≤0,05 %
Iron (Fe)	≤0,01 %

Art. No.	Pack Qty.	Pack.	€
2294.1	100 g	plastic	25,30
2294.2	500 g	plastic	50,45
Original pack 6 x 500 g			47,93/500 g
2294.3	1 kg	plastic	77,95
Original pack 6 x 1 kg			74,05/1 kg
2294.4	2.5 kg	plastic	160,20

Aluminium hydroxide

Aluminic acid · Aluminic hydroxide · Hydrated alumina

$Al(OH)_3$ · D 2,42 g/cm³ · mp 300 °C
CAS No. 21645-51-2 · EC no. 244-492-7

Aluminium hydroxide
≥76,5 %, Ph. Eur., USP

Guarantee analysis

Appearance	white, amorphous powder
Assay	≥76,5 %
Assay (as Al_2O_3)	47,0-60,0 %
Identity	complies
Appearance of solution	complies
Alkaline impurities	complies
Neutralising capacity	complies
Chloride (Cl)	≤0,85 %
Sulphate (SO_4)	≤0,6 %
As (Arsenic)	≤0,0004 %
Fe (Iron)	≤0,02 %
pH value (4 % in H_2O)	≤10,0

Art. No.	Pack Qty.	Pack.	€
3254.1	100 g	plastic	27,85
3254.2	500 g	plastic	60,10
Original pack 6 x 500 g			57,10/500 g
3254.3	1 kg	plastic	106,45
Original pack 6 x 1 kg			101,13/1 kg
3254.4	2.5 kg	plastic	213,95

Aluminium-nickel alloy

▸ Nickel-aluminium alloy see page 1103

Aluminium nitrate nonahydrate

$Al(NO_3)_3 \cdot 9\ H_2O$ · D 1,72 g/cm³ · mp 73 °C · bp 135 °C
CAS No. 7784-27-2 · EC no. 236-751-8
UN no. 1438 · ADR 5.1 III · WGK 1

Danger H272-H315-H319

Aluminium nitrate nonahydrate
ROTI®METIC 99,999 % (5N)

Type analysis

Assay (metals basis)	99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5567.1	10 g	plastic	54,75
5567.2	50 g	plastic	157,50

Aluminium nitrate nonahydrate
≥98 %, p.a.

Guarantee analysis

Assay	≥98 %
pH-value (5 %, 20 °C)	2,5-3,5
Chloride (Cl)	≤0,005 %
Sulphate (SO_4)	≤0,005 %
Heavy metals (as Pb)	≤0,001 %
Calcium (Ca)	≤0,02 %
Iron (Fe)	≤0,005 %
Potassium (K)	≤0,05 %
Magnesium (Mg)	≤0,005 %
Sodium (Na)	≤0,02 %

Art. No.	Pack Qty.	Pack.	€
CN85.1	500 g	plastic	30,00
Original pack 6 x 500 g			28,50/500 g
CN85.2	1 kg	plastic	47,20
Original pack 6 x 1 kg			44,84/1 kg
CN85.3	2.5 kg	plastic	95,15

Aluminium oxide

Al_2O_3 · D 3,97 g/cm³ · mp 2050 °C · bp 2980 °C
CAS No. 1344-28-1 · EC no. 215-691-6

Aluminium oxide
ROTI®METIC 99,995 % (4N5)

Alumina

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5575.1	5 g	plastic	54,75
5575.2	25 g	plastic	149,45

Aluminium oxide
≥99 %, pure, calcinated

Alumina

Type analysis
Assay ..... ≥99,0 %
Loss on ignition ..... ≤1,5 %
Particle size ..... 0,044-0,149 mm

Art. No.	Pack Qty.	Pack.	€
9420.1	100 g	plastic	24,65
9420.2	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
9420.3	1 kg	plastic	75,15
Original pack 6 x 1 kg			71,39/1 kg
9420.4	5 kg	plastic	310,70

Aluminium oxide, nano
ROTI®nanoMETIC ≥99,9 %, 40 nm

Alumina

Type analysis
Assay (metals basis) ..... ≥99,9 %
Particle size ..... ~40 nm
Specific surface (BET) ..... complies
Loss on drying (2 h, 105 °C) ..... ≤3 %
Phase ..... gamma

stabilised with HNO_3.

Art. No.	Pack Qty.	Pack.	€
8250.1	10 g	glass	31,75
8250.2	50 g	glass	124,20
8250.3	100 g	glass	209,65

Aluminium oxide, neutral, basic, acidic

Aluminium oxide 90 neutral
for column chromatography

Filter aids

Guarantee analysis
Particle size ..... 0,063-0,2 mm (70 %)
pH value (10 %) 6,8-7,8
Chloride (Cl) ..... ≤0,1 %
Calcium (Ca) ..... ≤0,15 %
Material washed out by H_2O ..... ≤0,2 %
Filtration rate ..... ≥0,3 ml/min

Activity stage I.

Art. No.	Pack Qty.	Pack.	€
P092.1	500 g	plastic	85,90
Original pack 6 x 500 g			81,61/500 g
P092.2	1 kg	plastic	149,45
Original pack 6 x 1 kg			141,98/1 kg
P092.3	2.5 kg	plastic	317,15

Aluminium oxide 90 basic
for column chromatography

Filter aids

Guarantee analysis
Particle size ..... 0,063-0,2 mm (70 %)
pH value (10 %) 8,5-10,5
Chloride (Cl) ..... ≤0,004 %
Sulphate (SO_4) ..... ≤0,1 %
Filtration rate ..... ≥0,3 ml/min

Activity stage I.

Art. No.	Pack Qty.	Pack.	€
X908.1	500 g	plastic	85,90
Original pack 6 x 500 g			81,61/500 g
X908.2	1 kg	plastic	149,45
Original pack 6 x 1 kg			141,98/1 kg
X908.3	2.5 kg	plastic	317,15

Aluminium oxide 90 acidic
for column chromatography

Filter aids

Guarantee analysis
Particle size ..... 0,063-0,2 mm (70 %)
pH value (10 %) 3,5-4,5
Chloride (Cl) ..... ≤0,2 %
Sulphate (SO_4) ..... ≤0,1 %
Filtration rate ..... ≥0,3 ml/min

Activity stage I.

Art. No.	Pack Qty.	Pack.	€
X909.1	500 g	plastic	85,90
Original pack 6 x 500 g			81,61/500 g
X909.2	1 kg	plastic	149,45
Original pack 6 x 1 kg			141,98/1 kg
X909.3	2.5 kg	plastic	317,15

Aluminium potassium sulphate
▸ Potassium aluminium sulphate dodecahydrate see page 1167

Aluminium subacetate
▸ Aluminium acetate, basic hydrate see page 721

Aluminium sulphate

Cake alum

$Al_2(SO_4)_3$ · D 2,71 g/cm³ · mp 770 °C
CAS No. 10043-01-3 · EC no. 233-135-0
UN no. 3260 · ADR 8 III · WGK 1

Danger H290-H318

Aluminium sulphate
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L4Y.1	5 g	HDPE	73,00
1L4Y.2	25 g	HDPE	209,65

Aluminium sulphate hydrate

Cake alum

$Al_2O_{12}S_3$ · 13,5-15,0 H_2O · D 2,71 g/cm³ · mp 770 °C
CAS No. 17927-65-0 · EC no. 233-135-0
WGK 1

Danger H318

Aluminium sulphate hydrate
cryst.

Type analysis
Assay (as Al_2O_3) ..... 16,5-17,5 %
Alkalinity ..... ≤0,5 % OH
Iron (Fe) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
3731.1	1 kg	plastic	21,40
Original pack 6 x 1 kg			20,33/1 kg
3731.2	5 kg	plastic	53,65
3731.3	50 kg	plastic	306,40

Aluminium sulphate hexadecahydrate

Cake alum

$Al_2O_{12}S_3$ · 16 H_2O · D 1,69 g/cm³
CAS No. 16828-11-8
WGK 1

Danger H318

Aluminium sulphate hexadecahydrate
≥98 %, p.a., ACS

Guarantee analysis
Appearance ..... white crystals
Assay (titr.) ..... 98,0-102,0 %
Insoluble matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,002 %
Potassium (K) ..... ≤0,005 %
Magnesium (Mg) ..... ≤0,002 %
Sodium (Na) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
5340.2	100 g	plastic	23,55
5340.1	500 g	plastic	59,05
Original pack 6 x 500 g			56,10/500 g
5340.3	1 kg	plastic	110,20
Original pack 6 x 1 kg			104,69/1 kg

Aluminium sulphate octadecahydrate

Cake alum

$Al_2(SO_4)_3$ · 18 H_2O · D 1,72 g/cm³ · mp 86 °C
CAS No. 7784-31-8 · EC no. 233-135-0
WGK 1

Danger H318

Aluminium sulphate octadeca-hydrate
extra pure

Type analysis
Assay $Al_2(SO_4)_3$ (compl.) ..... 51,0-59,0 %
pH value (2 % in H_2O) 2,5-4,0
Chloride (Cl) ..... ≤0,05 %
Ammonium (NH_4) ..... ≤0,05 %
Heavy metals (as Pb) ..... ≤0,005 %
Arsenic (As) ..... ≤0,001%
Calcium (Ca) ..... ≤0,05 %
Iron (Fe) ..... ≤0,01 %
Potassium (K) ..... ≤0,5 %

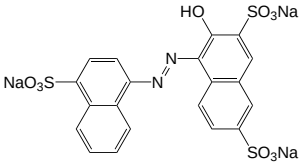
Art. No.	Pack Qty.	Pack.	€
9507.1	500 g	plastic	40,75
Original pack 6 x 500 g			38,71/500 g
9507.2	1 kg	plastic	64,40
Original pack 6 x 1 kg			61,18/1 kg
9507.3	2.5 kg	plastic	126,35

Aluminium trifluoride
▸ Aluminium fluoride see page 722

Aluminon
▸ Aurin tricarboxylic acid ammonium salt see page 758

Amantadine hydrochloride
▸ 1-Adamantanamine hydrochloride see page 707

Amaranth



Acid red 27 · Azorubin S

$C_{20}H_{11}N_2Na_3O_{10}S_3$ · mp >350 °C · flp 214 °C
CAS No. 915-67-3 · EC no. 213-022-2
WGK 1

Amaranth (C. I. 16185)
extra pure

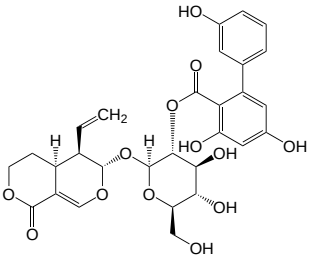
red, water soluble azo dye

Dissolve 0.1 g in 100 ml water

Type analysis
Appearance ..... dark red to brown powder
Absorption max. (in H_2O) ..... 520-522 nm
Loss on drying (110 °C) ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
1H3Y.1	10 g	glass	19,25
1H3Y.2	25 g	glass	34,30
1H3Y.3	100 g	glass	69,35

Amarogentin



$C_{29}H_{30}O_{13}$
CAS No. 21018-84-8
WGK 1

Amarogentin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Gentiana lutea*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
6488.1	10 mg	glass	375,20

Amberjet™

Mixed bed ion exchangers

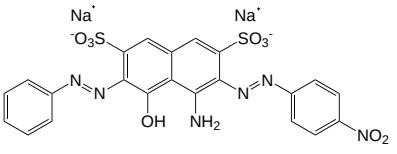
D 1,09 to 1,25 g/cm³
WGK 1

Amberjet™
highly pure, Mixed bed ion exchanger

Type analysis
Delivery form ..... H^+/OH^-
Blend ratio 0,90-1,10
Particle size ..... 0,3-1,2 mm

Art. No.	Pack Qty.	Pack.	€
K306.1	100 g	plastic	37,55
K306.2	500 g	plastic	78,40
Original pack 6 x 500 g			74,48/500 g

Amido Black 10 B (C.I. 20470)



Naphthol blue black

$C_{22}H_{14}N_6Na_2O_9S_2$
CAS No. 1064-48-8 · EC no. 213-903-1
WGK 1

Amido black 10 B (C.I. 20470)
p.a.

For irreversible staining of proteins on membranes and for quantification of proteins in detergent containing solutions.

Dissolve 0.2 g in 100 ml water

Type analysis
Appearance ..... dark-brown powder
Dye content ..... ≥75 %
Loss on drying ..... ≤10,0 %

Art. No.	Pack Qty.	Pack.	€
9590.1	25 g	glass	50,45

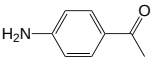
Amido sulphonic acid
▸ Sulphamic acid see page 1345

Amido sulphuric acid
▸ Sulphamic acid see page 1345

2-Aminoacetamide hydrochloride
▸ Glycinamide hydrochloride see page 967

α-Aminoacetic acid
▸ Glycine see page 967

4'-Aminoacetophenone



C_8H_9NO · D 0,77 g/cm³ · mp 103 to 106 °C · bp 293 °C
CAS No. 99-92-3 · EC no. 202-801-2
WGK 1

Warning H302-H315-H319-H335

4'-Aminoacetophenone
≥99 %

For determination of nicotinic acid and vitamin B

Type analysis
Assay (GC) ..... ≥99,0 %
Melting point ..... 103-107 °C

Art. No.	Pack Qty.	Pack.	€
3973.2	10 g	glass	17,10
3973.1	25 g	glass	29,60

Amino Acids and their Derivatives

Art. No.	Description	Page
4126	*N*-Acetyl-L-cysteine	702
5526	*N*-Acetylglycine	702
7866	D-Alanine	712
9798	DL-Alanine	712
3076	L-Alanine	712
3078	β-Alanine	712
5521	L-Alaninol	713
6831	L-Alanyl-L-glutamine, CELLPURE®	713
6830	L-Alanyl-L-glutamine	713
K031	Alliin, ROTICHROM®	719
5519	2-Amino-5-bromobenzoic acid	726
5518	DL-2-Aminobutyric acid	727
5516	2-Amino-4-chlorobenzoic acid	727
3113	6-Aminohexanoic acid	727
6187	4-Aminohippuric acid	728
5514	2-Aminoisobutyric acid	728
8451	5-Aminolevulinic acid hydrochloride	728
8592	DL-Arginine	750
1655	L-Arginine, CELLPURE®	750
3144	L-Arginine	751
7868	D-Arginine monohydrochloride	751
4925	DL-Arginine monohydrochloride	751

Amin

Art. No.	Description	Page
1689	L-Arginine monohydrochloride, CELLPURE®	751
3145	L-Arginine monohydrochloride	751
7872	D-Asparagine monohydrate	756
5495	DL-Asparagine monohydrate	756
KK37	L-Asparagine monohydrate, CELLPURE®	756
HN23	L-Asparagine monohydrate	756
7873	D-Aspartic acid	756
8593	DL-Aspartic acid	756
1690	L-Aspartic acid, CELLPURE®	757
T202	L-Aspartic acid	757
7856	D-β-Azidoalanine hydrochloride	759
7854	L-β-Azidoalanine hydrochloride	759
7858	D-γ-Azidohomoalanine hydrochloride	759
7857	L-γ-Azidohomoalanine hydrochloride	760
7862	D-Azidolysine hydrochloride	760
7861	L-Azidolysine hydrochloride	760
7860	D-Azidoornithine hydrochloride	760
7859	L-Azidoornithine hydrochloride	760
7853	D-4-Azidophenylalanine	761
7850	L-4-Azidophenylalanine	761
6907	Boc-L-Alanine, PEPTIPURE®	779
6914	Boc-L-Arginine hydrochloride monohydrate, PEPTIPURE®	780
6915	Boc-L-Asparagine, PEPTIPURE®	780
8846	Boc-L-Aspartic acid-(O-Benzyl), PEPTIPURE®	780
2042	Boc-L-Cysteine-(4-Mbzl), PEPTIPURE®	780
6917	Boc-L-Glutamic acid, PEPTIPURE®	780
6916	Boc-L-Glutamine, PEPTIPURE®	780
6918	Boc-Glycine, PEPTIPURE®	780
6920	Boc-L-Histidine, PEPTIPURE®	781
1994	Boc-L-Histidine-(Dnp), PEPTIPURE®	781
6921	Boc-L-Hydroxyproline, PEPTIPURE®	781
6923	Boc-L-Isoleucine hemihydrate, PEPTIPURE®	781
6924	Boc-L-Leucine monohydrate, PEPTIPURE®	781
6942	Boc-L-*tert*-Leucine, PEPTIPURE®	781
6926	Boc-L-Lysine, PEPTIPURE®	781
6928	Boc-L-Methionine, PEPTIPURE®	782
6931	Boc-L-Phenylalanine, PEPTIPURE®	782
6932	Boc-L-Proline, PEPTIPURE®	782
6933	Boc-L-Serine, PEPTIPURE®	782
6935	Boc-L-Threonine, PEPTIPURE®	782
6945	Boc-L-Tryptophan, PEPTIPURE®	782
6949	Boc-L-Tyrosine, PEPTIPURE®	782
6950	Boc-L-Valine, PEPTIPURE®	783
7212	DL-Carnitinchloride	818
4148	L-Carnosine	818
6636	Cbz-Cyclohexyl-L-glycine, PEPTIPURE®	822
7625	Cysteamine hydrochloride	859
8594	DL-Cysteine	860
1693	L-Cysteine, CELLPURE®	860
3467	L-Cysteine	860
3468	L-Cysteine hydrochloride	860
7874	D-Cysteine hydrochloride monohydrate	860
1694	L-Cysteine hydrochloride monohydrate, CELLPURE®	860
T203	L-Cysteine hydrochloride monohydrate	860
5565	DL-Cystine	860
1695	L-Cystine, CELLPURE®	861
3471	L-Cystine	861
5431	DL-2,3-Diaminopropionic acid hydrochloride	872
6646	Fmoc-L-Alanine monohydrate, PEPTIPURE®	939
7400	Fmoc-8-Amino-3,6-dioxa-octanoic acid, PEPTIPURE®	939
6896	Fmoc-L-Arginine, PEPTIPURE®	939
8833	Fmoc-L-Arginine-(Pbf), PEPTIPURE®	939
6897	Fmoc-L-Asparagine, PEPTIPURE®	939
9652	Fmoc-L-Asparagine-(Trityl), PEPTIPURE®	939
6641	Fmoc-L-Aspartic acid-(OAllyl), PEPTIPURE®	940
9654	Fmoc-L-Aspartic acid-(OtBu), PEPTIPURE®	940
7369	Fmoc-L-β-Azidoalanine, PEPTIPURE®	940
7363	Fmoc-L-γ-Azidohomoalanine, PEPTIPURE®	940
7357	Fmoc-L-Azidolysine, PEPTIPURE®	940
7362	Fmoc-L-Azidoornithine, PEPTIPURE®	940
7485	Fmoc-L-4-Azidophenylalanine, PEPTIPURE®	940
7367	Fmoc-L-4-Azidoproline (2S,4R), PEPTIPURE®	941
8842	Fmoc-L-Cysteine-(Acetamidomethyl), PEPTIPURE®	941
8841	Fmoc-L-Cysteine-(Trityl), PEPTIPURE®	941
9655	Fmoc-L-Glutamic acid-(OtBu) monohydrate, PEPTIPURE®	941
6898	Fmoc-L-Glutamine, PEPTIPURE®	941
9653	Fmoc-L-Glutamine-(Trityl), PEPTIPURE®	941
6899	Fmoc-Glycine, PEPTIPURE®	942
8843	Fmoc-L-Histidine-(Trityl), PEPTIPURE®	942
6647	Fmoc-L-Isoleucine, PEPTIPURE®	942
6654	Fmoc-L-Leucine, PEPTIPURE®	942
6900	Fmoc-L-Lysine, PEPTIPURE®	942
8840	Fmoc-L-Lysine-(Boc), PEPTIPURE®	942
6656	Fmoc-L-Methionine, PEPTIPURE®	943
1932	Fmoc-L-Ornithine-(Boc), PEPTIPURE®	943
6658	Fmoc-L-Phenylalanine, PEPTIPURE®	943
6659	Fmoc-L-Proline, PEPTIPURE®	943
7491	Fmoc-L-Propargylglycine, PEPTIPURE®	943
6901	Fmoc-L-Serine monohydrate, PEPTIPURE®	943
9666	Fmoc-L-Serine-(tBu), PEPTIPURE®	943
9659	Fmoc-L-Threonine-(tBu), PEPTIPURE®	944
6903	Fmoc-L-Tryptophan, PEPTIPURE®	944
9668	Fmoc-L-Tryptophan-(Boc), PEPTIPURE®	944
6906	Fmoc-L-Tyrosine, PEPTIPURE®	944
9669	Fmoc-L-Tyrosine-(tBu), PEPTIPURE®	944
6660	Fmoc-L-Valine, PEPTIPURE®	944
6665	*N*-Formyl-L-Leucine	948
7879	D-Glutamic acid	963
8596	DL-Glutamic acid	964
1743	L-Glutamic acid, CELLPURE®	964
3774	L-Glutamic acid	964
7876	D-Glutamine	964
8595	DL-Glutamine	964
HN08	L-Glutamine, CELLPURE®	964
3772	L-Glutamine	964
6378	Glutathione oxidized	965
6382	L-Glutathione reduced	965
5543	Glycinamide hydrochloride	967
3908	Glycine, PUFFERAN®	967
HN07	Glycine, CELLPURE®	967
T873	Glycine	968
3187	Glycine	968
3790	Glycine	968
5542	Glycine anhydride	968
3794	Glycylglycine, PUFFERAN®	969
HN74	Glycylglycine, PUFFERAN®	969
7507	Hippuric acid sodium salt hydrate	985
7880	D-Histidine	985
8597	DL-Histidine	986
1696	L-Histidine, CELLPURE®	986
3852	L-Histidine	986
1697	L-Histidine hydrochloride monohydrate, CELLPURE®	986
9455	L-Histidine hydrochloride monohydrate	986
3893	L-4-Hydroxyproline	1001
8598	DL-Isoleucine	1021
1698	L-Isoleucine, CELLPURE®	1021
3922	L-Isoleucine	1021
8456	L-Kynurenine	1031
7882	D-Leucine	1041
8599	DL-Leucine	1041
1699	L-Leucine, CELLPURE®	1041
3984	L-Leucine	1041
6664	L-*tert*-Leucine methylester hydrochloride	1041
6829	L-Lysine monohydrate, CELLPURE®	1052
4207	L-Lysine monohydrate	1052
7883	D-Lysine hydrochloride	1053
8600	DL-Lysine hydrochloride	1053
1700	L-Lysine hydrochloride, CELLPURE®	1053
9357	L-Lysine hydrochloride	1053
7885	D-Methionine	1080
8602	DL-Methionine	1080
1702	L-Methionine, CELLPURE®	1080
9359	L-Methionine	1081
5275	3-Nitro-L-tyrosine	1114
1703	L-Ornithine monohydrochloride, CELLPURE®	1132
T204	L-Ornithine monohydrochloride	1132
7886	D-Phenylalanine	1151
8603	DL-Phenylalanine	1151
1709	L-Phenyalanine, CELLPURE®	1151
4491	L-Phenylalanine	1151
7888	D-Proline	1183
5267	DL-Proline	1183
1713	L-Proline, CELLPURE®	1184
T205	L-Proline	1184
0647	ROTI®Cell MEM-AA solution, CELLPURE®	1213
1032	ROTI®Fair Glycine 3.0	1218
7531	D-Serine	1257
8606	DL-Serine	1257
1714	L-Serine, CELLPURE®	1257
4682	L-Serine	1258
8385	Serotonin creatinine sulphate monohydrate	1258
7889	D-Threonine	1366
7532	DL-Threonine	1366
1738	L-Threonine, CELLPURE®	1366
T206	L-Threonine	1367
7700	D-Tryptophan	1386
5236	DL-Tryptophan	1386
1739	L-Tryptophan, CELLPURE®	1386
4858	L-Tryptophan	1386
7890	D-Tyrosine	1389
8608	DL-Tyrosine	1389

Art. No.	Description	Page
1741	L-Tyrosine, CELLPURE®	1389
T207	L-Tyrosine	1389
7891	D-Valine	1393
7540	DL-Valine	1393
1742	L-Valine, CELLPURE®	1393
4879	L-Valine	1393
1914	Z-L-Arginine, PEPTIPURE®	1411
1894	Z-L-Aspartic acid, PEPTIPURE®	1411
1885	Z-L-Glutamic acid, PEPTIPURE®	1412
1859	Z-L-Leucine, PEPTIPURE®	1416
1907	Z-L-Lysine, PEPTIPURE®	1417
1865	Z-L-Phenylalanine, PEPTIPURE®	1417

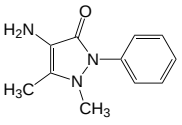
3-Amino-DL-alanine hydrochloride

▸ DL-2,3-Diaminopropionic acid hydrochloride see page 872

(*S*)-2-Amino-4-(2-aminophenyl)-4-oxo-butanoic acid

▸ L-Kynurenine see page 1031

4-Aminoantipyrine



4-Amino-2,3-dimethyl-1-phenyl-3-pyrazolin-5-one

$C_{11}H_{13}N_3O$ · D 0,89 g/cm³ · mp 107 to 109 °C
CAS No. 83-07-8 · EC no. 201-452-3
WGK 1

Warning H302

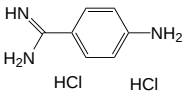
4-Aminoantipyrine
≥98 %, p.a., ACS

Reagent for phenol detection

Guarantee analysis
Assay ..... ≥98,0 %
Melting point ..... 107-109 °C
Solubility (1 g/20 ml H_2O) ..... clear solution
Ash content ..... ≤0,1 %
Loss on drying ..... ≤0,5 %
Suitablility for determination of phenol .. complies

Art. No.	Pack Qty.	Pack.	€
2671.1	10 g	glass	30,65
2671.2	25 g	glass	46,15
2671.3	100 g	glass	81,20

4-Aminobenzamidine dihydrochloride



p-Aminobenzamidine dihydrochloride

$C_7H_9N_3$ · 2 HCl · mp 300 to 304 °C
CAS No. 2498-50-2 · EC no. 219-692-2
WGK 2

Warning H315-H319-H335

4-Aminobenzamidine dihydrochloride
≥98 %, for biochemistry

Potent inhibitor of serine proteases.

Stock solution: 100–200 mg/ml (0.5–1 M) in H_2O and alcohol. Storage of stock solution at –20 °C. Stock solutions should only be stored for a short time.

Storage temperature: +4 °C

Type analysis
Assay (dry substance) ..... 98,0-101,0 %
Melting point (dec.) ..... 300-304 °C
Loss on drying (105 °C) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
CN71.1	1 g	glass	19,90
CN71.2	5 g	plastic	80,10
CN71.3	10 g	plastic	139,25

p-Aminobenzamidine dihydrochloride

▸ 4-Aminobenzamidine dihydrochloride see page 726

Aminobenzene

▸ Aniline see page 743

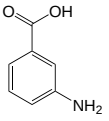
4-Aminobenzenesulphonamide

▸ Sulphanilamide see page 1345

4-Aminobenzenesulphonic acid

▸ Sulphanilic acid see page 1345

3-Aminobenzoesäure



meta-Aminobenzoic acid · *m*-Aminobenzoic acid

$C_7H_7NO_2$ · D 1,51 g/cm³ · mp 174 to 178 °C · flp 150 °C
CAS No. 99-05-8 · EC no. 202-724-4
WGK 1

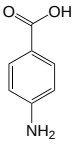
Warning H315-H319-H335

3-Aminobenzoic acid
≥98 %, for synthesis

Type analysis
Assay (HPLC) ..... ≥98 %
Melting range ..... 172-177 °C

Art. No.	Pack Qty.	Pack.	€
1E70.1	50 g	plastic	20,35
1E70.2	250 g	plastic	55,40
1E70.3	1 kg	plastic	160,20
Original pack 6 x 1 kg			152,19/1 kg

4-Aminobenzoic acid



PABA · Vitamin B_{10} · *p*-Aminobenzoic acid

$C_7H_7NO_2$ · D 1,37 g/cm³ · mp 187 °C · bp 307,5 °C · flp 171 °C
CAS No. 150-13-0 · EC no. 205-753-0
WGK 2

4-Aminobenzoic acid
≥98,5 %, for synthesis

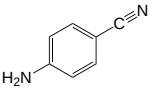
Type analysis
Assay (dry substance) ..... ≥98,5 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
0979.1	50 g	plastic	21,00
0979.2	250 g	plastic	40,75
0979.3	1 kg	plastic	117,75
Original pack 6 x 1 kg			111,86/1 kg

p-Aminobenzoic acid

▸ 4-Aminobenzoic acid see page 726

4-Aminobenzonitrile



p-Cyanoaniline

$C_7H_6N_2$ · D 1,22 g/cm³ · mp 86,2 °C · bp 325,1 °C
CAS No. 873-74-5 · EC no. 212-850-1
UN no. 3439 · ADR 6.1 III · WGK 3

Danger H302-H311+H331-H319-H341-H412

4-Aminobenzonitrile
≥98 %, for synthesis

Type analysis
Appearance ..... white to yellow brown clotting crystals
Assay ..... ≥98,0 %
2-Aminobenzonitrile ..... ≤0,5 %
3-Aminobenzonitrile ..... ≤0,5 %
Sulphated ash ..... ≤1,0 %
Water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8721.1	10 g	plastic	21,40
8721.2	50 g	plastic	96,65
8721.3	100 g	plastic	160,20

N-(4-Aminobenzoyl)-amino acetic acid

▸ 4-Aminohippuric acid see page 727

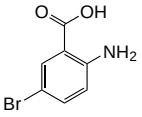
N-(4-Aminobenzoyl)-glycine

▸ 4-Aminohippuric acid see page 727

D-α-Aminobenzylpenicillin sodium salt

▸ Ampicillin sodium salt see page 742

2-Amino-5-bromobenzoic acid



5-Bromoanthranilic acid

$C_7H_6BrNO_2$ · mp 213 °C · bp 342 °C · flp 161 °C
CAS No. 5794-88-7 · EC no. 227-338-3
UN no. 2811 · ADR 6.1 III · WGK 1

Danger H301-H315-H319-H335

2-Amino-5-bromobenzoic acid
≥95 %, for biochemistry

Type analysis
Assay (H-NMR) ..... ≥95 %
Water (KF) ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
5519.1	5 g	plastic	30,00
5519.2	25 g	plastic	100,95

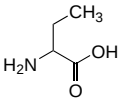
α-Aminobutyric acid

▸ DL-2-Aminobutyric acid see page 727

DL-α-Amino-*n*-butyric acid

▸ DL-2-Aminobutyric acid see page 727

DL-2-Aminobutyric acid



α-Aminobutyric acid · DL-α-Amino-*n*-butyric acid · H-DL-Abu-OH

$C_4H_9NO_2$ · mp 304 °C
CAS No. 2835-81-6 · EC no. 220-616-5
WGK 1

DL-2-Aminobutyric acid
≥97 %, for biochemistry

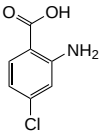
Type analysis
Appearance ..... white to off-white powder
Purity ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
5518.1	25 g	plastic	58,60
5518.2	100 g	plastic	174,70

6-Aminocaproic acid

▸ 6-Aminohexanoic acid see page 727

2-Amino-4-chlorobenzoic acid



4-Chloranthranilic acid

$C_7H_6ClNO_2$ · mp 231 to 233 °C · flp 100 °C
CAS No. 89-77-0 · EC no. 201-938-5
WGK 1

Warning H315-H319-H335

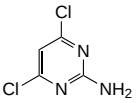
2-Amino-4-chlorobenzoic acid
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (titr.) ..... ≥98 %
Solution (1 % in methanol) ... colourless to slightly brown
Loss on drying ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
5516.1	10 g	plastic	23,15
5516.2	25 g	plastic	44,00
5516.3	100 g	plastic	145,15

2-Amino-4,6-dichloropyrimidine



ADCP

$C_4H_3Cl_2N_3$ · mp 220 °C
CAS No. 56-05-3 · EC no. 200-253-9
WGK 1

Warning H315-H319-H335

2-Amino-4,6-dichloropyrimidine
≥95 %

Type analysis
Appearance ..... off-white to yellow powder
Assay (HPLC) ..... ≥95 %
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
5515.1	10 g	plastic	39,70
5515.2	25 g	plastic	77,30

5-Amino-2,3-dihydro-phthalazine-1,4-dione

▸ Luminol see page 1050

4-Amino-2,3-dimethyl-1-phenyl-3-pyrazolin-5-one

▸ 4-Aminoantipyrine see page 726

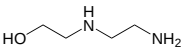
2-Aminoethanesulphonic acid

▸ Taurine see page 1355

2-Aminoethanol

▸ Ethanolamine see page 918

2-(2-Aminoethylamino)ethanol



N-(2-Aminoethyl)ethanolamine

$C_4H_{12}N_2O$ · D 1,024 g/cm³ · mp -38 °C · bp 243,1 °C · flp 132 °C
CAS No. 111-41-1 · EC no. 203-867-5
UN no. 2735 · ADR 8 II · WGK 1

Danger H314-H317-H335-H360Df

2-(2-Aminoethylamino)ethanol
≥98 %, for synthesis

Type analysis
Appearance ..... clear colourless liquid
Assay (GC) ..... ≥98,0 %
Identity (IR) ..... complies
Density 1,029-1,031

Art. No.	Pack Qty.	Pack.	€
6717.1	100 ml	glass	20,35
6717.2	500 ml	glass	38,20
6717.3	1 l	glass	61,20
Original pack 6 x 1 l			58,14/1 l
6717.4	2.5 l	glass	129,55
Original pack 4 x 2.5 l			123,07/2.5 l

4-(2-Aminoethyl)benzenesulfonyl fluoride hydrochloride

▸ AEBSF hydrochloride see page 709

4-(2-Aminoethyl)-benzylsulphonyl Fluoride hydrochloride

▸ Pefabloc® SC-Protease Inhibitor see page 1139

N-(2-Aminoethyl)ethanolamine

▸ 2-(2-Aminoethylamino)ethanol see page 727

3-(2-Aminoethyl)-5-hydroxyindole hydrochloride

▸ Serotonin hydrochloride see page 1258

4-(2-Aminoethyl)phenol hydrochloride

▸ Tyramine hydrochloride see page 1389

2-Amino-5-guanidinovaleric acid

▸ L-Arginine see page 750

2-Amino-5-guanidino-*n*-valeric acid hydrochloride

▸ DL-Arginine monohydrochloride see page 751
▸ L-Arginine monohydrochloride see page 751
▸ D-Arginine monohydrochloride see page 751

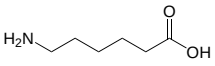
(2S)-Amino-5-guanidino-*n*-valeric acid $^{13}C_6$ hydrochloride

▸ L- Arginine $^{13}C_6$ monohydrochloride see page 751

(2S)-Amino-5-guanidino-*n*-valeric acid 13C6 15N4 hydrochloride

▸ L-Arginine$^{13}C_6{}^{15}N_4$ monohydrochloride see page 751

6-Aminohexanoic acid



6-Aminocaproic acid

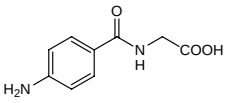
$C_6H_{13}NO_2$ · mp 205 °C · bp 255,6 °C · flp 207 to 209 °C
CAS No. 60-32-2 · EC no. 200-469-3
WGK 1

6-Aminohexanoic acid
≥99 %, for synthesis

Type analysis
Assay ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
3113.1	100 g	plastic	36,45
3113.3	250 g	plastic	76,25
3113.2	500 g	plastic	138,70
Original pack 6 x 500 g			131,77/500 g

4-Aminohippuric acid



N-(4-Aminobenzoyl)-amino acetic acid · *N*-(4-Aminobenzoyl)-glycine · *p*-Aminohippuric acid · PAH

$C_9H_{10}N_2O_3$ · mp 198,5 °C
CAS No. 61-78-9 · EC no. 200-518-9
WGK 1

4-Aminohippuric acid
≥98 %, for biochemistry

Type analysis
Assay ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6187.1	10 g	plastic	129,55
6187.2	100 g	plastic	1.030,95

p-Aminohippuric acid
▸ 4-Aminohippuric acid see page 728

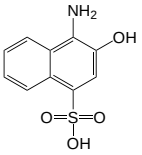
2-Amino-1-hydroxybenzene
▸ 2-Aminophenol see page 729

3-Amino-1-hydroxybenzene
▸ 3-Aminophenol see page 729

4-Amino-1-hydroxybenzene
▸ 4-Aminophenol see page 729

2-Amino-3-hydroxybutyric acid
▸ D-Threonine see page 1366
▸ DL-Threonine see page 1366
▸ L-Threonine see page 1366

1-Amino-2-hydroxy-4-naphthalenesulfonic acid



1-Amino-2-naphthol-4-sulfonic acid

$C_{10}H_9NO_4S$ · mp 295 °C
CAS No. 116-63-2 · EC no. 204-147-3
WGK 1

1-Amino-2-hydroxy-4-naphthalenesulfonic acid
≥90 %, p.a., ACS

For determination of phosphate

Guarantee analysis
Assay ..... ≥90,0 %
Solubility in Na_2CO_3 ..... complies
Ash content ..... ≤0,1 %
Sulphate (SO_4) ..... ≤0,2 %
Suitability for determination of phosphate ... complies

Art. No.	Pack Qty.	Pack.	€
2672.1	25 g	glass	51,10
2672.2	100 g	glass	130,65

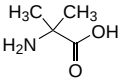
N-[(2S,3R)-3-Amino-2-hydroxy-4-phenyl-buturyl]-L-leucin hydrochloride
▸ Bestatin hydrochloride see page 772

2-Amino-3-(4-hydroxyphenyl)-propionic acid
▸ L-Tyrosine see page 1389
▸ DL-Tyrosine see page 1389
▸ D-Tyrosine see page 1389

4-Aminohypoxanthine
▸ Guanine see page 972

2-Amino-3-(3-indolyl)propionic acid
▸ DL-Tryptophan see page 1386
▸ D-Tryptophan see page 1386
▸ L-Tryptophan see page 1386

2-Aminoisobutyric acid



2-Methylalanine · H-Ala(Me)-OH

$C_4H_9NO_2$ · mp 300 °C
CAS No. 62-57-7 · EC no. 200-544-0
WGK 1

2-Aminoisobutyric acid
≥97 %, for biochemistry

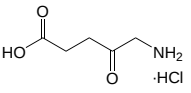
Type analysis
Appearance white to off-white crystalline powder
Loss on drying (160 °C) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
5514.1	50 g	plastic	52,60
5514.2	100 g	plastic	91,95

α-Aminoisovaleric acid
▸ D-Valine see page 1393
▸ DL-Valine see page 1393
▸ L-Valine see page 1393

D-4-Amino-3-isoxazolidinone
▸ D-Cycloserine see page 859

5-Aminolevulinic acid hydrochloride



5-Amino-4-oxopentanoic acid HCl

$C_5H_9NO_3$ · HCl · mp 150 to 154 °C
CAS No. 5451-09-2 · EC no. 226-679-5
WGK 1

Warning H315-H319-H335

5-Aminolevulinic acid hydrochloride
≥98 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance .. white to almost white cryst. powder
Assay (arg. titr.) ..... ≥98,0 %
Appearance of solution (5 % in H_2O) ... colourless to almost colourless
Sulphated ash ..... ≤0,1 %
Loss on drying (3 h, 105 °C, vacuum) ..... ≤2,0 %
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
8451.1	500 mg	glass	31,10
8451.2	1 g	glass	46,15
8451.3	5 g	glass	149,45

DL-α-Amino-β-mercapto-propionic acid
▸ DL-Cysteine see page 859

L-α-Amino-β-mercapto-propionic acid
▸ L-Cysteine see page 860

D-2-Amino-3-mercaptopropionic acid hydrochloride monohydrate
▸ D-Cysteine hydrochloride monohydrate see page 860

L-2-Amino-3-mercaptopropionic acid hydrochloride monohydrate
▸ L-Cysteine hydrochloride monohydrate see page 860

α-(Aminomethyl)benzyl alcohol
▸ 2-Amino-1-phenylethanol see page 729

4-(Aminomethyl)-5-hydroxy-6-methyl-3-pyridinemethanol dihydrochloride
▸ Pyridoxamine dihydrochloride see page 1191

2-Amino-4-methyl-mercapto butyric acid
▸ D-Methionine see page 1080
▸ DL-Methionine see page 1080
▸ L-Methionine see page 1080

2-Amino-4-methylpentanoic acid
▸ L-Leucine see page 1041
▸ D-Leucine see page 1041
▸ DL-Leucine see page 1041

2-Amino-2-methyl-1-propanol
▸ AMP see page 742

2-Amino-3-methylvaleric acid
▸ L-Isoleucine see page 1021
▸ DL-Isoleucine see page 1021

1-Amino-2-naphthol-4-sulfonic acid
▸ 1-Amino-2-hydroxy-4-naphthalenesulfonic acid see page 728

1-Amino-2-nitrobenzene
▸ 2-Nitroaniline see page 1109

1-Amino-3-nitrobenzene
▸ 3-Nitroaniline see page 1109

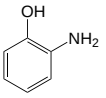
1-Amino-4-nitrobenzene
▸ 4-Nitroaniline see page 1109

4-Amino-2-nitro-toluene
▸ 4-Methyl-3-nitroaniline see page 1086

5-Amino-4-oxopentanoic acid HCl
▸ 5-Aminolevulinic acid hydrochloride see page 728

2-Aminopentanedioic acid
▸ DL-Glutamic acid see page 963
▸ L-Glutamic acid see page 964
▸ D-Glutamic acid see page 963

2-Aminophenol



ortho-Aminophenol · *o*-Aminophenol · 2-Amino-1-hydroxybenzene · 2-Hydroxyaniline

C_6H_7NO · D 1,328 g/cm³ · mp 174 °C · flp >175 °C
CAS No. 95-55-6 · EC no. 202-431-1
UN no. 2512 · ADR 6.1 III · WGK 2

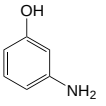
Warning H302+H332-H341

2-Aminophenol
≥99 %, for synthesis

Type analysis
Appearance ..... off-white to brown solid
Assay (GC) ..... ≥99 %
Melting range ..... 172-177 °C

Art. No.	Pack Qty.	Pack.	€
0879.1	100 g	glass	34,30
0879.2	500 g	glass	120,95
Original pack 6 x 500 g			114,90/500 g

3-Aminophenol



meta-Aminophenol · *m*-Aminophenol · 3-Hydroxyaniline · 3-Amino-1-hydroxybenzene

C_6H_7NO · D 1,276 g/cm³ · mp ≥116 to ≤122 °C · bp 164 °C · flp 178 °C
CAS No. 591-27-5 · EC no. 209-711-2
UN no. 2512 · ADR 6.1 III · WGK 2

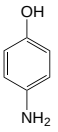
Warning H302+H332-H411

3-Aminophenol
≥99 %, for synthesis

Type analysis
Assay (titr.) ..... ≥99 %
Melting range ..... 120-124 °C

Art. No.	Pack Qty.	Pack.	€
0957.1	100 g	glass	34,30
0957.2	500 g	glass	120,95
Original pack 6 x 500 g			114,90/500 g

4-Aminophenol



4-Hydroxyaniline · *p*-Aminophenol · *para*-Aminophenol · 4-Amino-1-hydroxy-benzene

C_6H_7NO · D 1,29 g/cm³ · mp 190 °C · bp 284 °C · flp 195 °C
CAS No. 123-30-8 · EC no. 204-616-2
UN no. 2512 · ADR 6.1 III · WGK 3

Warning H302+H332-H341-H410

4-Aminophenol
≥98 %, for synthesis

Type analysis
Appearance ..... off-white to brownish solid
Assay (GC) ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
0950.1	100 g	glass	26,35
0950.2	500 g	glass	72,60
Original pack 6 x 500 g			68,97/500 g

m-Aminophenol
▸ 3-Aminophenol see page 729

meta-Aminophenol
▸ 3-Aminophenol see page 729

o-Aminophenol
▸ 2-Aminophenol see page 729

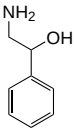
ortho-Aminophenol
▸ 2-Aminophenol see page 729

p-Aminophenol
▸ 4-Aminophenol see page 729

para-Aminophenol
▸ 4-Aminophenol see page 729

4-Aminophenyl benzyl ether hydrochloride
▸ 4-(Benzyloxy) aniline hydrochloride see page 771

2-Amino-1-phenylethanol



α-(Aminomethyl)benzyl alcohol · Phenylethanolamine

$C_8H_{11}NO$ · mp 56 to 58 °C · bp 160 °C
CAS No. 7568-93-6 · EC no. 231-469-1
WGK 1

Warning H315-H319-H335

2-Amino-1-phenylethanol
≥98 %

Type analysis
Assay (titr.) ..... ≥98 %
Solution (1 % in ethanol) almost colourless, clear
Water (KF) ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
5513.1	25 g	plastic	73,00
5513.2	50 g	plastic	127,95

2-Amino-3-phenylpropionic acid
- DL-Phenylalanine see page 1151
- L-Phenylalanine see page 1151
- D-Phenylalanine see page 1151

3-Aminophenyl sulphone
- 3,3'-Diaminodiphenyl sulphone see page 872

3-Aminophthalhydrazide
- Luminol see page 1050

S(+)-2-Amino-1-propanol
- L-Alaninol see page 713

2-Aminopropionic acid
- D-Alanine see page 712
- DL-Alanine see page 712
- L-Alanine see page 712

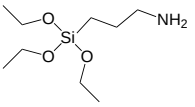
3-Aminopropionic acid
- β-Alanine see page 712

N-(3-Aminopropyl)-1,4-butanediamine
- Spermidine see page 1304

Aminopropyl-modified silica gel
- Silica gel 60 diamino see page 1261

3-Aminopropyltriethoxysilan
- γ-Aminopropyltriethoxysilane (APTES) see page 730

γ-Aminopropyltriethoxysilane (APTES)



APES · APTES · 3-Aminopropyltriethoxysilan

$C_9H_{23}NO_3Si$ · D 0,95 g/cm³ · mp <-70 °C · bp 217 °C · flp 93 °C
CAS No. 919-30-2 · EC no. 213-048-4
UN no. 2735 · ADR 8 II · WGK 1

Danger H302-H314

γ-Aminopropyltriethoxysilane (APTES)
≥98 %, for the GC

Silylation reagent

Type analysis
Appearance ..... clear liquid
Assay (GC) ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
2328.1	25 g	glass	26,80
2328.2	100 g	glass	78,40

6-Aminopurine
- Adenine see page 708

2-Amino-succinic acid
- L-Aspartic acid see page 756
- D-Aspartic acid see page 756
- DL-Aspartic acid see page 756

Amino sulfonic acid
- Sulphamic acid see page 1345

2-Aminotoluene
- *o*-Toluidine see page 1374

N-Aminourea hydrochloride
- Semicarbazide hydrochloride see page 1255

Aminoxybrucine
- Brucine *N*-oxide see page 792

Aminoxystrychnine
- Strychnine *N*-oxide see page 1342

(±)-2-Aminsuccinic acid 4-amide
- DL-Asparagine monohydrate see page 756

Ammoidin
- Xanthotoxin see page 1405

Ammonia solution

Ammonium hydroxide solution · Salmiac solution

CAS No. 1336-21-6 · EC no. 215-647-6

Ammonia solution Ultra-quality

Ammonia solution
ROTIPURAN®Ultra 20 %

Extra highpure alkaline solution (ppt quality) for sample preparation in ultra trace analysis.

$NH_3 + H_2O$ · D 0,942 g/cm³

UN no. 2672 · ADR 8 III · WGK 2

Danger H290-H314-H335-H412

Guarantee analysis
Assay (w/w) ..... 20-22 %
Aluminium (Al) ..... ≤20 ppt
Antimony (Sb) ..... ≤10 ppt
Arsenic (As) ..... ≤10 ppt
Barium (Ba) ..... ≤10 ppt
Beryllium (Be) ..... ≤10 ppt
Lead (Pb) ..... ≤10 ppt
Cadmium (Cd) ..... ≤10 ppt
Cesium (Cs) ..... ≤10 ppt
Calcium (Ca) ..... ≤10 ppt
Cerium (Ce) ..... ≤10 ppt
Chromium (Cr) ..... ≤10 ppt
Dysprosium (Dy) ..... ≤10 ppt
Iron (Fe) ..... ≤10 ppt
Erbium (Er) ..... ≤10 ppt
Europium (Eu) ..... ≤10 ppt
Gadolinium (Gd) ..... ≤10 ppt
Gallium (Ga) ..... ≤10 ppt
Germanium (Ge) ..... ≤10 ppt
Gold (Au) ..... ≤10 ppt
Holmium (Ho) ..... ≤10 ppt
Indium (In) ..... ≤10 ppt
Potassium (K) ..... ≤10 ppt
Cobalt (Co) ..... ≤10 ppt
Copper (Cu) ..... ≤10 ppt
Lanthanum (La) ..... ≤10 ppt
Lithium (Li) ..... ≤10 ppt
Lutetium (Lu) ..... ≤10 ppt
Magnesium (Mg) ..... ≤10 ppt
Manganese (Mn) ..... ≤10 ppt
Molybdenum (Mo) ..... ≤10 ppt
Sodium (Na) ..... ≤20 ppt
Neodymium (Nd) ..... ≤10 ppt
Nickel (Ni) ..... ≤10 ppt
Niobium (Nb) ..... ≤10 ppt
Praseodymium (Pr) ..... ≤10 ppt
Mercury (Hg) ..... ≤200 ppt
Rhodium (Rh) ..... ≤10 ppt
Rubidium (Rb) ..... ≤10 ppt
Samarium (Sm) ..... ≤10 ppt
Scandium (Sc) ..... ≤10 ppt
Silver (Ag) ..... ≤10 ppt
Strontium (Sr) ..... ≤10 ppt
Tellur (Te) ..... ≤10 ppt
Terbium (Tb) ..... ≤10 ppt
Thallium (Tl) ..... ≤10 ppt
Thorium (Th) ..... ≤10 ppt
Thulium (Tm) ..... ≤10 ppt
Titanium (Ti) ..... ≤10 ppt
Uranium (U) ..... ≤10 ppt
Vanadium (V) ..... ≤10 ppt
Bismuth (Bi) ..... ≤10 ppt
Tungsten (W) ..... ≤10 ppt
Ytterbium (Yb) ..... ≤10 ppt
Yttrium (Y) ..... ≤10 ppt
Zinc (Zn) ..... ≤10 ppt
Tin (Sn) ..... ≤10 ppt
Zirconium (Zr) ..... ≤10 ppt

Art. No.	Pack Qty.	Pack.	€
HN66.2	250 ml	HDPE	310,70
HN66.1	500 ml	HDPE	521,40
HN66.3	1 l	HDPE	854,65
Original pack 6 x 1 l			811,92/1 l

Ammonia solution Supra-quality

Ammonia solution
ROTIPURAN®Supra 20 %

Highpure alkaline solution (ppb quality) for sample preparation in trace analysis (e.g. using ICP, AAS, Ion chromatography etc.).

$NH_3 + H_2O$ · D 0,942 g/cm³

UN no. 2672 · ADR 8 III · WGK 2

Danger H290-H314-H335-H412

Guarantee analysis

Assay (w/w) ..... 20-22 %
Colour (APHA) ..... ≤10
Chloride (Cl) ..... ≤0,00005 %
Phosphate (PO_4) ..... ≤0,000001 %
Sulphate (SO_4) ..... ≤0,0001 %
Aluminium (Al) ..... ≤1 ppb
Antimony (Sb) ..... ≤0,5 ppb
Arsenic (As) ..... ≤1 ppb
Barium (Ba) ..... ≤0,1 ppb
Beryllium (Be) ..... ≤0,1 ppb
Lead (Pb) ..... ≤0,1 ppb
Cadmium (Cd) ..... ≤0,5 ppb
Cesium (Cs) ..... ≤0,1 ppb
Calcium (Ca) ..... ≤1 ppb
Cerium (Ce) ..... ≤0,1 ppb
Chromium (Cr) ..... ≤0,5 ppb
Dysprosium (Dy) ..... ≤0,1 ppb
Iron (Fe) ..... ≤1 ppb
Erbium (Er) ..... ≤0,1 ppb
Europium (Eu) ..... ≤0,1 ppb
Gadolinium (Gd) ..... ≤0,1 ppb
Gallium (Ga) ..... ≤0,1 ppb
Germanium (Ge) ..... ≤0,1 ppb
Gold (Au) ..... ≤0,5 ppb
Holmium (Ho) ..... ≤0,1 ppb
Indium (In) ..... ≤0,1 ppb
Potassium (K) ..... ≤1 ppb
Cobalt (Co) ..... ≤0,5 ppb
Copper (Cu) ..... ≤0,5 ppb
Lanthanum (La) ..... ≤0,1 ppb
Lithium (Li) ..... ≤0,1 ppb
Lutetium (Lu) ..... ≤0,1 ppb
Magnesium (Mg) ..... ≤1 ppb
Manganese (Mn) ..... ≤0,5 ppb
Molybdenum (Mo) ..... ≤0,5 ppb
Sodium (Na) ..... ≤1 ppb
Neodymium (Nd) ..... ≤0,1 ppb
Nickel (Ni) ..... ≤0,5 ppb
Niobium (Nb) ..... ≤0,1 ppb
Praseodymium (Pr) ..... ≤0,1 ppb
Mercury (Hg) ..... ≤0,2 ppb
Rhodium (Rh) ..... ≤0,5 ppb
Rubidium (Rb) ..... ≤0,1 ppb
Samarium (Sm) ..... ≤0,1 ppb
Scandium (Sc) ..... ≤0,1 ppb
Selenium (Se) ..... ≤1 ppb
Silver (Ag) ..... ≤0,5 ppb
Strontium (Sr) ..... ≤0,1 ppb
Tellur (Te) ..... ≤0,1 ppb
Terbium (Tb) ..... ≤0,1 ppb
Thallium (Tl) ..... ≤0,1 ppb
Thorium (Th) ..... ≤0,1 ppb
Thulium (Tm) ..... ≤0,1 ppb
Titanium (Ti) ..... ≤0,5 ppb
Uranium (U) ..... ≤0,1 ppb
Vanadium (V) ..... ≤0,5 ppb
Bismuth (Bi) ..... ≤0,1 ppb
Tungsten (W) ..... ≤0,1 ppb
Ytterbium (Yb) ..... ≤0,1 ppb
Yttrium (Y) ..... ≤0,1 ppb
Zinc (Zn) ..... ≤0,5 ppb
Tin (Sn) ..... ≤0,5 ppb
Zirconium (Zr) ..... ≤0,1 ppb

Art. No.	Pack Qty.	Pack.	€
HN56.1	500 ml	HDPE	91,95
HN56.3	4 l	HDPE	499,90

Ammonia solution 32 %

Ammonia solution
30–33 %, extra pure

$NH_3 + H_2O$ · D 0,88 g/cm³ · mp -92 °C · bp 24 °C

UN no. 2672 · ADR 8 III · WGK 2

Danger H290-H314-H335-H410

Type analysis

Assay (NH_3) ..... 30-33 %
Chloride (Cl) ..... ≤0,0002 %
Sulphate (SO_4) ..... ≤0,002 %
Iron (Fe) ..... ≤0,0001 %
Heavy metals (as Pb) ..... ≤0,0003 %
Non volatile matter ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
P093.1	1 l	glass	46,80
Original pack 6 x 1 l			44,46/1 l
P093.2	2.5 l	glass	88,05
Original pack 4 x 2.5 l			83,65/2.5 l
P093.3	10 l	PE/steel	321,45

Ammonia solution
30–33 %, for DNA synthesis

for DNA synthesis with ABI™ Synthesizer

Thread size 27 mm

Suitable for Expedite™89xx and Polygen®

$NH_3 + H_2O$ · D 0,88 g/cm³ · mp -92 °C · bp 24 °C

Storage temperature: +4 °C

UN no. 2672 · ADR 8 III · WGK 2

Danger H290-H314-H335-H410

Type analysis

Assay (NH_3) ..... ≥30 %

Art. No.	Pack Qty.	Pack.	€
A990.1	200 ml	glass	22,05

Ammonia solution 30 %

Ammonia solution
ROTIPURAN® 30 %, p.a., ACS

For neutralisation and for manufacturing of buffer system.

$NH_3 + H_2O$ · D 0,89 g/cm³ · mp -87 °C · bp 27 °C

UN no. 2672 · ADR 8 III · WGK 2

Danger H290-H314-H335-H410

Guarantee analysis

Appearance ..... clear colourless liquid
Assay (acidim.) ..... 28,0-30,0 %
Colour (APHA) ..... ≤10
Solubility in H_2O ..... complies
Non volatile matter ..... ≤0,002 %
$KMnO_4$ reducing substances (as O) ..... complies
Ash content ..... ≤0,002 %
Pyridine and homologues ..... ≤0,0002 %
Carbonate (as CO_2) ..... ≤0,002 %
Sulphur compounds (as SO_4) ..... ≤0,0002 %
Chloride (Cl) ..... ≤0,00005 %
Phosphate (PO_4) ..... ≤0,0001 %
Nitrate (NO_3) ..... ≤0,0002 %
Sulphide (S) ..... ≤0,00001 %
Heavy metals (as Pb) ..... ≤0,00005 %
Aluminium (Al) ..... ≤0,00001 %
Arsenic (As) ..... ≤0,000005 %
Barium (Ba) ..... ≤0,00001 %
Beryllium (Be) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,000005 %
Cadmium (Cd) ..... ≤0,00001 %
Calcium (Ca) ..... ≤0,0001 %
Chromium (Cr) ..... ≤0,000005 %
Iron (Fe) ..... ≤0,00001 %
Gold (Au) ..... ≤0,00001 %
Indium (In) ..... ≤0,000005 %
Potassium (K) ..... ≤0,0001 %
Cobalt (Co) ..... ≤0,00001 %
Copper (Cu) ..... ≤0,00001 %
Lithium (Li) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00005 %
Manganese (Mn) ..... ≤0,00001 %
Molybdenum (Mo) ..... ≤0,000002 %
Sodium (Na) ..... ≤0,0002 %
Nickel (Ni) ..... ≤0,000005 %
Silver (Ag) ..... ≤0,000002 %
Strontium (Sr) ..... ≤0,0001 %
Bismuth (Bi) ..... ≤0,000005 %
Zinc (Zn) ..... ≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
CP17.1	1 l	glass	31,10
Original pack 6 x 1 l			29,55/1 l
CP17.2	2.5 l	glass	50,45
Original pack 4 x 2.5 l			47,93/2.5 l
CP17.3	5 l	PE/steel	94,10
Original pack 2 x 5 l			89,40/5 l
CP17.4	10 l	PE/steel	160,20
CP17.5	25 l	PE/steel	295,65

Ammonia solution 25 %

Ammonia solution
ROTIPURAN® ≥25 %, p.a.

$NH_3 + H_2O$ · D 0,91 g/cm³ · mp -55 °C · bp 38 °C

UN no. 2672 · ADR 8 III · WGK 2

Danger H290-H314-H335-H410

Guarantee analysis
Assay (acidimetric., NH_3) ..... ≥25 %
Colour (APHA) ..... ≤10
Non volatile matter ..... ≤0,002 %
Sulphur compounds (as SO_4) ..... ≤0,0002 %
Pyridine and homologues ..... ≤0,0002 %
Carbonate (as CO_2) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,00005 %
Sulphide (S) ..... ≤0,00001 %
Phosphate (PO_4) ..... ≤0,00005 %
Aluminium (Al) ..... ≤0,00001 %
Arsenic (As) ..... ≤0,000005 %
Barium (Ba) ..... ≤0,00001 %
Beryllium (Be) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,000005 %
Cadmium (Cd) ..... ≤0,00001 %
Calcium (Ca) ..... ≤0,0001 %
Chromium (Cr) ..... ≤0,000005 %
Iron (Fe) ..... ≤0,00001 %
Gallium (Ga) ..... ≤0,000002 %
Gold (Au) ..... ≤0,00001 %
Indium (In) ..... ≤0,000002 %
Potassium (K) ..... ≤0,0001 %
Cobalt (Co) ..... ≤0,00001 %
Copper (Cu) ..... ≤0,00001 %
Lithium (Li) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00005 %
Manganese (Mn) ..... ≤0,00001 %
Molybdenum (Mo) ..... ≤0,000002 %
Sodium (Na) ..... ≤0,0001 %
Nickel (Ni) ..... ≤0,000005 %
Platinum (Pt) ..... ≤0,00001 %
Heavy metals (as Pb) ..... ≤0,00005 %
Silver (Ag) ..... ≤0,000002 %
Strontium (Sr) ..... ≤0,0001 %
Thallium (Tl) ..... ≤0,000002 %
Titanium (Ti) ..... ≤0,000005 %
Bismuth (Bi) ..... ≤0,000005 %
Zinc (Zn) ..... ≤0,00001 %
Tin (Sn) ..... ≤0,000005 %
$KMnO_4$ reducing substances (as O) ... ≤0,0008 %

Art. No.	Pack Qty.	Pack.	€
6774.1	1 l	glass	30,00
Original pack 6 x 1 l			28,50/1 l
6774.2	2.5 l	glass	44,65
Original pack 4 x 2.5 l			42,42/2.5 l
6774.3	5 l	plastic	67,20
Original pack 2 x 5 l			63,84/5 l

Ammonia solution
25 %, Ph. Eur.

NH_3 + H_2O · D 0,91 g/cm³ · mp -55 °C · bp 38 °C

UN no. 2672 · ADR 8 III · WGK 2

Danger H290-H314-H335-H410

Guarantee analysis
Assay (acidim.) ..... 25,0-27,0 %
Identity ..... complies
Appearance of solution ..... complies
Pyridine and homologues ..... ≤0,0002 %
$KMnO_4$ reducing substances ..... complies
Carbonate ..... ≤0,005 %
Chloride (Cl) ..... ≤0,0001 %
Sulphate (SO_4) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,000025 %
Non volatile matter ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
2610.1	1 l	glass	27,45
Original pack 6 x 1 l			26,08/1 l
2610.2	2.5 l	glass	42,90
Original pack 4 x 2.5 l			40,76/2.5 l
2610.4	5 l	plastic	61,85
Original pack 2 x 5 l			58,76/5 l
2610.3	10 l	plastic	108,05

Ammonia solution
≥25 %, extra pure

NH_3 + H_2O · D 0,91 g/cm³ · mp -55 °C · bp 38 °C

UN no. 2672 · ADR 8 III · WGK 2

Danger H290-H314-H335-H410

Type analysis
Assay (NH_3) ..... 24,0-26,0 %
Density (20 °C) 0,904-0,910
Chloride (Cl) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,0005 %
Evaporation residue ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
5460.1	1 l	plastic	24,20
Original pack 6 x 1 l			22,99/1 l
5460.2	5 l	plastic	50,00
Original pack 2 x 5 l			47,50/5 l
5460.3	10 l	plastic	71,95
5460.4	30 l	plastic	179,00

Ammonia solution 20 %

Ammonia solution
20 %, pure

NH_3 + H_2O · D 0,942 g/cm³

UN no. 2672 · ADR 8 III · WGK 2

Danger H290-H314-H335-H412

Type analysis
Assay ..... 19,0-21,0 %
Iron (Fe) ..... ≤0,0001 %
Heavy metals ..... ≤0,0001 %
Evaporation residue ..... ≤0,0003 %

Art. No.	Pack Qty.	Pack.	€
6753.1	1 l	plastic	20,35
Original pack 6 x 1 l			19,33/1 l
6753.2	5 l	plastic	41,85
Original pack 2 x 5 l			39,76/5 l
6753.3	10 l	plastic	56,45
6753.4	25 l	plastic	112,35

Ammonia solution 15 %

Ammonia solution
15 %, extra pure

NH_3 + H_2O · D 0,942 g/cm³

UN no. 2672 · ADR 8 III · WGK 2

Danger H290-H314-H335-H412

Type analysis
Assay ..... 14,3-15,7 %
Density (20 °C) 0,9370-0,9420
Chloride (Cl) ..... ≤0,00001 %
Iron (Fe) ..... ≤0,00001 %
Evaporation residue ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4346.1	1 l	plastic	21,00
Original pack 6 x 1 l			19,95/1 l
4346.5	2.5 l	plastic	26,80
Original pack 4 x 2.5 l			25,46/2.5 l
4346.2	5 l	plastic	45,70
Original pack 2 x 5 l			43,42/5 l
4346.3	10 l	plastic	65,05
4346.4	25 l	plastic	130,65

Ammonia solution 10 %

Ammonia solution
10 %, pure

NH_3 + H_2O · D 0,958 g/cm³

WGK 2

Danger H314-H335-H412

Type analysis
Assay ..... 9,0-11,0 %
Iron (Fe) ..... ≤0,0001 %
Heavy metals ..... ≤0,0001 %
Evaporation residue ..... ≤0,0003 %

Art. No.	Pack Qty.	Pack.	€
6756.1	1 l	plastic	19,25
Original pack 6 x 1 l			18,29/1 l
6756.5	2.5 l	plastic	22,50
Original pack 4 x 2.5 l			21,38/2.5 l
6756.2	5 l	plastic	40,35
Original pack 2 x 5 l			38,33/5 l
6756.3	10 l	plastic	52,15
6756.4	25 l	plastic	98,40

Ammonia solution (4 N)

Ammonia solution
4 mol/l – 4 N, volumetric standard solution

NH_3 + H_2O · D 0,967 g/cm³ · bp 100 °C

WGK 2

Danger H314-H335-H412

Type analysis
Amount-of-substance conc. (20 °C) ..... 4 mol/l ±0,5 %
Titer 0,9950-1,0050

Art. No.	Pack Qty.	Pack.	€
9897.1	500 ml	plastic	71,50
9897.2	1 l	plastic	117,75
Original pack 6 x 1 l			111,86/1 l

Ammonia-D3 solution 25 % in D_2O

ND_3 + D_2O · D 1,056 g/cm³
CAS No. 12168-30-8
UN no. 2672 · ADR 8 III · WGK 2

Danger H290-H314-H335-H410

Ammonia-D3 solution 25 % in D_2O
99 Atom%D

For nuclear magnetic resonance spectroscopy.

Type analysis
Deuterising degree ..... ≥99,0 %
Assay (titr.) ..... ≥25,0 %

Art. No.	Pack Qty.	Pack.	€
9903.1	10 ml	glass	117,20

Ammonium Standards
▸ Ammonium IC Standard Solution
see page 1336

Ammonium acetate

CH_3COONH_4 · D 1,17 g/cm³ · mp 112 to 114 °C
CAS No. 631-61-8 · EC no. 211-162-9
WGK 1

Ammonium acetate
≥97 %, p.a., ACS

Buffer substance, for molecular biology.

Guarantee analysis
Assay (acidim.) ..... ≥97 %
pH-value (5%, water) 6,7-7,3
In H_2O insoluble matter ..... ≤0,005 %
Ash content (as SO_4) ..... ≤0,01 %
Chloride (Cl) ..... ≤0,0005 %
Nitrate (NO_3) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,0005 %
Aluminium (Al) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,001 %
Nickel (Ni) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
7869.2	500 g	plastic	37,55
Original pack 6 x 500 g			35,67/500 g
7869.1	1 kg	plastic	51,50
Original pack 6 x 1 kg			48,93/1 kg
7869.3	2.5 kg	plastic	94,50

Ammonium acetate
≥96 %, extra pure

Buffer substance

Type analysis
Assay ..... ≥96 %
pH (5 % in H_2O) 6,5-7,5
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,005 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
T872.1	500 g	plastic	35,40
Original pack 6 x 500 g			33,63/500 g
T872.2	1 kg	plastic	56,45
Original pack 6 x 1 kg			53,63/1 kg
T872.3	2.5 kg	plastic	96,25
T872.5	25 kg	plastic	671,90

Ammonium alum
▸ Aluminium ammonium sulphate dodecahydrate see page 721

Ammonium aluminium sulphate
▸ Aluminium ammonium sulphate dodecahydrate see page 721

Ammonium aurin tricarboxylate
▸ Aurin tricarboxylic acid ammonium salt see page 758

Ammonium benzoate

$C_7H_9NO_2$ · D 1,26 g/cm³ · mp 192 to 198 °C
CAS No. 1863-63-4 · EC no. 217-468-9
WGK 1

Warning H302-H315-H319

Ammonium benzoate
≥98 %, extra pure

For precipitation of aluminium and iron

Type analysis
Assay ..... ≥98,0 %
pH (10 % solution) 5,0-8,0
Heavy metals (as Pb) ..... ≤0,001 %
Oxidizable impurities (as cinnamic acid) ..... complies

Art. No.	Pack Qty.	Pack.	€
9836.1	100 g	plastic	21,40
9836.2	500 g	plastic	57,55
Original pack 6 x 500 g			54,67/500 g
9836.3	1 kg	plastic	102,70
Original pack 6 x 1 kg			97,57/1 kg

Ammonium bicarbonate
▸ Ammonium hydrogen carbonate see page 735

Ammonium bifluoride
▸ Ammonium hydrogen fluoride see page 736

Ammonium biphosphate
▸ Ammonium dihydrogen phosphate see page 734

Ammonium bisulphate
▸ Ammonium hydrogen sulphate see page 736

Ammonium bromide

Hydrobromic acid monoammoniate

NH_4Br · D 2,455 g/cm³ · mp >370 °C
CAS No. 12124-97-9 · EC no. 235-183-8
WGK 1

Warning H319

Ammonium bromide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L5E.1	5 g	HDPE	54,30
1L5E.2	25 g	HDPE	169,35

Ammonium bromide
≥99 %, p.a., ACS

Guarantee analysis
Assay (arg.) ..... ≥99,0 %
In H_2O insoluble matter ..... ≤0,005 %
pH value (5 % in H_2O) 4,5-6,0
Bromate (BrO_3) ..... ≤0,002 %
Chloride (Cl) ..... ≤0,2 %
Iodide (I) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Barium (Ba) ..... ≤0,002 %
Iron (Fe) ..... ≤0,0005 %
Ash content ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
HN14.1	500 g	plastic	40,75
Original pack 6 x 500 g			38,71/500 g
HN14.2	1 kg	plastic	70,85
Original pack 6 x 1 kg			67,31/1 kg
HN14.3	2.5 kg	plastic	145,15

Ammonium carbonate

Ammonium carbonate
ROTI®METIC 99,999 % (5N)

$(NH_4)_2CO_3$ · mp 58 °C

CAS No. 506-87-6 · EC no. 208-058-0

WGK 1

Warning H302

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L58.1	10 g	HDPE	70,45
1L58.2	50 g	HDPE	169,35

Ammonium carbonate
≥30 % NH_3, p.a., ACS

$CH_6N_2O_2$ · CH_5NO_3 (1:1)

CAS No. 10361-29-2 · EC no. 233-786-0

WGK 1

Danger H302-H315-H318

Guarantee analysis
Assay (acidim, NH_3) ..... ≥30,0 %
In H_2O insoluble matter ..... ≤0,005 %
Non volatile matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,0005 %
Sulphur containing parts (as SO_4) ..... ≤0,002 %
Heavy metals (as Pb) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
CP98.1	500 g	plastic	30,00
Original pack 6 x 500 g			28,50/500 g
CP98.2	1 kg	plastic	49,35
Original pack 6 x 1 kg			46,88/1 kg
CP98.4	2.5 kg	plastic	106,45
CP98.3	5 kg	plastic	198,90

Ammonium carbonate
≥30,5 % NH_3, extra pure

$CH_6N_2O_2$ · CH_5NO_3 (1:1)

CAS No. 10361-29-2 · EC no. 233-786-0

WGK 1

Danger H302-H315-H318

Guarantee analysis
Assay (NH_3) ..... ≥30,5 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,005 %
Non volatile matter ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,0005 %
Mercury (Hg) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
CN94.1	500 g	plastic	20,35
Original pack 6 x 500 g			19,33/500 g
CN94.2	1 kg	plastic	31,75
Original pack 6 x 1 kg			30,16/1 kg
CN94.4	2.5 kg	plastic	55,80
CN94.3	5 kg	plastic	95,70

Ammonium cerium(IV) nitrate

▸ Cerium(IV) ammonium nitrate see page 825

Ammonium cerium(IV) sulphate dihydrate

Cerium(IV) ammonium sulphate dihydrate

$(NH_4)_4Ce(SO_4)_4 \cdot 2\ H_2O$
CAS No. 10378-47-9 · EC no. 231-567-4
WGK 1

Ammonium cerium(IV) sulphate dihydrate
≥99 %, p.a.

Oxidant reagent, for cerimetric titrations

Guarantee analysis

Assay ..... ≥99,0 %
Chloride (Cl) ..... ≤0,01 %
Phosphate (PO_4) ..... ≤0,02 %
Iron (Fe) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
4386.1	100 g	plastic	57,55
4386.2	250 g	plastic	125,25
4386.3	500 g	plastic	203,20
Original pack 6 x 500 g			193,04/500 g

Ammonium chloride

Salmiac · Salmiac salt

NH_4Cl · D 1,53 g/cm³ · mp 338 °C
CAS No. 12125-02-9 · EC no. 235-186-4
WGK 1

Warning H302-H319

Ammonium chloride
ROTI®METIC 99,999 % (5N)

Type analysis

Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5050.1	50 g	plastic	145,15
5050.2	100 g	plastic	241,90

Ammonium chloride
≥99,7 %, p.a., Ultra Quality

Reagent for photography, buffer substance, molecularbiology, mixtures cryogens.

Guarantee analysis

Assay (arg.) ..... ≥99,7 %
pH-value (5 % solution) 4,5-5,5
Water (KF) ..... ≤0,1 %
Appearance of solution ..... complies
In H_2O insoluble matter ..... ≤0,005 %
Acidity or alkalinity ..... complies
Ash content (as SO_4) ..... ≤0,02 %
Pyridine and homologues ..... ≤0,001 %
Bromide and Iodide (Br,I) ..... complies
Phosphate (PO_4) ..... ≤0,0002 %
Nitrate (NO_3) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,002 %
Iodide (I) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,00005 %
Lead (Pb) ..... ≤0,0001 %
Cadmium (Cd) ..... ≤0,0001 %
Calcium (Ca) ..... ≤0,001%
Chromium (Cr) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0002 %
Potassium (K) ..... ≤0,005 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %
Mercury (Hg) ..... ≤0,0001 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
K298.1	500 g	plastic	32,15
Original pack 6 x 500 g			30,54/500 g
K298.2	1 kg	plastic	59,05
Original pack 6 x 1 kg			56,10/1 kg
K298.3	2.5 kg	plastic	99,90
K298.4	5 kg	plastic	142,45
K298.6	10 kg	plastic	235,45
K298.5	25 kg	plastic	471,95

Ammonium chloride
≥99,5 %, Ph. Eur., USP, BP

Guarantee analysis

Assay (argentometric, dry substance) ..... 99,5-100,5 %
Identity ..... complies
pH value (5 % in water) 4,6-6,0
Appearance of solution ..... complies
Loss on drying (2 h, 105 °C) ..... ≤0,5 %
Ash content (as SO_4) ..... ≤0,1 %
Acid or alkaline react. substances ..... complies
Bromide and Iodide (Br,I) ..... complies
Phosphate (PO_4) ..... ≤0,002 %
Sulphate (SO_4) ..... ≤0,005 %
Thiocyanate (SCN) ..... complies
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,02 %
Iron (Fe) ..... ≤0,002 %
Copper (Cu) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
P726.1	500 g	plastic	24,65
Original pack 6 x 500 g			23,42/500 g
P726.2	1 kg	plastic	41,85
Original pack 6 x 1 kg			39,76/1 kg
P726.4	2.5 kg	plastic	64,40
P726.3	5 kg	plastic	101,60
P726.6	10 kg	plastic	149,45
P726.5	25 kg	plastic	306,40

Ammonium chloride
≥99 %, cryst.

Type analysis

Appearance ..... fine white crystals
Assay (NH_4Cl) ..... ≥99,0 %
Iron (Fe) ..... ≤0,0003 %
Sodium chloride (NaCl) ..... ≤0,2 %
Water (KF) ..... ≤0,1 %
Ash ..... ≤0,25 %

Art. No.	Pack Qty.	Pack.	€
5470.1	1 kg	plastic	24,65
Original pack 6 x 1 kg			23,42/1 kg
5470.4	2.5 kg	plastic	48,30
5470.2	5 kg	plastic	72,60
5470.3	10 kg	plastic	120,95
5470.5	25 kg	plastic	241,90

Ammonium citrate, dibasic

▸ di-Ammonium hydrogen citrate see page 736

tri-Ammonium citrate

Citric acid triammonium salt · Ammonium citrate tribasic

$C_6H_{17}N_3O_7$ · D 1,48 g/cm³
CAS No. 3458-72-8 · EC no. 222-394-5
WGK 1

Warning H315-H319-H335

tri-Ammonium citrate
≥97 %, pure

Type analysis

Assay (titr.) ..... ≥97,0 %
pH value (5 % in H_2O) 7,0-8,0
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,01 %
Iron (Fe) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
9488.1	100 g	plastic	29,60
9488.2	500 g	plastic	75,15
Original pack 6 x 500 g			71,39/500 g
9488.3	1 kg	plastic	117,20
Original pack 6 x 1 kg			111,34/1 kg

Ammonium citrate tribasic

▸ tri-Ammonium citrate see page 734

Ammonium dihydrogene phosphate matrix modifier solution

▸ Ammonium dihydrogen phosphate matrix modifier solution see page 1069
▸ Ammonium dihydrogen phosphate matrix modifier solution see page 1069

Ammonium dihydrogen phosphate

Ammonium biphosphate · Ammonium-phosphate monobasic

$(NH_4)H_2PO_4$ · D 1,81 g/cm³ · mp 197 °C
CAS No. 7722-76-1 · EC no. 231-764-5
WGK 1

Ammonium dihydrogen phosphate
ROTI®METIC 99,999 % (5N)

Type analysis

Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5580.1	25 g	plastic	70,45
5580.2	100 g	plastic	161,80

Ammonium dihydrogen phosphate
≥99 %, p.a., ACS

Buffer substance

Guarantee analysis

Assay (acidim.) ..... ≥99 %
In H_2O insoluble matter ..... ≤0,005 %
pH-value (5%, water) 3,8-4,4
Sulphur compounds (as SO_4) ..... ≤0,005 %
Chloride (Cl) ..... ≤0,0005 %
Nitrate (NO_3) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,00005 %
Cadmium (Cd) ..... ≤0,0005 %
Chromium (Cr) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,001 %
Sodium (Na) ..... ≤0,005 %
Potassium (K) ..... ≤0,005 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
P727.1	500 g	plastic	63,45
Original pack 6 x 500 g			60,28/500 g
P727.2	1 kg	plastic	120,95
Original pack 6 x 1 kg			114,90/1 kg
P727.3	2.5 kg	plastic	263,40

Ammonium dihydrogen phosphate
≥98 %, extra pure

Buffer substance

Type analysis

Assay (acidim.) ..... ≥98 %
pH-value (5%, water) 3,8-4,4
In H_2O insoluble matter ..... ≤0,01 %
Sulphur compounds (as SO_4) ..... ≤0,05 %
Chloride (Cl) ..... ≤0,003 %
Nitrate (NO_3) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,005 %
Arsenic (As) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,003 %

Art. No.	Pack Qty.	Pack.	€
CP85.1	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
CP85.2	1 kg	plastic	75,15
Original pack 6 x 1 kg			71,39/1 kg
CP85.3	2.5 kg	plastic	158,60

Ammonium dimolybdate

$H_8Mo_2N_2O_7$ · D 1,2 g/cm³
CAS No. 27546-07-2 · EC no. 248-517-2
WGK 1

Ammonium dimolybdate
≥99 %, p.a.

Type analysis

Assay ..... ≥99 %
Assay (metals basis) ..... ≥56 %
Al (Aluminium) ..... ≤0,001 %
As (Arsenic) ..... ≤0,001 %
Ca (Calcium) ..... ≤0,002 %
Cu (Copper) ..... ≤0,001 %
Fe (Iron) ..... ≤0,001 %
Ni (Nickel) ..... ≤0,001 %
Pb (Lead) ..... ≤0,001 %
Tungsten (W) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
3246.1	100 g	plastic	29,60
3246.2	500 g	plastic	96,65
Original pack 6 x 500 g			91,82/500 g
3246.3	1 kg	plastic	162,90
Original pack 6 x 1 kg			154,76/1 kg

Ammonium ferric oxalate
▸ Ammonium iron(III) oxalate trihydrate see page 737

Ammonium fluoride

NH_4F · D 1,009 g/cm³
CAS No. 12125-01-8 · EC no. 235-185-9
UN no. 2505 · ADR 6.1 III · WGK 1

Danger H301+H311+H331

Ammonium fluoride
≥98 %, p.a., ACS

Guarantee analysis

Appearance . colorless or white hygroscopic solid
Assay ..... ≥98,0 %
Insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,005 %
Iron (Fe) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Loss on ignition ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
6549.1	250 g	plastic	76,90
6549.2	500 g	plastic	131,70
Original pack 6 x 500 g			125,12/500 g
6549.3	1 kg	plastic	235,45
Original pack 6 x 1 kg			223,68/1 kg

Ammonium fluorosilicate
▸ Ammonium hexafluorosilicate see page 735

Ammonium formate

$HCOONH_4$ · D 1,28 g/cm³ · mp 116 °C
CAS No. 540-69-2 · EC no. 208-753-9
WGK 1

Warning H315-H319-H335

Ammonium formate
≥95 %, extra pure

Type analysis

Appearance ..... hygroscopic crystals
Assay ($HCOONH_4$) ..... ≥95 %
pH value (5 % in H_2O) 6-7
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,01 %
Iron (Fe) ..... ≤0,002 %
Heavy metals (as Pb) ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
5093.2	500 g	plastic	35,40
Original pack 6 x 500 g			33,63/500 g
5093.1	1 kg	plastic	60,10
Original pack 6 x 1 kg			57,10/1 kg
5093.3	5 kg	plastic	241,90

Ammonium heptamolybdate tetrahydrate

Ammonium molybdate

$(NH_4)_6Mo_7O_{24}$ · 4 H_2O · D 2,86 g/cm³
CAS No. 12054-85-2 · EC no. 234-722-4
WGK 1

Ammonium heptamolybdate tetrahydrate
≥99 %, p.a.

Type analysis

Appearance ..... colourless to yellow, greenish crystals
Assay ..... ≥99 %
Aluminium (Al) ..... ≤0,001 %
Lead (Pb) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,001 %
Chromium (Cr) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
Copper (Cu) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,001 %
Nickel (Ni) ..... ≤0,0005 %
Silicon (Si) ..... ≤0,001 %
Titanium (Ti) ..... ≤0,0005 %
Tin (Sn) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
3666.1	250 g	plastic	107,40
3666.2	500 g	plastic	192,45
Original pack 6 x 500 g			182,83/500 g
3666.3	1 kg	plastic	353,70
Original pack 6 x 1 kg			336,02/1 kg
3666.7	25 kg	plastic	3.708,75

Ammonium heptamolybdate tetrahydrate
≥99 %, extra pure

Type analysis

Assay ..... ≥99,0 %
Aluminium (Al) ..... ≤0,001 %
Lead (Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
Nickel (Ni) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
7311.1	100 g	plastic	31,10
7311.2	500 g	plastic	96,65
Original pack 6 x 500 g			91,82/500 g
7311.3	1 kg	plastic	160,20
Original pack 6 x 1 kg			152,19/1 kg
7311.4	2.5 kg	plastic	338,65

Ammonium hexachloro-rhodate(III)

Rhodium(III) ammonium chloride

$(NH_4)_3RhCl_6$ · D 1,98 g/cm³ · mp 260 °C
CAS No. 15336-18-2 · EC no. 239-364-2
WGK 1

Warning H315-H319

Ammonium hexachloro-rhodate(III)
ROTI®METIC 99,995 % (4N5)

Type analysis

Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5586.1	1 g	plastic	676,20

Ammonium hexafluorosilicate

Ammonium fluorosilicate

$(NH_4)_2SiF_6$ · D 2,011 g/cm³ · mp 145 °C
CAS No. 16919-19-0 · EC no. 240-968-3
UN no. 2854 · ADR 6.1 III · WGK 2

Danger H301+H311+H331

Ammonium hexafluorosilicate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5587.1	10 g	plastic	80,10
5587.2	25 g	plastic	157,50
5587.3	50 g	plastic	274,15

Ammonium hexafluorosilicate
≥98,5 %, extra pure

Type analysis
Assay (titr.) ..... ≥98,5 %
Sulphate (SO_4) ..... ≤0,5 %
Water ..... ≤0,5 %
In water insoluble matter ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
7314.1	250 g	plastic	30,00
7314.2	500 g	plastic	45,70
Original pack 6 x 500 g			43,42/500 g
7314.3	1 kg	plastic	80,10
Original pack 6 x 1 kg			76,10/1 kg
7314.4	2.5 kg	plastic	155,90

Ammonium hydrogen carbonate

Ammonium bicarbonate

$(NH_4)HCO_3$ · D 1,59 g/cm³ · mp 106 °C
CAS No. 1066-33-7 · EC no. 213-911-5
WGK 1

Warning H302

Ammonium hydrogen carbonate
≥99 %, p.a.

Guarantee analysis
Assay (acidim.) ..... ≥99,0 %
In H_2O insoluble matter ..... ≤0,005 %
Non volatile matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,0005 %
Phosphate (PO_4) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,005 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,0001 %
Potassium (K) ..... ≤0,005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,005 %
Sodium (Na) ..... ≤0,005 %
Sulphide (S) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
T871.1	500 g	plastic	30,00
Original pack 6 x 500 g			28,50/500 g
T871.2	1 kg	plastic	46,15
Original pack 6 x 1 kg			43,84/1 kg
T871.3	2.5 kg	plastic	76,25
T871.4	5 kg	plastic	129,55
T871.5	25 kg	plastic	482,70

Ammonium hydrogen carbonate
≥98 %, Ph. Eur., BP

Guarantee analysis
Assay (acidim.) ..... 98,0-101,0 %
Identity ..... complies
In H_2O insoluble matter ..... ≤0,01 %
Calcium (Ca) ..... ≤0,01 %
Chloride (Cl) ..... ≤0,005 %
Phosphate (PO_4) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,007 %
Sulphide (S) ..... complies
Arsenic (As) ..... ≤0,0002 %
Iron (Fe) ..... ≤0,001 %
Copper (Cu) ..... ≤0,025 %
Nickel (Ni) ..... ≤0,0025 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
7094.2	500 g	plastic	22,50
Original pack 6 x 500 g			21,38/500 g
7094.1	1 kg	plastic	36,45
Original pack 6 x 1 kg			34,63/1 kg
7094.4	2.5 kg	plastic	59,05
7094.3	5 kg	plastic	110,65
7094.5	25 kg	plastic	385,95

di-Ammonium hydrogen citrate

Ammonium citrate, dibasic

$C_6H_{14}N_2O_7$ · D 1,48 g/cm³ · mp 174 to 176 °C · bp >500 °C
CAS No. 3012-65-5 · EC no. 221-146-3
WGK 1

Warning H315-H319

di-Ammonium hydrogen citrate
≥98 %, p.a., ACS

Guarantee analysis
Assay (acidim.) ..... 98,0-103,0 %
Water ..... ≤1,0 %
In H_2O insoluble matter ..... ≤0,005 %
Ash content (as SO_4) ..... ≤0,01 %
Phosphate (PO_4) ..... ≤0,0005 %
Chloride (Cl) ..... ≤0,001 %
Oxalate (C_2O_4) ..... ≤0,05 %
Sulphur compounds (as SO_4) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,002 %
Chromium (Cr) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,005 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
P735.1	500 g	plastic	123,65
Original pack 6 x 500 g			117,47/500 g
P735.2	1 kg	plastic	231,15
Original pack 6 x 1 kg			219,59/1 kg
P735.3	2.5 kg	plastic	467,65

di-Ammonium hydrogen citrate
≥97 %, extra pure

Type analysis
Assay ..... ≥97,0 %
pH value (5 % in H_2O) 4,5-5,5
Chloride (Cl) ..... ≤0,005 %
Iron (Fe) ..... ≤0,002 %
Sulphate (SO_4) ..... ≤0,01 %
Copper (Cu) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
0267.1	500 g	plastic	37,10
Original pack 6 x 500 g			35,25/500 g
0267.2	1 kg	plastic	64,00
Original pack 6 x 1 kg			60,80/1 kg
0267.3	2.5 kg	plastic	138,70

Ammonium hydrogen fluoride

Ammonium bifluoride · Ammonium difluoride

$(NH_4)HF_2$ · D 1,5 g/cm³ · mp 125 to 126 °C · bp 239 to 240 °C
CAS No. 1341-49-7 · EC no. 215-676-4
UN no. 1727 · ADR 8 II · WGK 1

Danger H301-H314

Ammonium hydrogen fluoride
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5363.1	25 g	plastic	149,45

Ammonium hydrogen fluoride
≥98 %, extra pure

Type analysis
Assay ..... ≥98,0 %
Sulphate (SO_4) ..... ≤0,2 %
Iron (Fe) ..... ≤0,005 %
Ash content ..... ≤0,2 %
Water ..... ≤1,5 %

Art. No.	Pack Qty.	Pack.	€
7313.1	250 g	plastic	24,65
7313.2	500 g	plastic	38,60
Original pack 6 x 500 g			36,67/500 g
7313.3	1 kg	plastic	59,05
Original pack 6 x 1 kg			56,10/1 kg
7313.4	2.5 kg	plastic	126,35

di-Ammonium hydrogen phosphate

Ammonium phosphate · Fermentation salt · *sec*- Ammonium phosphate

$(NH_4)_2HPO_4$ · D 1,62 g/cm³ · mp 155 °C
CAS No. 7783-28-0 · EC no. 231-987-8
WGK 1

di-Ammonium hydrogen phosphate
ROTI®METIC 99,999 % (5N)

Guarantee analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5596.1	100 g	plastic	310,70

di-Ammonium hydrogen phosphate
≥98 %, p.a., ACS

Buffer substance

Guarantee analysis
Assay (acidim.) ..... ≥98,0 %
pH value (5 % in water) 7,7-8,1
In H_2O insoluble matter ..... ≤0,005 %
Sulphur compounds (as SO_4) ..... ≤0,004 %
Chloride (Cl) ..... ≤0,0005 %
Nitrate (NO_3) ..... ≤0,003 %
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,005 %
Copper (Cu) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
P736.1	500 g	plastic	78,40
Original pack 6 x 500 g			74,48/500 g
P736.2	1 kg	plastic	137,10
Original pack 6 x 1 kg			130,25/1 kg
P736.3	2.5 kg	plastic	295,65

di-Ammonium hydrogen phosphate
≥97 %, extra pure

Buffer substance

Type analysis
Assay (acidim.) ..... ≥97 %
pH value (5 % in H_2O) 7,7-8,3
In H_2O insoluble matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As) ..... ≤0,0003 %
Iron (Fe) ..... ≤0,003 %

Art. No.	Pack Qty.	Pack.	€
0268.1	500 g	plastic	31,10
Original pack 6 x 500 g			29,55/500 g
0268.2	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg
0268.4	2.5 kg	plastic	112,90
0268.3	5 kg	plastic	209,65

Ammonium hydrogen sulphate

Ammonium bisulphate

NH_4HSO_4 · D 1,79 g/cm³ · mp 121 to 145 °C · bp 350 °C
CAS No. 7803-63-6 · EC no. 232-265-5
UN no. 2506 · ADR 8 II · WGK 1

Danger H314

Ammonium hydrogen sulphate
≥98,5 %, p.a.

Guarantee analysis
Assay (acidim.) ..... ≥98,5 %
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... <0,0002 %
Phosphate (PO_4) ..... ≤0,0003 %
Nitrate (NO_3) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,0002 %
Aluminium (Al) ..... ≤0,001 %
Arsenic (As) ..... ≤0,00002 %
Calcium (Ca) ..... <0,001 %
Magnesium (Mg) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,0005 %
Cadmium (Cd) ..... <0,0005 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,0002 %
Potassium (K) ..... ≤0,005 %
Sodium (Na) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,0001 %
Zinc (Zn) ..... ≤0,0001 %
Ash content ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
5485.2	250 g	plastic	36,45
5485.1	500 g	plastic	61,20
Original pack 6 x 500 g			58,14/500 g
5485.3	1 kg	plastic	110,65
Original pack 6 x 1 kg			105,12/1 kg

Ammonium hydroxide solution
▸ Ammonia solution see page 730

Ammonium iodide

NH_4I · D 2,514 g/cm³ · mp 551 °C · bp 220 °C
CAS No. 12027-06-4 · EC no. 234-717-7
WGK 1

Warning H315-H319-H335

Ammonium iodide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Art. No.	Pack Qty.	Pack.	€
1L79.1	5 g	HDPE	103,75
1L79.2	25 g	HDPE	377,90

Ammonium iodide
≥99 %, p.a., ACS

Guarantee analysis
Assay (arg.) ..... ≥99,0 %
Insoluble matter ..... ≤0,005 %
Ash content ..... ≤0,05 %
Chloride and bromide ..... ≤0,005 %
Phosphate (PO_4) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,05 %
Arsenic (As) ..... ≤0,0005 %
Barium (Ba) ..... ≤0,002 %
Iron (Fe) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
9818.1	100 g	glass	149,45
9818.2	250 g	glass	299,95
9818.3	500 g	glass	564,40
Original pack 6 x 500 g			536,18/500 g

Ammonium iron(III) citrate

Citric acid ammonium iron(III) salt · Iron(III) ammonium citrate · Ferric ammonium citrate

CAS No. 1185-57-5 · EC no. 214-686-6
WGK 1

Ammonium iron(III) citrate
~21 % Fe, brown

Type analysis
Appearance ..... red-brown powder
Assay (Fe) ..... 20,5-22,5 %
pH value (10 % in H_2O) 6,0-8,0
Chloride (Cl) ..... ≤0,05 %
Arsenic (As) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,005 %
Loss on drying (105 °C, 2 h) ..... ≤6,0 %

Art. No.	Pack Qty.	Pack.	€
0618.1	250 g	plastic	32,15
0618.2	500 g	plastic	48,30
Original pack 6 x 500 g			45,89/500 g
0618.3	1 kg	plastic	83,75
Original pack 6 x 1 kg			79,56/1 kg
0618.4	2.5 kg	plastic	170,95

Ammonium iron(III) citrate
~18 % Fe

Microbiology

Guarantee analysis
Appearance ..... yellowish, brown powder
Assay (Fe) ..... 17,1-18,9 %
pH value (10 % solution) 6,0-8,0
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤1,5 %
Heavy metals (as Pb) ..... ≤0,005 %
Arsenic (As) ..... ≤0,0004 %
Loss on drying ..... ≤6,0 %

Art. No.	Pack Qty.	Pack.	€
CN77.1	250 g	plastic	22,50
CN77.2	500 g	plastic	35,40
Original pack 6 x 500 g			33,63/500 g
CN77.3	1 kg	plastic	60,75
Original pack 6 x 1 kg			57,71/1 kg
CN77.4	2.5 kg	plastic	123,65

Ammonium iron(III) citrate
~15 % Fe, green

Type analysis
Assay (Fe) ..... 14,5-16,0 %

Art. No.	Pack Qty.	Pack.	€
9366.1	250 g	plastic	32,15
9366.2	500 g	plastic	45,70
Original pack 6 x 500 g			43,42/500 g
9366.3	1 kg	plastic	78,40
Original pack 6 x 1 kg			74,48/1 kg

Ammonium iron(III) citrate solution

D 1,06 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

Ammonium iron(III) citrate solution
12,5 %, sterile, ready-to-use

Media supplement for detection of *Listeria monocytogenes*.

Application: One vial ferric ammonium (III) citrate solution (0.25 g in 2 ml) is added to 500 ml autoclaved Fraser Broth (Art. No. HP17) or Fraser Half Broth (Art. No. HP18). Mix carefully and store cooled for 2 weeks in maximum. Fraser Broth is used in the rapid detection of Listeria from food and environmental samples (Fraser and Sperber (1988) *J. Food Protect.* 51:762).

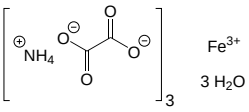
One box of 10 vials Ammonium iron(III) citrate solution is sufficient for 10 x 500 ml Fraser Broth (Art. No. HP17) or Fraser Half Broth (Art. No. HP18).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Formulation per vial
Ammonium iron(III) citrate ..... 0,25 g

Art. No.	Pack Qty.	Pack.	€
3130.1	20 ml	plastic	53,65
3130.2	60 ml	plastic	134,40

Ammonium iron(III) oxalate trihydrate



Iron ammonium oxalate · Ammonium ferric oxalate

$(NH_4)_3Fe(C_2O_4)_3 \cdot 3\ H_2O$ · D 1,78 g/cm³ · mp 160 to 170 °C
CAS No. 13268-42-3 · EC no. 220-952-2
WGK 1

Warning H302+H312

Ammonium iron(III) oxalate trihydrate
≥99 %, pure

Type analysis
Assay (based on Fe) ..... ≥98,5 %
pH value (5 % in H_2O) ..... ~5,0
Chloride (Cl) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
0517.1	250 g	plastic	28,95
0517.2	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
0517.3	1 kg	plastic	75,15
Original pack 6 x 1 kg			71,39/1 kg
0517.4	2.5 kg	plastic	153,20

Ammonium iron(II) sulphate hexahydrate

Iron(II) ammonium sulphate · Ferrous ammonium sulphate · Mohr's salt

$(NH_4)_2Fe(SO_4)_2 \cdot 6\ H_2O$ · D 1,86 g/cm³ · mp 39 to 41 °C
CAS No. 7783-85-9 · EC no. 233-151-8
WGK 1

Ammonium iron(II) sulphate hexahydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L75.1	5 g	glass	83,35
1L75.2	25 g	glass	254,25

Ammonium iron(II) sulphate hexahydrate
≥99 %, p.a., ISO

Guarantee analysis
Assay (perm.) ..... 99,0-101,0 %
pH value (5 % in water) 3,0-5,0
In H_2SO_4 insoluble matter ..... ≤0,005 %
Substances not precipitated by ammonia ≤0,1 %
Phosphate (PO_4) ..... ≤0,002 %
Chloride (Cl) ..... ≤0,001 %
Iron III (Fe III) ..... ≤0,02 %
Calcium (Ca) ..... ≤0,01 %
Copper (Cu) ..... ≤0,001 %
Potassium (K) ..... ≤0,01 %
Manganese (Mn) ..... ≤0,02 %
Lead (Pb) ..... ≤0,001 %
Cobalt (Co) ..... ≤0,005 %
Magnesium (Mg) ..... ≤0,005 %
Sodium (Na) ..... ≤0,01 %
Zinc (Zn) ..... ≤0,003 %

Art. No.	Pack Qty.	Pack.	€
P728.1	500 g	plastic	35,40
Original pack 6 x 500 g			33,63/500 g
P728.2	1 kg	plastic	61,20
Original pack 6 x 1 kg			58,14/1 kg
P728.3	2.5 kg	plastic	137,10

Ammonium iron(II) sulphate hexahydrate
≥98 %, extra pure

Type analysis
Assay ..... ≥98,0 %
Iron III (Fe III) ..... complies
Copper (Cu) ..... ≤0,005 %
Zinc (Zn) ..... ≤0,02 %
Alkali and alkaline-earth metals (as SO_4) ≤0,07 %

Art. No.	Pack Qty.	Pack.	€
X884.1	500 g	plastic	23,55
Original pack 6 x 500 g			22,37/500 g
X884.2	1 kg	plastic	37,55
Original pack 6 x 1 kg			35,67/1 kg
X884.3	5 kg	plastic	145,15

Ammonium iron(II) sulphate solution (0.12 N)

D 1,046 g/cm³ · bp 100 °C
UN no. 3264 · ADR 8 III · WGK 1

Warning H290

Ammonium iron(II) sulphate solution
0,12 mol/l – 0,12 N, volumetric standard solution, for COD determination

According to DIN 38409 part H41.

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,12 mol/l

The titre has to be determined at least daily.

Art. No.	Pack Qty.	Pack.	€
KK60.1	1 l	plastic	59,70
Original pack 6 x 1 l			56,72/1 l

Ammonium iron(III) sulphate dodecahydrate

Iron(III) ammonium sulphate · Iron alum · Iron ammonium alum

$(NH_4)Fe(SO_4)_2 \cdot 12\ H_2O$ · D 1,71 g/cm³ · mp 39 to 41 °C
CAS No. 7783-83-7 · EC no. 233-382-4
WGK 1

Ammonium iron(III) sulphate dodecahydrate
≥98,5 %, p.a., ACS, ISO

Guarantee analysis
Assay (iodom.) ..... 98,5-102,0 %
In H_2O insoluble matter ..... ≤0,005 %
Substances not precipitated by ammonia ..... ≤0,05 %
Chloride (Cl) ..... ≤0,0005 %
Nitrate (NO_3) ..... ≤0,01 %
Lead (Pb) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,01 %
Iron II (Fe II) ..... ≤0,001 %
Potassium (K) ..... ≤0,005 %
Copper (Cu) ..... ≤0,002 %
Magnesium (Mg) ..... ≤0,001 %
Manganese (Mn) ..... ≤0,005 %
Sodium (Na) ..... ≤0,01 %
Zinc (Zn) ..... ≤0,003 %

Art. No.	Pack Qty.	Pack.	€
P734.1	500 g	plastic	55,80
Original pack 6 x 500 g			53,01/500 g
P734.2	1 kg	plastic	103,10
Original pack 6 x 1 kg			97,95/1 kg
P734.3	2.5 kg	plastic	213,95

Ammonium iron(III) sulphate dodecahydrate
≥98 %, extra pure

Type analysis
Assay ..... ≥98,0 %
Chloride (Cl) ..... ≤0,05 %
Copper (Cu) ..... ≤0,002 %
Zinc (Zn) ..... ≤0,005 %
Iron(II) salts ..... complies
In NH_4OH not precipitated substances ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
X885.1	500 g	plastic	24,20
Original pack 6 x 500 g			22,99/500 g
X885.2	1 kg	plastic	38,60
Original pack 6 x 1 kg			36,67/1 kg
X885.3	5 kg	plastic	149,45

Ammonium matrix modifier

▸ Ammonium nitrate matrix modifier solution
see page 1069

Ammonium metatungstate hydrate

Ammonium tungsten oxide hydrate · Hexa-ammonium tungstate hydrate

$(NH_4)_6H_2W_{12}O_{40} \cdot x\ H_2O$ · D 4 g/cm³ · mp 120 °C
CAS No. 12028-48-7 · EC no. 234-733-4
WGK 1

Warning H302

Ammonium metatungstate hydrate
≥90 % WO_3, p.a.

Type analysis
Assay (WO_3) ..... ≥90 %
In water insoluble matter ..... ≤0,05 %
Loss on ignition (2 h, 750 °C) ..... ≤10,0 %
Aluminium (Al) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,001 %
Molybdenum (Mo) ..... ≤0,005 %
Sodium (Na) ..... ≤0,001 %
Phosphorus (P) ..... ≤0,001 %
Silicon (Si) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
0742.1	25 g	plastic	38,60
0742.2	100 g	plastic	73,00
0742.3	500 g	plastic	278,45
Original pack 6 x 500 g			264,53/500 g

Ammonium metavanadate

▸ Ammonium monovanadate see page 738

Ammonium molybdate

▸ Ammonium heptamolybdate tetrahydrate see page 735

Ammonium molybdate(VI)

$(NH_4)_2MoO_4$ · D 1,4 g/cm³
CAS No. 13106-76-8 · EC no. 236-031-3
WGK 1

Warning H302-H315-H319-H335

Ammonium molybdate(VI)
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5591.1	5 g	plastic	60,75
5591.2	25 g	plastic	205,90

Ammonium molybdenum sulfide

▸ Ammonium tetrathiomolybdate see page 741

Ammonium monovanadate

Ammonium metavanadate · Ammonium vanadium oxide

NH_4VO_3 · D 2,3 g/cm³ · mp 200 °C
CAS No. 7803-55-6 · EC no. 232-261-3
UN no. 2859 · ADR 6.1 II · WGK 3

Danger H301-H319-H332-H361fd-H372-H410

Ammonium monovanadate
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5590.3	1 g	plastic	32,80
5590.2	25 g	plastic	532,15

Ammonium monovanadate
≥99,8 %, p.a.

Component of the molybdate-vanadate reagent for the determination of phosphate.

Guarantee analysis
Assay ..... ≥99,8 %
Sodium (Na) ..... ≤0,01 %
Potassium (K) ..... ≤0,01 %
Iron (Fe) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
4232.1	50 g	plastic	31,75
4232.2	100 g	plastic	46,80
4232.3	250 g	plastic	94,50
4232.4	1 kg	plastic	306,40
Original pack 6 x 1 kg			291,08/1 kg

Ammonium monovanadate
≥99 %, extra pure

Type analysis
Assay ..... ≥99,0 %
Assay (V_2O_5) ..... ≥77 %
Iron (Fe) ..... ≤0,05 %
Potassium (K) ..... ≤0,05 %
Sodium (Na) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
9923.1	100 g	plastic	37,55
9923.2	500 g	plastic	123,65
Original pack 6 x 500 g			117,47/500 g
9923.3	1 kg	plastic	220,40
Original pack 6 x 1 kg			209,38/1 kg

Ammonium nitrate

Ammonium saltpeter

NH_4NO_3 · D 1,72 g/cm³ · mp 169 °C
CAS No. 6484-52-2 · EC no. 229-347-8
UN no. 1942 · ADR 5.1 III · WGK 1

Warning H272-H319

Ammonium nitrate
≥98 %, p.a., ACS

Guarantee analysis
Assay (acidim.) ..... ≥98,0 %
pH value (5 % in H_2O) 4,5- 6,0
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,0003 %
Sulphate (SO_4) ..... ≤0,002 %
Nitrite (NO_2) ..... ≤0,0005 %
Phosphate (PO_4) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0002 %
Ash content (as SO_4) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
K299.1	500 g	plastic	38,60
Original pack 6 x 500 g			36,67/500 g
K299.2	1 kg	plastic	64,00
Original pack 6 x 1 kg			60,80/1 kg
K299.3	2.5 kg	plastic	138,15

Ammonium nitrate
≥98 %, extra pure

Type analysis
Assay (acidim.) ..... ≥98,0 %
pH-value (5 %, 20 °C) 4,5-6,0
Chloride (Cl) ..... ≤0,005 %
Phosphate (PO_4) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
X988.1	500 g	plastic	37,10
Original pack 6 x 500 g			35,25/500 g
X988.2	1 kg	plastic	59,70
Original pack 6 x 1 kg			56,72/1 kg
X988.3	2.5 kg	plastic	128,50

Ammonium nitrate matrix modifier solution

▸ Ammonium nitrate matrix modifier solution see page 1069

di-Ammonium oxalate monohydrate

Oxalic acid ammonium salt monohydrate

$(NH_4)_2C_2O_4 \cdot H_2O$ · D 1,5 g/cm³ · mp 70 °C
CAS No. 6009-70-7 · EC no. 214-202-3
WGK 1

Warning H302+H312-H319

di-Ammonium oxalate monohydrate
≥99,5 %, p.a., ACS

Reagent for the determination of Ca, Pb and rare earth metals.

Guarantee analysis
Assay (perm.) ..... ≥99,5 %
In H_2O insoluble matter ..... ≤0,005 %
Ash content (as SO_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,001 %
Nitrate (NO_3) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,002 %
Lead (Pb) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0002 %
Copper (Cu) ..... ≤0,0005 %
Potassium (K) ..... ≤0,001 %
Sodium (Na) ..... ≤0,001 %
Zinc (Zn) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
P737.1	500 g	plastic	75,15
Original pack 6 x 500 g			71,39/500 g
P737.2	1 kg	plastic	126,35
Original pack 6 x 1 kg			120,03/1 kg
P737.3	2.5 kg	plastic	281,15

di-Ammonium oxalate monohydrate
≥98 %, BP

Reagent for the determination of Ca, Pb and rare earth metals.

Guarantee analysis
Appearance ..... white crystals
Assay ..... ≥98 %
Identity ..... complies
Chloride (Cl) ..... ≤0,018 %
Heavy metals (as Pb) ..... ≤0,002 %
Ash content ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
4266.3	500 g	plastic	39,70
Original pack 6 x 500 g			37,72/500 g
4266.1	1 kg	plastic	69,80
Original pack 6 x 1 kg			66,31/1 kg
4266.4	2.5 kg	plastic	149,45
4266.2	10 kg	plastic	547,20

Ammonium peroxydisulphate

APS · Ammonium persulphate

$(NH_4)_2S_2O_8$ · D 1,982 g/cm³ · mp 120 °C
CAS No. 7727-54-0 · EC no. 231-786-5
UN no. 1444 · ADR 5.1 III · WGK 1

Danger H272-H302-H315-H317-H319-H334-H335

Ammonium peroxydisulphate
≥98 %, p.a., ACS

Oxidizing agent for Cu, for separation of Mn and Cr.
For electrophoresis. Polymerisation catalyst.

Use 10 % APS solution – fill 1 g of APS with water to an end volume of 10 ml. Prepare freshly or store in aliquots at –20 °C. Freeze and thaw infrequently.

Guarantee analysis

Assay (iodom.)	≥98,0 %
In H_2O insoluble matter	≤0,005 %
Chlorides and chlorates (as Cl)	≤0,001 %
Acidity	≤0,04 meq/g
Lead (Pb)	≤0,0005 %
Cadmium (Cd)	≤0,0005 %
Calcium (Ca)	≤0,01 %
Chromium (Cr)	≤0,0005 %
Iron (Fe)	≤0,001 %
Potassium (K)	≤0,005 %
Cobalt (Co)	≤0,0005 %
Copper (Cu)	≤0,0005 %
Magnesium (Mg)	≤0,005 %
Manganese (Mn)	≤0,00005 %
Sodium (Na)	≤0,01 %
Nickel (Ni)	≤0,0005 %
Heavy metals (as Pb)	≤0,005 %
Zinc (Zn)	≤0,0005 %
Ash content (as SO_4)	≤0,05 %

Art. No.	Pack Qty.	Pack.	€
9592.3	50 g	plastic	16,05
9592.2	100 g	plastic	25,70
9592.5	500 g	plastic	69,80
Original pack 6 x 500 g			66,31/500 g
9592.1	1 kg	plastic	117,75
Original pack 6 x 1 kg			111,86/1 kg
9592.4	2.5 kg	plastic	231,15

Ammonium peroxydisulphate
≥98 %, extra pure

Type analysis

Assay	≥98,0 %
Acid content (as H_2SO_4)	≤0,1 %
Active oxygen	≥6,9 %

Art. No.	Pack Qty.	Pack.	€
9178.3	500 g	plastic	21,40
Original pack 6 x 500 g			20,33/500 g
9178.1	1 kg	plastic	31,75
Original pack 6 x 1 kg			30,16/1 kg
9178.4	2.5 kg	plastic	64,40
9178.2	5 kg	plastic	117,20

Ammonium perrhenate

NH_4ReO_4 · D 3,97 g/cm³ · mp 365 °C
CAS No. 13598-65-7 · EC no. 237-075-6
WGK 1

Ammonium perrhenate
ROTI®METIC 99,999 % (5N)

Type analysis

Assay (metals basis)	99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L6P.1	1 g	HDPE	80,55
1L6P.2	5 g	HDPE	335,95

Ammonium persulphate
▸ Ammonium peroxydisulphate see page 739

Ammonium phosphate
▸ di-Ammonium hydrogen phosphate see page 736

Ammoniumphosphate monobasic
▸ Ammonium dihydrogen phosphate see page 734

sec- Ammonium phosphate
▸ di-Ammonium hydrogen phosphate see page 736

tri-Ammonium phosphate trihydrate

$(NH_4)_3PO_4 \cdot 3\ H_2O$
CAS No. 25447-33-0 · EC no. 233-793-9
WGK 1

Warning H302+H312+H332-H315-H319-H335

tri-Ammonium phosphate trihydrate
≥98 %, p.a.

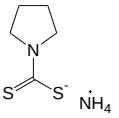
Type analysis

Assay	≥98,0 %
Chloride (Cl)	≤0,001 %
Nitrate (NO_3)	≤0,0005 %
Sulphur (S)	≤0,01 %
As (Arsenic)	≤0,0001 %
Fe (Iron)	≤0,001 %
Alkali metals	≤0,1 %
Heavy metals	≤0,001 %
In H_2O insoluble matter	≤0,005 %

Art. No.	Pack Qty.	Pack.	€
1LK4.1	100 g	plastic	21,40
1LK4.2	500 g	plastic	67,65
Original pack 6 x 500 g			64,27/500 g
1LK4.3	1 kg	plastic	117,20
Original pack 6 x 1 kg			111,34/1 kg
1LK4.4	2.5 kg	plastic	235,45

Ammonium purpurate
▸ Murexide (C. I. 56085) see page 1096

Ammonium pyrrolidine dithiocarbamate



APDC · Ammonium tetramethylene dithiocarbamate

$C_5H_{12}N_2S_2$ · mp 153 to 155 °C
CAS No. 5108-96-3 · EC no. 225-834-4
WGK 1

Warning H315-H319-H335

Ammonium pyrrolidine dithiocarbamate
≥98 %, p.a.

Guarantee analysis

Appearance	white powder
Assay (NT)	≥98 %
Lead (Pb)	≤0,001 %
Cadmium (Cd)	≤0,001 %
Calcium (Ca)	≤0,001 %
Chromium (Cr)	≤0,001 %
Cobalt (Co)	≤0,001 %
Iron (Fe)	≤0,001 %
Potassium (K)	≤0,005 %
Copper (Cu)	≤0,001 %
Magnesium (Mg)	≤0,001 %
Manganese (Mn)	≤0,001 %
Sodium (Na)	≤0,005 %
Nickel (Ni)	≤0,001 %
Bismuth (Bi)	≤0,001 %
Zinc (Zn)	≤0,001 %

Art. No.	Pack Qty.	Pack.	€
5486.1	10 g	plastic	49,35
5486.2	50 g	plastic	173,65

Ammonium rhodanide
▸ Ammonium thiocyanate see page 741

Ammonium saltpeter
▸ Ammonium nitrate see page 739

sec-Ammonium sodium phosphate
▸ Sodium ammonium hydrogen phosphate tetrahydrate see page 1277

Ammonium sulfide solution

$(NH_4)_2S$ · D 0,997 g/cm³ · bp >40 °C · flp 32 °C
UN no. 2683 · ADR 8 (3, 6.1) II · WGK 2

Danger H226-H314-H400-EUH031

Ammonium sulfide solution
20 %, pure

Type analysis

Assay	20-22 %
Ammonia (NH_3)	3,0-5,0 %
Density (20 °C)	0,990-1,010 g/cm³
pH value	9,0-10,0

Art. No.	Pack Qty.	Pack.	€
1KYP.1	100 ml	plastic	28,95
1KYP.2	500 ml	plastic	60,10
1KYP.3	1 l	plastic	91,30
Original pack 6 x 1 l			86,74/1 l
1KYP.4	5 l	plastic	385,95
Original pack 2 x 5 l			366,65/5 l

Ammonium sulphate

di-Ammoniumsulphate

$(NH_4)_2SO_4$ · D 1,77 g/cm³ · mp 230 °C
CAS No. 7783-20-2 · EC no. 231-984-1
WGK 1

Ammonium sulphate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5606.1	10 g	plastic	39,70
5606.2	50 g	plastic	107,40

Ammonium sulphate
≥99,5 %, p.a., ACS, ISO

Reagent for precipitation of proteins, buffer substance, preparation of ammonium alum.

Guarantee analysis
Assay (acidim.) ..... ≥99,5 %
Identity ..... complies
pH value (5 % in H_2O) 5,0-6,0
In H_2O insoluble matter ..... ≤0,005 %
Ash content (as SO_4) ..... ≤0,005 %
Phosphate (PO_4) ..... ≤0,0005 %
Nitrate (NO_3) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,0003 %
Arsenic (As) ..... ≤0,00002 %
Lead (Pb) ..... ≤0,0002 %
Cadmium (Cd) ..... ≤0,0001 %
Calcium (Ca) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0002 %
Cobalt (Co) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0001 %
Loss on drying (100 °C) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
3746.2	250 g	plastic	17,10
3746.1	1 kg	plastic	39,25
Original pack 6 x 1 kg			37,29/1 kg
3746.3	2.5 kg	plastic	75,15
3746.4	5 kg	plastic	127,95
3746.6	10 kg	plastic	198,90
3746.5	25 kg	plastic	424,65

Ammonium sulphate
≥99 %, enzyme quality

Reagent for precipitation of proteins, especially enzymes.

Guarantee analysis
Assay (acidim.) ..... ≥99,0 %
pH value (5 % in H_2O) 5,0-6,0
In H_2O insoluble matter ..... ≤0,005 %
Nitrate (NO_3) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,0005 %
Phosphate (PO_4) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,00002 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,002 %
Iron (Fe) ..... ≤0,0005 %
Cobalt (Co) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Ash content (as SO_4) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
9212.3	500 g	plastic	24,65
Original pack 6 x 500 g			23,42/500 g
9212.2	1 kg	plastic	37,10
Original pack 6 x 1 kg			35,25/1 kg
9212.1	2.5 kg	plastic	66,55
9212.7	25 kg	plastic	403,15

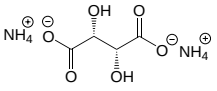
Ammonium sulphate
≥99 %, cryst.

Type analysis
Appearance ..... white crystals
Assay ..... ≥99,0 %
Identity ..... complies
pH value (5 % in H_2O) 5,0-6,0
In water insoluble matter ..... ≤0,005 %
Sulphated ash ..... ≤0,005 %
Loss on drying (100 °C) ..... ≤0,20 %
Chloride (Cl) ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
9218.3	500 g	plastic	22,50
Original pack 6 x 500 g			21,38/500 g
9218.1	1 kg	plastic	33,90
Original pack 6 x 1 kg			32,21/1 kg
9218.2	5 kg	plastic	110,65
9218.5	25 kg	plastic	385,95

di-Ammoniumsulphate
▸ Ammonium sulphate see page 740

di-Ammonium tartrate



Ammonium tartrate dibasic · Tartaric acid diammonium salt

$(NH_4)_2C_4H_4O_6$
CAS No. 3164-29-2 · EC no. 221-618-9
WGK 1

di-Ammonium tartrate
≥98 %, pure

Type analysis
Assay ..... ≥98,0 %
pH value (5 % in H_2O) 5,5-7,0

Art. No.	Pack Qty.	Pack.	€
0487.1	100 g	plastic	27,45
0487.2	500 g	plastic	91,30
Original pack 6 x 500 g			86,74/500 g
0487.3	1 kg	plastic	149,45
Original pack 6 x 1 kg			141,98/1 kg
0487.4	2.5 kg	plastic	327,90

Ammonium tartrate dibasic
▸ di-Ammonium tartrate see page 741

Ammonium tetraborate tetrahydrate

$(NH_4)_2B_4O_7 \cdot 4\ H_2O$ · D 2,367 g/cm³ · mp 87 °C
CAS No. 12228-87-4
WGK 1

Warning H315-H319-H335

Ammonium tetraborate tetrahydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5396.1	25 g	plastic	132,80

Ammonium tetrachloroaurate(III) hydrate

$NH_4[AuCl_4]$
CAS No. 13874-04-9 · EC no. 680-381-3
WGK 1

Warning H315-H319-H335

Ammonium tetrachloroaurate(III) hydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L6Y.1	1 g	glass	286,50

Ammonium tetrachloro-platinate(II)

Diammonium tetrachloroplatinate

$(NH_4)_2[PtCl_4]$ · D 2,936 g/cm³
CAS No. 13820-41-2 · EC no. 237-499-1
UN no. 3288 · ADR 6.1 III · WGK 1

Danger H301-H315-H317-H318-H334

Ammonium tetrachloro-platinate(II)
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L6E.1	1 g	HDPE	254,25

Ammonium tetramethylene dithiocarbamate
▸ Ammonium pyrrolidine dithiocarbamate see page 740

Ammonium tetrathiocyanato-diamminechromate(III) monohydrate

▸ Reinecke salt monohydrate see page 1201

Ammonium tetrathiomolybdate

Ammonium molybdenum sulfide

$(NH_4)_2MoS_4$ · mp >300 °C
CAS No. 15060-55-6
WGK 1

Warning H315-H319-H335

Ammonium tetrathiomolybdate
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5608.1	1 g	plastic	54,30
5608.2	5 g	plastic	104,85

Ammonium thiocyanate

Ammonium rhodanide

NH_4SCN · D 1,31 g/cm³ · mp 151 °C
CAS No. 1762-95-4 · EC no. 217-175-6
WGK 1

Warning H302+H312+H332-H412-EUH032

Ammonium thiocyanate
≥99 %, p.a., ACS, ISO

Reagent for the detection of iron(III) ions. Stabilizer for photographic developer.

Guarantee analysis
Assay (arg.) ..... ≥99,0 %
pH value (5 % in H_2O) 4,5-6,0
In H_2O insoluble matter ..... ≤0,005 %
Iodine reducing substances (as I) . ≤0,002 meq/g
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,005 %
Sulphide (S) ..... ≤0,001 %
Heavy metals ..... ≤0,0005 %
Lead (Pb) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0001 %
Copper (Cu) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %
Ash content (as SO_4) ..... ≤0,025 %

Art. No.	Pack Qty.	Pack.	€
4477.1	100 g	plastic	20,35
4477.2	250 g	plastic	30,00
4477.3	500 g	plastic	45,05
Original pack 6 x 500 g			42,80/500 g
4477.4	1 kg	plastic	71,95
Original pack 6 x 1 kg			68,35/1 kg
4477.7	25 kg	plastic	1.069,65

Ammonium thiocyanate solution (0.1 N)

D 1,005 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

Ammonium thiocyanate solution
0,1 mol/l – 0,1 N, volumetric standard solution

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
P718.1	1 l	plastic	27,45
Original pack 6 x 1 l			26,08/1 l

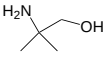
Ammonium tungsten oxide hydrate

▸ Ammonium metatungstate hydrate see page 738

Ammonium vanadium oxide

▸ Ammonium monovanadate see page 739

AMP



2-Amino-2-methyl-1-propanol

$C_4H_{11}NO$ · D 0,922 g/cm³ · mp 30 °C · bp 163,8 °C · flp 82,1 °C
CAS No. 124-68-5 · EC no. 204-709-8
WGK 1

Warning H315-H319-H412

AMP
PUFFERAN® ≥90 %

Type analysis
Assay (GC) ..... ≥90,0 %
Water ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
3121.1	250 ml	glass	51,50
3121.2	1 l	glass	149,45
Original pack 6 x 1 l			141,98/1 l

Amphotericin B

Fungizone

$C_{47}H_{73}NO_{17}$ · D 1,34 g/cm³ · mp 170 °C
CAS No. 1397-89-3 · EC no. 215-742-2
WGK 3

Warning H315-H319-H335

Amphotericin B
≥750 I.U./mg, for biochemistry

Broad-range fungicide, polyene. Alteration of cell membrane permeability by attachment to sterols.

Stock solution: 40 mg/ml in DMSO.
Storage of stock solution: –20 °C
Working concentration: ≥3 µg/ml

Storage temperature: +4 °C

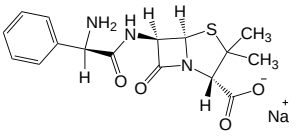
Type analysis
Appearance ..... yellow to orange powder
Loss on drying ..... ≤5 %

Art. No.	Pack Qty.	Pack.	€
0246.1	50 mg	glass	27,85
0246.2	250 mg	glass	90,85
0246.3	500 mg	glass	160,20

Ampicillin-LB Selective Agar

▸ LB-Agar (Luria/Miller) / Amp50 see page 1037
▸ LB-Agar (Lennox) / Amp100 see page 1036
▸ LB-Agar (Luria/Miller) / Amp100 see page 1036

Ampicillin sodium salt



D-α-Aminobenzylpenicillin sodium salt

$C_{16}H_{18}N_3NaO_4S$ · mp 215 °C
CAS No. 69-52-3 · EC no. 200-708-1
WGK 1

Danger H317-H334

Ampicillin sodium salt
CELLPURE® ≥91 %

β-lactam antibiotic. Semi synthetic penicillin. For cell culture and biochemistry.

Stock solution: 50 mg/ml in H_2O. Storage of stock solution: –20 °C, aliquoted.
Working concentration in LB-plates or media: 50–100 µg/ml.
Important:
Solubilised ampicillin loses approx. 65 % activity after 7 days at +4 °C.

Storage temperature: +4 °C

Guarantee analysis
Appearance ..... white or almost white powder
Assay (HPLC, dry substance) ..... 91,0-102,0 %
Dimer ..... ≤4,5 %
Water (KF) ..... ≤2,0 %
pH-value (10 % in H_2O) 8,0-10,0
Endotoxins ..... <0,15 I.E./mg

Art. No.	Pack Qty.	Pack.	€
HP62.1	10 g	plastic	56,90
HP62.2	50 g	plastic	209,65

Ampicillin sodium salt
≥97 %, BioScience Grade, for molecular biology

β-lactam antibiotic. Semi synthetic penicillin.

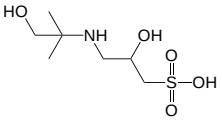
Stock solution: 50 mg/ml in H_2O. Storage of stock solution: –20 °C, aliquoted.
Working concentration in LB-plates or media: 50–100 µg/ml.
Important:
Solubilised ampicillin loses approx. 65 % activity after 7 days at +4 °C

Storage temperature: +4 °C

Type analysis
Appearance ..... white or almost white powder
Assay ..... ≥97,0 %
Water (KF) ..... ≤2,0 %
pH value (10 % in water) 8,0-10,0
Specific rotation $[\alpha]_D^{20}$ (0,25 % in KH-phthalate) ..... +258° to +287°
Absorption (430 nm) ..... ≤0,15

Art. No.	Pack Qty.	Pack.	€
K029.1	10 g	plastic	28,95
K029.4	25 g	plastic	53,25
K029.5	50 g	plastic	93,45
K029.2	100 g	plastic	160,20
K029.3	250 g	plastic	342,95

AMPSO



3-*N*-(α,α-Dimethyl-hydroxy-ethyl)-amino-2-hydroxypropane sulphonic acid

$C_7H_{17}NO_5S$ · mp 228 to 230 °C
CAS No. 68399-79-1 · EC no. 269-991-7
WGK 1

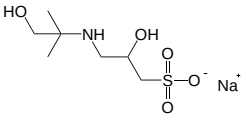
AMPSO
PUFFERAN® ≥98 %

Type analysis
Assay ..... ≥98 %

Absorbance:
280 nm ..... ≤0,02
260 nm ..... ≤0,04

Art. No.	Pack Qty.	Pack.	€
7159.1	25 g	plastic	62,25
7159.2	100 g	plastic	188,15

AMPSO sodium salt



3-*N*-(α,α-Dimethyl-hydroxy-ethyl)-amino-2-hydroxypropane sulphonic acid

$C_7H_{16}NO_5SNa$
CAS No. 102029-60-7
WGK 1

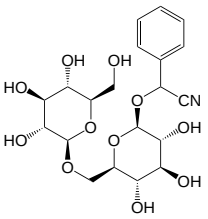
AMPSO sodium salt
PUFFERAN® ≥98 %

Type analysis
Assay ..... ≥98 %
Water (KF) ..... ≤4 %
Solution (10 % in H_2O) ..... clear, colourless

Absorbance:
280 nm ..... ≤0,05
260 nm ..... ≤0,06

Art. No.	Pack Qty.	Pack.	€
7014.1	25 g	plastic	66,15
7014.2	100 g	plastic	209,65

Amygdalin



Amygdaloside

$C_{20}H_{27}NO_{11}$ · D 0,4 g/cm³ · mp 208 to 215 °C
CAS No. 29883-15-6 · EC no. 249-925-3
WGK 1

Warning H302

Amygdalin
≥97 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥98 %
Specific rotation $[\alpha]_D^{20}$ ..... -37° to -41°
Loss on drying (110 °C) ..... <6,0 %
Melting point ..... 208-215 °C

Art. No.	Pack Qty.	Pack.	€
8713.1	10 g	plastic	64,40
8713.2	100 g	plastic	338,65
8713.3	1 kg	plastic	2.418,75
Original pack 6 x 1 kg			2.297,81/1 kg

Amygdalose
▸ β-D-Gentiobiose see page 956

Amygdaloside
▸ Amygdalin see page 743

Amyl acetate

n-Amyl alcohol
▸ 1-Pentanol see page 1142

β-Amylase

CAS No. 9000-91-3 · EC no. 232-566-1
WGK 1

Danger H334

β-Amylase
16–24 U/mg, lyophil.

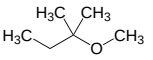
Made from barley malt.

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Description ..... lyophilized
Activity (10 mg/ml , pH 6,0, 40 °C) ..... 16-24 U/mg
α-Amylase ..... ≤0,0001%
α-Glucosidase ..... ≤0,0001%

Art. No.	Pack Qty.	Pack.	€
8717.1	100 mg	glass	66,55

tert-Amyl methyl ether



Methoxypentane™ · 2-Methoxy-2-methyl-butane · TAME

$C_6H_{14}O$ · D 0,77 g/cm³ · mp <-20 °C · bp 87,3 °C · flp -18 °C
CAS No. 994-05-8 · EC no. 213-661-4
UN no. 3271 · ADR 3 II · WGK 1

Danger H225-H302-H336

tert-Amyl methyl ether
SOLVAGREEN® ≥99 %, for synthesis

INEOS Oligomers.

Alternative for diethyl ether

Type analysis
Assay (GC) ..... ≥99,0 %
Colour (Hazen) ..... ≤10
Water (KF) ..... ≤0,02 %
Benzene ..... ≤0,01 %
2-Methyl-2-butanol ..... ≤0,6 %
C_7-Ether ..... ≤0,5 %
C_5-Hydrocarbons ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
1A92.1	100 ml	glass	19,25
1A92.2	250 ml	glass	30,00
1A92.3	1 l	plastic	69,35
Original pack 6 x 1 l			65,88/1 l
1A92.4	2.5 l	plastic	117,20
Original pack 4 x 2.5 l			111,34/2.5 l
1A92.5	10 l	plastic	317,15

Amylopectin

flp 170 °C
CAS No. 9037-22-3 · EC no. 232-911-6
WGK 1

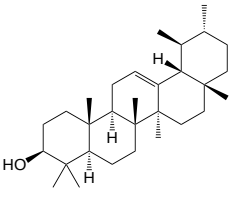
Amylopectin
for biochemistry

From maize starch.

Type analysis
Appearance ..... white powder
pH value 4-6
Water ..... 10,5-13,5 %

Art. No.	Pack Qty.	Pack.	€
8545.1	500 g	plastic	32,15
Original pack 6 x 500 g			30,54/500 g
8545.2	1 kg	plastic	45,05
Original pack 6 x 1 kg			42,80/1 kg
8545.3	2.5 kg	plastic	73,00

α-Amyrin



$C_{30}H_{50}O$ · mp 179 to 185 °C
CAS No. 638-95-9 · EC no. 211-352-1
WGK 1

α-Amyrin
ROTICHROM® HPLC

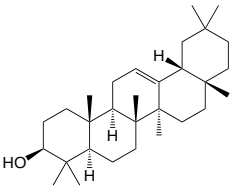
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98,5 %

Art. No.	Pack Qty.	Pack.	€
7000.1	10 mg	glass	295,65

β-Amyrin



$C_{30}H_{50}O$ · mp 197 °C
CAS No. 559-70-6 · EC no. 209-204-6
WGK 1

β-Amyrin
ROTICHROM® HPLC

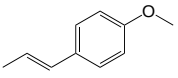
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98,5 %

Art. No.	Pack Qty.	Pack.	€
7001.1	10 mg	glass	471,95

Anethole



1-Methoxy-4-propenylbenzene · *p*-Propenylanisole

$C_{10}H_{12}O$ · D 0,987 g/cm³ · mp 21,4 °C · bp 235 °C · flp 101 °C
CAS No. 4180-23-8 · EC no. 224-052-0
WGK 2

Warning H317

Anethole
ROTICHROM® CHR ≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... colourless to yellowish liquid or white cryst. substance
Assay (GC, trans-anethole) ..... ≥99,0 %
Assay (GC, cis-anethole) ..... ≤0,3 %
Solidification point ..... ≥21,0 °C
Refractive index n_D^{20} 1,557-1,562
Density (d 25 °C/25 °C) 0,983-0,988

Art. No.	Pack Qty.	Pack.	€
5131.1	25 ml	glass	25,70
5131.2	250 ml	glass	75,15

Aneurine hydrochloride
▸ Thiamine hydrochloride see page 1364

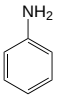
7-*O*-Angelyl-9-*O*-echimidinylretronecine
▸ Echimidine see page 904

7-Angelyleuropine
▸ Lasiocarpine see page 1035

7-Angelyleuropine *N*-oxide
▸ Lasiocarpine *N*-oxide see page 1035

Anhydrous soda
▸ Sodium carbonate see page 1278

Aniline



Benzenamine · Phenylamine · Aminobenzene · Benzamine

C_6H_7N · D 1,02 g/cm³ · mp -6,2 °C · bp 184,4 °C · flp 76 °C
CAS No. 62-53-3 · EC no. 200-539-3
UN no. 1547 · ADR 6.1 II · WGK 3

Danger H301+H311+H331-H317-H318-H341-H351-H372-H410

Aniline
≥99,5 %, p.a.

Type analysis
Assay ..... ≥99,5 %
Nitrobenzene ..... ≤0,005 %
Lead (Pb) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,0001 %
Copper (Cu) ..... ≤0,0001 %
Non volatile matter ..... ≤0,005 %
Water ..... ≤0,5 %

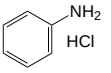
Art. No.	Pack Qty.	Pack.	€
9846.1	100 ml	glass	23,15
9846.2	500 ml	glass	53,25
9846.3	1 l	glass	79,45
Original pack 6 x 1 l			75,48/1 l

Aniline
≥99 %, for synthesis

Type analysis
Assay ..... ≥99,0 %
Non volatile matter ..... ≤0,01 %
Water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
9931.1	250 ml	glass	18,20
9931.2	1 l	glass	43,55
Original pack 6 x 1 l			41,37/1 l
9931.3	2.5 l	glass	91,30
Original pack 4 x 2.5 l			86,74/2.5 l

Aniline hydrochloride



Anilinium chloride · Phenylamine hydrochloride

C_6H_8ClN · D 1,22 g/cm³ · mp 196 to 201 °C · bp 245 °C · flp 194 °C
CAS No. 142-04-1 · EC no. 205-519-8
UN no. 1548 · ADR 6.1 III · WGK 3

Danger H301+H311+H331-H317-H318-H341-H351-H372-H400

Aniline hydrochloride
≥99 %, extra pure

Type analysis
Assay (arg.) ..... ≥99 %
Melting range ..... 196-201 °C

Art. No.	Pack Qty.	Pack.	€
5113.2	100 g	plastic	45,70
5113.1	250 g	plastic	104,85

Aniline blue water soluble
▸ Acid blue 93 (C.I. 42780) see page 703

Aniline phthalate spray solution

Aniline phthalate spray solution
for TLC

Ready-to-use spray solution for detection of reducing sugars.
0,9 ml Anilin and 1,66 g phthalic acid dissolved in 100 ml ethanol / 2-propanol (1/1 v/v).

D 0,79 g/cm³ · bp 78 °C · flp >12 °C

Storage temperature: +4 °C

UN no. 1993 · ADR 3 II · WGK 2

Danger H225-H319-H336-H373-EUH208

Type analysis
TLC-application ..... complies

Art. No.	Pack Qty.	Pack.	€
CP35.1	100 ml	glass	42,90

p-Anilinesulphonic acid
▸ Sulphanilic acid see page 1345

Anilinium chloride
▸ Aniline hydrochloride see page 744

Anilinoacetic acid
▸ *N*-Phenylglycine see page 1152

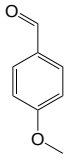
4-Anilinoazobenzene
▸ 4-(Phenylazo) diphenylamine see page 1152

o-Anilobenzoic acid
▸ *N*-Phenylanthranilic acid see page 1151

Anion exchangers

- Dowex® 1 X 2 Anion exchanger see page 900
- Dowex® 1 X 8 Anion exchanger see page 900
- Ion exchange resin ROTI®Change see page 1013

4-Anisaldehyde



4-Methoxybenzaldehyde · Aubepine

CAS No. 123-11-5 · EC no. 204-602-6

4-Anisaldehyde
≥97,5 %

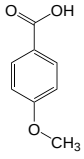
$C_8H_8O_2$ · D 1,12 g/cm³ · mp 0 °C · bp 247 to 249 °C · flp 124 °C

WGK 1

Type analysis
Appearance ..... clear, colorless to slightly yellow liquid
Assay (GC) ..... ≥97,5 %

Art. No.	Pack Qty.	Pack.	€
7201.1	25 g	glass	30,00

4-Anisic acid



4-Methoxybenzoic acid

$C_8H_8O_3$ · mp 181 to 186 °C · bp 275 °C
CAS No. 100-09-4 · EC no. 202-818-5
WGK 1

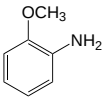
Warning H302-H315-H319-H335

4-Anisic acid
≥98 %

Type analysis
Assay ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
3631.1	100 g	plastic	49,35
3631.2	250 g	plastic	94,10
3631.3	500 g	plastic	174,70
Original pack 6 x 500 g			165,97/500 g

o-Anisidine



2-Aminoanisole · 2-Methoxyaniline

C_7H_9NO · D 1,09 g/cm³ · mp 0 °C · bp 226,8 °C · flp 110 °C
CAS No. 90-04-0 · EC no. 201-963-1
UN no. 2431 · ADR 6.1 III · WGK 3

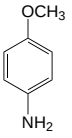
Danger H301+H311+H331-H341-H350

o-Anisidine
≥98 %, for synthesis

Type analysis
Assay ..... ≥98 %
Density (25 °C) 1,091-1,093

Art. No.	Pack Qty.	Pack.	€
1E8E.1	250 ml	plastic	26,35
1E8E.2	1 l	plastic	72,60
Original pack 6 x 1 l			68,97/1 l
1E8E.3	2.5 l	plastic	160,20
Original pack 4 x 2.5 l			152,19/2.5 l

p-Anisidine



4-Aminoanisole · 4-Methoxyaniline

C_7H_9NO · D 1,18 g/cm³ · mp 49,33 to 55 °C · bp 243 °C · flp 118,6 °C
CAS No. 104-94-9 · EC no. 203-254-2
UN no. 2431 · ADR 6.1 III · WGK 2

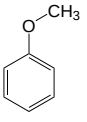
Danger H300+H310+H330-H373-H400

p-Anisidine
≥98 %, for synthesis

Type analysis
Assay ..... ≥98,0 %
Melting range ..... 56-59 °C

Art. No.	Pack Qty.	Pack.	€
1E96.1	250 g	plastic	30,00
1E96.2	1 kg	plastic	75,15
Original pack 6 x 1 kg			71,39/1 kg
1E96.3	2.5 kg	plastic	166,65

Anisole



Methoxybenzene

C_7H_8O · D 0,99 g/cm³ · mp -37 °C · bp 153 to 156 °C · flp 45,5 °C
CAS No. 100-66-3 · EC no. 202-876-1
UN no. 2222 · ADR 3 III · WGK 2

Warning H226

Anisole
SOLVAGREEN® ≥99 %, for synthesis

Alternative for chlorobenzene, toluene

Type analysis
Assay (GC) ..... ≥99 %
Water ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4417.1	100 ml	glass	17,10
4417.2	500 ml	glass	33,25
4417.3	1 l	glass	55,40
Original pack 6 x 1 l			52,63/1 l
4417.4	2.5 l	glass	110,20
Original pack 4 x 2.5 l			104,69/2.5 l

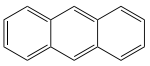
Annexin-FITC conjugate

- ROTITEST®Annexin V see page 1243

Anthocyans

Art. No.	Description	Page
3939	Apigeninidin chloride, ROTICHROM®	748
0641	Cyanidin 3-arabinoside chloride, ROTICHROM®	856
4545	Cyanidin chloride, ROTICHROM®	856
1133	Cyanin chloride, ROTICHROM®	856
5568	Cyanin chloride, ROTICHROM®	856
4537	Delphinidin chloride, ROTICHROM®	865
0643	Delphinidin 3-galactoside chloride, ROTICHROM®	866
0644	Delphinidin 3-glucoside chloride, ROTICHROM®	866
0977	Delphinidin 3-rutinoside chloride, ROTICHROM®	866
9326	Diosmetinidin chloride, ROTICHROM®	891
3967	Idaein chloride, ROTICHROM®	1004
6134	Keracyanine chloride, ROTICHROM®	1029
6136	Kuromanin chloride, ROTICHROM®	1031
9325	Luteolinidin chloride, ROTICHROM®	1051
6140	Malvidin chloride, ROTICHROM®	1065
K013	Malvin chloride, ROTICHROM®	1065
K030	Oenin chloride, ROTICHROM®	1119
4541	Pelargonidin chloride, ROTICHROM®	1140
6853	Pelargonidin chloride, ROTICHROM®	1140
1646	Pelargonidin 3,5-diglucoside chloride, ROTICHROM®	1140
4540	Peonidin chloride, ROTICHROM®	1142
1413	Peonidin 3,5-diglucoside chloride, ROTICHROM®	1142
1619	Peonidin 3-glucoside chloride, ROTICHROM®	1143
1469	Petunidin 3-glucoside chloride, ROTICHROM®	1149
K014	Primulin chloride, ROTICHROM®	1183

Anthracene



Paranaphthalene

$C_{14}H_{10}$ · D 1,126 g/cm³ · mp 213 to 217 °C · bp 342 °C · flp 121 °C
CAS No. 120-12-7 · EC no. 204-371-1
UN no. 3077 · ADR 9 III · WGK 2

Warning H410

Anthracene
≥96 %, for synthesis

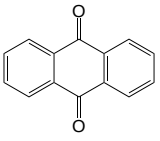
Type analysis
Assay ..... ≥96 %
Melting range ..... 213-218 °C

Art. No.	Pack Qty.	Pack.	€
1E10.1	100 g	plastic	32,15
1E10.2	250 g	plastic	66,55
1E10.3	1 kg	plastic	224,70
Original pack 6 x 1 kg			213,47/1 kg

9,10-Anthracenedione
▸ Anthraquinone see page 745

9(10*H*)-Anthracenone
▸ Anthrone see page 745

Anthraquinone



9,10-Anthraquinone · 9,10-Anthracenedione

$C_{14}H_8O_2$ · D 1,261 g/cm³ · mp 284,6 °C · bp 380 °C · flp 213 °C
CAS No. 84-65-1 · EC no. 201-549-0
WGK 1

Danger H317-H350

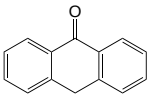
Anthraquinone
ROTI®Calipure melting point standard 283–286 °C

Type analysis
Meniscus formation ..... 283-286 °C
Complete liquefaction ..... 283-286 °C
Measurement uncertainty ..... ±0,3 °C

Art. No.	Pack Qty.	Pack.	€
9754.1	1 g	glass	40,75

9,10-Anthraquinone
▸ Anthraquinone see page 746

Anthrone



9(10*H*)-Anthracenone

$C_{14}H_{10}O$ · mp 153 to 158 °C
CAS No. 90-44-8 · EC no. 201-994-0
WGK 1

Anthrone
p.a., ACS

Reagent for carbohydrates

Guarantee analysis
Appearance ..... light yellow crystalline powder
Assay (HPLC) ..... ≥98 %
Melting point ..... 153-159 °C
Absorbance of reagent solution (425 nm) ... complies
Absorbance of reagent solution (620 nm) ... complies
Solubility in ethyl acetate ..... complies
Suitability as reagent for carbohydrates complies

Art. No.	Pack Qty.	Pack.	€
2673.1	10 g	plastic	34,30
2673.2	25 g	plastic	53,65
2673.3	100 g	plastic	145,15

Antibiotic G 418
▸ Geneticin disulphate (G418 Sulphate) see page 954

Antibiotic Medium

WGK 1

Antibiotic Medium No. 1
Ph. Eur., for microbiology

Standard agar medium for detection and for assaying the potency of antibiotics.

Antibiotic Agar No. 1 (Ph. Eur. 7,0) · Penassay Seed Agar

Application: Use 30.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Peptone ..... 6,0 g/l
Casein peptone (Pancreas hydrolysate) .... 4,0 g/l
Yeast extract ..... 3,0 g/l
Beef extract ..... 1,5 g/l
Glucose monohydrate ..... 1,0 g/l
Agar ..... 15,0 g/l
pH-value ..... 6,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL53.1	500 g	plastic	152,15
Original pack 6 x 500 g			144,54/500 g

Antibiotic Medium No. 23
for microbiology

Agar medium for detection and for assaying the potency of antibiotics.

Application: Use 27.1 g for 1 l agar. Directly prior to pouring add 14.3 g ammonium chloride in 10 ml sterile water.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Glucose ..... 10,0 g/l
Yeast extract ..... 2,5 g/l
di-Potassium hydrogen phosphate ..... 0,69 g/l
Potassium dihydrogen phosphate ..... 0,45 g/l
Agar ..... 13,5 g/l
pH-value ..... 5,6 ±0,1

Art. No.	Pack Qty.	Pack.	€
CL54.1	500 g	plastic	139,25
Original pack 6 x 500 g			132,29/500 g

Antibiotic mixture
▸ Pen/Strep-PreMix see page 1141
▸ ROTI®Cell Myco-Free see page 1213

Antibiotics

Art. No.	Description	Page
8969	Actinomycin D, ≥950 µg/mg, for biochemistry	707
0246	Amphotericin B, ≥750 I.U./mg, for biochemistry	742
HP62	Ampicillin sodium salt, CELLPURE®, ≥91 %	742
K029	Ampicillin sodium salt, ≥97 %, BioScience Grade, for molecular biology	743
5655	Bacitracin, ≥60 I.U./mg, Ph. Eur., for biochemistry	763
CP14	Blasticidin S hydrochloride, ≥98 %, for biochemistry	779
6344	Carbenicillin disodium salt, ≥88 %, for biochemistry	815
4156	Cefoxitin sodium salt, ≥98 %, for biochemistry	822
4014	Cefsulodin sodium salt, ≥97 %, for biochemistry	823
3886	Chloroamphenicol, ≥98,5 %, Ph. Eur., for biochemistry	830
CN31	Colistinsulphate, ≥19 000 I.U./mg, for biochemistry	844
8682	Cycloheximide, ≥98 %, for biochemistry	858
CN37	D-Cycloserine, ≥90 %, for biochemistry	859
4166	Erythromycin, ≥93 %, for biochemistry	914
HN71	Geldanamycin, ≥98 %, for biochemistry	954
0239	Geneticin disulphate (G418 Sulphate), ≥650 U/mg, for biochemistry	955
CP11	Geneticin disulphate (G418) solution, CELLPURE®, 50 mg/ml, sterile	955
2039	Geneticin disulphate (G418) solution, 50 mg/ml, BioScience Grade, sterile, ready-to-use	955
0233	Gentamycin sulphate, ≥590 I.U./mg, for biochemistry	955
HN09	Gentamycin sulphate solution, CELLPURE®, 50 mg/ml, sterile	955
2475	Gentamycin solution, 50 mg/ml, BioScience Grade, sterile, ready-to-use	955
CP13	Hygromycin B, >950 µg/mg, for biochemistry	1002
CP12	Hygromycin B solution, CELLPURE®, 50 mg/ml, sterile	1002
1287	Hygromycin B solution, 50 mg/ml in PBS, BioScience Grade, sterile, ready-to-use	1002
T832	Kanamycin, ≥750 I.U./mg, for biochemistry	1027
4150	Mitomycin C, ≥98 %, for biochemistry	1091
CN32	Nalidixic acid, ≥99 %, for biochemistry	1098

Art. No.	Description	Page
8668	Neomycin sulphate, ≥600 µg/mg, for biochemistry	1102
3011	Nourseothricin, ≥85 %, for biochemistry and microbiology	1115
0247	Novobiocin sodium salt, ≥850 µg/mg, for biochemistry	1115
0241	Nystatin dihydrate, ≥4 400 I.U./mg, for biochemistry	1116
HP49	Penicillin G potassium salt, CELLPURE®, ≥1550 U/mg	1140
CN29	Penicillin G potassium salt, ~1.600 U/mg, for biochemistry	1140
HP48	Penicillin G sodium salt, CELLPURE®, ≥1550 U/mg	1140
CN28	Penicillin G sodium salt, ≥96 %, for biochemistry	1141
HP10	Pen/Strep-PreMix, CELLPURE®	1141
0235	Polymyxin B sulphate, ≥80 %, for biochemistry	1164
0240	Puromycin dihydrochloride, ≥98 %, for biochemistry	1190
HN72	Radicicol, ≥98 %, for biochemistry	1198
4163	Rifampicin, ≥90 %, for biochemistry	1207
1454	ROTI®Antibiotic Discs Amphotericin B (AP), 100 Units, for microbiology	1209
1456	ROTI®Antibiotic Discs Ampicillin (AMP), 10 µg, for microbiology	1209
1458	ROTI®Antibiotic Discs Bacitracin (B), 10 Units, for microbiology	1209
1459	ROTI®Antibiotic Discs Carbenicillin (CB), 100 µg, for microbiology	1209
1460	ROTI®Antibiotic Discs Cefoxitin (CX), 30 µg, for microbiology	1209
1461	ROTI®Antibiotic Discs Chloramphenicol (C), 30 µg, for microbiology	1210
1462	ROTI®Antibiotic Discs Colistin (CL), 10 µg, for microbiology	1210
1463	ROTI®Antibiotic Discs Erythromycin (E), 15 µg, for microbiology	1210
1464	ROTI®Antibiotic Discs Gentamicin (GEN), 10 µg, for microbiology	1210
1465	ROTI®Antibiotic Discs Kanamycin (K), 5 µg, for microbiology	1210
1466	ROTI®Antibiotic Discs Nalidixic acid (NA), 30 µg, for microbiology	1210
1467	ROTI®Antibiotic Discs Neomycin (N), 10 µg, for microbiology	1210
1468	ROTI®Antibiotic Discs Novobiocin (NV), 30 µg, for microbiology	1210
1476	ROTI®Antibiotic Discs Nystatin (NS), 100 Units, for microbiology	1210
1494	ROTI®Antibiotic Discs Penicillin (P), 10 Units, for microbiology	1210
1495	ROTI®Antibiotic Discs Polymyxin B (PB), 300 Units, for microbiology	1211
1496	ROTI®Antibiotic Discs Rifampicin (RIF), 5 µg, for microbiology	1211
1497	ROTI®Antibiotic Discs Streptomycin (*S*), 10 µg, for microbiology	1211
1498	ROTI®Antibiotic Discs Tetracycline (TE), 30 µg, for microbiology	1211
1499	ROTI®Antibiotic Discs Ticarcillin (TI), 75 µg, for microbiology	1211
1501	ROTI®Antibiotic Discs Vancomycin (VA), 30 µg, for microbiology	1211
9830	ROTI®Cell Myco-Free, CELLPURE®, 50x conc., sterile, ready-to-use	1214
HP66	Streptomycin sulphate, CELLPURE®, ≥720 I.U./mg	1340
0236	Streptomycin sulphate, >720 I.U./mg, for biochemistry	1340
HP63	Tetracycline hydrochloride, CELLPURE®, ≥900 µg/mg	1360
0237	Tetracycline hydrochloride, ≥900 µg/mg, for biochemistry and molecular biology	1360
4161	Ticarcillin disodium salt, ≥85 %, for biochemistry	1368
0242	Vancomycin hydrochloride, CELLPURE®, ≥900 U/mg	1394

Antibody Diluent

D 1,1 g/cm³
WGK 1

Antibody Diluent clear
ready-to-use, for immunohistochemistry

For optimisation of immunohistochemical detection signals.

One bottle for 125 ml is sufficient for enhancement of approx. 125 slides.

Storage temperature: +4 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Type analysis
Composition ..... complies
pH value ..... 7,4 ±0,5
Stability ..... complies
Colour ..... colourless

Art. No.	Pack Qty.	Pack.	€
0509.1	125 ml	plastic	85,90
0509.2	500 ml	plastic	241,90

Antibody Diluent green
ready-to-use, for immunohistochemistry

For optimisation of immunohistochemical detection signals.

One bottle for 125 ml is sufficient for enhancement of approx. 125 slides.

Storage temperature: +4 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Type analysis
Composition ..... complies
pH value ..... 7,4 ±0,5
Stability ..... complies
Colour ..... green

Art. No.	Pack Qty.	Pack.	€
0070.1	125 ml	plastic	85,90
0070.2	500 ml	plastic	241,90

Antimonous chloride
▸ Antimony(III) chloride see page 747

Antimonous oxide
▸ Antimony(III) oxide see page 747

Antimony

CAS No. 7440-36-0 · EC no. 231-146-5

Antimony shot
ROTI®METIC 99,999 % (5N)

Sb · D 6,68 g/cm³ · mp 630 °C · bp 1587 °C

WGK 1

Type analysis
Assay (metals basis) ..... 99,999 %
Particle size ..... 1-3 mm

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
4516.2	50 g	glass	254,25

Antimony powder
≥99,5 %, ~325 mesh

Sb · D 6,69 g/cm³ · mp 630 °C · bp 1635 °C

UN no. 2871 · ADR 6.1 III · WGK 1

Warning H351-H373

Type analysis
Appearance ..... grey powder
Assay ..... ≥99,5 %
Particle size ..... ~325 mesh

Art. No.	Pack Qty.	Pack.	€
9258.1	100 g	plastic	60,10
9258.2	500 g	plastic	220,40
Original pack 6 x 500 g			209,38/500 g

Antimony powder
≥99,5 %

Sb · D 6,69 g/cm³ · mp 630 °C · bp 1635 °C

UN no. 2871 · ADR 6.1 III · WGK 1

Warning H351-H373

Type analysis
Assay (metals basis) ..... ≥99,5 %
As (Arsenic) ..... ≤0,15 %
Sulphur (S) ..... ≤0,06 %

Art. No.	Pack Qty.	Pack.	€
1HX4.1	100 g	plastic	44,65
1HX4.2	250 g	plastic	82,25
1HX4.3	500 g	plastic	150,00
Original pack 6 x 500 g			142,50/500 g

Antimony Standards
▸ Antimony ICP Standard Solution see page 1313
▸ Antimony ICP Standard Solution see page 1313
▸ Antimony AAS Standard Solution see page 1313

Antimony(III) chloride

Butter of antimony · Antimonous chloride · Stibous chloride · Trichlorostibane

$SbCl_3$ · D 3,14 g/cm³ · mp 72 to 78 °C · bp 215 °C
CAS No. 10025-91-9 · EC no. 233-047-2
UN no. 1733 · ADR 8 II · WGK 2

Danger H314-H335-H411

Antimony(III) chloride
≥99 %, p.a., ACS

Guarantee analysis

Assay	≥99,0 %
Insoluble in $CHCl_3$	≤0,05 %
Insoluble in HCl	≤0,005 %
Sulphate (SO_4)	≤0,005 %
Arsenic (As)	≤0,001 %
Lead (Pb)	≤0,005 %
Calcium (Ca)	≤0,005 %
Iron (Fe)	≤0,002 %
Potassium (K)	≤0,01 %
Copper (Cu)	≤0,001 %
Sodium (Na)	≤0,01 %

Art. No.	Pack Qty.	Pack.	€
9819.1	100 g	plastic	40,35
9819.2	500 g	plastic	149,45
Original pack 6 x 500 g			141,98/500 g
9819.3	1 kg	plastic	263,40
Original pack 6 x 1 kg			250,23/1 kg

Antimony(III) oxide

Flowers of Antimony · Antimonous oxide · Antimony sesquioxide · di-Antimony trioxide

Sb_2O_3 · mp 656 °C · bp 1425 °C
CAS No. 1309-64-4 · EC no. 215-175-0
WGK 1

Warning H351

Antimony(III) oxide
ROTI®METIC 99,999 % (5N)

Type analysis

Assay (metals basis)	99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L6T.1	5 g	HDPE	54,75
1L6T.2	25 g	HDPE	181,70

Antimony(III) oxide
≥99 %, p.a.

Guarantee analysis

Assay	≥99,0 %
Chloride (Cl)	≤0,05 %
Sulphate (SO_4)	≤0,05 %
Arsenic (As)	≤0,05 %
Lead (Pb)	≤0,05 %
Iron (Fe)	≤0,005 %
Potassium (K)	≤0,005 %
Sodium (Na)	≤0,005 %

Art. No.	Pack Qty.	Pack.	€
9826.1	100 g	plastic	28,95
9826.2	500 g	plastic	107,00
Original pack 6 x 500 g			101,65/500 g
9826.3	1 kg	plastic	206,95
Original pack 6 x 1 kg			196,60/1 kg

Antimony(III) oxide
≥95 %, extra pure

Type analysis

Assay	≥95,0 %
Arsenic (As)	≤0,05 %
Lead (Pb)	≤0,5 %
Iron (Fe)	≤0,1 %

Art. No.	Pack Qty.	Pack.	€
7348.1	100 g	plastic	18,20
7348.2	500 g	plastic	50,00
Original pack 6 x 500 g			47,50/500 g
7348.3	1 kg	plastic	88,70
Original pack 6 x 1 kg			84,27/1 kg
7348.4	2.5 kg	plastic	192,45

Antimony(V) oxide

Sb_2O_5 · D 3,78 g/cm³ · mp 380 °C
CAS No. 1314-60-9 · EC no. 215-237-7
WGK 1

Antimony(V) oxide
ROTI®METIC 99,999 % (5N)

Type analysis

Assay (metals basis)	99,999 %

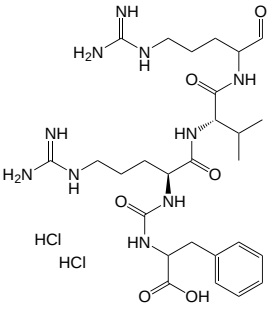
Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L5A.1	5 g	HDPE	62,25
1L5A.2	25 g	HDPE	238,15

Antimony sesquioxide
▸ Antimony(III) oxide see page 748

di-Antimony trioxide
▸ Antimony(III) oxide see page 748

Antipain dihydrochloride



N-(*N*α-Carbonyl-Arg-Val-Arg-al)-Phe dihydrochloride

$C_{27}H_{44}N_{10}O_6$ · 2 HCl · mp 174 to 178 °C
CAS No. 37682-72-7
WGK 1

Antipain dihydrochloride
≥30 U/mg, for biochemistry

Serine/cysteine protease inhibitor and in general of proteases similar to trypsin.
Isolated from *Streptomyces.*

Stock solution: 50 mg/ml (75 mM) in H_2O, DMSO or ethanol. Storage of stock solution: at –20 °C max. 1 month.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis

Appearance	white powder
Activity (trypsin, L-BAPA)	≥30 U/mg
Solubility (0,5 % in H_2O)	clear

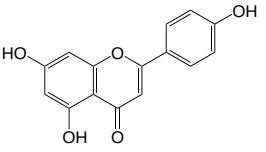
Art. No.	Pack Qty.	Pack.	€
2933.1	5 mg	plastic	70,85
2933.2	25 mg	plastic	246,20

AP
▸ Alkaline phosphatase see page 718

APDC
▸ Ammonium pyrrolidine dithiocarbamate see page 740

APES
▸ γ-Aminopropyltriethoxysilane (APTES) see page 730

Apigenin



4',5,7-Trihydroxyflavone

$C_{15}H_{10}O_5$ · mp 340 to 355 °C
CAS No. 520-36-5 · EC no. 208-292-3
WGK 1

Warning H315-H319-H335

Apigenin
ROTI®Star Primary Standard

Type analysis

Assay (HPLC)	≥95,0 %
Residual solvents (GC)	≤3,0 %
Water (KF)	≤2,0 %
Assay (qNMR)	≥90,0 %

Proof of identity by ^1H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE37.1	10 mg	glass	977,20

Apigenin
ROTICHROM® Working Standard

Type analysis

Assay (HPLC)	≥85,0 %
Identity	complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC37.1	25 mg	glass	396,70

Apigenin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Chamomillae romana.*

Storage temperature: +4 °C

Type analysis

Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7002.2	20 mg	glass	231,15

Apigenin
ROTICHROM® TLC

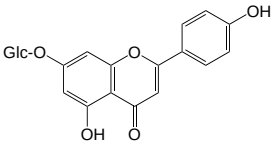
Reference substance for thin layer chromatography.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
5611.1	25 mg	glass	52,70
5611.2	50 mg	glass	92,35

Apigenin-7-apiosylglucoside
▸ Apiin see page 749

Apigenin-7-glucoside



Apigetrin

$C_{21}H_{20}O_{10}$ · mp 230 to 235 °C
CAS No. 578-74-5 · EC no. 209-430-5
WGK 1

Apigenin-7-glucoside
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤7,0 %
Assay (qNMR) ..... ≥85,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE19.1	25 mg	glass	1.235,20

Apigenin-7-glucoside
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥90,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC19.1	25 mg	glass	493,45

Apigenin-7-glucoside
ROTICHROM® HPLC

Reference substance for HPLC.
From *Chamomillae romana.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
6348.1	10 mg	glass	180,10
6348.2	25 mg	glass	385,95
6348.3	50 mg	glass	751,45

Apigenin-7-glucoside
ROTICHROM® TLC

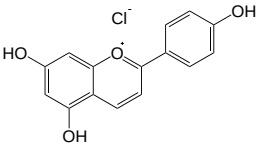
Reference substance for thin layer chromatography.
From *Chamomillae romana.*

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
5557.1	100 mg	glass	177,40

Apigenin-8-glucoside
▸ Vitexin see page 1397

Apigeninidin chloride



$C_{15}H_{11}O_4Cl$ · mp >350 °C
CAS No. 1151-98-0
WGK 1

Apigeninidin chloride
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: –20 °C
Transport temperature: ambient temp.

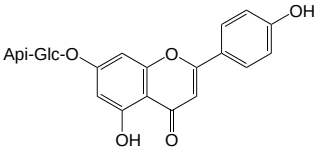
Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
3939.2	10 mg	glass	461,20

Apigenin-7-rhamnoglucoside
▸ Rhoifolin see page 1205

Apigetrin
▸ Apigenin-7-glucoside see page 749

Apiin



Apiosid · Apigenin-7-apiosylglucoside

$C_{26}H_{28}O_{14}$ · mp 215 °C
CAS No. 26544-34-3 · EC no. 247-780-0
WGK 1

Warning H315-H319-H335

Apiin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Petroselinum crispum.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1085.1	10 mg	glass	424,65

6-*O*-(Apiofuranosyl)-1,6,8-trihydroxy-3-methylantrachinon
▸ Frangulin B see page 949

Apiosid
▸ Apiin see page 749

Apoptosis detection Kit
▸ ROTITEST®Annexin V see page 1243

Aprotinin

CAS No. 9087-70-1 · EC no. 232-994-9
WGK 1

Aprotinin
3,0 PEU/mg, for biochemistry

Inhibitor for inhibition of serin proteases, lyophilized and made of beef lung.

Dissolves easily in water. Stock solution: 1.54 mM (10 mg/ml) in H_2O or buffer. Storage of stock solution: in aliquots at –20 °C.

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Specific activity ≥3,0 PEU/mg equals ≥5400 KIU/mg
pH value (aqueous solution) 5,0-7,0
Loss on drying ..... ≤6 %

Lyophilized from bovine lungs.

Art. No.	Pack Qty.	Pack.	€
A162.1	10 mg	glass	46,15
A162.2	50 mg	glass	138,70
A162.3	100 mg	glass	246,20
A162.5	250 mg	glass	514,95
A162.4	500 mg	glass	962,15

APS
▸ Ammonium peroxydisulphate see page 739

APTES
▸ γ-Aminopropyltriethoxysilane (APTES) see page 730

Aqueous Gentamicin solution
▸ Gentamycin sulphate solution see page 955

Aqueous Gentamycin sulphate solution

▸ Gentamycin sulphate solution see page 955

Arabic acid

Polyarabinic acid

CAS No. 32609-14-6 · EC no. 251-128-0

Arabic acid
for biochemistry

Type analysis
Appearance ..... white to almost white powder
Moisture ..... <10 %
Ash content ..... ≤1 %
pH value (5 % in H_2O) 2,0-3,0
Solubility (10 % in H_2O) ..... clear to slightly turbid

Art. No.	Pack Qty.	Pack.	€
7264.1	25 g	plastic	127,95

D(+)-Arabinitol

▸ D(+)-Arabitol see page 749

L(–)-Arabinitol

▸ L(–)-Arabitol see page 749

DL-Arabinose

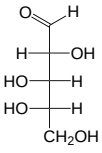
$C_5H_{10}O_5$ · mp 158 to 160 °C
CAS No. 147-81-9 · EC no. 243-619-3
WGK 1

DL-Arabinose
≥99 %, for biochemistry

Type analysis
Appearance ..... white to off-white powder
Assay (HPLC) ..... ≥99,0 %
L-Arabinose ..... ~50 %
D-Arabinose ..... ~50 %

Art. No.	Pack Qty.	Pack.	€
8954.1	10 g	plastic	42,50
8954.2	50 g	plastic	120,95

L(+)-Arabinose



Pectinose

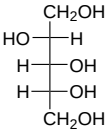
$C_5H_{10}O_5$ · D 0,5 g/cm³ · mp 154,6 °C
CAS No. 5328-37-0 · EC no. 226-214-6
WGK 1

L(+)-Arabinose
≥99 %, for biochemistry

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥99 %
Specific rotation $[\alpha]_D^{20}$ (10 % in NH_4OH, TS) +102° to +105°
Solubility (10 % in H_2O) ..... clear, colourless
Water (KF) ..... ≤0,3 %
Sulphated ash ..... ≤0,1 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
5118.1	50 g	plastic	52,60
5118.2	100 g	plastic	81,60
5118.3	250 g	plastic	160,20
5118.4	500 g	plastic	241,90
Original pack 6 x 500 g			229,81/500 g
5118.5	1 kg	plastic	385,95
Original pack 6 x 1 kg			366,65/1 kg

D(+)-Arabitol



D(+)-Ara-ol · D(+)-Arabinitol

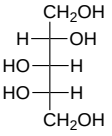
$C_5H_{12}O_5$ · mp 102 °C
CAS No. 488-82-4 · EC no. 207-686-2
WGK 1

D(+)-Arabitol
≥99 %, for biochemistry

Type analysis
Assay (HPLC) ..... ≥99,0 %
Solution (10 % in H_2O) ..... colourless
Specific rotation $[\alpha]_D^{20}$ (c=5 in 8 % aq. H_3BO_3) ..... +11,0 ° to +13,0 °
Water (KF) ..... ≤1,0 %
Melting point ..... 100-104 °C

Art. No.	Pack Qty.	Pack.	€
5510.3	5 g	plastic	48,30
5510.1	25 g	plastic	153,20
5510.2	50 g	plastic	241,90

L(–)-Arabitol



L(–)-Arabinitol

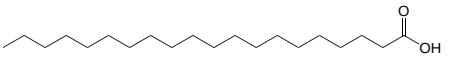
$C_5H_{12}O_5$ · mp 102 °C
CAS No. 7643-75-6 · EC no. 231-582-6
WGK 1

L(–)-Arabitol
≥99 %, for biochemistry

Type analysis
Appearance ..... white to off-white powder
Assay (GC) ..... ≥99 %
Specific rotation $[\alpha]_D^{20}$ (c=5 in 4 % aq. H_3BO_3) ..... -12,0° to -10,0°
Melting point ..... 97-107 °C

Art. No.	Pack Qty.	Pack.	€
7738.1	1 g	plastic	28,95
7738.2	5 g	plastic	77,30

Arachidic acid



n-Eicosanoic acid

$C_{20}H_{40}O_2$ · D 0,535 g/cm³ · mp 46,7 °C · bp 325 °C · flp 134 °C
CAS No. 506-30-9 · EC no. 208-031-3

Warning H315-H319

Arachidic acid
≥99 %, synthetic

Type analysis
Appearance ..... light beige, fine crystals
Assay (GC) ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
8736.1	1 g	glass	67,65

Arachidic acid calcium salt

Calcium arachinate/-behenate

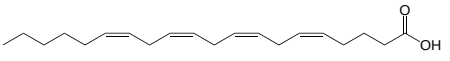
$C_{40}H_{78}CaO_4$ · D 1,03 g/cm³ · mp 150 °C · flp >100 °C
CAS No. 22302-43-8 · EC no. 244-900-3
WGK 1

Arachidic acid calcium salt
DAB

Guarantee analysis
Appearance ..... white, light powder
Identity ..... complies
Appearance of solution ..... complies
Acid value 176-192
pH value 6,8-8,1
Chloride (Cl) ..... ≤0,25 %
Sulphate (SO_4) ..... ≤0,25 %
Calcium (Ca) ..... (dry substance) 5,7-6,3 %
Heavy metals ..... ≤0,004 %
Loss on drying ..... ≤3 %

Art. No.	Pack Qty.	Pack.	€
9264.1	500 g	plastic	53,65
Original pack 6 x 500 g			50,97/500 g
9264.2	1 kg	plastic	99,45
Original pack 6 x 1 kg			94,48/1 kg

Arachidonic acid



$C_{20}H_{32}O_2$ · D 0,922 g/cm³ · mp -49 °C · bp 169 to 171 °C · flp >110 °C
CAS No. 506-32-1 · EC no. 208-033-4
WGK 1

EUH019

Arachidonic acid
>99 %

Isolated from porcine liver.

Storage temperature: –20 °C
Transport temperature: ambient temp.

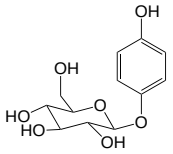
Type analysis
Appearance .... colourless to yellowish viscous oil
Assay ..... >99 %

Art. No.	Pack Qty.	Pack.	€
4717.2	10 mg	glass	60,10
4717.1	100 mg	glass	145,15
4717.3	1 g	glass	686,95

D(+)-Ara-ol

▸ D(+)-Arabitol see page 750

p-Arbutin



Ericolin · Ursin

$C_{12}H_{16}O_7$ · mp 198 °C
CAS No. 497-76-7 · EC no. 207-850-3
WGK 2

p-Arbutin
ROTICHROM® CHR ≥98 %, for biochemistry

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥98 %
Solubility ..... clear, colorless
Specific rotation $[\alpha]_D^{20}$ ..... -63° to -67°
Sulphated ash ..... ≤0,5 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6115.1	10 g	plastic	61,20
6115.2	50 g	plastic	192,45

p-Arbutin
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤1,0 %
Water (KF) ..... ≤5,0 %
Assay (qNMR) ..... ≥80,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE38.1	10 mg	glass	751,45

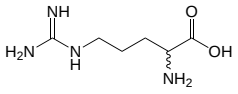
p-Arbutin
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥85,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC38.2	100 mg	glass	446,15

DL-Arginine



$C_6H_{14}N_4O_2$ · mp 228 to 232 °C
CAS No. 7200-25-1 · EC no. 230-571-3
WGK 1

⚠ **Warning** H319

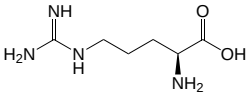
DL-Arginine
≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98,5 %
Heavy metals (as Pb) ..... ≤0,001 %
Ash content ..... ≤0,1 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8592.1	5 g	plastic	24,65
8592.2	25 g	plastic	75,15
8592.3	100 g	plastic	241,90

L-Arginine



2-Amino-5-guanidinovaleric acid

$C_6H_{14}N_4O_2$ · mp 238 °C
CAS No. 74-79-3 · EC no. 200-811-1
WGK 1

⚠ **Warning** H319

L-Arginine
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤6,0 E.U./g
Assay ..... ≥99 %
Loss on drying ..... ≤0,5 %
Specific rotation $[\alpha]_D^{20}$ ..... +26,9° to +27,9°
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %

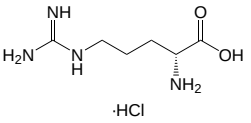
Art. No.	Pack Qty.	Pack.	€
1655.1	25 g	plastic	13,45
1655.2	100 g	plastic	33,25
1655.3	500 g	plastic	109,15
Original pack 6 x 500 g			103,69/500 g

L-Arginine
≥98,5 %, USP, for biochemistry

Guarantee analysis
Appearance ..... white, cryst. powder
Assay (dry substance) ..... 98,5-101,0 %
Identity ..... complies
Appearance of solution ..... clear, colourless
Specific rotation $[\alpha]_D^{25}$ (8 % in HCl 6 N) .. +26,3° to +27,7°
pH value (1 g in 20 ml H_2O) 10,5- 12,0
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Arsenic (As_2O_3) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %
Foreign amino acids ..... complies
Loss on drying ..... ≤0,5 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
3144.1	50 g	plastic	21,40
3144.3	250 g	plastic	55,80
3144.2	1 kg	plastic	174,70
Original pack 6 x 1 kg			165,97/1 kg

D-Arginine monohydrochloride



·HCl

2-Amino-5-guanidino-*n*-valeric acid hydrochloride · H-D-Arg-OH · HCl

$C_6H_{14}N_4O_2$ · HCl · mp 216 to 218 °C
CAS No. 627-75-8 · EC no. 211-010-1
WGK 1

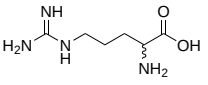
D-Arginine monohydrochloride
≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... 99,0-101,0 %
Specific rotation $[\alpha]_D^{20}$ (c= 2 in 6 N HCl) ..... -23° to -21°
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
7868.1	1 g	plastic	30,00
7868.2	5 g	plastic	85,90
7868.3	25 g	plastic	246,20

DL-Arginine monohydrochloride



· HCl

2-Amino-5-guanidino-*n*-valeric acid hydrochloride

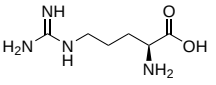
$C_6H_{14}N_4O_2$ · HCl · mp 128 to 130 °C
CAS No. 32042-43-6 · EC no. 250-903-0
WGK 1

DL-Arginine monohydrochloride
≥98 %, for biochemistry

Type analysis
Appearance ..... white to yellowish, cryst. powder
Assay (TLC) ..... ≥98 %
Water (KF) ..... ≤10 %
Solubility (50 mg/l H_2O) ..... clear, colourless to yellow

Art. No.	Pack Qty.	Pack.	€
4925.1	5 g	plastic	98,80

L-Arginine monohydrochloride



· HCl

2-Amino-5-guanidino-*n*-valeric acid hydrochloride · H-L-Arg-OH · HCl

$C_6H_{14}N_4O_2$ · HCl · D 1,42 g/cm³ · mp >225 °C · bp 235 °C
CAS No. 1119-34-2 · EC no. 214-275-1
WGK 1

A

L-Arginine monohydrochloride
CELLPURE® ≥98,5 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤6,0 E.U./g
Assay ..... ≥98,5 %
Loss on drying ..... ≤0,2 %
Specific rotation $[\alpha]_D^{20}$ ..... +22,1° to +22,9°
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤17 %
Sulphate (SO_4) ..... ≤0,02 %
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %

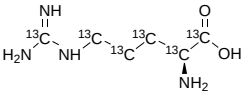
Art. No.	Pack Qty.	Pack.	€
1689.1	25 g	plastic	19,25
1689.2	100 g	plastic	34,30
1689.3	500 g	plastic	112,35
Original pack 6 x 500 g			106,73/500 g

L-Arginine monohydrochloride
≥98,5 %, Ph. Eur., USP

Guarantee analysis
Appearance ..... white, cryst. powder
Assay (dry substance) ..... 98,5-101,0 %
Identity ..... complies
Appearance of solution ..... clear, colourless
Specific rotation $[\alpha]_D^{20}$ ..... +22,1° to +22,9°
pH value (1 g, 10 ml H_2O) 4,7-6,2
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... 16,58-17,00 %
Sulphate (SO_4) ..... ≤0,02 %
Arsenic (As_2O_3) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %
Foreign amino acids ..... complies
Loss on drying ..... ≤0,2 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
3145.1	50 g	plastic	21,40
3145.2	250 g	plastic	59,70

L- Arginine $^{13}C_6$ monohydrochloride



· HCl

SILAC (Stable Isotope Labelling by amino acids in cell culture) · ^{13}C labelled Arg · H-L-Arg-OH · HCl $^{13}C_6$ · ^{13}C labelled arginine hydrochloride · (2S)-Amino-5-guanidino-*n*-valeric acid $^{13}C_6$ hydrochloride

$^{13}C_6H_{14}N_4O_2$ · HCl
CAS No. 201740-91-2
WGK 1

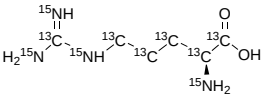
L-Arginine $^{13}C_6$ monohydrochloride
≥98 % ^{13}C

For proteomics by mass spectrometry.

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥95 %
Isotope enrichment (^{13}C) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
2061.1	100 mg	glass	349,40

L-Arginine $^{13}C_6$ $^{15}N_4$ monohydrochloride



· HCl

SILAC (Stable Isotope Labelling by amino acids in cell culture) · H-L-Arg-OH · HCl $^{13}C_6{}^{15}N_4$ · ^{13}C und ^{15}N labelled Arg · ^{13}C und ^{15}N labelled arginine hydrochloride · (2S)-Amino-5-guanidino-*n*-valeric acid 13C6 15N4 hydrochloride

$^{13}C_6H_{14}{}^{15}N_4O_2$ · HCl
CAS No. 202468-25-5
WGK 1

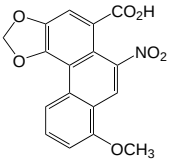
L-Arginine $^{13}C_6$ $^{15}N_4$ monohydrochloride
≥98 % $^{13}C^{15}N$

For proteomics by mass spectrometry.

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥95 %
Isotope enrichment (^{13}C, ^{15}N) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
2063.1	100 mg	glass	310,70

Aristolochic acid I



Aristolochin

$C_{17}H_{11}NO_7$ · mp 280 °C
CAS No. 313-67-7 · EC no. 206-238-3
UN no. 1544 · ADR 6.1 III · WGK 1

Danger H301+H311+H331-H341-H351

Aristolochic acid I
ROTICHROM® HPLC

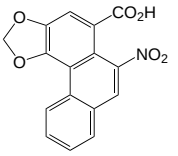
Reference substance for HPLC.
From *Aristolochia clematitis.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1086.1	20 mg	glass	381,65

Aristolochic acid II



Noraristolochic acid

$C_{16}H_9NO_6$ · mp 270 °C
CAS No. 475-80-9 · EC no. 207-499-6
UN no. 1544 · ADR 6.1 III · WGK 1

Danger H301+H311+H331-H341-H351

Aristolochic acid II
ROTICHROM® HPLC

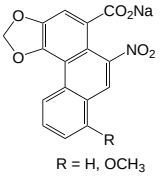
Reference substance for HPLC.
From *Aristolochia clematitis.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1088.1	20 mg	glass	471,95

Aristolochic acid sodium salt (I and II)



R = H, OCH_3

$C_{17}H_{10}NNaO_7$ / $C_{16}H_8NO_6Na$ · mp 250 °C
CAS No. 10190-99-5 · EC no. 233-463-4
UN no. 1544 · ADR 6.1 II · WGK 2

Danger H301+H311+H331-H341-H351

Aristolochic acid sodium salt (I and II)
ROTICHROM® CHR for biochemistry

Type analysis
Appearance ..... yellow to orange powder
Identity (TLC) ..... complies
Solubility (c=20 mg/ml in H_2O) ..... soluble

Art. No.	Pack Qty.	Pack.	€
7268.1	500 mg	glass	736,40

Aristolochin
▸ Aristolochic acid I see page 752

Aroma glucosides

Benzyl alcohol glucoside
ROTICHROM® HPLC

Phenylmethyl-*O*-β-D-glucopyranoside

$C_{13}H_{18}O_6$ · D 1,4 g/cm³ · mp 112 °C · bp ~480,2 °C · flp 244,2 °C

CAS No. 4304-12-5

M 270,28 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Type analysis
Assay (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
1K58.1	25 mg	glass	181,70

(–)-Borneol glucoside
ROTICHROM® HPLC

(1S,2R,4S)-1,7,7-Trimethylbicyclo[2.2.1]heptan-2-yl-O-β-D-glucopyranoside

$C_{16}H_{28}O_6$ · D 1,3 g/cm³ · mp 99 °C · bp ~466,5 °C

CAS No. 88763-93-3

M 316,39 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K4H.1	25 mg	glass	181,70

Carvacrol glucoside
ROTICHROM® HPLC

2-Methyl-5-(1-methylethyl)phenyl-*O*-β-D-glucopyranoside

$C_{16}H_{24}O_6$ · D 1,26 g/cm³ · mp 111 °C · bp ~495 °C

CAS No. 42035-60-9

M 312,36 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H302-H315-H319

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K51.1	25 mg	glass	181,70

L-Carveol glucoside
ROTICHROM® HPLC

2-Methyl-5-(1-methylethenyl)-2-cyclohexen-1-yl-*O*-β-D-glucopyranoside

$C_{16}H_{26}O_6$ · D 1,3 g/cm³ · mp >150 °C · bp ~495,5 °C · flp 253,5 °C

CAS No. 113349-30-7

M 314,38 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H302-H315-H319

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K4L.1	25 mg	glass	181,70

Cinnamyl alcohol glucoside
ROTICHROM® HPLC

3-phenylprop-2-en-1-yl- O-β-D-glucopyranoside

$C_{15}H_{20}O_6$ · D 1,4 g/cm³ · mp 93 °C · bp 542,4 to 592,4 °C · flp 281,8 °C

CAS No. 69306-80-5

M 296,31 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H302-H315-H317-H319

Type analysis
Assay (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
1K4N.1	25 mg	glass	181,70

Citronellol glucoside
ROTICHROM® HPLC

3,7-Dimethyl-6-octen-1-yl-*O*-β-D-glucopyranoside

$C_{16}H_{30}O_6$ · D 1,16 g/cm³ · bp 486,9 °C

CAS No. 22850-15-3

M 318,41 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H315-H317-H319

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K5C.1	25 mg	glass	181,70

Ethylmaltol glucoside
ROTICHROM® HPLC

2-Ethyl-4H-pyran-4-one-3-*O*-β-D-glucopyranoside

$C_{13}H_{18}O_8$ · D 1,5 g/cm³ · mp 150 °C · bp 498 °C · flp 272,3 °C

CAS No. 1838567-35-3

M 302,28 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H302

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K52.1	25 mg	glass	181,70

Eugenol glucoside
ROTICHROM® HPLC

2-Methoxy-4-(2-propen-1-yl)phenyl-*O*-β-D-glucopyranoside

$C_{16}H_{22}O_7$ · D 1,3 g/cm³ · mp 121 °C · bp 526,6 °C · flp 272,3 °C

CAS No. 18604-50-7

M 326,34 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K55.1	25 mg	glass	181,70

Furaneol glucoside
ROTICHROM® HPLC

2,5-Dimethyl-3(2H)-furanone-4-*O*-β-D-glucopyranoside

$C_{12}H_{18}O_8$ · D 1,5 g/cm³ · mp 68 °C · bp 542,6 °C · flp 208,7 °C

CAS No. 121063-56-7

M 290,27 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K4T.1	25 mg	glass	181,70

Geraniol glucoside
ROTICHROM® HPLC

(2E)-3,7-dimethyl-2,6-octadien-1-yl-*O*-β-D-glucopyranoside

$C_{16}H_{28}O_6$ · D 1,2 g/cm³ · mp 85,3 °C · bp 503,9 °C · flp 258,5 °C

CAS No. 22850-13-1

M 316,39 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K4X.1	25 mg	glass	181,70

Guaiacol glucoside
ROTICHROM® HPLC

2-Methoxyphenyl-*O*-β-D-glucopyranoside

$C_{13}H_{18}O_7$ · D 1,4 g/cm³ · mp >150 °C · bp 496,5 °C · flp 254,1 °C

CAS No. 6092-24-6

M 286,28 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H302-H315-H319

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K56.1	25 mg	glass	181,70

1-Hexanol glucoside
ROTICHROM® HPLC

Hex-1-yl-O-β-D-glucopyranoside

$C_{12}H_{24}O_6$ · D 1,2 g/cm³ · mp 88 to 91 °C · bp 432,3 °C · flp 215,2 °C

CAS No. 59080-45-4

M 264,32 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H315-H319-H335

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K4K.1	25 mg	glass	181,70

cis-3-Hexen-1-ol glucoside
ROTICHROM® HPLC

cis-3-Hexen-1-yl-*O*-β-D-glucopyranoside

$C_{12}H_{22}O_6$ · D 1,3 g/cm³ · mp 79,4 to 80,3 °C · bp 441,1 to 486,1 °C · flp 220,6 to 249,3 °C

CAS No. 95632-87-4

M 262,30 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K5E.1	25 mg	glass	181,70

Homofuraneol glucoside, isomer mixture
ROTICHROM® HPLC

2 (or 5)-Ethyl-5 (or 2)-methyl-3(2H)-furano-ne-4-*O*-β-D-glucopyranoside

$C_{13}H_{20}O_8$ · D 1,46 g/cm³ · bp 546 to 596 °C

M 304,29 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H302-H315-H319

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K57.1	25 mg	glass	181,70

L-Linalool glucoside
ROTICHROM® HPLC

(3R)-3,7-dimethylocta-1,6-dien-3-yl-*O*-β-D-glucopyranoside

$C_{16}H_{28}O_6$ · D 1,18 g/cm³ · bp 485,7 to 530,7 °C

CAS No. 104154-37-2

M 316,39 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H315-H317-H319

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K54.1	25 mg	glass	181,70

Maltol glucoside
ROTICHROM® HPLC

2-Methyl-4H-pyran-4-one-3-*O*-β-D-glucopyranoside

$C_{12}H_{16}O_8$ · D 1,56 g/cm³ · mp 125 °C · bp 599,2 to 649,2 °C

CAS No. 20847-13-6

M 288,25 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H302

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K5L.1	25 mg	glass	181,70

L-Menthol glucoside
ROTICHROM® HPLC

(1R,2S,5R)-5-Methyl-2-(1-methylethyl)-cyclohexyl-*O*-β-D-glucopyranoside

$C_{16}H_{30}O_6$ · D 1,21 g/cm³ · mp 107,1 °C · bp 474,8 to 519,8 °C

CAS No. 16203-27-3

M 318,41 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K5K.1	25 mg	glass	181,70

Methyl anthranilate glucoside
ROTICHROM® HPLC

Methyl-2-aminobenzoate-*N*- β-D-glucopyranoside

$C_{14}H_{19}NO_7$ · D 1,492 g/cm³ · mp 124 °C · bp 550,1 °C

CAS No. 1875079-80-3

M 313,30 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H319

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K59.1	25 mg	glass	181,70

Myrtenol glucoside
ROTICHROM® HPLC

(6,6-Dimethylbicyclo[3.1.1]hept-2-ene-2yl) methyl-*O*-β-D-glucopyranoside

$C_{16}H_{26}O_6$ · D 1,33 g/cm³ · mp 92 °C · bp 483,6 °C

CAS No. 128385-61-5

M 314,37 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K4E.1	25 mg	glass	181,70

Nerol glucoside
ROTICHROM® HPLC

(2Z)-3,7-Dimethyl-2,6-octadien-1-yl-*O*-β-D-glucopyranoside

$C_{16}H_{28}O_6$ · D 1,19 g/cm³ · mp 65 °C · bp ~504 °C

CAS No. 22850-14-2

M 316,39 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H315-H317-H319

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K4P.1	25 mg	glass	181,70

1-Octen-3-ol glucoside
ROTICHROM® HPLC

1-Octen-3-yl-O-β-D-glucopyranoside

$C_{14}H_{26}O_6$ · D 1,19 g/cm³ · bp ~455,3 °C

CAS No. 74356-49-3

M 290,36 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Type analysis

Assay (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
1K53.1	25 mg	glass	181,70

Paracetamol glucoside
ROTICHROM® HPLC

N-Acetyl-*p*-aminophenyl-*O*-β-D-glucopyranoside

$C_{14}H_{19}NO_7$ · D 1,5 g/cm³ · mp 58 °C · bp ~638 °C · flp 339,6 °C

CAS No. 75716-11-9

M 313,30 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H302

Type analysis
Assay (HPLC) ..... ≥90 %

Art. No.	Pack Qty.	Pack.	€
1K50.1	25 mg	glass	181,70

S-(–)-Perillyl alcohol glucoside
ROTICHROM® HPLC

[(4S)-4-prop-1-en-2-ylcyclohexen-1-yl]methyl-*O*-β-D-glucopyranoside

$C_{16}H_{26}O_6$ · D 1,3 g/cm³ · mp 97 °C · bp ~494,8 °C · flp ~253 °C

CAS No. 141206-20-4

M 314,37 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H315-H319

Type analysis
Assay (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
1K5N.1	25 mg	glass	181,70

2-Phenylethanol glucoside
ROTICHROM® HPLC

2-Phenyleth-1-yl-*O*-β-D-glucopyranoside

$C_{14}H_{20}O_6$ · D 1,4 g/cm³ · mp 119 to 120 °C · bp ~486,8 °C · flp 248,2 °C

CAS No. 18997-54-1

M 284,17 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H302-H319

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K5P.1	25 mg	glass	181,70

Raspberry ketone glucoside
ROTICHROM® HPLC

4-[4'-Hydroxyphenyl]-butan-2-on-4'-*O*-β-D-glucopyranoside

$C_{16}H_{22}O_7$ · D 1,4 g/cm³ · mp 124 °C · bp 553,8 to 603,8 °C · flp 202,8 to 226,8 °C

CAS No. 38963-94-9

M 326,34 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H302

Type analysis
Assay (HPLC) ..... >95 %

Art. No.	Pack Qty.	Pack.	€
1K5A.1	25 mg	glass	181,70

Sesamol glucoside
ROTICHROM® HPLC

1,3-Benzodioxol-5-yl-*O*-β-D-glucopyranoside

$C_{13}H_{16}O_8$ · D 1,599 g/cm³ · mp >150 °C · bp ~535,7 °C

CAS No. 199291-04-8

M 300,26 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K5X.1	25 mg	glass	181,70

α-Terpineol glucoside
ROTICHROM® HPLC

2-(4-Methylcyclohex-3-en-1-yl)propan-2-yl-*O*-β-D-glucopyranoside

$C_{16}H_{28}O_6$ · D 1,2 g/cm³ · mp 84 °C · bp ~480,2 °C · flp ~244 °C

CAS No. 39015-85-5

M 316,39 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H315-H319

Type analysis
Assay (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
1K5T.1	25 mg	glass	181,70

Thymol glucoside
ROTICHROM® HPLC

5-Methyl-2-(1-methylethyl)phenyl-*O*-β-D-glucopyranoside

$C_{16}H_{24}O_6$ · D 1,3 g/cm³ · mp 95 °C · bp 574,7 to 624,7 °C · flp 266,7 °C

CAS No. 20772-23-0

M 312,36 g/mol

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1K4Y.1	25 mg	glass	181,70

Vanillin alcohol glucoside
ROTICHROM® HPLC

4-(hydroxymethyl)-2-methoxyphenyl-*O*-β-D-glucopyranoside

$C_{14}H_{20}O_8$ · D 1,475 g/cm³ · mp 81 °C · bp 574,2 to 624,2 °C

CAS No. 1383997-16-7

M 316,26 g/mol

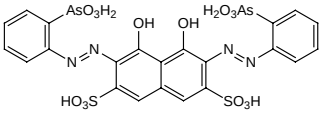
Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Type analysis
Assay (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
1K5H.1	25 mg	glass	181,70

Arsenazo III



2,7-Bis(2-arsonophenylazo)-1,8-dihydroxynaphthalin-3,6-disulphonic acid

$C_{22}H_{18}As_2N_4O_{14}S_2$
CAS No. 1668-00-4 · EC no. 216-788-6
UN no. 2811 · ADR 6.1 III · WGK 3

Danger H301+H331-H410

Arsenazo III
≥85 %, p.a.

Indicator for metal ions

Dissolve 0.1 g in 100 ml water

Guarantee analysis
Assay (HPLC) ..... ≥85,0 %
Sulphated ash ..... ≤0,2 %
Loss on drying (120 °C) ..... ≤8,0 %
Specific Extinction E (1%/1cm) 300,0-450,0
Absorption max. (in H_2O) ..... 535,0-543,0 nm
Absorption max. (in buffer pH 10) ..... 571,0-576,0 nm
Lead (Pb) ..... ≤0,001 %
Cadmium (Cd) ..... ≤0,005 %
Calcium (Ca) ..... ≤0,01 %
Chromium (Cr) ..... ≤0,005 %
Iron (Fe) ..... ≤0,01 %
Copper (Cu) ..... ≤0,005 %
Magnesium (Mg) ..... ≤0,005 %
Manganese (Mn) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,005 %
Tin (Sn) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
KK22.1	1 g	glass	64,40
KK22.2	5 g	glass	241,90

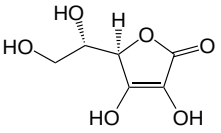
Arsenic Standards

- Arsenic AAS Standard Solution see page 1313
- Arsenic ICP Standard Solution see page 1313
- Arsenic ICP Standard Solution see page 1313

1-(2-Arsonophenylazo)-2-hydroxy-3,6-naphthalene-disulphonic acid sodium salt

- Thorin see page 1366

L(+)-Ascorbic acid



Vitamin C

$C_6H_8O_6$ · D 1,65 g/cm³ · mp 190 to 192 °C
CAS No. 50-81-7 · EC no. 200-066-2
WGK 1

L(+)-Ascorbic acid
≥99 %, p.a.

Antioxidant, for biochemistry.

Guarantee analysis

Appearance	white crystals
Assay	≥99 %
Identity	complies
Arsenic (As)	≤0,0003 %
Lead (Pb)	≤0,0005 %
Iron (Fe)	≤0,0002 %
Copper (Cu)	≤0,0005 %
Heavy metals	≤0,001 %
Oxalic acid ($C_2H_2O_4$)	≤0,2 %
Specific rotation $[\alpha]_D^{20}$	+20,5° to +21,5°
pH value (2 % in H_2O)	2,2-2,8

Art. No.	Pack Qty.	Pack.	€
3525.1	100 g	plastic	16,05
3525.2	250 g	plastic	22,50
3525.3	500 g	plastic	38,20
Original pack 6 x 500 g			36,29/500 g

L(+)-Ascorbic acid
≥99 %, Ph. Eur., USP, BP

Guarantee analysis

Appearance	white to almost white crystals
Assay	99,0-100,5 %
Identity	complies
Appearance of solution	complies
Arsenic (As)	≤0,0003 %
Lead (Pb)	≤0,001 %
Iron (Fe)	≤0,0002 %
Copper (Cu)	≤0,0005 %
Heavy metals	≤0,001 %
Sulphated ash	≤0,1 %
Specific rotation $[\alpha]_D^{20}$	+20,5° to +21,5°
Oxalic acid ($C_2H_2O_4$)	≤0,2 %

Related Substances:

Impurities total C and D (each)	≤0,15 %
Impurities total (except C,D)	≤0,2 %
Related substances (unspecific impurities)	≤0,1 %

Art. No.	Pack Qty.	Pack.	€
6288.1	100 g	plastic	16,70
6288.2	250 g	plastic	24,65
6288.3	1 kg	plastic	80,55
Original pack 6 x 1 kg			76,52/1 kg

L(+)-Ascorbic acid
ROTI®Star Primary Standard

Type analysis

Assay (HPLC)	≥90,0 %
Residual solvents (GC)	≤2,0 %
Water (KF)	≤2,0 %
Assay (qNMR)	≥90,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE00.1	100 mg	glass	1.020,20

L(+)-Ascorbic acid
ROTICHROM® Working Standard

Type analysis

Assay (HPLC)	≥90,0 %
Identity	complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC00.1	100 mg	glass	284,90

L(+)-Ascorbic acid sodium salt

Sodium L(+)-ascorbate

$C_6H_7O_6Na$ · D 1,88 g/cm³ · mp 220 °C
CAS No. 134-03-2 · EC no. 205-126-1
WGK 1

L(+)-Ascorbic acid sodium salt
≥99 %, USP, for biochemistry

Guarantee analysis

Appearance	white to light yellowish crystals
Assay (iodom., dry substance)	99,0-101,0 %
Identity	complies
pH value (10 % H_2O, 20 °C)	7,0-8,0
Heavy metals (as Pb)	≤0,001 %
Loss on drying	≤0,25 %
Residual solvents (methanol)	≤0,3%
Specific rotation $[\alpha]_D^{25}$ (10 % in H_2O, dry substance)	+103° to +106°

Art. No.	Pack Qty.	Pack.	€
3149.1	100 g	plastic	28,95
3149.2	500 g	plastic	85,90
Original pack 6 x 500 g			81,61/500 g

L(+)-Ascorbic acid sodium salt
≥99 %, ROTI®Click Grade

for Click Chemistry

Storage temperature: +4 °C
Transport temperature: cooled

Type analysis

Appearance	white crystals
Assay	≥99 %

Art. No.	Pack Qty.	Pack.	€
7819.1	10 mg	plastic	20,35
7819.2	50 mg	plastic	52,60

Asiaticoside

$C_{48}H_{78}O_{19}$ · D 1,212 to 1,224 g/cm³ · mp ≥239,7 to ≤240,7 °C · bp ≥261,9 to ≤262,9 °C
CAS No. 16830-15-2 · EC no. 240-851-7
WGK 1

Asiaticoside
ROTICHROM® HPLC

Reference substance for HPLC.

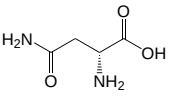
Storage temperature: +4 °C

Type analysis

Purity (HPLC)	≥99 %

Art. No.	Pack Qty.	Pack.	€
3972.1	10 mg	glass	241,90

D-Asparagine monohydrate



D-Asparaginic acid semiamide · H-D-Asn-OH

$C_4H_8N_2O_3$ · H_2O · mp 275 °C
CAS No. 5794-24-1 · EC no. 218-163-3
WGK 1

D-Asparagine monohydrate
≥98 %, for biochemistry

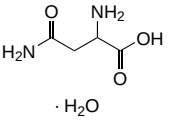
Storage temperature: +4 °C

Type analysis

Appearance	white cryst. powder
Assay	≥98,0 %
Specific rotation $[\alpha]_D^{20}$ (c=5 in 5 N HCl)	-36,5° to -34,5°
Loss on drying	11,5-12,5 %

Art. No.	Pack Qty.	Pack.	€
7872.1	5 g	plastic	30,00
7872.2	25 g	plastic	85,90

DL-Asparagine monohydrate



· H_2O

(±)-2-Aminsuccinic acid 4-amide · DL-Aspartic acid 4-amide · DL-Asparaginic acid semiamide · H-DL-Asn-OH · H-DL-Asp-OH

$C_4H_8N_2O_3$ · H_2O · mp 220 °C
CAS No. 3130-87-8 · EC no. 221-521-1
WGK 1

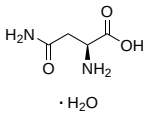
DL-Asparagine monohydrate
≥98 %, for biochemistry

Type analysis

Assay (titr.)	≥98,0 %
Solution (5 % in H_2O)	colourless, clear
Water (KF)	10,5-13,5 %
Aspartic acid content (TLC)	≤3,0 %

Art. No.	Pack Qty.	Pack.	€
5495.1	100 g	plastic	52,60
5495.2	250 g	plastic	112,35

L-Asparagine monohydrate



· H_2O

L-Asparaginic acid semiamide · H-L-Asn-OH

$C_4H_8N_2O_3 \cdot H_2O$ · D 1,534 g/cm³ · mp 215 to 217 °C
CAS No. 5794-13-8 · EC no. 200-735-9
WGK 1

L-Asparagine monohydrate
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis

Endotoxins ..... ≤6,0 E.U./g
Assay ..... ≥99 %
Loss on drying ..... 10,5-12,5 %
Sulphated ash ..... ≤0,1 %
Specific rotation $[\alpha]_D^{20}$ ..... +33,7° to +36,0°
Ammonium (NH_4) ..... ≤0,1 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
KK37.1	50 g	plastic	32,15
KK37.2	250 g	plastic	117,20
KK37.3	500 g	plastic	213,95
Original pack 6 x 500 g			203,25/500 g

L-Asparagine monohydrate
≥99 %, Ph. Eur., for biochemistry

Guarantee analysis

Appearance ..... white, cryst. powder
Appearance of solution ..... complies
Assay (dry substance) ..... 99,0-101,0 %
Identity ..... complies
Specific rotation $[\alpha]_D^{20}$ ..... +33,7° to +36,0°
pH value 4,0-6,0
Ammonium (NH_4) ..... ≤0,1 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Iron (Fe) ..... ≤0,001 %
Foreign amino acids ..... comlpies
Aspartic acid ..... ≤0,5 %
Loss on drying ..... 10,5-12,5 %
Sulphated ash ..... ≤0,1 %

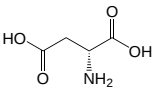
Art. No.	Pack Qty.	Pack.	€
HN23.1	100 g	plastic	46,80
HN23.2	500 g	plastic	198,35
Original pack 6 x 500 g			188,43/500 g
HN23.3	1 kg	plastic	332,20
Original pack 6 x 1 kg			315,59/1 kg

D-Asparaginic acid semiamide
▸ D-Asparagine monohydrate see page 756

DL-Asparaginic acid semiamide
▸ DL-Asparagine monohydrate see page 756

L-Asparaginic acid semiamide
▸ L-Asparagine monohydrate see page 757

D-Aspartic acid



2-Amino-succinic acid · H-D-Asp-OH

$C_4H_7NO_4$
CAS No. 1783-96-6 · EC no. 217-234-6
WGK 1

D-Aspartic acid
≥98 %, for biochemistry

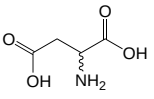
Storage temperature: +4 °C

Type analysis

Appearance ..... white to off-white powder
Assay ..... 98,0-101,0 %
Specific rotation $[\alpha]_D^{20}$ (c=8 in 6 N HCl) ..... -26° to -24°
Loss on drying ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
7873.1	5 g	plastic	24,65
7873.2	25 g	plastic	73,00
7873.3	100 g	plastic	177,40

DL-Aspartic acid



2-Amino-succinic acid

$C_4H_7NO_4$ · D 1 g/cm³ · mp 300 °C
CAS No. 617-45-8 · EC no. 210-513-3
WGK 1

DL-Aspartic acid
≥98 %, for biochemistry

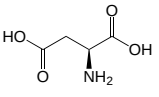
Storage temperature: +4 °C

Type analysis

Appearance ..... white cryst. powder
Assay ..... ≥98,0 %
Heavy metals (as Pb) ..... ≤0,005 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8593.1	100 g	plastic	60,10
8593.2	500 g	plastic	256,95
Original pack 6 x 500 g			244,10/500 g

L-Aspartic acid



2-Amino-succinic acid · H-L-Asp-OH

$C_4H_7NO_4$ · D 1,66 g/cm³ · mp 230 °C
CAS No. 56-84-8 · EC no. 200-291-6
WGK 1

L-Aspartic acid
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis

Endotoxins ..... ≤6,0 E.U./g
Assay ..... ≥99 %
Loss on drying ..... ≤0,2 %
Specific rotation $[\alpha]_D^{20}$ ..... +24,5° to +26,0°
Foreign amino acids ..... ≤0,4 %
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Heavy metals (as Pb) ..... ≤0,0005 %
Arsenic (As_2O_3) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
1690.1	25 g	plastic	21,00
1690.2	100 g	plastic	42,50
1690.3	500 g	plastic	152,15
Original pack 6 x 500 g			144,54/500 g

L-Aspartic acid
≥98,5 %, Ph. Eur., for biochemistry

Guarantee analysis

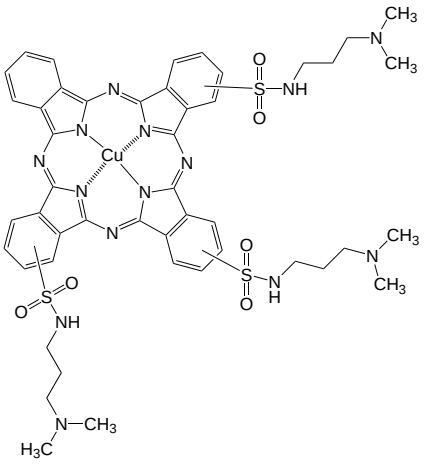
Appearance ..... white, cryst. powder
Assay (dry substance) ..... 98,5-101,5 %
Identity ..... complies
Appearance of solution ..... clear,colourless
Specific rotation $[\alpha]_D^{20}$ ..... +24,5° to +26,0°
pH-value 2,5-3,5
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Arsenic (As_2O_3) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %
Loss on drying ..... ≤0,2 %
Sulphated ash ..... ≤0,1 %
Enantiomeric purity (HPLC) ..... ≤0,3 %
Impurity C ..... ≤0,2 %
Impurity D ..... ≤0,2 %
Impurity G ..... ≤0,2 %
Sum of other impurities ..... ≤0,1 %
Sum of all impurities ..... ≤1,0 %

Related Substances:
Impurity A ..... ≤0,2 %
Impurity B ..... ≤0,1 %
Impurity H ..... ≤0,1 %
Any other impurities ..... ≤0,1 %
Related substances (total) ..... ≤0,3 %

Art. No.	Pack Qty.	Pack.	€
T202.1	100 g	plastic	28,95
T202.2	500 g	plastic	128,50
Original pack 6 x 500 g			122,08/500 g
T202.3	1 kg	plastic	231,15
Original pack 6 x 1 kg			219,59/1 kg

DL-Aspartic acid 4-amide
▸ DL-Asparagine monohydrate see page 756

Astra blue FM (C.I. 48048)



$C_{47}H_{52}CuN_{14}O_6S_3$ · D 1 g/cm³
CAS No. 82864-57-1
WGK 3

Warning H315-H319-H335

Astra blue FM (C.I. 48048)
for microscopy

Dissolve 0.1 g in 97.5 ml water and 2.5 ml glacial acetic acid

Type analysis
Absorption max. (in H_2O) ..... 605-615 nm
Loss on drying (110 °C) ..... <15 %

Art. No.	Pack Qty.	Pack.	€
5165.1	10 g	glass	30,00
5165.2	50 g	glass	92,35

Astragalin
▸ Kaempferol-3-glucoside see page 1026

ATP

Adenosine-5-triphosphate

$C_{10}H_{14}N_5O_{13}P_3Na_2 \cdot 3\,H_2O$
CAS No. 51963-61-2
WGK 1

ATP
≥98 %, lyophilized

for molecular biology and biochemistry

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
K054.1	1 g	plastic	37,55
K054.3	10 g	plastic	149,45
K054.6	100 g	plastic	607,40

ATP disodium salt
▸ Adenosin-5'-triphosphate disodium salt (ATP) see page 708

ATP solution

Adenosine-5-triphosphate

$C_{10}H_{13}N_5O_{13}P_3$ · D 1 g/cm³
CAS No. 987-65-5 · EC no. 213-579-1
WGK 1

ATP solution
≥99 %, 100 mM solution

for molecular biology and biochemistry

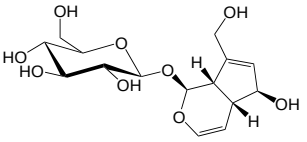
Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
K045.1	250 µl	plastic	52,60

Aubepine
▸ 4-Anisaldehyde see page 745

Aucuboside
▸ Aucubin see page 757

Aucubin



Aucuboside · Rhinanthin

$C_{15}H_{22}O_9$ · mp 180 to 184 °C
CAS No. 479-98-1 · EC no. 207-540-8
WGK 1

Aucubin
ROTICHROM® CHR >97 %

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... >97 %

Art. No.	Pack Qty.	Pack.	€
9149.1	250 mg	glass	579,45

Aucubin
ROTICHROM® HPLC

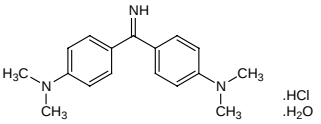
Reference substance for HPLC.
From *Aucuba japonica.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98,5 %

Art. No.	Pack Qty.	Pack.	€
7004.1	25 mg	glass	177,40
7004.2	50 mg	glass	310,70

Auramine O (C.I. 41000)



4,4'-Bis-(dimethylamino)-benzophenonimide hydrochloride · Basic yellow 2

$C_{17}H_{22}ClN_3$ · mp 265 °C
CAS No. 2465-27-2 · EC no. 219-567-2
UN no. 3077 · ADR 9 III · WGK 3

Warning H302-H319-H351-H411

Auramine O (C.I. 41000)
for microscopy

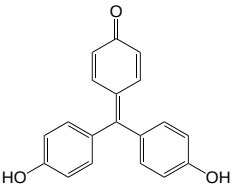
Dissolve 1 % in ethanol (95 %)

Type analysis
Maximum absorption ..... 430-440 nm

Art. No.	Pack Qty.	Pack.	€
0319.1	25 g	glass	20,35
0319.2	50 g	glass	36,05

Aureine
▸ Senecionine see page 1255

Aurin



p-Rosolic acid · Corallin

$C_{19}H_{14}O_3$ · mp 309 °C
CAS No. 603-45-2 · EC no. 210-041-8
WGK 1

Warning H315-H319-H335

Aurin (C. I. 43800)
extra pure

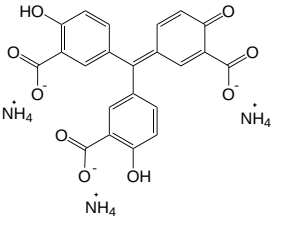
Indicator pH 5.0-6.8

Dissolve 0.1 g in 100 ml ethanol (96 %)

Type analysis
Appearance ..... dark red powder
pH-transition range ..... 5,0 (yellow)-6,8 (pink)

Art. No.	Pack Qty.	Pack.	€
1H58.1	5 g	glass	23,15
1H58.2	25 g	glass	46,15

Aurin tricarboxylic acid ammonium salt



Ammonium aurin tricarboxylate · Aluminon

$C_{22}H_{23}N_3O_9$ · mp 220 to 225 °C
CAS No. 569-58-4 · EC no. 209-319-1
WGK 1

Warning H315-H319

Aurin tricarboxylic acid ammonium salt
p.a., ACS

Reagent for aluminium

Dissolve 0.2 g in 100 ml water

Guarantee analysis
Identity ..... complies
Insoluble matter ..... ≤0,1 %
Ash content ..... ≤0,2 %
Suitability as reagent for aluminum ..... complies

Art. No.	Pack Qty.	Pack.	€
2670.1	10 g	glass	23,55
2670.2	25 g	glass	35,40
2670.3	100 g	glass	86,55

Avocado oil

Oleum Perseae

D 0,921 to 0,923 g/cm³ · flp >350 °C
CAS No. 8024-32-6 · EC no. 232-428-0
WGK awg

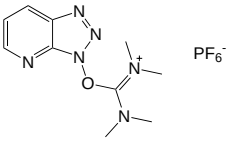
Avocado oil
refined

Type analysis
Relative density (20 °C) 0,912-0,923
Refractive index n_D^{20} 1,468-1,476
Acid value ..... ≤1,0 mg KOH/g
Peroxide value ..... ≤15,0 meq O_2/kg
Saponification value ..... 187-197 mg KOH/g
Iodine value (g I_2/ 100 g) 75-95
Unsaponifiable matter ..... ≤2,0 %

GC-fatty acid constituents:
<C 16:0 ..... ≤2,0 %
C 16:0 Palmitic acid ..... 5,0-25 %
C 16:1 Palmitoleic acid ..... 1,0-12 %
C 18:0 Stearic acid ..... ≤3,0 %
C 18:1 Oleic acid ..... 50-74 %
C 18:2 Linoleic acid ..... 6,0-20 %
C 18:3 Linolenic acid ..... ≤3,0 %
Other fatty acids ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
9341.1	1 l	glass	78,40
Original pack 6 x 1 l			74,48/1 l

O-(7-Azabenzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium hexafluorophosphate (HATU)



HATU

$C_{10}H_{15}F_6N_6OP$ · mp 181 to 185 °C
CAS No. 148893-10-1
WGK 1

Danger H315-H317-H319-H334-H335

O-(7-Azabenzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium hexafluorophosphate (HATU)
PEPTIPURE® ≥99 %

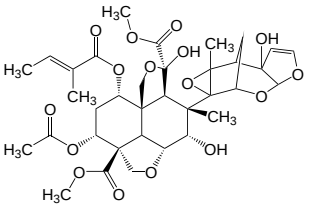
Coupling reagent for peptide synthesis

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥99,0 %
Loss on drying ..... ≤0,5 %
Solubility (5 % in DMF) ..... clearly soluble

Art. No.	Pack Qty.	Pack.	€
2131.1	5 g	glass	67,65
2131.2	25 g	glass	252,65

Azadirachtin



$C_{35}H_{44}O_{16}$ · mp 155 to 160 °C
CAS No. 11141-17-6
UN no. 3077 · ADR 9 III · WGK 2

Warning H317-H410

Azadirachtin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: –20 °C
Transport temperature: ambient temp.

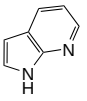
Type analysis
Purity (HPLC) ..... ≥96 %

Art. No.	Pack Qty.	Pack.	€
4314.1	1 mg	glass	252,65
4314.2	5 mg	glass	1.058,90

9-Azafluorene

▸ Carbazole see page 815

7-Azaindole



1*H*-Pyrrolo[2,3-b]pyridine

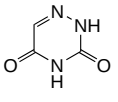
$C_7H_6N_2$ · mp 103 to 106 °C · bp 270 °C
CAS No. 271-63-6 · EC no. 205-981-0
WGK 1

7-Azaindole
≥98 %

Type analysis
Assay (GC) ..... ≥98,0 %
Solution (5 % in methanol) ... colourless to slightly yellow, clear
Water (KF) ..... ≤0,5 %
Melting point ..... 105-107 °C

Art. No.	Pack Qty.	Pack.	€
5490.1	1 g	glass	23,15
5490.2	5 g	plastic	77,95
5490.3	10 g	plastic	138,70

6-Azauracil



1,2,4-Triazine-3,5-(2*H*,4*H*)-dione · 3,5-Dihydroxy-1,2,4-triazine

$C_3H_3N_3O_2$ · mp 277 to 281 °C
CAS No. 461-89-2 · EC no. 207-318-0
WGK 1

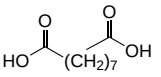
Warning H371

6-Azauracil
≥98 %, for biochemistry

Type analysis
Assay (titr.) ..... ≥98,0 %
Loss on drying ..... ≤2,0 %
Melting point ..... 277-281 °C

Art. No.	Pack Qty.	Pack.	€
5488.1	5 g	plastic	83,75
5488.2	10 g	plastic	140,30

Azelaic acid



Nonanedioic acid

$C_9H_{16}O_4$ · D 1,225 g/cm³ · mp 106,5 °C · bp 357,1 °C · flp 180 °C
CAS No. 123-99-9 · EC no. 204-669-1
WGK 1

Warning H319

Azelaic acid
≥80 %

Type analysis
Assay (titr.) ..... ≥80,0 %
Water (KF) ..... ≤1,0 %
Melting point ..... 97-107 °C

Art. No.	Pack Qty.	Pack.	€
5487.1	25 g	plastic	28,95
5487.2	100 g	plastic	69,80

Azide Dextrose Broth

WGK 1

Warning H302-H412-EUH032

Azide Dextrose Broth
for microbiology

For enrichment and detection of enterococci.

Application: Use 34.7 g (1x) or 69.4 g (2x) for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

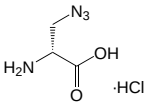
Composition
Casein peptone ..... 15 g/l
Meat extract ..... 4,5 g/l
Glucose ..... 7,5 g/l
Sodium chloride (NaCl) ..... 7,5 g/l
Sodium azide ..... 0,2 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL79.1	500 g	plastic	124,20
Original pack 6 x 500 g			117,99/500 g

3-Azido-D-alanine hydrochloride

▸ D-β-Azidoalanine hydrochloride see page 759

D-β-Azidoalanine hydrochloride



3-Azido-D-alanine hydrochloride · H-D-Aza-OH · HCl

$C_3H_6N_4O_2$ · HCl
CAS No. 1379690-01-3
WGK 1

D-β-Azidoalanine hydrochloride
≥99 %

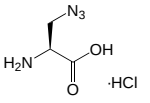
Storage temperature: +4 °C
Transport temperature: cooled

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥99 %
Enantiomeric purity ..... ≤0,5 % L-enantiomer

Art. No.	Pack Qty.	Pack.	€
7856.3	100 mg	plastic	184,90

3-Azido-L-alanine hydrochloride
▸ L-β-Azidoalanine hydrochloride see page 759

L-β-Azidoalanine hydrochloride



3-Azido-L-alanine hydrochloride · H-L-Aza-OH · HCl

$C_3H_6N_4O_2$ · HCl
CAS No. 105661-40-3
WGK 1

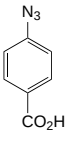
L-β-Azidoalanine hydrochloride
≥98 %

Storage temperature: +4 °C
Transport temperature: cooled

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥98 %
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
7854.3	100 mg	plastic	246,20

4-Azidobenzoic acid



$C_7H_5N_3O_2$ · mp 176 °C
CAS No. 6427-66-3
UN no. 1325 · ADR 4.1 III · WGK 1

Warning H228

4-Azidobenzoic acid
≥97 %

Linker

Storage temperature: +4 °C
Transport temperature: cooled

Type analysis
Appearance ..... white, crystalline powder
Assay (HPLC) ..... ≥97 %

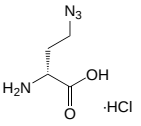
Art. No.	Pack Qty.	Pack.	€
7835.1	10 mg	plastic	54,30

5-((2-(2-(2-(2-Azidoethoxy)-ethoxy)ethoxy)ethyl)carbamoyl)-2-(6-(dimethylamino)-3-(dimethyliminio)-3*H*-xanthen-9-yl)benzoate
▸ 5-Carboxytetramethylrhodamine-PEG3-Azide (5-TAMRA-PEG3-Azide) see page 817

N-(2-(2-(2-(2-Azidoethoxy)ethoxy)ethyl)-5-((3aS,4S,6aR)-2-oxohexahydro-1*H*-thieno[3,4-d]imidazol-4-yl)pentanamide
▸ Biotin-PEG3-Azide see page 775

4-Azido-D-homoalanine hydrochloride
▸ D-γ-Azidohomoalanine hydrochloride see page 759

D-γ-Azidohomoalanine hydrochloride



4-Azido-D-homoalanine hydrochloride · H-D-Aha-OH · HCl

$C_4H_8N_4O_2$ · HCl
CAS No. 120042-14-0
WGK 1

D-γ-Azidohomoalanine hydrochloride
≥99 %

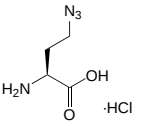
Storage temperature: +4 °C
Transport temperature: cooled

Type analysis
Appearance ..... white powder
Assay (TLC) ..... ≥99 %
Enantiomeric purity ..... ≤0,5 % L-enantiomer

Art. No.	Pack Qty.	Pack.	€
7858.3	100 mg	plastic	246,20

4-Azido-L-homoalanine hydrochloride
▸ L-γ-Azidohomoalanine hydrochloride see page 760

L-γ-Azidohomoalanine hydrochloride



4-Azido-L-homoalanine hydrochloride · H-L-Aha-OH · HCl

$C_4H_8N_4O_2$ · HCl
CAS No. 942518-29-8
WGK 1

L-γ-Azidohomoalanine hydrochloride
≥98 %

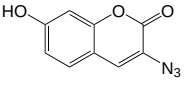
Storage temperature: +4 °C
Transport temperature: cooled

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥98 %
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
7857.1	5 mg	plastic	37,55
7857.2	10 mg	plastic	65,50
7857.3	100 mg	plastic	184,90
7857.4	500 mg	plastic	649,30

3-Azido-7-hydroxy-chromen-2-one
▸ 3-Azido-7-hydroxycoumarin see page 760

3-Azido-7-hydroxycoumarin



3-Azido-7-hydroxy-chromen-2-one

$C_9H_5N_3O_3$
CAS No. 817638-68-9
WGK 1

3-Azido-7-hydroxycoumarin
≥98 %

baseclick.

Fluorescent dye

For a 10 mM solution: add 492 µl to 1 mg.

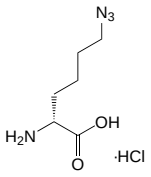
Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Appearance ..... brown solid
Assay (HPLC) ..... ≥98 %
Absorption max. (buffer, pH 7) ..... 404 nm (after click reaction)
Emission max. (buffer, pH 7) .. 480 nm (after click reaction)
Solubility ..... DMSO, DMF, MeOH, MeCN

Art. No.	Pack Qty.	Pack.	€
7811.1	1 mg	plastic	71,50
7811.2	5 mg	plastic	173,10

6-Azido-D-lysine hydrochloride
▸ D-Azidolysine hydrochloride see page 760

D-Azidolysine hydrochloride



H-D-Lys(N_3)-OH · HCl · 6-Azido-D-lysine hydrochloride

$C_6H_{12}N_4O_2$ · HCl
CAS No. 1159610-92-1
WGK 1

D-Azidolysine hydrochloride
≥99 %

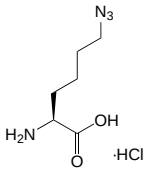
Storage temperature: +4 °C
Transport temperature: cooled

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥99 %
Enantiomeric purity ..... ≤0,5 % L-enantiomer

Art. No.	Pack Qty.	Pack.	€
7862.3	100 mg	plastic	162,35

6-Azido-L-lysine hydrochloride
▸ L-Azidolysine hydrochloride see page 760

L-Azidolysine hydrochloride



H-L-Lys(N_3)-OH · HCl · 6-Azido-L-lysine hydrochloride

$C_6H_{12}N_4O_2$ · HCl
CAS No. 159610-92-1
WGK 1

L-Azidolysine hydrochloride
≥98 %

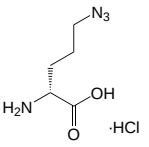
Storage temperature: +4 °C
Transport temperature: cooled

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥98 %
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
7861.1	5 mg	plastic	51,10
7861.2	10 mg	plastic	82,25
7861.3	100 mg	plastic	162,35
7861.4	500 mg	plastic	639,65

5-Azido-D-ornithine hydrochloride
▸ D-Azidoornithine hydrochloride see page 760

D-Azidoornithine hydrochloride



H-D-Orn(N_3)-OH · HCl · 5-Azido-D-ornithine hydrochloride

$C_5H_{10}N_4O_2$ · HCl
WGK 1

D-Azidoornithine hydrochloride
≥99 %

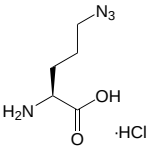
Storage temperature: +4 °C
Transport temperature: cooled

Type analysis
Appearance ..... white, crystalline powder
Assay (HPLC) ..... ≥99 %
Enantiomeric purity ..... ≤0,5 % L-enantiomer

Art. No.	Pack Qty.	Pack.	€
7860.3	100 mg	plastic	249,95

5-Azido-L-ornithine hydrochloride
▸ L-Azidoornithine hydrochloride see page 760

L-Azidoornithine hydrochloride



H-L-Orn(N_3)-OH · HCl · 5-Azido-L-ornithine hydrochloride

$C_5H_{10}N_4O_2$ · HCl
CAS No. 156463-09-1
WGK 1

L-Azidoornithine hydrochloride
≥99 %

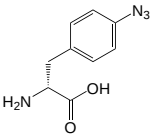
Storage temperature: +4 °C
Transport temperature: cooled

Type analysis
Appearance ..... white, crystalline powder
Assay (HPLC) ..... ≥99 %
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
7859.3	100 mg	plastic	249,95

4-Azido-D-phenylalanine
▸ D-4-Azidophenylalanine see page 760

D-4-Azidophenylalanine



H-D-Phe(4-N_3)-OH · 4-Azido-D-phenylalanine

$C_9H_{10}N_4O_2$
CAS No. 1241681-80-0
WGK 1

D-4-Azidophenylalanine
≥98 %

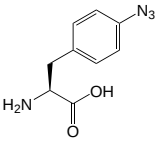
Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Appearance ..... almost white powder
Assay (HPLC) ..... ≥98 %
Enantiomeric purity ..... ≤0,5 % L-enantiomer

Art. No.	Pack Qty.	Pack.	€
7853.3	100 mg	plastic	246,20

4-Azido-L-phenylalanine
▸ L-4-Azidophenylalanine see page 761

L-4-Azidophenylalanine



H-L-Phe(4-N_3)-OH · 4-Azido-L-phenylalanine

$C_9H_{10}N_4O_2$
CAS No. 33173-53-4
WGK 1

L-4-Azidophenylalanine
≥98 %

Storage temperature: –20 °C
Transport temperature: cooled

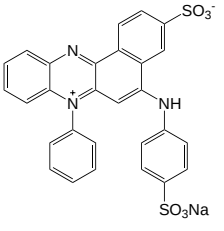
Type analysis
Appearance ..... off-white powder
Assay (HPLC) ..... ≥98 %
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
7850.3	100 mg	plastic	246,20

5-((3-Azidopropyl)carbamoyl)-2-(6-(dimethylamino)-3-(dimethyliminio)-3*H*-xanthen-9-yl)benzoate
▸ 5-Carboxytetramethylrhodamine Azide (5-TAMRA-Azide) see page 817

4-((3-Azidopropyl)carbamoyl)-2-(6-hydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid
▸ 6-Carboxyfluorescein Azide (6-FAM-Azide) see page 816

Azocarmine G



Rosinduline · Acid red 101

$C_{28}H_{18}N_3NaO_6S_2$
CAS No. 25641-18-3
WGK 1

Azocarmine G (C. I. 50085)
extra pure

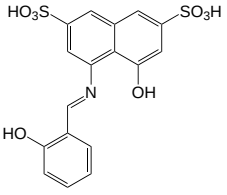
dark red dye, for microscopy

Dissolve 0.1 g in 100 ml ethanol (96 %)

Type analysis
Appearance ..... brown, red or purple powder
Maximum absorption ..... 510-523 nm

Art. No.	Pack Qty.	Pack.	€
1H40.1	1 g	glass	34,30
1H40.2	5 g	glass	68,30
1H40.3	10 g	glass	114,50

Azomethine H hydrate



4-Hydroxy-5-(2-hydroxybenzylidenamino)-naphthalene-2,7-disulphonic acid

$C_{17}H_{12}NNaO_8S_2 \cdot x\ H_2O$
CAS No. 206752-32-1 · EC no. 227-698-1
WGK 1

Azomethine H hydrate
≥95 %, p.a.

Reagent for the determination of boron

Type analysis
Appearance ..... yellow to orange powder
Assay (HPLC) ..... ≥95,0 %
Water (KF) ..... ≤8,0 %
Specific extinction E 1 %/ 1 cm (236 nm, pH 5,1) ..... ≥1200
Suitability for determination of boron .... complies

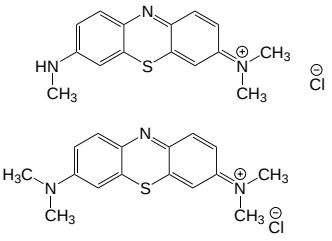
Art. No.	Pack Qty.	Pack.	€
CP99.2	1 g	glass	25,30
CP99.1	5 g	plastic	79,45
CP99.3	25 g	glass	306,40

Azorubine
▸ Chromotrope® FB (C.I. 14720) see page 837

Azorubin S
▸ Amaranth see page 724

Azure I
▸ Azure B (C.I. 52010) see page 762

Azure II



$C_{16}H_{18}ClN_3S \cdot C_{15}H_{16}ClN_3S$
CAS No. 37247-10-2
WGK 1

Warning H302

Azure II
for microscopy

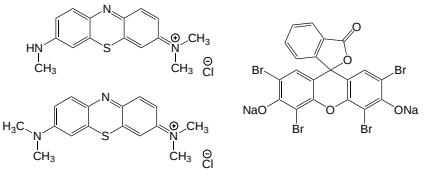
1:1 mixture of Azure B and Methylen blue

Dissolve 0.1 g in 100 ml water

Type analysis
Appearance ..... greenish brown to greenish black powder
Appearance of solution (0,1 % in H_2O) clear, dark blue
Loss on drying (110 °C) ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
7640.1	1 g	glass	14,95
7640.2	10 g	glass	25,30
7640.3	50 g	glass	60,10

Azure II eosinat



$C_{16}H_{18}ClN_3S \cdot C_{15}H_{16}ClN_3S \cdot C_{20}H_6Br_4Na_2O_5$
CAS No. 53092-85-6
WGK 1

Danger H318

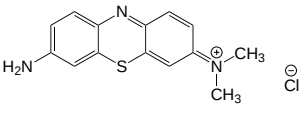
Azure II eosinat
for microscopy

1:1:1 mixture of Azure B, Methylen blue and Eosine Y

Type analysis
Appearance ..... dark green to greenish black powder

Art. No.	Pack Qty.	Pack.	€
7642.1	5 g	glass	24,20
7642.2	25 g	glass	45,70
7642.3	100 g	glass	131,70

Azure A (C.I. 52005)



Dimethylthionin

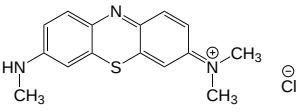
$C_{14}H_{14}ClN_3S$ · mp 290 °C
CAS No. 531-53-3 · EC no. 208-510-7
WGK 3

Azure A (C.I. 52005)
for microscopy

Type analysis
Appearance ..... dark green to green black cryst. powder
Appearance of solution (0,1 % in H_2O) clear, blue
Loss on drying (1 h, 110 °C) ..... ≤8,0 %

Art. No.	Pack Qty.	Pack.	€
7636.1	5 g	glass	18,85
7636.2	25 g	glass	33,25
7636.3	100 g	glass	83,35

Azure B (C.I. 52010)



Azure I · *N*,*N*,*N*'-Trimethylthionin

$C_{15}H_{16}ClN_3S$ · mp 200 to 205 °C
CAS No. 531-55-5 · EC no. 208-511-2
WGK 1

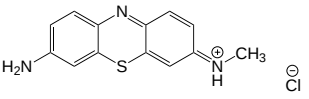
Azure B (C.I. 52010)
for microscopy

Type analysis
Appearance .... dark green to green black powder
Appearance of solution (0,1 % in H_2O) clear, blue
Loss on drying (1 h, 110 °C) ..... ≤8,0 %

Art. No.	Pack Qty.	Pack.	€
7637.1	5 g	glass	20,35
7637.2	25 g	glass	36,05
7637.3	100 g	glass	99,45

Azure eosin solution
▸ Giemsa stock solution see page 957

Azure C (C.I. 52002)



Monomethylthionin

$C_{13}H_{12}ClN_3S$
CAS No. 531-57-7 · EC no. 208-512-8
WGK 1

Azure C (C.I. 52002)
for microscopy

Type analysis
Appearance ..... blackish green powder
Appearance of solution (0,1 % in H_2O) clear, blue
Loss on drying (1 h, 110 °C) ..... ≤8 %

Art. No.	Pack Qty.	Pack.	€
7639.1	5 g	glass	20,35
7639.2	25 g	glass	36,05
7639.3	100 g	glass	99,45

Bacillus cereus Selective Agar

▸ Mannitol Egg Yolk Polymyxin Agar (Base) see page 1068

Bacillus cereus Supplement

mp >233 °C
WGK 1

Bacillus cereus Supplement
lyophilized

Media supplement for selective isolation of *Bacillus cereus.*

Application: One vial Bacillus cereus Supplement is reconstituted in 6 ml sterile distilled water, and is subsequently added to 450 ml autoclaved Mannitol Egg Yolk Polymyxin Agar (Base) (Art. No. 5765.1) plus 50 ml Egg Yolk Emulsion (Art. No. 0402.1).

One box of 10 vials Bacillus cereus Supplement is sufficient for 10 x 500 ml Mannitol Egg Yolk Polymyxin Agar (Art. No. 5765).

Storage temperature: +4 °C
Transport temperature: ambient temp.

Composition
Polymyxin B ..... 50 000 I.U.

per vial.

Art. No.	Pack Qty.	Pack.	€
4856.1	10 unit(s)	glass	142,45

Bacitracin

$C_{66}H_{103}N_{17}O_{16}S$ · mp 221 to 225 °C
CAS No. 1405-87-4 · EC no. 215-786-2
WGK 1

Bacitracin
≥60 I.U./mg, Ph. Eur., for biochemistry

Peptide antibiotic and protease inhibitor

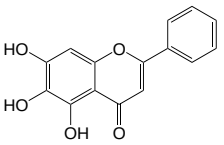
Stock solution: 100–1000 mg/ml in H_2O or ethanol.
Storage of stock solution at –20 °C.

Storage temperature: +4 °C

Guarantee analysis
Appearance ..... off-white powder
Assay (dry substance) ..... ≥60 IU/mg
Identity ..... complies
Solubility (water/ethanol 96 %) ..... complies
Appearance of solution ..... complies
pH value 6,0-7,0
Loss on drying ..... ≤5,0 %
Sulphated ash ..... ≤1,0 %
Bacitracin A ..... ≥40,0 %
Sum Bacitracin A, B1, B2, B3 ..... ≥70,0 %
Related peptides ..... ≤20,0 %
Bacitracin F ..... ≤6,0 %

Art. No.	Pack Qty.	Pack.	€
5655.1	5 g	glass	62,25
5655.2	25 g	plastic	252,65

Baicalein



5,6,7-Trihydroxyflavone

$C_{15}H_{10}O_5$ · mp 262 to 267 °C
CAS No. 491-67-8
WGK 1

Warning H315-H319-H335

Baicalein
ROTICHROM® HPLC

Reference substance for HPLC.
From *Scutellaria baicalensis.*

Storage temperature: +4 °C

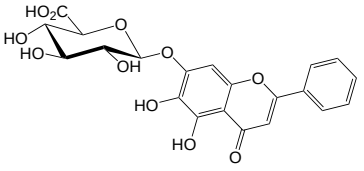
Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1110.1	20 mg	glass	364,45

Baicalein-7-β-D-glucapyranosido-uronat

▸ Baicalin see page 763

Baicalin



Baicalein-7-β-D-glucapyranosidouronat

$C_{21}H_{18}O_{11}$ · mp 220 °C
CAS No. 21967-41-9
WGK 1

Warning H315-H319-H335

Baicalin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Scutellaria baicalensis.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1121.1	20 mg	glass	295,65

Baird Parker Agar (Base)

Agar medium O (Ph. Eur. 6.0) · BP

WGK 1

Baird Parker Agar (Base)
ISO 11133, ISO 6888, ISO 22718, for microbiology

For isolation and enumeration of staphylococci.

Application: Use 63 g for 1 l agar. Add egg yolk emulsion tellurit (Art. No. 0339.1) to 5 % final concentration.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Casein peptone (pancreas hydrolysate) ..... 10 g/l
Beef extract ..... 5 g/l
Yeast extract ..... 1 g/l
Lithium chloride ..... 5 g/l
Glycine ..... 12 g/l
Sodium pyruvate ..... 10 g/l
Agar ..... 20 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
X913.1	500 g	plastic	145,70
Original pack 6 x 500 g			138,42/500 g

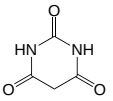
Balsam Canada

▸ Canada balsam see page 812

Balsamum canadense

▸ Canada balsam see page 812

Barbituric acid



2,4,6-Trihydroxypyrimidine

$C_4H_4N_2O_3$ · D 1,655 g/cm³ · mp ≥250 °C · flp 150 °C
CAS No. 67-52-7 · EC no. 200-658-0
WGK 1

Barbituric acid
≥99 %, extra pure

Type analysis
Appearance ..... light beige powder
Assay (acidim.) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
4927.1	100 g	plastic	99,45
4927.2	500 g	plastic	381,65
Original pack 6 x 500 g			362,57/500 g

Barium Standards

▸ Barium ICP Standard Solution see page 1313
▸ Barium IC Standard Solution see page 1336
▸ Barium ICP Standard Solution see page 1313
▸ Barium AAS Standard Solution see page 1313

Barium acetate

$Ba(CH_3COO)_2$ · D 2,47 g/cm³ · mp 450 °C
CAS No. 543-80-6 · EC no. 208-849-0
WGK 1

Warning H302+H332

Barium acetate
≥99 %, p.a., ACS

Guarantee analysis
Assay (compl.) ..... 99,0-102,0 %
In H_2O insoluble matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,05 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,003 %
Sodium (Na) ..... ≤0,005 %
Strontium (Sr) ..... ≤0,2 %
Oxidizing substances (as NO_3) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
2553.1	250 g	plastic	47,85
2553.2	500 g	plastic	80,10
Original pack 6 x 500 g			76,10/500 g
2553.3	1 kg	plastic	131,70
Original pack 6 x 1 kg			125,12/1 kg

Barium carbonate

$BaCO_3$ · D 4,43 g/cm³ · mp >1450 °C
CAS No. 513-77-9 · EC no. 208-167-3
WGK 1

Warning H302

Barium carbonate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5321.1	25 g	plastic	163,95
5321.2	100 g	plastic	518,70

Barium carbonate
≥99 %, p.a., ACS

For preparation of further barium compounds.

Guarantee analysis
Assay ..... 99,0-101,0 %
In HCl insoluble matter ..... ≤0,015 %
Oxidizing substances (as NO_3) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,001 %
Alkalinity ..... ≤0,002 meq/g
Chloride (Cl) ..... ≤0,002 %
Calcium (Ca) ..... ≤0,05 %
Iron (Fe) ..... ≤0,002 %
Potassium (K) ..... ≤0,005 %
Sodium (Na) ..... ≤0,02 %
Strontium (Sr) ..... ≤0,7 %
Sulphide (S) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
P008.2	25 g	plastic	17,10
P008.3	100 g	plastic	33,25
P008.1	500 g	plastic	117,75
Original pack 6 x 500 g			111,86/500 g

Barium carbonate
≥99 %, extra pure

Type analysis
Assay ..... ≥99,0 %
Total sulphur (as SO_4) ..... ≤0,5 %
Iron (Fe) ..... ≤0,005 %
Moisture ..... ≤0,5 %
Insoluble in HCl ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
0326.1	100 g	plastic	21,40
0326.2	500 g	plastic	41,95
Original pack 6 x 500 g			39,85/500 g
0326.3	1 kg	plastic	70,45
Original pack 6 x 1 kg			66,93/1 kg
0326.4	2.5 kg	plastic	138,70

Barium chloride

$BaCl_2$ · D 3,86 g/cm³ · mp >600 °C · bp 1560 °C
CAS No. 10361-37-2 · EC no. 233-788-1
UN no. 1564 · ADR 6.1 III · WGK 1

Danger H301-H332

Barium chloride
ROTI®METIC 99,999 % (5N), anhydrous

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5051.1	25 g	plastic	132,80

Barium chloride dihydrate

$BaCl_2 \cdot 2\,H_2O$ · D 3,9 g/cm³ · mp >600 °C · bp 1560 °C
CAS No. 10326-27-9 · EC no. 233-788-1
UN no. 1564 · ADR 6.1 III · WGK 1

Danger H301-H332

Barium chloride dihydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5115.3	25 g	plastic	194,05
5115.1	50 g	plastic	217,70
5115.2	100 g	plastic	303,70

Barium chloride dihydrate
≥99 %, p.a., ACS, ISO

Reagent for the gravimetric determination of sulphate.

Guarantee analysis
Assay (compl.) ..... ≥99,0 %
pH (5 % H_2O, 25 °C) 5,2-8,0
In H_2O insoluble matter ..... ≤0,005 %
Loss on drying (150 °C) ..... 14,0-16,0 %
Total nitrogen (N) ..... ≤0,002 %
Oxidizing substances (as NO_3) ..... ≤0,005 %
Heavy metals ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,0002 %
Potassium (K) ..... ≤0,0025 %
Magnesium (Mg) ..... ≤0,001 %
Sodium (Na) ..... ≤0,005 %
Lead (Pb) ..... ≤0,001 %
Strontium (Sr) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
4453.1	250 g	plastic	23,55
4453.2	500 g	plastic	36,45
Original pack 6 x 500 g			34,63/500 g
4453.3	1 kg	plastic	64,00
Original pack 6 x 1 kg			60,80/1 kg
4453.4	2.5 kg	plastic	140,30
4453.6	5 kg	plastic	257,50
4453.5	25 kg	plastic	1.192,20

Barium chloride solution (0.1 N)

D 1 g/cm³ · bp 100 °C

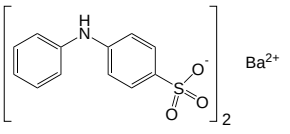
Barium chloride solution
0,05 mol/l – 0,1 N, volumetric standard solution

Type analysis
Amount-of-substance conc. .... 0,05 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
0468.1	500 ml	plastic	38,60

Barium dinitrate
▸ Barium nitrate see page 765

Barium diphenylamine sulfonate



Diphenylamine-4-sulphonic acid barium salt

$C_{24}H_{20}BaN_2O_6S_2$ · D 0,47 g/cm³ · mp 300 °C
CAS No. 6211-24-1 · EC no. 228-278-0
WGK 1

Warning H302+H332

Barium diphenylamine sulfonate
p.a., ACS

Redox indicator

Dissolve 0.2 g in 100 ml water

Guarantee analysis
Ash content (as SO_4) ..... 35,0-38,0 %
Clarity of solution (ACS-test) ..... complies
Suitability as redox indicator ..... complies

Art. No.	Pack Qty.	Pack.	€
2674.1	5 g	plastic	39,25
2674.2	25 g	plastic	107,00

Barium fluoride

BaF_2 · D 4,735 g/cm³ · mp 1368 °C · bp 2260 °C
CAS No. 7787-32-8 · EC no. 232-108-0
UN no. 1564 · ADR 6.1 III · WGK 1

Danger H301-H332

Barium fluoride
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5055.1	25 g	plastic	169,35

Barium hydroxide octahydrate

$Ba(OH)_2 \cdot 8\ H_2O$ · D 2,18 g/cm³ · mp 78 °C
CAS No. 12230-71-6 · EC no. 241-234-5
UN no. 3262 · ADR 8 II · WGK 1

Danger H302+H332-H314

Barium hydroxide octahydrate
≥98 %, p.a., ACS, ISO

Reagent for the detection of CO_2 and for the preparation of various barium salts.

Guarantee analysis

Assay ..... ≥98,0 %
In HCl insoluble matter ..... ≤0,005 %
Carbonate (as $BaCO_3$) ..... ≤2,0 %
Chloride (Cl) ..... ≤0,001 %
Sulphide (S) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,05 %
Cadmium (Cd) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,002 %
Sodium (Na) ..... ≤0,01 %
Lead (Pb) ..... ≤0,0005 %
Potassium (K) ..... ≤0,01 %
Strontium (Sr) ..... ≤0,5 %
Zinc (Zn) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
P009.2	250 g	plastic	34,95
P009.1	500 g	plastic	58,60
Original pack 6 x 500 g			55,67/500 g
P009.3	1 kg	plastic	101,60
Original pack 6 x 1 kg			96,52/1 kg

Barium hydroxide octahydrate
≥98 %, extra pure

Type analysis

Assay (acidim.) ..... ≥98 %
Carbonate (as $BaCO_3$) ..... ≤1,0 %
Chloride (Cl) ..... ≤0,05 %
Iron (Fe) ..... ≤0,003 %

Art. No.	Pack Qty.	Pack.	€
HN75.1	500 g	plastic	39,25
Original pack 6 x 500 g			37,29/500 g
HN75.2	1 kg	plastic	67,65
Original pack 6 x 1 kg			64,27/1 kg
HN75.3	2.5 kg	plastic	147,85

Barium hydroxide solution (0.1 N)

D 1,01 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

Barium hydroxide solution
0,05 mol/l – 0,1 N, volumetric standard solution

Type analysis

Amount-of-substance conc. (20 °C) ..... 0,05 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
N054.1	1 l	plastic	59,70
Original pack 6 x 1 l			56,72/1 l

Barium nitrate

Barium dinitrate

$Ba(NO_3)_2$ · D 3,24 g/cm³ · mp >600 °C
CAS No. 10022-31-8 · EC no. 233-020-5
UN no. 1446 · ADR 5.1 (6.1) II · WGK 1

Danger H272-H301-H319-H332

Barium nitrate
ROTI®METIC 99,9995 % (5N5)

Type analysis

Assay (metals basis) ..... 99,9995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5138.1	50 g	plastic	201,60
5138.2	100 g	plastic	352,10

Barium nitrate
≥99 %, p.a., ACS

Guarantee analysis

Assay (compl.) ..... ≥99,0 %
pH value (5 % in H_2O) 5,0-8,0
In H_2O insoluble matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,05 %
Iron (Fe) ..... ≤0,0002 %
Potassium (K) ..... ≤0,005 %
Sodium (Na) ..... ≤0,005 %
Strontium (Sr) ..... ≤0,05 %
Heavy metals (as Pb) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4387.1	250 g	plastic	34,95
4387.2	500 g	plastic	54,75
Original pack 6 x 500 g			52,01/500 g
4387.3	1 kg	plastic	81,20
Original pack 6 x 1 kg			77,14/1 kg

Barium perchlorate solution (0.005 N)

D 0,84 g/cm³ · bp >82 °C · flp 20 °C
UN no. 1219 · ADR 3 II · WGK 1

Danger H225-H319-H336

Bariumperchlorate solution
0,005 mol/l – 0,005 N, volumetric standard solution, in 2-propanol/water

Type analysis

Amount-of-substance conc. .. 0,005 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
KK61.1	1 l	glass	64,40
Original pack 6 x 1 l			61,18/1 l

Barium sulphate

$BaSO_4$ · D 3,97 g/cm³ · mp 1380 °C · bp 1600 °C
CAS No. 7727-43-7 · EC no. 231-784-4

Barium sulphate
ROTI®METIC 99,99 % (4N)

Type analysis

Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L70.1	5 g	HDPE	51,10
1L70.2	25 g	HDPE	203,75

Barritt's reagent

D 0,8 g/cm³ · mp -114 °C · bp 78 °C · flp 14 °C
UN no. 1993 · ADR 3 II · WGK 1

Danger H225-H318

Barritt's reagent
for microbiology

For the detection of acetoin production in the Voges-Proskauer test.

Please note: Add Barritt's reagent **before** O'Meara's reagent.

Storage temperature: +4 °C
Transport temperature: ambient temp.

Appearance ..... clear, colourless liquid
Suitable for microbiology ..... complies

Art. No.	Pack Qty.	Pack.	€
1HHT.1	100 ml	glass	52,70

Basic blue 9
▸ Methylene blue (C. I. 52015) see page 1084

Basic blue 11
▸ Victoria blue R (C.I. 44040) see page 1395

Basic blue 17
▸ Toluidine blue O (C. I. 52040) see page 1375

Basic brown 1
▸ Bismarck brown Y (C.I. 21000) see page 776

Basic brown 4
▸ Bismarck brown R (C.I. 21010) see page 776

Basic fuchsine
▸ Fuchsine basic (C.I. 42510) see page 950

Basic green 1
▸ Brilliant green (C.I. 42040) see page 786

Basic green 4
▸ Malachite green hydrochloride see page 1062
▸ Malachite green oxalate (C.I. 42000) see page 1063

Basic orange 1
▸ Chrysoidine R see page 838

Basic orange 2
▸ Chrysoidine Y see page 838

Basic orange 14
- Acridine orange base (C.I. 46005) see page 705
- Acridine orange (C.I. 46005) see page 705

Basic red 1
- Rhodamine 6G (C.I. 45160) see page 1204

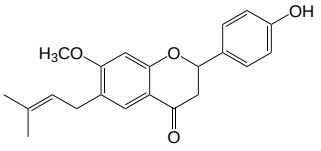
Basic violet
- Methyl violet 2B (C. I. 42535) see page 1091

Basic violet 2
- New fuchsin see page 1102

Basic violet 4
- Ethyl violet (C.I. 42600) see page 927

Basic yellow 2
- Auramine O (C.I. 41000) see page 757

Bavachinin A



$C_{21}H_{22}O_4$ · mp 139 to 146 °C
CAS No. 19879-30-2
WGK 1

Bavachinin A
ROTICHROM® HPLC

Reference substance for HPLC

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
8898.1	5 mg	glass	246,20

BCE phosphoramidites
- Guanosine-BCE-phosphoramidite see page 972
- Adenosine-BCE-phosphoramidite see page 708
- Cytidine-BCE-phosphoramidite see page 861
- Thymidine-BCE-phosphoramidite see page 1367

BCG
- Bromocresol green see page 789

BCIP-Na_2
- 5-Bromo-4-chloro-3-indolyl phosphate disodium salt see page 787

BCIP-*p*-toluidine salt
- 5-Bromo-4-chloro-3-indolyl phosphate *p*-toluidine salt see page 788

BCYE additive
- Legionella BCYE Growth Supplement see page 1040

BCYE Agar (Base)
- Legionella Agar (Base) see page 1040

BDG
- Butyldiglycol see page 799

BDI
- 1,4-Diisocyanatobutane see page 883

Beeswax

D 0,96 to 0,98 g/cm³ · mp 61 to 65 °C
CAS No. 8012-89-3 · EC no. 232-383-7
WGK 1

Beeswax white
pure, natural

Cera alba

Type analysis
Melting range ..... 61-65 °C
Acid value (mg KOH/g) 17-22
Ester value (mg KOH/g) 72-79
Saponification value (mg KOH/g) 87-102

Art. No.	Pack Qty.	Pack.	€
5825.1	250 g	plastic	23,15
5825.2	1 kg	plastic	65,50
Original pack 6 x 1 kg			62,23/1 kg

Beeswax yellow
pure, natural

Cera flava

Type analysis
Melting range ..... 61-65 °C
Acid value (mg KOH/g) 17-22
Ester value (mg KOH/g) 72-79
Saponification value (mg KOH/g) 87-102

Art. No.	Pack Qty.	Pack.	€
5830.1	250 g	plastic	23,15
5830.2	1 kg	plastic	65,50
Original pack 6 x 1 kg			62,23/1 kg

Benedict's reagent

D 1,15 to 1,19 g/cm³ · bp 100 °C
WGK 3

Warning H319-H412

Benedict's reagent
for sugar determination

Type analysis
Appearance ..... blue solution
Density (20 °C) ..... 1,15-1,19 g/cm³

Formulation: Sodium carbonate anhydrous, tri-Sodium citrate dihydrate, Copper(II) sulphate pentahydrate, water.

Art. No.	Pack Qty.	Pack.	€
0010.1	100 ml	dropp. bottle	24,65

Bengal Red Agar (with chloro-amphenicol)

RBC Agar

WGK 3

Bengal Red Agar (with chloro-amphenicol)
for microbiology

Standard-selective agar for counting yeast and food mould fungi.

Application: Use 31.6 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Peptone ..... 5 g/l
Glucose ..... 10 g/l
Potassium phosphate ..... 1 g/l
Magnesium sulphate ($MgSO_4$) ..... 0,5 g/l
Chloroamphenicol ..... 0,1 g/l
Bengal red ..... 0,05 g/l
Agar ..... 15 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE24.1	500 g	plastic	152,15
Original pack 6 x 500 g			144,54/500 g

Bentonite

Montmorillonite

D 2,5 g/cm³
CAS No. 1302-78-9 · EC no. 215-108-5
WGK 1

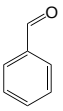
Bentonite
pure

Carrier in chromatography.

Type analysis
Appearance ..... beige powder
Montmorillonit ..... ~70 %
pH value 9,0-11,0
Water ..... 6-12 %
Methylene blue adsorption ..... 320± 40 mg/g
Bulk density ..... 0,73-0,83 g/cm³
Swelling volume ..... ≥22 ml/ 2 g
Sieve residue (63 µm, dry) ..... ≤30 %

Art. No.	Pack Qty.	Pack.	€
0113.2	500 g	plastic	26,35
Original pack 6 x 500 g			25,03/500 g
0113.3	1 kg	plastic	36,05
Original pack 6 x 1 kg			34,25/1 kg
0113.1	2.5 kg	plastic	56,90

Benzaldehyde



C_7H_6O · D 1,05 g/cm³ · mp -26 °C · bp 179 °C · flp 64 °C
CAS No. 100-52-7 · EC no. 202-860-4
UN no. 1990 · ADR 9 III · WGK 1

Warning H302

Benzaldehyde
≥99,5 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,5 %
Density (20 °C) ..... 1,044-1,046 g/cm³

Art. No.	Pack Qty.	Pack.	€
4372.1	100 ml	glass	17,10
4372.2	500 ml	glass	28,95
4372.3	1 l	glass	39,25
Original pack 6 x 1 l			37,29/1 l
4372.4	2.5 l	glass	73,00
Original pack 4 x 2.5 l			69,35/2.5 l

Benzaldehyde
ROTI®Star Primary Standard

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Assay (GC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤1,0 %
Water (KF) ..... ≤2,0 %
Assay (qNMR) ..... ≥90,0 %

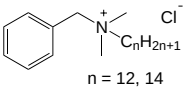
Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE01.1	100 mg	glass	869,70

Benzalkonium chloride

▸ Benzalkonium chloride see page 767

Benzalkonium chloride



n = 12, 14

Benzalkonium chloride · Benzyldimethyl-alkylammonium chloride · Zephiran chloride

UN no. 1760 · ADR 8 II · WGK 2

Danger H302-H314-H410

Benzalkonium chloride
80 % in water

D 0,97 g/cm³ · bp >100 °C · flp >100 °C

Type analysis
Assay ..... 78-82 %
pH-value 7,0-9,0
Colour (Hazen) ..... ≤150

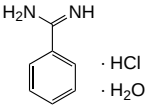
Art. No.	Pack Qty.	Pack.	€
2999.1	100 g	glass	23,55
2999.2	500 g	glass	56,45
Original pack 6 x 500 g			53,63/500 g
2999.3	1 kg	glass	91,40
Original pack 6 x 1 kg			86,83/1 kg
2999.4	2.5 kg	plastic	155,90

Benzalkonium chloride
50 % in water

D 0,98 to 0,99 g/cm³ · bp 100 °C · flp >100 °C

Art. No.	Pack Qty.	Pack.	€
5091.1	500 ml	glass	45,70
5091.2	2.5 l	glass	161,25
Original pack 4 x 2.5 l			153,19/2.5 l

Benzamidine hydrochloride monohydrate



$C_7H_8N_2$ · HCl · H_2O · mp 83 to 87 °C
CAS No. 206752-36-5 · EC no. 606-598-5
WGK 1

Warning H315-H319-H335

Benzamidine hydrochloride monohydrate
≥98 %, for biochemistry

Inhibitor of serine proteases

Stock solution: 100–150 mg/ml (0.65–1 M) in H_2O and alcohol. Storage of stock solution at –20 °C. Stock solutions should only be stored for a short time.

Storage temperature: +4 °C

Type analysis
Assay ..... ≥98 %
Water (KF) ..... ≤15,0 %
Melting point ..... 83-87 °C

Art. No.	Pack Qty.	Pack.	€
CN38.1	5 g	plastic	22,50
CN38.2	10 g	plastic	33,25
CN38.3	25 g	plastic	63,35

Benzamine

▸ Aniline see page 743

Benzamine blue

▸ Trypan blue (C.I. 23850) see page 1385

Benzenamine

▸ Aniline see page 743

Benzene



Cyclohexatriene

C_6H_6 · D 0,876 g/cm³ · mp 5,49 °C · bp 80,09 °C · flp -11 °C
CAS No. 71-43-2 · EC no. 200-753-7
UN no. 1114 · ADR 3 II · WGK 3

Danger H225-H304-H315-H319-H340-H350-H372

Benzene
ROTIPURAN® ≥99,5 %, p.a.

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Water (KF) ..... ≤0,03 %
Density (d 20 °C/4 °C) 0,877-0,878
Non volatile matter ..... ≤0,001 %
Aluminium (Al) ..... ≤0,00005 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Magnesium (Mg) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Chromium (Cr) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,00001 %
Iron (Fe) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %
Reaction with H_2SO_4 ..... complies

Art. No.	Pack Qty.	Pack.	€
7173.4	100 ml	glass	31,75
7173.3	500 ml	glass	40,75
7173.1	1 l	glass	67,20
Original pack 6 x 1 l			63,84/1 l
7173.2	2.5 l	glass	153,20
Original pack 4 x 2.5 l			145,54/2.5 l

Benzene
≥99,5 %, extra pure

Type analysis
Appearance ..... clear, colourless
Assay (GC) ..... ≥99,5 %
Free acid ..... ≤0,0001 meq/g
Non volatile matter ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
5785.3	100 ml	glass	25,70
5785.1	1 l	glass	63,35
Original pack 6 x 1 l			60,18/1 l
5785.4	2.5 l	glass	134,40
Original pack 4 x 2.5 l			127,68/2.5 l
5785.2	10 l	tinplate	493,45

Benzene
ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
4898.1	1 g	glass	39,70

Benzene D6

Cyclohexatriene deuterated

C_6D_6 · D 0,876 g/cm³ · mp 5,49 °C · bp 80,09 °C · flp -11 °C
CAS No. 1076-43-3 · EC no. 214-061-8
UN no. 1114 · ADR 3 II · WGK 3

Danger H225-H304-H315-H319-H340-H350i-H372

Benzene D6
99,8 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging for 7912.3: 10 x 0,75 ml in ampoules

Type analysis
Deuterising degree ..... ≥99,8 %
Water (KF, H_2O+D_2O) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
7912.3	7.5 ml	glass ampoule	128,50
7912.1	10 ml	glass	126,35
7912.2	25 ml	glass	289,20

Benzene D6
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

Guarantee analysis
Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
AE53.1	10 ml	glass	82,70
AE53.3	10 ml	septum bottle	85,50
AE53.4	25 ml	glass	181,70
AE53.2	50 ml	glass	332,20
AE53.5	100 ml	glass	622,45

Benzeneboronic acid
▸ Phenylboronic acid D5 see page 1152

Benzenecarbonylchloride
▸ Benzoyl chloride see page 770

Benzenecarboxylic acid
▸ Benzoic acid see page 768

Benzene 1,2-dialdehyde
▸ *o*-Phthaldialdehyde see page 1157

1,3-Benzenediol
▸ Resorcinol see page 1202

Benzethonium chloride solution

Hyamine® 1622-solution (0,004 M)

D 1,001 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

Benzethonium chloride solution
0,004 mol/l – 0,004 M, volumetric standard solution

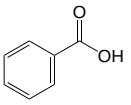
For determination of anionic tensides.

Type analysis
Amount-of-substance conc. (20 °C) ... 0,004 mol/l ±0,1 %

Art. No.	Pack Qty.	Pack.	€
9217.1	1 l	plastic	33,90
Original pack 6 x 1 l			32,21/1 l

Benzoate Standards
▸ Benzoate IC Standard Solution see page 1334

Benzoic acid



Benzenecarboxylic acid · Phenylformic acid

$C_7H_6O_2$ · D 1,321 g/cm³ · mp 122,4 °C · bp 249 °C · flp 121 °C
CAS No. 65-85-0 · EC no. 200-618-2
WGK 1

Danger H315-H318-H372

Benzoic acid
≥99,5 %, p.a., ACS

Guarantee analysis
Assay (alkalimetric) ..... ≥99,5 %
Melting range ..... 122-123 °C
In CH_3OH insoluble matter ..... ≤0,005 %
Ash content (as SO_4) ..... ≤0,005 %
$KMnO_4$ reducing substances ..... complies
Chlorine compounds (as Cl) ..... ≤0,005 %
Sulphur compounds (as S) ..... ≤0,002 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
P738.1	100 g	plastic	27,45
P738.2	250 g	plastic	54,30

Benzoic acid
≥99,5 %, Ph. Eur., USP, BP

Guarantee analysis
Assay (acidim., dry substance) ..... 99,5-100,5 %
Identity ..... complies
Appearance of solution ..... complies
Melting range ..... 121-123 °C
Water (KF) ..... ≤0,7 %
Sulphated ash ..... ≤0,05 %
Halogen compound. (as Cl) ..... ≤0,03 %
Reaction with H_2SO_4 ..... complies
$KMnO_4$ reducing substances (as O) ..... complies
Lead (Pb) ..... ≤0,0002 %
Heavy metals (as Pb) ..... ≤0,001 %

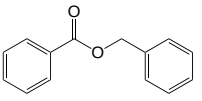
Art. No.	Pack Qty.	Pack.	€
5781.2	500 g	plastic	30,65
Original pack 6 x 500 g			29,12/500 g
5781.1	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg
5781.3	2.5 kg	plastic	101,60
5781.4	5 kg	plastic	170,95
5781.5	25 kg	plastic	708,45

Benzoic acid
ROTI®Calipure melting point standard 121–123 °C

Type analysis
Meniscus formation ..... 121-123 °C
Complete liquefaction ..... 121-123 °C
Measurement uncertainty ..... ±0,3 °C

Art. No.	Pack Qty.	Pack.	€
9722.1	1 g	glass	40,75

Benzoic acid benzyl ester



Benzyl benzoate

$C_{14}H_{12}O_2$ · D 1,12 g/cm³ · mp 21 °C · bp 323 to 324 °C · flp 148 °C
CAS No. 120-51-4 · EC no. 204-402-9
UN no. 3082 · ADR 9 III · WGK 2

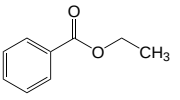
Warning H302-H410

Benzoic acid benzyl ester
≥99 %, for synthesis

Type analysis
Assay ..... ≥99,0 %
Ash content (as SO_4) ..... ≤0,1 %
Aldehyde (as benzaldehyde) ..... ≤0,05 %
Density (d 20 °C/20 °C) 1,118-1,122

Art. No.	Pack Qty.	Pack.	€
9498.1	250 ml	glass	42,90
9498.2	1 l	glass	124,60
Original pack 6 x 1 l			118,37/1 l
9498.3	2.5 l	glass	235,45
Original pack 4 x 2.5 l			223,68/2.5 l

Benzoic acid ethyl ester



Ethyl benzoate

$C_9H_{10}O_2$ · D 1,05 g/cm³ · mp -35 °C · bp 212 to 215 °C · flp 88 °C
CAS No. 93-89-0 · EC no. 202-284-3
WGK 1

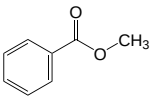
Warning H315-H319

Benzoic acid ethyl ester
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99 %
Density (d 20 °C/4 °C) 1,046-1,047

Art. No.	Pack Qty.	Pack.	€
0880.1	250 ml	glass	28,95
0880.2	1 l	glass	89,80
Original pack 6 x 1 l			85,31/1 l
0880.3	2.5 l	glass	181,70
Original pack 4 x 2.5 l			172,62/2.5 l

Benzoic acid methyl ester



Methylbenzoate

$C_8H_8O_2$ · D 1,09 g/cm³ · mp -14,5 °C · bp 199,5 °C · flp 77 °C
CAS No. 93-58-3 · EC no. 202-259-7
WGK 1

Warning H302

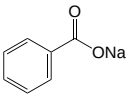
Benzoic acid methyl ester
≥99 %, for histology and microscopy

Clearing agent for histological embedding.

Guarantee analysis
Appearance ..... clear, colourless to light yellow liquid
Assay (GC) ..... ≥99,0 %
Density (d 20 °C/4 °C) 1,085-1,089
Refractive index n_D^{20} 1,516-1,518

Art. No.	Pack Qty.	Pack.	€
6944.5	500 ml	glass	41,85
6944.1	1 l	glass	75,15
Original pack 6 x 1 l			71,39/1 l
6944.2	2.5 l	glass	149,45
Original pack 4 x 2.5 l			141,98/2.5 l
6944.6	25 l	tinplate	805,20

Benzoic acid sodium salt



Sodium benzoate

$C_7H_5NaO_2$ · D 1,5 g/cm³ · mp 436 °C · bp >450 °C · flp >100 °C
CAS No. 532-32-1 · EC no. 208-534-8
WGK 1

Warning H319

Benzoic acid sodium salt
≥99 %, Ph. Eur.

Guarantee analysis
Assay (dry substance) ..... 99,0-100,5 %
Identity ..... complies
Appearance of solution ..... complies
Acid or alkaline react. substances ..... complies
Chloride (Cl) ..... ≤0,02 %
Heavy metals (as Pb) ..... ≤0,001 %
Halogen comp. (as Cl) ..... ≤0,03 %
Loss on drying ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
8548.1	500 g	plastic	27,85
Original pack 6 x 500 g			26,46/500 g
8548.3	1 kg	plastic	49,35
Original pack 6 x 1 kg			46,88/1 kg
8548.2	2.5 kg	plastic	107,40

Benzoic acid sodium salt
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤3,0 %
Assay (qNMR) ..... ≥95,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE11.1	100 mg	glass	869,70

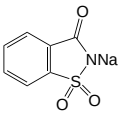
Benzoic acid sodium salt
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥90,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC11.1	100 mg	glass	310,70

o-Benzoic sulphimide sodium salt



o-Sulphobenzoic acid imide sodium salt · Saccharin sodium salt

$C_7H_4NO_3SNa$ · D 0,871 g/cm³ · mp ≥320,8 to ≤325,3 °C · flp 220 °C
CAS No. 128-44-9 · EC no. 204-886-1
WGK 1

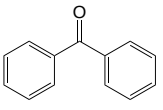
o-Benzoic sulphimide sodium salt
≥99 %, Ph. Eur.

Guarantee analysis
Appearance ..... white, crist. powder
Assay (dry substance) ..... 99,0-101,0 %
Identity ..... complies
Water ..... ≤15 %
Appearance of solution ..... complies
Heavy metals ..... ≤0,002 %
Matter discoloured by H_2SO_4 ..... complies
Acid or alkaline react. substances ..... complies
2- and 4-Toluenesulphonamide ... each ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
9259.1	250 g	plastic	42,90
9259.2	1 kg	plastic	138,70
Original pack 6 x 1 kg			131,77/1 kg

Benzolchlorid
▸ Chlorobenzene see page 830

Benzophenone



Benzoylbenzene · Diphenyl ketone · Diphenylmethanone · Phenyl ketone

$C_{13}H_{10}O$ · D 1,1 g/cm³ · mp 47 to 49 °C · bp 304 to 306 °C · flp 150 °C
CAS No. 119-61-9 · EC no. 204-337-6
WGK 1

Warning H373-H412

Benzophenone
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99 %
Melting range ..... 46-49 °C

Art. No.	Pack Qty.	Pack.	€
0963.1	250 g	plastic	19,90
0963.2	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg

Benzophenone
ROTI®Calipure melting point standard 47–49 °C

Type analysis
Meniscus formation ..... 47-49 °C
Complete liquefaction ..... 47-49 °C
Measurement uncertainty ..... ±0,3 °C

Art. No.	Pack Qty.	Pack.	€
9709.1	1 g	glass	40,75

Benzo[*a*]pyrene D12 in cyclohexane

D 0,78 g/cm³ · mp 6,4 °C · bp 81 °C
UN no. 1145 · ADR 3 II · WGK 3

Danger H225-H304-H315-H336-H340-H350-H410-EUH208

Benzo[*a*]pyrene D12
100 µg/ml in cyclohexane

Storage temperature: +4 °C

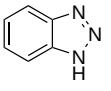
Assay ..... 100 µg/ml

Art. No.	Pack Qty.	Pack.	€
1LKX.1	1 ml	glass ampoule	228,45

5,6-Benzo-2-pyrone
▸ Coumarin see page 852

α-Benzopyrone
▸ Coumarin see page 852

1,2,3-Benzotriazole



1*H*-Benzotriazole · BtaH

$C_6H_5N_3$ · D 1,36 g/cm³ · mp 99 to 101 °C · bp 350 °C · flp 212 °C
CAS No. 95-14-7 · EC no. 202-394-1
WGK 1

Warning H302+H332-H319-H412

1,2,3-Benzotriazole
≥99 %, for synthesis

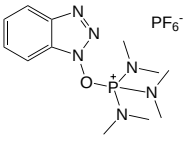
Type analysis
Assay ..... ≥99,0 %
pH value 5,5-6,5
Ash content ..... ≤0,5 %
Moisture ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
9924.1	100 g	plastic	28,50
9924.2	500 g	plastic	88,05
Original pack 6 x 500 g			83,65/500 g
9924.3	1 kg	plastic	149,45
Original pack 6 x 1 kg			141,98/1 kg

1*H*-Benzotriazole

▸ 1,2,3-Benzotriazole see page 769

Benzotriazole-1-yl-oxy-tris-(dimethylamino)-phosphonium hexafluorophosphate (BOP)



BOP

$C_{12}H_{22}F_6N_6OP_2$ · mp >130 °C
CAS No. 56602-33-6 · EC no. 260-279-1
UN no. 1325 · ADR 4.1 II · WGK 1

Danger H228-H315-H335-EUH044

Benzotriazole-1-yl-oxy-tris-(dimethylamino)-phosphonium hexafluorophosphate (BOP)

PEPTIPURE® ≥99 %

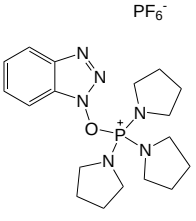
Coupling reagent for peptide synthesis

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥99,0 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
2168.1	5 g	glass	23,55
2168.2	25 g	glass	62,25
2168.3	100 g	glass	181,70

Benzotriazole-1-yl-oxy-tris-pyrrolidino-phosphonium hexafluorophosphate (PyBOP®)



PyBOP®

$C_{18}H_{28}F_6N_6OP_2$ · mp 140 to 156 °C
CAS No. 128625-52-5
UN no. 3077 · ADR 9 III · WGK 3

Warning H302-H317-H410

Benzotriazole-1-yl-oxy-tris-pyrrolidino-phosphonium hexafluorophosphate (PyBOP®)

PEPTIPURE® ≥98,5 %

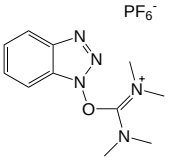
Coupling reagent for peptide synthesis

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥98,5 %

Art. No.	Pack Qty.	Pack.	€
2178.1	5 g	glass	38,60
2178.2	25 g	glass	117,20
2178.3	100 g	glass	342,95
2178.5	1 kg	glass	2.526,25
Original pack 6 x 1 kg			2.399,94/1 kg

O-(Benzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium hexafluorophosphate (HBTU)



HBTU

$C_{11}H_{16}F_6N_5OP$ · mp 170 to 175 °C
CAS No. 94790-37-1 · EC no. 423-020-5
WGK 1

Warning H315-H319-H335

O-(Benzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium hexafluorophosphate (HBTU)

PEPTIPURE® ≥99 %

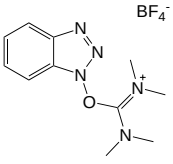
Coupling reagent for peptide synthesis

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥99,0 %
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
2132.1	5 g	glass	26,80
2132.2	25 g	glass	63,35
2132.3	100 g	glass	192,45
2132.5	1 kg	glass	1.558,75
Original pack 6 x 1 kg			1.480,81/1 kg

O-(Benzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium tetrafluoroborate (TBTU)



TBTU

$C_{11}H_{16}BF_4N_5O$ · mp 205 °C
CAS No. 125700-67-6 · EC no. 423-040-4
UN no. 1325 · ADR 4.1 II · WGK 1

Danger H228-H315-H319-H335

O-(Benzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium tetrafluoroborate (TBTU)

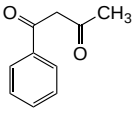
PEPTIPURE® ≥99 %

Coupling reagent for peptide synthesis

Type analysis
Assay (HPLC) ..... ≥99,0 %
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
2140.1	5 g	glass	26,80
2140.2	25 g	glass	67,65
2140.3	100 g	glass	209,65
2140.5	1 kg	glass	1.709,25
Original pack 6 x 1 kg			1.623,79/1 kg

Benzoylacetone



1-Phenyl-1,3-butadione · Acetoacetophenone

$C_{10}H_{10}O_2$ · D 0,62 g/cm³ · mp 56 °C ·
bp 261,5 °C · flp 96,9 °C
CAS No. 93-91-4 · EC no. 202-286-4
WGK 1

Benzoylacetone

≥99 %

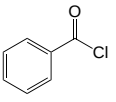
Type analysis
Assay (GC) ..... ≥99,0 %
Solution (5 % in chloroform) . colourless to yellow
Water (KF) ..... ≤0,5 %
Melting point ..... 56-58 °C

Art. No.	Pack Qty.	Pack.	€
5484.1	25 g	plastic	117,20
5484.2	100 g	plastic	407,45

Benzoylbenzene

▸ Benzophenone see page 769

Benzoyl chloride



Benzenecarbonylchloride

C_7H_5ClO · D 1,21 g/cm³ · mp -1 °C ·
bp 197,2 °C · flp 72 °C
CAS No. 98-88-4 · EC no. 202-710-8
UN no. 1736 · ADR 8 II · WGK 1

Danger H302+H312-H314-H317-H331

Benzoyl chloride

≥99 %, for synthesis

Type analysis
Assay (acidim.) ..... ≥99,0 %
Identity (IR) ..... complies
Density (d 20 °C/4 °C) 1,210-1,214

Art. No.	Pack Qty.	Pack.	€
7456.1	100 ml	glass	18,20
7456.2	500 ml	glass	37,55
7456.3	1 l	glass	56,45
Original pack 6 x 1 l			53,63/1 l
7456.4	2.5 l	glass	110,20
Original pack 4 x 2.5 l			104,69/2.5 l

N-Benzoylglycine sodium salt

▸ Hippuric acid sodium salt hydrate see page 985

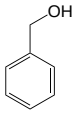
Benzylacetate

▸ Acetic acid benzyl ester see page 692

6-Benzyladenine

▸ 6-Benzylaminopurine see page 771

Benzyl alcohol



Phenyl carbinol · Phenylmethanol

C_7H_8O · D 1,041 g/cm³ · mp -15,4 °C · bp 205,3 °C · flp 100,4 °C
CAS No. 100-51-6 · EC no. 202-859-9
WGK 1

Warning H302+H332

Benzyl alcohol
ROTIPURAN® ≥99 %, p.a.

Guarantee analysis

Assay (GC) ..... ≥99,0 %
Water (KF) ..... ≤0,1%
Colour (APHA) ..... ≤20
Ash content (as SO_4) ..... ≤0,005 %
Benzaldehyde (GC) ..... ≤0,1 %
Calcium (Ca) ..... ≤0,00005 %
Cadmium (Cd) ..... ≤0,000005 %
Cobalt (Co) ..... ≤0,000002 %
Chromium (Cr) ..... ≤0,000002 %
Copper (Cu) ..... 0,000002 %
Iron (Fe) ..... ≤0,00001 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,00001 %
Zinc (Zn) ..... ≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
0336.1	500 ml	glass	34,30
0336.2	1 l	glass	61,20
Original pack 6 x 1 l			58,14/1 l
0336.3	2.5 l	glass	126,35
Original pack 4 x 2.5 l			120,03/2.5 l

Benzyl alcohol
≥98 %, Ph. Eur.

Guarantee analysis

Assay (titr., 1 M NaOH) ..... 98,0-100,5 %
Identity ..... complies
Appearance of solution ..... clear, colourless
Acidity ..... complies
Peroxide value ..... ≤5 meq O/kg
Refractive index n_D^{20} 1,539-1,541
Related substances ..... complies
Non volatile matter ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
8657.1	500 ml	glass	31,10
8657.2	1 l	glass	45,05
Original pack 6 x 1 l			42,80/1 l
8657.3	2.5 l	glass	94,10
Original pack 4 x 2.5 l			89,40/2.5 l

Benzyl alcohol
≥98 %, for synthesis

Type analysis

Assay (GC) ..... 98,0-100,5 %
Density (20 °C) 1,043-1,049
Refractive index n_D^{20} 1,539-1,541

Art. No.	Pack Qty.	Pack.	€
4478.1	500 ml	glass	27,85
4478.2	1 l	glass	40,75
Original pack 6 x 1 l			38,71/1 l
4478.3	2.5 l	glass	90,20
Original pack 4 x 2.5 l			85,69/2.5 l

Benzyl alcohol
ROTI®Star Primary Standard

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis

Assay (GC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤2,0 %
Assay (qNMR) ..... ≥95,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE02.1	100 mg	glass	869,70

Benzyl alcohol
ROTICHROM® Working Standard

Storage temperature: –20 °C
Transport temperature: ambient temp.

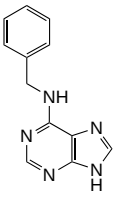
Type analysis

Assay (HPLC) ..... ≥90,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC02.1	100 mg	glass	310,70

6-Benzylaminopurine



6-Benzyladenine

$C_{12}H_{11}N_5$ · mp 232 °C · bp 387 °C
CAS No. 1214-39-7 · EC no. 214-927-5
WGK 1

Warning H315-H319-H335

6-Benzylaminopurine
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis

Appearance ..... light beige, cryst. powder
Assay (HPLC) ..... ≥98,0 %
Melting point ..... 229-233 °C
Heavy metals (as Pb) ..... ≤0,001 %
Sulphated ash ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
5552.1	1 g	glass	21,40
5552.2	5 g	glass	53,65
5552.3	25 g	glass	203,20

Benzyl carbinol

▸ 2-Phenylethanol see page 1152

Benzyldimethylalkylammonium chloride

▸ Benzalkonium chloride see page 767

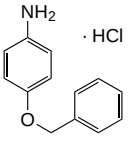
Benzyl benzoate

▸ Benzoic acid benzyl ester see page 768

Benzylglucosinolate potassium salt

▸ Glucotropaeolin see page 963

4-(Benzyloxy) aniline hydrochloride



4-Aminophenyl benzyl ether hydrochloride

$C_{13}H_{14}ClNO$ · mp 216 °C
CAS No. 51388-20-6 · EC no. 257-170-6
WGK 1

Warning H302+H312+H332

4-(Benzyloxy) aniline hydrochloride
≥99 %

Type analysis

Assay (titr.) ..... ≥99,0 %
Solution (2 % in ethanol) ..... almost colourless to brown
Water (KF) ..... ≤1,0 %
Melting point ..... 214-218 °C

Art. No.	Pack Qty.	Pack.	€
5480.1	25 g	plastic	61,85
5480.2	100 g	plastic	209,65

4-Benzyloxybenzyl alcohol resin

▸ Wang resin see page 1399

N_α-Benzyloxycarbonyl-L-arginine

▸ Z-L-Arginine see page 1411

N_α-Benzyloxycarbonyl-L-aspartic acid

▸ Z-L-Aspartic acid see page 1411

N_α-Benzyloxycarbonyl-L-glutamic acid

▸ Z-L-Glutamic acid see page 1412

N_α-Benzyloxycarbonyl-L-leucine
▸ Z-L-Leucine see page 1416

N_α-Benzyloxycarbonyl-L-lysine
▸ Z-L-Lysine see page 1416

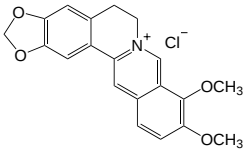
N_α-Benzyloxycarbonyl-L-phenylalanine
▸ Z-L-Phenylalanine see page 1417

Benzyl penicillin potassium salt
▸ Penicillin G potassium salt see page 1140

Benzyl penicillin sodium salt
▸ Penicillin G sodium salt see page 1140

Benzyl salicylate
▸ Salicylic acid benzyl ester see page 1249

Berberine chloride hydrate



$C_{20}H_{18}ClNO_4 \cdot x\ H_2O$ · mp 204 to 206 °C
CAS No. 141433-60-5 · EC no. 211-195-9
WGK 1

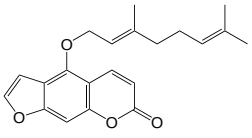
Berberine chloride hydrate
≥97 %, for biochemistry

Type analysis
Appearance ..... yellow crystalline powder
Assay ..... ≥97,0 %
Loss on drying ..... ≤5,0 %

Art. No.	Pack Qty.	Pack.	€
3192.1	1 g	glass	31,10
3192.2	5 g	glass	99,90
3192.3	25 g	glass	385,95

Bergamol
▸ Acetic acid linalyl ester see page 695

Bergamottin



5-Geranoxypsoralen

$C_{21}H_{22}O_4$ · mp 55 to 60 °C
CAS No. 7380-40-7
WGK 1

Bergamottin
ROTICHROM® HPLC

Reference substance for HPLC.
From Oleum bergamottae.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
8889.1	25 mg	glass	209,65

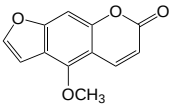
Bergamottin
ROTICHROM® TLC

Reference substance for thin layer chromatography.
From Oleum bergamottae.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
1217.1	50 mg	glass	364,45

Bergaptene



$C_{12}H_8O_4$ · mp 188 °C · bp 412,4 °C · flp 203,2 °C
CAS No. 484-20-8 · EC no. 207-604-5
WGK 1

Danger H317-H350

Bergaptene
ROTICHROM® CHR ≥97 %

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97,0 %

Art. No.	Pack Qty.	Pack.	€
8899.1	1 g	plastic	407,45

Bergaptene
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7006.2	20 mg	glass	192,45

Beryllium Standards
▸ Beryllium ICP Standard Solution see page 1313
▸ Beryllium AAS Standard Solution see page 1313
▸ Beryllium ICP Standard Solution see page 1313

Beryllium acetate basic

$Be_4O(C_2H_3O_2)_6$ · D 1,36 g/cm³ · mp 284 °C
CAS No. 19049-40-2 · EC no. 242-785-4
UN no. 1566 · ADR 6.1 II · WGK 3

Danger H301-H315-H317-H319-H330-H335-H350i-H372-H411

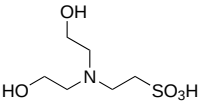
Beryllium acetate basic
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5612.1	5 g	plastic	64,00
5612.2	25 g	plastic	224,70

BES



N,*N*-Bis-(2-hydroxyethyl)-2-aminoethane sulphonic acid

$C_6H_{15}NO_5S$ · D 0,92 g/cm³ · mp 154 to 162 °C
CAS No. 10191-18-1 · EC no. 233-465-5
WGK 1

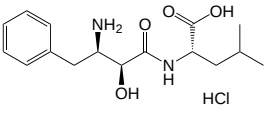
BES
PUFFERAN® ≥99 %

Guarantee analysis
Assay (titr.) ..... ≥99,0 %
Loss on drying ..... ≤1,0 %
pH value (1 % solution) 3,0-5,0
Solubility (0,1 M in H_2O) ..... clear, colourless

Absorbance:
280 nm ..... ≤0,08
260 nm ..... ≤0,1

Art. No.	Pack Qty.	Pack.	€
9134.1	25 g	plastic	30,00
9134.2	100 g	plastic	81,60
9134.3	250 g	plastic	177,40
9134.4	500 g	plastic	289,20
Original pack 6 x 500 g			274,74/500 g

Bestatin hydrochloride



N-[(2S,3R)-3-Amino-2-hydroxy-4-phenylbuturyl]-L-leucin hydrochloride

$C_{16}H_{24}N_2O_4 \cdot HCl$ · mp 213 to 218 °C
CAS No. 65391-42-6
WGK 1

Bestatin hydrochloride
≥98 %, for biochemistry

Inhibitor of aminopeptidases

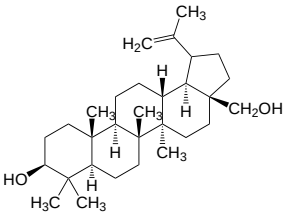
Stock solution: 1–15 mM (0.35–5 mg/ml) in methanol. Storage of stock solution: at –20 °C max. 1 month.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥98 %
Spez. Drehung $[\alpha]_D^{20}$ (c=1 in Methanol) ..... -14° to -20°
Solubility (2,5 % in H_2O) ..... clear

Art. No.	Pack Qty.	Pack.	€
2937.1	5 mg	plastic	96,65
2937.2	25 mg	plastic	364,45

Betulin



Trochol · Betulinol

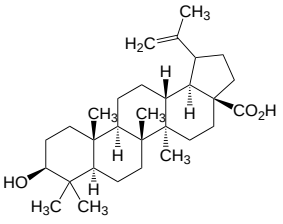
$C_{30}H_{50}O_2$ · mp 257 °C
CAS No. 473-98-3 · EC no. 207-475-5
WGK 1

Betulin
ROTICHROM® ~CHR$_{TLC}$

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
8763.1	1 g	glass	80,55

Betulinic acid



Graciolon · Mairin · Melaleucin

$C_{30}H_{48}O_3$ · mp 295 °C
CAS No. 472-15-1 · EC no. 207-448-8
WGK 1

Betulinic acid
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7007.1	25 mg	glass	246,20

Betulinol
▸ Betulin see page 773

BHA
▸ Butylated hydroxyanisole see page 798

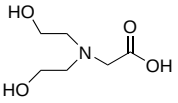
BHI Broth
▸ Brain-Heart-Infusion Broth see page 785

BHT
▸ Butylated hydroxytoluene see page 798

Bicarbonate solution
▸ ROTI®Cell Bicarbonate solution see page 1213

Bicarnesin HCl
▸ DL-Carnitinchloride see page 818

BICINE



N,*N*-Bis-(2-hydroxyethyl)-glycine

$C_6H_{13}NO_4$ · D 1,37 g/cm³ · mp 197,1 °C
CAS No. 150-25-4 · EC no. 205-755-1
WGK 1

BICINE
PUFFERAN® ≥99 %

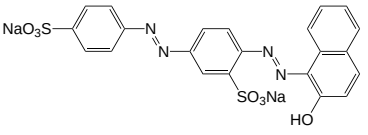
Guarantee analysis
Appearance ..... white, cryst.powder
Assay (titration) ..... ≥99,0 %
Loss on drying ..... ≤1,0 %
pH value (1 M in H_2O) 4,0-6,0

Absorbance:
280 nm ..... ≤0,05
260 nm ..... ≤0,05

Art. No.	Pack Qty.	Pack.	€
9162.1	50 g	plastic	50,00
9162.2	250 g	plastic	160,20
9162.3	500 g	plastic	231,15
Original pack 6 x 500 g			219,59/500 g

Bicyclo-[2,2,1]-hepta-2,5-diene
▸ 2,5-Norbornadiene see page 1115

Biebrich scarlet



Acid red 66 · Ponceau BS

$C_{22}H_{14}N_4Na_2O_7S_2$
CAS No. 4196-99-0 · EC no. 224-084-5
WGK 1

Biebrich scarlet (C. I. 26905)
extra pure

Lillie's trichrome staining

Dissolve 0.1 g in 100 ml ethanol (96 %)

Type analysis
Appearance ..... dark brown powder
Assay ..... ≥70 %
Absorption max. (in H_2O) ..... 506-510 nm
Loss on drying (110 °C) ..... ≤15 %

Art. No.	Pack Qty.	Pack.	€
1H41.1	5 g	glass	23,15
1H41.2	25 g	glass	52,15
1H41.3	100 g	glass	102,70

Biflorine
▸ Protopine see page 1189

Bile Esculin Azide Agar

WGK 1

Warning H302-H412-EUH032

Bile Esculin Azide Agar
DEV, ISO 7899-2:2000, for microbiology

For isolation and identification of intestinal enterococci from water samples.

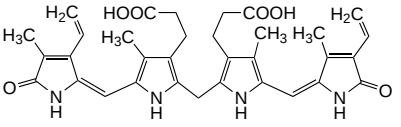
Application: Use 56.6 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Tryptone ..... 17 g/l
Peptone ..... 3 g/l
Yeast extract ..... 5 g/l
Ox bile dehydrated ..... 10 g/l
Sodium chloride (NaCl) ..... 5 g/l
Esculin ..... 1 g/l
Ammonium iron(III) citrate ..... 0,5 g/l
Sodium azide ..... 0,15 g/l
Agar ..... 15 g/l
pH value ..... 7,1 ±0,1

Art. No.	Pack Qty.	Pack.	€
CP62.1	500 g	plastic	283,30
Original pack 6 x 500 g			269,14/500 g

Bilirubin



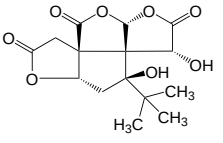
$C_{33}H_{36}N_4O_6$ · bp 925,2 °C · flp 513,3 °C
CAS No. 635-65-4 · EC no. 211-239-7
WGK 1

Bilirubin
p.a.

Guarantee analysis
Appearance ... orange to redbrownish, crystalline powder
Solution (0,01 % in chloroform) ... yellowish, clear
Loss on drying (2 h, 60 °C, vacuum) ..... ≤2 %
Calcium (Ca) ..... ≤0,06 %

Art. No.	Pack Qty.	Pack.	€
4008.1	250 mg	glass	45,70
4008.2	1 g	glass	152,15

Bilobalid



$C_{15}H_{18}O_8$ · mp 280 to 285 °C
CAS No. 33570-04-6
WGK 1

Bilobalid
ROTI®Star Primary Standard

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤2,0 %
Assay (qNMR) ..... ≥95,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE20.1	25 mg	glass	1.278,20

Bilobalid
ROTICHROM® Working Standard

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Assay (HPLC) ..... ≥85,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC20.2	25 mg	glass	822,40

Bilobalid
ROTICHROM® HPLC

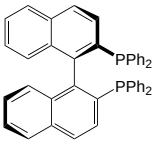
Reference substance for HPLC.
From *Ginkgo biloba*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1122.1	20 mg	glass	489,15

(*R*)-BINAP



(*R*)-(+)-(1,1'-Binaphthalene-2,2'-diyl)bis-(diphenylphosphine) · (*R*) (+) 2,2'-Bis(diphenyl-phosphino)-1,1'-binaphthalene · (*R*)-(+)-2,2'-Bis (diphenylphosphino)-1,1'-binaphthyl

$C_{44}H_{32}P_2$ · mp 239 to 242 °C
CAS No. 76189-55-4
WGK 1

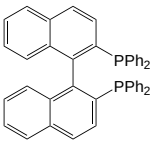
(*R*)-BINAP
≥98 %

Chiral phosphine ligand

Type analysis
Appearance ..... white to off-white powder
Assay (HPLC) ..... ≥98 %
Melting point ..... 239-242 °C

Art. No.	Pack Qty.	Pack.	€
2040.1	250 mg	glass	23,55
2040.2	1 g	glass	53,65
2040.3	5 g	glass	149,45

(*rac*)-BINAP



(±)-(1,1'-Binaphthalene-2,2'-diyl)bis(diphenyl-phosphine) · (±)-2,2'-Bis(diphenylphosphino)-1,1'-binaphthalene · (±)-2,2'-Bis(diphenyl-phosphino)-1,1'-binaphthyl

$C_{44}H_{32}P_2$ · mp 282 to 286 °C
CAS No. 98327-87-8
WGK 1

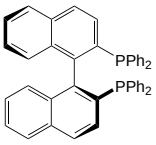
(*rac*)-BINAP
≥97 %

Phosphine ligand

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥97 %
Melting point ..... 282-286 °C

Art. No.	Pack Qty.	Pack.	€
1845.1	1 g	glass	39,70
1845.2	5 g	glass	106,45
1845.3	10 g	glass	160,20

(*S*)-BINAP



(*S*)-(–)-(1,1'-Binaphthalene-2,2'-diyl)-bis(diphenylphosphine) · (*S*)-(–)-2,2'-Bis-(diphenylphosphino)-1,1'-binaphthalene · (*S*)-(–)-2,2'-Bis(diphenylphosphino)-1,1'-binaphthyl

$C_{44}H_{32}P_2$ · mp 238 to 242 °C
CAS No. 76189-56-5
WGK 1

(*S*)-BINAP
≥98 %

Chiral phosphine ligand

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1950.1	250 mg	glass	22,50
1950.2	1 g	glass	46,80
1950.3	5 g	glass	133,85

(*R*)-(+)-(1,1'-Binaphthalene-2,2'-diyl)bis(diphenylphosphine)
▸ (*R*)-BINAP see page 774

(±)-(1,1'-Binaphthalene-2,2'-diyl) bis(diphenylphosphine)
▸ (*rac*)-BINAP see page 774

(*S*)-(–)-(1,1'-Binaphthalene-2,2'-diyl)bis(diphenylphosphine)
▸ (*S*)-BINAP see page 774

Biochanin B
▸ Formononetin see page 948

Biological Buffers

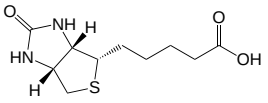
Art. No.	Description	Page
9138	ACES, PUFFERAN®, ≥99 %	688
0250	ADA, PUFFERAN®, ≥98 %	707
3121	AMP, PUFFERAN®, ≥90 %	742
7159	AMPSO, PUFFERAN®, ≥98 %	742
7014	AMPSO sodium salt, PUFFERAN®, ≥98 %	742
9134	BES, PUFFERAN®, ≥99 %	772
9162	BICINE, PUFFERAN®, ≥99 %	773
9140	BIS-TRIS, PUFFERAN®, ≥99 %	778
6999	BIS-TRIS-Propane, PUFFERAN®, ≥98 %	778
5169	Cacodylic acid sodium salt trihydrate, PUFFERAN®, ≥98 %	802
9168	CAPS, PUFFERAN®, ≥99 %	814
5584	CAPSO, PUFFERAN®, ≥98 %	814
6861	CAPSO sodium salt, PUFFERAN®, ≥95 %	814
1479	CHAPS, PUFFERAN®, ≥98 %, for biochemistry	827
X863	Citric acid, ≥99,5 %, p.a., ACS, anhydrous	840
7151	DIPSO, PUFFERAN®, ≥98 %	894
0079	Glycine, ≥99 %, Blotting Grade	967
3908	Glycine, PUFFERAN®, ≥99 %, p.a.	967
HN07	Glycine, CELLPURE®, ≥99 %	967
3187	Glycine, ≥99 %, for biochemistry	968
3794	Glycylglycine, PUFFERAN®, ≥99 %, Ultra Quality	969
HN74	Glycylglycine, PUFFERAN®, ≥98,5 %, Buffer Grade	969
HN77	HEPES, PUFFERAN® CELLPURE®, ≥99,5 %	978
6763	HEPES, ≥99,5 %, BioScience Grade	978
9105	HEPES, PUFFERAN®, ≥99,5 %, p.a.	978
HN78	HEPES, PUFFERAN®, ≥99,5 %, Buffer Grade	978
7020	HEPES sodium salt, PUFFERAN®, ≥99 %	978
9164	HEPPS, EPPS, PUFFERAN®, ≥98 %	978
X998	Imidazole, PUFFERAN®, ≥99 %, p.a., Ultra Quality	1004
4256	MES, PUFFERAN®, ≥99 %	1075
4259	MES, ≥99 %, for biochemistry	1075
6066	MES monohydrate, PUFFERAN®, ≥99 %	1075
6922	MES sodium salt, PUFFERAN®, ≥99 %	1075
6979	MOPS, PUFFERAN®, ≥99,5 %	1093
7117	MOPSO, PUFFERAN®, ≥99 %	1094
7101	MOPSO sodium salt, PUFFERAN®, ≥98 %	1094
6927	MOPS sodium salt, PUFFERAN®, ≥99 %	1094
9156	PIPES, PUFFERAN®, ≥99 %	1159
9153	PIPES monosodium salt, PUFFERAN®, ≥97 %	1159
7109	PIPES disodium salt, PUFFERAN®, ≥99 %	1159
6632	POPSO, PUFFERAN®, ≥99 %	1166
6965	POPSO 1.5 Na, PUFFERAN®, ≥99 %	1166
T874	Potassium acetate, ≥99 %, p.a.	1166
3904	Potassium dihydrogen phosphate, ≥99 %, p.a., ACS	1171

Art. No.	Description	Page
P749	di-Potassium hydrogen phosphate, ≥99 %, p.a., anhydrous	1174
9729	Pyridine, ROTIPURAN®, ≥99,5 %, p.a., ACS	1191
1032	ROTI®Fair Glycine 3.0, for 1000 ml/pouch, for biochemistry	1218
1195	ROTI®Fair Na-Acetate 5.2, for 1000 ml/pouch, for molecular biology	1219
1090	ROTI®Fair 0.02M Na-Phosphate 7.0, for 1000 ml/pouch, for biochemistry and molecular biology	1219
1094	ROTI®Fair 0.02M Na-Phosphate 7.0, for 5000 ml/pouch, for biochemistry and molecular biology	1219
1095	ROTI®Fair 1M Na-Phosphate 6.5, for 1000 ml/pouch, for biochemistry and molecular biology	1219
1097	ROTI®Fair 1M Na-Phosphate 7.2, for 1000 ml/pouch, for biochemistry and molecular biology	1219
1251	ROTI®Fair 1M Tris 7.4, for 1000 ml/pouch, for biochemistry and molecular biology	1222
1260	ROTI®Fair 1M Tris 8.0, for 1000 ml/pouch, for biochemistry and molecular biology	1222
1261	ROTI®Fair 1M Tris 8.3, for 1000 ml/pouch, for biochemistry and molecular biology	1222
6773	Sodium acetate, ≥99 %, p.a., ACS, anhydrous	1276
A135	Sodium carbonate, ≥99,5 %, p.a., ACS, anhydrous	1278
HN13	mono-Sodium citrate, ≥99 %, anhydrous, extra pure	1281
T879	Sodium dihydrogen phosphate dihydrate, ≥99 %, p.a.	1282
4404	Sodium formate, ≥99 %, p.a., ACS	1284
6885	Sodium hydrogen carbonate, ≥99,5 %, p.a., ACS, ISO	1284
P030	di-Sodium hydrogen phosphate, ≥99 %, p.a., ACS, anhydrous	1285
3195	Succinic acid disodium salt hexahydrate, ≥98 %, for biochemistry	1343
6982	TAPS, PUFFERAN®, ≥99 %	1354
6628	TAPSO, PUFFERAN®, ≥99 %	1354
6974	TAPSO sodium salt, PUFFERAN®, ≥99 %	1354
4721	Taurine, ≥99 %, for biochemistry	1355
9137	TES, PUFFERAN®, ≥99 %	1358
6977	TRICINE, PUFFERAN®, ≥99 %	1378
6300	Triethanolamine, ≥99 %, for synthesis	1378
4804	Triethanolamine hydrochloride, ≥99 %, for biochemistry	1378
4855	TRIS, PUFFERAN®, ≥99,9 %, p.a.	1382
0188	TRIS, ≥99,9 %, Blotting Grade	1382
3170	TRIS, CELLPURE®, ≥99,9 %	1382
5429	TRIS, PUFFERAN®, ≥99,9 %, Ultra Quality	1382
A411	TRIS, ≥99 %, Ph. Eur., USP	1382
AE15	TRIS, PUFFERAN®, ≥99,3 %, Buffer Grade	1382
2449	TRIS, ≥99 %, cryst.	1382
7125	TRIS acetate, PUFFERAN®, ≥98 %	1383
9090	TRIS hydrochloride, PUFFERAN®, ≥99 %, p.a.	1383
6991	TRIS maleate, PUFFERAN®, ≥99 %	1384

Biomolecular rapid test

▸ RiboFlow® Kits see page 1205

D(+)-Biotin



Vitamin H

$C_{10}H_{16}N_2O_3S$ · mp 229 to 232 °C
CAS No. 58-85-5 · EC no. 200-399-3
WGK 1

D(+)-Biotin

≥98,5 %, Ph. Eur., for biochemistry

Guarantee analysis

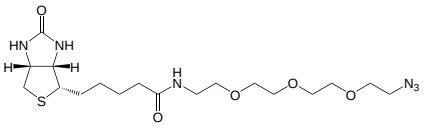
Appearance ..... almost white, cryst. powder
Assay (dry substance) ..... 98,5-100,5 %
Identity ..... complies
Specific rotation $[\alpha]_D^{20}$ (c=1 in 0,1 N NaOH, dry substance) ..... +89° to +93°
Solution (1 % in 0,1 N NaOH) .... clear, colourless
Loss on drying ..... ≤1,0 %
Sulphated ash ..... ≤0,1 %
Residual solvents ..... complies
Related substances ..... complies

Art. No.	Pack Qty.	Pack.	€
3822.2	500 mg	glass	38,60
3822.1	1 g	glass	70,85
3822.3	5 g	glass	203,20
3822.4	10 g	glass	342,95
3822.5	25 g	plastic	654,70

Biotin-Agarose Beads

▸ ROTI®Garose-Biotin Beads see page 1223

Biotin-PEG3-Azide



N-(2-(2-(2-(2-Azidoethoxy)ethoxy) ethoxy)ethyl)-5-((3aS,4S,6aR)-2-oxohexahydro-1*H*-thieno[3,4-d]imidazol-4-yl) pentanamide

$C_{18}H_{32}N_6O_5S$
CAS No. 875770-34-6
WGK 1

Biotin-PEG3-Azide

≥90 %

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis

Appearance ..... off-white solid
Assay (HPLC) ..... ≥90 %
Solubility ..... H_2O, DMSO

Art. No.	Pack Qty.	Pack.	€
7804.1	1 mg	plastic	121,40
7804.2	5 mg	plastic	203,20

Biphenyl D10

Diphenyl

$C_{12}D_{10}$ · D 1,04 g/cm³ · mp 68 to 70 °C · bp 255 to 257 °C · flp 113 °C
CAS No. 1486-01-7 · EC no. 685-865-8
UN no. 3077 · ADR 9 III · WGK 2

Warning H315-H319-H335-H410

Biphenyl D10

99 Atom%D

For nuclear magnetic resonance spectroscopy.

Deuterising degree ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
1L36.1	1 g	glass	144,60

2,2'-Bipyridine

▸ 2,2'-Dipyridyl see page 894

Bis

▸ *N*,*N*'-Methylene bisacrylamide see page 1084

Bisacrylamide

▸ *N*,*N*'-Methylene bisacrylamide see page 1084

2,7-Bis(2-arsonophenylazo)-1,8-dihydroxynaphthalin-3,6-disulphonic acid

▸ Arsenazo III see page 755

3,3'-Bis[*N*,*N*-bis(carboxymethyl)-aminomethyl]-o-cresolsulfone-phthalein tetrasodium salt

▸ Xylenol orange tetrasodium salt see page 1408

4,4'-Bis-(dimethylamino)-benzo-phenonimide hydrochloride

▸ Auramine O (C.I. 41000) see page 757

1,2-Bis-(dimethylamino)-ethane

▸ TEMED see page 1357

(*R*) (+) 2,2'-Bis(diphenyl-phosphino)-1,1'-binaphthalene

▸ (*R*)-BINAP see page 774

(±)-2,2'-Bis(diphenylphosphino)-1,1'-binaphthalene

▸ (*rac*)-BINAP see page 774

(*S*)-(–)-2,2'-Bis(diphenylphosphino)-1,1'-binaphthalene
▸ (*S*)-BINAP see page 774

4,5-Bis(diphenylphosphino)-9,9-dimethylxanthene
▸ Xantphos see page 1405

Bis-(β-hydroxyethyl)-amine
▸ Diethanolamine see page 877

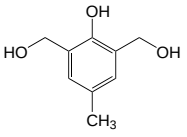
N,*N*-Bis-(2-hydroxyethyl)-2-aminoethane sulphonic acid
▸ BES see page 772

3-*N*-Bis-(hydroxyethyl)-amino-2-hydroxypropane sulphonic acid
▸ DIPSO see page 894

N,*N*-Bis-(2-hydroxyethyl)-glycine
▸ BICINE see page 773

Bis-(2-hydroxyethyl)imino-tris-(hydroxymethyl)-methane
▸ BIS-TRIS see page 778

2,6-Bis(hydroxymethyl)-*p*-cresol



$C_9H_{12}O_3$ · D 6,74 g/cm³ · mp >120 °C
CAS No. 91-04-3 · EC no. 202-036-4
WGK 1

Warning H315-H319-H335

2,6-Bis(hydroxymethyl)-*p*-cresol
≥97 %

Type analysis
Appearance ... yellowish to light-brown crystalline powder
Assay (HPLC) ..... ≥97 %
Loss on drying ..... ≤1,5 %
Sulphated ash ..... ≤1,0 %

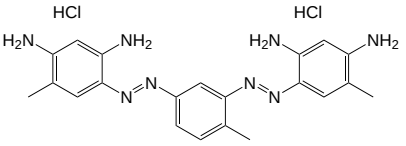
Art. No.	Pack Qty.	Pack.	€
7299.1	25 g	glass	34,30
7299.2	100 g	glass	95,70

2,2-Bis(hydroxymethyl)-1,3-propanediol
▸ Pentaerythritol see page 1141

Bis(hydroxypropyl) ether
▸ Dipropylene glycol see page 893

Bismarck brown G
▸ Bismarck brown Y (C.I. 21000) see page 776

Bismarck brown R (C.I. 21010)



Basic brown 4 · Vesuvin R

$C_{21}H_{24}N_8$ · 2 HCl · mp 220 to 222 °C
CAS No. 5421-66-9 · EC no. 226-541-4
WGK 1

Bismarck brown R (C.I. 21010)
for microscopy

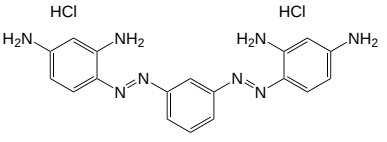
Basic azo dye, for modified Coomassie Blue-staining.

Soluble in ethanol or methanol 1–3 %, low soluble in water (0.5 %). Used for staining of brown alga, for mucus and vital staining. Ingredient of staining solutions according to Papanicolaou.

Type analysis
Appearance ..... brownish-black powder
Loss on drying (60 °C) ..... ≤1,0 %
Absorption max. (ethanol 50 %) ..... 468 nm

Art. No.	Pack Qty.	Pack.	€
0316.1	25 g	plastic	24,65

Bismarck brown Y (C.I. 21000)



Basic brown 1 · Bismarck brown G

$C_{18}H_{18}N_8$ · 2 HCl · mp >300 °C
CAS No. 10114-58-6 · EC no. 233-314-3
WGK 1

Bismarck brown Y (C.I. 21000)
for microscopy

Basic azo dye

Soluble in ethanol 1–3 %, in water 1–5 %.

Type analysis
Appearance .. redbrownish to dark brown powder
Loss on drying (110 °C) ..... ≤10,0 %
Absorption max. (ethanol 50 %) ..... 450-460 nm

Art. No.	Pack Qty.	Pack.	€
0313.1	10 g	glass	24,65
0313.2	25 g	glass	42,50

Bis(2-methoxyethoxy)methane
▸ Tetraoxaundecane see page 1363

Bis-*N*-methylacridinium nitrate
▸ Lucigenin see page 1050

Bis(methylendioxy)protoberberin
▸ Coptisin chloride see page 851

Bismut Standards
▸ Bismuth ICP Standard Solution see page 1314
▸ Bismuth ICP Standard Solution see page 1313
▸ Bismuth AAS Standard Solution see page 1313

Bismuth

Bi · D 9,78 g/cm³ · mp 271 °C · bp 1560 °C
CAS No. 7440-69-9 · EC no. 231-177-4

Bismuth pieces
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L6H.1	10 g	HDPE	103,75

Bismuth powder
≥99,5 %, ~200 mesh

UN no. 3089 · ADR 4.1 III

Warning H228

Type analysis
Assay ..... ≥99,5 %
Particle size ..... ~200 mesh

Art. No.	Pack Qty.	Pack.	€
2735.1	50 g	glass	64,00
2735.2	100 g	glass	107,00

Bismuth Standards
▸ Bismuth ICP Standard Solution see page 1314
▸ Bismuth ICP Standard Solution see page 1313
▸ Bismuth AAS Standard Solution see page 1313

Bismuth carbonate, basic
▸ Bismuth subcarbonate see page 777

Bismuth(III) chloride

Bismuth trichloride · Trichlorobismuthine

$BiCl_3$ · D 4,75 g/cm³ · mp 230 to 232 °C · bp 447 °C
CAS No. 7787-60-2 · EC no. 232-123-2
WGK 1

Warning H315-H319

Bismuth(III) chloride
≥97 %, extra pure

Type analysis
Assay ..... ≥97,0 %
Loss on drying (110 °C) ..... ≤3,0 %

Art. No.	Pack Qty.	Pack.	€
9827.1	50 g	plastic	37,10
9827.2	100 g	plastic	59,70
9827.3	500 g	plastic	241,90
Original pack 6 x 500 g			229,81/500 g

Bismuth citrate

$BiC_6H_5O_7$ · D 0,94 g/cm³ · mp 300 °C
CAS No. 813-93-4 · EC no. 212-390-1
WGK 1

Bismuth citrate
extra pure

Type analysis
Appearance ..... white fine powder
Assay (Bi) ..... 49,0-54,0 %
Identity ..... complies
Nitrate (NO_3) ..... complies
Arsenic (As) ..... ≤0,001 %
Lead (Pb) ..... ≤0,001 %
Copper (Cu) ..... ≤0,001 %
Silver (Ag) ..... ≤0,001 %
Soluble Bismut ..... ≤0,004 %
Loss on drying ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
6550.3	100 g	plastic	51,10
6550.1	250 g	plastic	107,00
6550.2	1 kg	plastic	342,95
Original pack 6 x 1 kg			325,80/1 kg

Bismuth(III) nitrate

Bismuthsubnitrate · Bismuth trinitrate

$BiNO_4$ · D 4,93 g/cm³ · mp 500 °C
CAS No. 10361-46-3 · EC no. 233-792-3
UN no. 1477 · ADR 5.1 II · WGK 1

Danger H272-H315-H319-H335

Bismuth(III) nitrate
≥71 % Bi, p.a., alkaline

Guarantee analysis
Assay (Bi) ..... ≥71 %
Ammonium (NH_4) ..... ≤0,005 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,02 %
Arsenic (As) ..... ≤0,001 %
Lead (Pb) ..... ≤0,005 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,005 %
Copper (Cu) ..... ≤0,005 %
Silver (Ag) ..... ≤0,001 %
Zinc (Zn) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
4447.1	50 g	plastic	56,90
4447.2	100 g	plastic	92,35

Bismuth(III) nitrate pentahydrate

$Bi(NO_3)_3$ · 5 H_2O · D 2,83 g/cm³ · mp 30 °C · bp 80 °C
CAS No. 10035-06-0 · EC no. 233-791-8
UN no. 1477 · ADR 5.1 II · WGK 2

Danger H272-H315-H319-H335

Bismuth(III) nitrate pentahydrate
≥98 %, p.a., ACS

Guarantee analysis
Assay (compl.) ..... ≥98,0 %
Insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,005 %
Arsenic (As) ..... ≤0,001 %
Lead (Pb) ..... ≤0,002 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,01 %
Copper (Cu) ..... ≤0,002 %
Sodium (Na) ..... ≤0,02 %
Silver (Ag) ..... ≤0,001 %
Substances not precipitated by H_2S ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
2554.1	250 g	plastic	61,85
2554.2	500 g	plastic	112,90
Original pack 6 x 500 g			107,26/500 g
2554.3	1 kg	plastic	203,20
Original pack 6 x 1 kg			193,04/1 kg

Bismuth(III) oxide

Bismuth trioxide

Bi_2O_3 · D 8,93 g/cm³ · mp 817 to 820 °C · bp 1890 °C
CAS No. 1304-76-3 · EC no. 215-134-7

Bismuth(III) oxide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L6X.1	10 g	HDPE	46,15
1L6X.2	50 g	HDPE	144,60

Bismuth(III) oxide
≥99,5 %, p.a.

Guarantee analysis
Appearance ..... yellow powder
Assay ..... ≥99,5 %
Identity (Bi) ..... complies
Chloride (Cl) ..... ≤0,001 %
Nitrate (NO_3) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,002 %
Arsenic (As) ..... ≤0,0002 %
Lead (Pb) ..... ≤0,003 %
Iron (Fe) ..... ≤0,002 %
Copper (Cu) ..... ≤0,002 %
Silver (Ag) ..... ≤0,0005 %
Substances not precipitated by NH_4OH ... ≤0,5 %
Loss on drying (105 °C) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
6555.1	50 g	plastic	46,80
6555.2	100 g	plastic	66,55
6555.3	500 g	plastic	209,65
Original pack 6 x 500 g			199,17/500 g

Bismuth subcarbonate

Bismuth carbonate, basic

$(BiO)_2CO_3$ · D 6,86 g/cm³ · mp >500 °C
CAS No. 5892-10-4 · EC no. 227-567-9
WGK 1

Bismuth subcarbonate
≥97,5 %, USP

Guarantee analysis
Appearance ..... white to off-white powder
Assay (dry substance) ..... 97,6-100,7 %
Identity ..... complies
Chloride (Cl) ..... ≤0,05 %
Nitrate (NO_3) ..... ≤0,4 %
Arsenic (As) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,002 %
Copper (Cu) ..... ≤0,005 %
Silver (Ag) ..... ≤0,0025 %
Alkali and alkaline earth metals ..... ≤1,0 %
Loss on drying ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
6551.3	100 g	plastic	41,85
6551.1	250 g	plastic	95,15
6551.2	1 kg	plastic	282,20
Original pack 6 x 1 kg			268,09/1 kg

Bismuthsubnitrate
▸ Bismuth(III) nitrate see page 777

Bismuth subsalicylate

$C_7H_5BiO_4$ · mp >350 °C
CAS No. 14882-18-9 · EC no. 238-953-1
WGK 1

Bismuth subsalicylate
USP

Guarantee analysis
Appearance ..... white light powder
Assay (Bi) ..... 56,0-59,4 %
Identity ..... complies
Total salicylates ..... 36,5-39,3 %
Free salicylic acid ..... ≤0,2 %
Nitrate (NO_3) ..... ≤0,4 %
Arsenic (As) ..... ≤0,001 %
Lead (Pb), Silver (Ag), Copper (Cu) ..... ≤0,001 %
Soluble Bismut ..... ≤0,004 %
Loss on drying (105 °C) ..... ≤1,0 %
pH value 2,7-5,0

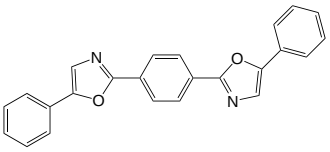
Art. No.	Pack Qty.	Pack.	€
6552.3	100 g	plastic	67,20
6552.1	250 g	plastic	128,50
6552.2	1 kg	plastic	407,45
Original pack 6 x 1 kg			387,08/1 kg

Bismuth trichloride
▸ Bismuth(III) chloride see page 776

Bismuth trinitrate
▸ Bismuth(III) nitrate see page 777

Bismuth trioxide
▸ Bismuth(III) oxide see page 777

1,4-Bis[2-(5-phenyloxazolyl)]-benzene



POPOP

$C_{24}H_{16}N_2O_2$ · mp 243 to 246 °C
CAS No. 1806-34-4 · EC no. 217-304-6
WGK 1

Warning H302-H319

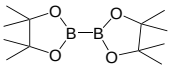
1,4-Bis[2-(5-phenyloxazolyl)]-benzene
≥99 %, for scintillation

Type analysis
Appearance ..... yellow crystals
Assay ..... ≥99,0 %
Melting point ..... 243-246 °C

Suitable for scintillation.

Art. No.	Pack Qty.	Pack.	€
3210.1	5 g	glass	44,00
3210.2	100 g	plastic	456,90

Bis(pinacolato)diboron



4,4,4',4',5,5,5',5'-Octamethyl-2,2'-bi-(1,3,2-dioxaborolane) · B_2pin_2

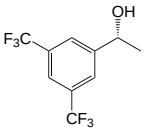
$C_{12}H_{24}B_2O_4$ · mp 135 to 145 °C
CAS No. 73183-34-3
WGK 1

Bis(pinacolato)diboron
≥98 %

Type analysis
Appearance ..... white to off-white powder
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1983.1	1 g	glass	24,65
1983.2	5 g	glass	40,75
1983.3	25 g	glass	134,40

(*R*)-1-[3,5-Bis(trifluoromethyl) phenyl]ethanol



$C_{10}H_8F_6O$ · mp 53 to 58 °C
CAS No. 127852-28-2
WGK 1

Warning H302

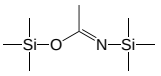
(*R*)-1-[3,5-Bis(trifluoromethyl) phenyl]ethanol
≥99 %

Chiral building block

Type analysis
Appearance ..... white to off-white powder
Assay (GC) ..... ≥99 %
Enantiomeric excess (GC) ..... ≥99 %
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
7481.1	1 g	glass	34,30
7481.2	5 g	glass	81,60
7481.3	25 g	glass	274,15

N,*O*-Bis(trimethylsilyl) acetamide (BSA)



BSA

$C_8H_{21}NOSi_2$ · D 0,83 g/cm³ · mp -24 °C · bp 41 to 43 °C · flp 40 °C
CAS No. 10416-59-8 · EC no. 233-892-7
UN no. 2920 · ADR 8 (3) II · WGK 1

Danger H226-H302-H314-EUH014

N,*O*-Bis(trimethylsilyl) acetamide (BSA)
≥98 %, for the GC

Silylation reagent

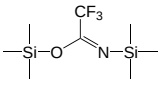
Type analysis
Appearance .. clear, colourless to yellowish liquid
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
2330.1	25 g	glass	84,40

Bis(trimethylsilyl)amine

▸ 1,1,1,3,3,3-Hexamethyldisilazane (HMDS) see page 982

N,*O*-Bis(trimethylsilyl)-trifluoro-acetamide



2,2,2-Trifluor-*N*,*O*-bis(trimethylsilyl)-acetamide · BSTFA

$C_8H_{18}F_3NOSi_2$ · D 0,97 g/cm³ · bp 145 °C · flp 34 °C
CAS No. 25561-30-2 · EC no. 247-103-9
UN no. 1993 · ADR 3 III · WGK 1

Warning H226-H315-H319

N,*O*-Bis(trimethylsilyl)-trifluoro-acetamide
≥98 %, for the GC

Silylation reagent

Type analysis
Appearance .. clear, colourless to yellowish liquid
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
2331.1	10 g	glass	46,15

N,*O*-Bis(trimethylsilyl)-trifluoroacetamide with 1 % trimethylchlorosilane

BSTFA:TMCS (99:1) · Silyl 991

$C_8H_{18}F_3NOSi_2$ · D 0,97 g/cm³ · mp -10 °C · bp 145 °C · flp <23 °C
CAS No. 25561-30-2 · EC no. 247-103-9
UN no. 2924 · ADR 3 (8) II · WGK 1

Danger H225-H314

N,*O*-Bis(trimethylsilyl)-trifluoroacetamide with 1 % trimethylchlorosilane
for the GC

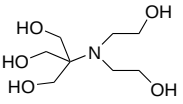
Silylation agent

Storage temperature: +4 °C

Type analysis
Appearance ..... clear to turbid, yellowish liquid

Art. No.	Pack Qty.	Pack.	€
9935.1	10 ml	septum bottle	92,35

BIS-TRIS



Bis-(2-hydroxyethyl)imino-tris-(hydroxymethyl)-methane

$C_8H_{19}NO_5$ · mp 104 °C · bp 412,1 °C
CAS No. 6976-37-0 · EC no. 230-237-7
WGK 1

BIS-TRIS
PUFFERAN® ≥99 %

Guarantee analysis
Assay (titr.) ..... ≥99 %
Water ..... ≤1,0 %
pH value (1 M, H_2O) 9,0-11,0
Solubility (1 M in H_2O) ..... clear, soluble
Iron (Fe) ..... ≤0,0003 %
Heavy metals (as Pb) ..... ≤0,0003 %

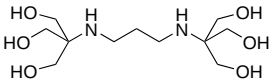
Absorbance:
340 nm ..... ≤0,02
280 nm ..... ≤0,04

Art. No.	Pack Qty.	Pack.	€
9140.1	50 g	plastic	70,85
9140.2	250 g	plastic	295,65
9140.3	500 g	plastic	499,90
Original pack 6 x 500 g			474,91/500 g
9140.8	1 kg	plastic	779,40
Original pack 6 x 1 kg			740,43/1 kg

1,3-Bis(tris(hydroxymethyl)-methylaminopropane)

▸ BIS-TRIS-Propane see page 778

BIS-TRIS-Propane



1,3-Bis(tris(hydroxymethyl)-methylaminopropane)

$C_{11}H_{26}N_2O_6$ · mp 164 to 170 °C
CAS No. 64431-96-5 · EC no. 264-899-3
WGK 1

BIS-TRIS-Propane
PUFFERAN® ≥98 %

Guarantee analysis
Assay (titr.) ..... ≥98 %
Loss on drying ..... ≤1,0 %
pH value (1 % in H_2O) 10,4-11,0

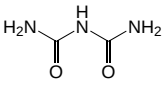
Absorbance:
280 nm ..... ≤0,15

Art. No.	Pack Qty.	Pack.	€
6999.1	25 g	plastic	79,45
6999.2	100 g	plastic	278,45

Bitter salt
▸ Magnesium sulphate heptahydrate see page 1060

Bitter substance from Gentiana
▸ Gentiopicroside see page 956

Biuret



Carbamoylurea

$C_2H_5N_3O_2$ · D 1,46 g/cm³ · mp 188 to 195 °C
CAS No. 108-19-0 · EC no. 203-559-0
WGK 1

Warning H315-H319-H335

Biuret
≥97 %, p.a.

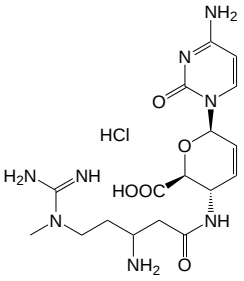
Reagent for positive control of the Biuret test.

Guarantee analysis
Appearance ..... white cryst. powder
Assay (N) ..... ≥97,0 %
Melting point ..... 188-195 °C
Loss on drying ..... ≤1 %

Art. No.	Pack Qty.	Pack.	€
2675.1	25 g	glass	41,40
2675.2	50 g	glass	70,45

Biuret solutions
▸ ROTI®Quant universal see page 1239

Blasticidin S hydrochloride



$C_{17}H_{26}N_8O_5$ · HCl · mp 218 to 225 °C
CAS No. 3513-03-9 · EC no. 264-899-3
UN no. 2811 · ADR 6.1 II · WGK 2

Danger H300

Blasticidin S hydrochloride
≥98 %, for biochemistry

Nucleoside antibiotic

Stock solution: 50 mg/ml in H_2O, PBS or HEPES.
Storage of stock solution at –20 °C.
Working concentration: 3–100 µg/ml.

Storage temperature: +4 °C

Type analysis
Assay ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
CP14.1	10 mg	glass	96,25
CP14.2	25 mg	glass	192,45
CP14.3	50 mg	glass	306,40
CP14.4	100 mg	glass	553,65

Blocking reagents
▸ ROTI®Block see page 1212
▸ ROTI®ImmunoBlock see page 1227

Blood Agar (Base)

WGK 3

Blood Agar (Base)
for microbiology

For isolation, cultivation and detection of haemolytic reaction of fastidious micro-organisms.

Application: Use 40 g for 1 l agar. If required, add 50–110 ml defibr. blood.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Meat peptone ..... 10 g/l
Heart infusion ..... 10 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar ..... 15 g/l
pH value ..... 7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
X914.1	500 g	plastic	195,15
Original pack 6 x 500 g			185,39/500 g

Blood Agar No. 2 (Base)

WGK 3

Blood Agar No. 2 (Base)
ISO 7932, ISO 11290-1, for microbiology

For cultivation and detection of haemolytic reaction of fastidious microorganisms.

Application: Use 39.5 g for 1 l agar, add 50-70 ml defibr. blood.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Proteose peptone ..... 15 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Liver extract ..... 2,5 g/l
Agar ..... 12 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
8281.1	500 g	plastic	151,05
Original pack 6 x 500 g			143,50/500 g

Blood-free CCDA
▸ Campylobacter Agar, blood-free (Base) see page 812

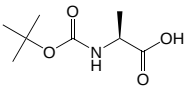
Blood sugar
▸ D(+)-Glucose monohydrate see page 962
▸ ROTI®Fair Glucose see page 1218
▸ D(+)-Glucose see page 961

Blotting buffers
▸ ROTI®Blot see page 1212

BLOTTO reagent
▸ Powdered milk see page 1182

Blue tetrazolium chloride
▸ Tetrazolium blue chloride see page 1363

Boc-L-Alanine



N-(*tert*-Butoxycarbonyl)-L-alanine · Boc-L-Ala-OH

$C_8H_{15}NO_4$ · mp 79 °C
CAS No. 15761-38-3 · EC no. 239-847-8
WGK 1

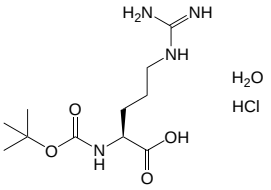
Boc-L-Alanine
PEPTIPURE® ≥98,5 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white cryst. powder
Assay ..... ≥98,5 %
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6907.1	5 g	glass	21,00
6907.2	25 g	glass	70,45
6907.3	100 g	glass	222,00

Boc-L-Arginine hydrochloride monohydrate



N-(*tert*-Butoxycarbonyl)-L-arginine · Boc-L-Arg-OH

$C_{11}H_{22}N_4O_4 \cdot HCl \cdot H_2O$
CAS No. 114622-81-0
WGK 1

Boc-L-Arginine hydrochloride monohydrate
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98,0 %
Water (KF) ..... ≤5,0-6,0 %

Art. No.	Pack Qty.	Pack.	€
6914.1	5 g	glass	35,40
6914.2	25 g	glass	96,65
6914.3	100 g	glass	278,45

Boc-L-Asparagine

Boc-L-Asn-OH · *N*-(*tert*-Butoxycarbonyl)-L-asparagine

$C_9H_{16}N_2O_5$ · mp 165 to 175 °C
CAS No. 7536-55-2 · EC no. 231-405-2
WGK 1

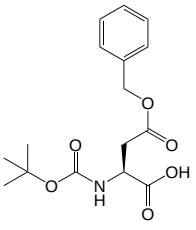
Boc-L-Asparagine
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Purity (HPLC) ..... ≥98,5 %
Water (KF) ..... ≤2,0 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in DMF) . -8,5° to -6,5°
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
6915.1	5 g	glass	17,75
6915.2	25 g	glass	50,45
6915.3	100 g	glass	166,65

Boc-L-Aspartic acid-(OBenzyl)



N-α-Boc-L-aspartic acid β-benzyl ester · Boc-L-Asp(OBzl)-OH

$C_{16}H_{21}NO_6$ · mp 98 to 105 °C
CAS No. 7536-58-5 · EC no. 439-640-4
WGK 1

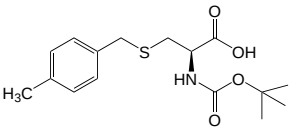
Boc-L-Aspartic acid-(O-Benzyl)
PEPTIPURE® ≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay (HPLC) ..... ≥98,5 %
Water (KF) ..... ≤0,5 %
Specific rotation $[\alpha]_D^{20}$ (c=2 in DMF) ..... -21,5° to -18,5°
Enantiomeric purity ..... ≤0,3 % D-Enantiomer

Art. No.	Pack Qty.	Pack.	€
8846.1	5 g	glass	46,15
8846.2	25 g	glass	149,45
8846.3	100 g	glass	482,70

Boc-L-Cysteine-(4-Mbzl)



Boc-Cys(4-Mbzl)-OH · Boc-S-(4-methylbenzyl)-L-cysteine · N_α-*tert*-Butyloxycarbonyl-S-(4-methylbenzyl)-L-cysteine · N_α*tert*-Boc-S-*p*-methylbenzyl-L-cysteine

$C_{16}H_{23}NO_4S$
CAS No. 61925-77-7
WGK 1

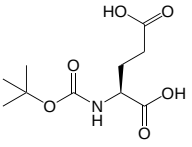
Boc-L-Cysteine-(4-Mbzl)
PEPTIPURE® ≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Purity (HPLC) ..... ≥98,5 %
Specific rotation $[\alpha]_D^{20}$ (2 % in methanol) . -37,0° to -34,0°
Water (KF) ..... ≤2,0 %
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
2042.1	5 g	plastic	29,60
2042.2	10 g	plastic	55,80
2042.3	25 g	plastic	117,20

Boc-L-Glutamic acid



Boc-L-Glu-OH · *N*-(*tert*-Butoxycarbonyl)-L-glutamic acid

$C_{10}H_{17}NO_6$ · mp 110 °C
CAS No. 2419-94-5
WGK 1

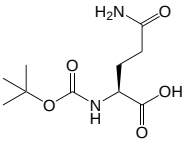
Boc-L-Glutamic acid
PEPTIPURE® ≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white powder
Assay ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
6917.1	5 g	glass	24,20
6917.2	25 g	glass	77,30
6917.3	100 g	glass	256,95

Boc-L-Glutamine



Boc-L-Gln-OH · *N*-(*tert*-Butoxycarbonyl)-L-glutamine

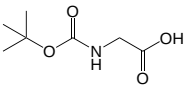
$C_{10}H_{18}N_2O_5$ · mp 113 °C
CAS No. 13726-85-7 · EC no. 237-296-8
WGK 1

Boc-L-Glutamine
PEPTIPURE® ≥97 %, for biochemistry

Type analysis
Appearance ..... white powder
Assay ..... ≥97,0 %

Art. No.	Pack Qty.	Pack.	€
6916.1	5 g	glass	21,00
6916.2	25 g	glass	70,45
6916.3	100 g	glass	222,00

Boc-Glycine



Boc-Gly-OH · *N*-(*tert*-Butoxycarbonyl)-glycine

$C_7H_{13}NO_4$ · mp 85 to 90 °C
CAS No. 4530-20-5 · EC no. 224-864-5
WGK 1

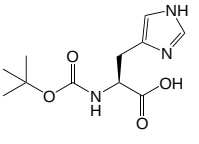
Boc-Glycine
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to almost white crystalline powder
Assay (titr.) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6918.1	5 g	glass	14,95
6918.2	25 g	glass	40,75
6918.3	100 g	glass	128,50

Boc-L-Histidine



Boc-L-His-OH · *N*-(*tert*-Butoxycarbonyl)-L-histidine

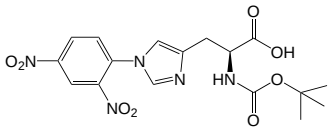
$C_{11}H_{17}N_3O_4$ · mp 195 °C
CAS No. 17791-52-5 · EC no. 241-768-9
WGK 1

Boc-L-Histidine
PEPTIPURE® ≥98 %, for biochemistry

Type analysis
Appearance ..... white to off-white cryst. powder
Assay ..... ≥98,0 %
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
6920.1	5 g	glass	42,90
6920.2	25 g	glass	188,15

Boc-L-Histidine-(Dnp)



Boc-L-His(Dnp)-OH · N_{α}-*tert*-Butyloxycarbonyl-N_{im}-2,4-dinitrophenyl-L-histidine · *N*-α-Boc-N(im)-(2,4-dinitrophenyl)-L-histidine

$C_{17}H_{19}N_5O_8$ · mp 98 to 100 °C
CAS No. 25024-53-7 · EC no. 246-569-0
WGK 1

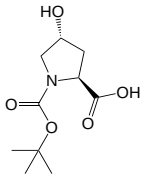
Boc-L-Histidine-(Dnp)
PEPTIPURE® ≥97,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance slightly yellow to light yellow powder
Purity (HPLC) ..... ≥97,5 %
Rotation spéc. $[\alpha]_D^{20}$ (1 % dans EtOAc) . +52,0 ° to +60,0 °
Water (KF) ..... ≤2,0 %
Residual solvents (2-Propanol) ..... ≤15,0 %
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
1994.1	1 g	glass	27,85
1994.2	5 g	plastic	59,05
1994.3	10 g	plastic	106,45

Boc-L-Hydroxyproline



Boc-L-Hyp-OH · *N*-(*tert*-Butoxycarbonyl)-L-hydroxyproline

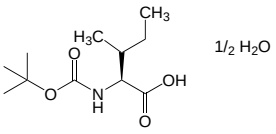
$C_{10}H_{17}NO_5$ · mp 123 to 127 °C
CAS No. 13726-69-7
WGK 1

Boc-L-Hydroxyproline
PEPTIPURE® ≥98 %, for biochemistry

Type analysis
Appearance ..... white to off-white, cryst. powder
Assay ..... ≥98,0 %
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6921.1	5 g	glass	55,80
6921.2	25 g	glass	192,45

Boc-L-Isoleucine hemihydrate



Boc-L-Ile-OH · *N*-(*tert*-Butoxycarbonyl)-L-isoleucine

$C_{11}H_{21}NO_4$ · ½ H_2O · mp 50 to 60 °C
CAS No. 13139-16-7 · EC no. 236-074-8
WGK 1

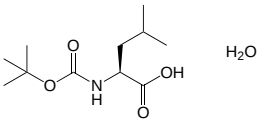
Boc-L-Isoleucine hemihydrate
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay (titr., dry substance) ..... 98,0-102,0 %
Purity (HPLC) ..... ≥99,0 %
Water (KF) ..... ≤8,0 %
Specific rotation $[\alpha]_D^{20}$ (c=2 in pyridine) ... -31,0° to -26,0°
Melting range ..... 50,0-60,0 °C
Free amino acids ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
6923.1	5 g	glass	17,75
6923.2	25 g	glass	50,45
6923.3	100 g	glass	166,65

Boc-L-Leucine monohydrate



Boc-L-Leu-OH · *N*-(*tert*-Butoxycarbonyl)-L-leucine

$C_{11}H_{21}NO_4$ · H_2O · mp 79 to 89 °C
CAS No. 13139-15-6 · EC no. 236-073-2
WGK 1

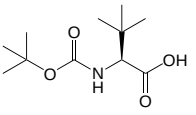
Boc-L-Leucine monohydrate
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay (titr., dry substance) ..... 98,0-102,0 %
Purity (TLC) ..... ≥99 %
Water (KF) ..... 6,5-7,9 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in CH_3COOH) -27,5° to -23,5°
Melting range ..... 79,0-85,0 °C
Enantiomeric purity ..... ≤0,2 % D-enantiomer
Free amino acids ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
6924.1	5 g	glass	17,75
6924.2	25 g	glass	50,45
6924.3	100 g	glass	166,65

Boc-L-*tert*-Leucine



Boc-L-Tle-OH · *N*-(*tert*-Butoxycarbonyl)-L-*tert*-leucine

$C_{11}H_{21}NO_4$ · mp 118 to 121 °C
CAS No. 62965-35-9
WGK 1

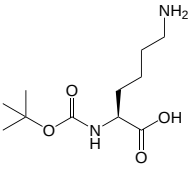
Boc-L-*tert*-Leucine
PEPTIPURE® ≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white powder
Assay ..... ≥98,5 %
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
6942.1	1 g	glass	31,10
6942.2	5 g	glass	117,20
6942.3	10 g	glass	214,50

Boc-L-Lysine



Boc-L-Lys-OH · *N*-(*tert*-Butoxycarbonyl)-L-lysine

$C_{11}H_{22}N_2O_4$ · mp 205 °C
CAS No. 13734-28-6 · EC no. 237-303-4
WGK 1

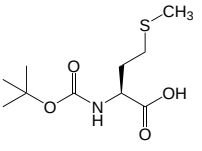
Boc-L-Lysine
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98,0 %
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
6926.1	1 g	glass	22,50
6926.2	5 g	glass	73,00
6926.3	10 g	glass	126,35

Boc-L-Methionine



Boc-L-Met-OH · *N*-(*tert*-Butoxycarbonyl)-L-methionine

$C_{10}H_{19}NO_4S$ · mp 47 to 50 °C
CAS No. 2488-15-5 · EC no. 219-639-3
WGK 1

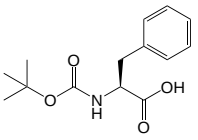
Boc-L-Methionine
PEPTIPURE® ≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white powder
Assay ..... ≥99,0 %
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
6928.1	5 g	glass	25,30
6928.2	25 g	glass	81,60
6928.3	100 g	glass	263,40

Boc-L-Phenylalanine



Boc-L-Phe-OH · *N*-(*tert*-Butoxycarbonyl)-L-phenylalanine

$C_{14}H_{19}NO_4$ · mp 85 to 88 °C
CAS No. 13734-34-4 · EC no. 237-305-5
WGK 1

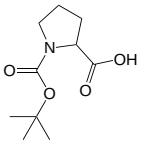
Boc-L-Phenylalanine
PEPTIPURE® ≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white cryst. powder
Purity (HPLC) ..... ≥99,0 %
Spec. rotation $[\alpha]_D^{20}$ (c=1 in ethanol) 24,0° to 27,0°

Art. No.	Pack Qty.	Pack.	€
6931.1	5 g	glass	23,55
6931.2	25 g	glass	70,45
6931.3	100 g	glass	222,00

Boc-L-Proline



Boc-L-Pro-OH · *N*-(*tert*-Butoxycarbonyl)-L-proline

$C_{10}H_{17}NO_4$ · mp 133 to 136 °C
CAS No. 15761-39-4 · EC no. 239-848-3
WGK 1

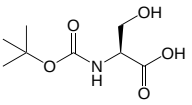
Boc-L-Proline
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Purity (HPLC) ..... ≥98 %
Specific rotation $[\alpha]_D^{20}$ (2 % in AcOH) . -64° to -56°
Melting range ..... 130-139 °C

Art. No.	Pack Qty.	Pack.	€
6932.1	5 g	glass	14,95
6932.2	25 g	glass	40,75
6932.3	100 g	glass	128,50

Boc-L-Serine



Boc-L-Ser-OH · *N*-(*tert*-Butoxycarbonyl)-L-serine

$C_8H_{15}NO_5$ · mp 84 to 94 °C · flp 186 °C
CAS No. 3262-72-4 · EC no. 221-867-3
WGK 1

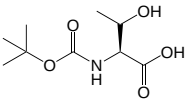
Boc-L-Serine
PEPTIPURE® ≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Purity (HPLC) ..... ≥99,0 %
Assay (NaOH) ..... 98,0-102,0 %
Specific rotation $[\alpha]_D^{20}$ (1 % in H_2O) .... -9,5° to -7,5°
Water (KF) ..... ≤0,5 %
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
6933.1	5 g	glass	25,70
6933.2	25 g	glass	85,90
6933.3	100 g	glass	289,20

Boc-L-Threonine



Boc-L-Thr-OH · *N*-(*tert*-Butoxycarbonyl)-L-threonine

$C_9H_{17}NO_5$ · mp 80 to 82 °C
CAS No. 2592-18-9 · EC no. 219-987-6
WGK 1

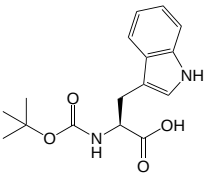
Boc-L-Threonine
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
6935.1	5 g	glass	32,15
6935.2	25 g	glass	123,65

Boc-L-Tryptophan



Boc-L-Trp-OH · *N*-(*tert*-Butoxycarbonyl)-L-tryptophan

$C_{16}H_{20}N_2O_4$ · mp 132 to 140 °C
CAS No. 13139-14-5 · EC no. 236-072-7
WGK 1

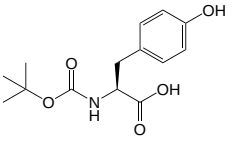
Boc-L-Tryptophan
PEPTIPURE® ≥95 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay (titr.) ..... 95,0-102,0 %
Purity (HPLC) ..... ≥98,5 %
Water (KF) ..... ≤1,0 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in CH_3COOH) .. -23° to -19°
Melting range ..... 132,0-140,0 °C
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
6945.1	5 g	glass	17,75
6945.2	25 g	glass	50,45
6945.3	100 g	glass	166,65

Boc-L-Tyrosine



Boc-L-Tyr-OH · *N*-(*tert*-Butoxycarbonyl)-L-tyrosine

$C_{14}H_{19}NO_5$ · mp 133 to 135 °C
CAS No. 3978-80-1 · EC no. 223-613-7
WGK 1

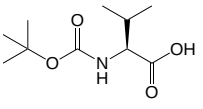
Boc-L-Tyrosine
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white powder
Assay ..... ≥98,0 %
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
6949.1	5 g	glass	37,10
6949.2	25 g	glass	145,15

Boc-L-Valine



Boc-L-Val-OH · *N*-(*tert*-Butoxycarbonyl)-L-valine

$C_{10}H_{19}NO_4$ · mp 75 to 82 °C
CAS No. 13734-41-3 · EC no. 237-307-6
WGK 1

Boc-L-Valine
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

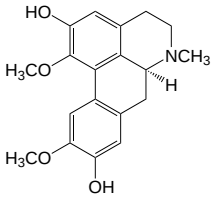
Type analysis
Appearance ..... white to off-white powder
Assay (titr.) ..... 98,0-102,0 %
Purity (HPLC) ..... ≥98,0 %
Water (KF) ..... ≤1,0 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in CH_3COOH) . -6,8° to -5,8 °
Melting range ..... 75,0-82,0 °C
Enantiomeric purity ..... ≤0,3 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
6950.1	5 g	glass	17,75
6950.2	25 g	glass	50,45
6950.3	100 g	glass	166,65

Bold black

▸ Sudan black B (C. I. 26150) see page 1344

Boldine



$C_{19}H_{21}NO_4$ · mp 161 °C
CAS No. 476-70-0 · EC no. 207-509-9
WGK 1

Warning H302-H315-H319-H335

Boldine
ROTICHROM® ~CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
8900.1	100 mg	glass	155,90

Bolton-Agar

▸ Campylobacter Agar, blood-free (Base) see page 812

Bolus

Hydrated aluminum silicate

D 2,6 g/cm³ · mp >1300 °C
CAS No. 1332-58-7 · EC no. 310-194-1

Bolus
fine powdered

Type analysis

Appearance	powder
pH value	5,5-8,0
SiO_2	51,0-59,0 %
MgO	0,4-1,2 %
Al_2O_3	30,0- 36,0 %
K_2O	4,0-7,0 %
Fe_2O_3	1,5-5,0 %
Na_2O	0,05-0,15 %
TiO_2	0,05-0,15 %
CaO	0,02-3,50 %
Loss on ignition	6,0-9,5 %

Art. No.	Pack Qty.	Pack.	€
8361.2	1 kg	plastic	31,10
Original pack 6 x 1 kg			29,55/1 kg
8361.1	2.5 kg	plastic	60,10

Bone ash

CAS No. 68439-86-1 · EC no. 270-423-5
WGK 1

Bone ash
powdered

Type analysis

Appearance	white powder

Art. No.	Pack Qty.	Pack.	€
8493.2	500 g	plastic	19,25
Original pack 6 x 500 g			18,29/500 g
8493.1	1 kg	plastic	30,00
Original pack 6 x 1 kg			28,50/1 kg

BOP

▸ Benzotriazole-1-yl-oxy-tris-(dimethylamino)-phosphonium hexafluorophosphate (BOP) see page 770

Borate Buffered Saline (tablets)

▸ ROTI®Fair BBS see page 1218

Borax

▸ di-Sodium tetraborate see page 1296
▸ di-Sodium tetraborate decahydrate see page 1297

Boric acid

H_3BO_3 · D 1,489 g/cm³ · mp >100 °C
CAS No. 10043-35-3 · EC no. 233-139-2
WGK 1

Danger H360FD

Boric acid
ROTI®METIC 99,999 % (5N)

Type analysis

Assay (metals basis)	99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5614.1	25 g	plastic	71,50
5614.2	100 g	plastic	176,85

Boric acid
≥99,8 %, p.a., ACS, ISO

Buffer substance, for molecular biology

Guarantee analysis

Assay (acidim.)	≥99,8 %
In CH_3OH insoluble matter	≤0,005 %
Chloride (Cl)	≤0,0005 %
Sulphate (SO_4)	≤0,002 %
Phosphate (PO_4)	≤0,0005 %
Heavy metals (as Pb)	≤0,0005 %
Arsenic (As)	≤0,00005 %
Calcium (Ca)	≤0,002 %
Cadmium (Cd)	≤0,0005 %
Copper (Cu)	≤0,0005 %
Iron (Fe)	≤0,0001 %
Magnesium (Mg)	≤0,0005 %
Lead (Pb)	≤0,0005 %
Zinc (Zn)	≤0,0005 %
With CH_3OH+HCl non volatile matter (as SO_4)	≤0,05 %

Art. No.	Pack Qty.	Pack.	€
6943.2	250 g	plastic	26,80
6943.4	500 g	plastic	37,10
Original pack 6 x 500 g			35,25/500 g
6943.1	1 kg	plastic	58,60
Original pack 6 x 1 kg			55,67/1 kg
6943.6	2.5 kg	plastic	115,60
6943.3	5 kg	plastic	209,65
6943.5	25 kg	plastic	962,15

Boric acid
≥99,5 %, Ph. Eur., USP, BP

Buffer substance

Guarantee analysis

Assay (acidim., dry substance)	99,5-100,5 %
Identity	complies
Appearance of solution	complies
pH value (3,3 %, water)	3,8-4,8
Solubility (in ethanol)	complies
Loss on drying	≤0,5 %
Ash content (CH_3OH+HCl) (as SO_4)	≤0,1 %
Organic material	complies
Chloride (Cl)	≤0,002 %
Phosphate (PO_4)	≤0,002 %
Sulphate (SO_4)	≤0,045 %
Arsenic (As)	≤0,0005 %
Copper (Cu)	≤0,001 %
Magnesium (Mg)	≤0,005 %
Lead (Pb)	≤0,001 %
Iron (Fe)	≤0,001 %
Nickel (Ni)	≤0,001 %

Art. No.	Pack Qty.	Pack.	€
P010.1	500 g	plastic	28,95
Original pack 6 x 500 g			27,50/500 g
P010.2	1 kg	plastic	46,80
Original pack 6 x 1 kg			44,46/1 kg
P010.3	2.5 kg	plastic	104,85
P010.5	25 kg	plastic	848,20

Boric acid
≥99,8 %

Type analysis

Assay	≥99,8 %
Sulphate (SO_4)	≤0,05 %
Iron (Fe)	≤0,001 %

Art. No.	Pack Qty.	Pack.	€
5935.1	1 kg	plastic	21,40
Original pack 6 x 1 kg			20,33/1 kg
5935.2	5 kg	plastic	92,35
5935.4	25 kg	plastic	267,70
5935.3	50 kg	plastic	456,90

Boric acid solution 4 %

D 1 g/cm³ · bp 100 °C
CAS No. 10043-35-3 · EC no. 233-139-2
WGK 1

Danger H360FD

Boric acid solution
4 %, p.a.

Analytical reagent

Type analysis

Assay (Boric acid)	~40 g/l

Art. No.	Pack Qty.	Pack.	€
HN24.1	1 l	plastic	22,05
Original pack 6 x 1 l			20,95/1 l
HN24.4	2.5 l	plastic	35,40
Original pack 4 x 2.5 l			33,63/2.5 l
HN24.2	5 l	plastic	51,50
Original pack 2 x 5 l			48,93/5 l
HN24.3	10 l	plastic	84,40

(–)-Borneol



$C_{10}H_{18}O$ · mp 204 to 208 °C · bp 210 °C · flp 66 °C
CAS No. 464-45-9 · EC no. 207-353-1
UN no. 1312 · ADR 4.1 III · WGK 2

Warning H228-H315

(–)-Borneol
ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
8495.2	100 mg	glass	105,25

(+)-Borneol



(+)-Bornyl alcohol

$C_{10}H_{18}O$ · mp 206 °C · flp 65 °C
CAS No. 464-43-7 · EC no. 207-352-6
UN no. 1312 · ADR 4.1 III · WGK 1

Warning H228

(+)-Borneol
ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥96 %

Art. No.	Pack Qty.	Pack.	€
8903.1	100 mg	plastic	181,70

L-Bornyl acetate
▸ Acetic acid L-bornyl ester see page 692

(+)-Bornyl alcohol
▸ (+)-Borneol see page 784

Boron Standards
▸ Boron AAS Standard Solution see page 1314
▸ Boron ICP Standard Solution see page 1314
▸ Boron ICP Standard Solution see page 1314

Boron(III) oxide

Boric acid anhydride · Diboron trioxide

B_2O_3 · D 1,84 g/cm³ · mp 450 °C
CAS No. 1303-86-2 · EC no. 215-125-8
WGK 1

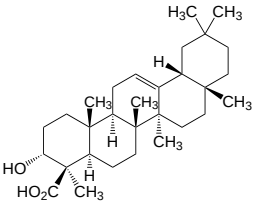
Danger H360FD

Boron(III) oxide
≥97,5 %, pure

Type analysis
Assay ..... ≥97,5 %
Sulphate (SO_4) ..... ≤0,05 %
Fe (Iron) ..... ≤0,001 %
Water ..... ≤2,5 %

Art. No.	Pack Qty.	Pack.	€
1A9H.1	100 g	plastic	21,40
1A9H.2	500 g	plastic	34,30
Original pack 6 x 500 g			32,59/500 g
1A9H.3	1 kg	plastic	61,85
Original pack 6 x 1 kg			58,76/1 kg
1A9H.4	2.5 kg	plastic	134,40

α-Boswellic acid



(3α,4β)-3-Hydroxy-olean-12-en-23-acid

$C_{30}H_{48}O_3$ · mp >200 °C
CAS No. 471-66-9
WGK 1

α-Boswellic acid
ROTICHROM® HPLC

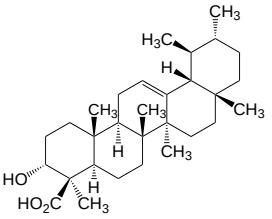
Reference substance for HPLC.
From *Boswellia serrata.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1123.1	10 mg	glass	493,45

β-Boswellic acid



(3α,4β)-3-Hydroxy-urs-12-en-23-acid

$C_{30}H_{48}O_3$ · mp >200 °C
CAS No. 631-69-6
WGK 1

β-Boswellic acid
ROTICHROM® HPLC

Reference substance for HPLC.
From *Boswellia serrata.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1124.1	10 mg	glass	510,65

Bouin's fixative

Bouin's fluid

D 1 g/cm³ · bp 100 °C
WGK 3

Danger H302-H315-H317-H319-H335-H341-H350

Bouin's fixative
ready-to-use, for histology

For fixing of histological specimens.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Type analysis
Appearance ..... yellow liquid
Odour ..... formaldehyde
Solution contains ..... picric acid, formaldehyde, acetic acid, dem. water

Art. No.	Pack Qty.	Pack.	€
6482.1	100 ml	glass	32,15
6482.2	250 ml	glass	60,10
6482.3	500 ml	glass	85,50
6482.4	1,000 ml	glass	137,10

Bouin's fluid
▸ Bouin's fixative see page 784

Boutron-Boudet's reagent

D 0,9 g/cm³ · bp >78 °C
UN no. 1987 · ADR 3 II · WGK 1

Danger H225-H319

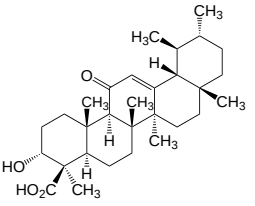
Boutron-Boudet's reagent
for determination of water hardness according to Boutron and Boudet

Soap solution to determine the water hardness, 2,4 ml corresponds to 22 °fH (French degrees) = 12,3 °dH (German degrees)

Type analysis
Appearance ..... clear light yellow solution
Hardness degrees according to Boutron and Boudet ..... ≥22 °

Art. No.	Pack Qty.	Pack.	€
1EPX.1	500 ml	glass	37,10

11-keto-β-Boswellic acid



3α-Hydroxy-urs-12-en-11-keto 23-acid

$C_{30}H_{46}O_4$ · mp 190 °C
CAS No. 17019-92-0
WGK 1

11-keto-β-Boswellic acid
ROTICHROM® HPLC

Reference substance for HPLC.
From *Boswellia serrata.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1155.1	10 mg	glass	467,65

BP
▸ Baird Parker Agar (Base) see page 763

BPB
▸ Bromophenol blue indicator solution see page 790
▸ Bromophenol blue see page 790

BPLS
▸ Brilliant Green Tetrathionate Bile Broth see page 786
▸ Brilliant Green Lactose Sucrose Agar see page 786

Bradford solution
▸ ROTI®Quant see page 1239
▸ ROTI®Nanoquant see page 1231

Brain-Heart-Infusion Agar

Brain-Heart-Infusion Agar · BHI Agar

WGK 3

Brain-Heart-Infusion Agar
for microbiology

For cultivation of fastidious microorganisms.

Application: Use 52 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Calf Brain Infusion ..... 7,5 g/l
Beef Heart Infusion ..... 10 g/l
Peptone ..... 10 g/l
Glucose ..... 2 g/l
Sodium chloride (NaCl) ..... 5 g/l
Disodium phosphate ..... 2,5 g/l
Agar ..... 15 g/l
pH value ..... 7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
X915.1	500 g	plastic	127,95
Original pack 6 x 500 g			121,55/500 g

Brain-Heart-Infusion Broth

BHI Broth

WGK 1

Brain-Heart-Infusion Broth
for microbiology

For cultivation of fastidious microorganisms.

Application: Use 37 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Pig brain infusion ..... 7,5 g/l
Pig heart infusion ..... 10 g/l
Peptone ..... 10 g/l
Glucose ..... 2 g/l
Sodium chloride (NaCl) ..... 5 g/l
Disodium phosphate ..... 2,5 g/l
pH value ..... 7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
X916.1	500 g	plastic	117,75
Original pack 6 x 500 g			111,86/500 g
X916.2	1 kg	plastic	201,60
Original pack 6 x 1 kg			191,52/1 kg

Brass wool

$CuZn_x$ · D 8,55 g/cm³ · mp 965 °C

Brass wool
~66 % Cu, ~33 % Zn

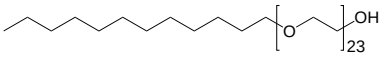
Fibre cross section: ~0,05 x 0,2 mm²

Type analysis
Zinc (Zn) ..... ≤33,0 %
Copper (Cu) ..... ≥66,0 %
Aluminium (Al) ..... ≤0,05 %
Lead (Pb) ..... ≤0,05 %
Iron (Fe) ..... ≤0,05 %
Nickel (Ni) ..... ≤0,3 %
Tin (Sn) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
0753.1	100 g	plastic	25,70
0753.2	250 g	plastic	46,15
0753.3	500 g	plastic	78,40
Original pack 6 x 500 g			74,48/500 g
0753.4	1 kg	plastic	134,40
Original pack 6 x 1 kg			127,68/1 kg

Brenzcatechinmono-methylether
▸ Guaiacol see page 971

Brij® 35



Polyoxyethylene lauryl ether · Polyethylene glycol lauryl ether

$C_{58}H_{118}O_{24}$ · D 0,918 g/cm³ · mp -5 °C · bp 213,9 °C · flp 138 °C
CAS No. 9002-92-0
UN no. 3082 · ADR 9 III · WGK 2

Warning H302-H319-H410

Brij® 35
for biochemistry

Non-ionic detergent.

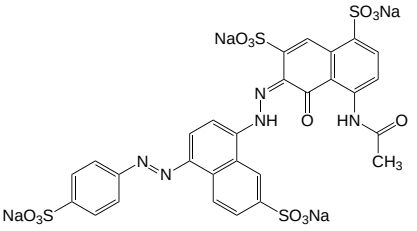
Application: 0.5 % solution: Dissolve 0.5 g Brij® 35 in 100 ml hot water. Tip: In case some detergent precipitates during cooling, dilute to 150 ml (0.34 % solution) and use 1.5 vol. in the assay.

Type analysis
Water ..... ≤4 %
Hydroxyl number (mg KOH/g) 40-60

Art. No.	Pack Qty.	Pack.	€
CN21.1	250 g	plastic	32,15
CN21.2	500 g	plastic	55,80
Original pack 6 x 500 g			53,01/500 g
CN21.3	1 kg	plastic	94,10
Original pack 6 x 1 kg			89,40/1 kg

Brila Broth
▸ Brilliant Green Bile Broth see page 786

Brilliant black BN (C.I. 28440)



$C_{28}H_{17}N_5Na_4O_{14}S_4$ · D 0,513 g/cm³ · mp >329,8 °C · flp >250 °C
CAS No. 2519-30-4 · EC no. 219-746-5
WGK 1

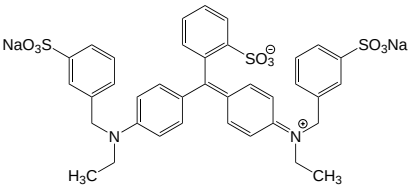
Brilliant black BN (C.I. 28440)
p.a.

Type analysis
Appearance ..... black powder
Insoluble in water ..... ≤0,5 %
Heavy metals ..... ≤0,005 %
Lead (Pb) ..... ≤0,001 %
Mercury (Hg) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
7643.1	5 g	glass	25,30
7643.2	25 g	glass	47,85
7643.3	100 g	glass	130,65

Brilliant blue C
▸ Brilliant cresyl blue (C.I. 51010) see page 786

Brilliant blue FCF (C.I. 42090)



Patent Blue AR · Acid blue 9 · Erioglaucine A

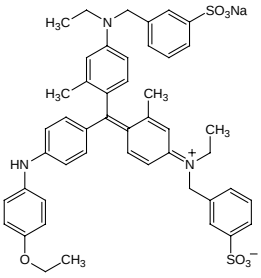
$C_{37}H_{34}N_2O_9S_3Na_2$ · D 1,48 g/cm³ · mp 283 °C
CAS No. 3844-45-9 · EC no. 223-339-8
WGK 1

Brilliant blue FCF (C.I. 42090)

Type analysis
Appearance ..... dark blue to purple powder or granules
In H_2O insoluble matter ..... ≤1 %
Loss on drying (135 °C) ..... ≤13 %

Art. No.	Pack Qty.	Pack.	€
2981.1	10 g	glass	17,10
2981.2	25 g	glass	31,75
2981.3	100 g	glass	67,65
2981.4	1 kg	glass	342,95
Original pack 6 x 1 kg			325,80/1 kg

Brilliant blue G 250 (C.I. 42655)



Coomassie® blue G 250

$C_{47}H_{48}N_3O_7S_2Na$ · D 1,274 g/cm³
CAS No. 6104-58-1 · EC no. 228-058-4
WGK 1

Brilliant blue G 250 (C.I. 42655)
for electrophoresis and biochemistry

For preparation of solutions for protein gel staining and protein quantitation (Bradford)

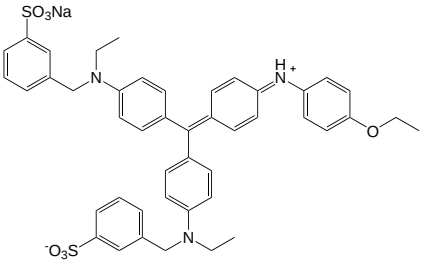
Not suitable for staining of membranes after protein transfer.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Maximum absorption ..... 605-615 nm

Art. No.	Pack Qty.	Pack.	€
9598.1	10 g	glass	46,15
9598.2	100 g	plastic	278,45

Brilliant blue R 250 (C.I. 42660)



Coomassie® blue R 250

$C_{45}H_{44}N_3NaO_7S_2$ · mp 174 to 180 °C
CAS No. 6104-59-2 · EC no. 228-060-5
WGK 1

Brilliant blue R 250 (C.I. 42660)
for electrophoresis

For preparing protein gel staining solutions

Conditionally suitable for staining of membranes after protein transfer.

Type analysis
Appearance ..... blue to purple powder
Absorption max. (in EtOH) ..... 580-600 nm
Loss on drying (110 °C) ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
3862.1	10 g	glass	31,75
3862.2	100 g	glass	127,95

Brilliant cresyl blue (C.I. 51010)

Brilliant blue C

$(C_{17}H_{20}N_3O)_2 \cdot ZnCl_4$ · mp 233 to 236 °C
CAS No. 81029-05-2 · EC no. 279-675-0
WGK 1

Warning H315-H319-H335

Brilliant cresyl blue (C.I. 51010)
p.a.

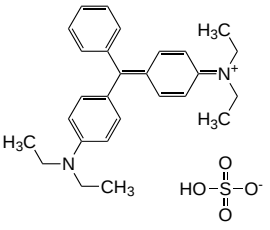
Basic vital dye

Dissolve 0.5–3 g in 100 ml water or ethanol (96 %)

Type analysis
Absorption max. (in H_2O) ..... 620-640 nm
Loss on drying (110 °C) ..... ≤5 %

Art. No.	Pack Qty.	Pack.	€
5162.1	5 g	glass	30,65
5162.2	10 g	glass	47,85

Brilliant green (C.I. 42040)



Basic green 1 · Diamond green G · Ethyl green · Malachite green G

$C_{27}H_{34}N_2O_4S$ · mp 210 °C
EC no. 211-190-1
WGK 1

Warning H302-H319

Brilliant green (C.I. 42040)
for microscopy

Indicator pH 0.0-2.6, basic dye

Dissolve 0.1-5 g in 100 ml water or ethanol (96 %)

Type analysis
Maximum absorption ..... 628-632 nm
Loss on drying ..... ≤5 %

Art. No.	Pack Qty.	Pack.	€
0324.1	25 g	glass	26,80
0324.2	100 g	plastic	82,25

Brilliant Green Bile Broth

Brila Broth

WGK 1

Brilliant Green Bile Broth
ISO 4831, ISO 4832, ISO 11133, for microbiology

For selective enrichment and enumeration of coli bacteria in milk, water samples, faeces and other material.

Application: Use 40 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Gelatine peptone ..... 10 g/l
Lactose ..... 10 g/l
Bile salts ..... 20 g/l
Brilliant green ..... 0,0133 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL06.1	500 g	plastic	188,15
Original pack 6 x 500 g			178,74/500 g

Brilliant Green Lactose Sucrose Agar

Agar medium L (Ph. Eur. 6.0) · BPLS

WGK 1

Brilliant Green Lactose Sucrose Agar
for microbiology

Highly selective medium for the isolation of *Salmonellae* from pathological specimens and food.

Application: Use 58.1 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Meat and casein peptone ..... 10 g/l
Yeast extract ..... 3 g/l
Sodium chloride (NaCl) ..... 5 g/l
Lactose monohydrate ..... 10 g/l
Saccharose ..... 10 g/l
Phenol red ..... 0,08 g/l
Brilliant green ..... 0,0125 g/l
Agar ..... 20 g/l
pH value ..... 6,9 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE43.1	500 g	plastic	127,40
Original pack 6 x 500 g			121,03/500 g

Brilliant Green Tetrathionate Bile Broth

Liquid medium I (Ph. Eur. 6.0) · BPLS

WGK 3

Brilliant Green Tetrathionate Bile Broth
for microbiology

For selective enrichment of *Salmonellae* in food and faeces.

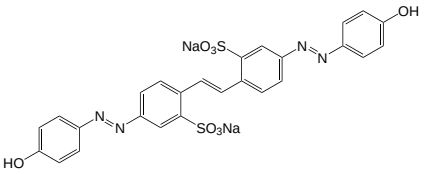
Application: Use 63 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Peptone ..... 8,6 g/l
Dried beef bile ..... 8 g/l
Sodium chloride (NaCl) ..... 6,4 g/l
Calcium carbonate ..... 20 g/l
Potassium tetrathionate ..... 20 g/l
Brilliant green ..... 0,07 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE42.2	100 g	plastic	188,15
AE42.1	500 g	plastic	826,70
Original pack 6 x 500 g			785,37/500 g

Brilliant yellow (C.I. 24890)



$C_{26}H_{18}N_4Na_2O_8S_2$
CAS No. 3051-11-4 · EC no. 221-267-1
WGK 1

Brilliant yellow (C.I. 24890)
p.a.

Indicator pH 6,4-8,0

Dissolve 0.1 g in 100 ml water

Type analysis
Appearance ..... brick red to rust powder
pH-transition range . 6,4 (yellow)-8,0 (red orange)

Art. No.	Pack Qty.	Pack.	€
7645.1	5 g	glass	24,20
7645.2	25 g	glass	42,90
7645.3	100 g	glass	99,90

Brindi acid

Brindi resin with hydrochloric acid

D 1,15 g/cm³ · bp 100 °C
UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Brindi acid
30 %, technical

Brindi resin with hydrochloric acid. Brindi acid is the trade name of a descaler, made on the basis of hydrochloric acid which is inhibited from corrosion. The chemical cleaning of metal surfaces by Brindi acid makes it possible to dissolve deposits consisting of rust, ferric oxide, boiler scale and other acid soluble compounds. The use of Brindi resin as corrosion inhibitor protects the metal surface against the corrosion normally caused by acid.

For application the product has to be diluted with 3 to 6 times the amount of water. Not suitable for aluminium and zinc.

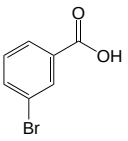
Type analysis
Appearance ..... brown, viscous liquid
Assay ..... 28,2-31,2 % (HCl)

Art. No.	Pack Qty.	Pack.	€
5141.2	1 l	plastic	21,40
Original pack 6 x 1 l			20,33/1 l
5141.1	10 l	plastic	75,15

Brindi resin with hydrochloric acid
▸ Brindi acid see page 787

Bromate Standards
▸ Bromate IC Standard Solution see page 1334

3-Brombenzoic acid



$C_7H_5BrO_2$ · mp 247 °C
CAS No. 585-76-2 · EC no. 209-562-3
WGK 1

Warning H319

3-Brombenzoic acid
≥99 %, for synthesis

Type analysis
Appearance .... white to pale yellow cryst. powder
Purity (HPLC) ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
4273.1	25 g	glass	42,50
4273.2	100 g	glass	106,45

Bromelain

Bromelin

mp 60 °C
CAS No. 9001-00-7 · EC no. 232-572-4
WGK 3

Danger H315-H319-H334-H335

Bromelain
~1200 GDU/g, for biochemistry

Made from stems of young pineapple *(Bromeliaceae)*.

Stock solution: 10 mg/ml in H_2O. Unsoluble in organic solvents (acetone, ethanol, methanol etc.)

Storage temperature: +4 °C

Type analysis
Appearance ..... cream-coloured, hygroscopic powder
Activity ..... ~1200 GDU/g (~2,4 FIP-units/mg)
pH value (1 % in H_2O) 3,0-5,0
Ash ..... <5 %
Loss on drying ..... <5 %

Art. No.	Pack Qty.	Pack.	€
5950.1	10 g	plastic	26,35
5950.2	100 g	plastic	117,20

Bromelin
▸ Bromelain see page 787

Brome potassium
▸ Potassium bromide see page 1167

Bromide bromate solution

Potassium bromide bromate solution

Bromide bromate solution
0,01 mol Br_2/l – 0,02 N, volumetric standard solution, 1/300 mol $KBrO_3$/l

D 1 g/cm³ · bp 100 °C

WGK 1

Type analysis
Titer 0,998-1,002
Amount-of-substance conc. (20 °C) 0,01 mol Br_2/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
1E25.1	1 l	plastic	65,50
Original pack 6 x 1 l			62,23/1 l

Bromide bromate solution
0,05 mol Br_2/l – 0,1 N, volumetric standard solution, 1/60 mol $KBrO_3$

D 1,008 g/cm³ · bp 100 °C

WGK 3

Danger H350

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,05 mol Br_2/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
8131.1	1 l	plastic	40,75
Original pack 6 x 1 l			38,71/1 l

Bromide bromate solution
0,25 mol Br_2/l – 0,5 N, volumetric standard solution, 1/12 mol $KBrO_3$/l

D 1,038 g/cm³ · bp 100 °C

WGK 3

Danger H350

Type analysis
Titer 0,998-1,002
Amount-of-substance conc. (20 °C) ..... 0,25 mol Br_2/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
1E24.1	1 l	plastic	85,90
Original pack 6 x 1 l			81,61/1 l

Bromide Standards
▸ Bromide IC Standard Solution see page 1334

5-Bromoanthranilic acid
▸ 2-Amino-5-bromobenzoic acid see page 726

Bromobenzene D5

C_6D_5Br · D 1,54 g/cm³ · mp -31 °C · bp 156 °C · flp 51 °C
CAS No. 4165-57-5 · EC no. 224-013-8
UN no. 2514 · ADR 3 III · WGK 2

Warning H226-H315-H411

Bromobenzene D5
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

Guarantee analysis
Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
HN93.1	10 ml	glass	174,70

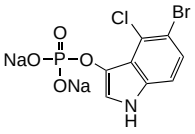
5-Bromo-4-chloro-indolyl-α-D-galactopyranoside

▸ X-α-Gal see page 1405

5-Bromo-4-chloro-3-indolyl-β-D-glucuronide monohexyl ammonium salt

▸ X-Gluc see page 1406

5-Bromo-4-chloro-3-indolyl phosphate disodium salt



· 1.5 H_2O

BCIP-Na_2 · X-Phos disodium salt · X-Phosphate disodium salt

$C_8H_4BrClNO_4PNa_2$ · 1,5 H_2O
CAS No. 102185-33-1
WGK 1

5-Bromo-4-chloro-3-indolyl phosphate disodium salt
≥99 %

Substrate for alkaline phosphatase, in particular in immunoblot procedures.

Highly soluble in water (20 mg/ml), poorly soluble in DMF.

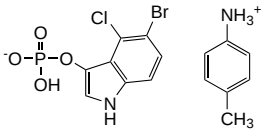
Protect from light and humidity.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... almost white powder
Assay (titr.) ..... ≥99,0 %
Water (KF) ..... 5,8-7,8 %

Art. No.	Pack Qty.	Pack.	€
A155.1	100 mg	glass	34,30
A155.2	500 mg	glass	149,45
A155.3	1 g	glass	267,70
A155.4	5 g	glass	854,65

5-Bromo-4-chloro-3-indolyl phosphate *p*-toluidine salt



BCIP-*p*-toluidine salt · X-Phos

$C_{15}H_{15}N_2O_4BrClP$ · mp 196 to 198 °C
CAS No. 6578-06-9 · EC no. 229-506-1
WGK 2

Warning H371

5-Bromo-4-chloro-3-indolyl phosphate *p*-toluidine salt
≥99 %, BioScience Grade

Histochemical substrate for phosphatase.

Highly soluble in DMF (20 mg/ml), poorly soluble in water.

Protect from light and humidity.

Storage temperature: –20 °C
Transport temperature: ambient temp.

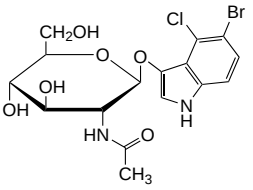
Guarantee analysis
Appearance ..... white to almost white powder
Assay (titr.) ..... ≥99 %
Water (KF) ..... ≤1 %
Appearance of solution (1% in DMF) ... colourless to slightly yellowish, clear
Phosphate (PO_4) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
6368.1	500 mg	glass	46,15
6368.2	1 g	glass	90,85
6368.3	5 g	glass	338,65

5-Bromo-4-chloro-3-indoxyl-2-acetamido-2-deoxy-β-D-glucopyranoside

▸ 5-Bromo-4-chloro-3-indoxyl-*N*-acetyl-β-D-glucosaminide see page 788

5-Bromo-4-chloro-3-indoxyl-*N*-acetyl-β-D-glucosaminide



5-Bromo-4-chloro-3-indoxyl-2-acetamido-2-deoxy-β-D-glucopyranoside · X-β-D-GlcNAc

$C_{16}H_{18}BrClN_2O_6$
CAS No. 4264-82-8
WGK 1

5-Bromo-4-chloro-3-indoxyl-*N*-acetyl-β-D-glucosaminide
≥99,5 %, for biochemistry

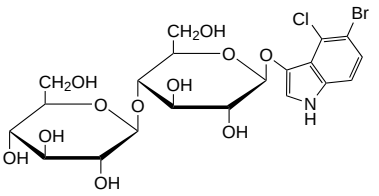
Glycosidase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (HPLC) ..... ≥99,5 %
Solution (1 % in methanol) ..... almost colourless, clear
Water (KF) ..... ≤4 %
Spec. rotation $[\alpha]_D^{20}$ (c=1 in methanol) ..... -68° ±3°

Art. No.	Pack Qty.	Pack.	€
4149.1	25 mg	glass	24,65
4149.2	100 mg	glass	57,95

5-Bromo-4-chloro-3-indoxyl-β-D-cellobioside



X-β-D-Cellobioside

$C_{20}H_{25}BrClNO_{11}$
CAS No. 177966-52-8 · EC no. 206-375-9
WGK 1

Warning H315-H319-H335

5-Bromo-4-chloro-3-indoxyl-β-D-cellobioside
≥99 %, for biochemistry

Glycosidase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

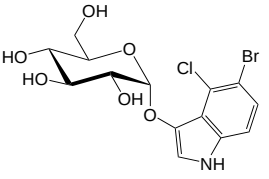
Type analysis
Assay (HPLC) ..... ≥99 %
Solution (1 % in methanol) ..... colourless
Water (KF) ..... ≤5 %
Spec. rotation $[\alpha]_D^{20}$ (c=1 in methanol) -70° to -67°

Art. No.	Pack Qty.	Pack.	€
4152.1	50 mg	glass	37,55

5-Bromo-4-chloro-3-indoxyl-β-D-galactoside

▸ X-β-Gal see page 1405

5-Bromo-4-chloro-3-indoxyl-α-D-glucopyranoside



X-α-D-glucoside · X-α-Glu · X-α-D-Glu

$C_{14}H_{15}BrClNO_6$ · D 1,88 g/cm³ · bp 674 °C
CAS No. 108789-36-2
WGK 1

5-Bromo-4-chloro-3-indoxyl-α-D-glucopyranoside
≥98 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

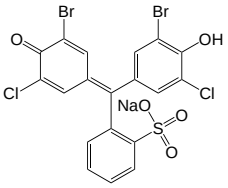
Type analysis
Appearance .. white to almost white cryst. powder
Assay (HPLC) ..... ≥98,0 %
Appearance of solution (1 % in DMF) . colourless
Specific rotation $[\alpha]_D^{20}$ (c=1 in DMF, 20 °C) . 123,0° to 129,0°
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
8434.1	100 mg	glass	104,20
8434.2	250 mg	glass	209,65
8434.3	500 mg	glass	396,70

5-Bromo-4-chloro-3-indoxyl-β-D-glucopyranoside

▸ X-Glu see page 1406

Bromochlorophenol blue sodium salt



5',5''-Dibromo-3',3''-dichloro-phenolsulfonphthalein

$C_{19}H_8Br_2Cl_2NaO_5S$ · mp 196 °C
CAS No. 102185-52-4
WGK 1

Bromochlorophenol blue sodium salt
p.a.

Indicator pH 3.2-4.8

Dissolve 0.1 g in 100 ml water

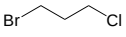
Type analysis
Appearance ..... black powder
Transition range ..... 3,2 (yellow)-4,8 (purple)

Art. No.	Pack Qty.	Pack.	€
6558.1	1 g	glass	51,50
6558.2	5 g	glass	126,35

5',5''-Dibromo-3',3''-dichloro-phenolsulfonphthalein

▸ Bromochlorophenol blue sodium salt see page 789

1-Bromo-3-chloropropane



Trimethylene bromochloride

C_3H_6BrCl · D 1,592 g/cm³ · mp -59 °C · bp 144 to 145 °C · flp >140 °C
CAS No. 109-70-6 · EC no. 203-697-1
UN no. 2688 · ADR 6.1 III · WGK 2

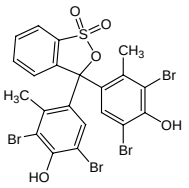
Danger H302-H331-H335-H341-H350-H360FD-H412

1-Bromo-3-chloropropane
≥99 %, for synthesis

Type analysis
Appearance ..... clear liquid
Assay (GC) ..... ≥99,0 %
Colour (APHA) ..... ≤50
Density (d 20 °C/4 °C) 1,595-1,597
Refractive index (20 °C) 1,4850-1,4870

Art. No.	Pack Qty.	Pack.	€
1LEX.1	100 ml	glass	25,30
1LEX.2	250 ml	glass	52,15
1LEX.3	1 l	glass	170,95
Original pack 6 x 1 l			162,40/1 l

Bromocresol green



BCG · 3,3',5,5'-Tetrabrom-*m*-cresolsulfonphthalein

$C_{21}H_{14}Br_4O_5S$ · mp 217 to 218 °C
CAS No. 76-60-8 · EC no. 200-972-8
WGK 1

Bromocresol green
ACS

Indicator pH 3.8-5.4

Dissolve 0.1 g in 100 ml ethanol (20 %) or 0.04 g in 0.58 ml NaOH 0.1 mol/l and fill up with water to 100 ml

Guarantee analysis
Appearance ..... light tan powder
Appearance of solution ..... complies
pH-transition range ..... 3,8 (yellow)-5,4 (blue)
Loss on drying (110 °C) ..... ≤3 %

Art. No.	Pack Qty.	Pack.	€
T115.1	1 g	glass	20,35
T115.2	5 g	glass	35,40
T115.3	10 g	glass	60,75
T115.4	25 g	glass	114,50

Bromocresol green indicator solution

D 0,79 g/cm³ · bp 78 °C · flp 12 °C
UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

Bromocresol green indicator solution
0,1 % in ethanol, denatured

Indicator pH 3.8-5.4

Art. No.	Pack Qty.	Pack.	€
9949.1	100 ml	plastic	30,65

Bromocresol green spray solution

Bromocresol green spray solution
for TLC

Ready-to-use spray solution for organic acids.

D 0,78 g/cm³ · mp -89 °C · bp 82 °C · flp >12 °C

Storage temperature: +4 °C

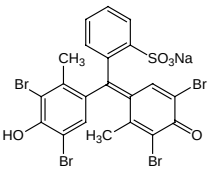
UN no. 1219 · ADR 3 II · WGK 1

Danger H225-H319-H336

Type analysis
TLC-application ..... complies

Art. No.	Pack Qty.	Pack.	€
1H05.1	100 ml	glass	40,10

Bromocresol green sodium salt



$C_{21}H_{13}Br_4NaO_5S$ · mp 230 °C
CAS No. 62625-32-5 · EC no. 263-657-4
WGK 1

Bromocresol green sodium salt
ACS

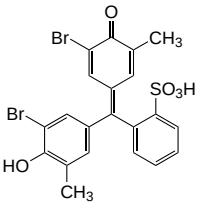
Indicator pH 3.8-5.4

Dissolve 0.04 g in 100 ml water

Guarantee analysis
Appearance of solution (0,1 % in H_2O) ..... clearly soluble
pH-transition range ..... 3,8 (yellow)-5,4 (blue)
Loss on drying ..... ≤5,0 %

Art. No.	Pack Qty.	Pack.	€
KK18.1	1 g	glass	16,70
KK18.2	5 g	glass	44,00
KK18.3	25 g	glass	149,45

Bromocresol purple



5',5''-Dibromo-cresolsulphonephthaleine

$C_{21}H_{16}Br_2O_5S$ · mp 241 to 245 °C
CAS No. 115-40-2 · EC no. 204-087-8
WGK 1

Bromocresol purple
p.a., ACS

Indicator pH 5.2-6.8

Dissolve 0.1 g in 100 ml ethanol (20 %) or 0.04 g in 0.74 ml NaOH 0.1 mol/l and fill up with water to 100 ml

Guarantee analysis
Dye content ..... ≥89,0 %
Appearance of solution ..... complies
Loss on drying (110 °C) ..... ≤1 %
Melting point ..... 241-245 °C
pH-transition range ..... 5,2 (yellow) - 6,8 (purple)

Art. No.	Pack Qty.	Pack.	€
0317.1	5 g	glass	27,45
0317.2	25 g	glass	86,55

Bromocresol purple indicator solution

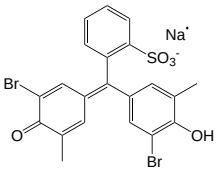
D 1 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

Bromocresol purple indicator solution
0,1 % in water

Indicator pH 5.2-6.8

Art. No.	Pack Qty.	Pack.	€
9955.1	100 ml	glass	58,60

Bromocresol purple sodium salt



5',5''-Dibromo-cresolsulphonephthaleine

$C_{21}H_{15}Br_2NaO_5S$ · mp 255 °C
CAS No. 62625-30-3 · EC no. 263-655-3
WGK 1

Warning H315-H319-H335

Bromocresol purple sodium salt
p.a., ACS

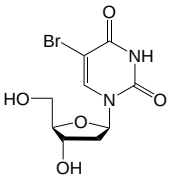
Indicator pH 5.2-6.8

Dissolve 0.1 g in 100 ml water

Guarantee analysis
Appearance of solution (ACS) ..... complies
Loss on drying ..... ≤5 %
pH transition range ..... 5,2 (yellow)-6,8 (purple)

Art. No.	Pack Qty.	Pack.	€
2555.1	5 g	glass	25,70
2555.2	25 g	glass	65,50

5-Bromo-2'-deoxyuridine



BrdU

$C_9H_{11}BrN_2O_5$ · mp 180 to 187 °C
CAS No. 59-14-3 · EC no. 200-415-9
WGK 1

Warning H341-H351

5-Bromo-2'-deoxyuridine
≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white, crystalline powder
Assay (HPLC, area %) ..... ≥99,0 %
Heavy metals (as Pb) ..... ≤0,001 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in 0,1 N NaOH) +30,0° to +32,0°
Loss on drying ..... ≤0,5 %
Melting range ..... 180-187 °C

Art. No.	Pack Qty.	Pack.	€
3243.1	250 mg	glass	42,50

Bromoethane

Ethyl bromide

C_2H_5Br · D 1,46 g/cm³ · mp -118 °C · bp 37 to 39 °C · flp -20 °C
CAS No. 74-96-4 · EC no. 200-825-8
UN no. 1891 · ADR 6.1 II · WGK 1

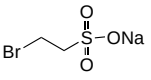
Danger H225-H302+H332-H351-H420

Bromoethane
≥99,5 %, for synthesis

Type analysis
Appearance .... clear, colourless to slightly yellow liquid
Assay (GC) ..... ≥99,5 %
Identity (GC) ..... complies
Evaporation residue ..... ≤0,005 %
pH value (50 % in water) 6,0-8,0
Water ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
4195.1	250 ml	glass	42,90
4195.2	500 ml	glass	78,40
4195.3	1 l	glass	138,70
Original pack 6 x 1 l			131,77/1 l
4195.4	2.5 l	glass	299,95
Original pack 4 x 2.5 l			284,95/2.5 l

2-Bromoethanesulfonic acid sodium salt



Sodium 2-bromoethanesulfonate

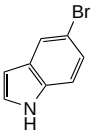
$C_2H_4BrNaO_3S$ · D 2,233 g/cm³ · mp 283 °C
CAS No. 4263-52-9 · EC no. 224-244-4
WGK 1

2-Bromoethanesulfonic acid sodium salt
≥98 %

Type analysis
Assay (titr.) ..... ≥98,0 %
Solution (10 % in H_2O) ..... colourless
Water (KF) ..... ≤5,0 %

Art. No.	Pack Qty.	Pack.	€
5476.1	25 g	plastic	38,60
5476.2	100 g	plastic	107,40

5-Bromoindole



C_8H_6BrN · mp 90 to 92 °C
CAS No. 10075-50-0 · EC no. 233-208-7
WGK 1

5-Bromoindole
≥99,5 %

Storage temperature: –20 °C
Transport temperature: ambient temp.

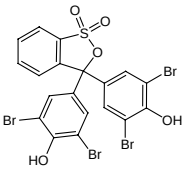
Type analysis
Assay (titr.) ..... ≥99,5 %
Solution (1 % in acetone) ..... colourless, clear
Water (KF) ..... ≤0,5 %
Melting point ..... 90-94 °C

Art. No.	Pack Qty.	Pack.	€
5469.1	5 g	glass	38,60
5469.2	25 g	glass	160,20

α-Bromo-4-nitrotoluene
▸ 4-Nitrobenzyl bromide see page 1110

5-Bromopentanoic acid
▸ 5-Bromovaleric acid see page 792

Bromophenol blue



3,3',5,5'-Tetrabromophenolsulphonphthaleine · BPB

$C_{19}H_{10}Br_4O_5S$ · mp 273 °C
CAS No. 115-39-9 · EC no. 204-086-2
WGK 1

Bromophenol blue
ACS, for microscopy

Indicator pH 3.0-4.6

Dissolve 0.1 g in 100 ml ethanol (20 %) or 0.04 g in 0.74 ml NaOH 0.1 mol/l and make up to 100 ml with water

Guarantee analysis
Appearance ..... pink powder
Appearance of solution ..... complies
pH-transition range ..... 3,0 (yellow)- 4,6 (blue)
Loss on drying (110 °C) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
T116.1	5 g	glass	27,45
T116.2	10 g	glass	39,70
T116.3	25 g	glass	63,35

Bromophenol blue indicator solution

BPB

D 0,79 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C
UN no. 1170 · ADR 3 II · WGK 1

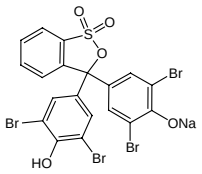
Danger H225-H319

Bromophenol blue indicator solution
0,1 % in ethanol, denatured

Indicator pH 3.0-4.6

Art. No.	Pack Qty.	Pack.	€
9952.1	100 ml	plastic	30,65

Bromophenol blue sodium salt



$C_{19}H_8Br_4O_5SNa$
CAS No. 34725-61-6 · EC no. 252-170-2
WGK 1

Bromophenol blue sodium salt
for electrophoresis

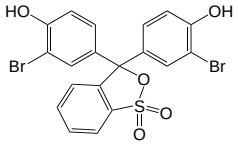
Staining agent for visualisation of running distance in gel electrophoresis.
Indicator pH 3.0-4.6

Dissolve 0.1 g in 100 ml water

Type analysis
pH-transition range ..... 3,0 (yellow)-4,6 (blue)

Art. No.	Pack Qty.	Pack.	€
A512.2	5 g	glass	28,95
A512.1	10 g	glass	55,40
A512.3	25 g	glass	93,45

Bromophenol red free acid



3',3''-Dibromophenolsulphonephthaleine

$C_{19}H_{12}Br_2O_5S$ · mp 230 °C
CAS No. 2800-80-8 · EC no. 220-538-1
WGK 1

Bromophenol red free acid
p.a.

Indicator pH 5.2-7.0

Dissolve 0.1 g in 100 ml ethanol (20 %)

Type analysis
Appearance ..... red brown powder
Loss on drying ..... ≤5,0 %
pH-transition range .. 5,2 (yellow-red)-7,0 (purple)

Art. No.	Pack Qty.	Pack.	€
6573.1	1 g	glass	26,35
6573.2	5 g	glass	51,50
6573.3	50 g	glass	239,20

Bromophenol red indicator solution

D 0,79 g/cm³ · mp -114 °C · bp 78 °C
UN no. 1170 · ADR 3 II · WGK 1

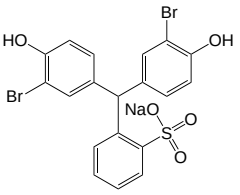
Danger H225-H319

Bromophenol red indicator solution
0,1 % in ethanol, denatured

Indicator pH 5.2-7.0

Art. No.	Pack Qty.	Pack.	€
9956.1	100 ml	glass	55,40

Bromophenol red sodium salt



$C_{19}H_{11}Br_2O_5SNa$
CAS No. 102185-50-2
WGK 1

Bromophenol red sodium salt
p.a.

Indicator pH 5.2-7.0

Dissolve 0.1 g in 100 ml water

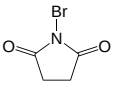
Type analysis
Appearance ..... red-brown to brown powder
pH-transition range .. 5,2 (yellow red)-7,0 (purple)

Art. No.	Pack Qty.	Pack.	€
6579.1	1 g	glass	25,30
6579.2	5 g	glass	50,00
6579.3	50 g	glass	214,50

Bromopropane

▸ Propyl bromide see page 1187

N-Bromosuccinimide



NBS

$C_4H_4BrNO_2$ · D 2,098 g/cm³ · mp 174 to 179 °C · bp 338,9 °C
CAS No. 128-08-5 · EC no. 204-877-2
UN no. 3261 · ADR 8 II · WGK 3

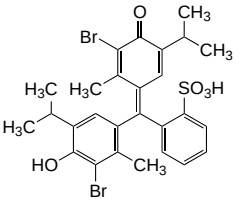
Danger H302-H314-H410

N-Bromosuccinimide
≥98 %, for synthesis

Type analysis
Assay (iodom.) ..... ≥98 %
Melting point ..... 179-188 °C

Art. No.	Pack Qty.	Pack.	€
3261.1	100 g	glass	32,80
3261.2	500 g	glass	112,35
Original pack 6 x 500 g			106,73/500 g

Bromothymol blue



3',3''-Dibromothymolsulphonphthaleine · BTB

$C_{27}H_{28}Br_2O_5S$ · mp 200 to 202 °C
CAS No. 76-59-5 · EC no. 200-971-2
WGK 1

Bromothymol blue
p.a., ACS

Indicator pH 6.0-7.6

Dissolve 0.1 g in 100 ml ethanol (20 %) or 0.04 g in 0.64 ml NaOH 0.1 mol/l and fill up with water to 100 ml

Guarantee analysis
Appearance ..... light pink powder
Appearance of solution ..... complies
pH-transition range ..... 6,0 (yellow) - 7,6 (blue)
Loss on drying (110 °C) ..... ≤3 %

Art. No.	Pack Qty.	Pack.	€
T117.1	5 g	glass	30,00
T117.2	25 g	glass	75,15
T117.3	50 g	glass	127,95
T117.7	100 g	glass	224,70

Bromothymol blue indicator solution

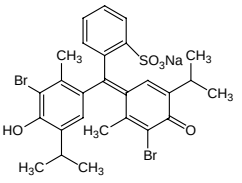
D 1 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

Bromothymol blue indicator solution
0,04 % in water

Indicator pH 6.0-7.6

Art. No.	Pack Qty.	Pack.	€
9947.1	100 ml	plastic	46,80

Bromothymol blue sodium salt



3',3''-Dibromothymolsulphonphthaleine

$C_{27}H_{27}Br_2NaO_5S$
CAS No. 34722-90-2 · EC no. 252-169-7
WGK 1

Bromothymol blue sodium salt
p.a., ACS

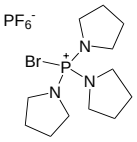
Indicator pH 6.0-7.6

Dissolve 0.04 g in 100 ml water

Guarantee analysis
Appearance ..... Orange to dark green to brown to black powder, crystals or crystalline powder
Appearance of solution (0,1 % in H_2O) ..... clearly soluble
pH-transition range .... pH 6,0 (yellow) - 7,6 (blue)
Loss on drying (110 °C) ..... ≤5 %

Art. No.	Pack Qty.	Pack.	€
KK19.1	5 g	glass	25,70
KK19.2	10 g	glass	41,40
KK19.3	25 g	glass	75,80

Bromo-tris-pyrrolidino-phosphonium hexafluoro-phosphate (PyBroP®)



PyBrOP®

$C_{12}H_{24}N_3PBr \cdot PF_6$ · mp 152 to 156 °C
CAS No. 132705-51-2 · EC no. 620-834-4
WGK 1

Warning H315-H319-H335

Bromo-tris-pyrrolidino-phosphonium hexafluoro-phosphate (PyBroP®)
PEPTIPURE® ≥98,5 %

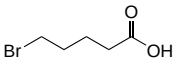
Coupling reagent for peptide synthesis

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥98,5 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
2200.1	5 g	glass	57,55
2200.2	25 g	glass	209,65
2200.3	100 g	glass	693,40
2200.5	1 kg	glass	4.246,25
Original pack 6 x 1 kg			4.033,94/1 kg

5-Bromovaleric acid



5-Bromopentanoic acid

$C_5H_9BrO_2$ · mp 38 to 40 °C · bp 142 to 145 °C · flp 112 °C
CAS No. 2067-33-6 · EC no. 218-185-3
WGK 1

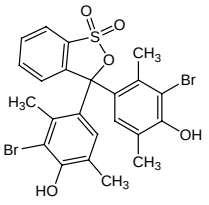
Warning H315-H319-H335

5-Bromovaleric acid
≥96 %

Type analysis
Assay (titr.) ..... ≥96,0 %
Solution (1 % in ethanol) ..... colourless to slightly yellow, clear
Water (KF) ..... ≤2,0 %
Melting point ..... 39-41 °C

Art. No.	Pack Qty.	Pack.	€
5466.1	10 g	plastic	23,55
5466.2	50 g	plastic	91,95

Bromoxylenol blue



$C_{23}H_{20}Br_2O_5S$ · mp 218 °C
CAS No. 40070-59-5 · EC no. 254-780-4
WGK 1

Bromoxylenol blue
p.a.

Indicator pH 6.0-7.6

Dissolve 0.1 g in 100 ml ethanol (96 %)

Guarantee analysis
Specific Extinction E (1%/1cm) ..... ≥650
Absorption max. (0,001 N NaOH) 611,0-619,0 nm
Solubility (0,1 % in ethanol) ..... clearly soluble
pH-transition range ..... 6,0 (yellow) - 7,6 (blue)

Art. No.	Pack Qty.	Pack.	€
KK27.1	1 g	glass	17,10
KK27.2	5 g	glass	49,35
KK27.3	10 g	glass	81,60

Broth medium A (Ph. Eur. 6.0)
- CASO Broth see page 820
- CASO Broth, granulated see page 820
- CASO Broth see page 820

Broth medium G (Ph. Eur. 6.0)
- MacConkey Broth see page 1055

Brucella Agar

WGK 3

Brucella Agar
for microbiology

For cultivation of *Brucella* and other fastidious microorganisms in foods and other specimens.

Application: Use 43.1 g for 1 l agar, add 50 ml defibr. sheep blood.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Meat peptone ..... 10 g/l
Casein peptone ..... 10 g/l
Sodium chloride ..... 5 g/l
Yeast extract ..... 2 g/l
Glucose ..... 1 g/l
Sodium bisulfite ..... 0,1 g/l
Agar ..... 15 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
5752.1	500 g	plastic	124,20
Original pack 6 x 500 g			117,99/500 g

Brucella Broth

WGK 3

Brucella Broth
for microbiology

For cultivation of *Brucella* and other fastidious microorganisms.

Application: Use 28.1 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Meat peptone ..... 10 g/l
Casein peptone ..... 10 g/l
Sodium chloride ..... 5 g/l
Yeast extract ..... 2 g/l
Glucose ..... 1 g/l
Sodium bisulfite ..... 0,1 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
5754.1	500 g	plastic	113,45
Original pack 6 x 500 g			107,78/500 g

Brucine *N*-oxide

Aminoxybrucine

$C_{23}H_{26}N_2O_5$ · mp 133 to 145 °C
CAS No. 17301-81-4 · EC no. 241-328-6
UN no. 1570 · ADR 6.1 I · WGK 2

Danger H300+H330-H412

Brucine *N*-oxide
ROTICHROM® CHR_{TLC}

Art. No.	Pack Qty.	Pack.	€
4255.1	5 g	glass	64,40

BSA
- Albumin Fraction V see page 714
- *N,O*-Bis(trimethylsilyl) acetamide (BSA) see page 778
- Albumin/BSA see page 713
- Albumin/BSA solutions see page 715

BSC buffer powder (pouch)
- ROTI®Fair BSC see page 1218

BSTFA
- *N,O*-Bis(trimethylsilyl)-trifluoroacetamide see page 778

BSTFA:TMCS (99:1)
- *N,O*-Bis(trimethylsilyl)-trifluoroacetamide with 1 % trimethylchlorosilane see page 778

BTB
- Bromothymol blue see page 791

BTC
- Tetrazolium blue chloride see page 1363

Buffered Sodium Chloride-Peptone Solution pH 7,0 (Ph.Eur. 6.3, 7.0, 8.0 et 9.0)
- Peptone Water, buffered see page 1144
- Peptone Water 0.1%, buffered see page 1144

Buffered Sodium Citrate
- ROTI®Fair BSC see page 1218

Buffer Salts

Art. No.	Description	Page
9488	tri-Ammonium citrate, ≥97 %, pure	734
6943	Boric acid, ≥99,8 %, p.a., ACS, ISO	783

Art. No.	Description	Page
P010	Boric acid, ≥99,5 %, Ph. Eur., USP, BP	783
5935	Boric acid, ≥99,8 %	783
X863	Citric acid, ≥99,5 %, p.a., ACS, anhydrous	840
6490	Citric acid, ≥99,5 %, Ph. Eur., anhydrous	840
3958	Citric acid monohydrate, ≥99,5 %, p.a., ACS, ISO	840
5110	Citric acid monohydrate, ≥99,5 %, Ph. Eur.	840
X888	tri-Potassium citrate monohydrate, ≥99 %, Ph. Eur., USP	1170
3904	Potassium dihydrogen phosphate, ≥99 %, p.a., ACS	1171
P018	Potassium dihydrogen phosphate, ≥98 %, Ph. Eur., BP	1171
P748	Potassium hydrogen carbonate, ≥99,7 %, p.a., ACS	1173
X887	Potassium hydrogen carbonate, ≥99 %, Ph. Eur.	1173
9437	Potassium hydrogen carbonate, ≥99 %, extra pure	1173
P749	di-Potassium hydrogen phosphate, ≥99 %, p.a., anhydrous	1174
T875	di-Potassium hydrogen phosphate, ≥98 %, Ph. Eur., BP, anhydrous	1174
6875	di-Potassium hydrogen phosphate, ≥98 %, anhydrous	1174
6878	di-Potassium hydrogen phosphate trihydrate, ≥99 %, p.a.	1174
P750	Potassium hydrogen phthalate, ≥99,5 %, p.a., ISO	1174
6773	Sodium acetate, ≥99 %, p.a., ACS, anhydrous	1276
X891	Sodium acetate, ≥98,5 %, anhydrous, extra pure	1276
6779	Sodium acetate trihydrate, ≥99,5 %, p.a., ACS, ISO	1276
3856	Sodium acetate trihydrate, ≥99 %, Ph. Eur., USP	1276
T882	Sodium ammonium hydrogen phosphate tetrahydrate, ≥99 %, p.a.	1277
A135	Sodium carbonate, ≥99,5 %, p.a., ACS, anhydrous	1278
3580	tri-Sodium citrate dihydrate, ≥99 %, p.a., ACS	1281
4088	tri-Sodium citrate dihydrate, ≥99 %, Ph. Eur.	1281
K300	Sodium dihydrogen phosphate monohydrate, ≥98 %, p.a., ACS	1282
T878	Sodium dihydrogen phosphate monohydrate, ≥98 %, USP, BP	1282
T879	Sodium dihydrogen phosphate dihydrate, ≥99 %, p.a.	1282
2370	Sodium dihydrogen phosphate dihydrate, ≥98 %, Ph. Eur., USP	1282
T883	tetra-Sodium diphosphate decahydrate, ≥99 %, p.a.	1283
0269	tetra-Sodium diphosphate decahydrate, ≥98 %, extra pure	1283
6885	Sodium hydrogen carbonate, ≥99,5 %, p.a., ACS, ISO	1284
8551	Sodium hydrogen carbonate, ≥99 %, Ph. Eur., extra pure	1284
0965	Sodium hydrogen carbonate, ≥99 %	1285
4984	di-Sodium hydrogen phosphate dihydrate, ≥99,0 %, p.a.	1285
T877	di-Sodium hydrogen phosphate dihydrate, ≥98 %, Ph. Eur., USP	1285
X987	di-Sodium hydrogen phosphate heptahydrate, ≥98 %, p.a., ACS	1285
T106	di-Sodium hydrogen phosphate dodecahydrate, ≥99 %, p.a., ISO	1286
N350	di-Sodium hydrogen phosphate dodecahydrate, ≥98,5 %, Ph. Eur.	1286
4267	di-Sodium oxalate, ≥99 %	1292
T880	di-Sodium tetraborate decahydrate, ≥99,5 %, p.a., ACS, ISO	1297
8643	di-Sodium tetraborate decahydrate, ≥99 %, powdered	1297

Buffer solutions ROTI®Calipure, ready to use

Buffer solution pH 1.00 ±0.05 (20 °C)

ROTI®Calipure buffer solution, ready to use

Hydrochloric acid, potassium chloride

D 1 g/cm³

Type analysis

pH value (20 °C) ..... 1,00 ±0,05

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
T180.2	500 ml	plastic	22,05
T180.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l

Buffer solution pH 1.679 ±0.03 (25 °C)

ROTI®Calipure buffer solution, ready to use

Potassium tetraoxalate

Potassium tetraoxalate

D 1 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis

pH value (25 °C) ..... 1,679 ±0,03

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
8112.1	1 l	plastic	54,30
Original pack 6 x 1 l			51,59/1 l

Buffer solution pH 2.00 ±0.02 (20 °C)

ROTI®Calipure buffer solution, ready to use

Citric acid, hydrochloric acid, sodium chloride

D 1,01 g/cm³ · mp 0 °C · bp 100 °C

Type analysis

pH value (20 °C) ..... 2,00 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
P715.2	500 ml	plastic	22,05
P715.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l

Buffer solution pH 3.00 ±0.02 (20 °C)

ROTI®Calipure buffer solution, ready to use

Citric acid, caustic soda lye, sodium chloride

D 1 g/cm³ · bp 100 °C

WGK 1

Type analysis

pH value (20 °C) ..... 3,00 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
T181.2	500 ml	plastic	22,05
T181.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l

Buffer solution pH 3.776 ±0.012 (25 °C)

ROTI®Calipure buffer solution, ready to use

Potassium dihydrogen citrate

D 1,003 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis

pH value (25 °C) ..... 3,776 ±0,012

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
4280.1	500 ml	plastic	36,05
4280.2	1 l	plastic	49,35
Original pack 6 x 1 l			46,88/1 l

Buffer solution pH 4.00 ±0.02 (20 °C)

ROTI®Calipure buffer solution, ready to use

Citric acid, caustic soda lye, sodium chloride

D 1,007 g/cm³ · bp 100 °C

WGK 1

Type analysis

pH value (20 °C) ..... 4,00 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
P712.3	500 ml	plastic	22,05
P712.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l
P712.2	10 l	plastic	198,90

Buffer solution pH 4.00 ±0.02 (20 °C)

ROTI®Calipure buffer solution, ready to use, tinted RED

Citric acid, caustic soda lye, sodium chloride

D 1,007 g/cm³ · bp 100 °C

WGK 1

Type analysis

pH value (20 °C) ..... 4,00 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
A517.3	250 ml	twin neck bottle	18,85
A517.2	500 ml	plastic	22,05
A517.4	500 ml	twin neck bottle	24,65
A517.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l
A517.5	10 l	plastic	198,90

Buffer solution pH 4.005 ±0.02 (25 °C)

ROTI®Calipure buffer solution, ready to use

Potassium hydrogen phthalate

D 1,003 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis

pH value (25 °C) ..... 4,005 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
4281.1	500 ml	plastic	23,55
4281.2	1 l	plastic	36,05
Original pack 6 x 1 l			34,25/1 l

Buffer solution pH 4.62 ±0.02 (20 °C)

ROTI®Calipure buffer solution, ready to use

Acetic acid, caustic soda lye

D 1,005 g/cm³ · bp ~100 °C

WGK 1

Type analysis

pH value (20 °C) ..... 4,62 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
T182.1	1 l	plastic	34,95
Original pack 6 x 1 l			33,20/1 l

Buffer solution pH 5.00 ±0.02 (20 °C)

ROTI®Calipure buffer solution, ready to use

Citric acid, caustic soda lye

D 1,012 g/cm³ · bp 100 °C

WGK 1

Type analysis

pH value (20 °C) ..... 5,00 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
T183.2	500 ml	plastic	22,05
T183.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l

Buffer solution pH 6.00 ±0.02 (20 °C)

ROTI®Calipure buffer solution, ready to use

Citric acid, caustic soda lye

D 1,009 g/cm³ · bp 100 °C

WGK 1

Type analysis

pH value (20 °C) ..... 6,00 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
T184.2	500 ml	plastic	22,05
T184.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l

Buffer solution pH 6.865 ±0.02 (25 °C)

ROTI®Calipure buffer solution, ready to use

Potassium dihydrogen phosphate, di-sodium hydrogen phosphate

D 1 g/cm³

WGK 1

Type analysis

pH value (25 °C) ..... 6,865 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
4284.1	500 ml	plastic	23,55
4284.2	1 l	plastic	36,05
Original pack 6 x 1 l			34,25/1 l

Buffer solution pH 6.88 ±0.02 (20 °C)

ROTI®Calipure buffer solution, ready to use

0,025 M KH_2PO_4 and 0,025 M Na_2HPO_4

D 1,004 g/cm³ · bp ~100 °C

WGK 1

Type analysis

pH value (20 °C) ..... 6,88 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
T185.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l

Buffer solution pH 7.00 ±0.02 (20 °C)

ROTI®Calipure buffer solution, ready to use

Potassium dihydrogen phosphate, sodium hydroxide solution

D 1 g/cm³ · bp 100 °C

WGK 1

Type analysis

pH value (20 °C) ..... 7,00 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
A518.3	500 ml	plastic	22,05
A518.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l
A518.2	10 l	plastic	198,90

Buffer solution pH 7.00 ±0.02 (20 °C)

ROTI®Calipure buffer solution, ready to use, tinted GREEN

Potassium dihydrogen phosphate, sodium hydroxide solution

D 1 g/cm³ · bp 100 °C

WGK 1

Type analysis

pH value (20 °C) ..... 7,00 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
P713.3	250 ml	twin neck bottle	18,85
P713.2	500 ml	plastic	22,05
P713.4	500 ml	twin neck bottle	24,65
P713.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l
P713.5	10 l	plastic	198,90

Buffer solution pH 7.413 ±0.02 (25 °C)

ROTI®Calipure buffer solution, ready to use

Potassium dihydrogen phosphate, di-sodium hydrogen phosphate

D 1,003 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis

pH value (25 °C) ..... 7,413 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
4285.1	500 ml	plastic	23,55
4285.2	1 l	plastic	41,40
Original pack 6 x 1 l			39,33/1 l

Buffer solution pH 8.00 ±0.02 (20 °C)

ROTI®Calipure buffer solution, ready to use

Potassium dihydrogen phosphate, sodium hydroxide solution

D 1,003 g/cm³ · bp ~100 °C

WGK 1

Type analysis

pH value (20 °C) ..... 8,00 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
T186.2	500 ml	plastic	22,05
T186.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l

Buffer solution pH 9.00 ±0.02 (20 °C)

ROTI®Calipure buffer solution, ready to use

Boric acid, potassium chloride, caustic soda lye

D 1,006 g/cm³

WGK 1

Type analysis

pH value (20 °C) ..... 9,00 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
A519.3	500 ml	plastic	22,05
A519.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l

Buffer solution pH 9.00 ±0.02 (20 °C)

ROTI®Calipure buffer solution, ready to use, tinted BLUE

Boric acid, caustic soda lye, potassium chloride

D 1,006 g/cm³

WGK 1

Type analysis

pH value (20 °C) ..... 9,00 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
P714.3	250 ml	twin neck bottle	18,85
P714.2	500 ml	plastic	22,05
P714.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l

Buffer solution pH 9.180 ±0.02 (25 °C)

ROTI®Calipure buffer solution, ready to use

Sodium tetraborate decahydrate

D 1 g/cm³

WGK 1

Type analysis

pH value (25 °C) ..... 9,180 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
4294.1	500 ml	plastic	23,55
4294.2	1 l	plastic	36,05
Original pack 6 x 1 l			34,25/1 l

Buffer solution pH 9.22 ±0.02 (20 °C)

ROTI®Calipure buffer solution, ready to use

Boric acid, caustic soda lye

D 1 g/cm³ · bp 100 °C

Type analysis

pH value (20 °C) ..... 9,22 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
0466.1	500 ml	plastic	31,10

Buffer solution pH 10.00 ±0.02 (20 °C)

ROTI®Calipure buffer solution, ready to use

Boric acid, caustic soda lye, potassium chloride

D 1,008 g/cm³ · bp 100 °C

WGK 1

Type analysis

pH value (20 °C) ..... 10,00 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
P716.2	500 ml	plastic	22,05
P716.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l

Buffer solution pH 10.00 ±0.02 (20 °C)

ROTI®Calipure buffer solution, ready to use, tinted BLUE

Boric acid, caustic soda lye, potassium chloride

D 1,008 g/cm³ · bp 100 °C

WGK 1

Type analysis

pH value (20 °C) ..... 10,00 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
8086.1	250 ml	twin neck bottle	22,05
8086.2	500 ml	plastic	26,80
8086.3	500 ml	twin neck bottle	29,60
8086.4	1 l	plastic	34,95
Original pack 6 x 1 l			33,20/1 l
8086.5	10 l	plastic	256,95

Buffer solution pH 10.00 for complexometry

ROTI®Calipure buffer solution, ready to use

Ammonium chloride, ammonia 25 %

D 0,984 g/cm³ · bp 100 °C

WGK 2

Danger H314-H335-H412

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
T188.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l

Buffer solution pH 11.00 ±0.05 (20 °C)

ROTI®Calipure buffer solution, ready to use

Glycine, caustic soda lye, sodium chloride

D 1,003 g/cm³ · mp 0 °C · bp 100 °C

Type analysis

pH value (20 °C) ..... 11,00 ±0,05

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
T187.2	500 ml	plastic	22,05
T187.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l

Buffer solution pH 12.00 ±0.05 (20 °C)

ROTI®Calipure buffer solution, ready to use

Glycine, caustic soda lye, sodium chloride

D 1 g/cm³ · mp 0 °C · bp 100 °C

Type analysis

pH value (20 °C) ..... 12,00 ±0,05

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
T189.2	500 ml	plastic	22,05
T189.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l

Buffer solution pH 13.00 ±0.05 (20 °C)

ROTI®Calipure buffer solution, ready to use

Glycine, caustic soda lye, sodium chloride

D 1,1 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis

pH value (20 °C) ..... 13,00 ±0,05

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
0762.1	500 ml	plastic	25,70

Buffer solutions ROTI®Star, ready to use

Buffer solution pH 4.00 ±0.01 (20 °C)

ROTI®Star

Potassium hydrogen phthalate

D 1 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis

pH value (20 °C) ..... 4,00 ±0,01

Tested in an accredited laboratory acc. to ISO 17025.
Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
9974.1	500 ml	plastic	23,55

Buffer solution pH 7.00 ±0.01 (20 °C)

ROTI®Star

Potassium dihydrogen phosphate, di-sodium hydrogen phosphate

D 1 g/cm³ · mp 0 °C · bp 100 °C

Type analysis

pH value (20 °C) ..... 7,00 ±0,01

Tested in an accredited laboratory acc. to ISO 17025.
Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
9977.1	500 ml	plastic	22,50

Buffer solution pH 10.00 ±0.01 (20 °C)

ROTI®Star

di-Sodium tetraborate, sodium hydroxide

D 1,03 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis

pH value (20 °C) ..... 10,00 ±0,01

Tested in an accredited laboratory acc. to ISO 17025.
Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
9983.1	500 ml	plastic	23,55

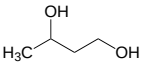
1,4-Butane diisocyanate

▸ 1,4-Diisocyanatobutane see page 883

Butanedioic acid

▸ Succinic acid see page 1343

1,3-Butanediol



1,3-Butylene glycol

$C_4H_{10}O_2$ · D 1,004 g/cm³ · mp -57 °C · bp 209 °C · flp 115 °C
CAS No. 107-88-0 · EC no. 203-529-7
WGK 1

1,3-Butanediol

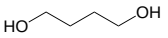
≥99 %, for synthesis

Type analysis

Assay (GC) ..... ≥99,0 %
Water ..... ≤0,5 %
Refractive index (20 °C) 1,439-1,441

Art. No.	Pack Qty.	Pack.	€
7473.1	250 ml	plastic	20,35
7473.2	500 ml	plastic	n. a.
7473.3	1 l	plastic	42,90
Original pack 6 x 1 l			40,76/1 l
7473.4	2.5 l	plastic	85,90
Original pack 4 x 2.5 l			81,61/2.5 l
7473.5	10 l	plastic	256,95
7473.6	25 l	plastic	564,40

1,4-Butanediol



1,4-Butylene glycol · Tetramethylene glycol

CAS No. 110-63-4 · EC no. 203-786-5
WGK 1

Warning H302-H336

1,4-Butanediol
≥99 %, for synthesis

$C_4H_{10}O_2$ · D 1,012 to 1,016 g/cm³ · mp 19 to 20 °C · bp 230 °C · flp 115 °C

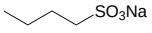
Type analysis
Assay (GC) ..... ≥99,0 %
Density (d 25 °C/4 °C) 1,012-1,016

Art. No.	Pack Qty.	Pack.	€
4211.1	1 l	glass	46,15
Original pack 6 x 1 l			43,84/1 l
4211.2	2.5 l	glass	92,35
Original pack 4 x 2.5 l			87,73/2.5 l
4211.3	10 l	plastic	299,95

2,3-Butanedionedioxime disodium salt
▸ Dimethylglyoxime disodium salt octahydrate see page 888

2,3-Butanedione monoxime
▸ Diacetyl monoxime see page 871

Butane-1-sulphonic acid sodium salt



Sodium-1-butane sulphonate

$C_4H_9NaO_3S$ · mp >300 °C
CAS No. 2386-54-1 · EC no. 219-201-1
WGK 1

Butane-1-sulphonic acid sodium salt
≥99 %, for ion pair chromatography

Ion pair reagent for HPLC.

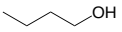
Guarantee analysis
Assay (acidim.) ..... ≥99,0 %
Solution (10 % in water) ..... clear, colourless
Water ..... ≤1 %
A 210 nm (0,5 M in water) ..... ≤0,1 AU
A 220 nm (0,5 M in water) ..... ≤0,06 AU
A 230 nm (0,5 M in water) ..... ≤0,04 AU
A 260 nm (0,5 M in water) ..... ≤0,02 AU

Art. No.	Pack Qty.	Pack.	€
KK50.1	10 g	glass	64,40
KK50.2	25 g	glass	126,35
KK50.3	100 g	glass	370,90

Butanoic acide
▸ Butyric acid see page 800

Butanoic acid sodium salt
▸ Sodium butyrate see page 1278

1-Butanol



Butyl alcohol · *n*-Butanol · *n*-Butyl alcohol

$C_4H_{10}O$ · D 0,81 g/cm³ · mp <-90 °C · bp 119 °C · flp 35 °C
CAS No. 71-36-3 · EC no. 200-751-6
UN no. 1120 · ADR 3 III · WGK 1

Danger H226-H302-H315-H318-H335-H336

1-Butanol
ROTISOLV® HPLC

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,05 %
Acidity (as CH_3COOH) ..... ≤0,002 %
Non volatile matter ..... ≤0,0005 %

Transmission:
310 nm ..... ≥98 %
240 nm ..... ≥75 %
230 nm ..... ≥70 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
T178.1	2.5 l	glass	132,80
Original pack 4 x 2.5 l			126,16/2.5 l

1-Butanol
ROTISOLV® ≥99,8 %, UV/IR Grade

For chromatography and spectroscopy.

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,05 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

Absorbance:
270 nm ..... ≥95 %
250 nm ..... ≥93 %
230 nm ..... ≥60 %
220 nm ..... ≥30 %

Art. No.	Pack Qty.	Pack.	€
4431.1	2.5 l	glass	160,20
Original pack 4 x 2.5 l			152,19/2.5 l

1-Butanol
ROTIPURAN® ≥99,5 %, p.a., ACS

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Acidity ..... ≤0,0008 meq/g
Colour (Hazen) ..... ≤10
Water (KF) ..... ≤0,1 %
Butanal (GC) ..... ≤0,01 %
Dibutylether (GC) ..... ≤0,1 %
Isobutanol (GC) ..... ≤0,15 %
2-Butanol (GC) ..... ≤0,05 %
Lead (Pb) ..... ≤0,00001 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %
Evaporation residue ..... ≤0,002 %
Carbonylic compounds ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
7171.2	1 l	glass	69,80
Original pack 6 x 1 l			66,31/1 l
7171.1	2.5 l	glass	138,70
Original pack 4 x 2.5 l			131,77/2.5 l
7171.3	5 l	plastic	233,85
Original pack 2 x 5 l			222,16/5 l
7171.4	10 l	plastic	418,20
7171.5	25 l	plastic	815,95

1-Butanol
≥99,5 %, for synthesis

Type analysis
Appearance ..... colourless, clear liquid
Assay (GC) ..... ≥99,5 %
Water (KF) ..... ≤0,5 %
Density (20 °C) ..... 0,808- 0,814 g/cm³
Refractive index n_D^{20} 1,390-1,401

Art. No.	Pack Qty.	Pack.	€
7724.4	250 ml	glass	21,40
7724.1	1 l	glass	37,55
Original pack 6 x 1 l			35,67/1 l
7724.3	2.5 l	glass	66,55
Original pack 4 x 2.5 l			63,22/2.5 l
7724.6	5 l	plastic	110,20
Original pack 2 x 5 l			104,69/5 l
7724.2	10 l	tinplate	174,70
7724.5	25 l	tinplate	342,95

2-Butanol



sec-Butanol · sec-Butyl alcohol

$C_4H_{10}O$ · D 0,81 g/cm³ · mp -115 °C · bp 99 to 102 °C · flp 24 °C
CAS No. 78-92-2 · EC no. 201-158-5
UN no. 1120 · ADR 3 III · WGK 1

Warning H226-H319-H335-H336

2-Butanol
≥98,5 %, for synthesis

Type analysis
Assay (GC) ..... ≥98,5 %
Density (d 20 °C/4 °C) ..... 0,804 - 0,809
Water ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
KK02.1	500 ml	glass	34,30
KK02.2	1 l	glass	57,95
Original pack 6 x 1 l			55,05/1 l
KK02.3	2.5 l	plastic	98,80
Original pack 4 x 2.5 l			93,86/2.5 l
KK02.4	5 l	plastic	160,20
Original pack 2 x 5 l			152,19/5 l
KK02.7	10 l	PE/steel	299,95
KK02.5	25 l	plastic	568,70

iso-Butanol
▸ 2-Methyl-1-propanol see page 1087

n-Butanol
▸ 1-Butanol see page 796

sec-Butanol
▸ 2-Butanol see page 796

tert-Butanol



2-Methyl-2-propanol · Trimethyl carbinol · *tert*-Butyl alcohol

$C_4H_{10}O$ · D 0,78 g/cm³ · mp 25,7 °C · bp 82,41 °C · flp 15 °C
CAS No. 75-65-0 · EC no. 200-889-7
UN no. 1120 · ADR 3 II · WGK 1

Danger H225-H319-H332-H335

tert-Butanol
ROTIPURAN® ≥99,5 %, p.a., ACS

Guarantee analysis

Assay (GC)	≥99,5 %
Colour (APHA)	≤20
Water	≤0,1 %
Acidity	≤0,001 meq/g
Alkalinity	≤0,0005 meq/g
Carbonyl compound (as CH_2O)	≤0,01 %
Non volatile matter	≤0,003 %
Calcium (Ca)	≤0,00005 %
Cadmium (Cd)	≤0,000005 %
Cobalt (Co)	≤0,000002 %
Chromium (Cr)	≤0,000002 %
Copper (Cu)	≤0,000002 %
Iron (Fe)	≤0,00001 %
Magnesium (Mg)	≤0,00001 %
Manganese (Mn)	≤0,000002 %
Nickel (Ni)	≤0,000002 %
Lead (Pb)	≤0,00001 %
Zinc (Zn)	≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
AE16.1	500 ml	glass	26,35
AE16.2	1 l	glass	45,70
Original pack 6 x 1 l			43,42/1 l
AE16.3	2.5 l	glass	90,85
Original pack 4 x 2.5 l			86,31/2.5 l
AE16.4	5 l	plastic	158,60
Original pack 2 x 5 l			150,67/5 l
AE16.5	10 l	plastic	292,95
AE16.6	25 l	plastic	665,45

tert-Butanol
≥99 %, for synthesis

Type analysis

Assay (GC)	≥99 %
Water (KF)	≤0,1 %
Melting point	~25 °C

Art. No.	Pack Qty.	Pack.	€
4323.1	1 l	glass	31,10
Original pack 6 x 1 l			29,55/1 l
4323.3	2.5 l	glass	55,80
Original pack 4 x 2.5 l			53,01/2.5 l
4323.4	5 l	plastic	99,90
Original pack 2 x 5 l			94,91/5 l
4323.2	10 l	tinplate	188,15
4323.7	25 l	tinplate	381,65

2-Butanone



Ethyl methyl ketone · MEK · Methyl ethyl ketone

C_4H_8O · D 0,81 g/cm³ · mp -86 °C · bp 79 to 80 °C · flp -8 °C
CAS No. 78-93-3 · EC no. 201-159-0
UN no. 1193 · ADR 3 II · WGK 1

Danger H225-H319-H336-EUH066

2-Butanone
≥99,5 %, VLSI Grade

Semiconductor grade

Guarantee analysis

Assay	≥99,5 %
Bead number (≥0,5 µm)	≤250 p/ml
Water	≤0,1 %
Alcohol (as 2-butanol)	≤0,1 %
Acidity (as CH_3COOH)	≤0,005 %
Colour (APHA)	≤10
Evaporation residue	≤0,0005 %
Chloride (Cl)	≤0,0001 %
Sulphate (SO_4)	≤0,00005 %
Aluminium (Al)	≤50 ppb
Antimony (Sb)	≤10 ppb
Arsenic (As)	≤10 ppb
Barium (Ba)	≤20 ppb
Bismuth (Bi)	≤10 ppb
Lead (Pb)	≤10 ppb
Boron (B)	≤20 ppb
Cadmium (Cd)	≤10 ppb
Calcium (Ca)	≤50 ppb
Chromium (Cr)	≤10 ppb
Iron (Fe)	≤50 ppb
Gallium (Ga)	≤10 ppb
Potassium (K)	≤20 ppb
Cobalt (Co)	≤10 ppb
Copper (Cu)	≤10 ppb
Lithium (Li)	≤10 ppb
Magnesium (Mg)	≤20 ppb
Manganese (Mn)	≤10 ppb
Molybdenum (Mo)	≤10 ppb
Sodium (Na)	≤50 ppb
Nickel (Ni)	≤10 ppb
Silver (Ag)	≤10 ppb
Strontium (Sr)	≤10 ppb
Titanium (Ti)	≤10 ppb
Vanadium (V)	≤10 ppb
Zinc (Zn)	≤20 ppb
Tin (Sn)	≤10 ppb
Zirconium (Zr)	≤10 ppb

Art. No.	Pack Qty.	Pack.	€
0051.1	2.5 l	plastic	123,10
Original pack 4 x 2.5 l			116,95/2.5 l

2-Butanone
ROTIPURAN® ≥99,5 %, p.a., ACS

Guarantee analysis

Assay (GC)	≥99,5 %
Density (d 20 °C/20 °C)	0,805- 0,807
Colour (APHA)	≤15
Water	≤0,1 %
Acidity	≤0,0005 meq/g
Acetone (GC)	≤0,05 %
2-Butanol (GC)	≤0,02 %
2-Propanol (GC)	≤0,1 %
2-Methylpropan-2-ol (GC)	≤0,1 %
Evaporation residue	≤0,001 %
Aluminium (Al)	≤0,00005 %
Barium (Ba)	≤0,00001 %
Cadmium (Cd)	≤0,000005 %
Calcium (Ca)	≤0,00005 %
Cobalt (Co)	≤0,000002 %
Chromium (Cr)	≤0,000002 %
Copper (Cu)	≤0,000002 %
Iron (Fe)	≤0,00001 %
Magnesium (Mg)	≤0,00001 %
Nickel (Ni)	≤0,000002 %
Manganese (Mn)	≤0,000002 %
Lead (Pb)	≤0,00001 %
Zinc (Zn)	≤0,00001%

Art. No.	Pack Qty.	Pack.	€
T920.1	1 l	glass	51,10
Original pack 6 x 1 l			48,55/1 l
T920.2	2.5 l	glass	107,40
Original pack 4 x 2.5 l			102,03/2.5 l
T920.3	5 l	plastic	198,90
Original pack 2 x 5 l			188,96/5 l
T920.4	10 l	plastic	364,45
T920.5	25 l	plastic	729,95

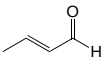
2-Butanone
≥99,5 %, for synthesis

Type analysis

Assay (GC)	≥99,5 %
Water (KF)	≤0,1 %
Acid content (as CH_3COOH)	≤0,02 %
Refractive index n_D^{20}	1,378-1,380
Density (20 °C)	0,804-0,807 g/cm³

Art. No.	Pack Qty.	Pack.	€
8403.1	1 l	glass	31,75
Original pack 6 x 1 l			30,16/1 l
8403.3	2.5 l	glass	57,55
Original pack 4 x 2.5 l			54,67/2.5 l
8403.5	5 l	aluminium	89,80
Original pack 2 x 5 l			85,31/5 l
8403.2	10 l	tinplate	170,95
8403.4	25 l	tinplate	332,20

2-Butenal



Crotonaldehyde

C_4H_6O · D 0,85 g/cm³ · mp -76 °C · bp 102,2 °C · flp 13 °C
CAS No. 4170-30-3 · EC no. 224-030-0
UN no. 1143 · ADR 6.1 (3) I · WGK 3

Danger H225-H301+H311-H315-H318-H330-H335-H341-H373-H410

2-Butenal
≥98 %, for synthesis

Type analysis

Assay (GC)	≥99,0 %
Density (d 20 °C/4 °C)	0,851-0,853

Art. No.	Pack Qty.	Pack.	€
3425.1	250 ml	glass	60,75

cis-Butenedioic acid
▸ Maleic acid see page 1063

2-Butenedioic acid
▸ Fumaric acid see page 950

cis-Butenedioic anhydride
▸ Maleic anhydride see page 1063

(E)-2-Butenoic acid
▸ Crotonic acid see page 854

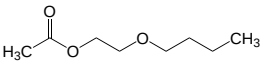
3-Butenylglucosinolate potassium salt
▸ Gluconapin see page 960

2-Butoxyethanol
▸ Ethylene glycol monobutyl ether see page 924

2-(2-Butoxyethoxy)ethanol
▸ Butyldiglycol see page 799

2-(2-Butoxyethoxy)ethyl acetate
▸ Diethylene glycol monobutyl ether acetate see page 878

2-Butoxyethyl acetate



1-Acetoxy-2-butoxyethane · EGBEA · Ethylene glycol monobutyl ether acetate

$C_8H_{16}O_3$ · D 942,2 g/cm³ · mp -63,5 °C · bp 192,3 °C · flp 78 °C
CAS No. 112-07-2 · EC no. 203-933-3
WGK 1

Warning H302+H312+H332

2-Butoxyethyl acetate
≥98 %, pure

Type analysis
Assay (GC) ..... ≥98,0 %
Colour (Hazen) ..... ≤15

Art. No.	Pack Qty.	Pack.	€
8009.1	1 l	plastic	26,80
Original pack 6 x 1 l			25,46/1 l
8009.2	2.5 l	plastic	49,35
Original pack 4 x 2.5 l			46,88/2.5 l

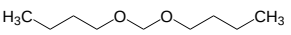
1-(Butoxymethoxy)butane
▸ Butylal see page 798

Butter of antimony
▸ Antimony(III) chloride see page 747

Butter Yellow
▸ Dimethyl yellow (C.I. 11020) see page 891
▸ Dimethyl yellow indicator solution see page 891

n-Butyl acetate
▸ Acetic acid *n*-butyl ester see page 693

Butylal



Dibutoxymethane · 1-(Butoxymethoxy)butane · 1,1'-[Methylenebis(oxy)]dibutane · Formaldehyde-di-*n*-butyl acetale

$C_9H_{20}O_2$ · D 0,835 g/cm³ · mp -59,4 °C · bp 182,5 °C · flp 63 °C
CAS No. 2568-90-3 · EC no. 219-909-0
WGK 1

Butylal
SOLVAGREEN® ≥99 %, for synthesis

Alternative for D-limonene, cyclic hydrocarbons, perchloroethylene.

Type analysis
Assay ..... ≥99,0 %
Water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
0796.1	100 ml	glass	21,00
0796.2	500 ml	glass	47,20
0796.3	1 l	glass	69,35
Original pack 6 x 1 l			65,88/1 l
0796.4	2.5 l	glass	138,70
Original pack 4 x 2.5 l			131,77/2.5 l

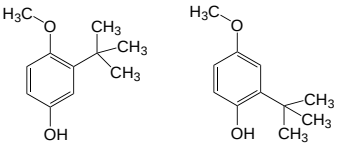
n-Butyl alcohol
▸ 1-Butanol see page 796

Butyl alcohol
▸ 1-Butanol see page 796

tert-Butyl alcohol
▸ *tert*-Butanol see page 797

sec-Butyl alcohol
▸ 2-Butanol see page 796

Butylated hydroxyanisole



BHA · 2(3)-*tert*-Butyl-4-hydroxyanisole

$C_{11}H_{16}O_2$ · D 0,69 g/cm³ · mp 57 to 59 °C · bp >240 °C · flp 116,6 °C
CAS No. 25013-16-5 · EC no. 246-563-8
WGK 2

Warning H302-H315-H319-H351

Butylated hydroxyanisole
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤3,0 %
Assay (qNMR) ..... ≥90,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE04.1	100 mg	glass	869,70

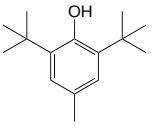
Butylated hydroxyanisole
ROTICHROM® Working Standard

Type analysis
Assay (GC) ..... ≥95,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC04.1	100 mg	glass	353,70

Butylated hydroxytoluene



2,6-Di-*tert*-butyl-*p*-cresol · 2,6-Di-*tert*-butyl-4-methylphenol · BHT

$C_{15}H_{24}O$ · D 1,03 g/cm³ · mp 69 to 71 °C · bp 265 °C · flp 127 °C
CAS No. 128-37-0 · EC no. 204-881-4
UN no. 3077 · ADR 9 III · WGK 2

Warning H410

Butylated hydroxytoluene
≥99,7 %, for synthesis

Type analysis
Appearance ..... white cristals
Assay (GC) ..... ≥99,7 %
Ash content ..... ≤0,01 %
Melting point ..... 69-71 °C

Art. No.	Pack Qty.	Pack.	€
3559.1	250 g	plastic	40,75
3559.2	1 kg	plastic	117,20
Original pack 6 x 1 kg			111,34/1 kg
3559.3	5 kg	plastic	450,45

Butylated hydroxytoluene
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤3,0 %
Assay (qNMR) ..... ≥90,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE05.1	100 mg	glass	869,70

Butylated hydroxytoluene
ROTICHROM® Working Standard

Type analysis
Assay (GC) ..... ≥95,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC05.1	100 mg	glass	310,70

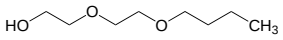
sec-Butyl carbinol

▸ 2-Methyl-1-butanol see page 1082

n-Butyl carbinol

▸ 1-Pentanol see page 1142

Butyldiglycol



2-(2-Butoxyethoxy)ethanol · BDG · Diethylene glycol butyl ether

$C_8H_{18}O_3$ · D 0,955 g/cm³ · mp -68 °C · bp 231 °C · flp 99 °C
CAS No. 112-34-5 · EC no. 203-961-6
WGK 1

Warning H319

Butyldiglycol
≥97 %, pure

Type analysis
Assay (GC) ..... ≥97,0 %
Colour (Hazen) ..... ≤15

stabilised with 2,6-di-*tert*-butyl-4-methylphenol (BHT).

Art. No.	Pack Qty.	Pack.	€
8046.1	1 l	glass	37,55
Original pack 6 x 1 l			35,67/1 l
8046.2	2.5 l	glass	73,00
Original pack 4 x 2.5 l			69,35/2.5 l
8046.3	10 l	tinplate	235,45

Butyldiglycol acetate

▸ Diethylene glycol monobutyl ether acetate see page 878

1,3-Butylene glycol

▸ 1,3-Butanediol see page 795

1,4-Butylene glycol

▸ 1,4-Butanediol see page 796

Butylglycol

▸ Ethylene glycol monobutyl ether see page 924

tert-Butyl methyl ether



2-Methyl-2-methoxypropane · Methyl *tert*-butyl ether · MTBE · TBME

$C_5H_{12}O$ · D 0,74 g/cm³ · mp -109 °C · bp 55,3 °C · flp -28 °C
CAS No. 1634-04-4 · EC no. 216-653-1
UN no. 2398 · ADR 3 II · WGK 1

Danger H225-H315

tert-Butyl methyl ether
ROTISOLV® HPLC

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Water (KF) ..... ≤0,01 %
Free acid ..... ≤0,002 %
Non volatile matter ..... ≤0,0002 %

Transmission:
280 nm ..... ≥98 %
255 nm ..... ≥85 %
240 nm ..... ≥60 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
T175.2	1 l	glass	60,10
Original pack 6 x 1 l			57,10/1 l
T175.1	2.5 l	glass	134,40
Original pack 4 x 2.5 l			127,68/2.5 l

tert-Butyl methyl ether
ROTIPURAN® ≥99,5 %, p.a.

Type analysis
Assay (GC) ..... ≥99,5 %
Water (KF) ..... ≤0,1 %
Free acid (as CH_3COOH) ..... ≤0,001 %
Non volatile matter ..... ≤0,002 %
Isobutyl methyl ketone ..... ≤0,005 %
Carbonylic compounds (as CO) ..... ≤0,001 %
Aluminium (Al) ..... ≤0,00005 %
Lead (Pb) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Cadmium (Cd) ..... ≤0,000005 %
Chromium (Cr) ..... ≤0,00005 %
Iron (Fe) ..... ≤0,00005 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000005 %
Nickel (Ni) ..... ≤0,000005 %
Zinc (Zn) ..... ≤0,000005 %

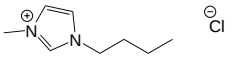
Art. No.	Pack Qty.	Pack.	€
8462.1	1 l	glass	48,30
Original pack 6 x 1 l			45,89/1 l
8462.2	2.5 l	glass	98,40
Original pack 4 x 2.5 l			93,48/2.5 l
8462.3	10 l	tinplate	321,45
8462.4	25 l	tinplate	704,15

tert-Butyl methyl ether
≥99,5 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,5 %
Water ..... ≤0,01 %
Density (25 °C) ..... 0,738-0,740 g/cm³

Art. No.	Pack Qty.	Pack.	€
6746.1	1 l	glass	25,70
Original pack 6 x 1 l			24,42/1 l
6746.4	2.5 l	glass	49,35
Original pack 4 x 2.5 l			46,88/2.5 l
6746.5	5 l	aluminium	78,40
Original pack 2 x 5 l			74,48/5 l
6746.2	10 l	tinplate	153,20
6746.3	25 l	tinplate	295,65

1-Butyl-3-methyl-imidazolium-chloride (BMIM Cl)



BMIM Cl

$C_8H_{15}ClN_2$ · D 1,086 g/cm³ · mp 70 °C · flp 192 °C
CAS No. 79917-90-1
UN no. 2811 · ADR 6.1 III · WGK 3

Danger H301-H315-H319-H373-H411

1-Butyl-3-methyl-imidazolium-chloride (BMIM Cl)
≥99 %

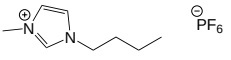
Ionic liquid

Type analysis
Appearance ..... yellow to orange, solid
Assay ..... ≥99 %
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
2010.1	25 g	glass	203,20
2010.2	100 g	glass	428,95

Lit.: **"Dissolution and Regeneration of Bombyx mori Silk Fibroin Using Ionic Liquids"** D. M. Phillips, L. F. Drummy, D. G. Conrady, D. M. Fox, R. R. Naik, M. O. Stone, P. C. Trulove, H. C. De Long, R. A. Mantz, *J. Am. Chem. Soc.* **2004**, 126, 14350-14351.

1-Butyl-3-methyl-imidazolium-hexafluorophosphate (BMIM PF_6)



BIMI PF_6

$C_8H_{15}F_6N_2P$ · D 1,38 g/cm³ · mp 12 °C
CAS No. 174501-64-5
WGK 1

Warning H315-H319

1-Butyl-3-methyl-imidazolium-hexafluorophosphate (BMIM PF_6)
≥99 %

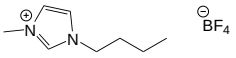
Ionic liquid

Type analysis
Appearance ..... yellowish liquid
Assay ..... ≥99 %
Water (KF) ..... ≤0,025 %
Halogens ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
2012.1	25 g	glass	112,80
2012.2	100 g	glass	246,20

Lit.: **"Vanadium-catalyzed selective aerobic alcohol oxidation in ionic liquid [bmim]PF_6"** N. Jiang, A. J. Ragauskas, Tetrahedron Lett. 2007, 48, 273–276.
"Ionic Liquid (Molten Salt) Phase Organometallic Catalysis" J. Dupont, R. F. de Souza, P. A. Z. Suarez, *Chem. Rev.* **2002**, 102, 3667-3692.

1-Butyl-3-methyl-imidazolium-tetrafluoroborate (BMIM BF_4)



BMIM BF_4

$C_8H_{15}BF_4N_2$ · D 1,21 g/cm³ · mp -75 °C
CAS No. 174501-65-6
WGK 1

Warning H315-H319-H335

1-Butyl-3-methyl-imidazolium-tetrafluoroborate (BMIM BF_4)
>99 %

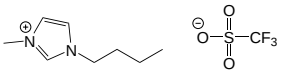
Ionic liquid

Type analysis
Appearance ..... yellow to orange liquid
Assay ..... >99 %
Water (KF) ..... <0,025 %
Halogens ..... <0,02 %

Art. No.	Pack Qty.	Pack.	€
2014.1	25 g	glass	112,80
2014.2	100 g	glass	246,20

Lit.: **"Ionic Liquid (Molten Salt) Phase Organometallic Catalysis"** J. Dupont, R. F. de Souza, P. A. Z. Suarez, *Chem. Rev.* 2002, 102, 3667-3692. „Non-Aqueous Biocatalysis in Heterogeneous Solvent Systems" N. Krieger, T. Bhatnagar, J. C. Baratt, A. M. Baron, V. M. de Lima, D. Mitchell, *Food Technol. Biotechnol.* **2004**, 42, 279–286

1-Butyl-3-methyl-imidazolium-trifluoromethanesulphonate (BMIM OTf)



BMIM OTf

$C_9H_{15}F_3N_2O_3S$ · D 1,295 g/cm³
CAS No. 174899-66-2
WGK 1

Warning H315-H319

1-Butyl-3-methyl-imidazolium-trifluoromethanesulphonate (BMIM OTf)
≥99 %

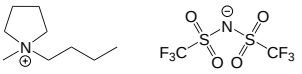
Ionic liquid

Type analysis
Appearance ..... clear, colourless to orange liquid
Assay ..... ≥99 %
Water (KF) ..... ≤0,1 %
Halogens ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
2015.1	25 g	glass	246,20
2015.2	100 g	glass	514,95

Lit.: **"tert-Amyl ethyl ether separation from its mixtures with ethanol using the 1-butyl-3-methyl-imidazolium trifluoromethanesulfonate ionic liquid: liquid-liquid equilibrium"** A. Arce, O. Rodrıguez, A. Soto, *Ind. Eng. Chem. Res.* **2004**, 43, 8323-8327.

1-Butyl-1-methyl-pyrrolidinium-bis-(trifluoromethylsulphonyl)-imide (BMPyrr BTA)



BMPyrr NTf_2 · BMPyrr BTA

$C_{11}H_{20}N_2F_6S_2O_4$ · D 1,4 g/cm³
CAS No. 223437-11-4
WGK 1

Warning H315-H319-H335

1-Butyl-1-methyl-pyrrolidinium-bis-(trifluoromethylsulphonyl)-imide (BMPyrr BTA)
≥99 %

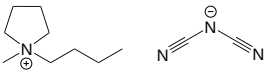
Ionic liquid

Type analysis
Appearance ..... colorless to yellow liquid
Assay ..... ≥99 %
Water (KF) ..... ≤0,01 %
Halogens ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
2021.1	25 g	glass	203,20
2021.2	100 g	glass	428,95

Lit.: **"In Situ STM Investigation of Gold Reconstruction and of Silicon Electro-deposition on Au(111) in the Room Temperature Ionic Liquid 1-Butyl-1-methyl-pyrrolidinium Bis(trifluoromethylsulfonyl)imide"** N. Borisenko, S. Zein El Abedin, F. Endres, J. *Phys. Chem. B* **2006**, 110, 6250-6256. **"Electrodeposition of Metals and Semiconductors in Air-and Water-Stable Ionic Liquids"** S. Z. El Abedin, F. Endres, *Chem. Phys. Chem.* **2006**, 7, 58–61.

1-Butyl-1-methyl-pyrrolidinium-dicyanamide (BMPyrr DCA)



BMPyrr $N(CN)_2$ · BMPyrr DCA

$C_{11}H_{20}N_4$ · D 1,02 g/cm³
CAS No. 370865-80-8
WGK 1

Warning H315-H319-H335

1-Butyl-1-methyl-pyrrolidinium-dicyanamide (BMPyrr DCA)
≥98 %

Ionic liquid

Type analysis
Appearance ..... yellow to brown liquid
Assay ..... ≥98 %
Water (KF) ..... ≤0,2 %
Halogens ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
2022.1	25 g	glass	396,70
2022.2	100 g	glass	843,90

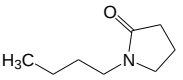
Lit:. **"Protein solubilising and stabilising ionic liquids"** K. Fujita, D. R. MacFarlane, M. Forsyth, *Chem. Commun.* **2005**, 4804–4806.

Butyl octadecanoate
▸ Stearic acid butyl ester see page 1339

5-Butylpicolinic acid
▸ Fusaric acid see page 950

5-Butylpyridine-2-carboxylic acid
▸ Fusaric acid see page 950

N-Butyl-2-pyrrolidone



1-Butyl-2-pyrrolidone · 1-Butyl-2-pyrrolidinone · NBP · TamiSolve™ NxG

$C_8H_{15}NO$ · D 0,958 g/cm³ · mp <-75 °C · bp 240,6 °C · flp 108 °C
CAS No. 3470-98-2 · EC no. 222-437-8
WGK 1

Warning H302-H315-H319

N-Butyl-2-pyrrolidone (NBP)
SOLVAGREEN® ≥99,5 %, for synthesis

Dipolar aprotic solvent. Alternative for NMP, NEP, DMSO

Type analysis
Assay ..... ≥99,5 %
Colour (APHA) ..... ≤50
Water (KF) ..... ≤0,1 %

Store under inert gas.

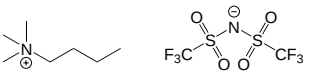
Art. No.	Pack Qty.	Pack.	€
1E8A.1	100 ml	plastic	24,20
1E8A.2	500 ml	plastic	48,95
1E8A.3	1 l	plastic	73,65
Original pack 6 x 1 l			69,97/1 l
1E8A.4	2.5 l	plastic	149,45
Original pack 4 x 2.5 l			141,98/2.5 l

Butyl stearate
▸ Stearic acid butyl ester see page 1339

(*R*)-(+)-*tert*-Butyl sulfinamide
▸ (*R*)-(+)-2-Methyl-2-propanesulfinamide see page 1087

(*S*)-(–)-*tert*-Butyl sulfinamide
▸ (*S*)-(–)-2-Methyl-2-propanesulfinamide see page 1087

Butyl-trimethyl-ammonium-bis-(trifluoromethylsulphonyl)-imide (N1114 BTA)



N1114 BTA

$C_9H_{18}F_6N_2O_4S_2$ · D 1,398 g/cm³
CAS No. 258273-75-5
UN no. 2922 · ADR 8 (6.1) II · WGK 1

Danger H301+H311-H314

Butyl-trimethyl-ammonium-bis-(trifluoromethylsulphonyl)-imide (N1114 BTA)

≥99 %

Ionic liquid

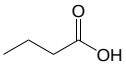
Type analysis

Appearance ..... yellowish liquid
Assay ..... ≥99 %
Water (KF) ..... ≤0,01 %
Halogens ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
2025.1	25 g	glass	267,70
2025.2	100 g	glass	665,45

Lit.: **"Understanding structure-stability relationships of Candida antartica lipase B in ionic liquids"** T. De Diegeo, P- Lozano, S. Gmouth, M. Vaultier, J. L. Iborra, *Biomacromolecules* **2005**, 6, 1457-1464.

Butyric acid



Butanoic acide

$C_4H_8O_2$ · D 0,96 g/cm³ · mp -8 to -5 °C · bp 162 to 165 °C · flp 71 °C
CAS No. 107-92-6 · EC no. 203-532-3
UN no. 2820 · ADR 8 III · WGK 1

Danger H302-H314

Butyric acid

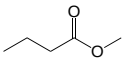
≥99 %, for synthesis

Type analysis

Appearance ..... clear, colourless liquid
Assay (GC) ..... ≥99 %
Water (KF) ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
3277.1	100 ml	glass	20,35
3277.2	1 l	glass	81,60
Original pack 6 x 1 l			77,52/1 l

Butyric acid methyl ester



Methyl butyrate

$C_5H_{10}O_2$ · D 0,9 g/cm³ · mp -84 °C · bp 102 to 103 °C · flp 14 °C
CAS No. 623-42-7 · EC no. 210-792-1
UN no. 1237 · ADR 3 II · WGK 2

Danger H225-H315-H319-H335

Butyric acid methyl ester

ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis

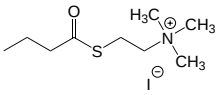
Purity (GC) ..... ≥96 %

Art. No.	Pack Qty.	Pack.	€
5186.1	1 g	plastic	107,40

γ-Butyrolactame

▸ 2-Pyrrolidone see page 1193

2-Butyrylthiocholine iodide



$C_9H_{20}INOS$ · mp 172 to 174 °C
CAS No. 1866-16-6 · EC no. 217-475-7
WGK 1

Warning H315-H319-H335

2-Butyrylthiocholine iodide

≥99 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis

Appearance .. white to almost white cryst. powder
Assay (arg.) ..... ≥99,0 %
Appearance of solution (10 %, H_2O) .... colourless
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8452.1	1 g	glass	25,70
8452.2	5 g	glass	94,10
8452.3	10 g	glass	174,70

Cacodylic acid sodium salt trihydrate



Sodium dimethylarsonate · Cakodylic acid sodium salt · Sodium cacodylate

$C_2H_6AsNaO_2 \cdot 3\ H_2O$ · D 0,8 g/cm³ · mp 77 to 80 °C
CAS No. 6131-99-3 · EC no. 204-708-2
UN no. 1688 · ADR 6.1 II · WGK 3

Danger H301+H331-H410

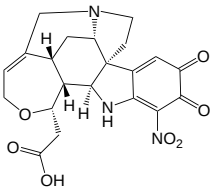
Cacodylic acid sodium salt trihydrate
PUFFERAN® ≥98 %

Type analysis

Appearance	fine, white crystals
Assay (as trihydrate)	≥98,0 %
pH-value	8,0-8,3
Aqueous solution (2 g +10 ml)	clear, colourless
Chloride (Cl)	≤0,02 %
Arsenic (As)	≤0,05 %
Methylarsonic acid disodium salt	complies BPC-49
Acidity/alkalinity	complies BPC-49

Art. No.	Pack Qty.	Pack.	€
5169.3	10 g	plastic	27,45
5169.1	50 g	plastic	81,60
5169.2	250 g	plastic	263,40

Cacotheline



$C_{21}H_{21}N_3O_7 \cdot HNO_3 \cdot H_2O$ · mp >300 °C
CAS No. 561-20-6 · EC no. 209-215-6
WGK 1

Cacotheline
≥95 %, p.a.

Indicator for metal ions

Dissolve 0.1 g in 100 ml ethanol (96 %)

Type analysis

Appearance	orange powder
Assay	≥95 %
Sulphated ash	≤0,1 %
Water (H_2O)	≤5 %

Art. No.	Pack Qty.	Pack.	€
1H42.1	1 g	glass	20,35
1H42.2	10 g	glass	69,35
1H42.3	25 g	glass	114,50

Cadmium Standards
- Cadmium ICP Standard Solution see page 1314
- Cadmium AAS Standard Solution see page 1314
- Cadmium ICP Standard Solution see page 1314

Cadmium acetate

Cadmium diacetate

$Cd(CH_3COO)_2 \cdot D$ 2,341 g/cm³ · mp 255 to 273 °C
CAS No. 543-90-8 · EC no. 208-853-2
UN no. 2570 · ADR 6.1 III · WGK 3

Danger H302+H312+H332-H350-H410

Cadmium acetate
ROTI®METIC 99,999 % (5N), anhydrous

Type analysis

Assay (metals basis)	99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5247.1	10 g	plastic	122,05
5247.2	25 g	plastic	205,90

Cadmium acetate dihydrate

$Cd(CH_3COO)_2 \cdot 2\ H_2O \cdot D$ 2,01 g/cm³ · mp 256 °C
CAS No. 5743-04-4 · EC no. 208-853-2
UN no. 2570 · ADR 6.1 III · WGK 3

Warning H302+H312+H332-H410

Cadmium acetate dihydrate
≥99 %, p.a.

Reagent for determination of S, Se and Te.

Guarantee analysis

Assay (compl.)	≥99,0 %
In H_2O insoluble matter	≤0,005 %
Chloride (Cl)	≤0,001 %
Sulphate (SO_4)	≤0,005 %
Lead (Pb)	≤0,003 %
Calcium (Ca)	≤0,005 %
Iron (Fe)	≤0,0005 %
Copper (Cu)	≤0,001 %
Sodium (Na)	≤0,002 %
Zinc (Zn)	≤0,002 %

Art. No.	Pack Qty.	Pack.	€
KK06.1	100 g	plastic	41,40
KK06.2	250 g	plastic	87,65

Cadmium diacetate
▸ Cadmium acetate see page 802

Cadmium-free Quantum Dots
▸ Quantum Dots, hydrophobic see page 1195

Cadmium monoxide
▸ Cadmium oxide see page 802

Cadmium(II) oxide
▸ Cadmium oxide see page 802

Cadmium oxide

Cadmium monoxide · Cadmium(II) oxide

CdO · D 8,26 g/cm³ · mp 870 to 950 °C
CAS No. 1306-19-0 · EC no. 215-146-2
UN no. 2570 · ADR 6.1 II · WGK 3

Danger H330-H341-H350-H361fd-H372-H410

Cadmium oxide
ROTI®METIC 99,995 % (4N5)

Type analysis

Assay (metals basis)	99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L63.1	5 g	HDPE	45,70
1L63.2	25 g	HDPE	113,45

Cadmium oxide
≥99 %, pure

Type analysis

Assay	≥99 %
In HCl insoluble matter	≤0,05 %
Sulphate (SO_4)	≤0,05 %
Cu (Copper)	≤0,01 %
Fe (Iron)	≤0,1 %
Pb (Lead)	≤0,05 %
Zn (Zinc)	≤0,05 %

Art. No.	Pack Qty.	Pack.	€
3280.1	100 g	plastic	24,65
3280.2	500 g	plastic	85,90
Original pack 6 x 500 g			81,61/500 g
3280.3	1 kg	plastic	149,45
Original pack 6 x 1 kg			141,98/1 kg

Cadmium sulphate

Sulphuric acid, cadmium salt

$CdSO_4 \cdot D$ 4,69 g/cm³ · mp 1000 °C
CAS No. 10124-36-4 · EC no. 233-331-6
UN no. 2570 · ADR 6.1 II · WGK 3

Danger H301-H330-H340-H350-H360FD-H372-H410

Cadmium sulphate
ROTI®METIC 99,995 % (4N5)

Type analysis

Assay (metals basis)	99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L74.1	5 g	HDPE	80,10
1L74.2	25 g	HDPE	292,95

Cadmium sulphate hydrate

$CdSO_4 \cdot 8/3\ H_2O$, $3\ CdSO_4 \cdot 8\ H_2O \cdot$ D 3,1 g/cm³ · mp 41 °C
CAS No. 7790-84-3 · EC no. 233-331-6
UN no. 2570 · ADR 6.1 II · WGK 3

Danger H301-H330-H340-H350-H360FD-H372-H410

Cadmium sulphate hydrate
≥99 %, p.a., ACS

Guarantee analysis

Appearance ..... fine, white crystals
Assay ..... ≥99,0 %
Chloride (Cl) ..... ≤0,001 %
Nitrate and nitrite (as NO_3) ..... ≤0,003 %
In H_2O insoluble matter ..... ≤0,005 %
Calcium (Ca) ..... ≤0,005 %
Copper (Cu) ..... ≤0,002 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,01 %
Sodium (Na) ..... ≤0,02 %
Lead (Pb) ..... ≤0,003 %
Zinc (Zn) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
4482.2	25 g	plastic	21,40
4482.1	100 g	plastic	67,20
4482.3	250 g	plastic	111,70
4482.4	500 g	plastic	171,50
Original pack 6 x 500 g			162,93/500 g
4482.5	1 kg	plastic	317,15
Original pack 6 x 1 kg			301,29/1 kg

Cadmium sulphide

CdS · D 4,81 g/cm³ · mp 1750 °C
CAS No. 1306-23-6 · EC no. 215-147-8
UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H341-H350-H361fd-H372-H400-H413

Cadmium sulphide
≥97 %, pure

Type analysis

Assay ..... ≥95,0 %
Assay (metals basis) ..... ≥74,0 %
Fe (Iron) ..... ≤0,05 %
Pb (Lead) ..... ≤0,01 %
Sn (Tin) ..... ≤0,01 %
Copper (Cu) ..... ≤0,01 %
Water ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
1HH4.1	100 g	plastic	21,40
1HH4.2	500 g	plastic	56,90
Original pack 6 x 500 g			54,06/500 g
1HH4.3	1 kg	plastic	106,45
Original pack 6 x 1 kg			101,13/1 kg

Cadmium telluride
▸ Quantum Dots, hydrophilic see page 1194

Caesium Standards
▸ Caesium IC Standard Solution see page 1336
▸ Caesium ICP Standard Solution see page 1314
▸ Caesium ICP Standard Solution see page 1314
▸ Caesium AAS Standard Solution see page 1314

Caesium carbonate

Cesium salts

Cs_2CO_3 · D 4,07 to 4,24 g/cm³ · mp >400 °C
CAS No. 534-17-8 · EC no. 208-591-9
WGK 1

Danger H315-H318-H335-H361f-H373

Caesium carbonate
ROTI®METIC 99,995 % (4N5)

Type analysis

Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5618.1	5 g	plastic	46,15

Caesium carbonate
≥99,9 %, p.a.

Base for organic chemistry

Type analysis

Appearance ..... white solid
Assay ..... ≥99,9 %
Lithium (Li) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,01 %
Potassium (K) ..... ≤0,02 %
Rubidium (Rb) ..... ≤0,02 %
Calcium (Ca) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,0002 %
Barium (Ba) ..... ≤0,003 %
Strontium (Sr) ..... ≤0,0005 %
Aluminium (Al) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0003 %
Chromium (Cr) ..... ≤0,0002 %
P_2O_5 ..... ≤0,002 %
Sulphate (SO_4) ..... ≤0,005 %
Chloride (Cl) ..... ≤0,01 %
Nitrate (NO_3) ..... ≤0,003 %
Silicate (SiO_2) ..... ≤0,005 %
Loss on ignition (500 °C) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6873.1	5 g	plastic	20,35
6873.2	25 g	plastic	46,15
6873.3	100 g	plastic	145,15
6873.4	500 g	plastic	461,20
Original pack 6 x 500 g			438,14/500 g

Caesium chloride

Cesium salts

CsCl · D 3,97 g/cm³ · mp 642 °C · bp 1303 °C
CAS No. 7647-17-8 · EC no. 231-600-2
WGK 1

Warning H361fd

Caesium chloride
ROTI®METIC 99,999 % (5N)

Type analysis

Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5061.1	10 g	plastic	85,50
5061.2	50 g	plastic	210,20

Caesium chloride
≥99,999 %, p.a., Ultra Quality

Reagent for density gradient centrifugation.

Guarantee analysis

Assay ..... ≥99,999 %
Aluminium (Al) ..... ≤0,00001 %
Barium (Ba) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,0001 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,00001 %
Iron (Fe) ..... ≤0,00002 %
Potassium (K) ..... ≤0,0001 %
Lithium (Li) ..... ≤0,00005 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,0001 %
Sodium (Na) ..... ≤0,00003 %
Rubidium (Rb) ..... ≤0,0001 %
Strontium (Sr) ..... ≤0,0001 %
Sulphate (SO_4) ..... ≤0,0005 %
Silicate (SiO_2) ..... ≤0,0001 %
260 nm ..... ≤0,02
280 nm ..... ≤0,02

Art. No.	Pack Qty.	Pack.	€
8627.4	10 g	plastic	28,95
8627.3	50 g	plastic	78,40
8627.1	100 g	plastic	134,40
8627.5	250 g	plastic	252,65
8627.2	1 kg	plastic	934,20
Original pack 6 x 1 kg			887,49/1 kg

Caesium chloride
≥99,9 %, extra pure, for biochemistry

Reagent for density gradient centrifugation.

Type analysis

Assay ..... ≥99,9 %
Sulphate (SO_4) ..... ≤0,005 %
Aluminium (Al) ..... ≤0,002 %
Barium (Ba) ..... ≤0,005 %
Calcium (Ca) ..... ≤0,005 %
Chromium (Cr) ..... ≤0,002 %
Iron (Fe) ..... ≤0,002 %
Potassium (K) ..... ≤0,005 %
Lithium (Li) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,005 %
Manganese (Mn) ..... ≤0,002 %
Sodium (Na) ..... ≤0,005 %
Rubidium (Rb) ..... ≤0,02 %
Strontium (Sr) ..... ≤0,005 %
Silicate (SiO_2) ..... ≤0,004 %

Art. No.	Pack Qty.	Pack.	€
7878.4	25 g	plastic	38,60
7878.1	100 g	plastic	107,00
7878.3	250 g	plastic	209,65
7878.5	500 g	plastic	396,70
Original pack 6 x 500 g			376,87/500 g
7878.2	1 kg	plastic	779,40
Original pack 6 x 1 kg			740,43/1 kg

Caesium nitrate

Cesium salts

$CsNO_3$ · D 3,64 g/cm³ · mp 401 °C
CAS No. 7789-18-6 · EC no. 232-146-8
UN no. 1451 · ADR 5.1 III · WGK 1

Danger H272-H302-H361fd

Caesium nitrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
4505.1	10 g	plastic	127,95
4505.2	50 g	plastic	461,20

Caesium sulphate

Cesium salts

Cs_2SO_4 · D 4,25 g/cm³ · mp 1006 °C
CAS No. 10294-54-9 · EC no. 233-662-6
WGK 1

Warning H302-H361f-H373

Caesium sulphate
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L77.1	10 g	HDPE	70,45
1L77.2	50 g	HDPE	170,95

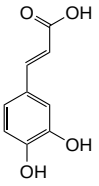
Caesium sulphate
≥99,99 %, p.a.

Guarantee analysis
Assay ..... ≥99,99 %
Aluminium (Al) ..... ≤0,0001 %
Barium (Ba) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,0001 %
Chromium (Cr) ..... ≤0,00005 %
Iron (Fe) ..... ≤0,00005 %
Potassium (K) ..... ≤0,0006 %
Lithium (Li) ..... ≤0,0001 %
Magnesium (Mg) ..... ≤0,0001 %
Manganese (Mn) ..... ≤0,0002 %
Sodium (Na) ..... ≤0,0002 %
Rubidium (Rb) ..... ≤0,005 %
Strontium (Sr) ..... ≤0,0002 %
Chloride (Cl) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
9355.3	25 g	plastic	51,50
9355.1	100 g	plastic	160,20
9355.2	1 kg	plastic	1.069,65
Original pack 6 x 1 kg			1.016,17/1 kg

2-Caffeeoyl tartaric acid
▸ Caftaric acid see page 804

Caffeic acid



3,4-Dihydroxycinnamic acid

$C_9H_8O_4$ · mp 211 to 213 °C
CAS No. 331-39-5 · EC no. 206-361-2
WGK 1

Warning H315-H319-H335-H351-H361f

Caffeic acid
≥98 %

Storage temperature: +4 °C

Type analysis
Appearance ..... beige powder
Assay ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
5869.3	5 g	glass	25,70
5869.1	10 g	glass	44,65
5869.2	50 g	glass	174,70

Caffeic acid
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥90,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤2,0 %
Assay (qNMR) ..... ≥90,0 %

Proof of identity by ^1H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE08.1	25 mg	glass	837,45

Caffeic acid
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥90,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC08.1	100 mg	glass	310,70

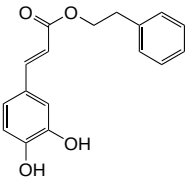
Caffeic acid
ROTICHROM® TLC

Reference substance for thin layer chromatography.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
5574.1	100 mg	glass	42,90

Caffeic acid phenethyl ester



CAPE · Phenethyl-3,4-dihydroxycinnamate

$C_{17}H_{16}O_4$ · mp 153 °C · bp 498,6 °C · flp 185,1 °C
CAS No. 104594-70-9
WGK 1

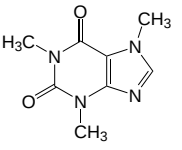
Warning H315-H319-H335

Caffeic acid phenethyl ester
≥99 %, for biochemistry

Type analysis
Assay (HPLC) ..... ≥99,0 %
Solution (5 % in Aceton) ..... colourless to yellow
Water (KF) ..... ≤0,5 %
Melting point ..... 127-129 °C

Art. No.	Pack Qty.	Pack.	€
5465.1	25 mg	glass	50,45
5465.2	50 mg	glass	77,30

Caffeine



1,3,7-Trimethylxanthine · 7-Methyltheobromine

$C_8H_{10}N_4O_2$ · D 1,23 g/cm³ · mp 236 to 239 °C
CAS No. 58-08-2 · EC no. 200-362-1
WGK 1

Warning H302

Caffeine
≥98,5 %, anhydrous, for biochemistry

Type analysis
Appearance ..... white cryst. powder
Assay (dry substance) ..... 98,5-101,5 %
Melting range ..... 234-239 °C
Appearance of solution ..... complies
Sulphate (SO_4) ..... ≤0,05 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
N815.1	50 g	plastic	14,95
N815.2	100 g	plastic	21,40
N815.3	500 g	plastic	64,40
Original pack 6 x 500 g			61,18/500 g

Caffeine
ROTI®Calipure anhydrous, melting point standard 235–238 °C

Type analysis
Meniscus formation ..... 235-238 °C
Complete liquefaction ..... 235-238 °C
Measurement uncertainty ..... ±0,3 °C

Art. No.	Pack Qty.	Pack.	€
9739.1	1 g	glass	40,75

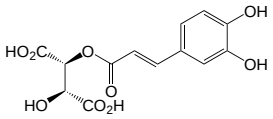
Caffeine
ROTICHROM® HPLC

Storage temperature: +4 °C

Type analysis
Appearance ..... white to beige coloured powder
Purity (HPLC) ..... ≥95%

Art. No.	Pack Qty.	Pack.	€
1EX4.1	20 mg	glass	160,75

Caftaric acid



2-Caffeeoyl tartaric acid

$C_{13}H_{12}O_9$ · mp 200 °C
CAS No. 67879-58-7
WGK 1

Caftaric acid
ROTICHROM® HPLC

Reference substance for HPLC.
From *Echinacea pallida*.

Storage temperature: +4 °C

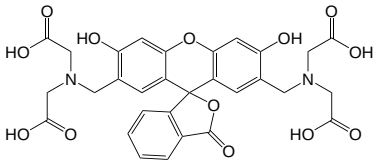
Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1125.1	10 mg	glass	471,95

Cake alum
- Aluminium sulphate see page 723
- Aluminium sulphate hydrate see page 723
- Aluminium sulphate hexadecahydrate see page 723
- Aluminium sulphate octadecahydrate see page 723

Cakodylic acid sodium salt
- Cacodylic acid sodium salt trihydrate see page 802

Calcein



Fluorescein complexone · Fluorexon

$C_{30}H_{26}N_2O_{13}$ · mp 200 °C
CAS No. 1461-15-0 · EC no. 215-957-1
WGK 1

Calcein
p.a.

Metal indicator for Ca in the presence of Mg

Prepare trituration with KNO_3 (1:99)

Type analysis
Appearance ..... yellow to orange powder
Suitability as indicator ..... complies

Art. No.	Pack Qty.	Pack.	€
7688.1	5 g	glass	47,20
7688.2	25 g	glass	138,70
7688.3	100 g	glass	407,45

Calcium

Ca · D 1,55 g/cm³ · mp 839 °C · bp 1484 °C
CAS No. 7440-70-2 · EC no. 231-179-5
UN no. 1401 · ADR 4.3 II · WGK 1

Danger H261

Calcium granulate
≥99,5 %, ~6 mesh

Type analysis
Assay ..... ≥99,5 %
Particle size ..... ~6 mesh

Art. No.	Pack Qty.	Pack.	€
2729.1	50 g	glass	90,85

Calcium Standards
- Calcium ICP Standard Solution see page 1314
- Calcium ICP Standard Solution see page 1314
- Calcium AAS Standard Solution see page 1314
- Calcium IC Standard Solution see page 1336

Calcium acetate hydrate

$Ca(CH_3COO)_2$ · x H_2O · D 1,5 g/cm³
CAS No. 114460-21-8 · EC no. 601-314-6
WGK 1

Calcium acetate hydrate
≥99 %, USP, extra pure

Guarantee analysis
Assay (compl., dry substance) ..... 99,0-100,5 %
Identity ..... complies
Easily oxidizable substance. ..... complies
pH-value (5 % solution) 6,3-9,6
Water ..... ≤7,0 %
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,06 %
Fluoride (F) ..... ≤0,005 %
Nitrate (NO_3) ..... complies
Arsenic (As) ..... ≤0,0003 %
Lead (Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
0260.1	500 g	plastic	26,35
Original pack 6 x 500 g			25,03/500 g
0260.2	1 kg	plastic	42,90
Original pack 6 x 1 kg			40,76/1 kg
0260.4	2.5 kg	plastic	84,95
0260.3	5 kg	plastic	155,90

Calcium acetate monohydrate

$Ca(CH_3COO)_2 \cdot H_2O$ · mp 160 °C
CAS No. 5743-26-0 · EC no. 200-540-9
WGK 1

Calcium acetate monohydrate
≥99 %, p.a., ACS

Guarantee analysis
Assay (compl.) ..... ≥99,0 %
In H_2O insoluble matter ..... ≤0,005 %
Alkalinity ..... complies
Acidity ..... ≤0,035 meq/g
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,005 %
Barium (Ba) ..... ≤0,01 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,01 %
Magnesium (Mg) ..... ≤0,05 %
Sodium (Na) ..... ≤0,02 %
Strontium (Sr) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
P011.3	100 g	plastic	24,65
P011.1	500 g	plastic	66,55
Original pack 6 x 500 g			63,22/500 g
P011.2	1 kg	plastic	123,65
Original pack 6 x 1 kg			117,47/1 kg

Calcium arachinate/-behenate
- Arachidic acid calcium salt see page 750

Calcium carbide

Carbide

CaC_2 · D 2,22 g/cm³ · mp 2300 °C
CAS No. 75-20-7 · EC no. 200-848-3
UN no. 1402 · ADR 4.3 I · WGK 1

Danger H260-H315-H318-H335

Calcium carbide
technical, 0,1–1 mm

Suitable for water analysis.

Type analysis
Granulation ..... 0,1-1,0 mm
Gas yield ..... 260 l C_2H_2 ±3 %/kg

Art. No.	Pack Qty.	Pack.	€
6110.2	500 g	tinplate	24,65
Original pack 6 x 500 g			23,42/500 g
6110.1	1 kg	tinplate	37,10
Original pack 6 x 1 kg			35,25/1 kg
6110.3	2.5 kg	tinplate	71,95
6110.4	5 kg	tinplate	127,95

Calcium carbide
technical, 1–3 mm

Type analysis
Granulation ..... 1-3 mm
Gas yield ..... 260 l C_2H_2 ±3 %/kg

Art. No.	Pack Qty.	Pack.	€
6666.1	500 g	tinplate	24,65
Original pack 6 x 500 g			23,42/500 g
6666.2	1 kg	tinplate	37,10
Original pack 6 x 1 kg			35,25/1 kg
6666.3	2.5 kg	tinplate	71,95
6666.4	5 kg	tinplate	127,95

Calcium carbide
technical, 7–20 mm

Type analysis
Granulation ..... 7-20 mm
Gas yield ..... 260 l C_2H_2 ±3 %/kg

Art. No.	Pack Qty.	Pack.	€
6667.1	500 g	tinplate	24,65
Original pack 6 x 500 g			23,42/500 g
6667.2	1 kg	tinplate	37,10
Original pack 6 x 1 kg			35,25/1 kg
6667.3	2.5 kg	tinplate	71,95
6667.4	5 kg	tinplate	127,95

Calcium carbonate

$CaCO_3$ · D 2,93 g/cm³ · mp 825 °C
CAS No. 471-34-1 · EC no. 207-439-9

Calcium carbonate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5616.1	5 g	plastic	60,75
5616.2	25 g	plastic	198,35

Calcium carbonate
≥99 %, p.a., precipitated

Disintegrating agent, for the determination of alkalis in silicates.

Guarantee analysis
Assay (compl., dry substance) ..... ≥99,0 %
In CH_3COOH insoluble matter ..... ≤0,1 %
Loss on drying (200 °C, 4 h) ..... ≤0,2 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,03 %
Heavy metals ..... ≤0,002 %
Barium (Ba) ..... ≤0,005 %
Lead (Pb) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,002 %
Magnesium (Mg) ..... ≤0,1 %
Sodium (Na) ..... ≤0,25 %
Copper (Cu) ..... ≤0,0005 %
Potassium (K) ..... ≤0,02 %
Strontium (Sr) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
P012.4	100 g	plastic	15,60
P012.1	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
P012.2	1 kg	plastic	76,25
Original pack 6 x 1 kg			72,44/1 kg
P012.3	2.5 kg	plastic	149,45

Calcium carbonate
≥98,5 %, Ph. Eur., USP, BP, precipitated

Guarantee analysis
Assay (dry substance) ..... 98,5 - 100,5
Identity ..... complies
Insoluble matter in acid ..... ≤0,2 %
Loss on drying (200 °C) ..... ≤2,0 %
Chloride (Cl) ..... ≤0,033 %
Fluoride (F) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,25 %
Magnesium and alkali metals ..... ≤1 %
Arsenic (As) ..... ≤0,0003 %
Barium (Ba) ..... complies
Lead (Pb) ..... ≤0,0003 %
Iron (Fe) ..... ≤0,02 %
Mercury (Hg) ..... ≤0,00005 %

Art. No.	Pack Qty.	Pack.	€
P013.1	500 g	plastic	20,35
Original pack 6 x 500 g			19,33/500 g
P013.2	1 kg	plastic	33,25
Original pack 6 x 1 kg			31,59/1 kg
P013.4	2.5 kg	plastic	68,30
P013.3	5 kg	plastic	127,95

Calcium carbonate
≥98,5 %, Ph. Eur., USP, granulated

Guarantee analysis
Appearance ..... white granules
Assay ..... 98,5-100,5 %
Identity ..... complies
In CH_3COOH insoluble matter ..... ≤0,2 %
In HCl insoluble matter ..... ≤0,2 %
Chloride (Cl) ..... ≤0,033 %
Fluoride (F) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,25 %
As (Arsenic) ..... ≤0,0003 %
Barium (Ba) ..... complies
Fe (Iron) ..... ≤0,02 %
Hg (Mercury) ..... ≤0,00005 %
Pb (Lead) ..... ≤0,0003 %
Magnesium and alkali metals ..... ≤1,5 %
Loss on drying (200 °C) ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
3249.1	500 g	plastic	28,50
Original pack 6 x 500 g			27,08/500 g
3249.2	1 kg	plastic	50,45
Original pack 6 x 1 kg			47,93/1 kg
3249.3	2.5 kg	plastic	115,60
3249.4	5 kg	plastic	213,95

Calcium carbonate
≥98,5 %, powdered

Type analysis
Assay (dry substance) ..... ≥98,5 %
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,5 %
Antimony (Sb) ..... ≤0,01 %
Lead (Pb) ..... ≤0,005 %
Cadmium (Cd) ..... ≤0,0001 %
Copper (Cu) ..... ≤0,01 %
Zinc (Zn) ..... ≤0,01 %
Particle size d_{50} ..... 1,0 µm

Art. No.	Pack Qty.	Pack.	€
6230.1	1 kg	plastic	21,40
Original pack 6 x 1 kg			20,33/1 kg
6230.3	2.5 kg	plastic	32,15
6230.2	5 kg	plastic	55,80
6230.5	25 kg	plastic	177,40

Calcium chloride

$CaCl_2$ · D 2,15 g/cm³ · mp 775 °C · bp 1935 °C
CAS No. 10043-52-4 · EC no. 233-140-8
WGK 1

Warning H319

Calcium chloride
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L72.1	1 g	HDPE	73,00
1L72.2	10 g	HDPE	238,15

Calcium chloride
≥98 %, dehydrated, powder

Drying agent

Type analysis
Assay ($CaCl_2$) ..... ≥98,0 %
Water insoluble residue ..... ≤0,1 %
Fluoride (F) ..... ≤0,004 %
Arsenic (As) ..... ≤0,0003 %
Lead (Pb) ..... ≤0,0002 %
Iron (Fe) ..... ≤0,01 %
Mercury (Hg) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
CN93.1	500 g	plastic	39,25
Original pack 6 x 500 g			37,29/500 g
CN93.2	1 kg	plastic	69,35
Original pack 6 x 1 kg			65,88/1 kg
CN93.3	2.5 kg	plastic	149,45
CN93.4	5 kg	plastic	274,15
CN93.5	25 kg	plastic	901,95

Calcium chloride
≥96 %, dehydrated, granules

Drying agent

Type analysis
Assay ($CaCl_2$) ..... ≥96,0 %
Heavy metals ..... ≤0,005 %
Iron (Fe) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,1 %
Zinc (Zn) ..... ≤0,003 %
Particle size ..... ~0,5-5 mm

Art. No.	Pack Qty.	Pack.	€
CN92.1	500 g	plastic	40,75
Original pack 6 x 500 g			38,71/500 g
CN92.2	1 kg	plastic	60,10
Original pack 6 x 1 kg			57,10/1 kg
CN92.3	2.5 kg	plastic	137,10
CN92.4	10 kg	plastic	375,20

Calcium chloride
≥95 %, technical

Drying agent

Type analysis
Assay ..... ≥95,0 %
In H_2O insoluble matter ..... ≤0,5 %
Sulphate (SO_4) ..... ≤0,05 %
Fe (Iron) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
1C34.1	1 kg	plastic	30,00
Original pack 6 x 1 kg			28,50/1 kg
1C34.2	2.5 kg	plastic	47,85
1C34.3	5 kg	plastic	74,20
1C34.4	10 kg	plastic	123,65
1C34.5	25 kg	plastic	246,20

Calcium chloride
≥94 %, dehydrated

Drying agent

Type analysis
Assay ($CaCl_2$) ..... ≥94 %
Sulphate (SO_4) ..... ≤0,1 %
Barium (Ba) ..... ≤0,1 %
Iron (Fe) ..... ≤0,0005 %
NaCl ..... ≤2 %
$MgCl_2$ ..... ≤0,1 %
Potassium chloride (KCl) ..... ≤3 %

Art. No.	Pack Qty.	Pack.	€
A119.1	1 kg	plastic	22,50
Original pack 6 x 1 kg			21,38/1 kg
A119.3	2.5 kg	plastic	41,95
A119.2	5 kg	plastic	68,70
A119.4	10 kg	plastic	106,45
A119.5	25 kg	plastic	162,90

Calcium chloride hydrate

$CaCl_2$ · x H_2O · D 1,71 g/cm³ · mp ~30 °C
CAS No. 22691-02-7
WGK 1

Warning H319

Calcium chloride hydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5056.1	10 g	plastic	161,80

Calcium chloride dihydrate

$CaCl_2 \cdot 2\ H_2O$ · D 1,85 g/cm³ · mp 176 °C
CAS No. 10035-04-8 · EC no. 600-075-5
WGK 1

Warning H319

Calcium chloride dihydrate
≥99 %, p.a., ACS

Reagent for the preparation of freezing mixtures, for molecular biology.

Guarantee analysis
Assay (compl.) ..... ≥99,0 %
pH-value (5 %, water) 4,5-8,5
In H_2O insoluble matter ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,01 %
Phosphate (PO_4) ..... ≤0,001 %
Ammonium (NH_4) ..... ≤0,005 %
Oxidizing substances (as NO_3) ..... ≤0,003 %
Barium (Ba) ..... ≤0,005 %
Lead (Pb) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0003 %
Potassium (K) ..... ≤0,01 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,005 %
Manganese (Mn) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,02 %
Nickel (Ni) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Strontium (Sr) ..... ≤0,01 %
Zinc (Zn) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
5239.2	500 g	plastic	21,40
Original pack 6 x 500 g			20,33/500 g
5239.1	1 kg	plastic	31,75
Original pack 6 x 1 kg			30,16/1 kg
5239.3	2.5 kg	plastic	67,20
5239.4	25 kg	plastic	

Calcium chloride dihydrate
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤5,0 I.U./g
Assay ..... ≥99 %
Appearance of solution ..... complies
pH-value (5 % solution) 4,5-9,2
Sulphate (SO_4) ..... ≤0,024 %
Heavy metals (as Pb) ..... ≤0,0005 %
Aluminium (Al) ..... ≤0,00002 %
Arsenic (As) ..... ≤0,0002 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
HN04.1	250 g	plastic	23,15
HN04.2	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
HN04.3	1 kg	plastic	76,25
Original pack 6 x 1 kg			72,44/1 kg

Calcium chloride dihydrate
≥99 %, Ph. Eur., USP

Guarantee analysis
Assay (compl.) ..... 99,0-103,0 %
Identity ..... complies
Appearance of solution ..... complies
pH value (5 % in H_2O) 4,5-9,2
Acid or alkaline react. substances ..... complies
Sulphate (SO_4) ..... ≤0,03 %
Magnesium and alkali metals ..... ≤0,5 %
Aluminium (Al) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %
Fe (iron), Al (aluminium), PO_4 (phosphate) .. complies

Art. No.	Pack Qty.	Pack.	€
T885.2	500 g	plastic	22,50
Original pack 6 x 500 g			21,38/500 g
T885.1	1 kg	plastic	38,20
Original pack 6 x 1 kg			36,29/1 kg
T885.3	2.5 kg	plastic	91,30

Calcium chloride hexahydrate

$CaCl_2 \cdot 6\ H_2O$ · D 1,71 g/cm³ · mp 30 °C
CAS No. 7774-34-7 · EC no. 616-496-2
WGK 1

Warning H319

Calcium chloride hexahydrate
≥98 %, p.a.

Analytical reagent, molecular biology

Storage temperature: +4 to +15 °C

Guarantee analysis
Assay (compl.) ..... ≥98,0 %
In H_2O insoluble matter, precipated by NH_4OH ..... ≤0,01 %
Oxidizing substances (as NO_3) ..... ≤0,003 %
Phosphate (PO_4) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,01 %
Ammonium (NH_4) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,0005 %
Barium (Ba) ..... ≤0,005 %
Copper (Cu) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0025 %
Magnesium (Mg) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,0005 %
Strontium (Sr) ..... ≤0,01 %
Zinc (Zn) ..... ≤0,001 %

Melting point: approx. 30 °C.

Art. No.	Pack Qty.	Pack.	€
T886.2	500 g	plastic	39,70
Original pack 6 x 500 g			37,72/500 g
T886.1	1 kg	plastic	67,65
Original pack 6 x 1 kg			64,27/1 kg
T886.3	2.5 kg	plastic	137,10

Calcium chloride hexahydrate
≥97 %, Ph. Eur.

Storage temperature: +4 to +15 °C

Guarantee analysis
Assay (compl.) ..... 97,0-103,0 %
Identity ..... complies
Appearance of solution ..... complies
Acid or alkaline react. substances ..... complies
Sulphate (SO_4) ..... ≤0,02 %
Aluminium (Al) ..... complies
Heavy metals (as Pb) ..... ≤0,0015 %
Barium (Ba) ..... complies
Iron (Fe) ..... ≤0,0007 %
Magnesium and alkali metals ..... ≤0,3 %

Melting point: approx. 30 °C.

Art. No.	Pack Qty.	Pack.	€
CP89.1	500 g	plastic	25,70
Original pack 6 x 500 g			24,42/500 g
CP89.2	1 kg	plastic	37,55
Original pack 6 x 1 kg			35,67/1 kg
CP89.3	2.5 kg	plastic	78,40

tri-Calcium dicitrate tetrahydrate

TCC · Tricalcium citrate

$C_{12}H_{10}Ca_3O_{14} \cdot 4\ H_2O$ · mp 144 °C
CAS No. 5785-44-4 · EC no. 212-391-7
WGK 1

tri-Calcium dicitrate tetrahydrate
≥97 %, extra pure

Type analysis
Assay (dry substance) ..... ≥97,0 %
Fluoride (F) ..... ≤0,005 %
Aluminium (Al) ..... ≤0,005 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,0001 %
Mercury (Hg) ..... ≤0,0001 %
Heavy metals (as Pb) ..... ≤0,0005 %
Loss on drying ..... 10,0-14,0 %

Art. No.	Pack Qty.	Pack.	€
7450.1	500 g	plastic	35,40
Original pack 6 x 500 g			33,63/500 g
7450.2	1 kg	plastic	62,25
Original pack 6 x 1 kg			59,14/1 kg
7450.3	2.5 kg	plastic	138,70

Calcium diiodate
▸ Calcium iodate see page 809

Calcium EDTA disodium salt dihydrate
▸ Ethylenediamine tetraacetic acid calcium disodium salt hydrate see page 921

Calcium fluoride

CaF_2 · D 3,18 g/cm³ · mp 1403 °C · bp 2500 °C
CAS No. 7789-75-5 · EC no. 232-188-7
WGK 1

Calcium fluoride
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

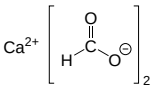
Art. No.	Pack Qty.	Pack.	€
1L59.1	5 g	HDPE	192,45

Calcium fluoride
≥97 %, pure

Type analysis
Assay (compl., based on calcinated substance) ..... ≥97,0 %
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,1 %
Iron (Fe) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
2275.1	100 g	plastic	21,40
2275.2	500 g	plastic	46,15
Original pack 6 x 500 g			43,84/500 g
2275.3	1 kg	plastic	82,70
Original pack 6 x 1 kg			78,57/1 kg
2275.4	2.5 kg	plastic	170,95

Calcium formiate



Formic acid calcium salt · Calcium methanoate

$C_2H_2CaO_4$ · mp >300 °C
CAS No. 544-17-2 · EC no. 208-863-7
WGK 1

Danger H318

Calcium formate
≥98 %, pure

Type analysis

Assay (dry substance) ..... ≥98,0 %
Oxalate (as $C_2H_2O_4$) ..... ≤0,5 %
As (Arsenic) ..... ≤0,0005 %
Pb (Lead) ..... ≤0,001 %
Zn (Zinc) ..... ≤0,005 %
Loss on drying (2 h, 105 °C) ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
1AHC.1	500 g	plastic	37,55
Original pack 6 x 500 g			35,67/500 g
1AHC.2	1 kg	plastic	63,45
Original pack 6 x 1 kg			60,28/1 kg
1AHC.3	2.5 kg	plastic	126,35

D-Calciumgluconate monohydrate

▸ D-Gluconic acid calcium salt monohydrate see page 960

Calcium hydrate

▸ Calcium hydroxide see page 808

Calcium hydrogen phosphate

Calcium monohydrogen phosphate · Calcium phosphate dibasic · *sec*-Calcium phosphate

$CaHPO_4$ · D 2,89 g/cm³ · mp >450 °C
CAS No. 7757-93-9 · EC no. 231-826-1
WGK 1

Calcium hydrogen phosphate
extra pure

Type analysis

Assay (compl.) ..... ≥98,0 %
Chloride (Cl) ..... ≤0,5 %
Sulphate (SO_4) ..... ≤0,5 %
Heavy metals (as Pb) ..... ≤0,005 %
Arsenic (As) ..... ≤0,001 %
Iron (Fe) ..... ≤0,05 %
Insoluble matter in acid ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
9490.1	100 g	plastic	30,00
9490.2	500 g	plastic	62,90
Original pack 6 x 500 g			59,76/500 g
9490.3	1 kg	plastic	114,50
Original pack 6 x 1 kg			108,78/1 kg

Calcium hydrogen phosphate dihydrate

Calcium monohydrogen phosphate · Calcium phosphate dibasic · *sec*-Calcium phosphate

$CaHPO_4 \cdot 2\ H_2O$ · D 2,32 g/cm³
CAS No. 7789-77-7 · EC no. 231-826-1
WGK 1

Warning H315-H319-H335

Calcium hydrogen phosphate dihydrate
≥98 %, Ph. Eur., USP

Guarantee analysis

Assay (compl.) ..... 98,0-105,0 %
Identity ..... complies
In HCl insoluble matter ..... ≤0,2 %
Fluoride (F) ..... ≤0,005 %
Carbonate (CO_3) ..... complies
Chloride (Cl) ..... ≤0,033 %
Sulphate (SO_4) ..... ≤0,5 %
Arsenic (As) ..... ≤0,0003 %
Barium (Ba) ..... complies
Iron (Fe) ..... ≤0,04 %
Heavy metals (as Pb) ..... ≤0,003 %
Loss on ignition (800 °C) ..... 24,5-26,5 %

Art. No.	Pack Qty.	Pack.	€
HN70.1	500 g	plastic	32,15
Original pack 6 x 500 g			30,54/500 g
HN70.2	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg
HN70.3	2.5 kg	plastic	112,90

Calcium hydroxide

Slaked lime · Calcium hydrate

$Ca(OH)_2$ · D 2,24 g/cm³ · mp >450 °C
CAS No. 1305-62-0 · EC no. 215-137-3
WGK 1

Danger H315-H318-H335

Calcium hydroxide
≥96 %, p.a.

For detection of CO_2.

Guarantee analysis

Assay ..... ≥96 %
In HCl insoluble matter ..... ≤0,03 %
Carbonate (as $CaCO_3$) ..... ≤3 %
Chloride (Cl) ..... ≤0,005 %
Sulphur containing parts (as SO_4) ..... ≤0,1 %
Heavy metals (as Pb) ..... ≤0,003 %
Iron (Fe) ..... ≤0,05 %
Potassium (K) ..... ≤0,05 %
Magnesium (Mg) ..... ≤0,5 %
Sodium (Na) ..... ≤0,05 %
Strontium (Sr) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
CN87.1	500 g	plastic	51,50
Original pack 6 x 500 g			48,93/500 g
CN87.2	1 kg	plastic	88,05
Original pack 6 x 1 kg			83,65/1 kg
CN87.3	2.5 kg	plastic	177,40

Calcium hydroxide
≥95 %, Ph. Eur., USP, BP

Guarantee analysis

Assay (compl.) ..... 95,0-100,5 %
In HCl insoluble matter ..... ≤0,5 %
Carbonate (as $CaCO_3$) ..... ≤5,0 %
Chloride (Cl) ..... ≤0,033 %
Sulphate (SO_4) ..... ≤0,4 %
Mg and alkali salts ..... ≤4,0 %
Heavy metals (as Pb) ..... ≤0,002 %
Arsenic (As) ..... ≤0,0004 %
Residual solvents ..... complies

Art. No.	Pack Qty.	Pack.	€
KK03.1	500 g	plastic	18,85
Original pack 6 x 500 g			17,91/500 g
KK03.2	1 kg	plastic	27,45
Original pack 6 x 1 kg			26,08/1 kg
KK03.4	2.5 kg	plastic	55,40
KK03.3	5 kg	plastic	101,60

Calcium hydroxide
≥96 %, powdered

Type analysis

Assay ..... ≥96 %
Water ..... ≤0,5 %
Aluminium oxide (Al_2O_3) ..... ≤0,1 %
Calcium oxide (CaO) ..... ≥74,5 %
Ferric oxide (Fe_2O_3) ..... ≤0,05 %
Carbon dioxide (CO_2) ..... ≤1,0 %
Magnesium oxide (MgO) ..... ≤1,0 %
Manganese oxide (Mn_3O_4) ..... ≤0,05 %
Sulphur (S) ..... ≤0,01 %
Silicate (SiO_2) ..... ≤0,1 %
Loss on ignition ..... ≤25,0 %
Hydrate water ..... ≤24,0 %

Art. No.	Pack Qty.	Pack.	€
3529.4	1 kg	plastic	19,25
Original pack 6 x 1 kg			18,29/1 kg
3529.1	2.5 kg	plastic	31,10
3529.2	10 kg	plastic	69,80
3529.3	50 kg	plastic	138,70

penta-Calcium hydroxide triphosphate

▸ Calcium hydroxyphosphate see page 808

Calcium hydroxyphosphate

penta-Calcium hydroxide triphosphate

$Ca_5(PO_4)_3OH$ · D 3,4 g/cm³ · mp 1700 °C
CAS No. 12167-74-7 · EC no. 235-330-6
WGK 1

Calcium hydroxyphosphate
Ph. Eur., extra pure

Guarantee analysis

Appearance ..... White or almost white powder
Assay (Ca) ..... 35,0-40,0 %
Identity ..... complies
Identity Calcium ..... complies
Identity Phosphate ..... complies
Substances insoluble in HCl ..... ≤0,2 %
Chloride (Cl) ..... ≤0,15 %
Fluoride (F) ..... ≤0,0075 %
Sulphate (SO_4) ..... ≤0,5 %
Heavy metals (as Pb) ..... ≤0,003 %
Arsenic (As) ..... ≤0,0004 %
Iron (Fe) ..... ≤0,04 %
Loss on ignition (800 °C) ..... ≤8,0 %

Art. No.	Pack Qty.	Pack.	€
8450.1	250 g	plastic	19,25
8450.2	1 kg	plastic	42,90
Original pack 6 x 1 kg			40,76/1 kg
8450.3	2.5 kg	plastic	94,50

Calcium hypochlorite

$CaCl_2O_2$ · D 2,35 g/cm³ · mp 100 °C
CAS No. 7778-54-3 · EC no. 231-908-7
UN no. 1748 · ADR 5.1 II · WGK 2

Danger H272-H302-H314-H400-EUH031

Calcium hypochlorite
≥65 % Cl, granulated

Desinfectant and oxidizing agent.

Storage temperature: +4 to +15 °C

Type analysis
Availabe chlorine ($Ca(OCl)_2$) ..... ≥65 %
Water ..... 5,5-8,5 %
Iron (Fe) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
5164.1	500 g	plastic	30,00
Original pack 6 x 500 g			28,50/500 g
5164.3	1 kg	plastic	46,15
Original pack 6 x 1 kg			43,84/1 kg
5164.2	2.5 kg	plastic	91,30

Calcium iodate

Calcium diiodate

$Ca(IO_3)_2$ · D 4,79 g/cm³ · mp 535 °C
CAS No. 7789-80-2 · EC no. 232-191-3
UN no. 1479 · ADR 5.1 II · WGK 1

Danger H272-H315-H319-H335

Calcium iodate
≥97,5 %, anhydrous, pure

Type analysis
Assay ..... ≥97,5 %
As (Arsenic) ..... ≤0,0005 %
Hg (Mercury) ..... ≤0,0005 %
Pb (Lead) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
3218.1	100 g	glass	30,00
3218.2	500 g	glass	91,30
Original pack 6 x 500 g			86,74/500 g
3218.3	1 kg	glass	160,20
Original pack 6 x 1 kg			152,19/1 kg

Calcium-L-lactate hydrate
▸ L(+)-Lactic acid calcium salt hydrate see page 1032

Calcium L-lactate pentahydrate
▸ L(+)-Lactic acid calcium salt pentahydrate see page 1032

Calcium-lignosulphonate
▸ Lignosulphonic acid calcium salt see page 1042

Calcium monohydrogen phosphate
▸ Calcium hydrogen phosphate dihydrate see page 808
▸ Calcium hydrogen phosphate see page 808

Calcium nitrate hydrate

$Ca(NO_3)_2$ · x H_2O · mp 40 to 45 °C
CAS No. 35054-52-5 · EC no. 233-332-1
UN no. 1454 · ADR 5.1 III · WGK 1

Danger H272-H302-H318

Calcium nitrate hydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5058.1	5 g	plastic	70,45
5058.2	25 g	plastic	217,70

Calcium nitrate tetrahydrate

Lime salpetre

$Ca(NO_3)_2$ · 4 H_2O · D 1,82 g/cm³ · mp >44 °C
CAS No. 13477-34-4 · EC no. 603-865-8
WGK 1

Danger H302-H318

Calcium nitrate tetrahydrate
≥99 %, p.a., ACS

Application in pyrotechnics, as component of freezing salt solutions and as fertilizer.

Guarantee analysis
Assay (compl.) ..... 99,0-103,0 %
pH value (5 % in H_2O) 5,0-7,0
In water insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,002 %
Nitrite (NO_2) ..... ≤0,001 %
Ammonium (NH_4) ..... ≤0,005 %
Heavy Metals (ICP-OES) ..... ≤0,0005 %
Barium (Ba) ..... ≤0,005 %
Iron (Fe) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,01 %
Strontium (Sr) ..... ≤0,01 %
Copper (Cu) ..... ≤0,0005 %
Potassium (K) ..... ≤0,005 %
Sodium (Na) ..... ≤0,005 %
Aluminium (Al) ..... ≤0,001 %
Cadmium (Cd) ..... ≤0,0005 %
Cobalt (Co) ..... ≤0,0005 %
Chromium (Cr) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
P740.1	500 g	plastic	32,15
Original pack 6 x 500 g			30,54/500 g
P740.2	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg
P740.3	2.5 kg	plastic	117,20

Calcium nitrate tetrahydrate
≥98 %, extra pure

Type analysis
Assay ..... ≥98,0 %
pH-value (5 % solution) 5,0-7,5
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,002 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
X886.1	500 g	plastic	19,25
Original pack 6 x 500 g			18,29/500 g
X886.2	1 kg	plastic	28,95
Original pack 6 x 1 kg			27,50/1 kg
X886.4	2.5 kg	plastic	53,65
X886.3	5 kg	plastic	92,35
X886.7	25 kg	plastic	375,20

Calcium octadecanoate
▸ Calcium stearate see page 810

Calcium oxalate monohydrate

Oxalic acid calcium salt monohydrate

CaC_2O_4 · H_2O · D 2,2 g/cm³ · mp 200 °C
CAS No. 5794-28-5 · EC no. 209-260-1
WGK 1

Warning H302+H312

Calcium oxalate monohydrate
≥98 %

Type analysis
Appearance ..... white powder
Assay ..... ≥98,0 %
Identity ..... complies
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
6145.1	1 kg	plastic	53,25
Original pack 6 x 1 kg			50,59/1 kg

Calcium oxide

Quicklime · Lime caustic

CaO · D 3,37 g/cm³ · mp 2572 °C · bp 2850 °C
CAS No. 1305-78-8 · EC no. 215-138-9
UN no. 1910 · ADR 8 · WGK 1

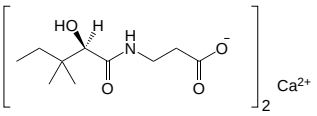
Danger H315-H318-H335

Calcium oxide
≥96 %, extra pure

Type analysis
Assay ..... 95,0-100,5 %
In HCl insoluble matter ..... ≤1,0 %
Loss on ignition ..... ≤10,0 %
Fluoride (F) ..... ≤0,005 %
Arsenic (As) ..... ≤0,0003 %
Lead (Pb) ..... ≤0,0002 %
Barium (Ba) ..... ≤0,03 %
Iron (Fe) ..... ≤0,05 %
Mg and alkali salts ..... ≤3,6 %
Water ..... ≤1,0 %
Particle size d50 ..... ca. 20 µm

Art. No.	Pack Qty.	Pack.	€
CN88.1	500 g	plastic	19,25
Original pack 6 x 500 g			18,29/500 g
CN88.2	1 kg	plastic	31,10
Original pack 6 x 1 kg			29,55/1 kg
CN88.4	2.5 kg	plastic	58,60
CN88.3	5 kg	plastic	106,45

Calcium D(+)-pantothenate



D(+)-Pantothenic acid calcium salt · Vitamin B_5 calcium salt

$C_{18}H_{32}CaN_2O_{10}$ · D 0,5 g/cm³ · mp 190 °C · flp 145 °C
CAS No. 137-08-6 · EC no. 205-278-9
WGK 1

Calcium D(+)-pantothenate
≥98 %, Ph. Eur., for biochemistry

Guarantee analysis
Appearance ..... white powder
Assay (perchloric acid titration, dry substance) ..... 98,0-101,0 %
Identity ..... complies
pH value (5 % in H_2O) 6,8-8,0
Appearance of solution (5 % in H_2O) ..... clear, colourless
Specific rotation $[\alpha]_D^{20}$ (5 % in H_2O, dry substance) ..... +25,5° to +27,5°
3-Aminopropionic acid ..... ≤0,5 %
Chloride (Cl) ..... ≤0,02 %
Heavy metals ..... ≤0,001 %
Residual solvents ..... complies
Loss on drying ..... ≤3,0 %

Related Substances:
Related substances (impurity B) ..... ≤0,8 %
Related substances (impurity C) ..... ≤0,3 %
Related substances (impurity E) ..... ≤0,25 %
Related substances (impurity H) ..... ≤0,15 %
Related substances (unspecific impurities) ..... ≤0,1 %
Related substances (total) ..... ≤1,2 %

Art. No.	Pack Qty.	Pack.	€
3812.2	100 g	plastic	45,05
3812.1	250 g	plastic	90,85

tri-Calcium phosphate

Calciumphosphate tribasic · Tricalcium phosphate · Tricalcium bis(phosphate) · Bone phosphate of lime

$Ca_3(PO_4)_2$ · D 3,14 g/cm³ · mp 1670 °C
CAS No. 7758-87-4 · EC no. 231-840-8
WGK 1

tri-Calcium phosphate
≥34 % Ca, pure

Type analysis
Assay (as Ca, based on calcinated substance) ..... 34-40 %
Iron (Fe) ..... ≤0,05 %
Loss on ignition ..... ≤8,0 %

Art. No.	Pack Qty.	Pack.	€
2274.1	100 g	plastic	22,50
2274.2	500 g	plastic	39,70
Original pack 6 x 500 g			37,72/500 g
2274.3	1 kg	plastic	68,30
Original pack 6 x 1 kg			64,89/1 kg
2274.4	5 kg	plastic	231,15

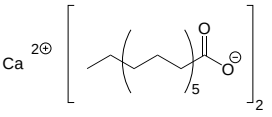
sec-Calcium phosphate
- Calcium hydrogen phosphate dihydrate see page 808
- Calcium hydrogen phosphate see page 808

Calcium phosphate dibasic
- Calcium hydrogen phosphate see page 808
- Calcium hydrogen phosphate dihydrate see page 808

Calciumphosphate tribasic
- tri-Calcium phosphate see page 810

Calcium red
- Glyoxal-bis-(2-hydroxyanil) see page 969

Calcium stearate



Stearic acid calcium salt · Calcium octadecanoate

$C_{36}H_{70}CaO_4$ · D 1,12 g/cm³ · mp 140 to 158 °C · flp 175,6 °C
CAS No. 1592-23-0 · EC no. 216-472-8

Calcium stearate
≥95 %, for biochemistry

Type analysis
Assay (dry substance) ..... ≥95,0 %
Assay (Ca) ..... 6,4-7,4 %
Free fatty acid ..... ≤3,0 %
Unsaponifiable matter ..... ≤2,0 %
Water ..... ≤4,0 %
Melting point ..... 140-160 °C
Chloride (Cl) ..... ≤0,1 %
Pb (Lead) ..... ≤0,0005 %
Cd (Cadmium) ..... ≤0,0001 %
Ni (Nickel) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
2682.1	100 g	plastic	18,20
2682.2	500 g	plastic	48,30
Original pack 6 x 500 g			45,89/500 g
2682.3	1 kg	plastic	84,85
Original pack 6 x 1 kg			80,61/1 kg
2682.4	2.5 kg	plastic	171,50

Calcium sulphate

$CaSO_4$ · D 2,96 g/cm³ · mp 1450 °C
CAS No. 7778-18-9 · EC no. 231-900-3
WGK 1

Calcium sulphate
≥98 %, pure, anhydrous

Type analysis
Assay ..... ≥99,0 %
Insoluble in HCl ..... ≤0,05 %
Chloride (Cl) ..... ≤0,005 %
Nitrate (NO_3) ..... ≤0,005 %
Ammonium (NH_4) ..... ≤0,005 %
Fe (Iron) ..... ≤0,0005 %
Heavy metals ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
1H94.1	100 g	plastic	26,80
1H94.2	500 g	plastic	69,80
Original pack 6 x 500 g			66,31/500 g
1H94.3	1 kg	plastic	117,20
Original pack 6 x 1 kg			111,34/1 kg
1H94.4	2.5 kg	plastic	246,20

Calcium sulphate dihydrate

$CaSO_4 \cdot 2\,H_2O$ · D 2,32 g/cm³
CAS No. 10101-41-4 · EC no. 231-900-3
WGK 1

Calcium sulphate dihydrate
≥98 %, p.a., ACS

Guarantee analysis
Assay (compl.) ..... 98,0-102,0 %
In diluted HCl insoluble matter ..... ≤0,02 %
Carbonate (CO_3) ..... complies
Chloride (Cl) ..... ≤0,005 %
Nitrate (NO_3) ..... complies
Heavy metals ..... ≤0,002 %
Iron (Fe) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,02 %
Strontium (Sr) ..... ≤0,05 %
Potassium (K) ..... ≤0,005 %
Sodium (Na) ..... ≤0,02 %

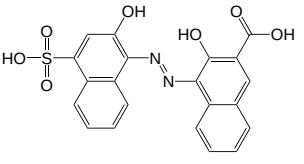
Art. No.	Pack Qty.	Pack.	€
P741.1	500 g	plastic	60,10
Original pack 6 x 500 g			57,10/500 g
P741.2	1 kg	plastic	103,75
Original pack 6 x 1 kg			98,56/1 kg
P741.3	2.5 kg	plastic	220,40

Calcium sulphate dihydrate
≥98 %, Ph. Eur., extra pure

Guarantee analysis
Assay (compl.) ..... 98,0-102,0 %
Identity ..... complies
Chloride (Cl) ..... ≤0,03 %
Arsenic (As) ..... ≤0,001 %
Iron (Fe) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,001 %
Acidity/alkalinity ..... complies
Loss on ignition (800 °C) ..... 18,0-22,0 %
Loss on drying (250 °C) ..... 19,0-23,0 %

Art. No.	Pack Qty.	Pack.	€
0256.1	500 g	plastic	19,25
Original pack 6 x 500 g			18,29/500 g
0256.2	1 kg	plastic	27,45
Original pack 6 x 1 kg			26,08/1 kg
0256.4	2.5 kg	plastic	61,20
0256.3	5 kg	plastic	117,20

Calconcarboxylic acid



2-Hydroxy-1-(2-hydroxy-4-sulfo-1-naphthyl-azo)-naphthalene-3-carboxylic acid · Patton and Reeder's Reagent

$C_{21}H_{14}N_2O_7S$ · mp 300 °C
CAS No. 3737-95-9 · EC no. 223-117-0
WGK 1

Warning H315-H319-H335

Calconcarboxylic acid
p.a.

For metal titration.

Prepare trituration avec Na_2SO_4 (1:99) or dissolve 0.04 g in 100 ml methanol

Type analysis
Appearance ..... black-violet powder
Maximum absorption ..... ≤572 nm

Art. No.	Pack Qty.	Pack.	€
2676.1	5 g	glass	34,95
2676.2	10 g	glass	50,00
2676.3	50 g	glass	134,40

Calconcarboxylic acid indicator solution

D 0,97 g/cm³ · mp -98 °C · bp 65 °C · flp 11 °C
UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H370

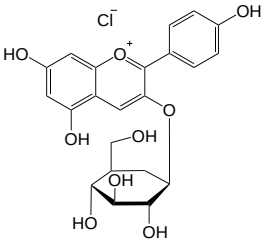
Calconcarboxylic acid indicator solution
0,4 % in methanol

For metal titration.

ready-to-use

Art. No.	Pack Qty.	Pack.	€
1E05.1	100 ml	glass	80,10

Callistephin (chloride)



Pelargonidin chloride 3-glucoside

$C_{21}H_{21}ClO_{10}$
CAS No. 18466-51-8
WGK 1

Callistephin (chloride)
ROTICHROM® HPLC

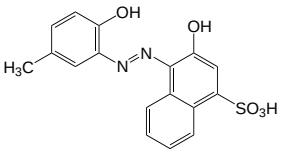
Reference substance for HPLC.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥95,0 %

Art. No.	Pack Qty.	Pack.	€
8956.2	10 mg	glass	534,85

Calmagite



$C_{17}H_{14}N_2O_5S$ · mp 330 °C
CAS No. 3147-14-6 · EC no. 221-563-0
WGK 1

Warning H315-H319-H335

Calmagite
extra pure

Indicator for determination of Ca and Mg with EDTA

Dissolve 0.1 g in 100 ml water

Type analysis
Appearance .... brown to black crystalline powder
Suitability as indicator for complexometry .. complies

Art. No.	Pack Qty.	Pack.	€
1H59.1	5 g	glass	23,15
1H59.2	10 g	glass	40,35
1H59.3	25 g	glass	80,55

Calomel
▸ Mercury(I) chloride see page 1074

2-Camphanone
▸ (+)-Camphor see page 811

Camphene



$C_{10}H_{16}$ · D 0,87 g/cm³ · mp 43 to 46 °C · bp 156 to 160 °C · flp 29,5 °C
CAS No. 79-92-5 · EC no. 201-234-8
UN no. 1325 · ADR 4.1 II · WGK 2

Danger H228-H319-H410

Camphene
≥95 %

Storage temperature: +4 °C

Type analysis
Assay (GC) ..... ≥95 %
Tricyclene (GC) ..... ≤5 %

Art. No.	Pack Qty.	Pack.	€
7558.2	100 g	glass	32,15
7558.1	500 g	glass	123,65
Original pack 6 x 500 g			117,47/500 g

Camphene
ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

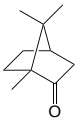
Type analysis
Purity (GC) ..... ≥90 %

Art. No.	Pack Qty.	Pack.	€
5288.2	100 mg	glass	102,70

DL-Campher
▸ (+/–)-Camphor see page 811

D-(+)-Camphor
▸ (+)-Camphor see page 811

(+)-Camphor



(1R)-7,7,7-Trimethylbicyclo [2.2.1]heptan-2-one · 2-Camphanone · D-(+)-Camphor

$C_{10}H_{16}O$ · D 0,994 g/cm³ · mp 178 °C · bp 210 °C · flp 66 °C
CAS No. 464-49-3 · EC no. 207-355-2
UN no. 2717 · ADR 4.1 III · WGK 1

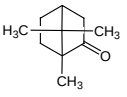
Danger H228-H315-H318-H332-H371

(+)-Camphor
≥98 %

Type analysis
Appearance ..... colourless crystals
Assay (GC) ..... ≥98 %
Melting point ..... 177-182 °C

Art. No.	Pack Qty.	Pack.	€
6155.1	250 g	plastic	267,70

(+/–)-Camphor



DL-Campher

$C_{10}H_{16}O$ · D 0,992 g/cm³ · mp 180 °C · bp 204 °C · flp 66 °C
CAS No. 76-22-2 · EC no. 200-945-0
UN no. 2717 · ADR 4.1 III · WGK 1

Danger H228-H315-H317-H318-H332-H371-H411

(+/–)-Camphor
≥95 %

Type analysis
Appearance ... white, cryst. powder and/or pieces
Assay (GC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
7552.1	500 g	plastic	123,65
Original pack 6 x 500 g			117,47/500 g

(+/–)-Camphor
ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
4329.1	1 g	plastic	107,00

Campy Agar

▸ Campylobacter Selective Agar (Base) see page 812

Campylobacter Agar, blood-free (Base)

Campy-Selective-Bloodfree-Medium · Bolton-Agar · Blood-free CCDA · CCDA, modified

WGK 1

Campylobacter Agar, blood-free (Base)
for microbiology

For isolation of *Campylobacter jejuni*, *Campylobacter coli*, and *Campylobacter laridis* in foods, and other samples.

Application: Use 45.5 g for 1 l agar. After cooling add 2 vials (2x5 ml) reconstituted Campylobacter Supplement (Art. No. 4857.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

Meat peptone	10 g/l
Beef extract	10 g/l
Sodium chloride	5 g/l
Casein hydrolysed	3 g/l
Bacteriological charcoal	4 g/l
Sodium deoxycholate	1 g/l
Iron sulphate	0,25 g/l
Sodium pyruvate	0,25 g/l
Agar	12 g/l
pH value	7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
5756.1	500 g	plastic	230,60
Original pack 6 x 500 g			219,07/500 g

Campylobacter Preston Supplement

Preston Supplement

UN no. 2811 · ADR 6.1 II · WGK 3

Danger H300-H341-H360D-H411

Campylobacter Preston Supplement
lyophilized

For selective isolation of *Campylobacter spp.*

Application: One vial Campylobacter Preston Supplement is reconstituted in 6 ml ethanol and is subsequently added to 500 ml autoclaved Campylobacter Selective Agar (Art. No. 8847.1) and 5–10 % defibrinated blood.

One box of 10 vials Campylobacter Preston Supplement is sufficient for 10 x 500 ml Campylobacter Selective Agar (Art. No. 8847).

Storage temperature: +4 °C
Transport temperature: ambient temp.

Formulation per vial

Polymyxin B sulphate	2500 IU
Cycloheximide	50 mg
Rifampicin	5 mg
Trimetoprim	5 mg

per vial.

Art. No.	Pack Qty.	Pack.	€
8851.1	10 unit(s)	glass	246,20

Campylobacter Selective Agar (Base)

Preston Agar · Campy Agar · CCDA

WGK 1

Campylobacter Selective Agar (Base)
for microbiology

For isolation of *Campylobacter coli* and *C. jejuni*.

Application: Use 18.5 g for 475 ml agar. After cooling add 5–7 % lysed blood and 1 vial of Campylobacter Preston Supplement (Art. No. 8851).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

Casein peptone	10 g/l
Beef extract	10 g/l
Sodium chloride (NaCl)	5 g/l
Agar	12 g/l
pH value	7,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
8847.1	500 g	plastic	224,70
Original pack 6 x 500 g			213,47/500 g

Campylobacter Supplement

CCDA Supplement

WGK 3

Danger H317-H334

Campylobacter Supplement
lyophilized

Media supplement for selective isolation of *Campylobacter jejuni, C. coli,* and *C. laridis.*

Application: One vial Campylobacter Supplement is reconstituted in 5 ml sterile distilled water, and is subsequently added to 500 ml autoclaved Campylobacter Agar, blood-free (Base) (Art. No. 5756.1).

One box of 10 vials Campylobacter Supplement is sufficient for 10 x 500 ml Campylobacter Agar, blood-free (Art. No. 5756).

Storage temperature: +4 °C
Transport temperature: ambient temp.

Composition

Cefoperazone	16 mg
Amphotericin B	5 mg

per vial.

Art. No.	Pack Qty.	Pack.	€
4857.1	10 unit(s)	glass	246,20

Campy-Selective-Bloodfree-Medium

▸ Campylobacter Agar, blood-free (Base) see page 812

Canada balsam

Balsamum canadense · Balsam Canada

D 0,98 to 0,99 g/cm³ · flp 43 °C
CAS No. 8007-47-4 · EC no. 232-362-2
UN no. 1993 · ADR 3 III · WGK 2

Warning H226

Canada balsam
ready-to-use, natural, for microscopy

Type analysis

Appearance	yellowish translucent, highly viscous
Odour	characteristic (like conifers)
Density (20 °C)	0,980-0,998
Refractive index n_D^{20}	1,520-1,530

solubility:

Ether	1:1
Toluene	1:1
Chloroform	1:1

Art. No.	Pack Qty.	Pack.	€
8016.1	25 ml	glass	37,55
8016.2	100 ml	glass	106,45

Candida chromogenic Agar

WGK 3

Warning H351

Candida chromogenic Agar
for microbiology

Selective medium for isolation and quick identification of pathogeneous *Candida* species.

Application: Use 45.9 g for 1 l agar.

Storage temperature: +4 °C

Composition

Peptone	10 g/l
Glucose	20 g/l
Chloroamphenicol	0,5 g/l
Chromogene Mixture	0,4 g/l
Agar	15 g/l
pH value	6,1 ±0,2

Art. No.	Pack Qty.	Pack.	€
2922.2	100 g	plastic	188,15
2922.1	500 g	plastic	822,40
Original pack 6 x 500 g			781,28/500 g

^{13}C und ^{15}N labelled arginine hydrochloride

▸ L-Arginine$^{13}C_6{}^{15}N_4$ monohydrochloride see page 751

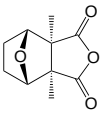
^{13}C and ^{15}N labelled lysine hydrochloride

▸ L-Lysine$^{13}C_6{}^{15}N_2$ hydrochloride see page 1053

Cannabiscetin

▸ Myricetin see page 1097

Cantharidin



Kantharidin

$C_{10}H_{12}O_4$ · D 1,41 g/cm³ · mp 216 to 218 °C
CAS No. 56-25-7 · EC no. 200-263-3
UN no. 2811 · ADR 6.1 II · WGK 1

Danger H300-H315-H319-H335

Cantharidin
for biochemistry

Type analysis
Appearance ..... white, crystalline powder
Melting point ..... 216-218 °C

Art. No.	Pack Qty.	Pack.	€
3322.1	25 mg	glass	32,15

CAPE
▸ Caffeic acid phenethyl ester see page 804

Capping reagent

Capping reagent I
for DNA synthesis

Mixture of acetic anhydride, pyridine and tetrahydrofuran

Thread sizes: 200 ml – 27 mm, 450 ml – 27 mm. The 2.5 l bottle can be used with all instruments.

Suitable for Expedite™89xx and Polygen®

D 0,925 g/cm³ · bp 65 °C · flp -21 °C

Storage temperature: +4 °C

UN no. 2924 · ADR 3 (8) II · WGK 2

Danger H225-H302+H332-H315-H318-H335-H351-EUH019

Art. No.	Pack Qty.	Pack.	€
2255.1	200 ml	glass	46,80
2255.2	450 ml	glass	96,65
2255.3	2.5 l	glass	256,95
Original pack 4 x 2.5 l			244,10/2.5 l

Capping reagent II
for DNA synthesis

Mixture of 1-methylimidazole and tetrahydrofuran

Thread sizes: 200 ml – 27 mm, 450 ml – 27 mm. The 2.5 l bottle can be used with all instruments.

Suitable for Expedite™89xx and Polygen®

D 0,92 g/cm³ · mp -108,5 °C · bp 65 °C · flp -21 °C

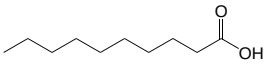
Storage temperature: +4 °C

UN no. 2924 · ADR 3 (8) II · WGK 1

Danger H225-H302-H314-H335-H351-EUH019

Art. No.	Pack Qty.	Pack.	€
2256.1	200 ml	glass	45,05
2256.2	450 ml	glass	93,45
2256.3	2.5 l	glass	244,60
Original pack 4 x 2.5 l			232,37/2.5 l

Capric acid



Decanoic acid

$C_{10}H_{20}O_2$ · D 0,89 g/cm³ · mp 31,65 °C · bp 268,7 °C · flp 147 °C
CAS No. 334-48-5 · EC no. 206-376-4
WGK 1

Warning H315-H319-H412

Capric acid
≥98 %, for synthesis

Storage temperature: +4 °C

Type analysis
Assay (GC) ..... ≥98 %
Melting point ..... 29-33 °C

Art. No.	Pack Qty.	Pack.	€
8797.1	100 g	glass	25,30
8797.3	500 g	glass	63,35
Original pack 6 x 500 g			60,18/500 g
8797.2	1 kg	glass	107,00
Original pack 6 x 1 kg			101,65/1 kg

Capric acid
ROTICHROM® GC

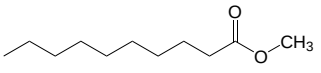
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
3164.1	1 g	glass	32,15

Capric acid methyl ester



Decanoic acid methyl ester · Methyldecanoate

$C_{11}H_{22}O_2$ · D 0,873 g/cm³ · mp -18 °C · bp 224 °C · flp 110,5 °C
CAS No. 110-42-9 · EC no. 203-766-6
UN no. 3082 · ADR 9 III · WGK 1

H411

Capric acid methyl ester
≥98 %, for synthesis

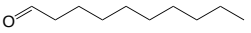
Storage temperature: +4 °C

Type analysis
Appearance ..... clear, almost colourless liquid
Assay (GC) ..... >97 %

Art. No.	Pack Qty.	Pack.	€
3325.1	100 ml	glass	80,10

Capric alcohol
▸ 1-Decanol see page 865

Capric aldehyde



Decanal

$C_{10}H_{20}O$ · D 0,828 g/cm³ · mp -3,6 °C · bp 215,8 °C · flp 93 °C
CAS No. 112-31-2 · EC no. 203-957-4
WGK 2

Warning H319-H412

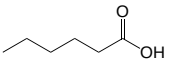
Capric aldehyde
≥97 %, for synthesis

Type analysis
Assay (GC) ..... ≥97 %
Density (d 20 °C/4 °C) 0,815-0,844

Stabilised with α-Tocopherol.

Art. No.	Pack Qty.	Pack.	€
7547.1	100 ml	glass	145,15

Caproic acid



Hexanoic acid

$C_6H_{12}O_2$ · D 0,93 g/cm³ · mp -4 °C · bp 202 to 205 °C · flp 116 °C
CAS No. 142-62-1 · EC no. 205-550-7
UN no. 2829 · ADR 8 III · WGK 1

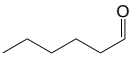
Danger H314

Caproic acid
≥98 %, for synthesis

Type analysis
Assay (GC) ..... ≥98,0 %
Density (d 20 °C/4 °C) 0,921-0,932

Art. No.	Pack Qty.	Pack.	€
8799.1	100 ml	glass	21,40
8799.3	500 ml	glass	38,60
8799.2	1 l	glass	67,20
Original pack 6 x 1 l			63,84/1 l
8799.4	2.5 l	glass	134,40
Original pack 4 x 2.5 l			127,68/2.5 l

Caproic aldehyde



Hexanal

$C_6H_{12}O$ · D 0,817 g/cm³ · mp -57,23 °C · bp 128,3 °C · flp 26 °C
CAS No. 66-25-1 · EC no. 200-624-5
UN no. 1207 · ADR 3 III · WGK 1

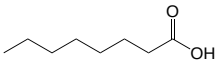
Warning H226-H315-H319

Caproic aldehyde
≥97 %, for synthesis

Type analysis
Appearance ..... colourless to yellowish liquid
Assay (GC) ..... ≥97,0 %
Density (d 20 °C/4 °C) 0,81-0,82
Refractive index (20 °C) 1,390-1,410

Art. No.	Pack Qty.	Pack.	€
3327.1	100 ml	glass	48,30

Caprylic acid



n-Octanoic acid

$C_8H_{16}O_2$ · D 0,91 g/cm³ · mp 16,5 °C · bp 237 °C
CAS No. 124-07-2 · EC no. 204-677-5
UN no. 3265 · ADR 8 III · WGK 1

Danger H314-H412

Caprylic acid
ROTICHROM® GC

Reference substance for GC.

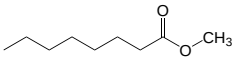
Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
3168.1	1 g	glass	52,70

Caprylic acid
▸ Octanoic acid see page 1118

Caprylic acid methyl ester



Methyl caprylate · Octanoic acid methylester · Methyloctanoate

$C_9H_{18}O_2$ · D 0,877 g/cm³ · mp -40 °C · bp 192,6 °C · flp 82 °C
CAS No. 111-11-5 · EC no. 203-835-0
WGK 1

Warning H315

Caprylic acid methyl ester
≥99 %, for synthesis

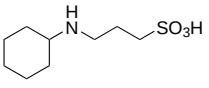
Storage temperature: +4 °C

Type analysis
Appearance ..... clear, almost colourless liquid
Assay (GC) ..... ≥99 %
Density (d 20 °C/20 °C) 0,8760-0,8800
Refractive index n_D^{20} 1,4150-1,4190

Art. No.	Pack Qty.	Pack.	€
3331.1	10 ml	glass	32,15

Caprylic alcohol
▸ 1-Octanol see page 1118

CAPS



Cyclohexylamino propanesulphonic acid

$C_9H_{19}NO_3S$ · D 1,301 g/cm³ · mp >300 °C · flp >110 °C
CAS No. 1135-40-6 · EC no. 214-492-1
WGK 1

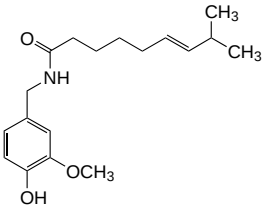
CAPS
PUFFERAN® ≥99 %

Guarantee analysis
Appearance ..... white powder
Assay (N) ..... ≥99,0 %
Water ..... ≤1,0 %
pH value (1 % in H_2O) 4,5-6,0
Solubility (5 % in H_2O) ..... clear, soluble

Absorbance:
280 nm ..... ≤0,1
250 nm ..... ≤0,1

Art. No.	Pack Qty.	Pack.	€
9168.1	25 g	plastic	22,50
9168.3	100 g	plastic	61,20
9168.2	250 g	plastic	138,70

Capsaicin



$C_{18}H_{27}NO_3$ · mp 62 to 65 °C · flp 113 °C
CAS No. 404-86-4 · EC no. 206-969-8
UN no. 3462 · ADR 6.1 III · WGK 1

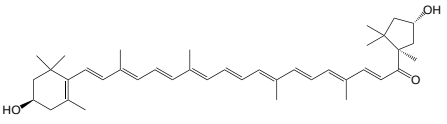
Danger H301-H317-H318-H334-H335

Capsaicin
ROTICHROM® CHR 50 %, natural

Type analysis
Appearance ..... off-white to yellow crystals
Capsaicin (HPLC) ..... ≥50 %
Dihydrocapsaicin ..... ≥20 %
Loss on drying ..... ≤1 %

Art. No.	Pack Qty.	Pack.	€
8804.1	100 mg	glass	80,55

Capsanthin



$C_{40}H_{56}O_3$ · mp 176 to 179 °C
CAS No. 465-42-9 · EC no. 207-364-1
WGK 1

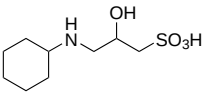
Capsanthin
ROTICHROM® ~CHR$_{TLC}$

Reference substance for thin layer chromatography.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
5674.2	5 mg	glass	478,40

CAPSO



3-*N*-Cyclohexylamino-2-hydroxypropane sulphonic acid sodium salt

$C_9H_{19}NO_4S$ · mp 275 °C
CAS No. 73463-39-5
WGK 1

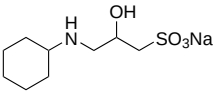
CAPSO
PUFFERAN® ≥98 %

Guarantee analysis
Assay ..... ≥98 %
Loss on drying ..... ≤1,0 %
pH value (1 % solution) 5,0-6,5

Absorbance:
280 nm ..... ≤0,05
260 nm ..... ≤0,05

Art. No.	Pack Qty.	Pack.	€
5584.3	25 g	plastic	37,55
5584.1	100 g	plastic	112,35
5584.2	500 g	plastic	407,45
Original pack 6 x 500 g			387,08/500 g

CAPSO sodium salt



3-*N*-Cyclohexylamino-2-hydroxypropane sulphonic acid sodium salt

$C_9H_{18}NO_4NaS$ · mp 213 to 240 °C · bp 601,2 °C
CAS No. 102601-34-3
WGK 1

Danger H318

CAPSO sodium salt
PUFFERAN® ≥95 %

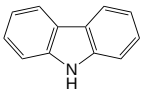
Type analysis
Assay (titr.) ..... ≥95 %
Water (KF) ..... ≤6,0 %
pH value (1 % solution) 10,9-11,6

Art. No.	Pack Qty.	Pack.	€
6861.1	25 g	plastic	33,25

Carbamide
▸ Urea see page 1390

Carbamoylurea
▸ Biuret see page 778

Carbazole



9-Azafluorene · Dibenzopyrrole · Diphenylenimine

$C_{12}H_9N$ · D 1,1 g/cm³ · mp 245 °C · bp 355 °C · flp 188 °C
CAS No. 86-74-8 · EC no. 201-696-0
UN no. 3077 · ADR 9 III · WGK 2

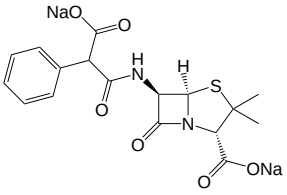
Warning H410

Carbazole
ROTI®Calipure melting point standard 243–247 °C

Type analysis
Meniscus formation ..... 243-247 °C
Complete liquefaction ..... 243-247 °C
Measurement uncertainty ..... ±0,3 °C

Art. No.	Pack Qty.	Pack.	€
9752.1	1 g	glass	40,75

Carbenicillin disodium salt



α-Carboxypenicillin Disodium

$C_{17}H_{16}N_2O_6SNa_2$ · D 0,7 g/cm³
CAS No. 4800-94-6
WGK 1

Danger H317-H334

Carbenicillin disodium salt
≥88 %, for biochemistry

β-lactam antibiotic, semi synthetic penicillin.

Stock solution: 50 mg/ml in 50 % ethanol / 50 % water.
Working concentration: 20–60 µg/ml

Storage temperature: +4 °C

Type analysis
Appearance ..... white to nearly white powder
Assay (HPLC) ..... ≥92 %
Water ..... ≤6 %
pH value (5 % in H_2O) 6,0-8,0

Art. No.	Pack Qty.	Pack.	€
6344.1	1 g	glass	37,55
6344.2	5 g	plastic	85,90
6344.4	10 g	glass	158,60
6344.3	25 g	plastic	375,20

Carbide

- Calcium carbide see page 805
- Aluminium carbide see page 721

Carbinol

- Methanol see page 1077

N_α-Carbobenzyloxy-L-arginine

- Z-L-Arginine see page 1411

N_α-Carbobenzyloxy-L-aspartic acid

- Z-L-Aspartic acid see page 1411

N_α-Carbobenzyloxy-L-glutamic acid

- Z-L-Glutamic acid see page 1412

N_α-Carbobenzyloxy-L-leucine

- Z-L-Leucine see page 1416

N_α-Carbobenzyloxy-L-lysine

- Z-L-Lysine see page 1416

Carbohydrates (Saccharides)

Art. No.	Description	Page
4114	*N*-Acetyl-D-galactosamine, ≥99 %, for biochemistry	702
8993	*N*-Acetyl-D-glucosamine, ≥98 %, for biochemistry	702
5525	*N*-Acetyl-D-mannosamine, ≥98 %	703
7480	*N*-Acetylneuraminic acid, ≥98 %, for biochemistry	703
8954	DL-Arabinose, ≥99 %, for biochemistry	749
5118	L(+)-Arabinose, ≥99 %, for biochemistry	749
5510	D(+)-Arabitol, ≥99 %, for biochemistry	749
7738	L(–)-Arabitol, ≥99 %, for biochemistry	750
5840	D(+)-Cellobiose, ≥98 %, for biochemistry	824
3363	α-Chloralose, (≤20 % β-anomer)	829
4122	α-Cyclodextrin, ≥98 %, for biochemistry	857
4198	DEAE Dextran, for biochemistry	864
9916	2-Deoxy-D-galactose, ≥99 %, for biochemistry	867
CN96	2-Deoxy-D-glucose, ≥98 %, for biochemistry	867
CN97	2-Deoxy-D-ribose, ≥99 %, for biochemistry	867
8718	Dextran 2.5, for biochemistry	869
7615	Dextran 6, for biochemistry	869
7616	Dextran 10, for biochemistry	869
7617	Dextran 20, for biochemistry	869
8943	Dextran 35, for biochemistry	869
7626	Dextran 40, for biochemistry	870
2247	Dextran 60, for biochemistry	870
9228	Dextran 70, extra pure	870
7618	Dextran 100, for biochemistry	870
7619	Dextran 150, for biochemistry	870
9233	Dextran 250, for biochemistry	870
9219	Dextran 500, for biochemistry	870
7610	Dextran sulphate 8 sodium salt, for biochemistry	870
7612	Dextran sulphate 40 sodium salt, for biochemistry	870
5956	Dextran sulphate 500 sodium salt, for biochemistry and molecular biology	870
6778	Dextrin, extra pure, white	871
6777	Dextrin, extra pure, yellow	871
3488	Dextrin, for microbiology	871
4944	Dulcitol, ≥99 %, for biochemistry	903
4981	D(–)-Fructose, ≥99,5 %, for biochemistry	950
4982	D-Fructose-1,6-diphosphate trisodium salt octahydrate, ≥98 %, for biochemistry	950
KK10	L(–)-Fucose, ≥99 %, for biochemistry	950
7411	D-Galactosamine hydrochloride, ≥98 %, for biochemistry	951
8878	D(+)-Galactose, CELLPURE®, ≥99 %	951
4987	D(+)-Galactose, ≥98 %, for biochemistry	951
5550	α-D-Galactose-1-phosphate dipotassium salt pentahydrate, ≥99 %, for biochemistry	951
4123	β-D-Gentiobiose, ≥98 %, for biochemistry	956
3769	D(+)-Glucosamine hydrochloride, ≥99 %, for biochemistry	961
X997	D(+)-Glucose, p.a., ACS, anhydrous	961
HN06	D(+)-Glucose, CELLPURE®, ≥98 %, anhydrous	961
6780	D(+)-Glucose monohydrate, ≥99,5 %, Ph. Eur.	962
6887	D(+)-Glucose monohydrate, for microbiology	962
7509	L(–)-Glucose, ≥98 %, for biochemistry	962
6119	α-D-Glucose-1-phosphate disodium salt tetrahydrate, ≥98 %, for biochemistry	962
5544	D-Glucose-6-phosphate monosodium salt, ≥98 %, for biochemistry	962
CN72	D-Glucose-6-phosphate disodium hydrate, ≥98 %, for biochemistry	962
4124	D-Glucuronic acid, ≥98 %, for biochemistry	963
4355	D-Glucuronic acid sodium salt monohydrate, ≥99 %, for biochemistry	963
HP51	Glycogen, lyophilized, made of oysters	968
6329	*meso*-Inositol, ≥99 %, p.a.	1010
4191	*meso*-Inositol, ≥99 %, for biochemistry	1010
8400	Isomaltulose, ≥99 %, for biochemistry	1021
8921	α-Lactose monohydrate, Ph. Eur., for biochemistry	1033
6868	α-Lactose monohydrate, for microbiology	1033
CN98	Lactulose, ≥98 %, for biochemistry	1033
2260	Maltodextrin 4.0–7.1, for biochemistry	1064
2270	Maltodextrin 16.5–19.6, for biochemistry	1064
8882	D(+)-Maltose monohydrate, CELLPURE®, ≥97 %	1065
8951	D(+)-Maltose monohydrate, ≥92 %, for biochemistry	1065
8883	D(–)-Mannitol, CELLPURE®, ≥97 %	1068
4175	D(–)-Mannitol, ≥98 %, Ph. Eur., USP, BP, for biochemistry	1068
8887	D(+)-Mannose, CELLPURE®, ≥99 %	1068
4220	D(+)-Mannose, ≥99,5 %, for biochemistry	1068
4222	D(+)-Melezitose monohydrate, ≥99 %, for biochemistry	1072

Art. No.	Description	Page
4223	D(+)-Melibiose monohydrate, ≥99 %, for biochemistry	1072
3041	Methyl-β-cyclodextrin, ≥98 %, for synthesis	1083
8356	1-*O*-Methyl-β-D-glucopyranoside, ≥99 %, for biochemistry	1084
8407	1-*O*-Methyl-β-D-glucuronic acid, sodium salt, ≥99 %, for biochemistry	1085
1K5Y	Methyl-α-D-mannopyranoside, ≥99 %, for biochemistry	1086
4196	Phlorizin dihydrate, ≥98 %, for biochemistry	1154
5241	D(+)-Raffinose pentahydrate, ≥98 %, for biochemistry	1198
4655	L(+)-Rhamnose monohydrate, ≥98 %, for biochemistry	1203
7168	D(–)-Ribose, ≥98 %, for biochemistry	1207
1030	ROTI®Fair 20% Glucose, for 1000 ml/pouch, for microbiology and biochemistry	1218
8890	D(+)-Saccharose, CELLPURE®	1248
4621	D(+)-Saccharose, ≥99,5 %, p.a.	1248
4661	D(+)-Saccharose, ≥99,5 %, Ph. Eur.	1248
9286	D(+)-Saccharose, ≥99,7 %, powdered	1248
9097	D(+)-Saccharose, ≥99,5 %, RNAse/DNAse free	1248
6213	D-Sorbitol, ≥98 %, for biochemistry	1304
4028	L(–)-Sorbose, ≥98 %, for biochemistry	1304
6161	D-Tagatose, ≥98,5 %, for biochemistry	1353
8897	D(+)-Trehalose dihydrate, CELLPURE®, ≥98 %	1375
5151	D(+)-Trehalose dihydrate, ≥98 %, for biochemistry	1375
4414	Xylan, from beechwood	1406
8659	Xylan, ≥95 % xylooligosaccharides, from corncob	1407
9711	Xylitol, ≥98,5 %, Ph. Eur., for biochemistry	1408
5537	D(+)-Xylose, ≥99 %, for biochemistry	1409
4061	L-Xylose, ≥99 %, for biochemistry	1409

Carbol-Gentianaviolet solution

▸ Carbol gentian violet solution see page 816

Carbol gentian violet solution

Carbol-Gentianaviolet solution

D 0,99 g/cm³ · bp >90 °C · flp 58 °C
UN no. 1993 · ADR 3 III · WGK 2

Warning H226-H319

Carbol gentian violet solution
for microscopy

For Gram staining

Type analysis
Suitability for microscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
CN00.1	500 ml	glass	37,55
CN00.2	1 l	glass	55,40
Original pack 6 x 1 l			52,63/1 l

Carbolic acid

▸ Phenol see page 1150

Carbolic fuchsine solution

D 0,98 g/cm³ · bp >85 °C
UN no. 1760 · ADR 8 II · WGK 2

Danger H314-H341

Carbolic fuchsine solution
for microscopy

For bacterial staining (Gram staining and staining of acid-fast bacteria, e.g. TB bacteria acc. to Ziehl-Neelsen).

Art. No.	Pack Qty.	Pack.	€
A130.2	500 ml	glass	28,50
A130.1	1 l	glass	46,15
Original pack 6 x 1 l			43,84/1 l

Carbonic acid diethyl ester

▸ Diethyl carbonate see page 877

Carbonic acid dimethyl ester

▸ Dimethyl carbonate see page 887

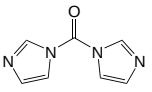
Carbonic acid diphenyl ester

▸ Diphenyl carbonate see page 893

N-(*Nα*-Carbonyl-Arg-Val-Arg-al)-Phe dihydrochloride

▸ Antipain dihydrochloride see page 747

1,1'-Carbonyldiimidazole (CDI)



CDI

$C_7H_6N_4O$ · D 1,566 g/cm³ · mp 116 to 120 °C · bp >300 °C
CAS No. 530-62-1 · EC no. 208-488-9
UN no. 3263 · ADR 8 II · WGK 1

Danger H302-H314

1,1'-Carbonyldiimidazole (CDI)
PEPTIPURE® ≥98 %

Activation agent for carboxylic acids. Coupling reagent for peptide synthesis.

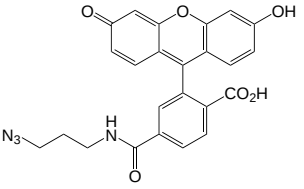
Type analysis
Appearance ..... white to off-white powder
Assay (HPLC) ..... ≥98 %
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6992.1	10 g	glass	35,40
6992.2	25 g	glass	67,65
6992.3	100 g	glass	160,20
6992.4	500 g	glass	600,95
Original pack 6 x 500 g			570,90/500 g

Carbowax

▸ Polyethylene glycol see page 1161

6-Carboxyfluorescein Azide (6-FAM-Azide)



4-((3-Azidopropyl)carbamoyl)-2-(6-hydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid · 6-FAM-Azide

$C_{24}H_{18}N_4O_6$
CAS No. 1386385-76-7
WGK 1

6-Carboxyfluorescein Azide (6-FAM-Azide)
≥95 %

baseclick.

Fluorescent dye

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Appearance ..... orange solid
Assay (HPLC) ..... ≥95 %
Absorption max. (buffer, pH 9) ..... 496 nm
Emission max. (buffer, pH 9) ..... 516 nm
Molar extinction coefficient ε ..... 83 000 cm $^{-1}$M^{-1}
Solubility ..... DMSO, DMF, MeOH

Art. No.	Pack Qty.	Pack.	€
7806.1	1 mg	plastic	54,30
7806.2	5 mg	plastic	94,10
7806.3	10 mg	plastic	144,60
7806.4	100 mg	plastic	532,15

2-Carboxy-2'-hydroxy-5'-sulfoformazyl-benzene-monosodium salt

▸ Zincon see page 1414

Carboxylic acid C18

▸ Stearic acid see page 1339

Carboxymethylcellulose sodium salt

Sodium carboxymethylcellulose

D 1 g/cm³
CAS No. 9004-32-4
WGK 1

Carboxymethylcellulose sodium salt
≥99,5 %, powdered

Type analysis
Active assay (dry substance) ..... ≥99,5 %
Moisture ..... ≤10,0 %
Heavy metals ..... ≤0,002 %
Degree of substitution 0,75-0,85
pH value (1 %, H_2O) 6,5-8,0

Viscosity (Brook., 1 %, 25 °C) . 1000-1500 mPa s

Art. No.	Pack Qty.	Pack.	€
3333.1	250 g	plastic	42,90
3333.2	1 kg	plastic	134,40
Original pack 6 x 1 kg			127,68/1 kg

Carboxymethylcellulose sodium salt

≥98 %, granulated

Used as binder, thickener and dispersing agent.

Type analysis

Active assay ..... ≥98,0 %
Moisture ..... ≤8,0 %
Sodium (Na) ..... 7,0-8,9 %
Degree of substitution 0,65-0,90
pH value (1 %, H_2O) 6,5-8,5
Viscosity (2 % solution) ..... 1500-3100 mPa s

Art. No.	Pack Qty.	Pack.	€
6190.1	250 g	plastic	31,75
6190.2	1 kg	plastic	102,05
Original pack 6 x 1 kg			96,95/1 kg

N-[*N*-(L-3-*trans*-Carboxyoxirane-2-carbonyl)leucyl]-agmatine

▸ E-64 see page 904

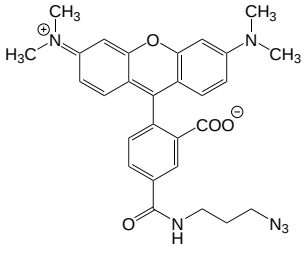
α-Carboxypenicillin Disodium

▸ Carbenicillin disodium salt see page 815

3-Carboxy-3-phosphono adipinic acid

▸ 2-Phosphonobutane-1,2,4-tricarboxylic acid (PBTC) see page 1155

5-Carboxytetramethylrhodamine Azide (5-TAMRA-Azide)



5-((3-Azidopropyl)carbamoyl)-2-(6-(dimethylamino)-3-(dimethyliminio)-3*H*-xanthen-9-yl)benzoate · 5-TAMRA-Azide

$C_{28}H_{28}N_6O_4$
CAS No. 1192590-89-8
WGK 1

5-Carboxytetramethylrhodamine Azide (5-TAMRA-Azide)

≥95 %

Fluorescent dye

For a 10 mM solution: add 195 µl to 1 mg.

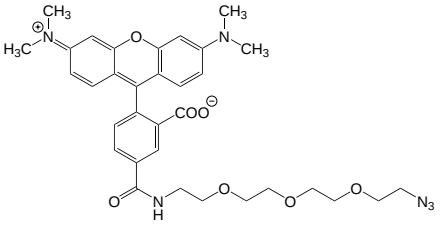
Storage temperature: –20 °C
Transport temperature: cooled

Type analysis

Appearance ..... dark red solid
Assay (LCMS) ..... ≥95 %
Absorption max. (DMF) ..... 546 nm
Emission max. (DMF) ..... 579 nm
Molar extinction coefficient ε ..... 91 000 $cm^{-1}M^{-1}$
Solubility ..... DMSO, DMF, MeOH

Art. No.	Pack Qty.	Pack.	€
7807.1	1 mg	plastic	50,00
7807.2	5 mg	plastic	104,85
7807.3	10 mg	plastic	155,80
7807.4	100 mg	plastic	532,15

5-Carboxytetramethyl-rhodamine-PEG3-Azide (5-TAMRA-PEG3-Azide)



5-((2-(2-(2-(2-Azidoethoxy)ethoxy)ethoxy)ethyl)carbamoyl)-2-(6-(dimethylamino)-3-(dimethyliminio)-3*H*-xanthen-9-yl)benzoate · 5-TAMRA-PEG3-Azide

$C_{33}H_{38}N_6O_7$
CAS No. 1380486-02-1
WGK 1

5-Carboxytetramethylrhodamine-PEG3-Azide (5-TAMRA-PEG3-Azide)

≥90 %

Fluorescent dye

For a 10 mM solution: add 158 µl to 1 mg.

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis

Appearance ..... dark red solid
Assay (HPLC) ..... ≥90 %
Absorption max. (DMF) ..... 546 nm
Emission max. (DMF) ..... 579 nm
Molar extinction coefficient ε ..... 91 000 $cm^{-1}M^{-1}$
Solubility ..... DMSO, DMF, MeOH, Water (low)

Art. No.	Pack Qty.	Pack.	€
7808.1	1 mg	plastic	52,15
7808.2	5 mg	plastic	94,10
7808.3	10 mg	plastic	144,60
7808.4	100 mg	plastic	568,70

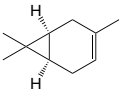
α-Carboxy-α-3-thienylmethyl-penicillin disodium salt

▸ Ticarcillin disodium salt see page 1368

Cardiogreen

▸ Indocyanine green see page 1008

δ-3-Carene



$C_{10}H_{16}$ · D 0,86 g/cm^3 · bp 168 to 172 °C · flp 46 °C
CAS No. 13466-78-9 · EC no. 236-719-3
UN no. 2319 · ADR 3 III · WGK 2

Danger H226-H304-H315-H317-H410

δ-3-Carene

ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis

Purity (GC) ..... ≥90 %

Art. No.	Pack Qty.	Pack.	€
3572.1	1 g	plastic	51,10

Carmine (C.I. 75470)

Cochineal colouring matter

$C_{22}H_{20}O_{13}$ · D 1,355 to 1,382 g/cm^3
CAS No. 1390-65-4 · EC no. 215-724-4
WGK 1

Carmine (C.I. 75470)

for microscopy

Type analysis

Suitability for microscopy ..... complies
Absorption max. (in H_2O) ..... 525-535 nm
Loss on drying ..... ≤20,0 %
Dye content ..... 50,0-55,0 %

Art. No.	Pack Qty.	Pack.	€
6859.1	10 g	glass	59,70
6859.2	25 g	glass	119,90

Carmoisine

▸ Chromotrope® FB (C.I. 14720) see page 837

Carnauba wax

Cera Carnaubae

D 0,99 g/cm^3 · mp 81 to 86 °C · flp >150 °C
CAS No. 8015-86-9 · EC no. 232-399-4
WGK 1

Carnauba wax

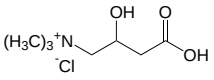
natural-coloured, in sheds

Type analysis

Appearance ..... light yellow flakes
Drop point ..... 81-86 °C
Acid value (mg KOH/g) 2-7

Art. No.	Pack Qty.	Pack.	€
3514.1	1 kg	plastic	71,95
Original pack 6 x 1 kg			68,35/1 kg

DL-Carnitinchloride



(±)-Carnitin hydrochloride · Bicarnesin HCl

$C_7H_{15}O_3N$ · HCl · mp 197 to 199 °C
CAS No. 461-05-2 · EC no. 207-309-1
WGK 1

Warning H315-H319-H335

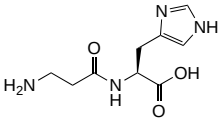
DL-Carnitinchloride
≥98 %, for biochemistry

Type analysis
Appearance ..... white, fine crystals
Assay ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
7212.1	25 g	plastic	77,30

(±)-Carnitin hydrochloride
▸ DL-Carnitinchloride see page 818

L-Carnosine



N-β-Alanyl-L-histidine · H-β-Ala-His-OH

$C_9H_{14}N_4O_3$ · mp 267,3 °C · bp >500 °C
CAS No. 305-84-0 · EC no. 206-169-9
WGK 2

L-Carnosine
≥98 %, for biochemistry

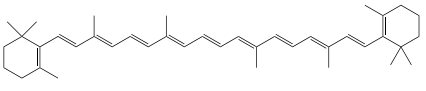
Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (titr.) ..... ≥98 %
Solution (2 % in H_2O) ..... colourless
Water (KF) ..... ≤1,0 %
Specific rotation $[\alpha]_D^{20}$ (c=2 in H_2O) ..... +21,0° ±1°
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
4148.1	1 g	glass	34,95
4148.2	5 g	glass	112,90

ψ,ψ-Carotene
▸ Lycopene see page 1052

β-Carotene



$C_{40}H_{56}$ · D 1,001 g/cm³ · mp 174 to 182 °C · flp 103 °C
CAS No. 7235-40-7 · EC no. 230-636-6
WGK 1

β-Carotene
ROTICHROM® HPLC

Storage temperature: –20 °C
Transport temperature: ambient temp.

Assay (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
5669.1	10 mg	glass	267,70

β-β-Carotene-3-ol
▸ β-Cryptoxanthin see page 854

Carotinoids

Art. No.	Description	Page
5674	Capsanthin, ROTICHROM®, ~CHR_{TLC}	814
5669	β-Carotene, ROTICHROM®, HPLC	818
5675	β-Cryptoxanthin, ROTICHROM®, CHR_{TLC}	854
4452	Helenien, ROTICHROM®, ~CHR_{TLC}	976
7864	Lutein, natural, oil-soluble, liquid	1051
1180	Lycopene, ROTICHROM®, HPLC	1052
5670	Lycopene, ROTICHROM®, CHR_{TLC}	1052
5672	Zeaxanthin, ROTICHROM®, CHR_{TLC}	1411

Carrageenan, iota

CAS No. 9062-07-1 · EC no. 232-949-3
WGK 1

Carrageenan, iota
highly pure

Weakly gelating Carrageenan of iota type. Forms soft gels. For gelling of watery liquids like culture media for plants or animals in general, and for gelling of dairy products in particular. Manufactured from cultured and controlled sea weeds.

Guarantee analysis
Appearance ..... light tan
Particle size (95 %) ..... ≤0,149 mm
Loss on drying ..... ≤12 %
Arsenic (As) ..... ≤3 ppm
Lead (Pb) ..... ≤5 ppm
Cadmium (Cd) ..... ≤2 ppm
Mercury (Hg) ..... ≤1 ppm
pH value 8,0-11,0
Microbiological Analysis ..... complies

Being extracts from natural products, the properties (e.g. gelling behaviour, salt content) may vary from lot to lot.

Art. No.	Pack Qty.	Pack.	€
3675.1	25 g	plastic	25,70
3675.2	100 g	plastic	64,40
3675.3	500 g	plastic	224,70
Original pack 6 x 500 g			213,47/500 g

Carrageenan, kappa

CAS No. 11114-20-8 · EC no. 234-350-2
WGK 1

Carrageenan, kappa
highly pure

Strongly gelling Carrageenan of kappa type. Forms gels of high gel strength. For gelling of watery liquids like e.g. culture media for plants or animals. Manufactured from cultured and controlled sea weeds.

Guarantee analysis
Appearance ..... white-pale tan
Gel strength (1,5 %, aqueous) .. 1200-1800 g/cm²
Particle size (95 %) ..... ≤0,25 mm
Loss on drying ..... ≤12 %
Arsenic (As) ..... ≤3 ppm
Lead (Pb) ..... ≤5 ppm
Cadmium (Cd) ..... ≤2 ppm
Mercury (Hg) ..... ≤1 ppm
pH value 7,0-11,0
Microbiological Analysis ..... complies

Contains KCl.
Being extracts from natural products, the properties (e.g. gelling behaviour, salt content) may vary from lot to lot.

Art. No.	Pack Qty.	Pack.	€
3059.1	25 g	plastic	25,70
3059.2	100 g	plastic	64,40
3059.3	500 g	plastic	224,70
Original pack 6 x 500 g			213,47/500 g

Carrez solutions

Carrez solution I
for the determination of sugar and starch

Zinc acetate and acetic acid solution

D 1,11 g/cm³ · bp 100 °C

WGK 3

Danger H318-H412

Art. No.	Pack Qty.	Pack.	€
9944.1	500 ml	plastic	46,80

Carrez solution II
for the determination of sugar and starch

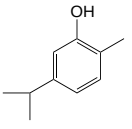
Potassium hexacyanoferrate(II) solution

D 1,068 g/cm³

WGK 2

Art. No.	Pack Qty.	Pack.	€
9950.1	500 ml	plastic	46,80

Carvacrol



2-Hydroxy-*p*-cymene · 5-Isopropyl-2-methyl-phenol · Isothymol

$C_{10}H_{14}O$ · D 0,976 g/cm³ · mp 3,5 °C · bp 237,7 °C · flp 100 °C
CAS No. 499-75-2 · EC no. 207-889-6
WGK 1

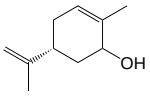
Warning H302-H315-H319

Carvacrol
ROTICHROM® CHR ≥97 %

Type analysis
Appearance ..... colorless liquid
Assay (GC) ..... ≥97,0 %
Density (d 20 °C/4 °C) 0,976-0,978

Art. No.	Pack Qty.	Pack.	€
8808.1	10 ml	glass	42,90

(–)-Carveol



p-Mentha-6,8-dien-2-ol

$C_{10}H_{16}O$ · D 0,958 g/cm³ · bp 226 to 227 °C · flp 98 °C
CAS No. 99-48-9 · EC no. 202-757-4
WGK 2

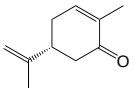
Warning H315-H319-H335

(–)-Carveol
97 %, mixture of isomers

Type analysis
Assay (GC) ..... ≥96,5 %
Appearance ..... clear, colourless liquid
Specific rotation $[\alpha]_D^{20}$ (c=1 % in $CHCl_3$) -112° ± 5°

Art. No.	Pack Qty.	Pack.	€
7219.1	5 g	glass	115,60

(–)-Carvone



$C_{10}H_{14}O$ · D 0,96 g/cm³ · mp <25 °C · bp 230 to 231 °C · flp 92 °C
CAS No. 6485-40-1 · EC no. 229-352-5
WGK 1

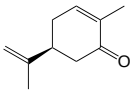
Warning H317

(–)-Carvone
ROTICHROM® ~CHR_{TLC}

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
8811.1	100 ml	glass	96,65

(+)-Carvone



$C_{10}H_{14}O$ · D 0,96 g/cm³ · mp <15 °C · bp 233,9 °C · flp 95,6 °C
CAS No. 2244-16-8 · EC no. 218-827-2
WGK 1

Warning H317

(+)-Carvone
≥97, synthetic

Storage temperature: +4 °C

Type analysis
Assay (GC) ..... ≥97,5 %

Art. No.	Pack Qty.	Pack.	€
1LCX.1	25 ml	glass	57,95
1LCX.2	100 ml	glass	206,95

(+)-Carvone
ROTICHROM® GC

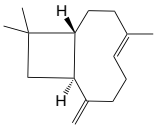
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6947.2	100 mg	glass	107,00

β-Caryophyllene



$C_{15}H_{24}$ · D 0,89 to 0,9 g/cm³ · bp 253 to 262 °C · flp 105 °C
CAS No. 87-44-5 · EC no. 201-746-1
WGK 1

Danger H304-H317

β-Caryophyllene
ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7232.2	100 mg	glass	170,95

Caryophylline
▸ Oleanolic acid see page 1129

Casamino acids
▸ Casein hydrolysate see page 819

Casein

mp 280 °C
CAS No. 9000-71-9 · EC no. 232-555-1
WGK 1

Casein
≥95 %, alkali-soluble

Type analysis
Assay (ex N, dry substance) ..... ≥95 %
Ash content (800 °C) ..... ≤3 %
Loss on drying (105 °C) ..... ≤10 %
Free acid (as lactic acid) ..... ≤1,5 %
Particle size (<315 µm) ..... ≥95 %
Fat ..... ≤1,0 %
Glucose (TLC) ..... ≤0,2 %
Lactose (TLC) ..... ≤0,5 %
Microbiological assay ..... complies

Art. No.	Pack Qty.	Pack.	€
7555.2	100 g	plastic	34,30
7555.1	500 g	plastic	138,70
Original pack 6 x 500 g			131,77/500 g

Casein hydrolysate

Casamino acids

CAS No. 65072-00-6 · EC no. 265-363-1
WGK 1

Casein hydrolysate, bacteriological
acid-hydrolysed, for biochemistry

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Total nitrogen ..... 7,0-8,5 %
pH-value 4,5-6,0
Loss on drying ..... <6 %
Ratio AN/TN ..... 56-93 %
Amino nitrogen ..... 4,5-6,5 %

Art. No.	Pack Qty.	Pack.	€
A157.3	250 g	plastic	115,60
A157.1	500 g	plastic	188,15
Original pack 6 x 500 g			178,74/500 g
A157.2	1 kg	plastic	342,95
Original pack 6 x 1 kg			325,80/1 kg

Casein hydrolysate, standard
acid-hydrolysed, for molecular biology

Ingredient of molecular and microbiological nutrient media, vitamin-free.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Total nitrogen ..... ≥5,0 %
Amino nitrogen ..... ≥3,5 %
Ratio AN/TN ..... ≥46 %
Ash content ..... ≤45 %
pH value (2 % solution) ..... 6,0 - 7,5

Art. No.	Pack Qty.	Pack.	€
AE41.1	500 g	plastic	96,25
Original pack 6 x 500 g			91,44/500 g
AE41.2	1 kg	plastic	171,50
Original pack 6 x 1 kg			162,93/1 kg

Casein peptone Lecithin Polysorbate Broth
▸ TAT Broth (Base) see page 1355

Casein-sodium
▸ Sodium Casein see page 1279

Casein Soya Bean Digest Broth (Ph. Eur. 6.3, 7.0, 8.0 and 9.0)
▸ CASO Broth, granulated see page 820
▸ CASO Broth see page 820
▸ CASO Broth see page 820

CASO Agar

Agar medium B (Ph. Eur. 6.0) · Soy Peptone Agar · TSB Agar · Trypticase Soy Agar · Casein Soya Bean Digest Agar (Ph. Eur. 6.3, 7.0, 8.0 and 9.0)

WGK 1

CASO Agar
Ph. Eur., ISO 9308, ISO 11133, ISO 11930, ISO 18415, ISO 18416, ISO 21149, ISO 21150, ISO 22717, ISO 22718, for microbiology

For isolation and cultivation of non-fastidious organisms.

Application: Use 40 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Casein peptone (pancreas hydrolysate) ..... 15 g/l
Soy peptone (papain hydrolysate) ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar ..... 15 g/l
pH value ..... 7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
X937.1	500 g	plastic	107,00
Original pack 6 x 500 g			101,65/500 g
X937.2	1 kg	plastic	188,15
Original pack 6 x 1 kg			178,74/1 kg
X937.3	2.5 kg	plastic	413,90
X937.7	5 kg	plastic	779,40

CASO Agar, granulated
Ph. Eur., granulated, for microbiology

For isolation and cultivation of non-fastidious organisms.

Application: Use 40 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Casein peptone (pancreas hydrolysate) ..... 15 g/l
Soy peptone (papain hydrolysate) ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar ..... 15 g/l
pH value ..... 7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
1506.1	500 g	plastic	224,70
Original pack 6 x 500 g			213,47/500 g

CASO Agar with Lecithin/Polysorbate 80

TSA Letheen · Tryptone Soy Agar Letheen · TSA with Tween® 80 and Lecithin

WGK 1

CASO Agar with Lecithin/Polysorbate 80
for microbiology

For detection of microorganisms from cosmetics and disinfected surfaces.

Application: Use 45.7 g for 1 l agar.

Storage temperature: +4 °C
Transport temperature: ambient temp.

Composition
Pancreatic digest of casein ..... 15 g/l
Soy peptone ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Lecithin ..... 0,7 g/l
Polysorbate 80 ..... 5 g/l
Agar ..... 15 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
8848.1	500 g	plastic	192,45
Original pack 6 x 500 g			182,83/500 g

CASO Broth

WGK 1

CASO Broth
Ph. Eur., USP, ISO 10273, ISO 11133, ISO 21871, for microbiology

For cultivation of fastidious and non-fastidious microorganisms.

Broth medium A (Ph. Eur. 6.0) · Soy Peptone Broth · TSB Broth · Tryptic Soy Broth · Casein Soya Bean Digest Broth (Ph. Eur. 6.3, 7.0, 8.0 and 9.0)

Application: Use 30 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Casein peptone (pancreas hydrolysate) ..... 17 g/l
Soy peptone (papain hydrolysate) ..... 3 g/l
di-Potassium hydrogen phosphate ..... 2,5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Glucose monohydrate ..... 2,5 g/l
pH value ..... 7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
X938.1	500 g	plastic	90,85
Original pack 6 x 500 g			86,31/500 g
X938.2	1 kg	plastic	149,45
Original pack 6 x 1 kg			141,98/1 kg
X938.3	2.5 kg	plastic	317,15
X938.7	5 kg	plastic	600,95

CASO Broth, granulated
Ph. Eur., granulated, for microbiology

For cultivation of fastidious and non-fastidious microorganisms.

Broth medium A (Ph. Eur. 6.0) · Soy Peptone Broth · TSB Broth · Tryptic Soy Broth · Casein Soya Bean Digest Broth (Ph. Eur. 6.3, 7.0, 8.0 and 9.0)

Application: Use 30 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Casein peptone (pancreas hydrolysate) ..... 17 g/l
Soy peptone (papain hydrolysate) ..... 3 g/l
di-Potassium hydrogen phosphate ..... 2,5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Glucose monohydrate ..... 2,5 g/l
pH value ..... 7,3 ±0,2
Granulation ..... complies

Art. No.	Pack Qty.	Pack.	€
6678.1	500 g	plastic	134,40
Original pack 6 x 500 g			127,68/500 g
6678.2	1 kg	plastic	223,10
Original pack 6 x 1 kg			211,95/1 kg

CASO Broth vegetal
animal-free, for microbiology

For cultivation of fastidious and non-fastidious microorganisms.

Soy Peptone Broth · TSB Broth · Tryptic Soy Broth

Application: Use 30 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Vegetable peptone ..... 20 g/l
di-Potassium hydrogen phosphate ..... 2,5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Glucose ..... 2,5 g/l
pH value ..... 7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
0139.1	500 g	plastic	109,15
Original pack 6 x 500 g			103,69/500 g

CASO Broth
Ph. Eur., USP, ISO 10273, for microbiology

For the cultivation of fastidious and undemanding microorganisms.

Broth medium A (Ph. Eur. 6.0) · Soy Peptone Broth · TSB Broth · Tryptic Soy Broth · Casein Soya Bean Digest Broth (Ph. Eur. 6.3, 7.0, 8.0 and 9.0)

D 1,037 g/cm³ · mp 0 °C · bp 100 °C

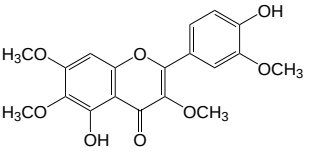
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Casein peptone ..... 17 g/l
Soy peptone ..... 3 g/l
Sodium chloride (NaCl) ..... 5 g/l
Dikaliumhydrogenphosphat ..... 2,5 g/l
Glucose ..... 2,5 g/l
pH value (25 °C) 7,1-7,5

Art. No.	Pack Qty.	Pack.	€
1L83.1	180 ml	glass	45,05
1L83.2	900 ml	glass	72,60
1L83.3	1 l	glass	80,10
Original pack 6 x 1 l			76,10/1 l

Cassic acid
▸ Rhein see page 1203

Casticin



Vitexicarpin

$C_{19}H_{18}O_8$ · mp 186 to 187 °C
CAS No. 479-91-4
WGK 1

Casticin
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥85,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC39.1	25 mg	glass	912,70

Casticin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Vitex agnus castus*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1126.1	20 mg	glass	532,15

Castor oil

Oleum Ricini

D 0,95 to 0,97 g/cm³ · bp >300 °C · flp >200 °C
CAS No. 8001-79-4 · EC no. 232-293-8
WGK awg

Castor oil
Ph. Eur., extra pure, virgin

Guarantee analysis
Appearance ..... clear, colourless to yellowish oil
Identity ..... complies
Relative density (20 °C) 0,952-0,965
Refractive index (20 °C) 1,477-1,481
Optical rotation ..... +3,5° to +6,0°
Absorption (270 nm) ..... ≤0,7
Acid value ..... ≤1,5 mg KOH/g
Peroxide value ..... ≤10 meq O_2/kg
Unsaponifiable matter ..... ≤0,8 %
Iodine value ..... 82-90 g I_2/100 g
Water ..... ≤0,3 %
Hydroxyl value ..... ≥160 mg KOH/g
Foreign oils (Ph. Eur.) ..... ≤1,0 %

GC-fatty acid constituents:
C 16:0 Palmitic acid ..... ≤2,0 %
C 18:0 Stearic acid ..... ≤2,5 %
C 18:1 Oleic acid ..... 2,5-6,0 %
C 18:1 Ricinoleic acid ..... 85,0-92,0 %
C 18:2 Linoleic acid ..... 2,5-7,0 %
C 18:3 Linolenic acid ..... ≤1,0 %
C 20:1 Eicosenoic acid ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
4702.1	1 l	glass	37,55
Original pack 6 x 1 l			35,67/1 l
4702.3	2.5 l	glass	67,65
Original pack 4 x 2.5 l			64,27/2.5 l
4702.4	5 l	plastic	112,90
Original pack 2 x 5 l			107,26/5 l
4702.2	10 l	PE/steel	209,65

Catalase

D 1,3 to 1,4 g/cm³
CAS No. 9001-05-2 · EC no. 232-577-1
WGK 1

Danger H334

Catalase
≥11 700 U/mg material (approx. 40 000 U/mg protein)

From bovine liver, freeze-dried

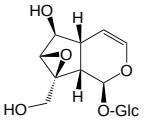
Packaging: 5 Mega Unit

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... brown/green material
Activity ..... ≥11700 U/mg substance

Art. No.	Pack Qty.	Pack.	€
6025.1	1 unit(s)	plastic	188,15

Catalpol



$C_{15}H_{22}O_{10}$ · mp 205 °C
CAS No. 2415-24-9 · EC no. 219-324-0
WGK 1

Catalpol
ROTICHROM® HPLC

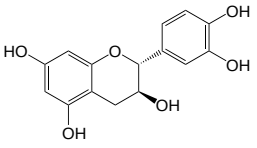
Reference substance for HPLC.
From *Picrorhiza kurroa*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1127.1	25 mg	glass	360,15

(+)-Catechin



(+)-Catechol

$C_{15}H_{14}O_6$ · mp 173 to 177 °C
CAS No. 154-23-4 · EC no. 205-825-1
WGK 1

(+)-Catechin
≥98 %

From *Camellia sinensis*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (HPLC) ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
6356.1	10 mg	glass	177,40

(+)-Catechin
ROTICHROM® ~CHR$_{TLC}$

From *Camellia sinensis*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
6200.1	1 g	glass	46,15

DL-Catechin hydrate

trans-3,3',4',5,7-Pentahydroxyflavan

$C_{15}H_{14}O_6 \cdot x\ H_2O$ · mp 200 °C
CAS No. 7295-85-4 · EC no. 230-731-2
WGK 1

Warning H315-H319-H335

DL-Catechin hydrate
ROTICHROM® CHR ≥96 %, for biochemistry

Type analysis
Appearance ..... light beige powder
Assay (HPLC) ..... ≥96 %

Art. No.	Pack Qty.	Pack.	€
8822.1	1 g	glass	145,15

Catechins / Tannins

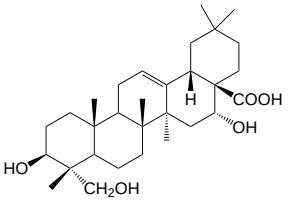
Art. No.	Description	Page
6356	(+)-Catechin, ≥98 %	821
6200	(+)-Catechin, ROTICHROM®, ~CHR$_{TLC}$	821
8822	DL-Catechin hydrate, ROTICHROM® CHR, ≥96 %, for biochemistry	821
7293	(–)-Epicatechin, ROTICHROM® CHR, >90 %	911
1139	(–)-Epicatechin, ROTICHROM®, HPLC	911
5798	(–)-Epicatechin, ROTICHROM®, ~CHR$_{TLC}$	911
6358	(–)-Epicatechin gallate, ROTICHROM®, HPLC	911
6361	(–)-Epigallocatechin gallate, ROTICHROM®, HPLC	911
4480	(–)-Gallocatechin, ROTICHROM®, HPLC	953
1151	Hamamelitannin, ROTICHROM®, HPLC	974
2726	Tannic acid, ≥86 %, p.a., ACS	1353
4239	Tannic acid, Ph. Eur., for biochemistry	1353

(+)-Catechol
▸ (+)-Catechin see page 821

Catechol violet
▸ Pyrocatechol violet see page 1192

Cation exchanger
▸ Dowex® 50 W X 8 Cation exchanger see page 901
▸ Dowex® 50 W X 4 Cation exchanger see page 901
▸ Ion exchange resin ROTI®Change see page 1013

Caulophyllogenin



$C_{30}H_{48}O_5$ · mp >300 °C
CAS No. 52936-64-8 · EC no. 258-265-5
WGK 1

Caulophyllogenin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

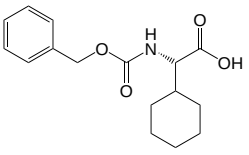
Art. No.	Pack Qty.	Pack.	€
7439.1	5 mg	glass	639,65

Caulosapogenin
▸ Hederagenin see page 976

Cbz-L-Arginine
▸ Z-L-Arginine see page 1411

Cbz-L-Aspartic acid
▸ Z-L-Aspartic acid see page 1411

Cbz-Cyclohexyl-L-glycine



Cbz-L-Chg-OH

$C_{16}H_{21}NO_4$ · mp 114 °C · bp >150 °C
CAS No. 69901-75-3
WGK 1

Cbz-Cyclohexyl-L-glycine
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥98,0 %
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
6636.1	500 mg	glass	25,30
6636.2	1 g	glass	40,75
6636.3	5 g	glass	160,20

Cbz-L-Glutamic acid
▸ Z-L-Glutamic acid see page 1412

Cbz-L-Chg-OH
▸ Cbz-Cyclohexyl-L-glycine see page 822

Cbz-L-Leucine
▸ Z-L-Leucine see page 1416

Cbz-L-Lysine
▸ Z-L-Lysine see page 1416

CCA
▸ Coliforms chromogenic Agar see page 844

CCDA
▸ Campylobacter Selective Agar (Base) see page 812

CCDA, modified
▸ Campylobacter Agar, blood-free (Base) see page 812

CCDA Supplement
▸ Campylobacter Supplement see page 812

CDI
▸ 1,1'-Carbonyldiimidazole (CDI) see page 816

CDTA
▸ *trans*-1,2-Diaminocyclohexane-*N*,*N*,*N*',*N*'-tetracetic acid monohydrate see page 872

CDTA disodium salt solution (0.1 N)

D 1,025 g/cm³
UN no. 1824 · ADR 8 III · WGK 1

Warning H290-H315-H319

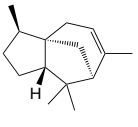
CDTA disodium salt solution
0,1 mol/l – 0,1 N, volumetric standard solution

Type analysis
Amount-of-substance conc. ..... 0,1 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
0243.1	1 l	plastic	261,80
Original pack 6 x 1 l			248,71/1 l

CdTe
▸ Quantum Dots, hydrophilic see page 1194

(–)-α-Cedrene



$C_{15}H_{24}$ · D 0,93 g/cm³ · bp 261 to 262 °C · flp 103 °C
CAS No. 469-61-4 · EC no. 207-418-4
UN no. 3082 · ADR 9 III · WGK 2

Danger H304-H410

(–)-α-Cedrene
ROTICHROM® GC

Reference substance for GC.

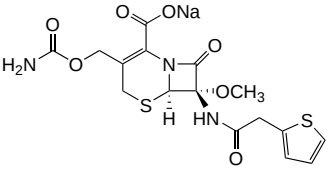
Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥96 %

Art. No.	Pack Qty.	Pack.	€
8908.1	100 mg	plastic	246,20

Cefomonil
▸ Cefsulodin sodium salt see page 822

Cefoxitin sodium salt



$C_{16}H_{16}N_3NaO_7S_2$ · mp >160 °C
CAS No. 33564-30-6 · EC no. 251-574-6
WGK 1

Danger H315-H317-H319-H334-H335

Cefoxitin sodium salt
≥98 %, for biochemistry

Cephalosporin-antibiotic

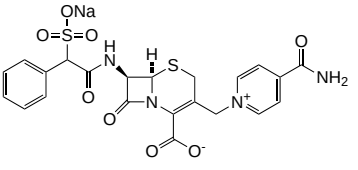
Sensitive to light and temperature!
Stock solution: 100 mg/ml in water.
Store stock solution in the dark at –20 °C (durability 30 weeks).
Working concentration: 2–100 µg/ml.

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥98 %
Solution (1 % in H_2O) . colorless to light yellowish
Water (KF) ..... ≤3,0 %
Spez. Drehung $[\alpha]_D^{20}$ (c=1 in Methanol) ... +200° to +214°
pH value (10 % in water) 4,2-7,0
Heavy metals (as Pb) ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
4156.1	250 mg	glass	68,30
4156.2	500 mg	glass	114,50

Cefsulodin sodium salt



Cefomonil · Pseudocef

$C_{22}H_{19}N_4O_8S_2Na$
CAS No. 52152-93-9 · EC no. 257-692-4
WGK 1

Danger H315-H317-H319-H334-H335

Cefsulodin sodium salt
≥97 %, for biochemistry

Cephalosporin-antibiotic

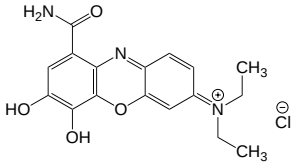
Sensitive to light and temperature!
Stock solution: 20 mg/ml in water.
Store stock solution in the dark at –20 °C.
Working concentration: 2–20 µg/ml.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay ..... ≥97 %
Solution (5 % in water) ..... yellowish, clear
Water (KF) ..... ≤7 %
pH value (c=2 in water) 3,3-4,8
Spec. rotation $[\alpha]_D^{20}$ (c=1 in water) +15,5° to +18,5°

Art. No.	Pack Qty.	Pack.	€
4014.1	100 mg	glass	68,70
4014.2	250 mg	glass	117,75

Celestine blue (C.I. 51050)



$C_{17}H_{18}ClN_3O_4$
CAS No. 1562-90-9 · EC no. 216-346-2
WGK 1

Celestine blue (C.I. 51050)
for microscopy

Type analysis
Appearance ..... black to dark brown powder
Appearance of solution (0,1 % in H_2O) .. dark blue to dark purple

Art. No.	Pack Qty.	Pack.	€
7646.1	5 g	glass	42,90
7646.2	25 g	glass	155,90
7646.3	100 g	glass	514,95

Celite®

WGK 1

Celite® 503
filter aid on silicate basis

Flux calcinated white diatoms

mp >450 °C

CAS No. 68855-54-9 · EC no. 272-489-0

Type analysis
Wet density ..... ≤369 g/l
Sieve residue (150 mesh) ..... ≤16 %
Permeability (Darcy) 1,27-2,4

Art. No.	Pack Qty.	Pack.	€
0007.2	1 kg	plastic	32,15
Original pack 6 x 1 kg			30,54/1 kg
0007.1	2.5 kg	plastic	64,40

Celite® 535
filter aid on silicate basis

Flux calcinated white diatoms

mp >450 °C

CAS No. 68855-54-9 · EC no. 272-489-0

Type analysis
Wet density ..... ≤370 g/l
Sieve residue (150 mesh) ..... ≤25 %
Permeability (Darcy) 1,8-3,9

Art. No.	Pack Qty.	Pack.	€
0009.2	1 kg	plastic	26,80
Original pack 6 x 1 kg			25,46/1 kg
0009.1	2.5 kg	plastic	59,05

Celite® 545
filter aid on silicate basis

Flux calcinated white diatoms

mp >450 °C

CAS No. 68855-54-9 · EC no. 272-489-0

Type analysis
Wet density ..... ≤480 g/l
Sieve residue (150 mesh) ..... ≤30 %
Permeability (Darcy) 3,5-5,5

Art. No.	Pack Qty.	Pack.	€
0011.3	250 g	plastic	14,55
0011.2	1 kg	plastic	24,65
Original pack 6 x 1 kg			23,42/1 kg
0011.1	2.5 kg	plastic	46,15
0011.4	10 kg	plastic	134,40
0011.5	25 kg	plastic	263,40

Celite® Hyflo Super Cel®
filter aid on silicate basis

Flux calcinated white diatoms

mp >450 °C

CAS No. 68855-54-9 · EC no. 272-489-0

Type analysis
Wet density ..... ≤345 g/l
Sieve residue (150 mesh) ..... ≤12 %
Permeability (Darcy) 0,73-1,64

Art. No.	Pack Qty.	Pack.	€
0005.2	1 kg	plastic	32,15
Original pack 6 x 1 kg			30,54/1 kg
0005.1	2.5 kg	plastic	64,40

Celite®, calcinated

Celite® 512
filter aid on silicate basis

Calcinated pink diatoms

D 2,3 g/cm³

CAS No. 91053-39-3 · EC no. 293-303-4

Type analysis
Wet density ..... ≤346 g/l
Sieve residue (150 mesh) ..... ≤12 %
Permeability (Darcy) 0,28-0,76

Art. No.	Pack Qty.	Pack.	€
0050.2	1 kg	plastic	32,15
Original pack 6 x 1 kg			30,54/1 kg
0050.1	2.5 kg	plastic	64,40

Celite® Standard Super Cel®
filter aid on silicate basis

Calcinated pink diatoms

D 2,3 g/cm³

CAS No. 91053-39-3 · EC no. 293-303-4

Type analysis
Wet density ..... ≤346 g/l
Sieve residue (150 mesh) ..... ≤7 %
Permeability (Darcy) 0,16-0,36

Art. No.	Pack Qty.	Pack.	€
0003.2	1 kg	plastic	32,15
Original pack 6 x 1 kg			30,54/1 kg
0003.1	2.5 kg	plastic	64,40

Cell Culture Ready-made Solutions

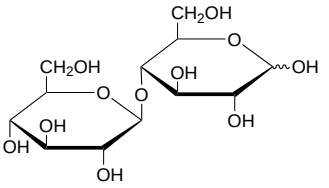
Art. No.	Description	Page
L787	DOTAP, CELLPURE®, ready-to-use, for transfection	900
CP11	Geneticin disulphate (G418) solution, CELLPURE®, 50 mg/ml, sterile	955
2039	Geneticin disulphate (G418) solution, 50 mg/ml, BioScience Grade, sterile, ready-to-use	955
HN09	Gentamycin sulphate solution, CELLPURE®, 50 mg/ml, sterile	955
2475	Gentamycin solution, 50 mg/ml, BioScience Grade, sterile, ready-to-use	955
CP12	Hygromycin B solution, CELLPURE®, 50 mg/ml, sterile	1002
1287	Hygromycin B solution, 50 mg/ml in PBS, BioScience Grade, sterile, ready-to-use	1002
0647	ROTI®Cell MEM-AA solution, CELLPURE®, 50x conz., sterile, w/o glutamine	1213
9165	ROTI®Cell Bicarbonate solution, CELLPURE®, 7,5 %, sterile	1213
9135	ROTI®Cell DPBS/EDTA, CELLPURE®, sterile, 0,02 % EDTA (Versene®), w/o Ca/Mg	1213
0621	ROTI®Cell 0.1% Gelatine solution, CELLPURE®, 0,1 % conc., sterile, ready-to-use, in PBS, w/o Ca/Mg	1213
0646	ROTI®Cell 2% Gelatine solution, CELLPURE®, 2 % conc., sterile, ready-to-use, in PBS, w/o Ca/Mg	1213
9183	ROTI®Cell Glutamine solution, CELLPURE®, 200 mM, sterile	1213
9122	ROTI®Cell Hanks' BSS, CELLPURE®, ready-to-use, sterile, with Ca/Mg, with Phenolrot	1213
9830	ROTI®Cell Myco-Free, CELLPURE®, 50x conc., sterile, ready-to-use	1214
9152	ROTI®Cell PBS/EDTA, CELLPURE®, sterile, 0,046 % EDTA, w/o Ca/Mg	1214
P001	ROTI®Fect, CELLPURE®, ready-to-use, for transfection	1223
CL21	ROTI®Fect Plus, CELLPURE®, ready-to-use, for transfection	1223
3129	ROTI®Fect RNAi Kit, CELLPURE®, ready-to-use, for transfection	1223
AE29	ROTI®Insectofect, CELLPURE®, ready-to-use, for transfection	1227

Art. No.	Description	Page
0634	ROTI®Sep 1077 human/tube, CELLPURE®, sterile, ready-to-use, for density gradient centrifugation	1240
0622	ROTI®Sep 1077 animal, CELLPURE®, sterile, ready-to-use, for density gradient centrifugation	1240
0624	ROTI®Sep 1086 mouse, CELLPURE®, sterile, ready-to-use, for density gradient centrifugation	1241
3255	Water, sterile, pyrogen-free, hypotonic	1401

Cell Culture Reagents

Art. No.	Description	Page
6831	L-Alanyl-L-glutamine, CELLPURE®	713
1ET4	Albumin, very low endotoxin, NZ-Origin, CELLPURE®	714
1ET6	Albumin, very low endotoxin, US-Origin, CELLPURE®	714
HP62	Ampicillin sodium salt, CELLPURE®	742
1655	L-Arginine, CELLPURE®	750
1689	L-Arginine monohydrochloride, CELLPURE®	751
KK37	L-Asparagine monohydrate, CELLPURE®	756
1690	L-Aspartic acid, CELLPURE®	757
HN04	Calcium chloride dihydrate, CELLPURE®	807
1693	L-Cysteine, CELLPURE®	860
1694	L-Cysteine hydrochloride monohydrate, CELLPURE®	860
1695	L-Cystine, CELLPURE®	861
4198	DEAE Dextran	864
A994	Dimethyl sulphoxide (DMSO)	890
L787	DOTAP, CELLPURE®	900
6833	Flavine-adenine-dinucleotide disodium salt (FAD), CELLPURE®	936
8878	D(+)-Galactose, CELLPURE®	951
CP11	Geneticin disulphate (G418) solution, CELLPURE®	955
2039	Geneticin disulphate (G418) solution	955
HN09	Gentamycin sulphate solution, CELLPURE®	955
2475	Gentamycin solution	955
HN06	D(+)-Glucose, CELLPURE®	961
1743	L-Glutamic acid, CELLPURE®	964
HN08	L-Glutamine, CELLPURE®	964
6832	L-Glutathione reduced, CELLPURE®	965
HN07	Glycine, CELLPURE®	967
HN77	HEPES, PUFFERAN® CELLPURE®	978
1696	L-Histidine, CELLPURE®	986
1697	L-Histidine hydrochloride monohydrate, CELLPURE®	986
CP12	Hygromycin B solution, CELLPURE®	1002
1287	Hygromycin B solution	1002
1698	L-Isoleucine, CELLPURE®	1021
1699	L-Leucine, CELLPURE®	1041
6829	L-Lysine monohydrate, CELLPURE®	1052
1700	L-Lysine hydrochloride, CELLPURE®	1053
HN11	Magnesium acetate tetrahydrate, CELLPURE®	1056
HN03	Magnesium chloride hexahydrate, CELLPURE®	1057
8882	D(+)-Maltose monohydrate, CELLPURE®	1065
8883	D(–)-Mannitol, CELLPURE®	1068
8887	D(+)-Mannose, CELLPURE®	1068
1702	L-Methionine, CELLPURE®	1080
1703	L-Ornithine monohydrochloride, CELLPURE®	1132
HP49	Penicillin G potassium salt, CELLPURE®	1140
HP48	Penicillin G sodium salt, CELLPURE®	1140
HP10	Pen/Strep-PreMix, CELLPURE®	1141
1709	L-Phenyalanine, CELLPURE®	1151
HN10	Potassium acetate, CELLPURE®	1166
HN02	Potassium chloride, CELLPURE®	1169
1713	L-Proline, CELLPURE®	1184
0647	ROTI®Cell MEM-AA solution, CELLPURE®	1213
9165	ROTI®Cell Bicarbonate solution, CELLPURE®	1213
9135	ROTI®Cell DPBS/EDTA, CELLPURE®	1213
0621	ROTI®Cell 0.1% Gelatine solution, CELLPURE®	1213
0646	ROTI®Cell 2% Gelatine solution, CELLPURE®	1213
9183	ROTI®Cell Glutamine solution, CELLPURE®	1213
9152	ROTI®Cell PBS/EDTA, CELLPURE®	1214
1033	ROTI®Fair HBS	1218
P001	ROTI®Fect, CELLPURE®	1223
CL21	ROTI®Fect Plus, CELLPURE®	1223
3129	ROTI®Fect RNAi Kit, CELLPURE®	1223
AE29	ROTI®Insectofect, CELLPURE®	1227
0642	ROTI®Sep 1077 human, CELLPURE®	1240
0634	ROTI®Sep 1077 human/tube, CELLPURE®	1240
0622	ROTI®Sep 1077 animal, CELLPURE®	1240
0624	ROTI®Sep 1086 mouse, CELLPURE®	1241
8890	D(+)-Saccharose, CELLPURE®	1248
1714	L-Serine, CELLPURE®	1257
HN05	Sodium acetate trihydrate, CELLPURE®	1276
HN00	Sodium chloride, CELLPURE®	1280
8607	Sodium chloride solution 0.9 %, CELLPURE®	1280
HN12	tri-Sodium citrate dihydrate, CELLPURE®	1281
HN01	Sodium hydrogen carbonate, CELLPURE®	1284
HP66	Streptomycin sulphate, CELLPURE®	1340
HP63	Tetracycline hydrochloride, CELLPURE®	1360
1738	L-Threonine, CELLPURE®	1366
8897	D(+)-Trehalose dihydrate, CELLPURE®	1375
3170	TRIS, CELLPURE®	1382
1739	L-Tryptophan, CELLPURE®	1386
1741	L-Tyrosine, CELLPURE®	1389
1742	L-Valine, CELLPURE®	1393
0242	Vancomycin hydrochloride, CELLPURE®	1394
3255	Water	1401

D(+)-Cellobiose



4-*O*-β-D-Glucopyranosyl-D-glucose

$C_{12}H_{22}O_{11}$ · D 0,5 g/cm³ · mp 225 °C
CAS No. 528-50-7 · EC no. 208-436-5
WGK 1

D(+)-Cellobiose
≥98 %, for biochemistry

Type analysis
Appearance . white to almost white, cryst. powder
Assay (HPLC) ..... ≥98 %
Specific rotation $[\alpha]_D^{20}$ (c=4 in H_2O , 15 h) ... +33,0° to +35,0°
Solution (5 % in H_2O) ..... colourless
Heavy metals ..... <0,0005 %

Art. No.	Pack Qty.	Pack.	€
5840.1	5 g	plastic	23,55
5840.3	25 g	plastic	73,00
5840.2	100 g	plastic	256,95

X-β-D-Cellobioside
▸ 5-Bromo-4-chloro-3-indoxyl-β-D-cellobioside see page 788

Cell proliferation test solution
▸ ROTITEST®Vital see page 1244

Cellulose

D 1,5 g/cm³
CAS No. 9004-34-6 · EC no. 232-674-9
WGK 1

Cellulose
for column chromatography

Fibre length 0,02-0,1 mm.

Guarantee analysis
pH-value 5-7
Water ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
5873.3	100 g	plastic	21,00
5873.1	500 g	plastic	51,50
Original pack 6 x 500 g			48,93/500 g
5873.2	1 kg	plastic	81,20
Original pack 6 x 1 kg			77,14/1 kg

Cellulose acetate

Acetylcellulose

D 1,3 g/cm³ · mp 230 to 260 °C
CAS No. 9004-35-7

Cellulose acetate
pure

Type analysis
Appearance ..... white granulate

Art. No.	Pack Qty.	Pack.	€
4458.1	250 g	plastic	36,45

Cera alba
▸ Beeswax white see page 766

Cera Carnaubae
▸ Carnauba wax see page 817

Cera flava
▸ Beeswax yellow see page 766

Cerium Standards
▸ Cerium ICP Standard Solution see page 1315
▸ Cerium ICP Standard Solution see page 1315

Cerium(III) acetate hydrate

$Ce(CH_3CO_2)_3 \cdot x\ H_2O$ · D 2,11 g/cm³ · mp >115 °C
CAS No. 17829-82-2 · EC no. 690-854-6
UN no. 3077 · ADR 9 III · WGK 2

Warning H400

Cerium(III) acetate hydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5372.1	10 g	plastic	109,15
5372.2	50 g	plastic	424,65

Cerium(IV) ammonium nitrate

Ammonium cerium(IV) nitrate

$(NH_4)_2[Ce(NO_3)_6]$ · D 2,49 g/cm³ · mp >108 °C
CAS No. 16774-21-3 · EC no. 240-827-6
UN no. 3085 · ADR 5.1 (8) II · WGK 3

Danger H272-H290-H302-H314-H317-H410

Cerium(IV) ammonium nitrate
≥99,5 %, p.a.

Titration reagent in volumetry.

Guarantee analysis
Assay (oxidim.) ..... ≥99,5 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,01 %
Aluminium (Al) ..... ≤0,005 %
Barium (Ba) ..... ≤0,001 %
Chromium (Cr) ..... ≤0,005 %
Copper (Cu) ..... ≤0,001 %
Potassium (K) ..... ≤0,001 %
Nickel (Ni) ..... ≤0,001 %
Strontium (Sr) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
HN28.1	50 g	plastic	58,60
HN28.2	100 g	plastic	107,00
HN28.3	250 g	plastic	198,90

Cerium(IV) ammonium nitrate
≥99 %, extra pure

Type analysis
Assay ..... ≥99 %
Silicate (SiO_2) ..... ≤0,05 %
Ferric oxide (Fe_2O_3) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
3338.1	100 g	plastic	50,00
3338.2	250 g	plastic	107,00
3338.4	500 g	plastic	192,45
Original pack 6 x 500 g			182,83/500 g
3338.3	1 kg	plastic	364,45
Original pack 6 x 1 kg			346,23/1 kg

Cerium(IV) ammonium sulphate dihydrate
▸ Ammonium cerium(IV) sulphate dihydrate see page 733

Cerium(III) nitrate hexahydrate

Cerium trinitrate

$Ce(NO_3)_3 \cdot 6\ H_2O$ · mp >57 °C
CAS No. 10294-41-4 · EC no. 233-297-2
UN no. 1477 · ADR 5.1 II · WGK 2

Danger H272-H318-H410

Cerium(III) nitrate hexahydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5312.1	5 g	plastic	88,70
5312.2	25 g	plastic	262,85

Cerium(III) nitrate hexahydrate
ROTI®REMETIC 99,9 %

Type analysis
Assay (TREO*) ..... 99,9 %

*Total rare earth oxide.
Chemical analysis (ICP, AAS): specified trace impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
7049.1	5 g	plastic	48,30
7049.2	25 g	plastic	92,35

Cerium(III) nitrate hexahydrate
≥99,5 %, p.a.

Type analysis
Assay CeO_2 (TREO) ..... ≥99,5 %
Assay (TREO*) ..... ~39,0 %
Ferric oxide (Fe_2O_3) ..... ≤0,0015 %
Natriumoxide (Na_2O) ..... ≤0,005 %
Calcium oxide (CaO) ..... ≤0,005 %
Total REO impurities ..... ≤0,5 %
Sulphate (SO_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,01 %

*Total rare earth oxide.

Art. No.	Pack Qty.	Pack.	€
HN18.1	100 g	plastic	94,10
HN18.2	500 g	plastic	364,45
Original pack 6 x 500 g			346,23/500 g

Cerium(III) oxalate hydrate

$Ce_2(C_2O_4)_3 \cdot x\ H_2O$
CAS No. 15750-47-7 · EC no. 205-362-5
WGK 1

Warning H302+H312

Cerium(III) oxalate hydrate
ROTI®REMETIC 99,9 %

Type analysis
Assay (TREO*) ..... 99,9 %

*Total rare earth oxide.
Chemical analysis (ICP, AAS): specified trace impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
7067.1	10 g	plastic	80,10
7067.2	50 g	plastic	278,45

Cerium(IV) oxide

CeO_2 · D 7,2 g/cm³ · mp >400 °C · bp >400 °C
CAS No. 1306-38-3 · EC no. 215-150-4
WGK 1

Cerium(IV) oxide
ROTI®REMETIC 99,99 %

Type analysis
Assay (TREO*) ..... 99,99 %

*Total rare earth oxide.
Chemical analysis (ICP, AAS): specified trace impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
7042.1	10 g	plastic	58,60
7042.2	50 g	plastic	155,90

Cerium(IV) oxide
≥99,9 %, p.a.

Guarantee analysis
Assay ..... ≥99,9 %
Total REO impurities ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
9837.1	100 g	plastic	42,50
9837.2	500 g	plastic	125,25
Original pack 6 x 500 g			118,99/500 g
9837.3	1 kg	plastic	206,95
Original pack 6 x 1 kg			196,60/1 kg

Cerium(IV) oxide
≥99 %, extra pure

Type analysis
Assay (TREO*) ..... ≥99,0 %
CaO ..... ≤0,05 %
Fe_2O_3 ..... ≤0,05 %
SiO_2 ..... ≤0,05 %
Loss on ignition ..... ≤1,0 %

*Total rare earth oxide.

Art. No.	Pack Qty.	Pack.	€
1L0P.1	500 g	plastic	45,05
Original pack 6 x 500 g			42,80/500 g
1L0P.2	1 kg	plastic	80,55
Original pack 6 x 1 kg			76,52/1 kg
1L0P.3	2.5 kg	plastic	160,20

Cerium(III) sulphate

$Ce_2(SO_4)_3$ · mp 920 °C
CAS No. 13454-94-9 · EC no. 236-644-6
WGK 1

Warning H315-H319-H335

Cerium(III) sulphate
ROTI®METIC 99,99 % (4N), anhydrous

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5603.1	25 g	plastic	260,70

Cerium(III) sulphate octahydrate

$Ce_2(SO_4)_3 \cdot 8\ H_2O$ · D 2,88 g/cm³
CAS No. 10450-59-6 · EC no. 236-644-6
WGK 1

Warning H315-H319

Cerium(III) sulphate octahydrate
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5601.1	50 g	plastic	249,95
5601.2	250 g	plastic	955,70

Cerium(IV) sulphate tetrahydrate

$Ce(SO_4)_2 \cdot 4\ H_2O$ · D 5,02 g/cm³
CAS No. 10294-42-5 · EC no. 237-029-5
WGK 1

Warning H315-H319

Cerium(IV) sulphate tetrahydrate
≥98 %, p.a.

Titration agent for ceriometry.

Guarantee analysis
Assay (iodom.) ..... ≥98 %
In H_2SO_4 insoluble matter ..... ≤0,1 %
Substances not precipitated by NH_4OH ... ≤0,3 %
Chloride (Cl) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,003 %
Lead (Pb) ..... ≤0,003 %
Iron (Fe) ..... ≤0,015 %
Copper (Cu) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
P014.2	50 g	plastic	96,65
P014.1	100 g	plastic	180,10

Cerium(IV) sulphate solution

D 1,07 g/cm³ · bp ~100 °C
UN no. 3264 · ADR 8 II · WGK 1

Danger H290-H314-H411

Cerium(IV) sulphate solution
0,1 mol/l – 0,1 N, volumetric standard solution

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
P719.1	1 l	glass	87,65
Original pack 6 x 1 l			83,27/1 l
P719.7	5 l	plastic	310,70
Original pack 2 x 5 l			295,17/5 l

Cetaceum
▸ Cetyl palmitate see page 826

Ceten
▸ 1-Hexadecene see page 981

Cetrimide Agar (Base)

Agar medium N (Ph. Eur. 6.0) · Cetrimide Agar (Ph.Eur. 6.3, 7.0, 8.0 and 9.0) · CTM

UN no. 3077 · ADR 9 III · WGK 3

Warning H410

Cetrimide Agar (Base)
Ph. Eur., ISO 22717, for microbiology

For isolation and identification of *Pseudomonas aeruginosa*.

Application: Use 45.3 g for 1 l agar, add 10 ml glycerol.

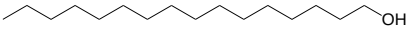
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Gelatin peptone (Pancreas hydrolysate) ..... 20 g/l
Magnesium chloride ..... 1,4 g/l
Potassium sulphate (K_2SO_4) ..... 10 g/l
Cetrimide ..... 0,3 g/l
Agar ..... 13,6 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
X918.1	500 g	plastic	128,50
Original pack 6 x 500 g			122,08/500 g

Cetrimide Agar (Ph.Eur. 6.3, 7.0, 8.0 and 9.0)
▸ Cetrimide Agar (Base) see page 826

Cetyl alcohol



1-Hexadecanol · Alcohol C 16

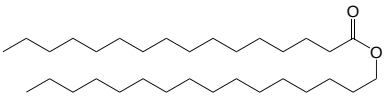
$C_{16}H_{34}O$ · D 0,82 g/cm³ · mp 46 to 54 °C · bp 305 to 330 °C · flp 150 to 155 °C
CAS No. 36653-82-4 · EC no. 253-149-0

Cetyl alcohol
≥95 %, for synthesis

Type analysis
Appearance ..... white tablets
Assay ..... ≥95 %
Water ..... ≤0,1 %
Colour (Hazen) ..... ≤10
Ester value ..... ≤0,5
Acid value ..... ≤1,0
Iodine value ..... ≤1,0
Melting point ..... 49-54 °C

Art. No.	Pack Qty.	Pack.	€
5762.1	1 kg	plastic	76,25
Original pack 6 x 1 kg			72,44/1 kg

Cetyl palmitate



Spermaceti · Cetaceum

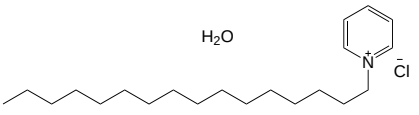
$C_{32}H_{64}O_2$ · mp 54,3 °C · bp 360 °C
CAS No. 540-10-3 · EC no. 208-736-6

Cetyl palmitate
synthetic

Type analysis
Appearance ..... white, waxy powder or granule

Art. No.	Pack Qty.	Pack.	€
9229.2	100 g	plastic	21,40
9229.1	1 kg	plastic	145,15
Original pack 6 x 1 kg			137,89/1 kg

Cetylpyridinium chloride monohydrate (CPC)



Hexadecylpyridinium chloride monohydrate · CPC

$C_{21}H_{38}ClN \cdot H_2O$ · mp 82 to 86 °C
CAS No. 6004-24-6 · EC no. 204-593-9
UN no. 2811 · ADR 6.1 II · WGK 3

Danger H301-H315-H319-H330-H335-H410

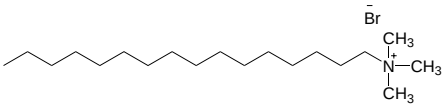
Cetylpyridinium chloride monohydrate (CPC)
≥98 %, for biochemistry

Cationic detergent

Type analysis
Assay (dry substance) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
CN27.1	100 g	plastic	49,35
CN27.2	500 g	plastic	192,45
Original pack 6 x 500 g			182,83/500 g

Cetyltrimethylammonium bromide (CTAB)



CTAB

$C_{19}H_{42}BrN$ · D 0,5 g/cm³ · mp 237 to 243 °C
CAS No. 57-09-0 · EC no. 200-311-3
UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H315-H318-H335-H373-H410

Cetyltrimethylammonium bromide (CTAB)
≥99 %, for biochemistry

Cationic detergent

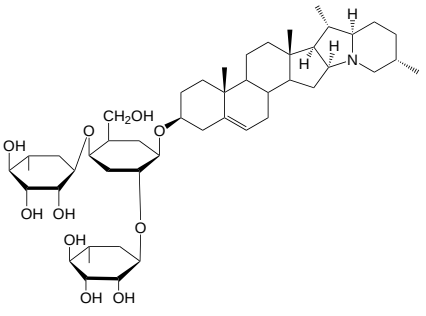
Type analysis
Assay ..... ≥99 %
pH value (0,1 M, H_2O) ..... 5,0 - 7,0
Sulphate (SO_4^{2-}) ..... ≤0,02 %
Iron (Fe) ..... ≤0,001 %
Melting point ..... 249-253 °C
Loss on drying ..... ≤1,0 %

Absorbance:
260 nm ..... ≤0,06
280 nm ..... ≤0,05

Art. No.	Pack Qty.	Pack.	€
9161.1	100 g	plastic	27,85
9161.3	500 g	plastic	110,20
Original pack 6 x 500 g			104,69/500 g
9161.2	1 kg	plastic	198,90
Original pack 6 x 1 kg			188,96/1 kg

CFA
▸ 3-Chloro-4-fluoroaniline see page 832

(–)-α-Chaconine



$C_{45}H_{73}NO_{14}$ · mp 243 °C
CAS No. 20562-03-2
WGK 1

Warning H361fd

(–)-α-Chaconine
ROTICHROM® HPLC

From *Solanum tuberosum.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

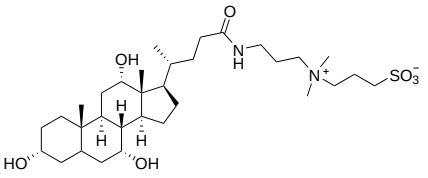
Art. No.	Pack Qty.	Pack.	€
4192.1	5 mg	glass	317,15

Chapman Agar
▸ Mannitol Salt Agar see page 1068

Chapman Lactose Agar
▸ TTC Chapman Agar (with sodium heptadecylsulphate) (Base) see page 1387

Chapman TTC Agar
▸ TTC Chapman Agar (with sodium heptadecylsulphate) (Base) see page 1387

CHAPS



3-[(3-Cholamidopropyl)-dimethyl ammonio]-1-propane sulphonate

$C_{32}H_{58}N_2SO_7$ · mp >157 °C
CAS No. 75621-03-3
WGK 1

Warning H315-H319-H335

CHAPS
PUFFERAN® ≥98 %, for biochemistry

Buffer substance, zwitterionic detergent

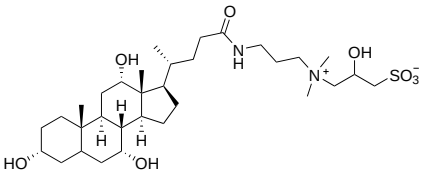
Storage temperature: +4 °C

Guarantee analysis
Appearance ..... white powder
Assay ..... ≥98 %
Loss on drying ..... ≤2 %

Absorbance:
400 nm ..... ≤0,02
290 nm ..... ≤0,05

Art. No.	Pack Qty.	Pack.	€
1479.1	5 g	plastic	74,20
1479.3	10 g	plastic	126,35
1479.2	25 g	plastic	256,95
1479.4	100 g	plastic	547,20

CHAPSO



3-[(3-Cholamidopropyl)-dimethylamino]-2-hydroxy-1-propanesulphonate

$C_{32}H_{58}N_2O_8S$ · mp 184 to 186 °C
CAS No. 82473-24-3
WGK 1

CHAPSO
PUFFERAN® ≥99 %, for biochemistry

Buffer substance, zwitterionic detergent

Storage temperature: +4 °C

Guarantee analysis
Assay (HPLC) ..... ≥99 %
Water (KF) ..... ≤2 %

Absorbance:
260 nm ..... ≤0,1
350 nm ..... ≤0,01

Art. No.	Pack Qty.	Pack.	€
HN73.1	1 g	plastic	74,20
HN73.2	5 g	plastic	231,15
HN73.3	10 g	plastic	424,65

Charcoal, activated

Filter aids

CAS No. 7440-44-0 · EC no. 231-153-3

Charcoal
p.a., powder, activated

Adsorbent

C · mp >3500 °C

Guarantee analysis
Substances soluble in ethanol ..... ≤0,2 %
Substances soluble in HCl ..... ≤1,0 %
Substances soluble in H_2O ..... ≤0,2 %
Methylene blue adsorption (0,15 % solution) ..... ≥100 ml/g
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,01 %
Sulphide (S) ..... complies
Lead (Pb) ..... ≤0,002 %
Calcium (Ca) ..... ≤0,05 %
Iron (Fe) ..... ≤0,025 %
Copper (Cu) ..... ≤0,002 %
Nickel (Ni) ..... ≤0,002 %
Ash content ..... ≤1 %
Loss on drying (120 °C) ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
X865.1	250 g	plastic	31,10
X865.2	500 g	plastic	48,30
Original pack 6 x 500 g			45,89/500 g
X865.3	1 kg	plastic	87,65
Original pack 6 x 1 kg			83,27/1 kg

Charcoal
1–3 mm, made from peat, grey, steam activated

Fractured coal

C · D 2,31 g/cm³ · mp >3500 °C

Type analysis
Methylene blue adsorption ..... 19 g/100 g
Bulk density ..... ~280 kg/m³
Ash ..... ≤15,0 %
Water ..... ≤5,0 %
pH value ..... alkaline
Iodine value ..... ≥700

Particle size:
<3.15 mm ..... ≥90,0 %
Particel size (<0,71 mm) ..... ≤5,0 %

Art. No.	Pack Qty.	Pack.	€
5966.1	1 kg	plastic	73,00
Original pack 6 x 1 kg			69,35/1 kg
5966.3	2.5 kg	plastic	134,40
5966.2	5 kg	plastic	233,85
5966.5	10 kg	plastic	418,20
5966.4	25 kg	plastic	891,20

Charcoal
~3 mm, steam-activated

For gas cleaning. Extruded charcoal.

C · D 2,31 g/cm³ · mp >3500 °C

Type analysis
Butane adsorption (p/p_0=0,1) 18-23 g/100g
Moisture ..... ≤5 %
Bulk density ..... 430-480 kg/m³

Art. No.	Pack Qty.	Pack.	€
0998.1	500 g	plastic	55,40
Original pack 6 x 500 g			52,63/500 g
0998.2	1 kg	plastic	94,50
Original pack 6 x 1 kg			89,78/1 kg
0998.4	2.5 kg	plastic	192,45
0998.3	5 kg	plastic	349,40
0998.5	10 kg	plastic	643,95

Charcoal
for AOX determination (column method)

mp >3500 °C

Type analysis
Iodine value ..... ≥1050 mg/g
Chloride (Cl) ..... ≤0,0005 %
Particle size ..... ~50-150 µm

Art. No.	Pack Qty.	Pack.	€
1299.1	10 g	glass	100,55

Charcoal
for AOX determination (shaking method)

mp >3500 °C

Type analysis
Iodine value ..... ≥1050 mg/g
Chloride (Cl) ..... ≤0,0005 %
Particle size ..... ≤50 µm

Art. No.	Pack Qty.	Pack.	€
1319.1	10 g	glass	95,70

Charcoal
powdered, phosphoric acid activated, for decolourisation

C · D 2,31 g/cm³ · mp >1000 °C

UN no. 1362 · ADR 4.2 III

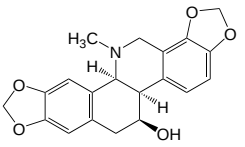
Warning H252

Type analysis
Calcium (Ca) ..... ≤0,02 %
Iron (Fe) ..... ≤0,015 %
Phosphate (PO_4) ..... ≤3,5 %
Water ..... ≤15 %
pH value 2,0-3,5
Methylene blue adsorption ..... ≥25 g/100 g

Particle size:
>75 µm ..... 10 %
>10 µm ..... 91 %

Art. No.	Pack Qty.	Pack.	€
5963.3	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
5963.1	1 kg	plastic	66,55
Original pack 6 x 1 kg			63,22/1 kg
5963.4	2.5 kg	plastic	127,95
5963.2	5 kg	plastic	235,45
5963.5	10 kg	plastic	439,70

Chelidonine



Stylophorin

$C_{20}H_{19}NO_5$ · mp 125 to 135 °C
CAS No. 476-32-4 · EC no. 207-504-1
WGK 1

Warning H302+H312+H332

Chelidonine
ROTICHROM® HPLC

Reference substance for HPLC.
From *Chelidonium majus.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1129.1	25 mg	glass	342,95

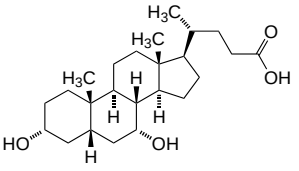
Chelidonine
ROTICHROM® TLC

Storage temperature: +4 °C

Type analysis
Appearance ..... white, cryst. powder
Melting point ..... complies

Art. No.	Pack Qty.	Pack.	€
6235.1	25 mg	glass	206,95
6235.2	50 mg	glass	381,65

Chenodeoxycholic acid



3α,7α-Dihydroxy-5β-cholanic acid

$C_{24}H_{40}O_4$ · D 1,129 g/cm³ · mp 162 to 167 °C
CAS No. 474-25-9 · EC no. 207-481-8
WGK 1

Warning H315-H319

Chenodeoxycholic acid
≥98 %, for biochemistry

Anionic detergent

Type analysis
Assay (titr.) ..... ≥98 %
Solution (5 % in ethanol) ..... colourless
Water (KF) ..... ≤3 %
Spec. rotation $[\alpha]_D^{20}$ (c=1 in ethanol) ..... +12° ±1°
Sulphated ash ..... ≤0,1 %
Heavy metals (as Pb) ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
4128.1	5 g	glass	45,70
4128.2	10 g	glass	85,90
4128.3	25 g	glass	170,95

Chile saltpeter
▸ Sodium nitrate see page 1291

Chitin

$(C_8H_{13}NO_5)_n$
CAS No. 1398-61-4 · EC no. 215-744-3
WGK 1

Chitin
from crab shells

Type analysis
Appearance ..... white to brownish powder
Water (KF) ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
8845.1	100 g	plastic	51,50
8845.2	1 kg	plastic	381,65
Original pack 6 x 1 kg			362,57/1 kg

Chitosamine hydrochloride
▸ D(+)-Glucosamine hydrochloride see page 961

Chitosan

CAS No. 9012-76-4

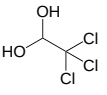
Chitosan
for biochemistry

Partly deacetylated chitin.

Type analysis
Appearance ..... white to brownish powder
Degree of Deacetylation ..... ≥85 %
Water content ..... ≤10,0 %

Art. No.	Pack Qty.	Pack.	€
5375.1	10 g	plastic	42,90

Chloral hydrate



Trichloroacetaldehyde hydrate

$C_2H_3Cl_3O_2$ · D 1,91 g/cm³ · mp 52 °C · bp 97 °C · flp 75 °C
CAS No. 302-17-0 · EC no. 206-117-5
UN no. 2811 · ADR 6.1 III · WGK 2

Danger H301-H315-H319

Chloral hydrate
≥98,5 %, Ph. Eur., BP

Guarantee analysis
Assay (acidim.) ..... 98,5-101,0 %
Identity ..... complies
Appearance of solution ..... complies
pH value (10 % in H_2O) 3,5-5,5
Chloral alcoholate ..... complies
Heavy metals (as Pb) ..... ≤0,002 %
Chloride (Cl) ..... ≤0,01 %
Non volatile matter ..... ≤0,1 %

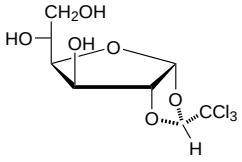
Art. No.	Pack Qty.	Pack.	€
K318.3	100 g	plastic	34,30
K318.1	500 g	plastic	138,70
Original pack 6 x 500 g			131,77/500 g
K318.2	2.5 kg	plastic	590,20

Chloral hydrate
≥98 %, for synthesis

Type analysis
Assay ..... ≥98 %
Ash content ..... ≤0,5 %
Loss on drying ..... ≤1 %

Art. No.	Pack Qty.	Pack.	€
1HH6.1	100 g	plastic	27,85
1HH6.2	500 g	plastic	106,45
Original pack 6 x 500 g			101,13/500 g
1HH6.3	1 kg	plastic	198,90
Original pack 6 x 1 kg			188,96/1 kg
1HH6.4	2.5 kg	plastic	450,45

α-Chloralose



α-D-Glucochloralose

$C_8H_{11}Cl_3O_6$ · mp 175 to 180 °C
CAS No. 15879-93-3 · EC no. 240-016-7
UN no. 2811 · ADR 6.1 III · WGK 3

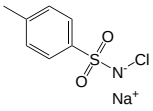
Danger H301-H332-H336-H410

α-Chloralose
(≤20 % β-anomer)

Type analysis
Appearance ..... white to brownish powder
Water (KF) ..... ≤0,5 %
Sulphated ash ..... ≤0,4 %
Specific rotation $[\alpha]_D^{20}$ (c=2 in ethanol, after 5 h) ..... +15° to +19°

Art. No.	Pack Qty.	Pack.	€
3363.2	25 g	plastic	25,70
3363.1	100 g	plastic	85,90
3363.3	250 g	plastic	174,70

Chloramine T trihydrate



N-Chloro-4-toluene sulphonic acid amide · Toluene-4-sulphone chloramide sodium

$CH_3C_6H_4SO_2NClNa \cdot 3\,H_2O$ · mp >60 °C · flp 192 °C
CAS No. 7080-50-4 · EC no. 204-854-7
UN no. 3263 · ADR 8 II · WGK 2

Danger H302-H314-H334-EUH031

Chloramine T trihydrate
≥98 %, p.a.

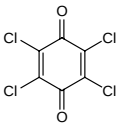
Chlorination reagent for determining halogens.

Guarantee analysis
Assay (iodom.) ..... ≥98,0 %
pH value (5 % in H_2O) 8,0-11,0
In ethanol insoluble parts ..... ≤1,5 %
ortho-compounds ..... complies
Iron (Fe) ..... ≤0,02 %
Heavy metals (as Pb) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
0271.1	250 g	plastic	39,70
0271.2	500 g	plastic	69,35
Original pack 6 x 500 g			65,88/500 g
0271.3	1 kg	plastic	123,65
Original pack 6 x 1 kg			117,47/1 kg
0271.4	2.5 kg	plastic	267,70

Chloramphenicol-LB Selective Agar
▸ LB-Agar (Luria/Miller) / Chloramph34 see page 1037

p-Chloranil



2,3,5,6-Tetrachloro-1,4-benzoquinone

$C_6Cl_4O_2$ · mp 290 °C
CAS No. 118-75-2 · EC no. 204-274-4
UN no. 3077 · ADR 9 III · WGK 2

Warning H315-H319-H410

p-Chloranil
≥98 %, p.a.

Reagent for the dehydrogenation.

Guarantee analysis
Assay (HPLC) ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
KK33.1	10 g	glass	27,85
KK33.2	25 g	glass	46,15
KK33.3	100 g	glass	138,70

4-Chloranthranilic acid
▸ 2-Amino-4-chlorobenzoic acid see page 727

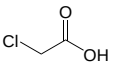
Chlorate Standards
▸ Chlorate IC Standard Solution see page 1334

Chloride Standards
▸ Chloride IC Standard Solution see page 1334

Chlorite Standards
▸ Chlorite IC Standard Solution see page 1334

Chlornickel
▸ Nickel(II) chloride hexahydrate see page 1103

Chloroacetic acid



2-Chloroethanoic acid

$C_2H_3ClO_2$ · D 1,64 g/cm³ · mp 63 °C · bp 190 °C · flp 126 °C
CAS No. 79-11-8 · EC no. 201-178-4
UN no. 1751 · ADR 6.1 (8) II · WGK 3

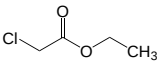
Danger H301+H311+H331-H314-H335-H400

Chloroacetic acid
≥99,5 %, p.a.

Type analysis
Appearance ..... colorless, deliquescent crystals
Assay (alkalimetric) ..... ≥99,5 %
Melting point ..... 60-63 °C
In H_2O insoluble matter ..... ≤0,005 %
Sulphated ash ..... ≤0,5 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,005 %
Lead (Pb) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
9849.1	100 g	plastic	26,35
9849.2	500 g	plastic	63,45
Original pack 6 x 500 g			60,28/500 g
9849.3	1 kg	plastic	107,00
Original pack 6 x 1 kg			101,65/1 kg
9849.4	2.5 kg	plastic	206,95

Chloroacetic acid ethyl ester



Ethylchloroacetate

$C_4H_7ClO_2$ · D 1,15 g/cm³ · mp -26 °C · bp 144 °C · flp 56 °C
CAS No. 105-39-5 · EC no. 203-294-0
UN no. 1181 · ADR 6.1 (3) II · WGK 3

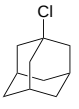
Danger H226-H301+H311+H331-H318-H400

Chloroacetic acid ethyl ester
≥98 %, for synthesis

Type analysis
Assay ..... ≥98 %
Density (d 20 °C/4 °C) 1,149-1,151

Art. No.	Pack Qty.	Pack.	€
1EA8.1	250 ml	glass	30,00
1EA8.2	1 l	glass	75,15
Original pack 6 x 1 l			71,39/1 l
1EA8.3	2.5 l	glass	166,65
Original pack 4 x 2.5 l			158,32/2.5 l

1-Chloroadamantane



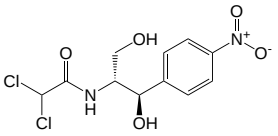
$C_{10}H_{15}Cl$ · bp 161 to 166 °C
CAS No. 935-56-8 · EC no. 213-305-0
WGK 1

1-Chloroadamantane
≥98 %, for synthesis

Type analysis
Appearance ..... white to light grey solid
Assay (titr.) ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
7627.1	5 g	glass	17,75
7627.2	25 g	glass	30,65
7627.3	100 g	glass	87,00

Chloramphenicol



$C_{11}H_{12}Cl_2N_2O_5$ · D 0,7 g/cm³ · mp 149 to 153 °C
CAS No. 56-75-7 · EC no. 200-287-4
WGK 1

Danger H318-H351-H361fd

Chloroamphenicol
≥98,5 %, Ph. Eur., for biochemistry

Bacteriostatic antibiotic

Store in the dark!
Stock solution: 34 mg/ml in ethanol.
Storage of stock solution at –20 °C in the dark.
Working concentration: For plasmid amplification: 170 µg/ml. For selection of resistant bacteria: 10–30 µg/ml. For culture plates: 10–30 µg/ml (storage at +4 °C for 1–5 days).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Appearance ... white,light grey or yellowish-white, cryst. powder
Assay (dry substance) ..... 98,5-102,0 %
Identity ..... complies
Solubility ..... complies
Chloride (Cl) ..... ≤0,01 %
Specific rotation $[\alpha]_D^{20}$ ..... +18,5° to +20,5°
Acid or alkaline react. substances ..... complies
Related substances ..... ≤0,5 %
Ash content ..... ≤0,1 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
3886.2	25 g	plastic	25,70
3886.1	50 g	plastic	42,90
3886.3	100 g	plastic	71,50

2-Chloroaniline



o-Chloroaniline · 2-Chlorobenzenamine · 1-Amino-2-chlorobenzene

C_6H_6ClN · D 1,21 g/cm³ · mp -2 °C · bp 205 °C · flp 105 °C
CAS No. 95-51-2 · EC no. 202-426-4
UN no. 2019 · ADR 6.1 II · WGK 3

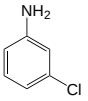
Danger H301+H311+H331-H373-H410

2-Chloroaniline
≥98 %, for synthesis

Type analysis
Appearance ..... light yellow to brown liquid
Assay (GC) ..... ≥98 %
Density (d 20 °C/4 °C) 1,209-1,214

Art. No.	Pack Qty.	Pack.	€
1C3C.1	250 ml	glass	29,60
1C3C.2	1 l	glass	88,70
Original pack 6 x 1 l			84,27/1 l
1C3C.3	2.5 l	glass	195,15
Original pack 4 x 2.5 l			185,39/2.5 l

3-Chloroaniline



m-Chloroaniline · 3-Chlorobenzenamine · 1-Amino-3-chlorobenzene

$C_6H_4NH_2Cl$ · D 1,186 g/cm³ · mp -10,28 °C · bp 168,8 °C · flp 110 °C
CAS No. 108-42-9 · EC no. 203-581-0
UN no. 2019 · ADR 6.1 II · WGK 2

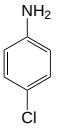
Danger H301+H311+H331-H373-H410

3-Chloroaniline
≥98 %, for synthesis

Type analysis
Appearance ..... light yellow to brown liquid
Assay (GC) ..... ≥98 %
Density (d 20 °C/4 °C) 1,215-1,216

Art. No.	Pack Qty.	Pack.	€
1C3E.1	100 ml	glass	24,20
1C3E.2	250 ml	glass	45,05
1C3E.3	1 l	glass	134,40
Original pack 6 x 1 l			127,68/1 l

4-Chloroaniline



p-Chloroaniline · 4-Chlorobenzenamine · 1-Amino-4-chlorobenzene

$C_6H_4NH_2Cl$ · D 1,43 g/cm³ · mp ~70 °C · bp 232 °C · flp 123 °C
CAS No. 106-47-8 · EC no. 203-401-0
UN no. 2018 · ADR 6.1 II · WGK 3

Danger H301+H311+H331-H317-H350-H410

4-Chloroaniline
≥98 %, for synthesis

Type analysis
Assay (GC) ..... ≥98 %
Melting range ..... 68-73 °C

Art. No.	Pack Qty.	Pack.	€
1C3A.1	250 g	glass	30,65
1C3A.2	1 kg	glass	87,65
Original pack 6 x 1 kg			83,27/1 kg

Chloroauric acid hydrate
▸ Hydrogen tetrachloroaurate(III) hydrate see page 996

Chlorobenzene



Benzolchlorid · Monochlorobenzene · Phenyl chloride

C_6H_5Cl · D 1,11 g/cm³ · mp -46 °C · bp 131 to 132 °C · flp 28 °C
CAS No. 108-90-7 · EC no. 203-628-5
UN no. 1134 · ADR 3 III · WGK 2

Warning H226-H315-H332-H411

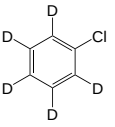
Chlorobenzene
≥99,5 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,5 %
Density (d 20 °C/4 °C) 1,106-1,110
Acidity (as HCl) ..... ≤0,01 %
Water ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
KK01.1	100 ml	glass	18,20
KK01.2	500 ml	glass	38,60
KK01.3	1 l	glass	61,20
Original pack 6 x 1 l			58,14/1 l

o-Chlorobenzene
▸ 1,2-Dichlorobenzene see page 874

Chlorobenzene D5



C_6D_5Cl · D 1,106 g/cm³ · mp -45,1 °C · bp 132 °C · flp 28 °C
CAS No. 3114-55-4 · EC no. 221-482-0
UN no. 1134 · ADR 3 III · WGK 2

Warning H226-H315-H332-H410

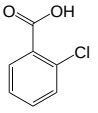
Chlorobenzene D5
99 Atom%D

For nuclear magnetic resonance spectroscopy.

Type analysis
Deuterising degree ..... ≥99 %
Water (KF, H_2O+D_2O) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
9905.1	5 ml	glass	185,45

2-Chlorobenzoic acid



ortho-Chlorobenzoic acid · *o*-Chlorobenzoic acid

$C_7H_5ClO_2$ · D 1,544 g/cm³ · mp 138 to 140 °C · flp 173 °C
CAS No. 118-91-2 · EC no. 204-285-4
WGK 2

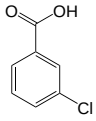
Warning H315-H319-H335

2-Chlorobenzoic acid
≥98 %, for synthesis

Type analysis
Melting range ..... 138-143 °C
Sulphated ash ..... ≤0,1 %
Assay ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1E71.1	250 g	plastic	33,25
1E71.2	1 kg	plastic	101,60
Original pack 6 x 1 kg			96,52/1 kg
1E71.3	2.5 kg	plastic	213,95

3-Chlorobenzoic acid



m-Chlorobenzoic acid · *meta*-Chlorobenzoic acid

$C_7H_5ClO_2$ · mp 69 to 71 °C
CAS No. 535-80-8 · EC no. 208-618-4
WGK 1

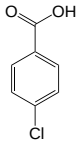
Warning H315-H319-H335

3-Chlorobenzoic acid
≥98 %, for synthesis

Type analysis
Assay (alkalimetric) ..... ≥98 %
Melting range ..... 153-157 °C

Art. No.	Pack Qty.	Pack.	€
1K17.1	50 g	plastic	33,25
1K17.2	250 g	plastic	125,25
1K17.3	500 g	plastic	241,90
Original pack 6 x 500 g			229,81/500 g

4-Chlorobenzoic acid



p-Chlorobenzoic acid · *para*-Chlorobenzoic acid

$C_7H_5ClO_2$ · D 1,54 g/cm³ · mp 274 to 276 °C
CAS No. 74-11-3 · EC no. 200-805-9
WGK 2

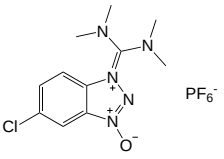
Warning H302

4-Chlorobenzoic acid
≥99 %, for synthesis

Type analysis
Assay (alkalimetric) ..... ≥99 %
Melting range ..... 237-242 °C
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
1K18.1	100 g	plastic	20,35
1K18.2	250 g	plastic	38,60
1K18.3	1 kg	plastic	106,35
Original pack 6 x 1 kg			101,03/1 kg

O-(1*H*-6-Chlorobenzotriazole-1-yl)-*N*,*N*,*N*',*N*'-tetramethyl-uronium hexafluorophosphate (HCTU)



HCTU

$C_{11}H_{15}ClF_6N_5OP$ · mp >185 °C
CAS No. 330645-87-9
WGK 1

O-(1*H*-6-Chlorobenzotriazole-1-yl)-*N*,*N*,*N*',*N*'-tetramethyl-uronium hexafluorophosphate (HCTU)
PEPTIPURE® ≥99 %

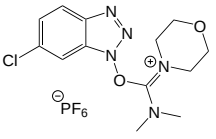
Coupling reagent for peptide synthesis

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥99,0 %
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
2112.1	5 g	glass	28,95
2112.2	25 g	glass	92,35
2112.3	100 g	glass	317,15
2112.5	1 kg	glass	2.596,15
Original pack 6 x 1 kg			2.466,34/1 kg

4-((6-Chloro-1*H*-benzo{d}[1,2,3] triazol-1-yloxy)(dimethylamino) methylene)morpholin-4-ium hexafluorophosphate (HDMC)



HDMC

$C_{13}H_{17}F_6N_5O_2PCl$ · mp 170 to 175 °C
CAS No. 1082951-62-9
WGK 1

4-((6-Chloro-1*H*-benzo{d}[1,2,3] triazol-1-yloxy)(dimethylamino) methylene)morpholin-4-ium hexafluorophosphate (HDMC)
PEPTIPURE® ≥99 %

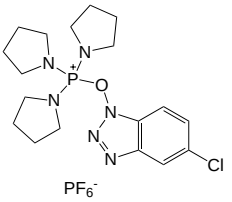
Coupling reagent for peptide synthesis

Storage temperature: +4 °C

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥99 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6893.1	5 g	glass	54,75
6893.2	25 g	glass	213,95
6893.3	100 g	glass	747,15

6-Chloro-benzotriazole-1-yl-oxy-tris-pyrrolidinophosphonium hexafluorophosphate (PyClock®)



PyClock®

$C_{18}H_{27}ClF_6N_8OP_2$ · mp 175 to 185 °C
CAS No. 893413-42-8
WGK 1

Warning H315-H319-H335

6-Chloro-benzotriazole-1-yl-oxy-tris-pyrrolidinophosphonium hexafluorophosphate (PyClock®)
PEPTIPURE® ≥98,5 %

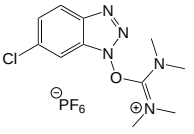
Coupling reagent for peptide synthesis

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥98,5 %
Appearance of the powder . white to almost white crystalline powder

Art. No.	Pack Qty.	Pack.	€
2123.1	5 g	glass	34,95
2123.2	25 g	glass	107,40
2123.3	100 g	glass	364,45
2123.5	1 kg	glass	2.311,25
Original pack 6 x 1 kg			2.195,69/1 kg

O-(6-Chlorobenzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium tetrafluoroborate (TCTU)



TCTU

$C_{11}H_{15}BClF_4N_5O$ · mp 198 to 204 °C
CAS No. 330641-16-2 · EC no. 608-824-8
WGK 1

Warning H302

O-(6-Chlorobenzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium tetrafluoroborate (TCTU)
PEPTIPURE® ≥98 %

Coupling reagent for peptide synthesis

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥98 %
Water (KF) ..... ≤0,5 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6890.1	5 g	glass	40,75
6890.2	25 g	glass	138,70
6890.3	100 g	glass	375,20

Chloro-4,4'-dimethoxytriphenyl-methane

▸ 4,4'-Dimethoxytrityl chloride (DMT-Cl) see page 885

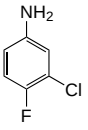
2-Chloroethanoic acid

▸ Chloroacetic acid see page 829

Chlorofluoroaniline

▸ 3-Chloro-4-fluoroaniline see page 832

3-Chloro-4-fluoroaniline



CFA · Chlorofluoroaniline

C_6H_5ClFN · mp 42 to 44 °C · bp 227,5 °C · flp 112 °C
CAS No. 367-21-5 · EC no. 206-682-8
WGK 2

Warning H302+H312+H332

3-Chloro-4-fluoroaniline
≥95 %

Type analysis
Assay (GC) ..... ≥95,0 %
Solution (1 % in acetone) ..... colourless to brown, clear
Melting point ..... 42-46 °C

Art. No.	Pack Qty.	Pack.	€
5461.1	25 g	plastic	26,80
5461.2	100 g	plastic	69,35

Chloroform

▸ Trichloromethane/Chloroform see page 1377

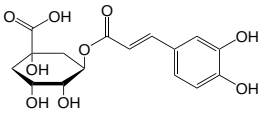
Chloroform D1

▸ Trichloromethane/Chloroform D1 see page 1378

Chloroform D1 with TMS

▸ Trichloromethane/Chloroform D1 with TMS (0.03 vol.%) see page 1378

Chlorogenic acid



$C_{16}H_{18}O_9$ · mp 202 to 206 °C
CAS No. 327-97-9 · EC no. 206-325-6
WGK 1

Chlorogenic acid
≥97 %

Type analysis
Appearance ..... white to off-white powder
Assay (dry substance) ..... ≥97 %
Melting point ..... 202-206 °C

Art. No.	Pack Qty.	Pack.	€
6385.1	250 mg	glass	38,60
6385.2	1 g	glass	115,60

Chlorogenic acid
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤5,0 %
Assay (qNMR) ..... ≥90,0 %

Proof of identity by ^1H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE06.1	25 mg	glass	869,70

Chlorogenic acid
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥90,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

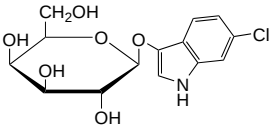
Art. No.	Pack Qty.	Pack.	€
NC06.1	100 mg	glass	310,70

Chlorogenic acid
ROTICHROM® TLC

Reference substance for thin layer chromatography.

Art. No.	Pack Qty.	Pack.	€
5558.1	50 mg	glass	52,15

6-Chloro-3-indoxyl-β-D-galacto-pyranoside



Rose-Gal

$C_{14}H_{16}ClNO_8$
CAS No. 138182-21-5
WGK 1

6-Chloro-3-indoxyl-β-D-galacto-pyranoside
≥98 %, for biochemistry

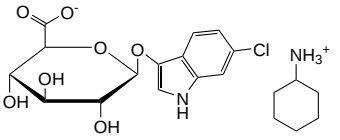
β-Galactosidase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

Guarantee analysis
Assay (HPLC) ..... ≥98 %
Solution (5 % in methanol) ..... colourless to light yellowish, clear
Water (KF) ..... ≤1 %
Spez. Drehung $[\alpha]_D^{20}$ (c=1 in Methanol) ..... -49° to -45°

Art. No.	Pack Qty.	Pack.	€
4251.1	25 mg	glass	35,40
4251.2	50 mg	glass	55,40
4251.3	100 mg	glass	92,35

6-Chloro-3-indoxyl-β-D-glucuronic acid cyclohexyl-ammonium salt



Rose-Glucuro CHAsalt

$C_{14}H_{14}ClNO_7 \cdot C_6H_{13}N$
CAS No. 138182-20-4
WGK 1

6-Chloro-3-indoxyl-β-D-glucuronic acid cyclohexyl-ammonium salt
≥98 %, for biochemistry

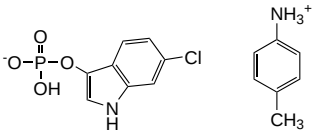
β-Glucuronidase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

Guarantee analysis
Assay (HPLC) ..... ≥98 %
Solution (1 % in DMF) ..... nearly colourless, clear
Water (KF) ..... ≤2 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in DMF/water 1:1) -72° to -68°

Art. No.	Pack Qty.	Pack.	€
4057.1	10 mg	glass	35,40
4057.2	50 mg	glass	53,65
4057.3	100 mg	glass	94,10

6-Chloro-3-indoxyl phosphate *p*-toluidine salt



Rose-Phos *p*-toluidine salt

$C_8H_7ClNO_4P \cdot C_7H_9N$
CAS No. 159954-33-3
WGK 1

Warning H315-H319-H335

6-Chloro-3-indoxyl phosphate *p*-toluidine salt
≥98 %, for biochemistry

Alkaline phosphatase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

Guarantee analysis
Assay (HPLC) ..... ≥98 %
Solution (1 % in methanol) ... colourless to almost colourless, clear
Water (KF) ..... ≤1 %

Art. No.	Pack Qty.	Pack.	€
4247.1	50 mg	glass	57,95
4247.2	100 mg	glass	104,85

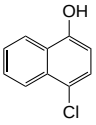
2-(Chloromethoxy)ethyl trimethyl silane

▸ 2-(Trimethylsilyl)ethoxymethyl chloride see page 1381

Chloromethyl 2-trimethylsilylethyl ether

▸ 2-(Trimethylsilyl)ethoxymethyl chloride see page 1381

4-Chloro-1-naphthol



4-CN

$C_{10}H_7ClO$ · mp 120 °C
CAS No. 604-44-4 · EC no. 210-068-5
WGK 1

Warning H315-H319-H335

4-Chloro-1-naphthol
≥97 %, for biochemistry

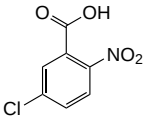
Peroxidase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

Guarantee analysis
Assay (GC) ..... ≥97 %
Solution (10 % in methanol, 45 °C) ..... yellow to brownish, almost clear
Water (KF) ..... ≤0,5 %
Melting point ..... 118-122 °C

Art. No.	Pack Qty.	Pack.	€
4104.1	5 g	glass	37,10
4104.2	10 g	glass	65,05
4104.3	25 g	glass	127,95
4104.7	100 g	glass	456,90

5-Chloro-2-nitrobenzoic acid



$C_7H_4ClNO_4$ · mp 137 to 141 °C
CAS No. 2516-95-2 · EC no. 219-738-1
WGK 1

Warning H315-H319-H335

5-Chloro-2-nitrobenzoic acid
≥98 %, for synthesis

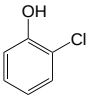
Guarantee analysis
Assay (titr.) ..... ≥98,0 %
Solution (1 % in ethanol) ..... almost colourless to colourless
Water (KF) ..... ≤1,0 %
Melting point ..... 137-141 °C

Art. No.	Pack Qty.	Pack.	€
5456.1	25 g	plastic	30,65
5456.2	100 g	plastic	87,65

α-Chloro-4-nitrotoluene

▸ 4-Nitrobenzyl chloride see page 1110

2-Chlorophenol



o-Chlorophenol · 1-Chloro-2-hydroxybenzene

C_6H_4ClOH · D 1,248 g/cm³ · mp 7 °C · bp 174,9 °C · flp 64 °C
CAS No. 95-57-8 · EC no. 202-433-2
UN no. 2021 · ADR 6.1 III · WGK 2

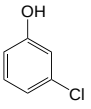
Danger H302+H312+H332-H314-H411

2-Chlorophenol
≥98 %, for synthesis

Type analysis
Appearance (20 °C) ... pale yellow to brown liquid
Assay (GC) ..... ≥98 %
Density (20 °C) 1,261-1,265

Art. No.	Pack Qty.	Pack.	€
1C31.1	250 ml	glass	34,30
1C31.2	1 l	glass	101,60
Original pack 6 x 1 l			96,52/1 l
1C31.3	2.5 l	glass	213,95
Original pack 4 x 2.5 l			203,25/2.5 l

3-Chlorophenol



m-Chlorophenol · 1-Chloro-3-hydroxybenzene

C_6H_4ClOH · D 1,25 g/cm³ · mp 31 to 34 °C · bp 214 °C · flp >120 °C
CAS No. 108-43-0 · EC no. 203-582-6
UN no. 2020 · ADR 6.1 III · WGK 2

Warning H302+H312+H332-H411

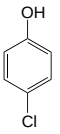
3-Chlorophenol
≥98 %, for synthesis

Type analysis
Appearance .. yellow to brown liquid after melting
Assay (GC) ..... ≥98 %

Due to its specific properties, the product can be present as a solid, liquid, solidified or undercooled melt.

Art. No.	Pack Qty.	Pack.	€
1C32.1	25 g	glass	25,30
1C32.2	100 g	glass	69,35
1C32.3	250 g	glass	149,45
1C32.4	1 kg	glass	439,70
Original pack 6 x 1 kg			417,72/1 kg

4-Chlorophenol



p-Chlorophenol · 1-Chloro-4-hydroxybenzene

C_6H_4ClOH · D 1,4 g/cm³ · mp 43 °C · bp 220 °C · flp 121 °C
CAS No. 106-48-9 · EC no. 203-402-6
UN no. 2020 · ADR 6.1 III · WGK 2

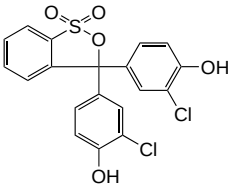
Warning H302+H312+H332-H411

4-Chlorophenol
≥98 %, for synthesis

Type analysis
Appearance . colourless to slightly brown crystals or fused mass
Assay (GC) ..... ≥98 %
Melting range ..... 39-45 °C

Art. No.	Pack Qty.	Pack.	€
1C33.1	250 g	glass	29,60
1C33.2	1 kg	glass	88,70
Original pack 6 x 1 kg			84,27/1 kg
1C33.3	2.5 kg	glass	195,15

Chlorophenol red



3',3''-Dichlorophenol sulphonic phthalein

$C_{19}H_{12}Cl_2O_5S$ · mp 261 °C
CAS No. 4430-20-0 · EC no. 224-619-2
WGK 1

Warning H315-H319-H335

Chlorophenol red
p.a.

Indicator pH 4.8-6.4

Dissolve 0.1 g in 100 ml ethanol (20 %) or 0.04 g in 0.94 ml NaOH 0.1 mol/l and fill up with water to 100 ml

Type analysis
Maximum absorption ..... 560-575 nm
Loss on drying (110 °C) ..... ≤5 %

Art. No.	Pack Qty.	Pack.	€
0347.1	5 g	glass	37,55
0347.2	10 g	glass	59,05
0347.3	25 g	glass	134,40

4-Chlorophenol solution

D 1 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

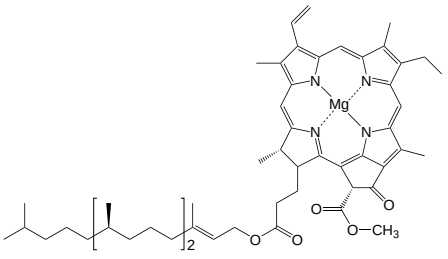
4-Chlorophenol solution
200 mg AOX/l

For determination of AOX acc. to EN ISO 9562:2004, DEV H14

Equals 725 mg 4-Chlorophenol.

Art. No.	Pack Qty.	Pack.	€
2495.1	100 ml	glass	117,20

Chlorophyll A



$C_{55}H_{72}MgN_4O_5$ · mp 150 to 153 °C
CAS No. 479-61-8 · EC no. 207-536-6
WGK 1

Chlorophyll A
powdered

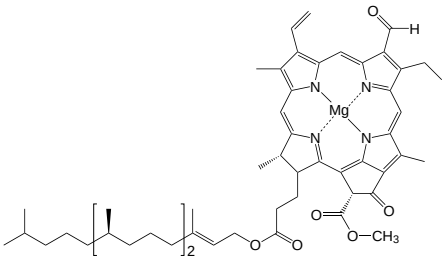
Isolated from algae *(Anacystis nidulans)*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... deep green to deep blue powder
UV-absorptionsmax. (I) ..... 426-430 nm
UV-absorptionsmax. (II) ..... 658-662 nm

Art. No.	Pack Qty.	Pack.	€
6360.1	1 mg	glass	510,65
6360.2	5 mg	glass	2.461,75

Chlorophyll B



$C_{55}H_{70}MgN_4O_6$ · mp 183 to 185 °C
CAS No. 519-62-0 · EC no. 208-272-4
WGK 1

Chlorophyll B
ROTICHROM® CHR ≥90 %, powdered

Isolated from spinach.

Storage temperature: +4 °C

Type analysis
Appearance ..... dark green, fine powder
Assay (HPLC) ..... ≥90 %

Art. No.	Pack Qty.	Pack.	€
6365.2	5 mg	glass	1.714,65

Chlorophyllin sodium salt

$C_{34}H_{31}MgN_4Na_3O_6$
CAS No. 15203-43-7
WGK 1

Chlorophyllin sodium salt
water-soluble, Not copperised

Type analysis
Appearance ..... grey-green powder
Dye content ..... ≥97 % Na chlorophyllin
Loss on drying (105 °C) ..... ≤10 %
pH value (10 % H_2O solution) 8,5-10,0
Intensity of colour E/ 1%/ 401 nm ..... 680-780 in buffer pH 9
Intensity of colour E/1 %/653 nm ..... 145-165 in buffer pH 9
Arsenic (As) ..... ≤0,0003 %
Lead (Pb) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
6217.1	10 g	plastic	39,70

Chlorophyllin trisodium salt

$C_{34}H_{31}CuN_4Na_3O_6$
CAS No. 11006-34-1 · EC no. 234-242-5
WGK 1

Chlorophyllin trisodium salt
water-soluble, copperised

Storage temperature: +4 °C

Type analysis
Appearance ..... dark green powder
Intensity of colour E/1 %/405 nm ..... ≥568
pH-value 9,5-11,0
Sulphated ash ..... ≤30,0 %
Loss on drying ..... ≤4,0 %
Assay (Cu) ..... 4,0-6,0 %
Arsenic (As) ..... ≤0,005 %
Lead (Pb) ..... ≤0,005 %

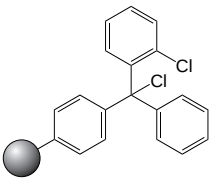
Art. No.	Pack Qty.	Pack.	€
3516.1	5 g	glass	17,10
3516.2	25 g	glass	54,75
3516.3	100 g	glass	181,70

Chloroplatinic acid hydrate
▸ Hydrogen hexachloroplatinate(IV) hydrate see page 995

N-Chloro-4-toluene sulphonic acid amide
▸ Chloramine T trihydrate see page 829

Chlorotrimethylsilane
▸ Trimethylchlorosilane (TMCS) see page 1380

2-Chlorotrityl chloride resin



CTC resin

WGK 1

2-Chlorotrityl chloride resin
PEPTIPURE® 100–200 mesh, 1 % DVB

For peptide synthesis

Type analysis
Appearance ..... pale yellow-brown beads
Loading ..... 1,0-1,6 mmol/g
Identity (IR) ..... complies
Swelling ..... ≥3 ml/g (DMF, 24 h)
Particle size ..... 75-150 µm (100-200 mesh)

Art. No.	Pack Qty.	Pack.	€
7405.1	5 g	plastic	98,40
7405.2	25 g	plastic	375,20

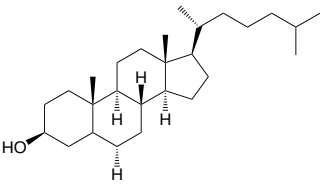
3-[(3-Cholamidopropyl)-dimethylamino]-2-hydroxy-1-propanesulphonate
▸ CHAPSO see page 827

3-[(3-Cholamidopropyl)-dimethyl ammonio]-1-propane sulphonate
▸ CHAPS see page 827

Cholera Agar
▸ TCBS Agar see page 1356

Cholera Medium TCBS
▸ TCBS Agar see page 1356

5-α-Cholestan-3β-ol



Dihydrocholesterol

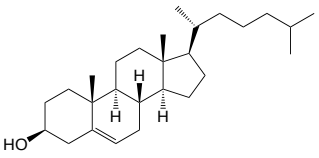
$C_{27}H_{48}O$ · mp 135 to 142 °C
CAS No. 80-97-7 · EC no. 201-315-8
WGK 1

5-α-Cholestan-3β-ol
≥95 %

Type analysis
Appearance .... off-white to pale brown crystalline powder
Assay (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
3400.2	1 g	glass	26,80
3400.1	5 g	glass	96,65
3400.3	10 g	glass	162,90

Cholesterol



$C_{27}H_{46}O$ · D 1,05 g/cm³ · mp 141 °C · bp 360 °C
CAS No. 57-88-5 · EC no. 200-353-2
WGK 1

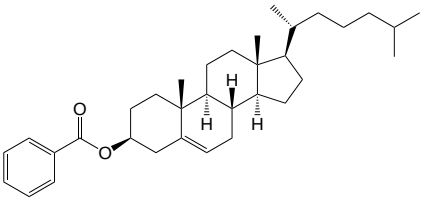
Cholesterol
≥95 %, Ph. Eur., for biochemistry

Storage temperature: +4 °C

Guarantee analysis
Appearance . white to almost white, cryst. powder
Content (total sterols) ..... 97,0-103,0 %
Assay (cholesterol) ..... ≥95,0 %
Identity ..... complies
Melting point ..... 147-150 °C
Sulphated ash ..... ≤0,1 %
Loss on drying ..... ≤0,3 %
Acid react. substances ..... complies
Solubility in ethanol % vol. ..... complies

Art. No.	Pack Qty.	Pack.	€
8866.2	25 g	plastic	35,40
8866.1	100 g	plastic	96,65
8866.7	1 kg	plastic	639,65
Original pack 6 x 1 kg			607,67/1 kg

Cholesterol benzoate



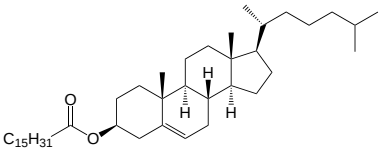
$C_{34}H_{50}O_2$ · mp 148 to 150 °C
CAS No. 604-32-0 · EC no. 210-064-3
WGK 1

Cholesterol benzoate
>97,5 %, cryst.

Type analysis
Appearance ..... white, cryst. powder
Assay ..... >97,5 %

Art. No.	Pack Qty.	Pack.	€
3402.1	10 g	plastic	69,80

Cholesterol palmitate



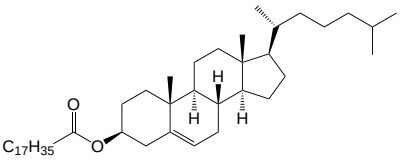
$C_{43}H_{76}O_2$ · mp 75 to 78 °C
CAS No. 601-34-3 · EC no. 210-002-5
WGK 1

Cholesterol palmitate
≥97 %, pure

Type analysis
Assay ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
3404.1	5 g	plastic	145,15

Cholesterol stearate



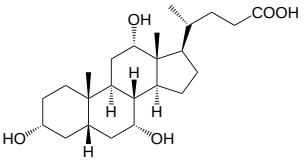
$C_{45}H_{80}O_2$ · mp 79 to 83 °C
CAS No. 35602-69-8 · EC no. 252-637-0
WGK 1

Cholesterol stearate
≥97 %, pure

Type analysis
Assay ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
3405.1	5 g	glass	42,90

Cholic acid



$C_{24}H_{40}O_5$ · D 1,13 g/cm³ · mp 198 °C
CAS No. 81-25-4 · EC no. 201-337-8
WGK 2

Warning H315-H319

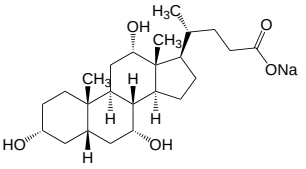
Cholic acid
≥99 %

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥99 %
Loss on drying ..... ≤0,5 %
Deoxy cholic acid ..... ≤1 %

Art. No.	Pack Qty.	Pack.	€
8137.1	25 g	plastic	53,65
8137.2	100 g	plastic	170,95

Cholic acid sodium salt



Sodium cholate

$C_{24}H_{39}NaO_5$ · mp 287 to 292 °C
CAS No. 361-09-1 · EC no. 206-643-5
WGK 1

H412

Cholic acid sodium salt
≥99 %, for biochemistry

Anionic detergent

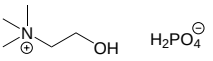
Type analysis
Assay (dry substance) ..... ≥99,0 %
Water (KF) ..... ≤5 %
Specific rotation $[\alpha]_D^{20}$ ..... +34° to +37°

Art. No.	Pack Qty.	Pack.	€
3407.1	50 g	plastic	85,90

Choline DHP

▸ Choline-dihydrogenphosphate (Choline DHP) see page 835

Choline-dihydrogenphosphate (Choline DHP)



Choline DHP · Choline DHP

$C_5H_{16}NO_5P$ · mp 190 °C
CAS No. 83846-92-8
WGK 1

Warning H315-H319-H335

Choline-dihydrogenphosphate (Choline DHP)
≥98 %

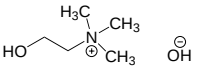
Ionic liquid

Type analysis
Appearance ..... white to yellowish, solid
Assay ..... ≥98 %
Water (KF) ..... ≤0,25 %

Art. No.	Pack Qty.	Pack.	€
2028.1	25 g	plastic	267,70
2028.2	100 g	plastic	665,45

Lit:. **"Protein solubilising and stabilising ionic liquids"** K. Fujita, D. R. MacFarlane, M. Forsyth, *Chem. Commun.* **2005,** 4804–4806.

Choline hydroxide



$C_5H_{15}NO_2$ · D 1,08 g/cm³
CAS No. 123-41-1 · EC no. 200-535-1
UN no. 3267 · ADR 8 II · WGK 1

Danger H314

Choline hydroxide
48–50 % in water

Storage temperature: +4 °C

Type analysis
Assay ..... 48-50 %

Art. No.	Pack Qty.	Pack.	€
3406.2	50 ml	glass	59,05
3406.1	250 ml	glass	267,70

Chondroitin sulphate sodium salt

$(C_{14}H_{20}NNaO_{15}S)_n$
CAS No. 9007-28-7 · EC no. 232-696-9
WGK 1

Chondroitin sulphate sodium salt
for biochemistry

From bovine trachea.

Storage temperature: +4 °C

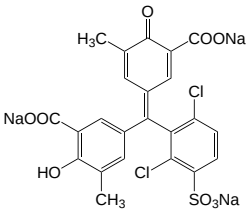
Type analysis
Appearance ..... bright powder
Assay ..... ≥90,0 %
pH-value 5,5-7,5
Loss on drying ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
5197.1	25 g	plastic	58,60

Chromium Standards
- Chromium ICP Standard Solution see page 1315
- Chromium ICP Standard Solution see page 1315
- Chromium AAS Standard Solution see page 1315

Chromate Standards
- Chromate IC Standard Solution see page 1334

Chrome Azurol S



Mordant blue 29 · Alberon

CAS No. 1667-99-8

Chrome azurol S (C. I. 43825)
extra pure

Indicator for metal ions

Dissolve 0.1 g in 100 ml water

$C_{23}H_{13}Cl_2Na_3O_9S$

WGK 1

Warning H315-H319-H335

Type analysis
Appearance ..... brown to black powder
Maximum absorption ..... 424-428 nm
Loss on drying (105 °C) ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
1H43.1	1 g	glass	19,25
1H43.2	10 g	glass	41,40
1H43.3	25 g	glass	78,40

Chrome azurol S indicator solution
0,5 % in diluted 2-Propanol

Indicator for metal ions

ready-to-use

$C_{23}H_{13}Cl_2Na_3O_9S$ · D 0,965 g/cm³ · bp 82 °C · flp 30 °C

UN no. 1987 · ADR 3 III · WGK 1

Warning H226-H319-H336

Art. No.	Pack Qty.	Pack.	€
1CYY.1	100 ml	glass	67,20

Chromic acid potassium salt
- Potassium chromate see page 1169

Chromic(III) potassium sulphate 12-hydrate
- Chromium(III) potassium sulphate dodecahydrate see page 837

Chromium shot

Cr · D 7,19 g/cm³ · mp 1863 °C · bp 2672 °C
CAS No. 7440-47-3 · EC no. 231-157-5

Chromium shot
≥99,95 %

Type analysis
Purity ..... ≥99,95 %
Copper (Cu) ..... ≤0,005 %
Iron (Fe) ..... ≤0,01 %
Aluminium (Al) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,005 %
Silicon (Si) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
0886.1	10 g	glass	40,75
0886.2	25 g	glass	88,05
0886.3	50 g	glass	160,20
0886.4	100 g	glass	289,20

Chromium(III) chloride hexahydrate

Chromium trichloride · Chromic chloride

$CrCl_3 \cdot 6\ H_2O$ · D 1,76 g/cm³ · mp 80 to 83 °C
CAS No. 10060-12-5 · EC no. 233-038-3
UN no. 3260 · ADR 8 III · WGK 2

Warning H290-H302-H317-H411

Chromium(III) chloride hexahydrate
≥97 %, p.a.

Guarantee analysis
Assay ..... ≥97,0 %
pH (5 % H_2O, 25 °C) 2,0-3,0
Insoluble matter ..... ≤0,01 %
Ammonium (NH_4) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,05 %
Aluminium (Al) ..... ≤0,05 %
Iron (Fe) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
9832.1	100 g	plastic	23,15
9832.2	500 g	plastic	66,55
Original pack 6 x 500 g			63,22/500 g
9832.3	1 kg	plastic	107,00
Original pack 6 x 1 kg			101,65/1 kg

Chromium(III) nitrate nonahydrate

$Cr(NO_3)_3 \cdot 9\ H_2O$ · D 1,8 g/cm³ · mp >36 °C
CAS No. 7789-02-8 · EC no. 236-921-1
UN no. 2720 · ADR 5.1 III · WGK 2

Warning H272-H315-H317-H319

Chromium(III) nitrate nonahydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5619.1	5 g	plastic	83,35
5619.2	25 g	plastic	246,20

Chromium(III) nitrate nonahydrate
≥98 %, p.a.

Type analysis
Assay (iodom.) ..... ≥98,0 %
Chloride (Cl) ..... ≤0,005 %
Ammonium (NH_4) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,005 %
Lead (Pb) ..... ≤0,002 %
Calcium (Ca) ..... ≤0,005 %
Cadmium (Cd) ..... ≤0,001 %
Iron (Fe) ..... ≤0,02 %
Copper (Cu) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,005 %
Sodium (Na) ..... ≤0,01 %
Nickel (Ni) ..... ≤0,005 %
Zinc (Zn) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
8773.1	100 g	plastic	23,55
8773.2	500 g	plastic	48,30
Original pack 6 x 500 g			45,89/500 g
8773.3	1 kg	plastic	84,85
Original pack 6 x 1 kg			80,61/1 kg

Chromium(III) oxide

Cr_2O_3 · D 5,22 g/cm³ · mp 2435 °C · bp 4000 °C
CAS No. 1308-38-9 · EC no. 215-160-9

Chromium(III) oxide
ROTI®METIC 99,9 % (3N)

Type analysis
Assay (metals basis) ..... 99,9 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
4498.1	5 g	plastic	48,95
4498.2	25 g	plastic	194,05

Chromium(III) oxide
≥98 %, extra pure

Type analysis
Assay ..... ≥98,0 %
Water-soluble content ..... ≤0,5 %
Sieve residue (45 µm) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
9886.1	100 g	plastic	21,40
9886.2	500 g	plastic	51,50
Original pack 6 x 500 g			48,93/500 g
9886.3	1 kg	plastic	88,05
Original pack 6 x 1 kg			83,65/1 kg
9886.4	2.5 kg	plastic	160,20

Chromium(III) potassium sulphate dodecahydrate

Alum chrome · Potassium chromium(III) sulphate · Chromic(III) potassium sulphate 12-hydrate

$KCr(SO_4)_2 \cdot 12\ H_2O$ · D 1,83 g/cm³ · mp 89 °C
CAS No. 7788-99-0 · EC no. 233-401-6
WGK 2

Warning H315-H319

Chromium(III) potassium sulphate dodecahydrate
≥98 %, p.a., ACS

Guarantee analysis
Appearance ..... violet crystalline powder
Assay (iodom.) ..... 98,0-102,0 %
In H_2O insoluble matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,002 %
Aluminium (Al) ..... ≤0,005 %
Ammonium (NH_4) ..... ≤0,01 %
Lead (Pb) ..... ≤0,005 %
Iron (Fe) ..... ≤0,01 %
Copper (Cu) ..... ≤0,001 %
Nickel (Ni) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
4389.1	250 g	plastic	41,40
4389.2	500 g	plastic	72,60
Original pack 6 x 500 g			68,97/500 g
4389.3	1 kg	plastic	125,70
Original pack 6 x 1 kg			119,42/1 kg

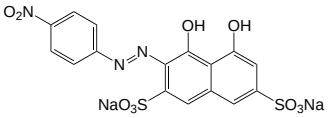
Chromium(III) potassium sulphate dodecahydrate
≥98 %

Type analysis
Assay (iodom.) ..... ≥98 %
Chloride (Cl) ..... ≤0,03 %
Lead (Pb) ..... ≤0,01 %
Iron (Fe) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
3535.3	100 g	plastic	16,70
3535.1	1 kg	plastic	54,75
Original pack 6 x 1 kg			52,01/1 kg
3535.4	2.5 kg	plastic	112,35
3535.2	10 kg	plastic	392,40

Chromium trichloride
▸ Chromium(III) chloride hexahydrate see page 836

Chromotrope® 2B (C.I. 16575)



$C_{16}H_9N_3Na_2O_{10}S_2$ · mp >300 °C
CAS No. 548-80-1 · EC no. 208-959-9
WGK 1

Warning H315-H319-H335

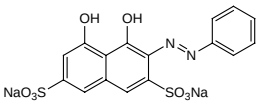
Chromotrope® 2B (C.I. 16575)
for microscopy

Dissolve 0.005 g in H_2SO_4

Type analysis
Appearance ..... dark green to brown powder
Absorption max. (in H_2O) ..... 514 nm

Art. No.	Pack Qty.	Pack.	€
7647.1	5 g	glass	18,85
7647.2	25 g	glass	33,25
7647.3	100 g	glass	80,55

Chromotrope® 2R (C.I. 16570)



Acid red 29

$C_{16}H_{10}N_2Na_2O_8S_2$
CAS No. 4197-07-3 · EC no. 224-085-0
WGK 1

Warning H315-H319-H335

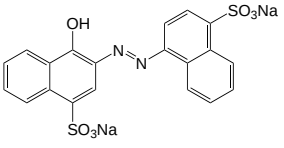
Chromotrope® 2R (C.I. 16570)
for microscopy

Indicator for complexometry.

Type analysis
Maximum absorption ..... 500-520 nm
Loss on drying (110 °C) ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
4937.2	10 g	glass	46,15
4937.1	50 g	glass	192,45

Chromotrope® FB (C.I. 14720)



Acid red 14 · Azorubine · Carmoisine

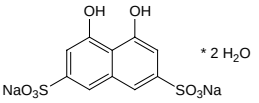
$C_{20}H_{12}N_2Na_2O_7S_2$ · D 0,629 g/cm³ · mp >300 °C · bp 907,5 °C · flp >225 °C
CAS No. 3567-69-9 · EC no. 222-657-4
WGK 1

Chromotrope® FB (C.I. 14720)
for microscopy

Type analysis
Appearance ..... dark red to black powder
Appearance of solution (0,1 % in H_2O) ..... clear
Loss on drying ..... ≤8 %

Art. No.	Pack Qty.	Pack.	€
7648.1	5 g	glass	18,85
7648.2	25 g	glass	33,25
7648.3	100 g	glass	80,55

Chromotropic acid disodium salt dihydrate



4,5-Dihydroxy-2,7-naphthalene disulphonic acid sodium salt

$C_{10}H_6Na_2O_8S_2 \cdot 2\ H_2O$ · mp >300 °C
CAS No. 5808-22-0 · EC no. 204-972-9
WGK 1

Chromotropic acid disodium salt dihydrate
≥98,5 %, p.a., ACS

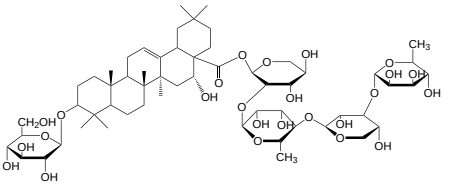
Reagents for silver, boron, chrome, mercury, titanium, chromate, formaldehyde, nitrile and nitrate

Guarantee analysis
Assay (titr.) ..... ≥98,5 %
Water (KF) ..... 8,5-9,5 %
Appearance of solution (5 % in H_2O) ..... clear solution
Suitability for determination of nitrate and formaldehyde ..... complies

Art. No.	Pack Qty.	Pack.	€
KK30.1	10 g	glass	68,70
KK30.2	25 g	glass	125,70

Chromoxane cyanine
▸ Eriochrome cyanine R see page 913

Chrysanthellin A



$C_{58}H_{94}O_{25}$
CAS No. 73039-13-1 · EC no. 277-245-7
WGK 1

Chrysanthellin A
ROTICHROM® HPLC

Reference substance for HPLC.

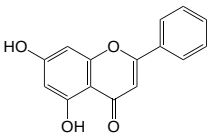
Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥96 %

Art. No.	Pack Qty.	Pack.	€
5261.1	10 mg	glass	499,90

Chrysatropic acid
▸ Scopoletin see page 1253

Chrysin



5,7-Dihydroxyflavone

$C_{15}H_{10}O_4$ · mp 285,5 °C
CAS No. 480-40-0 · EC no. 207-549-7
WGK 1

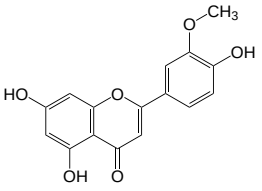
Chrysin
ROTICHROM® CHR ≥98 %

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... yellow powder
Assay (HPLC) ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
6475.1	500 mg	glass	24,65

Chrysoeriol



$C_{16}H_{12}O_6$ · mp 334 to 335 °C
CAS No. 491-71-4 · EC no. 207-742-6
WGK 1

Chrysoeriol
ROTICHROM® HPLC

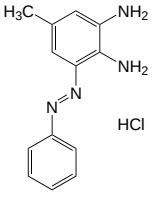
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
6044.1	5 mg	glass	338,65

Chrysoidine R



Methylchrysoidine · Basic orange 1

$C_{13}H_{15}N_4Cl$ · mp 235 °C
CAS No. 4438-16-8 · EC no. 224-654-3
WGK 1

Chrysoidine R (C. I. 11320)
extra pure

fat soluble dye

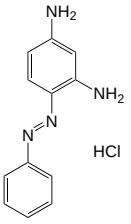
Dissolve 0.1 g in 100 ml ethanol (96 %)

Type analysis
Appearance ..... red brown powder

Art. No.	Pack Qty.	Pack.	€
1H47.1	10 g	glass	12,40
1H47.2	50 g	glass	42,50
1H47.3	100 g	glass	79,45

Chrysoidine solution
▸ Neisser's solution III see page 1101

Chrysoidine Y



2,4-Diaminoazobenzene · Basic orange 2 · Chrysoidin Y Hydrochloride

$C_{12}H_{13}N_4Cl$ · mp 235 °C
CAS No. 532-82-1 · EC no. 208-545-8
UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H315-H318-H341-H410

Chrysoidine Y (C. I. 11270)
extra pure

orange azo dye

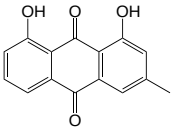
Dissolve 0.1 g in 100 ml water

Type analysis
Appearance ..... red brown powder
Maximum absorption ..... 440-460 nm

Art. No.	Pack Qty.	Pack.	€
1H44.1	10 g	glass	12,40
1H44.2	50 g	glass	42,50
1H44.3	100 g	glass	79,45

Chrysoidin Y Hydrochloride
▸ Chrysoidine Y see page 838

Chrysophanic acid



Chrysophanol

$C_{15}H_{10}O_4$ · mp 195 to 199 °C
CAS No. 481-74-3 · EC no. 207-572-2
WGK 1

Chrysophanic acid
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7442.2	20 mg	glass	274,15

Chrysophanol
▸ Chrysophanic acid see page 838

Chymotrypsin

CAS No. 9004-07-3 · EC no. 232-671-2
WGK 1

Danger H315-H319-H334-H335

Chymotrypsin
≥1 000 USP-U/mg, for biochemistry

Made from bovine pancreas.

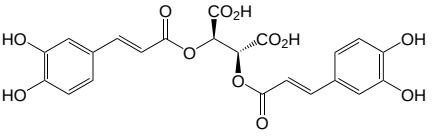
Trypsin content below 1 %

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Identity ..... complies
Activity ..... ≥1000 USP-U/mg
pH value (1 % in H_2O) 3,0-5,0
Trypsin ..... ≤25 USP-U/mg
Sulphated ash ..... <2,5 %
Loss on drying ..... <5,0 %

Art. No.	Pack Qty.	Pack.	€
0238.1	100 mg	glass	32,15
0238.2	500 mg	glass	67,65
0238.3	1 g	glass	110,65
0238.4	5 g	glass	456,90

Cichoric acid



2,3-Dicaffeoyltartaric acid

$C_{22}H_{18}O_{12}$ · mp 204 to 208 °C
CAS No. 70831-56-0
WGK 1

Cichoric acid
ROTICHROM® HPLC

Reference substance for HPLC.
From *Echinacea pallida*.

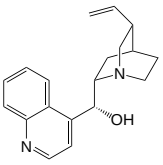
Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1130.1	10 mg	glass	482,70

CIN-Agar
▸ Yersinia Selective Agar (Base) see page 1410

Cinchonidine



$C_{19}H_{22}N_2O$ · D 1,22 g/cm³ · mp 210,5 °C · bp 427 °C · flp 234,7 °C
CAS No. 485-71-2 · EC no. 207-622-3
WGK 1

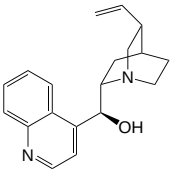
Warning H302-H317

Cinchonidine
≥99 %

Type analysis
Assay ..... ≥99,0 %
Specific rotation $[\alpha]_D^{20}$ ..... -189° to -162°
pH value (1 % solution) 7,0-9,0
Sulphated ash ..... ≤0,1 %
Loss on drying ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
8872.1	25 g	plastic	138,70

Cinchonine



$C_{19}H_{22}N_2O$ · mp 260 °C
CAS No. 118-10-5 · EC no. 204-234-6
WGK 1

Warning H302-H317

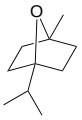
Cinchonine
≥99 %

For resolution of racemates and synthesis.

Type analysis
Assay (titr.) ..... ≥99,0 %
Specific rotation $[\alpha]_D^{20}$ (c=0,5 in methanol) .. +218° to +222°

Art. No.	Pack Qty.	Pack.	€
8875.1	50 g	plastic	180,10

1,4-Cineole



$C_{10}H_{18}O$ · D 0,89 g/cm³ · mp -46 °C · bp 176 to 177 °C · flp 47 °C
CAS No. 470-67-7 · EC no. 207-428-9
UN no. 1993 · ADR 3 III · WGK 2

Warning H226

1,4-Cineole
ROTICHROM® GC

Reference substance for GC.

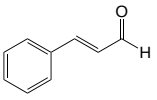
Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
5833.2	100 mg	glass	181,70

1,8-Cineole
▸ Eucalyptol see page 927

Cinnamaldehyde



3-Phenyl-2-propenal · 3-Phenylacrolein

C_9H_8O · D 1,041 g/cm³ · mp -7,5 °C · bp 252,4 °C · flp 105 °C
CAS No. 104-55-2 · EC no. 203-213-9
WGK 1

Warning H312-H315-H317-H319-H412

Cinnamaldehyde
≥98 %, for synthesis

Type analysis
Assay (GC) ..... ≥98 %
Density (20 °C) 1,047-1,051

Art. No.	Pack Qty.	Pack.	€
5549.1	250 ml	glass	32,15

trans-Cinnamaldehyde

D 1,05 g/cm³ · mp -9 to -4 °C · bp 250 to 252 °C · flp 71 °C
CAS No. 14371-10-9 · EC no. 203-213-9
WGK 1

Warning H315-H317-H319-H335

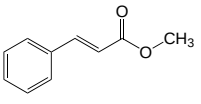
trans-Cinnamaldehyde
≥98,5 %, for synthesis

Storage temperature: +4 °C

Type analysis
Appearance ..... clear, colourless to yellow liquid
Assay (GC) ..... 98,5-100,0 %

Art. No.	Pack Qty.	Pack.	€
7195.1	250 ml	glass	85,50

Cinnamic acid methyl ester



Methyl cinnamate

$C_{10}H_{10}O_2$ · D 1,09 g/cm³ · mp 34,9 °C · bp 265,4 °C · flp 121 °C
CAS No. 103-26-4 · EC no. 203-093-8
WGK 1

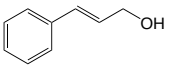
Warning H317

Cinnamic acid methyl ester
≥98 %, for synthesis

Type analysis
Assay ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
3643.1	25 g	plastic	16,05
3643.2	100 g	plastic	25,70
3643.3	500 g	plastic	72,60
Original pack 6 x 500 g			68,97/500 g

Cinnamyl alcohol



3-Phenyl-2-propen-1-ol · 3-Phenylallyl alcohol

$C_9H_{10}O$ · D 1,04 g/cm³ · mp 31 to 34 °C · bp 258 °C · flp 126 °C
CAS No. 104-54-1 · EC no. 203-212-3
WGK 2

Warning H302-H315-H317-H319

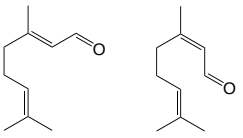
Cinnamyl alcohol
≥98 %, for synthesis

Type analysis
Assay (GLC) ..... ≥98 %
Melting point ..... 32-34 °C

Art. No.	Pack Qty.	Pack.	€
4905.1	100 g	glass	18,20

CIN Supplement
▸ Yersinia Supplement see page 1410

Citral



Geranial + Neral · Geranium aldehyde

$C_{10}H_{16}O$ · D 0,89 g/cm³ · mp <-20 °C · bp 230 °C · flp 98 °C
CAS No. 5392-40-5 · EC no. 226-394-6
WGK 1

Warning H315-H317

Citral
for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... yellow oil
Purity (GC) ..... 95-98 %
Density (20 °C) 0,885-0,895
Refractive index n_D^{20} 1,486-1,491

Art. No.	Pack Qty.	Pack.	€
5937.1	100 ml	glass	46,80

Citral
ROTICHROM® GC

Reference substance for GC.

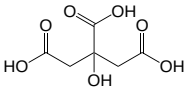
Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
5292.1	1 g	plastic	149,45

Citrate Standards
▸ Citrate IC Standard Solution see page 1334

Citric acid



$C_6H_8O_7$ · D 1,67 g/cm³ · mp 153 °C
CAS No. 77-92-9 · EC no. 201-069-1
WGK 1

Warning H319-H335

Citric acid
≥99,5 %, p.a., ACS, anhydrous

Guarantee analysis
Assay (acidim.) ..... ≥99,5 %
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,001 %
Oxalate (C_2O_4) ..... ≤0,05 %
Sulphur compounds (as SO_4) ..... ≤0,002 %
Heavy metals (as Pb) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,0002 %
Calcium (Ca) ..... ≤0,0025 %
Iron (Fe) ..... ≤0,0003 %
Magnesium (Mg) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0002 %
Ash content (as SO_4) ..... ≤0,02 %
Matter discoloured by H_2SO_4 ..... complies

Art. No.	Pack Qty.	Pack.	€
X863.1	500 g	plastic	28,95
Original pack 6 x 500 g			27,50/500 g
X863.2	1 kg	plastic	48,30
Original pack 6 x 1 kg			45,89/1 kg
X863.3	2.5 kg	plastic	98,80
X863.4	5 kg	plastic	174,70
X863.6	10 kg	plastic	332,20
X863.5	25 kg	plastic	639,65

Citric acid
≥99,5 %, Ph. Eur., anhydrous

Guarantee analysis
Appearance ..... white or almost white crystalline powder or granular crystals
Assay (dry substance) ..... 99,5-100,5 %
Appearance of solution ..... complies
Identity ..... complies
Water ..... ≤0,5 %
Sulphated ash ..... ≤0,05 %
Chloride (Cl) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,01 %
Oxalate (as $C_2H_2O_4$) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0003 %
Arsenic (As) ..... ≤0,0001 %
Calcium (Ca) ..... ≤0,003 %
Reaction with H_2SO_4 ..... complies

Art. No.	Pack Qty.	Pack.	€
6490.3	500 g	plastic	25,70
Original pack 6 x 500 g			24,42/500 g
6490.1	1 kg	plastic	46,15
Original pack 6 x 1 kg			43,84/1 kg
6490.4	2.5 kg	plastic	96,65
6490.2	5 kg	plastic	181,70
6490.6	10 kg	plastic	327,90
6490.5	25 kg	plastic	654,70

Citric acid
≥99,5 %, anhydrous, extra pure

Type analysis
Assay ..... ≥99,5 %
Lead (Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
Heavy metals ..... ≤0,001 %
Ash content ..... ≤0,1 %
Water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
7624.1	1 kg	plastic	37,10
Original pack 6 x 1 kg			35,25/1 kg
7624.2	5 kg	plastic	153,20
7624.3	10 kg	plastic	289,20
7624.4	25 kg	plastic	579,45

Citric acid ammonium iron(III) salt
▸ Ammonium iron(III) citrate see page 737

Citric acid magnesium salt
▸ tri-Magnesium citrate see page
▸ tri-Magnesium citrate nonahydrate see page 1058

Citric acid monohydrate

$C_6H_8O_7$ · H_2O · D 1,54 g/cm³ · mp 135 to 152 °C · bp >170 °C
CAS No. 5949-29-1 · EC no. 611-842-9
WGK 1

Warning H319-H335

Citric acid monohydrate
≥99,5 %, p.a., ACS, ISO

Buffer substance

Guarantee analysis
Assay (acidim.) ..... ≥99,5 %
In H_2O insoluble matter ..... ≤0,005 %
Ash content (as SO_4) ..... ≤0,02 %
Matter discoloured by H_2SO_4 ..... complies
Chloride (Cl) ..... ≤0,0005 %
Oxalate (C_2O_4) ..... ≤0,05 %
Phosphate (PO_4) ..... ≤0,001 %
Sulphur compounds (as SO_4) ..... ≤0,002 %
Heavy metals (as Pb) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,0002 %
Calcium (Ca) ..... ≤0,002 %
Iron (Fe) ..... ≤0,0003 %
Copper (Cu) ..... ≤0,00005 %
Magnesium (Mg) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0002 %

Art. No.	Pack Qty.	Pack.	€
3958.2	500 g	plastic	41,85
Original pack 6 x 500 g			39,76/500 g
3958.1	1 kg	plastic	75,15
Original pack 6 x 1 kg			71,39/1 kg
3958.3	2.5 kg	plastic	149,45
3958.4	5 kg	plastic	278,45
3958.6	10 kg	plastic	504,20
3958.5	25 kg	plastic	1.069,65

Citric acid monohydrate
≥99,5 %, Ph. Eur.

Guarantee analysis
Appearance ..... white, cryst. powder
Assay (dry substance) ..... 99,5-100,5 %
Identity ..... complies
Appearance of solution ..... complies
Water (KF) ..... 7,5-8,8 %
Sulphate (SO_4) ..... ≤0,015 %
Heavy metals (as Pb) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,0003 %
Lead (Pb) ..... ≤0,0001 %
Mercury (Hg) ..... ≤0,0001 %
Oxalate (as $C_2H_2O_4$) ..... ≤0,01 %
Reaction with H_2SO_4 ..... complies
Sulphated ash ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
5110.3	500 g	plastic	24,65
Original pack 6 x 500 g			23,42/500 g
5110.1	1 kg	plastic	42,90
Original pack 6 x 1 kg			40,76/1 kg
5110.4	2.5 kg	plastic	85,90
5110.2	5 kg	plastic	153,20
5110.6	10 kg	plastic	289,20
5110.5	25 kg	plastic	579,45

Citric acid monopotassium salt
▸ mono-Potassium citrate see page 1170

Citric acid mono sodium salt
▸ mono-Sodium citrate see page 1281

Citric acid potassium salt
▸ tri-Potassium citrate monohydrate see page 1170

Citric acid triammonium salt
▸ tri-Ammonium citrate see page 734

Citric acid trisodium salt dihydrate
▸ tri-Sodium citrate dihydrate see page 1281

^{13}C labelled arginine hydrochloride
▸ L- Arginine $^{13}C_6$ monohydrochloride see page 751

^{13}C labelled lysine hydrochloride
▸ L-Lysine $^{13}C_6$ hydrochloride see page 1053

Clean Card® PRO

Protein quick test · Cleaning control

WGK 1

Clean Card® PRO Pack
Orion Clean Card® for hygiene control

amfora health care.

For rapid detection of protein contamination on surfaces after the cleaning process.

The set contains:
50 tests
Picture card for analysis
Operating instructions
Refil pack for use with the starter kit
(Art. No. 0071)

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance (test area) ..... light yellow
Protein measurement negative control . complies
Protein measurement positive control ... complies

Art. No.	Pack Qty.	Pack.	€
0072.1	1 set	cardboard	213,95

Clean Card® PRO Starter Kit
Orion Clean Card® for hygiene control

amfora health care.

For rapid detection of protein contamination on surfaces after the cleaning process.

The starter kit contains:
25 tests
Small plastic spray bottle
Picture card for analysis
Operating instructions
The refill pack, containing 50 Clean Card® PRO tests can be ordered using the Art. No. 0072.1.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance (test area) ..... light yellow
Protein measurement negative control . complies
Protein measurement positive control ... complies

Art. No.	Pack Qty.	Pack.	€
0071.1	1 kit	cardboard	126,35

Cleaning control
▸ Clean Card® PRO see page 840

CLED Agar

WGK 1

CLED Agar
for microbiology

For cultivation, differentiation and enumeration of gram-positive and gram-negative bacteria from the urinary tract.

Application: Use 36 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Casein peptone ..... 4 g/l
Gelatine peptone ..... 4 g/l
Beef extract ..... 3 g/l
Lactose ..... 10 g/l
L-Cystine ..... 0,128 g/l
Bromothymol blue ..... 0,02 g/l
Agar ..... 15 g/l
pH value ..... 7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
2835.1	500 g	plastic	128,50
Original pack 6 x 500 g			122,08/500 g
2835.2	1 kg	plastic	235,45
Original pack 6 x 1 kg			223,68/1 kg

CLED Agar plus

WGK 2

CLED Agar plus
for microbiology

For cultivation, easy differentiation by colour, and enumeration of gram-positive and gram-negative bacteria from the urinary tract.

Application: Use 36.2 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Casein peptone ..... 4 g/l
Gelatine peptone ..... 4 g/l
Beef extract ..... 3 g/l
Lactose ..... 10 g/l
L-Cystine ..... 0,128 g/l
Bromothymol blue ..... 0,02 g/l
Andrade's indicator ..... 0,1 g/l
Agar ..... 15 g/l
pH value ..... 7,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
2836.1	500 g	plastic	145,15
Original pack 6 x 500 g			137,89/500 g

Cleland's Reagent
▸ 1,4-Dithioerythritol (DTE) see page 894
▸ 1,4-Dithiothreitol (DTT) see page 895

Clostridium perfringens-Agar
▸ TSC Agar (Base) see page 1387

Clostridium perfringens Supplement

mp 147 to 150 °C
WGK 1

Clostridium perfringens Supplement
lyophilized

Media supplement for selective isolation of *Clostridium perfringens*.

Application: One vial Clostridium perfringens Supplement (0.2 g) is reconstituted in 6 ml sterile, demineralized water and is subsequently added to 500 ml autoclaved TSC Agar (Base) (Art. No. CL51.1) or to 500 ml autoclaved m-CP Agar (Art. No. CL55.1).

One box of 10 vials Clostridium perfringens Supplement is sufficient for 10 x 500 ml TSC Agar (Art. No. CL51) or for 10 x 500 ml m-CP Agar (Art. No. CL55).

Storage temperature: +4 °C

Formulation per vial
D-Cycloserine ..... 0,2 g

per vial.

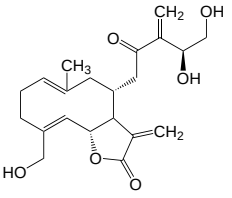
Art. No.	Pack Qty.	Pack.	€
CL52.1	10 unit(s)	glass	299,95

Club-moss spores
▸ Lycopodium see page 1052

4-CN
▸ 4-Chloro-1-naphthol see page 833

CN Agar
▸ Pseudomonas Selective Agar (Base) see page 1189

Cnicin



$C_{20}H_{26}O_7$ · mp 142 to 143 °C
CAS No. 24394-09-0 · EC no. 246-221-8
WGK 1

Warning H315-H319-H335

Cnicin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Cnicus benedictus*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
2823.1	10 mg	glass	289,20

Cnicin
ROTICHROM® ~CHR$_{n.c}$

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
4560.1	10 mg	glass	93,45

Cobalt powder

Co · D 8,86 g/cm³ · mp 1495 °C · bp 2927 °C
CAS No. 7440-48-4 · EC no. 231-158-0

Cobalt powder
ROTI®METIC 99,999 % (5N)

UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H317-H319-H334-H341-H350-H360F-H410

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5620.1	5 g	plastic	118,80
5620.2	25 g	plastic	376,25

Cobalt Standards

- Cobalt ICP Standard Solution see page 1315
- Cobalt ICP Standard Solution see page 1315
- Cobalt AAS Standard Solution see page 1315

Cobalt(II) acetate tetrahydrate

$Co(CH_3COO)_2 \cdot 4\ H_2O$ · D 1,7 g/cm³ · mp 140 °C
CAS No. 6147-53-1 · EC no. 200-755-8
UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H317-H334-H341-H350i-H360F-H410

Cobalt(II) acetate tetrahydrate
≥98 %, p.a., ACS

Guarantee analysis

Assay (compl.)	98,0-102,0 %
In H_2O insoluble matter	≤0,01 %
Chloride (Cl)	≤0,002 %
Nitrate (NO_3)	≤0,01 %
Sulphate (SO_4)	≤0,005 %
Calcium (Ca)	≤0,005 %
Copper (Cu)	≤0,002 %
Iron (Fe)	≤0,001 %
Potassium (K)	≤0,01 %
Magnesium (Mg)	≤0,005 %
Manganese (Mn)	≤0,01 %
Sodium (Na)	≤0,05 %
Nickel (Ni)	≤0,1 %
Lead (Pb)	≤0,001 %
Zinc (Zn)	≤0,01 %

Art. No.	Pack Qty.	Pack.	€
HN29.1	50 g	plastic	35,40
HN29.2	100 g	plastic	53,65
HN29.3	250 g	plastic	114,50

Cobalt(II) acetate tetrahydrate
≥98 %, extra pure

Type analysis

Assay (based on Co)	≥98,0 %
Lead (Pb)	≤0,01 %
Iron (Fe)	≤0,01 %
Copper (Cu)	≤0,01 %
Nickel (Ni)	≤0,1 %

Art. No.	Pack Qty.	Pack.	€
9995.1	100 g	plastic	27,85
9995.2	500 g	plastic	84,95
Original pack 6 x 500 g			80,70/500 g
9995.3	1 kg	plastic	138,70
Original pack 6 x 1 kg			131,77/1 kg

Cobalt agarose beads

- ROTI®Garose-His/Co Columns see page 1224
- ROTI®Garose-His/Co Beads see page 1224
- ROTI®Garose-His/Co HPBeads see page 1224

Cobalt(II) carbonate

Cobaltous carbonate

$CoCO_3$ · D 4,13 g/cm³ · mp 200 °C
CAS No. 513-79-1 · EC no. 208-169-4
UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H317-H334-H341-H350i-H360F-H410

Cobalt(II) carbonate
46 % Co, extra pure

Type analysis

Assay (Co)	~46,0 %
Lead (Pb)	≤0,01 %
Iron (Fe)	≤0,01 %
Copper (Cu)	≤0,01 %
Manganese (Mn)	≤0,01 %
Nickel (Ni)	≤0,01 %
Zinc (Zn)	≤0,01 %

Art. No.	Pack Qty.	Pack.	€
9930.1	50 g	plastic	25,30
9930.2	100 g	plastic	44,00
9930.3	500 g	plastic	149,45
Original pack 6 x 500 g			141,98/500 g

Cobalt charged IMAC columns

- ROTI®Garose-His/Co Columns see page 1224

Cobalt(II) chloride hexahydrate

$CoCl_2 \cdot 6\ H_2O$ · D 1,92 g/cm³ · mp >86 °C · bp 1049 °C
CAS No. 7791-13-1 · EC no. 616-574-6
UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H317-H334-H341-H350i-H360F-H410

Cobalt(II) chloride hexahydrate
ROTI®METIC 99,999 % (5N)

Type analysis

Assay (metals basis)	99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L57.1	5 g	HDPE	95,60
1L57.2	25 g	HDPE	230,60

Cobalt(II) chloride hexahydrate
≥99 %, p.a., ACS, ISO

Colour indicator for drying agents, starting material for the preparation of further cobalt compounds.

Guarantee analysis

Assay (compl.)	99,0-102,0 %
In H_2O insoluble matter	≤0,01 %
Nitrate (NO_3)	≤0,01 %
Sulphate (SO_4)	≤0,005 %
Lead (Pb)	≤0,003 %
Calcium (Ca)	≤0,005 %
Iron (Fe)	≤0,005 %
Potassium (K)	≤0,01 %
Copper (Cu)	≤0,001 %
Magnesium (Mg)	≤0,005 %
Manganese (Mn)	≤0,01 %
Sodium (Na)	≤0,05 %
Nickel (Ni)	≤0,05 %
Zinc (Zn)	≤0,002 %
Substances not precipitated by $(NH_4)_2S$	≤0,25 %

Art. No.	Pack Qty.	Pack.	€
T889.2	50 g	plastic	75,15
T889.3	100 g	plastic	117,20
T889.1	250 g	plastic	220,40

Cobalt(II) chloride hexahydrate
≥98 %, extra pure

Type analysis

Assay (compl.)	≥98,0 %
Sulphate (SO_4)	≤0,01 %
Lead (Pb)	≤0,001 %
Iron (Fe)	≤0,001 %
Nickel (Ni)	≤0,001 %
Zinc (Zn)	≤0,001 %
In H_2O insoluble matter	≤0,02 %

Art. No.	Pack Qty.	Pack.	€
7095.1	50 g	plastic	60,10
7095.2	100 g	plastic	96,65

Cobalt(II) hydroxide

Cobaltous hydroxide · Cobalt hydroxide

$Co(OH)_2$ · D 3,6 g/cm³
CAS No. 21041-93-0 · EC no. 244-166-4
UN no. 3288 · ADR 6.1 I · WGK 3

Danger H302-H317-H319-H330-H334-H350-H360Fd-H410

Cobalt hydroxide

- Cobalt(II) hydroxide see page 842

Cobalt(II) hydroxide
≥98 %, extra pure

Type analysis

Assay	≥98 %
Chloride (Cl)	≤0,1 %
Cu (Copper)	≤0,005 %
Fe (Iron)	≤0,01 %
Mn (Manganese)	≤0,01 %
Ni (Nickel)	≤0,05 %
Pb (Lead)	≤0,01 %

Art. No.	Pack Qty.	Pack.	€
3096.1	50 g	plastic	24,65
3096.2	250 g	plastic	85,90
3096.3	500 g	plastic	138,70
Original pack 6 x 500 g			131,77/500 g

Cobalt(II) nitrate hexahydrate

Cobaltous nitrate

$Co(NO_3)_2 \cdot 6\ H_2O$ · D 1,87 g/cm³ · mp >55 °C
CAS No. 10026-22-9 · EC no. 233-402-1
UN no. 1477 · ADR 5.1 II · WGK 3

Danger H272-H302-H317-H318-H334-H341-H350i-H360F-H410

Cobalt(II) nitrate hexahydrate
ROTI®METIC 99,999 % (5N)

Type analysis

Assay (metals basis)	99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5291.1	10 g	plastic	278,45
5291.2	25 g	plastic	669,20

Cobalt(II) nitrate hexahydrate
≥98 %, p.a., ACS

Guarantee analysis
Assay (compl.) ..... 98,0-102,0 %
In H_2O insoluble matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,002 %
Sulphate (SO_4) ..... ≤0,005 %
Iron (Fe) ..... ≤0,001 %
Lead (Pb) ..... ≤0,002 %
Calcium (Ca) ..... ≤0,005 %
Sodium (Na) ..... ≤0,05 %
Nickel (Ni) ..... ≤0,15 %
Magnesium (Mg) ..... ≤0,005 %
Potassium (K) ..... ≤0,01 %
Copper (Cu) ..... ≤0,002 %
Zinc (Zn) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
HN16.1	50 g	plastic	37,10
HN16.2	100 g	plastic	59,70
HN16.3	250 g	plastic	123,65

Cobalt(II) nitrate hexahydrate
≥98 %, extra pure

Type analysis
Assay (based on Co) ..... ≥98,0 %
Lead (Pb) ..... ≤0,01 %
Iron (Fe) ..... ≤0,01 %
Copper (Cu) ..... ≤0,01 %
Sodium (Na) ..... ≤0,01 %
Nickel (Ni) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
9928.1	100 g	plastic	28,95
9928.2	500 g	plastic	95,70
Original pack 6 x 500 g			90,92/500 g
9928.3	1 kg	plastic	160,20
Original pack 6 x 1 kg			152,19/1 kg

Cobaltous carbonate
▸ Cobalt(II) carbonate see page 842

Cobaltous hydroxide
▸ Cobalt(II) hydroxide see page 842

Cobaltous nitrate
▸ Cobalt(II) nitrate hexahydrate see page 842

Cobalt(II,III) oxide

Co_3O_4 · D 6,07 g/cm³ · mp >900 °C
CAS No. 1308-06-1 · EC no. 215-157-2
UN no. 3077 · ADR 9 III · WGK 1
Danger H317-H334-H351-H410

Cobalt(II,III) oxide
≥71 % Co, p.a.

Guarantee analysis
Assay (Co) ..... ≥71,0 %
Appearance of solution (10 %, HCl) ..... clear
Lead (Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,01 %
Nickel (Ni) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
9834.1	25 g	plastic	21,40
9834.2	100 g	plastic	67,65
9834.3	500 g	plastic	289,20
Original pack 6 x 500 g			274,74/500 g

Cobalt(III) sodium nitrite
▸ Sodium hexanitrocobaltate(III) see page 1284

Cobalt(II) sulphate hydrate

$CoSO_4$ · x H_2O · D 1,948 g/cm³
CAS No. 60459-08-7
UN no. 3077 · ADR 9 III · WGK 3
Danger H302-H317-H334-H341-H350i-H360F-H410

Cobalt(II) sulphate hydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5326.1	10 g	plastic	102,05

Cobalt(II) sulphate heptahydrate

$CoSO_4$ · 7 H_2O · D 1,95 g/cm³ · mp 98 °C
CAS No. 10026-24-1 · EC no. 233-334-2
UN no. 3077 · ADR 9 III · WGK 3
Danger H302-H317-H334-H341-H350i-H360F-H410

Cobalt(II) sulphate heptahydrate
≥97 %, p.a.

For manufacturing of ceramics.

Guarantee analysis
Assay ..... ≥97,0 %
In H_2O insoluble matter ..... ≤0,01 %
Lead (Pb) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,001 %
Copper (Cu) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,005 %
Sodium (Na) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,005 %
Zinc (Zn) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
4390.1	100 g	plastic	46,15
4390.2	250 g	plastic	96,65
4390.3	500 g	plastic	170,95
Original pack 6 x 500 g			162,40/500 g

Cobalt(II) sulphate heptahydrate
≥97 %, extra pure

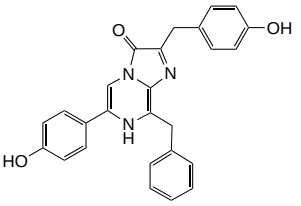
Type analysis
Assay ..... ≥97,5 %
Aluminium (Al) ..... ≤0,005 %
Iron (Fe) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,005 %
In water insoluble matter ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
7327.1	100 g	plastic	23,55
7327.2	500 g	plastic	74,75
Original pack 6 x 500 g			71,01/500 g
7327.3	1 kg	plastic	134,40
Original pack 6 x 1 kg			127,68/1 kg
7327.4	2.5 kg	plastic	299,95

Cochin
▸ Oil of lemon-grass see page 1124

Cochineal colouring matter
▸ Carmine (C.I. 75470) see page 817

Coelenterazine



$C_{26}H_{21}N_3O_3$ · mp 175 to 178 °C
CAS No. 55779-48-1
WGK 1

Coelenterazine
≥95 %, for biochemistry

Luciferase substrate

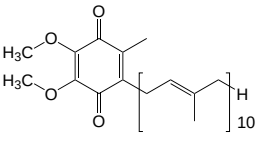
Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (TLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
4094.3	1 mg	glass	75,15
4094.4	2.5 mg	glass	145,15

Coenzyme I
▸ NAD see page 1098

Coenzyme Q 10



Ubiquinone 50

$C_{59}H_{90}O_4$ · mp 48 °C · bp 869 °C · flp 324,6 °C
CAS No. 303-98-0 · EC no. 206-147-9
WGK 1

Coenzyme Q 10
≥98 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance . yellow to orange crystalline powder
Assay (HPLC) ..... ≥98 %
Water (KF) ..... ≤0,5 %
Ash content ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4047.1	25 mg	glass	24,65
4047.2	1 g	glass	42,90
4047.3	5 g	glass	110,65
4047.4	10 g	glass	198,90
4047.5	25 g	glass	375,20

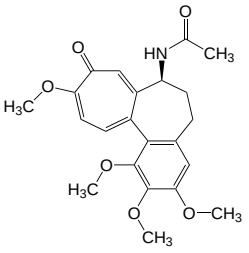
Coenzymes

Art. No.	Description	Page
HN35	Adenosin-5'-triphosphate disodium salt (ATP)	708
4047	Coenzyme Q 10	843
6833	Flavine-adenine-dinucleotide disodium salt (FAD), CELLPURE®	936
5581	Flavine-adenine-dinucleotide disodium salt (FAD)	936
AE11	NAD	1098
AE12	NADH disodium salt	1098
AE13	NADP disodium salt	1098
AE14	NADPH tetrasodium salt	1098

Colamine

▸ Ethanolamine see page 918

Colchicine



$C_{22}H_{25}NO_6$ · mp 142 °C
CAS No. 64-86-8 · EC no. 200-598-5
UN no. 1544 · ADR 6.1 II · WGK 3

Danger H300-H340

Colchicine
≥94 %, for biochemistry

Type analysis
Appearance ..... pale yellow powder
Assay (HPLC) ..... 94,0-101,0 %
Water (KF) ..... ≤2,0 %
Specific rotation $[\alpha]_D^{20}$ (1% in ethanol) ..... -250° to -240°

Art. No.	Pack Qty.	Pack.	€
8884.1	500 mg	glass	63,35
8884.7	5 g	glass	461,20
8884.8	25 g	glass	2.144,65

Coli Fluoro Broth

D 1,441 g/cm³
WGK 2

Coli Fluoro Broth
for microbiology

Enrichment medium for the simultaneous and easy detection of total Coliforms and *E. coli* in water, foods and dairy products.

Application: Use 17 g for 1 l broth.

Storage temperature: +4 °C

Composition
Tryptose ..... 5 g/l
Sodium chloride ..... 5 g/l
Dipotassium phosphate ..... 2,7 g/l
Potassium phosphate ..... 2 g/l
Sorbitol ..... 1 g/l
Tryptophane ..... 1 g/l
Sodium lauryl sulphate ..... 0,1 g/l
Chromogenic-fluorogenic mixture ..... 0,23 g/l
pH value ..... 6,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
2923.2	100 g	plastic	127,95
2923.1	500 g	plastic	536,45
Original pack 6 x 500 g			509,63/500 g

Coliforms chromogenic Agar

CCA

Coliforms chromogenic Agar (ISO)
ISO 9308-1, ISO 11133, for microbiology

For detection and enumeration of *E. coli* and other coliforms in water.

Application: Use 26.45 g for 1 l agar.

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Sodium chloride (NaCl) ..... 5,0 g/l
di-Sodium hydrogen phosphate ..... 2,7 g/l
Sodium dihydrogen phosphate ..... 2,2 g/l
Yeast extract ..... 2,0 g/l
Casein, enzymatically digested ..... 1,0 g/l
Sodium pyruvate ..... 1,0 g/l
Tryptophane ..... 1,0 g/l
Sorbitol ..... 1,0 g/l
Chromogene Mixture ..... 0,4 g/l
Sodium heptadecyl sulphate (Tergitol-7) . 0,15 g/l
Agar ..... 10 g/l
pH value ..... 6,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
8849.1	500 g	plastic	600,95
Original pack 6 x 500 g			570,90/500 g

Coliforms chromogenic Agar
for microbiology

For selective enrichment and simultaneous detection of *E. coli* and other Coliforms in water and food samples.

Application: Use 26.4 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Composition
Sodium chloride (NaCl) ..... 5 g/l
Phosphate buffer ..... 4,9 g/l
Peptone ..... 3 g/l
Sodium pyruvate ..... 1 g/l
Tryptophane ..... 1 g/l
Sorbitol ..... 1 g/l
Chromogene Mixture ..... 0,36 g/l
Sodium heptadecyl sulphate (Tergitol-7) ... 0,1 g/l
Agar ..... 10 g/l
pH value ..... 6,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL45.2	100 g	plastic	149,45
CL45.1	525 g	plastic	590,20

Colistinsulphate

Polymyxin E_1-disulphate

$C_{45}H_{85}N_{13}O_{10} \cdot H_2SO_4$ · mp 200 to 220 °C
CAS No. 1264-72-8 · EC no. 215-034-3
UN no. 2811 · ADR 6.1 III · WGK 1

Danger H301

Colistinsulphate
≥19 000 I.U./mg, for biochemistry

Bacteriostatic antibiotic, peptide antibiotic

Stock solution: 1–10 mg/ml in H_2O.
Storage of stock solution: –20 °C.
Working concentration: 2–200 µg/ml.

Storage temperature: +4 °C

Type analysis
Activity ..... ≥19 000 IU/mg
Sulphate (SO_4) ..... 15-18 %
pH value (1 % in H_2O) 4,0-6,0
Loss on drying ..... ≤3,5 %

Art. No.	Pack Qty.	Pack.	€
CN31.1	100 mg	glass	33,25
CN31.2	250 mg	glass	62,25
CN31.3	1 g	glass	106,45

Colophony

D 1,05 to 1,07 g/cm³ · mp >62 °C · bp >300 °C · flp >180 °C
CAS No. 8050-09-7 · EC no. 232-475-7
WGK 1

Warning H317

Colophony
for biochemistry

Type analysis
Softening point (ring+pellet) ..... 72-83 °C
Acid value ..... 145-185 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
9051.3	250 g	plastic	19,25
9051.1	1 kg	plastic	47,20
Original pack 6 x 1 kg			44,84/1 kg
9051.4	2.5 kg	plastic	94,50
9051.2	5 kg	cardboard	170,95

Columbia Agar (Base)

Medium Q (Ph. Eur. 6.0) · Columbia Agar (Ph.Eur. 6.3, 7.0, 8.0 and 9.0) · Columbia Blood Agar (Base)

WGK 3

Columbia Agar (Base)
Ph. Eur., for microbiology

For cultivation of fastidious and non-fastidious microorganisms, also for Mycoplasms.

Application: Use 42.5 g for 1 l agar. If required, add 50–110 ml defibr. blood.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Casein peptone (Pancreas hydrolysate) ..... 10 g/l
Meat peptone (Pepsin hydrolysate) ..... 5 g/l
Heart peptone (Pancreas hydrolysate) ..... 3 g/l
Yeast extract ..... 5 g/l
Corn starch ..... 1 g/l
Sodium chloride (NaCl) ..... 5 g/l

Agar ..... 13,5 g/l
pH value ..... 7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
X919.1	500 g	plastic	99,90
Original pack 6 x 500 g			94,91/500 g
X919.2	1 kg	plastic	180,10
Original pack 6 x 1 kg			171,10/1 kg

Columbia Agar (Base), granulated
Ph. Eur., granulated, for microbiology

For cultivation of fastidious and non-fastidious microorganisms, also for Mycoplasms.

Application: Use 44 g for 1 l agar. If required, add 50–110 ml defibr. blood.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Casein peptone (Pancreas hydrolysate) ..... 10 g/l
Meat peptone (Pepsin hydrolysate) ..... 5 g/l
Heart peptone (Pancreas hydrolysate) ..... 3 g/l
Yeast extract ..... 5 g/l
Corn starch ..... 1 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar ..... 15 g/l
pH value ..... 7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
1507.1	500 g	plastic	252,65
Original pack 6 x 500 g			240,02/500 g

Columbia Agar (Ph.Eur. 6.3, 7.0, 8.0 and 9.0)
▸ Columbia Agar (Base) see page 844

Columbia Blood Agar (Base)
▸ Columbia Agar (Base) see page 844

Column matrix for protein isolation

▸ ROTI®Garose-His/Ni HPBeads see page 1224
▸ ROTI®Garose-Glu/GST Cartridges see page 1224
▸ ROTI®Garose-His/Ni HPBeads plus see page 1224
▸ ROTI®Garose-His/Co HPBeads see page 1224
▸ ROTI®Garose-Protein G HPBeads see page 1226
▸ ROTI®Garose-Glu/GST Beads see page 1223
▸ ROTI®Garose-Protein A Beads see page 1226
▸ ROTI®Garose-Streptavidin Beads see page 1225
▸ ROTI®Garose-His *uncharged* HPBeads see page 1225
▸ ROTI®Garose-His/Ni Beads see page 1224
▸ ROTI®Garose-Biotin Beads see page 1223
▸ ROTI®Garose-Protein A/G HPBeads see page 1226
▸ ROTI®Garose-His/Co Beads see page 1224
▸ ROTI®Garose-His/Ni NTA-Beads see page 1225
▸ ROTI®Garose-His/Ni NTA-HPBeads see page 1225

Colza oil
▸ Rapeseed oil see page 1198

Common salt
▸ Sodium chloride see page 1279

CompactDry™

WGK 1

CompactDry™ CF
sterile, for microbiology

NISSUI Pharmaceutical.

Ready-made plates with anhydrous chromogenic nutrient medium for detection of coliforms.

Ready-made media · Media plates · Ready-made plate *E. coli*/Coliforms

Growth area is 20 cm². Ø 47 mm.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance nutrient disk ..... light yellow
Loss on drying ..... <10,0 %
Sterility ..... complies
pH value 6,8-7,2
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
4827.1	40 unit(s)	blister	98,80
4827.2	240 unit(s)	blister	514,95

CompactDry™ EC
sterile, for microbiology

NISSUI Pharmaceutical.

Ready-made plates with anhydrous chromogenic nutrient medium for detection of coliforms in general, particularly *E. coli*.

Ready-made media · Media plates · Ready-made plate *E. coli*/Coliforms

Growth area is 20 cm². Ø 47 mm.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance nutrient disk ..... light yellow
Loss on drying ..... <10,0 %
Sterility ..... complies
pH value 6,8-7,2
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
4826.1	40 unit(s)	blister	98,80
4826.3	120 unit(s)	blister	246,20
4826.2	240 unit(s)	blister	514,95

CompactDry™ ETB
sterile, for microbiology

NISSUI Pharmaceutical.

Ready-made plates with anhydrous chromogenic nutrient medium for detection of enterobacteriaceae.

Ready-made media · Media plates · Ready-made plate enterobacteria

Growth area is 20 cm². Ø 47 mm.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance nutrient disk ..... light pink
Loss on drying ..... <10,0 %
Sterility ..... complies
pH value 7,2-7,6
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
4828.3	8 unit(s)	blister	28,95
4828.1	40 unit(s)	blister	104,20
4828.2	240 unit(s)	blister	557,95

CompactDry™ PA
ISO 16140, sterile, for microbiology

NISSUI Pharmaceutical.

Ready-to-use plates with dried chromogenic culture medium for the detection of *Pseudomonas aeruginosa*.

Ready-made media · Media plates · Ready-made plate *Pseudomonas aeruginosa*

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance nutrient disk . White to very light pink
Loss on drying ..... ≤20 %
Sterility ..... complies
pH value 7,0-7,4
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
1L17.1	40 unit(s)	blister	188,15
1L17.2	240 unit(s)	blister	955,70

CompactDry™ SL
sterile, for microbiology

NISSUI Pharmaceutical.

Ready-made plates with anhydrous chromogenic nutrient medium for detection of salmonellae.

Ready-made media · Media plates · Ready-made plate salmonells

Growth area is 20 cm². Ø 47 mm.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance nutrient disk ..... violet
Loss on drying ..... <10,0 %
Sterility ..... complies
pH value 5,5-6,3
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
4817.1	40 unit(s)	blister	129,55
4817.2	240 unit(s)	blister	676,20

CompactDry™ TC
sterile, for microbiology

NISSUI Pharmaceutical.

Ready-made plates with anhydrous chromogenic nutrient medium for total germ count.

Ready-made media · Media plates · Ready-made plate total count

Growth area is 20 cm². Ø 47 mm.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance nutrient disk ..... light yellow
Loss on drying ..... <10,0 %
Sterility ..... complies
pH value 6,8-7,2
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
4816.3	8 unit(s)	blister	26,35
4816.1	40 unit(s)	blister	95,15
4816.2	240 unit(s)	blister	467,65

CompactDry™ X-BC
sterile, for microbiology

NISSUI Pharmaceutical.

Ready-made plates with anhydrous chromogenic nutrient medium for detection of *Bacillus cereus.*

Ready-made media · Media plates · Ready-made plate *Bacillus cereus*

Growth area is 20 cm². Ø 47 mm.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance nutrient disk ..... light yellow
Loss on drying ..... <10,0 %
Sterility ..... complies
pH-value 6,8-7,2
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
1070.1	40 unit(s)	blister	134,40
1070.2	240 unit(s)	blister	697,70

CompactDry™ X-SA
sterile, for microbiology

NISSUI Pharmaceutical.

Ready-made plates with anhydrous chromogenic nutrient medium for detection of *Staphylococcus aureus.*

Ready-made plate Staphylococci · Ready-made media · Media plates · Ready-made plate *Staphylococcus aureus*

Growth area is 20 cm². Ø 47 mm.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance nutrient disk ..... light yellow
Loss on drying ..... <10,0 %
Sterility ..... complies
pH value 7,2-7,6
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
1087.1	40 unit(s)	blister	134,40
1087.2	240 unit(s)	blister	697,70

CompactDry™ YM
sterile, for microbiology

NISSUI Pharmaceutical.

Ready-made plates with anhydrous chromogenic nutrient medium for detection of yeasts and moulds.

Ready-made media · Media plates · Ready-made plate yeasts and moulds

Growth area is 20 cm². Ø 47 mm.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance nutrient disk ..... light yellow
Loss on drying ..... <10,0 %
Sterility ..... complies
pH value 5,2-5,8
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
4818.3	8 unit(s)	blister	28,95
4818.1	40 unit(s)	blister	102,05
4818.2	240 unit(s)	blister	547,20

CompactDry™ Swab

D 1 g/cm³
WGK 1

CompactDry™ Swab
ISO 6887, sterile, for microbiology

NISSUI Pharmaceutical.

All-in-one set of swab and nutrient broth for microbiological sampling of surfaces.

Contains 1 ml **Peptone Water, buffered**

Due to the adaptation to ISO 6887, the medium is slightly darker. No negative impact on usage.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance nutrient broth ..... light yellow
Turbidity ..... clear
Sterility ..... complies
pH value 6,8-7,2

Art. No.	Pack Qty.	Pack.	€
4809.1	40 unit(s)	box	118,80
4809.2	240 unit(s)	box	622,45

Compact Dry Dilution Rack

WGK 1

Compact Dry Dilution Rack MRD
sterile, for microbiology

ELMEX.

For preparation of dilution series of microbiological samples. Sterile nutrient broth.

Maximum Recovery Solution in racks

128 wells in 32 racks of 4 separable wells each (9 ml each).

D 1 g/cm³ · mp ~0 °C · bp ~100 °C

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance of solution ..... light beige
Turbidity ..... clear
Peptone ..... 1,0 g/l
NaCl ..... 8,5 ±0,5 g/l
Sterility ..... complies
pH value ..... 7,1 ±0,5

Art. No.	Pack Qty.	Pack.	€
1096.1	128 unit(s)	box	213,95

Compact Dry Dilution Rack PBS
sterile, for microbiology

ELMEX.

For preparation of dilution series of microbiological samples. **Sterile PBS.**

128 wells in 32 racks of 4 separable wells each (9 ml each).

D 1,01 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance of solution ..... limpid to light yellow
Turbidity ..... clear
Content NaCl ..... 0,85 ±0,1 %
Sterility ..... complies
pH value ..... 7,1±0,5

Art. No.	Pack Qty.	Pack.	€
4823.1	128 unit(s)	box	185,45

Complexing Agents

Art. No.	Description	Page
6716	Acetyl acetone	701
6717	2-(2-Aminoethylamino)ethanol	727
X863	Citric acid	840
6490	Citric acid	840
3958	Citric acid monohydrate	840
5110	Citric acid monohydrate	840
1412	*trans*-1,2-Diaminocyclohexane-*N*,*N*,*N*',*N*'-tetraacetic acid monohydrate	872
1411	*trans*-1,2-Diaminocyclohexane-*N*,*N*,*N*',*N*'-tetraacetic acid monohydrate	872
6723	Diethylene triamine	878
1407	Diethylene triamine pentaacetic acid	878
2677	Dimethylglyoxim	888
KK24	Dimethylglyoxime disodium salt octahydrate	888
4153	2,2'-Dipyridyl	894
3054	EGTA	908
3049	Ethylenediamine, ROTIPURAN®	921
4218	Ethylenediamine	921
8040	Ethylenediamine tetraacetic acid	921
CN06	Ethylenediamine tetraacetic acid	921
6506	Ethylenediamine tetraacetic acid calcium disodium salt hydrate	921
6499	Ethylenediamine tetraacetic acid copper disodium salt dihydrate	922
3053	Ethylenediamine tetraacetic acid dipotassium salt dihydrate	922
1408	Ethylenediamine tetraacetic acid dipotassium salt dihydrate	922
8043	Ethylenediamine tetraacetic acid disodium salt dihydrate	922
X986	Ethylenediamine tetraacetic acid disodium salt dihydrate	922

Art. No.	Description	Page
6498	Ethylenediamine tetraacetic acid iron(III) sodium salt trihydrate	922
6508	Ethylenediamine tetraacetic acid magnesium disodium salt dihydrate	922
6510	Ethylenediamine tetraacetic acid manganese disodium salt dihydrate	923
1410	Ethylenediamine tetraacetic acid tetrasodium salt dihydrate	923
3619	Ethylenediamine tetraacetic acid tetrasodium salt hydrate	923
CP87	Ethylenediamine tetraacetic acid tetrasodium salt tetrahydrate	923
1409	Ethylenediamine tetraacetic acid tripotassium salt dihydrate	923
6518	Ethylenediamine tetraacetic acid zinc disodium salt dihydrate	924
0878	1-Hydroxyethane-1,1-diphosphonic acid (HEDP)	999
2557	8-Hydroxyquinoline	1001
0853	Iminodisuccinic acid tetrasodium salt (IDS)	1005
0877	Methylglycinediacetic acid trisodium salt (MGDA)	1085
4384	Nitrilotriacetic acid	1108
8653	Nitrilotriacetic acid	1109
8242	Nitrilotriacetic acid trisodium salt monohydrate	1109
T113	Oxalic acid dihydrate	1133
8879	Oxalic acid dihydrate	1133
9113	1,10-Phenanthroline monohydrate	1149
KK21	1,10-Phenanthroline hydrochloride monohydrate	1149
0854	2-Phosphonobutane-1,2,4-tricarboxylic acid (PBTC)	1155
8645	Potassium hydrogen tartrate	1175
8087	Potassium sodium tartrate tetrahydrate	1180
7998	Potassium sodium tartrate tetrahydrate	1180
T110	di-Sodium tartrate dihydrate	1296
0254	di-Sodium tartrate dihydrate	1296
5529	D(–)-Tartaric acid	1354
4891	DL-Tartaric acid	1354
K302	L(+)-Tartaric acid	1354
4890	L(+)-Tartaric acid	1355

COMU®

- 1-[(1-(Cyano-2-ethoxy-2-oxoethylidene-aminooxy) dimethylaminomorpholino)] uronium hexafluorophosphate (COMU®) see page 856

Con A

- Concanavalin A see page 847

Concanavalin A

Con A

CAS No. 11028-71-0 · EC no. 234-258-2
WGK 1

Danger H317-H334

Concanavalin A
lyophilized

From *Canavalia ensiformis*.

Storage temperature: +4 °C

Type analysis
Appearance ..... white lyophilisate
Solubility (1 mg/ml PBS) slightly cloudy, colorless solution

Art. No.	Pack Qty.	Pack.	€
7246.1	100 mg	glass	126,35

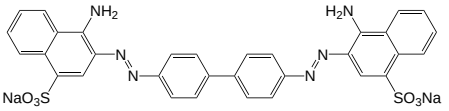
Conductivity standards

- Standards for Conductivity Measurement see page 1310

Conductivity Standards

Art. No.	Description	Page
2462	Conductivity Standard, ROTI®Calipure, 5 µS/cm (25 °C)	1310
0810	Conductivity Standard, ROTI®Calipure, 10 µS/cm (25 °C)	1310
0811	Conductivity Standard, ROTI®Calipure, 20 µS/cm (25 °C)	1310
0812	Conductivity Standard, ROTI®Calipure, 50 µS/cm (25 °C)	1310
2432	Conductivity Standard, ROTI®Calipure, 84 µS/cm (25 °C)	1310
2463	Conductivity Standard, ROTI®Calipure, 100 µS/cm (25 °C)	1310
2433	Conductivity Standard, ROTI®Calipure, 147 µS/cm (25 °C)	1310
2464	Conductivity Standard, ROTI®Calipure, 500 µS/cm (25 °C)	1311
2465	Conductivity Standard, ROTI®Calipure, 1000 µS/cm (25 °C)	1311
2434	Conductivity Standard, ROTI®Calipure, 1413 µS/cm (25 °C)	1311
0814	Conductivity Standard, ROTI®Calipure, 5000 µS/cm (25 °C)	1311
2466	Conductivity Standard, ROTI®Calipure, 10 000 µS/cm (25 °C)	1311
2435	Conductivity Standard, ROTI®Calipure, 12 880 µS/cm (25 °C)	1311
0822	Conductivity Standard, ROTI®Calipure, 20 000 µS/cm (25 °C)	1311
0831	Conductivity Standard, ROTI®Calipure, 50 000 µS/cm (25 °C)	1311
0832	Conductivity Standard, ROTI®Calipure, 100 000 µS/cm (25 °C)	1311
2467	Conductivity Standard, ROTI®Calipure, 500 000 µS/cm (25 °C)	1311

Congo red (C.I. 22120)



Disodium-3,3'[[1,1-biphenyl]-4,4'-diyl(bis(azo)] bis(4-aminonaphthalin-1-sulfonate) · Direct Red 28

$C_{32}H_{22}N_6Na_2O_6S_2$ · mp 360 °C
CAS No. 573-58-0 · EC no. 209-358-4
WGK 3

Danger H350-H361d

Congo red (C.I. 22120)
for microscopy

Bacteriology, indicator pH 3.0-5.2

Dissolve 0.2 g in 100 ml of water

Type analysis
Absorption max. (in H_2O) ..... 490-500 nm
Loss on drying ..... ≤5,0 %
pH-transition range ..... 3,0 (blue) - 5,2 (red)
Suitability for microscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
0322.1	5 g	glass	22,05
0322.2	25 g	glass	36,05
0322.3	100 g	glass	87,65

Contact agar

- ROTI®DipSlides see page 1215

Contact plates

- ROTI®ContiPlate VRBD see page 1215
- ROTI®ContiPlate RBC see page 1214
- ROTI®ContiPlate TSA see page 1215
- ROTI®ContiPlate VRB see page 1215
- ROTI®ContiPlate PCA see page 1214
- ROTI®ContiPlate TSA-Letheen see page 1215
- ROTI®ContiPlate MacCon see page 1214
- ROTI®ContiPlate Sab4plus see page 1215

Coomassie® blue G 250

- Brilliant blue G 250 (C.I. 42655) see page 786

Coomassie® blue R 250

- Brilliant blue R 250 (C.I. 42660) see page 786

Coomassie®-Staining solution

- ROTIPHORESE®Blue R see page 1232
- ROTI®Blue see page 1212
- ROTI®Blue quick see page 1213

Copper

CAS No. 7440-50-8 · EC no. 231-159-6

Copper foil
p.a.

Foil 60 cm wide, 0,1 mm thick.

Cu · D 8,78 g/cm³ · mp 1059 °C · bp 2580 °C

Type analysis
Assay (Cu)* ..... ≥99,95 %
Bi (Bismuth) ..... ≤0,0005 %
Pb (Lead) ..... ≤0,005 %
Phosphorus (P) ..... ≤0,06 %
Yield point Rp0,2 ..... ≤140 mPa
Tensile strength Rm ..... 220-260 mPa
Electrical conductivity ..... 57-59 MS/m

*Including max. 0.015 % Ag.

Art. No.	Pack Qty.	Pack.	€
1KNE.1	250 g	cardboard	49,35
1KNE.2	1 kg	cardboard	127,95
Original pack 6 x 1 kg			121,55/1 kg

Copper foil

Foil 60 cm wide, 0,1 mm thick.

Cu · D 8,78 g/cm³ · mp 1059 °C · bp 2580 °C

Art. No.	Pack Qty.	Pack.	€
8540.1	250 g	cardboard	46,15
8540.2	1 kg	cardboard	117,20
Original pack 6 x 1 kg			111,34/1 kg

Copper beads
≥99,9 %

Cu · D 8,78 g/cm³ · mp 1059 °C · bp 2580 °C

Type analysis
Assay ..... ≥99,9 %

Art. No.	Pack Qty.	Pack.	€
2728.1	100 g	glass	51,10

Copper, nano
ROTI®nanoMETIC ≥99 %, ≥80 nm

Cu · D 8,78 g/cm³ · mp 1059 °C · bp 2580 °C

UN no. 3089 · ADR 4.1 II · WGK 2

Danger H228-H410

Type analysis
Appearance ..... brown to red-brownish powder
Assay (metals basis) ..... ≥99 %
Particle size ..... ≥80 nm
Specific surface (BET) ..... <10 m²/g

stabilised with oleic acid.

Art. No.	Pack Qty.	Pack.	€
8279.1	5 g	glass	55,40
8279.2	25 g	glass	222,00
8279.3	100 g	glass	805,20

Copper pellets
ROTI®METIC 99,999 % (5N)

Cu · D 8,78 g/cm³ · mp 1059 °C · bp 2580 °C

Type analysis
Assay (metals basis) ..... 99,999 %
Particle size ..... 3x3 mm

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5621.1	25 g	plastic	74,75
5621.2	100 g	plastic	182,25

Copper powder
ROTI®METIC 99,999 % (5N)

Cu · D 8,96 g/cm³ · mp 1083 °C · bp 2580 °C

UN no. 3089 · ADR 4.1 III · WGK 2

Warning H228-H410

Type analysis
Assay (metals basis) ..... 99,999 %
Particle size ..... <100 mesh

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5386.1	10 g	glass	176,85
5386.2	50 g	glass	755,20

Copper powder
≥99,7 %, p.a., <63 µm

Cu · D 8,96 g/cm³ · mp 1083 °C · bp 2580 °C

UN no. 3089 · ADR 4.1 III · WGK 2

Warning H228-H410

Type analysis
Assay (Cu) ..... ≥99,7 %

Art. No.	Pack Qty.	Pack.	€
CP21.1	100 g	plastic	21,40
CP21.2	500 g	plastic	68,70
Original pack 6 x 500 g			65,27/500 g

Copper wool
~99 %

Fibre length Ø 60 cm; fibre cross section: 0,05 x 0,2 mm²

Cu · D 8,78 g/cm³ · mp 1059 °C · bp 2580 °C

Type analysis
Assay (Cu) ..... ~99 %
Lead (Pb) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
9597.1	100 g	plastic	23,55
9597.2	250 g	plastic	42,90
9597.3	500 g	plastic	75,15
Original pack 6 x 500 g			71,39/500 g
9597.4	1 kg	plastic	145,15
Original pack 6 x 1 kg			137,89/1 kg

Copper Standards

- Copper ICP Standard Solution see page 1315
- Copper AAS Standard Solution see page 1315
- Copper ICP Standard Solution see page 1315

Copper(II) acetate monohydrate

Cupric acetate

$Cu(CH_3COO)_2 \cdot H_2O$ · D 1,88 g/cm³ · mp 115 °C
CAS No. 6046-93-1 · EC no. 611-978-9
UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H318-H410

Copper(II) acetate monohydrate
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L64.1	5 g	HDPE	88,05
1L64.2	25 g	HDPE	340,25

Copper(II) acetate monohydrate
≥99 %, p.a., ACS

Spray reagent for TLC.

Guarantee analysis
Assay (iodom.) ..... ≥99 %
pH value (2 % in H_2O) 5,0-5,5
In H_2O insoluble matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,003 %
Sulphate (SO_4) ..... ≤0,01 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,002 %
Potassium (K) ..... ≤0,01 %
Sodium (Na) ..... ≤0,05 %
Nickel (Ni) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
HN30.1	50 g	plastic	27,45
HN30.2	100 g	plastic	41,40
HN30.3	250 g	plastic	87,65

Copper(II) acetate monohydrate
≥98 %, extra pure

Type analysis
Assay ..... ≥98 %
In H_2O insoluble matter ..... ≤0,1 %
pH (5 % in H_2O) 5-6
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,05 %
Iron (Fe) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
8625.1	100 g	plastic	19,25
8625.2	500 g	plastic	52,70
Original pack 6 x 500 g			50,07/500 g
8625.3	1 kg	plastic	99,45
Original pack 6 x 1 kg			94,48/1 kg

Copper(I) bromide

CuBr · D 4,72 g/cm³ · mp 504 °C · bp 1345 °C
CAS No. 7787-70-4 · EC no. 232-131-6
WGK 1

Warning H315-H319-H335

Copper(I) bromide
≥99,999 %, ROTI®Click Grade

for Click Chemistry

Type analysis
Appearance ..... light green powder
Assay (metals basis) ..... ≥99,999 %

Art. No.	Pack Qty.	Pack.	€
7813.1	5 mg	plastic	18,85
7813.2	50 mg	plastic	106,45

Copper(II) bromide

Copper dibromide · Cupric bromide

$CuBr_2$ · D 4,71 g/cm³ · mp 498 °C
CAS No. 7789-45-9 · EC no. 232-167-2
UN no. 1759 · ADR 8 II · WGK 3

Danger H302-H314-H410

Copper(II) bromide
≥99 %, pure

Type analysis
Assay ..... ≥99,0 %
Chloride (Cl) ..... ≤0,5 %
Sulphate (SO_4) ..... ≤0,05 %
As (Arsenic) ..... ≤0,005 %
Fe (Iron) ..... ≤0,01 %
In H_2O insoluble matter ..... ≤0,01 %
Substances not precipitated by H_2S ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
1L0L.1	100 g	plastic	23,55
1L0L.2	500 g	plastic	81,60
Original pack 6 x 500 g			77,52/500 g
1L0L.3	1 kg	plastic	138,70
Original pack 6 x 1 kg			131,77/1 kg

Copper(II) carbonate, basic

Cupric carbonate

$CuCO_3 \cdot Cu(OH)_2$ · D 4 g/cm³ · mp >400 °C
CAS No. 12069-69-1 · EC no. 235-113-6
UN no. 3077 · ADR 9 III · WGK 3

Warning H302+H332-H319-H410

Copper(II) carbonate, basic
≥95 %, extra pure

Type analysis
Assay (metals basis) ..... ≥95,0 %
Assay (Cu) ..... ≥55,0 %
Chloride (Cl) ..... ≤0,1 %
Calcium (Ca) ..... ≤0,1 %
Lead (Pb) ..... ≤0,01 %
Moisture ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
7318.1	250 g	plastic	37,55
7318.2	500 g	plastic	64,40
Original pack 6 x 500 g			61,18/500 g
7318.3	1 kg	plastic	112,90
Original pack 6 x 1 kg			107,26/1 kg
7318.4	2.5 kg	plastic	235,45

Copper(I) chloride

Copper monochloride · Cuprous chloride

CuCl · D 4,14 g/cm³ · mp 423 °C · bp 1367 °C
CAS No. 7758-89-6 · EC no. 231-842-9
UN no. 2802 · ADR 8 III · WGK 3

Danger H302+H312-H315-H318-H410

Copper(I) chloride
≥98 %, p.a., ACS

Absorption reagent in gas analysis, identification of arsenic and antimony hydrides.

Guarantee analysis
Assay ..... ≥98 %
In HCl insoluble matter ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,1 %
Lead (Pb) ..... ≤0,02 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,01 %
Chromium (Cr) ..... ≤0,005 %
Cobalt (Co) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,005 %
Potassium (K) ..... ≤0,005 %
Magnesium (Mg) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,05 %
Nickel (Ni) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4391.1	100 g	plastic	28,95
4391.2	250 g	plastic	58,60
4391.3	500 g	plastic	107,40
Original pack 6 x 500 g			102,03/500 g
4391.4	1 kg	plastic	198,90
Original pack 6 x 1 kg			188,96/1 kg

Copper(I) chloride
≥97 %, extra pure

Type analysis
Assay (mangan.) ..... ≥97 %
Sulphate (SO_4) ..... ≤0,05 %
Iron (Fe) ..... ≤0,02 %
Substances not precipitated by H_2S (as SO_4) ..... ≤2 %

Art. No.	Pack Qty.	Pack.	€
CN81.1	250 g	plastic	34,95
CN81.2	500 g	plastic	58,60
Original pack 6 x 500 g			55,67/500 g
CN81.3	1 kg	plastic	99,90
Original pack 6 x 1 kg			94,91/1 kg

Copper(II) chloride dihydrate

Copper dichloride dihydrate

$CuCl_2 \cdot 2\,H_2O$ · D 2,51 g/cm³ · mp 70 to 200 °C · bp 598 °C
CAS No. 10125-13-0 · EC no. 600-176-4
UN no. 2802 · ADR 8 III · WGK 3

Danger H290-H302+H312-H315-H318-H410

Copper(II) chloride dihydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L60.1	5 g	HDPE	62,25
1L60.2	25 g	HDPE	233,85

Copper(II) chloride dihydrate
≥99 %, p.a.

Catalyst

Guarantee analysis
Assay (compl.) ..... ≥99 %
pH value (5 %, 20 °C) 3,0-3,8
Sulphate (SO_4) ..... ≤0,005 %
Total nitrogen (N) ..... ≤0,004 %
Arsenic (As) ..... ≤0,0001 %
Calcium (Ca) ..... ≤0,002 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,002 %
Magnesium (Mg) ..... ≤0,002 %
Sodium (Na) ..... ≤0,002 %
Nickel (Ni) ..... ≤0,005 %
Lead (Pb) ..... ≤0,004 %

Art. No.	Pack Qty.	Pack.	€
CN82.1	250 g	plastic	46,80
CN82.2	500 g	plastic	81,60
Original pack 6 x 500 g			77,52/500 g
CN82.3	1 kg	plastic	152,15
Original pack 6 x 1 kg			144,54/1 kg
CN82.7	25 kg	plastic	3.241,15

Copper(II) chloride dihydrate
≥98 %, extra pure

Type analysis
Assay ..... ≥98,0 %
pH value (5 % solution) 3-4
In H_2O insoluble matter ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,01 %
Arsenic (As) ..... ≤0,01 %
Lead (Pb) ..... ≤0,005 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,01 %
Magnesium (Mg) ..... ≤0,01 %
Zinc (Zn) ..... ≤0,06 %

Art. No.	Pack Qty.	Pack.	€
2623.1	250 g	plastic	22,50
2623.2	500 g	plastic	37,55
Original pack 6 x 500 g			35,67/500 g
2623.3	1 kg	plastic	59,70
Original pack 6 x 1 kg			56,72/1 kg
2623.4	2.5 kg	plastic	131,70

Copper dibromide
▸ Copper(II) bromide see page 848

Copper dichloride dihydrate
▸ Copper(II) chloride dihydrate see page 849

Copper EDTA disodium salt dihydrate
▸ Ethylenediamine tetraacetic acid copper disodium salt dihydrate see page 921

Copper(II) hydroxide

Cupric hydroxide

$Cu(OH)_2$ · D 3,37 g/cm³
CAS No. 20427-59-2 · EC no. 243-815-9
UN no. 3288 · ADR 6.1 II · WGK 3

Danger H302-H318-H330-H410

Copper(II) hydroxide
≥97,5 %, extra pure

Type analysis
Assay ..... ≥97,5 %
Moisture ..... ≤2 %
Lead (Pb) ..... ≤0,1 %
Cadmium (Cd) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
9864.1	100 g	plastic	22,50
9864.2	500 g	plastic	53,65
Original pack 6 x 500 g			50,97/500 g
9864.3	1 kg	plastic	92,35
Original pack 6 x 1 kg			87,73/1 kg
9864.4	2.5 kg	plastic	188,15

Copper(I) iodide

CuI · D 5,67 g/cm³ · mp 591 °C · bp 1290 °C
CAS No. 7681-65-4 · EC no. 231-674-6
UN no. 3077 · ADR 9 III · WGK 3

Warning H302-H315-H319-H335-H410

Copper(I) iodide
≥98 %, pure

Type analysis
Assay ..... ≥98 %
Sulphate (SO_4) ..... ≤0,1 %
Lead (Pb) ..... ≤0,01 %
Iron (Fe) ..... ≤0,1 %
Loss on drying ..... ≤1 %

Art. No.	Pack Qty.	Pack.	€
0305.1	100 g	plastic	34,95
0305.2	500 g	plastic	128,50
Original pack 6 x 500 g			122,08/500 g
0305.3	1 kg	plastic	234,90
Original pack 6 x 1 kg			223,16/1 kg

Copper monochloride
▸ Copper(I) chloride see page 849

Copper(II) nitrate hydrate

$Cu(NO_3)_2 \cdot x\ H_2O$ · D 2,32 g/cm³ · mp 114,5 °C
CAS No. 13778-31-9 · EC no. 604-036-3
UN no. 1477 · ADR 5.1 II · WGK 3

Danger H272-H302-H315-H319-H410

Copper(II) nitrate hydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L67.1	5 g	HDPE	46,15
1L67.2	25 g	HDPE	109,15

Copper(II) nitrate trihydrate

Copper nitrate trihydrate

$Cu(NO_3)_2 \cdot 3\ H_2O$ · D 2,05 g/cm³ · mp 114,5 °C
CAS No. 10031-43-3 · EC no. 600-060-3
UN no. 1477 · ADR 5.1 II · WGK 3

Danger H272-H302-H315-H319-H410

Copper(II) nitrate trihydrate
≥99,5 %, p.a., ACS

Guarantee analysis
Assay (iodom.) ..... 99,5-102,0 %
pH value (5 % solution) ..... ≥2,8
In H_2O insoluble matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,002 %
Sulphate (SO_4) ..... ≤0,01 %
Lead (Pb) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,005 %
Potassium (K) ..... ≤0,005 %
Sodium (Na) ..... ≤0,01 %
Nickel (Ni) ..... ≤0,01 %
Zinc (Zn) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
P754.1	500 g	plastic	80,55
Original pack 6 x 500 g			76,52/500 g
P754.2	1 kg	plastic	209,65
Original pack 6 x 1 kg			199,17/1 kg

Copper(II) nitrate trihydrate
≥98 %, extra pure

Type analysis
Assay ..... ≥98,0 %
In H_2O insoluble matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,02 %
Iron (Fe) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,02 %
Lead (Pb) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
0255.1	500 g	plastic	40,35
Original pack 6 x 500 g			38,33/500 g
0255.2	1 kg	plastic	62,90
Original pack 6 x 1 kg			59,76/1 kg
0255.3	2.5 kg	plastic	134,40

Copper nitrate trihydrate
▸ Copper(II) nitrate trihydrate see page 850

Copper(I) oxide

Cu_2O · D 5,87 g/cm³ · mp >400 °C
CAS No. 1317-39-1 · EC no. 215-270-7
UN no. 3077 · ADR 9 III · WGK 3

Danger H302+H332-H318-H410

Copper(I) oxide
≥97 %, red, powdered

Type analysis
Appearance ..... red powder
Assay ..... ≥97 %
Chloride (Cl) ..... ≤0,5 %
Sulphate (SO_4) ..... ≤0,5 %
Copper oxide (CuO) ..... ≤1,0 %
Sieve residue (45 µm) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
2733.1	250 g	glass	30,00
2733.2	500 g	glass	51,50
Original pack 6 x 500 g			48,93/500 g
2733.3	1 kg	glass	91,95
Original pack 6 x 1 kg			87,35/1 kg
2733.4	10 kg	plastic	697,70

Copper(II) oxide

CAS No. 1317-38-0 · EC no. 215-269-1
UN no. 3077 · ADR 9 III · WGK 3

Warning H410

Copper(II) oxide
ROTI®METIC 99,999 % (5N)

CuO · D 6,31 g/cm³ · mp 1326 °C

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L5Y.1	5 g	HDPE	87,65
1L5Y.2	25 g	HDPE	340,25

Copper(II) oxide
p.a., ACS, wire

For elementary analysis.

CuO · D 6,31 g/cm³ · mp 1326 °C

Guarantee analysis
Assay (total oxygen as CuO) ..... ≥55,0 %
Chloride (Cl) ..... ≤0,005 %
Total carbon (as C) ..... ≤0,002 %
Total nitrogen (as N) ..... ≤0,002 %
Total sulphur (as SO_4) ..... ≤0,005 %

Wire ca. 0.65 × 6 mm.
Surface: CuO, core: Cu_2O.

Art. No.	Pack Qty.	Pack.	€
4467.2	25 g	plastic	26,80
4467.1	100 g	plastic	86,55
4467.3	250 g	plastic	185,45

Copper(II) oxide
≥97,5 %, powdered

CuO · D 6,48 g/cm³ · mp 1326 °C

Type analysis
Appearance ..... fine, black powder
Assay (CuO) ..... ≥97,5 %
Copper (Cu) ..... ≥78 %
Cuprous oxide (Cu_2O) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8169.4	250 g	plastic	23,55
8169.2	500 g	plastic	39,25
Original pack 6 x 500 g			37,29/500 g
8169.1	1 kg	plastic	73,00
Original pack 6 x 1 kg			69,35/1 kg
8169.3	2.5 kg	plastic	155,90

Copper(II) oxide, nano
ROTI®nanoMETIC ≥99 %, 15–50 nm

CuO · D 6,31 g/cm³ · mp 1326 °C

Type analysis
Appearance ..... black powder
Assay ..... ≥99 %
Particle size ..... 15-50 nm
Specific surface (BET) ..... ≥15 m²/g
Phase ..... monoclinic

Art. No.	Pack Qty.	Pack.	€
8251.1	10 g	glass	36,45
8251.2	50 g	glass	155,90
8251.3	100 g	glass	278,45

Copper(II) sulphate

$CuSO_4$ · D 3,6 g/cm³
CAS No. 7758-98-7 · EC no. 231-847-6
UN no. 3077 · ADR 9 III · WGK 3

Warning H302-H315-H319-H410

Copper(II) sulphate
≥99 %, p.a., anhydrous

Reagent for the detection of water, preparation of pigments.

Guarantee analysis
Assay (iodom., dry substance) ..... ≥99,0 %
Appearance of solution ..... complies
Loss on drying (250 °C) ..... ≤1,0 %
Chloride (Cl) ..... ≤0,01 %
Iron (Fe) ..... ≤0,005 %
Magnesium (Mg) ..... ≤0,01 %
Nickel (Ni) ..... ≤0,005 %
Calcium (Ca) ..... ≤0,005 %
Potassium (K) ..... ≤0,01 %
Sodium (Na) ..... ≤0,02 %
Lead (Pb) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
P023.1	250 g	plastic	41,85
P023.2	1 kg	plastic	131,70
Original pack 6 x 1 kg			125,12/1 kg
P023.3	2.5 kg	plastic	278,45

Copper(II) sulphate
≥99 %, Ph. Eur., anhydrous

Guarantee analysis
Assay (iodom., dry substance) ..... 99,0-101,0 %
Identity ..... complies
Appearance of solution ..... complies
Chloride (Cl) ..... ≤0,015 %
Iron (Fe) ..... ≤0,015 %
Lead (Pb) ..... ≤0,008 %
Loss on drying (250 °C) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
CP86.1	250 g	plastic	28,95
CP86.2	500 g	plastic	46,80
Original pack 6 x 500 g			44,46/500 g
CP86.3	1 kg	plastic	82,70
Original pack 6 x 1 kg			78,57/1 kg
CP86.4	2.5 kg	plastic	174,70
CP86.5	5 kg	plastic	332,20
CP86.7	25 kg	plastic	1.536,20

Copper(II) sulphate
≥98 %, anhydrous, ROTI®Click Grade

For Click Chemistry.

Type analysis
Appearance ..... light grey powder
Assay ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7816.1	10 mg	plastic	18,85
7816.2	50 mg	plastic	52,60

Copper(II) sulphate pentahydrate

Coppervitriole

$CuSO_4 \cdot 5\ H_2O$ · D 2,286 g/cm³ · mp 30 to 110 °C
CAS No. 7758-99-8 · EC no. 616-477-9
UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H318-H410

Copper(II) sulphate pentahydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L53.1	5 g	HDPE	54,30
1L53.2	25 g	HDPE	170,95

Copper(II) sulphate pentahydrate
≥99,5 %, p.a., ACS, ISO

For the determination of reducing sugar (Fehling's solution). Used as spray in TLC.

Guarantee analysis
Assay (iodom.) ..... ≥99,5 %
pH value (5 % solution) ..... ≥3,8
Insoluble matter ..... ≤0,005 %
Total nitrogen (as N) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,001 %
Arsenic (As) ..... ≤0,0001 %
Cadmium (Cd) ..... ≤0,003 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,003 %
Magnesium (Mg) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,005 %
Zinc (Zn) ..... ≤0,03 %
Cobalt (Co) ..... ≤0,001 %
Potassium (K) ..... ≤0,001 %
Sodium (Na) ..... ≤0,005 %
Lead (Pb) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
P024.1	500 g	plastic	35,40
Original pack 6 x 500 g			33,63/500 g
P024.2	1 kg	plastic	61,20
Original pack 6 x 1 kg			58,14/1 kg
P024.3	2.5 kg	plastic	117,20

Copper(II) sulphate pentahydrate
≥99 %, Ph. Eur., BP

Guarantee analysis
Assay (iodom.) ..... 99,0-100,5 %
Identity ..... complies
pH value (5 % solution) ..... ≥3,8
Appearance of solution ..... complies
In H_2O insoluble matter ..... ≤0,025 %
Loss on drying (250 °C) ..... 35,0-36,5 %
Volatile organic impurities ..... complies
Chloride (Cl) ..... ≤0,01 %
Arsenic (As) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,005 %
Iron (Fe) ..... ≤0,01 %
Nickel (Ni) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
P025.1	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
P025.2	1 kg	plastic	78,40
Original pack 6 x 1 kg			74,48/1 kg
P025.4	2.5 kg	plastic	158,60
P025.3	5 kg	plastic	303,70

Copper(II) sulphate pentahydrate
≥98 %, cryst.

Type analysis
Assay ..... ≥98,0 %
Lead (Pb) ..... ≤0,02 %
Iron (Fe) ..... ≤0,015 %
Nickel (Ni) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
8175.6	250 g	plastic	17,10
8175.1	1 kg	plastic	36,45
Original pack 6 x 1 kg			34,63/1 kg
8175.3	2.5 kg	plastic	74,20
8175.2	5 kg	plastic	134,40
8175.4	10 kg	plastic	222,00
8175.5	25 kg	plastic	407,45

Copper(II) sulphate solution

Copper(II) sulphate solution
0,01 mol/l – 0,01 N, volumetric standard solution

D 1 g/cm³ · bp 100 °C

UN no. 3082 · ADR 9 III · WGK 3

H411

Type analysis
Titer 0,997-1,003
Amount-of-substance conc. (20 °C) .. 0,01 mol/l ± 0,3 %

Art. No.	Pack Qty.	Pack.	€
1E30.1	1 l	plastic	54,75
Original pack 6 x 1 l			52,01/1 l

Copper(II) sulphate solution
0,1 mol/l – 0,1 N, volumetric standard solution

D 1,015 g/cm³ · bp 100 °C

UN no. 3082 · ADR 9 III · WGK 3

Warning H319-H411

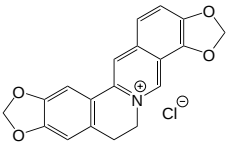
Type analysis
Amount-of-substance concentration (20 °C) ..... 0,1 mol/l ±0,2 %
Titer 0,9960-1,0040

Art. No.	Pack Qty.	Pack.	€
9948.1	1 l	plastic	47,85
Original pack 6 x 1 l			45,46/1 l

Copper(II) sulphate solution
▸ Fehling's solution I see page 934

Coppervitriole
▸ Copper(II) sulphate pentahydrate see page 851

Coptisin chloride



Bis(methylendioxy)protoberberin

$C_{19}H_{14}NO_4Cl$ · mp 300 °C
CAS No. 6020-18-4
UN no. 1544 · ADR 6.1 III · WGK 2

Danger H301+H311+H331-H373

Coptisin chloride
ROTICHROM® HPLC

Reference substance for HPLC.
From *Chelidonium majus*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1131.1	10 mg	glass	278,45

Corallin
▸ Aurin see page 758

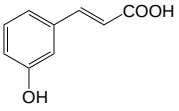
Corn starch
▸ Starch from corn see page 1339

Cosbiol
▸ Squalane see page 1305

Coulometric Karl Fischer solutions

▸ Karl Fischer Reagents ROTI®Hydroquant for coulometry see page 1027

m-Coumaric acid



trans-m-Hydroxycinnamic acid

$C_9H_8O_3$ · mp 193 to 195 °C
CAS No. 14755-02-3 · EC no. 209-615-0
WGK 1

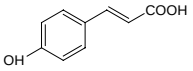
Warning H315-H319-H335

m-Coumaric acid
ROTICHROM® CHR ≥98 %

Type analysis
Assay (GC) ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
9904.1	5 g	glass	74,75

p-Coumaric acid



trans-p-Hydroxycinnamic acid

$C_9H_8O_3$ · mp 215 to 220 °C
CAS No. 7400-08-0 · EC no. 231-000-0
WGK 1

Warning H315-H319-H335

p-Coumaric acid
≥98 %

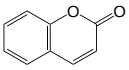
Type analysis
Appearance ..... light yellow powder
Assay ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
9908.1	10 g	glass	49,35
9908.2	50 g	glass	149,45

p-Coumaric acid
ROTICHROM® CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
9906.1	1 g	glass	23,55

Coumarin



α-Benzopyrone · 5,6-Benzo-2-pyrone

$C_9H_6O_2$ · D 0,935 g/cm³ · mp 69 °C · bp 298 °C · flp 162 °C
CAS No. 91-64-5 · EC no. 202-086-7
UN no. 2811 · ADR 6.1 III · WGK 1

Danger H301-H412

Coumarin
ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
5284.1	1 g	glass	128,50

Coumarins

Art. No.	Description	Page
8889	Bergamottin, ROTICHROM®, HPLC	772
1217	Bergamottin, ROTICHROM®, TLC	772
8899	Bergaptene, ROTICHROM® CHR, ≥97 %	772
7006	Bergaptene, ROTICHROM®, HPLC	772
5284	Coumarin, ROTICHROM®, GC	852
6618	Daphnetin, ROTICHROM®, ~CHR$_{TLC}$	863
8690	Esculetin, ≥98 %, for biochemistry	914
8704	Esculin sesquihydrate, ≥97,5 %, DAB, for biochemistry	914
9364	Fraxin, ROTICHROM®, HPLC	949
7734	Herniarin, ROTICHROM® CHR, ≥98 %	980
8854	Isopimpinellin, ROTICHROM®, HPLC	1022
5883	Isoscopoletin, ROTICHROM®, CHR$_{TLC}$	1024
7415	Psoralen, ROTICHROM®, HPLC	1190
7210	Scopoletin, ROTICHROM® CHR, ≥98 %	1254
5437	Umbelliferone, ROTICHROM® CHR, ≥96 %, for biochemistry	1390
2827	Umckalin, ROTICHROM®, HPLC	1390
5497	Xanthotoxin, ≥98 %	1405

Coupling Reagents

Art. No.	Description	Page
2131	*O*-(7-Azabenzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium hexafluorophosphate (HATU), PEPTIPURE®	758
2168	Benzotriazole-1-yl-oxy-tris-(dimethylamino)-phosphonium hexafluorophosphate (BOP), PEPTIPURE®	770
2178	Benzotriazole-1-yl-oxy-tris-pyrrolidino-phosphonium hexafluorophosphate (PyBOP®), PEPTIPURE®	770
2132	*O*-(Benzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium hexafluorophosphate (HBTU), PEPTIPURE®	770
2140	*O*-(Benzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium tetrafluoroborate (TBTU), PEPTIPURE®	770
2200	Bromo-tris-pyrrolidino-phosphonium hexafluorophosphate (PyBroP®), PEPTIPURE®	792
6992	1,1'-Carbonyldiimidazole (CDI), PEPTIPURE®	816
2112	*O*-(1*H*-6-Chlorobenzotriazole-1-yl)-*N*,*N*,*N*',*N*'-tetramethyl-uronium hexafluorophosphate (HCTU), PEPTIPURE®	831
6893	4-((6-Chloro-1*H*-benzo{d}[1,2,3]triazol-1-yloxy)(dimethylamino)methylene) morpholin-4-ium hexafluorophosphate (HDMC), PEPTIPURE®	831
2123	6-Chloro-benzotriazole-1-yl-oxy-tris-pyrrolidinophosphonium hexafluorophosphate (PyClock®), PEPTIPURE®	831
6890	*O*-(6-Chlorobenzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium tetrafluoroborate (TCTU), PEPTIPURE®	831
2100	1-[(1-(Cyano-2-ethoxy-2-oxoethylideneaminooxy) dimethylaminomorpholino)] uronium hexafluorophosphate (COMU®), PEPTIPURE®	856
4193	*N*,*N*'-Dicyclohexylcarbodiimide (DCC), PEPTIPURE®	876
6981	*N*,*N*'-Diisopropylcarbodiimide (DIC), PEPTIPURE®	884
6888	1-[(Dimethylamino)(morpholino)methylene]-1*H*-[1,2,3]triazolo[4,5-b]pyridine-1-ium 3-oxide hexafluorophosphate (HDMA), PEPTIPURE®	886
6988	4-(Dimethylamino)pyridine (DMAP), PEPTIPURE®	886
2110	*N*,*N*'-Disuccinimidyl carbonate (DSC), PEPTIPURE®	894
6891	Ethyl cyanoglyxylate-2-oxyme potassium salt (K-Oxyma), PEPTIPURE®	920
2120	(Ethylcyano(hydroxyimino)-acetato-O$_2$)tri-1-pyrrolidinyl-phosphonium hexafluorophosphate (PyOxim), PEPTIPURE®	920
2156	1-Ethyl-3-(3-dimethylamino-propyl)carbodiimide hydrochloride (EDC-HCl), PEPTIPURE®	921
2118	Ethyl(hydroxyimino) cyanoacetate (Oxyma Pure), PEPTIPURE®	925
2130	*O*-(*N*-Succinimidyl)-*N*,*N*,*N*',*N*'-tetramethyluronium tetrafluoroborate (TSTU), PEPTIPURE®	1343

CPC

▸ Cetylpyridinium chloride monohydrate (CPC) see page 826

CPG support

▸ Adenosine-CPG-Support see page 708
▸ Guanosine-CPG-Support see page 972
▸ Thymidine-CPG-Support see page 1367
▸ Cytidine-CPG-Support see page 861

CPG-Supports for DNA-Synthesis

Art. No.	Description	Page
2318	Adenosine-CPG-Support	708
2319	Cytidine-CPG-Support	861
2320	Guanosine-CPG-Support	973

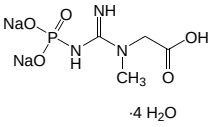
Art. No.	Description	Page
2321	Thymidine-CPG-Support	1367

CPLP Broth
▸ TAT Broth (Base) see page 1355

CPME
▸ Cyclopentyl methyl ether see page 859

Cream of tartar
▸ Potassium hydrogen tartrate see page 1175

Creatine phosphate disodium salt tetrahydrate



$C_4H_8N_3Na_2O_5P \cdot 4\ H_2O$
CAS No. 71519-72-7 · EC no. 213-074-6
WGK 1

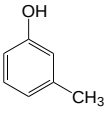
Creatine phosphate disodium salt tetrahydrate
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance .. white to almost white cryst. powder
Assay (titr.) ..... ≥98,0 %
Appearance of solution (20 %, H_2O) .... colourless
Water (KF) ..... 21-26 %

Art. No.	Pack Qty.	Pack.	€
8459.1	1 g	glass	24,65
8459.2	5 g	glass	70,85
8459.3	10 g	glass	117,20

m-Cresol



3-Methylphenol

C_7H_8O · D 1,03 g/cm³ · mp 11,8 °C · bp 202 °C · flp 86 °C
CAS No. 108-39-4 · EC no. 203-577-9
UN no. 2076 · ADR 6.1 (8) II · WGK 2

Danger H301+H311-H314

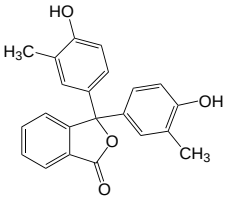
m-Cresol
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,0 %
Density (d 20 °C/4 °C) 1,031-1,037

Art. No.	Pack Qty.	Pack.	€
9269.2	250 ml	glass	49,35
9269.7	1 l	glass	142,45
Original pack 6 x 1 l			135,33/1 l

o-Cresolphthalein complexone
▸ Metal phthaleine see page 1076

o-Cresolphthaleine



3,3'-Dimethylphenolphthaleine

o-Cresolphthaleine
pure

Inidcator pH 8.2-9.8, alternative for Phenolphthaleine

Dissolve 0.1 g in 100 ml ethanol

$C_{22}H_{18}O_4$ · mp 219 to 221 °C

CAS No. 596-27-0 · EC no. 209-881-8

WGK 1

Type analysis
Appearance .... white to light yellow to light brown powder
Absorption max. (NaOH 0,1 mol/l) .... 565-569 nm
pH-transition range ..... 8,2 (colourless) - 9,8 (red violet)
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
1LAC.1	5 g	glass	11,30
1LAC.2	25 g	glass	46,15
1LAC.3	100 g	glass	114,50

o-Cresolphthaleine indicator solution
0,1 % in Ethanol, denatured

Inidcator pH 8.2-9.8, alternative for Phenolphthaleine

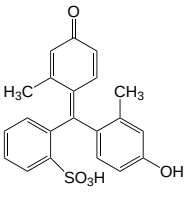
$C_{22}H_{18}O_4$ · D 0,88 g/cm³ · bp 78 °C · flp 13 °C

UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

Art. No.	Pack Qty.	Pack.	€
1LAE.1	250 ml	plastic	85,90

m-Cresol purple



2',2''-Dimethylphenolsulfonphthalein · MCP · *m*-Cresolsulfonphthalein

$C_{21}H_{18}O_5S$
CAS No. 2303-01-7 · EC no. 218-960-6
WGK 1

m-Cresol purple
p.a.

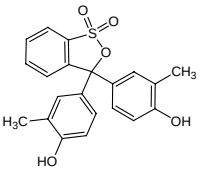
Indicator pH 1.2-2.8 and pH 7.4-9.0

Dissolve 0.04 g in 100 ml ethanol (20 %) or 0.04 g in 1.05 ml NaOH 0.1 mol/l and make up to 100 ml with water

Type analysis
Appearance ..... green powder
Assay ..... ≥90,0 %
pH-transition range ..... 7,4 (yellow)-9,0 (purple)
Maximum absorption ..... ~579 nm

Art. No.	Pack Qty.	Pack.	€
5160.1	1 g	glass	17,10
5160.2	5 g	glass	46,80
5160.3	10 g	glass	82,25

o-Cresol red



$C_{21}H_{18}O_5S$ · mp >300 °C
CAS No. 1733-12-6 · EC no. 217-064-2
WGK 1

o-Cresol red
p.a.

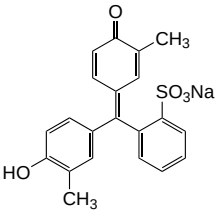
Indicator pH 0,2-1,8 and pH 7,0-8,8

Dissolve 0.1 g in 100 ml ethanol (20 %) or 0.04 g in 1.05 ml NaOH 0.1 mol/l and make up to 100 ml with water

Guarantee analysis
Appearance ..... green to dark red to dark brown powder
Maximum absorption ..... 568-576 nm
Transition range ..... 7,0 (orange) - 8,8 (purple)

Art. No.	Pack Qty.	Pack.	€
KK15.1	5 g	glass	23,55
KK15.2	10 g	glass	39,70
KK15.3	25 g	glass	80,10

Cresol red sodium salt



o-Cresolsulfonephthaleine sodium salt

$C_{21}H_{17}O_5SNa$ · mp 250 °C
CAS No. 62625-29-0 · EC no. 263-654-8
WGK 1

Cresol red sodium salt
p.a.

Indicator pH 0,2-1,8 and pH 7,0-8,8

Dissolve 0.1 g in 100 ml of water

Type analysis
Absorption peak (0,001 % in 0,01 N NaOH) ..... 568 nm-576 nm
pH-transition range ..... 7,0 (yellow)-8,8 (purple)

Art. No.	Pack Qty.	Pack.	€
5534.1	5 g	plastic	40,75
5534.2	25 g	plastic	163,95

o-Cresolsulfonephthaleine sodium salt

▸ Cresol red sodium salt see page 853

m-Cresolsulfonphthalein

▸ *m*-Cresol purple see page 853

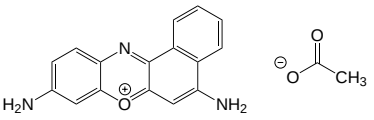
3,4-Cresotic acid

▸ 3-Hydroxy-4-methylbenzoic acid see page 1000

Cresyl echt violet

▸ Cresyl violet acetate see page 854

Cresyl violet acetate



Cresyl echt violet · Cresyl fast violet

$C_{18}H_{15}N_3O_3$ · mp 140 to 145 °C
CAS No. 10510-54-0
WGK 1

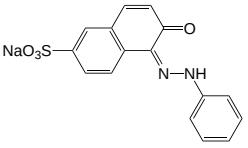
Cresyl violet acetate
p.a.

Used as 1% solution in water.

Type analysis
Appearance ... dark green to almost black powder
Absorption max. (50 % C_2H_5OH) ..... 596-599 nm

Art. No.	Pack Qty.	Pack.	€
7651.1	5 g	glass	92,35
7651.2	10 g	glass	166,65
7651.3	25 g	glass	360,15

Crocein orange G (C.I. 15970)



Acid orange 12 · Ponceau 4G

$C_{16}H_{11}N_2NaO_4S$ · mp >280 °C
CAS No. 1934-20-9 · EC no. 217-697-4
WGK 1

Crocein orange G (C.I. 15970)
for microscopy

Type analysis
Appearance ..... red orange to orange powder
Appearance of solution ..... clear, orange
Dye content ..... ≥70 %
Absorption max. (1 % H_2O) ..... ≥457

Art. No.	Pack Qty.	Pack.	€
7652.1	5 g	glass	18,85
7652.2	25 g	glass	33,25
7652.3	100 g	glass	80,55

Cronobacter chromogenic Agar

Enterobacter sakazakii Chromogenic Agar

WGK 1

EUH208

Cronobacter chromogenic Agar
ISO 22964:2017, for microbiology

Selective medium for detection of *Cronobacter* (formerly *Enterobacter*) *sakazakii* in milk powder and powdered infant formulae.

Application: Use 30.7 g for 1 l agar.

Storage temperature: +4 °C

Guarantee analysis
Casein peptone (Pancreas hydrolysate) ..... 7 g/l
Sodium chloride ..... 5 g/l
Yeast extract ..... 3 g/l
Sodium deoxycholate ..... 0,25 g/l
Chromogene Mixture ..... 0,15 g/l
Sodium thiosulphate 1g/l
Ammonium iron(III) citrate ..... 1 g/l
Agar ..... 15 g/l
pH value ..... 7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
2997.1	100 g	plastic	295,65

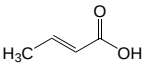
Crotaline

▸ Monocrotaline see page 1093

Crotonaldehyde

▸ 2-Butenal see page 797

Crotonic acid



trans-Crotonic acid · (E)-2-Butenoic acid · (E)-β-Methylacrylic acid

$C_4H_6O_2$ · D 1,018 g/cm³ · mp 71,5 to 71,7 °C · bp 185 °C · flp 88 °C
CAS No. 107-93-7 · EC no. 203-533-9
UN no. 2823 · ADR 8 III · WGK 1

Danger H318

Crotonic acid
≥99 %, for biochemistry

Appearance ..... white, flat scurfs
Assay (GC) ..... ≥99,0 %
cis-Crotonic acid (GC) ..... ≤0,3 %
Colour (APHA) ..... ≤10
Melting range ..... 70-73 °C
Water content ..... ≤0,6 %

Art. No.	Pack Qty.	Pack.	€
1HHN.1	100 g	plastic	16,70
1HHN.2	500 g	plastic	46,15
Original pack 6 x 500 g			43,84/500 g
1HHN.3	1 kg	plastic	80,55
Original pack 6 x 1 kg			76,52/1 kg
1HHN.4	2.5 kg	plastic	181,70

trans-Crotonic acid

▸ Crotonic acid see page 854

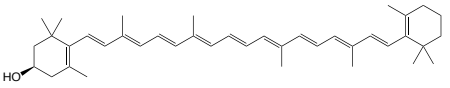
Cryolite

▸ Sodium hexafluoroaluminate see page 1284

Cryospray

▸ Solidofix® Cryo spray see page 1299

β-Cryptoxanthin



β-β-Carotene-3-ol

$C_{40}H_{56}O$ · mp 159 to 165 °C
CAS No. 472-70-8
WGK 1

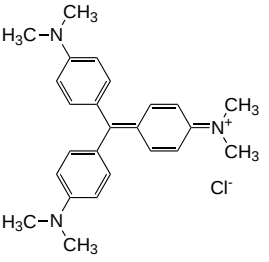
β-Cryptoxanthin
ROTICHROM® CHR$_{TLC}$

Reference substance for thin layer chromatography.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
5675.1	1 mg	glass	364,45

Crystal violet (C.I. 42555)



Gentian violet · Hexamethylene pararosaniline chloride · Methyl violet 10B

$C_{25}H_{30}ClN_3$ · D 1,19 g/cm³ · mp 198 to 250 °C · bp 631,9 °C · flp 405,1 °C
CAS No. 548-62-9 · EC no. 208-953-6
UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H318-H351-H410

Crystal violet (C.I. 42555)
p.a.

Indicator pH 0.0-2.0

Dissolve 0.1 g in 100 ml of ethanol (70 %)

Type analysis
pH-transition range .. 0,0 (yellow)-2,0 (blue violet)
Assay (spectrophotometric) ..... ≥90,0 %
Loss on drying (110 °C) ..... ≤7,5 %

Art. No.	Pack Qty.	Pack.	€
T123.2	5 g	glass	22,05
T123.1	25 g	glass	36,05
T123.3	100 g	glass	87,65

Crystal violet solution

▸ Neisser's solution II see page 1101

CSB Determination

Art. No.	Description	Page
P728	Ammonium iron(II) sulphate hexahydrate, ≥99 %, p.a., ISO	738
KK60	Ammonium iron(II) sulphate solution, 0,12 mol/l – 0,12 N, volumetric standard solution, for COD determination	738
T131	Ferroin indicator solution, for sewage analysis, for COD determination	934
T112	Mercury(II) sulphate, ≥98 %, p.a., ACS	1075
X871	Mercury(II) sulphate solution 80 g/l, 0,02 mol $K_2Cr_2O_7$/l, volumetric standard solution, potassium dichromate in sulphuric acid, for COD determination	1075
P720	Potassium dichromate solution, 0,02 mol/l – 0,12 N, volumetric standard solution, for COD determination	1170
P721	Potassium dichromate solution, 1/24 mol/l – 0,25 N, volumetric standard solution, for COD determination	1170
X870	Silver sulphate solution, 10 g/l in sulphuric acid, for COD determination	1274
4623	Sulphuric acid, ROTIPURAN®, 96 %, p.a., ISO	1347

CTAB

▸ Cetyltrimethylammonium bromide (CTAB) see page 827

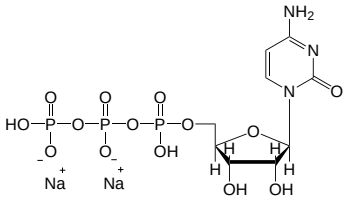
CTC resin

▸ 2-Chlorotrityl chloride resin see page 834

CTM

▸ Cetrimide Agar (Base) see page 826

CTP



Cytidine-5'-triphosphate disodium salt

$C_9H_{14}N_3O_{14}P_3Na_2 \cdot 3\,H_2O$
CAS No. 36051-68-0
WGK 1

CTP

≥98 %, lyophilized

for molecular biology and biochemistry

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
K057.1	100 mg	plastic	75,80
K057.4	1 g	plastic	303,70
K057.5	10 g	plastic	1.192,20

CTP solution

Cytidine-5'-triphosphate

$C_9H_{13}N_3O_{14}P_3 \cdot D\ 1\ g/cm^3$
CAS No. 6757-06-8 · EC no. 252-849-3
WGK 1

CTP solution

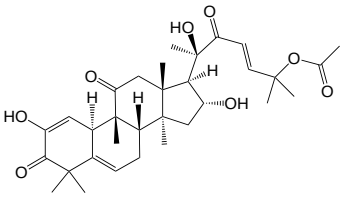
≥99 %, 100 mM solution

for molecular biology

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
K048.1	250 µl	plastic	52,60

Cucurbitacin E



α-Elaterin

$C_{32}H_{44}O_8 \cdot$ mp 234 to 237 °C
CAS No. 18444-66-1 · EC no. 242-325-2
WGK 1

Warning H302+H312

Cucurbitacin E

ROTICHROM® HPLC

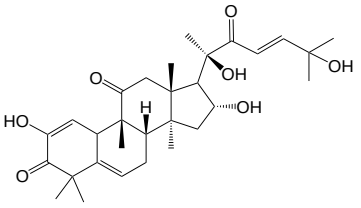
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
9741.1	10 mg	glass	375,20

Cucurbitacin I



Elatericin B

$C_{30}H_{42}O_7 \cdot$ mp 148 to 150 °C
CAS No. 2222-07-3 · EC no. 218-736-8
UN no. 2811 · ADR 6.1 I · WGK 1

Danger H300-H311

Cucurbitacin I

ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
9032.3	10 mg	glass	504,20

Cupric acetate

▸ Copper(II) acetate monohydrate see page 848

Cupric bromide

▸ Copper(II) bromide see page 848

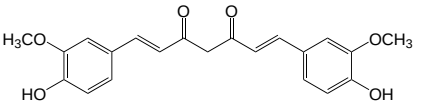
Cupric carbonate

▸ Copper(II) carbonate, basic see page 849

Cuprous chloride

▸ Copper(I) chloride see page 849

Curcumin



Diferuloylmethane

$C_{21}H_{20}O_6 \cdot$ mp 183 °C
CAS No. 458-37-7 · EC no. 207-280-5
WGK 1

Curcumin

≥90 %, natural, powdered, oil-soluble

Dissolve 0.1 g in 100 ml ethanol (96 %)

Storage temperature: +4 °C

Type analysis
Appearance ..... orange coloured powder
Dye content ..... ≥90 %
Arsenic (As) ..... ≤0,0003 %
Lead (Pb) ..... ≤0,0002 %
Intensity of colour E/1%/420 (CH_2Cl_2/EtOH)
..... ≥1450

Produced by extraction from Curcuma longa, followed by purification.

Art. No.	Pack Qty.	Pack.	€
9469.1	10 g	glass	33,90
9469.2	25 g	glass	61,85
9469.3	50 g	glass	101,60

Curcumin

ROTICHROM® HPLC

Reference substance for HPLC.
From *Curcuma longa*.

Storage temperature: +4 °C

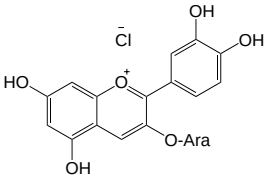
Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1132.1	20 mg	glass	461,20

Cyanide Standards

▸ Cyanide IC Standard Solution see page 1334
▸ Cyanide IC Standard Solution see page 1334

Cyanidin 3-arabinoside chloride



$C_{20}H_{19}O_{10}Cl$
CAS No. 57186-11-5
WGK 1

Cyanidin 3-arabinoside chloride
ROTICHROM® HPLC

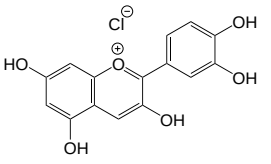
Reference substance for HPLC.
From *Aronia melanocarpa.*

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
0641.1	10 mg	glass	493,45

Cyanidin chloride



$C_{15}H_{11}O_6Cl$ · mp >300 °C
CAS No. 528-58-5 · EC no. 208-438-6
WGK 1

Cyanidin chloride
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥96 %

Art. No.	Pack Qty.	Pack.	€
4545.1	10 mg	glass	252,65

Cyanidin-3,5-diglucoside chloride

▸ Cyanin chloride see page 856

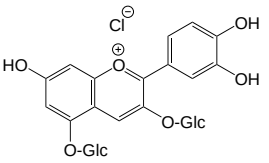
Cyanidin-3-galactoside chloride

▸ Idaein chloride see page 1004

Cyanidin-3-*O*-glucoside

▸ Kuromanin chloride see page 1031

Cyanin chloride



Cyanidin-3,5-diglucoside chloride

$C_{27}H_{31}O_{16}Cl$ · mp 150 °C
CAS No. 2611-67-8 · EC no. 220-034-1
WGK 1

Cyanin chloride
ROTICHROM® HPLC

Reference substance for HPLC.
From *Rosa centifolia.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1133.1	20 mg	glass	295,65

Cyanin chloride
ROTICHROM® TLC

Reference substance for thin layer chromatography.
From *Rosa centifolia.*

Storage temperature: +4 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
5568.1	25 mg	glass	68,30
5568.2	50 mg	glass	121,40
5568.3	100 mg	glass	213,95

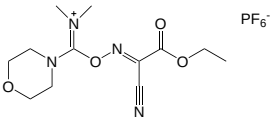
p-Cyanoaniline

▸ 4-Aminobenzonitrile see page 726

Cyanocobalamin

▸ Vitamin B_{12} see page 1396

1-[(1-(Cyano-2-ethoxy-2-oxoethylideneaminooxy) dimethylaminomorpholino)] uronium hexafluorophosphate (COMU®)



COMU®

$C_{12}H_{19}F_6N_4O_4P$
CAS No. 1075198-30-9
WGK 1

Warning H315-H319-H335

1-[(1-(Cyano-2-ethoxy-2-oxoethylideneaminooxy) dimethylaminomorpholino)] uronium hexafluorophosphate (COMU®)
PEPTIPURE® ≥99 %

Coupling reagent for peptide synthesis

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥99,0 %
Loss on drying ..... ≤0,5 %
Solubility (10 % in DMF) ..... clearly soluble

Art. No.	Pack Qty.	Pack.	€
2100.1	5 g	glass	46,15
2100.2	25 g	glass	166,65
2100.3	100 g	glass	525,70

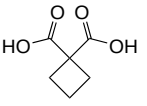
Cyanomethane

▸ Acetonitrile see page 697

3-Cyano-1-nitrobenzene

▸ 3-Nitrobenzonitrile see page 1110

Cyclobutane-1,1-dicarboxylic acid



$C_6H_8O_4$ · mp 156 to 158 °C
CAS No. 5445-51-2 · EC no. 226-651-2
UN no. 3261 · ADR 8 II · WGK 1

Danger H314

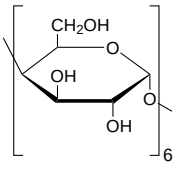
Cyclobutane-1,1-dicarboxylic acid
≥98 %

Storage temperature: +4 °C

Type analysis
Assay (titr.) ..... ≥98,0 %
Solution (5 % in H_2O) ..... colourless, clear
Water (KF) ..... ≤0,5 %
Melting point ..... 155-159 °C

Art. No.	Pack Qty.	Pack.	€
5451.1	5 g	plastic	46,80
5451.2	25 g	plastic	162,90

α-Cyclodextrin



$C_{36}H_{60}O_{30}$ · mp 275 °C
CAS No. 10016-20-3 · EC no. 233-007-4
WGK 1

Warning H319

α-Cyclodextrin
≥98 %, for biochemistry

Type analysis
Assay (HPLC) ..... ≥98,0 %
Solution (10 % in water) ..... colourless to slightly yellow
Loss on drying (3 h, 105 °C, vacuum) .... ≤12,5 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in H_2O) +143° to +153°

Art. No.	Pack Qty.	Pack.	€
4122.1	5 g	glass	28,95
4122.2	25 g	glass	89,15
4122.3	50 g	plastic	149,45

Cyclo(Gly-Gly)
▸ Glycine anhydride see page 968

Cyclohexane



Hexahydrobenzene

C_6H_{12} · D 0,78 g/cm³ · mp 6 to 7 °C · bp 80 to 81 °C · flp -20 °C
CAS No. 110-82-7 · EC no. 203-806-2
UN no. 1145 · ADR 3 II · WGK 2

 **Danger** H225-H304-H315-H336-H410

Cyclohexane
ROTISOLV® HPLC

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,01 %
Free acid ..... ≤0,001 %
Non volatile matter ..... ≤0,0005 %

Transmission:
255 nm ..... ≥99 %
240 nm ..... ≥90 %
215 nm ..... ≥35 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
7333.2	1 l	glass	65,50
Original pack 6 x 1 l			62,23/1 l
7333.1	2.5 l	glass	118,80
Original pack 4 x 2.5 l			112,86/2.5 l

Cyclohexane
ROTISOLV® ≥99,9 %, GC Ultra Grade

For gaschromatographic residue analysis.

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,01 %
Free acid (as CH_3COOH) ..... ≤0,001 %
Evaporation residue ..... ≤0,0001 %
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD pesticides (as lindane) ..... ≤3 ng/l
GC/NPD pesticides (as parathion) ..... ≤5 ng/l
PAH-test (less than 2 ppb, HPLC) ..... complies

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
KK41.1	2.5 l	glass	117,75
Original pack 4 x 2.5 l			111,86/2.5 l

Cyclohexane
ROTISOLV® Pestilyse® plus ≥99,9 %

For determination of dioxins, furans, PCBs, pesticides, hydrocarbons etc.

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,005 %
Free acid (as CH_3COOH) ..... ≤0,001 %
Evaporation residue ..... ≤0,0001 %
GC/FID suitability (as 2-octanol) ..... ≤10 ng/ml
GC/ECD suitability (as heptachloro epoxide) ..... ≤10 ng/l
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD pesticides (as lindane) ..... ≤2 ng/l
GC/NPD pesticides (as parathion) ..... ≤5 ng/l
GC/ECD volatile impurities (as ethylene dibromide) ..... ≤5 ng/ml
Oil index (any hydrocarbon C_{10}-C_{40}) ..... ≤0,1 mg/l
PAH-test (less than 2 ppb, HPLC) ..... complies

Fluorescence (as quinine):
254 nm ..... ≤1 ppb
365 nm ..... ≤1 ppb

Art. No.	Pack Qty.	Pack.	€
7542.1	2.5 l	glass	118,80
Original pack 4 x 2.5 l			112,86/2.5 l

Cyclohexane
ROTISOLV® Pestilyse® ≥99,5 %

For residue and environmental analysis.

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Water (KF) ..... ≤0,02 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0001 %
GC/ECD (individual signal as lindane) ..... ≤5 ng/l
GC/PND (individual signal as ethylparathion) ..... ≤10 ng/l

Art. No.	Pack Qty.	Pack.	€
T163.2	1 l	glass	46,15
Original pack 6 x 1 l			43,84/1 l
T163.1	2.5 l	glass	101,60
Original pack 4 x 2.5 l			96,52/2.5 l
T163.3	4 l	glass	134,95

Cyclohexane
ROTISOLV® ≥99,9 %, UV/IR Grade

For chromatography and spectroscopy.

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,01 %
Colour (Hazen) ..... ≤10
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

Fluorescence (as quinine):
254 nm ..... ≤1,0 ppb
365 nm ..... ≤1,0 ppb

Transmission:
250 nm ..... ≥98 %
240 nm ..... ≥90 %
232 nm ..... ≥80 %
223 nm ..... ≥50 %
208 nm ..... ≥10 %

Art. No.	Pack Qty.	Pack.	€
CP81.1	2.5 l	glass	112,80
Original pack 4 x 2.5 l			107,16/2.5 l

Cyclohexane
ROTIPURAN® ≥99,5 %, p.a., ACS, ISO

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Colour (APHA) ..... ≤10
Density (d 20 °C/4 °C) 0,776-0,780
Water ..... ≤0,01 %
Acidity ..... ≤0,0003 meq/g
Melting point ..... >6,0 °C
Matter discoloured by H_2SO_4 ..... complies
$KMnO_4$ reducing substances (as O) ..... complies
Aromatic compounds (as benzene) ..... ≤0,01 %
Sulphur compounds (as S) ..... ≤0,002 %
Evaporation residue ..... ≤0,001 %
Cyclohexene (GC) ..... ≤0,01 %
Cyclopentane (GC) ..... ≤0,05 %
Methyl cyclohexane (GC) ..... ≤0,05 %
Thiophene ..... complies
Lead (Pb) ..... ≤0,00001 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %

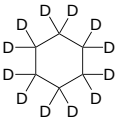
Art. No.	Pack Qty.	Pack.	€
6886.1	1 l	glass	75,15
Original pack 6 x 1 l			71,39/1 l
6886.2	2.5 l	glass	149,45
Original pack 4 x 2.5 l			141,98/2.5 l
6886.3	5 l	aluminium	256,95
Original pack 2 x 5 l			244,10/5 l
6886.4	10 l	tinplate	428,95
6886.5	25 l	tinplate	854,65

Cyclohexane
≥99,5 %, for synthesis

Type analysis
Appearance ..... clear, colourless liquid
Assay (GC) ..... ≥99,5 %
Density (15 °C) ..... 0,775-0,784 g/cm³
Refractive index n_D^{20} 1,425-1,427

Art. No.	Pack Qty.	Pack.	€
6570.1	1 l	glass	30,00
Original pack 6 x 1 l			28,50/1 l
6570.3	2.5 l	glass	45,05
Original pack 4 x 2.5 l			42,80/2.5 l
6570.5	5 l	aluminium	76,25
Original pack 2 x 5 l			72,44/5 l
6570.2	10 l	tinplate	127,95
6570.4	25 l	tinplate	256,95

Cyclohexane D12



C_6D_{12} · D 0,89 g/cm³ · mp 6 to 7 °C · bp 79 to 81 °C · flp -18 °C
CAS No. 1735-17-7 · EC no. 217-077-3
UN no. 1145 · ADR 3 II · WGK 3

 **Danger** H225-H304-H315-H336-H410

Cyclohexane D12
99,5 Atom%D

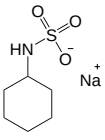
For nuclear magnetic resonance spectroscopy.

Guarantee analysis
Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
5200.1	5 ml	glass	127,95

1,2-Cyclohexane dinitrilo tetraacetic acid
▸ *trans*-1,2-Diaminocyclohexane-*N*,*N*,*N*',*N*'-tetracetic acid monohydrate see page 872

Cyclohexane sulphamic acid sodium salt



Sodium cyclamate

$C_6H_{12}NNaO_3S$ · mp >300 °C
CAS No. 139-05-9 · EC no. 205-348-9
WGK 2

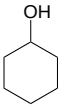
Cyclohexane sulphamic acid sodium salt
≥98,5 %, Ph. Eur., extra pure

Guarantee analysis
Appearance white to off-white crystalline powder
Appearance of solution ..... clear, colourless
Assay (dry substance) ..... 98,5-101,0 %
Identity ..... complies
pH-value (10 % solution) 5,5-7,5
Loss on drying ..... ≤1,0 %
Sulphate (SO_4) ..... ≤0,1 %
Anilin ..... ≤0,0001 %
Cyclohexylamin ..... ≤0,001 %
Dicyclohexylamine ..... ≤0,0001 %
Sulfamic acid ..... ≤0,1 %
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As) ..... ≤0,0001 %
Selenium (Se) ..... ≤0,003 %

Absorbance:
270 nm ..... ≤0,10

Art. No.	Pack Qty.	Pack.	€
8578.1	250 g	plastic	31,10
8578.2	1 kg	plastic	85,90
Original pack 6 x 1 kg			81,61/1 kg

Cyclohexanol



Hexahydrophenol · Hexalin

$C_6H_{12}O$ · D 0,941 g/cm³ · mp 25,4 °C · bp 160,8 °C · flp 64 °C
CAS No. 108-93-0 · EC no. 203-630-6
WGK 1

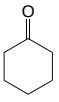
Warning H302+H312+H332-H315-H319-H335-H412

Cyclohexanol
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,0 %
Water (KF) ..... ≤0,2 %
Melting point ..... ≥23,5 °C

Art. No.	Pack Qty.	Pack.	€
7756.1	1 l	glass	37,10
Original pack 6 x 1 l			35,25/1 l
7756.2	2.5 l	glass	70,45
Original pack 4 x 2.5 l			66,93/2.5 l
7756.7	25 l	tinplate	461,20

Cyclohexanone



CAS No. 108-94-1 · EC no. 203-631-1
UN no. 1915 · ADR 3 III · WGK 1

Danger H226-H302+H312+H332-H315-H318

Cyclohexanone
≥99,5 %, extra pure

$C_6H_{10}O$ · D 0,95 g/cm³ · mp -31 °C · bp 154,3 °C · flp 44 °C

Type analysis
Assay (GC) ..... ≥99,5 %
Density (20 °C) ..... 0,943-0,950 g/cm³
Water (KF) ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
CP27.1	1 l	glass	42,90
Original pack 6 x 1 l			40,76/1 l
CP27.2	2.5 l	glass	81,60
Original pack 4 x 2.5 l			77,52/2.5 l
CP27.5	5 l	aluminium	137,10
Original pack 2 x 5 l			130,25/5 l
CP27.3	10 l	tinplate	246,20
CP27.4	25 l	tinplate	450,45

Cyclohexatriene
▸ Benzene see page 767

Cyclohexatriene deuterated
▸ Benzene D6 see page 768

Cyclohexene



1,2,3,4-Tetrahydrobenzene

C_6H_{10} · D 0,81 g/cm³ · mp -103,5 °C · bp 83 °C · flp -12 °C
CAS No. 110-83-8 · EC no. 203-807-8
UN no. 2256 · ADR 3 II · WGK 2

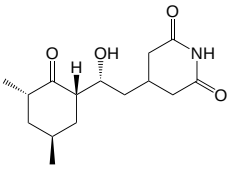
Danger H225-H302-H304-H411

Cyclohexene
≥99 %, for synthesis

Type analysis
Appearance ..... clear, colourless liquid
Assay (GC) ..... ≥99 %
Refractive index n_D^{20} 1,445-1,447
Evaporation residue ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
3451.1	500 ml	glass	93,00

Cycloheximide



Actidione · Naramycin A

$C_{15}H_{23}NO_4$ · mp 112 °C
CAS No. 66-81-9 · EC no. 200-636-0
UN no. 2811 · ADR 6.1 II · WGK 3

Danger H300-H341-H360D-H411

Cycloheximide
≥98 %, for biochemistry

Glutarimid antibiotic, fungicidal

Stock solution: 10 mg/ml in H_2O or acetone.
Storage of stock solution at –20 °C.
Working concentration: 1–10 µg/ml.
Note: Inactivated at basic pH values. Heat- and acid stabile. No inactivation after 15 mins. 95 °C in pH 7.0.

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay (HPLC) ..... ≥98 %
Water (KF) ..... ≤0,5 %
Specific rotation $[\alpha]_D^{20}$ (c=1 % in $CHCl_3$) ..... -32° to -26°
Ash content ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8682.1	1 g	glass	48,30
8682.3	5 g	glass	192,45
8682.4	10 g	glass	338,65

3-*N*-Cyclohexylamino-2-hydroxypropane sulphonic acid sodium salt
▸ CAPSO sodium salt see page 814
▸ CAPSO see page 814

Cyclohexylamino propanesulphonic acid
▸ CAPS see page 814

Cyclohexyl dimethylamine
▸ *N*,*N*-Dimethylcyclohexylamine see page 887

Cyclohexylmethane
▸ Methylcyclohexane see page 1083

Cyclopentane

Pentamethylen

C_5H_{10} · D 0,75 g/cm³ · mp -93,9 °C · bp 49 °C · flp -25 °C
CAS No. 287-92-3 · EC no. 206-016-6
UN no. 1146 · ADR 3 II · WGK 1

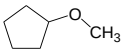
Danger H225-H304-H336-H412-EUH066

Cyclopentane
≥95 %, for synthesis

Type analysis
Assay (GC) ..... ≥95,0 %
Refractive index (20 °C) 1,399-1,409
Density (15 °C) ..... 0,735-0,755 g/cm³

Art. No.	Pack Qty.	Pack.	€
2191.1	500 ml	glass	38,60
2191.2	1 l	glass	62,25
Original pack 6 x 1 l			59,14/1 l
2191.3	2.5 l	glass	106,45
Original pack 4 x 2.5 l			101,13/2.5 l
2191.4	5 l	aluminium	192,45
Original pack 2 x 5 l			182,83/5 l
2191.5	10 l	tinplate	342,95
2191.6	25 l	tinplate	639,65

Cyclopentyl methyl ether



CPME · Methoxycyclopentane

$C_6H_{12}O$ · D 0,86 g/cm³ · mp <-140 °C · bp 107 °C · flp -1 °C
CAS No. 5614-37-9 · EC no. 445-090-6
UN no. 3271 · ADR 3 II · WGK 1

Danger H225-H302-H315-H319

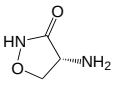
Cyclopentyl methyl ether
SOLVAGREEN® ≥99 %, extra pure

Alternative for diethyl ether, tBME/MTBE, THF.

Type analysis
Assay (GC) ..... ≥99,0 %
Appearance of solution ..... clear
Water ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
7763.1	250 ml	glass	45,05
7763.2	500 ml	glass	78,40
7763.3	1 l	glass	120,95
Original pack 6 x 1 l			114,90/1 l
7763.4	2.5 l	glass	241,90
Original pack 4 x 2.5 l			229,81/2.5 l

D-Cycloserine



D-4-Amino-3-isoxazolidinone · Oxamycin

$C_3H_6N_2O_2$ · mp 147 to 150 °C
CAS No. 68-41-7 · EC no. 200-688-4
WGK 1

D-Cycloserine
≥90 %, for biochemistry

Bacteriostatic antibiotic

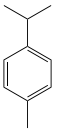
Stock solution: 10–100 mg/ml in H_2O and 96 % ethanol.
Stability of stock solution: Neutral or acidic solutions are unstable. Sodium carbonate buffered solutions (pH 10) may be stored at +4 °C for approx. 7 days without loosing activity.
Recommended storage of stock solution at –20 °C (6 months).
Working concentration: 20–100 µg/ml.
Note: Optimum of activity at pH 6.4–7.4. It is recommended to prepare fresh solutions each time for use.

Storage temperature: +4 °C

Type analysis
Assay ..... ≥90 %
Specific rotation $[\alpha]_D^{20}$ ..... +108° to +114°
Loss on drying ..... ≤1 %

Art. No.	Pack Qty.	Pack.	€
CN37.1	1 g	glass	30,00
CN37.2	5 g	plastic	64,40
CN37.3	10 g	plastic	117,75

p-Cymene



$C_{10}H_{14}$ · D 0,857 g/cm³ · mp <-20 °C · bp 176 to 178 °C
CAS No. 99-87-6 · EC no. 202-796-7
UN no. 2046 · ADR 3 III · WGK 2

Danger H226-H304-H331-H361f-H411

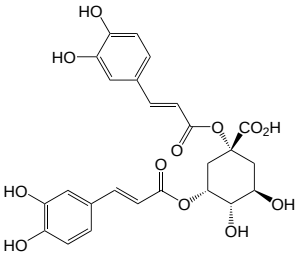
p-Cymene
≥98,5 %

Storage temperature: +4 °C

Type analysis
Appearance ..... clear, almost colourless liquid
Assay (GC) ..... ≥98,5 %

Art. No.	Pack Qty.	Pack.	€
3465.1	500 ml	glass	70,85

Cynarin



1,3-Dicaffeoylquinic acid

$C_{25}H_{24}O_{12}$ · mp 220 to 225 °C
CAS No. 1182-34-9
WGK 1

Cynarin
with analytical records

From *Cyanara scolymus*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Analytical records: HPLC, TLC, ^1H NMR, ^{13}C NMR, UV, IR, MS, melting point.

Art. No.	Pack Qty.	Pack.	€
T892.1	10 mg	glass	532,15

Cynarin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Cyanara scolymus*.

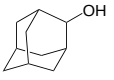
Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
4457.1	10 mg	glass	403,15

8'-Cynnamoylharpagide
▸ Harpagoside see page 974

Cysteamine hydrochloride



2-Mercaptoethylamine hydrochloride

C_2H_7NS · D 0,5 g/cm³ · mp 67 to 71 °C · flp >240 °C
CAS No. 156-57-0 · EC no. 205-858-1

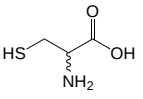
Warning H302-H317-H319

Cysteamine hydrochloride
≥99 %, for biochemistry

Type analysis
Appearance ..... colourless crystals
Assay (dry substance) ..... ≥99,0 %
Identity (IR) ..... complies
Heavy metals ..... ≤0,001 %
Loss on drying ..... ≤3,0 %

Art. No.	Pack Qty.	Pack.	€
7625.1	25 g	glass	34,30
7625.2	100 g	glass	91,30
7625.3	250 g	glass	160,20
7625.8	500 g	glass	278,45
Original pack 6 x 500 g			264,53/500 g

DL-Cysteine



DL-α-Amino-β-mercapto-propionic acid

$C_3H_7NO_2S$ · mp 225 °C
CAS No. 3374-22-9 · EC no. 222-160-2
WGK 1

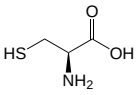
DL-Cysteine
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98,0 %
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8594.1	5 g	plastic	55,80
8594.2	25 g	plastic	138,70
8594.3	100 g	plastic	370,90

L-Cysteine



L-α-Amino-β-mercapto-propionic acid

$C_3H_7NO_2S$ · D 1,496 g/cm³ · mp 220 to 228 °C
CAS No. 52-90-4 · EC no. 200-158-2
WGK 1

Warning H302

L-Cysteine
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤24 E.U./g
Assay ..... ≥99 %
Loss on drying ..... ≤0,5 %
Specific rotation $[\alpha]_D^{20}$ ..... +8,3° to +9,5°
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,04 %
Sulphate (SO_4) ..... ≤0,028 %
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As_2O_3) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %

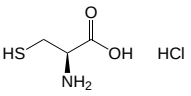
Art. No.	Pack Qty.	Pack.	€
1693.1	25 g	plastic	32,15
1693.2	100 g	plastic	82,25
1693.3	500 g	plastic	352,10
Original pack 6 x 500 g			334,50/500 g

L-Cysteine
≥98 %, for biochemistry

Guarantee analysis
Appearance ..... white, cryst. powder
Appearance of solution ..... clear and colorless
Assay ..... 98,0-101,0 %
Identity ..... complies
pH-value 4,5-5,5
Specific rotation $[\alpha]_D^{20}$ ..... +8,3° to +9,5°
Loss on drying ..... ≤0,5 %
Ash content (as SO_4) ..... ≤0,05 %
Foreign amino acids ..... complies
Chloride (Cl) ..... ≤0,04 %
Sulphate (SO_4) ..... ≤0,028 %
Ammonium (NH_4) ..... ≤0,02 %
Arsenic (As_2O_3) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
3467.1	10 g	glass	19,25
3467.2	50 g	glass	37,55
3467.3	250 g	plastic	138,70

L-Cysteine hydrochloride



$C_3H_7NO_2S$ · HCl · D 1,527 g/cm³ · mp 174,1 to 174,7 °C
CAS No. 52-89-1 · EC no. 200-157-7
WGK 1

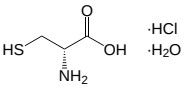
Warning H315-H319-H335

L-Cysteine hydrochloride
≥99 %, p.a., anhydrous

Guarantee analysis
Assay ..... ≥99,0 %
pH-value 1,5-2,0
Heavy metals ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
3468.1	10 g	plastic	19,25
3468.2	50 g	plastic	35,40
3468.3	250 g	plastic	106,45

D-Cysteine hydrochloride monohydrate



D-2-Amino-3-mercaptopropionic acid hydrochloride monohydrate · H-D-Cys-OH · HCl · H_2O

$C_3H_7NO_2S$ · HCl · H_2O · mp 185 °C
CAS No. 32443-99-5 · EC no. 251-043-9
WGK 1

Warning H315-H319-H335

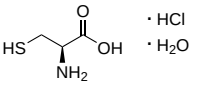
D-Cysteine hydrochloride monohydrate
≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... 98,5-101,0 %
Specific rotation $[\alpha]_D^{20}$ (c=8 in 6 N HCl) ..... -7,0° to -5,5°
Loss on drying ..... 8,0-12,0 %

Art. No.	Pack Qty.	Pack.	€
7874.1	1 g	glass	30,00
7874.2	5 g	plastic	94,10

L-Cysteine hydrochloride monohydrate



L-2-Amino-3-mercaptopropionic acid hydrochloride monohydrate · H-L-Cys-OH · HCl · H_2O

$C_3H_7NO_2S$ · HCl · H_2O · mp 175 to 178 °C
CAS No. 7048-04-6 · EC no. 200-157-7
WGK 1

Warning H315-H319-H335

L-Cysteine hydrochloride monohydrate
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤24 E.U./g
Assay ..... ≥99 %
Loss on drying ..... 8,5-12,0 %
Specific rotation $[\alpha]_D^{20}$ ..... +6,1° to +7,8°
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... 19,89-20,29 %
Sulphate (SO_4) ..... ≤0,02 %
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As_2O_3) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
1694.1	25 g	plastic	23,55
1694.2	100 g	plastic	52,70
1694.3	500 g	plastic	222,00
Original pack 6 x 500 g			210,90/500 g

L-Cysteine hydrochloride monohydrate
≥98,5 %, for biochemistry

Type analysis
Appearance ..... white, cryst. powder
Assay (dry substance) ..... 98,5-101,0 %
Specific rotation $[\alpha]_D^{20}$ ..... +6,0° to +8,0°
pH-value 1,5-2,0
Ammonium (NH_4) ..... ≤0,05 %
Chloride (Cl) ..... 19,89-20,29 %
Sulphate (SO_4) ..... ≤0,02 %
Arsenic (As_2O_3) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %
Heavy metals ..... ≤0,001 %
Sulphated ash ..... ≤0,1 %
Loss on drying ..... 8,6-12,0 %

Art. No.	Pack Qty.	Pack.	€
T203.1	50 g	plastic	32,15
T203.2	100 g	plastic	50,45
T203.3	500 g	plastic	205,90
Original pack 6 x 500 g			195,61/500 g

DL-Cystine

$C_6H_{12}N_2O_4S_2$ · mp 227 °C
CAS No. 923-32-0 · EC no. 213-094-5
WGK 1

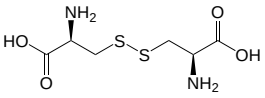
Warning H302

DL-Cystine
≥98,5 %

Type analysis
Appearance ..... white, cryst. powder
Assay ..... ≥98,5 %
Loss on drying ..... ≤0,2 %
Specific rotation $[\alpha]_D^{20}$ ..... -5° to +5°

Art. No.	Pack Qty.	Pack.	€
5565.1	1 g	glass	27,85

L-Cystine



3,3'-Dithio-bis-(2-aminopropionic acid)

$C_6H_{12}N_2O_4S_2$ · D 1,68 g/cm³ · mp 260 to 262 °C
CAS No. 56-89-3 · EC no. 200-296-3
WGK 1

L-Cystine
CELLPURE® ≥98,5 %

For cell culture and biochemistry.

Guarantee analysis

Endotoxins ..... ≤0,5 E.U./mg
Assay ..... ≥98,5 %
Loss on drying ..... ≤0,2 %
Specific rotation $[\alpha]_D^{20}$ ..... -225° to -215°
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,02 %
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As_2O_3) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
1695.1	25 g	plastic	34,30
1695.2	100 g	plastic	88,05
1695.3	500 g	plastic	360,15
Original pack 6 x 500 g			342,14/500 g

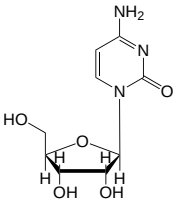
L-Cystine
≥98,5 %, for biochemistry

Type analysis

Appearance ..... white, cryst. powder
Assay ..... ≥98,5 %
pH-value 5,0-6,5
Specific rotation $[\alpha]_D^{20}$ ..... -225° to -215°
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,02 %
Arsenic (As_2O_3) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %
Loss on drying ..... ≤0,2 %
Ash content ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
3471.1	100 g	plastic	78,40
3471.2	500 g	plastic	338,65
Original pack 6 x 500 g			321,72/500 g

Cytidine



Cytosine-1-β-D-ribofuranoside

$C_9H_{13}N_3O_5$ · mp 210 to 220 °C
CAS No. 65-46-3 · EC no. 200-610-9
WGK 1

Cytidine
≥99 %, for biochemistry

Type analysis

Assay (HPLC) ..... ≥99,0 %
Heavy metals ..... ≤0,002 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
0717.1	10 g	plastic	49,35
0717.2	25 g	plastic	96,65

Cytidine-BCE-phosphoramidite

DMT-dC(*N*-Bz)P-(OCH_2CH_2CN)-N($iPr)_2$ · Phosphoramidites · BCE phosphoramidites

$C_{46}H_{52}N_5O_8P$
WGK 1

Cytidine-BCE-phosphoramidite
for DNA synthesis

Thread size 19 mm

Suitable for Polygen®

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
K922.1	1 g	glass	44,65

Cytidine-CPG-Support

dC-lcaa-CPG · CPG support

WGK 1

Cytidine-CPG-Support
500 Å pore size

Support material for DNA-synthesis.

Loading: 30–40 µmol/g

Storage temperature: +4 °C

Type analysis

Purity (HPLC) ..... ≥95,0 %
CPG loading ..... 30-40 µmol/g
Coupling efficiency ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
2319.3	1 g	plastic	74,75

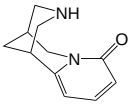
Cytidine-5'-triphosphate

▸ CTP solution see page 855

Cytidine-5'-triphosphate disodium salt

▸ CTP see page 855

Cytisine



$C_{11}H_{14}N_2O$ · mp 154 to 156 °C · bp 218 °C
CAS No. 485-35-8 · EC no. 207-616-0
UN no. 1544 · ADR 6.1 III · WGK 3

Danger H301+H311+H331

Cytisine
ROTICHROM® TLC

Reference substance for thin layer chromatography.
From *Laburnum anagyroides*.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
5615.1	25 mg	glass	134,40

Cytochrome C

mp >300 °C
CAS No. 9007-43-6 · EC no. 232-700-9
WGK 1

Cytochrome C
≥90 %, for biochemistry

Iron porphyrin protein complex from horse heart.

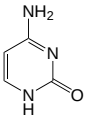
Storage temperature: +4 °C

Type analysis

Assay ..... ≥90 %
pH value 5,0-7,0
Water ..... <6,0 %

Art. No.	Pack Qty.	Pack.	€
6301.2	50 mg	glass	85,90
6301.3	100 mg	glass	160,20
6301.1	250 mg	glass	332,20

Cytosine



$C_4H_5N_3O$ · D 0,33 g/cm³ · mp 322,5 °C
CAS No. 71-30-7 · EC no. 200-749-5
WGK 1

Cytosine
≥99 %, for biochemistry

Type analysis

Appearance white to off-white crystalline powder
Assay (HPLC) ..... ≥99 %
Heavy metals ..... ≤0,001 %
Loss on drying ..... ≤0,5 %
Residue on ignition ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
7295.1	5 g	glass	39,70
7295.2	25 g	plastic	93,00
7295.3	100 g	plastic	246,20

Cytosine-1-β-D-ribofuranoside

▸ Cytidine see page 861

DAB

▸ 3,3'-Diaminobenzidine tetrahydrochloride see page 871

DABCO®



1,4-Diazabicyclo[2.2.2]octane · Triethylendiamine

$C_6H_{12}N_2$ · D 1,14 g/cm³ · mp 155 to 158 °C · bp 174 to 176 °C · flp 62 °C
CAS No. 280-57-9 · EC no. 205-999-9
UN no. 1325 · ADR 4.1 II · WGK 1

Danger H228-H302-H315-H318

DABCO®
≥99 %

Anti–bleaching reagent in histology.

Type analysis
Appearance ..... white to almost white crystals
Assay ..... ≥99,0 %
Water ..... ≤0,5 %

Solubility may change depending on the batch. If required stir solution constantly overnight at a temperature of 40–60 °C.

Art. No.	Pack Qty.	Pack.	€
0718.1	25 g	glass	25,70
0718.2	50 g	glass	45,05
0718.7	250 g	glass	127,95
0718.9	500 g	glass	220,40
Original pack 6 x 500 g			209,38/500 g

DAB Metal Enhancer

Enhancer solution · Metal enhancer

D 1 g/cm³
WGK 2

Danger H317-H334-H341-H350-H360D-H372-H412

DAB Metal Enhancer
ready-to-use, for immunochemistry

For enhancement of HRP signals on blot membranes and slides.

One bottle of 100 ml is sufficient for enhancement of approx. 10 minigel blots or 100 slides.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
RNAse ..... complies
DNAse ..... complies

Art. No.	Pack Qty.	Pack.	€
9204.1	100 ml	plastic	120,95

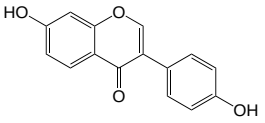
DAB substrate kit

▸ ROTI®DAB Kit see page 1215

Dactinomycine

▸ Actinomycin D see page 706

Daidzein



$C_{15}H_{10}O_4$ · mp 323 °C
CAS No. 486-66-8 · EC no. 207-635-4
WGK 1

Warning H315-H319

Daidzein
ROTICHROM® HPLC

Type analysis
Purity (HPLC) ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
6047.2	20 mg	glass	203,20

Dammar

D 1,04 to 1,12 g/cm³ · mp 150 °C
CAS No. 9000-16-2 · EC no. 232-528-4
WGK 1

Dammar
bright

Type analysis
Melting point ..... ≤150 °C
Acid value ..... ≤35
Colour number (Gardner) ..... ≤5
Total ash ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6615.1	1 kg	plastic	42,90
Original pack 6 x 1 kg			40,76/1 kg

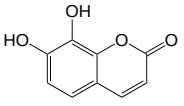
Dansyl chloride

▸ 5-(Dimethylamino)-1-naphthalenesulphonyl chloride see page 886

DAP · HCl

▸ DL-2,3-Diaminopropionic acid hydrochloride see page 872

Daphnetin



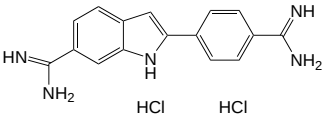
7,8-Dihydroxycoumarin

$C_9H_6O_4$ · mp 254 to 257 °C
CAS No. 486-35-1 · EC no. 207-632-8
WGK 1

Daphnetin
ROTICHROM® ~CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
6618.1	10 mg	glass	306,40

DAPI



4',6-Diamidino-2-phenylindole dihydrochloride

$C_{16}H_{17}Cl_2N_5$ · mp 330 °C
CAS No. 28718-90-3 · EC no. 249-186-7
WGK 1

DAPI
≥98 %, p.a.

For DNA-staining.

Stock solution: 1 to 10 mg/ml in sterile water. Store in the dark! Stabile for one year when solubilised, stored at –20 °C, and protected from light.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Guarantee analysis
Appearance ..... yellow powder
Assay (HPLC) ..... ≥98 %
Solubility (10 mg/ml in H_2O) ..... clear

Art. No.	Pack Qty.	Pack.	€
6335.1	25 mg	glass	112,90
6335.2	100 mg	glass	327,90

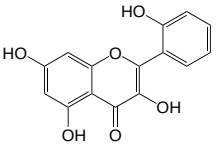
DAPI
≥98 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6843.1	10 mg	glass	46,15
6843.2	25 mg	glass	85,90
6843.3	100 mg	glass	252,65

Datiscetin



2',3,5,7-Tetrahydroxyflavone

$C_{15}H_{10}O_6$ · mp 278 to 284 °C
CAS No. 480-15-9 · EC no. 207-541-3
WGK 1

Datiscetin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7444.1	10 mg	glass	299,95

dATP solution

2'-Deoxyadenosine-5'-triphosphate

$C_{10}H_{13}N_5O_{12}P_3$ · mp 0 °C · bp 100 °C
CAS No. 74299-50-6 · EC no. 277-809-2
WGK 1

dATP solution
≥99 %, 100 mM solution

for molecular biology, biochemistry and cell analysis

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
K035.1	250 µl	plastic	42,90

DBE
▸ Dibasic ester see page 873

DBU
▸ 1,8-Diazabicyclo[5.4.0]undec-7-ene (DBU) see page 873

DCC
▸ *N*,*N*'-Dicyclohexylcarbodiimide (DCC) see page 876

DCM
▸ Dichloromethane see page 875

DCPIP
▸ 2,6-Dichlorophenol-indophenol sodium salt hydrate see page 876

dCTP solution

2'-Deoxycytidine-5'-triphosphate tetrasodium salt

$C_9H_{13}N_3O_{13}P_3$ · mp 0 °C · bp 100 °C
WGK 1

dCTP solution
≥99 %, 100 mM solution

for molecular biology

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
K038.1	250 µl	plastic	42,90

DDM
▸ Dodecyl-β-D-maltoside (DDM) see page 899

DEA
▸ Diethylamine see page 877

DEAE Dextran

Diethylaminoethyldextran

CAS No. 9013-34-7
WGK 1

DEAE Dextran
for biochemistry

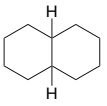
Transfection reagent

Type analysis
Appearance ..... white to creamcoloured powder
Loss on drying ..... ≤10 %
pH value (5 % in water) 5,0-7,0
Nitrogen content (N) ..... 3,0-3,8 %
Sulphated ash ..... ≤2 %
Free DEAE-Cl ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
4198.1	25 g	plastic	73,00
4198.2	100 g	plastic	238,15

DEC
▸ Diethyl carbonate see page 877

Decahydronaphthalene



Decalin® (mixture of *cis* and *trans* isomers)

$C_{10}H_{18}$ · D 0,88 g/cm³ · mp -40 °C · bp 185 to 195 °C · flp 57 °C
CAS No. 91-17-8 · EC no. 202-046-9
UN no. 1147 · ADR 3 III · WGK 2

Danger H226-H304-H314-H331-H411

Decahydronaphthalene
≥98 %, for synthesis

Type analysis
Assay (GC) ..... ≥98,0 %
Water (KF) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4438.1	1 l	glass	40,35
Original pack 6 x 1 l			38,33/1 l
4438.3	2.5 l	glass	77,30
Original pack 4 x 2.5 l			73,44/2.5 l
4438.4	5 l	aluminium	134,40
Original pack 2 x 5 l			127,68/5 l
4438.2	10 l	tinplate	252,65

Decalcifier

Decalcifier soft
SOLVAGREEN® ready-to-use, for histology

Decalcifier solution on base of EDTA.
Used for gentle decalcification of bones and other calcified tissues. The solution is also suitable for immunological applications.

D 1,1 g/cm³

UN no. 1824 · ADR 8 III · WGK 2

Danger H290-H314-H373

Not a medical device / Not an IVD product

Type analysis
Appearance ..... clear, colourless
pH (20 °C) 7-9

Art. No.	Pack Qty.	Pack.	€
6484.1	500 ml	glass	32,80
6484.2	1 l	glass	49,35
Original pack 6 x 1 l			46,88/1 l
6484.3	2.5 l	plastic	81,60
Original pack 4 x 2.5 l			77,52/2.5 l
6484.4	5 l	plastic	145,15
Original pack 2 x 5 l			137,89/5 l

Decalcifier standard
ready-to-use, for histology

Acid-based decalcifier. Contains trichloracetic acid and formalin.
Used for acid decalcification of bones and other calcified tissues.

D 1 g/cm³ · bp 100 °C

UN no. 3265 · ADR 8 III · WGK 3

Danger H314-H335-H350-H411-EUH208

Not a medical device / Not an IVD product

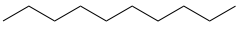
Type analysis
Appearance ..... clear, colourless
pH (20 °C) ..... 0,9 ±0,3

Art. No.	Pack Qty.	Pack.	€
6483.1	500 ml	glass	31,75
6483.2	1 l	glass	46,80
Original pack 6 x 1 l			44,46/1 l
6483.3	2.5 l	plastic	75,80
Original pack 4 x 2.5 l			72,01/2.5 l
6483.4	5 l	plastic	134,40
Original pack 2 x 5 l			127,68/5 l

Decalin® (mixture of *cis* and *trans* isomers)
▸ Decahydronaphthalene see page 864

Decanal
▸ Capric aldehyde see page 813

n-Decane



$C_{10}H_{22}$ · D 0,732 g/cm³ · mp -27 °C · bp ≥174 to ≤180 °C · flp 57,4 °C
CAS No. 124-18-5 · EC no. 204-686-4
UN no. 2247 · ADR 3 III · WGK 1

Danger H226-H304-EUH066

n-Decane
≥99 %, for synthesis

Type analysis
Appearance ..... clear, colorless solution
Assay (GC) ..... ≥99,0 %
Density (15 °C) 0,7330-0,7370

Art. No.	Pack Qty.	Pack.	€
3475.1	100 ml	glass	33,90
3475.2	500 ml	glass	88,70
3475.3	1 l	glass	155,90
Original pack 6 x 1 l			148,11/1 l
3475.4	2.5 l	glass	321,45
Original pack 4 x 2.5 l			305,38/2.5 l

Decane-1-sulphonic acid sodium salt



Sodium-1-decane sulphonate

$C_{10}H_{21}NaO_3S$ · mp >300 °C
CAS No. 13419-61-9 · EC no. 236-525-9
WGK 1

Decane-1-sulphonic acid sodium salt
≥99 %, for ion pair chromatography

Ion pair reagent for HPLC.

Guarantee analysis
Assay (acidim.) ..... ≥99,0 %
Water ..... ≤1 %

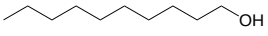
Absorbance:
A 210 nm (0,2 M in water) ..... ≤0,05 AU
A 220 nm (0,2 M in water) ..... ≤0,03 AU
A 230 nm (0,2 M in water) ..... ≤0,02 AU
A 260 nm (0,2 M in water) ..... ≤0,02 AU

Art. No.	Pack Qty.	Pack.	€
KK51.1	10 g	glass	64,40
KK51.2	25 g	glass	126,35
KK51.3	100 g	glass	370,90

Decanoic acid
▸ Capric acid see page 813

Decanoic acid methyl ester
▸ Capric acid methyl ester see page 813

1-Decanol



Capric alcohol · Decyl alcohol

$C_{10}H_{22}O$ · D 0,83 g/cm³ · mp 6 °C · bp 229 °C · flp 107 °C
CAS No. 112-30-1 · EC no. 203-956-9
UN no. 3082 · ADR 9 III · WGK 1

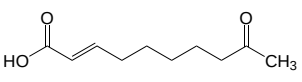
Warning H315-H319-H411

1-Decanol
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,0 %
Density (d 20 °C/4 °C) 0,829-0,830

Art. No.	Pack Qty.	Pack.	€
4151.1	1 l	glass	69,80
Original pack 6 x 1 l			66,31/1 l

9-oxo-2(E)-Decenoic acid



$C_{10}H_{16}O_3$
CAS No. 334-20-3
WGK 1

Warning H315-H319

9-oxo-2(E)-Decenoic acid
ROTICHROM® GC

Reference substance for GC

Storage temperature: –20 °C
Transport temperature: cooled

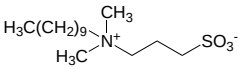
Type analysis
Purity (GC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
0766.1	25 mg	glass	2.418,75

Decontamination solution
▸ RNase AWAY® see page 1208
▸ DNA AWAY® see page 896
▸ ROTI®Nucleic Acid-free see page 1231
▸ ROTI®Nucleic Acid-free see page 1231

Decyl alcohol
▸ 1-Decanol see page 865

N-Decyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate



SB-10 · Sulfobetaine-10

$C_{15}H_{33}NO_3S$ · mp >217 °C
CAS No. 15163-36-7
WGK 1

Warning H315-H319-H335

N-Decyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate
≥98 %, for biochemistry

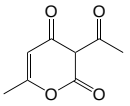
Zwitterionic detergent

Guarantee analysis
Assay (HPLC) ..... ≥98,0 %
Loss on drying ..... ≤2,0 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
1816.1	5 g	glass	62,25
1816.2	25 g	glass	166,65

Defoamer
▸ Silicone anti-foaming emulsion see page 1266

Dehydracetic acid



$C_8H_8O_4$ · mp 109 to 111 °C · bp 270 °C · flp 157 °C
CAS No. 520-45-6 · EC no. 208-293-9
WGK 1

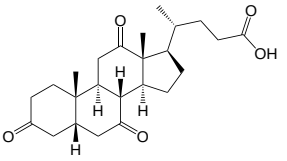
Warning H302

Dehydracetic acid
≥99 %

Type analysis
Assay ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7548.1	100 g	plastic	80,55

Dehydrocholic acid



$C_{24}H_{34}O_5$ · mp 242,3 °C · bp 350 °C
CAS No. 81-23-2 · EC no. 201-335-7
WGK 1

Dehydrocholic acid
≥99 %, for biochemistry

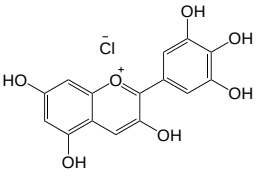
Storage temperature: +4 °C

Type analysis
Assay ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
8139.1	25 g	plastic	64,40
8139.2	100 g	plastic	181,70

Delafields hematoxylin solution
▸ Hematoxylin solution acc. to Delafield see page 977

Delphinidin chloride



$C_{15}H_{11}O_7Cl$
CAS No. 528-53-0 · EC no. 208-437-0
WGK 1

Delphinidin chloride
ROTICHROM® HPLC

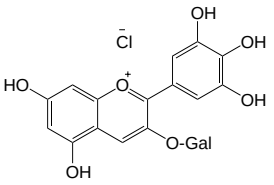
Reference substance for HPLC.
From *Vaccinium myrtillus* or *Vitis vinifera*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
4537.1	10 mg	plastic	332,20

Delphinidin 3-galactoside chloride



Empetrin

$C_{21}H_{21}O_{12}Cl$ · mp 150 °C
CAS No. 28500-00-7
WGK 1

Delphinidin 3-galactoside chloride
ROTICHROM® HPLC

Reference substance for HPLC.
From *Vaccinium myrtillus*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

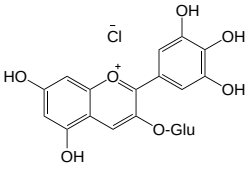
Type analysis
Purity (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
0643.1	10 mg	glass	514,95

Delphinidin 3-glucorhamnoside

▸ Delphinidin 3-rutinoside chloride
see page 866

Delphinidin 3-glucoside chloride



Myrtillin

$C_{21}H_{21}O_{12}Cl$ · mp 150 °C
CAS No. 6906-38-3
WGK 1

Delphinidin 3-glucoside chloride
ROTICHROM® HPLC

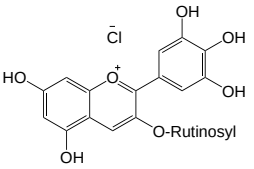
Reference substance for HPLC.
From *Vaccinium myrtillus* or *Vitis vinifera*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
0644.1	10 mg	glass	439,70

Delphinidin 3-rutinoside chloride



Delphinidin 3-glucorhamnoside · Tulipanin

$C_{27}H_{31}O_{16}Cl$ · mp 150 °C
CAS No. 15674-58-5
WGK 1

Delphinidin 3-rutinoside chloride
ROTICHROM® HPLC

Reference substance for HPLC.
From *Ribes nigrum*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
0977.1	20 mg	glass	456,90

D/E Neutralisation buffer

D 1,039 g/cm³ · mp ~0 °C · bp ~100 °C
WGK 1

D/E Neutralisation buffer
for microbiology

For detection and enumeration of micro-organisms from a sanitized environment.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Bromocresol purple ..... 0,02 g/l
Tryptone ..... 5 g/l
Dextrose ..... 10 g/l
Yeast extract ..... 2,5 g/l
Sodium thioglycolate ..... 1 g/l
Sodium thiosulphate ..... 6 g/l
Sodium bisulfite ..... 2,5 g/l
Lecithin ..... 7 g/l
Polysorbate 80 ..... 5 g/l
pH value (25 °C) 7,4-7,8

Art. No.	Pack Qty.	Pack.	€
1L8A.1	1 l	glass	76,90
Original pack 6 x 1 l			73,06/1 l

D/E Neutralizing Agar

Dey-Engley Agar

WGK 1

⚠ **Warning** H317-EUH031

D/E Neutralizing Agar
for microbiology

For detection and enumeration of micro-organisms from a sanitized environment.

Application: Use 54 g for 1 l agar.

Storage temperature: +4 °C
Transport temperature: ambient temp.

Composition
Dextrose ..... 10 g/l
Lecithin ..... 7 g/l
Sodium thiosulphate ..... 6 g/l
Casein peptone ..... 5 g/l
Polysorbate 80 ..... 5 g/l
Yeast extract ..... 2,5 g/l
Sodium bisulfite ..... 2,5 g/l
Sodium thioglycolate ..... 1 g/l
Bromocresol purple ..... 0,02 g/l
Agar ..... 15 g/l
pH value ..... 7,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
8850.1	500 g	plastic	163,95
Original pack 6 x 500 g			155,75/500 g

Denhardt's solution, lyophilised powder (50x)

WGK 1

Denhardt's solution, lyophilised powder
50x, BioScience Grade, for molecular biology

Blocking reagent for hybridisation and stripping.

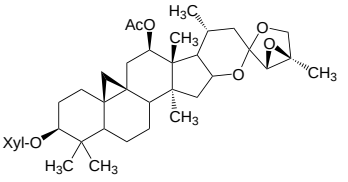
The bottle contains powder mix for 50 ml 50x stock solution. Add 48,8 ml water to gain exactly 50 ml stock solution. Sterilise stock solution by filtration (0,2 µm) and store in aliquots of 10 ml at –20 °C .

Storage temperature: +4 °C

Type analysis
Albumin Fraction V ..... 0,5 g
Ficoll 400 ..... 0,5 g
Polyvinylpyrrolidone K30 ..... 0,5 g
pH-value (stock solution in water) ..... 6,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
HP33.1	50 ml	plastic	112,35

27-Deoxyactein



$C_{37}H_{56}O_{10}$ · mp 250 °C
CAS No. 264624-38-6
WGK 1

27-Deoxyactein
ROTICHROM® HPLC

Reference substance for HPLC.
From *Cimicifuga racemosa*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1134.1	5 mg	glass	514,95

2'-Deoxyadenosine-5'-triphosphate

▸ dATP solution see page 864

2-Deoxy-D-arabinohexose

▸ 2-Deoxy-D-glucose see page 867

Deoxycholate Citrate Agar

Agar medium J (Ph. Eur. 6.0)

WGK 3

Deoxycholate Citrate Agar
for microbiology

For highly selective isolation of enteric pathogenes, particularly *Salmonella* and *Shigella*.

Application: Use 70 g for 1 l agar.

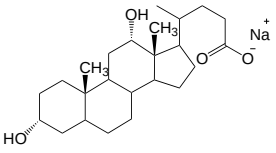
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis

Beef extract ..... 10 g/l
Meat peptone ..... 10 g/l
Lactose monohydrate ..... 10 g/l
Sodium citrate ..... 20 g/l
Iron(III) citrate ..... 1 g/l
Sodium deoxycholate ..... 5 g/l
Neutral red ..... 0,02 g/l
Agar ..... 13,5 g/l
pH value ..... 7,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE44.1	500 g	plastic	137,10
Original pack 6 x 500 g			130,25/500 g
AE44.2	1 kg	plastic	235,45
Original pack 6 x 1 kg			223,68/1 kg

Deoxycholic acid sodium salt (DOC)



DOC · Sodium deoxycholate

$C_{24}H_{39}NaO_4$ · mp 357 to 365 °C
CAS No. 302-95-4 · EC no. 206-132-7
WGK 1

Warning H302

Deoxycholic acid sodium salt (DOC)
≥98 %, for biochemistry

Anionic detergent

Storage temperature: +4 °C

Type analysis

Appearance ..... white to almost white powder
Assay (titr.) ..... 98,0-101,0 %
pH value (5 % in H_2O) 7,2-9,5
Specific rotation$[\alpha]_D^{20}$ (c=2 in ethanol, dry substance) ..... +43° to +45°
Heavy metals ..... ≤0,002 %
Sodium cholate ..... ≤1,0 %
Loss on drying (105 °C) ..... ≤5 %

Art. No.	Pack Qty.	Pack.	€
3484.1	10 g	plastic	32,15
3484.2	50 g	plastic	110,20
3484.3	100 g	plastic	198,90

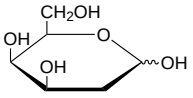
2'-Deoxycytidine-5'-triphosphate tetrasodium salt

▸ dCTP solution see page 864

2-Deoxy-D-erythropentose

▸ 2-Deoxy-D-ribose see page 867

2-Deoxy-D-galactose



2-Deoxy-D-lyxohexose

$C_6H_{12}O_5$ · mp 107 to 108 °C
CAS No. 1949-89-9 · EC no. 217-765-3
WGK 1

2-Deoxy-D-galactose
≥99 %, for biochemistry

Type analysis

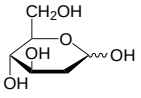
Assay (GC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
9916.1	250 mg	glass	31,10
9916.2	1 g	glass	63,45
9916.3	5 g	glass	241,90

6-Deoxy-L-galactose

▸ L(–)-Fucose see page 950

2-Deoxy-D-glucose



2-Deoxy-D-arabinohexose

$C_6H_{12}O_5$ · mp 146 to 147 °C
CAS No. 154-17-6 · EC no. 205-823-0
WGK 1

2-Deoxy-D-glucose
≥98 %, for biochemistry

Type analysis

Assay ..... ≥98 %
Water (KF) ..... ≤1,0 %
Specific rotation $[\alpha]_D^{20}$ (c=1, H_2O, after 24 h) .. +44° to +48°
Ash content ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
CN96.1	50 mg	glass	21,40
CN96.2	1 g	glass	52,70
CN96.3	5 g	glass	181,70

2'-Deoxyguanosine-5'-triphosphate tetrasodium salt

▸ dGTP solution see page 871

2'-Deoxyinosine-5'-triphosphate tetrasodium salt

▸ dITP solution see page 895

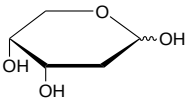
2-Deoxy-D-lyxohexose

▸ 2-Deoxy-D-galactose see page 867

Deoxyribonucleic acid sodium salt

▸ Salmon Sperm DNA sodium salt see page 1250

2-Deoxy-D-ribose



2-Deoxy-D-erythropentose · Thyminose

$C_5H_{10}O_4$ · mp 85 °C
CAS No. 533-67-5 · EC no. 208-573-0
WGK 1

2-Deoxy-D-ribose
≥99 %, for biochemistry

Type analysis

Assay ..... ≥99 %
pH value 6,0-8,0
Water ..... ≤1,0 %
Specific rotation $[\alpha]_D^{20}$ ..... -58° to -55°
Heavy metals ..... ≤0,002 %
Sulphated ash ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
CN97.1	5 g	glass	53,65
CN97.2	10 g	glass	91,30
CN97.3	25 g	glass	192,45

2'-Deoxythymidine

▸ Thymidine see page 1367

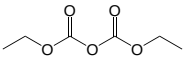
2'-Deoxythymidine-5'-triphosphate tetrasodium salt

▸ dTTP solution see page 902

2'-Deoxyuridine-5'-triphosphate tetrasodium salt

▸ dUTP solution see page 903

DEPC



Diethyl dicarbonate · Diethyl pyrocarbonate

$C_6H_{10}O_5$ · D 1,12 g/cm³ · bp 160 to 163 °C · flp 69 °C
CAS No. 1609-47-8 · EC no. 216-542-8
WGK 1

Warning H302-H315-H319-H335

DEPC
≥97 %, for biochemistry and molecular biology

Application: 0,1 % DEPC over night under agitation. Autoclave.

Storage temperature: +4 °C

Type analysis
Appearance ..... clear liquid
Assay (titr.) ..... ≥97,0 %

Art. No.	Pack Qty.	Pack.	€
K028.3	5 ml	glass	26,35
K028.1	25 ml	glass	80,55

Derivatization reagents

Art. No.	Description	Page
2328	γ-Aminopropyltriethoxysilane (APTES)	730
2330	*N*,*O*-Bis(trimethylsilyl) acetamide (BSA)	778
2331	*N*,*O*-Bis(trimethylsilyl)-trifluoroacetamide	778
9935	*N*,*O*-Bis(trimethylsilyl)-trifluoroacetamide with 1 % trimethylchlorosilane	778
6870	*N*,*N*-Dimethylformamide dimethyl acetal (DMF-DMA)	888
0026	Heptafluorobutyric acid anhydride (HFBA)	978
3840	1,1,1,3,3,3-Hexamethyldisilazane (HMDS)	982
9933	*N*-Methyl-*N*-(trimethylsilyl)-trifluoroacetamide (MSTFA)	1089
8007	*N*-Methyl-*N*-(trimethylsilyl)-trifluoroacetamide (MSTFA)	1090
0027	Trifluoroacetic anhydride (TFAA)	1379
2338	Trimethylchlorosilane (TMCS), PEPTIPURE®	1380
0013	*N*-(Trimethylsilyl)-diethylamine (TMSDEA)	1380
0012	*N*-(Trimethylsilyl)-imidazole (TSIM)	1381
9934	Trimethylsulfonium hydroxide in methanol	1381

Desiccant Sachets Silica Gel Orange

▸ Silica gel Orange – Desiccant Sachet see page 1265

Deoxynucleoside triphosphate set

▸ dNTP-Set see page 898

DETA

▸ Diethylene triamine see page 878

Detergents

Art. No.	Description	Page
CN21	Brij® 35	785
CN27	Cetylpyridinium chloride monohydrate (CPC)	826
9161	Cetyltrimethylammonium bromide (CTAB)	827
1479	CHAPS, PUFFERAN®	827
HN73	CHAPSO, PUFFERAN®	827
4128	Chenodeoxycholic acid	828
3407	Cholic acid sodium salt	835
1816	*N*-Decyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate	865
3484	Deoxycholic acid sodium salt (DOC)	867
HN76	Digitonin	880
4005	Digitonin	880
1821	*N*-Dodecyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate	899
4129	*n*-Dodecyl-β-D-glucopyranoside	899
CN26	Dodecyl-β-D-maltoside (DDM)	900
0982	Ecosurf™ SA-9	904
1823	*N*-Hexadecyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate	981
CN25	Lithiumdodecyl sulphate (LDS)	1047
1800	*N*-Octyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate	1119
CN23	*n*-Octyl-β-D-glucopyranoside (OGP)	1119
4139	*n*-Octyl-β-D-thioglucopyranoside	1119
1057	ROTI®Stock 20 % SDS	1242
0183	SDS	1254
2326	SDS ultra pure	1254
4360	SDS / Sodium lauryl sulphate	1254
5136	SDS / Sodium lauryl sulphate	1254
8029	SDS pellets	1254
CN30	SDS pellets	1254
9426	Span® 80	1304
9975	Tergitol™ 15-S-9	1357
1822	*N*-Tetradecyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate	1360
7452	Tetradecyltrimethylammonium bromide (MTAB)	1361
9127	Tween® 20	1388
8240	Tween® 40	1388
9694	Tween® 60	1388
9139	Tween® 80	1389
4859	Tween® 80	1389

Deuterated Compounds

Art. No.	Description	Page
9902	Acetic acid D1, 99 Atom%D	692
HN83	Acetic acid D4, 99,5 Atom%D	692
1K3E	Acetone D6, 100 Atom%D	697
AE51	Acetone D6, 99,8 Atom%D	697
7909	Acetone D6, 99,5 Atom%D	697
1K3H	Acetonitrile D3, 100 Atom%D	700
7911	Acetonitrile D3, 99,8 Atom%D	700
AE52	Acetonitrile D3, 99,5 Atom%D	700
1L34	Acetyl chloride D3, 99 Atom%D	701
9903	Ammonia-D3 solution 25 % in D_2O, 99 Atom%D	732
7912	Benzene D6, 99,8 Atom%D	768
AE53	Benzene D6, 99,5 Atom%D	768
1L36	Biphenyl D10, 99 Atom%D	775
HN93	Bromobenzene D5, 99,5 Atom%D	787
9905	Chlorobenzene D5, 99 Atom%D	830
5200	Cyclohexane D12, 99,5 Atom%D	858
HN80	Deuterium chloride 38 % solution in D_2O, 99,5 Atom%D	869
1K3L	Deuterium chloride 20 % solution in D_2O, 99,5 Atom%D	869
HN81	Deuterium oxide, 100 Atom%D	869
6672	Deuterium oxide, 99,9 Atom%D	869
HN82	1,2-Dichlorobenzene D4, 99 Atom%D	874
1L37	1,4-Dichlorobenzene D4, 98 Atom%D	874
7913	Dichloromethane D2, 99,8 Atom%D	876
AE55	Dichloromethane D2, 99,5 Atom%D	876
9907	Diethyl ether D10, 99 Atom%D	879
1L38	Dimethyl carbonate D6, 99,5 Atom%D	887
CP92	*N*,*N*-Dimethylformamide D7, 99,5 Atom%D	888
1K3K	Dimethyl sulphoxide D6, 100 Atom%D	890
7915	Dimethyl sulphoxide D6, 99,9 Atom%D	890
AE56	Dimethyl sulphoxide D6, 99,8 Atom%D	890
7916	Dimethyl sulphoxide D6 with TMS (0.03 vol.%), 99,9 Atom%D	890
AE60	Dimethyl sulphoxide D6 with TMS (0.03 vol.%), 99,8 Atom%D	890
HN84	Ethanol D1, 99,5 Atom%D	918
CP93	Ethanol D6, 99 Atom%D	918
1L35	Formic acid D 95 % solution in D_2O, 98 Atom%D	948
HN92	Formic acid D2 95 % solution in D_2O, 98 Atom%D	948
9909	1,1,1,3,3,3-Hexafluoro-2-propanol D2 (HFIP-D2), 99 Atom%D	982
HN88	Iodomethane D3, 99,5 Atom%D, stabilised with Cu	1012
HN86	Methanol D1, 99,5 Atom%D	1080
9910	Methanol D3, 99,5 Atom%D	1080
7918	Methanol D4, 100 Atom%D	1080
AE57	Methanol D4, 99,8 Atom%D	1080
7919	Methanol D4 with TMS (0.03 vol.%), 99,8 Atom%D	1080
9913	Methylcyclohexane D14, 99,5 Atom%D	1083
9914	Nitrobenzene D5, 99,5 Atom%D	1110
HN91	Nitromethane D3, 99 Atom%D	1111
1L3A	Phenylboronic acid D5, 98 Atom%D	1152
9915	*ortho*-Phosphoric acid D3, 85 % solution in D_2O, 99 Atom%D	1156
9917	2-Propanol D1, 98 Atom%D	1187
9919	2-Propanol D8, 99,5 Atom%D	1187
7922	Pyridine D5, 99,8 Atom%D	1191
CP94	Pyridine D5, 99,5 Atom%D	1191
HN89	Sodium borodeuteride, 98 Atom%D	1278
1K3N	Sodium deuterium oxide 40 % solution in D_2O, 99,5 Atom%D	1281
HN90	Sodium deuterium oxide 30 % solution in D_2O, 99,5 Atom%D	1281
1L39	Sodium formate D, 99,5 Atom%D	1284
9921	Styrene D8, 99 Atom%D, stabilised with 4-*tert*-butylcatechol	1342
HN87	Sulphuric acid D2 98 % solution in D_2O, 99,5 Atom%D	1350
CP96	1,1,2,2-Tetrachloroethane D2, 99,5 Atom%D	1360
AE58	Tetrahydrofuran D8, 99,5 Atom%D	1362
7924	Toluene D8, 99,8 Atom%D	1373
CP95	Toluene D8, 99,5 Atom%D	1374
CP91	Trichloromethane/Chloroform D1, 100 Atom%D	1378
7903	Trichloromethane/Chloroform D1, 99,8 Atom%D	1378
AE54	Trichloromethane/Chloroform D1, 99,8 Atom%D, stabilised with Ag	1378
7905	Trichloromethane/Chloroform D1 with TMS (0.03 vol.%), 99,8 Atom%D	1378

Art. No.	Description	Page
AE59	Trichloromethane/Chloroform D1 with TMS (0.03 vol.%), 99,8 Atom%D, stabilised with Ag	1378
CP97	Trifluoroacetic acid D, 99,5 Atom%D	1379
9922	3-(Trimethylsilyl)-propionic-2,2,3,3 acid sodium salt D4 (TSP-D4), 99 Atom%D	1381

Deuterium chloride solution in D_2O

CAS No. 7698-05-7 · EC no. 231-715-8
UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Deuterium chloride 38 % solution in D_2O
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

DCl + D_2O · D 1,26 g/cm³ · mp -50 °C · bp 108 °C

Guarantee analysis
Deuterising degree ..... ≥99,5 %
Assay (mass %) ..... ≥38 %

Art. No.	Pack Qty.	Pack.	€
HN80.1	10 ml	glass	67,65

Deuterium chloride 20 % solution in D_2O
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

DCl + D_2O · D 1,2 g/cm³

Guarantee analysis
Deuterising degree ..... ≥99,5 %
Assay (mass %) ..... ≥20 %

Art. No.	Pack Qty.	Pack.	€
1K3L.1	25 ml	glass	153,20

Deuterium oxide

Heavy water · Water D2

D_2O · D 1,104 g/cm³ · mp 3,8 °C · bp 101 to 102 °C
CAS No. 7789-20-0 · EC no. 232-148-9

Deuterium oxide
100 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging for HN81.3: 10 x 0,75 ml in ampoules

Guarantee analysis
Deuterising degree ..... ≥99,95 %
Assay ..... ≤370 Bq/g Tritium

Art. No.	Pack Qty.	Pack.	€
HN81.3	7.5 ml	glass ampoule	67,65
HN81.1	10 ml	glass	63,35
HN81.4	10 ml	septum bottle	66,55
HN81.2	50 ml	glass	213,95

Deuterium oxide
99,9 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging for 6672.6: 10 x 0,75 ml in ampoules

Type analysis
Deuterising degree ..... ≥99,9 %

Art. No.	Pack Qty.	Pack.	€
6672.6	7.5 ml	glass ampoule	53,65
6672.1	10 ml	glass	45,05
6672.5	10 ml	septum bottle	48,30
6672.2	25 ml	glass	77,30
6672.3	100 ml	glass	235,45
6672.4	500 ml	glass	1.106,20
6672.7	1 l	glass	2.105,95
Original pack 6 x 1 l			2.000,65/1 l

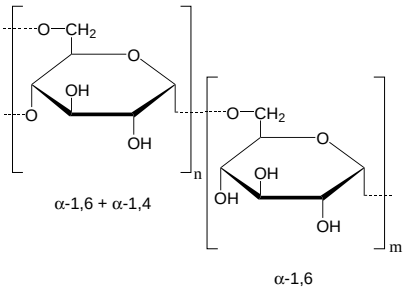
Deuterochloroform

▸ Trichloromethane/Chloroform D1 see page 1378

Deuterotrifluoroacetic acid

▸ Trifluoroacetic acid D see page 1379

Dextran 2.5



α-1,6 + α-1,4

α-1,6

$(C_6H_{10}O_5)_n$
CAS No. 9004-54-0 · EC no. 232-677-5
WGK 2

Dextran 2.5
for biochemistry

M ~2500 g/mol

Type analysis
Appearance ..... white to slightly off-white powder
pH value 4,5-7,0
Specific rotation $[\alpha]_D^{20}$ ..... ≥+140°
Ash ..... ≤2,0 %
Loss on drying ..... ≤10,0 %

Art. No.	Pack Qty.	Pack.	€
8718.1	10 g	plastic	37,10
8718.2	100 g	plastic	149,45
8718.3	500 g	plastic	557,95
Original pack 6 x 500 g			530,05/500 g

Dextran 6
for biochemistry

M ~6000 g/mol

Type analysis
Appearance ..... white to slightly off-white powder
pH value 4,5-7,0
Specific rotation $[\alpha]_D^{20}$ ..... ≥ +148°
Ash ..... ≤2,0 %
Loss on drying ..... ≤7,0 %

Art. No.	Pack Qty.	Pack.	€
7615.1	10 g	plastic	20,35
7615.2	100 g	plastic	75,15
7615.3	500 g	plastic	310,70
Original pack 6 x 500 g			295,17/500 g

Dextran 10
for biochemistry

M ~10000 g/mol

Type analysis
Appearance ..... white to slightly off-white powder
pH value 4,5-7,0
Specific rotation $[\alpha]_D^{20}$ ..... ≥ +148°
Ash ..... ≤2,0 %
Loss on drying ..... ≤8,0 %

Art. No.	Pack Qty.	Pack.	€
7616.1	10 g	plastic	21,40
7616.2	100 g	plastic	106,45
7616.3	500 g	plastic	439,70
Original pack 6 x 500 g			417,72/500 g

Dextran 20
for biochemistry

M ~20000 g/mol

Type analysis
Appearance ..... white to slightly off-white powder
pH value 4,5-7,0
Specific rotation $[\alpha]_D^{20}$ ..... ≥ +148°
Ash ..... ≤2,0 %
Loss on drying ..... ≤7,0 %

Art. No.	Pack Qty.	Pack.	€
7617.1	10 g	plastic	23,15
7617.2	100 g	plastic	134,40
7617.3	500 g	plastic	557,95
Original pack 6 x 500 g			530,05/500 g

Dextran 35
for biochemistry

M ~35000 g/mol

Type analysis
Appearance ..... white powder
Molecular mass 30000-40000
pH-value 4,5-7,0
Sulphate (SO_4) ..... <0,03 %
Chloride (Cl) ..... <0,01 %
Nitrogen (N) ..... <0,01 %
Alcohol ..... <0,5 %
Specific rotation $[\alpha]_D^{20}$ ..... +192° to +200°
Ash content ..... <0,1 %
Loss on drying ..... <10,0 %

Art. No.	Pack Qty.	Pack.	€
8943.2	10 g	plastic	19,25
8943.1	50 g	plastic	57,95
8943.3	100 g	plastic	96,65

Dextran 40
for biochemistry

M ~40000 g/mol

Type analysis
Appearance ..... white to off-white powder
Molecular mass 35000-45000
pH value (10 % solution) 4,5-7,0
Optical rotation ..... +195° to +201°
Loss on drying ..... ≤7,0 %

Art. No.	Pack Qty.	Pack.	€
7626.1	10 g	plastic	14,95
7626.2	100 g	plastic	47,20
7626.3	250 g	plastic	96,65
7626.4	500 g	plastic	170,95
Original pack 6 x 500 g			162,40/500 g

Dextran 60
for biochemistry

M ~60000 g/mol

Type analysis
Appearance ..... white to off-white powder
Molecular mass 50000-76000
pH value 4,5-7,0
Specific rotation $[\alpha]_D^{20}$ ..... +180° to +201°
Loss on drying ..... ≤7 %

Art. No.	Pack Qty.	Pack.	€
2247.1	10 g	plastic	18,20
2247.2	100 g	plastic	67,20
2247.3	250 g	plastic	123,10
2247.4	500 g	plastic	228,45
Original pack 6 x 500 g			217,03/500 g

Dextran 70
extra pure

M ~70000 g/mol

Type analysis
Appearance ..... white powder
Molecular mass 63000-77000
Appearance of solution ..... clear
pH-Wert (6 % in H_2O) 4,5-7,0
Nitrogen (N) ..... ≤0,011 %
Heavy metals ..... ≤0,001 %
Specific rotation $[\alpha]_D^{20}$ ..... +195° to +203°
Sulphated ash ..... ≤0,3 %
Loss on drying ..... ≤7,0 %

Art. No.	Pack Qty.	Pack.	€
9228.3	10 g	plastic	21,40
9228.1	100 g	plastic	93,45
9228.4	250 g	plastic	170,95
9228.2	500 g	plastic	321,45
Original pack 6 x 500 g			305,38/500 g

Dextran 100
for biochemistry

M ~100000 g/mol

Type analysis
Appearance ..... white to slightly off-white powder
pH value 4,5-7,0
Specific rotation $[\alpha]_D^{20}$ ..... +195° to +203°
Ash ..... ≤2,0 %
Loss on drying ..... ≤7,0 %

Art. No.	Pack Qty.	Pack.	€
7618.1	10 g	plastic	21,40
7618.2	100 g	plastic	106,45
7618.3	500 g	plastic	439,70
Original pack 6 x 500 g			417,72/500 g

Dextran 150
for biochemistry

M ~150000 g/mol

Type analysis
Appearance ..... white to slightly off-white powder
pH value 4,5-7,0
Specific rotation $[\alpha]_D^{20}$ ..... +195° to +203°
Ash ..... ≤2,0 %
Loss on drying ..... ≤7,0 %

Art. No.	Pack Qty.	Pack.	€
7619.1	10 g	plastic	20,35
7619.2	100 g	plastic	75,15
7619.3	500 g	plastic	310,70
Original pack 6 x 500 g			295,17/500 g

Dextran 250
for biochemistry

M ~250000 g/mol

Type analysis
Appearance ..... white to off-white powder
Molecular mass 225000-275000
pH-value 4,5-7,0
Rotation $[\alpha]_D^{20}$ ..... +195° to +203°
Loss on drying ..... <7,0 %

Art. No.	Pack Qty.	Pack.	€
9233.3	10 g	plastic	45,05
9233.1	100 g	plastic	231,15
9233.2	500 g	plastic	962,15
Original pack 6 x 500 g			914,04/500 g

Dextran 500
for biochemistry

M ~500000 g/mol

Type analysis
Appearance ..... white to off-white powder
Appearance of solution (6 % in H_2O at 375 nm) ..... ≤0,15
Molecular mass 500 000
pH-value 4,0-7,0
Dynamic viscosity (20 °C) 0,56-0,70
Specific rotation $[\alpha]_D^{20}$ ..... +195° to +203°
Ash ..... ≤2,0 %
Loss on drying ..... ≤10,0 %

Art. No.	Pack Qty.	Pack.	€
9219.3	10 g	plastic	32,15
9219.1	100 g	plastic	107,40
9219.2	500 g	plastic	439,70
Original pack 6 x 500 g			417,72/500 g

Dextranhydrogensulphate sodium salt

- Dextran sulphate 8 sodium salt see page 870
- Dextran sulphate 500 sodium salt see page 870
- Dextran sulphate 40 sodium salt see page 870

Dextran sulphate sodium salt

Dextranhydrogensulphate sodium salt

CAS No. 9011-18-1
WGK 1

Dextran sulphate 8 sodium salt
for biochemistry

M ~8000 g/mol

Type analysis
Appearance ..... off-white to light yellow powder
Specific viscosity (25 °C, 1 M NaCl) . 0,018-0,032
pH value (1 % in H_2O) 5,0-7,5
Specific rotation $[\alpha]_D^{20}$ ..... +75° to +105°
Loss on drying ..... ≤10,0 %
Loss on ignition ..... 35-50 %
Free sulphate ..... ≤0,2 %
Sulphur (S) ..... 17,0-20,0 %
Iron (Fe) ..... ≤2,0 %
Chloride (Cl) ..... ≤0,1 %
Glucose ..... 35-48 %

Art. No.	Pack Qty.	Pack.	€
7610.1	10 g	plastic	40,35
7610.2	25 g	plastic	76,25
7610.3	50 g	plastic	138,70
7610.4	100 g	plastic	256,95

Dextran sulphate 40 sodium salt
for biochemistry

M ~40000 g/mol

Type analysis
Appearance ..... off-white to light yellow powder
Specific viscosity (25 °C, 1 M NaCl) 0,05-0,13
pH value (1 % in H_2O) 5,0-7,5
Specific rotation $[\alpha]_D^{20}$ ..... +75° to +105°
Loss on drying ..... ≤10,0 %
Loss on ignition ..... 35-50 %
Free sulphate ..... ≤0,2 %
Sulphur (S) ..... 17,0-20,0 %
Iron (Fe) ..... ≤2,0 %
Chloride (Cl) ..... ≤0,1 %
Glucose ..... 35-48 %

Art. No.	Pack Qty.	Pack.	€
7612.1	10 g	plastic	39,70
7612.2	25 g	plastic	75,15
7612.3	50 g	plastic	134,40
7612.4	100 g	plastic	246,20

Dextran sulphate 500 sodium salt
for biochemistry and molecular biology

M ~500000 g/mol

Type analysis
Appearance ..... white to light yellow powder
Specific viscosity (25 °C, 1 M NaCl) 0,1-0,7
pH value (1 %, H_2O) 5,0-7,2
Specific rotation $[\alpha]_D^{20}$ ..... +75° to +105°
Loss on drying ..... ≤10 %
Loss on ignition ..... 40-50 %
Free sulphate ..... ≤0,2 %
Sulphur (S) ..... 17-20 %
Iron (Fe) ..... ≤2 %
Chloride (Cl) ..... ≤0,1 %
Glucose ..... 35-48 %

Art. No.	Pack Qty.	Pack.	€
5956.5	10 g	plastic	41,85
5956.3	25 g	plastic	78,40
5956.4	50 g	plastic	145,15
5956.1	100 g	plastic	274,15
5956.2	500 g	plastic	1.279,25
Original pack 6 x 500 g			1.215,29/500 g

Dextrin

Potato starch · Starch gum

$(C_6H_{10}O_5)_n \cdot x\ H_2O$
CAS No. 9004-53-9 · EC no. 232-675-4
WGK 1

Dextrin
extra pure, white

From potatoes, medium viscosity in solution.

Type analysis
Appearance ..... white, amorphous powder
Moisture ..... ≤14,5 %
Solubility in cold water (10 %) ..... 50-70 %

Art. No.	Pack Qty.	Pack.	€
6778.3	500 g	plastic	22,05
Original pack 6 x 500 g			20,95/500 g
6778.1	1 kg	plastic	34,95
Original pack 6 x 1 kg			33,20/1 kg
6778.4	2.5 kg	plastic	70,45
6778.2	5 kg	plastic	130,65

Dextrin
extra pure, yellow

Starch gum, from potatoes, medium viscosity in solution.

Type analysis
Appearance ..... yellow, amorphous powder
Moisture ..... ≤12 %
Viscosity (40 %, 20 °C) ..... 100-150 mPa s
Solubility in cold water ..... ≥99,7 %

Art. No.	Pack Qty.	Pack.	€
6777.3	500 g	plastic	18,20
Original pack 6 x 500 g			17,29/500 g
6777.1	1 kg	plastic	27,45
Original pack 6 x 1 kg			26,08/1 kg
6777.4	2.5 kg	plastic	56,90
6777.2	5 kg	plastic	104,85

Dextrin
for microbiology

From potato starch.

Type analysis
Appearance ..... light yellow powder

Art. No.	Pack Qty.	Pack.	€
3488.2	100 g	plastic	25,70
3488.1	250 g	plastic	46,80

Dextrose

- D(+)-Glucose monohydrate see page 962
- ROTI®Fair Glucose see page 1218
- D(+)-Glucose see page 961

Dey-Engley Agar

- D/E Neutralizing Agar see page 866

DG18 Agar

- Dichlorane Glycerol Agar (Base) see page 873

dGTP solution

2'-Deoxyguanosine-5'-triphosphate tetrasodium salt

$C_{10}H_{13}N_5O_{13}P_3$ · mp 0 °C · bp 100 °C
CAS No. 93919-41-6 · EC no. 300-026-5
WGK 1

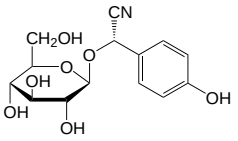
dGTP solution
≥99 %, 100 mM solution

for molecular biology, biochemistry and cell analysis

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
K037.1	250 µl	plastic	42,90

Dhurrin



(*S*)-(β-D-Glucopyranosyloxy)(4-hydroxyphenyl) acetonitrile · (*S*)-4-Hydroxymandelonitrile-β-D-glucoside

$C_{14}H_{17}NO_7$ · mp >200 °C
CAS No. 499-20-7 · EC no. 207-878-6
WGK 1

Warning H302

Dhurrin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
3866.1	1 mg	glass	64,40
3866.2	5 mg	glass	177,40
3866.3	25 mg	glass	568,70
3866.4	50 mg	glass	962,15

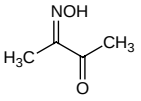
Diacetone alcohol
SOLVAGREEN® ≥98 %, for synthesis

Alternative for acetone, chlorinated solvents.

Type analysis
Assay ..... ≥98 %
Density (d 20 °C/4 °C) 0,935-0,940
Refractive index (20 °C) 1,422-1,425

Art. No.	Pack Qty.	Pack.	€
3546.1	250 ml	glass	19,25
3546.2	1 l	glass	46,15
Original pack 6 x 1 l			43,84/1 l
3546.3	2.5 l	glass	92,35
Original pack 4 x 2.5 l			87,73/2.5 l

Diacetyl monoxime



2,3-Butanedione monoxime

$C_4H_7NO_2$ · mp 75 to 78 °C
CAS No. 57-71-6 · EC no. 200-348-5
WGK 1

Diacetyl monoxime
≥99 %, p.a.

For determination of urea.

Type analysis
Assay ..... ≥99 %
Melting point ..... 74-77 °C
Sulphated ash ..... ≤0,05 %
Solution (5 % in H_2O) ..... clear solution

Art. No.	Pack Qty.	Pack.	€
3494.1	25 g	plastic	24,20
3494.2	100 g	plastic	72,60

4',6-Diamidino-2-phenylindole dihydrochloride

- DAPI see page 863

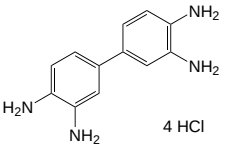
2,4-Diaminoazobenzene

- Chrysoidine Y see page 838

1,4-Diaminobenzene

- 1,4-Phenylenediamine see page 1152

3,3'-Diaminobenzidine tetrahydrochloride



DAB · 3,3',4,4'-Tetra-aminobiphenyl tetrahydrochloride

$C_{12}H_{14}N_4$ · 4 HCl · mp >280 °C
CAS No. 7411-49-6 · EC no. 231-018-9
WGK 1

Warning H315-H319-H335-H341-H351

3,3'-Diaminobenzidine tetrahydrochloride
≥98 %, p.a.

Substrate of horseradish peroxidase. For detection of endogenous peroxidase and for immunohistochemical stainings.

Stock solution: 1–2 % (10–20 mg/ml) in 50 mM Tris buffer, pH 7.3. Storage of stock solution in aliquots at –20 °C

Storage temperature: +4 °C

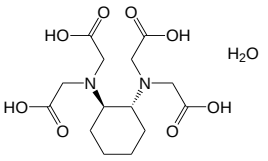
Type analysis
Assay (HPLC) ..... ≥98 %
Suitablility for determination of Selenium .... complies
Appearance of solution ..... Reddish brown

Art. No.	Pack Qty.	Pack.	€
CN75.1	1 g	glass	30,00
CN75.2	5 g	plastic	96,65
CN75.3	10 g	plastic	170,95

1,4-Diaminobutane

- Putrescin see page 1190
- Putrescine dihydrochloride see page 1190

trans-1,2-Diaminocyclohexane-*N*,*N*,*N*',*N*'-tetracetic acid monohydrate



1,2-Cyclohexane dinitrilo tetraacetic acid · CDTA · Titration complex IV

$C_{14}H_{22}N_2O_8 \cdot H_2O$ · D 1,474 to 1,475 g/cm³ · mp 213 °C
CAS No. 125572-95-4 · EC no. 236-308-9
WGK 1

Warning H315-H319

trans-1,2-Diaminocyclohexane-*N*,*N*,*N*',*N*'-tetracetic acid monohydrate
≥99 %, p.a., ACS

Guarantee analysis

Appearance	white crystalline powder
Assay	≥99,0 %
pH value (saturated sol.)	2,5-3,1
Chloride (Cl)	≤0,002 %
Sulphate (SO_4)	≤0,01 %
Heavy metals	≤0,001 %
Lead (Pb)	≤0,0001 %
Iron (Fe)	≤0,001 %
Sulphated ash	≤0,1 %
Water (KF)	4,8-5,6 %

Art. No.	Pack Qty.	Pack.	€
1412.1	25 g	plastic	41,40
1412.2	100 g	plastic	121,40
1412.3	250 g	plastic	263,40
1412.4	500 g	plastic	493,45
Original pack 6 x 500 g			468,78/500 g

trans-1,2-Diaminocyclohexane-*N*,*N*,*N*',*N*'-tetracetic acid monohydrate
≥99 %, for synthesis

Type analysis

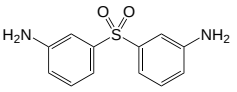
Appearance	white crystalline powder
Assay	≥99,0 %
pH value (saturated sol.)	2,5-3,1
Heavy metals	≤0,001 %
Water content	4,8-5,6 %

Art. No.	Pack Qty.	Pack.	€
1411.1	100 g	plastic	89,15
1411.2	250 g	plastic	203,20
1411.3	500 g	plastic	364,45
Original pack 6 x 500 g			346,23/500 g
1411.4	1 kg	plastic	665,45
Original pack 6 x 1 kg			632,18/1 kg

2,2'-Diaminodiethylamine
▸ Diethylene triamine see page 878

3,8-Diamino-5-(3-diethylaminopropyl)-6-phenyl-phenanthridinium iodide-methiodide
▸ Propidiumiodide see page 1187

3,3'-Diaminodiphenyl sulphone



3,3'-Sulphonyldianiline · 3-Aminophenyl sulphone

$C_{12}H_{12}N_2O_2S_2$ · D 1,4 g/cm³ · mp 173 °C
CAS No. 599-61-1 · EC no. 209-967-5
UN no. 3077 · ADR 9 III · WGK 3

Warning H302-H371-H373-H411

3,3'-Diaminodiphenyl sulphone
≥99 %, for synthesis

Type analysis

Appearance	white to off-white powder
Assay	≥99,0 %
Loss on drying	≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8082.1	25 g	plastic	21,40
8082.2	250 g	plastic	107,00
8082.3	1 kg	plastic	364,45
Original pack 6 x 1 kg			346,23/1 kg

1,2-Diaminoethane
▸ Ethylenediamine see page 921

3,8-Diamino-5-ethyl-6-phenyl-phenanthridinium bromide
▸ Ethidium bromide see page 918
▸ Ethidium bromide solution see page 919
▸ Ethidium bromide solution in dropper bottles see page 918

1,6-Diamino-hexane
▸ Hexamethylene diamine see page 982

2,6-Diaminohexanoic acid hydrochloride
▸ L-Lysine hydrochloride see page 1053
▸ DL-Lysine hydrochloride see page 1053
▸ D-Lysine hydrochloride see page 1053

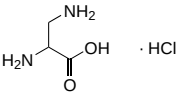
(2S)-2,6-Diaminohexanoic acid $^{13}C_6$ Hydrochlorid hydrochloride
▸ L-Lysine $^{13}C_6$ hydrochloride see page 1053

(2S)-2,6-Diaminohexanoic acid $^{13}C_6$ $^{15}N_2$ hydrochloride
▸ L-Lysine$^{13}C_6$ $^{15}N_2$ hydrochloride see page 1053

3,8-Diamino-5-methyl-6-pheny phenanthridium bromide
▸ Dimidium bromide see page 891

3,7-Diaminophenothiazin-5-ium acetate
▸ Thionine (acetate) (C. I. 52000) see page 1365

DL-2,3-Diaminopropionic acid hydrochloride



DAP · HCl · 3-Amino-DL-alanine hydrochloride

$C_3H_8ClN_2O_2$ · mp 223 to 227 °C
CAS No. 54897-59-5 · EC no. 259-387-1
WGK 1

Warning H315-H319-H335

DL-2,3-Diaminopropionic acid hydrochloride
≥99 %, for biochemistry

Type analysis

Assay (TLC)	≥99,0 %
Melting point	223-227 °C

Art. No.	Pack Qty.	Pack.	€
5431.1	1 g	glass	31,75
5431.2	5 g	plastic	109,15

L(+)-2,5-Diaminovaleriic acid hydrochloride
▸ L-Ornithine monohydrochloride see page 1132

Diammonium tetrachloroplatinate
▸ Ammonium tetrachloroplatinate(II) see page 741

Diamondfuchsin
▸ Fuchsine basic (C.I. 42510) see page 950

Diamond green G
▸ Brilliant green (C.I. 42040) see page 786

3,3'-Dianisole-4,4'-bis-(3,5-diphenyltetrazolium chloride)
▸ Tetrazolium blue chloride see page 1363

Diatomaceous earth

Filter aids · Infusorial earth · Terra infusoria

D 2 g/cm³ · mp 1350 to 1400 °C
CAS No. 61790-53-2 · EC no. 310-127-6

Diatomaceous earth
natural

For filtration of organic solutions.

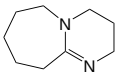
Type analysis

SiO_2	~83,7 %
CaO	~0,9 %
Fe_2O_3	~2,3 %
Al_2O_3	~5,6 %
Loss on ignition	~5,0 %

Art. No.	Pack Qty.	Pack.	€
8019.3	1 kg	plastic	21,40
Original pack 6 x 1 kg			20,33/1 kg
8019.4	2.5 kg	plastic	36,45
8019.1	5 kg	plastic	61,20
8019.5	10 kg	plastic	102,05
8019.2	20 kg	plastic	174,70

1,4-Diazabicyclo[2.2.2]octane
▸ DABCO® see page 863

1,8-Diazabicyclo[5.4.0]undec-7-ene (DBU)



DBU

$C_9H_{16}N_2$ · D 1,02 g/cm³ · mp -70 °C · bp 260 to 263 °C · flp 116 °C
CAS No. 6674-22-2 · EC no. 229-713-7
UN no. 2922 · ADR 8 (6.1) I · WGK 2

Danger H290-H301-H314-H412

1,8-Diazabicyclo[5.4.0]undec-7-ene (DBU)
≥98 %, for synthesis

Base for organic chemistry

Type analysis
Appearance ..... colourless to light yellow liquid
Assay ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6869.1	25 ml	glass	38,20
6869.2	100 ml	glass	112,35
6869.3	250 ml	glass	209,65
6869.4	500 ml	glass	370,90

1,3-Diaza-2,4-cyclopentadiene
▸ Imidazole see page 1004

Diazin Green S
▸ Janus green B (C.I. 11050) see page 1025

Dibasic ester

DBE

D 1,09 g/cm³ · mp -55 °C · bp 195 to 216 °C · flp 99 °C
EC no. 906-170-0
WGK 1

Dibasic ester
SOLVAGREEN® ≥99 %, pure

Alternative for acetone, benzene, toluene, dichloromethane.

Type analysis
Assay (GC) ..... ≥99,0 %
Colour (Hazen) ..... ≤20
Density (20 °C) 1,087-1,093
Dimethyl adipate ..... 8,0-22,0 %
Dimethyl glutarate ..... 57,0-67,0 %
Dimethyl succinate ..... 18,0-28,0 %

Art. No.	Pack Qty.	Pack.	€
7973.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l
7973.2	2.5 l	plastic	62,25
Original pack 4 x 2.5 l			59,14/2.5 l
7973.3	5 l	plastic	104,85
Original pack 2 x 5 l			99,61/5 l

Dibenz[de,kl]anthracene
▸ Perylene see page 1146

Dibenzopyrrole
▸ Carbazole see page 815

DIBK
▸ Diisobutyl ketone see page 883

5',5''-Dibromo-cresolsulphonephthaleine
▸ Bromocresol purple see page 789
▸ Bromocresol purple sodium salt see page 789

4',5'-Dibromo-2',7'-dinitrofluorescein-disodium salt
▸ Eosin B (C.I. 45400) see page 910

3',3''-Dibromophenol-sulphonephthaleine
▸ Bromophenol red free acid see page 791

3',3''-Dibromothymol-sulphonphthaleine
▸ Bromothymol blue sodium salt see page 791
▸ Bromothymol blue see page 791

Dibutoxymethane
▸ Butylal see page 798

Dibutylamine in xylene

D 0,856 g/cm³ · mp -47,8 °C · bp 139,1 °C · flp 27 °C
UN no. 1992 · ADR 3 (6.1) III · WGK 2

Danger H226-H304-H312-H315-H319-H331-H335-H373

Dibutylamine in xylene
0,1 mol/l – 0,1 N, volumetric standard solution

Type analysis
Amount-of-substance conc. ..... 0,1 mol/l ±0,6 %
Titer 0,994-1,006

Art. No.	Pack Qty.	Pack.	€
2998.1	1 l	glass	155,90
Original pack 6 x 1 l			148,11/1 l

N,*N*-Dibutyl-1-butanamine
▸ Tributylamine see page 1376

2,6-Di-*tert*-butyl-*p*-cresol
▸ Butylated hydroxytoluene see page 798

2,6-Di-*tert*-butyl-4-methylphenol
▸ Butylated hydroxytoluene see page 798

DIC
▸ *N*,*N*'-Diisopropylcarbodiimide (DIC) see page 884

1,3-Dicaffeoylquinic acid
▸ Cynarin see page 859

2,3-Dicaffeoyltartaric acid
▸ Cichoric acid see page 838

Dichlorane Bengal Red Agar (with chloroamphenicol)

DRBC Agar

WGK 3

Dichlorane Bengal Red Agar (with chloroamphenicol)
ISO 11133, ISO 21527-1, for microbiology

Selective agar for enumeration of yeast and food mould fungi, especially for strongly hyphen-forming fungi.

Application: Use 31.6 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Peptone ..... 5 g/l
Glucose ..... 10 g/l
Potassium phosphate ..... 1 g/l
Magnesium sulphate monohydrate ..... 0,5 g/l
Chloroamphenicol ..... 0,1 g/l
Dichlorane ..... 0,002 g/l
Bengal red ..... 0,025 g/l
Agar ..... 15 g/l
pH value ..... 5,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE25.1	500 g	plastic	195,15
Original pack 6 x 500 g			185,39/500 g

Dichlorane Glycerol Agar (Base)

DG18 Agar

WGK 1

Dichlorane Glycerol Agar (Base)
ISO 11133, ISO 21527-2, for microbiology

Selective agar for enumeration of yeast and food mould fungi, especially in half-dry and dry food.

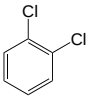
Application: Use 31.6 g for 1 l agar, add 18 vol.-% glycerol.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Peptone ..... 5 g/l
Glucose ..... 10 g/l
Potassium dihydrogen phosphate 1g/l
Magnesium sulphate ($MgSO_4$) ..... 0,5 g/l
Chloroamphenicol ..... 0,1 g/l
Dichlorane ..... 0,002 g/l
Agar ..... 15 g/l
pH value ..... 5,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE26.1	500 g	plastic	183,30
Original pack 6 x 500 g			174,14/500 g

1,2-Dichlorobenzene



o-Chlorobenzene

$C_6H_4Cl_2$ · D 1,306 g/cm³ · mp -17,03 °C · bp 180,5 °C · flp 66 °C
CAS No. 95-50-1 · EC no. 202-425-9
UN no. 1591 · ADR 6.1 III · WGK 2

Warning H302-H315-H319-H335-H410

1,2-Dichlorobenzene
≥98 %, for synthesis

Type analysis
Assay (GC) ..... ≥98,0 %
Density (d 20 °C/4 °C) 1,305-1,307
Appearance ..... clear, colourless liquid

Art. No.	Pack Qty.	Pack.	€
4374.1	100 ml	glass	17,75
4374.2	500 ml	glass	35,40
4374.3	1 l	glass	54,30
Original pack 6 x 1 l			51,59/1 l

1,2-Dichlorobenzene D4

$C_6D_4Cl_2$ · D ~1,34 g/cm³ · mp -17,03 °C · bp 180,5 °C · flp 66 °C
CAS No. 2199-69-1 · EC no. 218-606-0
UN no. 1591 · ADR 6.1 III · WGK 3

Warning H302-H315-H319-H335-H410

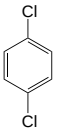
1,2-Dichlorobenzene D4
99 Atom%D

For nuclear magnetic resonance spectroscopy.

Guarantee analysis
Deuterising degree ..... ≥99 %
Water (KF, H_2O+D_2O) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
HN82.2	1 ml	glass	78,40
HN82.1	5 ml	glass	256,95

1,4-Dichlorobenzene



para-Dichlorobenzene · *p*-Dichlorobenzene

$C_6H_4Cl_2$ · D 1,25 to 1,46 g/cm³ · mp 52 to 56 °C · bp 174,1 °C · flp 66 °C
CAS No. 106-46-7 · EC no. 203-400-5
UN no. 3077 · ADR 9 III · WGK 2

Warning H319-H351-H410

1,4-Dichlorobenzene
≥99 %, for synthesis

Type analysis
Assay ..... ≥99 %
Melting range ..... 52-56 °C

Art. No.	Pack Qty.	Pack.	€
1E73.1	250 g	plastic	16,05
1E73.2	1 kg	plastic	35,40
Original pack 6 x 1 kg			33,63/1 kg
1E73.3	2.5 kg	plastic	60,75

1,4-Dichlorobenzene D4

$C_6D_4Cl_2$ · D 1,25 to 1,46 g/cm³ · mp 52 to 56 °C · bp 174,1 °C · flp 66 °C
CAS No. 3855-82-1 · EC no. 684-572-2
UN no. 3077 · ADR 9 III · WGK 3

Warning H319-H351-H410

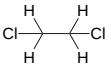
1,4-Dichlorobenzene D4
98 Atom%D

For nuclear magnetic resonance spectroscopy.

Deuterising degree ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1L37.1	1 g	glass	92,35

1,2-Dichloroethane



Ethylene dichloride · Ethylene chloride

$C_2H_4Cl_2$ · D 1,25 g/cm³ · mp -36 °C · bp 83,6 °C · flp 13 °C
CAS No. 107-06-2 · EC no. 203-458-1
UN no. 1184 · ADR 3 (6.1) II · WGK 3

Danger H225-H302-H304-H315-H319-H331-H335-H350

1,2-Dichloroethane
ROTIPURAN® ≥99,5 %, p.a.

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Colour (Hazen) ..... ≤50
Water ..... ≤0,03 %
Density (d 20 °C/20 °C) ..... ~1,25
Free chlorine (Cl) ..... ≤0,00003 %
Aluminium (Al) ..... ≤0,000005 %
Barium (Ba) ..... ≤0,000005 %
Lead (Pb) ..... ≤0,000002 %
Cadmium (Cd) ..... ≤0,000002 %
Calcium (Ca) ..... ≤0,00002 %
Chromium (Cr) ..... ≤0,000002 %
Cobalt (Co) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,0001 %
Potassium (K) ..... ≤0,00002 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,000005 %
Manganese (Mn) ..... ≤0,000002 %
Sodium (Na) ..... ≤0,00005 %
Nickel (Ni) ..... ≤0,000002 %
Strontium (Sr) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %
Evaporation residue ..... ≤0,002 %

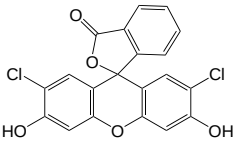
Art. No.	Pack Qty.	Pack.	€
6837.4	500 ml	glass	26,80
6837.1	1 l	glass	43,55
Original pack 6 x 1 l			41,37/1 l
6837.2	2.5 l	glass	87,65
Original pack 4 x 2.5 l			83,27/2.5 l
6837.3	10 l	tinplate	284,90

1,2-Dichloroethane
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99 %
Free acid (as HCl) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0005 %
Evaporation residue ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
T869.1	1 l	glass	26,80
Original pack 6 x 1 l			25,46/1 l
T869.2	2.5 l	glass	55,40
Original pack 4 x 2.5 l			52,63/2.5 l
T869.3	10 l	tinplate	149,45
T869.4	25 l	tinplate	298,85

2',7'-Dichlorofluorescein



$C_{20}H_{10}Cl_2O_5$ · D 0,78 g/cm³ · mp 280 °C
CAS No. 76-54-0 · EC no. 200-968-6
WGK 1

2',7'-Dichlorofluorescein
p.a., ACS

Fluorescence indicator

Guarantee analysis
Appearance ..... reddish brown powder
Appearance of solution ..... complies
Loss on drying (110 °C) ..... ≤3,0 %
Suitability as adsorption indicator ..... complies

Art. No.	Pack Qty.	Pack.	€
X866.2	1 g	glass	25,30
X866.1	5 g	glass	45,05
X866.3	25 g	glass	125,70
X866.4	50 g	glass	224,70

2',7'-Dichlorofluorescein spray solution

2',7'-Dichlorofluorescein spray solution
for TLC

Ready-to-use spray solution for detection of Lipids (saturated, unsaturated).
0,2 g 2',7'-Dichlorofluorescein dissolved in 100 ml 2-propanol.

D 0,78 g/cm³ · mp -89 °C · bp 82 °C · flp >12 °C

Storage temperature: +4 °C

UN no. 1219 · ADR 3 II · WGK 1

Danger H225-H319-H336

Type analysis
TLC-application ..... complies

Art. No.	Pack Qty.	Pack.	€
CP36.1	100 ml	glass	42,90

Dichloromethane



DCM · Methylene chloride

CH_2Cl_2 · D 1,33 g/cm³ · mp -95 °C · bp 40 °C
CAS No. 75-09-2 · EC no. 200-838-9
UN no. 1593 · ADR 6.1 III · WGK 2

Warning H315-H319-H336-H351

Dichloromethane
ROTISOLV® ≥99,9 %, MOSH/MOAH

Suitable for MOSH/MOAH analysis

Guarantee analysis
Assay (GC, TS) ..... ≥99,9 %
Colour (APHA) ..... ≤10
MOSH test (GC/FID) ..... ≤5 ng/ml
MOAH test (LC/UV) ..... ≤5 ng/ml
GC/EDC (1,2,4-trichlorobenzene to decachloro-biphenyl) ..... ≤3 pg/ml
Water (KF) ..... ≤0,02 %
Evaporation residue ..... ≤0,0003 %

Art. No.	Pack Qty.	Pack.	€
0770.1	2.5 l	glass	124,60
Original pack 4 x 2.5 l			118,37/2.5 l

Dichloromethane
ROTISOLV® HPLC

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,005 %
Free acid ..... ≤0,0002 %
Non volatile matter ..... ≤0,0001 %

Transmission:
255 nm ..... ≥99 %
240 nm ..... ≥80 %
235 nm ..... ≥50 %
229 nm ..... ≥10 %

stabilised with approx. 30 ppm amylene.

Art. No.	Pack Qty.	Pack.	€
7334.2	1 l	glass	48,30
Original pack 6 x 1 l			45,89/1 l
7334.1	2.5 l	glass	82,70
Original pack 4 x 2.5 l			78,57/2.5 l

Dichloromethane
ROTISOLV® ≥99,9 %, GC Ultra Grade

For gaschromatographic residue analysis.

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,02 %
Free acid (as CH_3COOH) ..... ≤0,002 %
Evaporation residue ..... ≤0,0002 %
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD pesticides (as lindane) ..... ≤5 ng/l
GC/NPD pesticides (as parathion) ..... ≤5 ng/l
PAH-test (less than 2 ppb, HPLC) ..... complies

Filtered through a 0.2 µm membrane and filled under protective gas.
stabilised with 30–60 ppm amylene.

Art. No.	Pack Qty.	Pack.	€
KK47.1	2.5 l	glass	91,30
Original pack 4 x 2.5 l			86,74/2.5 l

Dichloromethane
ROTISOLV® Pestilyse® plus ≥99,9 %

For determination of dioxins, furans, PCBs, pesticides, hydrocarbons etc.

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,02 %
Free acid (as HCl) ..... ≤0,0005 %
Evaporation residue ..... ≤0,0003 %
GC/FID suitability (as 2-octanol) ..... ≤10 ng/ml
GC/ECD suitability (as heptachloro epoxide) ..... ≤10 ng/l
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD pesticides (as lindane) ..... ≤5 ng/l
GC/NPD pesticides (as parathion) ..... ≤10 ng/l
Oil index (any hydrocarbon C_{10}-C_{40}) ..... ≤0,1 mg/l
GC/ECD volatile impurities (as ethylene dibromide) ..... ≤5 ng/ml
PAH-test (less than 2 ppb, HPLC) ..... complies

Fluorescence (as quinine):
254 nm ..... ≤1 ppb
365 nm ..... ≤1 ppb

stabilised with 30–60 ppm amylene.

Art. No.	Pack Qty.	Pack.	€
7562.1	2.5 l	glass	99,45
Original pack 4 x 2.5 l			94,48/2.5 l

Dichloromethane
ROTISOLV® Pestilyse® ≥99,8 %

For residue and environmental analysis.

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,05 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %
GC/ECD (individual signal as lindane) ..... ≤5 ng/l
GC/PND (individual signal as ethylparathion) ..... ≤10 ng/l

stabilised with approx. 50 ppm amylene.

Art. No.	Pack Qty.	Pack.	€
T162.2	1 l	glass	44,65
Original pack 6 x 1 l			42,42/1 l
T162.1	2.5 l	glass	91,30
Original pack 4 x 2.5 l			86,74/2.5 l
T162.3	4 l	glass	120,95

Dichloromethane
ROTISOLV® ≥99,8 %, UV/IR Grade

For chromatography and spectroscopy.

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,01 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

Transmission:
260 nm ..... ≥98 %
250 nm ..... ≥90 %
240 nm ..... ≥80 %
230 nm ..... ≥5 %

stabilised with approx. 50 ppm amylene.

Art. No.	Pack Qty.	Pack.	€
4433.1	2.5 l	glass	62,90
Original pack 4 x 2.5 l			59,76/2.5 l

Dichloroethane
ROTIDRY® Sept ≥99,9 % (≤50 ppm H_2O)

Dried; in a septum bottle.

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,005 %
Acidity (as HCl) ..... ≤0,001 %
Evaporation residue ..... ≤0,001 %

stabilised with approx. 50 ppm amylene.

Art. No.	Pack Qty.	Pack.	€
5176.1	250 ml	septum bottle	51,50

Dichloromethane
ROTIDRY® plus ≥99,9 % (≤30 ppm H_2O), with molecular sieve

Type analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,003 %
Relative density (20/20 °C) 1,325-1,329
Cu (Copper) ..... ≤0,00002 %
Fe (Iron) ..... ≤0,00002 %
Ni (Nickel) ..... ≤0,00002 %
Pb (Lead) ..... ≤0,00002 %
Heavy metals (as Pb) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
1A9K.1	1 l	glass	64,40
Original pack 6 x 1 l			61,18/1 l

Dichloromethane
ROTIDRY® ≥99,8 % (≤50 ppm H_2O)

Dried; for analysis and organic synthesis.

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Colour (Hazen) ..... ≤10
Water (KF) ..... ≤0,005 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

stabilised with approx. 50 ppm amylene.
Filtered through a membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
AE03.1	1 l	glass	46,15
Original pack 6 x 1 l			43,84/1 l

Dichloromethane
ROTIPURAN® ≥99,5 %, p.a., ACS, ISO

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Colour (Hazen) ..... ≤10
Density (d 20 °C/4 °C) 1,323-1,325
Water ..... ≤0,02 %
Acidity ..... ≤0,0003 meq/g
Free chlorine (Cl) ..... ≤0,0001 %
Chloroform (GC) ..... ≤0,05 %
Carbon tetrachloride (GC) ..... ≤0,01 %
Aluminium (Al) ..... ≤0,00005 %
Barium (Ba) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,00001 %
Boron (B) ..... ≤0,000002 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Cobalt (Co) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %
Tin (Sn) ..... ≤0,00001 %
Evaporation residue ..... ≤0,001 %
Matter discoloured by H_2SO_4 (Hazen) ... complies

stabilised with approx. 20 ppm amylene.

Art. No.	Pack Qty.	Pack.	€
6053.3	100 ml	glass	19,90
6053.1	1 l	glass	53,25
Original pack 6 x 1 l			50,59/1 l
6053.2	2.5 l	glass	98,80
Original pack 4 x 2.5 l			93,86/2.5 l
6053.4	10 l	tinplate	256,95
6053.5	25 l	tinplate	504,20

Dichloromethane
≥99,5 %, Ph. Eur., extra pure

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Identity ..... complies
Appearance ..... complies
Density (d 20 °C/20 °C) 1,320-1,332
Refractive index n_D^{20} 1,423-1,425
Free chlorine (Cl) ..... complies
Water (KF) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,0003 %
Acid react. substances ..... complies
Evaporation residue ..... ≤0,002 %

Related Substances:
Ethanol (GC) ..... ≤2,0 %
Chloroform (GC) ..... ≤0,005 %
Carbon tetrachloride (GC) ..... ≤0,001 %
2-Methylbut-2-ene ..... ≤0,03 %
Sum of other impurities ..... ≤0,1 %

stabilised with approx. 20 ppm amylene.

Art. No.	Pack Qty.	Pack.	€
CP45.1	1 l	glass	41,40
Original pack 6 x 1 l			39,33/1 l
CP45.2	2.5 l	glass	83,75
Original pack 4 x 2.5 l			79,56/2.5 l
CP45.3	10 l	tinplate	239,20
CP45.4	25 l	tinplate	461,20

Dichloromethane
≥99,5 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,5 %
Water ..... ≤0,1 %
Density (20 °C) 1,324-1,330
Refractive index n_D^{20} 1,4230-1,4250

stabilised with amylene.

Art. No.	Pack Qty.	Pack.	€
8424.4	100 ml	glass	13,90
8424.1	1 l	glass	31,10
Original pack 6 x 1 l			29,55/1 l
8424.2	2.5 l	glass	62,25
Original pack 4 x 2.5 l			59,14/2.5 l
8424.3	10 l	tinplate	182,25
8424.5	25 l	tinplate	349,40

Dichloromethane
PEPTIPURE® ≥99,9 %, for peptide synthesis

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,005 %
Non volatile matter ..... ≤0,0005 %
Free amines ..... ≤0,001%

stabilised with approx. 50 ppm amylene.

Art. No.	Pack Qty.	Pack.	€
P089.1	2.5 l	glass	83,35
Original pack 4 x 2.5 l			79,18/2.5 l

Dichloromethane D2

Methylene chloride D2

CCl_2D_2 · D 1,36 g/cm³ · mp -97 °C · bp 39 °C
CAS No. 1665-00-5 · EC no. 216-776-0
UN no. 1593 · ADR 6.1 III · WGK 2

Warning H315-H319-H336-H351

Dichloromethane D2
99,8 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging for 7913.2: 10 x 0,75 ml in ampoules

Type analysis
Deuterising degree ..... ≥99,8 %
Water (KF, H_2O+D_2O) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
7913.2	7.5 ml	glass ampoule	180,10
7913.1	10 ml	glass	177,40

Dichloromethane D2
99,5 Atom%D

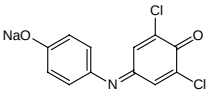
For nuclear magnetic resonance spectroscopy.

Packaging for AE55.5: 10 x 0,75 ml in ampoules

Guarantee analysis
Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
AE55.3	5 ml	glass	80,55
AE55.5	7.5 ml	glass ampoule	142,45
AE55.1	10 ml	glass	138,70
AE55.2	25 ml	glass	317,15
AE55.4	50 ml	glass	600,95

2,6-Dichlorophenol-indophenol sodium salt hydrate



DCPIP · Tillman's reagent

$C_{12}H_6Cl_2NNaO_2$ · x H_2O
CAS No. 620-45-1 · EC no. 210-640-4
WGK 3

2,6-Dichlorophenol-indophenol sodium salt hydrate
p.a., ACS

Redox indicator

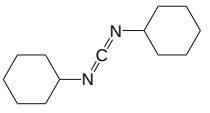
Dissolve 0.02 g in 100 ml water

Guarantee analysis
Appearance ..... dark green powder
Solubility (0,1 % in 50 % EtOH + 1 ml 1 N Na_2CO_3) ..... clear blue solution
Loss on drying (120 °C) ..... ≤12 %
Disturbing dyes ..... complies

Art. No.	Pack Qty.	Pack.	€
HN79.1	1 g	glass	23,55
HN79.2	5 g	glass	59,70
HN79.3	25 g	glass	235,45

3',3''-Dichlorophenol sulphonic phthalein
▸ Chlorophenol red see page 833

N,N'-Dicyclohexylcarbodiimide (DCC)



DCC

$C_{13}H_{22}N_2$ · D 1,014 g/cm³ · mp 32 to 35 °C · bp 148 to 152 °C · flp 110 to 113 °C
CAS No. 538-75-0 · EC no. 208-704-1
UN no. 2811 · ADR 6.1 III · WGK 1

Danger H302-H311-H317-H318

N,N'-Dicyclohexylcarbodiimide (DCC)
PEPTIPURE® ≥98 %

Coupling reagent for peptide synthesis

Type analysis
Appearance ..... white to brown solid
Assay (GC) ..... ≥98,0 %
Loss on ignition ..... ≤0,1 %
Melting point ..... 32-35 °C

Art. No.	Pack Qty.	Pack.	€
4193.1	100 g	glass	24,20
4193.2	250 g	glass	48,95
4193.3	500 g	glass	85,90
Original pack 6 x 500 g			81,61/500 g
4193.4	1 kg	glass	160,20
Original pack 6 x 1 kg			152,19/1 kg
4193.5	2.5 kg	glass	342,95

2-Dicyclohexylphosphino-2',6'-dimethoxybiphenyl
▸ SPhos see page 1305

2-Dicyclohexylphosphino-2',4',6'-triisopropylbiphenyl

▸ XPhos see page 1406

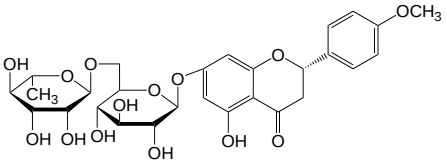
13,19-Didehydro-12-hydroxysenecionan-11,16-dione

▸ Seneciphylline see page 1256

1,2-Dideutero-1,1,2,2-tetrachloroethane

▸ 1,1,2,2-Tetrachloroethane D2 see page 1359

Didymin



Rutinosyl-7-*iso*-sakuranetin

$C_{28}H_{34}O_{14}$
CAS No. 14259-47-3 · EC no. 238-139-6
WGK 1

Didymin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

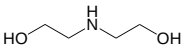
Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7445.2	10 mg	glass	467,65

Didysprosium trioxide

▸ Dysprosium(III) oxide see page 903

Diethanolamine



2,2'-Dihydroxydiethyl amine · Bis-(β-hydroxyethyl)-amine

$C_4H_{11}NO_2$ · D 1,09 g/cm³ · mp 27 °C · bp 269,9 °C · flp 176 °C
CAS No. 111-42-2 · EC no. 203-868-0
WGK 1

Danger H302-H315-H318-H373-H412

Diethanolamine
ROTIPURAN® ≥99 %, p.a., ACS

For biochemistry.

Guarantee analysis
Assay (GC) ..... ≥99,0 %
Melting point ..... 27-28 °C
Colour (APHA) ..... ≤15
Water ..... ≤0,15 %
Chloride (Cl) ..... ≤0,001 %
Ethanol amine (GC) ..... ≤0,3 %
Triethanol amine (GC) ..... ≤0,3 %
Ash content (as SO_4) ..... ≤0,002 %
Heavy metals (as Pb) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,0001 %
Apparent equivalent weight 104,0-106,0

Art. No.	Pack Qty.	Pack.	€
0332.1	250 ml	glass	47,20
0332.2	500 ml	glass	83,35
0332.3	1 l	glass	138,70
Original pack 6 x 1 l			131,77/1 l

Diethanolamine
≥99 %, for synthesis

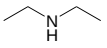
Type analysis
Assay (GC) ..... ≥99,0 %
Water ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
HN99.1	500 ml	plastic	35,40
HN99.2	1 l	plastic	48,30
Original pack 6 x 1 l			45,89/1 l
HN99.3	2.5 l	plastic	92,35
Original pack 4 x 2.5 l			87,73/2.5 l
HN99.4	5 l	plastic	138,70
Original pack 2 x 5 l			131,77/5 l
HN99.5	10 l	plastic	241,90

Diethoxymethane

▸ Ethylal see page 919

Diethylamine



N-Ethyleneamine · DEA

$C_4H_{11}N$ · D 0,7 g/cm³ · mp -50 °C · bp 55,3 to 56,1 °C · flp -26 °C
CAS No. 109-89-7 · EC no. 203-716-3
UN no. 1154 · ADR 3 (8) II · WGK 1

Danger H225-H302+H332-H311-H314-H335

Diethylamine
ROTIPURAN® ≥99,5 %, p.a., ACS

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Water ..... ≤0,1 %
Colour (APHA) ..... ≤20
Lead (Pb) ..... ≤0,00001 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %
Evaporation residue ..... ≤0,01 %
Monoethylamine (GC) ..... ≤0,5 %
Triethylamine (GC) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
3495.1	250 ml	glass	45,05
3495.2	1 l	glass	145,15
Original pack 6 x 1 l			137,89/1 l

Diethylamine
≥99,5 %, for synthesis

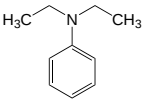
Type analysis
Assay (GC) ..... ≥99,5 %
Water ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
KK00.1	100 ml	glass	16,70
KK00.2	500 ml	glass	23,55
KK00.3	1 l	glass	33,90
Original pack 6 x 1 l			32,21/1 l
KK00.4	2.5 l	glass	59,05
Original pack 4 x 2.5 l			56,10/2.5 l

Diethylaminoethyldextran

▸ DEAE Dextran see page 864

N,N-Diethylaniline



DEA · *N,N*-Diethylaminobenzene · *N,N*-Diethylphenylamine · *N*-Phenyl-*N,N*-diethylamine

$C_{10}H_{15}N$ · D 0,927 g/cm³ · mp <-13,8 °C · bp 218 °C · flp 81,6 °C
CAS No. 91-66-7 · EC no. 202-088-8
UN no. 2432 · ADR 6.1 III · WGK 2

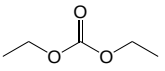
Danger H301+H311+H331-H315-H373-H411

N,N-Diethylaniline
≥98,5 %, for synthesis

Type analysis
Appearance ..... brownish-yellow liquid
Assay (GC) ..... ≥98,5 %
Density (d 20 °C/4 °C) 0,933-0,934

Art. No.	Pack Qty.	Pack.	€
1CA2.1	250 ml	glass	22,50
1CA2.2	1 l	glass	69,35
Original pack 6 x 1 l			65,88/1 l
1CA2.3	2.5 l	glass	144,60
Original pack 4 x 2.5 l			137,37/2.5 l

Diethyl carbonate



DEC · Ethyl carbonate · Carbonic acid diethyl ester

$C_5H_{10}O_3$ · D 0,98 g/cm³ · mp -43 °C · bp 126 °C · flp 25 °C
CAS No. 105-58-8 · EC no. 203-311-1
UN no. 2366 · ADR 3 III · WGK 1

Warning H226

Diethyl carbonate
SOLVAGREEN® ≥99,9 %

Alternative for DMF, phosgene.

Type analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,1 %
Ethanol (GC) ..... ≤0,2 %
Density (20 °C) 0,978-0,983

Art. No.	Pack Qty.	Pack.	€
2627.1	100 ml	glass	19,25
2627.2	500 ml	glass	32,15
2627.3	1 l	glass	46,15
Original pack 6 x 1 l			43,84/1 l
2627.4	2.5 l	glass	88,05
Original pack 4 x 2.5 l			83,65/2.5 l

Diethyl dicarbonate

▸ DEPC see page 867

Diethyldithiocarbamic acid silver salt

▸ Silver diethyldithiocarbamate see page 1272

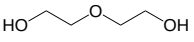
Diethyldithiocarbamic acid sodium salt

▸ Sodium diethyldithiocarbamate trihydrate see page 1282

1.4-Diethylene dioxide

▸ 1,4-Dioxane see page 891

Diethylene glycol



Diglycol · 2,2'-Dihydroxy diethyl ether

$C_4H_{10}O_3$ · D 1,11 to 1,12 g/cm³ · mp -6,5 °C · bp 242 to 252 °C · flp 138 °C
CAS No. 111-46-6 · EC no. 203-872-2
WGK 1

Warning H302-H373

Diethylene glycol
≥99 %, for synthesis

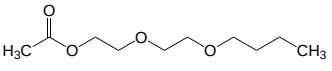
Type analysis
Assay (GC) ..... ≥99 %
Density (20 °C) 1,115-1,120
Water (KF) ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
0968.1	1 l	plastic	22,50
Original pack 6 x 1 l			21,38/1 l
0968.2	2.5 l	plastic	40,75
Original pack 4 x 2.5 l			38,71/2.5 l
0968.5	5 l	plastic	74,10
Original pack 2 x 5 l			70,40/5 l
0968.3	10 l	plastic	126,35
0968.4	25 l	plastic	246,20

Diethylene glycol butyl ether

▸ Butyldiglycol see page 799

Diethylene glycol monobutyl ether acetate



2-(2-Butoxyethoxy)ethyl acetate · Butyldiglycol acetate

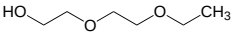
$C_{10}H_{20}O_4$ · D 0,976 to 0,979 g/cm³ · mp -32 °C · bp 238 to 248 °C · flp 116 °C
CAS No. 124-17-4 · EC no. 204-685-9
WGK 1

Diethylene glycol monobutyl ether acetate
≥97 %, pure

Type analysis
Assay (GC) ..... ≥97,0 %
Colour (Hazen) ..... ≤20

Art. No.	Pack Qty.	Pack.	€
8021.1	1 l	glass	41,85
Original pack 6 x 1 l			39,76/1 l
8021.2	2.5 l	glass	82,25
Original pack 4 x 2.5 l			78,14/2.5 l

Diethylene glycol monoethyl ether



2-(2-Ethoxyethoxy)ethanol · Ethyldiglycol

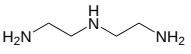
$C_6H_{14}O_3$ · D 0,989 g/cm³ · mp -54 °C · bp 196 °C · flp 96 °C
CAS No. 111-90-0 · EC no. 203-919-7
WGK 1

Diethylene glycol monoethyl ether
≥99 %, pure

Type analysis
Assay (GC) ..... ≥99,0 %
Colour (Hazen) ..... ≤15

Art. No.	Pack Qty.	Pack.	€
8686.1	1 l	glass	34,30
Original pack 6 x 1 l			32,59/1 l
8686.2	2.5 l	glass	69,80
Original pack 4 x 2.5 l			66,31/2.5 l

Diethylene triamine



2,2'-Diaminodiethylamine · DETA

$C_4H_{13}N_3$ · D 0,96 g/cm³ · mp -39 °C · bp 206 to 209 °C · flp 94 °C
CAS No. 111-40-0 · EC no. 203-865-4
UN no. 2079 · ADR 8 II · WGK 1

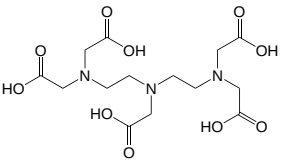
Danger H302+H312-H314-H317-H330-H335

Diethylene triamine
≥98 %, for synthesis

Type analysis
Appearance ... clear colourless to yellowish liquid
Assay (GC) ..... ≥98,0 %
Density 0,949-0,952
Refractive index n_D^{20} 1,482-1,483
Water ..... ≤0,3 %

Art. No.	Pack Qty.	Pack.	€
6723.1	100 ml	glass	24,65
6723.2	500 ml	glass	69,35
6723.3	1 l	glass	121,40
Original pack 6 x 1 l			115,33/1 l
6723.4	2.5 l	glass	252,65
Original pack 4 x 2.5 l			240,02/2.5 l
6723.5	25 l	plastic	2.073,70

Diethylene triamine pentaacetic acid



DTPA · Titration complex V · Pentetic acid

$C_{14}H_{23}N_3O_{10}$ · D 1,56 g/cm³ · mp 220 °C
CAS No. 67-43-6 · EC no. 200-652-8
WGK 2

Warning H319-H332-H361fd-H373

Diethylene triamine pentaacetic acid
≥99 %, for synthesis

Titration complex V

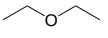
Type analysis
Appearance ..... white crystalline powder
Assay ..... ≥99,0 %
Chloride (Cl) ..... ≤0,01 %
Nitrilotriacetic acid ..... ≤0,5 %
Sulphate (SO_4) ..... ≤0,05 %
Heavy metals (as Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
pH value (saturated solution) 2,1-2,5
Loss on drying ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
1407.1	100 g	plastic	23,15
1407.2	250 g	plastic	41,40
1407.3	500 g	plastic	69,35
Original pack 6 x 500 g			65,88/500 g
1407.4	1 kg	plastic	123,65
Original pack 6 x 1 kg			117,47/1 kg

N,N-Diethylethane amine

▸ Triethylamine (TEA) see page 1378

Diethyl ether



Ether · Ethyl ether · Sulphuric ether

$C_4H_{10}O$ · D 0,71 g/cm³ · mp -116 °C · bp 34,58 to 34,59 °C · flp -40 °C
CAS No. 60-29-7 · EC no. 200-467-2
UN no. 1155 · ADR 3 I · WGK 1

Danger H224-H302-H336-EUH019 EUH066

Diethyl ether
ROTISOLV® Pestilyse® ≥99,8 %, stabilised

For residue and environmental analysis.

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,1 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %
GC/ECD (individual signal as lindane) ..... ≤5 ng/l
GC/PND (individual signal as ethylparathion) ..... ≤10 ng/l

stabilised with approx. 1 % ethanol.

Art. No.	Pack Qty.	Pack.	€
T900.1	2.5 l	glass	107,40
Original pack 4 x 2.5 l			102,03/2.5 l

Diethyl ether
ROTIDRY®Sept ≥99,5 % (≤50 ppm H_2O), stabilised

Dried; in a septum bottle

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,005 %
Acidity (as CH_3COOH) ..... ≤0,001 %
Evaporation residue ..... ≤0,001 %

stabilised with approx. 10 ppm BHT.

Art. No.	Pack Qty.	Pack.	€
5177.1	250 ml	septum bottle	78,40

Diethyl ether
ROTIDRY® plus ≥99,5 % (≤50 ppm H_2O), with molecular sieve, stabilised

Type analysis
Assay (GC) ..... ≥99,5 %
Water (KF) ..... ≤0,005 %
Density (d 20 °C/4 °C) 0,713-0,715
Acetone (GC) ..... ≤0,01 %
Ethanol (GC) ..... ≤0,1 %
Methanol (GC) ..... ≤0,05 %
Peroxides (as H_2O_2) ..... ≤0,001 %
Cu (Copper) ..... ≤0,00002 %
Fe (Iron) ..... ≤0,00005 %
Ni (Nickel) ..... ≤0,00002 %
Pb (Lead) ..... ≤0,00002 %

stabilised with ca. 5 ppm BHT.

Art. No.	Pack Qty.	Pack.	€
1A9X.1	1 l	glass	80,10
Original pack 6 x 1 l			76,10/1 l

Diethyl ether
ROTIDRY® ≥99,5 % (≤50 ppm H_2O), stabilised

Dried; for analysis and organic synthesis.

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Colour (Hazen) ..... ≤10
Water (KF) ..... ≤0,005 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,001 %

stabilised with ca. 5 ppm BHT.
Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
AE04.1	1 l	glass	59,05
Original pack 6 x 1 l			56,10/1 l

Diethyl ether
ROTIPURAN® ≥99,5 %, p.a., stabilised

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Density (20 °C) 0,714-0,716
Water (KF) ..... ≤0,1 %
Acetone (GC) ..... ≤0,01 %
Ethanol (GC) ..... ≤0,1 %
Methanol (GC) ..... ≤0,1 %
Säuren (CH_3COOH) ..... ≤0,01 %
Peroxides (as H_2O_2) ..... unverifiable
Aluminium (Al) ..... ≤0,00005 %
Barium (Ba) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,000001 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Cobalt (Co) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,000001 %
Copper (Cu) ..... ≤0,000001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,00001 %
Zinc (Zn) ..... ≤0,000001 %
Tin (Sn) ..... ≤0,00001 %
Evaporation residue ..... ≤0,002 %

stabilised with ca. 5 ppm BHT.

Art. No.	Pack Qty.	Pack.	€
3942.1	1 l	glass	60,10
Original pack 6 x 1 l			57,10/1 l
3942.6	2.5 l	glass	107,40
Original pack 4 x 2.5 l			102,03/2.5 l
3942.4	5 l	aluminium	203,20
Original pack 2 x 5 l			193,04/5 l
3942.5	25 l	tinplate	607,40

Diethyl ether
≥99,5 %, Ph. Eur., stabilised

Guarantee analysis
Appearance ..... clear, colourless
Assay (GC) ..... ≥99,5 %
Identity ..... complies
Density (d 20 °C/4 °C) 0,714- 0,716
Water ..... ≤0,05 %
Evaporation residue ..... ≤0,002 %
Acid react. substances ..... complies
Destillation range ..... 34,0-35,0 °C
Aldehydes ..... complies
Peroxides ..... unverifiable
Foreign odour ..... complies

stabilised with ca. 5 ppm BHT.

Art. No.	Pack Qty.	Pack.	€
8810.1	1 l	glass	47,85
Original pack 6 x 1 l			45,46/1 l
8810.5	2.5 l	glass	96,65
Original pack 4 x 2.5 l			91,82/2.5 l
8810.2	5 l	aluminium	181,70
Original pack 2 x 5 l			172,62/5 l
8810.4	25 l	tinplate	547,20

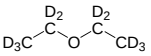
Diethyl ether
≥99,5 %, for synthesis, stabilised

Type analysis
Assay (GC) ..... ≥99,5 %
Density (20 °C) 0,714-0,716
Peroxides (as H_2O_2) ..... unverifiable

stabilised with ca. 5 ppm BHT.

Art. No.	Pack Qty.	Pack.	€
5920.2	1 l	glass	46,15
Original pack 6 x 1 l			43,84/1 l
5920.3	5 l	aluminium	160,20
Original pack 2 x 5 l			152,19/5 l
5920.4	25 l	tinplate	456,90

Diethyl ether D10



Ether D10 · Ethyl ether D10

$C_4D_{10}O$ · D 0,78 g/cm³ · mp -116 °C · bp 34,6 °C · flp -45 °C
CAS No. 2679-89-2 · EC no. 220-235-4
UN no. 1155 · ADR 3 I · WGK 1

Danger H224-H302+H332-H336-EUH019 EUH066

Diethyl ether D10
99 Atom%D

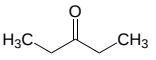
For nuclear magnetic resonance spectroscopy.

Storage temperature: +4 °C

Type analysis
Deuterising degree ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
9907.1	1 ml	glass ampoule	149,45

Diethylketone



3-Pentanone · Dimethyl acetone · Propione

$C_5H_{10}O$ · D 0,815 g/cm³ · mp -39 °C · bp 100 to 102 °C · flp 7 °C
CAS No. 96-22-0 · EC no. 202-490-3
UN no. 1156 · ADR 3 II · WGK 1

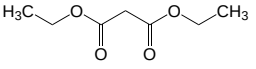
Danger H225-H319-H335-H336-EUH066

Diethylketone
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
0262.1	500 ml	glass	33,25
0262.2	1 l	glass	53,65
Original pack 6 x 1 l			50,97/1 l
0262.3	2.5 l	glass	107,40
Original pack 4 x 2.5 l			102,03/2.5 l
0262.4	5 l	plastic	181,70
Original pack 2 x 5 l			172,62/5 l

Diethyl malonate



Malonic acid diethyl ester · Ethyl malonate · Diethyl propanedioate

$C_7H_{12}O_4$ · D 1,055 g/cm³ · bp 197 °C · flp 90 °C
CAS No. 105-53-3 · EC no. 203-305-9
WGK 1

Warning H319

Diethyl malonate
≥99 %, for synthesis

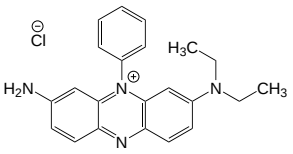
Type analysis
Appearance ..... clear liquid
Assay (GC) ..... ≥99 %
Density (d 20 °C/4 °C) 1,052-1,057

Art. No.	Pack Qty.	Pack.	€
3070.1	250 ml	glass	25,30
3070.2	1 l	glass	79,45
Original pack 6 x 1 l			75,48/1 l
3070.3	2.5 l	glass	158,60
Original pack 4 x 2.5 l			150,67/2.5 l

Diethylmethane
▸ *n*-Pentane see page 1141

Diethyl pyrocarbonate
▸ DEPC see page 867

Diethyl safranine (C.I. 50206)



Methylene violet 3RAX

$C_{22}H_{23}ClN_4$ · mp 285 °C
CAS No. 4569-86-2
WGK 1

Diethyl safranine (C.I. 50206)
for microscopy

Type analysis
Appearance ..... green cryst. powder
Appearance of solution (0,1 % in H_2O) .. clear red
Absorption max. (in H_2O) ..... ≤557 nm

Art. No.	Pack Qty.	Pack.	€
7654.1	1 g	glass	16,70
7654.2	5 g	glass	34,30
7654.3	10 g	glass	55,80

Diferuloylmethane
▸ Curcumin see page 855

Differential Reinforced Clostridial Medium

DRCM

D 1,85 g/cm³ · mp 176 °C · bp 100 °C
WGK 3

Warning H319-EUH031

Differential Reinforced Clostridial Medium
for microbiology

For enrichment and enumeration of clostridia in foods and other samples.

Application: Use 27.5 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Casein peptone ..... 5 g/l
Meat peptone ..... 5 g/l
Beef extract ..... 8 g/l
Yeast extract ..... 1 g/l
Soluble starch ..... 1 g/l
Glucose ..... 1 g/l
Cystein hydrochloride ..... 0,5 g/l
Sodium acetate ..... 5 g/l
Sodium bisulfite ..... 0,5 g/l
Ammonium iron(III) citrate ..... 0,5 g/l
Sodium resazurin ..... 0,002 g/l
pH value ..... 7,1 ±0,2

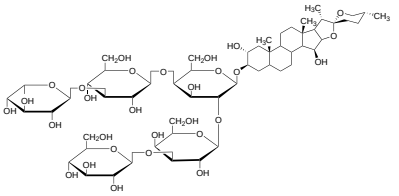
Art. No.	Pack Qty.	Pack.	€
CL78.1	500 g	plastic	177,40
Original pack 6 x 500 g			168,53/500 g

Digilanide
▸ Lanatoside C see page 1034

Digitalin
▸ Digitoxin see page 880

Digitoflavone
▸ Luteolin-7-glucoside see page 1051

Digitonin



$C_{56}H_{92}O_{29}$ · mp 230 to 240 °C
CAS No. 11024-24-1 · EC no. 234-255-6
UN no. 2811 · ADR 6.1 III · WGK 3

Danger H301+H311+H331

Digitonin
Ultra Quality

Water soluble quality, for biochemistry. Non-ionic detergent.

Application: Use 10–100 µg/ml for selective permeabilisation of plasma membranes via binding of cholesterol (Mooney, R.A. (1988). *Methods Enzymol.* 159:193–2).

Guarantee analysis
Appearance ..... white, cryst. powder
Solution (2,5 %, warm EtOH) ..... clear, colourless
Solubility (1 g dissolved in 20 ml H_2O by heating up to 95-98 °C for 15 min, clear colorless) . complies
Spec. rotation $[\alpha]_D^{20}$ (c=1 in ethanol) ..... -57,0° to -49,0°
Sulphated ash ..... ≤0,3 %
Loss on drying (3 h, 105 °C, vacuum) ..... ≤6,0 %
Water (KF) ..... ≤6,0 %

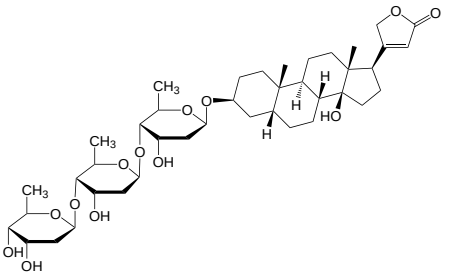
Art. No.	Pack Qty.	Pack.	€
HN76.3	100 mg	glass	99,45
HN76.1	250 mg	glass	209,65
HN76.2	1 g	glass	639,65

Digitonin
for biochemistry

Guarantee analysis
Appearance ..... white to yellowish powder
Appearance of solution (2,5 % EtOH) ..... clear, colorless to light yellow
Solubility (2,5 %, warm EtOH) ..... complies
Specific rotation $[\alpha]_D^{20}$ ..... -48° ±3°
Ash content ..... ≤0,3 %
Loss on drying ..... ≤6 %

Art. No.	Pack Qty.	Pack.	€
4005.1	100 mg	glass	53,65
4005.2	500 mg	glass	177,40
4005.3	1 g	glass	321,45
4005.4	5 g	glass	1.236,25

Digitoxin



Digitalin

$C_{41}H_{64}O_{13}$ · mp 256 to 257 °C
CAS No. 71-63-6 · EC no. 200-760-5
UN no. 1544 · ADR 6.1 III · WGK 3

Danger H301+H331-H373

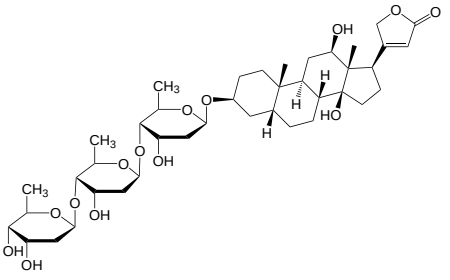
Digitoxin
ROTICHROM® ~CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
7359.1	50 mg	glass	48,30

Diglycine
▸ Glycylglycine see page 968

Diglycol
▸ Diethylene glycol see page 878

Digoxin



Lanoxin

$C_{41}H_{64}O_{14}$ · mp 265 °C
CAS No. 20830-75-5 · EC no. 244-068-1
UN no. 2811 · ADR 6.1 II · WGK 3

Danger H300+H330-H319-H400

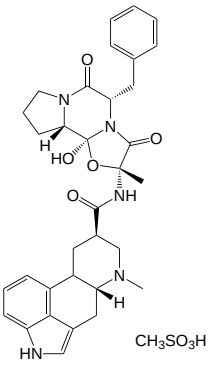
Digoxin
ROTICHROM® ~CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
7323.1	50 mg	glass	90,85

Diholmium trioxide
▸ Holmium(III) oxide see page 986

Dihydrocholesterol
▸ 5-α-Cholestan-3β-ol see page 834

Dihydroergotamine methanesulfonate



$C_{33}H_{37}N_5O_5 \cdot CH_3SO_3H$ · mp 232 °C
CAS No. 6190-39-2 · EC no. 228-235-6
WGK 1

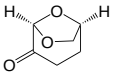
Warning H312+H332

Dihydroergotamine methanesulfonate
≥98 %, for biochemistry

Type analysis
Appearance ..... cryst. powder
Assay (dry substance) ..... 98,0-101,0 %
pH value (0,1 % in H_2O) 4,5-5,4
Specific rotation $[\alpha]_D^{20}$ (1 % in pyridine) ..... -47° to -42°
Related substances ..... complies
Loss on drying (5 h, 100-105 °C) ..... ≤4,0 %

Art. No.	Pack Qty.	Pack.	€
6948.1	100 mg	glass	31,75

Dihydrolevoglucosenone



Cyrene™ · H_2-LGO · (1S,5R)-6,8-Dioxabicyclo[3.2.1]octanon-4-one

$C_6H_8O_3$ · D 1,25 g/cm³ · mp <-20 °C · bp 227 °C · flp 108 °C
CAS No. 53716-82-8 · EC no. 807-130-4
WGK 1

Warning H319

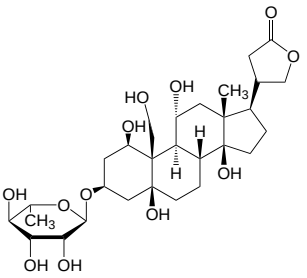
Dihydrolevoglucosenone
SOLVAGREEN® ≥98,5 %, for synthesis

Dipolar aprotic solvent. Alternative for NMP, NEP, DMF, DMAC, DMSO

Type analysis
Appearance ..... colourless to yellow liquid
Assay (GC) ..... ≥98,5 %
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
1E89.1	100 ml	plastic	49,35
1E89.2	500 ml	plastic	134,40
1E89.3	1 l	plastic	252,65
Original pack 6 x 1 l			240,02/1 l

Dihydroouabain



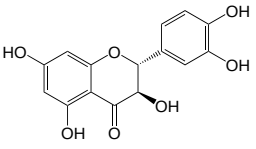
$C_{29}H_{46}O_{12}$ · mp 115 to 125 °C
CAS No. 1183-35-3 · EC no. 214-663-0
UN no. 2811 · ADR 6.1 III · WGK 2

Danger H301+H331-H373

Dihydroouabain
ROTICHROM® ~CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
7197.1	50 mg	glass	177,40

(+)-Dihydroquercetin



(+)-Taxifolin · Distylin

$C_{15}H_{12}O_7$ · mp 228 to 230 °C
CAS No. 480-18-2 · EC no. 207-543-4
WGK 1

(+)-Dihydroquercetin
ROTI®Star Primary Standard

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Assay (HPLC) ..... ≥90,0 %
Residual solvents (GC) ..... ≤7,0 %
Water (KF) ..... ≤7,0 %
Assay (qNMR) ..... ≥85,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE55.1	10 mg	glass	1.020,20

(+)-Dihydroquercetin
ROTICHROM® with analytical records

From *Pseudozuga menziesii*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Analytical records: HPLC, TLC, ^{1}H NMR, ^{13}C NMR, UV, IR, MS, melting point.

Art. No.	Pack Qty.	Pack.	€
T893.1	20 mg	glass	471,95

(+)-Dihydroquercetin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Pseudozuga menziesii*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

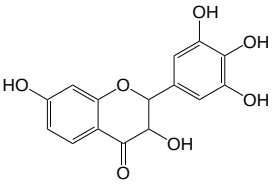
Art. No.	Pack Qty.	Pack.	€
4464.1	20 mg	glass	317,15
4464.2	50 mg	glass	590,20

(+)-Dihydroquercetin
ROTICHROM® ~CHR$_{TLC}$

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
5797.2	100 mg	plastic	263,40

Dihydrorobinetin



$C_{15}H_{12}O_7$ · mp ~225 °C
CAS No. 4382-33-6 · EC no. 224-486-0
WGK 1

Warning H302

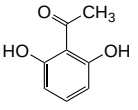
Dihydrorobinetin
ROTICHROM® ~CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
6960.1	100 mg	glass	75,15

Dihydroxy(phenyl)borane

▸ Phenylboronic acid D5 see page 1152

2,6-Dihydroxyacetophenone



2-Acetyl-1,3-dihydroxybenzene · 2-Acetylresorcinol

$C_8H_8O_3$ · mp 156 to 158 °C
CAS No. 699-83-2 · EC no. 211-833-6
WGK 1

Warning H315-H319-H335

2,6-Dihydroxyacetophenone
≥98 %

Type analysis
Assay (GC) ..... ≥98,0 %
Solution (1 % in ethanol) ..... yellowish, clear
Melting point ..... 155-159 °C
Sulphated ash ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
5426.1	5 g	plastic	24,20
5426.2	10 g	plastic	40,75

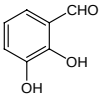
1,2-Dihydroxyantraquinone

▸ Alizarin (C.I. 58000) see page 717

2,2'-Dihydroxy-1,1'-azonaphthalene-3',4,6'-trisulfonic acid disodium salt

▸ Hydroxy naphthol blue disodium salt see page 1000

2,3-Dihydroxybenzaldehyde



$C_7H_6O_3$ · mp 104 to 108 °C
CAS No. 24677-78-9 · EC no. 246-398-1
WGK 1

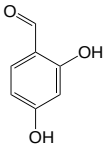
Warning H315-H319-H335

2,3-Dihydroxybenzaldehyde
≥98 %

Type analysis
Assay ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
7274.1	1 g	glass	19,90
7274.2	5 g	glass	37,55
7274.3	25 g	glass	120,95

2,4-Dihydroxy benzaldehyde



β-Resorcylaldehyde

$C_7H_6O_3$ · mp 135 to 137 °C
CAS No. 95-01-2 · EC no. 202-383-1
WGK 2

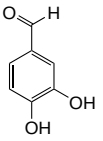
Warning H302-H315-H319-H335-H412

2,4-Dihydroxy benzaldehyde
≥98 %, for synthesis

Type analysis
Appearance ..... off-white to light red powder
Assay (HPLC) ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
4039.1	25 g	glass	50,00
4039.2	100 g	glass	145,05
4039.3	250 g	glass	284,90

3,4-Dihydroxybenzaldehyde



4-Formyl-1,2-dihydroxybenzene · Protocatechualdehyde

$C_7H_6O_3$ · mp 153 to 155 °C
CAS No. 139-85-5 · EC no. 205-377-7
WGK 1

Warning H315-H319-H335

3,4-Dihydroxybenzaldehyde
≥98 %

Storage temperature: +4 °C

Type analysis
Assay (NMR) ..... ≥98,0 %
Loss on drying ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
5424.1	5 g	plastic	21,40
5424.2	25 g	plastic	50,00
5424.3	100 g	plastic	138,70

1,2-Dihydroxybenzene

▸ Pyrocatechol see page 1192

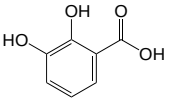
1,3-Dihydroxybenzene

▸ Resorcinol see page 1202

1,4-Dihydroxybenzene

▸ Hydroquinone see page 997

2,3-Dihydroxybenzoic acid



$C_7H_6O_4$ · mp 204 to 206 °C
CAS No. 303-38-8 · EC no. 206-139-5
WGK 1

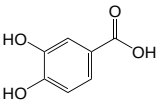
Warning H315-H319-H335

2,3-Dihydroxybenzoic acid
≥98 %

Type analysis
Assay ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
6057.1	5 g	plastic	35,40

3,4-Dihydroxybenzoic acid



Protocatechuic acid

$C_7H_6O_4$ · mp 200 °C
CAS No. 99-50-3 · EC no. 202-760-0
WGK 1

Warning H315-H319-H335

3,4-Dihydroxybenzoic acid
≥97 %

Type analysis
Appearance ..... light-brown, fine crystals
Assay (titr.) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
8274.1	10 g	glass	59,05

3,4-Dihydroxybenzoic acid
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤3,0 %
Water (KF) ..... ≤7,0 %
Assay (qNMR) ..... ≥90,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE52.1	50 mg	glass	697,70

3α,7α-Dihydroxy-5β-cholanic acid

▸ Chenodeoxycholic acid see page 828

3,4-Dihydroxycinnamic acid

▸ Caffeic acid see page 804

6,7-Dihydroxycoumarin

▸ Esculetin see page 914

7,8-Dihydroxycoumarin

▸ Daphnetin see page 863

6,7-Dihydroxycoumarin-6-glycoside

▸ Esculin sesquihydrate see page 914

2,2'-Dihydroxydiethyl amine

▸ Diethanolamine see page 877

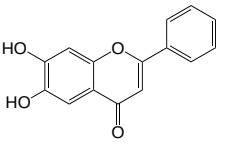
2,2'-Dihydroxy diethyl ether

▸ Diethylene glycol see page 878

5,7-Dihydroxyflavone

▸ Chrysin see page 838

6,7-Dihydroxyflavone



$C_{15}H_{10}O_4$ · mp 256 to 258 °C
CAS No. 38183-04-9
WGK 1

Warning H302

6,7-Dihydroxyflavone
ROTICHROM® ~CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
8066.1	10 mg	glass	407,45

1,7-Dihydroxyginkgolide A
▸ Ginkgolide C see page 957

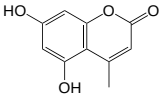
1,7-Dihydroxyheptane
▸ 1,7-Heptanediol see page 980

2,2-Dihydroxy-1,3-indanedione
▸ Ninhydrin see page 1105

5,7-Dihydroxy-4'-methoxyflavone
▸ Acacetin see page 688

1,8-Dihydroxy-3-methoxy-6-methylanthraquinone
▸ Physcion see page 1157

5,7-Dihydroxy-4-methylcoumarin Monohydrate



$C_{10}H_8O_4 \cdot H_2O$ · mp 280 °C
CAS No. 2107-76-8 · EC no. 218-289-9
WGK 1

Warning H315-H319-H335

5,7-Dihydroxy-4-methylcoumarin Monohydrate
≥97 %

Type analysis
Assay ..... ≥97 %
Melting point ..... ≥280 °C
Water ..... 8,1-9,1 %

Art. No.	Pack Qty.	Pack.	€
6063.1	100 mg	glass	51,10

4,5-Dihydroxy-2,7-naphthalene disulphonic acid sodium salt
▸ Chromotropic acid disodium salt dihydrate see page 837

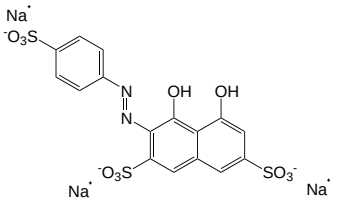
3,4-Dihydroxyphenylethanol
▸ Hydroxytyrosol see page 1002

1,3-Dihydroxypropane
▸ 1,3-Propanediol see page 1184

12,18-Dihydroxysenecionan-11,16-dion
▸ Retrorsine see page 1203

12,18-Dihydroxysenecionan-11,16-dione-4-oxide
▸ Retrorsine-*N*-oxide see page 1203

1,8-Dihydroxy-2-(4-sulfophenylazo)-naphthalene-3,6-disulfonic acid trisodium salt



SPADNS

$C_{16}H_9N_2Na_3O_{11}S_3$
CAS No. 23647-14-5 · EC no. 245-803-9
WGK 1

Warning H315-H319-H335

1,8-Dihydroxy-2-(4-sulfophenylazo)-naphthalene-3,6-disulfonic acid trisodium salt
p.a., ACS

Reagent for fluoride.

Guarantee analysis
Assay ..... ≥80,0 %
Appearance of solution ..... complies
Loss on drying ..... ≤10 %
Suitability as reagent for fluoride ..... complies

Art. No.	Pack Qty.	Pack.	€
2605.1	10 g	glass	34,30
2605.2	25 g	glass	60,10

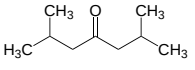
2,5-Dihydroxytoluene
▸ Toluhydroquinone see page 1374

3,5-Dihydroxy-1,2,4-triazine
▸ 6-Azauracil see page 758

3',5-Dihydroxy-4',6,7-trimethoxyflavone
▸ Eupatorin see page 928

Diiodine pentoxide
▸ Iodine(V) oxide see page 1011

Diisobutyl ketone



2,6-Dimethyl-4-heptanone · DIBK

$C_9H_{18}O$ · D 0,81 g/cm³ · mp -46 °C · bp 169 °C · flp 49 °C
CAS No. 108-83-8 · EC no. 203-620-1
UN no. 1157 · ADR 3 III · WGK 1

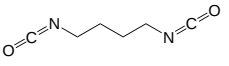
Warning H226-H335

Diisobutyl ketone
≥94 %, pure

Type analysis
Assay ..... ≥94,0 %
Colour (Hazen) ..... ≤30
Density (20 °C) 0,804-0,813

Art. No.	Pack Qty.	Pack.	€
7653.1	100 ml	glass	13,90
7653.2	500 ml	glass	23,55
7653.3	1 l	glass	41,85
Original pack 6 x 1 l			39,76/1 l
7653.4	2.5 l	glass	89,15
Original pack 4 x 2.5 l			84,69/2.5 l

1,4-Diisocyanatobutane



1,4-Butane diisocyanate · BDI · Tetramethylene diisocyanate

$C_6H_8N_2O_2$ · D 1,11 g/cm³ · bp 102 to 104 °C · flp 106 °C
CAS No. 4538-37-8
WGK 1

Danger H302+H312+H332-H315-H317-H319-H334-H335

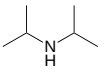
1,4-Diisocyanatobutane
≥99 %, for synthesis

Monomer for the preparation of polyurethanes

Type analysis
Assay ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
0660.1	1 g	glass	36,45
0660.2	5 g	glass	123,65
0660.3	10 g	glass	209,65

Diisopropylamine



$C_6H_{15}N$ · D 0,717 g/cm³ · mp -70 °C · bp 83 to 84 °C · flp -13,45 °C
CAS No. 108-18-9 · EC no. 203-558-5
UN no. 1158 · ADR 3 (8) II · WGK 2

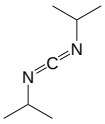
Danger H225-H302-H314-H331-H335

Diisopropylamine
≥99,5 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,5 %
Water ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4369.1	100 ml	glass	17,10
4369.2	500 ml	glass	35,40
4369.3	1 l	glass	60,10
Original pack 6 x 1 l			57,10/1 l

N,N'-Diisopropylcarbodiimide (DIC)



DIC

$C_7H_{14}N_2$ · D 0,81 g/cm³ · bp 145 to 148 °C · flp 33 °C
CAS No. 693-13-0 · EC no. 211-743-7
UN no. 2929 · ADR 6.1 (3) II · WGK 2

Danger H226-H315-H317-H318-H330-H334-H410

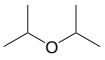
N,N'-Diisopropylcarbodiimide (DIC)
PEPTIPURE® ≥99 %

Activation agent for carboxylic acids. Coupling reagent for peptide synthesis.

Type analysis
Appearance ..... colorless to light yellow liquid
Identity (IR) ..... complies
Assay (GC) ..... ≥99 %
Refractive index (20 °C) 1,431-1,435

Art. No.	Pack Qty.	Pack.	€
6981.1	5 ml	glass	23,55
6981.2	25 ml	glass	64,40
6981.3	100 ml	glass	181,70
6981.4	500 ml	glass	618,15

Diisopropyl ether



IPE · Isopropyl ether

$C_6H_{14}O$ · D 0,72 g/cm³ · mp -86 °C · bp 67 to 70 °C · flp -28 °C
CAS No. 108-20-3 · EC no. 203-560-6
UN no. 1159 · ADR 3 II · WGK 1

Danger H225-H336-EUH019 EUH066

Diisopropyl ether
ROTIPURAN® ≥99 %, p.a., stabilised

Guarantee analysis
Assay (GC) ..... ≥99,0 %
Density (20 °C) 0,723-0,726
Water (KF) ..... ≤0,1 %
Evaporation residue ..... ≤0,001 %
Lead (Pb) ..... ≤0,00001 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %

stabilised with 50 ppm BHT.

Art. No.	Pack Qty.	Pack.	€
T919.1	1 l	glass	46,15
Original pack 6 x 1 l			43,84/1 l
T919.2	2.5 l	glass	98,80
Original pack 4 x 2.5 l			93,86/2.5 l
T919.4	5 l	aluminium	177,40
Original pack 2 x 5 l			168,53/5 l
T919.3	10 l	tinplate	317,15

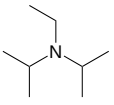
Diisopropyl ether
≥98 %, for synthesis, stabilised

Type analysis
Assay (GC) ..... ≥98,0 %
Density (20 °C) 0,724-0,726
Refractive index (20 °C) 1,3670-1,3690

stabilised with 10 ppm IONOL®.

Art. No.	Pack Qty.	Pack.	€
T899.1	1 l	glass	27,45
Original pack 6 x 1 l			26,08/1 l
T899.2	2.5 l	glass	51,10
Original pack 4 x 2.5 l			48,55/2.5 l
T899.4	5 l	aluminium	94,10
Original pack 2 x 5 l			89,40/5 l
T899.3	10 l	tinplate	170,95
T899.5	25 l	tinplate	349,40

N,N-Diisopropylethylamine (DIPEA)



DIPEA · Hünigs base · *N*-Ethyldiisopropylamine

$C_8H_{19}N$ · D 0,742 g/cm³ · mp -46 °C · bp 128,3 °C · flp 9 to 10 °C
CAS No. 7087-68-5 · EC no. 230-392-0
UN no. 1992 · ADR 3 (6.1) II · WGK 1

Danger H225-H302-H318-H331-H335

N,N-Diisopropylethylamine (DIPEA)
PEPTIPURE® ≥99,5 %, for peptide synthesis

Type analysis
Appearance .. colourless to yellowish, clear liquid
Assay (GC) ..... ≥99,5 %
Diisopropylamine (GC) ..... ≤0,1 %
Water (KF) ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
2474.1	100 ml	glass	32,15
2474.2	250 ml	glass	58,60
2474.3	1 l	glass	198,90
Original pack 6 x 1 l			188,96/1 l
2474.4	2.5 l	glass	407,45
Original pack 4 x 2.5 l			387,08/2.5 l

N,N-Diisopropylethylamine (DIPEA)
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,0 %
Water (KF) ..... ≤0,3 %
Colour (APHA) ..... ≤50

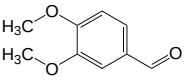
Art. No.	Pack Qty.	Pack.	€
4105.1	100 ml	glass	21,40
4105.2	250 ml	glass	38,60
4105.3	1 l	glass	107,40
Original pack 6 x 1 l			102,03/1 l
4105.4	2.5 l	glass	220,40
Original pack 4 x 2.5 l			209,38/2.5 l

2,5-Diketopiperazine
▸ Glycine anhydride see page 968

Dilanthanum trioxide
▸ Lanthanum(III) oxide see page 1035

Dimercury dichloride
▸ Mercury(I) chloride see page 1074

3,4-Dimethoxybenzaldehyde



Veratric aldehyde

$C_9H_{10}O_3$ · mp 44,7 °C · bp 262,8 °C · flp 113 °C
CAS No. 120-14-9 · EC no. 204-373-2
WGK 1

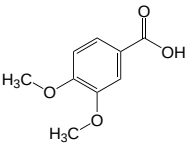
Warning H302-H317

3,4-Dimethoxybenzaldehyde
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99 %
Melting point ..... 42-45 °C
Water ..... ≤0,5 %
Heavy metals ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
9651.1	100 g	plastic	58,60
9651.2	500 g	plastic	228,45
Original pack 6 x 500 g			217,03/500 g

3,4-Dimethoxybenzoic acid



Veratric acid

$C_9H_{10}O_4$ · mp 179 to 182 °C
CAS No. 93-07-2 · EC no. 202-215-7
WGK 1

Warning H315-H319-H335

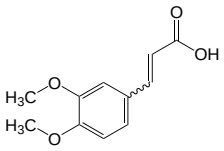
3,4-Dimethoxybenzoic acid
≥99 %, for synthesis

Type analysis
Appearance .... white to pale yellow cryst. powder
Assay (titr.) ..... 99,0-101,0 %

Art. No.	Pack Qty.	Pack.	€
4230.1	100 g	plastic	71,50
4230.2	250 g	plastic	149,45
4230.3	1 kg	plastic	557,95
Original pack 6 x 1 kg			530,05/1 kg

3,3'-(3,3'-Dimethoxy-[1,1'-biphenyl]-4,4'-diyl)-bis(2,5-diphenyl-2*H*-tetrazolium) dichloride
▸ Tetrazolium blue chloride see page 1363

3,4-Dimethoxy cinnamic acid



Dimethyl caffeic acid

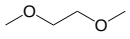
$C_{11}H_{12}O_4$ · mp 181 to 183 °C
CAS No. 2316-26-9 · EC no. 219-025-5
WGK 1

Warning H315-H319-H335

3,4-Dimethoxy cinnamic acid
ROTICHROM® CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
9918.1	5 g	glass	28,50

1,2-Dimethoxyethane



Ethylene glycol dimethyl ether

$C_4H_{10}O_2$ · D 0,87 g/cm³ · mp -69 °C · bp 84 to 86 °C · flp -3 °C
CAS No. 110-71-4 · EC no. 203-794-9
UN no. 2252 · ADR 3 II · WGK 1

Danger H225-H332-H360FD-EUH019

1,2-Dimethoxyethane
≥99 %, for synthesis

Type analysis

Assay (GC)	≥99 %
Water (KF)	≤0,2 %
Density (d 20 °C/4 °C)	0,866-0,868

Art. No.	Pack Qty.	Pack.	€
5498.2	100 ml	glass	25,30
5498.1	500 ml	glass	86,55

3,5-Dimethoxy-4-hydrocinnamic-acid
▸ Sinapic acid see page 1274

3,5-Dimethoxy-4-hydroxyacetophenone
▸ Acetosyringone see page 700

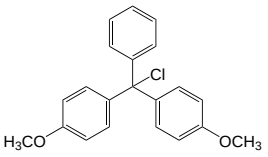
Dimethoxymethane
▸ Methylal see page 1082

4-(2',4'-Dimethoxyphenyl-Fmoc-aminomethyl)phenoxy resin
▸ Rink amide resin see page 1207

Dimethoxypsoralen
▸ Isopimpinellin see page 1022

4,4'-Dimethoxytriphenylmethyl chloride
▸ 4,4'-Dimethoxytrityl chloride (DMT-Cl) see page 885

4,4'-Dimethoxytrityl chloride (DMT-Cl)



Chloro-4,4'-dimethoxytriphenylmethane · DMT-Cl · 4,4'-Dimethoxytriphenylmethyl chloride

$C_{21}H_{19}ClO_2$ · mp 123 to 125 °C
CAS No. 40615-36-9 · EC no. 255-002-6
UN no. 1759 · ADR 8 II · WGK 2

Danger H314-H317-H411

4,4'-Dimethoxytrityl chloride (DMT-Cl)
≥98 %, for synthesis

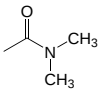
Protective group reagent

Type analysis

Appearance	light pink coloured powder
Assay (HPLC)	≥98,0 %
Loss on drying	≤0,5 %
Melting range	120,0-127,0 °C

Art. No.	Pack Qty.	Pack.	€
9671.1	5 g	glass	34,30
9671.2	25 g	glass	93,45
9671.3	50 g	glass	170,95
9671.4	100 g	glass	278,45

N,N-Dimethylacetamide (DMA)



Acetic acid dimethylamide · DMA

C_4H_9NO · D 0,94 g/cm³ · mp -20 °C · bp 166 °C · flp 64 °C
CAS No. 127-19-5 · EC no. 204-826-4
WGK 2

Danger H312+H332-H319-H360D

N,N-Dimethylacetamide (DMA)
ROTISOLV® ≥99,99 %, Headspace Grade

For determination of solvent residues (O.V.I.)

Guarantee analysis

Assay (GC)	≥99,99 %
Colour (APHA)	≤5
Water (KF)	≤0,03 %
Free acid (as CH_3COOH)	≤0,005 %
Refractive index (20 °C)	1,437-1,439
Non volatile matter	≤0,001 %
UV-Cutoff	190-268 nm
400 nm	≥99 %
350 nm	≥98 %
300 nm	≥85 %
275 nm	≥55 %
268 nm	≥10 %
Headspace suitability test for O.V.I.	complies

Art. No.	Pack Qty.	Pack.	€
HN45.1	1 l	glass	327,90
Original pack 6 x 1 l			311,51/1 l

N,N-Dimethylacetamide (DMA)
≥99 %, for synthesis

Type analysis

Assay (GC)	≥99,0 %
Water	≤0,05 %
Colour (APHA)	≤10
Acid content (as CH_3COOH)	≤0,008 %

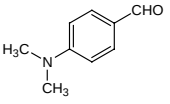
Art. No.	Pack Qty.	Pack.	€
3617.1	250 ml	glass	15,60
3617.2	1 l	glass	45,70
Original pack 6 x 1 l			43,42/1 l
3617.3	2.5 l	glass	66,55
Original pack 4 x 2.5 l			63,22/2.5 l
3617.4	10 l	plastic	231,15
3617.5	25 l	plastic	482,70

Dimethyl acetone
▸ Diethylketone see page 879

p-Dimethylaminoazobenzene
▸ Dimethyl yellow (C.I. 11020) see page 891
▸ Dimethyl yellow indicator solution see page 891

4-(Dimethylamino)-azobenzene-4'-sulphonic acid sodium salt
▸ Methyl orange (C. I. 13025) see page 1086

4-(Dimethylamino)-benzaldehyde



Ehrlich's Reagent · *p*-Formyldimethylanilin

$C_9H_{11}NO$ · D 1,22 g/cm³ · mp 70,7 °C · bp 295 to 330 °C · flp 164 °C
CAS No. 100-10-7 · EC no. 202-819-0
WGK 1

4-(Dimethylamino)-benzaldehyde
≥98 %, p.a., ACS

Reagent for the detection of nitrogen containing compounds.

Guarantee analysis

Assay (GC)	≥98,0 %
Solubility (in ethanol)	complies
Color in ethanol	≤60 Hazen
Solubility in HCl	complies
Color of the solution in HCl	complies
Melting point	73-75 °C
Ash content (as SO_4)	≤0,1 %
Calcium (Ca)	≤0,005 %
Cadmium (Cd)	≤0,0005 %
Cobalt (Co)	≤0,0005 %
Chromium (Cr)	≤0,0005 %
Copper (Cu)	≤0,0005 %
Iron (Fe)	≤0,01 %
Potassium (K)	≤0,005 %
Manganese (Mn)	≤0,0005 %
Sodium (Na)	≤0,05 %
Nickel (Ni)	≤0,0005 %
Lead (Pb)	≤0,0005 %
Zinc (Zn)	≤0,005 %

Art. No.	Pack Qty.	Pack.	€
X867.1	25 g	plastic	55,80
X867.2	100 g	plastic	142,45

4-(Dimethylamino) benzaldehyde spray solution

4-(Dimethylamino) benzaldehyde spray solution
for TLC

Ready-to-use spray solution for detection of terpenes, sugars and steroids.
0,5 g 4-(Dimethylamino)-benzaldehyde dissolved in 100 ml 2-propanol.

D 0,785 g/cm³ · mp -89 °C · bp 82 °C · flp >12 °C

Storage temperature: +4 °C

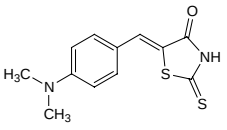
UN no. 1219 · ADR 3 II · WGK 1

Danger H225-H319-H336

Type analysis
TLC-application ..... complies

Art. No.	Pack Qty.	Pack.	€
CP38.1	100 ml	glass	42,90

5-(4-Dimethylaminobenzylidene) rhodanine



$C_{12}H_{12}N_2OS_2$ · mp 285 to 288 °C
CAS No. 536-17-4 · EC no. 208-625-2
WGK 1

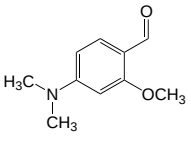
5-(4-Dimethylaminobenzylidene) rhodanine
p.a.

Analytical reagent for silver.

Guarantee analysis
Insoluble matter in acetone ..... complies
Suitability for determination of silver ..... complies
Sensitivity for silver 1:1000000

Art. No.	Pack Qty.	Pack.	€
KK23.1	5 g	glass	37,10
KK23.2	10 g	glass	62,90
KK23.3	50 g	glass	252,65

4-Dimethylamino-2-methoxy-benzaldehyde



$C_{10}H_{13}NO_2$ · mp 59 °C · flp >110 °C
CAS No. 84562-48-1
WGK 1

Warning H315-H319-H335

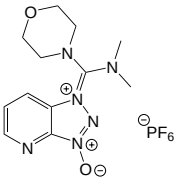
4-Dimethylamino-2-methoxy-benzaldehyde
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance .... white to light yellow cryst. powder
Assay (GC) ..... ≥98,0 %
Appearance of solution (1 % in Acetone) .. colourless to almost colourless

Art. No.	Pack Qty.	Pack.	€
8412.1	1 g	glass	58,60
8412.2	5 g	glass	233,85

1-[(Dimethylamino)(morpholino)-methylene]-1*H*-[1,2,3]triazolo-[4,5-b]pyridine-1-ium 3-oxide hexafluorophosphate (HDMA)



HDMA

$C_{12}H_{17}F_6N_6O_2P$ · mp 218 °C
CAS No. 958029-37-3 · EC no. 804-654-5
WGK 1

Warning H302+H312+H332-H315-H319-H335

1-[(Dimethylamino)(morpholino) methylene]-1*H*-[1,2,3]triazolo-[4,5-b]pyridine-1-ium 3-oxide hexafluorophosphate (HDMA)
PEPTIPURE® ≥98 %

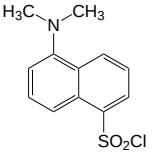
Coupling reagent for peptide synthesis

Storage temperature: +4 °C

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥98 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6888.1	5 g	glass	52,60
6888.2	25 g	glass	174,70
6888.3	100 g	glass	557,95

5-(Dimethylamino)-1-naphthalenesulphonyl chloride



DIS · DNSCl · Dansyl chloride

$C_{12}H_{12}ClNO_2S$ · mp 69 to 73 °C
CAS No. 605-65-2 · EC no. 210-092-6
UN no. 3261 · ADR 8 II · WGK 1

Danger H290-H314

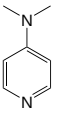
5-(Dimethylamino)-1-naphthalene-sulphonyl chloride
≥98 %, p.a.

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥98,0 %
Melting point ..... 68-73 °C

Art. No.	Pack Qty.	Pack.	€
3624.1	1 g	glass	91,30

4-(Dimethylamino)pyridine (DMAP)



DMAP

$C_7H_{10}N_2$ · mp 112 °C · bp 162 °C · flp 124 °C
CAS No. 1122-58-3 · EC no. 214-353-5
UN no. 2811 · ADR 6.1 II · WGK 1

Danger H301-H310-H315-H319

4-(Dimethylamino)pyridine (DMAP)
PEPTIPURE® ≥99 %

Nucleophilic catalyst. Activation agent for carboxylic acids.

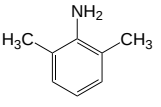
Type analysis
Appearance ..... white to off-white powder
Assay (GC) ..... ≥99 %
Identity ..... complies
Water (KF) ..... ≤0,1 %
Solution (10 % in methanol) ..... clear, colorless solution
Lead (Pb) ..... ≤0,00001 %
Iron (Fe) ..... ≤0,00001 %
Magnesium (Mg) ..... ≤0,00001 %
Zinc (Zn) ..... ≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
6988.1	5 g	glass	17,75
6988.2	25 g	glass	34,95
6988.3	100 g	glass	106,45
6988.4	500 g	glass	375,20
Original pack 6 x 500 g			356,44/500 g

2-(4-Dimethylaminostyryl)-1-ethyl-quinolinium iodide

▸ Quinaldine red see page 1197

2,6-Dimethylaniline



2,6-Xylidine · 1-Amino-2,6-dimethylbenzene · 2,6-Dimethylbenzeneamine · 2-Amino-*m*-xylene

$C_8H_{11}N$ · D 0,98 g/cm³ · mp 11,2 °C · bp 216 °C · flp 92 °C
CAS No. 87-62-7 · EC no. 201-758-7
UN no. 1711 · ADR 6.1 II · WGK 3

Warning H302+H312+H332-H315-H319-H335-H351-H411

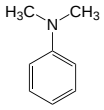
2,6-Dimethylaniline
≥98 %, for synthesis

Type analysis
Assay (GC) ..... ≥98 %
Density (d 20 °C/4 °C) 0,979-0,981
Refractive index (20 °C) 1,5590-1,5630

Due to its specific properties, the product can be present as a solid, liquid, solidified or undercooled melt.

Art. No.	Pack Qty.	Pack.	€
1CAA.1	100 ml	glass	25,70
1CAA.2	500 ml	glass	94,50
1CAA.3	1 l	glass	170,95
Original pack 6 x 1 l			162,40/1 l

N,*N*-Dimethylaniline



DMA · N,N-Dimethylaminobenzene · *N*,*N*-Dimethylphenylamine · *N*-Phenyl-*N*,*N*-dimethylamine

$C_8H_{11}N$ · D 0,926 g/cm³ · mp >1,5 to <2,5 °C · bp 76 to 78 °C · flp 61 °C
CAS No. 121-69-7 · EC no. 204-493-5
UN no. 2253 · ADR 6.1 II · WGK 3

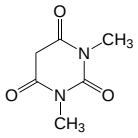
Danger H301+H311+H331-H351-H411

N,*N*-Dimethylaniline
≥99 %, for synthesis

Type analysis
Appearance ..... yellow liquid
Assay (GC) ..... ≥99 %
Density (20 °C) ..... 0,954-0,958 g/cm³

Art. No.	Pack Qty.	Pack.	€
1CA6.1	250 ml	glass	20,35
1CA6.2	1 l	glass	52,15
Original pack 6 x 1 l			49,54/1 l
1CA6.3	2.5 l	glass	107,00
Original pack 4 x 2.5 l			101,65/2.5 l

1,3-Dimethylbarbituric acid



$C_6H_8N_2O_3$ · mp 121 to 123 °C
CAS No. 769-42-6 · EC no. 212-211-7
WGK 1

Danger H302-H318

1,3-Dimethylbarbituric acid
≥98 %, for synthesis

Type analysis
Appearance ..... white to yellow to light brown crsytalline powder
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
0761.1	25 g	plastic	27,85
0761.2	100 g	plastic	85,90
0761.3	250 g	plastic	181,70

Dimethyl benzene
▸ Xylene (isomers) see page 1407

1,2-Dimethylbenzene
▸ *o*-Xylene see page 1407

1,3-Dimethylbenzene
▸ *m*-Xylene see page 1407

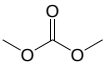
1,4-Dimethylbenzene
▸ *p*-Xylene see page 1408

N,*N*'-Dimethyl-9,9'-biacridinium dinitrate
▸ Lucigenin see page 1050

Dimethyl caffeic acid
▸ 3,4-Dimethoxy cinnamic acid see page 885

Dimethyl carbinol
▸ 2-Propanol see page 1185

Dimethyl carbonate



DMC · Carbonic acid dimethyl ester · Methyl carbonate

$C_3H_6O_3$ · D 1,07 g/cm³ · mp 4,6 °C · bp 90 °C · flp 16,7 °C
CAS No. 616-38-6 · EC no. 210-478-4
UN no. 1161 · ADR 3 II · WGK 1

Danger H225

Dimethyl carbonate
SOLVAGREEN® ≥99,8 %

Alternative for DMF, phosgene.

Type analysis
Assay (GC) ..... ≥99,8 %
Water ..... ≤0,1 %
Methanol (GC) ..... ≤0,1 %
Free acid (as CH_3COOH) ..... ≤0,015 %

Art. No.	Pack Qty.	Pack.	€
2625.1	100 ml	glass	16,05
2625.2	500 ml	glass	25,70
2625.3	1 l	glass	40,75
Original pack 6 x 1 l			38,71/1 l
2625.4	2.5 l	glass	70,45
Original pack 4 x 2.5 l			66,93/2.5 l

Dimethyl carbonate D6

$C_3D_6O_3$ · D 1,15 g/cm³ · mp 2 to 4 °C · bp 90 °C · flp 16,7 °C
CAS No. 108481-44-3 · EC no. 690-550-3
UN no. 1161 · ADR 3 II · WGK 1

Danger H225

Dimethyl carbonate D6
99,5 Atom%D

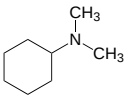
For nuclear magnetic resonance spectroscopy.

M 96,08 g/mol

Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
1L38.1	1 ml	glass	177,40

N,*N*-Dimethylcyclohexylamine



Cyclohexyl dimethylamine

$C_8H_{17}N$ · D 0,85 g/cm³ · mp <-77 °C · bp 160 to 162 °C · flp 41 °C
CAS No. 98-94-2 · EC no. 202-715-5
UN no. 2264 · ADR 8 (3) II · WGK 1

Danger H226-H301+H311+H331-H314-H411

N,*N*-Dimethylcyclohexylamine
≥99 %, for synthesis

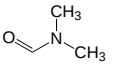
Type analysis
Assay (GC) ..... ≥99,0 %
Water ..... ≤0,3 %

Art. No.	Pack Qty.	Pack.	€
9986.1	500 ml	glass	32,15
9986.2	1 l	glass	47,85
Original pack 6 x 1 l			45,46/1 l
9986.3	2.5 l	glass	95,15
Original pack 4 x 2.5 l			90,39/2.5 l

2,9-Dimethyl-4,7-diphenyl-1,10-phenanthrolinedisulphonic acid disodium salt
▸ Bathocuproine sulphonate disodium salt hydrate see page 2074

N,*N*'-Dimethylethylene urea
▸ 1,3-Dimethyl-2-imidazolidinone (DMI) see page 889

N,*N*-Dimethylformamide (DMF)



Formic acid dimethylamide · DMF · DMFA

C_3H_7NO · D 0,95 g/cm³ · mp -61 °C · bp 153 °C · flp 57,5 °C
CAS No. 68-12-2 · EC no. 200-679-5
UN no. 2265 · ADR 3 III · WGK 2

Danger H226-H312+H332-H319-H360D

N,*N*-Dimethylformamide (DMF)
ROTISOLV® HPLC

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,05 %
Acidity (as CH_3COOH) ..... ≤0,003 %
Evaporation residue ..... ≤0,0005 %

Transmission:
320 nm ..... ≥97 %
300 nm ..... ≥90 %
275 nm ..... ≥60 %
270 nm ..... ≥30 %

Filtered through a 0.4 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
0702.1	2.5 l	glass	150,00
Original pack 4 x 2.5 l			142,50/2.5 l

N,N-Dimethylformamide (DMF)
ROTISOLV® ≥99,99 %, Headspace Grade

For determination of solvent residues (O.V.I.)

Guarantee analysis
Assay (GC) ..... ≥99,99 %
Colour (APHA) ..... ≤5
Water (KF) ..... ≤0,03 %
Free acid (as CH_3COOH) ..... ≤0,003 %
Free alkali (as NH_3) ..... ≤0,002 %
Refractive index (20 °C) 1,430-1,440
Non volatile matter ..... ≤0,001 %
UV-Cutoff ..... 190-268 nm
320 nm ..... ≥97 %
300 nm ..... ≥90 %
275 nm ..... ≥60 %
270 nm ..... ≥30 %
Headspace suitability test for O.V.I. ..... complies

Art. No.	Pack Qty.	Pack.	€
HN46.1	1 l	glass	309,10
Original pack 6 x 1 l			293,65/1 l

N,N-Dimethylformamide (DMF)
ROTISOLV® ≥99,9 %, UV/IR Grade

For chromatography and spectroscopy.

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,02 %
Colour (Hazen) ..... ≤10
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

Fluorescence (as quinine):
365 nm ..... ≤1,0 ppb

Transmission:
330 nm ..... ≥98 %
300 nm ..... ≥90 %
290 nm ..... ≥80 %
275 nm ..... ≥50 %
270 nm ..... ≥20 %

Art. No.	Pack Qty.	Pack.	€
CP79.1	2.5 l	glass	120,95
Original pack 4 x 2.5 l			114,90/2.5 l

N,N-Dimethylformamide (DMF)
ROTIPURAN® ≥99,8 %, p.a., ACS, ISO

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Density (d 20 °C/4 °C) 0,949-0,952
Colour (APHA) ..... ≤15
Water ..... ≤0,1 %
Acidity ..... ≤0,0005 meq/g
Alkalinity ..... ≤0,0005 meq/g
Methanol (GC) ..... ≤0,05 %
Diethylamine (GC) ..... ≤0,05 %
Evaporation residue ..... ≤0,005 %
Lead (Pb) ..... ≤0,00001 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001%

Art. No.	Pack Qty.	Pack.	€
T921.3	250 ml	glass	26,35
T921.1	1 l	glass	67,65
Original pack 6 x 1 l			64,27/1 l
T921.2	2.5 l	glass	134,40
Original pack 4 x 2.5 l			127,68/2.5 l

N,N-Dimethylformamide (DMF)
≥99,5 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,5 %
Water (KF) ..... ≤0,05 %
Colour (Hazen) ..... ≤10

Art. No.	Pack Qty.	Pack.	€
6251.1	1 l	glass	52,15
Original pack 6 x 1 l			49,54/1 l
6251.2	2.5 l	glass	105,90
Original pack 4 x 2.5 l			100,61/2.5 l
6251.3	2.5 l	plastic	103,75
Original pack 4 x 2.5 l			98,56/2.5 l
6251.5	10 l	plastic	295,65
6251.4	25 l	plastic	600,95

N,N-Dimethylformamide (DMF)
PEPTIPURE® ≥99,8 %, for peptide synthesis

Type analysis
Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,01 %
Free amines ..... ≤0,0003 %
Free acid (as CH_3COOH) ..... ≤0,001%

Art. No.	Pack Qty.	Pack.	€
A529.3	500 ml	glass	51,10
A529.1	2.5 l	glass	152,15
Original pack 4 x 2.5 l			144,54/2.5 l
A529.7	10 l	plastic	256,95
A529.2	25 l	plastic	482,70

N,N-Dimethylformamide D7

Heptadeuterodimethylformamide · DMF deuterated

C_3D_7NO · D 1,05 g/cm³ · mp -60 °C · bp 152 °C · flp 58 °C
CAS No. 4472-41-7 · EC no. 224-745-8
UN no. 2265 · ADR 3 III · WGK 2

Danger H226-H312+H332-H319-H360D

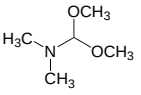
N,N-Dimethylformamide D7
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

Guarantee analysis
Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
CP92.2	1 ml	glass ampoule	96,25
CP92.1	5 ml	glass	317,15

N,N-Dimethylformamide dimethyl acetal (DMF-DMA)



DMF-DMA

$C_5H_{13}NO_2$ · D 0,895 g/cm³ · bp 104 to 108 °C · flp 6 °C
CAS No. 4637-24-5 · EC no. 225-063-3
UN no. 3271 · ADR 3 II · WGK 1

Danger H225-H317-H318-H332

N,N-Dimethylformamide dimethyl acetal (DMF-DMA)
≥98 %, for the GC

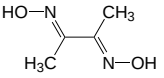
Derivatization reagent for GC, alkylation agent

Storage temperature: +4 °C

Type analysis
Appearance ..... clear liquid
Assay ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6870.1	5 ml	glass	28,95
6870.2	25 ml	glass	45,05
6870.3	100 ml	glass	149,45
6870.4	500 ml	glass	542,90

Dimethylglyoxim



$C_4H_8N_2O_2$ · mp 239 to 242 °C
CAS No. 95-45-4 · EC no. 202-420-1
UN no. 1325 · ADR 4.1 III · WGK 2

Warning H228

Dimethylglyoxim
≥99 %, p.a., ACS

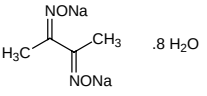
Reagent for nickel

Dissolve 0.1 g in 100 ml water

Guarantee analysis
Assay (dry substance) ..... ≥99,0 %
Insoluble in alcohol ..... ≤0,05 %
Melting point ..... 239-242 °C
Ash content ..... ≤0,05 %
Suitability for nickel determination ..... complies

Art. No.	Pack Qty.	Pack.	€
2677.1	50 g	plastic	54,30
2677.2	100 g	plastic	87,65
2677.3	500 g	plastic	321,45
Original pack 6 x 500 g			305,38/500 g

Dimethylglyoxime disodium salt octahydrate



2,3-Butanedionedioxime disodium salt

$C_4H_6N_2Na_2O_2$ · 8 H_2O
CAS No. 75006-64-3 · EC no. 262-523-2
WGK 1

Dimethylglyoxime disodium salt octahydrate
≥98 %, p.a.

Reagent for nickel

Dissolve 0.1 g in 100 ml water

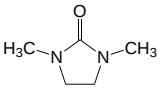
Guarantee analysis
Assay (titr., dry substance) ..... ≥98,0 %
Water ..... 44,0-49,0 %
In H_2O insoluble matter ..... ≤0,01 %
Suitability for nickel determination ..... complies

Art. No.	Pack Qty.	Pack.	€
KK24.1	25 g	glass	54,30
KK24.2	50 g	glass	95,70

2,6-Dimethyl-4-heptanone
▸ Diisobutyl ketone see page 883

3-*N*-(α,α-Dimethyl-hydroxy-ethyl)-amino-2-hydroxypropane sulphonic acid
▸ AMPSO sodium salt see page 742
▸ AMPSO see page 742

1,3-Dimethyl-2-imidazolidinone (DMI)



DMEU · DMI · *N*,*N*'-Dimethylethylene urea

$C_5H_{10}N_2O$ · D 1,056 g/cm³ · mp 7,5 °C · bp 222 °C · flp 114 °C
CAS No. 80-73-9 · EC no. 201-304-8
WGK 1

Danger H302-H318-H373

1,3-Dimethyl-2-imidazolidinone (DMI)
ROTISOLV® ≥99,5 %, Headspace Grade

For determination of solvent residues (O.V.I.)

Guarantee analysis

Assay (GC)	≥99,5 %
Water (KF)	≤0,04 %
Refractive index (20 °C)	1,470-1,473
UV-Cutoff	190-270 nm
>350 nm	≥90 %
325 nm	≥80 %
300 nm	≥60 %
275 nm	≥30 %
Headspace suitability test for O.V.I.	complies

Art. No.	Pack Qty.	Pack.	€
HN48.1	500 ml	glass	1.177,15

Dimethyl ketone
▸ Acetone see page 695

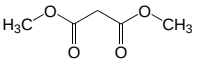
Dimethyl malonate
≥99 %, for synthesis

Type analysis

Appearance	clear liquid
Assay (GC)	≥99 %
Density (d 20 °C/4 °C)	1,150-1,155

Art. No.	Pack Qty.	Pack.	€
3205.1	250 ml	glass	28,95
3205.2	1 l	glass	83,35
Original pack 6 x 1 l			79,18/1 l
3205.3	2.5 l	glass	170,95
Original pack 4 x 2.5 l			162,40/2.5 l

Dimethyl malonate



Propanedioic acid dimethyl ester · Malonic acid dimethyl ester · Methyl malonate · Dimethyl propanedioate

$C_5H_8O_4$ · D 1,151 to 1,154 g/cm³ · mp -61,9 °C · bp 180 °C · flp 90 °C
CAS No. 108-59-8 · EC no. 203-597-8
WGK 1

Warning H315-H319-H335

3,7-Dimethyl-2,6-octadien-1-ol
▸ Geraniol see page 956

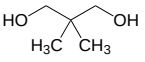
3,3'-Dimethylphenolphthaleine
▸ *o*-Cresolphthaleine see page 853

2',2''-Dimethylphenol-sulfonphthalein
▸ *m*-Cresol purple see page 853

Dimethylphthalate
▸ Phthalic acid dimethyl ester see page 1157

1,3-Dimethylpropane
▸ *n*-Pentane see page 1141

2,2-Dimethyl-1,3-propanediol



Neopentyl glycol

$C_5H_{12}O_2$ · D 1,07 g/cm³ · mp 127 to 130 °C · bp 209 °C · flp 103 °C
CAS No. 126-30-7 · EC no. 204-781-0
WGK 1

Danger H318

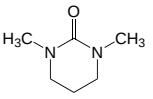
2,2-Dimethyl-1,3-propanediol
≥99 %, for synthesis

Type analysis

Assay	≥99,0 %
Colour (APHA)	≤10
Acidity	≤0,05 %
Aldehyde	≤0,15 %
Water	≤0,3 %

Art. No.	Pack Qty.	Pack.	€
7349.1	100 g	plastic	17,10
7349.2	500 g	plastic	38,60
Original pack 6 x 500 g			36,67/500 g
7349.3	1 kg	plastic	62,25
Original pack 6 x 1 kg			59,14/1 kg
7349.4	2.5 kg	plastic	127,95

N,*N*'-Dimethylpropylene urea



1,3-Dimethyl-3,4,5,6-tetrahydro-2(1*H*)-pyrimidinone · DMPU · *N*,*N*'-Dimethyl-*N*,*N*'-trimethylene urea

$C_6H_{12}N_2O$ · D 1,06 g/cm³ · mp -24 °C · bp 246 to 247 °C · flp 121 °C
CAS No. 7226-23-5 · EC no. 230-625-6
WGK 1

Danger H302-H318-H361f

N,*N*'-Dimethylpropylene urea
SOLVAGREEN® ≥99 %, for synthesis

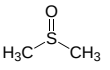
Polar aprotic solvent, alternative for DMF and hexamethylphosphoramide (HMPA).

Type analysis

Assay	≥99,0 %
Refractive index (20 °C)	1,4883-1,4913
Water (KF)	≤0,1 %

Art. No.	Pack Qty.	Pack.	€
0662.1	25 ml	glass	26,80
0662.2	100 ml	glass	61,85
0662.3	500 ml	glass	181,70

Dimethyl sulphoxide (DMSO)



DMSO

C_2H_6OS · D 1,1 g/cm³ · mp 18,5 °C · bp 189 °C · flp 87 °C
CAS No. 67-68-5 · EC no. 200-664-3
WGK 1

Dimethyl sulphoxide (DMSO)
ROTISOLV® HPLC

Guarantee analysis

Assay (GC)	≥99,9 %
Water (KF)	≤0,05 %
Acidity	≤0,001 meq/g
Evaporation residue	≤0,001 %

Transmission:

≥350 nm	≥98 %
330 nm	≥95 %
310 nm	≥90 %
290 nm	≥70 %
270 nm	≥40 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
0728.1	2.5 l	glass	198,90
Original pack 4 x 2.5 l			188,96/2.5 l

Dimethyl sulphoxide (DMSO)
ROTISOLV® ≥99,99 %, Headspace Grade

For determination of solvent residues (O.V.I.)

Guarantee analysis
Assay (GC) ..... ≥99,99 %
Colour (APHA) ..... ≤5
Water (KF) ..... ≤0,03 %
Free acid (as CH_3COOH) ..... ≤0,002 %
Free alkali (as NH_3) ..... ≤0,0005 %
Refractive index (20 °C) 1,477-1,480
Non volatile matter ..... ≤0,001 %
Melting point ..... ≥18 °C
UV-Cutoff ..... 190-265 nm
400 nm ..... ≥98 %
350 nm ..... ≥95 %
300 nm ..... ≥85 %
275 nm ..... ≥60 %
268 nm ..... ≥30 %
Headspace suitability test for O.V.I. ..... complies

Art. No.	Pack Qty.	Pack.	€
HN47.1	1 l	glass	327,90
Original pack 6 x 1 l			311,51/1 l

Dimethyl sulphoxide (DMSO)
ROTIDRY®Sept ≥99,8 % (≤100 ppm H_2O)

Dried; in a septum bottle

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,01 %
Acidity (as CH_3COOH) ..... ≤0,002 %
Evaporation residue ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
5179.1	250 ml	septum bottle	85,50

Dimethyl sulphoxide (DMSO)
ROTIDRY® ≥99,5 % (≤200 ppm H_2O)

Dried; for analysis and organic synthesis.

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Colour (Hazen) ..... ≤10
Water (KF) ..... ≤0,02 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,005 %

Filtered through a membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
AE02.1	1 l	glass	107,00
Original pack 6 x 1 l			101,65/1 l

Dimethyl sulphoxide (DMSO)
ROTIPURAN® ≥99,8 %, p.a.

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Colour (Hazen) ..... ≤10
Water ..... ≤0,05 %
Chloride (Cl) ..... ≤0,0001 %
Aluminium (Al) ..... ≤0,000001 %
Lead (Pb) ..... ≤0,000001 %
Calcium (Ca) ..... ≤0,000001 %
Iron (Fe) ..... ≤0,000001 %
Potassium (K) ..... ≤0,000001 %
Copper (Cu) ..... ≤0,000001 %
Sodium (Na) ..... ≤0,000001 %
Magnesium (Mg) ..... ≤0,000001 %
Manganese (Mn) ..... ≤0,000001 %
Zinc (Zn) ..... ≤0,000001 %

Art. No.	Pack Qty.	Pack.	€
4720.4	100 ml	glass	25,70
4720.2	500 ml	glass	48,30
4720.1	1 l	glass	81,60
Original pack 6 x 1 l			77,52/1 l
4720.3	2.5 l	glass	174,70
Original pack 4 x 2.5 l			165,97/2.5 l

Dimethyl sulphoxide (DMSO)
≥99,5 %, BioScience Grade, for molecular biology

Recommended for PCR, sequencing, hybridisation and cell culture.

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Colour (APHA) ..... ≤10
Water content ..... ≤0,1 %
Chloride (Cl) ..... ≤0,00005 %
Arsenic (As) ..... ≤0,000001 %
Cadmium (Cd) ..... ≤0,000001 %
Potassium (K) ..... ≤0,000001 %
Lithium (Li) ..... ≤0,000001 %
Magnesium (Mg) ..... ≤0,000001 %
Sodium (Na) ..... ≤0,000005 %

Art. No.	Pack Qty.	Pack.	€
A994.1	100 ml	glass	27,85
A994.2	250 ml	glass	47,20

Dimethyl sulphoxide (DMSO)
≥99,5 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,5 %
Water ..... ≤0,1 %
Melting point ..... ≥18,1 °C
Acid value ..... ≤0,04 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
7029.1	1 l	glass	74,20
Original pack 6 x 1 l			70,49/1 l
7029.2	2.5 l	glass	149,45
Original pack 4 x 2.5 l			141,98/2.5 l
7029.4	5 l	plastic	278,45
Original pack 2 x 5 l			264,53/5 l
7029.3	10 l	plastic	510,65
7029.5	25 l	plastic	1.177,15

Dimethyl sulphoxide D6

DMSO deuterated · Methyl sulphoxide deuterized

C_2D_6OS · D 1,19 g/cm³ · mp 18 °C · bp 189 °C · flp 88 °C
CAS No. 2206-27-1 · EC no. 218-617-0
WGK 1

Dimethyl sulphoxide D6
100 Atom%D

Packaging for 1K3K.1: 10 x 0,75 ml in ampoules

Guarantee analysis
Deuterising degree ..... ≥99,95 %
Water (KF, H_2O+D_2O) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
1K3K.1	7.5 ml	glass ampoule	115,60

Dimethyl sulphoxide D6
99,9 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging for 7915.3: 10 x 0,75 ml in ampoules

Type analysis
Deuterising degree ..... ≥99,9 %
Water (KF, H_2O+D_2O) ..... ≤0,025 %

Art. No.	Pack Qty.	Pack.	€
7915.3	7.5 ml	glass ampoule	73,00
7915.1	10 ml	glass	68,70
7915.2	10 ml	septum bottle	71,50

Dimethyl sulphoxide D6
99,8 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging for AE56.3: 10 x 0,75 ml in ampoules

Guarantee analysis
Deuterising degree ..... ≥99,8 %
Water (KF, H_2O+D_2O) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
AE56.3	7.5 ml	glass ampoule	61,20
AE56.1	10 ml	glass	59,05
AE56.4	10 ml	septum bottle	60,10
AE56.6	25 ml	glass	117,20
AE56.2	50 ml	glass	213,95
AE56.5	100 ml	glass	403,15

Dimethyl sulphoxide D6 with TMS (0.03 vol.%)

DMSO deuterated

C_2D_6OS · D 1,19 g/cm³ · mp 18 °C · bp 189 °C · flp 88 °C
CAS No. 2206-27-1 · EC no. 218-617-0
WGK 1

Dimethyl sulphoxide D6 with TMS (0.03 vol.%)
99,9 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging: 10 x 0,75 ml in ampoules

Type analysis
Deuterising degree ..... ≥99,9 %
Water (KF, H_2O+D_2O) ..... ≤0,025 %
Trimethylsilane (TMS) ..... 0,02-0,04 %

Art. No.	Pack Qty.	Pack.	€
7916.1	7.5 ml	glass ampoule	70,85

Dimethyl sulphoxide D6 with TMS (0.03 vol.%)
99,8 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging for AE60.3: 10 x 0,75 ml in ampoules

Guarantee analysis
Deuterising degree ..... ≥99,8 %
Water (KF, H_2O+D_2O) ..... ≤0,04 %
Tetramethylsilane (TMS) ..... 0,02-0,04 %

Art. No.	Pack Qty.	Pack.	€
AE60.3	7.5 ml	glass ampoule	61,20
AE60.1	10 ml	glass	59,05
AE60.4	25 ml	glass	120,95
AE60.2	50 ml	glass	224,70

1,3-Dimethyl-3,4,5,6-tetrahydro-2(1*H*)-pyrimidinone
▸ *N*,*N*'-Dimethylpropylene urea see page 889

3-(4,5-Dimethylthiazol-2-yl-2,5-diphenyl-2*H*-tetrazolium bromide

▸ Thiazolyl blue see page 1365

Dimethylthionin

▸ Azure A (C.I. 52005) see page 761

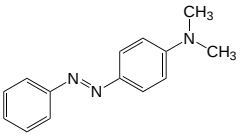
N,*N*'-Dimethyl-*N*,*N*'-trimethylene urea

▸ *N*,*N*'-Dimethylpropylene urea see page 889

3,7-Dimethylxanthine

▸ Theobromine see page 1364

Dimethyl yellow (C.I. 11020)



Methyl yellow · Solvent yellow 2 · *p*-Dimethyl-aminoazobenzene · Butter Yellow

$C_{14}H_{15}N_3$ · D 1 g/cm³ · mp 110 to 116 °C
CAS No. 60-11-7 · EC no. 200-455-7
UN no. 2811 · ADR 6.1 III · WGK 2

Danger H301-H351

Dimethyl yellow (C.I. 11020)
pure

Indicator pH 2.9-4.0

Dissolve 0.1 g in 100 ml ethanol (96 %)

Type analysis
Appearance ..... yellow to orange brown powder
Solution (0.1 % in ethanol) ..... clear
pH-transition range ..... 2,9 (red)-4,0 (yellow)
Melting range ..... 110-116 °C
Absorption max. (C_2H_5OH) ..... 403-407 nm
Loss on drying (40 °C) ..... ≤5 %

Art. No.	Pack Qty.	Pack.	€
9982.1	10 g	glass	19,90
9982.2	50 g	glass	57,55
9982.3	100 g	glass	102,70

Dimethyl yellow indicator solution

Methyl yellow · Solvent yellow 2 · *p*-Dimethyl-aminoazobenzene · Butter Yellow

D 0,7903 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C
UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

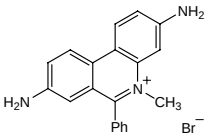
Dimethyl yellow indicator solution
0,2 % in ethanol, denatured

Indicator pH 2.9-4.0

ready-to-use

Art. No.	Pack Qty.	Pack.	€
1E00.1	100 ml	plastic	39,70

Dimidium bromide



3,8-Diamino-5-methyl-6-pheny phenanthridium bromide

$C_{20}H_{18}BrN_3$ · mp 243 to 248 °C
CAS No. 518-67-2 · EC no. 208-256-7
WGK 1

Warning H315-H319-H335

Dimidium bromide
≥95 %, for biochemistry

For fluorescence detection of nucleic acids; for titration of anion surfactants acc. to Epon as indicator.

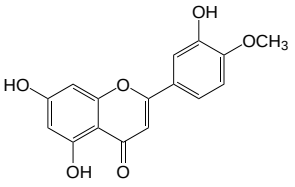
Type analysis
Assay (arg.) ..... ≥95 %
Loss on drying (105 °C) ..... ≤5 %

Art. No.	Pack Qty.	Pack.	€
2217.1	500 mg	glass	117,20

2,4-Dinitro-1-naphthol

▸ Martius yellow (C. I. 10315) see page 1069

Diosmetin



$C_{16}H_{12}O_6$ · D 1,517 g/cm³ · mp 255,7 °C
CAS No. 520-34-3 · EC no. 208-291-8
WGK 1

Warning H302

Diosmetin
ROTICHROM® HPLC

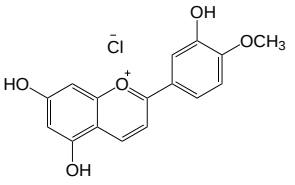
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7446.2	20 mg	glass	255,35

Diosmetinidin chloride



$C_{16}H_{13}O_5Cl$
CAS No. 64670-94-6
WGK 1

Diosmetinidin chloride
ROTICHROM® HPLC

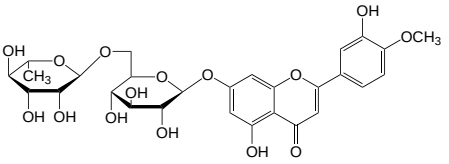
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
9326.1	10 mg	glass	360,15

Diosmin



$C_{28}H_{32}O_{15}$ · mp 274 °C
CAS No. 520-27-4 · EC no. 208-289-7
WGK 3

Diosmin
≥95 %

Storage temperature: +4 °C

Type analysis
Appearance ..... grey to yellow powder
Assay (HPLC) ..... ≥95 %
Sulphated ash ..... ≤0,2 %
Water ..... ≤6,0 %

Art. No.	Pack Qty.	Pack.	€
6736.1	5 g	glass	49,35
6736.2	25 g	glass	104,20
6736.3	100 g	glass	310,70

Diosmin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7447.2	20 mg	glass	246,20

1,4-Dioxane



1.4-Diethylene dioxide

$C_4H_8O_2$ · D 1,03 g/cm³ · mp 11,8 to 11,9 °C · bp 100,8 to 101,5 °C · flp 11 °C
CAS No. 123-91-1 · EC no. 204-661-8
UN no. 1165 · ADR 3 II · WGK 2

Danger H225-H319-H335-H350-EUH019 EUH066

1,4-Dioxane
ROTISOLV® HPLC, unstabilised

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Colour (Hazen) ..... ≤10
Water (KF) ..... ≤0,02 %
Free acid (as CH_3COOH) ..... ≤0,002 %
Non volatile matter ..... ≤0,0005 %

Transmission:
300 nm ..... ≥98 %
280 nm ..... ≥90 %
240 nm ..... ≥40 %
220 nm ..... ≥20 %

Filtered through a 0.2 µm membrane and filled under protective gas.
Note: Possible storage time is limited!

Art. No.	Pack Qty.	Pack.	€
X949.1	1 l	glass	89,80
Original pack 6 x 1 l			85,31/1 l
X949.2	2.5 l	glass	177,40
Original pack 4 x 2.5 l			168,53/2.5 l

1,4-Dioxane
ROTIDRY® ≥99,8 % (≤100 ppm H_2O)

Dried, for analysis and organic synthesis.

Type analysis
Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,01 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

Unstabilised.
Note: Possible storage time is limited!

Art. No.	Pack Qty.	Pack.	€
4429.1	1 l	glass	91,95
Original pack 6 x 1 l			87,35/1 l

1,4-Dioxane
ROTIPURAN® ≥99,5 %, p.a., ACS, ISO, stabilised

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Colour (Hazen) ..... ≤10
Water ..... ≤0,05 %
Evaporation residue ..... ≤0,005 %
Acidity ..... ≤0,0016 meq/g
Density (d 20 °C/4 °C) 1,032-1,034
Melting point ..... ≥11 °C
Aluminium (Al) ..... ≤0,00005 %
Barium (Ba) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,00001 %
Boron (B) ..... ≤0,000002 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Cobalt (Co) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %
Tin (Sn) ..... ≤0,00001 %
Acetaldehyde ..... ≤0,005 %
Peroxides (as H_2O_2) ..... ≤0,005 %
Carbonylic compounds (as CO) ..... ≤0,01 %

stabilised with approx. 25 ppm 2,6-di-tert-butyl-4-methylphenol (BHT).

Art. No.	Pack Qty.	Pack.	€
4626.4	100 ml	glass	20,35
4626.3	500 ml	glass	64,40
4626.1	1 l	glass	117,20
Original pack 6 x 1 l			111,34/1 l
4626.2	2.5 l	glass	246,20
Original pack 4 x 2.5 l			233,89/2.5 l
4626.5	5 l	aluminium	467,65
Original pack 2 x 5 l			444,27/5 l
4626.6	25 l	tinplate	2.139,25

1,4-Dioxane
≥99,5 %, for synthesis, stabilised

Type analysis
Assay (GC) ..... ≥99,5 %
Peroxides ..... ≤0,001 %
Water ..... ≤0,1 %
Colour (APHA) ..... ≤10

stabilised with approx. 25 ppm BHT.

Art. No.	Pack Qty.	Pack.	€
4229.1	500 ml	glass	30,00
4229.2	1 l	glass	42,90
Original pack 6 x 1 l			40,76/1 l
4229.3	2.5 l	glass	88,05
Original pack 4 x 2.5 l			83,65/2.5 l
4229.5	5 l	aluminium	153,20
Original pack 2 x 5 l			145,54/5 l
4229.6	10 l	tinplate	278,45
4229.4	25 l	tinplate	618,15

1,3-Dioxolane



Formal glycol

$C_3H_6O_2$ · D 1,06 g/cm³ · mp -26,4 °C · bp 76 °C · flp 2,5 °C
CAS No. 646-06-0 · EC no. 211-463-5
UN no. 1166 · ADR 3 II · WGK 1

 **Danger** H225-H319-H360D

1,3-Dioxolane
SOLVAGREEN® ≥90 %, for synthesis

Alternative for NMP, NEP, glycols, aromatics.

Type analysis
Assay ..... ≥90 %
Water ..... ≤7 %
Methanol ..... ≤2 %

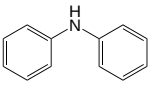
Art. No.	Pack Qty.	Pack.	€
0447.1	100 ml	glass	18,20
0447.2	500 ml	glass	42,50
0447.3	1 l	glass	70,85
Original pack 6 x 1 l			67,31/1 l
0447.4	2.5 l	glass	140,30
Original pack 4 x 2.5 l			133,29/2.5 l

DIPEA
▸ *N*,*N*-Diisopropylethylamine (DIPEA) see page 884

Dipentene
▸ DL-Limonene see page 1043

Diphenyl
▸ Biphenyl D10 see page 775
▸ Biphenyl see page

Diphenylamine



N-Phenylbenzenamine · *N*-Phenylaniline · DPA · Anilinobenzene

$C_{12}H_{11}N$ · D 1,16 g/cm³ · mp 50 to 54 °C · bp 300 to 302 °C · flp 153 °C
CAS No. 122-39-4 · EC no. 204-539-4
UN no. 2811 · ADR 6.1 III · WGK 3

 **Danger** H301+H311+H331-H373-H410

Diphenylamine
≥99 %, p.a., ACS

Redox indicator

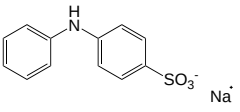
Dissolve 1.0 g in 100 ml of sulfuric acid (96 %)

Guarantee analysis
Assay ..... ≥99,0 %
Sensitivity to NO_3 ..... 1:1600000
Solubility in ethanol ..... complies
Melting range ..... 52,5-54,0 °C
Anilin ..... ≤0,01 %
Sulphated ash ..... ≤0,03 %
Nitrate (NO_3) ..... complies
Lead (Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
Copper (Cu) ..... ≤0,001 %
Nickel (Ni) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
9865.1	25 g	glass	22,05
9865.2	100 g	glass	53,25
9865.3	500 g	glass	146,75
Original pack 6 x 500 g			139,41/500 g

Diphenylamine-2-carboxylic acid
▸ *N*-Phenylanthranilic acid see page 1151

Diphenylamine-4-sulphonic acid sodium salt



Sodium diphenylaminesulfonate

$C_{12}H_{10}NNaO_3S$ · mp 200 °C
CAS No. 6152-67-6 · EC no. 228-165-6
WGK 1

Diphenylamine-4-sulphonic acid sodium salt
p.a., ACS

Redox indicator

Dissolve 0.2 g in 100 ml water

Guarantee analysis
Appearance of solution ..... clear, colourless
Suitability as indicator ..... complies

Art. No.	Pack Qty.	Pack.	€
2602.3	1 g	glass	21,40
2602.1	10 g	glass	96,65
2602.2	25 g	glass	170,95

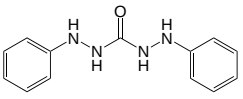
Diphenylamine-4-sulphonic acid barium salt

▸ Barium diphenylamine sulfonate see page 764

Diphenylboric acid β-aminoethyl ester complex

▸ Natural product reagent A see page 1101

1,5-Diphenylcarbazide



1,5-Diphenylcarbohydrazide

$C_{13}H_{14}N_4O$ · mp 173 to 176 °C
CAS No. 140-22-7 · EC no. 205-403-7
WGK 1

1,5-Diphenylcarbazide
≥97 %, p.a., ACS

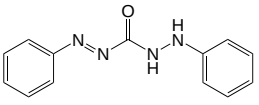
Redox indicator

Dissolve 1 g of 1,5-diphenylcarbazide (DPC) in 100 ml of acetone and acidify with a drop of glacial acetic acid

Guarantee analysis
Assay (HPLC) ..... ≥97,0 %
Solubility (ACS) ..... complies
Melting point ..... 173-176 °C
Loss on drying ..... ≤1,0 %
Ash content ..... ≤0,05 %
Suitability for chromate ..... complies

Art. No.	Pack Qty.	Pack.	€
2696.1	10 g	plastic	30,65
2696.2	25 g	plastic	52,70
2696.3	100 g	plastic	155,90

Diphenylcarbazone



1,5-Diphenylcarbazone

$C_{13}H_{12}N_4O$ · mp 153 to 157 °C
CAS No. 538-62-5 · EC no. 208-698-0
WGK 1

Diphenylcarbazone
p.a.

Metal indicator

Dissolve 0.2 g in 100 ml ethanol (96 %)

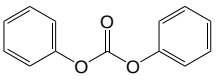
Guarantee analysis
Appearance ..... brownish orange powder
Ash content ..... ≤0,1 %
Sensitivity ..... complies

Art. No.	Pack Qty.	Pack.	€
2678.1	10 g	glass	79,45
2678.2	25 g	glass	154,30
2678.3	50 g	glass	263,40

1,5-Diphenylcarbohydrazide

▸ 1,5-Diphenylcarbazide see page 893

Diphenyl carbonate



DPC · Carbonic acid diphenyl ester · Phenyl carbonate

$C_{13}H_{10}O_3$ · D 1,272 g/cm³ · mp 76 to 79 °C · bp 300 °C · flp 168 °C
CAS No. 102-09-0 · EC no. 203-005-8
UN no. 3077 · ADR 9 III · WGK 1

Warning H302-H411

Diphenyl carbonate
SOLVAGREEN® ≥99 %

Alternative for DMF, phosgene.

Type analysis
Assay (GC) ..... ≥99,0 %
pH-value 6,8-7,2
Water ..... ≤0,1 %
Melting point ..... 77,5-79,5 °C

Art. No.	Pack Qty.	Pack.	€
2626.1	100 g	plastic	17,10
2626.2	500 g	plastic	32,80
Original pack 6 x 500 g			31,16/500 g
2626.3	1 kg	plastic	57,95
Original pack 6 x 1 kg			55,05/1 kg

Diphenylenimine

▸ Carbazole see page 815

trans-1,2-Diphenylethylene

▸ *trans*-Stilbene see page 1340

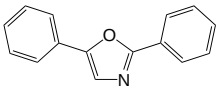
Diphenyl ketone

▸ Benzophenone see page 769

Diphenylmethanone

▸ Benzophenone see page 769

2,5-Diphenyloxazole



PPO

$C_{15}H_{11}NO$ · mp 72 to 74 °C · bp 360 °C
CAS No. 92-71-7 · EC no. 202-181-3
WGK 1

2,5-Diphenyloxazole
~99 %, for scintillation

Type analysis
Appearance ..... white, cryst. powder
Assay ..... ~99 %

Suitable for scintillation.

Art. No.	Pack Qty.	Pack.	€
3689.1	25 g	plastic	36,45
3689.2	100 g	plastic	96,65
3689.3	500 g	plastic	424,65
Original pack 6 x 500 g			403,42/500 g

1,5-Diphenylthiocarbazone

▸ Dithizone see page 895

Diphosphorous pentoxide

▸ Phosphorus pentoxide see page 1157

Dipotassium hexafluorozirconate

▸ Potassium hexafluorozirconate(IV) see page 1173

Dipotassium hydrogen phosphate

▸ di-Potassium hydrogen phosphate see page 1173
▸ di-Potassium hydrogen phosphate trihydrate see page 1174

Dipotassium (sulphonatooxy)-sulfonate

▸ Potassium disulphate see page 1171

Dipropoxymethane

▸ Propylal see page 1187

Dipropylene glycol

Bis(hydroxypropyl) ether

$C_6H_{14}O_3$ · D 1,02 to 1,03 g/cm³ · mp <-20 °C · bp 227 °C · flp 130 °C
CAS No. 25265-71-8 · EC no. 246-770-3
WGK 1

Dipropylene glycol
≥99 %, pure

Type analysis
Assay (GC) ..... ≥99,0 %
Colour (Hazen) ..... ≤15

Art. No.	Pack Qty.	Pack.	€
8656.1	1 l	plastic	39,70
Original pack 6 x 1 l			37,72/1 l
8656.2	2.5 l	plastic	73,65
Original pack 4 x 2.5 l			69,97/2.5 l

Dipropylene glycol monomethyl ether

(2-Methoxymethylethoxy)propanol · DPGME · DPM

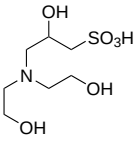
$C_7H_{16}O_3$ · D 0,94 to 0,96 g/cm³ · mp -83 °C · bp 190 °C · flp 75 °C
CAS No. 34590-94-8 · EC no. 252-104-2
WGK 1

Dipropylene glycol monomethyl ether
≥98 %, pure

Type analysis
Assay (isomers, GC) ..... ≥98,0 %
Density (20 °C) ..... 0,943-0,962 g/cm³
Water (KF) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
7656.1	1 l	glass	53,65
Original pack 6 x 1 l			50,97/1 l
7656.2	2.5 l	glass	107,40
Original pack 4 x 2.5 l			102,03/2.5 l

DIPSO



3-*N*-Bis-(hydroxyethyl)-amino-2-hydroxypropane sulphonic acid

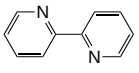
$C_7H_{17}NO_6S$ · mp 189 to 192 °C
CAS No. 68399-80-4 · EC no. 269-992-2
WGK 1

DIPSO
PUFFERAN® ≥98 %

Type analysis
Assay (titr.) ..... ≥98 %
Solubility (25 % in H_2O) ..... clear
Loss on drying ..... ≤7,0 %
Heavy metals (as Pb) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
7151.1	25 g	plastic	88,70

2,2'-Dipyridyl



α,α'-Dipyridyl · 2,2'-Bipyridine

$C_{10}H_8N_2$ · mp 69,2 °C · bp 272,2 °C · flp 131 °C
CAS No. 366-18-7 · EC no. 206-674-4
UN no. 2811 · ADR 6.1 III · WGK 1

Danger H301-H312

2,2'-Dipyridyl
≥95 %, for biochemistry

Redox indicator

Dissolve 0.695 g $FeSO_4 \cdot 7\ H_2O$ and 1.171 g 2,2'-dipyridyl in 100 ml water

Type analysis
Appearance ..... white to brown cristalline powder
Assay ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
4153.1	5 g	glass	20,35
4153.2	25 g	glass	62,25

α,α'-Dipyridyl
▸ 2,2'-Dipyridyl see page 894

Direct blue 53
▸ Evan's blue (C.I. 23860) see page 928

Direct Red 28
▸ Congo red (C.I. 22120) see page 847

DIS
▸ 5-(Dimethylamino)-1-naphthalenesulphonyl chloride see page 886

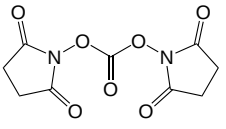
Disodium-3,3'[[1,1-biphenyl]-4,4'-diyl(bis(azo)]bis-(4-aminonaphthalin-1-sulfonate)
▸ Congo red (C.I. 22120) see page 847

Disodium molybdate
▸ Sodium molybdate dihydrate see page 1291

Disodiumpentacyanonitrosyl-ferrate(III) dihydrate
▸ Sodium nitroprusside dihydrate see page 1292

Distylin
▸ (+)-Dihydroquercetin see page 881

N,N'-Disuccinimidyl carbonate (DSC)



DSC

$C_9H_8N_2O_7$ · D 1,632 g/cm³ · mp 199 °C · bp >240 °C
CAS No. 74124-79-1 · EC no. 277-730-3
WGK 1

Warning H302-H315-H319-H373

N,N'-Disuccinimidyl carbonate (DSC)
PEPTIPURE® ≥99 %

Coupling reagent for peptide synthesis

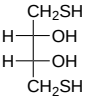
Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥99,0 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
2110.1	5 g	glass	35,40
2110.2	25 g	glass	93,45
2110.3	100 g	glass	342,95

3,3'-Dithio-bis-(2-aminopropionic acid)
▸ L-Cystine see page 861

1,4-Dithioerythritol (DTE)



Cleland's Reagent · DTE

$C_4H_{10}O_2S_2$ · mp 82 to 84 °C
CAS No. 6892-68-8 · EC no. 229-998-8
WGK 1

Warning H315-H319-H335

1,4-Dithioerythritol (DTE)
≥99 %, p.a.

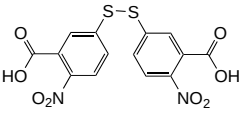
For biochemistry and molecular biology.

Type analysis
Assay (iodom.) ..... ≥99,0 %
Solution (10 % in H_2O) ..... colourless
Melting point ..... 84 ±2 °C

Reagent for stabilizing monothioles and for quantitative reduction of disulphide compounds to thiole compounds. DTE is an isomer of DTT and is as such used for reducing disulphide bridge-bonds and for stabilizing thiole groups in enzymes and other proteins.

Art. No.	Pack Qty.	Pack.	€
8814.1	5 g	glass	88,05
8814.3	10 g	glass	149,45
8814.2	25 g	glass	317,15

5,5'-Dithio-bis-(2-nitrobenzoic acid)



DTNB · Ellman's reagent

$C_{14}H_8N_2O_8S_2$ · mp 240 to 244 °C
CAS No. 69-78-3 · EC no. 200-714-4
WGK 1

Warning H315-H319-H335

5,5'-Dithio-bis-(2-nitrobenzoic acid)
≥98 %, p.a.

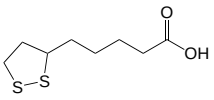
For determination of thiol groups

Storage temperature: +4 °C

Guarantee analysis
Appearance .... white to yellow crystalline powder
Assay (HPLC) ..... ≥98,0 %
Water (KF) ..... ≤1,5 %

Art. No.	Pack Qty.	Pack.	€
6334.1	1 g	glass	25,30
6334.2	5 g	glass	73,00
6334.3	25 g	glass	278,45

DL-6,8-Dithiooctanoic acid



α-Lipoic acid · DL-6,8-Thiooctic acid

$C_8H_{14}O_2S_2$ · mp 59 to 62 °C · bp 150 °C
CAS No. 1077-28-7 · EC no. 214-071-2
WGK 1

Warning H302

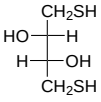
DL-6,8-Dithiooctanoic acid
≥98 %

Storage temperature: +4 °C

Type analysis
Appearance ..... light yellow powder
Assay (HPLC) ..... ≥98 %
Loss on drying ..... ≤0,2 %
Ash content ..... ≤0,1 %
Melting point ..... 60-62 °C

Art. No.	Pack Qty.	Pack.	€
6229.1	5 g	glass	145,15

1,4-Dithiothreitol (DTT)



Cleland's Reagent · DTT ·
DL-threo-2,3-Dihydroxy-1,4-dithiobutane

$C_4H_{10}O_2S_2$ · D 1 g/cm³ · mp 40 to 43 °C · flp >109 °C
CAS No. 3483-12-3 · EC no. 222-468-7
WGK 2

Warning H302-H315-H319-H335-H412

1,4-Dithiothreitol (DTT)
≥99 %, p.a.

For biochemistry and molecular biology.

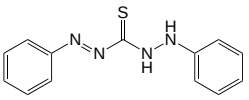
Storage temperature: +4 °C

Guarantee analysis
Appearance ..... white to light grey, cryst. powder
Assay (iodom.) ..... ≥99 %
pH value (0,1 M, H_2O) 4,0-6,5
Solution (10 % in H_2O) ..... clear, colourless
Oxidized part ..... ≤0,2 %
Melting point ..... 38-44 °C
Heavy metals (as Pb) ..... ≤0,0001 %

Absorbance:
260 nm ..... ≤0,4
280 nm ..... ≤0,2

Art. No.	Pack Qty.	Pack.	€
6908.1	5 g	plastic	74,75
6908.3	10 g	plastic	114,50
6908.2	25 g	plastic	263,40
6908.4	100 g	plastic	794,45

Dithizone



1,5-Diphenylthiocarbazone

$C_{13}H_{12}N_4S$ · mp 168 °C
CAS No. 60-10-6 · EC no. 200-454-1
WGK 1

Warning H315-H319

Dithizone
≥85 %, p.a., ACS

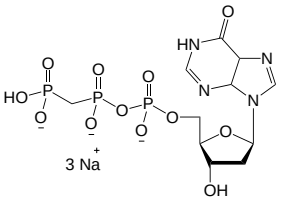
Metal indicator

Dissolve 0.025–0.05 g in 100 ml methanol

Guarantee analysis
Assay ..... ≥85,0 %
Ash content ..... ≤0,3 %
Heavy metals (as Pb) ..... ≤0,002 %
Ratio of absorbance (A 620 nm/450 nm) .... ≥1,55

Art. No.	Pack Qty.	Pack.	€
2697.1	5 g	glass	42,90
2697.2	25 g	glass	137,10
2697.3	50 g	glass	220,40

dITP solution



2'-Deoxyinosine-5'-triphosphate tetrasodium salt

$C_{10}H_{12}N_4O_{13}P_3$ · mp 0 °C · bp 100 °C
WGK 1

dITP solution
≥99 %, 100 mM solution

for molecular biology

Storage temperature: –20 °C
Transport temperature: cooled

Guarantee analysis

Art. No.	Pack Qty.	Pack.	€
P732.1	250 µl	plastic	42,90

Diytterbium trioxide
▸ Ytterbium(III) oxide see page 1411

Diyttrium trioxide
▸ Yttrium(III) oxide see page 1411

DMA
▸ *N*,*N*-Dimethylacetamide (DMA) see page 885

DMAP
▸ 4-(Dimethylamino)pyridine (DMAP) see page 886

DMC
▸ Dimethyl carbonate see page 887

DMEU
▸ 1,3-Dimethyl-2-imidazolidinone (DMI) see page 889

DMF
▸ *N*,*N*-Dimethylformamide (DMF) see page 887

DMFA
▸ *N*,*N*-Dimethylformamide (DMF) see page 887

DMF deuterated
▸ *N*,*N*-Dimethylformamide D7 see page 888

DMF-DMA
▸ *N*,*N*-Dimethylformamide dimethyl acetal (DMF-DMA) see page 888

DMI
▸ 1,3-Dimethyl-2-imidazolidinone (DMI) see page 889

DMP
▸ Phthalic acid dimethyl ester see page 1157

DMPU
▸ *N*,*N*'-Dimethylpropylene urea see page 889

DMSO
▸ Dimethyl sulphoxide (DMSO) see page 889

DMSO/*t*-Butanol Solvent

D 1,018 g/cm³ · mp 18 to 25 °C · bp >82 °C · flp >55 °C
UN no. 1120 · ADR 3 III · WGK 1

Warning H226-H319-H335

DMSO/*t*-Butanol Solvent
ROTI®Click Grade

for Click Chemistry

Composition
DMSO:t-Butanol (v/v) 3:1

Art. No.	Pack Qty.	Pack.	€
7815.1	1 ml	plastic	17,10
7815.2	10 ml	plastic	94,10

DMSO deuterated
▸ Dimethyl sulphoxide D6 see page 890
▸ Dimethyl sulphoxide D6 with TMS (0.03 vol.%) see page 890

DMT-Cl

▸ 4,4'-Dimethoxytrityl chloride (DMT-Cl)
see page 885

DMT Removal DCE

3 % Trichloro acetic acid in dichloroethane

D 1,25 g/cm³ · mp -36 °C · bp 84 °C · flp 13 °C
UN no. 2924 · ADR 3 (8) II · WGK 3

Danger H225-H302-H315-H318-H335-H350-H411

DMT Removal DCE
for DNA synthesis

3 % TCA in DCE. Thread sizes: 450 ml – 27 mm. The 2.5 l bottle can be used with all instruments.

Suitable for Expedite™89xx and Polygen®

Type analysis
Appearance ..... clear, colorless to slightly yellow solution
Assay ..... 2,9 - 3,1 % TCA
Water content (KF) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
K060.1	450 ml	glass	46,15
K060.2	2.5 l	glass	160,20
Original pack 4 x 2.5 l			152,19/2.5 l

DMT removal reagent

3 % Trichloro acetic acid in dichloromethane

D 1,32 g/cm³ · mp -95 °C · bp >34 °C
UN no. 2927 · ADR 6.1 (8) II · WGK 2

Danger H315-H318-H335-H336-H351-H373-H411

DMT removal reagent
for DNA synthesis

for DNA synthesis with ABI™ Synthesizer

3 % TCA in DCM. Thread sizes: 450 ml – 27 mm. The 2.5 l bottle can be used with all instruments.

Type analysis
Appearance ..... clear solution
Assay (TCA) ..... 2,90-3,10 %
Water (KF) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
2257.2	2.5 l	glass	177,40
Original pack 4 x 2.5 l			168,53/2.5 l

DNA AWAY®

Decontamination solution · Nuclease Removal · Purification solution for surfaces

D 1 g/cm³ · mp ~0 °C · bp ~100 °C
UN no. 1824 · ADR 8 III · WGK 1

Danger H314

DNA AWAY®
ready-to-use

for removal of DNA-contaminations from surfaces

Art. No.	Pack Qty.	Pack.	€
X996.1	250 ml	plastic	53,65
X996.2	4 l	plastic	278,45

DNA from salmon sperm

▸ Salmon Sperm DNA sodium salt
see page 1250

DNA-Isolation kits

▸ ROTI®Prep Plasmid MINI see page 1239

DNA markers, not prestained

WGK 1

20 bp-DNA-Ladder
ready-to-use, not prestained

Size range: 20-200 bp
Number of fragments: 10
Number of lanes per ml: approx. 200 (mini gels)

Markers (DNA-gels)

Delivered in ready-to-use format for direct application to gels (conc.: 0,1 µg DNA/µl).

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
2805.1	500 µl	plastic	149,45

50 bp-DNA-Ladder
ready-to-use, not prestained

Size range: 50-500 bp
Number of fragments: 10
Number of lanes per ml: approx. 200 (mini gels)

Markers (DNA-gels)

Delivered in ready-to-use format for direct application to gels (conc.: 0,1 µg DNA/µl).

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
2810.1	500 µl	plastic	127,95

100 bp-DNA-Ladder *equimolar*
lyophilised, not prestained

Size range: 100-1000 bp
Number of fragments: 11
Number of lanes per 100 µg: approx. 200 (mini gels)

Markers (DNA-gels)

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
T834.1	50 µg	plastic	98,40
T834.2	200 µg	plastic	364,45

100 bp-DNA-Ladder *equalized*
lyophilised, not prestained

Size range: 100-1000 bp
Number of fragments: 11
Number of lanes per 100 µg: approx. 500 (mini gels)

Markers (DNA-gels)

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
T833.1	20 µg	plastic	98,40
T833.2	80 µg	plastic	364,45

100 bp-DNA-Ladder *extended*
lyophilised, not prestained

Size range: 100-5000 bp
Number of fragments: 17
Number of lanes per 100 µg: approx. 160 (mini gels)

Markers (DNA-gels)

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
T835.1	50 µg	plastic	97,75
T835.2	200 µg	plastic	364,45

200 bp-DNA-Ladder
ready-to-use, not prestained

Size range: 200-2000 bp
Number of fragments: 10
Number of lanes per ml: approx. 200 (mini gels)

Markers (DNA-gels)

Delivered in ready-to-use format for direct application to gels (conc.: 0,1 µg DNA/µl).

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
8272.1	500 µl	plastic	116,65

250 bp-DNA-Ladder
lyophilised, not prestained

Size range: 250-8000 bp
Number of fragments: 16
Number of lanes per 100 µg: approx. 200 (mini gels)

Markers (DNA-gels)

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
T918.1	50 µg	plastic	104,85

500 bp-DNA-Ladder
ready-to-use, not prestained

Size range: 500-5000 bp
Number of fragments: 10
Number of lanes per ml: approx. 200 (mini gels)

Markers (DNA-gels)

Delivered in ready-to-use format for direct application to gels (conc.: 0,1 µg DNA/µl).

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
8273.1	500 µl	plastic	90,85

1 kbp DNA-Ladder
lyophilised, not prestained

Size range: 500-10000 bp
Number of fragments: 11
Number of lanes per 100 µg: approx. 200 (mini gels)

Markers (DNA-gels)

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
Y014.1	50 µg	plastic	47,20
Y014.2	200 µg	plastic	163,95

DNA-Ladder combi
lyophilised, not prestained

Size range: 100-10000 bp
Number of fragments 20
Number of lanes per 40 µg + 100 µg: approx. 200 (mini gels)

Markers (DNA-gels)

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
CL22.1	1 set	plastic	145,15

DNA-Marker short-run 1
lyophilised, not prestained

Size range: 500-2500 bp
Number of fragments: 5
Number of lanes per 100 µg: approx. 400 (mini gels)

Markers (DNA-gels)

DNA-marker in lyophilised form. A short-run-optimised sample buffer (Art. No. 0099.1) for dissolving the DNA and subsequent application on gels is supplied.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
0146.1	50 µg	plastic	97,75

DNA-Marker short-run *extended*
lyophilised, not prestained

Size range: 100-6000 bp
Number of fragments: 9
Number of lanes per 100 µg: approx. 300 (mini gels)

Markers (DNA-gels)

DNA-marker in lyophilised form. A short-run-optimised sample buffer (Art. No. 0099.1) for dissolving the DNA and subsequent application on gels is supplied.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
CL05.1	50 µg	plastic	107,40

Lambda Hind III / phiX Hae III Marker
lyophilised, not prestained

Size range: 72-23130 bp
Number of fragments: 17
Number of lanes per 100 µg: approx. 200 (mini gels)

Lambda DNA-Marker

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
CP49.1	50 µg	plastic	175,80

Lambda Hind III Marker
lyophilised, not prestained

Size range: 125-23130 bp
Number of fragments: 8
Number of lanes per 100 µg: approx. 200 (mini gels)

Lambda DNA-Marker

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
X910.1	100 µg	plastic	81,20

pBR328 Mix I
lyophilised, not prestained

Size range: 154-2176 bp
Number of fragments: 11
Number of lanes per 100 µg: approx. 200 (mini gels)

Markers (DNA-gels)

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
T146.1	50 µg	plastic	97,75

pBR328-Marker ready-to-use
ready-to-use, not prestained

Size range: 154-2176 bp
Number of fragments: 11
Number of lanes per ml: approx. 200 (mini gels)

Markers (DNA-gels)

Delivered in ready-to-use format for direct application to gels (conc.: 0,1 µg DNA/µl). Marker dissolved in 1x conc. gel loading buffer (Art. No. 0100.1).

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
X902.1	500 µl	plastic	82,70
X902.2	2 ml	plastic	306,40

PCR-Marker DNA*score*
lyophilised, not prestained

Size range: 500-1500 bp
Number of fragments: 7
Reinforced bands: 500 bp, 1000 bp, 1500 bp
Band for DNA quantitation: 1000 bp
Number of lanes per 100 µg: approx. 200 (mini gels)

Markers (DNA-gels)

DNA-marker in lyophilised form. A short-run-optimised sample buffer (Art. No. 0099.1) for dissolving the DNA and subsequent application on gels is supplied.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
T917.1	50 µg	plastic	97,75

pUC19-Marker ready-to-use
ready-to-use, not prestained

Size range: 26-501 b
Number of fragments: 10
Number of lanes per ml: approx. 200 (mini gels)

Markers (DNA-gels)

Delivered in ready-to-use format for direct application to gels (conc.: 0,1 µg DNA/µl). Marker dissolved in 1x conc. gel loading buffer (Art. No. 0100.1).

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
X901.1	500 µl	plastic	76,90
X901.2	2 ml	plastic	271,45

pUC19/Msp I
lyophilised, not prestained

Size range: 26-501 bp
Number of fragments: 10
Number of lanes per 100 µg: approx. 200 (mini gels)

Markers (DNA-gels)

DNA ladder in lyophilised form. Gel loading buffer (Art. No. 0100.1) for dissolving the DNA and subsequent application on gels is supplied.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
T149.1	50 µg	plastic	94,50
T149.2	200 µg	plastic	332,20

DNA-Marker, prestained

Markers (DNA-gels)

D ~1,02 g/cm³
WGK 1

50 bp-DNA-Ladder SYBR® Green
ready-to-use, prestained with SYBR®Green DNA dye

Size range: 50-500 bp
Number of fragments: 10
Number of lanes per ml: approx. 200 (mini gels)

The marker is an ideal addition to the gel loading buffer ROTI®Load DNAstain 3 SYBR® Green (Art. No. 1CN7).

Volume supplied: 52.5 ng DNA in 500 µl buffer solution

Storage temperature: –20 °C
Transport temperature: ambient temp.

Appearance ..... orange solution

Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
1CN8.1	500 µl	plastic	146,75

100 bp-DNA-Ladder SYBR® Green
ready-to-use, prestained with SYBR®Green DNA dye

Size range: 100-1000 bp
Number of fragments: 10
Number of lanes per ml: approx. 200 (mini gels)

The marker is an ideal addition to the gel loading buffer ROTI®Load DNAstain 2 SYBR® Green (Art. No. 1CN6).

Volume supplied: 52.5 ng DNA in 500 µl buffer solution

Storage temperature: –20 °C
Transport temperature: ambient temp.

Appearance ..... green solution

Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
1CN9.1	500 µl	plastic	134,40

DNA polymerase (thermostable)

- ROTI®Pol TaqUltra see page 1238
- ROTI®Pol Hot-TaqS see page 1237
- ROTI®Pol Hot-TaqHY see page 1238
- ROTI®Pol Hot-TaqUltra see page 1238
- ROTI®Pol TaqS see page 1237
- ROTI®Pol TaqHY see page 1237
- ROTI®Pol ProofRead see page 1238

DNase Test Agar

WGK 1

DNase Test Agar
for microbiology

For detection of DNase activity for identification of pathogenic bacteria.

Application: Use 42 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

Casein peptone ..... 15 g/l
Soy peptone ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Deoxyribonucleic acid ..... 2 g/l
Agar ..... 15 g/l
pH value ..... 7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
8295.1	500 g	plastic	303,70
Original pack 6 x 500 g			288,52/500 g

DNA-Synthesis Reagents

Art. No.	Description	Page
2253	Activation reagent	707
K921	Adenosine-BCE-phosphoramidite	708
2318	Adenosine-CPG-Support	708
2255	Capping reagent I	813
2256	Capping reagent II	813
K922	Cytidine-BCE-phosphoramidite	861
2319	Cytidine-CPG-Support	861
K060	DMT Removal DCE	896
2257	DMT removal reagent	896
A133	Fast Oxidation reagent	930
K923	Guanosine-BCE-phosphoramidite	972
2320	Guanosine-CPG-Support	973
N893	Molecular sieve 3 Å	1092
2254	Oxidation reagent	1134
K924	Thymidine-BCE-phosphoramidite	1367
2321	Thymidine-CPG-Support	1367

DNSCI

- 5-(Dimethylamino)-1-naphthalenesulphonyl chloride see page 886

dNTP mix for PCR

- ROTI®Mix PCR see page 1230

dNTP-Set

Deoxynucleoside triphosphate set · Nucleotide set for PCR

WGK 1

dNTP-Set 1
≥99 % dATP, dTTP, dGTP, dCTP, 100 mM per dNTP

for PCR and RT, nucleotide set composed of solutions of dATP, dTTP, dGTP, dCTP

Concentration: 100 mM per dNTP
Typical end concentration in PCR: 200 µM each

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
K039.1	1 set	plastic	127,95
K039.2	1 set	plastic	521,40

dNTP-Set 1 (pH 7)
≥99 % dATP, dTTP, dGTP, dCTP , 100 mM per dNTP

for PCR and RT, nucleotide set composed of solutions of dATP, dTTP, dGTP, dCTP, **pH 7,0 ±0,1**

Concentration: 100 mM per dNTP
Typical end concentration in PCR: 200 µM each

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
0178.1	1 set	plastic	127,95
0178.2	1 set	plastic	521,40

dNTP-Set 2
≥99 % dATP, dUTP, dGTP, dCTP, 100 mM per dNTP

for PCR and RT, nucleotide set composed of solutions of dATP, **dUTP**, dGTP, dCTP

Concentration: 100 mM per dNTP
Typical end concentration in PCR: 200 µM each

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
L540.1	1 set	plastic	127,95
L540.2	1 set	plastic	521,40

dNTP-Set 3
≥99 % dATP, dTTP, dITP, dCTP, 100 mM per dNTP

for PCR and RT, nucleotide set composed of solutions of dATP, dTTP, **dITP**, dCTP

Concentration: 100 mM per dNTP
Typical end concentration in PCR: 200 µM each

Storage temperature: –20 °C
Transport temperature: cooled

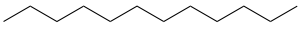
Art. No.	Pack Qty.	Pack.	€
P731.1	1 set	plastic	127,95
P731.2	1 set	plastic	521,40

DOC
▸ Deoxycholic acid sodium salt (DOC) see page 867

cis-13-Docosenoic acid methyl ester
▸ Erucic acid methyl ester see page 913

Dodecanal
▸ Dodecyl aldehyde see page 899

n-Dodecane



CAS No. 112-40-3 · EC no. 203-967-9

n-Dodecane
≥95 %, for synthesis

$C_{12}H_{26}$ · D 0,753 g/cm³ · mp -10 °C · bp 205,5 to 217,5 °C · flp 70 °C

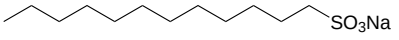
WGK 1

Danger H304-EUH066

Type analysis
Appearance ..... clear colourless liquid
Assay ..... ≥95,0 %
Density (15 °C) 0,750-0,756
Aromatic compounds ..... ≤0,1 %
Refractive index n_D^{20} 1,418-1,425

Art. No.	Pack Qty.	Pack.	€
8786.1	100 ml	glass	21,40
8786.2	500 ml	glass	73,00
8786.3	1 l	glass	131,70
Original pack 6 x 1 l			125,12/1 l

Dodecane-1-sulphonic acid sodium salt



Sodium-1-dodecane sulphonate

$C_{12}H_{25}NaO_3S$ · mp >300 °C
CAS No. 2386-53-0 · EC no. 219-200-6
WGK 1

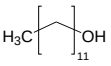
Dodecane-1-sulphonic acid sodium salt
≥99 %, for ion pair chromatography

Ion pair reagent for HPLC.

Guarantee analysis
Assay (acidim.) ..... ≥99,0 %
Water ..... ≤2 %
A 210 nm (5 % in water) ..... ≤0,05 AU
A 220 nm (5 % in water) ..... ≤0,03 AU
A 230 nm (5 % in water) ..... ≤0,02 AU

Art. No.	Pack Qty.	Pack.	€
KK52.1	10 g	glass	64,40
KK52.2	25 g	glass	126,35
KK52.3	100 g	glass	370,90

1-Dodecanol



Dodecyl alcohol · Lauryl alcohol · Dodecan-1-ol

$C_{12}H_{26}O$ · D 0,9 g/cm³ · mp 24 °C · bp 229 °C · flp 134,8 °C
CAS No. 112-53-8 · EC no. 203-982-0
UN no. 3082 · ADR 9 III · WGK 1

Warning H319-H410

1-Dodecanol
≥98 %, for synthesis

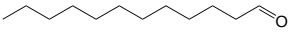
Type analysis
Assay ..... ≥98,0 %
Melting point ..... 21-24 °C

Art. No.	Pack Qty.	Pack.	€
9853.1	250 ml	glass	17,75
9853.2	1 l	glass	47,85
Original pack 6 x 1 l			45,46/1 l
9853.3	2.5 l	glass	99,45
Original pack 4 x 2.5 l			94,48/2.5 l

2-Dodecenylsuccinic acid anhydride
▸ Glycidether Hardener DBA see page 967

Dodecyl alcohol
▸ 1-Dodecanol see page 899

Dodecyl aldehyde



Dodecanal · Lauraldehyde

$C_{12}H_{24}O$ · D 0,83 g/cm³ · mp 12,5 °C · bp 215,8 °C · flp 115,5 °C
CAS No. 112-54-9 · EC no. 203-983-6
UN no. 3082 · ADR 9 III · WGK 2

Warning H315-H411

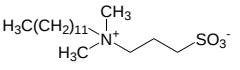
Dodecyl aldehyde
≥98 %, for synthesis

Type analysis
Assay (GC) ..... ≥98,0 %
Density (d 20 °C/4 °C) 0,830-0,840

Art. No.	Pack Qty.	Pack.	€
3754.1	50 ml	glass	64,00

n-Dodecyl-β-D-Glc
▸ *n*-Dodecyl-β-D-glucopyranoside see page 899

N-Dodecyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate



SB-12 · Sulfobetaine-12

$C_{17}H_{37}NO_3S$ · mp 245 to 255 °C · flp >100 °C
CAS No. 14933-08-5
WGK 1

Warning H315-H319-H335

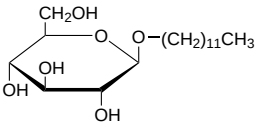
N-Dodecyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate
≥98 %, for biochemistry

Zwitterionic detergent

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥98,0 %
Loss on drying ..... ≤2,0 %
Ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
1821.1	5 g	glass	31,75
1821.2	25 g	glass	85,90
1821.3	100 g	glass	299,95

n-Dodecyl-β-D-glucopyranoside



n-Dodecyl-β-D-Glc

$C_{18}H_{36}O_6$
CAS No. 59122-55-3 · EC no. 261-614-4
WGK 1

Warning H315-H319-H335

n-Dodecyl-β-D-glucopyranoside
for biochemistry

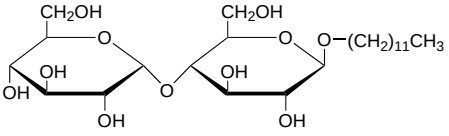
Non-ionic detergent.

Storage temperature: +4 °C

Type analysis
Solution (1 % in methanol) ..... colourless, clear
Water (KF) ..... ≤2 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in methanol, after 24 h) ..... -25° ±2°

Art. No.	Pack Qty.	Pack.	€
4129.1	500 mg	glass	138,70

Dodecyl-β-D-maltoside (DDM)



DDM · Lauryl-β-D-maltoside

$C_{24}H_{46}O_{11}$ · mp 224 to 226 °C
CAS No. 69227-93-6
WGK 1

Dodecyl-β-D-maltoside (DDM)
≥99 %, for biochemistry

Non-ionic detergent.

Storage temperature: –20 °C
Transport temperature: ambient temp.

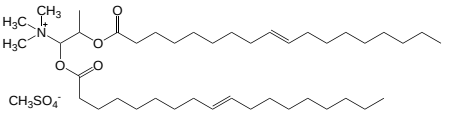
Type analysis
Purity (HPLC) ..... ≥99 %
α-Anomer (NMR) ..... ≤2 %
Dodecanol (HPLC) ..... ≤0,005 %
Conductance (10 % H_2O) ..... ≤100 µS
pH value (1 % in H_2O) 5-8
Solubility (20 % in H_2O) ..... clear, colourless
Water (KF) ..... ≤1,0 %

Absorbance:
225 nm ..... ≤0,1
260 nm ..... ≤0,06
280 nm ..... ≤0,04
340 nm ..... ≤0,02

Art. No.	Pack Qty.	Pack.	€
CN26.1	500 mg	glass	53,65
CN26.2	1 g	glass	85,90
CN26.3	2.5 g	glass	181,70
CN26.4	10 g	glass	590,20
CN26.5	50 g	plastic	1.709,25

Dodecylsulphate sodium salt
▸ SDS see page 1254

DOTAP



$C_{43}H_{83}NO_8S$ · D 1 g/cm³
WGK 3

DOTAP
CELLPURE® ready-to-use, for transfection

Approx. 200 assays per ml in 24wells.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
L787.1	0.5 ml	plastic	104,85
L787.2	1 ml	plastic	170,95
L787.3	5 ml	plastic	643,95

Double Sugar Iron Agar
▸ Kligler Iron Agar see page 1030

Dowex® 1 X 2 Anion exchanger

Anion exchangers

CAS No. 9085-42-1
WGK 1

Dowex® 1 X 2
50–100 mesh, Cl^--form

highly basic anion exchanger

Type analysis
Appearance ..... beads
Water capacity ..... 65-75 %
Capacity (eq/l) ..... ≥0,7
Counter ion ..... Cl^-

Particle size (mesh):
>35 ..... ≤10 %
<80 ..... ≤10 %

Ion exchanger on the basis of a microporous styrene DVB-copolymerisate.
Active group: Quaternary ammonium compound type I.

Art. No.	Pack Qty.	Pack.	€
0302.3	50 g	plastic	81,20
0302.1	100 g	plastic	139,65
0302.4	250 g	plastic	321,45
0302.2	1 kg	plastic	1.127,70
Original pack 6 x 1 kg			1.071,32/1 kg

Dowex® 1 X 2
100–200 mesh, Cl^--form

highly basic anion exchanger

Type analysis
Appearance ..... beads
Water capacity ..... 65-75 %
Capacity (eq/l) ..... ≥0,6
Counter ion ..... Cl^-

Particle size (mesh):
>50 ..... ≤10 %
<140 ..... ≤5 %

Ion exchanger on the basis of a microporous styrene DVB-copolymerisate.
Active group: Quaternary ammonium compound type I.

Art. No.	Pack Qty.	Pack.	€
0303.3	50 g	plastic	67,65
0303.1	100 g	plastic	121,40
0303.4	250 g	plastic	266,10
0303.2	1 kg	plastic	919,15
Original pack 6 x 1 kg			873,19/1 kg

Dowex® 1 X 2
200–400 mesh, Cl^--form

highly basic anion exchanger

Type analysis
Appearance ..... beads
Water capacity ..... 65-80 %
Capacity (eq/l) ..... ≥0,6
Counter ion ..... Cl^-

Particle size (mesh):
>70 ..... ≤15 %
<270 ..... ≤15 %

Ion exchanger on the basis of a microporous styrene DVB-copolymerisate.
Active group: Quaternary ammonium compound type I.

Art. No.	Pack Qty.	Pack.	€
0304.2	50 g	plastic	67,65
0304.1	100 g	plastic	121,40
0304.3	250 g	plastic	266,10
0304.4	1 kg	plastic	919,15
Original pack 6 x 1 kg			873,19/1 kg

Dowex® 1 X 8 Anion exchanger

Anion exchangers

CAS No. 12627-85-9
WGK 1

Dowex® 1 X 8
50–100 mesh, Cl^--form

Type analysis
Appearance ..... beige beads
Water capacity ..... 43-48 %
Capacity (eq/l) ..... ≥1,2
Counter ion ..... Cl^-

Particle size (mesh):
>35 ..... ≤15 %
<80 ..... ≤15 %

Ion exchanger on the basis of a microporous styrene DVB-copolymerisate.
Active group: Quaternary ammonium compound type I.

Art. No.	Pack Qty.	Pack.	€
0310.3	50 g	plastic	67,65
0310.1	250 g	plastic	266,10
0310.2	1 kg	plastic	919,15
Original pack 6 x 1 kg			873,19/1 kg

Dowex® 1 X 8
100–200 mesh, Cl^--form

Type analysis
Appearance ..... white to yellow beads
Water capacity ..... 39-45 %
Capacity (eq/l) ..... ≥1,2
Counter ion ..... Cl^-

Particle size (mesh):
>60 ..... ≤15 %
<170 ..... ≤15 %

Ion exchanger on the basis of a microporous styrene DVB-copolymerisate.
Active group: Quaternary ammonium compound type I.

Art. No.	Pack Qty.	Pack.	€
0311.3	50 g	plastic	67,65
0311.1	100 g	plastic	121,40
0311.4	250 g	plastic	266,10
0311.2	1 kg	plastic	919,15
Original pack 6 x 1 kg			873,19/1 kg

Dowex® 1 X 8
200–400 mesh, Cl^--form

Type analysis
Appearance ..... white to yellow beads
Water capacity ..... 39-45 %
Capacity (eq/l) ..... ≥1,2
Counter ion ..... Cl^-

Particle size (mesh):
>100 ..... ≤15 %
<325 ..... ≤15 %

Ion exchanger on the basis of a microporous styrene DVB-copolymerisate.
Active group: Quaternary ammonium compound type I.

Art. No.	Pack Qty.	Pack.	€
0312.3	50 g	plastic	89,15
0312.1	100 g	plastic	153,65
0312.4	250 g	plastic	353,70
0312.2	1 kg	plastic	1.236,25
Original pack 6 x 1 kg			1.174,44/1 kg

Dowex® 50 W X 2 Cation exchanger

CAS No. 12612-37-2
WGK 1

Warning H319

Dowex® 50 W X 2
50–100 mesh, H^+-form

highly acidic cation exchanger

Type analysis
Appearance ..... beads
Water capacity ..... 74-82 %
Capacity (eq/l) ..... ≥0,6
Counter ion ..... H^+

Particle size (mesh):
>20 ..... ≤15 %
<70 ..... ≤15 %

Matrix: Polystyrene - DVB; Active group: sulphonate.

Art. No.	Pack Qty.	Pack.	€
6800.1	50 g	plastic	67,65
6800.2	250 g	plastic	266,10
6800.3	1 kg	plastic	919,15
Original pack 6 x 1 kg			873,19/1 kg

Dowex® 50 W X 2
100–200 mesh, H^+-form

highly acidic cation exchanger

Type analysis
Appearance ..... beads
Water capacity ..... 74-82 %
Capacity (eq/l) ..... ≥0,6
Counter ion ..... H^+

Particle size (mesh):
>35 ..... ≤15 %
<140 ..... ≤15 %

Matrix: Polystyrene - DVB; Active group: sulphonate.

Art. No.	Pack Qty.	Pack.	€
0334.2	50 g	plastic	67,65
0334.1	100 g	plastic	121,40
0334.3	250 g	plastic	266,10
0334.4	1 kg	plastic	919,15
Original pack 6 x 1 kg			873,19/1 kg

Dowex® 50 W X 2
200–400 mesh, H^+-form

highly acidic cation exchanger

Type analysis
Appearance ..... beige grain
Particle size (mesh) 200-400
Loss on drying (3 h, 105 °C) ..... ~74-82 %
Capacity (eq/l) ..... ~0,6
Counter ion ..... H^+

Matrix: Polystyrene - DVB; Active group: sulphonate.

Art. No.	Pack Qty.	Pack.	€
N099.3	50 g	plastic	67,65
N099.1	100 g	plastic	121,40
N099.4	250 g	plastic	266,10
N099.2	1 kg	plastic	919,15
Original pack 6 x 1 kg			873,19/1 kg

Dowex® 50 W X 4 Cation exchanger

Cation exchanger

CAS No. 11113-61-4
WGK 1

Warning H319

Dowex® 50 W X 4
200–400 mesh, H^+-form

Type analysis
Appearance ..... beads
Water capacity ..... 64-72 %
Capacity (eq/l) ..... ≥1,1
Counter ion ..... H^+

Particle size (mesh):
>100 ..... ≤15 %
<325 ..... ≤15 %

Matrix: Polystyrene - DVB; Active group: sulphonate.

Art. No.	Pack Qty.	Pack.	€
6821.1	50 g	plastic	67,65
6821.2	250 g	plastic	266,10
6821.3	1 kg	plastic	919,15
Original pack 6 x 1 kg			873,19/1 kg

Dowex® 50 W X 8 Cation exchanger

Cation exchanger

CAS No. 11119-67-8
WGK 1

Warning H319

Dowex® 50 W X 8
50–100 mesh, H^+-form

Type analysis
Appearance ..... Beige to green-beige beads
Water capacity ..... 50-56 %
Capacity (eq/l) ..... ≥1,7 %
Counter ion ..... H^+

Particle size (mesh):
>35 ..... ≤15 %
<80 ..... ≤20 %

Matrix: Polystyrene - DVB; Active group: sulphonate.

Art. No.	Pack Qty.	Pack.	€
0344.2	50 g	plastic	89,15
0344.1	250 g	plastic	353,70
0344.3	1 kg	plastic	1.236,25
Original pack 6 x 1 kg			1.174,44/1 kg

Dowex® 50 W X 8
100–200 mesh, H^+-form

Type analysis
Appearance ..... beige to light brown beads
Water capacity ..... 50-58 %
Capacity (eq/l) ..... ≥1,7
Counter ion ..... H^+

Particle size (mesh):
>60 ..... ≤15 %
<170 ..... ≤15 %

Matrix: Polystyrene - DVB; Active group: sulphonate.

Art. No.	Pack Qty.	Pack.	€
0345.2	50 g	plastic	80,10
0345.1	100 g	plastic	149,45
0345.3	250 g	plastic	321,45
0345.4	1 kg	plastic	1.015,90
Original pack 6 x 1 kg			965,11/1 kg

Dowex® 50 W X 8
200–400 mesh, H^+-form

Type analysis
Appearance ..... beige to light brown beads
Water capacity ..... 50-58 %
Capacity (eq/l) ..... ≥1,7
Counter ion ..... H^+

Particle size (mesh):
>100 ..... ≤15 %
<325 ..... ≤15 %

Matrix: Polystyrene - DVB; Active group: sulphonate.

Art. No.	Pack Qty.	Pack.	€
0346.2	50 g	plastic	67,65
0346.1	100 g	plastic	121,40
0346.3	250 g	plastic	266,10
0346.4	1 kg	plastic	919,15
Original pack 6 x 1 kg			873,19/1 kg

DPA
▸ Diphenylamine see page 892

DPC
▸ Diphenyl carbonate see page 893

DPGME
▸ Dipropylene glycol monomethyl ether see page 893

DPN
▸ NAD see page 1098

$DPNH_2$-Na_2

▸ NADH disodium salt see page 1098

Dragendorff-Munier spray solution

Dragendorff-Munier spray solution
for TLC

Ready-to-use spray solution for detection of nitrogen compounds and alkaloids.
1 % basic Bismuth nitrate, 16,5 % tartaric acid, 20 % potassium iodide dissolved in water. Occurring sediment is tartaric acid contained in excess.

D 1 g/cm³ · bp 100 °C

Storage temperature: +4 °C

WGK 3

Danger H319-H372

Type analysis
TLC-application ..... complies

Art. No.	Pack Qty.	Pack.	€
CP33.1	100 ml	glass	42,90

DRBC Agar

▸ Dichlorane Bengal Red Agar (with chloramphenicol) see page 873

DRCM

▸ Differential Reinforced Clostridial Medium see page 880

Dried Solvents ROTIDRY®

Art. No.	Description	Page
4424	Acetic acid ethyl ester, ROTIDRY®	694
AE00	Acetonitrile, ROTIDRY®	699
AE03	Dichloromethane, ROTIDRY®	875
AE04	Diethyl ether, ROTIDRY®	879
AE02	Dimethyl sulphoxide (DMSO), ROTIDRY®	890
4429	1,4-Dioxane, ROTIDRY®	892
AE05	*n*-Hexane, ROTIDRY®	983
AE01	Methanol, ROTIDRY®	1078
AE07	Tetrahydrofuran, ROTIDRY®	1361
AE06	Toluene, ROTIDRY®	1373
4423	Trichloromethane/Chloroform, ROTIDRY®	1377

Dried Solvents ROTIDRY®Sept

Art. No.	Description	Page
5175	Acetonitrile, ROTIDRY®Sept	699
5176	Dichloroethane, ROTIDRY®Sept	875
5177	Diethyl ether, ROTIDRY®Sept	879
5179	Dimethyl sulphoxide (DMSO), ROTIDRY®Sept	890
5180	*n*-Hexane, ROTIDRY®Sept	983
5181	Methanol, ROTIDRY®Sept	1078
5182	Tetrahydrofuran, ROTIDRY®Sept	1361
5191	Toluene, ROTIDRY®Sept	1373

Dry cleaning gasoline

▸ Petroleum benzine 235-265 see page 1148
▸ Petroleum benzine 40-80 see page 1147
▸ Petroleum benzine 60-70 see page 1147
▸ Petroleum benzine 50-70 see page 1147
▸ Petroleum benzine 180-220 see page 1148
▸ Petroleum benzine 30-75 see page 1146
▸ Petroleum benzine 30-50 see page 1146
▸ Petroleum benzine 40-65 see page 1147
▸ Petroleum benzine 40-60 see page 1147
▸ Petroleum benzine 190-245 see page 1148
▸ Petroleum benzine 100-140 see page 1148
▸ Petroleum benzine 145-200 see page 1148
▸ Petroleum benzine 135-180 see page 1148
▸ Petroleum benzine 60-95 see page 1147
▸ Petroleum benzine 80-110 see page 1147
▸ Petroleum benzine 63-80 see page 1147

Drying Agents

Art. No.	Description	Page
5280	Aluminium granulate, ≥99 %, ~1–5 mm	721
5285	Aluminium powder, ≥99 %, <160 µm	721
2729	Calcium granulate, ≥99,5 %, ~6 mesh	805
CN93	Calcium chloride, ≥98 %, dehydrated, powder	806
CN92	Calcium chloride, ≥96 %, dehydrated, granules	806
1C34	Calcium chloride, ≥95 %, technical	806
A119	Calcium chloride, ≥94 %, dehydrated	806
CN88	Calcium oxide, ≥96 %, extra pure	809
P023	Copper(II) sulphate, ≥99 %, p.a., anhydrous	850
4468	Magnesium ribbon, ≥99,5 %	1055
AE61	Magnesium turnings, ≥99,9 %, for synthesis, acc. to Grignard	1056
CP20	Magnesium powder, ≥99,8 %, <75 µm	1056
8280	Magnesium oxide, ≥98 %, Ph. Eur., light	1059
0261	Magnesium sulphate hydrate, ≥99 %, extra pure, dried	1060
N893	Molecular sieve 3 Å, activated, under argon, for DNA synthesis	1092
8487	Molecular sieve 3 Å, 0,3 nm, type 564, beads	1092
P729	Molecular sieve 3 Å, 0,3 nm, type 562 C, beads	1092
8471	Molecular sieve 4 Å, 0,4 nm, type 514, beads	1092
8475	Molecular sieve 5 Å, 0,5 nm, type 522, beads	1092
8483	Molecular sieve 10 Å, 1,0 nm, type 544, beads	1092
9076	Phosphorus pentoxide, ≥99 %, powdered	1157
P743	Potassium carbonate, ≥99 %, p.a., ACS	1168
6751	Potassium hydroxide, ≥85 %, p.a., in pellets	1175
8109	Silica gel water resistant, 2–5 mm, beads	1264
2440	Silica gel blue, 2–4 mm, with indicator, beads	1264
3650	Silica Gel yellow/blue, 2.5–6 mm, with indicator, fractured	1265
P077	Silica gel orange, 2–5 mm, with indicator, beads	1265
1779	Silica Gel orange/green, 2–5 mm, with indicator, beads	1265
3955	Silica Gel red/yellow, 1–3 mm, with indicator, beads	1265
4111	Silica Gel red/yellow, 3–6 mm, with indicator, beads	1265
N077	Silica gel orange – Desiccant Sachets, 10 g (4 × 9 cm), with indicator	1265
N078	Silica gel orange – Desiccant Sachets, 25 g (10 × 10 cm), with indicator	1265
N079	Silica gel orange – Desiccant Sachets, 50 g (9 × 12 cm), with indicator	1265
9376	Silica gel white, 0,5–1 mm, granules	1266
T858	Silica gel white, 1–3 mm, granules	1266
CN70	Silica gel industry grade, broken beads, w/o indicator	1266
4469	Sodium, ≥99 %, rods, in paraffin wax oil	1276
6771	Sodium hydroxide, ≥98 %, p.a., ISO, in pellets	1286
8560	Sodium sulphate, ≥99 %, p.a., ACS, ISO, anhydrous, powdered	1295

Drying agent water resistant

▸ Silica gel water resistant see page 1264

Drying pearls blue

▸ Silica gel blue see page 1264

Drying pearls orange

▸ Silica gel orange see page 1265

Drying pearls water resistant

▸ Silica gel water resistant see page 1264

Drying pearls white

▸ Silica gels without humidity indicator see page 1265

Drying pearls WS

▸ Silica gel water resistant see page 1264

DSC

▸ *N,N'*-Disuccinimidyl carbonate (DSC) see page 894

DTE

▸ 1,4-Dithioerythritol (DTE) see page 894

DTNB

▸ 5,5'-Dithio-bis-(2-nitrobenzoic acid) see page 894

DTPA

▸ Diethylene triamine pentaacetic acid see page 878

DTT

▸ 1,4-Dithiothreitol (DTT) see page 895

dTTP solution

2'-Deoxythymidine-5'-triphosphate tetrasodium salt

$C_{10}H_{14}N_2O_{14}P_3$ · mp 0 °C · bp 100 °C
CAS No. 3624-46-2 · EC no. 248-679-4
WGK 1

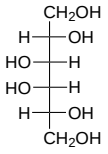
dTTP solution
≥99 %, 100 mM solution

for molecular biology

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
K036.1	250 µl	plastic	42,90

Dulcitol



Galactitol · Melampyrit

$C_6H_{14}O_6$ · D 1,47 g/cm³ · mp 185 to 192 °C
CAS No. 608-66-2 · EC no. 210-165-2
WGK 1

Warning H315-H319-H335

Dulcitol
≥99 %, for biochemistry

Type analysis
Appearance ..... white, fine powder
Assay (HPLC) ..... ≥99,0 %
Water (KF) ..... ≤1,0 %
Melting point ..... 186-192 °C

Art. No.	Pack Qty.	Pack.	€
4944.2	10 g	plastic	22,50
4944.1	50 g	plastic	74,75

dUTP solution

2'-Deoxyuridine-5'-triphosphate tetrasodium salt

$C_9H_{15}N_2O_{14}P_3Na_4$ · mp 0 °C · bp 100 °C
WGK 1

dUTP solution
≥99 %, 100 mM solution

for molecular biology

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
L539.1	250 µl	plastic	42,90

Dyes

▸ Indicators and Dyes see page 1006

Dysprosium Standards

▸ Dysprosium ICP Standard Solution see page 1315
▸ Dysprosium ICP Standard Solution see page 1315

Dysprosium(III) oxide

Didysprosium trioxide

Dy_2O_3 · D 7,81 g/cm³ · mp 2340 °C
CAS No. 1308-87-8 · EC no. 215-164-0
WGK 1

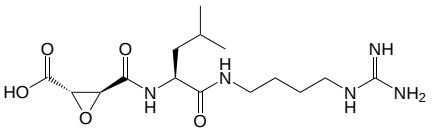
Dysprosium(III) oxide
ROTI®REMETIC 99,9 %

Type analysis
Assay (TREO*) ..... 99,9 %

*Total rare earth oxide.
Chemical analysis (ICP, AAS): specified trace impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
7145.1	5 g	plastic	52,15
7145.2	25 g	plastic	91,95

E-64



N-(*trans*-epoxysuccinyl)-L-leucine-4-guanidinobutylamide · *N*-[*N*-(L-3-*trans*-Carboxyoxirane-2-carbonyl)leucyl]-agmatine

$C_{15}H_{27}N_5O_5 \cdot 0{,}5\ H_2O$
CAS No. 66701-25-5
WGK 1

E-64
≥99 %, for biochemistry

Inhibitor of cysteine proteases.

Stock solution: 1 mM (360 µg/ml) in H_2O, DMSO or ethanol. Storage of stock solution: at –20 °C max. 3 months.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥99 %
Specific rotation $[\alpha]_D^{20}$ (in 0,1 N HCl) .. +21° to +26°

Art. No.	Pack Qty.	Pack.	€
2935.1	5 mg	plastic	107,40
2935.2	25 mg	plastic	403,15

EC Broth

E. coli Bouillon

WGK 1

EC Broth
ISO 7251, ISO 11133, for microbiology

For detection and enumeration of coliform bacteria in water.

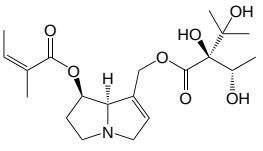
Application: Use 37.4 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Tryptose ..... 20 g/l
Lactose ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Dipotassium phosphate ..... 4 g/l
Potassium dihydrogen phosphate ..... 1,5 g/l
Bile salts No. 3 ..... 1,5 g/l
pH value ..... 6,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
8310.1	500 g	plastic	141,40
Original pack 6 x 500 g			134,33/500 g

Echimidine



7-*O*-Angelyl-9-*O*-echimidinylretronecine

$C_{20}H_{31}NO_7$
CAS No. 520-68-3
UN no. 1544 · ADR 6.1 III · WGK 2

Danger H301+H311+H331-H373

Echimidine
ROTICHROM® HPLC

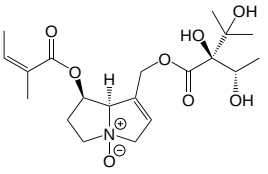
Reference substance for HPLC.
From *Echium plantagineum*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
7992.1	5 mg	glass	424,65

Echimidine *N*-oxide



$C_{20}H_{31}NO_8$ · mp 164 to 165 °C
CAS No. 41093-89-4
UN no. 1544 · ADR 6.1 III · WGK 2

Danger H301+H311+H331-H373

Echimidine *N*-oxide
ROTICHROM® HPLC

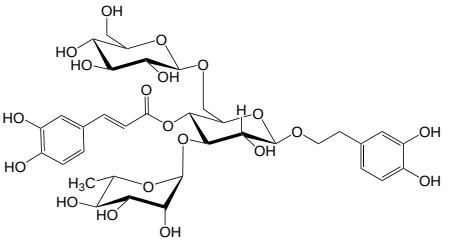
Reference substance for HPLC.
From *Echium plantagineum*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
8011.1	5 mg	glass	456,90

Echinacoside



$C_{35}H_{46}O_{20}$ · mp 150 °C
CAS No. 82854-37-3
WGK 1

Echinacoside
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥90,0 %
Residual solvents (GC) ..... ≤1,0 %
Water (KF) ..... ≤17,0 %
Assay (qNMR) ..... ≥80,0 %

Proof of identity by ^1H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE40.1	10 mg	glass	633,20

Echinacoside
ROTICHROM® HPLC

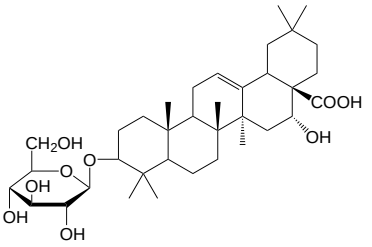
Reference substance for HPLC.
From *Echinacea pallida*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1135.1	10 mg	glass	461,20

Echinocystic acid 3-glucoside



$C_{36}H_{58}O_9$ · mp 238 °C
CAS No. 78285-90-2
WGK 1

Echinocystic acid 3-glucoside
ROTICHROM® HPLC

Reference substance for HPLC

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥92 %

Art. No.	Pack Qty.	Pack.	€
6995.2	10 mg	glass	321,45

E. coli Bouillon

▸ EC Broth see page 904

Ecosurf™ SA-9

D 0,99 g/cm³ · bp >250 °C
WGK 1

Danger H302-H318

Ecosurf™ SA-9
extra pure

Alternative to Triton® X-100, non-ionic detergent.

Mixture of C_6-C_{16} ethoxylated and propoxylated alcohols

Type analysis
Appearance ..... colourless to yellow liquid
Cloud point (1%, H_2O) ..... 55-60 °C
pH value (1 % in H_2O) 5-8
Water ..... ≤0,50 %

Art. No.	Pack Qty.	Pack.	€
0982.1	100 ml	glass	20,35
0982.2	500 ml	glass	40,75
0982.3	1 l	plastic	69,80
Original pack 6 x 1 l			66,31/1 l
0982.4	2.5 l	plastic	127,95
Original pack 4 x 2.5 l			121,55/2.5 l
0982.5	10 l	plastic	375,20

EDC-HCl
▸ 1-Ethyl-3-(3-dimethylaminopropyl)-carbodiimide hydrochloride (EDC-HCl) see page 920

EDTA
▸ Ethylenediamine tetraacetic acid see page 921

EDTAs

Art. No.	Description	Page
8040	Ethylenediamine tetraacetic acid	921
CN06	Ethylenediamine tetraacetic acid	921
6506	Ethylenediamine tetraacetic acid calcium disodium salt hydrate	921
6499	Ethylenediamine tetraacetic acid copper disodium salt dihydrate	922
3053	Ethylenediamine tetraacetic acid dipotassium salt dihydrate	922
1408	Ethylenediamine tetraacetic acid dipotassium salt dihydrate	922
8043	Ethylenediamine tetraacetic acid disodium salt dihydrate	922
X986	Ethylenediamine tetraacetic acid disodium salt dihydrate	922
6498	Ethylenediamine tetraacetic acid iron(III) sodium salt trihydrate	922
6508	Ethylenediamine tetraacetic acid magnesium disodium salt dihydrate	922
6510	Ethylenediamine tetraacetic acid manganese disodium salt dihydrate	923
1410	Ethylenediamine tetraacetic acid tetrasodium salt dihydrate	923
3619	Ethylenediamine tetraacetic acid tetrasodium salt hydrate	923
CP87	Ethylenediamine tetraacetic acid tetrasodium salt tetrahydrate	923
1409	Ethylenediamine tetraacetic acid tripotassium salt dihydrate	923
6518	Ethylenediamine tetraacetic acid zinc disodium salt dihydrate	924
1031	ROTI®Fair 0.5M EDTA	1218

EDTA calcium disodium salt dihydrate
▸ Ethylenediamine tetraacetic acid calcium disodium salt hydrate see page 921

EDTA copper disodium salt dihydrate
▸ Ethylenediamine tetraacetic acid copper disodium salt dihydrate see page 921

EDTA Dipotassium salt dihydrate
▸ Ethylenediamine tetraacetic acid dipotassium salt dihydrate see page 922

EDTA disodium salt dihydrate
▸ Ethylenediamine tetraacetic acid disodium salt dihydrate see page 922

EDTA disodium salt solutions

Ethylenediamine tetraacetic acid disodium salt solution · Sodium EDTA solution · Titration complex III-solution

CAS No. 6381-92-6 · EC no. 205-358-3

EDTA disodium salt solution (0.01 N)

EDTA disodium salt solution
0,01 mol/l – 0,01 N, volumetric standard solution

For metal titration.

$C_{10}H_{14}N_2Na_2O_8 \cdot 2\ H_2O$ · D 1 g/cm³ · bp 100 °C

WGK 1

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,01 mol/l ±0,5 %
Titer 0,995-1,005

Art. No.	Pack Qty.	Pack.	€
CN34.1	1 l	plastic	32,80
Original pack 6 x 1 l			31,16/1 l
CN34.2	5 l	ROTI®CUBE	105,90
Original pack 2 x 5 l			100,61/5 l
CN34.3	10 l	ROTI®CUBE	180,10

EDTA disodium salt solution (0.02 N)

EDTA disodium salt solution
0,02 mol/l – 0,02 N, volumetric standard solution

$C_{10}H_{14}N_2Na_2O_8 \cdot 2\ H_2O$ · D 1,006 g/cm³ · bp 100 °C

WGK 1

Type analysis
Titer 0,996-1,004
Amount-of-substance conc. (20 °C) ..... 0,02 mol/l ±0,4 %

Art. No.	Pack Qty.	Pack.	€
1E23.1	1 l	plastic	39,70
Original pack 6 x 1 l			37,72/1 l

EDTA disodium salt solution (0.05 N)

EDTA disodium salt solution
0,05 mol/l – 0,05 N, volumetric standard solution

For metal titration.

$C_{10}H_{14}N_2Na_2O_8 \cdot 2\ H_2O$ · D 1,03 g/cm³ · bp 100 °C

UN no. 1824 · ADR 8 III · WGK 1

Warning H290

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,05 mol/l ±0,4 %
Titer ..... 0,996 - 1,004

Art. No.	Pack Qty.	Pack.	€
KK75.1	1 l	plastic	38,60
Original pack 6 x 1 l			36,67/1 l
KK75.2	5 l	plastic	128,50
Original pack 2 x 5 l			122,08/5 l
KK75.3	5 l	ROTI®CUBE	134,95
Original pack 2 x 5 l			128,20/5 l

EDTA disodium salt solution (0.1 N)

EDTA disodium salt solution
0,1 mol/l – 0,1 N, volumetric standard solution

For metal titration.

$C_{10}H_{14}N_2Na_2O_8 \cdot 2\ H_2O$ · D 1,03 g/cm³ · bp 100 °C

UN no. 1824 · ADR 8 III · WGK 1

Warning H290

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
K714.1	1 l	plastic	27,85
Original pack 6 x 1 l			26,46/1 l
K714.2	5 l	plastic	85,90
Original pack 2 x 5 l			81,61/5 l
K714.3	5 l	ROTI®CUBE	97,75
Original pack 2 x 5 l			92,86/5 l
K714.4	10 l	ROTI®CUBE	167,60

EDTA disodium salt solution
0,1 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.

$C_{10}H_{14}N_2Na_2O_8 \cdot 2\ H_2O$ · D 1,03 g/cm³ · bp 100 °C

WGK 1

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l
Measurement uncertainty ..... ±0,2 %

Art. No.	Pack Qty.	Pack.	€
6764.1	1 l	plastic	40,75
Original pack 6 x 1 l			38,71/1 l

EDTA disodium salt solution
ROTI®Volum 0,1 mol/l – 0,1 N

Ampoule for preparation of 1000 ml volumetric solution.

$C_{10}H_{14}N_2Na_2O_8 \cdot 2\ H_2O$ · D 1,03 g/cm³ · bp 100 °C

WGK 1

Warning H373

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
CN51.1	1 unit(s)	plastic ampoule	35,40

EDTA disodium salt solution (0.2 N)

EDTA disodium salt solution
0,2 mol/l – 0,2 N, volumetric standard solution

$C_{10}H_{14}N_2Na_2O_8 \cdot 2\ H_2O$ · D 1,03 g/cm³ · bp 100 °C

UN no. 1824 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,2 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
8084.1	1 l	plastic	56,90
Original pack 6 x 1 l			54,06/1 l
8084.2	5 l	ROTI®CUBE	186,95
Original pack 2 x 5 l			177,60/5 l

EDTA disodium salt solution A
0,1 mol/l – 0,1 N, volumetric standard solution

1 ml corresponds to 5.6 °dH (deutsche Härtegrade). For determination of water hardness.

D 1,038 g/cm³ · bp 100 °C

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
T136.1	1 l	plastic	42,90
Original pack 6 x 1 l			40,76/1 l

EDTA disodium salt solution B
0,01783 mol/l – 0,01783 N, volumetric standard solution

1 ml corresponds to 1 °dH (deutsche Härtegrade). For determination of water hardness.

D 1,001 g/cm³ · bp 100 °C

Type analysis
Amount-of-substance conc. (20 °C) 0,01783 mol/l ±0,4 %
Titer 0,996-1,004

Art. No.	Pack Qty.	Pack.	€
T137.1	1 l	plastic	30,65
Original pack 6 x 1 l			29,12/1 l
T137.2	5 l	ROTI®CUBE	105,90
Original pack 2 x 5 l			100,61/5 l
T137.3	10 l	ROTI®CUBE	175,15

EDTA iron(III) sodium salt trihydrate
- Ethylenediamine tetraacetic acid iron(III) sodium salt trihydrate see page 922

EDTA magnesium disodium salt dihydrate
- Ethylenediamine tetraacetic acid magnesium disodium salt dihydrate see page 922

EDTA manganese disodium salt dihydrate
- Ethylenediamine tetraacetic acid manganese disodium salt dihydrate see page 923

EDTA powder (pouch)
- ROTI®Fair EDTA see page 1218

EDTA solution in DPBS
- ROTI®Cell DPBS/EDTA see page 1213

EDTA solution in PBS
- ROTI®Cell PBS/EDTA see page 1214

EDTA tetrasodium salt
- Ethylenediamine tetraacetic acid tetrasodium salt tetrahydrate see page 923
- Ethylenediamine tetraacetic acid tetrasodium salt dihydrate see page 923
- Ethylenediamine tetraacetic acid tetrasodium salt hydrate see page 923

EDTA tripotassium salt dihydrate
- Ethylenediamine tetraacetic acid tripotassium salt dihydrate see page 923

EDTA zinc disodium salt dihydrate
- Ethylenediamine tetraacetic acid zinc disodium salt dihydrate see page 923

EdU
- 5-Ethynyl-2'-deoxyuridine (EdU) see page 919

EdU Click – Fluorescence microscopy

UN no. 3077 · ADR 9 III · WGK 3

Warning H315-H319-H410

EdU Click-488
ROTI®Kit for Imaging

baseclick.

For fast and simple detection of cell proliferation through fluorescence microscopy.
Marker: **6-FAM-Azid** ($\lambda_{Abs.}$ = 496 nm, $\lambda_{Em.}$ = 516 nm)

For 100 Assays.

Storage temperature: –20 °C/+4 °C (see components)
Transport temperature: cooled

Components
EdU ..... 5 mg
6-FAM-Azide (10 mM in DMSO) ..... 130 µl
Buffer Additive ..... 4 x 200 mg
DMSO ..... 2 x 2 ml
Catalyst Solution ..... 2 x 2 ml
Reaction Buffer ..... 4 x 2 ml

Store at –20 °C (EdU, 6-FAM-Azide, Buffer Additive); +4 °C (DMSO, Catalyst Solution, Reaction Buffer).

Art. No.	Pack Qty.	Pack.	€
7773.1	1 kit	cardboard	418,20

EdU Click-555
ROTI®Kit for Imaging

baseclick.

For fast and simple detection of cell proliferation through fluorescence microscopy.
Marker: **5-TAMRA-PEG3-Azid** ($\lambda_{Abs.}$ = 546 nm, $\lambda_{Em.}$ = 579 nm)

For 100 Assays.

Storage temperature: –20 °C/+4 °C (see components)
Transport temperature: cooled

Components
EdU ..... 5 mg
5-TAMRA-PEG3-Azide (10 mM in DMSO) . 130 µl
Buffer Additive ..... 4 x 200 mg
DMSO ..... 2 x 2 ml
Catalyst Solution ..... 2 x 2 ml
Reaction Buffer ..... 4 x 2 ml

Store at. –20 °C (EdU, 5-TAMRA-PEG3-Azide, Buffer Additive); +4 °C (DMSO, Catalyst Solution, Reaction Buffer).

Art. No.	Pack Qty.	Pack.	€
7775.1	1 kit	cardboard	418,20

EdU Click-594
ROTI®Kit for Imaging

baseclick.

For fast and simple detection of cell proliferation through fluorescence microscopy.
Marker: **5/6-Sulforhodamine-101-PEG3-Azid** ($\lambda_{Abs.}$ = 584 nm, $\lambda_{Em.}$ = 603 nm)

For 100 Assays.

Storage temperature: –20 °C/+4 °C (see components)
Transport temperature: cooled

Components
EdU ..... 5 mg
5/6-Sulforhodamine-101-PEG3-Azide (10 mM in DMSO) ..... 130 µl
Buffer Additive ..... 4 x 200 mg
DMSO ..... 2 x 2 ml
Catalyst Solution ..... 2 x 2 ml
Reaction Buffer ..... 4 x 2 ml

Store at –20 °C (EdU, 5/6-Sulforhodamine-101-PEG3-Azide, Buffer Additive); +4 °C (DMSO, Catalyst Solution, Reaction Buffer).

Art. No.	Pack Qty.	Pack.	€
7776.1	1 kit	cardboard	439,70

EdU Click-647
ROTI®Kit for Imaging

baseclick.

For fast and simple detection of cell proliferation through fluorescence microscopy.
Marker: **Eterneon Red** ($\lambda_{Abs.}$ = 643 nm, $\lambda_{Em.}$ = 662 nm)

For 100 Assays.

Storage temperature: –20 °C/+4 °C (see components)
Transport temperature: cooled

Components
EdU ..... 5 mg
Eterneon Red (10 mM in DMSO) ..... 130 µl
Buffer Additive ..... 4 x 200 mg
DMSO ..... 2 x 2 ml
Catalyst Solution ..... 2 x 2 ml
Reaction Buffer ..... 4 x 2 ml

Store at –20 °C (EdU, Eterneon Red, Buffer Additive); +4 °C (DMSO, Catalyst Solution, Reaction Buffer).

Art. No.	Pack Qty.	Pack.	€
7777.1	1 kit	cardboard	439,70

EdU Click – Flow Cytometry (FC)

EdU Click FC-488
ROTI®Kit for Flow Cytometry

baseclick.

Kit for detection of cell proliferation through Flow Cytometry. Marker: **6-FAM-Azid** ($\lambda_{Abs.}$= 496 nm, $\lambda_{Em.}$= 516 nm)

For 50 assays.

mp 0 °C

Storage temperature: +4 °C
Transport temperature: cooled

UN no. 3077 · ADR 9 III · WGK 3

H411-EUH208

Components

EdU ..... 10 mg
6-FAM-Azide (10 mM in DMSO) ..... 130 µl
DMSO ..... 5 ml
Fixative Solution ..... 5 ml
Saponin Reagent ..... 50 ml
Catalyst Solution ..... 2 ml
Buffer Additive ..... 400 mg

Art. No.	Pack Qty.	Pack.	€
7779.1	1 kit	cardboard	424,65

EdU Click FC-555
ROTI®Kit for Flow Cytometry

baseclick.

Kit for detection of cell proliferation through Flow Cytometry. Marker: **5-TAMRA-PEG3-Azid** ($\lambda_{Abs.}$= 546 nm, $\lambda_{Em.}$= 579 nm)

For 50 assays.

mp 0 °C

Storage temperature: +4 °C
Transport temperature: cooled

UN no. 3082 · ADR 9 III · WGK 3

H411-EUH208

Components

EdU ..... 10 mg
5-TAMRA-PEG3-Azide (10 mM in DMSO) . 130 µl
DMSO ..... 5 ml
Fixative Solution ..... 5 ml
Saponin Reagent ..... 50 ml
Catalyst Solution ..... 2 ml
Buffer Additive ..... 400 mg

Art. No.	Pack Qty.	Pack.	€
7780.1	1 kit	cardboard	424,65

EdU Click FC-594
ROTI®Kit for Flow Cytometry

baseclick.

Kit for detection of cell proliferation through Flow Cytometry. Marker: **5/6-Sulforhodamine-101-PEG3-Azid** ($\lambda_{Abs.}$ = 584 nm, $\lambda_{Em.}$= 603 nm)

For 50 assays.

D 1 g/cm³ · mp 0 °C

Storage temperature: +4 °C
Transport temperature: cooled

UN no. 3082 · ADR 9 III · WGK 3

H411-EUH208

Components

EdU ..... 10 mg
5/6-Sulforhodamine-101-PEG3-Azide (10 mM in DMSO) ..... 130 µl
DMSO ..... 5 ml
Fixative Solution ..... 5 ml
Saponin Reagent ..... 50 ml
Catalyst Solution ..... 2 ml
Buffer Additive ..... 400 mg

Art. No.	Pack Qty.	Pack.	€
7781.1	1 kit	cardboard	424,65

EdU Click FC-647
ROTI®Kit for Flow Cytometry

baseclick.

Kit for detection of cell proliferation through Flow Cytometry. Marker: **Eterneon Red** ($\lambda_{Abs.}$= 643 nm, $\lambda_{Em.}$= 662 nm)

For 50 assays.

D 1 g/cm³ · mp 0 °C

Storage temperature: +4 °C
Transport temperature: cooled

UN no. 3082 · ADR 9 III · WGK 3

H411-EUH208

Components

EdU ..... 10 mg
Eterneon Red (10 mM in DMSO) ..... 130 µl
DMSO ..... 5 ml
Fixative Solution ..... 5 ml
Saponin Reagent ..... 50 ml
Catalyst Solution ..... 2 ml
Buffer Additive ..... 400 mg

Art. No.	Pack Qty.	Pack.	€
7783.1	1 kit	cardboard	424,65

EdU Click – High Throughput Screening (HTS)

D 1 g/cm³
UN no. 3082 · ADR 9 III · WGK 3

Warning H315-H319-H411-EUH031

EdU Click HTS 2-488
ROTI®Kit for High Throughput Screening

baseclick.

For fast and specific detection of cell proliferation in High Throughput Screening. Marker: **6-FAM-Azid** ($\lambda_{Abs.}$ = 496 nm, $\lambda_{Em.}$= 516 nm)

For 200 reactions or 2 x 96 well plates.

Storage temperature: +15 to +25 °C/+4 °C (see components)
Transport temperature: cooled

Components

20x EdU ..... 2 ml
6-FAM-Azide (10 mM in DMSO) ..... 130 µl
Reaction Buffer ..... 20 ml
Catalyst Solution ..... 1 ml
Buffer Additive ..... 200 mg
Rinse Buffer ..... 6 ml

Store at +4 °C (20x EdU, 6-FAM-Azide, Catalyst Solution); +15 to +25 °C (Reaction Buffer, Buffer Additive, Rinse Buffer).

Art. No.	Pack Qty.	Pack.	€
7786.1	1 kit	cardboard	241,90

EdU Click HTS 4-488
ROTI®Kit for High Throughput Screening

baseclick.

For fast and specific detection of cell proliferation in High Throughput Screening. Marker: **6-FAM-Azid** ($\lambda_{Abs.}$ = 496 nm, $\lambda_{Em.}$= 516 nm)

For 400 reactions or 4 x 96 well plates.

Storage temperature: +15 to +25 °C/+4 °C (see components)
Transport temperature: cooled

Components

20x EdU ..... 4 ml
6-FAM-Azide (10 mM in DMSO) ..... 2 x 130 µl
Reaction Buffer ..... 40 ml
Catalyst Solution ..... 1 ml
Buffer Additive ..... 400 mg
Rinse Buffer ..... 2 x 6 ml

Store at +4 °C (20x EdU, 6-FAM-Azide, Catalyst Solution); +15 to +25 °C (Reaction Buffer, Buffer Additive, Rinse Buffer).

Art. No.	Pack Qty.	Pack.	€
7787.1	1 kit	cardboard	375,20

EdU Click HTS 2-555
ROTI®Kit for High Throughput Screening

baseclick.

For fast and specific detection of cell proliferation in High Throughput Screening. Marker: **5-TAMRA-PEG3-Azid** ($\lambda_{Abs.}$ = 546 nm, $\lambda_{Em.}$= 579 nm)

For 200 reactions or 2 x 96 well plates.

Storage temperature: +15 to +25 °C/+4 °C (see components)
Transport temperature: cooled

Components

20x EdU ..... 2 ml
5-TAMRA-PEG3-Azide (10 mM in DMSO) . 130 µl
Reaction Buffer ..... 20 ml
Catalyst Solution ..... 1 ml
Buffer Additive ..... 200 mg
Rinse Buffer ..... 6 ml

Store at +4 °C (20x EdU, 5-TAMRA-PEG3-Azide, Catalyst Solution); +15 to +25 °C (Reaction Buffer, Buffer Additive, Rinse Buffer).

Art. No.	Pack Qty.	Pack.	€
7789.1	1 kit	cardboard	252,65

EdU Click HTS 4-555
ROTI®Kit for High Throughput Screening

baseclick.

For fast and specific detection of cell proliferation in High Throughput Screening. Marker: **5-TAMRA-PEG3-Azid** ($\lambda_{Abs.}$ = 546 nm, $\lambda_{Em.}$= 579 nm)

For 400 reactions or 4 x 96 well plates.

Storage temperature: +15 to +25 °C/+4 °C (see components)
Transport temperature: cooled

Components
20x EdU ..... 4 ml
5-TAMRA-PEG3-Azide (10 mM in DMSO) ..... 2 x 130 µl
Reaction Buffer ..... 40 ml
Catalyst Solution ..... 1 ml
Buffer Additive ..... 400 mg
Rinse Buffer ..... 2 x 6 ml

Store at +4 °C (20x EdU, 5-TAMRA-PEG3-Azide, Catalyst Solution); +15 to +25 °C (Reaction Buffer, Buffer Additive, Rinse Buffer).

Art. No.	Pack Qty.	Pack.	€
7791.1	1 kit	cardboard	396,70

EdUTP
▸ 5-Ethynyl-dUTP see page 927

EGBEA
▸ 2-Butoxyethyl acetate see page 798

Egg Yolk Emulsion (20 %)

Egg Yolk Emulsion (20 %)
20 %, ISO 7932, sterile, stabilised, for microbiology

Media supplement for preparation of egg yolk agar for detection of microbial lecithinase activity.

Application: The ISO 7932 recommends a final concentration of 10 % emulsion in the prepared medium in general, e.g. in Mannitol Egg Yolk Polymyxin Agar (Base) (Art. No. 5765.1) for examining the lecithinase activity of *Bacillus cereus*.
We recommend using TSC Agar (Base) (Art. No. CL51.1), Mannitol Salt Agar (Art. No. CL81.1) or Palcam Listeria Agar (Base) (Art. No. 5768.1) for base agar with the addition of 5 % emulsion.
Add after autoclaving.

100 ml Egg Yolk Emulsion are sufficient for 1 l agar medium.

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Guarantee analysis
Colour ..... yellow
Egg yolk ..... 20 %
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
0402.1	100 ml	plastic	56,45

Egg Yolk Tellurite Emulsion (20 %)

WGK 1

Egg Yolk Tellurite Emulsion (20 %)
20 %, ISO 6888, sterile, stabilised, for microbiology

Media supplement for preparation of egg yolk tellurite agar, for detection of *Staphylococcus aureus*.

Application: We recommend using Baird Parker Agar (Base) (Art. No. X913.1) for base agar.
The ISO 6888 recommends a final concentration of 5 % emulsion in the prepared medium.
Add after autoclaving.

100 ml Egg Yolk Tellurite Emulsion is sufficient for 2 l agar medium.

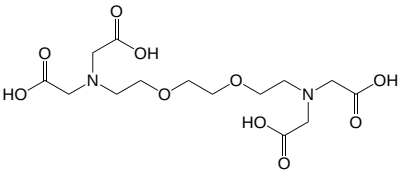
D ~1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Guarantee analysis
Colour ..... yellow
Egg yolk ..... 20 %
Sterile saline solution ..... 80 %
Potassium tellurite ..... 0,21 %
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
0339.1	100 ml	plastic	67,20
0339.2	250 ml	plastic	158,60

EGTA



Ethylene glycol bis(β-aminoethylether) tetraacetic acid · Titration complex VI

$C_{14}H_{24}N_2O_{10}$ · mp 240 to 245 °C
CAS No. 67-42-5 · EC no. 200-651-2
WGK 1

EGTA
≥99 %, p.a.

For molecular biology and biochemistry.

Type analysis
Appearance ..... white, crystalline powder
Assay (titr.) ..... ≥99,0 %
pH value (saturated sol.) 2,6-3,0
Loss on drying ..... ≤2,0 %
Iron (Fe) ..... ≤0,001 %
Heavy metals ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
3054.1	10 g	plastic	42,50
3054.2	50 g	plastic	166,65
3054.3	100 g	plastic	289,20

Ehrlich's acid Hematoxylin solution
▸ Hematoxylin solution acid acc. to Ehrlich see page 977

Ehrlich's Reagent
▸ 4-(Dimethylamino)-benzaldehyde see page 885

n-Eicosanoic acid
▸ Arachidic acid see page 750

Elastica van Gieson staining kit

D 1 g/cm³
UN no. 2924 · ADR 3 (8) II · WGK 2
Danger H225-H290-H302+H312+H332-H318-H336-H370

Elastica van Gieson staining kit
for microscopy

Staining kit for visualising connective tissue with elastic fibres, incl. instructions for use.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

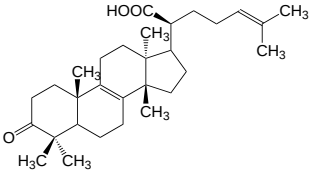
Composition
Hematoxylin solution A acc. to Weigert (Art. No. X906) ..... 500 ml
Hematoxylin solution B acc. to Weigert (Art. No. X907) ..... 500 ml
Van Gieson's Solution (Art.-No. 3925) ..... 500 ml
Resorcinol-Fuchsine-solution acc. to Weigert (Art. No. X877) ..... 500 ml

Art. No.	Pack Qty.	Pack.	€
8275.1	1 kit	glass	203,20

Elatericin B
▸ Cucurbitacin I see page 855

α-Elaterin
▸ Cucurbitacin E see page 855

β-Elemonic acid



$C_{30}H_{46}O_3$ · mp 220 °C
CAS No. 28282-25-9
WGK 1

β-Elemonic acid
ROTICHROM® HPLC

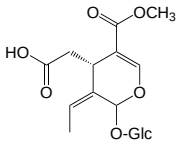
Reference substance for HPLC.
From *Boswellia serrata*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6491.1	10 mg	glass	568,70

Elenolic acid glucoside



Oleoside-1-methylester

$C_{17}H_{24}O_{11}$ · mp 170 °C
CAS No. 60539-23-3
WGK 1

Elenolic acid glucoside
ROTICHROM® HPLC

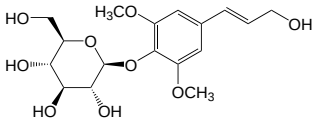
Reference substance for HPLC.
From *Olea europaea.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1136.1	20 mg	glass	375,20

Eleutheroside B



Syringin, Syringoside

$C_{17}H_{24}O_9$ · mp 195 °C
CAS No. 118-34-3
WGK 1

Warning H302

Eleutheroside B
ROTICHROM® HPLC

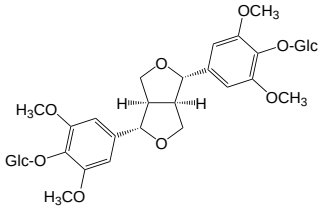
Reference substance for HPLC.
From *Syringa vulgaris.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1137.1	5 mg	glass	299,95

Eleutheroside E



Syringaresinol- 4',4'-*O*-bis-β-D-glucoside

$C_{34}H_{46}O_{18}$ · mp 255 °C
CAS No. 39432-56-9 · EC no. 609-679-3
WGK 1

Eleutheroside E
ROTICHROM® HPLC

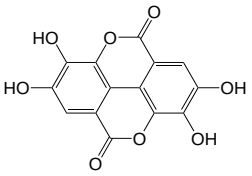
Reference substance for HPLC.
From *Eleutherococcus.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >96 %

Art. No.	Pack Qty.	Pack.	€
1138.1	5 mg	glass	299,95

Ellagic acid



$C_{14}H_6O_8$ · mp >350 °C
CAS No. 476-66-4 · EC no. 207-508-3
WGK 1

Warning H315-H319-H335

Ellagic acid
≥90 %, for biochemistry

Type analysis
Assay (HPLC) ..... ≥90 %
Loss on drying ..... ≤5 %
Sulphated ash ..... ≤5 %

Art. No.	Pack Qty.	Pack.	€
7263.1	5 g	glass	107,40

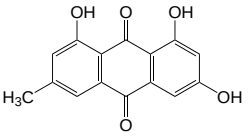
Ellman's reagent

▸ 5,5'-Dithio-bis-(2-nitrobenzoic acid) see page 894

Embedding- / Inclusion Media

Art. No.	Description	Page
9180	Alginic acid sodium salt	717
8016	Canada balsam	812
7356	Euparal	928
A145	Euparal essence	928
4582	Gelatine	953
3783	Glycerol, ROTIPURAN®	965
8619	Glycidether 100	967
9279	Granopent® P	970
6474	Kaiser's glycerol gelatine phenol-free	1026
4233	Methacrylic acid methyl ester	1077
0713	Mowiol® 4-88	1094
6478	OCT Embedding Matrix	1119
CN48	Paraffin 50–52 °C	1137
CN49	Paraffin 52–54 °C	1137
X880	Paraplast®	1138
X881	Paraplast Plus®	1138
X882	Paraplast X-tra®	1138
6471	Phytohistol® plus	1157
0152	Polyethylene glycol 1500, ROTIPURAN®	1162
6638	ROTI®Histokitt	1227
T160	ROTI®Histokitt II	1227
HP68	ROTI®Mount	1231
2848	ROTI®Mount Aqua	1231
HP19	ROTI®Mount FluorCare	1231
HP20	ROTI®Mount FluorCare DAPI	1231
HP21	ROTI®Mount FluorCare PI	1231
6642	ROTI®Plast	1235
6643	ROTI®Plast with DMSO	1235
T200	Solidofix® Cryo spray	1299

Emodin



$C_{15}H_{10}O_5$ · mp 255 °C
CAS No. 518-82-1 · EC no. 208-258-8
WGK 1

Warning H315-H319-H335

Emodin
ROTICHROM® ~CHR$_{TLC}$

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
7272.1	100 mg	glass	34,30
7272.2	500 mg	glass	117,20

Emodinrhamnoside

▸ Frangulin A see page 948

Empetrin

▸ Delphinidin 3-galactoside chloride see page 866

Endo Agar (Base)

WGK 1

Endo Agar (Base)
for microbiology

For isolation of enteric gram-negative bacteria, especially coliforms, from water, dairy products and food.

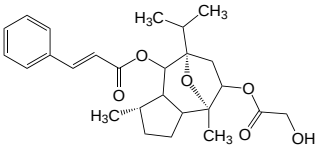
Application: Use 36 g for 1 l agar, add 5 ml basic fuchsin solution.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Peptone ..... 10 g/l
Lactose ..... 10 g/l
di-Potassium phosphate ..... 3,5 g/l
Sodium sulphite ..... 2,5 g/l
Agar ..... 10 g/l
pH value ..... 7,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
X920.1	500 g	plastic	104,85
Original pack 6 x 500 g			99,61/500 g

Englerin A



$C_{26}H_{34}O_6$ · mp 160 °C
CAS No. 1094250-15-3
WGK 1

Englerin A
ROTICHROM® HPLC

Reference substance for HPLC.
From *Phyllanthus engleri*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥96,0 %

Art. No.	Pack Qty.	Pack.	€
6492.1	10 mg	glass	557,95

Enhancer solution

- DAB Metal Enhancer see page 863
- Signal Enhancer Western/ELISA see page 1258

Enoxolone

- 18-β-Glycyrrhetinic acid see page 969

Enriched broth medium E (Ph.Eur. 6.0)

- Mossel EE Broth see page 1094

Enterobacteria enrichment broth-Mossel (Ph.Eur. 6.3, 7.0, 8.0 and 9.0)

- Mossel EE Broth see page 1094

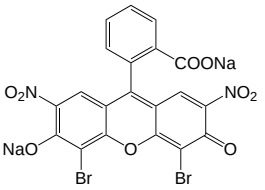
Enterobacter sakazakii Chromogenic Agar

- Cronobacter chromogenic Agar see page 854

Enzymes

Art. No.	Description	Page
6024	Alkaline phosphatase, ≥2 000 Glycin U/mg protein (approx. 6000 DEA U/mg protein)	718
8717	β-Amylase, 16–24 U/mg, lyophil.	743
5950	Bromelain, ~1200 GDU/g, for biochemistry	787
6025	Catalase, ≥11 700 U/mg material (approx. 40 000 U/mg protein)	821
0238	Chymotrypsin, ≥1 000 USP-U/mg, for biochemistry	838
6028	Glucose oxidase (GOD), ~360 U/mg protein (approx. 280 U/mg material)	962
6052	Glutamate dehydrogenase (GDH, GLDH), ≥10 U/mg material (ca. 40 U/mg protein)	963
6060	Lactate dehydrogenase (LDH), ≥290 U/mg protein	1031
3733	Ligase quick, 5 U/µl, for molecular biology	1042
3729	Ligase T4, 5 U/µl, for molecular biology	1042
3736	Ligase Tth, 5 U/µl, for molecular biology	1042
CN73	Lipoxygenase, ≥100 000 U/mg, for biochemistry	1044
8259	Lysozyme, ≥45 000 FIP U/mg, lyophilized	1054
6062	Malate dehydrogenase (MDH), ≥1 250 U/mg protein	1063
8933	Papain, >30 000 USP-U/mg, for biochemistry	1136
KK38	Pepsin, ≥2 000 FIP-U/g, for biochemistry	1143
0230	Pepsin, ≥0,5 E/mg, Ph. Eur., for biochemistry	1143
6055	Peroxidase, ≥250 U/mg material	1146
3726	Proteinase K, ≥35 U/mg, BioScience Grade, lyophilised	1188
7528	Proteinase K, ≥30 mAnson U/mg, lyophilized	1189
3719	Proteinase K – Solution, 20 mg/ml, sterile, ready-to-use, for biochemistry and molecular biology	
8178	Rennin, for biochemistry	1202
7164	Ribonuclease, >70 U/mg (Kunitz), salt-free, protease-free	1206
7156	Ribonuclease A, 90 U/mg (Kunitz), BioScience Grade, salt-free	1207
3728	Ribonuclease H, 5 U/µl, for molecular biology	1207
9223	ROTI®Pol TaqS, 5 U/µl	1237
9239	ROTI®Pol TaqS Mix (2x), 2x conc., ready-to-use	1237
9241	ROTI®Pol TaqS Red-Mix (2x), 2x conc., ready-to-use	1237
9245	ROTI®Pol Hot-TaqS, 5 U/µl	1237
9248	ROTI®Pol Hot-TaqS Mix (2x), 2x conc., ready-to-use	1237
9256	ROTI®Pol Hot-TaqS Red-Mix (2x), 2x conc., ready-to-use	1237
9345	ROTI®Pol TaqHY, 5 U/µl	1238
1K33	ROTI®Pol TaqHY Mix (2x), 2x conc., ready-to-use	1238
1K34	ROTI®Pol TaqHY Red-Mix (2x), 2x conc., ready-to-use	1238
9346	ROTI®Pol Hot-TaqHY, 5 U/µl	1238
9344	ROTI®Pol ProofRead, 5 U/µl	1238
9347	ROTI®Pol TaqUltra, 5 U/µl, DNA-free	1238
9350	ROTI®Pol Hot-TaqUltra, 5 U/µl, DNA-free	1238
2193	Trypsin, 5.000 USP-U/mg	1385
5455	Trypsin, ≥2500 USP-U/mg, cryst.	1385
6065	Urease, ≥220 Nessler U/mg material	1391
7537	Urease, ~1 U/mg, for biochemistry	1391
9329	Zymolyase® 100T, ≥100 U/mg, for biochemistry and molecular biology	1417
9324	Zymolyase® 20T, ≥20 U/mg, for biochemistry and molecular biology	1417

Eosin B (C.I. 45400)



4',5'-Dibromo-2',7'-dinitrofluorescein-disodium salt · Eosin bluish · Eosin scarlet

$C_{20}H_6Br_2N_2Na_2O_9$ · mp 310 °C
CAS No. 548-24-3 · EC no. 208-943-1
WGK 1

Eosin B (C.I. 45400)
for microscopy

Dissolve 0.5–2.0 % in water or ethanol

Type analysis
Appearance ..... dark red powder
Maximum absorption ..... 510-530 nm

Art. No.	Pack Qty.	Pack.	€
0306.1	10 g	glass	21,40
0306.2	25 g	glass	35,40
0306.3	50 g	glass	55,80

Eosin bluish

- Eosin B (C.I. 45400) see page 910

Eosin methylene blue

- Wright's stain see page 1404

Eosin methylene blue solution

- May-Gruenwald's solution see page 1070
- Wright's eosin methylene blue solution see page 1404

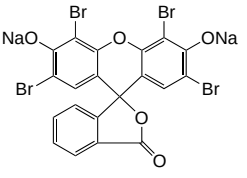
Eosin methylene blue acc. to Leishman

- Leishman stain see page 1040

Eosin scarlet

- Eosin B (C.I. 45400) see page 910

Eosin Y (C.I. 45380)



Eosine Yellowish

$C_{20}H_6Br_4Na_2O_5$ · D 0,78 g/cm³ · mp 255 to 265 °C
CAS No. 17372-87-1 · EC no. 241-409-6
WGK 1

Warning H317-H319

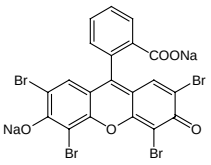
Eosin Y (C.I. 45380)
for microscopy

Dissolve 0.5–2.0 % in water or ethanol

Type analysis
Maximum absorption ..... 510-520 nm
Solubility ..... in alcohol and water

Art. No.	Pack Qty.	Pack.	€
7089.1	50 g	glass	45,05
7089.2	100 g	glass	77,95
7089.3	500 g	glass	252,65
Original pack 6 x 500 g			240,02/500 g

Eosin Y solutions



CAS No. 17372-87-1 · EC no. 241-409-6

Eosin Y solution 0.5 % in water
0,5 %, in water, for microscopy

For visualising cell structures during standard staining methods (H&E staining).

D 1 g/cm³

WGK 1

Art. No.	Pack Qty.	Pack.	€
X883.1	500 ml	glass	27,85
X883.2	1 l	glass	42,50
Original pack 6 x 1 l			40,38/1 l

Eosin Y solution 1 % in water
1 %, in water, for microscopy

For visualising cell structures during standard staining methods (H&E staining).

D 1 g/cm³

WGK 1

Art. No.	Pack Qty.	Pack.	€
3137.1	500 ml	glass	32,15
3137.2	1 l	glass	47,85
Original pack 6 x 1 l			45,46/1 l

Eosin Y solution 1 % in methanol
1 %, in methanol, for microscopy

For visualising cell structures during standard staining methods (H&E staining).

D 0,8 g/cm³ · bp >65 °C · flp >10 °C

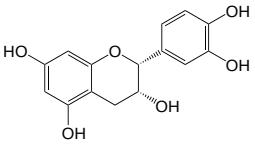
UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H370

Art. No.	Pack Qty.	Pack.	€
3139.1	500 ml	glass	37,55
3139.2	1 l	glass	55,40
Original pack 6 x 1 l			52,63/1 l

Eosine Yellowish
▸ Eosin Y (C.I. 45380) see page 910

(–)-Epicatechin



(–)-Epicatechol

$C_{15}H_{14}O_6$ · mp 240 to 245 °C
CAS No. 490-46-0 · EC no. 207-710-1
WGK 1

Warning H315-H319-H335

(–)-Epicatechin
ROTICHROM® CHR >90 %

Storage temperature: +4 °C

Type analysis
Appearance ..... light beige powder
Assay (HPLC) ..... >90 %
$[\alpha]_D^{20}$ (c=1 in acetone/H_2O 1:1) ..... -59° to -53°

Art. No.	Pack Qty.	Pack.	€
7293.1	500 mg	glass	177,40

(–)-Epicatechin
ROTI®Star Primary Standard

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Assay (HPLC) ..... ≥93,0 %
Residual solvents (GC) ..... ≤3,0 %
Water (KF) ..... ≤7,0 %
Assay (qNMR) ..... ≥90,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE41.1	10 mg	glass	633,20

(–)-Epicatechin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Acacia catechu.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1139.1	20 mg	glass	252,65

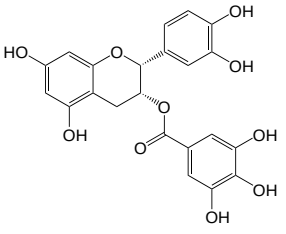
(–)-Epicatechin
ROTICHROM® ~CHR$_{TLC}$

Reference substance for thin layer chromatography.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
5798.1	50 mg	glass	69,35

(–)-Epicatechin gallate



$C_{22}H_{18}O_{10}$
CAS No. 1257-08-5
WGK 1

(–)-Epicatechin gallate
ROTICHROM® HPLC

Reference substance for HPLC.

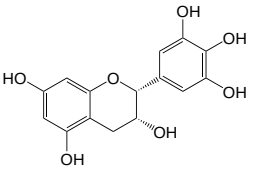
Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6358.1	10 mg	glass	317,15

(–)-Epicatechol
▸ (–)-Epicatechin see page 911

(–)-Epigallocatechin



$C_{15}H_{14}O_7$ · mp 215 to 225 °C
CAS No. 970-74-1
WGK 1

(–)-Epigallocatechin
ROTICHROM® HPLC

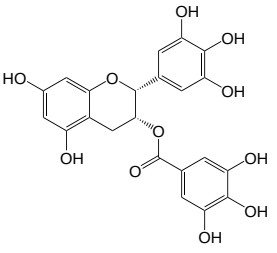
Reference substance for HPLC.
From *Camellia sinensis.*

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
6359.1	10 mg	glass	321,45

(–)-Epigallocatechin gallate



$C_{22}H_{18}O_{11}$
CAS No. 989-51-5
UN no. 3077 · ADR 9 III · WGK 2

Warning H302-H317-H319-H411

(–)-Epigallocatechin gallate
ROTICHROM® HPLC

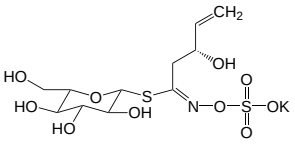
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6361.1	10 mg	glass	203,20

Epiprogoitrin



(2S)-2-Hydroxybut-3-enyl glucosinolate

$C_{11}H_{18}KNO_{10}S_2$
CAS No. 19237-18-4
WGK 1

Epiprogoitrin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Crambe abyssinica*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
2273.1	10 mg	glass	332,20

Epon 812
▸ Glycidether 100 see page 967

1,8-Epoxy-*p*-menthane
▸ Eucalyptol see page 927

N-(*trans*-epoxysuccinyl)-L-leucine-4-guanidinobutylamide
▸ E-64 see page 904

Epson salt
▸ Magnesium sulphate heptahydrate see page 1060

Erbia
▸ Erbium(III) oxide see page 912

Erbium Standards
▸ Erbium ICP Standard Solution see page 1316
▸ Erbium ICP Standard Solution see page 1316

Erbium(III) oxide

Erbium trioxide · Erbia

Er_2O_3 · D 8,64 g/cm³ · mp 2344 °C · bp 3920 °C
CAS No. 12061-16-4 · EC no. 235-045-7
WGK 1

Erbium(III) oxide
ROTI®REMETIC 99,9 %

Type analysis
Assay (TREO*) ..... 99,9 %

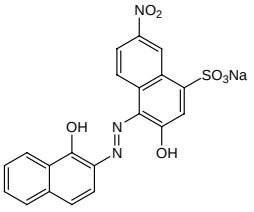
*Total rare earth oxide.
Chemical analysis (ICP, AAS): specified trace impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
7160.1	5 g	plastic	47,85
7160.2	25 g	plastic	117,20

Erbium trioxide
▸ Erbium(III) oxide see page 912

Ericolin
▸ *p*-Arbutin see page 750

Eriochrome black T (C.I. 14645)



2-Hydroxy-1-(1-hydroxynaphthyl-2-azo)-6-nitronaphthalene 4-sulphonic acid monosodium salt · Mordant black 11

CAS No. 1787-61-7 · EC no. 217-250-3

Eriochrome black T (C.I. 14645)
p.a.

Metal indicator

Dissolve 0.1 g in water

$C_{20}H_{12}N_3NaO_7S$ · mp >300 °C

UN no. 3077 · ADR 9 III · WGK 2

Warning H319-H411

Type analysis
Appearance ..... black powder
Loss on drying ..... ≤7 %
Suitability as indicator for complexometry .. complies

Art. No.	Pack Qty.	Pack.	€
0112.1	25 g	glass	20,35
0112.2	50 g	glass	36,05
0112.3	100 g	glass	64,40

Eriochrome black T (C.I. 14645)
1 % in NaCl, trituration

Metal indicator

Trituration with NaCl (1:99), ready-to-use

$C_{20}H_{12}N_3NaO_7S$ · mp 800 °C

WGK 1

Type analysis
Suitability as indicator ..... complies

Trituration of Eriochrome black T with NaCl p.a., 1:100 simply add to the solution that has to be titrated; 1–4 mg dye in 100 ml.

Art. No.	Pack Qty.	Pack.	€
K860.2	25 g	plastic	26,80
K860.1	50 g	plastic	40,75
K860.3	100 g	plastic	70,45

Eriochrome black T indicator solution
0,1 % in ethanol, denatured

Metal indicator

ready-to-use

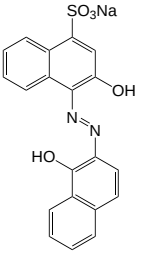
$C_{20}H_{12}N_3NaO_7S$ · D 0,79 g/cm³ · mp -114 °C · bp 78 °C

UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

Art. No.	Pack Qty.	Pack.	€
1E01.1	100 ml	glass	57,95

Eriochrome blue black B (C.I. 14640)



Mordant Black 3

$C_{20}H_{14}N_2O_5S$
CAS No. 3564-14-5 · EC no. 222-639-6
WGK 1

Warning H319

Eriochrome blue black B (C.I. 14640)
for complexometry

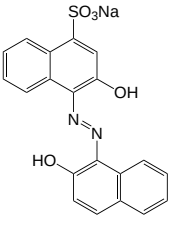
Metal indicator

Dissolve 0.2–0.4 g in 100 ml methanol

Type analysis
Appearance ..... brown to black powder
Appearance of solution (0,1 % in H_2O) ... opaque, dark purple
Absorption max. 528 nm (H_2O + 1 ml 1 M HCl) ..... complies

Art. No.	Pack Qty.	Pack.	€
7661.1	5 g	glass	18,85
7661.2	25 g	glass	33,25
7661.3	100 g	glass	80,55

Eriochrome blue black R (C.I. 15705)



Mordant Black 17

$C_{20}H_{13}N_2O_5SNa$
CAS No. 2538-85-4 · EC no. 219-810-2
WGK 1

Warning H315-H319-H335

Eriochrome blue black R (C.I. 15705)
for complexometry

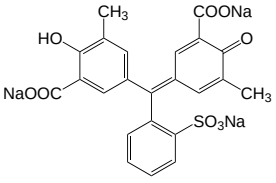
Metal indicator for Al, Fe, Zr, Cu, Ca

Dissolve 0.4 g in 100 ml methanol or ethanol

Type analysis
Appearance ..... dark brown to black powder
Solubility (water/ethanol) ..... complies

Art. No.	Pack Qty.	Pack.	€
7663.1	5 g	glass	18,85
7663.2	25 g	glass	33,25
7663.3	100 g	glass	80,55

Eriochrome cyanine R



Mordant blue 3 · Chromoxane cyanine · Solochrome cyanine

$C_{23}H_{15}Na_3O_9S$
CAS No. 3564-18-9
WGK 1

Eriochrome cyanine R (C. I. 43820)
extra pure

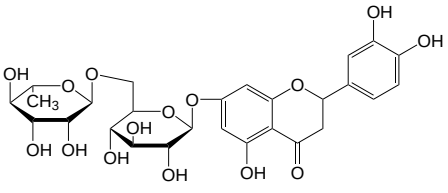
Reagent for Al

Dissolve 0.1 g in 100 ml water

Type analysis
Appearance ..... red brown powder
Maximum absorption ..... 434-440 nm
Loss on drying (105 °C) ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
1H5C.1	1 g	glass	12,40
1H5C.2	10 g	glass	28,95
1H5C.3	25 g	glass	56,45

Eriocitrin



Eriodictyol-7-rutinoside

$C_{27}H_{32}O_{15}$
CAS No. 13463-28-0 · EC no. 236-668-7
WGK 1

Eriocitrin
ROTI®Star Primary Standard

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤1,0 %
Water (KF) ..... ≤10,0 %
Assay (qNMR) ..... ≥85,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE42.1	10 mg	glass	822,40

Eriocitrin
ROTICHROM® Working Standard

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥85,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC42.1	25 mg	glass	822,40

Eriocitrin
ROTICHROM® HPLC

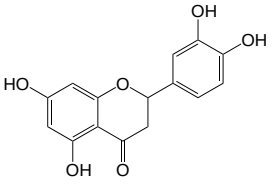
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
9327.2	10 mg	glass	364,45

Eriodictyol



3',4',5,7-Tetrahydroxyflavanone

$C_{15}H_{12}O_6$ · mp 264 to 270 °C
CAS No. 552-58-9 · EC no. 209-016-4
WGK 1

Eriodictyol
ROTICHROM® HPLC

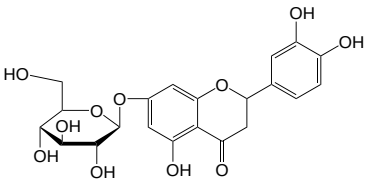
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
6990.1	10 mg	glass	231,15

Eriodictyol-7-glucoside



$C_{21}H_{22}O_{11}$ · mp 171 to 176 °C
CAS No. 38965-51-4 · EC no. 254-225-6
WGK 1

Eriodictyol-7-glucoside
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

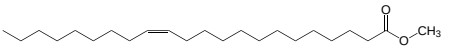
Art. No.	Pack Qty.	Pack.	€
6521.1	10 mg	glass	342,95

Eriodictyol-7-neohesperidoside
▸ Neoeriocitrin see page 1102

Eriodictyol-7-rutinoside
▸ Eriocitrin see page 913

Erioglaucine A
▸ Brilliant blue FCF (C.I. 42090) see page 785

Erucic acid methyl ester



cis-13-Docosenoic acid methyl ester

$C_{23}H_{44}O_2$ · D 0,87 g/cm³ · bp 222 °C · flp 33 °C
CAS No. 1120-34-9 · EC no. 214-305-3
UN no. 3272 · ADR 3 III

Warning H226

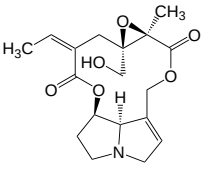
Erucic acid methyl ester
≥90 %

Storage temperature: +4 °C

Type analysis
Assay (GC) ..... ≥90 %
Specific density (20 °C) ..... 0,8710 - 0,8750
Refractive index n_D^{20} 1,4550-1,4580

Art. No.	Pack Qty.	Pack.	€
9431.1	10 ml	glass	83,75
9431.2	50 ml	glass	317,15

(*Z*)-Erucifoline



$C_{18}H_{23}NO_6$ · mp 185 to 190 °C
CAS No. 40158-95-0
UN no. 1544 · ADR 6.1 III · WGK 2

Danger H301-H373

(*Z*)-Erucifoline
ROTICHROM® HPLC

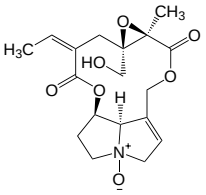
Reference substance for HPLC.
From *Senecio jacobea*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97,0 %

Art. No.	Pack Qty.	Pack.	€
1657.1	5 mg	glass	381,65

(*Z*)-Erucifoline *N*-oxide



$C_{18}H_{23}NO_7$ · mp 185 to 190 °C
WGK 1

(*Z*)-Erucifoline *N*-oxide
ROTICHROM® HPLC

Reference substance for HPLC.
From *Senecio jacobea*.

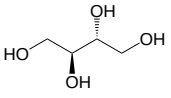
Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97,0 %

Art. No.	Pack Qty.	Pack.	€
1664.1	5 mg	glass	482,70

meso-Erythritol
▸ *meso*-Erythritol see page 914

meso-Erythritol



meso-Erythritol

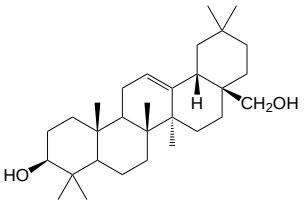
$C_4H_{10}O_4$ · mp 117 to 121 °C · bp 330,5 °C
CAS No. 149-32-6 · EC no. 205-737-3
WGK 1

meso-Erythritol
for biochemistry

Type analysis
Appearance ..... white to almost white powder
Solution (10 % in H_2O) ..... clear, colourless
Water (KF) ..... ≤2,0 %
Ash content ..... ≤0,1 %
Melting point ..... 117-121 °C

Art. No.	Pack Qty.	Pack.	€
6241.1	25 g	plastic	128,50

Erythrodiol



$C_{30}H_{50}O_2$ · mp 229 to 237 °C
CAS No. 545-48-2 · EC no. 208-890-4
WGK 1

Erythrodiol
ROTICHROM® HPLC

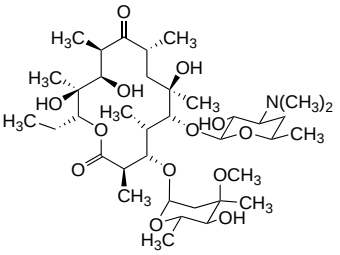
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7455.1	10 mg	plastic	246,20

Erythromycin



$C_{37}H_{67}NO_{13}$ · D 1,21 g/cm³ · mp 190 to 193 °C
CAS No. 114-07-8 · EC no. 204-040-1
WGK 1

Erythromycin
≥93 %, for biochemistry

Macrolide antibiotic

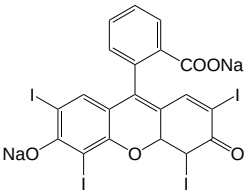
Stock solution: 10 mg/ml in ethanol.
Store stock solution at –20 °C (2 months).
Working concentration: 0.1–5 µg/ml.
pH-optimum at 8.5. Only stable for approx. 24 hours at pH-range 7 to 7.5. Extremely unstable below pH 6.0.

Type analysis
Assay (HPLC) ..... ≥93,0 %
Water (KF) ..... ≤6,5 %
Specific rotation $[\alpha]_D^{20}$ (c=2 in ethanol, after 30 min) ..... -78° to -71°
Thiocyanate (SCN) ..... ≤0,3 %

Art. No.	Pack Qty.	Pack.	€
4166.1	5 g	glass	37,55
4166.2	10 g	glass	64,00

Erythrosine Bluish
▸ Erythrosine B (C.I. 45430) see page 914

Erythrosine B (C.I. 45430)



Acid red 51 · Erythrosine Bluish · Iodine eosine · Tetraiodine fluorescein disodium salt

$C_{20}H_6I_4Na_2O_5$
CAS No. 16423-68-0 · EC no. 240-474-8
WGK 1

Warning H302

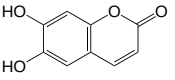
Erythrosine B (C.I. 45430)
for microscopy

Dissolve 0.5-2 g in 100 ml water

Type analysis
Maximum absorption ..... 520-527 nm
Specific extinction E 1 %/1 cm ..... >850
Loss on drying (110 °C) ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
0331.1	25 g	plastic	41,95

Esculetin



6,7-Dihydroxycoumarin · Aesculetine

$C_9H_6O_4$ · mp 269 °C
CAS No. 305-01-1 · EC no. 206-161-5
WGK 1

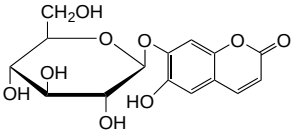
Warning H315-H319-H335

Esculetin
≥98 %, for biochemistry

Type analysis
Assay (NMR) ..... ≥98,0 %
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
8690.1	1 g	glass	64,00

Esculin sesquihydrate



6,7-Dihydroxycoumarin-6-glycoside · Aesculin

$C_{15}H_{16}O_9$ · 1,5 H_2O · D 1,52 g/cm³ · mp 210 °C
CAS No. 66778-17-4 · EC no. 208-517-5
WGK 2

Esculin sesquihydrate
≥97,5 %, DAB, for biochemistry

Guarantee analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥97,5 %
Identity ..... complies
pH value (1 % in H_2O) 3,8-4,5
Water (KF) ..... 6,5-8,0 %
Sulphated ash ..... ≤0,1 %
Heavy metals (as Pb) ..... ≤0,002 %
Specific rotation $[\alpha]_D^{20}$ (1,5 % dioxane/H_2O 1:1, dry substance) ..... -87° to -84°
Related substances ..... complies

Art. No.	Pack Qty.	Pack.	€
8704.1	5 g	glass	25,30
8704.2	25 g	plastic	107,40
8704.3	50 g	plastic	181,70
8704.4	100 g	plastic	332,20

Essential Oils

Art. No.	Description	Page
4501	Hypericon oil, extra pure	
9404	Hypericon oil, pure	1003
6609	Laurel oil, essential, natural	1035
3314	Laurel oil, artificial	1035
3364	Musk oil, artificial	1096
6587	Oil of angelica roots, Hungarian, natural	1120
7036	Oil of anise, natural	1120

Art. No.	Description	Page
3278	Oil of anise, artificial	1120
6507	Oil of balm, natural	1120
7039	Oil of basil, all-natural	1120
6501	Oil of bergamot, natural	1120
3282	Oil of bergamot, artificial	1120
6105	Oil of cajeput, natural	1120
3357	Oil of camphor, all-natural	1120
7050	Oil of caraway, natural	1121
3307	Oil of caraway, artificial	1121
6593	Oil of cassia, Chinese, natural	1121
6594	Oil of cedar leaf, pure	1121
3291	Oil of cedar leaf, artificial	1121
7040	Oil of celery	1121
4208	Oil of cembra pine, pure	1121
6504	Oil of chamomile, blue	1121
3354	Oil of chamomile, Roman, natural	1121
3305	Oil of chamomile, artificial	1122
A432	Oil of cinnamon, natural	1122
6512	Oil of cinnamon, artificial	1122
6502	Oil of citronella, natural	1122
3292	Oil of citronella, artificial	1122
3355	Oil of clary-sage, natural	1122
8662	Oil of cloves, ≥80 %, natural, rectified	1122
7052	Oil of coriander, natural	1122
6608	Oil of cubeb, natural	1122
6596	Oil of cypress, French, natural	1122
6597	Oil of dill herb, all-natural	1123
3352	Oil of dill seed, extra pure	1123
6602	Oil of estragon, pure	1123
3297	Oil of eucalyptus, nature identical	1123
3299	Oil of fennel, artificial	1123
3301	Oil of fir needles, artificial	1123
7075	Oil of gardensage, natural, Dalmatian	1123
3540	Oil of garlic, natural	1123
7054	Oil of geranium, natural	1123
6718	Oil of grapefruit, natural	1124
7059	Oil of juniper, pure	1124
7057	Oil of juniper wood, natural	1124
6603	Oil of lavandin, French	1124
3367	Oil of lavender, natural	1124
5213	Oil of lemon, natural	1124
3346	Oil of lemon, artificial	1124
6606	Oil of lemon-grass, all-natural	1124
6721	Oil of lime, natural	1124
6607	Oil of lovage, pure	1124
3796	Oil of mandarin, Italian	1125
6730	Oil of mint, Chinese, crude	1125
6731	Oil of mint, Japanese, natural	1125
6732	Oil of mint, rectified twice	1125
6610	Oil of niaouli, natural	1125
7064	Oil of nutmeg, essential	1125
6509	Oil of orange, bitter, Italian	1125
3803	Oil of orange, Brazilian	1125
6728	Oil of orange, Floridian	1125
6611	Oil of orange, sweet, natural	1125
3323	Oil of orange flowers, artificial	1126
6612	Oil of origanum, natural	1126
6613	Oil of palmarosa, East Indian	1126
7072	Oil of parsley, French	1126
6511	Oil of patchouli, artificial	1126
6616	Oil of pepper, natural	1126
7063	Oil of peppermint, pure, Italian	1126
9318	Oil of peppermint, pure	1126
3329	Oil of peppermint, artificial	1126
6614	Oil of petitgrain, South American	1126
5733	Oil of rose, Bulgarian, natural	1127
4092	Oil of rose, artificial	1127
6514	Oil of rosemary, Spanish	1127
3336	Oil of rosemary, artificial	1127
3275	Oil of rose-wood, nature identical	1127
6620	Oil of sandal-wood, West Indian	1127
3341	Oil of sandal-wood, artificial	1127
7073	Oil of Scotch pine needles, natural	1127
3306	Oil of Scotch pine needles, artificial	1127
3295	Oil of silver fir, artificial	1127
6598	Oil of silver fir cones, natural	1127
3353	Oil of silver fir needles, natural	1128
7079	Oil of spike, all-natural	1128
7081	Oil of tansy, pure	1128
K032	Oil of tea tree, Australian, natural	1128
K500	Oil of thyme, natural	1128
6513	Oil of thyme, nature identical	1128
6588	Oil of valerian, all-natural	1129
3279	Oil of valerian, artificial	1129
6622	Oil of vetiver, natural	1129
7053	Oil of wintergreen, artificial	1129
6624	Oil of ylang-ylang, comoric, all-natural	1129
3343	Oil of ylang-ylang, artificial	1129

Estragole

▸ Methylchavicol see page 1083

Ethanal

▸ Acetaldehyde see page 688

Ethanedial

▸ Glyoxal see page 969

1,2-Ethanediamine

▸ Ethylenediamine see page 921

1,2-Ethanediol

▸ Ethylene glycol see page 924

Ethanedioic acid

▸ Oxalic acid dihydrate see page 1133

2,2'-(Ethanediylidene dinitrilo) diphenol

▸ Glyoxal-bis-(2-hydroxyanil) see page 969

Ethanoic acid

▸ Acetic acid see page 689

Ethanoic acid

▸ Acetic acid see page 689

Ethanol



CAS No. 64-17-5 · EC no. 200-578-6
UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

Ethanol absolut

Ethanol
ROTISOLV® ≥99,95 %, Ultra LC-MS

Ethyl alcohol · EtOH

C_2H_6O · D 0,79 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C

Guarantee analysis

Assay (GC) ..... ≥99,95 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,1 %
Acidity (as CH_3COOH) ..... ≤0,002 %
Alkalinity (as NH_3) ..... ≤0,0005 %
Evaporation residue ..... ≤0,0001 %
210 nm ..... ≥40 %
225 nm ..... ≥60 %
240 nm ..... ≥85 %
260 nm ..... ≥98 %

Fluorescence (as quinine):
365 nm ..... ≤1 ppb

Gradient test UV absorption of the greatest eluated peak:
235 nm ..... ≤0,002 AU
254 nm ..... ≤0,001 AU

Trace impurities:
Al (Aluminium) ..... ≤20 ppb
Ca (Calcium) ..... ≤50 ppb
Fe (Iron) ..... ≤20 ppb
K (Potassium) ..... ≤50 ppb
Mg (Magnesium) ..... ≤20 ppb
Na (Sodium) ..... ≤50 ppb

Filtered through 0.1 µm membrane and filled under protective gas.
Prices include german tax on alcohol.

Art. No.	Pack Qty.	Pack.	€
1HP8.1	1 l	glass	124,60
Original pack 6 x 1 l			118,37/1 l
1HP8.2	2.5 l	glass	257,50
Original pack 4 x 2.5 l			244,63/2.5 l

Ethanol
ROTISOLV® HPLC Gradient Grade

Ethyl alcohol · EtOH

C_2H_6O · D 0,79 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C

Guarantee analysis

Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,1 %
Free acid ..... ≤0,002 %
Free alkali ..... ≤0,0005 %
Non volatile matter ..... ≤0,0002 %

Gradient test UV absorption of the greatest eluated peak:
235 nm ..... ≤5 mAU
254 nm ..... ≤2 mAU

Transmission:
260 nm ..... ≥98 %
240 nm ..... ≥85 %
225 nm ..... ≥60 %

Filtered through a 0.2 µm membrane and filled under protective gas.
Prices include german tax on alcohol.

Art. No.	Pack Qty.	Pack.	€
P076.1	1 l	glass	118,80
Original pack 6 x 1 l			112,86/1 l
P076.2	2.5 l	glass	246,75
Original pack 4 x 2.5 l			234,41/2.5 l

Ethanol
ROTISOLV® Pestilyse® plus ≥99,9 %

For determination of dioxins, furans, PCBs, pesticides, hydrocarbons etc.

Ethyl alcohol · EtOH

C_2H_6O · D 0,79 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C

Guarantee analysis

Assay (GC) ..... ≥99,9 %
Colour (APHA) ..... ≤10
Acidity (as CH_3COOH) ..... ≤0,002 %
Evaporation residue ..... ≤0,0003 %
Water (KF) ..... ≤0,1 %
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD suitability (as heptachloro epoxide) ..... ≤10 ng/l
GC/ECD volatile impurities (as ethylene dibromide) ..... ≤5 ng/ml
GC/ECD pesticides (as lindane) ..... ≤5 ng/l
GC/FID suitability (as 2-octanol) ..... ≤10 ng/ml
GC/NPD pesticides (as parathion) ..... ≤10 ng/l
Oil index (any hydrocarbon C_{10}-C_{40}) ..... ≤0,1 mg/l
PAH-test (less than 2 ppb, HPLC) ..... complies

Fluorescence (as quinine):
254 nm ..... ≤1 ppb
365 nm ..... ≤1 ppb

Transmission:
210 nm ..... ≥35 %

Prices include german tax on alcohol.

Art. No.	Pack Qty.	Pack.	€
1HP6.1	2.5 l	glass	223,10
Original pack 4 x 2.5 l			211,95/2.5 l

Ethanol
≥99,8 %, for molecular biology

Ethyl alcohol · EtOH

C_2H_6O · D 0,79 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C

Type analysis

Assay (GC) ..... ≥99,8 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,2 %
Acidity (as CH_3COOH) ..... ≤0,002 %
Evaporation residue ..... ≤0,001 %
DNAse ..... not detected
RNAse ..... not detected
Protease ..... not detected

Prices include german tax on alcohol.

Art. No.	Pack Qty.	Pack.	€
1HPH.1	1 l	glass	124,60
Original pack 6 x 1 l			118,37/1 l

Ethanol
ROTIPURAN® ≥99,8 %, p.a.

Ethyl alcohol · EtOH

C_2H_6O · D 0,79 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C

Guarantee analysis

Assay ..... ≥99,8 %
Identity ..... complies
Water ..... ≤0,2 %
Solubility ..... clear, colourless
Density (d 20 °C/20 °C) 0,790-0,793
Acetaldehyde and acetal ..... ≤0,001 %
Acid or alkaline react. substances ..... ≤0,003 %
Evaporation residue ..... ≤0,0025 %
Benzene ..... ≤0,0002 %
Methanol ..... ≤0,01 %
Sum of other impurities ..... ≤0,03 %
Aluminium (Al) ..... ≤0,00005 %
Barium (Ba) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,00001 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %
Tin (Sn) ..... ≤0,00001 %

Prices include german tax on alcohol.

Art. No.	Pack Qty.	Pack.	€
9065.1	1 l	glass	112,80
Original pack 6 x 1 l			107,16/1 l
9065.3	1 l	plastic	111,30
Original pack 6 x 1 l			105,74/1 l
9065.2	2.5 l	glass	228,90
Original pack 4 x 2.5 l			217,46/2.5 l
9065.4	2.5 l	plastic	226,30
Original pack 4 x 2.5 l			214,99/2.5 l
9065.5	5 l	plastic	405,85
Original pack 2 x 5 l			385,56/5 l
9065.7	10 l	plastic	669,20
9065.6	25 l	tinplate	1.392,15
9065.8	25 l	plastic	1.370,65

Ethanol
ROTIPURAN® ≥99,8 %, p.a., denatured

Ethanol denatured · Ethyl alcohol · EtOH · Spirit

C_2H_6O · D 0,79 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C

Guarantee analysis

Appearance ..... clear, colorless solution
Assay (EtOH, v/v) ..... ≥99,8 %
Water ..... ≤0,2 %
Aldehyde content (as acetaldehyde) ... ≤0,003 %
Acid content (as CH_3COOH) ..... ≤0,001 %
Evaporation residue ..... ≤0,003 %
Aluminium (Al) ..... ≤0,00005 %
Boron (B) ..... ≤0,00005 %
Barium (Ba) ..... ≤0,00001 %
Calcium (Ca) ..... ≤0,00005 %
Cadmium (Cd) ..... ≤0,000005 %
Cobalt (Co) ..... ≤0,000002 %
Chromium (Cr) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Potassium (K) ..... ≤0,0001 %
Magnesium (Mg) ..... ≤0,0001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,00001 %
Tin (Sn) ..... ≤0,00001 %
Zinc (Zn) ..... ≤0,00001 %

Denaturing:
Methyl ethyl ketone (MEK) ..... 1 %
Isopropyl alcohol (IPA) ..... 1 %
Denatonium benzoate ..... 1 g/100 l

Art. No.	Pack Qty.	Pack.	€
0911.1	1 l	plastic	30,00
Original pack 6 x 1 l			28,50/1 l
0911.2	2.5 l	glass	45,70
Original pack 4 x 2.5 l			43,42/2.5 l
0911.3	2.5 l	plastic	43,55
Original pack 4 x 2.5 l			41,37/2.5 l
0911.4	5 l	plastic	75,15
Original pack 2 x 5 l			71,39/5 l
0911.5	10 l	tinplate	124,20
0911.7	10 l	plastic	113,45
0911.6	25 l	tinplate	256,95
0911.8	25 l	plastic	235,45

Ethanol
≥99,5 %, Ph. Eur., extra pure

Ethyl alcohol · EtOH

C_2H_6O · D 0,79 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C

Guarantee analysis

Assay (V/V) ..... ≥99,5 %
Identity ..... complies
Properties ..... complies
Appearance ..... clear, colorless
Acid or alkaline react. substances ..... ≤0,003 %
Density (d 20 °C/20 °C) 0,790-0,793
Evaporation residue ..... ≤0,0025 %
Sum of other impurities ..... ≤0,03 %

Absorbance:
240 nm ..... ≤0,4
250-260 nm ..... ≤0,3
270-340 nm ..... ≤0,1

Volatile impurities:
Acetaldehyde and acetal ..... ≤0,001 %
Benzene ..... ≤0,0002 %
Methanol ..... ≤0,01 %
Disregard limit ..... ≤0,0009 %

Prices include german tax on alcohol.

Art. No.	Pack Qty.	Pack.	€
5054.1	1 l	glass	100,95
Original pack 6 x 1 l			95,90/1 l
5054.3	1 l	plastic	98,80
Original pack 6 x 1 l			93,86/1 l
5054.2	2.5 l	glass	208,05
Original pack 4 x 2.5 l			197,65/2.5 l
5054.4	2.5 l	plastic	205,90
Original pack 4 x 2.5 l			195,61/2.5 l
5054.5	5 l	plastic	385,95
Original pack 2 x 5 l			366,65/5 l
5054.7	10 l	plastic	585,90
5054.6	25 l	tinplate	1.306,15
5054.8	25 l	plastic	1.284,65

Ethanol
≥99,8 %, denatured

Universal alcoholic solvent for laboratory use and histology.

Ethanol denatured · Ethyl alcohol · EtOH · Spirit

C_2H_6O · D 0,79 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C

Type analysis

Assay (EtOH, v/v) ..... ≥99,8 %
Water ..... ≤0,2 %
Appearance ..... clear, colourless liquid
Aldehyde content (as acetaldehyde) ... ≤0,003 %
Acid content (as CH_3COOH) ..... ≤0,001 %
Sum of other impurities ..... ≤0,03 %
Methanol ..... ≤0,1 %
Evaporation residue ..... ≤0,003 %

Denaturing:
Methyl ethyl ketone (MEK) ..... 1 %
Isopropyl alcohol (IPA) ..... 1 %
Denatonium benzoate ..... 1 g/100 l

Art. No.	Pack Qty.	Pack.	€
K928.5	1 l	plastic	19,25
Original pack 6 x 1 l			18,29/1 l
K928.1	2.5 l	glass	39,70
Original pack 4 x 2.5 l			37,72/2.5 l
K928.3	2.5 l	plastic	37,55
Original pack 4 x 2.5 l			35,67/2.5 l
K928.4	5 l	plastic	67,20
Original pack 2 x 5 l			63,84/5 l
K928.6	10 l	tinplate	117,75
K928.7	10 l	plastic	107,00
K928.2	25 l	tinplate	235,45
K928.8	25 l	plastic	213,95

Ethanol 96 % from controlled organic cultivation

Bioethanol
SOLVAGREEN® 96 %, Ph. Eur.

Ethanol 96 % from controlled organic cultivation · Ethyl alcohol · EtOH · Bioethanol

C_2H_6O · D 0,81 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C

Guarantee analysis

Assay (V/V)	95,1-96,9 %
Identity	complies
Properties	complies
Appearance	complies
Acid or alkaline react. substances	≤0,003 %
Density (d 20 °C/20 °C)	0,805-0,812
Evaporation residue	≤0,0025 %
Permanganate test	complies

Absorbance:

240 nm	≤0,40
250-260 nm	≤0,30
270-340 nm	≤0,10

Volatile impurities:

Acetaldehyde and acetal	≤0,001 %
Benzene	≤0,0002 %
Methanol	≤0,01 %
Sum of other impurities	≤0,03 %

From controlled organic cultivation.
Prices include german tax on alcohol.

Art. No.	Pack Qty.	Pack.	€
6724.1	1 l	glass	101,60
Original pack 6 x 1 l			96,52/1 l
6724.2	2.5 l	glass	209,65
Original pack 4 x 2.5 l			199,17/2.5 l
6724.3	2.5 l	plastic	205,90
Original pack 4 x 2.5 l			195,61/2.5 l
6724.4	5 l	plastic	370,90
Original pack 2 x 5 l			352,36/5 l
6724.5	10 l	plastic	693,40
6724.6	25 l	plastic	1.392,15

Bioethanol
SOLVAGREEN® 96 %, denatured

Ethanol 96 % from controlled organic cultivation · Ethanol denatured · Ethyl alcohol · EtOH · Spirit · Bioethanol

C_2H_6O · D 0,81 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C

Type analysis

Assay (EtOH, v/v)	≥96 %
Evaporation residue	≤0,005 %
Aldehydes (as acetaldehyde)	≤0,001 %
Methanol (GC)	≤0,01 %
Acid or alkaline react. substances	≤0,003 %
Sum of other impurities	≤0,03 %

Denaturing:

Methyl ethyl ketone (MEK)	1 %
Isopropyl alcohol (IPA)	1 %
Denatonium benzoate	1 g/100 l

From controlled organic cultivation.

Art. No.	Pack Qty.	Pack.	€
6726.1	1 l	plastic	19,25
Original pack 6 x 1 l			18,29/1 l
6726.2	2.5 l	plastic	33,25
Original pack 4 x 2.5 l			31,59/2.5 l
6726.3	5 l	plastic	60,75
Original pack 2 x 5 l			57,71/5 l
6726.4	10 l	plastic	94,10
6726.5	25 l	plastic	208,05

Ethanol 96 %

Ethanol
96 %, Ph. Eur., extra pure

Solvent with a wide range of applications, in histology e.g. for the ascending and descending alcohol series and for fixation

Ethyl alcohol · EtOH

C_2H_6O · D 0,81 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C

Guarantee analysis

Assay (V/V)	95,1-96,9 %
Identity	complies
Properties	complies
Appearance	complies
Acid or alkaline react. substances	complies
Density (d 20 °C/20 °C)	0,805-0,812
Evaporation residue	≤0,0025 %
Sum of other impurities	≤0,03 %

Absorbance:

240 nm	≤0,4
250-260 nm	≤0,3
270-340 nm	≤0,1

Volatile impurities:

Acetaldehyde and acetal	≤0,001 %
Benzene	≤0,0002 %
Methanol	≤0,01 %
Disregard limit	≤0,0009 %

Prices include german tax on alcohol.

Art. No.	Pack Qty.	Pack.	€
P075.1	1 l	glass	98,80
Original pack 6 x 1 l			93,86/1 l
P075.3	1 l	plastic	96,25
Original pack 6 x 1 l			91,44/1 l
P075.2	2.5 l	glass	208,05
Original pack 4 x 2.5 l			197,65/2.5 l
P075.4	2.5 l	plastic	204,80
Original pack 4 x 2.5 l			194,56/2.5 l
P075.5	5 l	plastic	385,95
Original pack 2 x 5 l			366,65/5 l
P075.6	10 l	tinplate	622,45
P075.7	10 l	plastic	611,70
P075.8	25 l	plastic	1.284,65

Ethanol
≥96 %, denatured

Universal alcoholic solvent for laboratory use and histology.

Ethanol denatured · Ethyl alcohol · EtOH · Spirit

C_2H_6O · D 0,81 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C

Type analysis

Assay (EtOH, v/v)	≥96 %
Aldehydes (as acetaldehyde)	≤0,03 %
Acid content (as CH_3COOH)	≤0,1 %
Sum of other impurities	≤0,03 %
Methanol (GC)	≤0,1 %
Evaporation residue	≤0,003 %

Denaturing:

Methyl ethyl ketone (MEK)	1 %
Isopropyl alcohol (IPA)	1 %
Denatonium benzoate	1 g/100 l

Art. No.	Pack Qty.	Pack.	€
T171.5	1 l	plastic	17,75
Original pack 6 x 1 l			16,86/1 l
T171.1	2.5 l	glass	33,25
Original pack 4 x 2.5 l			31,59/2.5 l
T171.3	2.5 l	plastic	30,65
Original pack 4 x 2.5 l			29,12/2.5 l
T171.4	5 l	plastic	56,45
Original pack 2 x 5 l			53,63/5 l
T171.6	10 l	tinplate	100,95
T171.7	10 l	plastic	90,20
T171.2	25 l	tinplate	176,85
T171.8	25 l	plastic	155,35

Ethanol 80 %

Ethanol
≥80 %, denatured

Ethanol denatured · Ethyl alcohol · EtOH

C_2H_6O · D 0,86 g/cm³ · mp -114 °C · bp 78 °C · flp >17 °C

Type analysis

Assay (EtOH, v/v)	≥80 %
Water	~20 %
Aldehydes (as acetaldehyde)	≤0,003 %
Acid content (as CH_3COOH)	≤0,001 %
Sum of other impurities	≤0,03 %
Methanol (GC)	≤0,1 %
Evaporation residue	≤0,003 %

Denaturing:

Methyl ethyl ketone (MEK)	1 %
Isopropyl alcohol (IPA)	1 %
Denatonium benzoate	1 g/100 l

Art. No.	Pack Qty.	Pack.	€
9474.1	1 l	plastic	18,20
Original pack 6 x 1 l			17,29/1 l
9474.2	2.5 l	plastic	31,75
Original pack 4 x 2.5 l			30,16/2.5 l
9474.3	5 l	plastic	59,70
Original pack 2 x 5 l			56,72/5 l
9474.4	10 l	plastic	103,75
9474.5	25 l	plastic	182,25

Ethanol 70 %

Ethanol
ROTIPURAN® ≥70 %, p.a.

Ethyl alcohol · EtOH

C_2H_6O · D 0,88 g/cm³ · mp -114 °C · bp 78 °C · flp >22 °C

Guarantee analysis

Assay (V/V)	≥70 %
Water	~30 %
Aldehydes (as acetaldehyde)	≤0,001 %
Acid or alkaline react. substances	≤0,003 %
Methanol (GC)	≤0,01 %
Evaporation residue	≤0,003 %

Prices include german tax on alcohol.

Art. No.	Pack Qty.	Pack.	€
T868.1	1 l	plastic	76,25
Original pack 6 x 1 l			72,44/1 l
T868.2	2.5 l	plastic	168,25
Original pack 4 x 2.5 l			159,84/2.5 l
T868.3	5 l	plastic	311,75
Original pack 2 x 5 l			296,16/5 l
T868.4	10 l	plastic	568,70
T868.5	25 l	plastic	1.138,45

Ethanol
70 %, DAB

Ethyl alcohol · EtOH

C_2H_6O · D 0,88 g/cm³ · mp -114 °C · bp 78 °C · flp >22 °C

Guarantee analysis
Appearance ..... clear, colourless solution
Assay (V/V) ..... 69,2-70,8 %
Identity ..... complies
Relative density (20 °C) 0,885-0,889

Prices include german tax on alcohol.

Art. No.	Pack Qty.	Pack.	€
7301.1	500 ml	glass	42,50

Ethanol
≥70 %, denatured

Universal alcoholic solvent for laboratory use and histology.

Ethanol denatured · Ethyl alcohol · EtOH

C_2H_6O · D 0,88 g/cm³ · mp -114 °C · bp 78 °C · flp >22 °C

Type analysis
Assay (EtOH, v/v) ..... ≥70 %
Water ..... ~30 %
Aldehydes (as acetaldehyde) ..... ≤0,003 %
Acid content (as CH_3COOH) ..... ≤0,003 %
Sum of other impurities ..... ≤0,03 %
Methanol (GC) ..... ≤0,1 %
Evaporation residue ..... ≤0,003 %

Denaturing:
Methyl ethyl ketone (MEK) ..... 1 %
Isopropyl alcohol (IPA) ..... 1 %
Denatonium benzoate ..... 1 g/100 l

Art. No.	Pack Qty.	Pack.	€
T913.1	1 l	plastic	16,05
Original pack 6 x 1 l			15,25/1 l
T913.2	2.5 l	plastic	28,95
Original pack 4 x 2.5 l			27,50/2.5 l
T913.3	5 l	plastic	48,30
Original pack 2 x 5 l			45,89/5 l
T913.4	10 l	plastic	79,45
T913.5	25 l	plastic	153,20

Ethanol 96 % from controlled organic cultivation
- Bioethanol see page 917
- Bioethanol see page 917

Ethanol D1

C_2H_5DO · D 0,8 g/cm³ · bp 78 °C · flp 12 °C
CAS No. 925-93-9 · EC no. 213-128-9
UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

Ethanol D1
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

Guarantee analysis
Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
HN84.1	50 ml	glass	171,50

Ethanol D6

Hexadeuteroethanol

C_2D_6O · D 0,89 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C
CAS No. 1516-08-1 · EC no. 216-162-2
UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

Ethanol D6
99 Atom%D

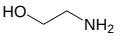
For nuclear magnetic resonance spectroscopy.

Guarantee analysis
Deuterising degree ..... ≥99 %
Water (KF, H_2O+D_2O) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
CP93.2	1 ml	glass	70,85
CP93.1	5 ml	glass	224,70

Ethanol denatured
- Ethanol see page 917
- Ethanol see page 917
- Ethanol, only available in Germany see page
- Ethanol see page 918
- Ethanol see page 916
- Bioethanol see page 917
- Ethanol see page 916

Ethanolamine



2-Aminoethanol · Colamine · Monoethanolamine

C_2H_7NO · D 1,02 g/cm³ · mp 10,5 °C · bp 167 °C · flp 91 °C
CAS No. 141-43-5 · EC no. 205-483-3
UN no. 2491 · ADR 8 III · WGK 1

Danger H302+H312+H332-H314-H335

Ethanolamine
ROTIPURAN® ≥99,5 %, p.a.

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Colour (APHA) ..... ≤20
Water ..... ≤0,3 %
Diethanolamine (GC) ..... ≤0,1 %
Triethanol amine (GC) ..... ≤0,1 %
Calcium (Ca) ..... ≤0,00005 %
Cadmium (Cd) ..... ≤0,000005 %
Cobalt (Co) ..... ≤0,000002 %
Chromium (Cr) ..... ≤0,00005 %
Copper (Cu) ..... ≤0,00001 %
Iron (Fe) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,000005 %
Nickel (Ni) ..... ≤0,00005 %
Lead (Pb) ..... ≤0,00001 %
Zinc (Zn) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
0342.1	500 ml	plastic	31,10
0342.2	1 l	plastic	47,20
Original pack 6 x 1 l			44,84/1 l
0342.3	2.5 l	plastic	82,70
Original pack 4 x 2.5 l			78,57/2.5 l
0342.4	10 l	plastic	246,20
0342.7	25 l	plastic	467,65

Ethanolamine
≥99 %, for synthesis

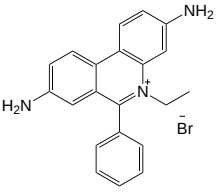
Type analysis
Assay (GC) ..... ≥99 %
Water ..... ≤0,3 %

Art. No.	Pack Qty.	Pack.	€
4376.1	100 ml	plastic	16,05
4376.2	500 ml	plastic	24,65
4376.3	1 l	plastic	42,90
Original pack 6 x 1 l			40,76/1 l
4376.4	2.5 l	plastic	73,65
Original pack 4 x 2.5 l			69,97/2.5 l
4376.5	10 l	plastic	213,95

Ether
- Diethyl ether see page 878

Ether D10
- Diethyl ether D10 see page 879

Ethidium bromide



3,8-Diamino-5-ethyl-6-phenylphenanthridinium bromide · Homidium bromide

$C_{21}H_{20}BrN_3$ · D 1,01 g/cm³ · mp 261 to 264 °C · flp >100 °C
CAS No. 1239-45-8 · EC no. 214-984-6
UN no. 2811 · ADR 6.1 I · WGK 1

Danger H302-H330-H341

Ethidium bromide
≥98 %

For DNA-staining.

Store in the dark!

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... red, cryst. powder
Assay ..... ≥98,0 %
Solubility (in H_2O) ..... clear, red
pH value (2 % in H_2O) 4,0-7,0
Loss on drying ..... ≤10,0 %

Art. No.	Pack Qty.	Pack.	€
7870.1	1 g	glass	30,00
7870.2	5 g	glass	119,90

Ethidiumbromide adsorber bags
- Sekuroka® Decon-Bags see page 1255

Ethidium bromide solution in dropper bottles

3,8-Diamino-5-ethyl-6-phenylphenanthridinium bromide · Homidium bromide

D 1 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

Ethidium bromide solution 0.025 % in dropper bottle
250 µg/ml in water, ready-to-use

For staining of DNA or RNA in agarose gels during electrophoresis.

2 drops ethidium bromide solution on 50 ml melted agarose.
Store solution in the dark!

Art. No.	Pack Qty.	Pack.	€
HP47.1	15 ml	plastic	38,60
HP47.2	75 ml	plastic	134,40

Ethidium bromide solution 0.5 % in dropper bottle
5 mg/ml in water, ready-to-use

For staining of DNA/RNA after electrophoresis and for counterstaining of nuclei in histology and cytology.

Staining solution: add 5 drops of ethidium bromide solution to 500 ml buffer.
Store solution in the dark!

Art. No.	Pack Qty.	Pack.	€
HP46.1	15 ml	plastic	38,60
HP46.2	75 ml	plastic	134,40

Ethidium bromide solution

3,8-Diamino-5-ethyl-6-phenylphenanthridinium bromide · Homidium bromide

D 1 g/cm³ · mp 0 °C · bp 100 °C
CAS No. 1239-45-8 · EC no. 214-984-6
WGK 1

Warning H341

Ethidium bromide solution 1 %
10 mg/ml in water

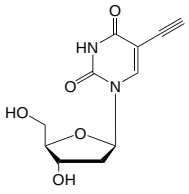
For staining of DNA/RNA after electrophoresis.

Store solution in the dark!

Art. No.	Pack Qty.	Pack.	€
2218.1	10 ml	glass	13,90
2218.4	15 ml	dropp. bottle	40,75
2218.2	30 ml	glass	31,75
2218.3	100 ml	glass	77,30

Ethidium bromide substitutes
- ROTI®Load DNAstain see page
- SYBR® Green DNA dye see page 1351
- SYBR® Green DNA dye see page 1351
- ROTI®GelStain see page 1226

5-Ethynyl-2'-deoxyuridine (EdU)



EdU

$C_{11}H_{12}N_2O_5$ · D 1,6 g/cm³ · mp 199 °C
CAS No. 61135-33-9
WGK 3

Danger H340-H361

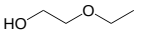
5-Ethynyl-2'-deoxyuridine (EdU)
≥98 %

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Appearance ..... white to off-white solid
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7845.1	5 mg	plastic	29,60
7845.3	50 mg	plastic	87,65
7845.4	100 mg	plastic	132,80
7845.5	500 mg	plastic	520,30

2-Ethoxyethanol



Ethylene glycol monoethyl ether

$C_4H_{10}O_2$ · D 0,93 g/cm³ · mp -70 °C · bp 135,6 °C · flp 40 °C
CAS No. 110-80-5 · EC no. 203-804-1
UN no. 1171 · ADR 3 III · WGK 2

Danger H226-H302-H331-H360FD

2-Ethoxyethanol
≥99 %, for synthesis

Type analysis
Assay ..... ≥99 %
Density (20 °C) 0,930-0,934
Water ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
5127.3	1 l	glass	39,25
Original pack 6 x 1 l			37,29/1 l
5127.1	2.5 l	glass	79,45
Original pack 4 x 2.5 l			75,48/2.5 l
5127.4	5 l	aluminium	127,95
Original pack 2 x 5 l			121,55/5 l
5127.2	10 l	tinplate	241,90

2-(2-Ethoxyethoxy)ethanol
- Diethylene glycol monoethyl ether see page 878

Ethoxymethoxyethane
- Ethylal see page 919

N-(4-Ethoxyphenyl)acetamide
- Phenacetin see page 1149

Ethyl acetate
- Acetic acid ethyl ester see page 693

Ethyl acetoacetate
- Acetoacetic acid ethyl ester see page 695

Ethylal



Diethoxymethane · Ethoxymethoxyethane · Formaldehyde diethyl acetal

$C_5H_{12}O_2$ · D 0,83 g/cm³ · mp -66,5 °C · bp 88 °C · flp <-7 °C
CAS No. 462-95-3 · EC no. 207-330-6
UN no. 2373 · ADR 3 II · WGK 1

Danger H225

Ethylal
SOLVAGREEN® ≥99,5 %, for synthesis

Alternative for ethanol, MEK, aromatics, butyl acetate.

Type analysis
Assay ..... ≥99,5 %
Water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
0787.1	100 ml	glass	21,00
0787.2	500 ml	glass	45,70
0787.3	1 l	glass	67,20
Original pack 6 x 1 l			63,84/1 l
0787.4	2.5 l	glass	134,40
Original pack 4 x 2.5 l			127,68/2.5 l

Ethyl alcohol
- Ethanol see page 915
- Ethanol see page 916
- Ethanol see page 916
- Ethanol see page 916
- Bioethanol see page 917
- Ethanol see page 916
- Ethanol see page 916
- Ethanol see page 915
- Ethanol see page 918
- Ethanol see page 917
- Ethanol, only available in Germany see page
- Ethanol see page 918
- Ethanol see page 917
- Ethanol see page 916
- Bioethanol see page 917
- Ethanol see page 917
- Ethanol see page 917

Ethylamine hydrochloride



Ethyl ammoniumchloride

C_2H_7N · HCl · D 1,22 g/cm³ · mp 95 to 100 °C
CAS No. 557-66-4 · EC no. 209-182-8
WGK 1

Warning H315-H319-H335

Ethylamine hydrochloride
≥97,5 %, for biochemistry

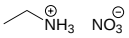
Type analysis
Assay ..... 97,5-102,5 %
Appearance white to off-white crystalline powder oder crystals
Water (KF) ..... ≤2,5 %

Art. No.	Pack Qty.	Pack.	€
9745.2	25 g	plastic	18,20
9745.3	100 g	plastic	41,40
9745.1	500 g	plastic	155,90
Original pack 6 x 500 g			148,11/500 g

Ethyl ammoniumchloride

▸ Ethylamine hydrochloride see page 919

Ethylammonium-nitrate (EAN)



EAN

$C_2H_8N_2O_3$ · D 1,261 g/cm³ · mp 9 °C
CAS No. 22113-86-6
UN no. 3139 · ADR 5.1 II · WGK 1

Danger H272-H315-H319-H335

Ethylammonium-nitrate (EAN)
≥97 %

Ionic liquid

Type analysis
Appearance ..... yellowish liquid
Assay ..... ≥97 %
Water (KF) ..... ≤2 %

Art. No.	Pack Qty.	Pack.	€
2035.1	25 g	glass	185,45
2035.2	100 g	glass	439,70

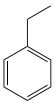
Lit.: **"Ethylammonium nitrate: a pnitraterotein crystallization reagent"**

J. A. Garlitz, C. A. Summers, R. A. Flowers II, G. E. O. Borgstahl, *Acta Cryst.* **1999**, D55, 2037-2038.

Ethyl amyl carbinol

▸ Phenacetin see page 1149

Ethylbenzene



Phenylethane

C_8H_{10} · D 0,87 g/cm³ · mp -94,9 °C · bp 136,1 °C · flp 23 °C
CAS No. 100-41-4 · EC no. 202-849-4
UN no. 1175 · ADR 3 II · WGK 1

Danger H225-H304-H332-H373-H412

Ethylbenzene
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,0 %
Benzene ..... ≤0,5 %
Toluene ..... ≤0,5 %
Xylene ..... ≤0,5 %
Water (KF) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
0272.1	500 ml	glass	26,80
0272.2	1 l	glass	40,35
Original pack 6 x 1 l			38,33/1 l
0272.3	2.5 l	glass	75,15
Original pack 4 x 2.5 l			71,39/2.5 l
0272.4	5 l	aluminium	134,40
Original pack 2 x 5 l			127,68/5 l

Ethyl benzoate

▸ Benzoic acid ethyl ester see page 768

Ethyl bromide

▸ Bromoethane see page 790

Ethyl carbonate

▸ Diethyl carbonate see page 877

Ethyl cellulose

CAS No. 9004-57-3
WGK 1

Ethyl cellulose
~50 cP, extra pure

Type analysis
Viscosity (25 °C, 5 % in toluene/ethanol 80:20 (w/w)) ..... 45,0-55,0 cP
Ethoxyl assay ..... 48,0-49,5 %
Loss on drying ..... ≤2,0 %
Chloride (as NaCl) ..... ≤0,05 %

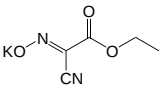
Art. No.	Pack Qty.	Pack.	€
5023.1	250 g	plastic	51,50
5023.3	500 g	plastic	91,30
Original pack 6 x 500 g			86,74/500 g
5023.4	1 kg	plastic	160,75
Original pack 6 x 1 kg			152,71/1 kg
5023.2	2.5 kg	plastic	364,45

Ethyl cellulose
~200 cP, extra pure

Type analysis
Viscosity (25 °C, 5 % in toluene/ethanol 80:20 (w/w)) ..... 150-250 cPs
Ethoxyl assay ..... 48,0-49,5 %
Chloride (as NaCl) ..... ≤0,05 %
Loss on drying ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
9128.1	250 g	plastic	51,50
9128.3	500 g	plastic	91,30
Original pack 6 x 500 g			86,74/500 g
9128.4	1 kg	plastic	160,75
Original pack 6 x 1 kg			152,71/1 kg
9128.2	2.5 kg	plastic	364,45

Ethyl cyanoglyxylate-2-oxyme potassium salt (K-Oxyma)



K-Oxyma

$C_5H_5KN_2O_3$ · mp 145 to 155 °C
CAS No. 158014-03-0
WGK 1

Ethyl cyanoglyxylate-2-oxyme potassium salt (K-Oxyma)
PEPTIPURE® ≥99 %

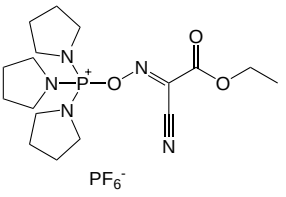
Coupling reagent for peptide synthesis.

Storage temperature: +4 °C

Type analysis
Appearance ..... bright yellow powder
Assay (HPLC) ..... ≥99 %
Water (KF) ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
6891.1	25 g	glass	93,00
6891.2	50 g	glass	170,95
6891.3	250 g	glass	729,95

(Ethylcyano(hydroxyimino)-acetato-O$_2$)tri-1-pyrrolidinyl-phosphonium hexafluoro-phosphate (PyOxim)



PyOxim

$C_{17}H_{29}F_6N_5O_3P_2$ · mp 167 to 172 °C
CAS No. 153433-21-7
WGK 1

EUH044

(Ethylcyano(hydroxyimino)-acetato-O$_2$)tri-1-pyrrolidinyl-phosphonium hexafluoro-phosphate (PyOxim)
PEPTIPURE® ≥99 %

Coupling reagent for peptide synthesis.

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥99,0 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
2120.1	5 g	glass	34,95
2120.2	25 g	glass	107,40
2120.3	100 g	glass	364,45
2120.5	1 kg	glass	2.311,25
Original pack 6 x 1 kg			2.195,69/1 kg

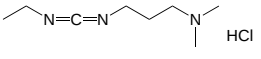
Ethyldiglycol

▸ Diethylene glycol monoethyl ether see page 878

N-Ethyldiisopropylamine

▸ *N,N*-Diisopropylethylamine (DIPEA) see page 884

1-Ethyl-3-(3-dimethylamino-propyl)carbodiimide hydrochloride (EDC-HCl)



EDC-HCl

$C_8H_{17}N_3$ · HCl · D 1,044 g/cm³ · mp 115 to 120 °C
CAS No. 25952-53-8
WGK 1

Warning H302-H315-H317-H319

1-Ethyl-3-(3-dimethylamino-propyl)carbodiimide hydrochloride (EDC-HCl)

PEPTIPURE® ≥99 %

Coupling reagent for peptide synthesis.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis

Assay (titr.) ..... ≥99,0 %
Water (KF) ..... ≤2 %

Art. No.	Pack Qty.	Pack.	€
2156.1	5 g	glass	28,95
2156.2	25 g	glass	82,70
2156.3	100 g	glass	246,20
2156.5	1 kg	glass	2.069,40
Original pack 6 x 1 kg			1.965,93/1 kg

Ethylenediamine tetraacetic acid disodium salt solution

▸ EDTA disodium salt solutions see page 905

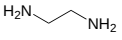
N-Ethyleneamine

▸ Diethylamine see page 877

Ethylene chloride

▸ 1,2-Dichloroethane see page 874

Ethylenediamine



1,2-Diaminoethane · 1,2-Ethanediamine

$C_2H_8N_2$ · D 0,897 g/cm³ · mp 11,1 °C · bp 117,1 °C · flp 42 °C
CAS No. 107-15-3 · EC no. 203-468-6
UN no. 1604 · ADR 8 (3) II · WGK 1

Danger H226-H302+H332-H311-H314-H317-H334-H412

Ethylenediamine

ROTIPURAN® ≥99,5 %, p.a., anhydrous

Guarantee analysis

Appearance ..... clear, colourless liquid
Assay (GC) ..... ≥99,5 %
Water ..... ≤0,5 %
Lead (Pb) ..... ≤0,0001 %
Cadmium (Cd) ..... ≤0,0001 %
Calcium (Ca) ..... ≤0,0005 %
Cobalt (Co) ..... ≤0,0001 %
Chromium (Cr) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,0001 %
Potassium (K) ..... ≤0,002 %
Copper (Cu) ..... ≤0,0001 %
Magnesium (Mg) ..... ≤0,0001 %
Manganese (Mn) ..... ≤0,0001 %
Sodium (Na) ..... ≤0,002 %
Nickel (Ni) ..... ≤0,0001 %
Zinc (Zn) ..... ≤0,0001 %
Refractive index n_D^{20} ..... 1,456 - 1,458

Art. No.	Pack Qty.	Pack.	€
3049.1	250 ml	glass	67,65

Ethylenediamine

≥99,5 %, for synthesis

Type analysis

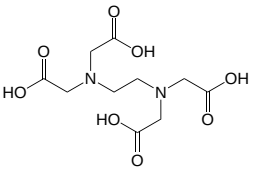
Assay (GC) ..... ≥99,5 %
Water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
4218.1	100 ml	glass	17,10
4218.2	500 ml	glass	23,55
4218.3	1 l	glass	40,75
Original pack 6 x 1 l			38,71/1 l
4218.4	2.5 l	glass	80,55
Original pack 4 x 2.5 l			76,52/2.5 l
4218.5	10 l	PE/steel	267,70

Ethylenediamine tetraacetic acid

▸ ROTI®Fair EDTA see page 1218

Ethylenediamine tetraacetic acid



EDTA · Ethylenedinitrilo tetraacetic acid · Titration complex II

$C_{10}H_{16}N_2O_8$ · D 0,86 g/cm³ · mp 220 °C
CAS No. 60-00-4 · EC no. 200-449-4
WGK 2

Warning H319

Ethylenediamine tetraacetic acid

≥99 %, p.a., ACS

For molecular biology and biochemistry.

Guarantee analysis

Assay (compl.) ..... 99,4-100,6 %
Identity ..... complies
In NH_4OH insoluble matter ..... ≤0,005 %
Nitrilotriacetic acid ..... ≤0,1 %
Heavy metals (as Pb) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,005 %
Ash content (as SO_4) ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
8040.1	100 g	plastic	23,55
8040.3	500 g	plastic	74,10
Original pack 6 x 500 g			70,40/500 g
8040.2	1 kg	plastic	115,60
Original pack 6 x 1 kg			109,82/1 kg
8040.4	2.5 kg	plastic	231,15
8040.5	25 kg	plastic	1.881,25

Ethylenediamine tetraacetic acid

≥99 %

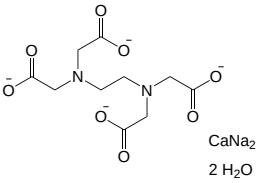
For molecular biology and biochemistry.

Type analysis

Assay (compl.) ..... ≥99 %
In NH_4OH insoluble matter ..... ≤0,01 %
Nitrilotriacetic acid ..... ≤0,5 %
Heavy metals (as Pb) ..... ≤0,01 %
Calcium (Ca) ..... ≤0,05 %
Iron (Fe) ..... ≤0,05 %
Magnesium (Mg) ..... ≤0,005 %
Sulphated ash ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
CN06.1	250 g	plastic	31,75
CN06.2	500 g	plastic	56,90
Original pack 6 x 500 g			54,06/500 g
CN06.3	1 kg	plastic	97,30
Original pack 6 x 1 kg			92,44/1 kg
CN06.5	2.5 kg	plastic	203,20
CN06.4	5 kg	plastic	385,95
CN06.6	10 kg	plastic	686,95

Ethylenediamine tetraacetic acid calcium disodium salt hydrate



EDTA-$CaNa_2$ · 2 H_2O · Calcium EDTA disodium salt dihydrate · EDTA calcium disodium salt dihydrate

$C_{10}H_{12}CaN_2Na_2O_8$ · x H_2O · mp >240 °C
CAS No. 62-33-9 · EC no. 200-529-9
WGK 2

Ethylenediamine tetraacetic acid calcium disodium salt hydrate

≥98 %, Ph. Eur., USP

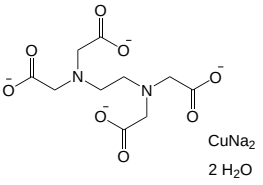
Ca-Titration complex hydrate

Guarantee analysis

Appearance ..... white to off-white hygroscopic powder
Assay (dry substance) ..... 98,0-102,0 %
Identity ..... complies
Appearance of solution ..... complies
Nitrilotriacetic acid ..... ≤0,1 %
Dinatriumedetat ..... ≤1,0 %
Chloride (Cl) ..... ≤0,1 %
Iron (Fe) ..... ≤0,008 %
Heavy metals (as Pb) ..... ≤0,002 %
pH value (20 % in H_2O) 6,5-8,0
Water ..... 5,0-13,0 %

Art. No.	Pack Qty.	Pack.	€
6506.1	250 g	plastic	61,20
6506.2	500 g	plastic	115,60
Original pack 6 x 500 g			109,82/500 g
6506.3	1 kg	plastic	213,95
Original pack 6 x 1 kg			203,25/1 kg

Ethylenediamine tetraacetic acid copper disodium salt dihydrate



EDTA-$CuNa_2$ · 2 H_2O · EDTA copper disodium salt dihydrate · Copper EDTA disodium salt dihydrate

$C_{10}H_{12}CuN_2Na_2O_8$ · 2 H_2O · D 1,2 g/cm³ · mp 219 °C
CAS No. 14025-15-1 · EC no. 237-864-5
WGK 2

Warning H302-H319

Ethylenediamine tetraacetic acid copper disodium salt dihydrate

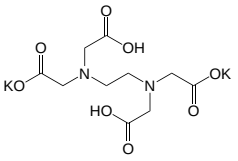
≥99 %, for synthesis

Type analysis

Appearance ..... blue crystalline powder
Assay ..... ≥99,0 %
Assay (Cu) ..... 14,7-15,3 %

Art. No.	Pack Qty.	Pack.	€
6499.1	250 g	plastic	53,25
6499.2	500 g	plastic	96,25
Original pack 6 x 500 g			91,44/500 g
6499.3	1 kg	plastic	166,65
Original pack 6 x 1 kg			158,32/1 kg

Ethylenediamine tetraacetic acid dipotassium salt dihydrate



EDTA-K_2 · 2 H_2O · EDTA Dipotassium salt dihydrate

$C_{10}H_{14}K_2N_2O_8$ · 2 H_2O · mp 242 to 252 °C
CAS No. 25102-12-9 · EC no. 217-895-0
WGK 2

Warning H332-H373

Ethylenediamine tetraacetic acid dipotassium salt dihydrate
≥99 %, p.a.

Guarantee analysis

Assay ..... ≥99 %
pH value (5 % solution 25 °C) 4-5
In water insoluble matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,005 %
Iron (Fe) ..... ≤0,001 %
Heavy metals ..... ≤0,005 %
Loss on drying (150 °C) ..... 8-10 %

Art. No.	Pack Qty.	Pack.	€
3053.1	100 g	plastic	31,10
3053.2	250 g	plastic	65,50
3053.3	500 g	plastic	117,20
Original pack 6 x 500 g			111,34/500 g
3053.4	1 kg	plastic	209,65
Original pack 6 x 1 kg			199,17/1 kg
3053.5	5 kg	plastic	837,45

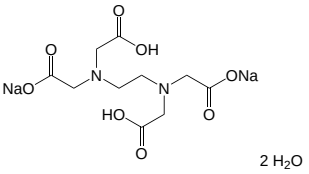
Ethylenediamine tetraacetic acid dipotassium salt dihydrate
≥99 %, for synthesis

Type analysis

Appearance ..... white powder
Assay (compl., dry substance) ..... ≥99 %
Identity (IR) ..... complies
pH (5 % in H_2O) 4-5
Loss on drying (150 °C, 6 h) ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
1408.1	250 g	plastic	37,10
1408.2	500 g	plastic	66,55
Original pack 6 x 500 g			63,22/500 g
1408.3	1 kg	plastic	117,20
Original pack 6 x 1 kg			111,34/1 kg
1408.4	5 kg	plastic	521,40

Ethylenediamine tetraacetic acid disodium salt dihydrate



EDTA-Na_2 · 2 H_2O · EDTA disodium salt dihydrate · Titration complex III

$C_{10}H_{14}N_2Na_2O_8$ · 2 H_2O · mp 110 °C
CAS No. 6381-92-6 · EC no. 205-358-3
WGK 2

Warning H332-H373

Ethylenediamine tetraacetic acid disodium salt dihydrate
≥99 %, p.a., ACS

For molecular biology and biochemistry.

Application: Stock solution: 0.5 M in water, pH 8.5. Recommended final concentration for enzyme inhibition 1–10 mM. The disodium salt of EDTA only dissolves when the pH-value is around 8.0.

Guarantee analysis

Assay (compl.) ..... ≥99 %
pH value (5 % in H_2O) 4-5
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,02 %
Lead (Pb) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,002 %
Iron (Fe) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0001 %
Nickel (Ni) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,001 %
Nitrilotriacetic acid ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
8043.3	100 g	plastic	31,10
8043.1	250 g	plastic	49,35
8043.2	1 kg	plastic	160,20
Original pack 6 x 1 kg			152,19/1 kg
8043.6	2.5 kg	plastic	306,40
8043.4	5 kg	plastic	600,95
8043.5	25 kg	plastic	1.714,65

Ethylenediamine tetraacetic acid disodium salt dihydrate
≥99 %, USP

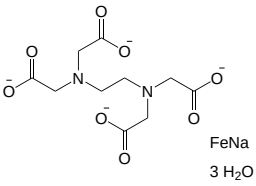
For molecular biology and biochemistry.

Guarantee analysis

Assay (compl.) ..... 99,0-101,0 %
Identity ..... complies
pH value (5 % in H_2O) 4,0-6,0
Nitrilotriacetic acid ..... ≤0,1 %
Calcium (Ca) ..... complies
Loss on drying (150 °C) ..... 8,7-11,4 %

Art. No.	Pack Qty.	Pack.	€
X986.1	250 g	plastic	33,25
X986.2	1 kg	plastic	91,30
Original pack 6 x 1 kg			86,74/1 kg
X986.4	2.5 kg	plastic	192,45
X986.3	5 kg	plastic	364,45
X986.5	25 kg	plastic	1.607,15

Ethylenediamine tetraacetic acid iron(III) sodium salt trihydrate



EDTA-$FeNa_3$ · 3 H_2O · EDTA iron(III) sodium salt trihydrate · Iron(III) EDTA sodium salt trihydrate

$C_{10}H_{12}FeN_2NaO_8$ · 3 H_2O · D 1,78 g/cm³ · mp 88 °C
CAS No. 15708-41-5 · EC no. 239-802-2
WGK 2

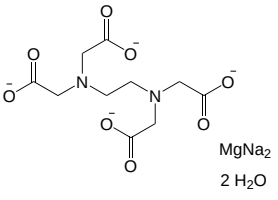
Ethylenediamine tetraacetic acid iron(III) sodium salt trihydrate
≥98 %, for synthesis

Type analysis

Appearance .. brownish yellow crystalline powder
Assay ..... ≥98,0 %
Assay (Fe) ..... ≥13,0 %
Assay (EDTA-acid) ..... ≥68,0 %
pH value (H_2O) 4,5-5,5

Art. No.	Pack Qty.	Pack.	€
6498.1	250 g	plastic	53,25
6498.2	500 g	plastic	96,25
Original pack 6 x 500 g			91,44/500 g
6498.3	1 kg	plastic	166,65
Original pack 6 x 1 kg			158,32/1 kg

Ethylenediamine tetraacetic acid magnesium disodium salt dihydrate



EDTA-$MgNa_2$ · 2 H_2O · EDTA magnesium disodium salt dihydrate · Magnesium EDTA disodium salt dihydrate

$C_{10}H_{12}MgN_2Na_2O_8$ · 2 H_2O · D 1,587 g/cm³ · mp 240 °C
CAS No. 14402-88-1 · EC no. 238-372-3
WGK 1

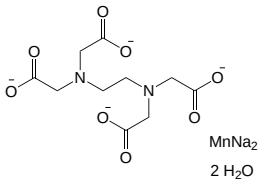
Ethylenediamine tetraacetic acid magnesium disodium salt dihydrate
≥90 %, for synthesis

Type analysis

Appearance ..... pure white powder
Assay ..... ≥90,0 %
Assay (Mg) ..... ≥5,5 %
Assay (MgO) ..... ~9,5 %
Heavy metals (as Pb) ..... ≤0,001 %
pH value (1 %, H_2O) 6,0-7,5

Art. No.	Pack Qty.	Pack.	€
6508.1	250 g	plastic	47,20
6508.2	500 g	plastic	88,05
Original pack 6 x 500 g			83,65/500 g
6508.3	1 kg	plastic	160,75
Original pack 6 x 1 kg			152,71/1 kg

Ethylenediamine tetraacetic acid manganese disodium salt dihydrate



EDTA-$MnNa_2$ · 2 H_2O · EDTA manganese disodium salt dihydrate · Manganese EDTA disodium salt dihydrate

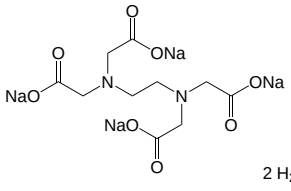
$C_{10}H_{12}MnN_2Na_2O_8$ · 2 H_2O · D 1,403 g/cm³ · mp 252 °C
CAS No. 15375-84-5 · EC no. 239-407-5
WGK 2

Ethylenediamine tetraacetic acid manganese disodium salt dihydrate
≥93 %, for synthesis

Type analysis
Appearance ..... pale pink crystalline powder
Assay ..... ≥93,0 %
Assay (Mn) ..... 12,2-12,8 %
pH value (1 %, H_2O) 6,0-7,0

Art. No.	Pack Qty.	Pack.	€
6510.1	250 g	plastic	47,20
6510.2	500 g	plastic	88,05
Original pack 6 x 500 g			83,65/500 g
6510.3	1 kg	plastic	160,75
Original pack 6 x 1 kg			152,71/1 kg

Ethylenediamine tetraacetic acid tetrasodium salt dihydrate



EDTA-Na_4 · EDTA tetrasodium salt

$C_{10}H_{12}N_2Na_4O_8$ · 2 H_2O · mp >300 °C · flp >100 °C
CAS No. 10378-23-1 · EC no. 200-573-9
WGK 2

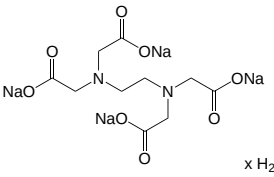
Danger H302+H332-H318

Ethylenediamine tetraacetic acid tetrasodium salt dihydrate
≥99 %

Type analysis
Appearance ..... white crystalline powder
Assay ..... ≥99,0 %
pH value (1 % solution) 10,7-11,7
Heavy metals (as Pb) ..... ≤0,001 %
Lead (Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,008 %
Mercury (Hg) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
1410.1	250 g	plastic	24,65
1410.2	500 g	plastic	45,05
Original pack 6 x 500 g			42,80/500 g
1410.3	1 kg	plastic	80,55
Original pack 6 x 1 kg			76,52/1 kg
1410.4	5 kg	plastic	338,65

Ethylenediamine tetraacetic acid tetrasodium salt hydrate



EDTA-Na_4 · EDTA tetrasodium salt

$C_{10}H_{12}N_2Na_4O_8$ · x H_2O · D 1,67 g/cm³
CAS No. 64-02-8 · EC no. 200-573-9

Danger H302+H332-H318-H373

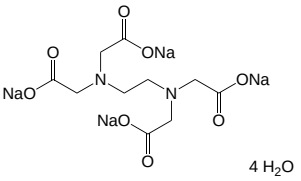
Ethylenediamine tetraacetic acid tetrasodium salt hydrate
84–88 %

Type analysis
Appearance ..... white to off white cryst.powder
Assay (titr.) ..... 84,0-88,0 %
pH value (1 %, H_2O) 10,5-12,5

Belongs to the group of organic chelating agents which form water soluble complexes with alkaline earth metals and with heavy metals and thus reducing the reactivity of these ions.

Art. No.	Pack Qty.	Pack.	€
3619.2	500 g	plastic	34,30
Original pack 6 x 500 g			32,59/500 g
3619.1	1 kg	plastic	61,20
Original pack 6 x 1 kg			58,14/1 kg
3619.4	2.5 kg	plastic	n. a.
3619.3	5 kg	plastic	224,70

Ethylenediamine tetraacetic acid tetrasodium salt tetrahydrate



EDTA-Na_4 · EDTA tetrasodium salt

$C_{10}H_{12}N_2Na_4O_8$ · 4 H_2O
CAS No. 13235-36-4 · EC no. 603-569-9
WGK 1

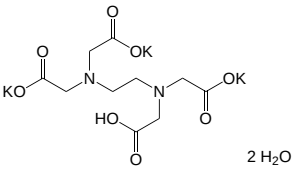
Danger H302-H318

Ethylenediamine tetraacetic acid tetrasodium salt tetrahydrate
≥99 %, p.a.

Guarantee analysis
Assay (compl.) ..... ≥99,0 %
pH value (1 % in H_2O) 10,0-12,0
In H_2O insoluble matter ..... ≤0,005 %
Nitrilotriacetic acid ..... ≤0,1 %
Chloride (Cl) ..... ≤0,004 %
Sulphate (SO_4) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,0025 %
Iron (Fe) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,001 %
Copper (Cu) ..... ≤0,0005 %
Sulphated ash ..... 62,0-63,5 %
Loss on drying (150 °C, 2 h) ..... 15,0-17,0 %

Art. No.	Pack Qty.	Pack.	€
CP87.1	250 g	plastic	37,10
CP87.2	500 g	plastic	65,50
Original pack 6 x 500 g			62,23/500 g
CP87.3	1 kg	plastic	115,60
Original pack 6 x 1 kg			109,82/1 kg
CP87.4	5 kg	plastic	482,70

Ethylenediamine tetraacetic acid tripotassium salt dihydrate



EDTA-K_3 · 2 H_2O · EDTA tripotassium salt dihydrate

$C_{10}H_{13}K_3N_2O_8$ · 2 H_2O · mp 180 to 185 °C
CAS No. 65501-24-8 · EC no. 241-543-5
WGK 2

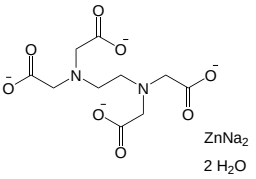
Warning H319

Ethylenediamine tetraacetic acid tripotassium salt dihydrate
≥99 %

Type analysis
Appearance ..... white granules
Assay ..... ≥99 %
pH value (5 % in water) 7,0-9,0
Heavy metals (as Pb) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,1 %
Chloride (Cl) ..... ≤0,01 %
Water content (KF) ..... 7-9 %

Art. No.	Pack Qty.	Pack.	€
1409.1	100 g	plastic	36,45
1409.2	250 g	plastic	67,20
1409.3	1 kg	plastic	203,20
Original pack 6 x 1 kg			193,04/1 kg
1409.4	5 kg	plastic	794,45

Ethylenediamine tetraacetic acid zinc disodium salt dihydrate



EDTA-$ZnNa_2$ · 2 H_2O · EDTA zinc disodium salt dihydrate · Zinc EDTA disodium salt dihydrate

$C_{10}H_{12}ZnN_2Na_2O_8$ · 2 H_2O
CAS No. 73513-47-0 · EC no. 237-865-0
WGK 1

Ethylenediamine tetraacetic acid zinc disodium salt dihydrate
≥96 %, for synthesis

Type analysis
Appearance ..... white crystalline powder
Assay ..... ≥96,0 %
Assay (Zinc) ..... 14,5-15,1 %
pH value (1 %, H_2O) 6,0-7,0

Art. No.	Pack Qty.	Pack.	€
6518.1	250 g	plastic	53,25
6518.2	500 g	plastic	96,25
Original pack 6 x 500 g			91,44/500 g
6518.3	1 kg	plastic	166,65
Original pack 6 x 1 kg			158,32/1 kg

trans-1,2-Ethylenedicarbonic acid

▸ Fumaric acid see page 950

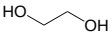
Ethylene dichloride

▸ 1,2-Dichloroethane see page 874

Ethylenedinitrilo tetraacetic acid

▸ Ethylenediamine tetraacetic acid see page 921

Ethylene glycol



1,2-Ethanediol · Glycol · Monoethylene glycol

$C_2H_6O_2$ · D 1,11 g/cm³ · mp -14 to -12 °C · flp 111 °C
CAS No. 107-21-1 · EC no. 203-473-3
WGK 1

Warning H302-H373

Ethylene glycol
ROTIPURAN® ≥99,5 %, p.a.

Guarantee analysis

Assay (GC) ..... ≥99,5 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,1 %
Acidity ..... ≤0,0005 meq/g
Chloride (Cl) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,0005 %
Matter discoloured by H_2SO_4 ..... complies
$KMnO_4$ reducing substances (as O) ... ≤0,0003 %
Calcium (Ca) ..... ≤0,00005 %
Cadmium (Cd) ..... ≤0,000005 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,00001 %
Ash content (as SO_4) ..... ≤0,003 %

Art. No.	Pack Qty.	Pack.	€
6881.1	1 l	plastic	53,65
Original pack 6 x 1 l			50,97/1 l
6881.2	2.5 l	plastic	107,40
Original pack 4 x 2.5 l			102,03/2.5 l
6881.4	5 l	plastic	170,95
Original pack 2 x 5 l			162,40/5 l
6881.3	10 l	plastic	321,45
6881.5	25 l	plastic	579,45

Ethylene glycol
≥99 %, for synthesis

Type analysis

Assay (GC) ..... ≥99 %
Water ..... ≤0,5 %
Density (20 °C) 1,110-1,116
Refractive index n_D^{20} 1,431-1,433

Art. No.	Pack Qty.	Pack.	€
9516.1	1 l	plastic	30,00
Original pack 6 x 1 l			28,50/1 l
9516.3	2.5 l	plastic	58,60
Original pack 4 x 2.5 l			55,67/2.5 l
9516.5	5 l	plastic	99,90
Original pack 2 x 5 l			94,91/5 l
9516.2	10 l	plastic	158,60
9516.4	25 l	plastic	284,90

Ethylene glycol
≥98 %, technical

Type analysis

Appearance ... clear colourless to yellowish liquid
Assay (GC) ..... ≥98 %
Water ..... ≤1 %

Art. No.	Pack Qty.	Pack.	€
2441.1	1 l	plastic	22,50
Original pack 6 x 1 l			21,38/1 l
2441.2	2.5 l	plastic	37,55
Original pack 4 x 2.5 l			35,67/2.5 l
2441.5	5 l	plastic	67,65
Original pack 2 x 5 l			64,27/5 l
2441.3	10 l	plastic	109,15
2441.4	25 l	plastic	231,15

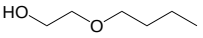
Ethylene glycol bis(β-aminoethylether) tetraacetic acid

▸ EGTA see page 908

Ethylene glycol dimethyl ether

▸ 1,2-Dimethoxyethane see page 885

Ethylene glycol monobutyl ether



2-Butoxyethanol · Butylglycol

$C_6H_{14}O_2$ · D 0,9 g/cm³ · mp -74,8 °C · bp 168 to 172 °C · flp 67 °C
CAS No. 111-76-2 · EC no. 203-905-0
WGK 1

Warning H302+H312+H332-H315-H319

Ethylene glycol monobutyl ether
≥99 %, for synthesis

Type analysis

Assay (GC) ..... ≥99,0 %
Density (20 °C) ..... 0,899-0,904 g/ml
Water ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
0341.1	1 l	glass	40,75
Original pack 6 x 1 l			38,71/1 l
0341.2	2.5 l	glass	82,70
Original pack 4 x 2.5 l			78,57/2.5 l

Ethylene glycol monobutyl ether acetate

▸ 2-Butoxyethyl acetate see page 798

Ethylene glycol monoethyl ether

▸ 2-Ethoxyethanol see page 919

Ethylene glycol monoisopropyl ether

▸ 2-Isopropoxyethanol see page 1023

Ethylene glycol monomethyl ether

▸ 2-Methoxyethanol see page 1081

Ethylene glycol monophenyl ether

▸ 2-Phenoxyethanol see page 1151

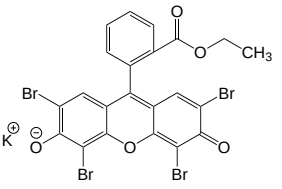
Ethylene glycol monophenyl ether

▸ 2-Phenoxyethanol see page 1151

Ethylene tetrachloride

▸ Tetrachloroethylene see page 1360

Ethyl eosin (C.I. 45386)



2',4',5',7'-Tetrabromoeosin ethyl ester potassium salt · Solvent red 45

$C_{22}H_{11}Br_4KO_5$
CAS No. 6359-05-3
WGK 1

Ethyl eosin (C.I. 45386)
extra pure

Type analysis

Appearance ..... red powder
Appearance of solution (1 g/l in 95 % EtOH) ..... clear, pink orange

Art. No.	Pack Qty.	Pack.	€
7664.1	5 g	glass	23,55
7664.2	25 g	glass	46,15
7664.3	100 g	glass	97,30

Ethyl ether

▸ Diethyl ether see page 878

Ethyl ether D10

▸ Diethyl ether D10 see page 879

Ethyl formiate

▸ Formic acid ethyl ester see page 948

Ethyl gallate

▸ Gallic acid ethyl ester see page 952

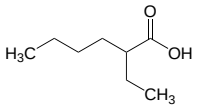
Ethyl green

▸ Brilliant green (C.I. 42040) see page 786

Ethyl green zinc chloride double salt

▸ Methyl green (C. I. 42590) see page 1085

2-Ethylhexanoic acid



3-Heptanecarboxylic acid · α-Ethylcaproic acid · 2-Ethylcapronic acid

$C_8H_{16}O_2$ · D 0,91 g/cm³ · mp -59 °C · bp 228 °C · flp 118 °C
CAS No. 149-57-5 · EC no. 205-743-6
WGK 1

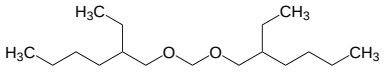
Warning H361d

2-Ethylhexanoic acid
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,0 %
Colour (APHA) ..... ≤15
Water (KF) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
1CNA.1	250 ml	glass	20,35
1CNA.2	1 l	glass	45,70
Original pack 6 x 1 l			43,42/1 l
1CNA.3	2.5 l	glass	91,30
Original pack 4 x 2.5 l			86,74/2.5 l

2-Ethylhexylal



3,3'-[Methylenebis(oxymethylen)]bisheptane · 3-({[(2-Ethylhexyl)oxy]methoxy}methyl)heptane

$C_{17}H_{36}O_2$ · D 0,848 g/cm³ · mp <-65 °C · bp 290 °C · flp 142 °C
CAS No. 22174-70-5 · EC no. 244-815-1
WGK 1

H413

2-Ethylhexylal
SOLVAGREEN® ≥99 %, for synthesis

Alternative for toluene, xylene.

Type analysis
Assay ..... ≥99,0 %
Water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
0797.1	100 ml	glass	20,35
0797.2	500 ml	glass	46,15
0797.3	1 l	glass	67,65
Original pack 6 x 1 l			64,27/1 l
0797.4	2.5 l	glass	134,40
Original pack 4 x 2.5 l			127,68/2.5 l

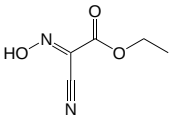
3-({[(2-Ethylhexyl)oxy]methoxy}methyl)heptane

▸ 2-Ethylhexylal see page 925

Ethyl-4-hydroxybenzoate

▸ 4-Hydroxybenzoic acid ethyl ester see page 998

Ethyl(hydroxyimino)-cyanoacetate (Oxyma Pure)



Oxyma Pure

$C_5H_6N_2O_3$ · mp 130 to 132 °C
CAS No. 3849-21-6 · EC no. 223-351-3
WGK 1

Ethyl(hydroxyimino)cyanoacetate (Oxyma Pure)
PEPTIPURE® ≥99,5 %

Coupling reagent for peptide synthesis

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥99,5 %
Water (KF) ..... ≤0,5 %
Melting point ..... 128-134 °C

Art. No.	Pack Qty.	Pack.	€
2118.1	25 g	glass	39,70
2118.2	100 g	glass	114,95

Ethyl lactate

▸ L(–)-Lactic acid ethyl ester see page 1032

Ethyl malonate

▸ Diethyl malonate see page 879

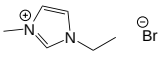
Ethylmercurithiosalicylate sodium salt

▸ Sodium ethylmercurithiosalicylate see page 1283

Ethyl methanoate

▸ Formic acid ethyl ester see page 948

1-Ethyl-3-methyl-imidazolium-bromide (EMIM Br)



EMIM Br

$C_6H_{11}BrN_2$ · mp 81 °C
CAS No. 65039-08-9
WGK 1

Warning H315-H319-H335

1-Ethyl-3-methyl-imidazolium-bromide (EMIM Br)
≥99 %

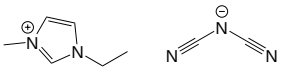
Ionic liquid

Type analysis
Appearance ..... white solid
Assay ..... ≥99 %
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
2037.1	25 g	glass	203,20
2037.2	100 g	glass	428,95

Lit.: **"1-Alkyl-3-methyl Imidazolium Bromide Ionic Liquids in the Ionothermal Synthesis of Aluminium Phosphate Molecular Sieves"** E. R. Parnham, R. E. Morris, *Chem. Mater.* **2006**, 18, 4882-4887.

1-Ethyl-3-methyl-imidazolium-dicyanamide (EMIM DCA)



EMIM $N(CN)_2$ · EMIM DCA

$C_8H_{11}N_5$ · D 1,101 g/cm³ · mp -6 °C · flp 221 °C
CAS No. 370865-89-7
WGK 1

Warning H317

1-Ethyl-3-methyl-imidazolium-dicyanamide (EMIM DCA)
≥98 %

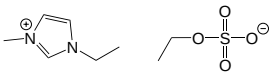
Ionic liquid

Type analysis
Appearance ..... yellow to orange liquid
Assay ..... ≥98 %
Water (KF) ..... ≤0,2 %
Halogens ..... ≤2 %

Art. No.	Pack Qty.	Pack.	€
2053.1	25 g	glass	267,70
2053.2	100 g	glass	622,45

Lit:. **"A New Ionic Liquid Electrolyte Enhances the Conversion Efficiency of Dye-Sensitized SolarCells"** P. Wang, S. M. Zakeeruddin, J.-E. Moser, M. Grätzel, *J. Phys. Chem. B* **2003,** 107, 13280-13285.

1-Ethyl-3-methyl-imidazolium-ethylsulphate (EMIM $EtOSO_3$)



EMIM $EtOSO_3$

$C_8H_{16}N_2O_4S$ · D 1,239 g/cm³ · mp -55 to -53 °C · bp >140 °C · flp 176 °C
CAS No. 342573-75-5
WGK 1

1-Ethyl-3-methyl-imidazolium-ethylsulphate (EMIM $EtOSO_3$)
≥98 %

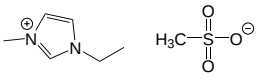
Ionic liquid

Type analysis
Appearance ..... yellow to orange liquid
Assay ..... ≥98 %
Water (KF) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
2054.1	25 g	glass	112,80
2054.2	100 g	glass	246,20

Lit.: **"Physical Properties of Pure 1-Ethyl-3-methylimidazolium Ethylsulfate and Its Binary Mixtures with Ethanol and Water at Several Temperatures"** E. Gomez, B. Gonzalez, N. Calvar, E. Tojo, A. Dominguez, *J. Chem. Eng. Data* **2006,** 51, 2096-2102.

1-Ethyl-3-methyl-imidazolium-methanesulphonate (EMIM OMs)



EMIM OMs

$C_7H_{14}N_2O_3S$ · D 1,243 g/cm³
CAS No. 145022-45-3
WGK 1

Warning H317-H412

1-Ethyl-3-methyl-imidazolium-methanesulphonate (EMIM OMs)
≥99 %

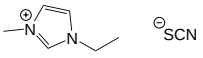
Ionic liquid

Type analysis
Appearance ..... yellow to brownish liquid
Assay ..... ≥99 %
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
2056.1	25 g	glass	289,20
2056.2	100 g	glass	697,70

Lit.: **"Essential oil terpenless by extraction using organic solvents or ionic liquids"** A. Arce, A. Marchiaro, O. Rodríguez, A. Soto, *AIChE* **2006**, 52, 2089-2097.

1-Ethyl-3-methyl-imidazolium-thiocyanate (EMIM SCN)



EMIM SCN

$C_7H_{11}N_3S$ · D 1,11 g/cm³ · mp -6 °C
CAS No. 331717-63-6
WGK 2

Warning H302+H312+H332-H412-EUH032

1-Ethyl-3-methyl-imidazolium-thiocyanate (EMIM SCN)
≥98 %

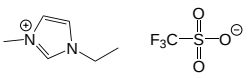
Ionic liquid

Type analysis
Appearance ..... yellow to orange liquid
Assay ..... ≥98 %
Water (KF) ..... ≤0,2 %
Halogens ..... ≤2 %

Art. No.	Pack Qty.	Pack.	€
2059.1	25 g	glass	246,20
2059.2	100 g	glass	514,95

Lit.: **"An efficient organogelator for ionic liquids to prepare stable quasi-solid-state dye-sensitized solar cells"** N. Mohmeyer, D. Kuang, P. Wang, H.-W. Schmidt, S. M. Zakeeruddin, M. Grätzel, *J. Mater. Chem.* **2006,** 16, 2978-2983.

1-Ethyl-3-methyl-imidazolium-trifluoromethansulphonate (EMIM OTf)



EMIM OTf

$C_7H_{11}F_3N_2O_3S$ · D 1,387 g/cm³ · mp -13 °C · bp 350 °C · flp 113 °C
CAS No. 145022-44-2
WGK 1

1-Ethyl-3-methyl-imidazolium-trifluoromethansulphonate (EMIM OTf)
≥99 %

Ionic liquid

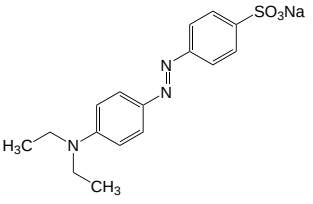
Type analysis
Appearance ..... yellow to brownish liquid
Assay ..... ≥99 %
Water (KF) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
2062.1	25 g	glass	246,20
2062.2	100 g	glass	514,95

Lit.: **"Electropolymerization of pyrrole in 1-ethyl-3-methylimidazolium trifluoro-methanesulfonate room temperature ionic liquid"** K. Sekiguchi, M. Atobe, T. Fuchigami, Electrochemistry *Communications* **2002**, 4, 881-885.

Ethyl methyl ketone
▸ 2-Butanone see page 797

Ethyl orange sodium salt



$C_{16}H_{18}N_3NaO_3S$ · mp >300 °C
CAS No. 62758-12-7
WGK 1

Warning H315-H319-H335

Ethyl orange sodium salt
p.a.

Indicator pH 3,4-4,8

Dissolve 0.1 g in 100 ml water

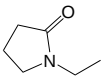
Type analysis
Appearance ..... orange powder
Appearance of solution (0,1 % in H_2O) ..... clear, orange
pH-transition range ..... 3,4 (rose-red)-4,8 (yellow)

Art. No.	Pack Qty.	Pack.	€
7667.1	5 g	glass	23,55
7667.2	25 g	glass	46,15
7667.3	100 g	glass	97,30

Ethylparaben
▸ 4-Hydroxybenzoic acid ethyl ester see page 998

Ethyl purple 6B
▸ Ethyl violet (C.I. 42600) see page 927

N-Ethyl-2-pyrrolidone (NEP)



NEP · 1-Ethylpyrrolidin-2-one

$C_6H_{11}NO$ · D 0,998 g/cm³ · mp <-75 °C · bp 212,5 °C · flp 91 °C
CAS No. 2687-91-4 · EC no. 220-250-6
WGK 1

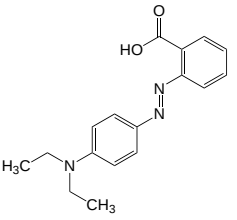
Danger H318-H360Df

N-Ethyl-2-pyrrolidone (NEP)
≥98 %, for synthesis

Type analysis
Assay (GC) ..... ≥98,0 %
Water ..... ≤0,5 %
Colour (APHA) ..... ≤50

Art. No.	Pack Qty.	Pack.	€
CN19.1	500 ml	glass	73,00
CN19.2	1 l	glass	117,20
Original pack 6 x 1 l			111,34/1 l
CN19.3	2.5 l	glass	274,15
Original pack 4 x 2.5 l			260,44/2.5 l
CN19.5	10 l	tinplate	912,70
CN19.4	25 l	tinplate	2.144,65

Ethyl red



$C_{17}H_{19}N_3O_2$ · mp 135 °C
CAS No. 76058-33-8
WGK 1

Ethyl red
p.a.

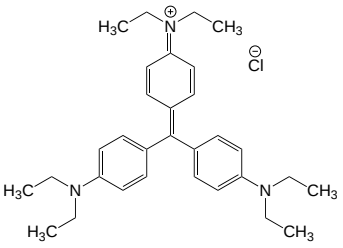
Indicator pH 4,5-6,5

Dissolve 0.1 g in 100 ml ethanol (96 %)

Type analysis
Appearance ..... dark red to maroon powder
Appearance of solution (0,1 % in H_2O) clear, dark red
pH-transition range ..... 4,5 (red)-6,5 (yellow)

Art. No.	Pack Qty.	Pack.	€
7677.1	5 g	glass	26,35
7677.2	25 g	glass	69,80
7677.3	100 g	glass	220,40

Ethyl violet (C.I. 42600)



Basic violet 4 · Ethyl purple 6B

$C_{31}H_{42}N_3Cl$
CAS No. 2390-59-2 · EC no. 219-231-5
WGK 1

Ethyl violet (C.I. 42600)
extra pure

Indicator pH 0,0-3,5

Dissolve 0.1 g in 100 ml ethanol (50 %)

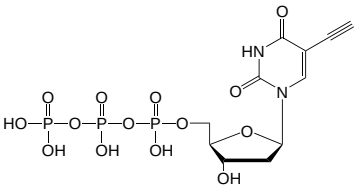
Type analysis
Appearance ..... olive green to dark brown cryst. powder
Appearance of solution (0,1 % in H_2O) clear, dark purple
Loss on drying (105 °C) ..... ≤5,0 %

Art. No.	Pack Qty.	Pack.	€
7680.1	5 g	glass	18,85
7680.2	25 g	glass	33,25
7680.3	100 g	glass	80,55

5-Ethynyl-2'-deoxyuridine-5'-triphosphate

▸ 5-Ethynyl-dUTP see page 927

5-Ethynyl-dUTP



5-Ethynyl-2'-deoxyuridine-5'-triphosphate · EdUTP

$C_{11}H_{15}N_2O_{14}P_3$ · D 1 g/cm³ · mp 0 °C · bp 100 °C
CAS No. 1004955-96-7
WGK 1

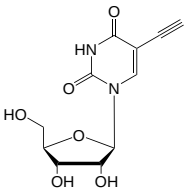
5-Ethynyl-dUTP
≥98 %, 100 mM in water

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Appearance ..... clear solution
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7802.1	5 µl	plastic	117,20
7802.2	25 µl	plastic	385,95
7802.3	50 µl	plastic	365,50

5-Ethynyl uridine (EU)



$C_{11}H_{12}N_2O_6$
CAS No. 69075-42-9
WGK 1

5-Ethynyl uridine (EU)
≥98 %

Storage temperature: –20 °C
Transport temperature: cooled

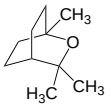
Type analysis
Appearance ..... white to almost white solid
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7848.1	5 mg	plastic	53,65
7848.2	10 mg	plastic	85,90

Etidronic acid

▸ 1-Hydroxyethane-1,1-diphosphonic acid (HEDP) see page 999

Eucalyptol



1,8-Cineole · 1,8-Epoxy-*p*-menthane

$C_{10}H_{18}O$ · D 0,92 g/cm³ · mp -1,3 °C · bp 177 °C · flp 52 °C
CAS No. 470-82-6 · EC no. 207-431-5
UN no. 1993 · ADR 3 III · WGK 2

Warning H226-H317

Eucalyptol
ROTICHROM® CHR ≥98 %

Type analysis
Assay (GC) ..... ≥98,0 %
Density (d 20 °C/4 °C) 0,923-0,928

Art. No.	Pack Qty.	Pack.	€
7244.1	25 ml	glass	35,40

Eucalyptol
ROTICHROM® GC

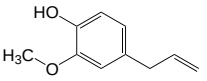
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6938.2	100 mg	glass	102,70

Eugenol



4-Allyl-2-methoxyphenol

$C_{10}H_{12}O_2$ · D 1,06 to 1,07 g/cm³ · mp -9 °C · bp 248 to 256 °C · flp >110 °C
CAS No. 97-53-0 · EC no. 202-589-1
WGK 1

Warning H302-H317-H319

Eugenol
extra pure

Type analysis
Appearance ..... clear, light yellowish liquid
Density (20 °C) ..... 1,066-1,070 g/cm³
Refractive index (20 °C) 1,540-1,542
Optical rotation (20 °C) ..... -0,5° to +0,5°

Art. No.	Pack Qty.	Pack.	€
7292.1	50 ml	glass	21,40

Eugenol
ROTICHROM® GC

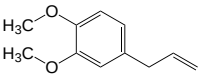
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
6941.1	1 g	plastic	107,40

Eugenol methyl ether



4-Allyl-1,2-dimethoxybenzene

$C_{11}H_{14}O_2$ · D 1,03 to 1,04 g/cm³ · mp -4 °C · bp 255 °C · flp 110 °C
CAS No. 93-15-2 · EC no. 202-223-0
UN no. 3082 · ADR 9 III · WGK 1

Warning H302-H319-H411

Eugenol methyl ether
ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
5073.1	1 g	plastic	107,40

Euparal

D 0,99 g/cm³ · bp 120 °C · flp 40,5 °C
UN no. 1993 · ADR 3 III · WGK 2

Danger H226-H315-H317-H318-H371

Euparal
ready-to-use, for microscopy

Mounting agent, alternative to Canada balsam

Type analysis
Appearance ..... yellowish solution
Solubility (EtOH) ..... soluble

Art. No.	Pack Qty.	Pack.	€
7356.1	100 g	glass	64,40
7356.2	500 g	glass	267,70
Original pack 6 x 500 g			254,32/500 g

Euparal essence

D 0,99 g/cm³ · bp 124 °C · flp 40,5 °C
UN no. 1993 · ADR 3 III · WGK 2

Danger H226-H315-H318-H335-H371

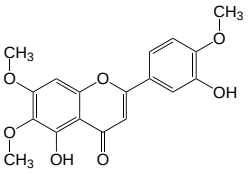
Euparal essence
ready-to-use, for microscopy

Diluent and solvent for Euparal (Art. No. 7356).

Type analysis
Appearance ..... yellowish solution
Refractive index (20 °C) 1,450-1,500

Art. No.	Pack Qty.	Pack.	€
A145.1	100 ml	glass	55,40

Eupatorin



3',5-Dihydroxy-4',6,7-trimethoxyflavone

$C_{18}H_{16}O_7$ · mp 195 °C · bp 587 °C
CAS No. 855-96-9
WGK 1

Warning H315-H319-H335

Eupatorin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Orthosiphon stamineus.*

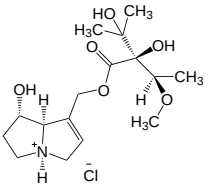
Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
6493.1	20 mg	glass	332,20

Europia
▸ Europium(III) oxide see page 928

Europine hydrochloride



$C_{16}H_{28}ClNO_6$
WGK 1

Warning H302

Europine hydrochloride
ROTICHROM® HPLC

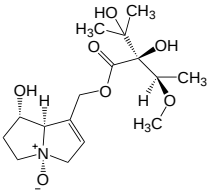
Reference substance for HPLC.
From *Heliotropium.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
1676.1	10 mg	glass	482,70

Europine-*N*-oxide



$C_{16}H_{27}NO_7$ · mp 160 to 170 °C
CAS No. 65582-53-8
WGK 1

Warning H302

Europine-*N*-oxide
ROTICHROM® HPLC

Reference substance for HPLC.
From *Heliotropium.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97,0 %

Art. No.	Pack Qty.	Pack.	€
1687.1	10 mg	glass	482,70

Europium Standards
▸ Europium ICP Standard Solution see page 1316
▸ Europium ICP Standard Solution see page 1316

Europium(III) oxide

Europia · Europium trioxide

Eu_2O_3 · D 7,42 g/cm³ · mp 2291 °C · bp 4118 °C
CAS No. 1308-96-9 · EC no. 215-165-6
WGK 1

Europium(III) oxide
ROTI®METIC 99,995 % (4N5)

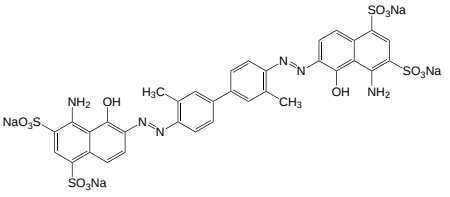
Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5394.1	5 g	plastic	384,35

Europium trioxide
▸ Europium(III) oxide see page 928

Evan's blue (C.I. 23860)



Direct blue 53

$C_{34}H_{24}N_6Na_4O_{14}S_4$
CAS No. 314-13-6 · EC no. 206-242-5
WGK 1

Danger H350

Evan's blue (C.I. 23860)
for microscopy

Type analysis
Appearance ..... black to purple cryst. powder
Appearance of solution (0,1 % in H_2O) clear, blue
Loss on drying (110 °C) ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
7684.1	5 g	glass	35,40
7684.2	25 g	glass	73,00
7684.3	100 g	glass	235,45

FAD disodium salt

- Flavine-adenine-dinucleotide disodium salt (FAD) see page 936

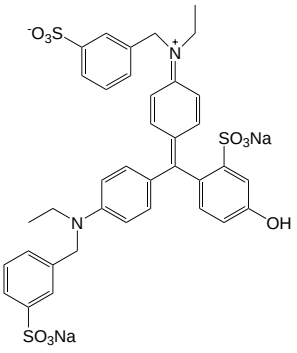
6-FAM-Azide

- 6-Carboxyfluorescein Azide (6-FAM-Azide) see page 816

FAME

- Fatty acid mixtures see page 930

Fast Green FCF



Food Green 3

$C_{37}H_{34}N_2Na_2O_{10}S_3$ · mp 290 °C
CAS No. 2353-45-9 · EC no. 219-091-5
WGK 1

Warning H341

Fast Green FCF
for microscopy

For staining proteins.

Type analysis
Dye content ..... ≥85 %
In H_2O insoluble matter ..... ≤0,2 %
Solubility (0,1 % in H_2O) .. dark blue to dark green solution

Art. No.	Pack Qty.	Pack.	€
0301.1	25 g	glass	107,40

Fast Oxidation reagent

Oxidation-Reagent, Fast · Iodine/water/pyridine/tetrahydrofuran-mixture. 0,02 M iodine.

D 0,8 g/cm³ · mp -108,5 °C · bp 65 °C · flp -21 °C
UN no. 1993 · ADR 3 II · WGK 2

Danger H225-H302-H315-H319-H335-H351-H373-EUH019

Fast Oxidation reagent
for DNA synthesis

For DNA-synthesis with ABI™ and PolyGen® Synthesizer.

For quick separating phosphoramidites.
Thread sizes: 450 ml – 27 mm.

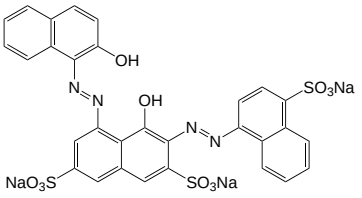
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
A133.2	450 ml	glass	65,50

Fast staining kits for histology & cytology

- H&E fast staining kit see page 976
- PAP fast staining kit see page 1137
- Panoptical fast staining kit see page 1136

Fast sulphon black F (C.I. 26990)



Acid black 32

$C_{30}H_{17}N_4O_{11}S_3Na_3$
CAS No. 3682-47-1
WGK 1

Fast sulphon black F (C.I. 26990)
≥95 %, p.a.

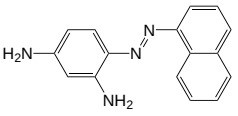
Metal indicator for Cu

Dissolve 0.1 g in 100 ml water

Type analysis
Appearance ..... black powder
Assay (TLC) ..... ≥95,0 %
Appearance of solution (0,1 % in H_2O) ..... clear, green
Suitability as indicator ..... complies

Art. No.	Pack Qty.	Pack.	€
7685.1	5 g	glass	20,35
7685.2	25 g	glass	36,05
7685.3	100 g	glass	96,65

Fat brown RR (C.I. 11285)



$C_{16}H_{14}N_4$
CAS No. 6416-57-5
WGK 1

Warning H315-H319-H335

Fat brown RR (C.I. 11285)
for microscopy

Liposoluble dye

Type analysis
Appearance ..... dark red to rusty brown powder
Appearance of solution (1 mg/ml in $CHCl_3$) .. clear to slightly hazy, orange to dark red brown
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
7687.1	5 g	glass	18,85
7687.2	25 g	glass	33,25
7687.3	100 g	glass	80,55

Fatty acid mixtures

FAME

Fatty acid methyl ester mixture
ROTICHROM® ME 11

D 1 g/cm³ · mp -71 °C

Storage temperature: +4 °C

UN no. 1993 · ADR 3 III · WGK 3

Warning H226-H315

Type analysis
C 6:0 Methyl hexanoate ..... 20 %
C 7:0 Methyl heptanoate ..... 20 %
C 8:0 Methyl octanoate ..... 20 %
C 9:0 Methyl nonanoate ..... 20 %
C 10:0 Methyl decanoate ..... 20 %

Art. No.	Pack Qty.	Pack.	€
8632.1	100 mg	plastic	228,45

Fatty acid methyl ester mixture
ROTICHROM® ME 12

D 1 g/cm³

Storage temperature: +4 °C

WGK 3

Type analysis
C 11:0 Methyl undecanoate ..... 20 %
C 12:0 Methyl laurate ..... 20 %
C 13:0 Methyl tridecanoate ..... 20 %
C 14:0 Methyl myristate ..... 20 %
C 15:0 Methyl pentadecanoate ..... 20 %

Art. No.	Pack Qty.	Pack.	€
8636.1	100 mg	plastic	228,45

Fatty acid methyl ester mixture
ROTICHROM® ME 13

D 1,48 g/cm³ · mp -63 °C · bp 61 °C

Storage temperature: +4 °C

UN no. 1888 · ADR 6.1 III · WGK 3

Danger H302-H315-H319-H331-H351-H361d-H372

Type analysis
C 16:0 Methyl hexadecanoate ..... 20 %
C 17:0 Methyl heptadecanoate ..... 20 %
C 18:0 Methyl stearate ..... 20 %
C 19:0 Methyl nonadecanoate ..... 20 %
C 20:0 Methyl eicosanoate ..... 20 %

Dissolved in trichloromethane.

Art. No.	Pack Qty.	Pack.	€
8642.1	100 mg	plastic	228,45

Fatty acid methyl ester mixture
ROTICHROM® ME 14

D 1,48 g/cm³ · mp -63 °C · bp 61 °C

Storage temperature: –20 °C
Transport temperature: ambient temp.

UN no. 1888 · ADR 6.1 III · WGK 3

Danger H302-H315-H319-H331-H351-H361d-H372

Type analysis
C 18:0 Methyl stearate ..... 20 %
C 19:0 Methyl nonadecanoate ..... 20 %
C 20:0 Methyl arachidate ..... 20 %
C 21:0 Methyl heneicosanoate ..... 20 %
C 22:0 Methyl behenate ..... 20 %

Dissolved in trichloromethane.

Art. No.	Pack Qty.	Pack.	€
8644.1	100 mg	plastic	228,45

Fatty acid methyl ester mixture
ROTICHROM® ME 15

D 1 g/cm³

Storage temperature: +4 °C

WGK 3

Type analysis
C 8:0 Methyl octanoate ..... 20 %
C 9:0 Methyl nonanoate ..... 20 %
C 10:0 Methyl decanoate ..... 20 %
C 11:0 Methyl undecanoate ..... 20 %
C 12:0 Methyl dodecanoate ..... 20 %

Art. No.	Pack Qty.	Pack.	€
8650.1	100 mg	plastic	228,45

Fatty acid methyl ester mixture
ROTICHROM® ME 16

D 1 g/cm³

Storage temperature: +4 °C

WGK 3

Type analysis
C 13:0 Methyl tridecanoate ..... 20 %
C 14:0 Methyl myristate ..... 20 %
C 15:0 Methyl pentadecanoate ..... 20 %
C 16:0 Methyl palmitate ..... 20 %
C 17:0 Methyl heptadecanoate ..... 20 %

Art. No.	Pack Qty.	Pack.	€
8661.1	100 mg	plastic	228,45

Fatty acid methyl ester mixture
ROTICHROM® ME 17

D 1,48 g/cm³ · mp -63 °C · bp 61 °C

Storage temperature: +4 °C

UN no. 1888 · ADR 6.1 III · WGK 3

Danger H302-H315-H319-H331-H351-H361d-H372

Type analysis
C 20:0 Methyl arachidate ..... 20 %
C 21:0 Methyl heneicosanoate ..... 20 %
C 22:0 Methyl docosanoate ..... 20 %
C 23:0 Methyl tricosanoate ..... 20 %
C 24:0 Methyl tetracosanoate ..... 20 %

Dissolved in trichloromethane.

Art. No.	Pack Qty.	Pack.	€
8666.1	100 mg	plastic	228,45

Fatty acid methyl ester mixture
ROTICHROM® ME 18

D 1 g/cm³

Storage temperature: +4 °C

WGK 3

Type analysis
C 6:0 Methyl caproate ..... 20 %
C 8:0 Methyl caprylate ..... 20 %
C 10:0 Methyl caprate ..... 20 %
C 12:0 Methyl laurate ..... 20 %
C 14:0 Methyl myristate ..... 20 %

Art. No.	Pack Qty.	Pack.	€
8667.1	100 mg	plastic	228,45

Fatty acid methyl ester mixture
ROTICHROM® ME 19

D 1 g/cm³

Storage temperature: +4 °C

WGK 3

Type analysis
C 8:0 Methyl caprylate ..... 20 %
C 10:0 Methyl caprate ..... 20 %
C 12:0 Methyl laurate ..... 20 %
C 14:0 Methyl myristate ..... 20 %
C 16:0 Methyl palmitate ..... 20 %

Art. No.	Pack Qty.	Pack.	€
8669.1	100 mg	plastic	228,45

Fatty acid methyl ester mixture
ROTICHROM® ME 21

D 1,48 g/cm³ · mp -63 °C · bp 61 °C

Storage temperature: +4 °C

UN no. 1888 · ADR 6.1 III · WGK 3

Danger H302-H315-H319-H331-H351-H361d-H372

Type analysis
C 16:0 Methyl palmitate ..... 20 %
C 18:0 Methyl stearate ..... 20 %
C 20:0 Methyl arachidate ..... 20 %
C 22:0 Methyl behenate ..... 20 %
C 24:0 Methyl lignocerate ..... 20 %

Dissolved in trichloromethane.

Art. No.	Pack Qty.	Pack.	€
8676.1	100 mg	plastic	228,45

Fatty acid methyl ester mixture
ROTICHROM® ME 22

D 1 g/cm³

Storage temperature: +4 °C

WGK 3

Type analysis
C 12:0 Methyl laurate ..... 20 %
C 14:0 Methyl myristate ..... 20 %
C 16:0 Methyl palmitate ..... 20 %
C 18:0 Methyl stearate ..... 20 %
C 20:0 Methyl arachidate ..... 20 %

Art. No.	Pack Qty.	Pack.	€
8677.1	100 mg	plastic	228,45

Fatty acid methyl ester mixture
ROTICHROM® ME 24

D 1 g/cm³

Storage temperature: +4 °C

WGK 3

Type analysis
C 13:0 Methyl tridecanoate ..... 20 %
C 15:0 Methyl pentadecanoate ..... 20 %
C 17:0 Methyl heptadecanoate ..... 20 %
C 19:0 Methyl nonadecanoate ..... 20 %
C 21:0 Methyl heneicosanoate ..... 20 %

Art. No.	Pack Qty.	Pack.	€
8679.1	100 mg	plastic	228,45

Fatty acid methyl ester mixture
ROTICHROM® ME 26

D 1 g/cm³

Storage temperature: +4 °C

WGK 3

Type analysis
C 12:0 Methyl laurate ..... 20 %
C 14:0 Methyl myristate ..... 20 %
C 14:1 Methyl myristoleate ..... 20 %
C 16:0 Methyl palmitate ..... 20 %
C 16:1 Methyl palmitoleate ..... 20 %

Art. No.	Pack Qty.	Pack.	€
8685.1	100 mg	plastic	187,60

Fatty acid methyl ester mixture
ROTICHROM® ME 28

D 1 g/cm³

Storage temperature: +4 °C

WGK 3

Type analysis
C 16:0 Methyl palmitate ..... 20 %
C 18:0 Methyl stearate ..... 20 %
C 18:1 Methyl oleate ..... 20 %
C 18:2 Methyl linoleate ..... 20 %
C 18:3 Methyl linolenate ..... 20 %

Art. No.	Pack Qty.	Pack.	€
8691.1	100 mg	plastic	246,20

Fatty acid methyl ester mixture
ROTICHROM® ME 29

D 1 g/cm³

Storage temperature: +4 °C

WGK 3

Type analysis
C 16:1 Methyl palmitoleate ..... 20 %
C 18:1 Methyl oleate ..... 20 %
C 20:1 Methyl eicosenate ..... 20 %
C 22:1 Methyl erucate ..... 20 %
C 24:1 Methyl nervonate ..... 20 %

Art. No.	Pack Qty.	Pack.	€
8692.1	100 mg	plastic	246,20

Fatty acid methyl ester mixture
ROTICHROM® ME 30

D 1 g/cm³

Storage temperature: +4 °C

WGK 3

Type analysis
C 18:0 Methyl stearate ..... 20 %
C 18:1 Methyl oleate ..... 20 %
C 18:2 Methyl linoleate ..... 20 %
C 18:3 Methyl linolenate ..... 20 %
C 20:4 Methyl arachidonate ..... 20 %

Art. No.	Pack Qty.	Pack.	€
8693.1	100 mg	plastic	246,20

Fatty acid methyl ester mixture
ROTICHROM® ME 32

D 1 g/cm³

Storage temperature: +4 °C

WGK 3

Type analysis

C 20:0 Methyl eicosanoate ..... 20 %
C 20:1 Methyl eicosenate ..... 20 %
C 20:2 Methyl eicosadienoate ..... 20 %
C 20:3 Methyl eicosatrienoate ..... 20 %
C 20:4 Methyl arachidonate ..... 20 %

Art. No.	Pack Qty.	Pack.	€
8697.1	100 mg	plastic	213,95

Fatty acid methyl ester mixture
ROTICHROM® ME 35

D 1 g/cm³ · mp -20 °C · bp >34 °C

Storage temperature: +4 °C

WGK 1

Type analysis

C 4:0 Methyl butyrate ..... 4 %
C 6:0 Methyl hexanoate ..... 3 %
C 8:0 Methyl octanoate ..... 2 %
C 10:0 Methyl decanoate ..... 3 %
C 12:0 Methyl laurate ..... 3 %
C 14:0 Methyl myristate ..... 12 %
C 16:0 Methyl palmitate ..... 30 %
C 18:0 Methyl stearate ..... 10 %
C 18:1 Methyl oleate ..... 30 %
C 18:2 Methyl linoleate ..... 2 %
C 18:3 Methyl linolenate ..... 1 %

Art. No.	Pack Qty.	Pack.	€
8701.1	100 mg	plastic	295,65

Fatty acid methyl ester mixture
ROTICHROM® ME 36

D 1 g/cm³ · mp -20 °C · bp >34 °C

Storage temperature: +4 °C

WGK 1

Type analysis

C 4:0 Methyl butyrate ..... 4 %
C 6:0 Methyl caproate ..... 2 %
C 8:0 Methyl caprylate ..... 1 %
C 10:0 Methyl caprate ..... 3 %
C 12:0 Methyl laurate ..... 4 %
C 14:0 Methyl myristate ..... 10 %
C 14:1 Methyl myristoleate ..... 2 %
C 16:0 Methyl palmitate ..... 25 %
C 16:1 Methyl palmitoleate ..... 5 %
C 18:0 Methyl stearate ..... 10 %
C 18:1 Methyl oleate ..... 25 %
C 18:2 Methyl linoleate ..... 3 %
C 18:3 Methyl linolenate ..... 4 %
C 20:0 Methyl arachidate ..... 2 %

Art. No.	Pack Qty.	Pack.	€
8702.1	100 mg	plastic	295,65

Fatty acid methyl ester mixture
ROTICHROM® ME 37

D 1 g/cm³

Storage temperature: +4 °C

WGK 2

Warning H315

Type analysis

C 4:0 Methyl butyrate ..... 7,7 %
C 6:0 Methyl caproate ..... 7,7 %
C 8:0 Methyl caprylate ..... 7,7 %
C 10:0 Methyl caprate ..... 7,7 %
C 12:0 Methyl laurate ..... 7,7 %
C 14:0 Methyl myristate ..... 7,7 %
C 16:0 Methyl palmitate ..... 7,7 %
C 18:0 Methyl stearate ..... 7,7 %
C 18:1 Methyl oleate ..... 7,7 %
C 18:2 Methyl linoleate ..... 7,7 %
C 18:3 Methyl linolenate ..... 7,7 %
C 20:0 Methyl arachidate ..... 7,7 %
C 22:0 Methyl behenate ..... 7,7 %

Art. No.	Pack Qty.	Pack.	€
8703.1	100 mg	plastic	295,65

Fatty acid methyl ester mixture
ROTICHROM® ME 38

D 1 g/cm³

Storage temperature: +4 °C

WGK 3

Type analysis

C 8:0 Methyl octanoate ..... 2 %
C 10:0 Methyl decanoate ..... 3 %
C 12:0 Methyl dodecanoate ..... 4 %
C 14:0 Methyl tetradecanoate ..... 8 %
C 16:0 Methyl hexadecanoate ..... 10 %
C 18:0 Methyl octadecanoate ..... 7 %
C 18:1 Methyl oleate ..... 8 %
C 18:2 Methyl linoleate ..... 8 %
C 18:3 Methyl linolenate ..... 10 %
C 20:0 Methyl eicosanoate ..... 8 %
C 22:0 Methyl docosanoate ..... 10 %
C 22:1 Methyl erucate ..... 10 %
C 24:0 Methyl tetracosanoate ..... 12 %

Art. No.	Pack Qty.	Pack.	€
8705.1	100 mg	plastic	295,65

Fatty acid methyl ester mixture
ROTICHROM® ME 39

D 1 g/cm³

Storage temperature: +4 °C

WGK 3

Type analysis

C 12:0 Methyl laurate ..... 2 %
C 14:0 Methyl myristate ..... 2 %
C 14:1 Methyl myristoleate ..... 1 %
C 16:0 Methyl palmitate ..... 22 %
C 16:1 Methyl palmitoleate ..... 5 %
C 17:0 Methyl heptadecanoate ..... 10 %
C 18:0 Methyl stearate ..... 10 %
C 18:1 Methyl oleate ..... 32 %
C 18:2 Methyl linoleate ..... 8 %
C 18:3 Methyl linolenate ..... 4 %
C 20:4 Methyl arachidonate ..... 4 %

Art. No.	Pack Qty.	Pack.	€
8709.1	100 mg	plastic	295,65

Fatty acid methyl ester mixture
ROTICHROM® ME 46

D 1 g/cm³

Storage temperature: +4 °C

WGK 3

Type analysis

C 16:0 Methyl palmitate ..... 10 %
C 18:0 Methyl stearate ..... 5 %
C 18:1 Methyl oleate ..... 30 %
C 18:2 Methyl linoleate ..... 50 %
C 18:3 Methyl linolenate ..... 5 %

Art. No.	Pack Qty.	Pack.	€
8730.1	100 mg	plastic	246,20

Fatty acid methyl ester mixture
ROTICHROM® ME 51

D 1 g/cm³

Storage temperature: +4 °C

WGK 3

Type analysis

C 16:0 Methyl palmitate ..... 4 %
C 18:0 Methyl stearate ..... 1 %
C 18:1 Methyl oleate ..... 58 %
C 18:2 Methyl linoleate ..... 20 %
C 18:3 Methyl linolenate ..... 10 %
C 20:0 Methyl arachidate ..... 1 %
C 20:1 Methyl eicosenoate ..... 2 %
C 22:0 Methyl behenate ..... 1 %
C 22:1 Methyl erucate ..... 2 %
C 24:0 Methyl lignocerate ..... 1 %

Art. No.	Pack Qty.	Pack.	€
8737.1	100 mg	plastic	295,65

Fatty acid methyl ester mixture
ROTICHROM® FO 3

Suitable for coconut, rape seed and mustard seed oils.

D 0,88 g/cm³ · bp >200 °C · flp >33 °C

Storage temperature: +4 °C

WGK 1

Type analysis

C 14:0 Methyl myristate ..... 1 %
C 16:0 Methyl palmitate ..... 4 %
C 18:0 Methyl stearate ..... 3 %
C 18:1 Methyl oleate ..... 45 %
C 18:2 Methyl linoleate ..... 15 %
C 18:3 Methyl linolenate ..... 3 %
C 20:0 Methyl arachidate ..... 3 %
C 22:0 Methyl behenate ..... 3 %
C 22:1 Methyl erucate ..... 20 %
C 24:0 Methyl lignocerate ..... 3 %

Art. No.	Pack Qty.	Pack.	€
8756.1	100 mg	plastic	228,45

Fatty acid methyl ester mixture
ROTICHROM® FO 4

Suitable for olive and tea seed oils.

D 0,88 g/cm³ · bp >200 °C · flp 110 °C

Storage temperature: +4 °C

WGK 1

Type analysis

C 16:0 Methyl palmitate ..... 11 %
C 18:0 Methyl stearate ..... 3 %
C 18:1 Methyl oleate ..... 80 %
C 18:2 Methyl linoleate ..... 6 %

Art. No.	Pack Qty.	Pack.	€
8758.1	100 mg	plastic	187,60

Fatty acid methyl ester mixture
ROTICHROM® FO 5

Suitable for coconut, palm kernel and babassu oils.

D 0,88 g/cm³ · bp >200 °C · flp 110 °C

Storage temperature: +4 °C

WGK 1

Type analysis
C 8:0 Methyl caprylate ..... 7 %
C 10:0 Methyl caprate ..... 5 %
C 12:0 Methyl laurate ..... 48 %
C 14:0 Methyl myristate ..... 15 %
C 16:0 Methyl palmitate ..... 7 %
C 18:0 Methyl stearate ..... 3 %
C 18:1 Methyl oleate ..... 12 %
C 18:2 Methyl linoleate ..... 3 %

Art. No.	Pack Qty.	Pack.	€
8759.1	100 mg	plastic	228,45

Fatty acid methyl ester mixture
ROTICHROM® FO 7

Suitable for rape seed oil.

D 0,88 g/cm³ · bp >200 °C · flp >33 °C

Storage temperature: +4 °C

WGK 1

Type analysis
C 14:0 Methyl myristate ..... 1 %
C 16:0 Methyl palmitate ..... 4 %
C 18:0 Methyl stearate ..... 3 %
C 18:1 Methyl oleate ..... 60 %
C 18:2 Methyl linoleate ..... 12 %
C 18:3 Methyl linolenate ..... 5 %
C 20:0 Methyl arachidate ..... 3 %
C 20:1 Methyl eicosenoate ..... 1 %
C 22:0 Methyl behenate ..... 3 %
C 22:1 Methyl erucate ..... 5 %
C 24:0 Methyl lignocerate ..... 3 %

Art. No.	Pack Qty.	Pack.	€
8761.1	100 mg	plastic	267,70

Free fatty acid mixture
ROTICHROM® FA 1

Storage temperature: +4 °C

UN no. 1760 · ADR 8 III · WGK 1

Danger H314-H412

Type analysis
C 6:0 Caproic acid ..... 20 %
C 8:0 Caprylic acid ..... 20 %
C 10:0 Capric acid ..... 20 %
C 12:0 Lauric acid ..... 20 %
C 14:0 Myristic acid ..... 20 %

Art. No.	Pack Qty.	Pack.	€
8792.1	100 mg	plastic	224,70

Fatty acid methyl ester mixture
ROTICHROM® FO 12

Suitable for rape seed oil.

D 0,88 g/cm³ · bp >200 °C · flp >33 °C

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Type analysis
C 14:0 Methyl myristate ..... 1 %
C 16:0 Methyl palmitate ..... 4 %
C 18:0 Methyl stearate ..... 3 %
C 18:1 Methyl oleate ..... 45 %
C 18:2 Methyl linoleate ..... 15 %
C 18:3 Methyl linolenate ..... 3 %
C 20:0 Methyl arachidate ..... 3 %
C 22:0 Methyl behenate ..... 3 %
C 22:1 Methyl erucate ..... 20 %
C 24:0 Methyl lignocerate ..... 3 %

Art. No.	Pack Qty.	Pack.	€
3052.1	100 mg	plastic	228,45

FA Glyceride mixture
ROTICHROM® TLC 8

D 1,48 g/cm³ · mp -63 °C · bp 61 °C

Storage temperature: +4 °C

UN no. 1888 · ADR 6.1 III · WGK 3

Danger H302-H315-H319-H331-H351-H361d-H372

Type analysis
Monopalmitin ..... 20 %
Dipalmitin ..... 20 %
Tripalmitin ..... 20 %
Methyl palmitate ..... 20 %
Palmitic acid ..... 20 %

Dissolved in trichloromethane.

Art. No.	Pack Qty.	Pack.	€
8823.1	100 mg	plastic	252,65

FA Glyceride mixture
ROTICHROM® TLC 10

D 1 g/cm³ · bp 34 °C

Storage temperature: +4 °C

WGK 3

Type analysis
Monoolein ..... 20 %
Diolein ..... 20 %
Triolein ..... 20 %
Methyl oleate ..... 20 %
Oleic acid ..... 20 %

Art. No.	Pack Qty.	Pack.	€
8827.1	100 mg	plastic	289,20

Fatty acid methyl ester mixture
ROTICHROM® Ph. Eur., Chapter 2.4.22-1

Calibration or quality control standard

Break the ampoule open at the lower neck mark (caution: sharp glass) and transfer to vial. Allow to return to room temperature before use. Use only Class A volumetric glassware for dilutions and ensuring thorough mixing.

D 0,8662 g/cm³ · mp -20 °C · bp 215 °C · flp 110 °C

Storage temperature: +4 °C

WGK 1

Type analysis
C 12:0 Methyl laurate ..... 5 %
C 14:0 Methyl myristate ..... 5 %
C 16:0 Methyl palmitate ..... 10 %
C 18:0 Methyl stearate ..... 20 %
C 18:1 Methyl oleate ..... 20 %
C 20:0 Methyl arachidate ..... 40 %

Art. No.	Pack Qty.	Pack.	€
1HC4.1	100 mg	glass	150,00

Fatty acid methyl ester mixture
ROTICHROM® Ph. Eur., Chapter 2.4.22-2

Calibration or quality control standard

Break the ampoule open at the lower neck mark (caution: sharp glass) and transfer to vial. Allow to return to room temperature before use. Use only Class A volumetric glassware for dilutions and ensuring thorough mixing.

D 0,866 g/cm³ · mp -18 °C · bp 151 °C · flp 41 °C

Storage temperature: +4 °C

UN no. 3272 · ADR 3 III · WGK 1

Warning H226

Type analysis
C 6:0 Methyl caproate ..... 10 %
C 8:0 Methyl caprylate ..... 10 %
C 10:0 Methyl caprate ..... 20 %
C 12:0 Methyl laurate ..... 20 %
C 14:0 Methyl myristate ..... 40 %

Art. No.	Pack Qty.	Pack.	€
1HC5.1	100 mg	glass	150,00

Fatty acid methyl ester mixture
ROTICHROM® Ph. Eur., Chapter 2.4.22-3

Calibration or quality control standard

Break the ampoule open at the lower neck mark (caution: sharp glass) and transfer to vial. Allow to return to room temperature before use. Use only Class A volumetric glassware for dilutions and ensuring thorough mixing.

mp 48 °C · bp 215 °C

Storage temperature: +4 °C

WGK 3

Type analysis
C 14:0 Methyl myristate ..... 5 %
C 16:0 Methyl palmitate ..... 10 %
C 18:0 Methyl stearate ..... 15 %
C 18:1 Methyl oleate ..... 20 %
C 20:0 Methyl arachidate ..... 20 %
C 20:1 Methyl eicosenate ..... 10 %
C 22:0 Methyl behenate ..... 10 %
C 24:0 Methyl lignocerate ..... 10 %

Art. No.	Pack Qty.	Pack.	€
1HC6.1	100 mg	glass	220,40

Fatty Acids and their Derivatives

Art. No.	Description	Page
8736	Arachidic acid, ≥99 %, synthetic	750
9264	Arachidic acid calcium salt, DAB	750
4717	Arachidonic acid, >99 %	750
5487	Azelaic acid, ≥80 %	759
5466	5-Bromovaleric acid, ≥96 %	792
3277	Butyric acid, ≥99 %, for synthesis	801
5186	Butyric acid methyl ester, ROTICHROM®, GC	801
8797	Capric acid, ≥98 %, for synthesis	813
3164	Capric acid, ROTICHROM®, GC	813
3325	Capric acid methyl ester, ≥98 %, for synthesis	813
7547	Capric aldehyde, ≥97 %, for synthesis	813
8799	Caproic acid, ≥98 %, for synthesis	813

Art. No.	Description	Page
3327	Caproic aldehyde, ≥97 %, for synthesis	813
3168	Caprylic acid, ROTICHROM®, GC	814
3331	Caprylic acid methyl ester, ≥99 %, for synthesis	814
5762	Cetyl alcohol, ≥95 %, for synthesis	826
9229	Cetyl palmitate, synthetic	826
3404	Cholesterol palmitate, ≥97 %, pure	835
3405	Cholesterol stearate, ≥97 %, pure	835
1HHN	Crotonic acid, ≥99 %, for biochemistry	854
3754	Dodecyl aldehyde, ≥98 %, for synthesis	899
9431	Erucic acid methyl ester, ≥90 %	913
3787	Glyceryl monostearate, pure	966
5085	Lanolin alcohols, Ph. Eur.	1034
AE81	Lecithin, ≥97 %, made from soybeans, GVO-free, for biochemistry	1039
9812	Lecithin, ≥97 %, made from soybeans, for biochemistry	1039
7514	Lecithin, from eggs, for biochemistry	1039
3976	Levulinic acid, ≥98 %, for synthesis	1042
5315	Linoleic acid, ROTICHROM®, GC	1043
3198	Linoleic acid ethyl ester, ROTICHROM®, GC	1043
7217	Linoleic acid methyl ester, ≥99 %	1043
3199	Linoleic acid methyl ester, ROTICHROM®, GC	1044
6039	Linolenic acid, ROTICHROM® CHR, ~94 %	1044
5320	Linolenic acid, ROTICHROM®, GC	1044
6469	Myristic acid, ≥98 %, for biochemistry	1097
5527	Myristic acid isopropyl ester, ≥92 %, extra pure	1097
3753	Myristic acid methyl ester, ≥99 %	1097
7213	Oleic acid, ≥99 %, natural	1130
3589	Oleic acid, ≥78 %, pure	1130
3562	Oleic acid, technical	1130
5362	Oleic acid, ROTICHROM®, GC	1130
3186	Oleic acid methyl ester, ROTICHROM®, GC	1130
8856	Oleic acid sodium salt, ~90 %	1130
5907	Palmitic acid, ≥98 %, extra pure	1136
4459	Palmitic acid methyl ester, ≥97 %	1136
7015	Pelargonic acid, ≥97 %	1139
4462	Pelargonic acid vanillylamide, ≥97 %	1140
5270	Pimelic acid, ≥99 %	1158
9459	Stearic acid, ≥98 %	1339
8150	Stearic acid butyl ester, for synthesis	1339
8238	Stearic acid lithium salt, for biochemistry	1339
4704	Stearic acid methyl ester, for synthesis	1339
8628	Stearic acid sodium salt, ≥88 %, for biochemistry	1339
8663	Stearyl alcohol, ≥95 %	1340
1AAP	Sunflower oil, extra pure, refined	1351
4813	Tributyrin, ≥97 %, for biochemistry	1376
7252	Tricaprin, ≥98 %	1376
4866	Undecanoic acid methyl ester, ≥98 %	1390
4874	*n*-Valeric acid, ≥98 %	1393
4876	*n*-Valeric acid methyl ester, ≥98 %	1393
9295	Zinc stearate, for biochemistry	1415

Fatty ponceau

▸ Sudan IV (C. I. 26105) see page 1344

FDP-Na_3H

▸ D-Fructose-1,6-diphosphate trisodium salt octahydrate see page 950

Fehling's solution

Fehling's solution I

Reag. Ph. Eur., for sugar determination

Copper(II) sulphate solution

D 1,042 g/cm³ · bp >100 °C

UN no. 3082 · ADR 9 III · WGK 3

Danger H318-H410

Art. No.	Pack Qty.	Pack.	€
N055.1	1 l	plastic	39,25
Original pack 6 x 1 l			37,29/1 l

Fehling's solution II

Reag. Ph. Eur., for sugar determination

Alkaline potassium sodium tartrate solution

Potassium sodium tartrate solution

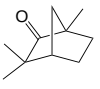
D 1,255 g/cm³ · bp 100 °C

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Art. No.	Pack Qty.	Pack.	€
N056.1	1 l	plastic	58,60
Original pack 6 x 1 l			55,67/1 l

(–)-Fenchone



(–)-1,3,3-Trimethyl-2-norbornanone · L-Fenchon

$C_{10}H_{16}O$ · D 0,948 g/cm³ · mp 5 °C · bp 192 to 194 °C · flp 66,5 °C

CAS No. 7787-20-4 · EC no. 232-107-5

UN no. 3082 · ADR 9 III · WGK 2

H411

(–)-Fenchone

≥98 %

Type analysis

Appearance ..... colourless to light yellow liquid

Assay (GC) ..... ≥98,0 %

Optical rotation ..... -53,5° to -47,5°

Art. No.	Pack Qty.	Pack.	€
7294.1	50 ml	glass	170,95

(–)-Fenchone

ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis

Purity (GC) ..... ≥96 %

Art. No.	Pack Qty.	Pack.	€
9377.2	100 mg	glass	212,35

Fermentation salt

▸ di-Ammonium hydrogen phosphate see page 736

Ferric acid

▸ Iron(III) oxide-hydroxide see page 1018

Ferric ammonium citrate

▸ Ammonium iron(III) citrate see page 737

Ferric chloride

▸ Iron(III) chloride see page 1017

Ferric chloride hexahydrate

▸ Iron(III) chloride hexahydrate see page 1017

Ferric citrate

▸ Iron(III) citrate hydrate see page 1017

Ferric orthophosphate

▸ Iron(III) phosphate hydrate see page 1018

Ferric oxide

▸ Iron(III) oxide see page 1018

Ferric sulphate

▸ Iron(III) sulphate hydrate see page 1019

Ferroin

1,10-Phenanthrolin iron(II) salt solution

WGK 2

H412

Ferroin indicator solution

for sewage analysis, for COD determination

According to DIN 38409 part H41, H43 and H44.

ready-to-use

D 1,006 g/cm³ · mp <0 °C · bp 100 °C

Art. No.	Pack Qty.	Pack.	€
T131.1	100 ml	glass	43,55

Ferroin solution
1/40 mol/l (1/40 M) Redox indicator

Redox indicator

ready-to-use

D 1,004 g/cm³ · bp 100 °C

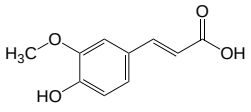
Art. No.	Pack Qty.	Pack.	€
T132.1	100 ml	glass	50,45

Ferrous ammonium sulphate
- Ammonium iron(II) sulphate hexahydrate see page 738

Ferrous chloride
- Iron(II) chloride hydrate see page 1016
- Iron(II) chloride tetrahydrate see page 1016

Ferrous sulphate heptahydrate
- Iron(II) sulphate heptahydrate see page 1018

trans-Ferulic acid



4-Hydroxy-3-methoxycinnamic acid

$C_{10}H_{10}O_4$ · mp 169 to 172 °C · bp 372,3 °C · flp 150,5 °C
CAS No. 537-98-4 · EC no. 208-679-7
WGK 1

Warning H315-H319-H335

trans-Ferulic acid
ROTICHROM® CHR ≥99 %

Type analysis
Appearance ..... white to light yellow powder
Assay (HPLC) ..... ≥99,0 %
Loss on drying (3 h, 105 °C) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
9936.1	10 g	plastic	44,65
9936.2	100 g	plastic	256,95

Ficoll® 400

Non-ionic polymer of saccharose

CAS No. 26873-85-8 · EC no. 608-012-3
WGK 1

Ficoll® 400
for molecular biology and biochemistry

For density gradient centrifugation; ingredient of gel loading buffers. Non-ionic polymer of saccharose.

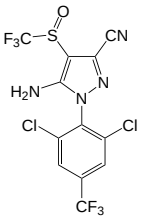
Guarantee analysis
Appearance ..... white powder
Solubility (10 % in H_2O) ..... clear, colourless
Loss on drying ..... ≤3 %

Art. No.	Pack Qty.	Pack.	€
CN90.1	10 g	plastic	47,85
CN90.2	25 g	plastic	99,45
CN90.3	100 g	plastic	321,45

Filter aids
- Quartz wool see page 1195
- Charcoal, activated see page 827
- Quartz see page 1195
- Sea sand see page 1254
- Cellulose see page 824
- Celite® see page 823
- Aluminium oxide 90 acidic see page 723
- Diatomaceous earth see page 872
- Glass wool see page 959
- Florisil® see page 937
- Polyamide see page 1161
- Aluminium oxide 90 basic see page 723
- Aluminium oxide 90 neutral see page 723

Filter glass wool
- Glass wool see page 959

Fipronil



$C_{12}H_4Cl_2F_6N_4OS$ · D 1,55 g/cm³ · mp 200 to 201 °C
CAS No. 120068-37-3 · EC no. 424-610-5
UN no. 2811 · ADR 6.1 III · WGK 3

Danger H301+H311+H331-H372-H410

Fipronil
ROTICHROM® CHR ≥98 %

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
0925.1	100 mg	glass	192,45

Fipronil Standard Solution

D 0,7822 g/cm³ · mp -46 °C · bp 81 °C · flp 5 °C
UN no. 1648 · ADR 3 II · WGK 2

Danger H225-H302+H312+H332-H319

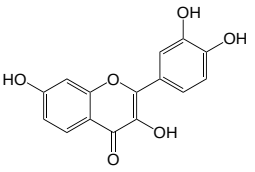
Fipronil Standard Solution
100 µg/ml in acetonitrile

Storage temperature: +4 °C

Type analysis
Fipronil ..... 100 µg/ml

Art. No.	Pack Qty.	Pack.	€
0935.1	1 ml	glass ampoule	51,50

Fisetin



3,3',4',7-Tetrahydroxyflavone

$C_{15}H_{10}O_6$ · mp 330 °C
CAS No. 528-48-3 · EC no. 208-434-4
WGK 1

Fisetin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7457.1	10 mg	plastic	241,90

Fisetin
ROTICHROM® ~CHR$_{TLC}$

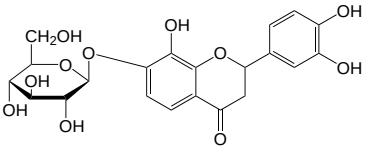
Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
7383.1	250 mg	glass	85,90

FITC
- Fluorescein isothiocyanate Isomer I see page 938

Fixation spray
- ROTI®Fix spray fixative see page 1223

Flavanomarein



$C_{21}H_{22}O_{11}$
CAS No. 577-38-8 · EC no. 209-411-1
WGK 1

Flavanomarein
ROTICHROM® HPLC

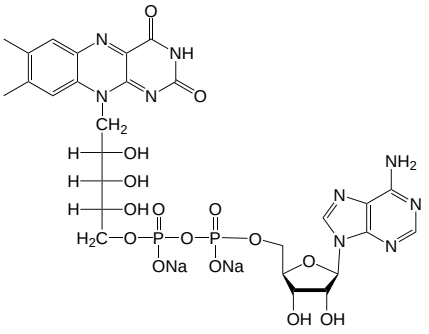
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7458.1	10 mg	glass	424,65

Flavine-adenine-dinucleotide disodium salt (FAD)



FAD disodium salt · Riboflavine-5'-adenosine-diphosphate disodium salt

$C_{27}H_{31}O_{15}N_9Na_2P_2 \cdot x\ H_2O$
CAS No. 84366-81-4 · EC no. 282-733-8
WGK 1

Flavine-adenine-dinucleotide disodium salt (FAD)
CELLPURE® ≥95 %

Storage temperature: +4 °C

Type analysis
Appearance ..... orange yellow to pale yellowish brown powder
Assay (dry substance) ..... ≥95 %
Endotoxins ..... ≤100 E.U./g
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As_2O_3) ..... ≤0,0001 %
Moisture ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
6833.1	10 mg	glass	32,15
6833.2	50 mg	glass	48,30
6833.3	100 mg	glass	64,40

Flavine-adenine-dinucleotide disodium salt (FAD)
≥95 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... light orange powder
Assay (dry substance) ..... ≥95 %
Water content ..... ≤10 %
pH value (1 % in H_2O) 5,5- 6,5

Art. No.	Pack Qty.	Pack.	€
5581.2	10 mg	glass	21,40
5581.3	25 mg	glass	29,60
5581.1	100 mg	glass	50,45
5581.4	500 mg	glass	80,55
5581.5	1 g	glass	120,95

Flavonoids

Art. No.	Description	Page
6531	Acacetin, ROTICHROM®, HPLC	688
5010	Acacetin, ROTICHROM®, ~CHR_{TLC}	688
5611	Apigenin, ROTICHROM®, TLC	748
6348	Apigenin-7-glucoside, ROTICHROM®, HPLC	748
5557	Apigenin-7-glucoside, ROTICHROM®, TLC	748
1085	Apiin, ROTICHROM®, HPLC	749
1110	Baicalein, ROTICHROM®, HPLC	763
1121	Baicalin, ROTICHROM®, HPLC	763
8898	Bavachinin A, ROTICHROM®, HPLC	766
6356	(+)-Catechin, ≥98 %	821
6200	(+)-Catechin, ROTICHROM®, ~CHR_{TLC}	821
8822	DL-Catechin hydrate, ROTICHROM® CHR, ≥96 %, for biochemistry	821
6475	Chrysin, ROTICHROM® CHR, ≥98 %	838
6044	Chrysoeriol, ROTICHROM®, HPLC	838
0641	Cyanidin 3-arabinoside chloride, ROTICHROM®, HPLC	856
4545	Cyanidin chloride, ROTICHROM®, HPLC	856
1133	Cyanin chloride, ROTICHROM®, HPLC	856
5568	Cyanin chloride, ROTICHROM®, TLC	856
7444	Datiscetin, ROTICHROM®, HPLC	863
4537	Delphinidin chloride, ROTICHROM®, HPLC	865
0643	Delphinidin 3-galactoside chloride, ROTICHROM®, HPLC	866
0644	Delphinidin 3-glucoside chloride, ROTICHROM®, HPLC	866
0977	Delphinidin 3-rutinoside chloride, ROTICHROM®, HPLC	866
7445	Didymin, ROTICHROM®, HPLC	877
T893	(+)-Dihydroquercetin, ROTICHROM®, with analytical records	881
6960	Dihydrorobinetin, ROTICHROM®, ~CHR_{TLC}	881
8066	6,7-Dihydroxyflavone, ROTICHROM®, ~CHR_{TLC}	883
7446	Diosmetin, ROTICHROM®, HPLC	891
9326	Diosmetinidin chloride, ROTICHROM®, HPLC	891
6736	Diosmin, ≥95 %	891
7447	Diosmin, ROTICHROM®, HPLC	891
7293	(–)-Epicatechin, ROTICHROM® CHR, >90 %	911
1139	(–)-Epicatechin, ROTICHROM®, HPLC	911
5798	(–)-Epicatechin, ROTICHROM®, ~CHR_{TLC}	911
6358	(–)-Epicatechin gallate, ROTICHROM®, HPLC	911
6359	(–)-Epigallocatechin, ROTICHROM®, HPLC	911
6361	(–)-Epigallocatechin gallate, ROTICHROM®, HPLC	911
6990	Eriodictyol, ROTICHROM®, HPLC	913
6521	Eriodictyol-7-glucoside, ROTICHROM®, HPLC	913
6493	Eupatorin, ROTICHROM®, HPLC	928
7457	Fisetin, ROTICHROM®, HPLC	935
7383	Fisetin, ROTICHROM®, ~CHR_{TLC}	935
7458	Flavanomarein, ROTICHROM®, HPLC	935
9570	Formononetin, ROTICHROM®, HPLC	948
7460	Galangin, ROTICHROM®, HPLC	952
0716	Genistein, ≥98 %, for biochemistry	955
9374	Genistin, ROTICHROM®, HPLC	955
7743	Hesperetin, ROTICHROM® CHR, ≥95 %	980
7570	Hesperetin, ROTICHROM®, HPLC	980
9972	Hesperidin, ~90 %	980
7577	Hesperidin, ROTICHROM®, HPLC	980
5800	Hesperidin, ROTICHROM®, TLC	980
7737	Hesperidin, ROTICHROM®, ~CHR_{TLC}	981
7585	Homoeriodictyol, ROTICHROM®, HPLC	986
6002	Homoorientin, ROTICHROM®, HPLC	987
7932	Hyperoside, ROTICHROM®, HPLC	1003
4215	Hyperoside, ROTICHROM®, TLC	1003
3967	Idaein chloride, ROTICHROM®, HPLC	1004
7586	Isoquercitrin, ROTICHROM®, HPLC	1023
5573	Isoquercitrin, ROTICHROM®, TLC	1023
7589	Isorhamnetin, ROTICHROM®, HPLC	1023
6528	Isorhamnetin, ROTICHROM®, CHR_{TLC}	1023
6989	Isorhoifolin, ROTICHROM®, HPLC	1024
7498	Isosakuranetin, ROTICHROM®, HPLC	1024
5883	Isoscopoletin, ROTICHROM®, CHR_{TLC}	1024
6412	Isovitexin, ROTICHROM®, HPLC	1024
7501	Kaempferide, ROTICHROM®, HPLC	1026
7503	Kaempferol, ROTICHROM®, HPLC	1026
5859	Kaempferol, ROTICHROM®, ~CHR_{TLC}	1026
9321	Kaempferol-3-glucoside, ROTICHROM®, HPLC	1026
4526	Kaempferol-3-rhamnosido-glucoside, ROTICHROM®, HPLC	1026
6134	Keracyanine chloride, ROTICHROM®, HPLC	1029
4546	Luteolin, ROTICHROM®, HPLC	1051
4164	Luteolin-7-glucoside, ROTICHROM®, HPLC	1051
9325	Luteolinidin chloride, ROTICHROM®, HPLC	1051
6496	(–)-Maackiain, ROTICHROM®, HPLC	1055
6140	Malvidin chloride, ROTICHROM®, HPLC	1065
K013	Malvin chloride, ROTICHROM®, HPLC	1065
4171	Marein, ROTICHROM®, HPLC	1068
4172	Maritimein, ROTICHROM®, HPLC	1069
6459	Morin hydrate, for microscopy	1094
6461	Myricetin, ROTICHROM® CHR, ≥95 %	1097
8524	Naringenin, ROTICHROM® CHR, ≥98 %, for biochemistry	1100
1186	Naringenin, ROTICHROM®, HPLC	1100
8865	Naringenin-7-glucoside, ROTICHROM®, HPLC	1100
6481	Naringin, ≥98 %	1100
4200	Naringin, ROTICHROM®, HPLC	1101
4206	Neoeriocitrin, ROTICHROM®, HPLC	1102
6767	Neohesperidin, ROTICHROM®, HPLC	1102
K030	Oenin chloride, ROTICHROM®, HPLC	1119
6151	Orientin, ROTICHROM®, HPLC	1132

Art. No.	Description	Page
4541	Pelargonidin chloride, ROTICHROM®, HPLC	1140
6853	Pelargonidin chloride, ROTICHROM®, ~CHR_{TLC}	1140
1646	Pelargonidin 3,5-diglucoside chloride, ROTICHROM®, HPLC	1140
7406	Peltatoside, ROTICHROM®, HPLC	1140
1413	Peonidin 3,5-diglucoside chloride, ROTICHROM®, HPLC	1142
1619	Peonidin 3-glucoside chloride, ROTICHROM®, HPLC	1143
1469	Petunidin 3-glucoside chloride, ROTICHROM®, HPLC	1149
4196	Phlorizin dihydrate, ≥98 %, for biochemistry	1154
7413	Poncirin, ROTICHROM®, HPLC	1166
K014	Primulin chloride, ROTICHROM®, HPLC	1183
1210	Quercetin, ROTICHROM®, with analytical records	1196
7138	Quercetin dihydrate (C.I. 75670), ≥98 %	1196
2629	Quercetin dihydrate (C.I. 75670), ≥95 %	1196
7417	Quercetin dihydrate, ROTICHROM®, HPLC	1196
9419	Quercetin-3-*O*-glucose-6''-acetate, ROTICHROM®, ~CHR_{TLC}	1196
9417	Quercitrin, ROTICHROM®, HPLC	1197
7418	Rhamnetin, ROTICHROM®, HPLC	1203
7420	Rhoifolin, ROTICHROM®, HPLC	1205
7421	Robinetin, ROTICHROM®, HPLC	1208
6413	Saponarin, ROTICHROM®, HPLC	1252
9410	Sciadopitysin, ROTICHROM®, HPLC	1253
5578	Silybin, ROTICHROM®, CHR_{TLC}	1274
1216	Spiraeoside, ROTICHROM®, HPLC	1305
4564	Spiraeoside, ROTICHROM®, ~CHR_{TLC}	1305
7569	Sulphuretin, ROTICHROM®, HPLC	1346
9432	Syringetin-3-glucoside, ROTICHROM®, HPLC	1351
7425	Tamarixetin, ROTICHROM®, HPLC	1353
3268	Tiliroside, ROTICHROM®, HPLC	1369
6418	Vitexin, ROTICHROM®, HPLC	1397
5579	Vitexin, ROTICHROM®, TLC	1397
4173	Vitexin, ROTICHROM®, ~CHR_{TLC}	1397
5819	Vitexin-2''-*O*-rhamnoside, ROTICHROM®, TLC	1397

Florisil®

Filter aids · Magnesium silicate

MgO · 3,6 SiO_2 · 1,53 OH · D 2,51 g/cm³ · mp 1500 °C
CAS No. 1343-88-0 · EC no. 215-681-1

Florisil®
for hydrocarbon index analysis, 60–100 mesh

For Hydrocarbon Index determination according to EN ISO 9377-2 (H53).

Type analysis

Magnesium oxide (MgO) ..... ~15,5 %
Silicate (SiO_2) ..... ~84,0 %
Sodium sulphate (Na_2SO_4) ..... ~0,5 %

Adapted for EN ISO 9377-2 (H53).

Art. No.	Pack Qty.	Pack.	€
CN39.1	100 g	plastic	64,40
CN39.3	500 g	plastic	235,45
Original pack 6 x 500 g			223,68/500 g
CN39.2	1 kg	plastic	439,70
Original pack 6 x 1 kg			417,72/1 kg
CN39.4	2.5 kg	plastic	843,90

Florisil® PR
for (pesticide) residue analysis, 60–100 mesh

specially activated.

Type analysis

Magnesium oxide (MgO) ..... ~15,5 %
Silicate (SiO_2) ..... ~84,0 %
Sodium sulphate (Na_2SO_4) ..... ~0,5 %

Art. No.	Pack Qty.	Pack.	€
T201.1	100 g	plastic	138,70
T201.2	500 g	plastic	532,15
Original pack 6 x 500 g			505,54/500 g
T201.3	1 kg	plastic	994,40
Original pack 6 x 1 kg			944,68/1 kg

Florisil®
60–100 mesh, for chromatography

Standard adsorbent

Type analysis

Magnesium oxide (MgO) ..... ~15,5 %
Silicate (SiO_2) ..... ~84,0 %
Sodium sulphate (Na_2SO_4) ..... ~0,5 %

Art. No.	Pack Qty.	Pack.	€
0101.1	100 g	plastic	60,10
0101.2	500 g	plastic	213,95
Original pack 6 x 500 g			203,25/500 g
0101.3	1 kg	plastic	396,70
Original pack 6 x 1 kg			376,87/1 kg

Florisil®
100–200 mesh, for chromatography

Type analysis

Magnesium oxide (MgO) ..... ~15,5 %
Silicate (SiO_2) ..... ~84,0 %
Sodium sulphate (Na_2SO_4) ..... ~0,5 %

Art. No.	Pack Qty.	Pack.	€
0102.1	100 g	plastic	56,90
0102.2	500 g	plastic	185,45
Original pack 6 x 500 g			176,18/500 g
0102.3	1 kg	plastic	317,15
Original pack 6 x 1 kg			301,29/1 kg

Flower of sulphur
▸ Sulphur see page 1346

Flowers of Antimony
▸ Antimony(III) oxide see page 747

Flowers of tin
▸ Tin(IV) oxide see page 1370

Flu Broth
▸ Lauryl Sulphate Broth see page 1035

N-(9-Fluorenylmethoxy-carbonyl)-L-alanine
▸ Fmoc-L-Alanine monohydrate see page 939

N-(9-Fluorenylmethoxy-carbonyl)-L-arginine
▸ Fmoc-L-Arginine see page 939

N-(9-Fluorenylmethoxy-carbonyl)-L-asparagine
▸ Fmoc-L-Asparagine see page 939

N-α-(9-Fluorenylmethoxy-carbonyl)-L-Aspartic-acid-β-allyl ester
▸ Fmoc-L-Aspartic acid-(OAllyl) see page 940

N-α-(9-Fluorenylmethoxy-carbonyl)-β-azido-L-alanine
▸ Fmoc-L-β-Azidoalanine see page 940

N-α-(9-Fluorenylmethoxy-carbonyl)-γ-azido-L-homoalanine
▸ Fmoc-L-γ-Azidohomoalanine see page 940

N-α-(9-Fluorenylmethoxy-carbonyl)-ε-azido-L-lysine
▸ Fmoc-L-Azidolysine see page 940

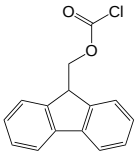
N-α-(9-Fluorenylmethoxy-carbonyl)-δ-azido-L-ornithine
▸ Fmoc-L-Azidoornithine see page 940

N-α-(9-Fluorenylmethoxy-carbonyl)-4-azido-L-phenylalanine
▸ Fmoc-L-4-Azidophenylalanine see page 940

trans-*N*-α-(9-Fluorenylmethoxy-carbonyl)-4-azido-L-proline
▸ Fmoc-L-4-Azidoproline (2S,4R) see page 941

$N_α$-9-Fluorenylmethoxycarbonyl-$N_δ$-*tert*-butyloxycarbonyl-L-ornithine
▸ Fmoc-L-Ornithine-(Boc) see page 943

9-Fluorenylmethoxycarbonyl chloride (Fmoc-Cl)



(9-Fluorenylmethyl) chloro formate · Fmoc-Cl

$C_{15}H_{11}ClO_2$ · mp 55 to 70 °C
CAS No. 28920-43-6 · EC no. 249-313-6
UN no. 1759 · ADR 8 II · WGK 1

Danger H314

9-Fluorenylmethoxycarbonyl chloride (Fmoc-Cl)
PEPTIPURE® ≥98 %

Protective group reagent.

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Appearance of solution ..... clear, cololess
Assay (HPLC) ..... ≥98,0 %
Melting point ..... 55-70 °C

Art. No.	Pack Qty.	Pack.	€
2201.1	5 g	glass	24,65
2201.2	25 g	glass	56,90
2201.3	100 g	glass	166,65

N-(9-Fluorenylmethoxycarbonyl)-L-glutamine
▸ Fmoc-L-Glutamine see page 941

N-(9-Fluorenylmethoxycarbonyl)-glycine
▸ Fmoc-Glycine see page 942

N-(9-Fluorenylmethoxycarbonyl)-L-isoleucine
▸ Fmoc-L-Isoleucine see page 942

N-(9-Fluorenylmethoxycarbonyl)-L-leucine
▸ Fmoc-L-Leucine see page 942

N-(9-Fluorenylmethoxycarbonyl)-L-lysine
▸ Fmoc-L-Lysine see page 942

N-(9-Fluorenylmethoxycarbonyl)-L-methionine
▸ Fmoc-L-Methionine see page 943

N-(9-Fluorenylmethoxycarbonyl)-L-phenylalanine
▸ Fmoc-L-Phenylalanine see page 943

N-(9-Fluorenylmethoxycarbonyl)-L-proline
▸ Fmoc-L-Proline see page 943

N-α-(9-Fluorenylmethoxycarbonyl)-L-propargylglycine
▸ Fmoc-L-Propargylglycine see page 943

N-(9-Fluorenylmethoxycarbonyl)-L-serine
▸ Fmoc-L-Serine monohydrate see page 943

N-(9-Fluorenylmethoxycarbonyl)-L-tryptophane
▸ Fmoc-L-Tryptophan see page 944

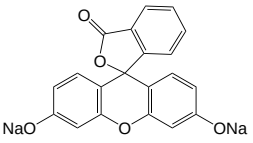
N-(9-Fluorenylmethoxycarbonyl)-L-tyrosine
▸ Fmoc-L-Tyrosine see page 944

N-(9-Fluorenylmethoxycarbonyl)-L-valine
▸ Fmoc-L-Valine see page 944

(9-Fluorenylmethyl) chloro formate
▸ 9-Fluorenylmethoxycarbonyl chloride (Fmoc-Cl) see page 938

Fluorescein complexone
▸ Calcein see page 805

Fluorescein disodium salt



Resorcinophthalein sodium · Uranin

$C_{20}H_{10}Na_2O_5$ · mp 313 to 317 °C · flp 217,6 °C
CAS No. 518-47-8 · EC no. 208-253-0
WGK 1

Fluorescein disodium salt (C.I. 45350)
extra concentrated

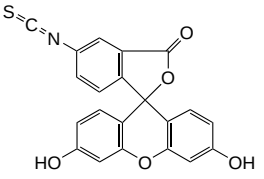
For source staining and for the study of water current.

Type analysis
Appearance ..... orange-red to brown powder
Water ..... ≤10,0 %
Absorption max. (in H_2O) ..... ~491 nm
Water ..... 40 mg/ml
Ethanol ..... 70 mg/ml

Soluble in water with a yellow-green fluorescence.

Art. No.	Pack Qty.	Pack.	€
5283.3	25 g	plastic	27,85
5283.1	100 g	plastic	46,15
5283.2	500 g	plastic	152,15
Original pack 6 x 500 g			144,54/500 g

Fluorescein isothiocyanate Isomer I



FITC

$C_{21}H_{11}NO_5S$ · mp >360 °C
CAS No. 3326-32-7 · EC no. 222-042-0
WGK 1

Danger H317-H334

Fluorescein isothiocyanate Isomer I
≥90 %

For the study of antigen and antibody reactions.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... orange-yellow, fine powder
Assay (HPLC) ..... ≥90,0 %

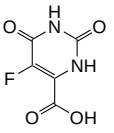
Art. No.	Pack Qty.	Pack.	€
3745.2	100 mg	glass	67,20
3745.1	250 mg	glass	139,25

Fluorexon
▸ Calcein see page 805

Fluorhydric acid
▸ Hydrofluoric acid see page 994

Fluoride-Standards
▸ Fluoride IC Standard Solution see page 1334

5-Fluoroorotic acid



5-FOA · 5-Fluorouracil-4-carboxylic acid

$C_5H_3FN_2O_4$ · mp 280 °C
CAS No. 703-95-7 · EC no. 211-876-0
WGK 1

Warning H302-H315-H319-H335

5-Fluoroorotic acid
≥98 %, for biochemistry

For identification and selection of yeast strains.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis

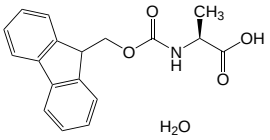
Assay (titr.) ..... ≥98 %
Water (KF) ..... ≤10,5 %

Art. No.	Pack Qty.	Pack.	€
4015.1	500 mg	glass	51,50
4015.2	1 g	glass	81,60
4015.3	2.5 g	glass	160,20

5-Fluorouracil-4-carboxylic acid

▸ 5-Fluoroorotic acid see page 938

Fmoc-L-Alanine monohydrate



Fmoc-L-Ala-OH · *N*-(9-Fluorenylmethoxy-carbonyl)-L-alanine

$C_{18}H_{17}NO_4 \cdot H_2O$ · mp 147 to 153 °C
CAS No. 35661-39-3 · EC no. 252-660-6
WGK 1

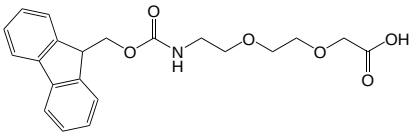
Fmoc-L-Alanine monohydrate
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white to off-white powder
Assay (titr., dry substance) ..... 98,0-102,0 %
Purity (HPLC) ..... ≥98,0 %
Water (KF) ..... 5,0-7,0 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in DMF) ..... -21,0° to -19,0°
Enantiomeric purity ..... ≤0,3 % D-Enantiomer
Free amino acids ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
6646.1	10 g	glass	23,55
6646.2	50 g	glass	69,35
6646.3	250 g	glass	278,45
6646.4	500 g	glass	525,70
Original pack 6 x 500 g			499,42/500 g
6646.5	1 kg	glass	987,95
Original pack 6 x 1 kg			938,55/1 kg

Fmoc-8-Amino-3,6-dioxaocta-noic acid



Fmoc-O_2Oc-OH · {2-[2-(Fmoc-amino)ethoxy] ethoxy}acetic acid

$C_{21}H_{23}NO_6$ · mp 85 to 102 °C · flp >100 °C
CAS No. 166108-71-0
WGK 1

Fmoc-8-Amino-3,6-dioxaoctanoic acid
PEPTIPURE® ≥99 %, for biochemistry

Linker

Storage temperature: +4 °C

Type analysis
Appearance ..... white crystal powder
Assay (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7400.1	500 mg	glass	89,15
7400.2	1 g	glass	145,15

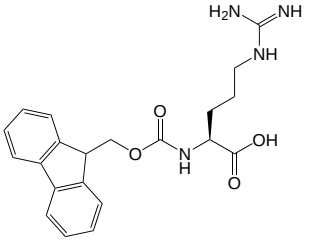
{2-[2-(Fmoc-amino)ethoxy]ethoxy} acetic acid

▸ Fmoc-8-Amino-3,6-dioxaoctanoic acid see page 939

9-Fmoc-amino-xanthen-3-yloxy-Merrifield resin

▸ Sieber amide resin see page 1258

Fmoc-L-Arginine



Fmoc-L-Arg-OH · *N*-(9-Fluorenylmethoxy-carbonyl)-L-arginine

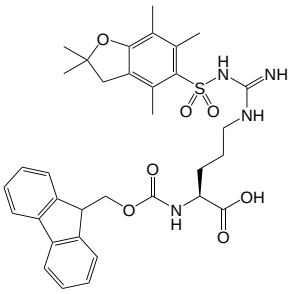
$C_{21}H_{24}N_4O_4$ · mp 145 to 150 °C
CAS No. 91000-69-0
WGK 1

Fmoc-L-Arginine
PEPTIPURE® ≥98 %, for biochemistry

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98,0 %
Water (KF) ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
6896.1	5 g	glass	38,60
6896.2	25 g	glass	149,45

Fmoc-L-Arginine-(Pbf)



Fmoc-L-Arg(Pbf)-OH · *N*-α-Fmoc-*N*-ω-(2,2,4,6,7-pentamethyldihydro-benzofuran-5-sulfonyl)-L-Arginine

$C_{34}H_{40}N_4O_7S$ · mp 130 to 136 °C
CAS No. 154445-77-9
WGK 1

Warning H315-H319-H335

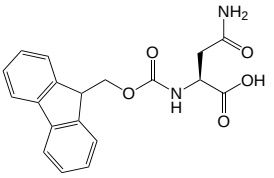
Fmoc-L-Arginine-(Pbf)
PEPTIPURE® ≥85 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥85,0 %
Purity (HPLC) ..... ≥95 %
Water (KF) ..... ≤2,0 %
Specific rotation $[\alpha]_D^{20}$ (1 % in DMF) . -6,0° to -3,0°
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
8833.1	5 g	glass	49,35
8833.2	25 g	glass	181,70
8833.3	100 g	glass	568,70

Fmoc-L-Asparagine



Fmoc-L-Asn-OH · *N*-(9-Fluorenylmethoxy-carbonyl)-L-asparagine

$C_{19}H_{18}N_2O_5$ · mp 190 °C
CAS No. 71989-16-7 · EC no. 276-252-2
WGK 1

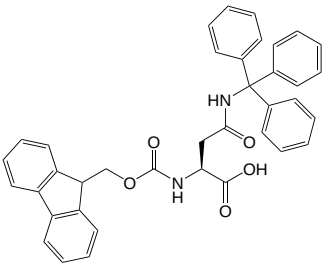
Fmoc-L-Asparagine
PEPTIPURE® ≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98,5 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6897.1	5 g	glass	21,40
6897.2	25 g	glass	64,40
6897.3	100 g	glass	209,65

Fmoc-L-Asparagine-(Trityl)



Fmoc-L-Asn(Trt)-OH · *N*-α-(9-Fluorenylmethyl-oxycarbonyl)-*N*-β-trityl-L-asparagine

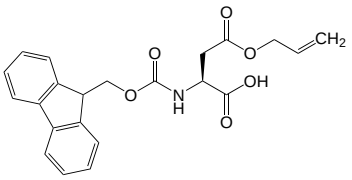
$C_{38}H_{32}N_2O_5$ · mp 211 °C
CAS No. 132388-59-1
WGK 2

Fmoc-L-Asparagine-(Trityl)
PEPTIPURE® ≥98 %, for biochemistry

Type analysis
Appearance ..... white to off-white powder
Assay (HPLC) ..... ≥98,0 %
Water (KF) ..... ≤1,0 %
Spec. rotation $[\alpha]_D^{24}$ (0,5 % in MeOH) ..... -16,0° to -13,0°
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
9652.1	5 g	glass	24,65
9652.2	25 g	glass	78,40
9652.3	100 g	glass	256,95

Fmoc-L-Aspartic acid-(OAllyl)



Fmoc-L-Asp(OAll)-OH · *N*-α-(9-Fluorenylmethoxycarbonyl)-L-Aspartic-acid-β-allyl ester

$C_{22}H_{21}NO_6$ · mp 115 °C
CAS No. 146982-24-3
WGK 1

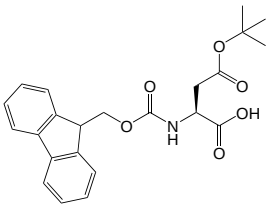
Fmoc-L-Aspartic acid-(OAllyl)
PEPTIPURE® ≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥98,5 %

Art. No.	Pack Qty.	Pack.	€
6641.1	500 mg	glass	24,65
6641.2	1 g	glass	38,60
6641.3	5 g	glass	158,60

Fmoc-L-Aspartic acid-(OtBu)



Fmoc-L-Asp(OtBu)-OH · *N*-α-(9-Fluorenylmethyloxycarbonyl)-L-aspartic acid-β-*tert*-butyl ester

$C_{23}H_{25}NO_6$ · mp 151 °C
CAS No. 71989-14-5 · EC no. 276-251-7
WGK 1

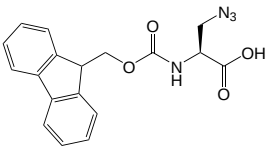
Fmoc-L-Aspartic acid-(OtBu)
PEPTIPURE® ≥96 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white powder
Assay (titr.) ..... ≥96,0 %
Purity (HPLC) ..... ≥99,0 %
Water (KF) ..... ≤1,0 %
Spec. rotation $[\alpha]_D^{24}$ (1 % in DMF) . -25,5° to -22,5°
Enantiomeric purity ..... ≤0,3 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
9654.1	5 g	glass	28,50
9654.2	25 g	glass	85,90
9654.3	100 g	glass	278,45

Fmoc-L-β-Azidoalanine



N-α-(9-Fluorenylmethoxycarbonyl)-β-azido-L-alanine · Fmoc-L-Aza-OH

$C_{18}H_{16}N_4O_4$
CAS No. 684270-46-0
WGK 1

Warning H315-H319-H335

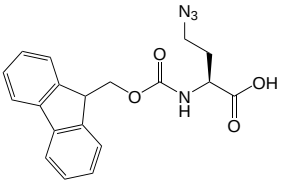
Fmoc-L-β-Azidoalanine
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... off-white powder
Assay (HPLC) ..... ≥98 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in DMF) -11,0° to -8,0°

Art. No.	Pack Qty.	Pack.	€
7369.1	250 mg	glass	134,40
7369.2	1 g	glass	439,70

Fmoc-L-γ-Azidohomoalanine



N-α-(9-Fluorenylmethoxycarbonyl)-γ-azido-L-homoalanine · Fmoc-L-Aha-OH

$C_{19}H_{18}N_4O_4$ · mp 127 to 129 °C
CAS No. 942518-20-9
WGK 1

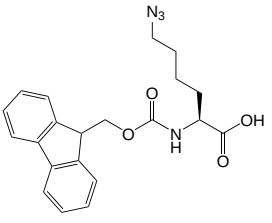
Fmoc-L-γ-Azidohomoalanine
PEPTIPURE® ≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white crystalline powder
Assay (HPLC) ..... ≥99 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in DMF) ..... -29,0° to -26,5°

Art. No.	Pack Qty.	Pack.	€
7363.1	250 mg	glass	107,00
7363.2	1 g	glass	375,20

Fmoc-L-Azidolysine



N-α-(9-Fluorenylmethoxycarbonyl)-ε-azido-L-lysine · Fmoc-L-Lys(N_3)-OH

$C_{21}H_{22}N_4O_4$ · mp 77 to 78 °C
CAS No. 159610-89-6

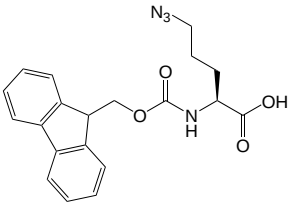
Fmoc-L-Azidolysine
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white crystalline powder
Assay (HPLC) ..... ≥98 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in DMF) ..... -14,0° to -12,0°

Art. No.	Pack Qty.	Pack.	€
7357.1	250 mg	glass	117,20
7357.2	1 g	glass	385,95

Fmoc-L-Azidoornithine



N-α-(9-Fluorenylmethoxycarbonyl)-δ-azido-L-ornithine · Fmoc-L-Orn(N_3)-OH

$C_{20}H_{20}N_4O_4$ · mp 134 to 137 °C
CAS No. 1097192-04-5
WGK 1

Warning H315-H319-H335

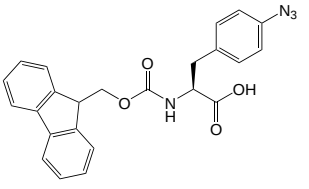
Fmoc-L-Azidoornithine
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white crystalline powder
Assay (HPLC) ..... ≥98 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in DMF) ..... -15,5° to -13,5°

Art. No.	Pack Qty.	Pack.	€
7362.1	250 mg	glass	134,40
7362.2	1 g	glass	439,70

Fmoc-L-4-Azidophenylalanine



N-α-(9-Fluorenylmethoxycarbonyl)-4-azido-L-phenylalanine · Fmoc-L-Phe(4-N_3)-OH

$C_{24}H_{20}N_4O_4$
CAS No. 163217-43-4
WGK 1

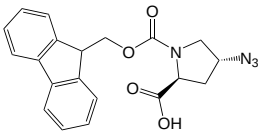
Fmoc-L-4-Azidophenylalanine
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay (TLC) ..... ≥98 %
Solubility (5 % in MeOH) ..... clear solution

Art. No.	Pack Qty.	Pack.	€
7485.1	100 mg	glass	67,20
7485.2	250 mg	glass	141,40

Fmoc-L-4-Azidoproline (2S,4R)



Fmoc-L-Pro(4-N_3)-OH · *trans*-*N*-α-(9-Fluorenylmethoxycarbonyl)-4-azido-L-proline

$C_{20}H_{18}N_4O_4$ · mp 143 to 144 °C
CAS No. 702679-55-8
WGK 1

Fmoc-L-4-Azidoproline (2S,4R)
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

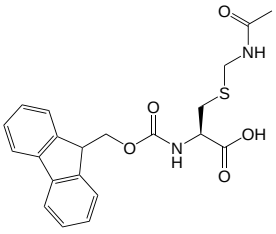
Type analysis
Appearance ..... white cryst. powder
Assay (HPLC) ..... ≥98 %
Spec. rotation $[\alpha]_D^{20}$ (c=1 in methanol) ..... -37,5° to -34,0°

Art. No.	Pack Qty.	Pack.	€
7367.1	100 mg	glass	112,90
7367.2	250 mg	glass	220,40
7367.3	1 g	glass	725,65

Fmoc-Cl

▸ 9-Fluorenylmethoxycarbonyl chloride (Fmoc-Cl) see page 938

Fmoc-L-Cysteine-(Acetamidomethyl)



Fmoc-L-Cys(Acm)-OH · *N*-α-Fmoc-S-acetamidomethyl-L-cysteine

$C_{21}H_{22}N_2O_5S$ · mp 148 to 154 °C
CAS No. 86060-81-3
WGK 1

Warning H315-H319-H335

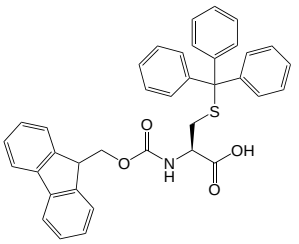
Fmoc-L-Cysteine-(Acetamidomethyl)
PEPTIPURE® ≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay (HPLC) ..... ≥99,0 %
Enantiomeric purity ..... ≤0,2 % D-Enantiomer

Art. No.	Pack Qty.	Pack.	€
8842.1	5 g	glass	42,90
8842.2	25 g	glass	138,70
8842.3	100 g	glass	439,70

Fmoc-L-Cysteine-(Trityl)



Fmoc-L-Cys(Trt)-OH · *N*-α-Fmoc-S-trityl-L-cysteine

$C_{37}H_{31}NO_4S$ · mp 169 to 179 °C
CAS No. 103213-32-7
WGK 1

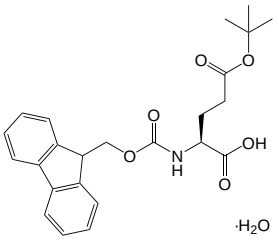
Fmoc-L-Cysteine-(Trityl)
PEPTIPURE® ≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay (HPLC) ..... ≥98,5 %
Enantiomeric purity ..... ≤0,2 % D-Enantiomer

Art. No.	Pack Qty.	Pack.	€
8841.1	5 g	glass	23,55
8841.2	25 g	glass	71,95
8841.3	100 g	glass	220,40

Fmoc-L-Glutamic acid-(OtBu) monohydrate



Fmoc-L-Glu(OtBu)-OH · *N*-α-(9-Fluorenylmethyloxycarbonyl)-L-glutamic acid-γ-*tert*-butyl ester monohydrate

$C_{24}H_{27}NO_6 \cdot H_2O$
CAS No. 204251-24-1
WGK 1

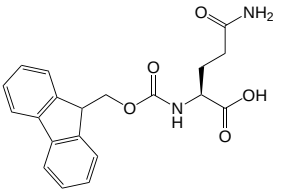
Fmoc-L-Glutamic acid-(OtBu) monohydrate
PEPTIPURE® ≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay (HPLC) ..... ≥99,0 %
Water (KF) ..... 3,0-5,0 %
Spec. rotation $[\alpha]_D^{24}$ (1 % in DMF) .. -19,0° to -17,0°
Foreign amino acids ..... ≤0,3 %
Enantiomeric purity ..... ≤0,1 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
9655.1	5 g	glass	26,35
9655.2	25 g	glass	85,90
9655.3	100 g	glass	278,45

Fmoc-L-Glutamine



Fmoc-L-Gln-OH · *N*-(9-Fluorenylmethoxycarbonyl)-L-glutamine

$C_{20}H_{20}N_2O_5$ · mp 218 to 226 °C
CAS No. 71989-20-3 · EC no. 276-254-3
WGK 1

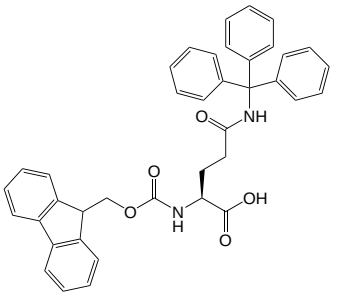
Fmoc-L-Glutamine
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay (titr.) ..... 95,0-102,0 %
Purity (HPLC) ..... ≥97,0 %
Water (KF) ..... ≤1,0 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in DMF) ..... -20,0° to -16,0°
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
6898.1	5 g	glass	23,15
6898.2	25 g	glass	71,95
6898.3	100 g	glass	241,90

Fmoc-L-Glutamine-(Trityl)



Fmoc-L-Gln(Trt)-OH · *N*-α-(9-Fluorenylmethyloxycarbonyl)-*N*-γ-trityl-L-glutamine

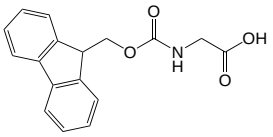
$C_{39}H_{34}N_2O_5$ · mp 135 °C
CAS No. 132327-80-1
WGK 1

Fmoc-L-Glutamine-(Trityl)
PEPTIPURE® ≥98 %, for biochemistry

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥98,0 %
Water (KF) ..... ≤1,0 %
Spec. rotation $[\alpha]_D^{24}$ (1 % in MeOH) .. -3,0° to -1,0°
Foreign amino acids ..... ≤0,3 %
Enantiomeric purity ..... ≤0,1 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
9653.1	5 g	glass	31,10
9653.2	25 g	glass	103,10
9653.3	100 g	glass	342,95

Fmoc-Glycine



Fmoc-Gly-OH · *N*-(9-Fluorenylmethoxy-carbonyl)-glycine

$C_{17}H_{15}NO_4$ · mp 174 °C
CAS No. 29022-11-5 · EC no. 249-373-3
WGK 1

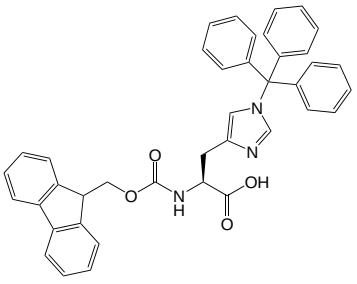
Fmoc-Glycine
PEPTIPURE® ≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
6899.1	5 g	glass	15,60
6899.2	25 g	glass	42,50
6899.3	100 g	glass	149,45

Fmoc-L-Histidine-(Trityl)



Fmoc-L-His(Trt)-OH · *N*-α-Fmoc-*N*-(im)-trityl-L-histidine

$C_{40}H_{33}N_3O_4$ · mp 155 to 165 °C
CAS No. 109425-51-6 · EC no. 439-640-4
WGK 1

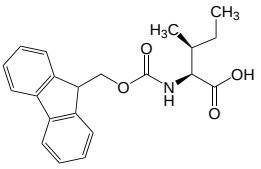
Fmoc-L-Histidine-(Trityl)
PEPTIPURE® ≥97 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay (titr.) ..... ≥97 %
Purity (HPLC) ..... ≥99 %
Enantiomeric purity ..... ≤0,2 % D-Enantiomer
Free amino acids ..... ≤0,2 %
Spec. rotation $[\alpha]_D^{20}$ (c=1 in chloroform) .. +82,5° to +88,5°
Water (KF) ..... ≤1 %

Art. No.	Pack Qty.	Pack.	€
8843.1	5 g	glass	26,35
8843.2	25 g	glass	85,90
8843.3	100 g	glass	278,45

Fmoc-L-Isoleucine



Fmoc-L-Ile-OH · *N*-(9-Fluorenylmethoxy-carbonyl)-L-isoleucine

$C_{21}H_{23}NO_4$ · mp 145 to 149 °C
CAS No. 71989-23-6
WGK 1

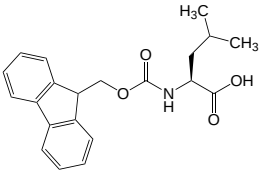
Fmoc-L-Isoleucine
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay (titr.) ..... 98,0-102,0 %
Purity (HPLC) ..... ≥98,5 %
Water (KF) ..... ≤1,0 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in DMF) ..... -12,5° to -10,5°
Free amino acids ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
6647.1	10 g	glass	23,15
6647.2	50 g	glass	60,10
6647.3	250 g	glass	235,45

Fmoc-L-Leucine



Fmoc-L-Leu-OH · *N*-(9-Fluorenylmethoxy-carbonyl)-L-leucine

$C_{21}H_{23}NO_4$ · mp 152 to 156 °C
CAS No. 35661-60-0
WGK 1

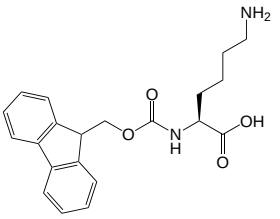
Fmoc-L-Leucine
PEPTIPURE® ≥95 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay (titr.) 95,0-105,0%
Purity (HPLC) ..... ≥98,5 %
Free amino acids ..... ≤0,2 %
Enantiomeric purity ..... ≤0,3 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
6654.1	10 g	glass	23,15
6654.2	50 g	glass	60,10
6654.3	250 g	glass	235,45
6654.4	500 g	glass	450,45
Original pack 6 x 500 g			427,93/500 g

Fmoc-L-Lysine



Fmoc-L-Lys-OH · *N*-(9-Fluorenylmethoxy-carbonyl)-L-lysine

$C_{21}H_{24}N_2O_4$
CAS No. 105047-45-8
WGK 1

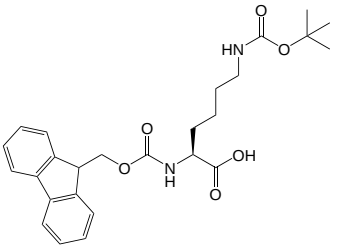
Fmoc-L-Lysine
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to light yellow powder
Assay ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
6900.1	1 g	glass	21,00
6900.2	5 g	glass	66,15
6900.3	10 g	glass	117,20

Fmoc-L-Lysine-(Boc)



Fmoc-L-Lys(Boc)-OH · *N*-α-Fmoc-*N*-ε-Boc-L-lysine

$C_{26}H_{32}N_2O_6$ · mp 126 to 132 °C
CAS No. 71989-26-9 · EC no. 276-256-4
WGK 1

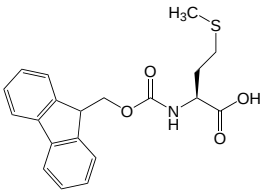
Fmoc-L-Lysine-(Boc)
PEPTIPURE® ≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Purity (HPLC) ..... ≥98,5 %
Enantiomeric purity ..... ≤0,5 % D-enantiomer
Specific rotation $[\alpha]_D^{20}$ (c=1 in DMF) -14,5° to -9,5°
Water (KF) ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
8840.1	5 g	glass	23,55
8840.2	25 g	glass	73,65
8840.3	100 g	glass	220,40

Fmoc-L-Methionine



Fmoc-L-Met-OH · *N*-(9-Fluorenylmethoxy-carbonyl)-L-methionine

$C_{20}H_{21}NO_4S$
CAS No. 71989-28-1
WGK 1

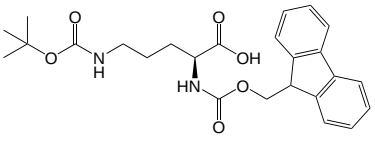
Fmoc-L-Methionine
PEPTIPURE® ≥95 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay (titr.) ..... 95,0-105,0 %
Purity (HPLC) ..... ≥98,5 %
Free amino acids ..... ≤0,1 %
Enantiomeric purity ..... ≤0,2 % D-Enantiomer

Art. No.	Pack Qty.	Pack.	€
6656.1	10 g	glass	23,55
6656.2	50 g	glass	66,55
6656.3	250 g	glass	267,70

Fmoc-L-Ornithine-(Boc)



Fmoc-L-Orn(Boc)-OH · N_α-9-Fluorenyl-methoxycarbonyl-N_δ-*tert*-butyloxycarbonyl-L-ornithine

$C_{25}H_{30}N_2O_6$ · mp 111 to 115 °C
CAS No. 109425-55-0
WGK 1

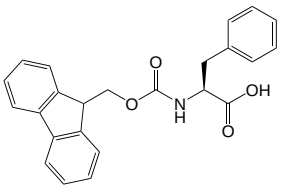
Fmoc-L-Ornithine-(Boc)
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Purity (HPLC) ..... ≥98 %
Specific rotation (1 % in DMF) ..... 10,0° to -6,0°
Water (KF) ..... ≤2,0 %
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
1932.1	1 g	glass	21,40
1932.2	5 g	plastic	67,20
1932.3	10 g	plastic	117,20

Fmoc-L-Phenylalanine



Fmoc-L-Phe-OH · *N*-(9-Fluorenylmethoxy-carbonyl)-L-phenylalanine

$C_{24}H_{21}NO_4$ · mp 179 to 187 °C
CAS No. 35661-40-6
WGK 1

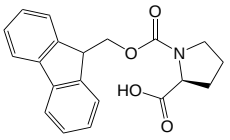
Fmoc-L-Phenylalanine
PEPTIPURE® ≥98,5%, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Purity (HPLC) ..... ≥98,5 %
Water (KF) ..... ≤1,0 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in DMF) ..... -42,0° to -38,0°
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
6658.1	10 g	glass	23,15
6658.2	50 g	glass	62,25
6658.3	250 g	glass	246,20

Fmoc-L-Proline



Fmoc-L-Pro-OH · *N*-(9-Fluorenylmethoxy-carbonyl)-L-proline

$C_{20}H_{21}NO_4$ · mp 117 to 118 °C
CAS No. 71989-31-6
WGK 1

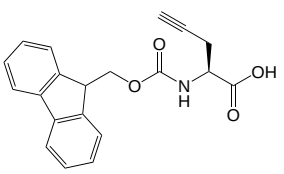
Fmoc-L-Proline
PEPTIPURE® ≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥99 %
Free amino acids ..... ≤0,1 %
Water (KF) ..... ≤6,0 %

Art. No.	Pack Qty.	Pack.	€
6659.1	10 g	glass	21,40
6659.2	50 g	glass	53,65
6659.3	250 g	glass	203,20

Fmoc-L-Propargylglycine



N-α-(9-Fluorenylmethoxycarbonyl)-L-propargylglycine · Fmoc-L-Pra-OH

$C_{20}H_{17}NO_4$
CAS No. 198561-07-8
WGK 1

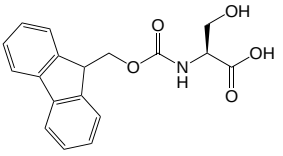
Fmoc-L-Propargylglycine
PEPTIPURE® ≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white powder
Assay ..... ≥99 %
Enantiomeric purity ..... ≥99 %
Identity ..... complies
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
7491.1	100 mg	glass	62,25
7491.2	250 mg	glass	117,20

Fmoc-L-Serine monohydrate



Fmoc-L-Ser-OH · *N*-(9-Fluorenylmethoxy-carbonyl)-L-serine

$C_{18}H_{19}NO_6$ · mp 101 °C
CAS No. 73724-45-5
WGK 1

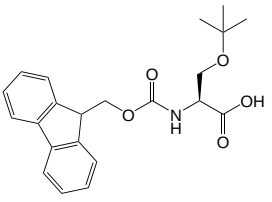
Fmoc-L-Serine monohydrate
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white powder
Assay ..... ≥98,0 %
Loss on drying ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
6901.1	5 g	glass	62,25
6901.2	25 g	glass	198,90

Fmoc-L-Serine-(tBu)



Fmoc-L-Ser(tBu)-OH

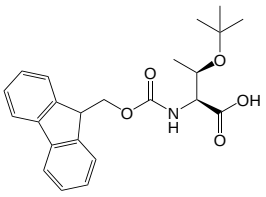
$C_{22}H_{25}NO_5$ · mp 131 °C
CAS No. 71989-33-8 · EC no. 276-260-6
WGK 1

Fmoc-L-Serine-(tBu)
PEPTIPURE® ≥99 %, for biochemistry

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥99,0 %
Water (KF) ..... ≤1,0 %
Spec. rotation $[\alpha]_D^{24}$ (1 % in EtOAc) ..... +24,5° to +26,5°
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
9666.1	5 g	glass	28,95
9666.2	25 g	glass	88,70
9666.3	100 g	glass	289,20

Fmoc-L-Threonine-(tBu)



Fmoc-L-Thr(tBu)-OH

$C_{23}H_{27}NO_5$ · mp 134 °C
CAS No. 71989-35-0 · EC no. 276-261-1
WGK 1

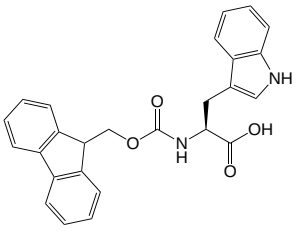
Fmoc-L-Threonine-(tBu)
PEPTIPURE® ≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥99,0 %
Water (KF) ..... ≤1,0 %
Foreign amino acids ..... ≤0,3 %
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
9659.1	5 g	glass	28,95
9659.2	25 g	glass	88,70
9659.3	100 g	glass	289,20

Fmoc-L-Tryptophan



Fmoc-L-Trp-OH · *N*-(9-Fluorenylmethoxy-carbonyl)-L-tryptophane

$C_{26}H_{22}N_2O_4$ · mp 182 °C
CAS No. 35737-15-6 · EC no. 252-706-5
WGK 1

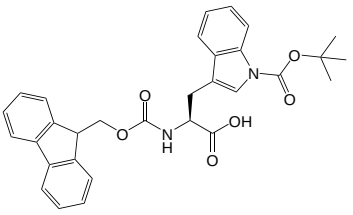
Fmoc-L-Tryptophan
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white powder
Assay ..... ≥98,0 %
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
6903.1	5 g	glass	21,40
6903.2	25 g	glass	64,40
6903.3	100 g	glass	213,95

Fmoc-L-Tryptophan-(Boc)



Fmoc-L-Trp(Boc)-OH

$C_{31}H_{30}N_2O_6$
CAS No. 143824-78-6
WGK 1

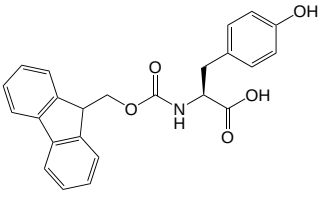
Fmoc-L-Tryptophan-(Boc)
PEPTIPURE® ≥97 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white to off-white powder
Assay (HPLC) ..... ≥97,0 %
Spec. rotation $[\alpha]_D^{24}$ (1 % in DMF) . -22,0° to -18,0°
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
9668.1	5 g	glass	42,50
9668.2	25 g	glass	145,15
9668.3	100 g	glass	489,15

Fmoc-L-Tyrosine



Fmoc-L-Tyr-OH · *N*-(9-Fluorenylmethoxy-carbonyl)-L-tyrosine

$C_{24}H_{21}NO_5$ · mp 182 °C
CAS No. 92954-90-0
WGK 1

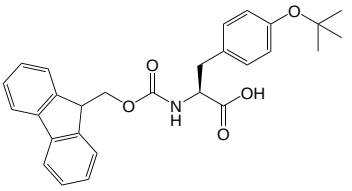
Fmoc-L-Tyrosine
PEPTIPURE® ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98,0 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6906.1	1 g	glass	41,95
6906.2	5 g	glass	96,65
6906.3	10 g	glass	170,95

Fmoc-L-Tyrosine-(tBu)



Fmoc-L-Tyr(tBu)-OH

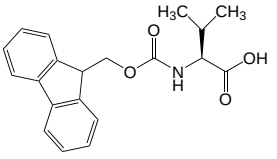
$C_{28}H_{29}NO_5$ · mp 153 °C
CAS No. 71989-38-3 · EC no. 276-262-7
WGK 1

Fmoc-L-Tyrosine-(tBu)
PEPTIPURE® ≥99 %, for biochemistry

Type analysis
Appearance ..... white to pale yellow powder
Assay (HPLC) ..... ≥99,0 %
Water (KF) ..... ≤1,0 %
Spec. rotation $[\alpha]_D^{24}$ (1 % in DMF) . -30,0° to -27,0°
Foreign amino acids ..... ≤0,3 %
Enantiomeric purity ..... ≤0,1 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
9669.1	5 g	glass	28,95
9669.2	25 g	glass	88,70
9669.3	100 g	glass	289,20

Fmoc-L-Valine



Fmoc-L-Val-OH · *N*-(9-Fluorenylmethoxy-carbonyl)-L-valine

$C_{20}H_{21}NO_4$ · mp 143 to 145 °C
CAS No. 68858-20-8
WGK 1

Fmoc-L-Valine
PEPTIPURE® ≥95 %, for biochemistry

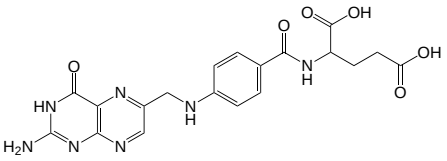
Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay (titr.) ..... 95,0-105,0 %
Purity (HPLC) ..... ≥98,5 %
Water (KF) ..... ≤1,0 %
Enantiomeric purity ..... ≤0,2 % D-enantiomer
Free amino acids ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
6660.1	10 g	glass	23,15
6660.2	50 g	glass	62,25
6660.3	250 g	glass	246,20
6660.4	500 g	glass	450,45
Original pack 6 x 500 g			427,93/500 g

5-FOA
▸ 5-Fluoroorotic acid see page 938

Folic acid



Pteroyl glutamic acid · Vitamin B_9

$C_{19}H_{19}N_7O_6$ · D 0,125 g/cm³ · mp 250 °C
CAS No. 59-30-3 · EC no. 200-419-0
WGK 1

Folic acid
≥96 %, for biochemistry

Type analysis
Appearance ..... yellow to orange cryst. powder
Assay (HPLC) ..... ≥96,0 %
Water ..... ≤9 %

Art. No.	Pack Qty.	Pack.	€
T912.1	25 g	plastic	53,65
T912.2	50 g	plastic	99,90

Folin-Ciocalteu's reagent

D 1,21 g/cm³
UN no. 3264 · ADR 8 II · WGK 1

Danger H290-H302-H314

Folin-Ciocalteu's reagent
2 mol/l, for determination of phenols

Mixture of Phosphomolybdic acid and Phosphotungstic acid

Type analysis
Appearance ..... clear, golden-yellow liquid
Acidity (as HCl) ..... 1,9-2,1 mol/l
Sensitivity to phenols (absorbance at 650 nm) ..... ≥0,25

Art. No.	Pack Qty.	Pack.	€
1EPY.1	500 ml	glass	91,30

Food Green 3
▸ Fast Green FCF see page 930

Formaldehyde-di-*n*-butyl acetale
▸ Butylal see page 798

Formaldehyde diethyl acetal
▸ Ethylal see page 919

Formaldehyde dimethylacetal
▸ Methylal see page 1082

Formaldehyde solutions



Formaline · Formol

CAS No. 50-00-0 · EC no. 200-001-8

Formaldehyde solution
ROTIPURAN® 37 %, p.a., ACS

Fixative

CH_2O · D 1,09 g/cm³ · mp <-15 °C · bp 93 to 96 °C · flp 62 °C

Storage temperature: +15 to +25 °C

UN no. 2209 · ADR 8 III · WGK 3

Danger H301+H311+H331-H314-H317-H335-H341-H350-H370

Not a medical device / Not an IVD product

Guarantee analysis
Assay (acidimetric after oxidation) ... 36,5-38,0 %
Colour (Hazen) ..... ≤10
Acidity ..... ≤0,025 %
Methanol (GC) ..... 9,0-14,0 %
Ash content (as SO_4) ..... ≤0,005 %
Chloride (Cl) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,002 %
Heavy metals ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0001 %
Calcium (Ca) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0001 %
Cobalt (Co) ..... ≤0,0001 %
Chromium (Cr) ..... ≤0,0001 %
Copper (Cu) ..... ≤0,0001 %
Potassium (K) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,0001 %
Manganese (Mn) ..... ≤0,0001 %
Sodium (Na) ..... ≤0,001 %
Nickel (Ni) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,0001 %
Zinc (Zn) ..... ≤0,0001 %

Stabilised with methanol.
Do not store under 15 °C!
Lower temperatures favour the polymerization to paraformaldehyde. The formaldehyde solution can, however, be used after decanting deposit to a clear solution.

Art. No.	Pack Qty.	Pack.	€
4979.1	1 l	plastic	49,35
Original pack 6 x 1 l			46,88/1 l
4979.2	2.5 l	plastic	102,05
Original pack 4 x 2.5 l			96,95/2.5 l
4979.3	5 l	plastic	170,95
Original pack 2 x 5 l			162,40/5 l

Formaldehyde solution 37 %
≥37 %, Ph. Eur., USP, BP

Fixative

CH_2O · D 1,09 g/cm³ · mp <-15 °C · bp 93 to 96 °C · flp 62 °C

Storage temperature: +15 to +25 °C

UN no. 2209 · ADR 8 III · WGK 3

Danger H301+H311+H331-H314-H317-H335-H341-H350-H370

Not a medical device / Not an IVD product

Guarantee analysis
Assay (acidim.) ..... 37,0-38,0 %
Identity ..... complies
Appearance of solution ..... complies
Sulphated ash ..... ≤0,05 %
Acidity ..... complies
Methanol (GC) ..... 9,0-15,0 %
Chloride (Cl) ..... ≤0,003 %
Sulphate (SO_4) ..... ≤0,005 %

Stabilised with methanol.
Do not store under 15 °C!

Art. No.	Pack Qty.	Pack.	€
CP10.1	1 l	plastic	23,15
Original pack 6 x 1 l			21,99/1 l
CP10.2	2.5 l	plastic	43,55
Original pack 4 x 2.5 l			41,37/2.5 l
CP10.3	5 l	plastic	64,40
Original pack 2 x 5 l			61,18/5 l
CP10.4	10 l	plastic	97,75

Formaldehyde solution 37 %
≥37 %, for synthesis

Fixative

CH_2O · D 1,09 g/cm³ · mp <-15 °C · bp 93 to 96 °C · flp 62 °C

Storage temperature: +15 to +25 °C

UN no. 2209 · ADR 8 III · WGK 3

Danger H301+H311+H331-H314-H317-H335-H341-H350-H370

Not a medical device / Not an IVD product

Type analysis
Appearance ..... clear to light turbid solution
Assay ..... 37,0-37,5 %
Methanol ..... 8,0-12,0 %
Formic acid ..... ≤0,02 %

Stabilised with methanol.
Do not store under 15 °C!

Art. No.	Pack Qty.	Pack.	€
7398.1	1 l	plastic	18,20
Original pack 6 x 1 l			17,29/1 l
7398.4	2.5 l	plastic	28,95
Original pack 4 x 2.5 l			27,50/2.5 l
7398.5	5 l	plastic	43,55
Original pack 2 x 5 l			41,37/5 l
7398.2	10 l	plastic	69,35
7398.3	30 l	plastic	140,30

Formaldehyde solution 35 %
≥35 %, DAB, for histology

Fixative

CH_2O · D 1,09 g/cm³ · mp <-15 °C · bp 93 to 96 °C · flp 62 °C

Storage temperature: +15 to +25 °C

UN no. 2209 · ADR 8 III · WGK 3

Danger H301+H311+H331-H314-H317-H335-H341-H350-H370

Not a medical device / Not an IVD product

Guarantee analysis
Appearance ..... clear to turbid, colourless liquid
Assay ..... 35,0-37,0 %
Identity ..... complies
Methanol ..... 9,0-11,0 %
Formic acid ..... ≤0,03 %
Sulphated ash ..... ≤0,1 %

Stabilised with methanol.
Do not store under 15 °C!

Art. No.	Pack Qty.	Pack.	€
4980.1	1 l	plastic	20,35
Original pack 6 x 1 l			19,33/1 l
4980.5	2.5 l	plastic	31,10
Original pack 4 x 2.5 l			29,55/2.5 l
4980.2	5 l	plastic	48,30
Original pack 2 x 5 l			45,89/5 l
4980.4	10 l	plastic	77,30
4980.3	30 l	plastic	149,45

Formaldehyde solutions, low-methanol

Formaldehyde solution 30 %, low-methanol
30 %

Concentrated fixative for histology, low-methanol

CH_2O · D 1,09 g/cm³ · mp -15 °C · bp 97 °C · flp 66 to 73 °C

Storage temperature: +15 to +25 °C

UN no. 2209 · ADR 8 III · WGK 3

Danger H302-H311+H331-H314-H317-H335-H341-H350

Not a medical device / Not an IVD product

Type analysis
Appearance .... clear to turbid, colourless solution
Assay ..... 29,0-31,0 %
Density (20 °C) 1,080-1,095
Methanol ..... ≤1,5 %
Formic acid ..... ≤0,2 %

Do not store under 15 °C!

Art. No.	Pack Qty.	Pack.	€
4235.1	1 l	plastic	16,05
Original pack 6 x 1 l			15,25/1 l
4235.5	2.5 l	plastic	23,55
Original pack 4 x 2.5 l			22,37/2.5 l
4235.2	5 l	plastic	38,60
Original pack 2 x 5 l			36,67/5 l
4235.3	10 l	plastic	54,75
4235.4	30 l	plastic	126,35

Formaldehyde solution, low-methanol
23,5 %

Concentrated fixative, low-methanol

CH_2O · D 1,07 g/cm³ · mp -15 °C · bp 97 °C · flp >79 °C

Storage temperature: +15 to +25 °C

WGK 3

Danger H302+H312+H332-H315-H317-H319-H335-H341-H350

Not a medical device / Not an IVD product

Type analysis
Assay ..... 23,1-23,9 %
Methanol (GC) ..... ≤1,0 %
Formic acid ..... ≤0,05 %
Density 1,066-1,076

Do not store under 15 °C!

Art. No.	Pack Qty.	Pack.	€
6742.1	1 l	plastic	13,45
Original pack 6 x 1 l			12,78/1 l
6742.5	2.5 l	plastic	19,25
Original pack 4 x 2.5 l			18,29/2.5 l
6742.2	5 l	plastic	32,15
Original pack 2 x 5 l			30,54/5 l
6742.3	10 l	plastic	46,15
6742.4	25 l	plastic	89,15

Formaldehyde solution, non-acidic

Formaldehyde solution, non-acidic
≥37 %, for histology

Fixative

If required, filter out solids before use.

CH_2O · D 1,09 g/cm³ · mp <-15 °C · bp 93 to 96 °C · flp 62 °C

Storage temperature: +15 to +25 °C

UN no. 2209 · ADR 8 III · WGK 3

Danger H301+H311+H331-H314-H317-H335-H341-H350-H370

Not a medical device / Not an IVD product

Type analysis
Appearance ..... clear to turbid, colourless liquid
Assay ..... ≥37 %
Methanol ..... 8-12 %

Stabilised with methanol and calcium carbonate. Please note the added acid binding sediment. You can filter it, if necessary, before use.
Do not store under 15 °C!

Art. No.	Pack Qty.	Pack.	€
P733.1	1 l	plastic	22,05
Original pack 6 x 1 l			20,95/1 l
P733.2	2.5 l	plastic	40,75
Original pack 4 x 2.5 l			38,71/2.5 l
P733.3	30 l	plastic	155,90

Formaldehyde Solutions, Phosphate Buffered

Art. No.	Description	Page
P087	ROTI®Histofix 4 %	1226
2213	ROTI®Histofix 4.5 %	1226
A146	ROTI®Histofix 10 %	1226
3105	ROTI®Histofix 4 %, prefilled containers	1227
8244	ROTI®Histofix 4,5 %, prefilled containers	1227

Formal glycol
▸ 1,3-Dioxolane see page 892

Formaline
▸ Formaldehyde solutions see page 945

Formamide



Formic acid amide

CH_3NO · D 1,13 g/cm³ · mp 2,6 °C · bp 218,3 °C · flp 152 °C
CAS No. 75-12-7 · EC no. 200-842-0
WGK 1

Danger H351-H360FD-H373

Formamide
≥99,5 %, p.a., ACS

Guarantee analysis
Assay ..... ≥99,5 %
Density (d 20 °C/4 °C) 1,132-1,135
Water (KF) ..... ≤0,5 %
Colour (Hazen) ..... ≤10
Melting point ..... 2,0-3,0 °C
Chloride (Cl) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,0001 %
Cadmium (Cd) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,0001 %
Copper (Cu) ..... ≤0,0001 %
Zinc (Zn) ..... ≤0,0001 %
Sulphated ash (600 °C) ..... ≤0,005 %
Formic acid ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
6749.3	500 ml	glass	34,95
6749.1	1 l	glass	62,25
Original pack 6 x 1 l			59,14/1 l
6749.2	2.5 l	glass	123,65
Original pack 4 x 2.5 l			117,47/2.5 l

Formamide
≥98 %, extra pure

Type analysis
Assay ..... ≥98,0 %
Density (20 °C) 1,131-1,134
Formic acid ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4095.1	1 l	plastic	51,50
Original pack 6 x 1 l			48,93/1 l
4095.2	2.5 l	plastic	102,70
Original pack 4 x 2.5 l			97,57/2.5 l
4095.3	5 l	plastic	181,70
Original pack 2 x 5 l			172,62/5 l
4095.4	10 l	plastic	332,20

Formamide, deionized
≥99,5 %, BioScience Grade, RNAse/DNAse free

After receiving the formamide, mix well and aliquot. Store aliquots at –20 °C.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Guarantee analysis
Appearance ..... clear, colorless to light yellow
Assay ..... ≥99,5 %
pH-value 5,0-6,0
Deionization ..... complies

Art. No.	Pack Qty.	Pack.	€
P040.1	250 ml	plastic	57,95
P040.2	500 ml	glass	88,70

Formate Standards
▸ Formate IC Standard Solution see page 1334

Formic acid



Formylic acid · Hydrogen carboxylic acid · Methanoic acid

CAS No. 64-18-6 · EC no. 200-579-1

Formic acid 98 %

Formic acid
ROTIPURAN® ≥99 %, LC-MS Grade

CH_2O_2 · D 1,22 g/cm³ · mp 4 °C · bp 101 °C · flp 49 °C

UN no. 1779 · ADR 8 (3) II · WGK 1

Danger H226-H290-H302-H314-H331-EUH071

Type analysis

Appearance ..... clear, colourless, fuming liquid
Assay (acidim.) ..... ≥99,0 %
Evaporation residue ..... ≤0,001 %
Al (Aluminium) ..... ≤0,000005 %
Ca (Calcium) ..... ≤0,00002 %
Fe (Iron) ..... ≤0,00002 %
K (Potassium) ..... ≤0,00001 %
Mg (Magnesium) ..... ≤0,00001 %
Na (Sodium) ..... ≤0,00005 %

Transmission:
260 nm ..... ≥20 %
270 nm ..... ≥85 %
280 nm ..... ≥95 %
300 nm ..... ≥98 %
320 nm ..... ≥99 %

Fill level for technical reasons.

Art. No.	Pack Qty.	Pack.	€
1EHK.1	50 ml	glass	60,75

Formic acid
ROTIPURAN® ≥98 %, p.a., ACS

CH_2O_2 · D 1,22 g/cm³ · mp 4 °C · bp 101 °C · flp 49 °C

UN no. 1779 · ADR 8 (3) II · WGK 1

Danger H226-H290-H302-H314-H331-EUH071

Guarantee analysis

Assay (acidim.) ..... ≥98,0 %
Colour (APHA) ..... ≤10
In H_2O insoluble matter ..... complies
Non volatile matter ..... ≤0,001 %
Acetic acid (CH_3COOH) ..... ≤0,05 %
Chloride (Cl) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,0005 %
Sulphite (SO_3) ..... ≤0,001 %
Aluminium (Al) ..... ≤0,000005 %
Ammonium (NH_4) ..... ≤0,001 %
Barium (Ba) ..... ≤0,000005 %
Beryllium (Be) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,000002 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00002 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Germanium (Ge) ..... ≤0,000002 %
Potassium (K) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Lithium (Li) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00005 %
Manganese (Mn) ..... ≤0,000005 %
Molybdenum (Mo) ..... ≤0,000002 %
Sodium (Na) ..... ≤0,00005 %
Nickel (Ni) ..... ≤0,000005 %
Heavy metals (as Pb) ..... ≤0,001 %
Silver (Ag) ..... ≤0,000002 %
Strontium (Sr) ..... ≤0,000002 %
Thallium (Tl) ..... ≤0,000002 %
Titanium (Ti) ..... ≤0,000005 %
Vanadium (V) ..... ≤0,000002 %
Bismuth (Bi) ..... ≤0,000005 %
Zinc (Zn) ..... ≤0,000005 %
Zirconium (Zr) ..... ≤0,000005 %

Art. No.	Pack Qty.	Pack.	€
4724.3	500 ml	glass	28,50
4724.1	1 l	glass	53,65
Original pack 6 x 1 l			50,97/1 l
4724.2	2.5 l	glass	107,40
Original pack 4 x 2.5 l			102,03/2.5 l
4724.4	10 l	PE/steel	342,95
4724.5	25 l	PE/steel	697,70

Formic acid
≥98 %, for synthesis

CH_2O_2 · D 1,22 g/cm³ · mp 4 °C · bp 101 °C · flp 49 °C

UN no. 1779 · ADR 8 (3) II · WGK 1

Danger H226-H290-H302-H314-H331-EUH071

Type analysis

Assay ..... ≥98,0 %
Colour (APHA) ..... ≤10
Chloride (Cl) ..... ≤0,005 %
Iron (Fe) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
4742.1	1 l	glass	30,00
Original pack 6 x 1 l			28,50/1 l
4742.2	2.5 l	glass	56,90
Original pack 4 x 2.5 l			54,06/2.5 l
4742.4	5 l	plastic	83,75
Original pack 2 x 5 l			79,56/5 l
4742.3	10 l	plastic	128,50

Formic acid 85 %

Formic acid
ROTIPURAN® ≥85 %, p.a.

CH_2O_2 · D 1,19 g/cm³ · bp 106 °C · flp 65 °C

UN no. 1779 · ADR 8 (3) II · WGK 1

Danger H290-H302-H314-H331-EUH071

Guarantee analysis

Assay (acidim.) ..... ≥85,0 %
Colour (APHA) ..... ≤15
In H_2O insoluble matter ..... complies
Non volatile matter ..... ≤0,002 %
Acetic acid (CH_3COOH) ..... ≤0,4 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,002 %
Sulphite (SO_3) ..... ≤0,001 %
Ammonium (NH_4) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Aluminium (Al) ..... ≤0,000005 %
Beryllium (Be) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,000002 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00005 %
Germanium (Ge) ..... ≤0,000002 %
Potassium (K) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Lithium (Li) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00005 %
Manganese (Mn) ..... ≤0,000005 %
Molybdenum (Mo) ..... ≤0,000002 %
Sodium (Na) ..... ≤0,0001 %
Nickel (Ni) ..... ≤0,000005 %
Silver (Ag) ..... ≤0,000002 %
Strontium (Sr) ..... ≤0,000002 %
Titanium (Ti) ..... ≤0,000005 %
Vanadium (V) ..... ≤0,000002 %
Bismuth (Bi) ..... ≤0,000005 %
Zinc (Zn) ..... ≤0,00001 %
Zirconium (Zr) ..... ≤0,000005 %

Art. No.	Pack Qty.	Pack.	€
CP16.1	500 ml	glass	30,65
CP16.2	1 l	glass	46,15
Original pack 6 x 1 l			43,84/1 l
CP16.3	2.5 l	glass	96,65
Original pack 4 x 2.5 l			91,82/2.5 l
CP16.4	10 l	plastic	274,15

Formic acid
≥85 %, pure

CH_2O_2 · D 1,19 g/cm³ · bp 106 °C · flp 65 °C

UN no. 1779 · ADR 8 (3) II · WGK 1

Danger H290-H302-H314-H331-EUH071

Type analysis

Assay ..... ≥85 %

Art. No.	Pack Qty.	Pack.	€
5355.1	1 l	glass	31,75
Original pack 6 x 1 l			30,16/1 l
5355.2	2.5 l	glass	55,80
Original pack 4 x 2.5 l			53,01/2.5 l
5355.4	5 l	plastic	79,45
Original pack 2 x 5 l			75,48/5 l
5355.3	10 l	plastic	123,10

Formic acid 45 %

Formic acid
45 %, pure

CH_2O_2 · D 1,1 g/cm³ · bp 106 °C · flp >65 °C

UN no. 3412 · ADR 8 II · WGK 1

Danger H290-H302+H332-H314-EUH071

Type analysis

Assay ..... 44,0-46,0 %
Chloride (Cl) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %
Evaporation residue ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
6739.1	1 l	glass	22,50
Original pack 6 x 1 l			21,38/1 l
6739.2	2.5 l	glass	33,25
Original pack 4 x 2.5 l			31,59/2.5 l
6739.4	5 l	plastic	53,65
Original pack 2 x 5 l			50,97/5 l
6739.3	10 l	plastic	81,60
6739.5	25 l	plastic	160,20

Formic acid D 95 % solution in D_2O

HCOOD · D 1,25 g/cm³ · mp 8 °C · bp 101 °C · flp 49 °C
CAS No. 925-94-0 · EC no. 213-129-4
UN no. 1779 · ADR 8 (3) II · WGK 1

Danger H226-H290-H302-H314-H331-EUH071

Formic acid D 95 % solution in D_2O
98 Atom%D

For nuclear magnetic resonance spectroscopy.

Guarantee analysis
Assay (mass %) ..... ≥95 %
Deuterising degree ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1L35.1	5 ml	glass	164,40

Formic acid D2 95 % solution in D_2O

CD_2O_2 · D 1,22 g/cm³ · mp 8 °C · bp 101 °C · flp 49 °C
CAS No. 920-42-3 · EC no. 213-057-3
UN no. 1779 · ADR 8 (3) II · WGK 1

Danger H226-H290-H302-H314-H331-EUH071

Formic acid D2 95 % solution in D_2O
98 Atom%D

For nuclear magnetic resonance spectroscopy.

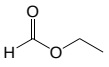
Guarantee analysis
Deuterising degree ..... ≥98 %
Assay (mass %) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
HN92.1	5 ml	glass	160,20

Formic acid amide
▸ Formamide see page 946

Formic acid dimethylamide
▸ *N*,*N*-Dimethylformamide (DMF) see page 887

Formic acid ethyl ester



Ethyl formiate · Ethyl methanoate

$C_3H_6O_2$ · D 0,915 g/cm³ · mp -80,5 °C · bp 56,6 °C · flp -20 °C
CAS No. 109-94-4 · EC no. 203-721-0
UN no. 1190 · ADR 3 II · WGK 1

Danger H225-H302+H332-H319-H335

Formic acid ethyl ester
≥99 %

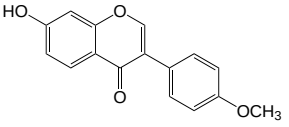
Type analysis
Assay (GC) ..... ≥99,0 %
Density (d 25 °C/25 °C) 0,915-0,925
Refractive index (20 °C) 1,359-1,363

Art. No.	Pack Qty.	Pack.	€
3574.2	100 ml	glass	21,40
3574.1	1 l	glass	112,35
Original pack 6 x 1 l			106,73/1 l
3574.3	2.5 l	glass	209,65
Original pack 4 x 2.5 l			199,17/2.5 l

Formic acid sodium salt
▸ Sodium formate see page 1283

Formol
▸ Formaldehyde solutions see page 945

Formononetin



7-Hydroxy-4'-methoxyisoflavone · Biochanin B

$C_{16}H_{12}O_4$ · mp 255 °C
CAS No. 485-72-3 · EC no. 207-623-9
WGK 1

Warning H335

Formononetin
ROTICHROM® HPLC

Reference substance for HPLC.

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
9570.1	10 mg	glass	169,35

Formononetin-7-*O*-glucoside
▸ Ononin see page 1131

4-Formyl-1,2-dihydroxybenzene
▸ 3,4-Dihydroxybenzaldehyde see page 882

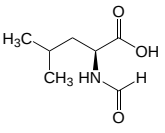
p-Formyldimethylanilin
▸ 4-(Dimethylamino)-benzaldehyde see page 885

Formylic acid
▸ Formic acid see page 947

3-Formylindole
▸ Indole-3-carboxaldehyde see page 1008

N-Formyl-L-Leu
▸ *N*-Formyl-L-Leucine see page 948

N-Formyl-L-Leucine



N-Formyl-L-Leu

$C_7H_{13}NO_3$ · mp 142 °C
CAS No. 6113-61-7

N-Formyl-L-Leucine
≥98 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (HPLC) ..... ≥98,0 %
Loss on drying (105 °C) ..... ≤0,5 %
Melting point ..... 139,0-142,0 °C

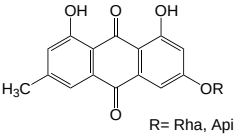
Art. No.	Pack Qty.	Pack.	€
6665.1	500 mg	glass	24,65
6665.2	1 g	glass	48,30
6665.3	5 g	glass	181,70

2-Formylphenol
▸ Salicylaldehyde see page 1248

3-Formylphenol
▸ 3-Hydroxybenzaldehyde see page 997

4-Formylphenol
▸ 4-Hydroxybenzaldehyde see page 997

Frangulin (A+B)



Franguloside

$C_{21}H_{20}O_9$ / $C_{20}H_{18}O_9$ · mp 205 °C
CAS No. 60529-33-1
WGK 1

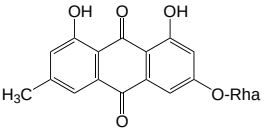
Warning H302

Frangulin (A+B)
ROTICHROM® ~CHR$_{TLC}$

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
7404.1	25 mg	glass	50,00

Frangulin A



Emodinrhamnoside · Rhamnoxanthine

$C_{21}H_{20}O_9$ · mp 225 to 228 °C
CAS No. 521-62-0 · EC no. 208-316-2
WGK 1

Warning H302

Frangulin A
ROTICHROM® HPLC

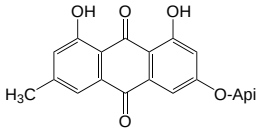
Reference substance for HPLC.
From *Rhamnus frangula.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1140.1	20 mg	glass	364,45

Frangulin B



6-*O*-(Apiofuranosyl)-1,6,8-trihydroxy-3-methylantrachinon

$C_{20}H_{18}O_9$ · mp 195 °C
CAS No. 14101-04-3 · EC no. 237-953-9
WGK 1

Warning H302

Frangulin B
ROTICHROM® HPLC

Reference substance for HPLC.
From *Rhamnus frangula*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1142.1	10 mg	glass	364,45

Frangulin B
ROTICHROM® ~CHR$_{TLC}$

From *Rhamnus frangula*.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
7655.1	10 mg	glass	295,65

Franguloside
▸ Frangulin (A+B) see page 948

Fraser Broth (Base)

WGK 3

Fraser Broth (Base)
ISO 11133, ISO 11290-1, for microbiology

Enrichment medium for detection and isolation of *Listeria* in foods and environmental samples.

Application: Use 57.3 g for 1 l broth. A slight precipitate may appear after autoclaving. Prior to use add sterile filtered ferric(III) ammonium citrate solution ad 0.5 g/l broth (Art. No. 3130.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Pancreatic digest of casein ..... 5 g/l
Meat peptone ..... 5 g/l
Beef extract ..... 5 g/l
Yeast extract ..... 5 g/l
Sodium chloride ..... 20 g/l
Disodium phosphate ..... 12 g/l
Potassium phosphate ..... 1,35 g/l
Lithium chloride ..... 3 g/l
Esculin ..... 1 g/l
Acriflavine ..... 0,025 g/l
Nalidixic acid ..... 0,02 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
HP17.1	500 g	plastic	165,05
Original pack 6 x 500 g			156,80/500 g

Fraser Half Broth (Base)

Fraser Half Broth (Base)
ISO 11133, ISO 11290-1, for microbiology

Enrichment medium for detection and isolation of *Listeria* in foods and environmental samples.

Application: Use 57.3 g for 1 l broth. A slight precipitate may appear after autoclaving. Prior to use add sterile filtered iron(III) ammonium citrate solution ad 0.5 g/l broth (Art. No. 3130.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Guarantee analysis
Pancreatic digest of casein ..... 5 g/l
Meat peptone ..... 5 g/l
Beef extract ..... 5 g/l
Yeast extract ..... 5 g/l
Sodium chloride ..... 20 g/l
Disodium hydrogen phosphate dihydrate .... 12 g/l
Potassium dihydrogen phosphate ..... 1,35 g/l
Lithium chloride ..... 3 g/l
Esculin ..... 1 g/l
Acriflavine ..... 0,0125 g/l
Nalidixic acid ..... 0,01 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
HP18.1	500 g	plastic	127,95
Original pack 6 x 500 g			121,55/500 g
HP18.2	1 kg	plastic	228,45
Original pack 6 x 1 kg			217,03/1 kg

Fraser Half Broth
ISO 11290, for microbiology

Enrichment medium for detection and isolation of *Listeria* in foods and environmental samples.

D 1,049 g/cm³ · mp 0 °C · bp 100 °C

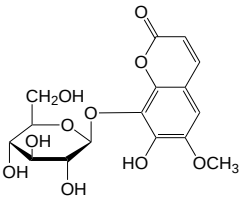
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 2

Acriflavine ..... 0,0125 g/l
Casein peptone ..... 5 g/l
Meat peptone ..... 5 g/l
Yeast extract ..... 5 g/l
Meat extract ..... 5 g/l
Sodium chloride (NaCl) ..... 20 g/l
Potassium dihydrogen phosphate ..... 1,35 g/l
Esculin ..... 1 g/l
di-Sodium hydrogen phosphate ..... 12 g/l
Ammonium iron(III) citrate ..... 0,5 g/l
Lithium chloride ..... 3 g/l
Nalidixic acid ..... 0,01 g/l
pH value (25 °C) 7,0-7,4

Art. No.	Pack Qty.	Pack.	€
1L86.1	180 ml	glass	44,65
1L86.2	2.25 l	glass	110,20

Fraxin



$C_{16}H_{18}O_{10}$ · mp 205 °C
CAS No. 524-30-1 · EC no. 208-355-5
WGK 1

Fraxin
ROTICHROM® HPLC

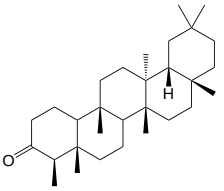
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
9364.1	10 mg	glass	321,45

Friedelin



$C_{30}H_{50}O$ · mp 252 to 260 °C
CAS No. 559-74-0 · EC no. 209-205-1
WGK 1

Friedelin
ROTICHROM® HPLC

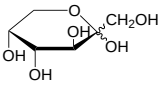
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7459.2	20 mg	glass	224,70

D(–)-Fructose



Fruit sugar · Laevulose

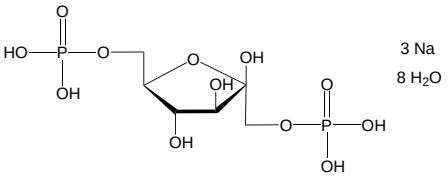
$C_6H_{12}O_6$ · D 1,59 g/cm³ · mp 103 to 105 °C
CAS No. 57-48-7 · EC no. 200-333-3
WGK 1

D(–)-Fructose
≥99,5 %, for biochemistry

Type analysis
Appearance ..... white crystalline powder
Assay ..... ≥99,5 %
pH value 3,0-6,0
Specific rotation $[\alpha]_D^{20}$ ..... -93,5° to -91,0°
Loss on drying ..... ≤0,2 %
Ash content ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4981.1	500 g	plastic	21,00
Original pack 6 x 500 g			19,95/500 g
4981.4	1 kg	plastic	34,30
Original pack 6 x 1 kg			32,59/1 kg
4981.2	2.5 kg	plastic	67,65
4981.5	5 kg	plastic	101,60
4981.6	10 kg	plastic	149,45
4981.3	25 kg	plastic	289,20

D-Fructose-1,6-diphosphate trisodium salt octahydrate



FDP-Na_3H

$C_6H_{11}Na_3O_{12}P_2 \cdot 8\ H_2O$ · mp 110 °C
CAS No. 81028-91-3 · EC no. 253-778-0
WGK 1

D-Fructose-1,6-diphosphate trisodium salt octahydrate
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay ..... ≥98,0 %
Loss on drying ..... 25-28 %
pH-value 5,5-6,5

Art. No.	Pack Qty.	Pack.	€
4982.1	1 g	glass	23,55
4982.2	5 g	glass	44,65
4982.3	25 g	glass	134,40

Fruit sugar
▸ D(–)-Fructose see page 949

FTA® Purification Reagent

D 1,01 g/cm³ · mp 0 °C
WGK 2

FTA® Purification Reagent
FTA® ready-to-use, for molecular biology

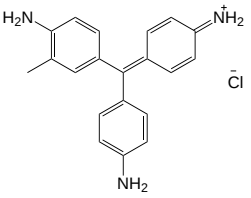
Qiagen.

For purification of nucleic acids stored on FTA® Cards.

Art. No.	Pack Qty.	Pack.	€
CL99.1	500 ml	plastic	499,90

Fuchsine acidic
▸ Acid fuchsin (C. I. 42685) see page 703

Fuchsine basic (C.I. 42510)



Basic fuchsine · Diamondfuchsin · Magenta I

$C_{20}H_{20}N_3Cl$ · D 0,6 g/cm³ · mp 235 °C · flp 220 °C
CAS No. 632-99-5 · EC no. 211-189-6
WGK 3

Warning H351

Fuchsine basic (C.I. 42510)
for microscopy

Indicator pH 1.0-3.1

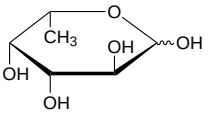
Dissolve 0.4 g in 100 ml water

Type analysis
Thin-layer chromatography (TLC) ..... complies
UV-absorption max. (EtOH 50 %) ..... 549-552 nm
Loss on drying (135 °C) ..... ≤15 %

Art. No.	Pack Qty.	Pack.	€
3256.2	25 g	glass	42,50
3256.1	50 g	glass	74,75
3256.3	100 g	glass	98,40

Fuchsine sulphurous acid
▸ Schiff's reagent see page 1253

L(–)-Fucose



6-Deoxy-L-galactose

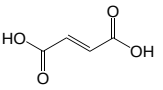
$C_6H_{12}O_5$ · mp 150 to 153 °C
CAS No. 2438-80-4 · EC no. 219-452-7
WGK 1

L(–)-Fucose
≥99 %, for biochemistry

Type analysis
Appearance ..... white to almost white crystalline powder
Purity (HPLC) ..... ≥99 %
Loss on drying (3 h, 110 °C) ..... ≤5 %

Art. No.	Pack Qty.	Pack.	€
KK10.1	1 g	glass	37,55
KK10.2	5 g	glass	117,20
KK10.3	25 g	glass	482,70

Fumaric acid



trans-1,2-Ethylenedicarbonic acid · 2-Butenedioic acid

$C_4H_4O_4$ · D 1,64 g/cm³ · mp 287 °C · bp 200 °C · flp 273 °C
CAS No. 110-17-8 · EC no. 203-743-0
WGK 1

Warning H319

Fumaric acid
≥99,5 %, for biochemistry

Type analysis
Assay ..... ≥99,5 %
Maleic acid ..... ≤0,1 %
Lead (Pb) ..... ≤0,0002 %
Moisture ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
3748.1	500 g	plastic	19,25
Original pack 6 x 500 g			18,29/500 g
3748.2	2.5 kg	plastic	64,40
3748.3	10 kg	plastic	181,70

Fumarine
▸ Protopine see page 1189

Fungicidine
▸ Nystatin dihydrate see page 1116

Fungizone
▸ Amphotericin B see page 742

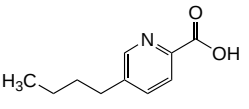
2,5-Furandione
▸ Maleic anhydride see page 1063

N6-Furfuryladenine
▸ Kinetin see page 1029

6-Furfurylaminopurine
▸ Kinetin see page 1029

7-*H*-Furo[3,2-g]benzopyran-7-one
▸ Psoralen see page 1190

Fusaric acid



5-Butylpicolinic acid · 5-Butylpyridine-2-carboxylic acid

$C_{10}H_{13}NO_2$ · mp 97 to 101 °C
CAS No. 536-69-6 · EC no. 208-643-0
WGK 1

Warning H302

Fusaric acid
≥99 %

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (qNMR) ..... ≥99 %
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
5561.1	250 mg	glass	46,15
5561.2	1 g	glass	146,75

G418 solution
▸ Geneticin disulphate (G418) solution see page 955

Gabett solution
▸ Methylene blue solution 0.1 %. aqueous see page 1084

Gadolinia
▸ Gadolinium(III) oxide see page 951

Gadolinium Standards
▸ Gadolinium ICP Standard Solution see page 1316
▸ Gadolinium ICP Standard Solution see page 1316

Gadolinium(III) oxide

Gadolinium trioxide · Gadolinia

Gd_2O_3 · D 7,41 g/cm³ · mp 1900 to 2330 °C
CAS No. 12064-62-9 · EC no. 235-060-9
WGK 1

Warning H319

Gadolinium(III) oxide
ROTI®REMETIC 99,99 %

Type analysis
Assay (TREO*) ..... 99,99 %

*Total rare earth oxide.
Chemical analysis (ICP, AAS): specified trace impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
7136.1	1 g	plastic	39,70
7136.2	5 g	plastic	56,90
7136.3	25 g	plastic	142,90
7136.4	100 g	plastic	370,90

Gadolinium trioxide
▸ Gadolinium(III) oxide see page 951

Galactitol
▸ Dulcitol see page 903

Galactomannan

CAS No. 11078-30-1 · EC no. 234-299-6
WGK 1

Galactomannan
for biochemistry

Carubin type

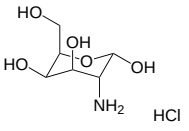
Type analysis
Appearance ..... white powder

Art. No.	Pack Qty.	Pack.	€
3768.1	5 g	plastic	59,70

4-*O*-ß-D-Galactopyranosyl-D-fructose
▸ Lactulose see page 1033

α-D-Galactopyranosyl phosphat dipotassium salt pentahydrate
▸ α-D-Galactose-1-phosphate dipotassium salt pentahydrate see page 951

D-Galactosamine hydrochloride



Hepasamin®

$C_6H_{14}ClNO_5$ · D 0,35 g/cm³ · mp 172 to 180 °C
CAS No. 1772-03-8 · EC no. 217-198-1
WGK 1

D-Galactosamine hydrochloride
≥98 %, for biochemistry

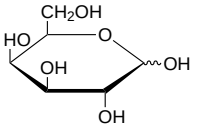
For experimental generation of hepatitis.

Storage temperature: +4 °C

Type analysis
Appearance .. white to almost white cryst. powder
Assay ..... ≥98,0 %
pH value (1 % in H_2O) 3,5-5,0
Specific rotation $[\alpha]_D^{20}$ ..... +92° to +98°
Solution (1 % in H_2O) . clear, colourless to slightly yellowish
Ash content ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
7411.1	1 g	plastic	102,15
7411.2	5 g	plastic	424,65
7411.3	25 g	plastic	1.639,40

D(+)-Galactose



$C_6H_{12}O_6$ · D 1,5 g/cm³ · mp 166 to 170 °C
CAS No. 59-23-4 · EC no. 200-416-4
WGK 1

D(+)-Galactose
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤10 E.U./g
Appearance ..... white to off-white powder
Assay (HPLC) ..... ≥99,0 %
Specific rotation $[\alpha]_D^{20}$ (c=10 in H_2O + NH_4OH) ..... +78,0° to +81,5°
Heavy metals (as Pb) ..... ≤0,001 %

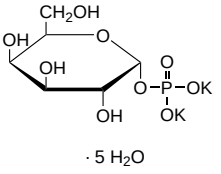
Art. No.	Pack Qty.	Pack.	€
8878.1	10 g	plastic	37,55
8878.2	25 g	plastic	72,60
8878.3	50 g	plastic	123,65
8878.4	100 g	plastic	241,90

D(+)-Galactose
≥98 %, for biochemistry

Type analysis
Appearance ..... white to almost white powder
Assay (HPLC) ..... ≥98,0 %
Water (KF) ..... ≤0,5 %
Specific rotation $[\alpha]_D^{20}$ (c=10 in H_2O + NH_4OH) ..... +80° ±2,0°
Solubility (10 % in H_2O) ..... clear, colourless
Heavy metals (as Pb) ..... ≤0,002 %
Sulphated ash ..... ≤0,1%
Melting point ..... 165-172°C

Art. No.	Pack Qty.	Pack.	€
4987.1	100 g	plastic	33,25
4987.2	500 g	plastic	114,95
Original pack 6 x 500 g			109,20/500 g
4987.3	1 kg	plastic	194,05
Original pack 6 x 1 kg			184,35/1 kg
4987.7	5 kg	plastic	876,15

α-D-Galactose-1-phosphate dipotassium salt pentahydrate



· 5 H_2O

α-D-Galactopyranosyl phosphat dipotassium salt pentahydrate · Phos-α-D-Gal

$C_6H_{11}K_2O_9P$ · 5 H_2O
CAS No. 19046-60-7 · EC no. 242-783-3

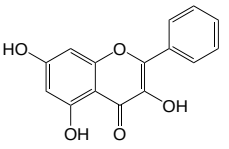
α-D-Galactose-1-phosphate dipotassium salt pentahydrate
≥99 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (titr.) ..... ≥99,0 %
Solution (5 % in H_2O) ..... colourless
Water (KF) ..... ≤23,0 %
Specific rotation $[\alpha]_D^{20}$ ..... +80,0° to +83,0°

Art. No.	Pack Qty.	Pack.	€
5550.1	25 mg	plastic	38,20
5550.2	100 mg	plastic	127,95

Galangin



3,5,7-Trihydroxyflavone

$C_{15}H_{10}O_5$ · mp 214 to 215 °C
CAS No. 548-83-4 · EC no. 208-960-4
WGK 1

Galangin
ROTICHROM® HPLC

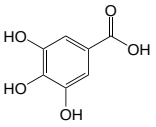
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7460.2	20 mg	glass	252,65

Gallic acid



3,4,5-Trihydroxy benzoic acid

$C_7H_6O_5$ · D 1,69 g/cm³ · mp 252 °C · flp 250 °C
CAS No. 149-91-7 · EC no. 205-749-9
WGK 1

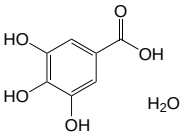
Warning H315-H319-H335

Gallic acid
≥98 %, p.a., ACS, anhydrous

Guarantee analysis
Assay ..... ≥98,0 %
In H_2O insoluble matter ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,02 %
Ash content ..... ≤0,05 %
Loss on drying (105 °C) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
2699.1	100 g	glass	64,40
2699.2	250 g	glass	120,95
2699.3	500 g	glass	203,20
Original pack 6 x 500 g			193,04/500 g

Gallic acid monohydrate



3,4,5-Trihydroxy benzoic acid

$C_7H_6O_5 \cdot H_2O$ · mp 252 °C · flp 250 °C
CAS No. 5995-86-8 · EC no. 205-749-9
WGK 1

Warning H315-H319-H335

Gallic acid monohydrate
≥98 %, p.a., ACS

Guarantee analysis
Assay ..... ≥98,0 %
In H_2O insoluble matter ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,02 %
Ash content ..... ≤0,05 %
Loss on drying (105 °C) ..... ≤10 %

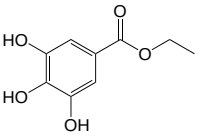
Art. No.	Pack Qty.	Pack.	€
2698.1	100 g	plastic	60,10
2698.2	250 g	plastic	107,40
2698.3	500 g	plastic	190,85
Original pack 6 x 500 g			181,31/500 g

Gallic acid monohydrate
≥99 %

Type analysis
Appearance ..... white to beige powder
Assay ..... ≥99,0 %
Loss on drying (105 °C) ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
7300.1	50 g	plastic	38,60
7300.2	100 g	plastic	45,05
7300.3	500 g	plastic	160,20
Original pack 6 x 500 g			152,19/500 g

Gallic acid ethyl ester



Ethyl gallate

$C_9H_{10}O_5$ · mp 154 to 155 °C
CAS No. 831-61-8 · EC no. 212-608-5
WGK 1

Gallic acid ethyl ester
≥98 %

Type analysis
Assay (acidim.) ..... ≥98 %
Melting range ..... 150-152 °C

Art. No.	Pack Qty.	Pack.	€
3629.1	25 g	plastic	39,70

Gallium

Ga · D 5,91 g/cm³ · mp 29,8 °C · bp 2400 °C
CAS No. 7440-55-3 · EC no. 231-163-8
UN no. 2803 · ADR 8 III · WGK 2

Warning H290-H302-H412

Gallium
99,9999 %

Type analysis
Assay (Ga) ..... 99,9999 %

Art. No.	Pack Qty.	Pack.	€
3761.1	5 g	glass	96,65

Gallium
99,99 %

Type analysis
Assay (Ga) ..... 99,99 %

Art. No.	Pack Qty.	Pack.	€
1HN8.1	5 g	glass	32,15
1HN8.2	10 g	glass	53,65
1HN8.3	25 g	glass	107,40

Gallium Standards

- Gallium ICP Standard Solution see page 1316
- Gallium ICP Standard Solution see page 1316

Gallium(III) nitrate hydrate

Gallium trinitrate

$Ga(NO_3)_3 \cdot x\ H_2O$ · mp 110 °C
CAS No. 69365-72-6 · EC no. 236-815-5
UN no. 1477 · ADR 5.1 II · WGK 1

Danger H272-H315-H319

Gallium(III) nitrate hydrate
ROTI®METIC 99,9995 % (5N5)

Type analysis
Assay (metals basis) ..... 99,9995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5548.1	25 g	plastic	364,45

Gallium(III) oxide

Ga_2O_3 · D 5,88 g/cm³ · mp >1740 °C
CAS No. 12024-21-4 · EC no. 234-691-7
WGK 2

Gallium(III) oxide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5377.1	10 g	plastic	188,15

Gallium(III) oxide
≥99,99 %, p.a.

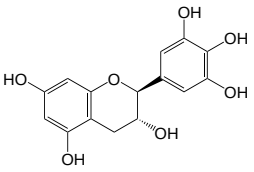
Type analysis
Purity ..... ≥99,99 %
Al (Aluminium) ..... ≤0,0005 %
Ca (Calcium) ..... ≤0,0001 %
Co (Cobalt) ..... ≤0,0001 %
Cr (Chrom) ..... ≤0,0001 %
Cu (Copper) ..... ≤0,0005 %
Fe (Iron) ..... ≤0,0005 %
In (Indium) ..... ≤0,0001 %
Mg (Magnesium) ..... ≤0,0001 %
Mn (Manganese) ..... ≤0,0005 %
Mo (Molybdenum) ..... ≤0,0005 %
Ni (Nickel) ..... ≤0,0001 %
Pb (Lead) ..... ≤0,0001 %
Ti (Titanium) ..... ≤0,0001 %
Zn (Zinc) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
1E11.1	50 g	glass	115,60
1E11.2	100 g	plastic	185,90
1E11.3	500 g	plastic	768,65
Original pack 6 x 500 g			730,22/500 g
1E11.4	1 kg	plastic	1.316,90
Original pack 6 x 1 kg			1.251,06/1 kg

Gallium trinitrate

- Gallium(III) nitrate hydrate see page 952

(–)-Gallocatechin



Gallocatechol

$C_{15}H_{14}O_7$ · mp 200 °C
CAS No. 3371-27-5
WGK 1

Warning H315-H319-H335

(–)-Gallocatechin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Camellia sinensis*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
4480.1	10 mg	glass	306,40
4480.2	20 mg	glass	482,70

Gallocatechol
▸ (–)-Gallocatechin see page 953

D-GalNAc
▸ *N*-Acetyl-D-galactosamine see page 702

GBHA
▸ Glyoxal-bis-(2-hydroxyanil) see page 969

GDH
▸ Glutamate dehydrogenase (GDH, GLDH) see page 963

Gelatine

CAS No. 9000-70-8 · EC no. 232-554-6
WGK 1

Gelatine
extra pure, platinum, 240 Bloom

Storage temperature: +15 to +25 °C

Type analysis
Gel strength ..... 230-250 Bloom
Particle size ..... 20-30 mesh
Protein ..... 83-91 %
Water ..... ≤15 %
Ash ..... ≤2 %
Peroxides (as H_2O_2) ..... ≤0,001 %
Sulphur dioxide (SO_2) ..... ≤0,005 %

Gelatine is produced from porcine skin.

Art. No.	Pack Qty.	Pack.	€
4582.4	100 g	plastic	22,05
4582.3	500 g	plastic	39,70
Original pack 6 x 500 g			37,72/500 g
4582.1	1 kg	plastic	64,40
Original pack 6 x 1 kg			61,18/1 kg
4582.2	5 kg	plastic	231,15

Gelatine
extra pure, gold, 180 Bloom

Storage temperature: +15 to +25 °C

Type analysis
Gel strength ..... 170-190 Bloom
Particle size ..... 20-30 mesh
Protein ..... 83-91 %
Water ..... ≤15 %
Ash ..... ≤2 %
Peroxides (as H_2O_2) ..... ≤0,001 %
Sulphur dioxide (SO_2) ..... ≤0,005 %

Gelatine is produced from porcine skin.

Art. No.	Pack Qty.	Pack.	€
4274.4	100 g	plastic	21,00
4274.3	500 g	plastic	38,20
Original pack 6 x 500 g			36,29/500 g
4274.1	1 kg	plastic	54,75
Original pack 6 x 1 kg			52,01/1 kg
4274.2	5 kg	plastic	224,70

Gelatine
extra pure, crystal, 160 Bloom

Storage temperature: +15 to +25 °C

Type analysis
Gel strength ..... 150-170 Bloom
Particle size ..... 20-30 mesh
Protein ..... 83-91 %
Water ..... ≤15 %
Ash ..... ≤2 %
Peroxides (as H_2O_2) ..... ≤0,001 %
Sulphur dioxide (SO_2) ..... ≤0,005 %

Gelatine is produced from porcine skin.

Art. No.	Pack Qty.	Pack.	€
4308.4	100 g	plastic	20,35
4308.3	500 g	plastic	37,10
Original pack 6 x 500 g			35,25/500 g
4308.1	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg
4308.2	5 kg	plastic	220,40

Gelatine
extra pure, silver, 140 Bloom

Storage temperature: +15 to +25 °C

Type analysis
Gel strength ..... 130-150 Bloom
Particle size ..... 20-30 mesh
Protein ..... 83-91 %
Water ..... ≤15 %
Ash ..... ≤2 %
Peroxides (as H_2O_2) ..... ≤0,001 %
Sulphur dioxide (SO_2) ..... ≤0,005 %

Gelatine is produced from porcine skin.

Art. No.	Pack Qty.	Pack.	€
4275.4	100 g	plastic	19,90
4275.3	500 g	plastic	37,10
Original pack 6 x 500 g			35,25/500 g
4275.1	1 kg	plastic	52,15
Original pack 6 x 1 kg			49,54/1 kg
4275.2	5 kg	plastic	217,70

Gelatin Agar (DEV)

WGK 3

Gelatin Agar (DEV)
DEV, for microbiology

For enumeration of the total microbial population and detection of gelatin-liquefying microorganisms in water samples.

Application: Use 50 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Meat peptone ..... 10 g/l
Meat extract ..... 10 g/l
Sodium chloride (NaCl) ..... 5 g/l
Gelatine ..... 10 g/l
Agar ..... 15 g/l
pH value ..... 7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
HP07.1	500 g	plastic	188,15
Original pack 6 x 500 g			178,74/500 g

Gelatine Capsules

WGK 1

Gelatine Capsules
for electron microscopy

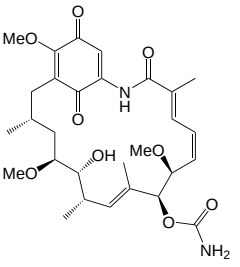
No. 0, length 22 mm, diameter 7 mm, volume 0,68 ml.

Type analysis
Loss on drying ..... ≤16%
Disintegration time (25 °C) ..... ≤30 min

Art. No.	Pack Qty.	Pack.	€
8641.1	100 unit(s)	plastic	23,55

Gelatine solution
▸ ROTI®Cell Gelatine solution see page 1213

Geldanamycin



$C_{29}H_{40}N_2O_9$ · mp 260 to 275 °C
CAS No. 30562-34-6
WGK 1

Geldanamycin
≥98 %, for biochemistry

HSP90 inhibitor, tyrosine kinase inhibitor. Benzoquinone ansamycin antibiotic.

Stock solution: 1000x in DMSO or methanol. Storage of stock solution at –20 °C, max. 2 weeks at 4 °C.
Photo sensitive! Store protected from light.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (HPLC) ..... ≥98 %
λ max. ..... 259 nm, 307 nm
Melting point ..... 258-262 °C

Art. No.	Pack Qty.	Pack.	€
HN71.1	1 mg	glass	83,75
HN71.2	5 mg	glass	203,20
HN71.3	10 mg	glass	295,65

Gel loading buffer

▸ ROTI®Load see page 1228

Gel Loading Buffer

Art. No.	Description	Page
K929	ROTI®Load 1	1228
K930	ROTI®Load 2	1228
3359	ROTI®Load 3 (LDS)	1228
X905	ROTI®Load DNA (with ficoll)	1228
X904	ROTI®Load DNA (with glycerol)	1228
0100	ROTI®Load DNA 1x (with glycerol)	1229
HP04	ROTI®Load DNA orange 1 (with glycerol)	1229
HP05	ROTI®Load DNA orange 2 (with glycerol)	1229
0095	ROTI®Load DNA short-run (with glycerol)	1229
0099	ROTI®Load DNA short-run 1x (with glycerol)	1229
HP03	ROTI®Load DNA small (with glycerol)	1229
HP06	ROTI®Load DNA-tricolor (with glycerol)	1229

Gel matrix buffer

▸ ROTIPHORESE®PAGE Matrix Buffer plus see page 1233

Gel Media and Additives

Art. No.	Description	Page
3029	ROTIPHORESE®Gel 30 (37.5:1), ROTIPHORESE®	1232
A124	ROTIPHORESE®NF-Acrylamide/Bis-solution 30 (29:1), ROTIPHORESE®	1232
T802	ROTIPHORESE®Gel 40 (37.5:1), ROTIPHORESE®	1232
A515	ROTIPHORESE®Gel 40 (29:1), ROTIPHORESE®	1233
A121	ROTIPHORESE®NF-Acrylamide/Bis-solution 40 (29:1), ROTIPHORESE®	1233
3030	ROTIPHORESE®Gel 40 (19:1), ROTIPHORESE®	1233
A516	ROTIPHORESE®NF-Acrylamide/Bis-solution 40 (19:1), ROTIPHORESE®	1233
3037	ROTIPHORESE®Gel A, ROTIPHORESE®	1233
7748	ROTIPHORESE®Gel A-40, ROTIPHORESE®	1233
3039	ROTIPHORESE®Gel B, ROTIPHORESE®	1233
8996	ROTIPHORESE®PAGE Matrix Buffer plus, ROTIPHORESE®	1233
A431	ROTIPHORESE®DNA sequencing system, ROTIPHORESE®	1234
3043	ROTIPHORESE®Sequencing gel concentrate, ROTIPHORESE®	1234
3047	ROTIPHORESE®Sequencing gel diluent, ROTIPHORESE®	1234
3050	ROTIPHORESE®Sequencing gel buffer concentrate, ROTIPHORESE®	1234

GELRITE®

CAS No. 71010-52-1 · EC no. 275-117-5
WGK 2

GELRITE®

Gelrite® for microbiology

Gelling agent for microbiological culture media. Alternative to Agar.

GELRITE® is a highly-purified, natural heteropolysaccharide which forms stable, agar-like gels when exposed to soluble salts.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis

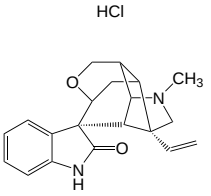
Gel strength ..... 400-700 g/cm²
Loss on drying ..... ≤15,0 %

Art. No.	Pack Qty.	Pack.	€
0039.1	500 g	plastic	321,45
Original pack 6 x 500 g			305,38/500 g
0039.2	1 kg	plastic	514,95
Original pack 6 x 1 kg			489,20/1 kg

Gel Running Buffer

Art. No.	Description	Page
1249	ROTI®Fair SDS-PAGE	1221
1250	ROTI®Fair SDS-PAGE	1221
1234	ROTI®Fair 50x TAE	1221
1240	ROTI®Fair 50x TAE	1221
1241	ROTI®Fair 1x TBE	1221
1242	ROTI®Fair 5x TBE	1221
1243	ROTI®Fair 10x TBE	1222
1269	ROTI®Fair TG-Western	1222
1276	ROTI®Fair TG-Western	1222
3060	ROTIPHORESE®10x SDS-PAGE, ROTIPHORESE®	1234
T845	ROTIPHORESE®10x TAE Buffer, ROTIPHORESE®	1234
0122	ROTIPHORESE®10x TAE Buffer *light*, ROTIPHORESE®	1234
CL86	ROTIPHORESE®50x TAE Buffer, ROTIPHORESE®	1234
3061	ROTIPHORESE®10x TBE Buffer, ROTIPHORESE®	1235
A118	ROTIPHORESE®NF 10x TBE Buffer, ROTIPHORESE®	1235

Gelsemine hydrochloride



$C_{20}H_{22}N_2O_2$ · HCl · mp 326 °C
CAS No. 35306-33-3 · EC no. 252-504-7
UN no. 1544 · ADR 6.1 II · WGK 1

Danger H300+H330

Gelsemine hydrochloride

~90 %

Type analysis

Appearance ..... white powder
Melting point ..... ~326 °C

Art. No.	Pack Qty.	Pack.	€
6571.1	500 mg	glass	65,50

Gelseminic acid

▸ Scopoletin see page 1253

Gel solution

▸ ROTIPHORESE®bisacrylamide solution see page 1233
▸ ROTIPHORESE®acrylamide solution 40 % see page 1233
▸ ROTIPHORESE®Gel solution 40 % see page 1232
▸ ROTIPHORESE®acrylamide solution 30 % see page 1233
▸ ROTIPHORESE®DNA sequencing system see page 1234
▸ ROTIPHORESE®Gel solution 30 % see page 1232

Gel Staining Solutions and Kits

Art. No.	Description	Page
HP47	Ethidium bromide solution 0.025 % in dropper bottle	919
HP46	Ethidium bromide solution 0.5 % in dropper bottle	919
2218	Ethidium bromide solution 1 %	919
N769	ROTI®Black N	1212
P081	ROTI®Black NSeq	1212
L533	ROTI®Black P	1212
A152	ROTI®Blue	1213
4829	ROTI®Blue quick	1213
3865	ROTI®GelStain	1226
0984	ROTI®GelStain Red	1226
0648	ROTI®Methylene blue staining concentrate	1230
3074	ROTIPHORESE®Blue R, ROTIPHORESE®	1232

Geneticin disulphate (G418 Sulphate)

Antibiotic G 418

$C_{20}H_{40}N_4O_{10}$ · 2 H_2SO_4 · mp 139 °C
CAS No. 108321-42-2
WGK 1

Danger H317-H334

Geneticin disulphate (G418 Sulphate)

≥650 U/mg, for biochemistry

Aminoglycoside antibiotic

Stock solution: 10–50 mg/ml in H_2O or culture medium.
Storage of stock solution: –20 °C.
Working concentration: 50–1000 µg/ml, has to be established for each cell type.

Storage temperature: +4 °C

Type analysis

Activity ..... ≥650 U/mg
Water (KF) ..... ≤12 %

Art. No.	Pack Qty.	Pack.	€
0239.1	250 mg	glass	42,90
0239.2	500 mg	glass	60,10
0239.3	1 g	glass	107,40
0239.4	10 g	glass	747,15

Geneticin disulphate (G418) solution

G418 sulphate solution · G418 solution

$C_{20}H_{40}N_4O_{10} \cdot 2\ H_2SO_4$ · D 1 g/cm³ · mp 0 °C · bp 100 °C
CAS No. 108321-42-2
WGK 1

Danger H317-H334

Geneticin disulphate (G418) solution
CELLPURE® 50 mg/ml, sterile

Aminoglycoside antibiotic. Stock solution, for cell culture, biochemistry and molecular biology. Inhibits protein biosynthesis by binding to ribosomes, particularly to eukaryotic 80S ribosomes.

Working concentration: 50–1000 µg/ml, has to be determined for each cell type.

Storage temperature: +4 °C

Type analysis
Concentration ..... 50 mg/ml
Activity (powder) ..... >600 µg/mg
Endotoxins ..... <10 EU/ml
Sterility ..... complies
Suitability for cell cultur ..... complies
pH value 5,0-6,0

Art. No.	Pack Qty.	Pack.	€
CP11.1	10 ml	plastic	79,45
CP11.2	20 ml	plastic	109,55
CP11.3	100 ml	plastic	439,70

Geneticin disulphate (G418) solution
50 mg/ml, BioScience Grade, sterile, ready-to-use

Aminoglycoside antibiotic.

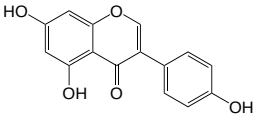
Working concentration: 50–1000 µg/ml, has to be determined for each cell type.

Storage temperature: +4 °C

Type analysis
Concentration ..... 50 ± 10 mg/ml
Active assay ..... ≥700 µg/mg
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
2039.1	10 ml	plastic	78,40
2039.2	20 ml	plastic	107,40
2039.3	100 ml	plastic	435,40

Genistein



4',5,7-Trihydroxyisoflavone · Genisteol · Prunetol

$C_{15}H_{10}O_5$ · mp 298 to 302 °C
CAS No. 446-72-0 · EC no. 207-174-9

Genistein
≥98 %, for biochemistry

Inhibitor of tyrosine specific protein kinases.

Stock solution: 100 mg/ml (370 mM) in DMSO.
Storage of stock solution: +4 °C or –20 °C.

Storage temperature: +4 °C

WGK 1

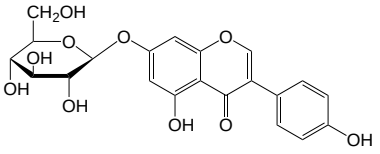
Warning H302

Type analysis
Assay (HPLC) ..... ≥98 %
Heavy metals ..... ≤0,001 %
Loss on drying ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
0716.1	25 mg	plastic	69,80
0716.2	50 mg	plastic	103,10
0716.3	100 mg	plastic	170,95

Genisteol
▸ Genistein see page 955

Genistin



$C_{21}H_{20}O_{10}$ · mp 254 °C
CAS No. 529-59-9
WGK 1

Genistin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
9374.2	20 mg	glass	332,20

Gentamicin sulphate
▸ Gentamycin sulphate see page 955

Gentamycin sulphate

Gentamicin sulphate

$C_{19\text{-}21}H_{39\text{-}43}N_5O_7 \cdot 2{,}5\ H_2SO_4$ · D 1 g/cm³ · mp >200 °C
CAS No. 1405-41-0 · EC no. 215-778-9
WGK 1

Danger H317-H334

Gentamycin sulphate
≥590 I.U./mg, for biochemistry

Aminoglycoside antibiotic

Stock solution: 10–20 mg/ml in H_2O or formamide.
Storage of stock solution: –20 °C.
Working concentration: 15–50 µg/ml.
Extracted from *Micromonospora purpurea*.

Storage temperature: +4 °C

Type analysis
Assay (dry substance) ..... ≥590 I.U./mg
pH value (4 % in H_2O) 3,5-5,5
Specific rotation $[\alpha]_D^{20}$ (10 % in H_2O) ..... +107° to +121°
Sulphate (SO_4) ..... 32-35 %
Water (KF) ..... ≤15,0 %
Sulphated ash ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
0233.1	1 g	glass	13,90
0233.2	5 g	glass	26,80
0233.3	10 g	glass	40,75
0233.4	25 g	glass	80,55

Gentamycin sulphate solution

Aqueous Gentamicin solution · Aqueous Gentamycin sulphate solution

$C_{19\text{-}21}H_{39\text{-}43}N_5O_7 \cdot 2{,}5\ H_2SO_4$ · D 1 g/cm³ · bp 100 °C
CAS No. 1405-41-0 · EC no. 215-778-9
WGK 1

Danger H317-H334

Gentamycin sulphate solution
CELLPURE® 50 mg/ml, sterile

Aminoglycoside antibiotic. For cell culture and biochemistry.

Stock solution, specifically suitable for cell culturing.
Working concentration: 15–50 µg/ml.

Storage temperature: +4 °C

Type analysis
Concentration ..... 50 mg/ml
Endotoxins ..... <10 EU/ml
pH value 4,5-5,5
Sterility ..... complies
Suitability for cell cultur ..... complies

Art. No.	Pack Qty.	Pack.	€
HN09.1	20 ml	plastic	118,15
HN09.2	100 ml	plastic	375,20

Gentamycin solution
50 mg/ml, BioScience Grade, sterile, ready-to-use

Aminoglycoside antibiotic. For cell culture and biochemistry.

Stock solution.
Working concentration: 15–50 µg/ml

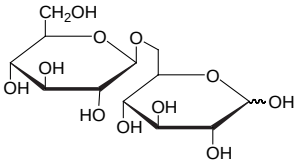
Storage temperature: +4 °C

Type analysis
Appearance ..... clear, colourless to light yellow
Concentration ..... 50 mg/ml
Active assay ..... ≥590 µg/mg
pH value 3,5-5,5
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
2475.1	20 ml	plastic	117,10
2475.2	100 ml	plastic	370,90

Gentian violet
▸ Crystal violet (C.I. 42555) see page 854

β-D-Gentiobiose



6-*O*-β-D-Glucopyranosyl-D-glucose · Amygdalose

$C_{12}H_{22}O_{11}$ · mp 86 °C · bp 774,5 °C · flp 288,9 °C
CAS No. 554-91-6 · EC no. 209-074-0
WGK 1

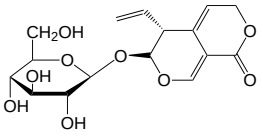
β-D-Gentiobiose
≥98 %, for biochemistry

Type analysis
Assay (HPLC) ..... ≥98 %
Solution (5 % in H_2O) ..... almost colourless, clear
Water (KF) ..... ≤1 %
Specific rotation $[\alpha]_D^{20}$ (c=2 in H_2O after 6 h) +8,5° to +10,5°

Art. No.	Pack Qty.	Pack.	€
4123.4	100 mg	glass	58,60
4123.1	250 mg	glass	120,95
4123.2	500 mg	glass	233,85
4123.3	1 g	glass	446,15

Gentiopicrin
▸ Gentiopicroside see page 956

Gentiopicroside



Bitter substance from Gentiana · Gentiopicrin

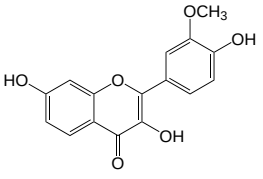
$C_{16}H_{20}O_9$ · mp 117 to 120 °C
CAS No. 20831-76-9 · EC no. 244-070-2
WGK 1

Gentiopicroside
≥95 %, for biochemistry

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥95 %
Melting point ..... 117-120 °C
Specific rotation $[\alpha]_D^{20}$ (in ethanol) .. -203° to -193 °

Art. No.	Pack Qty.	Pack.	€
0467.2	10 mg	glass	360,15

Geraldol



$C_{16}H_{12}O_6$ · mp 302 to 310 °C
CAS No. 21511-25-1 · EC no. 244-414-1
WGK 1

Geraldol
ROTICHROM® HPLC

Reference substance for HPLC.

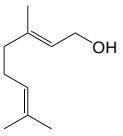
Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7461.2	5 mg	glass	364,45

Geranial + Neral
▸ Citral see page 839

Geraniol



3,7-Dimethyl-2,6-octadien-1-ol

$C_{10}H_{18}O$ · D 0,89 g/cm³ · mp -15 °C · bp 229 to 230 °C · flp 108 °C
CAS No. 106-24-1 · EC no. 203-377-1
WGK 1

Danger H315-H317-H318

Geraniol
≥90 %

Storage temperature: +4 °C

Type analysis
Appearance ..... colourless-yellowish liquid
Assay (GC) ..... ≥90 %

Art. No.	Pack Qty.	Pack.	€
4988.1	25 ml	glass	21,40
4988.2	100 ml	glass	56,45

Geranium aldehyde
▸ Citral see page 839

5-Geranoxypsoralen
▸ Bergamottin see page 772

Germanium

Ge · D 5,323 g/cm³ · mp 937 °C · bp 2830 °C
CAS No. 7440-56-4 · EC no. 231-164-3
WGK 1

Germanium pieces
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L54.1	1 g	HDPE	46,15
1L54.2	5 g	HDPE	153,20

Germanium(IV) oxide

GeO_2 · D 4,32 g/cm³ · mp 1086 to 1115 °C
CAS No. 1310-53-8 · EC no. 215-180-8
WGK 1

Warning H302+H332

Germanium(IV) oxide
ROTI®METIC 99,999 % (5N)

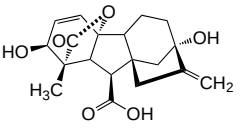
Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L52.1	5 g	HDPE	79,05
1L52.2	25 g	HDPE	292,95

Germanium Standards
▸ Germanium ICP Standard Solution see page 1316
▸ Germanium ICP Standard Solution see page 1316

Gibberellic acid



Gibberellin A_3

$C_{19}H_{22}O_6$ · D 1,34 g/cm³ · mp 233 to 235 °C
CAS No. 77-06-5 · EC no. 201-001-0
WGK 1

Gibberellic acid
ROTICHROM® CHR 90 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white powder
Assay (Gibberellin in A_3) ..... ≥900 µg/mg
Specific rotation $[\alpha]_D^{20}$ ..... ≥+85°
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
7464.1	250 mg	glass	20,45
7464.2	1 g	glass	38,60

Gibberellin A_3
▸ Gibberellic acid see page 956

Giemsa stain

mp 300 °C
CAS No. 51811-82-6 · EC no. 257-438-2
WGK 1

Warning H319

Giemsa stain
for microscopy

Type analysis
Appearance ..... dark green to black powder
Appearance of solution (0,1 % in MeOH) .... clear, blue to brown
Loss on drying (1 h, 110 °C) ..... ≤10,0 %

Art. No.	Pack Qty.	Pack.	€
7691.1	5 g	glass	20,35
7691.2	25 g	glass	36,45
7691.3	100 g	glass	105,25

Giemsa stock solution

Azure eosin solution

D 0,99 g/cm³ · bp 65 °C · flp 11 °C
UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H370

Giemsa stock solution
for microscopy

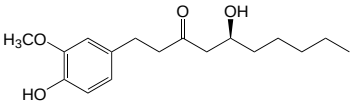
For differential staining of blood and bone marrow smears.

Working solution: Dilute stock solution at a ratio of 1:20 (e. g. 0.5 ml with 9.5 ml dist. water).

Type analysis
Suitability for microscopy (blood smear) ..... complies

Art. No.	Pack Qty.	Pack.	€
T862.1	500 ml	plastic	37,55
T862.2	1 l	glass	55,40
Original pack 6 x 1 l			52,63/1 l
T862.3	2.5 l	plastic	116,00
Original pack 4 x 2.5 l			110,20/2.5 l

[6]-Gingerol



$C_{17}H_{26}O_4$ · D 1 g/cm³ · mp 25 to 28 °C
CAS No. 23513-14-6
UN no. 2810 · ADR 6.1 III · WGK 1

Danger H301-H315-H319-H335

[6]-Gingerol
ROTICHROM® HPLC

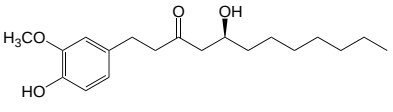
Reference substance for HPLC.
From *Zingiber officinale*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
T895.1	10 mg	glass	342,95

[8]-Gingerol



$C_{19}H_{30}O_4$ · mp 30 to 35 °C
CAS No. 23513-08-8
WGK 1

Warning H315-H319-H335

[8]-Gingerol
ROTICHROM® HPLC

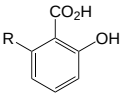
Reference substance for HPLC.
From *Zingiber officinale*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1143.1	10 mg	glass	396,70

Ginkgolic acids RN



R= $C_{13}H_{27}$, $C_{15}H_{29}$, $C_{17}H_{33}$

$C_{20}H_{32}O_3$/$C_{22}H_{34}O_3$/$C_{24}H_{38}O_3$
WGK 1

Warning H315-H319-H335

Ginkgolic acids RN
ROTICHROM® HPLC

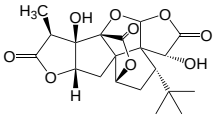
Reference substance for HPLC.
From *Ginkgo biloba*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >90 %

Art. No.	Pack Qty.	Pack.	€
1148.1	5 mg	glass	375,20

Ginkgolide A



$C_{20}H_{24}O_9$ · mp >300 °C
CAS No. 15291-75-5
WGK 1

Ginkgolide A
ROTI®Star Primary Standard

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤3,0 %
Water (KF) ..... ≤7,0 %
Assay (qNMR) ..... ≥90,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE43.1	10 mg	glass	1.343,75

Ginkgolide A
ROTICHROM® Working Standard

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Assay (HPLC) ..... ≥85,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC43.1	25 mg	glass	532,15

Ginkgolide A
ROTICHROM® HPLC

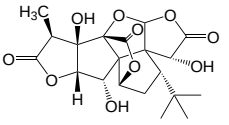
Reference substance for HPLC.
From *Ginkgo biloba*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1145.1	20 mg	glass	381,65

Ginkgolide B



1-Hydroxyginkolide A

$C_{20}H_{24}O_{10}$ · mp >300 °C
CAS No. 15291-77-7
WGK 1

Ginkgolide B
ROTICHROM® HPLC

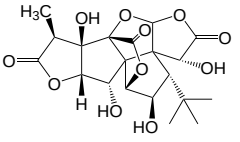
Reference substance for HPLC.
From *Ginkgo biloba*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1146.1	20 mg	glass	439,70

Ginkgolide C



1,7-Dihydroxyginkgolide A

$C_{20}H_{24}O_{11}$ · mp >300 °C
CAS No. 15291-76-6
WGK 1

Warning H315-H319-H335

Ginkgolide C
ROTICHROM® HPLC

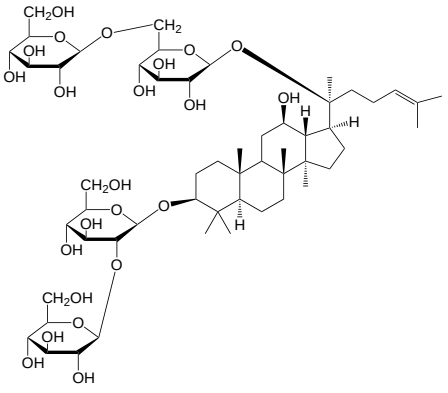
Reference substance for HPLC.
From *Ginkgo biloba*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >95 %

Art. No.	Pack Qty.	Pack.	€
1147.1	20 mg	glass	482,70

Ginsenoside Rb1



$C_{54}H_{92}O_{23}$
CAS No. 41753-43-9 · EC no. 255-532-8
WGK 1

Ginsenoside Rb1
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥90,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤10,0 %
Assay (qNMR) ..... ≥80,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE44.1	10 mg	glass	1.343,75

Ginsenoside Rb1
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥85,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC44.1	25 mg	glass	639,65

Ginsenoside Rb1
ROTICHROM® HPLC

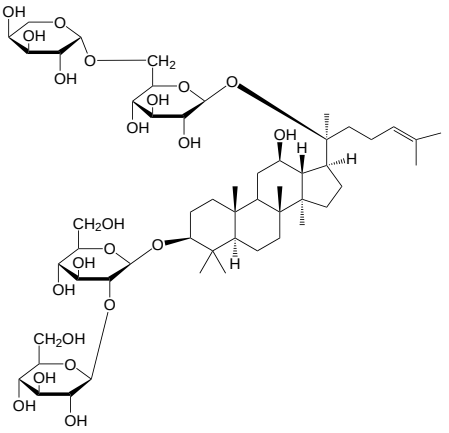
Reference substance for HPLC.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7462.2	10 mg	glass	364,45

Ginsenoside Rb2



$C_{53}H_{90}O_{22}$
CAS No. 11021-13-9 · EC no. 234-251-4
WGK 1

Ginsenoside Rb2
ROTICHROM® HPLC

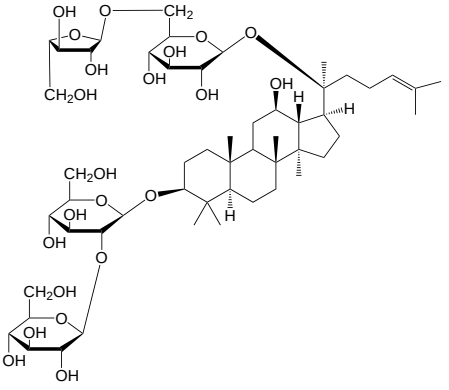
Reference substance for HPLC.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥94 %

Art. No.	Pack Qty.	Pack.	€
7463.2	10 mg	glass	661,15

Ginsenoside Rc



$C_{53}H_{90}O_{22}$
CAS No. 11021-14-0 · EC no. 234-253-5
WGK 1

Ginsenoside Rc
ROTICHROM® HPLC

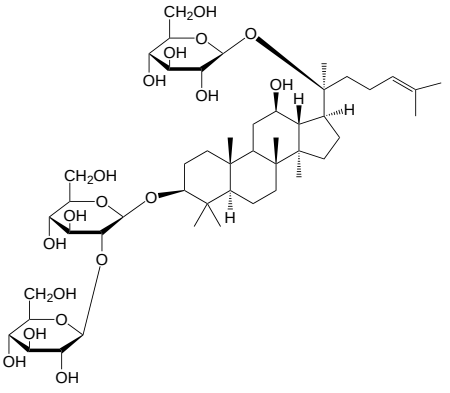
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7465.2	10 mg	glass	439,70

Ginsenoside Rd



$C_{48}H_{82}O_{18}$
CAS No. 52705-93-8 · EC no. 258-118-5
WGK 1

Ginsenoside Rd
ROTICHROM® HPLC

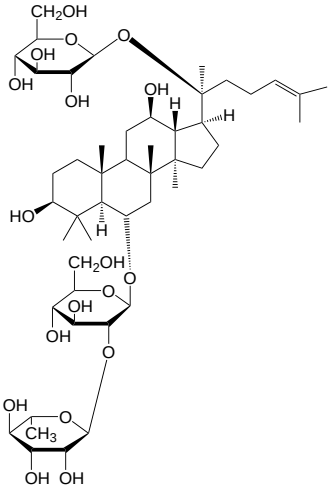
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7466.2	10 mg	glass	370,90

Ginsenoside Re



CAS No. 52286-59-6 · EC no. 257-814-6
WGK 1

Ginsenoside Re
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥90,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤14,0 %
Assay (qNMR) ..... ≥80,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE45.1	10 mg	glass	1.020,20

Ginsenoside Re
ROTICHROM® HPLC

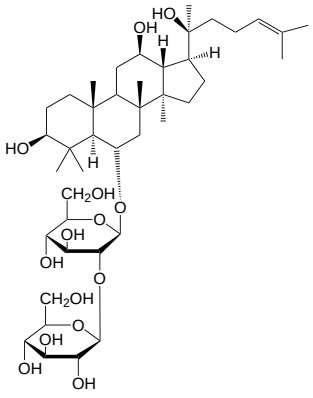
Reference substance for HPLC.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7468.2	10 mg	glass	255,35

Ginsenoside Rf



$C_{42}H_{72}O_{14}$
CAS No. 52286-58-5
WGK 1

Ginsenoside Rf
ROTICHROM® HPLC

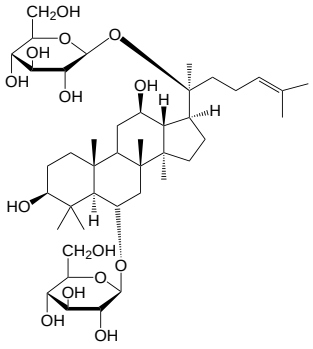
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
4552.2	10 mg	glass	682,65

Ginsenoside Rg1



$C_{42}H_{72}O_{14}$
CAS No. 22427-39-0 · EC no. 244-989-9
WGK 1

Ginsenoside Rg1
ROTI®Star Primary Standard

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Assay (HPLC) ..... ≥90,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤10,0 %
Assay (qNMR) ..... ≥80,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE62.1	10 mg	glass	1.235,20

Ginsenoside Rg1
ROTICHROM® Working Standard

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Assay (HPLC) ..... ≥85,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC62.1	25 mg	glass	639,65

Ginsenoside Rg1
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7467.2	10 mg	glass	364,45

Glacial acetic acid
▸ Acetic acid see page 689

Glass wool

Filter glass wool · Filter aids

CAS No. 65997-17-3 · EC no. 266-046-0
WGK 1

Glass wool
8 µm, made of chemically resistant , acc. to DIN 1259-1

Filter aid, for laboratory work.

Type analysis
Fiber diameter ..... 7,2-8,8 µm
Loss on ignition ..... ≤0,3 %

Art. No.	Pack Qty.	Pack.	€
0691.1	500 g	plastic	28,95
Original pack 6 x 500 g			27,50/500 g
0691.2	1 kg	plastic	48,30
Original pack 6 x 1 kg			45,89/1 kg

Glass wool
11 µm, made of chemically resistant , acc. to DIN 1259-1

Filter aid, for laboratory work. Type N (filter glass wool)

Type analysis
Fibre size ..... 9,9-12,1 µm
Loss on ignition ..... ≤0,3 %

Art. No.	Pack Qty.	Pack.	€
6574.1	500 g	plastic	23,55
Original pack 6 x 500 g			22,37/500 g
6574.2	1 kg	plastic	41,40
Original pack 6 x 1 kg			39,33/1 kg

Glass wool
25 µm, made of chemically resistant , acc. to DIN 1259-1

Filter aid, for laboratory work.

Type analysis
Fiber diameter ..... 22,0-28,0 µm
Loss on ignition ..... ≤0,3 %

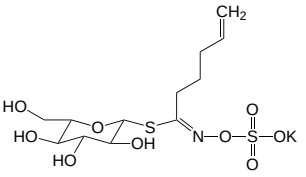
Art. No.	Pack Qty.	Pack.	€
0700.1	500 g	plastic	26,80
Original pack 6 x 500 g			25,46/500 g
0700.2	1 kg	plastic	44,00
Original pack 6 x 1 kg			41,80/1 kg

D-GlcA
▸ D-Glucuronic acid see page 963

GLDH
▸ Glutamate dehydrogenase (GDH, GLDH) see page 963

β-1,3-glucan laminaripentaohydrolase
▸ Zymolyase® see page 1417

Glucobrassicanapin



4-Pentenylglucosinolate potassium salt

$C_{12}H_{20}KNO_9S_2$
CAS No. 19041-10-2
WGK 1

Glucobrassicanapin
ROTICHROM® HPLC

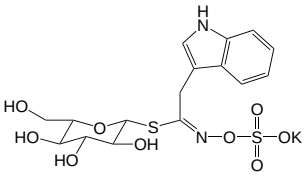
Reference substance for HPLC.
From *Brassica napus*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
2276.1	10 mg	glass	364,45

Glucobrassicin



3-Indolylmethylglucosinolate potassium salt

$C_{16}H_{19}KN_2O_9S_2$
CAS No. 143231-38-3
WGK 1

Glucobrassicin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Brassica oleracea*

Storage temperature: –20 °C
Transport temperature: ambient temp.

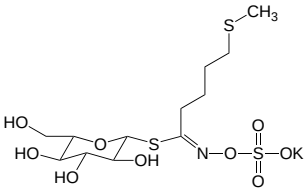
Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
2279.2	10 mg	glass	364,45
2279.1	20 mg	glass	600,95

α-D-Glucochloralose

▸ α-Chloralose see page 829

Glucoerucin



4-Methylthiobutylglucosinolate potassium salt

$C_{12}H_{22}KNO_9S_3$
CAS No. 21973-56-8
WGK 1

Glucoerucin
ROTICHROM® HPLC

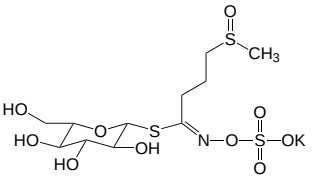
Reference substance for HPLC.
From *Eruca sativa*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
2280.1	10 mg	glass	370,90

Glucoiberin



3-(Methylsulfinyl)propylglucosinolate potassium salt

$C_{11}H_{20}KNO_{10}S_3$ · mp 135 to 145 °C
CAS No. 554-88-1
WGK 1

Glucoiberin
ROTICHROM® HPLC

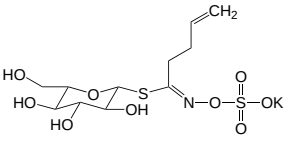
Reference substance for HPLC.
From *Iberis amara*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
2281.1	10 mg	glass	310,70

Gluconapin



3-Butenylglucosinolate potassium salt

$C_{11}H_{18}KNO_9S_2$
CAS No. 19041-09-9
WGK 1

Gluconapin
ROTICHROM® HPLC

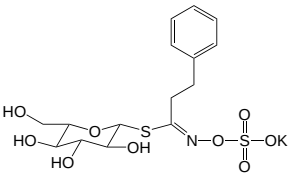
Reference substance for HPLC.
From *Brassica napus*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
2282.1	10 mg	glass	310,70

Gluconasturtiin



Phenylethylglucosinolate potassium salt

$C_{15}H_{20}KNO_9S_2$
CAS No. 499-30-9
WGK 1

Gluconasturtiin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Nasturtium officinale*

Storage temperature: +4 °C

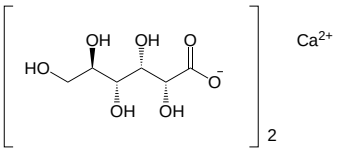
Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
2357.1	20 mg	glass	553,65

D-Gluconate-6-phosphate trisodium salt

▸ 6-Phosphogluconic acid trisodium salt dihydrate see page 1154

D-Gluconic acid calcium salt monohydrate



D-Calciumgluconate monohydrate

$C_{12}H_{22}CaO_{14} \cdot H_2O$
CAS No. 18016-24-5 · EC no. 206-075-8
WGK 1

D-Gluconic acid calcium salt monohydrate
≥98,5 %, Ph. Eur.

Guarantee analysis

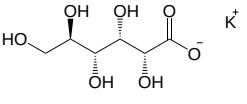
Appearance	white powder
Assay	98,5-102,0 %
Identity	complies
Appearance of solution	complies
Chloride (Cl)	≤0,02 %
Sulphate (SO_4)	≤0,01 %
Magnesium and alkali metals	≤0,4 %
Heavy metals (as Pb)	≤0,001%
Org. substances and boric acid	complies
Sucrose and reducing sugar	complies
Bioburden (TAMC)	≤1000 cfu/g
Yeasts/Moulds (TYMC)	≤100 cfu/g

Art. No.	Pack Qty.	Pack.	€
7502.1	500 g	plastic	57,55
Original pack 6 x 500 g			54,67/500 g
7502.2	1 kg	plastic	107,40
Original pack 6 x 1 kg			102,03/1 kg
7502.3	2.5 kg	plastic	256,95

D-Gluconicacid iron(II) salt dihydrate

▸ Iron (II)gluconate dihydrate see page 1018

Gluconic acid potassium salt



Potassium gluconate

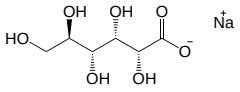
$C_6H_{11}KO_7$ · D 1,74 g/cm³ · mp 178 to 181 °C
CAS No. 299-27-4 · EC no. 206-074-2
WGK 1

Gluconic acid potassium salt
≥99 %, for synthesis

Type analysis
Assay ..... ≥99,0 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,01 %
pH value (10 % solution) 7,0-8,3
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,0002 %

Art. No.	Pack Qty.	Pack.	€
2621.1	100 g	plastic	20,35
2621.2	500 g	plastic	35,40
Original pack 6 x 500 g			33,63/500 g
2621.3	1 kg	plastic	56,90
Original pack 6 x 1 kg			54,06/1 kg

Gluconic acid sodium salt



Sodium gluconate

$C_6H_{11}NaO_7$ · mp 170 to 175 °C
CAS No. 527-07-1 · EC no. 208-407-7
WGK 1

Gluconic acid sodium salt
≥99 %, for synthesis

Type analysis
Assay ..... ≥99,0 %
pH-value (10 % solution) 6,5-7,5
Heavy metals (as Pb) ..... ≤0,002 %
Arsenic (As) ..... ≤0,0003 %

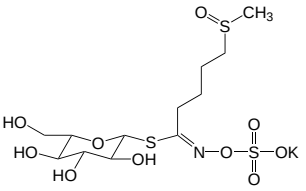
Art. No.	Pack Qty.	Pack.	€
2622.1	100 g	plastic	17,10
2622.2	500 g	plastic	24,65
Original pack 6 x 500 g			23,42/500 g
2622.3	1 kg	plastic	37,55
Original pack 6 x 1 kg			35,67/1 kg
2622.4	2.5 kg	plastic	60,10

4-*O*-β-D-Glucopyranosyl-D-glucose
▸ D(+)-Cellobiose see page 824

6-*O*-β-D-Glucopyranosyl-D-glucose
▸ β-D-Gentiobiose see page 956

(*S*)-(β-D-Glucopyranosyloxy)(4-hydroxyphenyl)acetonitrile
▸ Dhurrin see page 871

Glucoraphanin



3-(Methylsulphinyl)butyl-glucosinolate potassium salt

$C_{12}H_{22}KNO_{10}S_2$
CAS No. 21414-41-5
WGK 1

Glucoraphanin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Brassica olevacea*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97,0 %

Art. No.	Pack Qty.	Pack.	€
2374.1	10 mg	glass	327,90

Glucoraphenin

3-(Methylsulphinyl)butyl-glucosinolate potassium salt

$C_{12}H_{20}KNO_{10}S_3$
CAS No. 108844-81-1
WGK 1

Glucoraphenin
ROTICHROM® HPLC

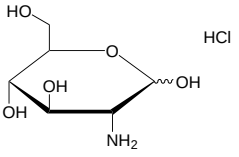
Reference substance for HPLC.
From *Raphanus sativus*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97,0 %

Art. No.	Pack Qty.	Pack.	€
1LE2.1	10 mg	glass	295,65

D(+)-Glucosamine hydrochloride



Chitosamine hydrochloride

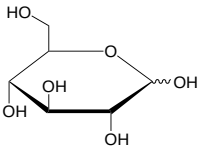
$C_6H_{14}ClNO_5$ · D 0,83 g/cm³ · mp 192 °C · flp 225,9 °C
CAS No. 66-84-2 · EC no. 200-638-1
WGK 1

D(+)-Glucosamine hydrochloride
≥99 %, for biochemistry

Type analysis
Appearance ..... fine white crystals
Assay ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
3769.1	100 g	plastic	107,40

D(+)-Glucose



Dextrose · Blood sugar

$C_6H_{12}O_6$ · mp 146 to 152 °C
CAS No. 50-99-7 · EC no. 200-075-1
WGK 1

D(+)-Glucose
p.a., ACS, anhydrous

Biochemical and microbiological applications.

Guarantee analysis
Specific rotation $[\alpha]_D^{25}$ (c=10 in H_2O) ..... +52,5° to +53,0°
In H_2O insoluble matter ..... ≤0,003 %
Loss on drying (105 °C) ..... ≤0,2 %
Ash content (as SO_4) ..... ≤0,01 %
Acidity (as CH_3COOH) ..... ≤0,002 meq/g
Starch ..... complies
Chloride (Cl) ..... ≤0,0025 %
Sulphate and sulphite (as SO_4) ..... ≤0,0025 %
Heavy metals (as Pb) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,00004 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
X997.1	250 g	plastic	20,35
X997.2	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg
X997.3	2.5 kg	plastic	112,90
X997.4	5 kg	plastic	203,20
X997.5	25 kg	plastic	886,90

D(+)-Glucose
CELLPURE® ≥98 %, anhydrous

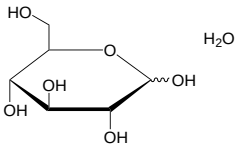
For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤5,0 I.U./g
Assay ..... ≥98 %
Sulphated ash ..... ≤0,5 %
Water (KF) ..... ≤1 %
Sulphite (SO_3) ..... ≤0,005 %
Specific rotation $[\alpha]_D^{20}$ ..... +52,5° to +53,3°

Art. No.	Pack Qty.	Pack.	€
HN06.1	250 g	plastic	17,10
HN06.2	500 g	plastic	27,85
Original pack 6 x 500 g			26,46/500 g
HN06.3	1 kg	plastic	42,90
Original pack 6 x 1 kg			40,76/1 kg
HN06.4	5 kg	plastic	138,70

D(+)-Glucose
▸ ROTI®Fair Glucose see page 1218

D(+)-Glucose monohydrate



Dextrose · Blood sugar

$C_6H_{12}O_6 \cdot H_2O$ · mp 83 °C
CAS No. 77938-63-7 · EC no. 200-075-1
WGK 1

D(+)-Glucose monohydrate
≥99,5 %, Ph. Eur.

Suitable for cell culture, tested for endotoxines.

Guarantee analysis
Appearance ..... white to off-white cryst. powder
Assay (dry substance) ..... ≥99,5 %
Identity ..... complies
Water (KF) ..... 7,5-9,5 %
Appearance of solution ..... complies
Specific rotation $[\alpha]_D^{20}$ ..... +52,5° to +53,3°
Conductivity (25 °C) ..... ≤20 µS/cm
Soluble starch, sulphite (SO_3) ..... ≤0,0015 %
Dextrine ..... complies
Endotoxin content ..... <1,25 I.U./g

Related Substances:
Impurities A and B (sum) ..... ≤0,4 %
Related substances (impurity C) ..... ≤0,2 %
Impurity D ..... ≤0,15 %
Related substances (unspecific impurities) ..... ≤0,1 %
Related substances (total) ..... ≤0,5 %
Disregard limit ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
6780.1	1 kg	plastic	26,80
Original pack 6 x 1 kg			25,46/1 kg
6780.2	5 kg	plastic	99,90
6780.4	10 kg	plastic	166,65
6780.3	50 kg	plastic	514,95

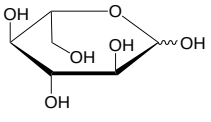
D(+)-Glucose monohydrate
for microbiology

Biochemical and microbiological applications.

Guarantee analysis
Specific rotation $[\alpha]_D^{20}$ ..... +52,5° to +53,3°
Appearance of solution ..... clear, brownish-yellow solution
Water (KF) ..... 7,0-9,5 %
Suitable for microbiology ..... complies

Art. No.	Pack Qty.	Pack.	€
6887.1	1 kg	plastic	25,70
Original pack 6 x 1 kg			24,42/1 kg
6887.2	2.5 kg	plastic	56,90
6887.3	5 kg	plastic	96,65
6887.5	25 kg	plastic	278,45

L(–)-Glucose



$C_6H_{12}O_6$ · mp 142 to 143 °C
CAS No. 921-60-8 · EC no. 213-068-3
WGK 1

L(–)-Glucose
≥98 %, for biochemistry

Mixture of anomers

Type analysis
Appearance white to off-white crystalline powder
Assay (HPLC) ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
7509.1	100 mg	glass	38,60
7509.2	500 mg	glass	95,70
7509.3	1 g	glass	160,20

Glucose oxidase (GOD)

GOD · GOx

CAS No. 9001-37-0 · EC no. 232-601-0
WGK 1

Danger H334

Glucose oxidase (GOD)
~360 U/mg protein (approx. 280 U/mg material)

From *Aspergillus niger*, freeze-dried.

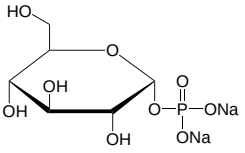
Packaging: 0,5 MU

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... yellow powder
Activity ..... ~360 U/mg protein
α-Amylase ..... <0,05 %
Invertase ..... <0,5 %
Maltase ..... <0,05 %
Ratio glucose-oxidase/catalase ..... >2000

Art. No.	Pack Qty.	Pack.	€
6028.1	1 unit(s)	plastic	289,20

α-D-Glucose-1-phosphate disodium salt tetrahydrate



$C_6H_{11}Na_2O_9P \cdot 4\ H_2O$ · mp 138 °C
CAS No. 56401-20-8 · EC no. 260-154-1
WGK 1

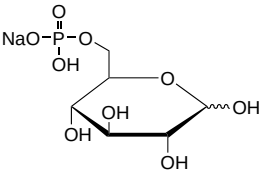
α-D-Glucose-1-phosphate disodium salt tetrahydrate
≥98 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6119.1	1 g	glass	81,60
6119.2	10 g	glass	639,65

D-Glucose-6-phosphate monosodium salt



$C_6H_{12}O_9PNa$ · mp 204 °C
CAS No. 54010-71-8 · EC no. 258-921-0
WGK 1

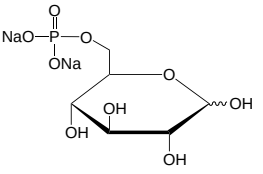
D-Glucose-6-phosphate monosodium salt
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (titr.) ..... ≥98,0 %
Solution (10 % in H_2O) ..... colourless
Water (KF) ..... ≤1,0 %
Specific rotation $[\alpha]_D^{20}$ (10 % in H_2O) .. +31° to +35°

Art. No.	Pack Qty.	Pack.	€
5544.1	1 g	glass	65,50
5544.2	5 g	plastic	266,10

D-Glucose-6-phosphate disodium dihydrate



G-6-P-Na_2

$C_6H_{11}Na_2O_9P \cdot x\ H_2O$
CAS No. 3671-99-6 · EC no. 222-938-1
WGK 1

D-Glucose-6-phosphate disodium hydrate
≥98 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white powder
Assay ..... ≥98 %
Specific rotation $[\alpha]_D^{20}$ (c=1, H_2O, 20 °C) ... +21,0 to +25,0 °
Water (KF) ..... ≤15 %

Art. No.	Pack Qty.	Pack.	€
CN72.1	1 g	glass	56,90
CN72.2	5 g	plastic	203,20
CN72.3	10 g	plastic	375,20

Glucose powder (pouch)
▸ ROTI®Fair Glucose see page 1218

X-α-D-glucoside
▸ 5-Bromo-4-chloro-3-indoxyl-α-D-glucopyranoside see page 788

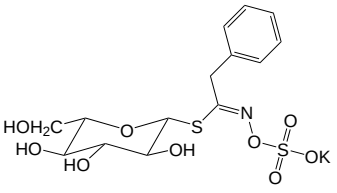
X-β-D-Glucoside

▸ X-Glu see page 1406

Glucosinolates

Art. No.	Description	Page
2273	Epiprogoitrin, ROTICHROM®, HPLC	912
2276	Glucobrassicanapin, ROTICHROM®, HPLC	959
2279	Glucobrassicin, ROTICHROM®, HPLC	960
2280	Glucoerucin, ROTICHROM®, HPLC	960
2281	Glucoiberin, ROTICHROM®, HPLC	960
2282	Gluconapin, ROTICHROM®, HPLC	960
2357	Gluconasturtiin, ROTICHROM®, HPLC	960
2374	Glucoraphanin, ROTICHROM®, HPLC	961
2436	Progoitrin, ROTICHROM®, HPLC	1183
6694	Sinalbin potassium salt, ROTICHROM®, HPLC	1274
5319	Sinigrin monohydrate, ROTICHROM®, CHR_{TLC}	1275

Glucotropaeolin



Benzylglucosinolate potassium salt

$C_{14}H_{18}KNO_9S_2$ · mp 70 °C
CAS No. 5115-71-9
WGK 1

Glucotropaeolin
ROTICHROM® HPLC

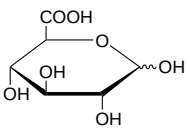
Reference substance for HPLC.
From *Tropaeolum majus*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1149.1	50 mg	glass	547,20

D-Glucuronic acid



D-GlcA

$C_6H_{10}O_7$ · mp 153 to 161 °C
CAS No. 6556-12-3 · EC no. 229-486-4
WGK 1

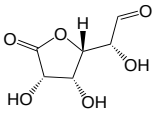
D-Glucuronic acid
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (titr.) ..... ≥98 %
Solution (20 % in water) ..... colourless, clear
Water (KF) ..... ≤1 %
Specific rotation $[\alpha]_D^{20}$ (c= 6 in H_2O, after 4 h) ..... +36,5° ±1°
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
4124.1	1 g	glass	23,55
4124.2	5 g	glass	50,45
4124.3	10 g	glass	85,90
4124.4	25 g	glass	145,15

D(+)-Glucuronic acid γ-lactone



D-Glucuronolactone

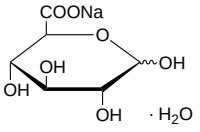
$C_6H_8O_6$ · D 0,67 g/cm³ · mp 175 °C
CAS No. 32449-92-6 · EC no. 251-053-3
WGK 2

D(+)-Glucuronic acid γ-lactone
≥98 %, for biochemistry

Type analysis
Appearance ..... white to off-white powder
Assay ..... 98,0-102 %
Specific rotation $[\alpha]_D^{20}$ (10 % in H_2O, 24 h) .... 18,0° ±1,0°
Loss on drying ..... ≤0,5 %
Loss on ignition ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
9946.1	25 g	glass	42,50

D-Glucuronic acid sodium salt monohydrate



Sodium glucuronate

$C_6H_9NaO_7 \cdot H_2O$ · mp 136 °C
CAS No. 14984-34-0 · EC no. 239-065-7
WGK 1

D-Glucuronic acid sodium salt monohydrate
≥99 %, for biochemistry

Type analysis
Assay (acidim.) ..... ≥99 %
Water (KF) ..... 6,7-8,7 %

Art. No.	Pack Qty.	Pack.	€
4355.1	10 g	glass	53,65
4355.2	25 g	glass	94,10

D-Glucuronolactone

▸ D(+)-Glucuronic acid γ-lactone see page 963

Glutamate dehydrogenase (GDH, GLDH)

GDH · GLDH · L-Glutamic dehydrogenase

CAS No. 9029-12-3 · EC no. 232-848-4
WGK 1

Glutamate dehydrogenase (GDH, GLDH)
≥10 U/mg material (ca. 40 U/mg protein)

From bovine liver, freeze-dried.

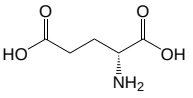
Packaging: 10 KU

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white powder
Activity ..... ≥10 U/mg material

Art. No.	Pack Qty.	Pack.	€
6052.1	1 unit(s)	plastic	256,95

D-Glutamic acid



2-Aminopentanedioic acid · H-D-Glu-OH

$C_5H_9NO_4$ · mp 200 °C
CAS No. 6893-26-1 · EC no. 230-000-8
WGK 1

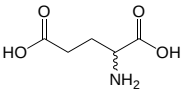
D-Glutamic acid
≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... 99,0-101,0 %
Specific rotation $[\alpha]_D^{20}$ (c=10 in 2 N HCl) .. -32,5° to -31,5°
Loss on drying ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
7879.1	5 g	plastic	30,00
7879.2	25 g	plastic	89,15
7879.3	100 g	plastic	209,65

DL-Glutamic acid



2-Aminopentanedioic acid

$C_5H_9NO_4$ · mp 198 to 200 °C
CAS No. 617-65-2 · EC no. 210-522-2
WGK 1

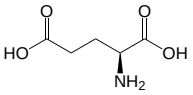
DL-Glutamic acid
≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98,5 %
Heavy metals (as Pb) ..... ≤0,001 %
Ash content ..... ≤0,1 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8596.1	25 g	plastic	70,85
8596.2	100 g	plastic	224,70

L-Glutamic acid



2-Aminopentanedioic acid · H-L-Glu-OH

$C_5H_9NO_4$ · D 1,54 g/cm³ · mp 213 °C
CAS No. 56-86-0 · EC no. 200-293-7
WGK 1

L-Glutamic acid
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤6,0 E.U./g
Assay ..... ≥99 %
Loss on drying ..... ≤0,1 %
Specific rotation $[\alpha]_D^{20}$ ..... +31,5° to +32,4°
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As_2O_3) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
1743.1	25 g	plastic	18,85
1743.2	100 g	plastic	31,10
1743.3	500 g	plastic	98,40
Original pack 6 x 500 g			93,48/500 g

L-Glutamic acid
≥98,5 %, Ph. Eur., for biochemistry

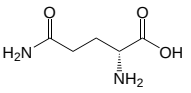
Guarantee analysis
Appearance ..... white crystals
Assay ..... 98,5-100,5 %
Identity ..... complies
Appearance of solution ..... complies
pH value (0,67 %, 25 °C) 2,5-4,0
Specific rotation $[\alpha]_D^{20}$ (10 % in HCl 2 N) +31,5° to +32,4°
Light transmission (10 % in HCl 2 N) ..... ≥98 %
Loss on drying ..... ≤0,1 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Ammonium (NH_4) ..... ≤0,02 %
Iron (Fe) ..... ≤0,001 %
Heavy metals ..... ≤0,001 %
Ash content (as SO_4) ..... ≤0,1 %
Foreign amino acids (TLC) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
3774.1	250 g	plastic	45,05
3774.2	1 kg	plastic	134,40
Original pack 6 x 1 kg			127,68/1 kg

Glutamic acid 5-amide

- D-Glutamine see page 964
- DL-Glutamine see page 964
- L-Glutamine see page 964

D-Glutamine



Glutamic acid 5-amide

$C_5H_{10}N_2O_3$ · mp 183 to 186 °C
CAS No. 5959-95-5
WGK 1

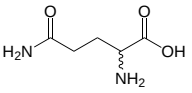
D-Glutamine
≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98,5 %
Specific rotation $[\alpha]_D^{20}$ (c= 2 in 6 N HCl) .. -38,0° to -33,0°
Loss on drying ..... ≤0,3 %

Art. No.	Pack Qty.	Pack.	€
7876.1	1 g	glass	29,60
7876.2	5 g	plastic	85,90
7876.3	25 g	plastic	246,20

DL-Glutamine



Glutamic acid 5-amide

$C_5H_{10}N_2O_3$ · mp 175 to 178 °C
CAS No. 585-21-7
WGK 1

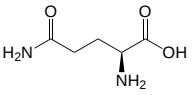
DL-Glutamine
≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98,5 %
Identity (IR) ..... complies
Heavy metals (as Pb) ..... ≤0,001 %
Ash content ..... ≤0,1 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8595.1	1 g	glass	52,60
8595.2	5 g	plastic	99,45
8595.3	25 g	plastic	306,40

L-Glutamine



Glutamic acid 5-amide · H-L-Gln-OH

$C_5H_{10}N_2O_3$ · D 1,47 g/cm³ · mp 185 to 187 °C
CAS No. 56-85-9 · EC no. 200-292-1
WGK 1

L-Glutamine
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤50 E.U./g
Assay ..... ≥99 %
Loss on drying ..... ≤0,3 %
Ammonium (NH_4) ..... ≤0,1 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
HN08.1	25 g	plastic	23,55
HN08.2	100 g	plastic	46,15
HN08.3	500 g	plastic	162,90
Original pack 6 x 500 g			154,76/500 g

L-Glutamine
≥99 %, USP, for biochemistry

Guarantee analysis
Appearance ..... white, cryst. powder
Assay (titr., dry substance) ..... 99,0-101,0 %
Identity ..... complies
Spez. Drehung $[\alpha]_D^{20}$ (c=4 in H_2O) .... +6,3° to +7,3°
Specific rotation $[\alpha]_D^{20}$ (10 % in HCl 2 N) +31,5° to +33,0°
pH-value 4,5-6,0
Arsenic (As_2O_3) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,02 %
Ammonium (NH_4) ..... ≤0,1 %
Sulphate (SO_4) ..... ≤0,02 %
Loss on drying (105 °C) ..... ≤0,3 %
Ash content (as SO_4) ..... ≤0,1 %
Foreign amino acids ..... complies

Art. No.	Pack Qty.	Pack.	€
3772.1	100 g	plastic	37,55
3772.2	500 g	plastic	123,65
Original pack 6 x 500 g			117,47/500 g
3772.3	1 kg	plastic	224,70
Original pack 6 x 1 kg			213,47/1 kg
3772.4	2.5 kg	plastic	471,95

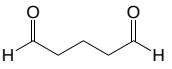
Glutamine solution

- ROTI®Cell Glutamine solution see page 1213

γ-L-Glutamyl-L-cysteinyl-glycine

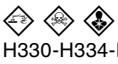
- L-Glutathione reduced see page 965

Glutaraldehyde for Electron Microscopy



Glutaric dialdehyde · 1,5-Pentanedial · Glutaral

CAS No. 111-30-8 · EC no. 203-856-5
UN no. 2927 · ADR 6.1 (8) II · WGK 3

 **Danger** H302-H314-H317-H330-H334-H335-H410-EUH071

Glutaraldehyde 50 %
50 %, in water, for electron microscopy

Fixative for electron microscopy

Storage at 2–8 °C, ideally under inert gas (argon or nitrogen). Do not freeze solution!

$C_5H_8O_2$ · D 1,13 g/cm³ · mp -33 °C · bp 100 to 102 °C · flp >100 °C

Type analysis
Appearance . clear, colorless to pale yellow liquid
Assay ..... ~50 %

Art. No.	Pack Qty.	Pack.	€
4995.1	500 ml	plastic	94,50
4995.2	2.5 l	plastic	392,40
Original pack 4 x 2.5 l			372,78/2.5 l

Glutaraldehyde 25 %
25 %, in water, for electron microscopy

Fixative for electron microscopy

Storage at 2–8 °C, ideally under inert gas (argon or nitrogen). Do not freeze solution!

$C_5H_8O_2$ · D 1,06 g/cm³ · mp -6 °C · bp >100 °C

Type analysis
Assay ..... 23-27 %
Density (d 20 °C/4 °C) 1,055-1,065

Art. No.	Pack Qty.	Pack.	€
3778.1	1 l	plastic	85,50
Original pack 6 x 1 l			81,23/1 l
3778.2	5 l	plastic	354,75
Original pack 2 x 5 l			337,01/5 l

Glutaraldehyde 25 %
25 %, in water, for electron microscopy

Fixative for electron microscopy

Storage at 2–8 °C, ideally under inert gas (argon or nitrogen). Do not freeze solution!

$C_5H_8O_2$ · D 1,06 g/cm³ · mp -6 °C · bp >100 °C

Type analysis
Appearance ..... colourless to light yellow
Odour ..... characteristic
Assay ..... 23-27 %
Density (d 20 °C/4 °C) 1,055-1,065

Art. No.	Pack Qty.	Pack.	€
4157.2	10 ml	cardboard	83,35
4157.1	25 ml	glass	22,50
4157.3	50 ml	glass	34,95

Glutaric dialdehyde
▸ Glutaraldehyde for Electron Microscopy see page 964

Glutathione-agarose beads
▸ ROTI®Garose-Glu/GST Cartridges see page 1224
▸ ROTI®Garose-Glu/GST Beads see page 1223

Glutathione oxidized

GSSG

$C_{20}H_{32}N_6O_{12}S_2$ · mp 178 °C
CAS No. 27025-41-8
WGK 1

Glutathione oxidized
≥98 %, for biochemistry

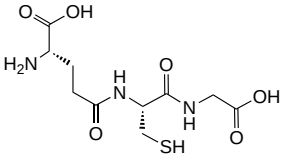
Dimer of GSH

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Purity (HPLC) ..... ≥98,0 %
Water ..... ≤8,0 %
Specific rotation $[\alpha]_D^{20}$ (c=4 in H_2O) ... -106° to -96°

Art. No.	Pack Qty.	Pack.	€
6378.1	1 g	glass	46,15
6378.2	5 g	glass	188,15

L-Glutathione reduced



γ-L-Glutamyl-L-cysteinyl-glycine · GSH

$C_{10}H_{17}N_3O_6S$ · mp 188 to 196 °C
CAS No. 70-18-8 · EC no. 200-725-4
WGK 2

L-Glutathione reduced
CELLPURE® ≥99 %

Storage temperature: +4 °C

Type analysis
Appearance ..... white cryst. powder
Endotoxins ..... ≤6,0 E.U./g
Assay (dry substance) ..... ≥98,5 %
Specific rotation $[\alpha]_D^{20}$ ..... -17,5° to -15,5°
Heavy metals ..... ≤0,001 %
Arsenic (As_2O_3) ..... ≤0,0002 %
Loss on drying (3 h, 105 °C) ..... ≤0,5 %
Ash content ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
6832.1	2.5 g	glass	32,15
6832.2	5 g	glass	45,05
6832.3	10 g	glass	69,80
6832.4	25 g	glass	138,70

L-Glutathione reduced
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white powder
Assay (dry substance) ..... ≥98,0 %
Specific rotation $[\alpha]_D^{20}$ ..... -17,5° to -15,5°
Loss on drying (105 °C) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6382.1	5 g	glass	36,45
6382.2	25 g	glass	117,20
6382.3	50 g	glass	209,65
6382.4	100 g	glass	392,40

Gluten

CAS No. 8002-80-0 · EC no. 232-317-7
WGK 1

Gluten
≥75 % protein

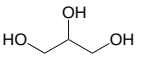
From wheat.

Type analysis
Assay (protein) ..... ≥75 %

Art. No.	Pack Qty.	Pack.	€
4601.1	100 g	plastic	31,10

Gly
▸ Glycine see page 967

Glycerol



1,2,3-Propanetriol

CAS No. 56-81-5 · EC no. 200-289-5
WGK 1

Glycerol
≥99,7 %, p.a., anhydrous, Ultra Quality, synthetic

$C_3H_8O_3$ · D 1,263 to 1,265 g/cm³ · mp 18 to 20 °C · bp 290 °C · flp 199 °C

Type analysis
Assay ..... ≥99,7 %
Water ..... ≤0,5 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,002 %
Sulphated ash ..... ≤0,01 %
Relative density (20/20 °C) 1,260-1,265
Refractive index n_D^{20} 1,470-1,475
Aluminium (Al) ..... ≤0,00005 %
Barium (Ba) ..... ≤0,00001 %
Boron (B) ..... ≤0,000002 %
Calcium (Ca) ..... ≤0,0001 %
Cadmium (Cd) ..... ≤0,000005 %
Cobalt (Co) ..... ≤0,000005 %
Chromium (Cr) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000005 %
Iron (Fe) ..... ≤0,0002 %
Magnesium (Mg) ..... ≤0,0001 %
Manganese (Mn) ..... ≤0,00001 %
Nickel (Ni) ..... ≤0,00002 %
Lead (Pb) ..... ≤0,00001 %
Tin (Sn) ..... ≤0,00001 %
Zinc (Zn) ..... ≤0,00005 %

Art. No.	Pack Qty.	Pack.	€
6962.5	100 ml	glass	224,70
6962.1	1 l	plastic	2.096,25
Original pack 6 x 1 l			1.991,44/1 l
6962.2	2.5 l	plastic	5.106,25
Original pack 4 x 2.5 l			4.850,94/2.5 l
6962.3	5 l	plastic	10.051,25
Original pack 2 x 5 l			9.548,69/5 l
6962.4	10 l	plastic	19.618,75

Glycerol
ROTIPURAN® ≥99,5 %, p.a., anhydrous

$C_3H_8O_3$ · D 1,263 to 1,265 g/cm³ · mp 18 to 20 °C · bp 290 °C · flp 199 °C

Guarantee analysis
Appearance ..... clear liquid
Assay ..... ≥99,5 %
Colour (APHA) ..... ≤5
Water (KF) ..... ≤0,5 %
Chloride (Cl) ..... ≤0,001 %
Sulphated ash ..... ≤0,01 %
Relative density (20/20 °C) 1,263-1,2651
Refractive index n_D^{20} 1,470-1,475
Halogen compounds ..... ≤0,0035 %

Art. No.	Pack Qty.	Pack.	€
3783.1	1 l	plastic	69,80
Original pack 6 x 1 l			66,31/1 l
3783.3	1 l	glass	71,95
Original pack 6 x 1 l			68,35/1 l
3783.2	2.5 l	plastic	130,65
Original pack 4 x 2.5 l			124,12/2.5 l
3783.4	2.5 l	glass	132,80
Original pack 4 x 2.5 l			126,16/2.5 l
3783.5	5 l	plastic	209,65
Original pack 2 x 5 l			199,17/5 l
3783.6	10 l	plastic	353,70

Glycerol
≥99 %, anhydrous, Ph. Eur., USP, synthetic

$C_3H_8O_3$ · D 1,263 to 1,265 g/cm³ · mp 18 to 20 °C · bp 290 °C · flp 199 °C

Guarantee analysis
Appearance ..... clear, colourless liquid
Assay (dry substance) ..... 99,0-101,0 %
Identity ..... complies
Water ..... ≤2,0 %
Colour ..... complies
Acidity/alkalinity ..... complies
Ester ..... complies
Halogen compounds ..... ≤0,003 %
Aldehydes ..... ≤0,001 %
Sugar ..... complies
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,002 %
Specific density (25/25 °C) ..... ≥1,249
Refractive index n_D^{20} 1,470-1,475
Ash content ..... ≤0,01 %
Sulphated ash ..... ≤0,01 %
Ethylene and diethylene glycol ..... complies
Related substances ..... complies
Impurities A, related substances ..... complies

Art. No.	Pack Qty.	Pack.	€
6967.1	1 l	plastic	2.031,75
Original pack 6 x 1 l			1.930,16/1 l
6967.2	2.5 l	plastic	4.998,75
Original pack 4 x 2.5 l			4.748,81/2.5 l
6967.3	5 l	plastic	9.879,25
Original pack 2 x 5 l			9.385,29/5 l
6967.4	10 l	plastic	19.242,50

Glycerol
SOLVAGREEN® ≥98 %, anhydrous, Ph. Eur.

$C_3H_8O_3$ · D 1,263 to 1,265 g/cm³ · mp 18 to 20 °C · bp 290 °C · flp 199 °C

Guarantee analysis
Assay ..... 98,0-101,0 %
Identity ..... complies
Appearance of solution ..... complies
Refractive index n_D^{20} 1,470-1,475
Relative density (20/20 °C) 1,263-1,2651
Acidity/alkalinity ..... complies
Ester ..... complies
Colour ..... complies
Sulphated ash ..... ≤0,01 %
Halogen compounds ..... ≤0,0035 %
Water (KF) ..... ≤2,0 %
Chloride (Cl) ..... ≤0,001 %
Aldehydes ..... ≤0,001 %
Sugar ..... complies
Impurity A, related substances ..... complies

Art. No.	Pack Qty.	Pack.	€
7530.1	1 l	plastic	53,25
Original pack 6 x 1 l			50,59/1 l
7530.4	2.5 l	plastic	91,30
Original pack 4 x 2.5 l			86,74/2.5 l
7530.5	5 l	plastic	166,65
Original pack 2 x 5 l			158,32/5 l
7530.2	10 l	plastic	299,95
7530.6	25 l	plastic	579,45

Glycerol 86 %

Glycerol
ROTIPURAN® ≥86 %, p.a.

For freeze technique.

$C_3H_8O_3$ · D 1,23 to 1,27 g/cm³ · bp 290 °C · flp 180 °C

Guarantee analysis
Appearance ..... clear liquid
Assay ..... 85-87 %
Water (KF) ..... 12,0-16,0 %
Chloride (Cl) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,0005 %
Reducing substances (Aldehydes) ..... ≤0,001 %
Sulphated ash ..... ≤0,01 %
Halogen compounds ..... ≤0,003 %

Art. No.	Pack Qty.	Pack.	€
4043.1	1 l	plastic	62,25
Original pack 6 x 1 l			59,14/1 l
4043.3	2.5 l	plastic	107,40
Original pack 4 x 2.5 l			102,03/2.5 l
4043.2	5 l	plastic	192,45
Original pack 2 x 5 l			182,83/5 l

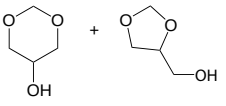
Glycerol
SOLVAGREEN® ~86 %, Ph. Eur., extra pure

$C_3H_8O_3$ · D 1,23 to 1,27 g/cm³ · bp 290 °C · flp 180 °C

Guarantee analysis
Appearance ..... clear liquid
Assay ..... 83,5-88,5 %
Identity ..... complies
Water (KF) ..... 12,0-16,0 %
Appearance of solution ..... complies
Acidity/alkalinity ..... complies
Ester ..... complies
Refractive index n_D^{20} 1,449-1,455
Aldehydes, red. substances ..... complies
Sugar ..... complies
Sulphated ash ..... ≤0,01 %
Chloride (Cl) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,0005 %
Halogen compounds ..... ≤0,003 %
Impurity A ..... ≤0,1 %
Any other impurities ..... ≤0,1 %
Sum of all impurities ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
7533.1	1 l	plastic	51,50
Original pack 6 x 1 l			48,93/1 l
7533.3	2.5 l	plastic	88,05
Original pack 4 x 2.5 l			83,65/2.5 l
7533.4	5 l	plastic	160,20
Original pack 2 x 5 l			152,19/5 l
7533.2	10 l	plastic	289,20
7533.5	25 l	plastic	557,95

Glycerol Formal



Mixture of 1,3-Dioxolan-5-ol and 1,3-Dioxolan-4-yl-methanol

2 ($C_4H_8O_3$) · D 1,219 g/cm³ · mp <-50 °C · bp 194 °C · flp 99 °C
EC no. 911-694-8
WGK 1

Warning H319-H361fd

Glycerol Formal
SOLVAGREEN® ≥99 %, for synthesis

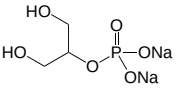
Solvent for many applications, completely miscible with water.

Type analysis
Assay ..... ≥99,0 %
Formaldehyde ..... ≤0,1 %
Water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
0798.1	100 ml	glass	20,35
0798.2	500 ml	glass	45,70
0798.3	1 l	glass	67,20
Original pack 6 x 1 l			63,84/1 l
0798.4	2.5 l	glass	131,70
Original pack 4 x 2.5 l			125,12/2.5 l

Glycerol gelatine
▸ Kaiser's glycerol gelatine phenol-free
see page 1026

β-Glycerophosphate disodium salt pentahydrate



$C_3H_7Na_2O_6P$ · 5 H_2O
CAS No. 13408-09-8 · EC no. 212-464-3
WGK 1

β-Glycerophosphate disodium salt pentahydrate
≥97 %, for biochemistry

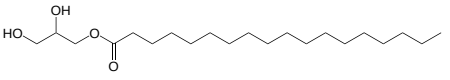
Phosphatase inhibitor

Stock solution: 1 M (306 mg/ml) in H_2O, aliquot in 1 ml reaction vials after 0.2 µm filtration. Storage of stock solution: at –20 °C. Working concentration: 10–50 mM.

Type analysis
Appearance ..... white cryst. powder
Assay ..... ≥97,0 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
6847.1	50 g	glass	67,20
6847.2	100 g	glass	126,35
6847.3	250 g	glass	284,90
6847.4	500 g	glass	547,20
Original pack 6 x 500 g			519,84/500 g

Glyceryl monostearate



$C_{21}H_{42}O_4$ · D 0,92 to 0,96 g/cm³ · mp 66,7 °C · flp 240 °C
CAS No. 31566-31-1 · EC no. 250-705-4
WGK 1

Glyceryl monostearate
pure

Storage temperature: +4 °C

Type analysis
Monoglyceride ..... ≥35 %
Acid value (mg KOH/g) ..... ≤6,0
Iodine value (g I_2/100 g) ..... ≤5,0
Melting point ..... 54-60 °C

Art. No.	Pack Qty.	Pack.	€
3787.1	500 g	plastic	26,35
Original pack 6 x 500 g			25,03/500 g

Glyceryl triacetate

▸ Triacetin see page 1375

Glyceryl tributyrate

▸ Tributyrin see page 1376

Glyceryl tricaprinate

▸ Tricaprin see page 1376

Glycidether 100

Epon 812

D 1,22 g/cm³ · bp >180 °C · flp ~175 °C
CAS No. 90529-77-4 · EC no. 292-011-4
WGK 1

Warning H302-H315-H319-H341-H361f

Glycidether 100
for electron microscopy

Formerly known as Epon 812, Epoxipropyl ether of glycerol.

Type analysis
Appearance ..... clear, colourless to pale yellow viscous liquid

Art. No.	Pack Qty.	Pack.	€
8619.1	500 g	glass	46,15
Original pack 6 x 500 g			43,84/500 g
8619.2	2.5 kg	glass	171,50

Glycidether Accelerator DMP-30

2,4,6-Tris(dimethylaminomethyl)-phenol · Accelerator DMP-30

D 0,97 g/cm³ · mp -20,2 °C · bp >200 °C · flp 107 °C
CAS No. 90-72-2 · EC no. 202-013-9
UN no. 2735 · ADR 8 II · WGK 1

Danger H302-H314

Glycidether Accelerator DMP-30
for glycidether 100

Assay (GC) ..... ≥ 80,0 %

Art. No.	Pack Qty.	Pack.	€
8621.1	100 g	glass	59,05

Glycidether Hardener DBA

2-Dodecenylsuccinic acid anhydride · Hardener DBA

D 1,004 g/cm³ · mp <-20 °C · bp 200 °C · flp 177,8 °C
CAS No. 26544-38-7 · EC no. 246-917-1
WGK 1

Warning H317-H319-H413

Glycidether Hardener DBA
for glycidether 100

Type analysis
Appearance ..... clear, yellowish viscous liquid

Art. No.	Pack Qty.	Pack.	€
8623.1	100 g	glass	32,15
8623.2	1 kg	glass	192,45
Original pack 6 x 1 kg			182,83/1 kg

Glycidether Hardener MNA

Hardener MNA · Methyl nadic anhydride · 1-Methyl-5-norbornene-2,3-dicarboxylic acid anhydride

$C_{10}H_{10}O_3$ · D 1,247 g/cm³ · mp <-40 °C · bp 274,6 °C · flp 140,7 °C
CAS No. 25134-21-8 · EC no. 246-644-8
UN no. 2810 · ADR 6.1 III · WGK 1

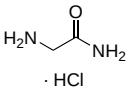
Danger H302-H315-H317-H318-H331-H334

Glycidether Hardener MNA
for glycidether 100

Type analysis
Appearance ..... clear, pale yellow viscous liquid

Art. No.	Pack Qty.	Pack.	€
8639.1	100 g	glass	39,70
8639.2	1 kg	glass	267,70
Original pack 6 x 1 kg			254,32/1 kg

Glycinamide hydrochloride



· HCl

2-Aminoacetamide hydrochloride · H-Gly-NH_2·HCl

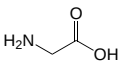
$C_2H_7ClN_2O$ · mp 204 °C
CAS No. 1668-10-6 · EC no. 216-789-1
WGK 1

Glycinamide hydrochloride
≥95 %, for biochemistry

Type analysis
Assay (titr.) ..... ≥95,0-105,0 %
Solution (10 % in H_2O) ..... colourless to yellow
Melting point ..... 193-203 °C
Heavy metals (as Pb) ..... ≤0,0015 %

Art. No.	Pack Qty.	Pack.	€
5543.1	10 g	plastic	30,00
5543.2	25 g	plastic	58,60
5543.3	50 g	plastic	104,85

Glycine



α-Aminoacetic acid · Gly · Glycocoll

$C_2H_5NO_2$ · D 1,161 g/cm³ · mp >233 °C · bp 375,7 °C
CAS No. 56-40-6 · EC no. 200-272-2
WGK 1

Glycine
≥99 %, Blotting Grade

For Western blotting

Type analysis
Appearance ..... white cryst. powder
Assay ..... ≥99 %
Loss on drying ..... ≤0,2 %
Hydrolysable substances ..... complies
pH value (5 % solution) ..... 6,1 ±0,2
Sulphated ash ..... ≤0,1 %
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,007 %
Sulphate (SO_4) ..... ≤0,006 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001%
Arsenic (As) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
0079.1	250 g	plastic	31,75
0079.2	500 g	plastic	59,05
Original pack 6 x 500 g			56,10/500 g
0079.3	1 kg	plastic	101,60
Original pack 6 x 1 kg			96,52/1 kg
0079.4	2.5 kg	plastic	196,20

Glycine
PUFFERAN® ≥99 %, p.a.

Guarantee analysis
Appearance ..... white cryst. powder
Assay ..... ≥99 %
pH value (5 % in H_2O) 5,9-6,4
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,007 %
Sulphate (SO_4) ..... ≤0,006 %
Arsenic (As) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %
Heavy metals ..... ≤0,001 %
Sulphated ash ..... ≤0,1 %
Loss on drying ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
3908.1	250 g	plastic	29,60
3908.2	1 kg	plastic	96,65
Original pack 6 x 1 kg			91,82/1 kg
3908.4	2.5 kg	plastic	180,10
3908.3	5 kg	plastic	267,70
3908.6	10 kg	plastic	471,95
3908.5	25 kg	plastic	1.037,40

Glycine
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤6,0 E.U./g
Assay ..... ≥99 %
Loss on drying ..... ≤0,2 %
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,007 %
Sulphate (SO_4) ..... ≤0,006 %
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
HN07.1	100 g	plastic	21,40
HN07.2	500 g	plastic	62,90
Original pack 6 x 500 g			59,76/500 g
HN07.3	1 kg	plastic	112,90
Original pack 6 x 1 kg			107,26/1 kg

Glycine
Ph. Eur., USP, JP

Buffer substance

Guarantee analysis
Assay (perchl. based on dry substance) ..... 98,5-101,0 %
Identity ..... complies
Appearance of solution ..... clear, colourless
pH-value (5 % solution) 5,9-6,3
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,007 %
Sulphate (SO_4) ..... ≤0,006 %
Arsenic (As) ..... ≤0,0001 %
Heavy metals (as Pb) ..... ≤0,001 %
Loss on drying (105 °C) ..... ≤0,2 %
Ash content (as SO_4) ..... ≤0,1 %
Hydrolysable substances ..... complies
Ninhydrin-positive substances ..... complies
Related substances ..... complies
Residual solvents ..... complies

Art. No.	Pack Qty.	Pack.	€
T873.1	250 g	plastic	32,80
T873.3	500 g	plastic	60,10
Original pack 6 x 500 g			57,10/500 g
T873.2	1 kg	plastic	104,85
Original pack 6 x 1 kg			99,61/1 kg
T873.4	2.5 kg	plastic	231,15

Glycine
≥99 %, for biochemistry

Type analysis
Assay ..... ≥99,0 %
pH value (5 % in H_2O) 5,5-6,5
Loss on drying ..... ≤0,2 %
Heavy metals (as Pb) ..... ≤0,002 %
Ammonium (NH_4) ..... ≤0,01 %
Chloride (Cl) ..... ≤0,007 %
Sulphate (SO_4) ..... ≤0,01 %
Arsenic (As) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
3187.1	250 g	plastic	23,55
3187.2	500 g	plastic	33,90
Original pack 6 x 500 g			32,21/500 g
3187.3	1 kg	plastic	51,10
Original pack 6 x 1 kg			48,55/1 kg
3187.5	2.5 kg	plastic	101,60
3187.4	5 kg	plastic	192,45
3187.6	10 kg	plastic	332,20
3187.7	25 kg	plastic	633,20

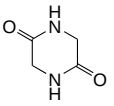
Glycine
≥99 %, for synthesis

Type analysis
Assay ..... ≥99 %
Loss on drying ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
3790.1	250 g	plastic	21,40
3790.2	1 kg	plastic	45,05
Original pack 6 x 1 kg			42,80/1 kg
3790.4	2.5 kg	plastic	91,30
3790.3	5 kg	plastic	160,20
3790.5	10 kg	plastic	295,65
3790.6	25 kg	plastic	579,45

Glycine powder (pouch)
▸ ROTI®Fair Glycine see page 1218

Glycine anhydride



2,5-Diketopiperazine · 2,5-Piperazinedione · Cyclo(Gly-Gly)

$C_4H_6N_2O_2$ · mp >300 °C
CAS No. 106-57-0 · EC no. 203-411-5
WGK 1

Glycine anhydride
extra pure

Type analysis
Appearance white to off-white crystalline powder
Appearance of solution (0,1 % in H_2O) colourless, clear
Loss on drying (105 °C, 4 h) ..... ≤0,5 %
pH value (0,1 % in H_2O) 5,3-6,3

Art. No.	Pack Qty.	Pack.	€
5542.1	25 g	plastic	56,90

Glycocholic acid sodium salt
▸ Sodium glycocholate see page 1284

Glycocoll
▸ Glycine see page 967

Glycogen

Precipitation reagent (DNA)

D 1 g/cm³
CAS No. 9005-79-2 · EC no. 232-683-8
WGK 1

Glycogen
lyophilized, made of oysters

For molecular biology and biochemistry.

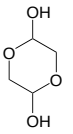
Stock solution: 5 mg/ml in distilled, sterile water
Working concentration: 50 µg/ml

Type analysis
Appearance ..... bright powder
Origin ..... oysters
Solubility (0,25 %, 1 M NaCl) ..... complies
Loss on drying ..... ≤15 %
Specific rotation $[\alpha]_D^{20}$ ..... +170° to 200°

Art. No.	Pack Qty.	Pack.	€
HP51.1	1 g	glass	31,10
HP51.2	5 g	plastic	123,65
HP51.3	10 g	plastic	213,95
HP51.4	25 g	plastic	461,20

Glycol
▸ Ethylene glycol see page 924

Glycolaldehyde



Hydroxyacetaldehyde

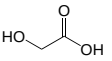
$C_4H_8O_4$ · mp 85 °C
CAS No. 23147-58-2 · EC no. 607-202-3
WGK 1

Glycolaldehyde
dimer

Type analysis
Appearance ..... white powder
Melting point ..... 80-90 °C

Art. No.	Pack Qty.	Pack.	€
3801.1	1 g	glass	103,10
3801.2	5 g	glass	428,95

Glycolic acid



$C_2H_4O_3$ · D 1,25 to 1,27 g/cm³ · mp 10 °C · bp 112 °C · flp >100 °C
CAS No. 79-14-1 · EC no. 201-180-5
UN no. 3265 · ADR 8 I · WGK 1

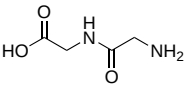
Danger H314-H332

Glycolic acid
70 %, for synthesis

Type analysis
Appearance ..... clear, yellowish liquid
Assay (alkalimetric) ..... 69-71 %
Density (20 °C) ..... 1,23-1,29 g/cm³
NaCl ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
1LEY.1	250 ml	plastic	14,95
1LEY.2	1 l	plastic	31,75
Original pack 6 x 1 l			30,16/1 l
1LEY.3	2.5 l	plastic	62,25
Original pack 4 x 2.5 l			59,14/2.5 l

Glycylglycine



Diglycine · Gly-Gly

$C_4H_8N_2O_3$ · mp 255 to 260 °C
CAS No. 556-50-3 · EC no. 209-127-8
WGK 1

Glycylglycine
PUFFERAN® ≥99 %, Ultra Quality

Guarantee analysis
Appearance ..... white cryst. powder
Assay (titr.) ..... 99,0-100,5 %
pH value 5,5-6,5
Sulphated ash ..... ≤0,1 %
Heavy metals (as Pb) ..... ≤0,0005 %
Foreign amino acids ..... non detected

Absorbance:
405 nm ..... ≤ 0,01

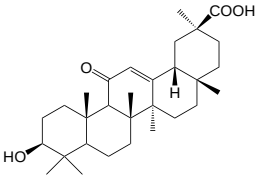
Art. No.	Pack Qty.	Pack.	€
3794.1	10 g	plastic	21,40
3794.2	100 g	plastic	134,40
3794.3	250 g	plastic	267,70
3794.4	500 g	plastic	493,45
Original pack 6 x 500 g			468,78/500 g

Glycylglycine
PUFFERAN® ≥98,5 %, Buffer Grade

Guarantee analysis
Assay (titr.) ..... ≥98,5 %
Loss on drying ..... ≤2,0 %
pH value (5 % in H_2O) 5,5-6,0
Residue on ignition ..... ≤0,1 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
HN74.1	50 g	plastic	42,50
HN74.2	100 g	plastic	70,85
HN74.3	250 g	plastic	153,20
HN74.4	500 g	plastic	278,45
Original pack 6 x 500 g			264,53/500 g

18-β-Glycyrrhetinic acid



Enoxolone

$C_{30}H_{46}O_4$ · D 1,202 g/cm³ · mp >288,4 to <292,2 °C
CAS No. 471-53-4 · EC no. 207-444-6

Warning H319

18-β-Glycyrrhetinic acid
ROTICHROM® HPLC

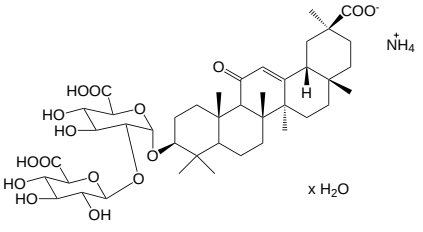
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7469.2	20 mg	glass	203,20

Glycyrrhizic acid ammonium salt hydrate



Monoammonium glycyrrhizinate

$C_{42}H_{65}NO_{16}$ · x H_2O · mp 207 to 209 °C
CAS No. 53956-04-0 · EC no. 258-887-7
WGK 1

Warning H319

Glycyrrhizic acid ammonium salt hydrate
ROTICHROM® CHR ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (dry substance) ..... ≥98,0 %
Water ..... ≤6,0 %
Specific rotation $[\alpha]_D^{20}$ ..... +49,0° to +54,0°
Heavy metals ..... ≤0,002 %
Sulphated ash ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
6247.1	10 g	glass	53,65
6247.2	50 g	glass	209,65

Gly-Gly
▸ Glycylglycine see page 968

Glyoxal



Ethanedial · Oxaldehyde

$C_2H_2O_2$ · D 1,27 g/cm³ · mp -15 °C · bp 104 °C
CAS No. 107-22-2 · EC no. 203-474-9
WGK 1

Warning H315-H317-H319-H332-H335-H341

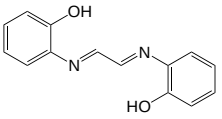
Glyoxal
40 % in water

Type analysis
Assay (titr.) ..... 40 % ±0,5 %
pH value 2,0-3,5
Colour number (APHA) ..... ≤20

Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Pack.	€
HN49.1	100 ml	glass	18,20
HN49.2	1 l	glass	46,80
Original pack 6 x 1 l			44,46/1 l
HN49.3	2.5 l	glass	94,50
Original pack 4 x 2.5 l			89,78/2.5 l

Glyoxal-bis-(2-hydroxyanil)



Calcium red · 2,2'-(Ethanediylidene dinitrilo) diphenol · GBHA

$C_{14}H_{12}N_2O_2$ · mp 194 to 196 °C
CAS No. 1149-16-2 · EC no. 214-560-0
WGK 1

Glyoxal-bis-(2-hydroxyanil)
≥97 %

Detection reagenz for Ca, Sc, U

Dissolve 0.4 g in 100 ml ethanol

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
1LAA.1	1 g	glass	16,05
1LAA.2	5 g	glass	34,30
1LAA.3	10 g	glass	57,55

Glyoxalin
▸ Imidazole see page 1004

Glyoxyldiureide
▸ Allantoin see page 719

GOD
▸ Glucose oxidase (GOD) see page 962

Gold shot

Au · D 19,3 g/cm³ · mp 1065 °C · bp 2800 °C
CAS No. 7440-57-5 · EC no. 231-165-9

Gold shot
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5622.1	1 g	plastic	493,45
5622.2	5 g	plastic	2.338,15

Gold shot
≥99,95 %, 1–6 mm

Type analysis
Purity ..... ≥99,95 %
Silver (Ag) ..... ≤0,01 %
Arsenic (As) ..... ≤0,003 %
Bismuth (Bi) ..... ≤0,002 %
Cadmium (Cd) ..... ≤0,003 %
Chromium (Cr) ..... ≤0,001 %
Copper (Cu) ..... ≤0,005 %
Iron (Fe) ..... ≤0,003 %
Magnesium (Mg) ..... ≤0,003 %
Manganese (Mn) ..... ≤0,003 %
Nickel (Ni) ..... ≤0,003 %
Lead (Pb) ..... ≤0,001 %
Palladium (Pd) ..... ≤0,005 %
Platinum (Pt) ..... ≤0,003 %
Tin (Sn) ..... ≤0,003 %
Zinc (Zn) ..... ≤0,003 %

Art. No.	Pack Qty.	Pack.	€
0882.1	1 g	glass	246,20
0882.2	5 g	glass	1.030,95

Gold Standards
▸ Gold AAS Standard Solution see page 1316
▸ Gold ICP Standard Solution see page 1316
▸ Gold ICP Standard Solution see page 1316

Gold(III) chloride trihydrate
▸ Tetrachloroauric(III) acid trihydrate see page 1359

Goldner's staining solutions

D 1 g/cm³ · bp 100 °C

Goldner's staining I
for microscopy

For visualising connective tissue (Masson-Goldner trichrome staining).

Ponceau-Fuchsin solution

WGK 1

Art. No.	Pack Qty.	Pack.	€
3469.1	500 ml	glass	39,70
3469.2	1 l	glass	59,70
Original pack 6 x 1 l			56,72/1 l

Goldner's staining II
for microscopy

For visualising connective tissue (Masson-Goldner trichrome staining).

Phosphotungstic acid-Orange G solution

WGK 1

Danger H315-H318

Art. No.	Pack Qty.	Pack.	€
3470.1	500 ml	glass	81,60
3470.2	1 l	glass	131,70
Original pack 6 x 1 l			125,12/1 l

Goldner's staining III
for microscopy

For visualising connective tissue (Masson-Goldner trichrome staining).

Light green SF yellowish solution

WGK 1

Art. No.	Pack Qty.	Pack.	€
3473.1	500 ml	glass	39,70
3473.2	1 l	glass	59,70
Original pack 6 x 1 l			56,72/1 l

Gold potassium cyanide
▸ Potassium dicyanoaurate see page 1171

Gold trichloride hydrochloride
▸ Tetrachloroauric(III) acid trihydrate see page 1359

Gold trichloride trihydrate
▸ Tetrachloroauric(III) acid trihydrate see page 1359

Good's buffer
▸ HEPES see page 978

GOx
▸ Glucose oxidase (GOD) see page 962

G-6-P-Na$_2$
▸ D-Glucose-6-phosphate disodium dihydrate see page 962

Gram's decolourising solution

D 0,8 g/cm³ · bp 78 °C · flp 12 °C
UN no. 1993 · ADR 3 II · WGK 1

Danger H225-H319-H336-EUH066

Gram's decolourising solution
ready-to-use, for microscopy

For differentiation of bacteria during Gram staining

Ethanolic solution containing 25 % acetone

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
CN02.1	500 ml	glass	33,25

Gram staining kit

D 1 g/cm³
UN no. 2924 · ADR 3 (8) II · WGK 2

Danger H225-H314-H336-H341-H373-EUH066

Gram staining kit
for microscopy

Kit for differentiation of gram-positive and gram-negative bacteria, incl. instructions for use.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Composition
Carbol gentianaviolet solution (Art. No. CN00) ..... 500 ml
Iodine-potassium iodide solution acc. to Lugol (Art. No. N052) ..... 500 ml
Gram's decolourising solution (Art. No. CN02) ..... 500 ml
Carbol fuchsine solution (Art. No. A130) ... 500 ml

Art. No.	Pack Qty.	Pack.	€
HP02.1	1 kit	glass	129,55

Granopent® P

Paraffin 52–54 °C

D 0,88 to 0,92 g/cm³ · mp 52 to 54 °C · bp >300 °C · flp >200 °C
CAS No. 8002-74-2 · EC no. 232-315-6

Granopent® P
100 %, paraffin in pellets, for histology

Melting range: 52-54 °C

Not a medical device / Not an IVD product

Type analysis
Appearance ..... white, wax-like pellets
Melting point ..... 52-54 °C
Needle penetration (25 °C, 1/10 mm) 14-20

Art. No.	Pack Qty.	Pack.	€
9279.1	1 kg	plastic	27,85
Original pack 6 x 1 kg			26,46/1 kg
9279.2	2.5 kg	plastic	60,10

Granulopent®
▸ Phosphorus pentoxide see page 1157

Graphite

D 2,162 g/cm³ · mp >600 °C
CAS No. 7782-42-5 · EC no. 231-955-3

Graphite
natural, amorphous

Ideal as lubricant for metals and for metal blacking, absorbent.

Type analysis
Carbon (C) ..... 45-50 %
Ash ..... 50-55 %
Humidity ..... ≤0,8 %

Sieve analysis:
≥85 % passes 75 µm sieve (200 mesh).

Art. No.	Pack Qty.	Pack.	€
7614.2	500 g	plastic	21,40
Original pack 6 x 500 g			20,33/500 g
7614.3	1 kg	plastic	32,15
Original pack 6 x 1 kg			30,54/1 kg
7614.1	3 kg	plastic	58,60

Graciolon
▸ Betulinic acid see page 773

Griess reagent

D 1,035 g/cm³
UN no. 2790 · ADR 8 III · WGK 1

Danger H314-EUH208

Griess reagent
for determination of nitrites

Reagent for colorimetric determination of nitrites

Type analysis
Appearance ..... clear, colourless to slightly pink liquid
Sensitivity to nitrites ..... ≥1 µg/ml

Art. No.	Pack Qty.	Pack.	€
1ET0.1	500 ml	glass	37,10

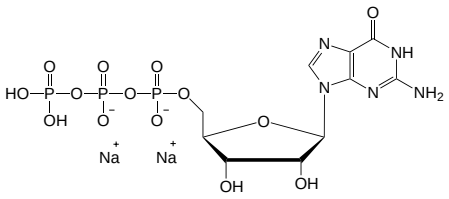
GSH
▸ L-Glutathione reduced see page 965

GSSG
▸ Glutathione oxidized see page 965

G418 sulphate solution
▸ Geneticin disulphate (G418) solution see page 955

GTC
▸ Guanidine thiocyanate see page 971

GTP



Guanosine-5'-triphosphate disodium salt

$C_{10}H_{14}N_5O_{14}P_3Na_2 \cdot 3\,H_2O$
CAS No. 56001-37-7
WGK 1

GTP
≥90 %, lyophilized

for molecular biology and biochemistry

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
K056.1	100 mg	plastic	75,80
K056.4	1 g	plastic	303,70
K056.5	10 g	plastic	1.192,20

GTP solution

$C_{10}H_{13}N_5O_{14}P_3 \cdot D\ 1\ g/cm^3$
CAS No. 56001-37-7
WGK 1

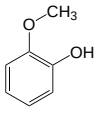
GTP solution
≥99 %, 100 mM solution

for molecular biology and biochemistry

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
K047.1	250 µl	plastic	52,60

Guaiacol



2-Hydroxyanisole · Brenzcatechinmono-methylether

$C_7H_8O_2 \cdot D\ 1{,}13\ g/cm^3$ · mp 27 to 29 °C · bp 205 °C · flp 90 °C
CAS No. 90-05-1 · EC no. 201-964-7
WGK 1

Warning H302-H315-H319

Guaiacol
≥98 %, extra pure

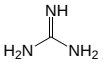
Type analysis
Assay (GC) ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
7308.1	100 ml	glass	50,45

Guanidine HCl

▸ Guanidine hydrochloride see page 971

Guanidine hydrochloride



Guanidine HCl · Guanidinium chloride · Imino-methanediamine HCl

$CH_5N_3 \cdot HCl \cdot D\ 1{,}345\ g/cm^3$ · mp 188 °C
CAS No. 50-01-1 · EC no. 200-002-3
WGK 1

Warning H302+H332-H315-H319

Guanidine hydrochloride
≥99,7 %, p.a., protein Grade

Reagent used for reversible denaturation and renaturation of proteins.

Stock solution: 6 M in hydrous buffer systems (e.g. 25 mM HEPES). Storage of stock solution: +4 °C. Working concentration: 6 M to 0.2 M acc. to application.

Guarantee analysis
Assay ..... ≥99,7 %
Appearance of solution (50 % solution) ..... clear, colourless
Dicyandiamide ..... ≤0,01 %
Ammonium (NH_4) ..... ≤0,01 %
Iron (Fe) ..... ≤0,0001 %
Melamin ..... ≤0,01 %
Water ..... ≤0,2 %
Melting point ..... 185-188 °C
pH value (6 M, 50 % sol.) 4,5-7,0
DNAse ..... none detected
RNAse ..... none detected
Protease ..... none detected

Absorbance:
230 nm ..... ≤0,15
260 nm ..... ≤0,03
280 nm ..... ≤0,015

Art. No.	Pack Qty.	Pack.	€
0035.1	100 g	plastic	70,85
0035.2	500 g	plastic	235,45
Original pack 6 x 500 g			223,68/500 g
0035.3	1 kg	plastic	396,70
Original pack 6 x 1 kg			376,87/1 kg
0035.4	2.5 kg	plastic	747,15
0035.5	5 kg	plastic	1.177,15

Guanidine hydrochloride
≥99,5 %, for biochemistry

Type analysis
Assay ..... ≥99,5 %
Water ..... ≤0,5 %
Ammonium (NH_4) ..... ≤0,05 %
Iron (Fe) ..... ≤0,0001 %
Melamin ..... ≤0,01 %
Dicyandiamide ..... ≤0,1 %
pH value (6 M, 50 % in H_2O) 4,5-7,0

Absorbance:
260 nm ..... ≤0,05
280 nm ..... ≤0,20

Art. No.	Pack Qty.	Pack.	€
0037.3	250 g	plastic	48,30
0037.2	500 g	plastic	85,90
Original pack 6 x 500 g			81,61/500 g
0037.1	1 kg	plastic	158,60
Original pack 6 x 1 kg			150,67/1 kg
0037.4	2.5 kg	plastic	321,45
0037.5	5 kg	plastic	596,65

Guanidine hydrochloride
≥98 %

For technical use.

Type analysis
Appearance ..... colourless crystals
Assay ..... ≥98 %
Water ..... ≤1,0 %
Ammonium chloride ..... ≤0,5 %
Insoluble in water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6069.2	500 g	plastic	37,55
Original pack 6 x 500 g			35,67/500 g
6069.1	1 kg	plastic	60,10
Original pack 6 x 1 kg			57,10/1 kg
6069.3	2.5 kg	plastic	120,95

Guanidine hydrochloride solution

D 1,16 g/cm³ · mp -18 °C · bp 110 to 115 °C
EC no. 200-002-3
WGK 1

Warning H302-H315-H319

Guanidine hydrochloride solution
55 % in water (6.7 M)

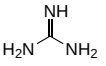
For protein denaturation.

Type analysis
Assay ..... 54,0-56,0 %
pH value 5,0-7,0
Iron (Fe) ..... ≤0,0001 %
Ammonium (NH_4) ..... ≤0,5 %

Absorbance:
260 nm ..... ≤0,30
280 nm ..... ≤0,15

Art. No.	Pack Qty.	Pack.	€
9465.1	1 l	glass	120,95
Original pack 6 x 1 l			114,90/1 l

Guanidine thiocyanate



· HSCN

GTC · Guanidinium thiocyanate · Guanidinium isothiocyanate

$C_2H_6N_4S \cdot D\ 1{,}29\ g/cm^3$ · mp 118 to 121 °C
CAS No. 593-84-0 · EC no. 209-812-1
UN no. 1759 · ADR 8 II · WGK 2

Danger H302+H312+H332-H314-H412-EUH032

Guanidine thiocyanate
≥99,5 %, p.a., Protein Grade

Type analysis
Appearance ..... white crystals
Assay ..... ≥99,5 %
Ammonium (NH_4^+) ..... ≤0,2 %
Water ..... ≤0,5 %
Ash ..... ≤0,5 %
Melting point ..... 118-121 °C
pH value (1 M, H_2O) 5-7
Cd (Cadmium) ..... ≤0,0005 %
Co (Cobalt) ..... ≤0,0005 %
Cr (Chrom) ..... ≤0,0005 %
Cu (Copper) ..... ≤0,0005 %
Fe (Iron) ..... ≤0,0005 %
Mg (Magnesium) ..... ≤0,0005 %
Mn (Manganese) ..... ≤0,0005 %
Ni (Nickel) ..... ≤0,0005 %
Pb (Lead) ..... ≤0,0005 %
DNases, RNases, Protease ..... none detected

Absorbance:
280 nm ..... ≤0,6
300 nm ..... ≤0,2

Art. No.	Pack Qty.	Pack.	€
1AN7.1	50 g	plastic	31,10
1AN7.2	250 g	plastic	107,00
1AN7.3	500 g	plastic	192,45
Original pack 6 x 500 g			182,83/500 g
1AN7.4	1 kg	plastic	289,20
Original pack 6 x 1 kg			274,74/1 kg

Guanidine thiocyanate
≥99 %, for biochemistry

Reagent for denaturation of proteins and for isolation of DNA and RNA.

For a 4 M solution, solubilise 472,64 g in distilled water and fill to 1 l.

Stock solution: 4 M or 8 M in water. Storage of stock solution: +4 °C. Working concentration: 4 M in hydrous buffer system (e.g. 25 mM sodium citrate, 0,5 % SDS)

Type analysis
Appearance ..... colourless crystals
Appearance (33 %, water) ..... colourless, clear
Assay ..... ≥99,0 %
Melting point ..... 118-121 °C
Water ..... ≤0,3 %
Iron (Fe) ..... ≤0,0001 %
Heavy metals ..... ≤0,001 %
pH value (1 M, H_2O) 5,0-7,0

Absorbance:
280 nm ..... ≤0,40
300 nm ..... ≤0,05

Art. No.	Pack Qty.	Pack.	€
0017.1	100 g	plastic	35,40
0017.3	500 g	plastic	130,65
Original pack 6 x 500 g			124,12/500 g
0017.2	1 kg	plastic	217,70
Original pack 6 x 1 kg			206,82/1 kg
0017.5	5 kg	plastic	966,45

Guanidine thiocyanate
≥99 %, extra pure

Type analysis
Assay (titr.) ..... ≥99,0 %
pH value 5-7
Water (KF) ..... ≤0,5 %
Melting range ..... 118-121 °C
Ash ..... ≤0,1 %
Iron (Fe) ..... ≤0,0001 %

Absorbance:
280 nm ..... ≤0,5
300 nm ..... ≤0,1

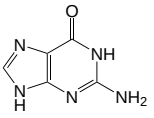
Art. No.	Pack Qty.	Pack.	€
2628.1	100 g	plastic	34,30
2628.2	250 g	plastic	67,20
2628.3	500 g	plastic	123,65
Original pack 6 x 500 g			117,47/500 g
2628.4	1 kg	plastic	217,70
Original pack 6 x 1 kg			206,82/1 kg

Guanidinium chloride
▸ Guanidine hydrochloride see page 971

Guanidinium isothiocyanate
▸ Guanidine thiocyanate see page 971

Guanidinium thiocyanate
▸ Guanidine thiocyanate see page 971

Guanine



4-Aminohypoxanthine

$C_5H_5N_5O$ · mp >360 °C
CAS No. 73-40-5 · EC no. 200-799-8
WGK 1

Warning H315-H319-H335

Guanine
≥97 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98,0 %
Loss on drying (3 h, 105 °C) ..... ≤0,5 %
Heavy metals ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
7505.1	10 g	glass	24,65
7505.2	25 g	glass	45,05

Guanine hydrochloride

$C_5H_5N_5O$ · HCl · mp >300 °C
CAS No. 635-39-2 · EC no. 211-235-5
WGK 1

Warning H315-H319-H335

Guanine hydrochloride
≥98 %, for biochemistry

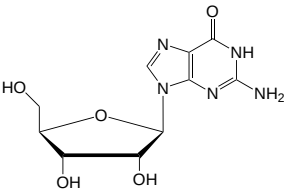
Storage temperature: +4 °C

Type analysis
Assay ..... ≥98,0 %
Loss on drying ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
3814.2	5 g	glass	18,85
3814.1	10 g	glass	27,45
3814.3	50 g	glass	95,70

Guanine-9-β-D-ribofuranoside
▸ Guanosine see page 972

Guanosine



Guanine-9-β-D-ribofuranoside

$C_{10}H_{13}N_5O_5$ · mp 250 °C
CAS No. 118-00-3 · EC no. 204-227-8
UN no. 2811 · ADR 6.1 III · WGK 1

Danger H301

Guanosine
≥98 %, for biochemistry

Type analysis
Appearance white to off-white crystalline powder
Assay (HPLC) ..... ≥98,0 %
Heavy metals ..... ≤0,001 %
Loss on drying (105 °C, 3 h) ..... ≤5,0 %

Art. No.	Pack Qty.	Pack.	€
0715.1	10 g	plastic	27,45
0715.2	25 g	plastic	52,15

Guanosine-BCE-phosphoramidite

DMT-dG(*N*-Bu)P-(OCH_2CH_2CN)-N($iPr)_2$ · Phosphoramidites · BCE phosphoramidites

$C_{44}H_{54}N_7O_8P$
CAS No. 93183-15-4
WGK 1

Guanosine-BCE-phosphoramidite
for DNA synthesis

Thread size 19 mm

Suitable for Polygen®

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
K923.1	1 g	glass	44,65

Guanosine-CPG-Support

dG-Icaa-CPG · CPG support

WGK 1

Guanosine-CPG-Support
500 Å pore size

Support material for DNA-synthesis.

Loading: 30–40 µmol/g

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98,0 %
CPG loading ..... 30-40 µmol/g
Coupling efficiency ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
2320.3	1 g	plastic	74,75

Guanosine-5'-triphosphate disodium salt

▸ GTP see page 971

Guarana powder

Semen guaranae powdered

CAS No. 84929-28-2 · EC no. 284-512-1
WGK 1

Guarana powder
powder

Guar plant containing ~3-5 % caffeine.

Type analysis
Appearance ..... brownish powder

Art. No.	Pack Qty.	Pack.	€
A527.1	250 g	plastic	36,45
A527.2	1 kg	plastic	106,45
Original pack 6 x 1 kg			101,13/1 kg

Guar flour

CAS No. 9000-30-0 · EC no. 232-536-8
WGK 1

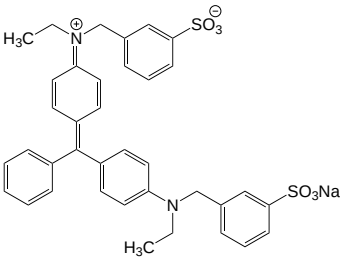
Guar flour
~5000 cP

Type analysis
Viscosity (1 % solution) ..... ~5000 cP
pH value (1 %, H_2O) 5,5-7,0
Moisture ..... ≤12 %
Carbohydrates ..... ≥80 %
Protein ..... ≤5,0 %
Ash ..... ≤0,8 %

Optained from endosperm of the seed of the guar plant *Cyamopsis tetragonolobus* which is mainly cultivated in Asia.

Art. No.	Pack Qty.	Pack.	€
3527.2	500 g	plastic	35,40
Original pack 6 x 500 g			33,63/500 g
3527.1	1 kg	plastic	60,10
Original pack 6 x 1 kg			57,10/1 kg

Guinea green B (C.I. 42085)



Acid green 3

$C_{37}H_{35}N_2NaO_6S_2$ · mp 255 °C
CAS No. 4680-78-8 · EC no. 225-132-8
WGK 1

Guinea green B (C.I. 42085)
extra pure

Type analysis
Appearance ..... dark green to dark purple powder
Appearance of solution (1 % in H_2O) ... clear, blue to green

Art. No.	Pack Qty.	Pack.	€
7694.1	5 g	glass	21,00
7694.2	25 g	glass	38,20
7694.3	100 g	glass	103,10

Gum arabic

Acacia

D 1,4 g/cm³ · flp >250 °C
CAS No. 9000-01-5 · EC no. 232-519-5
WGK 2

Warning H319

Gum arabic
spray-dried

Guarantee analysis
Appearance ..... white to off-white powder
pH value (25 % in H_2O) 4,1-5,8
Optical rotation ..... -36° to -22°
Loss on drying ..... ≤10 %
Heavy metals (as Pb) ..... ≤0,004 %
Arsenic (As) ..... ≤0,0003 %
Lead (Pb) ..... ≤0,0002 %
Mercury (Hg) ..... ≤0,0001 %
Cadmium (Cd) ..... ≤0,0001 %
Total ash ..... ≤4 %
Acid insoluble ash ..... ≤0,5 %
Insoluble matter ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
4159.2	100 g	plastic	19,25
4159.3	500 g	plastic	50,00
Original pack 6 x 500 g			47,50/500 g
4159.1	1 kg	plastic	91,95
Original pack 6 x 1 kg			87,35/1 kg

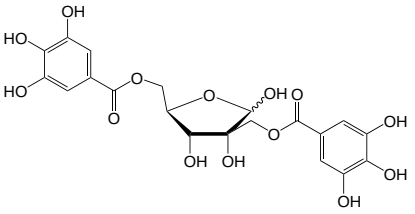
GVCP Agar (Base)

▸ Legionella Agar (Base) see page 1040

Hafnium Standards

- Hafnium ICP Standard Solution see page 1317
- Hafnium ICP Standard Solution see page 1317

Hamamelitannin



$C_{20}H_{20}O_{14}$ · mp 140 °C
CAS No. 469-32-9 · EC no. 207-416-3
WGK 1

Hamamelitannin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Hamamelis virginiana*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1151.1	20 mg	glass	321,45

Hanks' salt solution

- ROTI®Cell Hanks' BSS see page 1213

Hanus solution (0.2 N)

Hanus solution
0,1 mol IBr/l – 0,2 N, volumetric standard solution

For determination of iodine number.

D 1,06 g/cm³ · mp 17 °C · bp 118 °C · flp 40 °C

UN no. 2789 · ADR 8 (3) II · WGK 1

Danger H226-H290-H314

Type analysis
Amount-of-substance conc. (20 °C) .. 0,1 mol IBr/l ±2 %
Titer ..... 0,9800 - 1,0200

Art. No.	Pack Qty.	Pack.	€
KK63.1	1 l	glass	76,25
Original pack 6 x 1 l			72,44/1 l

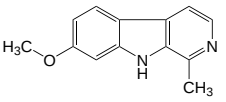
Hardener DBA

- Glycidether Hardener DBA see page 967

Hardener MNA

- Glycidether Hardener MNA see page 967

Harmine



$C_{13}H_{12}N_2O$ · mp 262 to 264 °C
CAS No. 442-51-3 · EC no. 207-131-4
UN no. 1544 · ADR 6.1 II

Warning H302+H312+H332-H319

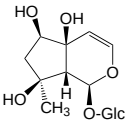
Harmine
ROTICHROM® ~CHR$_{TLC}$

Reference substance for thin layer chromatography.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
9968.1	500 mg	glass	51,50

Harpagid



$C_{15}H_{24}O_{10}$ · mp 125 °C
CAS No. 6926-08-5
WGK 1

Warning H302

Harpagid
ROTICHROM® HPLC

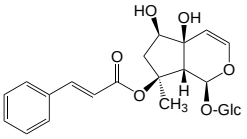
Reference substance for HPLC.
From *Harpagophytum procumbens*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1152.1	10 mg	glass	353,70

Harpagoside



8'-Cynnamoylharpagide

$C_{24}H_{30}O_{11}$ · mp 120 to 125 °C
CAS No. 19210-12-9 · EC no. 242-881-6
WGK 1

Warning H302

Harpagoside
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤5,0 %
Assay (qNMR) ..... ≥80,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE21.1	25 mg	glass	1.235,20

Harpagoside
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥80,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC21.1	50 mg	glass	618,15

Harpagoside
ROTICHROM® HPLC

Reference substance for HPLC.
From *Harpagophytum procumbens*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
7471.1	10 mg	glass	123,55
7471.2	25 mg	glass	267,70
7471.3	50 mg	glass	482,70

Harris Hematoxylin solution

- Hematoxylin solution acc. to Harris see page 977

HATU

- *O*-(7-Azabenzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium hexafluorophosphate (HATU) see page 758

HBBS

- ROTI®Cell Hanks' BSS see page 1213

HBTU

- *O*-(Benzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium hexafluorophosphate (HBTU) see page 770

HCl-ethanol solutions

Hydrochloric acid in ethanol

D ~0,9 g/cm³ · bp 78 °C · flp 22 °C
UN no. 2924 · ADR 3 (8) II · WGK 1

Danger H225-H290-H319

HCl-ethanol solution 0.75 %
0,75 % HCl in ethanol, ready-to-use, for histology

Differentiating solution for histological staining.

Type analysis
Appearance ..... clear, colourless
Density (20 °C) 0,88-0,90

Art. No.	Pack Qty.	Pack.	€
9969.1	500 ml	plastic	20,35
9969.2	1 l	plastic	33,25
Original pack 6 x 1 l			31,59/1 l
9969.3	5 l	plastic	112,35
Original pack 2 x 5 l			106,73/5 l

HCl-ethanol solution 3 %

3 % HCl in ethanol, ready-to-use, for histology

Differentiating solution for histological staining

Type analysis

Appearance ..... clear, colourless
Density (20 °C) 0,896-0,905

Art. No.	Pack Qty.	Pack.	€
6477.1	500 ml	plastic	21,40
6477.2	1 l	plastic	37,55
Original pack 6 x 1 l			35,67/1 l
6477.3	5 l	plastic	131,70
Original pack 2 x 5 l			125,12/5 l

HCl/KCl buffer

▸ Legionella Acid Buffer see page 1039

0.2 M HCl/KCl Solution, pH 2.2

▸ Legionella Acid Buffer see page 1039

HCTU

▸ *O*-(1*H*-6-Chlorobenzotriazole-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium hexafluorophosphate (HCTU) see page 831

HDMA

▸ 1-[(Dimethylamino)(morpholino)methylene]-1*H*-[1,2,3]triazolo[4,5-b]pyridine-1-ium 3-oxide hexafluorophosphate (HDMA) see page 886

HDMC

▸ 4-((6-Chloro-1*H*-benzo{d}[1,2,3]triazol-1-yloxy)(dimethylamino)methylene)-morpholin-4-ium hexafluorophosphate (HDMC) see page 831

HDPA

▸ Hexadecylphosphonic acid see page 981

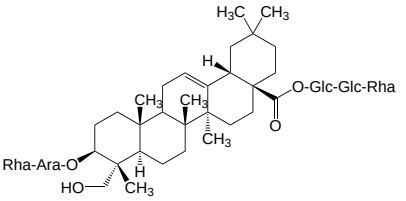
Heating Bath Media

Art. No.	Description	Page
1980	Alloy acc. to Wood, Use as metal bath	720
7143	Heating bath fluid ROTITHERM® K + H, ROTITHERM®	1244
2277	Silicone oil M 2, low viscous, 2 cSt	1267
4106	Silicone oil M 3, low viscous, 3 cSt	1267
7844	Silicone oil M 5, low viscous, 5 cSt	1267
4113	Silicone oil M 10, low viscous, 10 cSt	1268
4010	Silicone oil M 20, low viscous, 20 cSt	1268
4020	Silicone oil M 50, medium viscous, 50 cSt	1268
4025	Silicone oil M 100, medium viscous, 100 cSt	1268
4030	Silicone oil M 200, medium viscous, 200 cSt	1268
4035	Silicone oil M 350, medium viscous, 350 cSt	1268
4040	Silicone oil M 500, medium viscous, 500 cSt	1268
4045	Silicone oil M 1000, medium viscous, 1 000 cSt	1268
4050	Silicone oil M 5000, highly viscous, 5 000 cSt	1268
4055	Silicone oil M 10 000, highly viscous, 10 000 cSt	1268
4060	Silicone oil M 20 000, highly viscous, 20 000 cSt	1269
4080	Silicone oil M 60 000, highly viscous, 60 000 cSt	1269
4085	Silicone oil M 100 000, highly viscous, 100 000 cSt	1269
4112	Silicone oil M 250 000, highly viscous, 250 000 cSt	1269
4109	Silicone oil M 500 000, super highly viscous, 500 000 cSt	1269
9375	Silicone oil M 1 000 000, super-highly viscous, 1 000 000 cSt	1269
4217	Silicone oil M 3, low viscous, stabilised	1269
A413	Silicone oil M 5, low viscous, stabilised	1269
2188	Silicone oil M 20, low viscous, stabilised	1270
4212	Silicone oil M 50, medium viscous, stabilised	1270
2362	Silicone oil M 1000 red, medium viscous, 1 000 cSt	1270
A132	Silicone oil M 1000 light blue, medium viscous, 1 000 cSt	1270
5467	Silicone oil M 80 000 blue , highly viscous, 80 000 cSt	1270
4069	Silicone oil M 140 000 red , medium viscous, 140 000 cSt	1270
3132	Silicone oil M 500 000 light blue, medium viscous, 500 000 cSt	1270
4076	Silicone oil OF-OH 50, organo functional	1270
4130	Silicone oil PN 200, medium viscous, 200 cSt	1270
6826	Silicone oil PN 1000, medium viscous, 1 000 cSt	1270
1965	Silicone oil TT 2, low viscous, 2 cSt, dried	1270
1952	Silicone oil TT 3, low viscous, 3 cSt, dried	1270
1971	Silicone oil TT 5, low viscous, 5 cSt, dried	1271

Heavy water

▸ Deuterium oxide see page 869

Hederacoside C



$C_{58}H_{96}O_{26}$ · mp 218 to 223 °C
CAS No. 14216-03-6 · EC no. 238-072-2
WGK 1

Warning H302

Hederacoside C

≥90 %, for biochemistry

Storage temperature: +4 °C

Type analysis

Appearance ..... colourless to light ochre coloured powder
Assay (HPLC, 205 nm) ..... ≥90 %

Art. No.	Pack Qty.	Pack.	€
6775.1	250 mg	glass	188,15

Hederacoside C

ROTI®Star Primary Standard

Type analysis

Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤8,0 %
Water (KF) ..... ≤3,0 %
Assay (qNMR) ..... ≥84,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE46.1	10 mg	glass	891,20

Hederacoside C

ROTICHROM® Working Standard

Type analysis

Assay (HPLC) ..... ≥85,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC46.1	25 mg	glass	385,95

Hederacoside C

ROTICHROM® HPLC

Reference substance for HPLC.
From *Hedera helix*.

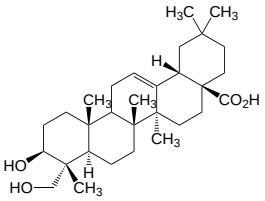
Storage temperature: +4 °C

Type analysis

Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7472.1	10 mg	glass	149,45
7472.2	25 mg	glass	310,70
7472.3	50 mg	glass	568,70

Hederagenin



Caulosapogenin · Melanthigenin

$C_{30}H_{48}O_4$ · mp 325 to 328 °C
CAS No. 465-99-6 · EC no. 207-369-9
WGK 1

Hederagenin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Hedera helix.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

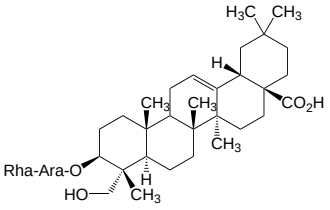
Art. No.	Pack Qty.	Pack.	€
7474.2	20 mg	glass	263,40

Hederagenin
ROTICHROM® ~CHR$_{TLC}$

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
9141.2	250 mg	glass	284,90

α-Hederin



Helixin

$C_{41}H_{66}O_{12}$ · mp 247 to 252 °C
CAS No. 27013-91-8 · EC no. 248-166-5
WGK 1

α-Hederin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7486.1	10 mg	glass	209,65

HEDP

▸ 1-Hydroxyethane-1,1-diphosphonic acid (HEDP) see page 999

H&E fast staining kit

Fast staining kits for histology & cytology · Hematoxylin-eosin staining

D 0,91 g/cm³
UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H318-H370-H373

H&E fast staining kit
for microscopy

Staining kit for fast oversight staining of tissue sections. Hematoxylin-eosin staining, incl. instructions for use.

Instructions for use included.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Composition

Fast staining H&E, solution 1 (Art. No. 8947).
Fast staining H&E, solution 2 (Art. No. 8950).
Contents of this kit may not be bought separately.

Art. No.	Pack Qty.	Pack.	€
9194.1	1 kit	plastic	68,30
9194.2	1 kit	plastic	99,45

Helenien

D 0,96 g/cm³ · mp 84 to 86 °C
CAS No. 547-17-1 · EC no. 208-916-4
WGK 1

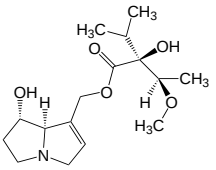
Helenien
ROTICHROM® ~CHR$_{TLC}$

Mixture of natural fatty acid esters of lutein.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
4452.2	10 mg	glass	375,20

Heliotrine



$C_{16}H_{27}NO_5$ · mp 118 to 122 °C
CAS No. 303-33-3
WGK 1

Heliotrine
ROTICHROM® HPLC

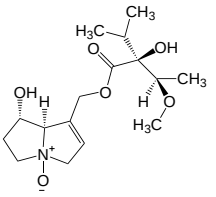
Reference substance for HPLC.
From *Heliotropium*

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
1929.1	20 mg	glass	385,95

Heliotrine *N*-oxide



$C_{16}H_{27}NO_6$ · mp 163 to 167 °C
CAS No. 6209-65-0
WGK 1

Heliotrine *N*-oxide
ROTICHROM® HPLC

Reference substance for HPLC.
From *Heliotropium*

Storage temperature: +4 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
1944.1	10 mg	glass	342,95

Helixin

▸ α-Hederin see page 976

Hemalum solution acid acc. to Mayer

Mayer's Hem alum solution

D 1,05 g/cm³ · bp 100 °C
WGK 2

Warning H302-H315-H319

Hemalum solution acid acc. to Mayer
for microscopy

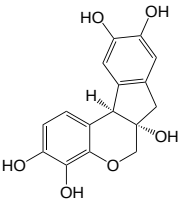
For visualising nuclei.

Not a medical device / Not an IVD product

Type analysis
Suitability for microscopy (tissue section) ... complies

Art. No.	Pack Qty.	Pack.	€
T865.1	500 ml	glass	40,75
T865.2	1 l	glass	62,25
Original pack 6 x 1 l			59,14/1 l
T865.3	2.5 l	plastic	117,10
Original pack 4 x 2.5 l			111,25/2.5 l

Hematoxylin (C.I. 75290)



Hydroxybrasilin

$C_{16}H_{14}O_6$ · mp >200 °C
CAS No. 517-28-2 · EC no. 208-237-3
WGK 1

Warning H319

Hematoxylin (C.I. 75290)
for microscopy

For staining of cell nuclei.

Type analysis
Appearance ..... light-brown powder
Maximum absorption ..... ~292 nm in methanol
pH value (1 % in H_2O) 5,0-7,0

Art. No.	Pack Qty.	Pack.	€
3816.1	10 g	glass	62,25
3816.3	50 g	glass	244,60
3816.2	100 g	glass	439,70

Hematoxylin-eosin staining
▸ H&E fast staining kit see page 976

Hematoxylin solutions acc. to Weigert

Hematoxylin solution A acc. to Weigert
for microscopy

For nuclear staining in histology and cytology

Weigert's Hematoxylin solution

D 0,9 g/cm³ · bp >85 °C · flp >12 °C

UN no. 1219 · ADR 3 II · WGK 1

Danger H225-H319-H336

Not a medical device / Not an IVD product

Type analysis
Suitability for microscopy ..... complies

Working solution:
Mix Weigert's solution A and Weigert's solution B at a ratio of 1:1.

Art. No.	Pack Qty.	Pack.	€
X906.1	500 ml	glass	80,10

Hematoxylin solution B acc. to Weigert
for microscopy

For nuclear staining in histology and cytology

Iron(III) chloride solution acc. to Weigert

D 1,03 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H318

Not a medical device / Not an IVD product

Type analysis
Suitability for microscopy ..... complies

Working solution:
Mix Weigert's solution A and Weigert's solution B at a ratio of 1:1.

Art. No.	Pack Qty.	Pack.	€
X907.1	500 ml	glass	30,65

Hematoxylin solution acc. to Delafield

Delafields hematoxylin solution

D 1 g/cm³ · bp >65 °C · flp 12 °C
UN no. 1992 · ADR 3 (6.1) II · WGK 2

Danger H225-H302+H312+H332-H370

Hematoxylin solution acc. to Delafield
20x conc., for microscopy

Dilution for use: 1:20 in distilled water (staining 30 min).

Not a medical device / Not an IVD product

Type analysis
Suitability for microscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
CN03.1	500 ml	glass	51,50

Hematoxylin solution acid acc. to Ehrlich

Ehrlich's acid Hematoxylin solution

D 1,03 g/cm³ · bp 100 °C · flp 13 °C
UN no. 1993 · ADR 3 II · WGK 1

Danger H225-H319-H336-EUH208

Hematoxylin solution acid acc. to Ehrlich
for microscopy

Not a medical device / Not an IVD product

Type analysis
Suitability for microscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
CN04.1	500 ml	glass	54,75

Hematoxylin solution acc. to Gill II

D 1,05 g/cm³
WGK 1

Danger H302-H318-H373-EUH208

Hematoxylin solution acc. to Gill II
for microscopy

Not a medical device / Not an IVD product

Type analysis
Suitability for microscopy (tissue section) ... complies

Art. No.	Pack Qty.	Pack.	€
T864.1	500 ml	glass	54,30
T864.2	1 l	glass	76,25
Original pack 6 x 1 l			72,44/1 l
T864.3	2.5 l	plastic	152,15
Original pack 4 x 2.5 l			144,54/2.5 l

Hematoxylin solution acc. to Harris

Harris Hematoxylin solution · Papanicolaou solution 1

D 1,03 g/cm³ · bp 100 °C
WGK 1

Hematoxylin solution acc. to Harris
for microscopy

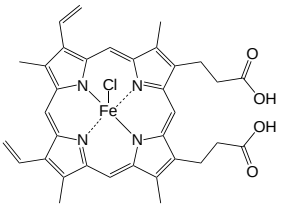
For visualising nuclei, Papanicolaou solution 1a

Not a medical device / Not an IVD product

Type analysis
Suitability for microscopy (tissue section) ... complies

Art. No.	Pack Qty.	Pack.	€
X903.1	500 ml	glass	54,75
X903.2	1 l	glass	77,30
Original pack 6 x 1 l			73,44/1 l
X903.3	2.5 l	plastic	158,60
Original pack 4 x 2.5 l			150,67/2.5 l

Hemin(chloride)



$C_{34}H_{32}ClFeN_4O_4$ · mp >300 °C
CAS No. 16009-13-5 · EC no. 240-140-1
WGK 1

Hemin(chloride)
≥98 %

Storage temperature: +4 °C

Type analysis
Appearance ..... Dark blue to brown-black powder
Assay ..... ≥98 %
Loss on drying ..... ≤1,0 %
Iron (Fe) ..... ≥8,0 %

Art. No.	Pack Qty.	Pack.	€
7629.1	1 g	glass	21,40
7629.2	5 g	glass	57,95

Heparin sodium salt

CAS No. 9041-08-1
WGK 1

Heparin sodium salt
≥180 I.U./mg, Ph. Eur., from pork intestine mucosa

Storage temperature: +4 °C

Guarantee analysis
Appearance ... white to almost white, hygroscopic powder
Assay (dry substance) ..... ≥180 I.U./mg
Identity ..... complies
Appearance of solution ..... clear
pH value (1 %, H_2O) 5,5-8,0
Loss on drying ..... ≤8,0 %
Endotoxins ..... ≤0,01 I.U./I.U. Hep.
Protein (in dry substance) ..... ≤0,5 %
Nitrogen (dry substance) ..... 1,5-2,5 %
Sodium (dry substance) ..... 10,5-13,5 %
Nucleotidic impurities (260 nm) ..... ≤0,15
Elemental impurities ..... complies

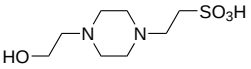
Related Substances:
Sum of dermatan sulphate and chondroitin sulphate ..... ≤2,0 %
Any other impurities ..... complies

Art. No.	Pack Qty.	Pack.	€
7692.1	1 g	glass	126,35
7692.2	5 g	glass	536,45
7692.3	25 g	plastic	2.338,15

Hepasamin®

▸ D-Galactosamine hydrochloride
see page 951

HEPES



N-2-Hydroxyethylpiperazine-*N*'-2-ethane sulphonic acid · Good's buffer

$C_8H_{18}N_2O_4S$ · mp 212,6 °C · flp 124 °C
CAS No. 7365-45-9 · EC no. 230-907-9
WGK 1

HEPES
PUFFERAN® CELLPURE® ≥99,5 %

For cell culture, tissue culture and biotechnology.

Guarantee analysis

Assay (titr.)	≥99,5 %
Water	≤0,2 %
Chloride (Cl)	≤0,005 %
Sulphate (SO_4)	≤0,01 %
Phosphate (PO_4)	≤0,001 %
Heavy metals (as Pb)	≤0,0005 %
Arsenic (As)	≤0,00005 %
Iron (Fe)	≤0,0003 %
Endotoxins	tested
DNases, RNases, Protease	not detected

Absorbance:

260 nm	≤0,04
280 nm	≤0,03

Art. No.	Pack Qty.	Pack.	€
HN77.1	50 g	plastic	36,45
HN77.2	100 g	plastic	53,25
HN77.3	250 g	plastic	102,05
HN77.4	500 g	plastic	181,70
Original pack 6 x 500 g			172,62/500 g
HN77.5	1 kg	plastic	321,45
Original pack 6 x 1 kg			305,38/1 kg
HN77.6	2.5 kg	plastic	643,95

HEPES
≥99,5 %, BioScience Grade

For molecular biology and biotechnology.

Guarantee analysis

Assay	≥99,5 %
Solubility (0,1 M in H_2O)	clear, complete
pK_a (at 25 °C)	7,45-7,65
405 nm	≤0,01
Chloride (Cl)	≤0,005 %
Sulphate (SO_4)	≤0,01 %
Phosphate (PO_4)	≤0,001 %
Calcium (Ca)	≤0,003 %
Sodium (Na)	≤0,005 %
Heavy metals (as Pb)	≤0,0005 %
DNases, RNases, Protease	none detected

Absorbance:

260 nm	≤0,02
280 nm	≤0,02

Art. No.	Pack Qty.	Pack.	€
6763.1	100 g	plastic	46,15
6763.2	500 g	plastic	181,70
Original pack 6 x 500 g			172,62/500 g
6763.3	1 kg	plastic	310,70
Original pack 6 x 1 kg			295,17/1 kg

HEPES
PUFFERAN® ≥99,5 %, p.a.

For biochemistry and molecular biology.

Guarantee analysis

Assay (titr.)	≥99,5 %
Solubility (0,1 M in H_2O)	clear, complete
pH value (5 % in H_2O)	5,0-6,0
Sulphated ash	≤0,1 %
Loss of drying (140 °C, 30 min)	≤0,2 %
Chloride (Cl)	≤0,005 %
Phosphate (PO_4)	≤0,01 %
Sulphate (SO_4)	≤0,01 %
Lead (Pb)	≤0,0005 %
Cadmium (Cd)	≤0,0005 %
Calcium (Ca)	≤0,05 %
Iron (Fe)	≤0,0005 %
Copper (Cu)	≤0,0005 %
Magnesium (Mg)	≤0,0005 %
Nickel (Ni)	≤0,005 %
Heavy metals (as Pb)	≤0,0005 %

Absorbance:

260 nm	≤0,05
280 nm	≤0,04
405 nm	≤0,03

Art. No.	Pack Qty.	Pack.	€
9105.2	100 g	plastic	42,50
9105.1	250 g	plastic	89,15
9105.4	500 g	plastic	170,95
Original pack 6 x 500 g			162,40/500 g
9105.3	1 kg	plastic	299,95
Original pack 6 x 1 kg			284,95/1 kg
9105.6	2.5 kg	plastic	590,20
9105.5	5 kg	plastic	1.106,20

HEPES
PUFFERAN® ≥99,5 %, Buffer Grade

For all standard applications.

Guarantee analysis

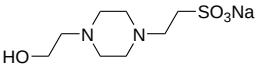
Assay (titr.)	≥99,5 %
Water	≤0,2 %
pH value (5 % in H_2O)	5,0-6,5
Chloride (Cl)	≤0,05 %
Sulphate (SO_4)	≤0,05 %
Sulphated ash	≤0,1 %
Heavy metals (as Pb)	≤0,001 %

Art. No.	Pack Qty.	Pack.	€
HN78.1	100 g	plastic	34,95
HN78.2	500 g	plastic	126,35
Original pack 6 x 500 g			120,03/500 g
HN78.3	1 kg	plastic	231,15
Original pack 6 x 1 kg			219,59/1 kg
HN78.5	2.5 kg	plastic	493,45
HN78.4	5 kg	plastic	955,70

HEPES Buffered Saline (tablets)

▸ ROTI®Fair HBS see page 1218

HEPES sodium salt



N-2-Hydroxyethylpiperazine-*N*'-2-ethane sulphonic acid

$C_8H_{17}N_2SO_4Na$ · mp 274,9 °C
CAS No. 75277-39-3 · EC no. 278-169-7
WGK 1

HEPES sodium salt
PUFFERAN® ≥99 %

Type analysis

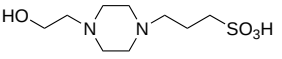
Appearance	white powder
Assay (titr., dry substance)	≥99,0 %
Loss on drying	≤1,5 %
pH value (1 M in H_2O)	10,0-12,0

Absorbance:

260 nm	≤0,2
280 nm	≤0,2

Art. No.	Pack Qty.	Pack.	€
7020.1	25 g	plastic	47,85
7020.2	100 g	plastic	160,20

HEPPS, EPPS



4-(2-Hydroxyethyl) piperazine-1-propane sulphonic acid

$C_9H_{20}N_2O_4S$ · mp 246 °C
CAS No. 16052-06-5 · EC no. 240-198-8
WGK 1

HEPPS, EPPS
PUFFERAN® ≥98 %

Type analysis

Appearance	white to off-white powder
Assay (titr.)	≥98,0 %
Loss on drying	≤1,0 %
pH value (1 % solution)	5,0-6,5

Absorbance:

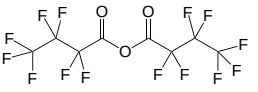
260 nm	≤0,1

Art. No.	Pack Qty.	Pack.	€
9164.1	10 g	plastic	26,35
9164.2	100 g	plastic	155,90

Heptadeuterodimethylformamide

▸ *N,N*-Dimethylformamide D7 see page 888

Heptafluorobutyric acid anhydride (HFBA)



HFBA

$C_8F_{14}O_3$ · D 1,653 g/cm³ · mp -43 °C · bp 108 to 109 °C
CAS No. 336-59-4 · EC no. 206-410-8
UN no. 3265 · ADR 8 III · WGK 1

Danger H314

Heptafluorobutyric acid anhydride (HFBA)
≥98 %, for the GC

Acylation reagent

Type analysis

Appearance	clear, colourless to yellowish liquid
Assay (GC)	≥98 %

Art. No.	Pack Qty.	Pack.	€
0026.1	5 g	glass	111,30

Heptamethylene glycol

▸ 1,7-Heptanediol see page 980

n-Heptane



Methyl hexane · 1-Methyl hexane

C_7H_{16} · D 0,68 to 0,69 g/cm³ · mp -90,5 °C · bp 98,2 to 98,4 °C · flp -4 °C
CAS No. 142-82-5 · EC no. 205-563-8
UN no. 1206 · ADR 3 II · WGK 2

 **Danger** H225-H304-H315-H336-H410

n-Heptane
ROTISOLV® ≥99 %, HPLC

Guarantee analysis
Assay (GC) ..... ≥99,0 %
Water (KF) ..... ≤0,01 %
Acidity (as CH_3COOH) ..... ≤0,001 %
Evaporation residue ..... ≤0,0005 %

Fluorescence (as quinine):
254 nm ..... ≤1 ppb
365 nm ..... ≤1 ppb

Transmission:
245 nm ..... ≥98 %
220 nm ..... ≥80 %
200 nm ..... ≥20 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
6828.1	2.5 l	glass	145,15
Original pack 4 x 2.5 l			137,89/2.5 l

n-Heptane
ROTISOLV® ≥95 %, HPLC

Guarantee analysis
Assay (GC) ..... ≥95 %
Water (KF) ..... ≤0,005 %
Free acid ..... ≤0,001 %
Non volatile matter ..... ≤0,0001 %

Transmission:
255 nm ..... ≥99 %
220 nm ..... ≥80 %
205 nm ..... ≥50 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
7337.2	1 l	glass	64,40
Original pack 6 x 1 l			61,18/1 l
7337.1	2.5 l	glass	140,30
Original pack 4 x 2.5 l			133,29/2.5 l

n-Heptane
ROTISOLV® Pestilyse® plus ≥99 %

For determination of dioxins, furans, PCBs, pesticides, hydrocarbons etc.

Guarantee analysis
Assay (GC) ..... ≥99,0 %
Colour (APHA) ..... ≤5
Water (KF) ..... ≤0,01 %
Free acid (as CH_3COOH) ..... ≤0,001 %
Evaporation residue ..... ≤0,0001 %
GC/FID suitability (as 2-octanol) ..... ≤10 ng/ml
GC/ECD suitability (as heptachloro epoxide) ..... ≤10 ng/l
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD pesticides (as lindane) ..... ≤2 ng/l
GC/NPD pesticides (as parathion) ..... ≤5 ng/l
GC/ECD volatile impurities (as ethylene dibromide) ..... ≤5 ng/ml
Oil index (any hydrocarbon C_{10}-C_{40}) .... ≤0,05 mg/l
PAH-test (less than 2 ppb, HPLC) ..... complies

Fluorescence (as quinine):
254 nm ..... ≤1 ppb
365 nm ..... ≤1 ppb

Art. No.	Pack Qty.	Pack.	€
7566.1	2.5 l	glass	141,40
Original pack 4 x 2.5 l			134,33/2.5 l

n-Heptane
ROTISOLV® Pestilyse® ≥99 %

For residue and environmental analysis.

Guarantee analysis
Assay (GC) ..... ≥99 %
Water (KF) ..... ≤0,005 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %
GC/ECD (individual signal as lindan) ..... ≤ 5 ng/l
GC/PND (individual signal as ethylparathion) ..... ≤10 ng/l

Art. No.	Pack Qty.	Pack.	€
X878.1	2.5 l	glass	127,95
Original pack 4 x 2.5 l			121,55/2.5 l

n-Heptane
ROTISOLV® ≥99 %, UV/IR Grade

For chromatography and spectroscopy.

Guarantee analysis
Assay (GC) ..... ≥99 %
Water (KF) ..... ≤0,005 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

Fluorescence (as quinine):
254 nm ..... ≤1,0 ppb
365 nm ..... ≤1,0 ppb

Transmission:
245 nm ..... ≥98 %
228 nm ..... ≥90 %
220 nm ..... ≥80 %
210 nm ..... ≥50 %
200 nm ..... ≥10 %

Art. No.	Pack Qty.	Pack.	€
CP78.1	2.5 l	glass	137,10
Original pack 4 x 2.5 l			130,25/2.5 l

n-Heptane
ROTIPURAN® ≥99 %, p.a.

Guarantee analysis
Assay (GC) ..... ≥99,0 %
Colour (APHA) ..... ≤10
Water ..... ≤0,01 %
Acidity ..... ≤0,0003 meq/g
Thiophene ..... complies
Calcium (Ca) ..... ≤0,00005 %
Cadmium (Cd) ..... ≤0,000005 %
Cobalt (Co) ..... ≤0,000002 %
Chromium (Cr) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,00001 %
Zinc (Zn) ..... ≤0,00001 %
Sulphur compounds (as S) ..... ≤0,005 %
Evaporation residue ..... ≤0,001 %
Matter discoloured by H_2SO_4 ..... complies

Art. No.	Pack Qty.	Pack.	€
T174.1	1 l	glass	89,15
Original pack 6 x 1 l			84,69/1 l
T174.2	2.5 l	glass	192,45
Original pack 4 x 2.5 l			182,83/2.5 l
T174.3	5 l	aluminium	317,15
Original pack 2 x 5 l			301,29/5 l

n-Heptane
≥99 %, for synthesis

Type analysis
Appearance ..... clear, colourless
Assay (GC) ..... ≥99,0 %
Density (15 °C) 0,686-0,690
Aromatic compounds (GC) ..... ≤0,005 %
Evaporation residue ..... ≤1 mg/100 ml

Art. No.	Pack Qty.	Pack.	€
8654.1	1 l	glass	43,55
Original pack 6 x 1 l			41,37/1 l
8654.3	2.5 l	glass	88,05
Original pack 4 x 2.5 l			83,65/2.5 l
8654.5	5 l	aluminium	152,15
Original pack 2 x 5 l			144,54/5 l
8654.2	10 l	tinplate	278,45
8654.4	25 l	tinplate	579,45

n-Heptane
≥95 %, for synthesis

Type analysis
Appearance ..... clear, colourless
Assay (GC) ..... ≥95 %
Density (15 °C) 0,686-0,69
Aromatic compounds (GC) ..... ≤0,02 %
Evaporation residue ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
CP46.1	1 l	glass	41,85
Original pack 6 x 1 l			39,76/1 l
CP46.2	2.5 l	glass	80,10
Original pack 4 x 2.5 l			76,10/2.5 l
CP46.4	5 l	aluminium	138,70
Original pack 2 x 5 l			131,77/5 l
CP46.3	10 l	tinplate	256,95
CP46.5	25 l	tinplate	514,95

Heptane (isomers)

C_7H_{16} · D 0,7 to 0,73 g/cm³ · mp <-90 °C · bp 89 to 97 °C · flp <0 °C
CAS No. 64742-49-0 · EC no. 927-510-4
UN no. 1206 · ADR 3 II · WGK 3

 **Danger** H225-H304-H315-H336-H411

Heptane (isomers)
≥98,5 %, for synthesis

Type analysis
Appearance ..... clear, colourless
Assay (GC) ..... ≥98,5 %
Density (15 °C) 0,690-0,730
n-Heptane ..... ≥28 %
Benzene ..... ≤0,002 %
Other aromatic compounds ..... ≤0,01 %
Boiling range ..... 89-100 °C

Art. No.	Pack Qty.	Pack.	€
7725.2	1 l	glass	31,75
Original pack 6 x 1 l			30,16/1 l
7725.3	2.5 l	glass	49,35
Original pack 4 x 2.5 l			46,88/2.5 l
7725.5	5 l	aluminium	83,75
Original pack 2 x 5 l			79,56/5 l
7725.1	10 l	tinplate	149,45
7725.4	25 l	tinplate	295,65

Heptanedioic acid

▸ Pimelic acid see page 1158

1,7-Heptanediol



1,7-Dihydroxyheptane · Heptamethylene glycol

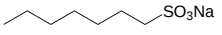
$C_7H_{16}O_2$ · D 0,951 g/cm³ · mp 17 to 19 °C · bp 259 °C · flp 112 °C
CAS No. 629-30-1 · EC no. 211-085-0

1,7-Heptanediol
≥98 %

Type analysis
Assay (GC) ..... ≥98,0 %
Water (KF) ..... ≤0,5 %
Refractive index n_D^{20} 1,453-1,457

Art. No.	Pack Qty.	Pack.	€
5541.1	5 g	glass	127,95
5541.2	10 g	glass	235,45

Heptane-1-sulphonic acid sodium salt



Sodium-1-heptane sulphonate

$C_7H_{15}NaO_3S$ · mp >300 °C
CAS No. 22767-50-6 · EC no. 245-210-5
WGK 1

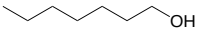
Heptane-1-sulphonic acid sodium salt
≥98 %, for ion pair chromatography

Ion pair reagent for HPLC.

Guarantee analysis
Assay (acidim.) ..... ≥98,0 %
Water ..... ≤2 %
A 200 nm (0,25 M in water) ..... ≤0,1 AU
A 210 nm (0,25 M in water) ..... ≤0,05 AU
A 220 nm (0,25 M in water) ..... ≤0,04 AU
A 230 nm (0,25 M in water) ..... ≤0,03 AU
A 240 nm (0,25 M in water) ..... ≤0,01 AU
A 250 nm (0,25 M in water) ..... ≤0,01 AU
A 260 nm (0,25 M in water) ..... ≤0,01 AU

Art. No.	Pack Qty.	Pack.	€
KK53.1	10 g	glass	64,40
KK53.2	25 g	glass	126,35
KK53.3	100 g	glass	370,90

1-Heptanol



Heptyl alcohol

$C_7H_{16}O$ · D 0,82 g/cm³ · mp -34,6 °C · bp 179,4 °C · flp 76 °C
CAS No. 111-70-6 · EC no. 203-897-9
WGK 1

Warning H319

1-Heptanol
≥99 %, for synthesis

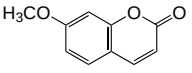
Type analysis
Assay (GC) ..... ≥99 %
Density (d 20 °C/4 °C) 0,822-0,823

Art. No.	Pack Qty.	Pack.	€
3827.1	500 ml	glass	91,30

Heptyl alcohol

▸ 1-Heptanol see page 980

Herniarin



7-Methoxycoumarin

$C_{10}H_8O_3$ · mp 117 °C
CAS No. 531-59-9 · EC no. 208-513-3
WGK 1

Herniarin
ROTICHROM® CHR ≥98 %

Type analysis
Appearance ..... white to beige, cryst. powder
Assay (TLC) ..... ≥98 %
Water (KF) ..... ≤1,0 %
Melting temperature ..... 116-118 °C

Art. No.	Pack Qty.	Pack.	€
7734.1	1 g	glass	38,20

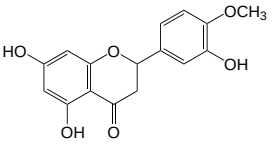
Herniarin
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤1,0 %
Water (KF) ..... ≤1,0 %
Assay (qNMR) ..... ≥93,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE47.1	10 mg	glass	622,45

Hesperetin



3,5,7-Trihydroxy-4'-methoxyflavonone

$C_{16}H_{14}O_6$ · mp 227 to 232 °C
CAS No. 69097-99-0 · EC no. 208-290-2
WGK 2

Hesperetin
ROTICHROM® CHR ≥95 %

Storage temperature: +4 °C

Type analysis
Appearance ..... yellowish to brownish powder
Assay (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
7743.1	1 g	glass	78,40

Hesperetin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

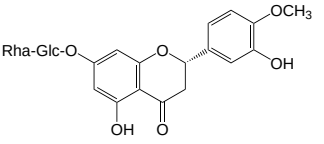
Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7570.1	10 mg	glass	181,70

Hesperetin-7-rutinoside

▸ Hesperidin see page 980

Hesperidin



Hesperetin-7-rutinoside

$C_{28}H_{34}O_{15}$ · D 1,423 g/cm³ · mp 258 to 262 °C
CAS No. 520-26-3 · EC no. 208-288-1
WGK 1

Hesperidin
~90 %

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ~90 %

Art. No.	Pack Qty.	Pack.	€
9972.2	25 g	plastic	46,80
9972.1	100 g	plastic	155,90

Hesperidin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7577.1	10 mg	glass	213,95
7577.2	20 mg	glass	263,40

Hesperidin
ROTICHROM® TLC

Reference substance for thin layer chromatography.
From *Citrus sinensis*.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
5800.1	10 mg	glass	69,80

Hesperidin
ROTICHROM® ~CHR$_{TLC}$

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
7737.1	10 g	plastic	52,60

Heteroauxin
▸ Indolyl 3-acetic acid see page 1009

Hexaalkali polytungstate solution
▸ Alkali polytungstate solution see page 718

Hexachloroplatinic acid potassium salt
▸ Potassium hexachloroplatinate(IV) see page 1172

Hexachloroplatinum(IV) acid hydrate
▸ Hydrogen hexachloroplatinate(IV) hydrate see page 995

Hexachloroplatinum(IV) acid hexahydrate

Hydrogen hexachloroplatinate(IV) hexahydrate

$H_2Cl_6Pt \cdot 6\ H_2O$ · D 2,43 g/cm³ · mp 60 to 70 °C
CAS No. 18497-13-7 · EC no. 241-010-7
UN no. 2507 · ADR 8 III · WGK 1

Danger H301-H314-H317-H334

Hexachloroplatinum(IV) acid hexahydrate
~40 % Pt

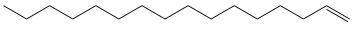
Type analysis
Assay (on Pt) ..... ~40 %

Art. No.	Pack Qty.	Pack.	€
9014.1	1 g	glass	166,65
9014.2	5 g	glass	654,70

Hexadecanoic acid
▸ Palmitic acid see page 1136

1-Hexadecanol
▸ Cetyl alcohol see page 826

1-Hexadecene



Ceten

$C_{16}H_{32}$ · D 0,781 g/cm³ · mp 2,2 °C · bp 274 °C · flp 132 °C
CAS No. 629-73-2 · EC no. 211-105-8
WGK 1

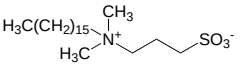
Danger H304

1-Hexadecene
≥90 %

Type analysis
Assay (GC) ..... ≥90 %

Art. No.	Pack Qty.	Pack.	€
3834.1	500 ml	glass	95,70

N-Hexadecyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate



SB-16 · Sulfobetaine-16

$C_{21}H_{45}NO_3S$ · mp 240 to 242 °C
CAS No. 2281-11-0
WGK 1

Warning H315-H319-H335

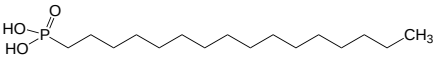
N-Hexadecyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate
≥98 %, for biochemistry

Zwitterionic detergent

Type analysis
Assay (HPLC) ..... ≥98,0 %
pH value (1 % in H_2O) 5,0-8,0
Loss on drying ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
1823.1	5 g	glass	67,20
1823.2	25 g	glass	181,70

Hexadecylphosphonic acid



HDPA

$C_{16}H_{35}O_3P$ · mp 88 to 99 °C
CAS No. 4721-17-9
WGK 1

Hexadecylphosphonic acid

Suitable for the production and modification of nanoparticles.

Storage temperature: +4 °C

Type analysis
Melting point ..... 88-99 °C

Art. No.	Pack Qty.	Pack.	€
8466.1	1 g	glass	42,90
8466.2	5 g	glass	160,75

Hexadecylpyridinium chloride monohydrate
▸ Cetylpyridinium chloride monohydrate (CPC) see page 826

Hexadecyl-trimethylammonium-bromide
▸ Cetyltrimethylammonium bromide (CTAB) see page 827

Hexadeuteroacetone
▸ Acetone D6 see page 697

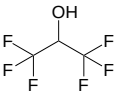
Hexadeuteroethanol
▸ Ethanol D6 see page 918

2,4-Hexadienoic acid
▸ Sorbic acid see page 1303

Hexafluoroisopropanol
▸ 1,1,1,3,3,3-Hexafluoro-2-propanol (HFIP) see page 981

Hexafluoroisopropanol D2
▸ 1,1,1,3,3,3-Hexafluoro-2-propanol D2 (HFIP-D2) see page 981

1,1,1,3,3,3-Hexafluoro-2-propanol (HFIP)



HFIP · HFIPA · Hexafluoroisopropanol

$C_3H_2F_6O$ · D 1,62 g/cm³ · mp -2 °C · bp 59 °C · flp >100 °C
CAS No. 920-66-1 · EC no. 213-059-4
UN no. 3265 · ADR 8 II · WGK 1

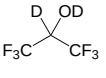
Danger H314-H361fd-H373

1,1,1,3,3,3-Hexafluoro-2-propanol (HFIP)
PEPTIPURE® ≥99 %, for peptide synthesis

Type analysis
Assay (GC) ..... ≥99,0 %
Water content ..... ≤0,15 %

Art. No.	Pack Qty.	Pack.	€
2473.1	10 ml	glass	52,70
2473.2	25 ml	glass	106,45
2473.3	100 ml	glass	385,95

1,1,1,3,3,3-Hexafluoro-2-propanol D2 (HFIP-D2)



HFIP-D2 · Hexafluoroisopropanol D2

$C_3D_2F_6O$ · D 1,62 g/cm³ · mp -2 °C · bp 59 °C · flp >100 °C
CAS No. 38701-74-5 · EC no. 254-091-9
UN no. 3265 · ADR 8 II · WGK 1

Danger H314-H361fd-H373

1,1,1,3,3,3-Hexafluoro-2-propanol D2 (HFIP-D2)
99 Atom%D

For nuclear magnetic resonance spectroscopy.

Type analysis
Deuterising degree ..... ≥99 %
Water (KF, H_2O+D_2O) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
9909.1	1 ml	glass ampoule	149,45

Hexahydrobenzene
▸ Cyclohexane see page 857

Hexahydrophenol
▸ Cyclohexanol see page 858

Hexahydropyridine
▸ Piperidine see page 1159

Hexahydrothymol
▸ Menthol see page 1072
▸ DL-Menthol see page 1073

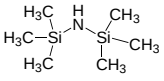
Hexahydrotoluene
▸ Methylcyclohexane see page 1083

1,2,3,5/4,6-Hexahydroxycyclohexane
▸ *meso*-Inositol see page 1010

3,3',4',5,5',7-Hexahydroxyflavone
▸ Myricetin see page 1097

Hexalin
▸ Cyclohexanol see page 858

1,1,1,3,3,3-Hexamethyldisilazane (HMDS)



Bis(trimethylsilyl)amine · HMDS

$C_6H_{19}NSi_2$ · D 0,78 g/cm³ · mp -76 °C · bp 125 °C · flp 11 °C
CAS No. 999-97-3 · EC no. 213-668-5
UN no. 1992 · ADR 3 (6.1) II · WGK 2

Danger H225-H302-H311+H331-H412

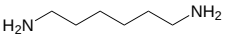
1,1,1,3,3,3-Hexamethyldisilazane (HMDS)
≥98 %, for the GC

Silylation reagent

Type analysis
Appearance ..... clear colorless to yellowish liquid
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
3840.3	10 ml	glass	16,70
3840.1	50 ml	glass	22,50
3840.2	250 ml	glass	47,20
3840.5	500 ml	glass	64,40
3840.4	1 l	glass	112,90
Original pack 6 x 1 l			107,26/1 l

Hexamethylene diamine



1,6-Diamino-hexane

$C_6H_{16}N_2$ · D 0,83 g/cm³ · mp 39 to 42 °C · bp 199 to 204 °C · flp 81 °C
CAS No. 124-09-4 · EC no. 204-679-6
UN no. 2280 · ADR 8 III · WGK 1

Danger H302+H312-H314-H335

Hexamethylene diamine
≥99,5 %, for synthesis

Type analysis
Assay (titr.) ..... ≥99,5 %
Water (KF) ..... ≤0,1 %

We recommend to melt the product in a heating bath prior to use (mp 38–42 °C).

Art. No.	Pack Qty.	Pack.	€
4465.1	100 g	glass	21,00
4465.2	250 g	glass	35,40
4465.3	1 kg	glass	71,95
Original pack 6 x 1 kg			68,35/1 kg

Hexamethylene pararosaniline chloride
▸ Crystal violet (C.I. 42555) see page 854

Hexamethylene tetramine



Hexamine · Methenamine · Urotropin

$C_6H_{12}N_4$ · D 1,33 g/cm³ · mp 260 to 295 °C · flp 250 °C
CAS No. 100-97-0 · EC no. 202-905-8
UN no. 1328 · ADR 4.1 III · WGK 1

Warning H228-H317

Hexamethylene tetramine
ROTIPURAN® ≥99 %, p.a., ACS

Guarantee analysis
Assay (acidim.) ..... ≥99,0 %
pH (10 % solution) 8,0-9,5
In H_2O insoluble matter ..... ≤0,01 %
Loss on drying ..... ≤2,0 %
Ash content (as SO_4) ..... ≤0,05 %
Chloride (Cl) ..... ≤0,002 %
Sulphate (SO_4) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,001 %
Aluminium (Al) ..... ≤0,0005 %
Barium (Ba) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0005 %
Chromium (Cr) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,001 %
Lead (Pb) ..... ≤0,001 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4366.1	100 g	plastic	24,65
4366.2	500 g	plastic	53,25
Original pack 6 x 500 g			50,59/500 g
4366.3	1 kg	plastic	94,10
Original pack 6 x 1 kg			89,40/1 kg
4366.4	2.5 kg	plastic	188,15

Hexamethylene tetramine
≥99 %, extra pure

Type analysis
Assay (acidim.) ..... 99,0-100,5 %
In H_2O insoluble matter ..... ≤0,01 %
Loss on drying ..... ≤2,0 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
4484.1	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
4484.2	1 kg	plastic	80,55
Original pack 6 x 1 kg			76,52/1 kg
4484.3	2.5 kg	plastic	160,20
4484.7	25 kg	plastic	1.343,75

Hexamine
▸ Hexamethylene tetramine see page 982

Hexanal
▸ Caproic aldehyde see page 813

iso-Hexane
▸ Isohexane see page 1020

n-Hexane



1-Methylpentane

C_6H_{14} · D 0,66 g/cm³ · mp -95 °C · bp 68 to 69 °C · flp -22 °C
CAS No. 110-54-3 · EC no. 203-777-6
UN no. 1208 · ADR 3 II · WGK 2

Danger H225-H304-H315-H336-H361f-H373-H411

n-Hexane
ROTISOLV® ≥99 %, MOSH/MOAH

Suitable for MOSH/MOAH analysis.

Guarantee analysis
Assay (GC, TS) ..... ≥99,0 %
Assay (isomers) ..... ≥99,8 %
Colour (APHA) ..... ≤10
MOSH test (GC/FID) ..... ≤5 ng/ml
MOAH test (LC/UV) ..... ≤5 ng/ml
GC/EDC (1,2,4-trichlorobenzene to decachlorobiphenyl) ..... ≤3 pg/ml
Water (KF) ..... ≤0,02 %
Evaporation residue ..... ≤0,0003 %

Art. No.	Pack Qty.	Pack.	€
0840.1	2.5 l	glass	160,20
Original pack 4 x 2.5 l			152,19/2.5 l

n-Hexane
ROTISOLV® HPLC

Guarantee analysis
Assay (GC) ..... ≥98 %
Water (KF) ..... ≤0,005 %
Free acid ..... ≤0,001 %
Non volatile matter ..... ≤0,0003 %

Transmission:
260 nm ..... ≥99 %
250 nm ..... ≥98 %
230 nm ..... ≥95 %
220 nm ..... ≥85 %
210 nm ..... ≥50 %
200 nm ..... ≥25 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
7339.2	1 l	glass	55,40
Original pack 6 x 1 l			52,63/1 l
7339.1	2.5 l	glass	113,45
Original pack 4 x 2.5 l			107,78/2.5 l

n-Hexane
ROTISOLV® ≥95 %, GC Ultra Grade

For gaschromatographic residue analysis.

Guarantee analysis
Assay (GC) ..... ≥95 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,005 %
Free acid (as CH_3COOH) ..... ≤0,001 %
Evaporation residue ..... ≤0,0001 %
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD pesticides (as lindane) ..... ≤3 ng/l
GC/NPD pesticides (as parathion) ..... ≤5 ng/l
PAH-test (less than 2 ppb, HPLC) ..... complies

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
KK48.1	2.5 l	glass	138,70
Original pack 4 x 2.5 l			131,77/2.5 l

n-Hexane
ROTISOLV® Pestilyse® plus ≥99 %

For determination of dioxins, furans, PCBs, pesticides, hydrocarbons etc.

Guarantee analysis
Assay (GC) ..... ≥99,0 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,005 %
Free acid (as CH_3COOH) ..... ≤0,002 %
Evaporation residue ..... ≤0,0001 %
GC/FID suitability (as 2-octanol) ..... ≤10 ng/ml
GC/ECD suitability (as heptachloro epoxide) ..... ≤10 ng/l
GC/ECD pesticides (as lindane) ..... ≤2 ng/l
GC/NPD pesticides (as parathion) ..... ≤5 ng/l
Oil index (any hydrocarbon C_{10}-C_{40}) .... ≤0,05 mg/l
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD volatile impurities (as ethylene dibromide) ..... ≤5 ng/ml
PAH-test (less than 2 ppb, HPLC) ..... complies

Fluorescence (as quinine):
254 nm ..... ≤1 ppb
365 nm ..... ≤1 ppb

Art. No.	Pack Qty.	Pack.	€
7573.1	2.5 l	glass	163,95
Original pack 4 x 2.5 l			155,75/2.5 l

n-Hexane
ROTISOLV® Pestilyse® ≥99 %

For residue and environmental analysis.

Guarantee analysis
Assay (GC) ..... ≥99,0 %
Water (KF) ..... ≤0,01 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %
GC/ECD (individual signal as lindane) ..... ≤5 ng/l
GC/PND (individual signal as ethylparathion) ..... ≤10 ng/l

Art. No.	Pack Qty.	Pack.	€
T861.2	1 l	glass	64,40
Original pack 6 x 1 l			61,18/1 l
T861.1	2.5 l	glass	152,15
Original pack 4 x 2.5 l			144,54/2.5 l

n-Hexane
ROTISOLV® Pestilyse® ≥97,5 %

For residue and environmental analysis.

Guarantee analysis
Assay (GC) ..... ≥97,5 %
Water (KF) ..... ≤0,02 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %
GC/ECD (individual signal as lindane) ..... ≤5 ng/l
GC/PND (individual signal as ethylparathion) ..... ≤10 ng/l

Art. No.	Pack Qty.	Pack.	€
T165.2	1 l	glass	55,80
Original pack 6 x 1 l			53,01/1 l
T165.1	2.5 l	glass	126,35
Original pack 4 x 2.5 l			120,03/2.5 l
T165.3	4 l	glass	149,45

n-Hexane
ROTISOLV® Pestilyse® plus ≥96 %

For determination of dioxins, furans, PCBs, pesticides, hydrocarbons etc.

Guarantee analysis
Assay (GC) ..... ≥96,0 %
Colour (APHA) ..... ≤5
Water (KF) ..... ≤0,005 %
Free acid (as CH_3COOH) ..... ≤0,002 %
Evaporation residue ..... ≤0,0001 %
GC/FID suitability (as 2-octanol) ..... ≤10 ng/ml
GC/ECD suitability (as heptachloro epoxide) ..... ≤10 ng/l
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD pesticides (as lindane) ..... ≤2 ng/l
GC/NPD pesticides (as parathion) ..... ≤5 ng/l
Oil index (any hydrocarbon C_{10}-C_{40}) .... ≤0,05 mg/l
GC/ECD volatile impurities (as ethylene dibromide) ..... ≤5 ng/ml
PAH-test (less than 2 ppb, HPLC) ..... complies

Fluorescence (as quinine):
254 nm ..... ≤1 ppb
365 nm ..... ≤1 ppb

Art. No.	Pack Qty.	Pack.	€
7567.1	2.5 l	glass	133,85
Original pack 4 x 2.5 l			127,16/2.5 l

n-Hexane
ROTISOLV® ≥99 %, UV/IR Grade

For chromatography and spectroscopy.

Guarantee analysis
Assay (GC) ..... ≥99 %
Water (KF) ..... ≤0,005 %
Acidity ..... ≤0,005 meq/g
Evaporation residue ..... ≤0,005 %

Fluorescence:
254 nm ..... ≤1,0 ppb
365 nm ..... ≤1,0 ppb

Transmission:
245 nm ..... ≥98 %
225 nm ..... ≥90 %
217 nm ..... ≥80 %
210 nm ..... ≥50 %
195 nm ..... ≥10 %

Art. No.	Pack Qty.	Pack.	€
T908.1	2.5 l	glass	136,00
Original pack 4 x 2.5 l			129,20/2.5 l

n-Hexane
ROTIDRY® Sept ≥99 % (≤30 ppm H_2O)

Dried; in a septum bottle

Guarantee analysis
Assay (GC) ..... ≥99 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,003 %
Acidity (as CH_3COOH) ..... ≤0,001 %
Evaporation residue ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
5180.1	250 ml	septum bottle	58,60

n-Hexane
ROTIDRY® ≥99 % (≤50 ppm H_2O)

Dried; for analysis and organic synthesis.

Guarantee analysis
Assay (GC) ..... ≥99,0 %
Colour (Hazen) ..... ≤10
Water (KF) ..... ≤0,005 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

Filtered through a membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
AE05.1	1 l	glass	87,00
Original pack 6 x 1 l			82,65/1 l

n-Hexane
ROTIPURAN® ≥99 %, p.a., ACS

Guarantee analysis
Assay (GC) ..... ≥99,0 %
Colour (Hazen) ..... ≤10
Water ..... ≤0,01 %
Alkalinity ..... ≤0,0002 meq/g
Acidity ..... ≤0,0002 meq/g
Thiophene ..... complies
Aromatic compounds (as benzene) ..... ≤0,01 %
Sulphur compounds (as S) ..... ≤0,005 %
Aluminium (Al) ..... ≤0,00005 %
Barium (Ba) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,00001 %
Boron (B) ..... ≤0,000002 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %
Tin (Sn) ..... ≤0,00001 %
Evaporation residue ..... ≤0,001 %
Matter discoloured by H_2SO_4 (Hazen) ..... ≤10

Art. No.	Pack Qty.	Pack.	€
4723.1	1 l	glass	93,45
Original pack 6 x 1 l			88,78/1 l
4723.2	2.5 l	glass	192,45
Original pack 4 x 2.5 l			182,83/2.5 l
4723.3	5 l	aluminium	353,70
Original pack 2 x 5 l			336,02/5 l
4723.5	10 l	tinplate	671,90
4723.4	25 l	tinplate	1.494,25

n-Hexane
≥99 %, for synthesis

Type analysis
Appearance ..... clear, colorless
Assay (GC) ..... ≥99 %
Density (15 °C) 0,662-0,666
Aromatic compounds (GC) ..... ≤0,001 %
Evaporation residue ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
CP47.1	1 l	glass	56,90
Original pack 6 x 1 l			54,06/1 l
CP47.2	2.5 l	glass	126,75
Original pack 4 x 2.5 l			120,41/2.5 l
CP47.4	5 l	aluminium	224,70
Original pack 2 x 5 l			213,47/5 l
CP47.3	10 l	PE/steel	419,25
CP47.5	25 l	tinplate	854,65

n-Hexane
≥95 %, for synthesis

Type analysis
Appearance ..... clear, colourless
Assay (GC) ..... ≥95 %
Aromatic compounds (GC) ..... ≤0,001 %
Evaporation residue ..... ≤0,001 %
Density (15 °C) 0,663-0,667

Art. No.	Pack Qty.	Pack.	€
3907.6	100 ml	glass	18,20
3907.1	1 l	glass	41,85
Original pack 6 x 1 l			39,76/1 l
3907.2	2.5 l	glass	82,70
Original pack 4 x 2.5 l			78,57/2.5 l
3907.5	5 l	aluminium	142,45
Original pack 2 x 5 l			135,33/5 l
3907.3	10 l	tinplate	267,70
3907.4	25 l	tinplate	532,15

Hexane (isomers)

C_6H_{14} · D 0,668 g/cm³ · mp -95 °C · bp 65 to 70 °C · flp -26 °C
CAS No. 64742-49-0 · EC no. 925-292-5
UN no. 1208 · ADR 3 II · WGK 3

Danger H225-H304-H315-H336-H361fd-H373-H411

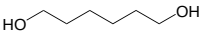
Hexane (isomers)
≥95 % (isomers), for synthesis

Type analysis
Appearance ..... clear, colourless
Assay (isomers) ..... ≥95,0 %
Boiling range ..... 65-70 °C
n-Hexane ..... 44-55 %
Aromatic compounds ..... ≤0,005 %
Benzene ..... ≤0,001 %
Sulphur (S) ..... ≤0,0001 %
Density (15 °C) 0,670-0,690
Refractive index n_D^{20} ..... ≥1,3770

Art. No.	Pack Qty.	Pack.	€
7782.1	1 l	glass	31,75
Original pack 6 x 1 l			30,16/1 l
7782.3	2.5 l	glass	50,45
Original pack 4 x 2.5 l			47,93/2.5 l
7782.5	5 l	aluminium	84,95
Original pack 2 x 5 l			80,70/5 l
7782.2	10 l	tinplate	160,20
7782.4	25 l	tinplate	317,15

Hexanedioic acid
▸ Adipic acid see page 708

1,6-Hexanediol



1,6-Dihydroxyhexane · Hexamethylene glycol

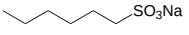
$C_6H_{14}O_2$ · D 0,96 g/cm³ · mp 39,5 to 42,1 °C · bp 250 °C · flp 136 °C
CAS No. 629-11-8 · EC no. 211-074-0
WGK 1

1,6-Hexanediol
≥96 %, for synthesis

Type analysis
Assay (GC) ..... ≥96,0 %
Water ..... ≤0,5 %
Acid value ..... ≤0,1 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
1CP5.1	250 g	plastic	21,00
1CP5.2	1 kg	plastic	60,75
Original pack 6 x 1 kg			57,71/1 kg
1CP5.3	2.5 kg	plastic	128,50
1CP5.4	10 kg	plastic	439,70

Hexane-1-sulphonic acid sodium salt



Sodium-1-hexane sulphonate

$C_6H_{13}NaO_3S$ · mp >300 °C
CAS No. 2832-45-3 · EC no. 220-601-3
WGK 1

Hexane-1-sulphonic acid sodium salt
≥98 %, for ion pair chromatography

Ion pair reagent for HPLC.

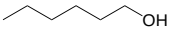
Guarantee analysis
Assay (acidim.) ..... ≥98,0 %
Water ..... ≤2 %
A 200 nm (0,25 M in water) ..... ≤0,1 AU
A 210 nm (0,25 M in water) ..... ≤0,05 AU
A 220 nm (0,25 M in water) ..... ≤0,04 AU
A 230 nm (0,25 M in water) ..... ≤0,03 AU
A 240 nm (0,25 M in water) ..... ≤0,01 AU
A 250 nm (0,25 M in water) ..... ≤0,01 AU
A 260 nm (0,25 M in water) ..... ≤0,01 AU

Art. No.	Pack Qty.	Pack.	€
KK54.1	10 g	glass	64,40
KK54.2	25 g	glass	126,35
KK54.3	100 g	glass	370,90

Hexanoic acid
▸ Caproic acid see page 813

n-Hexanol
▸ 1-Hexanol see page 984

1-Hexanol



Hexyl alcohol · *n*-Hexanol

$C_6H_{14}O$ · D 0,823 g/cm³ · mp -45 °C · bp 155 °C · flp 60 °C
CAS No. 111-27-3 · EC no. 203-852-3
UN no. 2282 · ADR 3 III · WGK 1

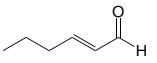
Warning H226-H302+H312-H319

1-Hexanol
≥98 %, for synthesis

Type analysis
Appearance ..... colourless, clear liquid
Assay (GC) ..... ≥98 %
Density (20 °C) ..... 0,817-0,821 g/cm³

Art. No.	Pack Qty.	Pack.	€
3847.1	1 l	glass	56,90
Original pack 6 x 1 l			54,06/1 l
3847.2	2.5 l	glass	123,65
Original pack 4 x 2.5 l			117,47/2.5 l

trans-Hexen-2-al



$C_6H_{10}O$ · D 0,849 g/cm³ · mp 146,5 °C · bp 147 °C · flp 38 °C
CAS No. 6728-26-3 · EC no. 229-778-1
UN no. 1988 · ADR 3 (6.1) III · WGK 2

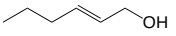
Danger H226-H302-H311-H317

trans-Hexen-2-al
≥98,5 %, for synthesis

Type analysis
Assay (GC) ..... ≥98,5 %
Density (20 °C) ..... 0,843-0,849 g/cm³
Refractive index (20 °C) 1,4440-1,4500

Art. No.	Pack Qty.	Pack.	€
3757.1	25 ml	glass	84,40

trans-2-Hexen-1-ol



$C_6H_{12}O$ · D 0,849 g/cm³ · mp -38,47 °C · bp 158 to 160 °C · flp 54 °C
CAS No. 928-95-0 · EC no. 213-191-2
UN no. 1993 · ADR 3 III · WGK 2

Warning H226

trans-2-Hexen-1-ol
≥97 %

Type analysis
Assay (GC) ..... ≥97 %
Density (d 20 °C/4 °C) 0,842-0,844

Art. No.	Pack Qty.	Pack.	€
3756.1	5 ml	glass	35,40

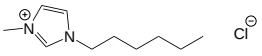
Hexyl alcohol

▸ 1-Hexanol see page 984

Hexyleneglycol

▸ 2-Methyl-2,4-pentanediol see page 1087

1-Hexyl-3-methyl-imidazolium chloride (HMIM Cl)



HMIM Cl

$C_{10}H_{19}ClN_2$ · D 1,05 g/cm³
CAS No. 171058-17-6
WGK 1

Warning H315-H319

1-Hexyl-3-methyl-imidazolium chloride (HMIM Cl)

≥98 %

Ionic liquid

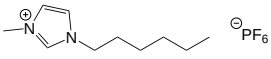
Type analysis

Appearance ..... yellowish liquid
Assay ..... ≥98 %
Water (KF) ..... ≤1 %

Art. No.	Pack Qty.	Pack.	€
2064.1	25 g	glass	289,20
2064.2	100 g	glass	704,15

Lit.: **"Dynamic Viscosities of a Series of 1-Alkyl-3-methylimidazolium Chloride Ionic Liquids and Their Binary Mixtures with Water at Several Temperatures"** E. Gomez, B. Gonzalez, A. Domınguez, E. Tojo, J. Tojo, *J. Chem. Eng. Data* **2006,** 51, 696-701.

1-Hexyl-3-methyl-imidazolium-hexafluorophosphate (HMIM PF_6)



HMIM PF_6

$C_{10}H_{19}F_6N_2P$ · D 1,3 g/cm³
CAS No. 304680-35-1
WGK 1

Warning H315-H319-H335

1-Hexyl-3-methyl-imidazolium-hexafluorophosphate (HMIM PF_6)

≥99 %

Ionic liquid

Type analysis

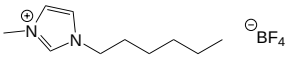
Appearance ..... yellowish to orange liquid
Assay ..... ≥99 %
Water (KF) ..... ≤0,025 %
Halogens ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
2069.1	25 g	glass	203,20
2069.2	100 g	glass	428,95

Lit.: **"Use of 1-alkyl-3-methylimidazolium hexafluorophosphate room temperature ionic liquids as chelate extraction solvent with 4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedione"** I. Naoki; D. Mika; K. Hitomi; H. Takaharu, *Talanta* **2005,** 65, 255-260.

"On the solubilization of water with ethanol in hydrophobic hexafluoro-phosphate ionic liquids" R. P. Swatloski, A. E. Visser, W. M. Reichert, G. A. Broker, L. M. Farina, J. D. Holbrey, R. D. Rogers, *Green Chem.* **2002,** 4, 81 – 87.

1-Hexyl-3-methyl-imidazolium-tetrafluoroborate (HMIM BF_4)



HMIM BF_4

$C_{10}H_{19}BF_4N_2$ · D 1,1 to 1,2 g/cm³ · mp -82 °C
CAS No. 244193-50-8
WGK 1

Warning H315-H319

1-Hexyl-3-methyl-imidazolium-tetrafluoroborate (HMIM BF_4)

≥99 %

Ionic liquid

Type analysis

Appearance ..... colourless to orange liquid
Assay ..... ≥99 %
Water (KF) ..... ≤0,025 %
Halogens ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
2070.1	25 g	glass	203,20
2070.2	100 g	glass	428,95

Lit.: **"Activity Coefficients at Infinite Dilution in 1-Alkyl-3-methylimidazolium Tetrafluoroborate Ionic Liquids"** G. M. Foco, S. B. Bottini, N. Quezada, J. C. de la Fuente, Cor J. Peters, *J. Chem. Eng. Data* **2006**, 51, 1088 –1091.

"Physical and electrochemical properties of 1-alkyl-3-methylimidazolium tetrafluoroborate for electrolyte" T. Nishida; Y. Tashiro; M. Yamamoto, *J. Fluorine Chem.* **2003,** 120, 135-141.

HFBA

▸ Heptafluorobutyric acid anhydride (HFBA) see page 978

HFIP

▸ 1,1,1,3,3,3-Hexafluoro-2-propanol (HFIP) see page 981

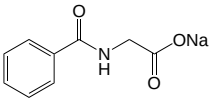
HFIPA

▸ 1,1,1,3,3,3-Hexafluoro-2-propanol (HFIP) see page 981

HFIP-D2

▸ 1,1,1,3,3,3-Hexafluoro-2-propanol D2 (HFIP-D2) see page 981

Hippuric acid sodium salt hydrate



N-Benzoylglycine sodium salt

$C_9H_8NNaO_3$ · x H_2O
CAS No. 532-94-5 · EC no. 208-548-4
WGK 1

Hippuric acid sodium salt hydrate

≥99 %, cryst.

Type analysis

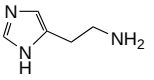
Appearance ..... white powder
Assay (TLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7507.1	25 g	plastic	192,45

HIS

▸ L-Histidine see page 986

Histamine dihydrochloride



· 2 HCl

2-(4-Imidazolyl) ethylamine dihydrochloride

$C_5H_9N_3$ · 2 HCl · mp 246 to 249 °C
CAS No. 56-92-8 · EC no. 200-298-4
WGK 1

Danger H315-H317-H319-H334-H335

Histamine dihydrochloride

≥98 %, for biochemistry

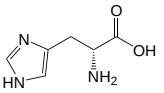
Storage temperature: +4 °C

Type analysis

Appearance white to off-white crystalline powder
Assay ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
4017.1	5 g	glass	40,75
4017.2	10 g	glass	69,35
4017.3	25 g	glass	138,70

D-Histidine



3-Imidazol-4-yl-alanine · H-D-His-OH

$C_6H_9N_3O_2$ · mp 280 °C
CAS No. 351-50-8 · EC no. 206-513-8
WGK 1

D-Histidine

≥98 %, for biochemistry

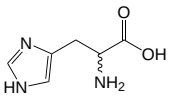
Storage temperature: +4 °C

Type analysis

Appearance ..... white to off-white powder
Assay ..... ≥98,0 %
Specific rotation $[\alpha]_D^{20}$ (c=5 in H_2O) ..... +38,0° to +39,0°
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
7880.1	5 g	plastic	59,05
7880.2	25 g	plastic	170,95

DL-Histidine



3-Imidazol-4-yl-alanine · H-DL-His-OH

$C_6H_9N_3O_2$ · mp 273 °C
CAS No. 4998-57-6 · EC no. 225-660-9
WGK 1

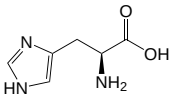
DL-Histidine
≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98,5 %
Identity (IR) ..... complies
Heavy metals (as Pb) ..... ≤0,001 %
Ash content ..... ≤0,1 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8597.1	5 g	plastic	37,10
8597.2	25 g	plastic	107,40
8597.3	100 g	plastic	353,70

L-Histidine



3-Imidazol-4-yl-alanine · HIS · H-L-His-OH

$C_6H_9N_3O_2$ · D 1,449 g/cm³ · mp 287 °C
CAS No. 71-00-1 · EC no. 200-745-3
WGK 1

L-Histidine
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤6 E.U./g
Assay ..... ≥99 %
Loss on drying ..... ≤0,2 %
Specific rotation $[\alpha]_D^{20}$ ..... +12,0° to +12,8°
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Heavy metals (as Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %

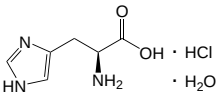
Art. No.	Pack Qty.	Pack.	€
1696.1	25 g	plastic	32,15
1696.2	100 g	plastic	70,85
1696.3	500 g	plastic	289,20
Original pack 6 x 500 g			274,74/500 g

L-Histidine
≥98,5 %, Ph. Eur., for biochemistry

Guarantee analysis
Appearance ..... white cryst. powder
Assay (dry substance) ..... 98,5-101,0 %
Identity ..... complies
Appearance of solution ..... clear, colourless
Specific rotation $[\alpha]_D^{20}$ ..... +11,4° to +12,4°
pH value (1 g, 50 ml H_2O) 7,0- 8,5
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Iron (Fe) ..... ≤0,001%
Heavy metals (as Pb) ..... ≤0,001%
Foreign amino acids ..... complies
Loss on drying ..... ≤0,2 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
3852.1	25 g	plastic	21,40
3852.3	100 g	plastic	59,05
3852.2	1 kg	plastic	435,40
Original pack 6 x 1 kg			413,63/1 kg

L-Histidine hydrochloride monohydrate



4-Imidazolyl-L-alanine

$C_6H_9N_3O_2$ · HCl · H_2O · D 1,49 g/cm³ ·
mp ≥256 to ≤268 °C
CAS No. 5934-29-2 · EC no. 211-438-9
WGK 1

L-Histidine hydrochloride monohydrate
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤6,0 E.U./g
Assay ..... ≥99 %
Specific rotation $[\alpha]_D^{20}$ ..... +9,2° to +10,6°
Ammonium (NH_4) ..... ≤0,05 %
Chloride (Cl) ..... 16,5-19,0 %
Sulphate (SO_4) ..... ≤0,05 %
Heavy metals (as Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
Ash content ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
1697.1	25 g	plastic	27,85
1697.2	100 g	plastic	67,65
1697.3	500 g	plastic	267,70
Original pack 6 x 500 g			254,32/500 g

L-Histidine hydrochloride monohydrate
≥98,5 %, Ph. Eur., for biochemistry

Guarantee analysis
Appearance ..... white cryst. powder
Assay (dry substance) ..... 98,5-101 %
Identity ..... complies
Appearance of solution ..... clear, colourless
Specific rotation $[\alpha]_D^{20}$ ..... +9,2° to 10,6°
pH-value 3,0-5,0
Ammonium (NH_4) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %
Foreign amino acids ..... complies
Sulphated ash ..... ≤0,1 %
Water 7,0-10,0%

Art. No.	Pack Qty.	Pack.	€
9455.1	100 g	plastic	50,45
9455.3	250 g	plastic	107,40
9455.2	500 g	plastic	203,20
Original pack 6 x 500 g			193,04/500 g

HMDS
▸ 1,1,1,3,3,3-Hexamethyldisilazane (HMDS) see page 982

HMF
▸ 5-Hydroxymethylfurfural see page 1000

Holmia
▸ Holmium(III) oxide see page 986

Holmium Standards
▸ Holmium ICP Standard Solution see page 1317
▸ Holmium ICP Standard Solution see page 1317

Holmium(III) oxide

Diholmium trioxide · Holmia

Ho_2O_3 · D 8,41 g/cm³ · mp 2330 °C ·
bp 3900 °C
CAS No. 12055-62-8 · EC no. 235-015-3
WGK 1

Holmium(III) oxide
ROTI®METIC 99,99 % (4N)

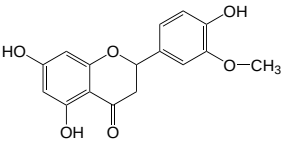
Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5338.1	10 g	plastic	303,70
5338.2	50 g	plastic	912,70

Homidium bromide
▸ Ethidium bromide see page 918
▸ Ethidium bromide solution see page 919
▸ Ethidium bromide solution in dropper bottles see page 918

Homoeriodictyol



$C_{16}H_{14}O_6$ · mp 223 to 229 °C
CAS No. 69097-98-9 · EC no. 207-173-3
WGK 1

Homoeriodictyol
ROTICHROM® HPLC

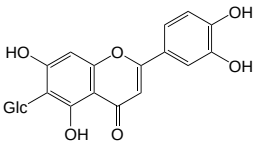
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7585.1	10 mg	glass	224,70

Homoorientin



Isoorientin

$C_{21}H_{20}O_{11}$ · mp 232 to 238 °C
CAS No. 4261-42-1
WGK 1

Homoorientin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Adonis vernalis*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
6002.1	5 mg	glass	278,45

Hormodin
▸ Indole-3-butyric acid see page 1008

Horseradish peroxidase
▸ Peroxidase see page 1146

HOSu
▸ *N*-Hydroxysuccinimide see page 1001

Hot start DNA polymerase
▸ ROTI®Pol Hot-TaqUltra see page 1238
▸ ROTI®Pol Hot-TaqHY see page 1238
▸ ROTI®Pol Hot-TaqS see page 1237

HPLC solvents

Art. No.	Description	Page
7336	Acetic acid ethyl ester, ROTISOLV®, HPLC	693
7328	Acetone, ROTISOLV®, HPLC	696
T195	Acetonitrile, ROTISOLV®, HPLC Ultra Gradient Grade	698
8825	Acetonitrile, ROTISOLV®, HPLC Gradient Grade	698
HN44	Acetonitrile, ROTISOLV®, HPLC Gradient	698
7330	Acetonitrile, ROTISOLV®, HPLC	698
CN20	Acetonitrile, ROTISOLV®, HPLC, isocratic	698
6827	Acetonitrile, ROTISOLV®, ≥99,8 %, for preparative HPLC	698
T178	1-Butanol, ROTISOLV®, HPLC	796
T175	*tert*-Butyl methyl ether, ROTISOLV®, HPLC	799
7333	Cyclohexane, ROTISOLV®, HPLC	857
7334	Dichloromethane, ROTISOLV®, HPLC	875
0702	*N*,*N*-Dimethylformamide (DMF), ROTISOLV®, HPLC	887
0728	Dimethyl sulphoxide (DMSO), ROTISOLV®, HPLC	889
X949	1,4-Dioxane, ROTISOLV®, HPLC, unstabilised	892
P076	Ethanol, ROTISOLV®, HPLC Gradient Grade	915
6828	*n*-Heptane, ROTISOLV®, ≥99 %, HPLC	979
7337	*n*-Heptane, ROTISOLV®, ≥95 %, HPLC	979
7339	*n*-Hexane, ROTISOLV®, HPLC	983
T176	Isohexane, ROTISOLV®, HPLC	1021
7340	Isooctane, ROTISOLV®, HPLC	1022
X948	Methanol, ROTISOLV®, HPLC Ultra Gradient Grade	1077
7342	Methanol, ROTISOLV®, HPLC Gradient Grade	1077
KK39	Methanol, ROTISOLV®, HPLC Gradient	1078
P717	Methanol, ROTISOLV®, HPLC	1078
CN99	*n*-Pentane, ROTISOLV®, HPLC	1141
0731	Petroleum ether 40–60 °C, ROTISOLV®, HPLC	1148
T177	1-Propanol, ROTISOLV®, HPLC	1184
7343	2-Propanol, ROTISOLV®, HPLC	1185
7344	Tetrahydrofuran, ROTISOLV®, HPLC, unstabilised	1361
7346	Toluene, ROTISOLV®, HPLC	1372
7331	Trichloromethane/Chloroform, ROTISOLV®, HPLC	1377
A511	Water, ROTISOLV®, HPLC Gradient Grade	1400
1C5K	Water, ROTISOLV®, HPLC	1400

HRP
▸ Peroxidase see page 1146

HRP substrate
▸ ROTI®Lumin see page 1230

HRP substrate kit
▸ ROTI®DAB Kit see page 1215

Hünigs base
▸ *N*,*N*-Diisopropylethylamine (DIPEA) see page 884

Humic acid

mp 300 °C
CAS No. 1415-93-6 · EC no. 215-809-6
WGK 1

Humic acid
virgin

Type analysis
Appearance ..... brown granules
Assay of humic acid ..... ~30-40 %
Percentage of moisture ..... ~45 %

Prepared from the sodium salt of humic acid found in fine earthy brown coal (Kassel brown).

Art. No.	Pack Qty.	Pack.	€
7821.1	100 g	plastic	26,35
7821.2	500 g	plastic	45,70
Original pack 6 x 500 g			43,42/500 g
7821.3	1 kg	plastic	79,45
Original pack 6 x 1 kg			75,48/1 kg

Humic acid sodium salt

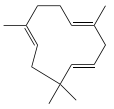
mp >640 °C · bp >640 °C
CAS No. 68131-04-4 · EC no. 268-608-0
WGK 1

Humic acid sodium salt
~45–70 %

Type analysis
Assay of humic acid ..... ~45-70 %
Loss on drying (4 h, 105 °C) ..... ~25 %

Art. No.	Pack Qty.	Pack.	€
7824.5	500 g	plastic	27,45
Original pack 6 x 500 g			26,08/500 g
7824.1	1 kg	plastic	45,05
Original pack 6 x 1 kg			42,80/1 kg
7824.2	10 kg	plastic	220,40
7824.4	25 kg	plastic	456,90

α-Humulene



$C_{15}H_{24}$ · D 0,89 g/cm³ · mp 25 °C · bp 166 to 168 °C · flp 90 °C
CAS No. 6753-98-6 · EC no. 229-816-7
WGK 1

Warning H315-H319-H335

α-Humulene
ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥93 %

Art. No.	Pack Qty.	Pack.	€
9385.1	100 mg	plastic	224,70

Hyamine® 1622-solution (0,004 M)
▸ Benzethonium chloride solution see page 768

Hybridisation buffers
▸ ROTI®Stock 20x SSC see page 1242
▸ ROTI®Hybri-Quick see page 1227

Hydrated alumina
▸ Aluminium hydroxide see page 722

Hydrated aluminum silicate
▸ Bolus see page 783

Hydrazine sulphate
▸ Hydrazinium sulphate see page 988

Hydrazinium sulphate

Hydrazonium sulphate · Hydrazine sulphate

$H_6N_2O_4S$ · D 1,37 g/cm³ · mp 254 °C
CAS No. 10034-93-2 · EC no. 233-110-4
UN no. 3288 · ADR 6.1 III · WGK 3

Danger H301+H311+H331-H317-H350-H410

Hydrazinium sulphate
≥99 %, p.a., ACS

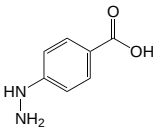
Reducing agent; reagent for separation of Po and Te.

Guarantee analysis

Assay (iodom.)	≥99,0 %
In H_2O insoluble matter	≤0,005 %
Ash content (as SO_4)	≤0,02 %
Chloride (Cl)	≤0,001 %
Heavy metals (as Pb)	≤0,001 %
Barium (Ba)	≤0,0005 %
Beryllium (Be)	≤0,0005 %
Lead (Pb)	≤0,001 %
Cadmium (Cd)	≤0,0005 %
Cobalt (Co)	≤0,0005 %
Iron (Fe)	≤0,001 %
Indium (In)	≤0,0005 %
Copper (Cu)	≤0,001 %
Manganese (Mn)	≤0,0005 %
Nickel (Ni)	≤0,001 %
Silicon (Si)	≤0,0005 %
Strontium (Sr)	≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
HN96.1	100 g	plastic	26,35
HN96.2	500 g	plastic	74,75
Original pack 6 x 500 g			71,01/500 g

4-Hydrazinobenzoic acid



$C_7H_8N_2O_2$ · D 1,401 g/cm³ · mp ≥205 to ≤213 °C
CAS No. 619-67-0 · EC no. 210-609-5
WGK 1

Warning H315-H319-H335

4-Hydrazinobenzoic acid
≥97 %, for synthesis

Type analysis

Appearance	Off-white to light yellow, beige powder
Assay	≥97,0 %
Loss on drying	≤1,0 %

Art. No.	Pack Qty.	Pack.	€
4539.1	10 g	glass	40,75
4539.2	50 g	glass	107,00
4539.3	100 g	glass	174,70

Hydrazonium sulphate
▸ Hydrazinium sulphate see page 988

Hydrobromic acid Ultra-quality

HBr · D 1,49 g/cm³ · bp ~100 °C
CAS No. 10035-10-6 · EC no. 233-113-0
UN no. 1788 · ADR 8 III · WGK 1

Danger H290-H314-H335

Hydrobromic acid
ROTIPURAN®Ultra 48 %

Extra highpure acid (ppt quality) for sample preparation in ultra trace analysis. The quality for highest demands on purity.

Guarantee analysis

Assay (w/w)	44-49 %
Aluminium (Al)	≤100 ppt
Barium (Ba)	≤100 ppt
Beryllium (Be)	≤100 ppt
Lead (Pb)	≤1 ppt
Cadmium (Cd)	≤100 ppt
Cesium (Cs)	≤10 ppt
Calcium (Ca)	≤100 ppt
Cerium (Ce)	≤10 ppt
Chromium (Cr)	≤100 ppt
Dysprosium (Dy)	≤10 ppt
Iron (Fe)	≤100 ppt
Erbium (Er)	≤10 ppt
Europium (Eu)	≤10 ppt
Gadolinium (Gd)	≤10 ppt
Gallium (Ga)	≤100 ppt
Gold (Au)	≤100 ppt
Hafnium (Hf)	≤10 ppt
Holmium (Ho)	≤10 ppt
Indium (In)	≤10 ppt
Potassium (K)	≤100 ppt
Cobalt (Co)	≤100 ppt
Copper (Cu)	≤100 ppt
Lanthanum (La)	≤10 ppt
Lithium (Li)	≤100 ppt
Lutetium (Lu)	≤10 ppt
Magnesium (Mg)	≤100 ppt
Manganese (Mn)	≤100 ppt
Molybdenum (Mo)	≤100 ppt
Sodium (Na)	≤100 ppt
Neodymium (Nd)	≤10 ppt
Nickel (Ni)	≤100 ppt
Niobium (Nb)	≤10 ppt
Palladium (Pd)	≤100 ppt
Platinum (Pt)	≤100 ppt
Praseodymium (Pr)	≤10 ppt
Rhenium (Re)	≤100 ppt
Rhodium (Rh)	≤100 ppt
Rubidium (Rb)	≤100 ppt
Ruthenium (Ru)	≤100 ppt
Samarium (Sm)	≤10 ppt
Scandium (Sc)	≤100 ppt
Silver (Ag)	≤100 ppt
Strontium (Sr)	≤100 ppt
Tellur (Te)	≤10 ppt
Terbium (Tb)	≤10 ppt
Thallium (Tl)	≤10 ppt
Thorium (Th)	≤1 ppt
Thulium (Tm)	≤10 ppt
Titanium (Ti)	≤100 ppt
Uranium (U)	≤1 ppt
Vanadium (V)	≤100 ppt
Bismuth (Bi)	≤100 ppt
Tungsten (W)	≤100 ppt
Ytterbium (Yb)	≤10 ppt
Yttrium (Y)	≤10 ppt
Zinc (Zn)	≤100 ppt
Tin (Sn)	≤100 ppt
Zirconium (Zr)	≤10 ppt

Art. No.	Pack Qty.	Pack.	€
HN67.3	250 ml	plastic (FEP)	779,40
HN67.1	500 ml	plastic (FEP)	1.052,45
HN67.2	1 l	plastic (FEP)	1.666,25
Original pack 6 x 1 l			1.582,94/1 l
HN67.4	2 l	plastic (FEP)	2.418,75

Hydrochloric acid in ethanol
▸ HCl-ethanol solutions see page 974

Hydrochloric acid

HCl · Hydrogen chloride · Hydrogen chloride

CAS No. 7647-01-0 · EC no. 231-595-7

Hydrochloric acid Ultra-quality

Hydrochloric acid
ROTIPURAN®Ultra 34 %

Extra highpure acid (ppt quality) for sample preparation in ultra trace analysis.

HCl · D 1,18 g/cm³ · mp -26 °C

UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Guarantee analysis

Assay (w/w)	32-35 %
Aluminium (Al)	≤20 ppt
Antimony (Sb)	≤20 ppt
Arsenic (As)	≤50 ppt
Barium (Ba)	≤10 ppt
Beryllium (Be)	≤10 ppt
Lead (Pb)	≤10 ppt
Boron (B)	≤100 ppt
Cadmium (Cd)	≤10 ppt
Cesium (Cs)	≤10 ppt
Calcium (Ca)	≤10 ppt
Cerium (Ce)	≤10 ppt
Chromium (Cr)	≤10 ppt
Dysprosium (Dy)	≤1 ppt
Iron (Fe)	≤10 ppt
Erbium (Er)	≤1 ppt
Europium (Eu)	≤1 ppt
Gadolinium (Gd)	≤1 ppt
Gallium (Ga)	≤10 ppt
Gold (Au)	≤50 ppt
Hafnium (Hf)	≤10 ppt
Holmium (Ho)	≤1 ppt
Indium (In)	≤1 ppt
Potassium (K)	≤10 ppt
Cobalt (Co)	≤10 ppt
Copper (Cu)	≤10 ppt
Lanthanum (La)	≤1 ppt
Lithium (Li)	≤10 ppt
Lutetium (Lu)	≤10 ppt
Magnesium (Mg)	≤10 ppt
Manganese (Mn)	≤10 ppt
Molybdenum (Mo)	≤10 ppt
Sodium (Na)	≤10 ppt
Neodymium (Nd)	≤1 ppt
Nickel (Ni)	≤20 ppt
Niobium (Nb)	≤1 ppt
Praseodymium (Pr)	≤1 ppt
Mercury (Hg)	≤50 ppt
Rhenium (Re)	≤10 ppt
Rhodium (Rh)	≤10 ppt
Rubidium (Rb)	≤10 ppt
Ruthenium (Ru)	≤10 ppt
Samarium (Sm)	≤1 ppt
Scandium (Sc)	≤10 ppt
Silver (Ag)	≤10 ppt
Strontium (Sr)	≤10 ppt
Tellur (Te)	≤1 ppt
Terbium (Tb)	≤1 ppt

Thallium (Tl) ..... ≤10 ppt
Thorium (Th) ..... ≤1 ppt
Thulium (Tm) ..... ≤1 ppt
Titanium (Ti) ..... ≤10 ppt
Uranium (U) ..... ≤1 ppt
Vanadium (V) ..... ≤10 ppt
Bismuth (Bi) ..... ≤10 ppt
Tungsten (W) ..... ≤10 ppt
Ytterbium (Yb) ..... ≤1 ppt
Yttrium (Y) ..... ≤1 ppt
Zinc (Zn) ..... ≤10 ppt
Tin (Sn) ..... ≤20 ppt
Zirconium (Zr) ..... ≤10 ppt

Art. No.	Pack Qty.	Pack.	€
HN63.1	250 ml	plastic (FEP)	467,65
HN63.2	500 ml	plastic (FEP)	708,45
HN63.3	1 l	plastic (FEP)	1.159,95
Original pack 6 x 1 l			1.101,95/1 l
HN63.4	2 l	plastic (FEP)	1.789,90

Hydrochloric acid Supra-quality

Hydrochloric acid
ROTIPURAN®Supra 35 %

Highpure acid (ppb quality) for sample preparation in trace analysis (e.g. using ICP, AAS, Ion chromatography etc.).

HCl · D 1,18 g/cm³ · mp -26 °C

UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Guarantee analysis

Assay (w/w) ..... 34-37 %
Colour (APHA) ..... ≤10
Bromide (Br) ..... ≤0,001 %
Free chlorine (Cl2) ..... ≤0,00005 %
Total Phosphorous (P) ..... ≤0,000001 %
Total Sulfur (S) ..... ≤0,00003 %
Aluminium (Al) ..... ≤1 ppb
Antimony (Sb) ..... ≤0,5 ppb
Arsenic (As) ..... ≤0,5 ppb
Barium (Ba) ..... ≤0,1 ppb
Beryllium (Be) ..... ≤0,1 ppb
Lead (Pb) ..... ≤0,1 ppb
Boron (B) ..... ≤1 ppb
Cadmium (Cd) ..... ≤0,1 ppb
Cesium (Cs) ..... ≤0,1 ppb
Calcium (Ca) ..... ≤1 ppb
Cerium (Ce) ..... ≤0,1 ppb
Chromium (Cr) ..... ≤0,5 ppb
Dysprosium (Dy) ..... ≤0,1 ppb
Iron (Fe) ..... ≤1 ppb
Erbium (Er) ..... ≤0,1 ppb
Europium (Eu) ..... ≤0,1 ppb
Gadolinium (Gd) ..... ≤0,1 ppb
Gallium (Ga) ..... ≤0,1 ppb
Gold (Au) ..... ≤0,5 ppb
Hafnium (Hf) ..... ≤0,1 ppb
Holmium (Ho) ..... ≤0,1 ppb
Indium (In) ..... ≤0,1 ppb
Potassium (K) ..... ≤1 ppb
Cobalt (Co) ..... ≤0,1 ppb
Copper (Cu) ..... ≤0,5 ppb
Lanthanum (La) ..... ≤0,1 ppb
Lithium (Li) ..... ≤0,1 ppb
Lutetium (Lu) ..... ≤0,1 ppb
Magnesium (Mg) ..... ≤0,5 ppb
Manganese (Mn) ..... ≤0,1 ppb
Molybdenum (Mo) ..... ≤0,1 ppb
Sodium (Na) ..... ≤1 ppb
Neodymium (Nd) ..... ≤0,1 ppb
Nickel (Ni) ..... ≤0,5 ppb
Niobium (Nb) ..... ≤0,1 ppb
Praseodymium (Pr) ..... ≤0,1 ppb
Mercury (Hg) ..... ≤0,1 ppb
Rhenium (Re) ..... ≤0,1 ppb
Rhodium (Rh) ..... ≤0,1 ppb
Rubidium (Rb) ..... ≤0,1 ppb
Ruthenium (Ru) ..... ≤0,1 ppb
Samarium (Sm) ..... ≤0,1 ppb
Scandium (Sc) ..... ≤0,1 ppb
Selenium (Se) ..... ≤1 ppb
Silver (Ag) ..... ≤1 ppb
Strontium (Sr) ..... ≤0,1 ppb
Tellur (Te) ..... ≤0,1 ppb
Terbium (Tb) ..... ≤0,1 ppb
Thallium (Tl) ..... ≤0,1 ppb
Thorium (Th) ..... ≤0,1 ppb
Thulium (Tm) ..... ≤0,1 ppb
Titanium (Ti) ..... ≤0,5 ppb
Uranium (U) ..... ≤0,1 ppb
Vanadium (V) ..... ≤0,5 ppb
Bismuth (Bi) ..... ≤0,1 ppb
Tungsten (W) ..... ≤0,1 ppb
Ytterbium (Yb) ..... ≤0,1 ppb
Yttrium (Y) ..... ≤0,1 ppb
Zinc (Zn) ..... ≤1 ppb
Tin (Sn) ..... ≤0,5 ppb
Zirconium (Zr) ..... ≤0,1 ppb

Art. No.	Pack Qty.	Pack.	€
HN53.1	500 ml	HDPE	99,90
HN53.2	1 l	HDPE	153,20
Original pack 6 x 1 l			145,54/1 l
HN53.3	2.5 l	HDPE	170,95
Original pack 4 x 2.5 l			162,40/2.5 l
HN53.4	4 l	HDPE	256,95

Hydrochloric acid
ROTIPURAN®Supra 30 %

Highpure acid (ppb quality) for sample preparation in trace analysis (e.g. using ICP, AAS, Ion chromatography etc.).

HCl · D 1,16 g/cm³ · mp -50 °C · bp >80 °C

UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Guarantee analysis

Assay (w/w) ..... 29-31 %
Colour (APHA) ..... ≤10
Ammonium (NH_4) ..... ≤0,00005 %
Bromide (Br) ..... ≤0,001 %
Free chlorine (Cl_2) ..... ≤0,00005 %
Total Phosphorous (P) ..... ≤0,000001 %
Total Sulfur (S) ..... ≤0,00003 %
Aluminium (Al) ..... ≤1 ppb
Antimony (Sb) ..... ≤0,5 ppb
Arsenic (As) ..... ≤0,5 ppb
Barium (Ba) ..... ≤0,1 ppb
Beryllium (Be) ..... ≤0,1 ppb
Lead (Pb) ..... ≤0,1 ppb
Boron (B) ..... ≤1 ppb
Cadmium (Cd) ..... ≤0,1 ppb
Cesium (Cs) ..... ≤0,1 ppb
Calcium (Ca) ..... ≤1 ppb
Cerium (Ce) ..... ≤0,1 ppb
Chromium (Cr) ..... ≤0,5 ppb
Dysprosium (Dy) ..... ≤0,1 ppb
Iron (Fe) ..... ≤1 ppb
Erbium (Er) ..... ≤0,1 ppb
Europium (Eu) ..... ≤0,1 ppb
Gadolinium (Gd) ..... ≤0,1 ppb
Gallium (Ga) ..... ≤0,1 ppb
Germanium (Ge) ..... ≤1 ppb
Gold (Au) ..... ≤0,5 ppb
Hafnium (Hf) ..... ≤0,1 ppb
Holmium (Ho) ..... ≤0,1 ppb
Indium (In) ..... ≤0,1 ppb
Potassium (K) ..... ≤1 ppb
Cobalt (Co) ..... ≤0,1 ppb
Copper (Cu) ..... ≤0,5 ppb
Lanthanum (La) ..... ≤0,1 ppb
Lithium (Li) ..... ≤0,1 ppb
Lutetium (Lu) ..... ≤0,1 ppb
Magnesium (Mg) ..... ≤0,5 ppb
Manganese (Mn) ..... ≤0,1 ppb
Molybdenum (Mo) ..... ≤0,1 ppb
Sodium (Na) ..... ≤1 ppb
Neodymium (Nd) ..... ≤0,1 ppb
Nickel (Ni) ..... ≤0,5 ppb
Niobium (Nb) ..... ≤0,1 ppb
Praseodymium (Pr) ..... ≤0,1 ppb
Mercury (Hg) ..... ≤0,1 ppb
Rhenium (Re) ..... ≤0,1 ppb
Rhodium (Rh) ..... ≤0,1 ppb
Rubidium (Rb) ..... ≤0,1 ppb
Ruthenium (Ru) ..... ≤0,1 ppb
Samarium (Sm) ..... ≤0,1 ppb
Scandium (Sc) ..... ≤0,1 ppb
Selenium (Se) ..... ≤1 ppb
Silver (Ag) ..... ≤1 ppb
Strontium (Sr) ..... ≤0,1 ppb
Tellur (Te) ..... ≤0,1 ppb
Terbium (Tb) ..... ≤0,1 ppb
Thallium (Tl) ..... ≤0,1 ppb
Thorium (Th) ..... ≤0,1 ppb
Thulium (Tm) ..... ≤0,1 ppb
Titanium (Ti) ..... ≤0,5 ppb
Uranium (U) ..... ≤0,1 ppb
Vanadium (V) ..... ≤0,5 ppb
Bismuth (Bi) ..... ≤0,1 ppb
Tungsten (W) ..... ≤0,1 ppb
Ytterbium (Yb) ..... ≤0,1 ppb
Yttrium (Y) ..... ≤0,1 ppb
Zinc (Zn) ..... ≤1 ppb
Tin (Sn) ..... ≤0,5 ppb
Zirconium (Zr) ..... ≤0,1 ppb

Art. No.	Pack Qty.	Pack.	€
NE57.2	1 l	HDPE	130,65
Original pack 6 x 1 l			124,12/1 l
NE57.3	2.5 l	HDPE	177,40
Original pack 4 x 2.5 l			168,53/2.5 l

Hydrochloric acid 37 %

Hydrochloric acid
37 % fuming, VLSI Grade

Semiconductor grade

HCl · D 1,19 g/cm³ · mp -30 °C

UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Guarantee analysis

Assay ..... ≥36,5 %
Bead number (≥0,5 µm) ..... ≤250 p/ml
Colour (APHA) ..... ≤10
Free chlorine (Cl_2) ..... complies
Ammonium (NH_4) ..... ≤0,0001 %
Bromide (Br) ..... ≤0,005 %
Phosphate (PO_4) ..... ≤0,00005 %
Sulphate (SO_4) ..... ≤0,00005 %
Sulphite (SO_3) ..... ≤0,0001 %
Ash content (as SO_4) ..... ≤0,0005 %
Aluminium (Al) ..... ≤50 ppb
Antimony (Sb) ..... ≤10 ppb
Arsenic (As) ..... ≤10 ppb
Barium (Ba) ..... ≤10 ppb
Beryllium (Be) ..... ≤10 ppb
Bismuth (Bi) ..... ≤20 ppb
Lead (Pb) ..... ≤10 ppb
Boron (B) ..... ≤20 ppb
Cadmium (Cd) ..... ≤10 ppb
Calcium (Ca) ..... ≤50 ppb
Chromium (Cr) ..... ≤10 ppb
Iron (Fe) ..... ≤50 ppb
Gallium (Ga) ..... ≤10 ppb
Germanium (Ge) ..... ≤10 ppb
Gold (Au) ..... ≤10 ppb
Indium (In) ..... ≤20 ppb
Potassium (K) ..... ≤50 ppb
Cobalt (Co) ..... ≤10 ppb
Copper (Cu) ..... ≤10 ppb
Lithium (Li) ..... ≤10 ppb
Magnesium (Mg) ..... ≤50 ppb
Manganese (Mn) ..... ≤10 ppb
Molybdenum (Mo) ..... ≤10 ppb
Sodium (Na) ..... ≤200 ppb
Nickel (Ni) ..... ≤10 ppb
Platinum (Pt) ..... ≤50 ppb
Mercury (Hg) ..... ≤5 ppb
Silver (Ag) ..... ≤10 ppb
Strontium (Sr) ..... ≤20 ppb
Thallium (Tl) ..... ≤10 ppb
Titanium (Ti) ..... ≤10 ppb
Vanadium (V) ..... ≤10 ppb
Zinc (Zn) ..... ≤50 ppb
Tin (Sn) ..... ≤20 ppb
Zirconium (Zr) ..... ≤10 ppb

Art. No.	Pack Qty.	Pack.	€
9787.1	2.5 l	plastic	78,40
Original pack 4 x 2.5 l			74,48/2.5 l

Hydrochloric acid

ROTIPURAN® 37 % fuming, p.a., ISO, max. 0,005 ppm Hg

Dissolving agent for organic and anorganic samples. For determination of mercury.

HCl · D 1,19 g/cm³ · mp -30 °C

UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Guarantee analysis

Assay (acidim.) ..... 36,5-38,0 %
Colour (Hazen) ..... ≤10
Free chlorine (Cl) ..... ≤0,0001 %
Bromide (Br) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,0001 %
Sulphite (SO_3) ..... ≤0,0001 %
Ammonium (NH_4) ..... ≤0,0003 %
Mercury (Hg) ..... ≤0,0000005 %
Silver (Ag) ..... ≤0,000005 %
Aluminium (Al) ..... ≤0,00001 %
Arsenic (As) ..... ≤0,000001 %
Gold (Au) ..... ≤0,00001 %
Boron (B) ..... ≤0,00002 %
Barium (Ba) ..... ≤0,000005 %
Beryllium (Be) ..... ≤0,000002 %
Bismuth (Bi) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Cadmium (Cd) ..... ≤0,000001 %
Cobalt (Co) ..... ≤0,000001 %
Chromium (Cr) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00002 %
Gallium (Ga) ..... ≤0,000005 %
Germanium (Ge) ..... ≤0,000002 %
Indium (In) ..... ≤0,000005 %
Potassium (K) ..... ≤0,00001 %
Lithium (Li) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000001 %
Molybdenum (Mo) ..... ≤0,000001 %
Sodium (Na) ..... ≤0,00005 %
Nickel (Ni) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,000002 %
Platinum (Pt) ..... ≤0,00001 %
Antimony (Sb) ..... ≥0,000001 %
Silicon (Si) ..... ≤0,00001 %
Tin (Sn) ..... ≤0,00001 %
Strontium (Sr) ..... ≤0,000002 %
Titanium (Ti) ..... ≤0,000002 %
Vanadium (V) ..... ≤0,000001 %
Zinc (Zn) ..... ≤0,000005 %
Zirconium (Zr) ..... ≤0,000002 %
Ash content (as SO_4) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
X942.1	1 l	glass	38,60
Original pack 6 x 1 l			36,67/1 l
X942.2	2.5 l	glass	67,65
Original pack 4 x 2.5 l			64,27/2.5 l

Hydrochloric acid

ROTIPURAN® 37 % fuming, p.a., ACS, ISO

Solvent and dissolving agent. For acidifying, neutralisation and regeneration of ion exchangers.

HCl · D 1,19 g/cm³ · mp -30 °C

UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Guarantee analysis

Assay (acidim.) ..... 36,5-38,0 %
Colour (Hazen) ..... ≤10
Free chlorine (Cl) ..... ≤0,00004 %
Ash content (as SO_4) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0001 %
Phosphate (PO_4) ..... ≤0,00005 %
Sulphate (SO_4) ..... ≤0,0001 %
Sulphite (SO_3) ..... ≤0,00005 %
Aluminium (Al) ..... ≤0,000005 %
Ammonium (NH_4) ..... ≤0,0001 %
Arsenic (As) ..... ≤0,000001 %
Barium (Ba) ..... ≤0,000001 %
Beryllium (Be) ..... ≤0,000001 %
Bismuth (Bi) ..... ≤0,000005 %
Lead (Pb) ..... ≤0,000001 %
Boron (B) ..... ≤0,00001 %
Bromide (Br) ..... ≤0,005 %
Cadmium (Cd) ..... ≤0,000001 %
Calcium (Ca) ..... ≤0,00003 %
Chromium (Cr) ..... ≤0,000001 %
Iron (Fe) ..... ≤0,00001 %
Gallium (Ga) ..... ≤0,000005 %
Germanium (Ge) ..... ≤0,000002 %
Gold (Au) ..... ≤0,000005 %
Potassium (K) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000001 %
Copper (Cu) ..... ≤0,000001 %
Lithium (Li) ..... ≤0,000001 %
Magnesium (Mg) ..... ≤0,000005 %
Manganese (Mn) ..... ≤0,000001 %
Molybdenum (Mo) ..... ≤0,000001 %
Sodium (Na) ..... ≤0,00005 %
Nickel (Ni) ..... ≤0,000002 %
Platinum (Pt) ..... ≤0,00001 %
Mercury (Hg) ..... ≤0,000001 %
Silver (Ag) ..... ≤0,000002 %
Strontium (Sr) ..... ≤0,000002 %
Thallium (Tl) ..... ≤0,000002 %
Vanadium (V) ..... ≤0,000001 %
Zinc (Zn) ..... ≤0,00001 %
Tin (Sn) ..... ≤0,00002 %
Zirconium (Zr) ..... ≤0,000002 %

Art. No.	Pack Qty.	Pack.	€
4625.1	1 l	glass	26,35
Original pack 6 x 1 l			25,03/1 l
4625.2	2.5 l	glass	49,35
Original pack 4 x 2.5 l			46,88/2.5 l
4625.3	10 l	plastic	127,95

Hydrochloric acid

37 % fuming, Ph. Eur.

HCl · D 1,19 g/cm³ · mp -30 °C

UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Guarantee analysis

Assay (acidim.) ..... 36,5-39,0 %
Identity ..... complies
Appearance of solution ..... complies
Free chlorine (Cl) ..... ≤0,0004 %
Sulphate (SO_4) ..... ≤0,0005 %
Ash content (as SO_4) ..... ≤0,005 %
Non volatile matter ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
2607.1	1 l	glass	25,70
Original pack 6 x 1 l			24,42/1 l
2607.2	2.5 l	glass	48,30
Original pack 4 x 2.5 l			45,89/2.5 l
2607.3	10 l	plastic	123,65
2607.4	25 l	plastic	256,95

Hydrochloric acid

37 % fuming, extra pure

HCl · D 1,19 g/cm³ · mp -30 °C

UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Type analysis

Assay ..... 36,5-38,0 %
Density (20 °C) 1,18-1,19
Free chlorine (Cl) ..... ≤0,0001 %
Sulphate (SO_4) ..... ≤0,0002 %
Heavy metals (as Pb) ..... ≤0,0002 %
Iron (Fe) ..... ≤0,0001 %
Arsenic (As) ..... ≤0,0001 %
Ash content (as SO_4) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
9277.1	1 l	glass	24,65
Original pack 6 x 1 l			23,42/1 l
9277.4	1 l	plastic	22,50
Original pack 6 x 1 l			21,38/1 l
9277.2	2.5 l	glass	42,90
Original pack 4 x 2.5 l			40,76/2.5 l
9277.5	2.5 l	plastic	40,75
Original pack 4 x 2.5 l			38,71/2.5 l
9277.3	10 l	plastic	117,20

Hydrochloric acid

37 % fuming, technical

HCl · D 1,19 g/cm³ · mp -30 °C

UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Type analysis

Assay ..... ≥37,0 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
7476.1	1 l	glass	22,05
Original pack 6 x 1 l			20,95/1 l
7476.2	2.5 l	glass	38,60
Original pack 4 x 2.5 l			36,67/2.5 l
7476.3	10 l	plastic	107,40
7476.4	25 l	plastic	224,70

Hydrochloric acid 32 %

Hydrochloric acid
ROTIPURAN® ≥32 %, p.a., ISO

Solvent and dissolving agent. For neutralisation, regeneration and acidifying of ion exchangers.

HCl · D 1,16 g/cm³ · mp -50 °C · bp >80 °C

UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Guarantee analysis

Assay (acidim.) ..... ≥32 %
Colour (Hazen) ..... ≤10
Free chlorine (Cl) ..... ≤0,00005 %
Heavy metals (as Pb) ..... ≤0,0001 %
Ash content (as SO_4) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,0001 %
Sulphite (SO_3) ..... ≤0,0001 %
Phosphate (PO_4) ..... ≤0,00005 %
Ammonium (NH_4) ..... ≤0,0001 %
Aluminium (Al) ..... ≤0,000005 %
Arsenic (As) ..... ≤0,000001 %
Barium (Ba) ..... ≤0,000002 %
Beryllium (Be) ..... ≤0,000002 %
Bismuth (Bi) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,000001 %
Bromide (Br) ..... ≤0,005 %
Cadmium (Cd) ..... ≤0,000001 %
Calcium (Ca) ..... ≤0,00002 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Gallium (Ga) ..... ≤0,000005 %
Germanium (Ge) ..... ≤0,000002 %
Gold (Au) ..... ≤0,000005 %
Indium (In) ..... ≤0,000005 %
Potassium (K) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000001 %
Copper (Cu) ..... ≤0,000002 %
Lithium (Li) ..... ≤0,000001 %
Magnesium (Mg) ..... ≤0,000005 %
Manganese (Mn) ..... ≤0,000001 %
Molybdenum (Mo) ..... ≤0,000001 %
Sodium (Na) ..... ≤0,00005 %
Nickel (Ni) ..... ≤0,000002 %
Platinum (Pt) ..... ≤0,00001 %
Mercury (Hg) ..... ≤0,000001 %
Silver (Ag) ..... ≤0,000005 %
Strontium (Sr) ..... ≤0,000001 %
Thallium (Tl) ..... ≤0,000002 %
Titanium (Ti) ..... ≤0,000002 %
Vanadium (V) ..... ≤0,000001 %
Zinc (Zn) ..... ≤0,000005 %
Zirconium (Zr) ..... ≤0,000002 %

Art. No.	Pack Qty.	Pack.	€
P074.1	1 l	glass	25,70
Original pack 6 x 1 l			24,42/1 l
P074.3	1 l	plastic	23,55
Original pack 6 x 1 l			22,37/1 l
P074.2	2.5 l	glass	46,15
Original pack 4 x 2.5 l			43,84/2.5 l
P074.4	2.5 l	plastic	44,00
Original pack 4 x 2.5 l			41,80/2.5 l

Hydrochloric acid
32 %, extra pure

HCl · D 1,16 g/cm³ · mp -50 °C · bp >80 °C

UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Type analysis

Assay ..... ≥32 %
Colour (Hazen) ..... ≤10
Density (d 15 °C/4 °C) ..... ≥1,16
Free chlorine (Cl) ..... ≤0,0001 %
Sulphate (SO_4) ..... ≤0,0002 %
Heavy metals (as Pb) ..... ≤0,0002 %
Iron (Fe) ..... ≤0,0001 %
Arsenic (As) ..... ≤0,0001 %
Ash content (as SO_4) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
X896.1	1 l	plastic	23,15
Original pack 6 x 1 l			21,99/1 l
X896.2	2.5 l	plastic	40,75
Original pack 4 x 2.5 l			38,71/2.5 l
X896.3	10 l	plastic	117,20
X896.7	25 l	plastic	252,65

Hydrochloric acid
≥30 %, technical

HCl · D 1,16 g/cm³ · mp -50 °C · bp >80 °C

UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Type analysis

Appearance ..... clear,yellowish liquid
Assay ..... ≥30 %
Iron (Fe) ..... ≤0,001 %
Density (20 °C) 1,148-1,158

Art. No.	Pack Qty.	Pack.	€
9280.3	1 l	plastic	21,40
Original pack 6 x 1 l			20,33/1 l
9280.1	10 l	plastic	96,65
9280.4	25 l	plastic	209,65

Hydrochloric acid 25 %

Hydrochloric acid
ROTIPURAN® ≥25 %, p.a., ISO

Solvent, for neutralisation.

HCl · D 1,12 g/cm³ · mp -70 °C · bp 107 °C

UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Guarantee analysis

Assay (acidim.) ..... ≥25 %
Colour (Hazen) ..... ≤10
Free chlorine (Cl) ..... ≤0,00005 %
Heavy metals (as Pb) ..... ≤0,0001 %
Ash content (as SO_4) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,0001 %
Sulphite (SO_3) ..... ≤0,0001 %
Aluminium (Al) ..... ≤0,000005 %
Ammonium (NH_4) ..... ≤0,0001 %
Arsenic (As) ..... ≤0,000001 %
Barium (Ba) ..... ≤0,000002 %
Beryllium (Be) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,000002 %
Bromide (Br) ..... ≤0,005 %
Cadmium (Cd) ..... ≤0,000001 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Cobalt (Co) ..... ≤0,000001 %
Iron (Fe) ..... ≤0,00002 %
Germanium (Ge) ..... ≤0,000005 %
Potassium (K) ..... ≤0,00001 %
Copper (Cu) ..... ≤0,000002 %
Lithium (Li) ..... ≤0,000001 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000001 %
Molybdenum (Mo) ..... ≤0,000002 %
Sodium (Na) ..... ≤0,00005 %
Nickel (Ni) ..... ≤0,000002 %
Strontium (Sr) ..... ≤0,000001 %
Thallium (Tl) ..... ≤0,000005 %
Titanium (Ti) ..... ≤0,0001 %
Vanadium (V) ..... ≤0,000001 %
Bismuth (Bi) ..... ≤0,00001 %
Zinc (Zn) ..... ≤0,000005 %
Zirconium (Zr) ..... ≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
6331.1	1 l	glass	25,70
Original pack 6 x 1 l			24,42/1 l
6331.3	1 l	plastic	23,55
Original pack 6 x 1 l			22,37/1 l
6331.2	2.5 l	glass	45,05
Original pack 4 x 2.5 l			42,80/2.5 l
6331.4	2.5 l	plastic	42,90
Original pack 4 x 2.5 l			40,76/2.5 l
6331.7	25 l	plastic	263,40

Hydrochloric acid
25 %, extra pure

HCl · D 1,12 g/cm³ · mp -70 °C · bp 107 °C

UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Type analysis

Assay ..... ≥25 %
Colour (Hazen) ..... ≤10
Density (d 15 °C/4 °C) 1,12-1,13
Free chlorine (Cl) ..... ≤0,0001 %
Sulphate (SO_4) ..... ≤0,0002 %
Heavy metals (as Pb) ..... ≤0,0002 %
Iron (Fe) ..... ≤0,0001 %
Arsenic (As) ..... ≤0,0001 %
Ash content (as SO_4) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
X897.1	1 l	plastic	19,90
Original pack 6 x 1 l			18,91/1 l
X897.2	2.5 l	plastic	38,60
Original pack 4 x 2.5 l			36,67/2.5 l
X897.3	10 l	plastic	107,00

Hydrochloric acid
25 %, technical

HCl · D 1,12 g/cm³ · mp -70 °C · bp 107 °C

UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Type analysis

Appearance .... clear, colourless to light yellowish liquid
Assay ..... 24,0-26,0 %
Density (20 °C) 1,118-1,133
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
0992.4	1 l	plastic	20,35
Original pack 6 x 1 l			19,33/1 l
0992.1	2.5 l	plastic	36,45
Original pack 4 x 2.5 l			34,63/2.5 l
0992.2	10 l	plastic	85,90
0992.3	25 l	plastic	181,70

Hydrochloric acid 20 %

Hydrochloric acid
20 %, technical

HCl · D ~1,1 g/cm³ · bp 85 °C

UN no. 1789 · ADR 8 II · WGK 1

Warning H290-H315-H319-H335

Type analysis
Assay ..... 19,0-21,0 %
Density (20 °C) 1,0929-1,1032
Iron (Fe) ..... <0,001 %

Art. No.	Pack Qty.	Pack.	€
4326.1	1 l	plastic	19,90
Original pack 6 x 1 l			18,91/1 l
4326.2	2.5 l	plastic	34,30
Original pack 4 x 2.5 l			32,59/2.5 l
4326.3	5 l	plastic	50,45
Original pack 2 x 5 l			47,93/5 l
4326.4	10 l	plastic	79,45

Hydrochloric acid 15 %

Hydrochloric acid
15 %, technical

HCl · D ~1,1 g/cm³ · bp 85 °C

UN no. 1789 · ADR 8 II · WGK 1

Warning H290-H315-H319-H335

Type analysis
Assay ..... 14,0-16,0 %
Density (20 °C) 1,0675-1,0776
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
4322.1	1 l	plastic	19,25
Original pack 6 x 1 l			18,29/1 l
4322.2	2.5 l	plastic	33,25
Original pack 4 x 2.5 l			31,59/2.5 l
4322.3	5 l	plastic	48,30
Original pack 2 x 5 l			45,89/5 l
4322.4	10 l	plastic	75,15

Hydrochloric acid 10 %

Hydrochloric acid
10 %, technical

HCl · D ~1,1 g/cm³ · bp 85 °C

UN no. 1789 · ADR 8 II · WGK 1

Warning H290-H315-H319-H335

Type analysis
Assay ..... 9,0-11,0 %
Density (20 °C) 1,0450-1,0530
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
0710.4	1 l	plastic	18,85
Original pack 6 x 1 l			17,91/1 l
0710.1	2.5 l	plastic	32,15
Original pack 4 x 2.5 l			30,54/2.5 l
0710.2	5 l	plastic	46,15
Original pack 2 x 5 l			43,84/5 l
0710.3	10 l	plastic	71,95

Hydrochloric acid 5 %

Hydrochloric acid
5 %, technical

HCl · D 1,04 g/cm³ · bp >85 °C

UN no. 1789 · ADR 8 II · WGK 1

Warning H290

Type analysis
Assay ..... 4,0-6,0 %
Density (20 °C) 1,020-1,028
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
4328.1	1 l	plastic	18,20
Original pack 6 x 1 l			17,29/1 l
4328.2	2.5 l	plastic	31,10
Original pack 4 x 2.5 l			29,55/2.5 l
4328.3	5 l	plastic	44,00
Original pack 2 x 5 l			41,80/5 l
4328.4	10 l	plastic	69,35

Hydrochloric acid (0.01 N)

Hydrochloric acid
0,01 mol/l – 0,01 N, volumetric standard solution

HCl · D 1 g/cm³ · mp ~0 °C · bp 100 °C

WGK 1

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,01 mol/l ±0,5 %
Titer ..... 0,9950 - 1,0050

Art. No.	Pack Qty.	Pack.	€
N075.1	1 l	plastic	24,65
Original pack 6 x 1 l			23,42/1 l

Hydrochloric acid (0.02 N)

Hydrochloric acid
0,02 mol/l – 0,02 N, volumetric standard solution

HCl · D 1 g/cm³ · mp ~0 °C · bp 100 °C

WGK 1

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,02 mol/l ±0,4 %
Titer 0,996-1,004

Art. No.	Pack Qty.	Pack.	€
1E2H.1	1 l	plastic	40,75
Original pack 6 x 1 l			38,71/1 l

Hydrochloric acid (0.05 N)

Hydrochloric acid
0,05 mol/l – 0,05 N, volumetric standard solution

HCl · D ~1 g/cm³ · bp 100 °C

UN no. 1789 · ADR 8 III · WGK 1

Warning H290

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,05 mol/l ±0,2 %
Titer 0,996-1,004

Art. No.	Pack Qty.	Pack.	€
8085.1	1 l	plastic	26,35
Original pack 6 x 1 l			25,03/1 l
8085.2	2.5 l	plastic	45,70
Original pack 4 x 2.5 l			43,42/2.5 l
8085.3	5 l	ROTI®CUBE	87,65
Original pack 2 x 5 l			83,27/5 l

Hydrochloric acid (0.1 N)

Hydrochloric acid
0,1 mol/l – 0,1 N, volumetric standard solution

HCl · D 1 g/cm³ · bp 100 °C

UN no. 1789 · ADR 8 III · WGK 1

Warning H290

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
K024.5	500 ml	plastic	19,90
K024.1	1 l	plastic	25,70
Original pack 6 x 1 l			24,42/1 l
K024.2	5 l	plastic	76,25
Original pack 2 x 5 l			72,44/5 l
K024.3	5 l	ROTI®CUBE	81,20
Original pack 2 x 5 l			77,14/5 l
K024.4	10 l	ROTI®CUBE	117,75
K024.7	25 l	plastic	209,65

Hydrochloric acid
0,1 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.

HCl · D 1,004 g/cm³ · bp 100 °C

UN no. 1789 · ADR 8 III · WGK 1

Warning H290

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l
Measurement uncertainty ..... ±0,1 %

Art. No.	Pack Qty.	Pack.	€
6789.1	1 l	plastic	27,85
Original pack 6 x 1 l			26,46/1 l

Hydrochloric acid
ROTI®Volum 0,1 mol/l – 0,1 N, volumetric standard solution

Ampoule for preparation of 1000 ml volumetric solution.

HCl · D 1,016 g/cm³ · bp >85 °C

UN no. 1789 · ADR 8 II · WGK 1

Warning H290

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
CN61.1	1 unit(s)	plastic ampoule	27,45

Hydrochloric acid (0.2 N)

Hydrochloric acid
0,2 mol/l – 0,2 N, volumetric standard solution

HCl · D 1,002 g/cm³ · bp 100 °C

UN no. 1789 · ADR 8 III · WGK 1

Warning H290

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,2 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
4120.1	1 l	plastic	23,55
Original pack 6 x 1 l			22,37/1 l

Hydrochloric acid (0.5 N)

Hydrochloric acid
0,5 mol/l – 0,5 N, volumetric standard solution

HCl · D 1,007 g/cm³ · bp 100 °C

UN no. 1789 · ADR 8 III · WGK 1

Warning H290

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,5 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
P708.1	1 l	plastic	24,65
Original pack 6 x 1 l			23,42/1 l
P708.2	5 l	plastic	76,25
Original pack 2 x 5 l			72,44/5 l
P708.3	5 l	ROTI®CUBE	82,25
Original pack 2 x 5 l			78,14/5 l
P708.4	10 l	ROTI®CUBE	140,30

Hydrochloric acid
ROTI®Volum 0,5 mol/l – 0,5 N, volumetric standard solution

Ampoule for preparation of 1000 ml volumetric solution.

HCl · D 1,016 g/cm³ · bp >85 °C

UN no. 1789 · ADR 8 II · WGK 1

Warning H290

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,5 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
CN62.1	1 unit(s)	plastic ampoule	28,95

Hydrochloric acid (1 N)

Hydrochloric acid
1 mol/l – 1 N, volumetric standard solution

HCl · D 1,016 g/cm³ · bp >85 °C

UN no. 1789 · ADR 8 III · WGK 1

Warning H290

Type analysis
Amount-of-substance conc. (20 °C) ..... 1 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
K025.1	1 l	plastic	24,65
Original pack 6 x 1 l			23,42/1 l
K025.2	5 l	plastic	76,25
Original pack 2 x 5 l			72,44/5 l
K025.3	5 l	ROTI®CUBE	81,20
Original pack 2 x 5 l			77,14/5 l
K025.4	10 l	ROTI®CUBE	117,75

Hydrochloric acid
1 mol/l – 1 N, volumetric standard solution, Reag. Ph. Eur.

HCl · D 1,039 g/cm³ · bp >85 °C

UN no. 1789 · ADR 8 III · WGK 1

Warning H290

Type analysis
Amount-of-substance conc. (20 °C) ..... 1 mol/l
Measurement uncertainty ..... ±0,1 %

Art. No.	Pack Qty.	Pack.	€
6792.1	1 l	plastic	27,85
Original pack 6 x 1 l			26,46/1 l
6792.2	2.5 l	plastic	52,60
Original pack 4 x 2.5 l			49,97/2.5 l

Hydrochloric acid
ROTI®Volum 1 mol/l – 1 N, volumetric standard solution

Ampoule for preparation of 1000 ml volumetric solution.

HCl · D ~1,1 g/cm³ · bp 85 °C

UN no. 1789 · ADR 8 II · WGK 1

Warning H290-H315-H319-H335

Type analysis
Amount-of-substance conc. (20 °C) ..... 1 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
CN63.1	1 unit(s)	plastic ampoule	28,95

Hydrochloric acid (2 N)

Hydrochloric acid
2 mol/l – 2 N, volumetric standard solution

HCl · D 1,033 g/cm³ · bp >85 °C

UN no. 1789 · ADR 8 II · WGK 1

Warning H290

Type analysis
Amount-of-substance conc. (20 °C) ..... 2 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
T134.4	500 ml	plastic	22,05
T134.1	1 l	plastic	26,80
Original pack 6 x 1 l			25,46/1 l
T134.2	5 l	plastic	81,20
Original pack 2 x 5 l			77,14/5 l
T134.3	5 l	ROTI®CUBE	90,20
Original pack 2 x 5 l			85,69/5 l

Hydrochloric acid (3 N)

Hydrochloric acid
3 mol/l – 3 N, volumetric standard solution

HCl · D 1,049 g/cm³ · bp 85 °C

UN no. 1789 · ADR 8 II · WGK 1

Warning H290-H315-H319-H335

Type analysis
Amount-of-substance conc. (20 °C) ..... 3 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
1E2E.1	1 l	plastic	43,55
Original pack 6 x 1 l			41,37/1 l

Hydrochloric acid (4 N)

Hydrochloric acid
4 mol/l – 4 N, volumetric standard solution

HCl · D 1,066 g/cm³ · bp 85 °C

UN no. 1789 · ADR 8 II · WGK 1

Warning H290-H315-H319-H335

Type analysis
Amount-of-substance conc. (20 °C) ..... 4 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
N076.1	1 l	plastic	40,75
Original pack 6 x 1 l			38,71/1 l
N076.2	2.5 l	plastic	67,65
Original pack 4 x 2.5 l			64,27/2.5 l
N076.3	5 l	plastic	110,20
Original pack 2 x 5 l			104,69/5 l
N076.4	10 l	plastic	163,95
N076.5	25 l	plastic	319,85

Hydrochloric acid (5 N)

Hydrochloric acid
5 mol/l – 5 N, volumetric standard solution

HCl · D 1,082 g/cm³ · bp 85 °C

UN no. 1789 · ADR 8 II · WGK 1

Warning H290-H315-H319-H335

Type analysis
Amount-of-substance conc. (20 °C) ..... 5 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
1E2C.1	1 l	plastic	58,60
Original pack 6 x 1 l			55,67/1 l

Hydrochloric acid (6 N)

Hydrochloric acid
6 mol/l – 6 N, volumetric standard solution

HCl · D 1,098 g/cm³ · bp 85 °C

UN no. 1789 · ADR 8 II · WGK 1

Warning H290-H315-H319-H335

Type analysis
Amount-of-substance conc. (20 °C) ..... 6 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
0281.1	1 l	plastic	39,70
Original pack 6 x 1 l			37,72/1 l

Hydrochloric acid (10 N)

Hydrochloric acid
10 mol/l – 10 N, volumetric standard solution

HCl · D 1,18 g/cm³ · mp -26 °C

UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Type analysis
Amount-of-substance conc. (20 °C) ..... 10 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
0226.1	1 l	plastic	138,15
Original pack 6 x 1 l			131,24/1 l

Hydrochloric acid in ethanol

UN no. 2924 · ADR 3 (8) II · WGK 1

Danger H225-H290-H319

Hydrochloric acid in ethanol (0.1 N)

Hydrochloric acid in ethanol
0,1 mol/l – 0,1 N, volumetric standard solution

D 0,8 g/cm³ · mp -114 °C · bp 78 °C · flp 13 °C

Type analysis
Amount-of-substance conc. ..... 0,1 mol/l ±0,3 %
Titer 0,997-1,003

The titer decreases steadily, therefore we recommend a titer determination immediately before use.

Art. No.	Pack Qty.	Pack.	€
3080.1	1 l	glass	91,95
Original pack 6 x 1 l			87,35/1 l

Hydrochloric acid in ethanol (0.5 N)

Hydrochloric acid in ethanol
0,5 mol/l – 0,5 N, volumetric standard solution

D 0,82 g/cm³ · mp -114 °C · bp 78 °C · flp 13 °C

Type analysis
Amount-of-substance conc. ..... 0,5 mol/l ±0,2 %
Titer 0,998-1,002

The titer decreases steadily, therefore we recommend a titer determination immediately before use.

Art. No.	Pack Qty.	Pack.	€
3091.1	1 l	glass	91,95
Original pack 6 x 1 l			87,35/1 l

Hydrochloric acid in ethanol (1 N)

Hydrochloric acid in ethanol
1 mol/l – 1 N, volumetric standard solution

D 0,834 g/cm³ · mp -114 °C · bp 78 °C · flp 13 °C

Type analysis
Amount-of-substance conc. ..... 1 mol/l ±0,2 %
Titer 0,998-1,002

The titer decreases steadily, therefore we recommend a titer determination immediately before use.

Art. No.	Pack Qty.	Pack.	€
2988.1	1 l	glass	146,75
Original pack 6 x 1 l			139,41/1 l

Hydrochloric acid in 2-propanol

UN no. 2924 · ADR 3 (8) II · WGK 1

Danger H225-H290-H319-H336

Hydrochloric acid in 2-propanol (0.1 N)

Hydrochloric acid in 2-propanol
0,1 mol/l – 0,1 N, volumetric standard solution

D 0,79 g/cm³ · bp 82 °C · flp 13 °C

Type analysis
Amount-of-substance conc. ..... 0,1 mol/l ±0,2 %
Titer 0,998-1,002

The titer decreases steadily, therefore we recommend a titer determination immediately before use.

Art. No.	Pack Qty.	Pack.	€
2943.1	1 l	glass	68,30
Original pack 6 x 1 l			64,89/1 l

Hydrochloric acid in 2-propanol (0.5 N)

Hydrochloric acid in 2-propanol
0,5 mol/l – 0,5 N, volumetric standard solution

D 0,81 g/cm³ · bp 82 °C · flp 13 °C

Type analysis
Amount-of-substance conc. ..... 0,5 mol/l ±0,2 %
Titer 0,998-1,002

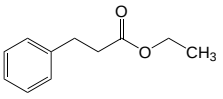
The titer decreases steadily, therefore we recommend a titer determination immediately before use.

Art. No.	Pack Qty.	Pack.	€
2980.1	1 l	glass	91,95
Original pack 6 x 1 l			87,35/1 l

Hydrochloric acid aluminium salt

▸ Aluminium chloride see page 722

Hydrocinnamic acid ethyl ester



3-Phenylpropionic acid ethyl ester

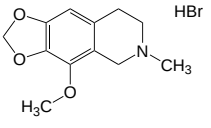
$C_{11}H_{14}O_2$ · D 1,01 g/cm³ · bp 247 to 248 °C · flp 107 °C
CAS No. 2021-28-5 · EC no. 217-966-6
WGK 1

Hydrocinnamic acid ethyl ester
≥98,5 %

Type analysis
Assay (GC) ..... ≥98,5 %

Art. No.	Pack Qty.	Pack.	€
7920.1	10 ml	glass	62,25

Hydrocotarnine hydrobromide



$C_{12}H_{15}NO_3$ · HBr · mp 237 °C
CAS No. 5985-00-2
UN no. 1544 · ADR 6.1 II · WGK 1

Danger H301

Hydrocotarnine hydrobromide
ROTICHROM® ~CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
4268.1	100 mg	glass	32,15

Hydrofluoric acid

Fluorhydric acid

HF · D 1,18 g/cm³ · mp -35 °C · bp 108 °C
CAS No. 7664-39-3 · EC no. 231-634-8
UN no. 1790 · ADR 8 (6.1) II · WGK 2

Danger H300+H310+H330-H314

Hydrofluoric acid
ROTIPURAN®Ultra 48 %

Extra highpure acid (ppt quality) for sample preparation in ultra trace analysis.

Guarantee analysis
Assay (w/w) ..... 47-51 %
Total Sulfur (S) ..... ≤0,00001 %
Aluminium (Al) ..... ≤20 ppt
Antimony (Sb) ..... ≤20 ppt
Arsenic (As) ..... ≤50 ppt
Barium (Ba) ..... ≤10 ppt
Beryllium (Be) ..... ≤10 ppt
Lead (Pb) ..... ≤10 ppt
Boron (B) ..... ≤100 ppt
Cadmium (Cd) ..... ≤10 ppt
Cesium (Cs) ..... ≤10 ppt
Calcium (Ca) ..... ≤10 ppt
Cerium (Ce) ..... ≤10 ppt
Chromium (Cr) ..... ≤10 ppt
Dysprosium (Dy) ..... ≤1 ppt
Iron (Fe) ..... ≤10 ppt
Erbium (Er) ..... ≤1 ppt
Europium (Eu) ..... ≤1 ppt
Gadolinium (Gd) ..... ≤1 ppt
Gallium (Ga) ..... ≤10 ppt
Germanium (Ge) ..... ≤10 ppt
Gold (Au) ..... ≤20 ppt
Hafnium (Hf) ..... ≤10 ppt
Holmium (Ho) ..... ≤1 ppt
Indium (In) ..... ≤1 ppt
Potassium (K) ..... ≤10 ppt
Cobalt (Co) ..... ≤10 ppt
Copper (Cu) ..... ≤10 ppt
Lanthanum (La) ..... ≤10 ppt
Lithium (Li) ..... ≤10 ppt
Lutetium (Lu) ..... ≤1 ppt
Magnesium (Mg) ..... ≤10 ppt
Manganese (Mn) ..... ≤10 ppt
Molybdenum (Mo) ..... ≤10 ppt
Sodium (Na) ..... ≤10 ppt
Neodymium (Nd) ..... ≤1 ppt
Nickel (Ni) ..... ≤20 ppt
Niobium (Nb) ..... ≤10 ppt
Palladium (Pd) ..... ≤20 ppt
Platinum (Pt) ..... ≤20 ppt
Praseodymium (Pr) ..... ≤1 ppt
Mercury (Hg) ..... ≤50 ppt
Rhenium (Re) ..... ≤10 ppt
Rhodium (Rh) ..... ≤20 ppt
Rubidium (Rb) ..... ≤20 ppt
Ruthenium (Ru) ..... ≤20 ppt
Samarium (Sm) ..... ≤1 ppt
Scandium (Sc) ..... ≤10 ppt
Silver (Ag) ..... ≤10 ppt
Strontium (Sr) ..... ≤10 ppt
Tellur (Te) ..... ≤1 ppt
Terbium (Tb) ..... ≤1 ppt
Thallium (Tl) ..... ≤10 ppt
Thorium (Th) ..... ≤1 ppt
Thulium (Tm) ..... ≤1 ppt
Titanium (Ti) ..... ≤20 ppt
Uranium (U) ..... ≤1 ppt
Vanadium (V) ..... ≤10 ppt
Bismuth (Bi) ..... ≤10 ppt
Tungsten (W) ..... ≤20 ppt
Ytterbium (Yb) ..... ≤1 ppt
Yttrium (Y) ..... ≤1 ppt
Zinc (Zn) ..... ≤10 ppt
Tin (Sn) ..... ≤20 ppt
Zirconium (Zr) ..... ≤10 ppt

Art. No.	Pack Qty.	Pack.	€
HN64.2	250 ml	plastic (FEP)	622,45
HN64.1	500 ml	plastic (FEP)	934,20
HN64.3	1 l	plastic (FEP)	1.521,15
Original pack 6 x 1 l			1.445,09/1 l

Hydrofluoric acid
ROTIPURAN®Supra 48 %

Highpure acid (ppb quality) for sample preparation in trace analysis (e.g. using ICP, AAS, Ion chromatography etc.).

Guarantee analysis

Assay (w/w) ..... 47-51 %
Colour (APHA) ..... ≤10
Hexafluorosilicate (SiF_6) ..... ≤0,002 %
Chloride (Cl) ..... ≤0,0004 %
Total Phosphorous (P) ..... ≤0,000005 %
Total Sulfur (S) ..... ≤0,00001 %
Aluminium (Al) ..... ≤1 ppb
Antimony (Sb) ..... ≤0,2 ppb
Arsenic (As) ..... ≤0,5 ppb
Barium (Ba) ..... ≤0,1 ppb
Beryllium (Be) ..... ≤0,1 ppb
Lead (Pb) ..... ≤0,1 ppb
Boron (B) ..... ≤1 ppb
Cadmium (Cd) ..... ≤0,1 ppb
Cesium (Cs) ..... ≤0,1 ppb
Calcium (Ca) ..... ≤1 ppb
Cerium (Ce) ..... ≤0,1 ppb
Chromium (Cr) ..... ≤1 ppb
Dysprosium (Dy) ..... ≤0,1 ppb
Iron (Fe) ..... ≤1 ppb
Erbium (Er) ..... ≤0,1 ppb
Europium (Eu) ..... ≤0,1 ppb
Gadolinium (Gd) ..... ≤0,1 ppb
Gallium (Ga) ..... ≤0,1 ppb
Germanium (Ge) ..... ≤0,1 ppb
Gold (Au) ..... ≤0,2 ppb
Hafnium (Hf) ..... ≤0,1 ppb
Holmium (Ho) ..... ≤0,1 ppb
Indium (In) ..... ≤0,1 ppb
Potassium (K) ..... ≤1 ppb
Cobalt (Co) ..... ≤0,1 ppb
Copper (Cu) ..... ≤0,5 ppb
Lanthanum (La) ..... ≤0,1 ppb
Lithium (Li) ..... ≤0,1 ppb
Lutetium (Lu) ..... ≤0,1 ppb
Magnesium (Mg) ..... ≤1 ppb
Manganese (Mn) ..... ≤0,1 ppb
Molybdenum (Mo) ..... ≤0,1 ppb
Sodium (Na) ..... ≤1 ppb
Neodymium (Nd) ..... ≤0,1 ppb
Nickel (Ni) ..... ≤0,5 ppb
Niobium (Nb) ..... ≤0,1 ppb
Palladium (Pd) ..... ≤0,2 ppb
Platinum (Pt) ..... ≤0,2 ppb
Praseodymium (Pr) ..... ≤0,1 ppb
Mercury (Hg) ..... ≤1 ppb
Rhenium (Re) ..... ≤0,1 ppb
Rhodium (Rh) ..... ≤0,1 ppb
Rubidium (Rb) ..... ≤0,1 ppb
Ruthenium (Ru) ..... ≤0,1 ppb
Samarium (Sm) ..... ≤0,1 ppb
Scandium (Sc) ..... ≤0,1 ppb
Selenium (Se) ..... ≤1 ppb
Silver (Ag) ..... ≤0,5 ppb
Strontium (Sr) ..... ≤0,1 ppb
Tellur (Te) ..... ≤0,1 ppb
Terbium (Tb) ..... ≤0,1 ppb
Thallium (Tl) ..... ≤0,1 ppb
Thorium (Th) ..... ≤0,1 ppb
Thulium (Tm) ..... ≤0,1 ppb
Titanium (Ti) ..... ≤1 ppb
Uranium (U) ..... ≤0,1 ppb
Vanadium (V) ..... ≤0,1 ppb
Bismuth (Bi) ..... ≤0,1 ppb
Tungsten (W) ..... ≤0,5 ppb
Ytterbium (Yb) ..... ≤0,1 ppb
Yttrium (Y) ..... ≤0,1 ppb
Zinc (Zn) ..... ≤1 ppb
Tin (Sn) ..... ≤0,5 ppb
Zirconium (Zr) ..... ≤0,1 ppb

Art. No.	Pack Qty.	Pack.	€
HN54.1	500 ml	LDPE	188,15

Hydrogen carboxylic acid
▸ Formic acid see page 947

Hydrogen chloride
▸ Hydrochloric acid see page 988

Hydrogen chloride
▸ Hydrochloric acid see page 988

Hydrogen hexachloroplatinate(IV) hydrate

Chloroplatinic acid hydrate · Hexachloroplatinum(IV) acid hydrate

$H_2PtCl_6 \cdot x\ H_2O$ · D 2,431 g/cm³ · mp 60 °C
CAS No. 26023-84-7 · EC no. 241-010-7
UN no. 2507 · ADR 8 III · WGK 3

Danger H301-H314-H317-H334-H411

Hydrogen hexachloroplatinate(IV) hydrate
ROTI®METIC 99,995 % (4N5)

Type analysis

Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5626.1	1 g	plastic	230,60
5626.2	5 g	plastic	1.066,95

Hydrogen hexachloroplatinate(IV) hexahydrate
▸ Hexachloroplatinum(IV) acid hexahydrate see page 981

Hydrogen peroxide

CAS No. 7722-84-1 · EC no. 231-765-0

Hydrogen peroxide Ultra-quality

Hydrogen peroxide
ROTIPURAN®Ultra 31 %

Extra highpure reagent (ppt quality) for sample preparation in ultra trace analysis.

H_2O_2 · D 1,11 g/cm³ · mp -26 °C · bp 107 °C

UN no. 2014 · ADR 5.1 (8) II · WGK 1

Danger H302+H332-H318

Guarantee analysis

Assay (w/w) ..... 30-32 %
Aluminium (Al) ..... ≤50 ppt
Antimony (Sb) ..... ≤10 ppt
Arsenic (As) ..... ≤100 ppt
Barium (Ba) ..... ≤10 ppt
Beryllium (Be) ..... ≤10 ppt
Lead (Pb) ..... ≤10 ppt
Boron (B) ..... ≤100 ppt
Cadmium (Cd) ..... ≤10 ppt
Cesium (Cs) ..... ≤1 ppt
Calcium (Ca) ..... ≤100 ppt
Cerium (Ce) ..... ≤1 ppt
Chromium (Cr) ..... ≤10 ppt
Dysprosium (Dy) ..... ≤1 ppt
Iron (Fe) ..... ≤20 ppt
Erbium (Er) ..... ≤1 ppt
Europium (Eu) ..... ≤1 ppt
Gadolinium (Gd) ..... ≤1 ppt
Gallium (Ga) ..... ≤10 ppt
Germanium (Ge) ..... ≤10 ppt
Gold (Au) ..... ≤10 ppt
Hafnium (Hf) ..... ≤1 ppt
Holmium (Ho) ..... ≤1 ppt
Indium (In) ..... ≤1 ppt
Potassium (K) ..... ≤20 ppt
Cobalt (Co) ..... ≤10 ppt
Copper (Cu) ..... ≤10 ppt
Lanthanum (La) ..... ≤1 ppt
Lithium (Li) ..... ≤10 ppt
Lutetium (Lu) ..... ≤1 ppt
Magnesium (Mg) ..... ≤20 ppt
Manganese (Mn) ..... ≤10 ppt
Molybdenum (Mo) ..... ≤10 ppt
Sodium (Na) ..... ≤50 ppt
Neodymium (Nd) ..... ≤1 ppt
Nickel (Ni) ..... ≤20 ppt
Niobium (Nb) ..... ≤10 ppt
Palladium (Pd) ..... ≤10 ppt
Praseodymium (Pr) ..... ≤1 ppt
Mercury (Hg) ..... ≤50 ppt
Rhenium (Re) ..... ≤10 ppt
Rhodium (Rh) ..... ≤10 ppt
Rubidium (Rb) ..... ≤10 ppt
Ruthenium (Ru) ..... ≤10 ppt
Samarium (Sm) ..... ≤1 ppt
Scandium (Sc) ..... ≤10 ppt
Selenium (Se) ..... ≤100 ppt
Silver (Ag) ..... ≤10 ppt
Strontium (Sr) ..... ≤10 ppt
Tantal (Ta) ..... ≤10 ppt
Tellur (Te) ..... ≤1 ppt
Terbium (Tb) ..... ≤1 ppt
Thallium (Tl) ..... ≤1 ppt
Thorium (Th) ..... ≤1 ppt
Thulium (Tm) ..... ≤1 ppt
Titanium (Ti) ..... ≤20 ppt
Uranium (U) ..... ≤1 ppt
Vanadium (V) ..... ≤10 ppt
Bismuth (Bi) ..... ≤10 ppt
Tungsten (W) ..... ≤20 ppt
Ytterbium (Yb) ..... ≤1 ppt
Yttrium (Y) ..... ≤1 ppt
Zinc (Zn) ..... ≤50 ppt
Tin (Sn) ..... ≤50 ppt
Zirconium (Zr) ..... ≤10 ppt

Art. No.	Pack Qty.	Pack.	€
HN69.1	500 ml	plastic (FEP)	682,65

Hydrogen peroxide 50 %

Hydrogen peroxide
50 %, technical, stabilised

Oxidant

H_2O_2 · D 1,2 g/cm³ · mp -50 °C · bp 110 to 114 °C

UN no. 2014 · ADR 5.1 (8) II · WGK 1

Danger H272-H302+H332-H314-H335-H412

Type analysis
Assay ..... 49,0-50,0 %
Density (20 °C) 1,191-1,195

Contains proprietary stabiliser mixture.

Art. No.	Pack Qty.	Pack.	€
0034.1	500 ml	plastic	21,00
0034.2	1 l	plastic	28,95
Original pack 6 x 1 l			27,50/1 l
0034.3	2.5 l	plastic	43,55
Original pack 4 x 2.5 l			41,37/2.5 l
0034.4	5 l	plastic	74,10
Original pack 2 x 5 l			70,40/5 l
0034.5	10 l	plastic	131,70

Hydrogen peroxide 35 %

Hydrogen peroxide
35 %, pure, stabilised

Oxidant, bleaching agent

H_2O_2 · D 1,13 g/cm³ · mp -33 °C · bp 108 °C

UN no. 2014 · ADR 5.1 (8) II · WGK 1

Danger H302+H332-H315-H318-H335

Type analysis
Assay ..... 34-36 %
Density (20 °C) 1,127-1,140

Contains proprietary stabiliser mixture.

Art. No.	Pack Qty.	Pack.	€
9683.4	500 ml	plastic	20,35
9683.1	1 l	plastic	26,80
Original pack 6 x 1 l			25,46/1 l
9683.3	2.5 l	plastic	39,70
Original pack 4 x 2.5 l			37,72/2.5 l
9683.5	5 l	plastic	67,20
Original pack 2 x 5 l			63,84/5 l
9683.2	10 l	plastic	109,15
9683.8	25 l	plastic	220,40

Hydrogen peroxide 30 %

Hydrogen peroxide
30 %, VLSI Grade

Semiconductor grade

H_2O_2 · D 1,11 g/cm³ · mp -26 °C · bp 107 °C

UN no. 2014 · ADR 5.1 (8) II · WGK 1

Danger H302+H332-H318

Guarantee analysis
Assay ..... 30-31 %
Bead number (≥0,5 µm) ..... ≤250 p/ml
Colour (APHA) ..... ≤10
Ammonium (NH_4) ..... ≤0,0001 %
Chloride (Cl) ..... ≤0,00005 %
Nitrate (NO_3) ..... ≤0,0002 %
Phosphate (PO_4) ..... ≤0,00005 %
Sulphate (SO_4) ..... ≤0,0001 %
Ash content ..... ≤0,0005 %
Acidity (as H_2SO_4) ..... ≤0,002
TOC (Total Organic Carbon) ..... ≤0,002 %
Aluminium (Al) ..... ≤30 ppb
Antimony (Sb) ..... ≤10 ppb
Arsenic (As) ..... ≤10 ppb
Barium (Ba) ..... ≤10 ppb
Beryllium (Be) ..... ≤10 ppb
Bismuth (Bi) ..... ≤20 ppb
Lead (Pb) ..... ≤10 ppb
Boron (B) ..... ≤20 ppb
Cadmium (Cd) ..... ≤10 ppb
Calcium (Ca) ..... ≤50 ppb
Chromium (Cr) ..... ≤10 ppb
Iron (Fe) ..... ≤30 ppb
Gallium (Ga) ..... ≤10 ppb
Gold (Au) ..... ≤20 ppb
Potassium (K) ..... ≤20 ppb
Cobalt (Co) ..... ≤10 ppb
Copper (Cu) ..... ≤10 ppb
Lithium (Li) ..... ≤10 ppb
Magnesium (Mg) ..... ≤20 ppb
Manganese (Mn) ..... ≤10 ppb
Molybdenum (Mo) ..... ≤10 ppb
Sodium (Na) ..... ≤50 ppb
Nickel (Ni) ..... ≤10 ppb
Silver (Ag) ..... ≤10 ppb
Strontium (Sr) ..... ≤10 ppb
Tantal (Ta) ..... ≤20 ppb
Thallium (Tl) ..... ≤20 ppb
Titanium (Ti) ..... ≤10 ppb
Vanadium (V) ..... ≤10 ppb
Zinc (Zn) ..... ≤20 ppb
Tin (Sn) ..... ≤20 ppb
Zirconium (Zr) ..... ≤10 ppb

Art. No.	Pack Qty.	Pack.	€
9790.1	2.5 l	plastic	106,45
Original pack 4 x 2.5 l			101,13/2.5 l

Hydrogen peroxide
ROTIPURAN® 30 %, p.a., ISO, stabilised

H_2O_2 · D 1,11 g/cm³ · mp -26 °C · bp 107 °C

UN no. 2014 · ADR 5.1 (8) II · WGK 1

Danger H302+H332-H318

Guarantee analysis
Assay ..... ≥30 %
Free acid ..... ≤1 µeq/g
Chloride (Cl) ..... ≤0,00005 %
Phosphate (PO_4) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,00005 %
Nitrate (NO_3) ..... ≤0,00005 %
Aluminium (Al) ..... ≤0,000002 %
Antimony (Sb) ..... ≤0,000002 %
Arsenic (As) ..... ≤0,000002 %
Boron (B) ..... ≤0,000002 %
Cadmium (Cd) ..... ≤0,000002 %
Chromium (Cr) ..... ≤0,000002 %
Gold (Au) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,000002 %
Potassium (K) ..... ≤0,000002 %
Molybdenum (Mo) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Strontium (Sr) ..... ≤0,000002 %
Silver (Ag) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,000002 %
Calcium (Ca) ..... ≤0,000002 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Lithium (Li) ..... ≤0,000002 %
Manganese (Mn) ..... ≤0,000002 %
Sodium (Na) ..... ≤0,000002 %
Titanium (Ti) ..... ≤0,000002 %
Vanadium (V) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,000002 %
Tin (Sn) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,000002 %

stabilised with phosphate.

Art. No.	Pack Qty.	Pack.	€
8070.2	250 ml	plastic	25,70
8070.4	500 ml	plastic	34,95
8070.1	1 l	plastic	51,10
Original pack 6 x 1 l			48,55/1 l
8070.3	2.5 l	plastic	89,15
Original pack 4 x 2.5 l			84,69/2.5 l

Hydrogen peroxide
30 %, Ph. Eur., stabilised

H_2O_2 · D 1,11 g/cm³ · mp -26 °C · bp 107 °C

UN no. 2014 · ADR 5.1 (8) II · WGK 1

Danger H302+H332-H318

Guarantee analysis
Assay ..... 29,0-31,0 %
Identity ..... complies
Acid react. substances ..... complies
Organic stabilizers ..... ≤0,05 %
Non volatile matters ..... ≤0,2 %

Contains proprietary stabiliser mixture.

Art. No.	Pack Qty.	Pack.	€
9681.4	500 ml	plastic	21,00
9681.1	1 l	plastic	27,85
Original pack 6 x 1 l			26,46/1 l
9681.3	2.5 l	plastic	40,75
Original pack 4 x 2.5 l			38,71/2.5 l
9681.5	5 l	plastic	69,80
Original pack 2 x 5 l			66,31/5 l
9681.2	10 l	plastic	111,30
9681.8	25 l	plastic	224,70

Hydrogen peroxide
30 %, for synthesis, stabilised

Oxidant, bleaching agent

H_2O_2 · D 1,11 g/cm³ · mp -26 °C · bp 107 °C

UN no. 2014 · ADR 5.1 (8) II · WGK 1

Danger H302+H332-H318

Type analysis
Assay ..... 29,0-31,0 %
Density ..... 1,107-1,115 g/cm³

Contains proprietary stabiliser mixture.

Art. No.	Pack Qty.	Pack.	€
CP26.5	500 ml	plastic	19,25
CP26.1	1 l	plastic	25,70
Original pack 6 x 1 l			24,42/1 l
CP26.4	2.5 l	plastic	37,55
Original pack 4 x 2.5 l			35,67/2.5 l
CP26.2	10 l	plastic	76,25
CP26.3	25 l	plastic	147,85

Hydrogen peroxide 3 %

Hydrogen peroxide
3 %

H_2O_2 · D 1,01 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis
Assay ..... ≥2,5 %

stabilised with phosphate.

Art. No.	Pack Qty.	Pack.	€
1A8Y.1	500 ml	plastic	13,45
1A8Y.2	1 l	plastic	21,00
Original pack 6 x 1 l			19,95/1 l
1A8Y.3	2.5 l	plastic	34,95
Original pack 4 x 2.5 l			33,20/2.5 l

Hydrogen tetrachloroaurate(III) hydrate

Chloroauric acid hydrate

$HAuCl_4$ · x H_2O · D 3,9 g/cm³
CAS No. 27988-77-8 · EC no. 240-948-4
UN no. 3260 · ADR 8 II · WGK 1

Danger H302-H314-H317

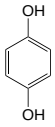
Hydrogen tetrachloroaurate(III) hydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5628.1	1 g	glass	249,95

Hydroquinone



1,4-Dihydroxybenzene

$C_6H_6O_2$ · D 1,33 g/cm³ · mp 172,3 °C · bp 287 °C · flp 165 °C
CAS No. 123-31-9 · EC no. 204-617-8
UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H317-H318-H341-H351-H410

Hydroquinone
≥99,5 %, p.a.

Type analysis
Appearance ..... fine, colourless crystals
Assay ..... ≥99,5 %
Iron (Fe) ..... ≤0,002 %
Ash ..... ≤0,05 %
Heavy metals (as Pb) ..... ≤0,002 %
Melting range ..... 171-175 °C

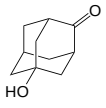
Art. No.	Pack Qty.	Pack.	€
3586.1	100 g	plastic	17,10
3586.2	250 g	plastic	24,65
3586.3	1 kg	plastic	74,75
Original pack 6 x 1 kg			71,01/1 kg

Hydroxyacetaldehyde
▸ Glycolaldehyde see page 968

2-Hydroxyadamantane
▸ 2-Adamantanol see page 707

1-Hydroxyadamantane
▸ 1-Adamantanol see page 707

5-Hydroxy-2-adamantanone



$C_{10}H_{14}O_2$ · mp 300 °C
CAS No. 20098-14-0
WGK 1

5-Hydroxy-2-adamantanone
≥98 %, for synthesis

Type analysis
Appearance ..... white to off-white cryst. powder
Assay ..... ≥98,0 %
Identity ..... complies

Art. No.	Pack Qty.	Pack.	€
7628.1	1 g	glass	30,00
7628.2	5 g	glass	99,45

3-Hydroxy-L-alanin
▸ L-Serine see page 1257

2-Hydroxyaniline
▸ 2-Aminophenol see page 729

3-Hydroxyaniline
▸ 3-Aminophenol see page 729

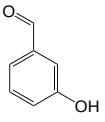
4-Hydroxyaniline
▸ 4-Aminophenol see page 729

2-Hydroxyanisole
▸ Guaiacol see page 971

8-Hydroxy-1-azanaphthalene-β-D-glucuronide, sodium salt
▸ 8-Hydroxyquinoline-β-D-glucuronic acid, sodium salt see page 1001

2-Hydroxybenzaldehyde
▸ Salicylaldehyde see page 1248

3-Hydroxybenzaldehyde



3-Formylphenol

$C_7H_6O_2$ · mp 100 to 105 °C
CAS No. 100-83-4 · EC no. 202-892-9
WGK 2

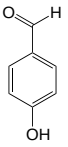
Warning H302-H319-H412

3-Hydroxybenzaldehyde
≥97 %, for synthesis

Type analysis
Appearance ..... white to off-white cryst. powder
Assay ..... ≥97,0 %
Water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
4493.1	50 g	plastic	32,15
4493.2	100 g	plastic	45,05
4493.3	250 g	plastic	96,25

4-Hydroxybenzaldehyde



4-Formylphenol

$C_7H_6O_2$ · D 1,13 g/cm³ · mp 117 °C · bp ≥225 to ≤315 °C · flp 174 °C
CAS No. 123-08-0 · EC no. 204-599-1
WGK 2

Warning H315-H319-H335

4-Hydroxybenzaldehyde
≥98 %, for synthesis

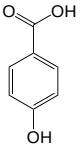
Type analysis
Assay (GC) ..... ≥98,0 %
Melting point ..... 114-118 °C

Art. No.	Pack Qty.	Pack.	€
3870.3	5 g	glass	12,40
3870.2	50 g	plastic	23,55
3870.1	250 g	plastic	101,60

Hydroxybenzene
▸ Phenol see page 1150

2-Hydroxybenzoic acid
▸ Salicylic acid see page 1249

4-Hydroxybenzoic acid



$C_7H_6O_3$ · D 1,46 g/cm³ · mp 213 to 216 °C
CAS No. 99-96-7 · EC no. 202-804-9
WGK 1

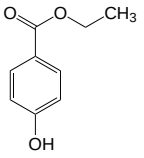
Warning H315-H319-H335

4-Hydroxybenzoic acid
≥98 %, for synthesis

Type analysis
Assay (HPLC) ..... ≥98,0 %
Melting point ..... 212 - 217 °C

Art. No.	Pack Qty.	Pack.	€
3872.4	5 g	glass	12,40
3872.1	100 g	plastic	25,30
3872.2	500 g	plastic	85,90
Original pack 6 x 500 g			81,61/500 g
3872.3	1 kg	plastic	160,20
Original pack 6 x 1 kg			152,19/1 kg

4-Hydroxybenzoic acid ethyl ester



Ethyl-4-hydroxybenzoate · Ethylparaben

$C_9H_{10}O_3$ · D 1,291 g/cm³ · mp 116 to 118 °C · bp 178 °C
CAS No. 120-47-8 · EC no. 204-399-4
WGK 1

4-Hydroxybenzoic acid ethyl ester
≥98 %, Ph. Eur., USP

Guarantee analysis
Appearance ..... white powder
Assay (HPLC) ..... 98,0-102,0 %
Identity ..... complies
Melting point ..... 115-118 °C
Appearance of solution (10 % in ethanol 96 %) ..... clear, colourless to yellowish
Colour of solution (10 % in ethanol 96 %) ... complies
Acidity (0,1 M NaOH/0,2 g) ..... complies
Related substances (p-HBA) ..... ≤0,5 %
Related substances (unspecific impurities) ..... ≤0,5 %
Related substances (total) ..... ≤1,0 %
Volatile organic impurities ..... complies
Residual solvents (ethanol) ..... ≤0,5 %
Loss on drying ..... ≤0,5 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
6880.1	100 g	plastic	26,80
6880.2	250 g	plastic	49,35
6880.3	500 g	plastic	85,90
Original pack 6 x 500 g			81,61/500 g
6880.4	1 kg	plastic	155,90
Original pack 6 x 1 kg			148,11/1 kg

4-Hydroxybenzoic acid ethyl ester
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤1,0 %
Water (KF) ..... ≤4,0 %
Assay (qNMR) ..... ≥90,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE07.1	100 mg	glass	869,70

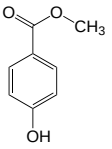
4-Hydroxybenzoic acid ethyl ester
ROTICHROM® HPLC

Reference substance for HPLC.

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
4746.1	1 g	glass	38,20

4-Hydroxybenzoic acid methyl ester



Methyl-*p*-hydroxybenzoate · Methylparaben

$C_8H_8O_3$ · D 1,38 g/cm³ · mp 125 °C · bp 270 to 280 °C
CAS No. 99-76-3 · EC no. 202-785-7
UN no. 3077 · ADR 9 III · WGK 1

H411

4-Hydroxybenzoic acid methyl ester
≥98 %, Ph. Eur.

Type analysis
Appearance ..... white to almost white powder
Appearance of solution (10 % in ethanol 96 %) ..... complies
Assay (HPLC) ..... 98,0-102,0 %
Identity ..... complies
Melting point ..... 125-128 °C
Acidity (0,1 M NaOH/0,2 g) ..... complies
Sulphated ash ..... ≤0,1 %
Related substances (p-HBA) ..... ≤0,5 %
Related substances (unspecific impurities) ..... ≤0,5 %
Related substances (total) ..... ≤1,0 %
Volatile organic impurities ..... complies
Residual solvents (methanol) ..... ≤0,3 %

Art. No.	Pack Qty.	Pack.	€
3646.1	100 g	plastic	21,00
3646.2	250 g	plastic	29,60
3646.3	500 g	plastic	51,50
Original pack 6 x 500 g			48,93/500 g
3646.4	1 kg	plastic	92,35
Original pack 6 x 1 kg			87,73/1 kg

4-Hydroxybenzoic acid methyl ester
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥98,0 %
Residual solvents (GC) ..... ≤1,0 %
Water (KF) ..... ≤2,0 %
Assay (qNMR) ..... ≥95,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE10.1	100 mg	glass	869,70

4-Hydroxybenzoic acid methyl ester
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥91,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC10.1	100 mg	glass	310,70

4-Hydroxybenzoic acid methyl ester
ROTICHROM® HPLC

Reference substance for HPLC

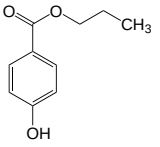
Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
4748.1	1 g	glass	40,35

2-Hydroxybenzoic acid methyl ester

▸ Salicylic acid methyl ester see page 1249

4-Hydroxybenzoic acid propyl ester



Propyl 4-hydroxybenzoate · Propylparaben

$C_{10}H_{12}O_3$ · D 1,287 g/cm³ · mp 96 to 98 °C · bp 301 °C · flp 180 °C
CAS No. 94-13-3 · EC no. 202-307-7
WGK 1

4-Hydroxybenzoic acid propyl ester
≥98 %, Ph. Eur., USP

Guarantee analysis
Appearance ..... white powder
Assay (HPLC) ..... 98,0-102,0 %
Identity ..... complies
Melting point ..... 96-99 °C
Appearance of solution (10 % in ethanol 96 %) ..... complies
Acidity (0,1 M NaOH/0,2 g) ..... complies
Loss on drying ..... ≤0,5 %
Sulphated ash ..... ≤0,1 %
Related substances (p-HBA) ..... ≤0,5 %
Related substances (unspecific impurities) ..... ≤0,5 %
Related substances (total) ..... ≤1,0 %
Volatile organic impurities ..... complies
Residual solvents (ethanol) ..... ≤0,2 %
Residual solvents (propanol) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6882.1	100 g	plastic	25,30
6882.2	250 g	plastic	42,90
6882.3	500 g	plastic	70,45
Original pack 6 x 500 g			66,93/500 g
6882.4	1 kg	plastic	104,85
Original pack 6 x 1 kg			99,61/1 kg

4-Hydroxybenzoic acid propyl ester
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥97,0 %
Residual solvents (GC) ..... ≤1,0 %
Water (KF) ..... ≤1,0 %
Assay (qNMR) ..... ≥95,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE13.1	100 mg	glass	869,70

4-Hydroxybenzoic acid propyl ester
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥90,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC13.1	100 mg	glass	310,70

4-Hydroxybenzoic acid propyl ester
ROTICHROM® HPLC

Reference substance for HPLC.

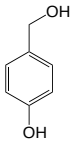
Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
4749.1	1 g	glass	39,25

(*S*)-2-(6-Hydroxy-2-benzothiazolyl)-2-thiazoline-4-carboxylic acid
▸ D-Luciferin sodium salt see page 1049
▸ D-Luciferin see page 1049

10-*p*-Hydroxybenzoylaucubin
▸ Agnuside see page 712

4-Hydroxybenzyl alcohol



$C_7H_8O_2$ · mp 114 to 124 °C
CAS No. 623-05-2 · EC no. 210-768-0
WGK 1

Warning H319

4-Hydroxybenzyl alcohol
≥99,5 %

Type analysis
Assay ..... ≥99,5 %

Art. No.	Pack Qty.	Pack.	€
6257.1	5 g	glass	17,10

4,4'-(α-Hydroxybenzylidene) di-1-naphthol
▸ 1-Naphtholbenzein see page 1099

2'-Hydroxybenzyl-3-methoxy-benzoate-2',4-diglucoside
▸ Leiocarposide see page 1040

Hydroxybrasilin
▸ Hematoxylin (C.I. 75290) see page 976

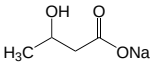
Hydroxybutanedioic acid
▸ DL-Malic acid see page 1063
▸ D(+)-Malic acid see page 1063
▸ L(–)-Malic acid see page 1064

Hydroxybutanoic acid sodium salt
▸ DL-3-Hydroxybutyric acid sodium salt see page 999

(2S)-2-Hydroxybut-3-enyl glucosinolate
▸ Epiprogoitrin see page 912

2-Hydroxybut-3-enyl glucosinolate potassium salt
▸ Progoitrin see page 1183

DL-3-Hydroxybutyric acid sodium salt



Hydroxybutanoic acid sodium salt · Sodium 3-hydroxybutyrate

$C_4H_7NaO_3$ · mp 164 °C
CAS No. 150-83-4 · EC no. 205-774-5
WGK 1

DL-3-Hydroxybutyric acid sodium salt
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance .. white to almost white cryst. powder
Assay (perchloric acid titration) ..... ≥98,0 %
Appearance of solution (10 %, H_2O) .... colourless
Water (KF) ..... ≤10,0 %

Art. No.	Pack Qty.	Pack.	€
8428.1	5 g	plastic	42,90
8428.2	10 g	plastic	80,10
8428.3	25 g	plastic	170,95

3α-Hydroxy-5ß-cholanic acid
▸ Lithocholic acid see page 1048

trans-m-Hydroxycinnamic acid
▸ *m*-Coumaric acid see page 852

trans-p-Hydroxycinnamic acid
▸ *p*-Coumaric acid see page 852

7-Hydroxycoumarin
▸ Umbelliferone see page 1390

2-Hydroxy-*p*-cymene
▸ Carvacrol see page 818

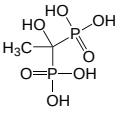
3-Hydroxy-*p*-cymene
▸ Thymol see page 1367

4-Hydroxy-3,5-dimethoxy-benzaldehyde
▸ Syringaldehyde see page 1351

7-Hydroxy-5,6-dimethoxy-coumarin
▸ Umckalin see page 1390

2-(2-Hydroxy-3,6-disulpho-1-naphthylazo-(1))-benzene-arsonic acid sodium salt
▸ Thorin see page 1366

1-Hydroxyethane-1,1-diphosphonic acid (HEDP)



Etidronic acid · HEDP · 1-Hydroxyethylidene 1,1-diphosphonic acid · 1-Hydroxyethylidene-diphosphonic acid

$C_2H_8O_7P_2$
CAS No. 2809-21-4 · EC no. 220-552-8
UN no. 3261 · ADR 8 III · WGK 2

Danger H290-H302-H318

1-Hydroxyethane-1,1-diphosphonic acid (HEDP)
≥90 %

Complexing agents

Type analysis
Assay ..... ≥90 %

Art. No.	Pack Qty.	Pack.	€
0878.1	100 g	plastic	34,30
0878.2	500 g	plastic	69,80
Original pack 6 x 500 g			66,31/500 g
0878.3	1 kg	plastic	127,95
Original pack 6 x 1 kg			121,55/1 kg

Hydroxyethyl agarose
▸ Agarose Low Melt see page 711

Hydroxyethyl mercaptan
▸ 2-Mercaptoethanol see page 1073

N-2-Hydroxyethylpiperazine-*N*'-2-ethane sulphonic acid
▸ HEPES sodium salt see page 978
▸ HEPES see page 978

4-(2-Hydroxyethyl) piperazine-1-propane sulphonic acid
▸ HEPPS, EPPS see page 978

1-Hydroxyginkolide A
▸ Ginkgolide B see page 957

4-Hydroxy-5-(2-hydroxy-benzylidenamino)-naphthalene-2,7-disulphonic acid
▸ Azomethine H hydrate see page 762

5-Hydroxy-2-(hydroxymethyl)-4*H*-pyran-4-one
▸ Kojic acid see page 1030

2-Hydroxy-1-(1-hydroxynaphthyl-2-azo)-6-nitronaphthalene 4-sulphonic acid monosodium salt
▸ Eriochrome black T (C.I. 14645) see page 912

2-Hydroxy-1-(2-hydroxy-4-sulfo-1-naphthylazo)-naphthalene-3-carboxylic acid
▸ Calconcarboxylic acid see page 810

(*S*)-4-Hydroxymandelonitrile-β-D-glucoside
▸ Dhurrin see page 871

4-Hydroxy-2-mercaptopyrimidine
▸ 2-Thiouracil see page 1366

4-Hydroxy-3-methoxy-benzaldehyde
▸ Vanillin see page 1394

2-Hydroxy-5-methoxybenzoic acid
▸ 3-Methoxysalicylic acid see page 1081

4-Hydroxy-3-methoxy benzoic acid
▸ Vanillic acid see page 1394

4-Hydroxy-3-methoxycinnamic acid
▸ *trans*-Ferulic acid see page 935

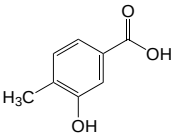
7-Hydroxy-6-methoxy-coumarin
▸ Scopoletin see page 1253

7-Hydroxy-4'-methoxyisoflavone
▸ Formononetin see page 948

2-Hydroxy-3-methylbenzoic acid
▸ 3-Methylsalicylic acid see page 1089

2-Hydroxy-5-methylbenzoic acid
▸ 5-Methylsalicylic acid see page 1089

3-Hydroxy-4-methylbenzoic acid



3,4-Cresotic acid · 3-Hydroxy-*p*-toluic acid

$C_8H_8O_3$ · mp 205 to 210 °C
CAS No. 586-30-1 · EC no. 209-571-2
WGK 1

Warning H315-H319-H335

3-Hydroxy-4-methylbenzoic acid
≥98 %, for synthesis

Type analysis
Appearance ..... white to off-white cryst. powder
Assay ..... ≥98,0 %

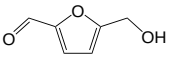
Art. No.	Pack Qty.	Pack.	€
4298.1	1 g	glass	38,20
4298.2	5 g	plastic	61,20
4298.3	25 g	plastic	166,65

7-Hydroxy-4-methylcoumarin
▸ 4-Methylumbelliferone see page 1090

5-Hydroxymethyl-2-furaldehyde
▸ 5-Hydroxymethylfurfural see page 1000

5-Hydroxymethyl-2-furancarboxaldehyde
▸ 5-Hydroxymethylfurfural see page 1000

5-Hydroxymethylfurfural



5-Hydroxymethyl-2-furaldehyde · 5-Hydroxymethyl-2-furancarboxaldehyde · HMF

$C_6H_6O_3$ · D 1,24 g/cm³ · mp 32 to 35 °C · bp 114 to 116 °C · flp 79 °C
CAS No. 67-47-0 · EC no. 200-654-9
WGK 1

Warning H315-H319

5-Hydroxymethylfurfural
≥97 %, for synthesis

Storage temperature: +4 °C

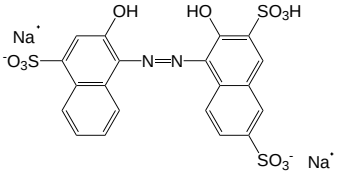
Type analysis
Appearance ..... yellow to amber solid melt
Assay (GC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
2295.1	250 mg	glass	20,35
2295.2	1 g	glass	40,35
2295.3	5 g	glass	137,10

4-Hydroxy-4-methyl-2-pentanone
▸ Diacetone alcohol see page

1-Hydroxynaphthalene
▸ 1-Naphthol see page 1099

Hydroxy naphthol blue disodium salt



2,2'-Dihydroxy-1,1'-azonaphthalene-3',4,6'-trisulfonic acid disodium salt

$C_{20}H_{12}N_2Na_2O_{11}S_3$ · D 2,13 g/cm³ · mp 274 °C
CAS No. 165660-27-5
WGK 1

Warning H319

Hydroxy naphthol blue disodium salt
p.a., ACS

Indicator, microspcopy

Dissolve 0.1 g in 100 ml water

Guarantee analysis
Appearance ..... dark blue crystals
Loss on drying ..... ≤6 %
Suitable for calcium determination ..... complies

Art. No.	Pack Qty.	Pack.	€
2556.1	5 g	glass	25,30
2556.2	25 g	glass	51,50

1-Hydroxy-3-nitrobenzene
▸ 3-Nitrophenol see page 1111

1-Hydroxy-4-nitrobenzene
▸ 4-Nitrophenol see page 1111

(3α,4β)-3-Hydroxy-olean-12-en-23-acid
▸ α-Boswellic acid see page 784

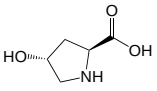
4-Hydroxyphenylalanine
▸ D-Tyrosine see page 1389
▸ DL-Tyrosine see page 1389
▸ L-Tyrosine see page 1389

2-(4-Hydroxyphenyl)-ethylamine
▸ Tyramine see page 1389

4-Hydroxyphenylethylamine hydrochloride
▸ Tyramine hydrochloride see page 1389

3-Hydroxy-2-phenylpropionic acid
▸ DL-Tropic acid see page 1384

L-4-Hydroxyproline



$C_5H_9NO_3$ · D 1,479 g/cm³ · mp 274 °C
CAS No. 51-35-4 · EC no. 200-091-9
WGK 1

L-4-Hydroxyproline
≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay ..... ≥99,0 %
Specific rotation $[\alpha]_D^{25}$ (4 % in H_2O) ..... -77° to -73°
Enantiomeric purity ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
3893.1	5 g	glass	53,65

1-Hydroxypropane
▸ 1-Propanol see page 1184

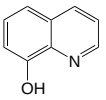
2-Hydroxypropane
▸ 2-Propanol see page 1185

2-Hydroxypropionic acid
▸ DL-Lactic acid see page 1031
▸ L-Lactic acid see page 1032
▸ Lactic acid see page 1031

6-Hydroxypurin
▸ Hypoxanthine see page 1004

1-Hydroxy-2,5-pyrrolidinedione
▸ *N*-Hydroxysuccinimide see page 1001

8-Hydroxyquinoline



8-Quinolinol · Oxine

C_9H_7NO · D 1,034 g/cm³ · mp 72,5 to 74 °C · bp 267 °C
CAS No. 148-24-3 · EC no. 205-711-1
UN no. 2811 · ADR 6.1 III · WGK 3

Danger H301-H317-H318-H360D-H410

8-Hydroxyquinoline
p.a., ACS

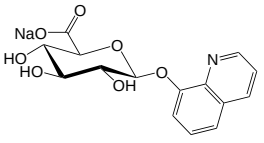
Reagent for magnesium

Dissolve 0.1 g in 100 ml ethanol

Guarantee analysis
Appearance ..... white to light yellow to beige crystalline powder, crystals or flakes
In ethanol insoluble parts ..... ≤0,05 %
Melting point ..... 72,5-74 °C
Sulphate (SO_4) ..... ≤0,02 %
Ash content ..... ≤0,05 %
Suitability for magnesium determination ..... complies

Art. No.	Pack Qty.	Pack.	€
2557.1	50 g	glass	56,90
2557.2	100 g	glass	103,75
2557.3	250 g	glass	231,15

8-Hydroxyquinoline-β-D-glucuronic acid, sodium salt



8-Hydroxy-1-azanaphthalene-β-D-glucuronide, sodium salt

$C_{15}H_{14}NNaO_7$
CAS No. 207728-71-0
WGK 1

Warning H315-H319-H335

8-Hydroxyquinoline-β-D-glucuronic acid, sodium salt
≥98 %, for biochemistry

Substrate for β-glucuronidase. For detection of *E. coli*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance .. white to almost white cryst. powder
Assay (TLC) ..... ≥98,0 %
Appearance of solution (5 % in H_2O) ... colourless to slightly yellow
Water (KF) ..... ≤12,0 %
Specific rotation $[\alpha]_D^{20}$ (1 % in H_2O, dry substance) ..... -93,0° to -87,0°

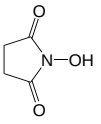
Art. No.	Pack Qty.	Pack.	€
8432.1	100 mg	glass	61,20
8432.2	250 mg	glass	103,75
8432.3	500 mg	glass	174,70

12-Hydroxysenecionan-11,16-dione
▸ Senecionine see page 1255

12-Hydroxysenecionan-11,16-dione-4-oxide
▸ Senecionine *N*-oxide see page 1256

2-Hydroxysuccinic acid
▸ L(–)-Malic acid see page 1064
▸ DL-Malic acid see page 1063
▸ D(+)-Malic acid see page 1063

N-Hydroxysuccinimide



1-Hydroxy-2,5-pyrrolidinedione · HOSu · NHS

$C_4H_5NO_3$ · mp 96 °C · bp 353,4 °C
CAS No. 6066-82-6 · EC no. 228-001-3
WGK 1

N-Hydroxysuccinimide
≥99 %, for synthesis

Activation agent for carboxylic acids. Coupling reagent for peptide synthesis.

Type analysis
Appearance ..... white cryst. powder
Assay (titr. dry substance) ..... ≥99,0 %
Water (KF) ..... ≤2,0 %
Melting range ..... 93,0-100,0 °C

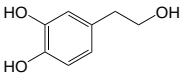
Art. No.	Pack Qty.	Pack.	€
9670.1	25 g	glass	32,80
9670.2	100 g	glass	84,40
9670.3	500 g	glass	209,65
Original pack 6 x 500 g			199,17/500 g

2-[5-(2-Hydroxy-5-sulfophenyl)-3-phenyl-1-formazyl]-benzoic acid-monosodium salt
▸ Zincon see page 1414

3-Hydroxy-*p*-toluic acid
▸ 3-Hydroxy-4-methylbenzoic acid see page 1000

5-Hydroxytryptamine hydrochloride
▸ Serotonin hydrochloride see page 1258

Hydroxytyrosol



3,4-Dihydroxyphenylethanol

$C_8H_{10}O_3$ · D 1 g/cm³
CAS No. 10597-60-1
WGK 1

Warning H315-H319-H335

Hydroxytyrosol
ROTICHROM® HPLC

Reference substance for HPLC.
From *Olea europaea*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

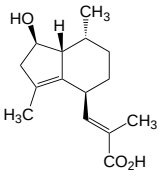
Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1153.1	25 mg	glass	317,15
1153.2	50 mg	glass	568,70
1153.3	100 mg	glass	1.041,70

(3α,4β)-3-Hydroxy-urs-12-en-23-acid
▸ β-Boswellic acid see page 784

3α-Hydroxy-urs-12-en-11-keto 23-acid
▸ 11-keto-β-Boswellic acid see page 784

Hydroxyvalerenic acid



$C_{15}H_{22}O_3$ · D 1,14 g/cm³ · mp 165 °C · bp 380 to 460 °C
CAS No. 1619-16-5
WGK 1

Hydroxyvalerenic acid
ROTI®Star Primary Standard

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Assay (HPLC) ..... ≥90,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤10,0 %
Assay (qNMR) ..... ≥80,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE48.1	10 mg	glass	622,45

Hydroxyvalerenic acid
ROTICHROM® with analytical records

From *Valeriana officinalis*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Analytical records: HPLC, TLC, ^{1}H NMR, ^{13}C NMR, UV, IR, MS, elementary analysis, melting point.

Art. No.	Pack Qty.	Pack.	€
4710.2	50 mg	glass	424,65
4710.1	100 mg	glass	751,45

Hydroxyvalerenic acid
ROTICHROM® HPLC

Reference substance for HPLC.
From *Valeriana officinalis*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
4481.1	25 mg	glass	407,45
4481.2	50 mg	glass	665,45
4481.3	100 mg	glass	1.095,45

Hygromycin B

$C_{20}H_{37}N_3O_{13}$ · mp 160 to 180 °C
CAS No. 31282-04-9 · EC no. 250-545-5
UN no. 3462 · ADR 6.1 I · WGK 1

Danger H300+H310+H330-H317-H318-H334

Hygromycin B
>950 µg/mg, for biochemistry

Aminoglycoside antibiotic.

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... >90 %
Activity ..... >950 µg/mg
Solubility (50 mg/ml, H_2O) ..... complies

Art. No.	Pack Qty.	Pack.	€
CP13.1	250 mg	glass	75,15
CP13.2	500 mg	glass	128,50
CP13.3	1 g	glass	224,70
CP13.4	5 g	glass	779,40

Hygromycin B solution

$C_{20}H_{37}N_3O_{13}$ · D 1 g/cm³ · bp 100 °C
CAS No. 31282-04-9 · EC no. 250-545-5
UN no. 3172 · ADR 6.1 II · WGK 1

Danger H301-H310+H330-H317-H318-H334

Hygromycin B solution
CELLPURE® 50 mg/ml, sterile

Aminoglycoside antibiotic. For cell culture, biochemistry, molecular biology and microbiology.

Stock solution, specifically suitable for cell culturing.
Working concentration: 20–1000 µg/ml

Storage temperature: +4 °C

Type analysis
Concentration ..... 50 mg/ml
Activity (powder) ..... >900 U/mg
Assay (Hygromycin) ..... >85 %
Endotoxins ..... <10 EU/ml
Sterility ..... complies
Suitability for cell cultur ..... complies

Art. No.	Pack Qty.	Pack.	€
CP12.1	10 ml	plastic	131,70
CP12.2	20 ml	plastic	231,15

Hygromycin B solution
50 mg/ml in PBS, BioScience Grade, sterile, ready-to-use

Aminoglycoside antibiotic. Sterile stock solution in PBS, suitable for cell culturing and microbiology, as well as for biochemical and biomolecular assays.

Sterile stock solution
Working concentration: 20–1000 µg/ml
In a septum bottle.

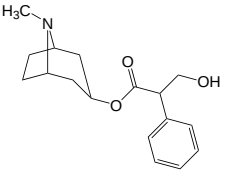
Storage temperature: +4 °C

Type analysis
Appearance ..... clear, colourless to orange
Solvent ..... PBS
Concentration ..... 50±10 mg/ml
Purity (HPLC) ..... ≥90 %
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
1287.1	10 ml	glass	126,35
1287.2	20 ml	glass	209,65

Hymecromone
▸ 4-Methylumbelliferone see page 1090

L-Hyoscyamine



$C_{17}H_{23}NO_3$ · mp 108,5 °C
CAS No. 101-31-5 · EC no. 202-933-0
UN no. 1544 · ADR 6.1 II · WGK 3

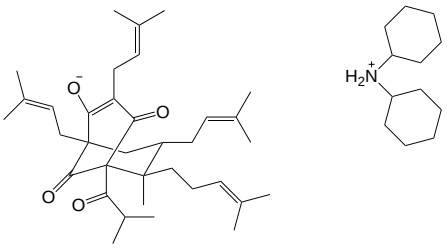
Danger H300+H330

L-Hyoscyamine
ROTICHROM® CHR ≥98 %, for biochemistry

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
8914.1	1 g	glass	106,45

Hyperforin / Adhyperforin Dicyclohexylammonium salt, Mixture 4:1



$C_{35}H_{51}O_4 \cdot C_{12}H_{24}N$ · bp 100 °C
CAS No. 238074-03-8
UN no. 1759 · ADR 8 II · WGK 2

Danger H302-H314-H400

Hyperforin / Adhyperforin Dicyclohexylammonium salt, Mixture 4:1
ROTICHROM® HPLC

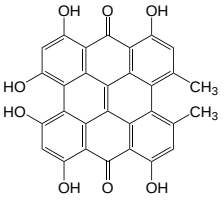
Reference substance for HPLC.
Natural mixture from *Hypericum perforatum.*

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
6495.1	5 mg	glass	396,70

Hypericin



$C_{30}H_{16}O_8$ · mp 320 °C
CAS No. 548-04-9 · EC no. 208-941-0
WGK 1

Warning H302

Hypericin
ROTI®Star Primary Standard

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤7,0 %
Assay (qNMR) ..... ≥75,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE22.1	10 mg	glass	1.235,20

Hypericin
ROTICHROM® Working Standard

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (HPLC) ..... ≥70,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC22.1	10 mg	glass	639,65

Hypericin
ROTICHROM® HPLC

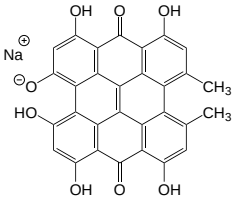
Reference substance for HPLC.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
L543.1	1 mg	glass	153,20

Hypericin sodium salt



$C_{30}H_{15}O_8Na$ · mp 300 °C
CAS No. 144788-48-7
WGK 1

Hypericin sodium salt
ROTICHROM® HPLC

Reference substance for HPLC.
From *Hypericum perforatum.*

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1154.1	5 mg	glass	424,65

Hypericon oil

Oleum Hyperici

D 0,91 g/cm³ · flp 100 °C
CAS No. 68917-49-7 · EC no. 282-026-4
WGK 1

Hypericon oil
pure

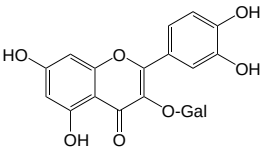
Type analysis
Appearance ..... red-brown, oil
Density (20 °C) ..... 0,910-0,915 g/cm³
Refractive index (20 °C) 1,4650-1,4720
Optical rotation (20 °C) ..... -1° to 1°

Art. No.	Pack Qty.	Pack.	€
9404.1	250 ml	glass	34,30

Hyperin

▸ Hyperoside see page 1003

Hyperoside



Hyperin · Quercetin-3-galactoside

$C_{21}H_{20}O_{12}$ · mp 225 °C
CAS No. 482-36-0 · EC no. 207-580-6
WGK 1

Hyperoside
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤7,0 %
Assay (qNMR) ..... ≥85,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE23.1	25 mg	glass	880,45

Hyperoside
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥85,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC23.1	50 mg	glass	607,40

Hyperoside
ROTICHROM® HPLC

Reference substance for HPLC.
From *Hypericum perforatum.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
7932.1	10 mg	glass	127,95

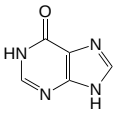
Hyperoside
ROTICHROM® TLC

Reference substance for thin layer chromatography.
From *Hypericum perforatum.*

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
4215.1	25 mg	glass	61,20
4215.2	100 mg	glass	188,15

Hypoxanthine



6-Hydroxypurin · Sarcine

$C_5H_4N_4O$ · mp >300 °C
CAS No. 68-94-0 · EC no. 200-697-3
WGK 1

Hypoxanthine
≥98 %, for biochemistry

Type analysis
Appearance ..... white to slightly yellow powder
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6416.1	5 g	glass	96,25

Hypoxanthine-9-β-D-ribofuranoside
- Inosine see page 1010

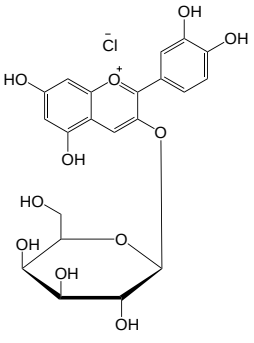
IBA
- Indole-3-butyric acid see page 1008

ICG
- Indocyanine green see page 1008

IC standards
- Anionic Standards for IC (Ion Chromatography): 1000 mg/l see page 1333
- Ion Multi-Element Standards for IC (Ion Chromatography) see page 1336
- Cationic Standards for IC (Ion Chromatography): 1000 mg/l see page 1336

ICP standards
- Multi Element Standards for ICP-MS see page 1327
- Multi Element Standards for ICP-OES (Inductively Coupled Plasma Optical Emission Spectroscopy) see page 1330

Idaein chloride



Cyanidin-3-galactoside chloride

$C_{21}H_{21}ClO_{11}$
CAS No. 27661-36-5
WGK 1

Idaein chloride
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
3967.1	5 mg	glass	385,95

IDS-Na_4
- Iminodisuccinic acid tetra sodium salt (IDS) see page 1004

IMAC beads
- ROTI®Garose-His/Ni NTA-Beads see page 1225
- ROTI®Garose-His/Ni HPBeads plus see page 1224
- ROTI®Garose-His/Co HPBeads see page 1224
- ROTI®Garose-His *uncharged* HPBeads see page 1225
- ROTI®Garose-His/Ni NTA-HPBeads see page 1225
- ROTI®Garose-His/Ni Beads see page 1224
- ROTI®Garose-His/Co Beads see page 1224
- ROTI®Garose-His/Ni HPBeads see page 1224

IMAC columns
- ROTI®Garose-His/Ni NTA-Cartridges see page 1225
- ROTI®Garose-His/Ni HPCartridges see page 1225
- ROTI®Garose-His/Co Columns see page 1224
- ROTI®Garose-His/Ni Columns see page 1225

IMAC matrix/cobalt charged
- ROTI®Garose-His/Co Beads see page 1224
- ROTI®Garose-His/Co HPBeads see page 1224

IMAC matrix/nickel charged
- ROTI®Garose-His/Ni NTA-HPBeads see page 1225
- ROTI®Garose-His/Ni NTA-Beads see page 1225
- ROTI®Garose-His/Ni Beads see page 1224
- ROTI®Garose-His/Ni HPBeads plus see page 1224
- ROTI®Garose-His/Ni HPBeads see page 1224

IMAC matrix/uncharged
- ROTI®Garose-His *uncharged* HPBeads see page 1225

Imidazole



1,3-Diaza-2,4-cyclopentadiene · Glyoxalin

$C_3H_4N_2$ · D 1,233 g/cm³ · mp 88 to 90 °C · bp 256 to 268 °C · flp 145 °C
CAS No. 288-32-4 · EC no. 206-019-2
UN no. 3263 · ADR 8 III · WGK 2

Danger H302-H314-H360D

Imidazole
PUFFERAN® ≥99 %, p.a., Ultra Quality

Biological buffer substance, molecular biology, for titration of aspartic acid and glutamic acid.

Guarantee analysis
Appearance ..... white crystals
Assay (titr.) ..... ≥99,0 %
Water (KF) ..... ≤1,0 %
Arsenic (As) ..... ≤0,0003 %
Barium (Ba) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,002 %
Cadmium (Cd) ..... ≤0,0005 %
Chromium (Cr) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %

Absorbance:
260 nm ..... ≤0,02

Art. No.	Pack Qty.	Pack.	€
X998.1	10 g	plastic	21,40
X998.2	50 g	plastic	57,95
X998.3	100 g	plastic	100,95
X998.4	250 g	plastic	228,45

Imidazole
≥99 %

Type analysis
Assay (GC) ..... ≥99 %
Water ..... ≤0,2 %
pH value (0,1 M, H_2O) 9,5-11
Melting point ..... 88-91 °C

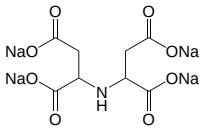
Art. No.	Pack Qty.	Pack.	€
3899.1	50 g	plastic	21,40
3899.2	250 g	plastic	60,75
3899.3	500 g	plastic	85,50
Original pack 6 x 500 g			81,23/500 g
3899.4	1 kg	plastic	123,10
Original pack 6 x 1 kg			116,95/1 kg

3-Imidazol-4-yl-alanine
- D-Histidine see page 985
- DL-Histidine see page 986
- L-Histidine see page 986

2-(4-Imidazolyl) ethylamine dihydrochloride
- Histamine dihydrochloride see page 985

4-Imidazolyl-L-alanine
- L-Histidine hydrochloride monohydrate see page 986

Iminodisuccinic acid tetra sodium salt (IDS)



IDS-Na_4

$C_8H_7NNa_4O_8$
CAS No. 144538-83-0 · EC no. 604-420-0
WGK 1

Iminodisuccinic acid tetrasodium salt (IDS)
≥75 %

Complexing agents

Type analysis
Appearance ..... white to off-white hygroscopic powder
Assay ..... ≥75 %

Art. No.	Pack Qty.	Pack.	€
0853.1	100 g	plastic	37,55
0853.2	500 g	plastic	62,25
Original pack 6 x 500 g			59,14/500 g
0853.3	1 kg	plastic	112,90
Original pack 6 x 1 kg			107,26/1 kg

Iminomethanediamine HCl
▸ Guanidine hydrochloride see page 971

Immersion oil

Immersion oil
ready-to-use, for microscopy

For use in the space between specimen and objective lens (immersion oil microscopy).

D 1,02 g/cm³

UN no. 3082 · ADR 9 III · WGK 2

Warning H302-H410

Guarantee analysis
Density (d 20 °C/4 °C) 1,0245-1,0265
Refractive index (20 °C) 1,5150-1,5170
Viscosity (20 °C) ..... 100-120 mPas

Fluorescence (as quinine):
365 nm ..... ≤1,5 ppm

Transmission:
450 nm ..... ≥90 %
400 nm ..... ≥78 %
380 nm ..... ≥65 %

Art. No.	Pack Qty.	Pack.	€
X899.4	15 ml	dropp. bottle	12,40
X899.1	50 ml	glass	19,25
X899.2	100 ml	glass	28,95
X899.3	500 ml	glass	107,40

Immunochromatography
▸ RiboFlow® Kits see page 1205

Indantrionehydrate
▸ Ninhydrin see page 1105

Indicator buffer tablets

WGK 1

Warning H302-H317-H319

Indicator buffer tablets
for the determination of water hardness with EDTA

Non-binding application proposal:
Dissolve one tablet in 50 ml water sample and bring to pH 11 with approx. 1 ml ammonia solution 30 % (art. CP17). Titrate with EDTA disodium salt volumetric solution (art. T136 or T137) from red to green.

Type analysis
Suitability as indicator ..... complies
Disintegration time (25 °C) ..... 100 s

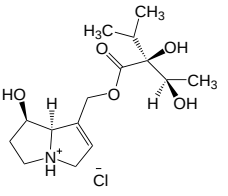
Art. No.	Pack Qty.	Pack.	€
7649.1	100 unit(s)	plastic	31,10
7649.2	500 unit(s)	plastic	82,70

Indicators and Dyes

Art. No.	Description	Page
4002	Acid blue 93 (C.I. 42780)	703
T128	Acid fuchsin (C. I. 42685)	704
7690	Acid fuchsin calcium salt (C.I. 42685)	704
0249	Acridine orange (C.I. 46005)	705
7632	Acridine orange base (C.I. 46005)	705
7633	Acridine orange hydrochloride hydrate (C.I. 46005)	706
3082	Alcian blue 8 GS (C.I. 74240)	716
4476	Alizarin (C.I. 58000)	717
7634	Alizarin complexone dihydrate	717
1LA8	Alizarine cyanine green (C. I. 61570)	718
0348	Alizarin red S (C.I. 58005)	718
5155	Alkali blue 6B (C.I. 42765)	718
1H3X	Allura red (C. I. 16035)	720
1H3Y	Amaranth (C. I. 16185)	724
9590	Amido black 10 B (C.I. 20470)	724
KK22	Arsenazo III	755
5165	Astra blue FM (C.I. 48048)	758
0319	Auramine O (C.I. 41000)	758
1H58	Aurin (C. I. 43800)	758
2670	Aurin tricarboxylic acid ammonium salt	759
1H40	Azocarmine G (C. I. 50085)	762
CP99	Azomethine H hydrate	762
7640	Azure II	762
7642	Azure II eosinat	762
7636	Azure A (C.I. 52005)	762
7637	Azure B (C.I. 52010)	762
7639	Azure C (C.I. 52002)	762
2674	Barium diphenylamine sulfonate	764
1H41	Biebrich scarlet (C. I. 26905)	773
0316	Bismarck brown R (C.I. 21010)	776
0313	Bismarck brown Y (C.I. 21000)	776
7643	Brilliant black BN (C.I. 28440)	785
2981	Brilliant blue FCF (C.I. 42090)	786
9598	Brilliant blue G 250 (C.I. 42655)	786
3862	Brilliant blue R 250 (C.I. 42660)	786
5162	Brilliant cresyl blue (C.I. 51010)	786
0324	Brilliant green (C.I. 42040)	786
7645	Brilliant yellow (C.I. 24890)	787
6558	Bromochlorophenol blue sodium salt	789
T115	Bromocresol green	789
9949	Bromocresol green indicator solution	789
KK18	Bromocresol green sodium salt	789
0317	Bromocresol purple	789
9955	Bromocresol purple indicator solution	790
2555	Bromocresol purple sodium salt	790
T116	Bromophenol blue	790
9952	Bromophenol blue indicator solution	790
A512	Bromophenol blue sodium salt	791
6573	Bromophenol red free acid	791
9956	Bromophenol red indicator solution	791
6579	Bromophenol red sodium salt	791
T117	Bromothymol blue	791
9947	Bromothymol blue indicator solution	791
KK19	Bromothymol blue sodium salt	791
KK27	Bromoxylenol blue	792
1H42	Cacotheline	802
7688	Calcein	805
2676	Calconcarboxylic acid	811
1E05	Calconcarboxylic acid indicator solution	811
1H59	Calmagite	811
6859	Carmine (C.I. 75470)	817
7646	Celestine blue (C.I. 51050)	823
0347	Chlorophenol red	833
1H43	Chrome azurol S (C. I. 43825)	836
1CYY	Chrome azurol S indicator solution	836
7647	Chromotrope® 2B (C.I. 16575)	837
4937	Chromotrope®2R (C.I. 16570)	837
7648	Chromotrope® FB (C.I. 14720)	837
KK30	Chromotropic acid disodium salt dihydrate	837
1H47	Chrysoidine R (C. I. 11320)	838
1H44	Chrysoidine Y (C. I. 11270)	838
0322	Congo red (C.I. 22120)	847
1LAC	*o*-Cresolphthaleine	853
1LAE	*o*-Cresolphthaleine indicator solution	853
5160	*m*-Cresol purple	853
KK15	*o*-Cresol red	853
5534	Cresol red sodium salt	854
7651	Cresyl violet acetate	854
7652	Crocein orange G (C.I. 15970)	854
T123	Crystal violet (C.I. 42555)	854
9469	Curcumin	855
6335	DAPI	863
6843	DAPI	863
X866	2',7'-Dichlorofluorescein	874
HN79	2,6-Dichlorophenol-indophenol sodium salt hydrate	876
7654	Diethyl safranine (C.I. 50206)	880
2677	Dimethylglyoxim	888
KK24	Dimethylglyoxime disodium salt octahydrate	888
9982	Dimethyl yellow (C.I. 11020)	891
1E00	Dimethyl yellow indicator solution	891
2217	Dimidium bromide	891
9865	Diphenylamine	892
2602	Diphenylamine-4-sulphonic acid sodium salt	892
2696	1,5-Diphenylcarbazide	893
2678	Diphenylcarbazone	893
4153	2,2'-Dipyridyl	894
2697	Dithizone	895
0306	Eosin B (C.I. 45400)	910
7089	Eosin Y (C.I. 45380)	910
0112	Eriochrome black T (C.I. 14645)	912
K860	Eriochrome black T (C.I. 14645)	912
1E01	Eriochrome black T indicator solution	912

Art. No.	Description	Page
7661	Eriochrome blue black B (C.I. 14640)	912
7663	Eriochrome blue black R (C.I. 15705)	913
1H5C	Eriochrome cyanine R (C. I. 43820)	913
0331	Erythrosine B (C.I. 45430)	914
7870	Ethidium bromide	918
7664	Ethyl eosin (C.I. 45386)	924
7667	Ethyl orange sodium salt	926
7677	Ethyl red	926
7680	Ethyl violet (C.I. 42600)	927
7684	Evan's blue (C.I. 23860)	928
0301	Fast Green FCF	930
7685	Fast sulphon black F (C.I. 26990)	930
7687	Fat brown RR (C.I. 11285)	930
T131	Ferroin indicator solution	934
T132	Ferroin solution	935
5283	Fluorescein disodium salt (C.I. 45350)	938
3745	Fluorescein isothiocyanate Isomer I	938
3256	Fuchsine basic (C.I. 42510)	950
7691	Giemsa stain	957
1LAA	Glyoxal-bis-(2-hydroxyanil)	969
7694	Guinea green B (C.I. 42085)	973
3816	Hematoxylin (C.I. 75290)	977
2556	Hydroxy naphthol blue disodium salt	1000
2557	8-Hydroxyquinoline	1001
7649	Indicator buffer tablets	1005
3903	Indigo (C.I. 73000)	1007
2700	Indigo carmine (C.I. 73015)	1007
5156	Indigo carmine (C.I. 73015)	1007
7695	Indocyanine green	1008
7697	Janus green B (C.I. 11050)	1025
7698	Jenner Stain	1025
7699	Lacmoid	1031
7702	Leishman stain	1040
7703	Leuco crystal violet	1042
7706	Light green SF (C.I. 42095)	1042
7707	Lissamine green B (C.I. 44090)	1044
0248	Litmus (C.I. 1242)	1049
1EE2	Litmus indicator solution	1049
4203	Luminol	1050
7708	Luminol sodium salt hemihydrate	1051
7710	Malachite green hydrochloride	1063
5895	Malachite green oxalate (C.I. 42000)	1063
7713	Martius yellow (C. I. 10315)	1069
4231	Metal phthaleine	1076
7714	Metanil yellow (C. I. 13065)	1076
A514	Methylene blue (C.I. 52015)	1084
9953	Methylene blue indicator solution	1084
5159	Methyl green (C. I. 42590)	1085
T118	Methyl orange (C.I. 13025)	1087
T119	Methyl orange indicator solution	1087
T120	Methyl red (C. I. 13020)	1088
2562	Methyl red hydrochloride (C.I. 13020)	1088
T121	Methyl red indicator solution	1088
5003	Methyl red sodium salt (C.I. 13020)	1088
KK17	Methylthymol blue sodium salt	1089
7715	Methyl violet 2B (C.I. 42535)	1091
T125	Mixed indicator 5	1091
6459	Morin hydrate	1094
T124	Murexide (C. I. 56085)	1096
1H56	1-Naphtholbenzein	1099
5161	Naphthol green B (C.I. 10020)	1099
1H5A	1-Naphtholphthalein	1099
1H5K	β-Naphthol violet	1099
T122	Neutral red (C.I. 50040)	1102
1H5E	New fuchsin (C. I. 42520)	1102
7716	Nigrosin, soluble in alcohol (C.I. 50415)	1105
7718	Nigrosin, water soluble (C.I. 50420)	1105
4377	Nile blue A (C.I. 51180)	1105
7723	Nile blue chloride (C.I. 51180)	1105
7726	Nile red	1105
4378	Ninhydrin	1106
7727	Nitrazine yellow (C.I. 14890)	1106
1LAH	2-Nitrophenol	1111
4533	3-Nitrophenol	1111
6524	4-Nitrophenol	1111
1H46	4-(4-Nitrophenylazo)-1-naphthol	1112
2563	4-(4-Nitrophenylazo)-resorcinol	1112
4421	*p*-Nitrotetrazolium blue chloride	1114
7728	Nuclear fast red (C.I. 60760)	1116
1H5H	Oil red O (C. I. 26125)	1129
7729	Orange II sodium salt (C.I. 15510)	1131
7731	Orange IV sodium salt (C.I. 13080)	1131
0318	Orange G (C.I. 16230)	1131
0320	Orcein	1132
7306	Oxazine 720 perchlorate	1134
1H5L	Pararosaniline base (C. I. 42500)	1138
1H5N	Patent blue VF (C. I. 42045)	1138
9113	1,10-Phenanthroline monohydrate	1149
KK21	1,10-Phenanthroline hydrochloride monohydrate	1149
T126	Phenolphthalein (C.I. 764)	1150
8145	Phenolphthalein indicator solution	1150
K034	Phenolphthalein indicator solution	1150
T127	Phenol red	1150
1HA8	Phenol red	1150
2566	Phenol red sodium salt	1151
9858	*N*-Phenylanthranilic acid	1152
4538	4-(Phenylazo) diphenylamine	1152
5938	Ponceau S (C.I. 27195)	1166
CN74	Propidiumiodide	1187
KK12	1-(2-Pyridylazo)-2-naphthol	1192
2564	4-(2'-Pyridylazo)-resorcinol	1192
1H5P	Pyrocatechol violet	1192
0287	Pyrogallol red	1192
1H57	Pyronin B (C. I. 45010)	1193
1H5T	Pyronin G (C. I. 45005)	1193
7138	Quercetin dihydrate (C.I. 75670)	1196
1LA9	Quninaldine red	1197
1H5X	Resazurin sodium salt	1202
7741	Resorcinol yellow (C.I. 14270)	1202
7310	Rhodamine 575	1204
T130	Rhodamine B (C.I. 45170)	1204
1E02	Rhodamine B solution	1204
0749	Rhodamine 6G (C.I. 45160)	1204
3162	Rose Bengale B (C.I. 45440)	1208
T129	Safranin O (C.I. 50240)	1248
KK25	Silver diethyldithiocarbamate	1272
9370	Silver nitrate	1272
2601	Sodium diethyldithiocarbamate trihydrate	1282
HN34	Sodium nitroprusside dihydrate	1292
7709	Solvent blue 38 (C. I. 74180)	1299
T133	Starch indicator solution	1339
1H5Y	Sudan I (C. I. 12055)	1343
7732	Sudan II (C. I. 12140)	1344
4711	Sudan III (C. I. 26100)	1344
1EE3	Sudan III solution	1344
0327	Sudan IV (C. I. 26105)	1344
0292	Sudan black B (C.I. 26150)	1344
7733	Sudan orange G (C. I. 11920)	1344
4119	5-Sulphosalicylic acid dihydrate	1345
2982	Tartrazine (C. I. 19140)	1355
2624	Tashiro's indicator solution	1355
4176	Tetrazolium blue chloride	1363
7736	Tetrazolium violet	1364
4022	Thiazolyl blue	1365
9937	Thionine (acetate) (C. I. 52000)	1365
KK34	Thorin	1366
KK16	Thymol blue	1368
9954	Thymol blue indicator solution	1368
2606	Thymol blue sodium salt	1368
HN97	Thymolphthalein	1368
1H60	Thymolphthalein complexon	1368
8152	Thymolphthalein indicator solution	1368
1E03	Thymolphthalein indicator solution	1368
7302	Tiron	1370
7739	Titan yellow (C. I. 19540)	1371
0300	Toluidine blue O (C.I. 52040)	1375
KK13	2,3,5-Triphenyltetrazolium chloride	1381
CN76	Trypan blue (C.I. 23850)	1385
1H61	Victoria blue B (C. I. 44045)	1395
1EE4	Victoria blue B solution	1395
7742	Victoria blue R (C.I. 44040)	1395
7744	Wright's stain	1404
A513	Xylene cyanole (C.I. 42135)	1407
7746	Xylenolblue	1408
2727	Xylenol orange tetrasodium salt	1408
7747	Xylidine Ponceau 2R (C.I. 16150)	1408
KK35	Xylidyl blue sodium salt	1408
5563	Zincon	1414

Indicine hydrochloride



$C_{15}H_{26}ClNO_6$
CAS No. 1195140-94-3
WGK 1

Indicine hydrochloride
ROTICHROM® HPLC

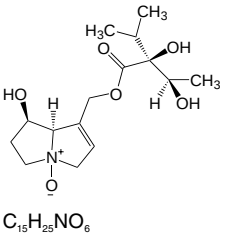
Reference substance for HPLC.
From *Heliotropium indicum.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
1960.1	10 mg	glass	439,70

Indicine *N*-oxide



$C_{15}H_{25}NO_6$
CAS No. 41708-76-3
WGK 1

Indicine *N*-oxide
ROTICHROM® HPLC

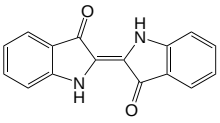
Reference substance for HPLC.
From *Heliotropium indicum*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥96,0 %

Art. No.	Pack Qty.	Pack.	€
1961.1	10 mg	glass	482,70

Indigo (C.I. 73000)



$C_{16}H_{10}N_2O_2$ · D 1,35 g/cm³ · mp 390 to 392 °C · flp >220 °C
CAS No. 482-89-3 · EC no. 207-586-9
WGK 1

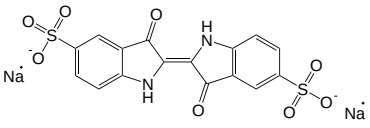
Warning H373

Indigo (C.I. 73000)
synthetic

Type analysis
Appearance ..... violet powder
Maximum absorption ..... 590-615 nm
Solubility (water) ..... complies
Solubility (EtOH) ..... complies
Loss on drying (110 °C) ..... ≤5,0 %

Art. No.	Pack Qty.	Pack.	€
3903.1	50 g	glass	49,35
3903.3	100 g	glass	76,90
3903.2	500 g	glass	310,70
Original pack 6 x 500 g			295,17/500 g

Indigo carmine (C.I. 73015)



Indigotine · E 132

$C_{16}H_8N_2Na_2O_8S_2$ · D 0,714 g/cm³ · mp >300 °C · flp >250 °C
CAS No. 860-22-0 · EC no. 212-728-8
WGK 1

Warning H317

Indigo carmine (C.I. 73015)
≥80 %, p.a.

Indicator pH 11,5-13,0

Dissolve 0.25 g in 100 ml ethanol (50 %) or 1 g in 100 ml water

Guarantee analysis
Appearance ..... dark blue to purple powder
Dye content ..... ≥80 %
Loss on drying ..... ≤5 %
Heavy metals (as Pb) ..... ≤0,004 %
Arsenic (As) ..... ≤0,0008 %
Cadmium (Cd) ..... ≤0,0001 %
Mercury (Hg) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
2700.1	25 g	glass	32,15
2700.2	100 g	glass	83,75

Indigo carmine (C.I. 73015)
for microscopy

Indicator pH 11.5-13.0

Dissolve 0.05 g in 100 ml of water

Type analysis
Absorption max. (in H_2O) ..... 596-626 nm
Loss on drying (110 °C) ..... ≤5 %
Suitability for microscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
5156.1	10 g	glass	21,40
5156.2	25 g	glass	33,25
5156.3	100 g	glass	80,55

Indium

CAS No. 7440-74-6 · EC no. 231-180-0
WGK 1

Indium wire
99,99 %, Ø 0,5 mm

In · D 7,29 g/cm³ · mp 157 °C · bp 2080 °C

Type analysis
Assay (metals basis) ..... 99,99 %

Art. No.	Pack Qty.	Pack.	€
1HN9.1	25 cm	plastic	24,65
1HN9.2	50 cm	plastic	37,10
1HN9.3	1 m	plastic	62,25

Indium foil
99,99 % (4N)

Foil 275 mm long, 50 mm wide, 0,1 mm thick.

In · D 7,29 g/cm³ · mp 157 °C · bp 2080 °C

Type analysis
Purity ..... 99,99 %

Art. No.	Pack Qty.	Pack.	€
9803.1	1 unit(s)	plastic	349,40

Indium shot
ROTI®METIC 99,999 % (5N)

In · D 7,29 g/cm³ · mp 157 °C · bp 2072 °C

Type analysis
Assay (metals basis) ..... 99,999 %
Particle size ..... 3-6 mm

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5629.1	5 g	plastic	74,10
5629.2	25 g	plastic	249,95

Indium granules
>99,97 %

In · D 7,29 g/cm³ · mp 157 °C · bp 2072 °C

Type analysis
Assay ..... >99,97 %

Art. No.	Pack Qty.	Pack.	€
3906.1	10 g	glass	64,40

Indium powder
≥99 %, p.a.

In · D 7,29 g/cm³ · mp 157 °C · bp 2072 °C

Type analysis
Assay ..... ≥99 %
Al (Aluminium) ..... ≤0,001 %
As (Arsenic) ..... ≤0,0005 %
Cd (Cadmium) ..... ≤0,0015 %
Cu (Copper) ..... ≤0,0005 %
Fe (Iron) ..... ≤0,001 %
Pb (Lead) ..... ≤0,001 %
Sn (Tin) ..... ≤0,0015 %
Tl (Thallium) ..... ≤0,001 %
Zn (Zinc) ..... ≤0,0015 %

Art. No.	Pack Qty.	Pack.	€
1EHP.1	5 g	glass	56,45
1EHP.2	25 g	glass	209,65

Indium Standards

- Indium ICP Standard Solution see page 1317
- Indium ICP Standard Solution see page 1317
- Indium AAS Standard Solution see page 1317

Indium(III) bromide

$InBr_3$ · D 4,74 g/cm³ · mp 436 °C · bp 656 °C
CAS No. 13465-09-3 · EC no. 236-692-8
UN no. 3260 · ADR 8 II · WGK 1

Danger H314

Indium(III) bromide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5322.1	5 g	plastic	59,70
5322.2	25 g	plastic	211,25

Indium(III) chloride

$InCl_3$ · D 3,46 g/cm³ · mp 586 °C · bp 800 °C
CAS No. 10025-82-8 · EC no. 233-043-0
UN no. 3260 · ADR 8 II · WGK 1

Danger H302-H314

Indium(III) chloride
≥99,9 %, p.a.

Guarantee analysis
Assay ..... ≥99,9 %
Aluminium (Al) ..... ≤0,0001 %
Bismuth (Bi) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,005 %
Chromium (Cr) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0001 %
Silver (Ag) ..... ≤0,0001 %
Silicon (Si) ..... ≤0,0005 %
Tin (Sn) ..... ≤0,0001 %
Zinc (Zn) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
0307.1	5 g	plastic	33,90
0307.2	10 g	plastic	56,90
0307.3	25 g	plastic	110,20
0307.4	50 g	plastic	198,90

Indium(III) fluoride

InF_3 · mp 1170 °C
CAS No. 7783-52-0 · EC no. 232-005-0
WGK 1

Warning H315-H319-H335-EUH029

Indium(III) fluoride
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L51.1	1 g	HDPE	69,80
1L51.2	5 g	HDPE	153,20

Indium(III) iodide

InI_3 · mp 210 °C
CAS No. 13510-35-5 · EC no. 236-839-6
WGK 1

Warning H317-H361fd

Indium(III) iodide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L5K.1	1 g	HDPE	71,50
1L5K.2	5 g	HDPE	169,35

Indium(III) nitrate pentahydrate

$In(NO_3)_3 \cdot 5\ H_2O$
CAS No. 207398-97-8
UN no. 1477 · ADR 5.1 II · WGK 1

Danger H272-H315-H319

Indium(III) nitrate pentahydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5384.1	10 g	plastic	125,25

Indium(III) oxide

In_2O_3 · D 7,168 g/cm³ · mp >1500 °C
CAS No. 1312-43-2 · EC no. 215-193-9
WGK 1

Indium(III) oxide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5630.1	5 g	plastic	64,40
5630.2	25 g	plastic	217,70

Indium(III) sulphate

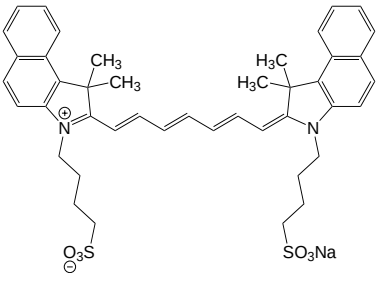
$In_2(SO_4)_3$
CAS No. 13464-82-9 · EC no. 236-689-1
WGK 1

Indium(III) sulphate
≥99,99 %, p.a.

Guarantee analysis
Assay ..... ≥99,99 %
Aluminium (Al) ..... ≤0,0005 %
Bismuth (Bi) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %
Tin (Sn) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
0314.1	5 g	plastic	34,30
0314.2	10 g	plastic	55,40
0314.3	25 g	plastic	98,80
0314.4	50 g	plastic	181,70

Indocyanine green



Cardiogreen · ICG

$C_{43}H_{47}N_2NaO_6S_2$ · mp 235 °C
CAS No. 3599-32-4 · EC no. 222-751-5
WGK 1

Warning H315-H319-H335

Indocyanine green
p.a.

Type analysis
Appearance ..... dark green to black powder
Appearance of solution (0,1 % in H_2O) clear, dark green
Loss on drying ..... ≤6 %

Art. No.	Pack Qty.	Pack.	€
7695.1	1 g	glass	60,10
7695.2	5 g	glass	241,90
7695.3	10 g	glass	450,45

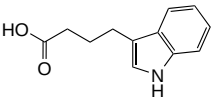
Indol-3-aldehyde

▸ Indole-3-carboxaldehyde see page 1008

Indole-3-acetic acid

▸ Indolyl 3-acetic acid see page 1009

Indole-3-butyric acid



4-(3-Indolyl)butyric acid · Hormodin · IBA

$C_{12}H_{13}NO_2$ · mp 120 to 126 °C
CAS No. 133-32-4 · EC no. 205-101-5
UN no. 2811 · ADR 6.1 III · WGK 1

Danger H301-H315-H319-H335

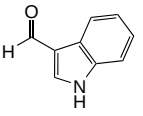
Indole-3-butyric acid
≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (titr.) ..... ≥99 %
Water (KF) ..... ≤1 %
Arsenic (As) ..... ≤0,0003 %
Heavy metals (as Pb) ..... ≤0,001 %
Sulphated ash ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
4143.1	5 g	glass	24,65
4143.2	25 g	glass	81,20

Indole-3-carboxaldehyde



3-Formylindole · Indol-3-aldehyde

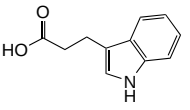
C_9H_7NO · mp 193 to 196 °C · flp 240 °C
CAS No. 487-89-8 · EC no. 207-665-8
WGK 1

Indole-3-carboxaldehyde
≥98 %

Type analysis
Assay (GC) ..... ≥98,0 %
Solution (1 % in ethanol) ..... colourless to light brown, clear
Water (KF) ..... ≤1,0 %
Melting point ..... 194-198 °C

Art. No.	Pack Qty.	Pack.	€
5538.1	25 g	plastic	65,50
5538.2	50 g	plastic	117,20

Indole-3-propionic acid



3-(3-Indolyl)-propionic acid

$C_{11}H_{11}NO_2$ · D 0,36 g/cm³ · mp 134 °C
CAS No. 830-96-6 · EC no. 212-600-1
WGK 1

Indole-3-propionic acid
≥99 %, for biochemistry

Storage temperature: +4 °C

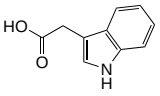
Type analysis
Assay (titr.) ..... ≥99 %
Solution (5 % in ethanol) . slightly yellowish, clear
Water (KF) ..... ≤0,5 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4144.1	10 g	glass	40,75
4144.2	50 g	glass	153,20

Indole Reagent
▸ Kovacs' Reagent see page 1030

2,3-Indolinedione
▸ Isatin see page 1019

Indolyl 3-acetic acid



Indole-3-acetic acid · Heteroauxin

$C_{10}H_9NO_2$ · mp 167 °C · flp 171 °C
CAS No. 87-51-4 · EC no. 201-748-2
WGK 1

Indolyl 3-acetic acid
≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to light red to light brown powder
Assay (HPLC) ..... ≥99,0 %
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
7280.1	5 g	plastic	23,55
7280.2	25 g	plastic	82,25
7280.3	50 g	plastic	138,70

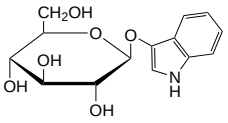
3-β-Indolylalanine
▸ DL-Tryptophan see page 1386

4-(3-Indolyl)butyric acid
▸ Indole-3-butyric acid see page 1008

3-Indolylmethylglucosinolate potassium salt
▸ Glucobrassicin see page 960

3-(3-Indolyl)-propionic acid
▸ Indole-3-propionic acid see page 1008

3-Indoxyl-β-D-glucopyranoside



Plant Indican

$C_{14}H_{17}NO_6$ · mp 57 to 58 °C
CAS No. 487-60-5
WGK 1

3-Indoxyl-β-D-glucopyranoside
≥99 %, for biochemistry

Glycosidase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (HPLC) ..... ≥99 %
Solubility (0,5 % in H_2O) ..... colourless, clear
Water (KF) ..... ≤0,5 %
Spec. rotation $[\alpha]_D^{20}$ (c=1 in water) -67,5° to -63,5°

Art. No.	Pack Qty.	Pack.	€
4243.1	250 mg	glass	94,10
4243.2	500 mg	glass	174,70
4243.3	1 g	glass	332,20

Inermin
▸ (–)-Maackiain see page 1055

Infusorial earth
▸ Diatomaceous earth see page 872

Inhibitor Cocktails

Inhibitor Cocktail Bacteria
for biochemistry

Broad range cocktail of protease inhibitors for extracts from bacteria.

Storage of aliquoted inhibitor solution: –20 °C max. 6 months.

1 vial is sufficient for inhibition of proteases from approx. 20 g *E. coli*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

UN no. 3261 · ADR 8 III · WGK 1

Danger H314-H332-H373

Composition
Appearance ..... white powder
AEBSF hydrochloride ..... complies
Bestatin ..... complies
E-64 ..... complies
EDTA-Na_2 ..... complies
Pepstatin A ..... complies

Art. No.	Pack Qty.	Pack.	€
3758.1	1 kit	plastic	131,70

Inhibitor Cocktail BroadRange
for biochemistry

Broad range cocktail of protease inhibitors.

Storage of aliquoted inhibitor solution: –20 °C max. 1 month.

1 vial is sufficient for inhibition of proteases from 1–2 g material.

Storage temperature: –20 °C
Transport temperature: ambient temp.

UN no. 3261 · ADR 8 III · WGK 1

Danger H314-H332-H373

Composition
Appearance ..... white powder
AEBSF hydrochloride ..... complies
Aprotinin ..... complies
E-64 ..... complies
EDTA-Na_2 ..... complies
Leupeptin hemisulphate ..... complies

Art. No.	Pack Qty.	Pack.	€
3749.1	1 tube	plastic	69,80

Inhibitor Cocktail His-tag
ready-to-use, for biochemistry, EDTA free

Broad range cocktail of protease inhibitors for extraction of His-tagged proteins. Without EDTA.

Storage of inhibitor solution: –20 °C max. 6 months.

1 ml is sufficient for inhibition of proteases from 10 g bacterial cells.

D 1 g/cm³ · bp >180 °C · flp >80 °C

Storage temperature: –20 °C
Transport temperature: cooled

WGK 1

Danger H315-H318

Composition
Solution ..... colourless to slightly opaque
AEBSF hydrochloride ..... complies
Bestatin ..... complies
E-64 ..... complies
Pepstatin A ..... complies
Phosphoramidon ..... complies
Solvent ..... DMSO

Art. No.	Pack Qty.	Pack.	€
3760.1	1 ml	plastic	123,10

Inhibitor Cocktail Plus
ready-to-use, for biochemistry, EDTA free

Broad range cocktail of protease inhibitors for extracts of mammalian cells or tissue. Without EDTA.

Storage of inhibitor solution: –20 °C max. 6 months.

1 ml is sufficient for inhibition of proteases from approx. 20 g cells or tissue.

mp 18,5 °C

Storage temperature: –20 °C
Transport temperature: cooled

WGK 1

Warning H315-H319

Composition
Solution ..... colourless to slightly opaque
AEBSF hydrochloride ..... complies
Aprotinin ..... complies
Bestatin ..... complies
E-64 ..... complies
Leupeptin hemisulphate ..... complies
Pepstatin A ..... complies
Solvent ..... DMSO

Art. No.	Pack Qty.	Pack.	€
3751.1	1 ml	plastic	115,60

Inhibitor Cocktail Standard
for biochemistry

General cocktail of protease inhibitors.

Storage of inhibitor solution: 4 °C
max. 90 days.
Do not freeze!

For 100 ml 1x solution.

Storage temperature: –20 °C
Transport temperature: ambient temp.

UN no. 3261 · ADR 8 III · WGK 1

Danger H314-H332-H373

Composition
Appearance ..... white powder
AEBSF hydrochloride ..... complies
EDTA-Na_2 ..... complies
Pepstatin A ..... complies
Leupeptin hemisulphate ..... complies

Art. No.	Pack Qty.	Pack.	€
3743.1	1 tube	plastic	162,90

Inhibitor Cocktail Tissue
for biochemistry, EDTA free

Cocktail of protease inhibitors for extracts of mammalian cells or tissue. Without EDTA.

Storage of aliquoted inhibitor solution: –20 °C
max. 6 months.

1 vial is sufficient for inhibition of proteases from approx. 2 g cells or tissue.

Storage temperature: –20 °C
Transport temperature: ambient temp.

UN no. 3261 · ADR 8 III · WGK 1

Danger H314

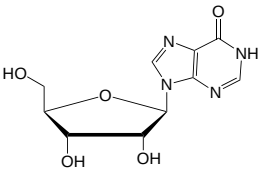
Composition
Appearance ..... white powder
AEBSF hydrochloride ..... complies
Aprotinin ..... complies
E-64 ..... complies
Leupeptin hemisulphate ..... complies

Art. No.	Pack Qty.	Pack.	€
3755.1	1 tube	plastic	60,10

Inhibitors

Art. No.	Description	Page
2931	AEBSF hydrochloride, ≥98 %, for biochemistry	709
CN71	4-Aminobenzamidine dihydrochloride, ≥98 %, for biochemistry	726
2933	Antipain dihydrochloride, ≥30 U/mg, for biochemistry	748
A162	Aprotinin, 3,0 PEU/mg, for biochemistry	749
5655	Bacitracin, ≥60 I.U./mg, Ph. Eur., for biochemistry	763
CN38	Benzamidine hydrochloride monohydrate, ≥98 %, for biochemistry	767
2937	Bestatin hydrochloride, ≥98 %, for biochemistry	773
2935	E-64, ≥99 %, for biochemistry	904
3054	EGTA, ≥99 %, p.a.	908
8043	Ethylenediamine tetraacetic acid disodium salt dihydrate, ≥99 %, p.a., ACS	922
HN71	Geldanamycin, ≥98 %, for biochemistry	954
0716	Genistein, ≥98 %, for biochemistry	955
6847	β-Glycerophosphate disodium salt pentahydrate, ≥97 %, for biochemistry	966
3758	Inhibitor Cocktail Bacteria, for biochemistry	1009
3749	Inhibitor Cocktail BroadRange, for biochemistry	1009
3760	Inhibitor Cocktail His-tag, ready-to-use, for biochemistry, EDTA free	1009
3751	Inhibitor Cocktail Plus, ready-to-use, for biochemistry, EDTA free	1010
3743	Inhibitor Cocktail Standard, for biochemistry	1010
3755	Inhibitor Cocktail Tissue, for biochemistry, EDTA free	1010
CN33	Leupeptin hemisulphate, ≥96,5 %, for biochemistry	1042
0247	Novobiocin sodium salt, ≥850 µg/mg, for biochemistry	1115
A154	Pefabloc® SC-Protease Inhibitor, Pefabloc®, ≥95 %, for biochemistry	1139
2936	Pepstatin A, ≥98 %, for biochemistry	1143
6367	Phenylmethyl sulphonyl fluoride, ≥98 %, for biochemistry	1153
HN72	Radicicol, ≥98 %, for biochemistry	1198
3727	RNAse Inhibitor, 40 U/µl, for biochemistry and molecular biology	
2949	Trypsin inhibitor, ≥10 000 BAEE U/mg	1385
5279	Trypsin inhibitor, ≥7 000 BAEE U/mg, salt-free	1385

Inosine



Hypoxanthine-9-β-D-ribofuranoside

$C_{10}H_{12}N_4O_5$ · mp 222 to 226 °C
CAS No. 58-63-9 · EC no. 200-390-4
WGK 1

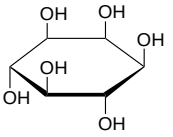
Inosine
≥98 %, for biochemistry

Type analysis
Appearance ..... white cryst. powder
Assay (dry substance) ..... ≥98,0 %
Sulphated ash ..... ≤0,2 %
Heavy metals (as Pb) ..... ≤0,001%
Loss on drying (105 °C, 2 h) ..... ≤ 1,0 %

Art. No.	Pack Qty.	Pack.	€
6770.1	5 g	glass	26,35

myo-Inosit
▸ *meso*-Inositol see page 1010

meso-Inositol



1,2,3,5/4,6-Hexahydroxycyclohexane · *myo*-Inosit · *myo*-Inositol

$C_6H_{12}O_6$ · D 0,63 g/cm³ · mp 223 to 227 °C
CAS No. 87-89-8 · EC no. 201-781-2
WGK 2

meso-Inositol
≥99 %, p.a.

Guarantee analysis
Assay (HPLC) ..... ≥99 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,005 %
Arsenic (As) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,001 %
Chromium (Cr) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,005 %
Sodium (Na) ..... ≤0,005 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %
Ash content (as SO_4) ..... ≤0,2 %
Loss on drying (110 °C) ..... ≤0,5 %
Solubility (0,1 g/ml H_2O) ..... clear

Art. No.	Pack Qty.	Pack.	€
6329.2	10 g	plastic	31,75
6329.1	100 g	plastic	220,40

meso-Inositol
≥99 %, for biochemistry

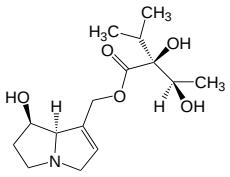
Type analysis
Assay (HPLC) ..... ≥99,0 %
Solution (10 % in water) ..... colourless
Loss on drying (3 h, 105 °C, vacuum) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
4191.1	50 g	glass	34,95
4191.2	100 g	glass	58,60
4191.3	250 g	glass	117,20

myo-Inositol
▸ *meso*-Inositol see page 1010

INT
▸ Iodonitrotetrazolium chloride see page 1012

Intermedine



$C_{15}H_{25}NO_5$
CAS No. 10285-06-0
WGK 1

Warning H302

Intermedine
ROTICHROM® HPLC

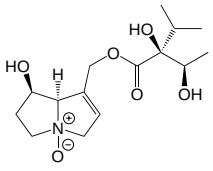
Reference substance for HPLC.
From *Symphytum.*

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥95,0 %

Art. No.	Pack Qty.	Pack.	€
1962.1	5 mg	glass	424,65

Intermedine *N*-oxide



$C_{15}H_{25}NO_6$
CAS No. 95462-14-9
WGK 1

Warning H302

Intermedine *N*-oxide
ROTICHROM® HPLC

Reference substance for HPLC.
From *Symphythum officinale.*

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
8018.1	5 mg	glass	456,90

Iodate Standards
▸ Iodate IC Standard Solution see page 1334

Iodide Standards
▸ Iodide IC Standard Solution see page 1335

Iodid-iodate solution

Iodid-iodate solution
1/128 mol I_2/l – 1/64 N, volumetric standard solution

D 1,001 g/cm³ · bp 100 °C

WGK 2

Type analysis
Amount-of-substance conc. (20 °C) 1/128 mol I_2/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
KK65.1	1 l	plastic	39,70
Original pack 6 x 1 l			37,72/1 l
KK65.2	2.5 l	plastic	76,25
Original pack 4 x 2.5 l			72,44/2.5 l

Iodid-iodate solution
0,05 mol I_2/l – 0,1 N, volumetric standard solution

D 1,02 g/cm³ · bp 100 °C

WGK 2

Warning H373

Type analysis
Amount-of-substance conc. (20 °C) .. 0,05 mol I_2/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
0228.1	1 l	plastic	43,55
Original pack 6 x 1 l			41,37/1 l

Iodine

Jodine

I_2 · D 4,93 g/cm³ · mp 113 to 114 °C · bp 184,4 °C
CAS No. 7553-56-2 · EC no. 231-442-4
UN no. 3495 · ADR 8 (6.1) III · WGK 2

Danger H302+H312+H332-H315-H319-H335-H372-H400

Iodine
≥99,8 %, p.a., ACS, resublimated

Use in iodometry; for iodine compounds.

Guarantee analysis
Assay (iodom.) ..... ≥99,8 %
Chloride and bromide (as Cl) ..... ≤0,005 %
Chlorine and bromine (as Cl) ..... ≤0,005 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,001 %
Chromium (Cr) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,005 %
Potassium (K) ..... ≤0,05 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %
Non volatile matter ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
X864.1	100 g	glass	88,05
X864.2	250 g	glass	160,20
X864.3	1 kg	glass	564,40
Original pack 6 x 1 kg			536,18/1 kg

Iodine
≥99,5 %, Ph. Eur., resublimated

Guarantee analysis
Assay ..... 99,5-100,5 %
Identity ..... complies
Chloride and bromide ..... complies
Non volatile matter ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
7935.3	100 g	glass	67,65
7935.1	250 g	glass	145,15
7935.2	1 kg	glass	514,95
Original pack 6 x 1 kg			489,20/1 kg

Iodine
≥99,5 %, resublimated

Type analysis
Assay ..... ≥99,5 %
Chloride and bromide ..... ≤0,05 %
Non volatile matter ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
7335.1	250 g	glass	112,90
7335.2	500 g	glass	203,20
Original pack 6 x 500 g			193,04/500 g
7335.3	1 kg	glass	385,95
Original pack 6 x 1 kg			366,65/1 kg
7335.4	2.5 kg	glass	747,15

Iodine eosine
▸ Erythrosine B (C.I. 45430) see page 914

Iodine(V) oxide

Diiodine pentoxide

I_2O_5 · D 4,98 g/cm³ · mp 300 °C
CAS No. 12029-98-0 · EC no. 234-740-2
UN no. 3084 · ADR 8 (5.1) II · WGK 1

Danger H272-H314

Iodine(V) oxide
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5364.1	5 g	plastic	55,40
5364.2	25 g	plastic	206,95

Iodine-potassium iodide solution acc. to Lugol

Lugol solution

D 1,12 g/cm³ · mp 0 °C · bp 100 °C
WGK 3

Warning H373

Iodine-potassium iodide solution acc. to Lugol
resublimated, for microscopy

For Gram staining

1 % aqueous iodine solution. Contains ~3,3 g/l iodine and ~6,7 g/l potassium iodide.

Art. No.	Pack Qty.	Pack.	€
N052.1	250 ml	glass	27,85
N052.3	500 ml	glass	34,95
N052.2	1 l	glass	48,30
Original pack 6 x 1 l			45,89/1 l

Iodine solution

Iodine solution (0.01 N)

Iodine solution
0,005 mol I_2/l – 0,01 N, volumetric standard solution

D 1 g/cm³ · mp ~0 °C · bp ~100 °C

WGK 1

Type analysis
Amount-of-substance conc. 0,005 mol I_2/l ±0,5 %
Titer 0,995-1,005

Art. No.	Pack Qty.	Pack.	€
1K3T.1	1 l	glass	53,65
Original pack 6 x 1 l			50,97/1 l

Iodine solution (0.1 N)

Iodine solution
0,05 mol I_2/l – 0,1 N, volumetric standard solution

D 1,021 g/cm³ · mp ~0 °C · bp ~100 °C

WGK 2

Warning H373

Type analysis
Amount-of-substance conc. (20 °C) .. 0,05 mol I_2/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
K016.1	1 l	glass	44,65
Original pack 6 x 1 l			42,42/1 l
K016.2	2.5 l	glass	91,30
Original pack 4 x 2.5 l			86,74/2.5 l

Iodine solution
0,05 mol I_2/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.

D 1,021 g/cm³ · mp ~0 °C · bp ~100 °C

WGK 2

Warning H373

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,05 mol/l
Measurement uncertainty ..... ±0,1 %

Art. No.	Pack Qty.	Pack.	€
6765.1	1 l	glass	55,40
Original pack 6 x 1 l			52,63/1 l

Iodine solution (1 N)

Iodine solution
0,5 mol I_2/l – 1 N, volumetric standard solution

D 1,288 g/cm³ · bp ~100 °C

WGK 3

Danger H315-H319-H372

Type analysis
Amount-of-substance conc. (20 °C) .... 0,5 mol I_2/l ±0,4 %
Titer ..... 0,996 - 1,004

Art. No.	Pack Qty.	Pack.	€
X868.1	1 l	glass	146,75
Original pack 6 x 1 l			139,41/1 l

Iodine solution acc. to Wijs
▸ Wijs-solution (0.2 N) see page 1403

Iodized activated charcoal

D 2,37 g/cm³ · mp >3500 °C
WGK 1

Warning H373

Iodized activated charcoal

for absorption of mercury vapours

Composition
Appearance ..... black, irregular sticks

Art. No.	Pack Qty.	Pack.	€
1L4L.1	250 g	glass	42,90
1L4L.2	500 g	glass	75,15
Original pack 6 x 500 g			71,39/500 g
1L4L.3	1 kg	glass	127,95
Original pack 6 x 1 kg			121,55/1 kg

Iodoform



Triiodmethane

CHJ_3 · D 4,01 g/cm³ · mp 118 to 121 °C · bp 218 °C
CAS No. 75-47-8 · EC no. 200-874-5
WGK 1

Warning H302+H312+H332-H315-H319-H335

Iodoform
≥99 %, extra pure

Type analysis
Assay ..... ≥99,0 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Sulphated ash ..... ≤0,1 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
4534.2	50 g	glass	63,35
4534.3	100 g	glass	112,90
4534.1	1 kg	glass	987,95
Original pack 6 x 1 kg			938,55/1 kg

Iodomethane D3



Methyliodide D3

CD_3I · D 2,3 g/cm³ · mp -76,3 °C · bp 42 °C · flp 32 °C
CAS No. 865-50-9 · EC no. 212-744-5
UN no. 2644 · ADR 6.1 I · WGK 3

Danger H226-H301+H331-H312-H315-H319-H335-H351-H410

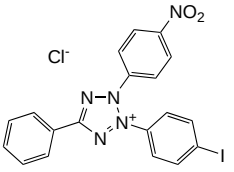
Iodomethane D3
99,5 Atom%D, stabilised with Cu

For nuclear magnetic resonance spectroscopy.

Guarantee analysis
Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
HN88.2	5 g	glass	64,00
HN88.1	25 g	glass	228,45

Iodonitrotetrazolium chloride



2-(4-Iodophenyl)-3-(4-nitrophenyl)-5-phenyl-2*H*-tetrazolium chloride · INT · *p*-Iodonitrotetrazolium Violet

$C_{19}H_{13}ClN_5O_2I$ · mp 240 to 245 °C
CAS No. 146-68-9 · EC no. 205-676-2
WGK 1

Iodonitrotetrazolium chloride
≥97 %, for biochemistry

For the determination of dehydrogenase.

Storage temperature: +4 °C

Type analysis
Appearance ..... light yellow powder
Assay ..... ≥97,0 %
Appearance of solution ..... clear

Art. No.	Pack Qty.	Pack.	€
5536.1	1 g	glass	126,35

p-Iodonitrotetrazolium Violet
▸ Iodonitrotetrazolium chloride see page 1012

2-(4-Iodophenyl)-3-(4-nitrophenyl)-5-phenyl-2*H*-tetrazolium chloride
▸ Iodonitrotetrazolium chloride see page 1012

Ion Exchanger

Art. No.	Description	Page
K306	Amberjet™	724
0302	Dowex® 1 X 2	900
0303	Dowex® 1 X 2	900
0304	Dowex® 1 X 2	900
0310	Dowex® 1 X 8	900
0311	Dowex® 1 X 8	901
0312	Dowex® 1 X 8	901
6800	Dowex® 50 W X 2	901
0334	Dowex® 50 W X 2	901
N099	Dowex® 50 W X 2	901
6821	Dowex® 50 W X 4	901
0344	Dowex® 50 W X 8	901
0345	Dowex® 50 W X 8	901
0346	Dowex® 50 W X 8	901
1A2C	Ion exchange resin ROTI®Change 1 x 2	1013
1A2E	Ion exchange resin ROTI®Change 1 x 2	1013
1A2H	Ion exchange resin ROTI®Change 1 x 2	1013

Art. No.	Description	Page
6849	Ion exchange resin ROTI®Change 1 x 4	1013
6851	Ion exchange resin ROTI®Change 1 x 4	1013
1A2K	Ion exchange resin ROTI®Change 1 x 4	1013
6852	Ion exchange resin ROTI®Change 1 x 8	1013
6854	Ion exchange resin ROTI®Change 1 x 8	1014
6855	Ion exchange resin ROTI®Change 1 x 8	1014
6856	Ion exchange resin ROTI®Change 1 x 8	1014
1A5E	Ion exchange resin ROTI®Change 50 W x 2	1014
1A5H	Ion exchange resin ROTI®Change 50 W x 2	1014
1A5Y	Ion exchange resin ROTI®Change 50 W x 2	1014
1A60	Ion exchange resin ROTI®Change 50 W x 4	1014
6864	Ion exchange resin ROTI®Change 50 W x 4	1014
1A61	Ion exchange resin ROTI®Change 50 W x 4	1014
6865	Ion exchange resin ROTI®Change 50 W x 8	1015
6866	Ion exchange resin ROTI®Change 50 W x 8	1015
6867	Ion exchange resin ROTI®Change 50 W x 8	1015

Ion exchange resin ROTI®Change

Anion exchangers · Cation exchanger

Ion exchange resin ROTI®Change 1 x 2

50–100 mesh, analytical grade, Cl^--form

Highly basic anion exchanger

D 1,04 to 1,12 g/cm³

WGK 1

Type analysis

Appearance ..... white to yellow corn
Particle size (mesh) 50-100
Extractables ..... ≤1 mg/g resin
Capacity (eq/l) ..... ≥0,6
Counter ion ..... Cl^-

Matrix: Polystyrene - DVB; Active group: Quaternary ammonium compound type I.

Art. No.	Pack Qty.	Pack.	€
1A2C.1	25 g	plastic	28,95
1A2C.2	100 g	plastic	102,05
1A2C.3	250 g	plastic	220,40
1A2C.4	500 g	plastic	418,20
Original pack 6 x 500 g			397,29/500 g

Ion exchange resin ROTI®Change 1 x 2

100–200 mesh, analytical grade, Cl^--form

Highly basic anion exchanger

D 1,04 to 1,12 g/cm³

WGK 1

Type analysis

Appearance ..... white to yellow corn
Particle size (mesh) 100-200
Extractables ..... ≤1 mg/g resin
Capacity (eq/l) ..... ≥0,6
Counter ion ..... Cl^-

Matrix: Polystyrene - DVB; Active group: Quaternary ammonium compound type I.

Art. No.	Pack Qty.	Pack.	€
1A2E.1	25 g	plastic	28,95
1A2E.2	100 g	plastic	102,05
1A2E.3	250 g	plastic	220,40
1A2E.4	500 g	plastic	418,20
Original pack 6 x 500 g			397,29/500 g

Ion exchange resin ROTI®Change 1 x 2

200–400 mesh, analytical grade, Cl^--form

Highly basic anion exchanger

D 1,04 to 1,12 g/cm³

WGK 1

Type analysis

Appearance ..... white to yellow corn
Particle size (mesh) 200-400
Extractables ..... ≤1 mg/g resin
Capacity (eq/l) ..... ≥0,6
Counter ion ..... Cl^-

Matrix: Polystyrene - DVB; Active group: Quaternary ammonium compound type I.

Art. No.	Pack Qty.	Pack.	€
1A2H.1	25 g	plastic	28,95
1A2H.2	100 g	plastic	102,05
1A2H.3	250 g	plastic	220,40
1A2H.4	500 g	plastic	418,20
Original pack 6 x 500 g			397,29/500 g

Ion exchange resin ROTI®Change 1 x 4

50–100 mesh, analytical grade, Cl^--form

Highly basic anion exchanger

D 1,04 to 1,12 g/cm³

WGK 1

Type analysis

Appearance ..... white to yellow grain
Particle size (mesh) 50-100
Extractables ..... <1 mg/g resin
Capacity (eq/l) ..... ≥1,0
Counter ion ..... Cl^-

Matrix: Polystyrene - DVB; Active group: Quaternary ammonium compound type I.

Art. No.	Pack Qty.	Pack.	€
6849.4	25 g	plastic	28,95
6849.1	100 g	plastic	102,05
6849.2	250 g	plastic	220,40
6849.3	500 g	plastic	418,20
Original pack 6 x 500 g			397,29/500 g

Ion exchange resin ROTI®Change 1 x 4

100–200 mesh, analytical grade, Cl^--form

Highly basic anion exchanger

D 1,04 to 1,12 g/cm³

WGK 1

Type analysis

Appearance ..... white to yellow grain
Particle size (mesh) 100-200
Extractables ..... <1 mg/g resin
Capacity (eq/l) ..... ≥1,0
Counter ion ..... Cl^-

Matrix: Polystyrene - DVB; Active group: Quaternary ammonium compound type I.

Art. No.	Pack Qty.	Pack.	€
6851.4	25 g	plastic	28,95
6851.1	100 g	plastic	102,05
6851.2	250 g	plastic	220,40
6851.3	500 g	plastic	418,20
Original pack 6 x 500 g			397,29/500 g

Ion exchange resin ROTI®Change 1 x 4

200–400 mesh, analytical grade, Cl^--form

Highly basic anion exchanger

D 1,04 to 1,12 g/cm³

WGK 1

Type analysis

Appearance ..... white to yellow corn
Particle size (mesh) 200-400
Extractables ..... ≤1 mg/g resin
Capacity (eq/l) ..... ≥1
Counter ion ..... Cl^-

Matrix: Polystyrene - DVB; Active group: Quaternary ammonium compound type I.

Art. No.	Pack Qty.	Pack.	€
1A2K.1	25 g	plastic	28,95
1A2K.2	100 g	plastic	102,05
1A2K.3	250 g	plastic	220,40
1A2K.4	500 g	plastic	418,20
Original pack 6 x 500 g			397,29/500 g

Ion exchange resin ROTI®Change 1 x 8

20–50 mesh, analytical grade, Cl^--form

Highly basic anion exchanger

D 1,04 to 1,12 g/cm³

WGK 1

Type analysis

Appearance ..... white to light yellow grain
Particle size (mesh) 20-50
Extractables ..... <1 mg/g resin
Capacity (eq/l) ..... ≥1,2
Counter ion ..... Cl^-

Matrix: Polystyrene - DVB; Active group: Quaternary ammonium compound type I.

Art. No.	Pack Qty.	Pack.	€
6852.4	25 g	plastic	28,95
6852.1	100 g	plastic	102,05
6852.2	250 g	plastic	220,40
6852.3	500 g	plastic	418,20
Original pack 6 x 500 g			397,29/500 g

Ion exchange resin ROTI®Change 1 x 8

50–100 mesh, analytical grade, Cl^--form

Highly basic anion exchanger

D 1,04 to 1,12 g/cm³

WGK 1

Type analysis

Appearance ..... white to yellow grain
Particle size (mesh) 50-100
Extractables ..... <1 mg/g resin
Capacity (eq/l) ..... ≥1,2
Counter ion ..... Cl^-

Matrix: Polystyrene - DVB; Active group: Quaternary ammonium compound type I.

Art. No.	Pack Qty.	Pack.	€
6854.4	25 g	plastic	28,95
6854.1	100 g	plastic	102,05
6854.2	250 g	plastic	220,40
6854.3	500 g	plastic	418,20
Original pack 6 x 500 g			397,29/500 g

Ion exchange resin ROTI®Change 1 x 8

100–200 mesh, analytical grade, Cl^--form

Highly basic anion exchanger

D 1,04 to 1,12 g/cm³

WGK 1

Type analysis

Appearance ..... white to yellow grain
Particle size (mesh) 100-200
Extractables ..... <1 mg/g resin
Capacity (eq/l) ..... ≥1,2
Counter ion ..... Cl^-

Matrix: Polystyrene - DVB; Active group: Quaternary ammonium compound type I.

Art. No.	Pack Qty.	Pack.	€
6855.4	25 g	plastic	28,95
6855.1	100 g	plastic	102,05
6855.2	250 g	plastic	220,40
6855.3	500 g	plastic	418,20
Original pack 6 x 500 g			397,29/500 g

Ion exchange resin ROTI®Change 1 x 8

200–400 mesh, analytical grade, Cl^--form

Highly basic anion exchanger

D 1,04 to 1,12 g/cm³

WGK 1

Type analysis

Appearance ..... white to yellow grain
Particle size (mesh) 200-400
Extractables ..... <1 mg/g resin
Capacity (eq/l) ..... ≥1,2
Counter ion ..... Cl^-

Matrix: Polystyrene - DVB; Active group: Quaternary ammonium compound type I.

Art. No.	Pack Qty.	Pack.	€
6856.4	25 g	plastic	28,95
6856.1	100 g	plastic	102,05
6856.2	250 g	plastic	220,40
6856.3	500 g	plastic	418,20
Original pack 6 x 500 g			397,29/500 g

Ion exchange resin ROTI®Change 50 W x 2

50–100 mesh, analytical grade, H^+-form

Highly acidic cation exchanger

D 1,15 to 1,3 g/cm³

WGK 1

Warning H319

Type analysis

Appearance ..... tan to orange-brown corn
Particle size (mesh) ..... 50 - 100
Extractables ..... ≤1 mg/g resin
Capacity (eq/l) ..... ≥0,6
Counter ion ..... H^+

Matrix: Polystyrene - DVB; Active group: sulphonate.

Art. No.	Pack Qty.	Pack.	€
1A5E.1	25 g	plastic	28,95
1A5E.2	100 g	plastic	102,05
1A5E.3	250 g	plastic	220,40
1A5E.4	500 g	plastic	418,20
Original pack 6 x 500 g			397,29/500 g

Ion exchange resin ROTI®Change 50 W x 2

100–200 mesh, analytical grade, H^+-form

Highly acidic cation exchanger

D 1,15 to 1,3 g/cm³

WGK 1

Warning H319

Type analysis

Appearance ..... tan to orange-brown corn
Particle size (mesh) 100-200
Extractables ..... ≤1 mg/g resin
Capacity (eq/l) ..... ≥0,6
Counter ion ..... H^+

Matrix: Polystyrene - DVB; Active group: sulphonate.

Art. No.	Pack Qty.	Pack.	€
1A5H.1	25 g	plastic	28,95
1A5H.2	100 g	plastic	102,05
1A5H.3	250 g	plastic	220,40
1A5H.4	500 g	plastic	418,20
Original pack 6 x 500 g			397,29/500 g

Ion exchange resin ROTI®Change 50 W x 2

200–400 mesh, analytical grade, H^+-form

Highly acidic cation exchanger

D 1,15 to 1,3 g/cm³

WGK 1

Warning H319

Type analysis

Appearance ..... tan to orange-brown corn
Particle size (mesh) 200-400
Extractables ..... ≤1 mg/g resin
Capacity (eq/l) ..... ≥0,6
Counter ion ..... H^+

Matrix: Polystyrene - DVB; Active group: sulphonate.

Art. No.	Pack Qty.	Pack.	€
1A5Y.1	25 g	plastic	28,95
1A5Y.2	100 g	plastic	102,05
1A5Y.3	250 g	plastic	220,40
1A5Y.4	500 g	plastic	418,20
Original pack 6 x 500 g			397,29/500 g

Ion exchange resin ROTI®Change 50 W x 4

50–100 mesh, analytical grade, H^+-form

Highly acidic cation exchanger

D 1,15 to 1,3 g/cm³

WGK 1

Warning H319

Type analysis

Appearance ..... tan to orange-brown corn
Particle size (mesh) 50-100
Extractables ..... ≤1 mg/g resin
Capacity (eq/l) ..... ≥1,1
Counter ion ..... H^+

Matrix: Polystyrene - DVB; Active group: sulphonate.

Art. No.	Pack Qty.	Pack.	€
1A60.1	25 g	plastic	28,95
1A60.2	100 g	plastic	102,05
1A60.3	250 g	plastic	220,40
1A60.4	500 g	plastic	418,20
Original pack 6 x 500 g			397,29/500 g

Ion exchange resin ROTI®Change 50 W x 4

100–200 mesh, analytical grade, H^+-form

Highly acidic cation exchanger

D 1,15 to 1,3 g/cm³

WGK 1

Warning H319

Type analysis

Appearance ..... tan to orange-brown grain
Particle size (mesh) 100-200
Extractables ..... <1 mg/g resin
Capacity (eq/l) ..... ≥1,1
Counter ion ..... H^+

Matrix: Polystyrene - DVB; Active group: sulphonate.

Art. No.	Pack Qty.	Pack.	€
6864.4	25 g	plastic	28,95
6864.1	100 g	plastic	102,05
6864.2	250 g	plastic	220,40
6864.3	500 g	plastic	418,20
Original pack 6 x 500 g			397,29/500 g

Ion exchange resin ROTI®Change 50 W x 4

200–400 mesh, analytical grade, H^+-form

Highly acidic cation exchanger

D 1,15 to 1,3 g/cm³

WGK 1

Warning H319

Type analysis

Appearance ..... tan to orange-brown corn
Particle size (mesh) 200-400
Extractables ..... ≤1 mg/g resin
Capacity (eq/l) ..... ≥1,1
Counter ion ..... H^+

Matrix: Polystyrene - DVB; Active group: sulphonate.

Art. No.	Pack Qty.	Pack.	€
1A61.1	25 g	plastic	28,95
1A61.2	100 g	plastic	102,05
1A61.3	250 g	plastic	220,40
1A61.4	500 g	plastic	418,20
Original pack 6 x 500 g			397,29/500 g

Ion exchange resin ROTI®Change 50 W x 8

50–100 mesh, analytical grade, H^+-form

Highly acidic cation exchanger

D 1,15 to 1,3 g/cm³

WGK 1

Warning H319

Type analysis

Appearance ..... tan to orange-brown grain
Particle size (mesh) 50-100
Extractables ..... <1 mg/g resin
Capacity (eq/l) ..... ≥ 1,7
Counter ion ..... H^+

Matrix: Polystyrene - DVB; Active group: sulphonate.

Art. No.	Pack Qty.	Pack.	€
6865.4	25 g	plastic	28,95
6865.1	100 g	plastic	102,05
6865.2	250 g	plastic	220,40
6865.3	500 g	plastic	418,20
Original pack 6 x 500 g			397,29/500 g

Ion exchange resin ROTI®Change 50 W x 8

100–200 mesh, analytical grade, H^+-form

Highly acidic cation exchanger

D 1,15 to 1,3 g/cm³

WGK 1

Warning H319

Type analysis

Appearance ..... tan to orange-brown grain
Particle size (mesh) 100-200
Extractables ..... <1 mg/g resin
Capacity (eq/l) ..... ≥1,7
Counter ion ..... H^+

Matrix: Polystyrene - DVB; Active group: sulphonate.

Art. No.	Pack Qty.	Pack.	€
6866.4	25 g	plastic	28,95
6866.1	100 g	plastic	102,05
6866.2	250 g	plastic	220,40
6866.3	500 g	plastic	418,20
Original pack 6 x 500 g			397,29/500 g

Ion exchange resin ROTI®Change 50 W x 8

200–400 mesh, analytical grade, H^+-form

Highly acidic cation exchanger

D 1,15 to 1,3 g/cm³

WGK 1

Warning H319

Type analysis

Appearance ..... tan to orange-brown corn
Particle size (mesh) 200-400
Extractables ..... <1 mg/g resin
Capacity (eq/l) ..... ≥1,7
Counter ion ..... H^+

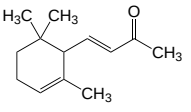
Matrix: Polystyrene - DVB; Active group: sulphonate.

Art. No.	Pack Qty.	Pack.	€
6867.4	25 g	plastic	28,95
6867.1	100 g	plastic	102,05
6867.2	250 g	plastic	220,40
6867.3	500 g	plastic	418,20
Original pack 6 x 500 g			397,29/500 g

Ionic Liquids

Art. No.	Description	Page
2010	1-Butyl-3-methyl-imidazolium-chloride (BMIM Cl)	799
2012	1-Butyl-3-methyl-imidazolium-hexafluorophosphate (BMIM PF_6)	799
2014	1-Butyl-3-methyl-imidazolium-tetrafluoroborate (BMIM BF_4)	800
2015	1-Butyl-3-methyl-imidazolium-trifluoromethanesulphonate (BMIM OTf)	800
2021	1-Butyl-1-methyl-pyrrolidinium-bis-(trifluoromethylsulphonyl)-imide (BMPyrr BTA)	800
2022	1-Butyl-1-methyl-pyrrolidinium-dicyanamide (BMPyrr DCA)	800
2025	Butyl-trimethyl-ammonium-bis-(trifluoromethylsulphonyl)-imide (N1114 BTA)	801
2028	Choline-dihydrogenphosphate (Choline DHP)	835
2035	Ethylammonium-nitrate (EAN)	920
2037	1-Ethyl-3-methyl-imidazolium-bromide (EMIM Br)	925
2053	1-Ethyl-3-methyl-imidazolium-dicyanamide (EMIM DCA)	925
2054	1-Ethyl-3-methyl-imidazolium-ethylsulphate (EMIM $EtOSO_3$)	925
2056	1-Ethyl-3-methyl-imidazolium-methanesulphonate (EMIM OMs)	926
2059	1-Ethyl-3-methyl-imidazolium-thiocyanate (EMIM SCN)	926
2062	1-Ethyl-3-methyl-imidazolium-trifluoromethansulphonate (EMIM OTf)	926
2064	1-Hexyl-3-methyl-imidazolium chloride (HMIM Cl)	985
2069	1-Hexyl-3-methyl-imidazolium-hexafluorophosphate (HMIM PF_6)	985
2070	1-Hexyl-3-methyl-imidazolium-tetrafluoroborate (HMIM BF_4)	985
2076	1-Methyl-3-octyl-imidazolium-hexafluorophosphate (OMIM PF_6)	1086
2081	1-Methyl-3-octyl-imidazolium-tetrafluoroborate (OMIM BF_4)	1086
2091	1-Methyl-3-propyl-imidazolium-iodide (PMIM I)	1088
2095	1-Methyl-1-propyl-piperidinium-bis-(trifluoromethylsulphonyl)-imide (PMPip BTA)	1088
2096	Triethylsulfonium-bis-(trifluoromethylsulphonyl)-imide (S222 BTA)	1379

α-Ionone



$C_{13}H_{20}O$ · D 0,922 g/cm³ · mp <-15,6 °C · bp 207,7 °C · flp 87,3 °C
CAS No. 127-41-3 · EC no. 204-841-6
WGK 2

α-Ionone

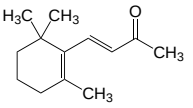
pure

Type analysis

Appearance ..... clear, yellowish oil
Density (20 °C) ..... 0,900-0,950 g/cm³
Refractive index (20 °C) 1,4900-1,5100
Optical rotation (20 °C) ..... -2° to +2°

Art. No.	Pack Qty.	Pack.	€
3950.1	25 ml	glass	40,35

β-Ionone



$C_{13}H_{20}O$ · D 0,945 g/cm³ · mp -35 °C · bp 267,1 °C · flp 126 °C
CAS No. 79-77-6 · EC no. 201-224-3
UN no. 3082 · ADR 9 III · WGK 2

H411

β-Ionone

pure

Storage temperature: +4 °C

Type analysis

Appearance ..... clear, yellowish liquid
Relative density (20 °C) 0,935-0,955
Refractive index (20 °C) 1,500-1,5300
Optical rotation (20 °C) ..... -1° to +1°

Art. No.	Pack Qty.	Pack.	€
3951.1	25 ml	glass	21,40

Ion Pair Reagents

Art. No.	Description	Page
KK50	Butane-1-sulphonic acid sodium salt	796
KK51	Decane-1-sulphonic acid sodium salt	865
KK52	Dodecane-1-sulphonic acid sodium salt	899
KK53	Heptane-1-sulphonic acid sodium salt	980
KK54	Hexane-1-sulphonic acid sodium salt	984
KK55	Octane-1-sulphonic acid sodium salt	1118
KK56	Pentane-1-sulphonic acid sodium salt	1142
KK57	Propane-1-sulphonic acid sodium salt	1184

IPA

▸ 2-Propanol see page 1185

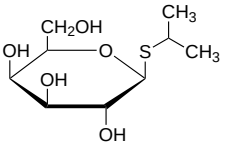
IPE

▸ Diisopropyl ether see page 884

IPM

▸ Myristic acid isopropyl ester see page 1097

IPTG



Isopropyl-ß-D-thiogalacto-pyranoside

$C_9H_{18}O_5S$ · mp 110 to 114 °C · flp >110 °C
CAS No. 367-93-1 · EC no. 206-703-0
WGK 1

IPTG
≥99 %, BioScience Grade, dioxane-free, animal-free

For molecular biology.

Stock solution: 0,5 M (1 g / 8,4 ml) in water (sterilise through 0,2 µm filter)

Storage temperature: –20 °C
Transport temperature: ambient temp.

Guarantee analysis
Appearance ..... almost white cryst. powder
Assay (HPLC) ..... ≥99 %
Water (KF) ..... ≤1,0 %
pH value (5 % in H_2O) 5,0-7,0
Solution (5 % in H_2O) ..... almost clear, colourless
Specific rotation $[\alpha]_D^{20}$ (c=1 in H_2O) ..... -34,5° to -28,5°
Dioxane content ..... not detected
Animal-free ..... complies

Art. No.	Pack Qty.	Pack.	€
2316.1	250 mg	glass	23,55
2316.2	1 g	glass	56,45
2316.3	5 g	glass	160,20
2316.4	25 g	plastic	536,45
2316.5	100 g	plastic	1.392,15

IPTG
≥99 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Guarantee analysis
Assay (HPLC) ..... ≥99 %
pH value (5 % in H_2O) 5,0-7,0
Water (KF) ..... ≤1 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in H_2O) ..... -34,5° to -28,5°
Dioxane content ..... not detected

Art. No.	Pack Qty.	Pack.	€
CN08.1	1 g	glass	33,90
CN08.2	5 g	glass	92,35
CN08.3	50 g	glass	643,95
CN08.4	100 g	glass	1.138,45

Iridium Standards

- Iridium ICP Standard Solution see page 1317
- Iridium ICP Standard Solution see page 1317

Iron

CAS No. 7439-89-6 · EC no. 231-096-4

Iron foil
99,99 % (4N)

Foil 25 mm long, 25 mm wide, 0,25 mm thick.

Fe · D 7,87 g/cm³ · mp 1538 °C · bp 2861 °C

Type analysis
Purity ..... 99,99 %

Art. No.	Pack Qty.	Pack.	€
0540.1	1 unit(s)	plastic	134,40
0540.2	5 unit(s)	plastic	568,70

Iron granules
ROTI®METIC 99,99 % (4N)

Fe · D 7,87 g/cm³ · mp 1538 °C · bp 2861 °C

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5631.1	5 g	plastic	49,35
5631.2	25 g	plastic	160,20

Iron powder
≥99,5 %, p.a., ~10 µm

Fe · D 7,87 g/cm³ · mp 1538 °C · bp 2735 °C

UN no. 3089 · ADR 4.1 III

 **Danger** H228-H251

Guarantee analysis
Assay ..... ≥99,5 %
Carbon (C) ..... ≤0,03 %
Oxygen (O_2) ..... ≤0,25 %
Nitrogen (N) ..... ≤0,01 %
Aluminium (Al) ..... ≤0,001 %
Arsenic (As) ..... ≤0,0002 %
Lead (Pb) ..... ≤0,0001 %
Copper (Cu) ..... ≤0,001 %
Manganese (Mn) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,001 %
Chromium (Cr) ..... ≤0,002 %
Cobalt (Co) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,001 %
Particle size ..... ~10 µm

Art. No.	Pack Qty.	Pack.	€
3718.3	100 g	plastic	28,95
3718.1	250 g	plastic	56,90
3718.4	1 kg	plastic	153,20
Original pack 6 x 1 kg			145,54/1 kg
3718.2	2.5 kg	plastic	321,45

Iron powder reduced
≥96 %, extra pure, <149 µm

Fe · D 7,87 g/cm³ · mp 1535 °C · bp 2861 °C

Type analysis
Assay ..... ≥96,0 %
Insoluble matter in acid ..... ≤1,5 %
Arsenic (As) ..... ≤0,001 %
Lead (Pb) ..... ≤0,001 %
Mercury (Hg) ..... ≤0,0005 %
Particle size ..... <149 µm

Art. No.	Pack Qty.	Pack.	€
9454.1	250 g	plastic	22,50
9454.2	1 kg	plastic	56,90
Original pack 6 x 1 kg			54,06/1 kg
9454.3	2.5 kg	plastic	107,40

Iron wool
~97 %

Steel wool

Fe · D 7,87 g/cm³ · mp 1538 °C · bp 2861 °C

Type analysis
Assay ..... ~97 %
Chromium (Cr) ..... ≤0,1 %
Carbon (C) ..... ≤0,5 %
Copper (Cu) ..... ≤0,5 %
Manganese (Mn) ..... ≤1,0 %
Molybdenum (Mo) ..... ≤0,1 %
Nickel (Ni) ..... ≤0,1 %
Phosphorus (P) ..... ≤0,1 %
Sulphur (S) ..... ≤0,1 %
Silicon (Si) ..... ≤0,5 %
Nitrogen (N) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
9588.1	100 g	plastic	14,95
9588.2	250 g	plastic	25,70

Iron Standards

- Iron AAS Standard Solution see page 1317
- Iron ICP Standard Solution see page 1317
- Iron ICP Standard Solution see page 1317

Iron alum

- Ammonium iron(III) sulphate dodecahydrate see page 738

Iron ammonium alum

- Ammonium iron(III) sulphate dodecahydrate see page 738

Iron(III) ammonium citrate

- Ammonium iron(III) citrate see page 737

Iron ammonium oxalate

- Ammonium iron(III) oxalate trihydrate see page 738

Iron(II) ammonium sulphate

- Ammonium iron(II) sulphate hexahydrate see page 738

Iron(III) ammonium sulphate

- Ammonium iron(III) sulphate dodecahydrate see page 738

Iron(II) chloride hydrate

Iron dichloride · Ferrous chloride

$FeCl_2$ · x H_2O · D 1,93 g/cm³ · mp 105 to 110 °C
EC no. 231-843-4
UN no. 3260 · ADR 8 III · WGK 1

 **Danger** H290-H302-H315-H318

Iron(II) chloride hydrate
≥98 %, extra pure

Type analysis
Assay ..... ≥98,0 %
Sulphate (SO_4) ..... ≤0,05 %
Arsenic (As) ..... ≤0,001 %
Lead (Pb) ..... ≤0,005 %
Copper (Cu) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
8651.1	100 g	plastic	22,50
8651.2	500 g	plastic	61,20
Original pack 6 x 500 g			58,14/500 g
8651.3	1 kg	plastic	92,35
Original pack 6 x 1 kg			87,73/1 kg
8651.4	2.5 kg	plastic	175,80

Iron(II) chloride tetrahydrate

Iron dichloride · Ferrous chloride

$FeCl_2$ · 4 H_2O · D 1,93 g/cm³ · mp 105 to 110 °C
CAS No. 13478-10-9 · EC no. 231-843-4
UN no. 3260 · ADR 8 III · WGK 1

 **Danger** H290-H302-H315-H318

Iron(II) chloride tetrahydrate
≥99 %, pure

Type analysis
Assay ..... ≥99,0 %
Iron III (Fe III) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,05 %
As (Arsenic) ..... ≤0,0005 %
Cu (Copper) ..... ≤0,05 %
Zn (Zinc) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
1H93.1	100 g	plastic	28,95
1H93.2	500 g	plastic	91,95
Original pack 6 x 500 g			87,35/500 g
1H93.3	1 kg	plastic	170,95
Original pack 6 x 1 kg			162,40/1 kg
1H93.4	2.5 kg	plastic	370,90

Iron(III) chloride

Iron trichloride · Ferric chloride

$FeCl_3$ · D 3,65 g/cm³ · mp 306 °C
CAS No. 7705-08-0 · EC no. 231-729-4
UN no. 1773 · ADR 8 III · WGK 1

Danger H290-H302-H315-H317-H318

Iron(III) chloride
≥98,5 %, anhydrous, extra pure

Catalyst

Type analysis
Assay ..... ≥98,5 %
Insoluble matter ..... ≤0,2 %
Arsenic (As) ..... ≤0,001 %
Chromium (Cr) ..... ≤0,05 %
Copper (Cu) ..... ≤0,01 %
Manganese (Mn) ..... ≤0,2 %
Nickel (Ni) ..... ≤0,03 %
Lead (Pb) ..... ≤0,001 %
Zinc (Zn) ..... ≤0,04 %

Art. No.	Pack Qty.	Pack.	€
5192.1	250 g	glass	24,65
5192.2	500 g	glass	38,60
Original pack 6 x 500 g			36,67/500 g
5192.3	1 kg	glass	64,40
Original pack 6 x 1 kg			61,18/1 kg

Iron(III) chloride hexahydrate

Iron trichloride · Ferric chloride hexahydrate · Iron trichloride hexyhydrate

$FeCl_3 \cdot 6\ H_2O$ · D 1,8 g/cm³ · mp 37 °C
CAS No. 10025-77-1 · EC no. 600-047-2
UN no. 3260 · ADR 8 III · WGK 1

Danger H290-H302-H315-H318

Iron(III) chloride hexahydrate
≥99 %, p.a.

Guarantee analysis
Assay ..... ≥99,0 %
Insoluble matter ..... ≤0,01 %
Nitrate (NO_3) ..... ≤0,01 %
Phosphate (PO_4) ..... ≤0,01 %
Iron (Fe) ..... ≤0,005 %
Arsenic (As) ..... ≤0,002 %
Copper (Cu) ..... ≤0,01 %
Manganese (Mn) ..... ≤0,05 %
Zinc (Zn) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
P742.1	250 g	plastic	37,55
P742.2	1 kg	plastic	115,60
Original pack 6 x 1 kg			109,82/1 kg
P742.5	25 kg	plastic	1.106,20

Iron(III) chloride hexahydrate
≥98 %, extra pure

Type analysis
Assay ..... ≥98,0 %
Free acid ..... ≤0,1 %
Phosphate (PO_4) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,1 %
Iron (Fe) ..... ≤0,005 %
Copper (Cu) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
7119.1	1 kg	plastic	53,25
Original pack 6 x 1 kg			50,59/1 kg
7119.2	2.5 kg	plastic	106,45
7119.5	25 kg	plastic	865,40

Iron(III) chloride solution acc. to Weigert
- Hematoxylin solution B acc. to Weigert see page 977

Iron(III) chloride spray solution

Iron(III) chloride spray solution
for TLC

Ready-to-use spray solution for detection of acetylsalicylic acid and paracetamol.
2 g Iron(III) chloride dissolved in 100 ml water.

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C

UN no. 2582 · ADR 8 III · WGK 1

Warning H290-H317-H319

Type analysis
TLC-application ..... complies

Art. No.	Pack Qty.	Pack.	€
CP34.1	100 ml	glass	42,90

Iron(III) chloride solution 40 %

D 1,39 to 1,45 g/cm³ · mp -12 °C
CAS No. 7705-08-0
UN no. 2582 · ADR 8 III · WGK 1

Danger H290-H302-H315-H317-H318

Iron(III) chloride solution
40 %

Type analysis
Assay (as $FeCl_3$) ..... 39,0-41,0 %
Density (D) 1,39-1,45

Art. No.	Pack Qty.	Pack.	€
7750.1	1 l	plastic	24,65
Original pack 6 x 1 l			23,42/1 l
7750.2	5 l	plastic	91,30
Original pack 2 x 5 l			86,74/5 l
7750.3	10 l	plastic	160,20
7750.4	25 l	plastic	317,15

Iron(III) citrate hydrate

Ferric citrate

$C_6H_5O_7Fe \cdot x\ H_2O$ · mp 169 to 239 °C
CAS No. 3522-50-7 · EC no. 222-536-6
WGK 1

Iron(III) citrate hydrate
pure

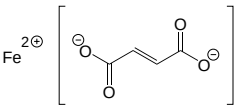
Type analysis
Assay Fe(III) ..... 16,5-18,5 %

Art. No.	Pack Qty.	Pack.	€
9435.1	100 g	plastic	22,50
9435.2	500 g	plastic	69,35
Original pack 6 x 500 g			65,88/500 g
9435.3	1 kg	plastic	123,65
Original pack 6 x 1 kg			117,47/1 kg

Iron dichloride
- Iron(II) chloride tetrahydrate see page 1016
- Iron(II) chloride hydrate see page 1016

Iron(III) EDTA sodium salt trihydrate
- Ethylenediamine tetraacetic acid iron(III) sodium salt trihydrate see page 922

Iron(II) fumarate



Fumaric acid iron(II) salt

$FeC_4H_2O_4$ · mp >280 °C · flp 197 °C
CAS No. 141-01-5 · EC no. 205-447-7
WGK 1

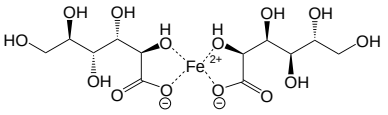
H412

Iron(II) fumarate
≥97 %, for biochemistry

Type analysis
Assay ..... ≥97,0 %
Assay Fe(III) ..... ≤2,0 %
Sulphate (SO_4) ..... ≤0,5 %
As (Arsenic) ..... ≤0,0005 %
Pb (Lead) ..... ≤0,001 %
Ni (Nickel) ..... ≤0,05 %
Mercury (Hg) ..... ≤0,0005 %
Loss on drying (105 °C) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
2736.1	100 g	plastic	19,25
2736.2	500 g	plastic	47,85
Original pack 6 x 500 g			45,46/500 g
2736.3	1 kg	plastic	78,40
Original pack 6 x 1 kg			74,48/1 kg
2736.4	2.5 kg	plastic	155,90

Iron (II)gluconate dihydrate



D-Gluconicacid iron(II) salt dihydrate

$C_{12}H_{22}FeO_{14} \cdot 2\ H_2O$ · mp 188 °C
CAS No. 22830-45-1
WGK 1

Iron (II)gluconate dihydrate
≥97 %, p.a.

Type analysis
Assay (dry substance) ..... ≥97 %
Loss on drying (105 °C) ..... 6,5-10 %
Arsenic (As) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,1 %
Cobalt (Co) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,005 %
Mercury (Hg) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,1 %
Vanadium (V) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
0800.1	250 g	plastic	35,40
0800.2	1 kg	plastic	112,35
Original pack 6 x 1 kg			106,73/1 kg

Iron(III) nitrate nonahydrate

$Fe(NO_3)_3 \cdot 9\ H_2O$ · D 1,68 g/cm³ · mp 47 °C
CAS No. 7782-61-8 · EC no. 233-899-5
UN no. 3260 · ADR 8 II · WGK 1

Danger H314

Iron(III) nitrate nonahydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5632.1	5 g	plastic	109,15
5632.2	25 g	plastic	407,45

Iron(III) nitrate nonahydrate
≥96 %, pure

Type analysis
Assay ..... ≥96 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
CN84.1	500 g	plastic	25,70
Original pack 6 x 500 g			24,42/500 g
CN84.2	1 kg	plastic	49,35
Original pack 6 x 1 kg			46,88/1 kg
CN84.4	2.5 kg	plastic	99,45
CN84.3	5 kg	plastic	174,70

Iron(II) oxalate dihydrate

$FeC_2O_4 \cdot 2\ H_2O$ · D 2,28 g/cm³ · mp 180 to 190 °C
CAS No. 6047-25-2 · EC no. 208-217-4
WGK 1

Warning H302+H312

Iron(II) oxalate dihydrate
≥98 %, extra pure

Type analysis
Assay ..... ≥98,0 %
Assay Fe(II) ..... ≥30,5 %
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,1 %
Arsenic (As) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,01 %
Ash content (800 °C) ..... 44,0-45,0 %

Art. No.	Pack Qty.	Pack.	€
9464.1	100 g	plastic	20,35
9464.2	500 g	plastic	46,15
Original pack 6 x 500 g			43,84/500 g
9464.3	1 kg	plastic	71,95
Original pack 6 x 1 kg			68,35/1 kg

Iron(III) oxide

Ferric oxide

Fe_2O_3 · D 5,25 g/cm³ · mp 1565 °C
CAS No. 1309-37-1 · EC no. 215-168-2

Iron(III) oxide
ROTI®METIC 99,98 % (3N8)

Type analysis
Assay (metals basis) ..... 99,98 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5634.1	5 g	plastic	48,95
5634.2	25 g	plastic	154,30

Iron(III) oxide
≥95 %, red

Type analysis
Assay (iodom.) ..... ≥95 %
Substances soluble in H_2O ..... ≤1,0 %
Loss on ignition ..... ≤0,5 %
Phosphate (PO_4) ..... ≤0,3 %
Sulphate (SO_4) ..... ≤0,5 %
Manganese (Mn) ..... ≤0,25 %

Art. No.	Pack Qty.	Pack.	€
4463.2	100 g	plastic	26,35
4463.1	250 g	plastic	39,25
4463.8	10 kg	plastic	800,90

Iron(III) oxide-hydroxide

Ferric acid

FeO(OH)
CAS No. 20344-49-4 · EC no. 243-746-4

Iron(III) oxide-hydroxide
≥85 %, technical

Type analysis
Appearance ..... yellow granules
Assay (Fe_2O_3) ..... ≥85,0 %
Volatile parts ..... ≤1,0 %
Substances soluble in H_2O ..... ≤5,0 %
pH value 5-10
Particle size ..... ≤0,2 mm

Art. No.	Pack Qty.	Pack.	€
1H96.1	100 g	plastic	30,00
1H96.2	250 g	plastic	49,35
1H96.3	500 g	plastic	85,90
Original pack 6 x 500 g			81,61/500 g
1H96.4	1 kg	plastic	150,00
Original pack 6 x 1 kg			142,50/1 kg

Iron(III) phosphate hydrate

Ferric orthophosphate

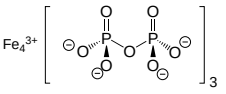
$FePO_4 \cdot x\ H_2O$ · mp 450 °C
CAS No. 10045-86-0 · EC no. 233-149-7
WGK 1

Iron(III) phosphate hydrate
extra pure

Type analysis
Assay (Fe) ..... 26,0-32,0 %
Arsenic (As) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,0005 %
Mercury (Hg) ..... ≤0,0005 %
Loss on ignition (1 h, 800 °C) ..... ≤32,5 %

Art. No.	Pack Qty.	Pack.	€
9358.1	100 g	plastic	20,35
9358.2	500 g	plastic	61,20
Original pack 6 x 500 g			58,14/500 g
9358.3	1 kg	plastic	101,60
Original pack 6 x 1 kg			96,52/1 kg

Iron(III) pyrophosphate hydrate



$Fe_4(P_2O_7)_3 \cdot x\ H_2O$
CAS No. 10058-44-3 · EC no. 233-190-0
WGK 1

Iron(III) pyrophosphate hydrate
~21 % Fe, pure

Type analysis
Assay (Fe) ..... 20,0-22,0 %
Chloride (Cl) ..... ≤0,5 %
Sulphate (SO_4) ..... ≤0,2 %
As (Arsenic) ..... ≤0,0005 %
Pb (Lead) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
1AEX.1	500 g	plastic	37,55
Original pack 6 x 500 g			35,67/500 g
1AEX.2	1 kg	plastic	64,40
Original pack 6 x 1 kg			61,18/1 kg
1AEX.3	2.5 kg	plastic	127,95

Iron(II) sulphate heptahydrate

Ferrous sulphate heptahydrate

$FeSO_4 \cdot 7\ H_2O$ · D 1,89 g/cm³ · mp >60 °C
CAS No. 7782-63-0 · EC no. 231-753-5
WGK 1

Warning H302-H315-H319

Iron(II) sulphate heptahydrate
≥99 %, p.a., ACS

For the detection of nitrites and nitrates.

Guarantee analysis
Assay (perm.) ..... ≥99,0 %
pH value (5 % in water) 3,0-4,0

In H_2O insoluble matter ..... ≤0,005 %
Total nitrogen (as N) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,00004 %
Cadmium (Cd) ..... ≤0,005 %
Calcium (Ca) ..... ≤0,005 %
Copper (Cu) ..... ≤0,001 %
Potassium (K) ..... ≤0,002 %
Manganese (Mn) ..... ≤0,03 %
Lead (Pb) ..... ≤0,0005 %
Chromium (Cr) ..... ≤0,008 %
Iron III (Fe III) ..... ≤0,1 %
Magnesium (Mg) ..... ≤0,002 %
Sodium (Na) ..... ≤0,002 %
Zinc (Zn) ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
P015.1	500 g	plastic	31,75
Original pack 6 x 500 g			30,16/500 g
P015.2	1 kg	plastic	49,35
Original pack 6 x 1 kg			46,88/1 kg
P015.3	2.5 kg	plastic	102,70
P015.4	5 kg	plastic	181,70
P015.6	10 kg	plastic	335,95
P015.5	25 kg	plastic	714,90

Iron(II) sulphate heptahydrate
≥99,5 %, Ph. Eur., USP

Guarantee analysis
Assay ..... 99,5-104,5 %
Identity ..... complies
pH value (5 %) 3,0-4,0
Chloride (Cl) ..... ≤0,02 %
Arsenic (As) ..... ≤0,0003 %
Lead (Pb) ..... ≤0,0002 %
Chromium (Cr) ..... ≤0,005 %
Iron III (Fe III) ..... ≤0,3 %
Copper (Cu) ..... ≤ 0,005 %
Manganese (Mn) ..... ≤0,1 %
Nickel (Ni) ..... ≤0,005 %
Mercury (Hg) ..... ≤0,0001 %
Zinc (Zn) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
3722.1	1 kg	plastic	27,85
Original pack 6 x 1 kg			26,46/1 kg
3722.3	2.5 kg	plastic	55,80
3722.2	5 kg	plastic	94,10
3722.4	10 kg	plastic	163,95
3722.5	25 kg	plastic	327,90

Iron(III) sulphate hydrate

Ferric sulphate

$Fe_2(SO_4)_3 \cdot x\ H_2O$ · D 3,097 g/cm³ · mp 480 °C
CAS No. 15244-10-7 · EC no. 233-072-9
WGK 1

Danger H302-H315-H318

Iron(III) sulphate hydrate
≥21 % Fe, p.a.

Type analysis
Assay (Fe) ..... 21,0-23,0 %
Assay (metals basis) ..... 75,1-82,3 %
Chloride (Cl) ..... ≤0,005 %
Cu (Copper) ..... ≤0,005 %
Iron II (Fe II) ..... ≤0,02 %
Zn (Zinc) ..... ≤0,05 %
Water ..... ≤20,0 %

Art. No.	Pack Qty.	Pack.	€
1HEL.1	100 g	plastic	24,20
1HEL.2	500 g	plastic	53,65
Original pack 6 x 500 g			50,97/500 g
1HEL.3	1 kg	plastic	96,65
Original pack 6 x 1 kg			91,82/1 kg
1HEL.4	2.5 kg	plastic	198,90

Iron(III) sulphate hydrate
80 %, pure

Type analysis
Assay (dry substance) ..... 78,0-82,0 %
Arsenic (As) ..... ≤0,001 %
Lead (Pb) ..... ≤0,001 %

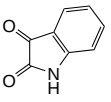
Art. No.	Pack Qty.	Pack.	€
0492.1	250 g	plastic	26,80
0492.2	500 g	plastic	39,70
Original pack 6 x 500 g			37,72/500 g
0492.3	1 kg	plastic	64,40
Original pack 6 x 1 kg			61,18/1 kg
0492.4	2.5 kg	plastic	127,95

Iron trichloride
▸ Iron(III) chloride see page 1017
▸ Iron(III) chloride hexahydrate see page 1017

Iron trichloride hexyhydrate
▸ Iron(III) chloride hexahydrate see page 1017

Isatidine
▸ Retrorsine-*N*-oxide see page 1203

Isatin



2,3-Indolinedione

$C_8H_5NO_2$ · mp 203 °C · bp 352 °C · flp 200 °C
CAS No. 91-56-5 · EC no. 202-077-8
WGK 1

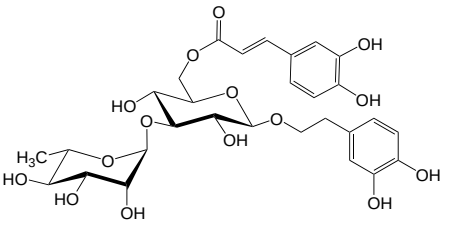
Isatin
≥98 %, for biochemistry

Reagent for the spectrophotometric determination of thiophene and proline.

Type analysis
Appearance ..... orange to reddish
Assay (HPLC) ..... ≥98 %
Solution (1 % in methanol) ..... orange to reddish, clear to almost clear
Water (KF) ..... ≤1,0 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4155.1	25 g	glass	16,05
4155.2	100 g	glass	44,65

Isoacteoside



$C_{29}H_{36}O_{15}$ · mp 190 to 200 °C
CAS No. 61303-13-7
WGK 1

Isoacteoside
ROTICHROM® HPLC

From *Harpagophytum procumbens.*

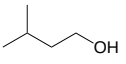
Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
T896.1	20 mg	glass	439,70

Isoamyl acetate
▸ Acetic acid isoamyl ester see page 694

Isoamyl alcohol



3-Methyl-1-butanol · Isopentyl alcohol · *iso*-Amyl alcohol

$C_5H_{12}O$ · D 0,81 g/cm³ · mp -147 °C · bp 130,7 °C · flp 43,5 °C
CAS No. 123-51-3 · EC no. 204-633-5
UN no. 1105 · ADR 3 III · WGK 1

Danger H226-H315-H318-H332-H335-EUH066

Isoamyl alcohol
ROTIPURAN® ≥98,5 %, p.a., ACS

Guarantee analysis
Assay (GC) ..... ≥98,5 %
Colour (Hazen) ..... ≤10
Density (d 20 °C/4 °C) 0,808-0,812
Water ..... ≤0,2 %
Aluminium (Al) ..... ≤0,00005 %
Boron (B) ..... ≤0,000002 %
Barium (Ba) ..... ≤0,00001 %
Calcium (Ca) ..... ≤0,00005 %
Cadmium (Cd) ..... ≤0,000005 %
Cobalt (Co) ..... ≤0,000002 %
Chromium (Cr) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,00001 %
Tin (Sn) ..... ≤0,00001 %
Zinc (Zn) ..... ≤0,00001 %
Evaporation residue ..... ≤0,001 %

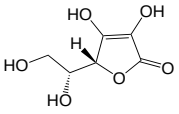
Art. No.	Pack Qty.	Pack.	€
T870.1	500 ml	glass	53,65
T870.2	1 l	glass	99,90
Original pack 6 x 1 l			94,91/1 l
T870.3	2.5 l	glass	209,65
Original pack 4 x 2.5 l			199,17/2.5 l

Isoamyl alcohol
≥98,5 %, for synthesis

Type analysis
Appearance ..... clear, colourless
Assay (GC) ..... ≥98,5 %
Density (d 20 °C/4 °C) 0,808-0,812

Art. No.	Pack Qty.	Pack.	€
8930.1	1 l	glass	56,90
Original pack 6 x 1 l			54,06/1 l
8930.2	2.5 l	glass	107,40
Original pack 4 x 2.5 l			102,03/2.5 l

D-Isoascorbic acid



$C_6H_8O_6$ · mp 169 to 172 °C
CAS No. 89-65-6 · EC no. 201-928-0
WGK 1

D-Isoascorbic acid
≥98 %, cryst.

Type analysis
Assay (titr.) ..... ≥98 %
Specific rotation $[\alpha]_D^{20}$ (c=10 in H_2O) .... -19° to -16°

Art. No.	Pack Qty.	Pack.	€
6265.1	25 g	plastic	26,35

Isobenzofuran-1,3-dione
▸ Phthalic anhydride see page

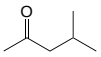
Isobutanoic acid
▸ Isobutyric acid see page 1020

Isobutanol
▸ 2-Methyl-1-propanol see page 1087

Isobutyl acetate
▸ Acetic acid isobutyl ester see page 694

Isobutyl alcohol
▸ 2-Methyl-1-propanol see page 1087

Isobutyl methylketone



4-Methyl-2-pentanone · Isopropylacetone · MIBK · Methyl isobutyl ketone

$C_6H_{12}O$ · D 0,8 g/cm³ · mp -84 °C · bp 114 to 118 °C · flp 14 °C
CAS No. 108-10-1 · EC no. 203-550-1
UN no. 1245 · ADR 3 II · WGK 1

Danger H225-H319-H332-H335-H336-H351-EUH066

Isobutyl methylketone
≥99,5 %, VLSI Grade

Semiconductor grade

Guarantee analysis
Assay ..... ≥99,5 %
Bead number (≥0,5 µm) ..... ≤250 p/ml
Water ..... ≤0,1 %
Evaporation residue ..... ≤0,0005 %
Colour (APHA) ..... ≤10
Chloride (Cl) ..... ≤0,0001 %
Sulphate (SO_4) ..... ≤0,00005 %
Aluminium (Al) ..... ≤50 ppb
Antimony (Sb) ..... ≤10 ppb
Arsenic (As) ..... ≤10 ppb
Barium (Ba) ..... ≤20 ppb
Beryllium (Be) ..... ≤10 ppb
Bismuth (Bi) ..... ≤10 ppb
Lead (Pb) ..... ≤10 ppb
Boron (B) ..... ≤20 ppb
Cadmium (Cd) ..... ≤10 ppb
Calcium (Ca) ..... ≤50 ppb
Chromium (Cr) ..... ≤10 ppb
Iron (Fe) ..... ≤50 ppb
Gallium (Ga) ..... ≤10 ppb
Gold (Au) ..... ≤10 ppb
Potassium (K) ..... ≤20 ppb
Cobalt (Co) ..... ≤10 ppb
Copper (Cu) ..... ≤10 ppb
Lithium (Li) ..... ≤10 ppb
Magnesium (Mg) ..... ≤20 ppb
Manganese (Mn) ..... ≤10 ppb
Molybdenum (Mo) ..... ≤10 ppb
Sodium (Na) ..... ≤50 ppb
Nickel (Ni) ..... ≤10 ppb
Silver (Ag) ..... ≤10 ppb
Strontium (Sr) ..... ≤10 ppb
Titanium (Ti) ..... ≤10 ppb
Vanadium (V) ..... ≤10 ppb
Zinc (Zn) ..... ≤20 ppb
Tin (Sn) ..... ≤10 ppb
Zirconium (Zr) ..... ≤10 ppb

Art. No.	Pack Qty.	Pack.	€
0061.1	2.5 l	plastic	95,15
Original pack 4 x 2.5 l			90,39/2.5 l

Isobutyl methylketone
ROTIPURAN® ≥99 %, p.a., ACS

Guarantee analysis
Assay (GC) ..... ≥99,0 %
Density (d 20 °C/4 °C) 0,798-0,802
Colour (APHA) ..... ≤15
Water ..... ≤0,1 %
Acidity ..... ≤0,002 meq/g
Non volatile matter ..... ≤0,005 %
Aluminium (Al) ..... ≤0,00005 %
Barium (Ba) ..... ≤0,00001 %
Calcium (Ca) ..... ≤0,00005 %
Cadmium (Cd) ..... ≤0,000005 %
Cobalt (Co) ..... ≤0,000002 %
Chromium (Cr) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,00001 %
Zinc (Zn) ..... ≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
0338.1	1 l	glass	96,65
Original pack 6 x 1 l			91,82/1 l
0338.2	2.5 l	glass	192,45
Original pack 4 x 2.5 l			182,83/2.5 l

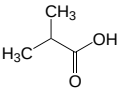
Isobutyl methylketone
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99 %
Density (d 20 °C/4 °C) 0,798-0,804
Water ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4371.1	1 l	glass	48,30
Original pack 6 x 1 l			45,89/1 l
4371.2	2.5 l	glass	96,65
Original pack 4 x 2.5 l			91,82/2.5 l

Isobutyltrimethylmethane
▸ Isooctane see page 1022

Isobutyric acid



Isobutanoic acid · Isobutyric acid · 2-Methylpropanoic acid

$C_4H_8O_2$ · D 0,948 g/cm³ · mp -64 °C · bp 156 °C · flp 62 °C
CAS No. 79-31-2 · EC no. 201-195-7
UN no. 2529 · ADR 3 (8) III · WGK 1

Danger H226-H302+H312-H314

Isobutyric acid
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99 %
Colour (Hazen) ..... ≤15
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
1HA9.1	250 ml	glass	17,75
1HA9.2	1 l	glass	41,85
Original pack 6 x 1 l			39,76/1 l
1HA9.3	2.5 l	glass	78,40
Original pack 4 x 2.5 l			74,48/2.5 l
1HA9.4	10 l	PE/steel	203,20
1HA9.5	25 l	PE/steel	392,40

Isodulcit
▸ L(+)-Rhamnose monohydrate see page 1203

Isohexane

iso-Hexane

C_6H_{14}-Isomer · D 0,65 g/cm³ · mp -154 °C · bp 60 °C · flp -20 °C
CAS No. 92112-69-1 · EC no. 295-570-2
UN no. 1208 · ADR 3 II · WGK 2

Danger H225-H304-H315-H336-H411

Isohexane
ROTISOLV® HPLC

Guarantee analysis
Assay C_6H_{14}-isomers (GC) ..... ≥99,0 %
Isohexane (GC) ..... ≥70 %
n-Hexane (GC) ..... ≤0,5 %
Water (KF) ..... ≤0,005 %
Non volatile matter ..... ≤0,0002 %

Transmission:
245 nm ..... ≥98 %
220 nm ..... ≥80 %
210 nm ..... ≥60 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
T176.2	1 l	glass	72,60
Original pack 6 x 1 l			68,97/1 l
T176.1	2.5 l	glass	145,15
Original pack 4 x 2.5 l			137,89/2.5 l

Isohexane
ROTISOLV® Pestilyse® plus ≥96 %

For determination of dioxins, furans, PCBs, pesticides, hydrocarbons etc.

Guarantee analysis
Assay C_6H_{14}-isomers (GC) ..... ≥96,0 %
Colour (APHA) ..... ≤5
Water (KF) ..... ≤0,005 %
Free acid (as CH_3COOH) ..... ≤0,001 %
Evaporation residue ..... ≤0,0001 %
GC/FID suitability (as 2-octanol) ..... ≤10 ng/ml
GC/ECD suitability (as heptachloro epoxide) ..... ≤10 ng/l
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD pesticides (as lindane) ..... ≤2 ng/l
GC/NPD pesticides (as parathion) ..... ≤5 ng/l
GC/ECD volatile impurities (as ethylene dibromide) ..... ≤5 ng/ml
Oil index (any hydrocarbon C_{10}-C_{40}) .... ≤0,05 mg/l
PAH-test (less than 2 ppb, HPLC) ..... complies

Fluorescence (as quinine):
254 nm ..... ≤1 ppb
365 nm ..... ≤1 ppb

Art. No.	Pack Qty.	Pack.	€
7576.1	2.5 l	glass	126,35
Original pack 4 x 2.5 l			120,03/2.5 l

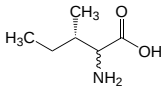
Isohexane
ROTISOLV® Pestilyse® ≥99 %

For residue and environmental analysis

Guarantee analysis
Assay C_6H_{14}-isomers (GC) ..... ≥99,0 %
Water (KF) ..... ≤0,005 %
Free acid (as CH_3COOH) ..... ≤0,002 %
Evaporation residue ..... ≤0,0002 %
GC/ECD (individual signal as lindane) ..... ≤5 ng/l
GC/PND (individual signal as ethylparathion) ..... ≤10 ng/l

Art. No.	Pack Qty.	Pack.	€
T904.1	2.5 l	glass	123,65
Original pack 4 x 2.5 l			117,47/2.5 l

DL-Isoleucine



2-Amino-3-methylvaleric acid

$C_6H_{13}NO_2$ · mp 290 °C
CAS No. 443-79-8 · EC no. 207-139-8
WGK 1

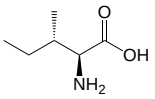
DL-Isoleucine
≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98,5 %
Heavy metals (as Pb) ..... ≤0,001 %
Ash content ..... ≤0,1 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8598.1	10 g	plastic	29,60
8598.2	50 g	plastic	107,40
8598.3	100 g	plastic	188,15

L-Isoleucine



2-Amino-3-methylvaleric acid

$C_6H_{13}NO_2$ · D 1,207 g/cm³ · mp 284 to 286 °C
CAS No. 73-32-5 · EC no. 200-798-2
WGK 1

L-Isoleucine
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤6,0 E.U./g
Assay ..... ≥99 %
Loss on drying ..... ≤0,2 %
Specific rotation $[\alpha]_D^{20}$ ..... +39,5° to +41,5°
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Heavy metals (as Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %

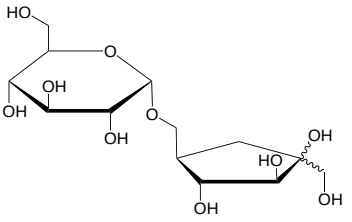
Art. No.	Pack Qty.	Pack.	€
1698.1	25 g	plastic	30,00
1698.2	100 g	plastic	73,00
1698.3	500 g	plastic	292,95
Original pack 6 x 500 g			278,30/500 g

L-Isoleucine
≥98,5 %, USP, for biochemistry

Guarantee analysis
Appearance ..... white cryst. powder
Assay (dry substance) ..... 98,5-101,0 %
Identity ..... complies
Specific rotation $[\alpha]_D^{20}$ ..... +39,5° to +41,5°
pH-value 5,5-6,5
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %
Foreign amino acids ..... complies
Loss on drying ..... ≤0,2 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
3922.1	10 g	glass	18,20
3922.2	100 g	plastic	56,90
3922.4	500 g	plastic	213,95
Original pack 6 x 500 g			203,25/500 g
3922.3	1 kg	plastic	418,20
Original pack 6 x 1 kg			397,29/1 kg

Isomaltulose



Palatinose®

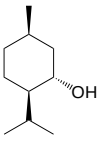
$C_{12}H_{22}O_{11}$ · H_2O · mp 122 to 123 °C
CAS No. 13718-94-0 · EC no. 237-282-1
WGK 1

Isomaltulose
≥99 %, for biochemistry

Type analysis
Assay (HPLC) ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
8400.1	25 g	plastic	36,45
8400.2	100 g	plastic	104,85

(+)-Isomenthol



(1R,3S,4R)-*p*-Menthan-3-ol

$C_{10}H_{20}O$ · mp 79 to 80 °C · bp 215 to 219 °C · flp 93 °C
CAS No. 23283-97-8 · EC no. 245-554-6
WGK 1

(+)-Isomenthol
ROTICHROM® GC

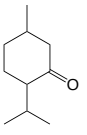
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC, Isomers) ..... ≥90 %

Art. No.	Pack Qty.	Pack.	€
5422.2	100 mg	glass	547,20

Isomenthone



$C_{10}H_{18}O$ · D 0,991 g/cm³ · mp -35 °C · bp 82 °C · flp 72,8 °C
CAS No. 491-07-6 · EC no. 207-727-4
WGK 1

Warning H315-H317

Isomenthone
ROTICHROM® GC

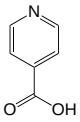
Reference substance for GC.
Natural, isolated from oil of peppermint.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥85 %

Art. No.	Pack Qty.	Pack.	€
6458.1	1 g	plastic	99,90

Isonicotinic acid



Pyridine-4-carboxylic acid · 4-Picolinic acid

$C_6H_5NO_2$ · D 1,5 g/cm³ · mp 315 to 319 °C
CAS No. 55-22-1 · EC no. 200-228-2
WGK 1

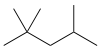
Warning H319

Isonicotinic acid
≥99 %, for synthesis

Type analysis
Assay ..... ≥99 %
Water ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
0759.1	25 g	plastic	17,10
0759.2	100 g	plastic	40,75

Isooctane



2,2,4-Trimethylpentane · Isobutyltrimethylmethane · *iso*-Octane

C_8H_{18} · D 0,69 g/cm³ · mp -107 °C · bp 99,2 °C · flp -12 °C
CAS No. 540-84-1 · EC no. 208-759-1
UN no. 1262 · ADR 3 II · WGK 2

Danger H225-H304-H315-H336-H410

Isooctane
ROTISOLV® HPLC

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,005 %
Free acid ..... ≤0,002 %
Non volatile matter ..... ≤0,0002 %

Transmission:
>250 nm ..... ≥99 %
235 nm ..... ≥95 %
225 nm ..... ≥80 %
215 nm ..... ≥50 %
205 nm ..... ≥10 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
7340.1	2.5 l	glass	145,15
Original pack 4 x 2.5 l			137,89/2.5 l

Isooctane
ROTISOLV® Pestilyse® plus ≥99,7 %

For determination of dioxins, furans, PCBs, pesticides, hydrocarbons etc.

Guarantee analysis
Assay (GC) ..... ≥99,7 %
Colour (APHA) ..... ≤5
Water (KF) ..... ≤0,01 %
Free acid (as CH_3COOH) ..... ≤0,001 %
Evaporation residue ..... ≤0,0001 %
GC/FID suitability (as 2-octanol) ..... ≤10 ng/ml
GC/ECD suitability (as heptachloro epoxide) ..... ≤10 ng/l
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD pesticides (as lindane) ..... ≤5 ng/l
GC/NPD pesticides (as parathion) ..... ≤5 ng/l
Oil index (any hydrocarbon C_{10}-C_{40}) .... ≤0,05 mg/l
GC/ECD volatile impurities (as ethylene dibromide) ..... ≤5 ng/ml
PAH-test (less than 2 ppb, HPLC) ..... complies

Fluorescence (as quinine):
254 nm ..... ≤1 ppb
365 nm ..... ≤1 ppb

Art. No.	Pack Qty.	Pack.	€
7580.1	2.5 l	glass	149,45
Original pack 4 x 2.5 l			141,98/2.5 l

Isooctane
ROTISOLV® Pestilyse® ≥99,5 %

For residue and environmental analysis.

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Water (KF) ..... ≤0,02 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %
GC/ECD (individual signal as lindane) ..... ≤5 ng/l
GC/PND (individual signal as ethylparathion) ..... ≤10 ng/l

Art. No.	Pack Qty.	Pack.	€
T167.1	2.5 l	glass	142,45
Original pack 4 x 2.5 l			135,33/2.5 l

Isooctane
ROTISOLV® ≥99,8 %, UV/IR Grade

For chromatography and spectroscopy.

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,005 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

Fluorescence (as quinine):
254 nm ..... ≤1,0 ppb
365 nm ..... ≤1,0 ppb

Transmission:
255 nm ..... ≥98 %
235 nm ..... ≥90 %
225 nm ..... ≥80 %
215 nm ..... ≥50 %
205 nm ..... ≥10 %

Art. No.	Pack Qty.	Pack.	€
CP80.1	2.5 l	glass	139,25
Original pack 4 x 2.5 l			132,29/2.5 l

Isooctane
ROTIPURAN® ≥99,5 %, p.a., ACS

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Colour (APHA) ..... ≤10
Density (d 20 °C/4 °C) 0,692-0,693
Acidity ..... ≤0,0003 meq/g
Water (KF) ..... ≤0,01 %
Lead (Pb) ..... ≤0,00001 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %
Evaporation residue ..... ≤0,001%
Sulphur compounds (as S) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
6889.1	1 l	glass	75,15
Original pack 6 x 1 l			71,39/1 l
6889.2	2.5 l	glass	160,20
Original pack 4 x 2.5 l			152,19/2.5 l

Isooctane
≥99,5 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,5 %
Density (15 °C) 0,694-0,698
Lead (Pb) ..... ≤0,002 %
n-Heptane ..... ≤0,1 %

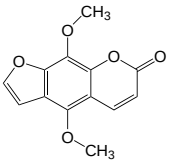
Art. No.	Pack Qty.	Pack.	€
9860.1	1 l	glass	40,75
Original pack 6 x 1 l			38,71/1 l
9860.3	2.5 l	glass	84,40
Original pack 4 x 2.5 l			80,18/2.5 l
9860.4	5 l	aluminium	149,45
Original pack 2 x 5 l			141,98/5 l
9860.2	10 l	tinplate	263,40
9860.5	25 l	tinplate	525,70

Isoorientin
▸ Homoorientin see page 987

Isopentane
▸ 2-Methylbutane see page 1082

Isopentyl alcohol
▸ Isoamyl alcohol see page 1019

Isopimpinellin



Dimethoxypsoralen

$C_{13}H_{10}O_5$ · mp 148 to 153 °C
CAS No. 482-27-9
WGK 1

Warning H317

Isopimpinellin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

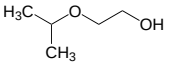
Art. No.	Pack Qty.	Pack.	€
8854.1	10 mg	glass	224,70

Isopropanol
▸ 2-Propanol see page 1185

Isopropanol deuterated
▸ 2-Propanol D1 see page 1187
▸ 2-Propanol D8 see page 1187

Isopropenyl acetate
▸ Acetic acid isopropenyl ester see page 695

2-Isopropoxyethanol



Ethylene glycol monoisopropyl ether · Isopropylglycol

$C_5H_{12}O_2$ · D 0,903 g/cm³ · mp -60 °C · bp 145 °C · flp >43 to <45 °C
CAS No. 109-59-1 · EC no. 203-685-6
UN no. 3271 · ADR 3 III · WGK 1

Warning H226-H312+H332-H315-H319

2-Isopropoxyethanol
≥99 %, pure

Type analysis
Assay ..... ≥99,0 %
Colour (Hazen) ..... ≤10
Water ..... ≤0,15 %
Acid content (as CH_3COOH) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
8706.1	1 l	glass	27,85
Original pack 6 x 1 l			26,46/1 l
8706.2	2.5 l	glass	53,65
Original pack 4 x 2.5 l			50,97/2.5 l

Isopropylacetone
▸ Isobutyl methylketone see page 1020

Isopropyl alcohol
▸ 2-Propanol see page 1185

Isopropyl ether
▸ Diisopropyl ether see page 884

Isopropylglycol
▸ 2-Isopropoxyethanol see page 1023

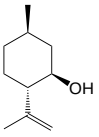
2-Isopropyl-5-methylphenol
▸ Thymol see page 1367

5-Isopropyl-2-methyl-phenol
▸ Carvacrol see page 818

Isopropyl myristate
▸ Myristic acid isopropyl ester see page 1097

Isopropyl-ß-D-thiogalacto-pyranoside
▸ IPTG see page 1015

Isopulegol



p-Menth-8-en-3-ol

$C_{10}H_{18}O$ · D 0,91 g/cm³ · mp -10 °C · bp 211,7 °C · flp 85 °C
CAS No. 89-79-2 · EC no. 201-940-6
WGK 1

Warning H302-H315-H319-H335

Isopulegol
ROTICHROM® GC

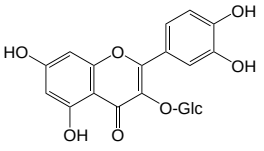
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC, Isomers) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
8030.2	100 mg	glass	107,00

Isoquercitrin



Quercetin-3-glucoside · Trifoliin

$C_{21}H_{20}O_{12}$ · mp 220,7 °C
CAS No. 482-35-9
WGK 1

Isoquercitrin
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤1,0 %
Water (KF) ..... ≤10,0 %
Assay (qNMR) ..... ≥85,0 %

Proof of identity by ^1H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE24.1	10 mg	glass	1.030,95

Isoquercitrin
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥80,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC24.1	25 mg	glass	381,65

Isoquercitrin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Tiliae officinalis.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
7586.1	10 mg	glass	145,15

Isoquercitrin
ROTICHROM® TLC

Reference substance for thin layer chromatography.
From *Tiliae officinalis.*

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
5573.1	50 mg	glass	89,15

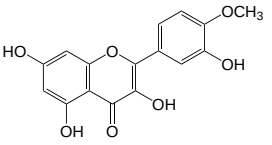
Isoquercitrin
ROTICHROM® ~CHR$_{TLC}$

Storage temperature: +4 °C

Type analysis
Appearance ..... yellow powder
Melting range ..... 215-235 °C

Art. No.	Pack Qty.	Pack.	€
6527.1	250 mg	glass	342,95

Isorhamnetin



$C_{16}H_{12}O_7$ · mp 305 °C
CAS No. 480-19-3 · EC no. 207-545-5
WGK 1

Isorhamnetin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

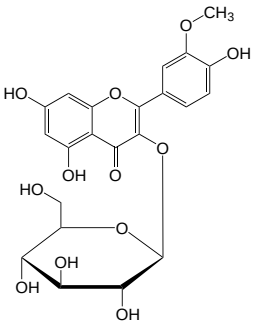
Art. No.	Pack Qty.	Pack.	€
7589.1	10 mg	glass	284,90

Isorhamnetin
ROTICHROM® CHR$_{TLC}$

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
6528.1	100 mg	glass	471,95

Isorhamnetin-3-glucoside



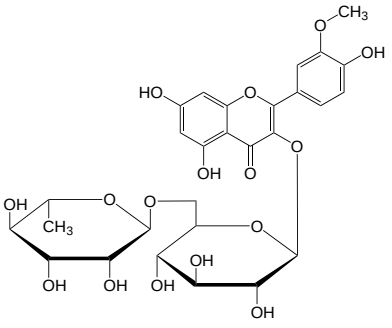
$C_{22}H_{22}O_{12}$ · mp 205 to 207 °C
CAS No. 5041-82-7
WGK 1

Isorhamnetin-3-glucoside
≥98 %

Type analysis
Appearance ..... yellow powder
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
9386.2	10 mg	glass	482,70

Isorhamnetin-3-rutinoside



Narcisin

$C_{28}H_{32}O_{16}$ · mp 173 to 174 °C
CAS No. 604-80-8
WGK 1

Isorhamnetin-3-rutinoside
ROTICHROM® HPLC

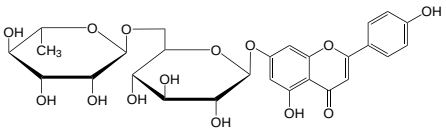
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
9388.2	10 mg	glass	349,40

Isorhoifolin



$C_{27}H_{30}O_{14}$
CAS No. 552-57-8 · EC no. 209-015-9
WGK 1

Isorhoifolin
ROTICHROM® HPLC

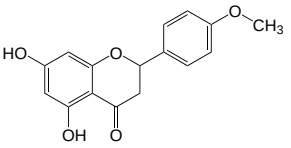
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6989.1	10 mg	glass	461,20

Isosakuranetin



$C_{16}H_{14}O_5$ · mp 193 to 194 °C
CAS No. 480-43-3 · EC no. 207-551-8
WGK 1

Isosakuranetin
ROTICHROM® HPLC

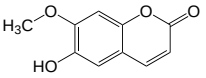
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7498.1	10 mg	glass	213,95

Isoscopoletin



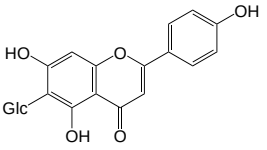
$C_{10}H_8O_4$ · mp 185 to 190 °C
CAS No. 776-86-3 · EC no. 212-282-4
WGK 1

Isoscopoletin
ROTICHROM® CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
5883.2	10 mg	glass	223,10

Isothymol
▸ Carvacrol see page 818

Isovitexin



Saponaretin

$C_{21}H_{20}O_{10}$ · mp 220 to 221 °C
CAS No. 38953-85-4
WGK 1

Isovitexin
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤5,0 %
Assay (qNMR) ..... ≥85,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE25.1	10 mg	glass	1.235,20

Isovitexin
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥80,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC25.1	25 mg	glass	822,40

Isovitexin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Saponaria officinalis.*

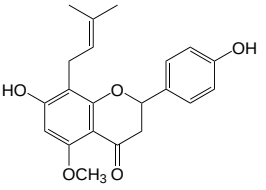
Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
6412.1	5 mg	glass	278,45

Isovitexin-7-*O*-glucoside
▸ Saponarin see page 1252

Isoxanthohumol



$C_{21}H_{22}O_5$ · mp 180 °C
CAS No. 70872-29-6
WGK 1

Isoxanthohumol
ROTICHROM® HPLC

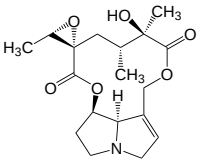
Reference substance for HPLC.
From *Humulus lupulus.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
2824.1	10 mg	glass	284,90

Jacobine



$C_{18}H_{25}NO_6$ · mp 218 to 222 °C
CAS No. 6870-67-3
WGK 1

Warning H302

Jacobine
ROTICHROM® HPLC

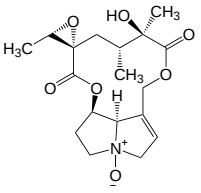
Reference substance for HPLC.
From *Senecio jacobea*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
1963.1	5 mg	glass	396,70

Jacobine *N*-oxide



$C_{18}H_{25}NO_7$
CAS No. 38710-25-7
WGK 1

Warning H302

Jacobine *N*-oxide
ROTICHROM® HPLC

Reference substance for HPLC.
From *Senecio jacobea*.

Storage temperature: +4 °C

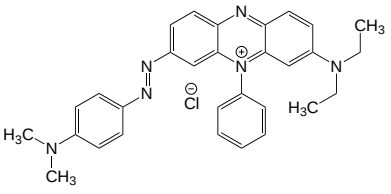
Type analysis
Purity (HPLC) ..... ≥96,0 %

Art. No.	Pack Qty.	Pack.	€
1970.1	5 mg	glass	407,45

Jacodin

▸ Seneciphylline see page 1256

Janus green B (C.I. 11050)



Diazin Green S

$C_{30}H_{31}ClN_6$
CAS No. 2869-83-2 · EC no. 220-695-6
WGK 1

Janus green B (C.I. 11050)
for microscopy

Type analysis
Appearance ..... dark green to black powder

Art. No.	Pack Qty.	Pack.	€
7697.1	5 g	glass	36,05
7697.2	25 g	glass	94,10
7697.3	100 g	glass	342,95

Jenner Stain

CAS No. 62851-42-7
WGK 1

Jenner Stain
for microscopy

Mixture of eosin, methylene blue, Azure A, B and C

Stock solution: 1 g dye in 400 ml methanol. For use dilute 1:1 with destilled water

Type analysis
Appearance ..... dark green to black powder
Appearance of solution (0,1 % in MeOH) . clear to opaque, dark blue

Art. No.	Pack Qty.	Pack.	€
7698.1	5 g	glass	18,85
7698.2	25 g	glass	33,25
7698.3	100 g	glass	80,55

Jodine

▸ Iodine see page 1011

Jojoba oil

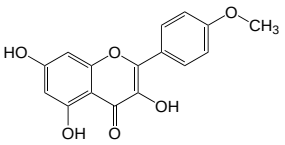
D 0,86 to 0,87 g/cm³ · flp >100 °C
CAS No. 90045-98-0 · EC no. 289-964-3
WGK awg

Jojoba oil
all-natural

Type analysis
Appearance ..... clear, yellow to brown oil
Density (20 °C) ..... 0,860-0,870 g/cm³
Refractive index (20 °C) 1,450-1,470
Optical rotation (20 °C) ..... -2° to +2°

Art. No.	Pack Qty.	Pack.	€
7526.1	100 ml	glass	27,85
7526.2	1 l	glass	166,65
Original pack 6 x 1 l			158,32/1 l

Kaempferide



4'-Methoxy-3,5,7-trihydroxyflavone

$C_{16}H_{12}O_6$ · mp 227 to 229 °C
CAS No. 491-54-3 · EC no. 207-738-4
WGK 1

Kaempferide
ROTICHROM® HPLC

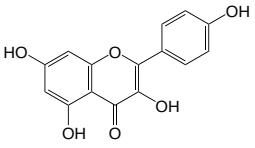
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7501.1	10 mg	glass	220,40

Kaempferol



3,4',5,7-Tetrahydroxyflavone · Robigenin · Trifolitin

$C_{15}H_{10}O_6$ · mp 270 °C
CAS No. 520-18-3 · EC no. 208-287-6
WGK 1

Warning H315-H319-H335-H341

Kaempferol
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤5,0 %
Assay (qNMR) ..... ≥80,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE26.1	25 mg	glass	1.020,20

Kaempferol
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥80,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC26.1	25 mg	glass	532,15

Kaempferol
ROTICHROM® HPLC

Reference substance for HPLC.
From *Aesculus hippocastanum.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
7503.1	10 mg	glass	134,40
7503.2	50 mg	glass	568,70
7503.3	100 mg	glass	994,40

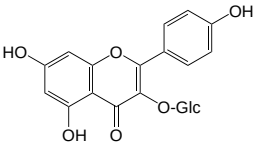
Kaempferol
ROTICHROM® ~CHR$_{TLC}$

Storage temperature: +4 °C

Type analysis
Appearance ..... fine yellow powder

Art. No.	Pack Qty.	Pack.	€
5859.1	500 mg	glass	295,65

Kaempferol-3-glucoside



Astragalin

$C_{21}H_{20}O_{11}$ · mp >300 °C
CAS No. 480-10-4
WGK 1

Kaempferol-3-glucoside
ROTICHROM® HPLC

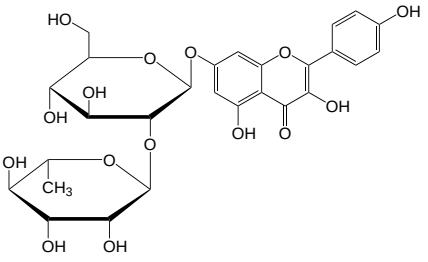
Reference substance for HPLC.
From *Aesculus hippocastanum.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
9321.1	5 mg	glass	274,15

Kaempferol-7-neohesperidoside



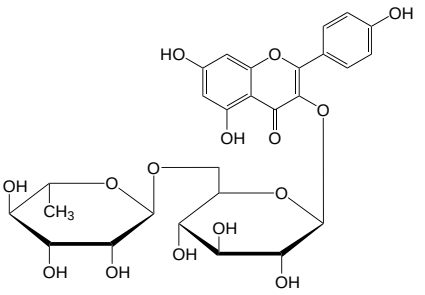
Kaempferol-7-*O*-α-L-rhamnosido-D-glucoside

$C_{27}H_{30}O_{15}$ · x H_2O · mp 255 to 257 °C
CAS No. 17353-03-6
WGK 1

Kaempferol-7-neohesperidoside
ROTICHROM® ~CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
9467.1	10 mg	glass	212,35

Kaempferol-3-rhamnosido-glucoside



$C_{27}H_{30}O_{15}$ · mp 190 to 192 °C
CAS No. 17650-84-9
WGK 1

Warning H302

Kaempferol-3-rhamnosido-glucoside
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
4526.1	10 mg	glass	532,15

Kaempferol-7-*O*-α-L-rhamnosido-D-glucoside

▸ Kaempferol-7-neohesperidoside see page 1026

Kaiser's glycerol gelatine phenol-free

Glycerol gelatine

D 1,11 g/cm³
WGK 1

Kaiser's glycerol gelatine phenol-free
for microscopy

Aqueous mounting medium

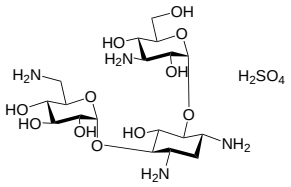
Type analysis
Appearance ..... light yellowish coloured, solid medium
Glycerol ..... 40-45 %
Gelatine ..... 7-9 %
Refractive index (20 °C) 1,41-1,47

Art. No.	Pack Qty.	Pack.	€
6474.1	50 ml	glass	23,15

Kanamycin-LB Selective Agar

▸ LB-Agar (Luria/Miller) / Kana50 see page 1037
▸ LB-Agar (Lennox) / Kana50 see page 1036

Kanamycin



Kanamycin sulphate

$C_{18}H_{36}N_4O_{11} \cdot H_2SO_4$ · mp 250 °C
CAS No. 25389-94-0 · EC no. 246-933-9
WGK 1

Danger H360D

Kanamycin
≥750 I.U./mg, for biochemistry

Bacteriostatic antibiotic

Main component: Kanamycin A
Stock solution: 10 mg/ml in H_2O
Storage of stock solution: –20 °C
Working concentration: 100 µg/ml

Storage temperature: +4 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white crystalline powder
Activity ..... ≥750 I.U./mg
Loss on drying ..... ≤2 %
Identity (NMR) ..... complies

Art. No.	Pack Qty.	Pack.	€
T832.1	5 g	plastic	27,85
T832.5	10 g	glass	42,50
T832.2	25 g	plastic	78,40
T832.3	50 g	plastic	128,50
T832.4	100 g	plastic	217,70

Kanamycin sulphate
▸ Kanamycin see page 1027

Kantharidin
▸ Cantharidin see page 813

Karl Fischer Reagents ROTI®Hydroquant for coulometry

Coulometric Karl Fischer solutions · Reagents for water analysis · Water determination acc. to Karl Fischer

Karl Fischer ROTI®Hydroquant coulo A
for KF titration, coulometric

Anolyte for cells with diaphragm. Use with Karl Fischer ROTI®Hydroquant coulo CG.

D 1,07 g/cm³ · bp 59 °C · flp 11 °C

UN no. 3286 · ADR 3 (6.1, 8) II · WGK 3

Danger H225-H302-H311+H331-H314-H351-H360D-H370-H372

Guarantee analysis
Application test ..... complies

Art. No.	Pack Qty.	Pack.	€
9957.1	500 ml	glass	94,10

Karl Fischer ROTI®Hydroquant coulo AD
for KF titration, coulometric

Single-component reagent for cells without diaphragm

D 0,91 g/cm³ · bp 65 °C · flp 10 °C

UN no. 3286 · ADR 3 (6.1, 8) II · WGK 2

Danger H225-H301+H311+H331-H314-H360D-H370-H373

Guarantee analysis
Application test ..... complies

Art. No.	Pack Qty.	Pack.	€
1KPL.1	500 ml	glass	85,90

Karl Fischer ROTI®Hydroquant coulo AG
for KF titration, coulometric

Single-component reagent for cells without diaphragm

D 0,93 g/cm³ · bp 63 °C · flp 14 °C

UN no. 3286 · ADR 3 (6.1, 8) II · WGK 2

Danger H225-H301+H311+H331-H314-H360D-H370-H373

Guarantee analysis
Application test ..... complies

Art. No.	Pack Qty.	Pack.	€
9854.1	500 ml	glass	94,10

Karl Fischer ROTI®Hydroquant coulo AK
for KF titration, coulometric, for aldehydes and ketones

Anolyte for cells with diaphragm. Use with Karl Fischer ROTI®Hydroquant coulo CG-K.

D 1,15 g/cm³ · flp >30 °C

UN no. 1992 · ADR 3 (6.1) III · WGK 3

Danger H226-H302-H314-H331-H351-H360Df-H372

Guarantee analysis
Application test ..... complies

Art. No.	Pack Qty.	Pack.	€
1KPN.1	500 ml	glass	181,70

Karl Fischer ROTI®Hydroquant coulo CG
for KF titration, coulometric

Catholyte for cells with diaphragm. Use with Karl Fischer ROTI®Hydroquant coulo A or coulo Oil.

D 1,06 g/cm³ · bp 63 °C · flp 14 °C

UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H315-H319-H370

Guarantee analysis
Application test ..... complies

Art. No.	Pack Qty.	Pack.	€
9861.1	100 ml	glass	149,45

Karl Fischer ROTI®Hydroquant coulo CG-K
for KF titration, coulometric, for aldehydes and ketones

Catholyte for cells with diaphragm. Use with Karl Fischer ROTI®Hydroquant coulo AK.

D 1,095 g/cm³ · bp 100 °C · flp 74 °C

UN no. 1760 · ADR 8 III · WGK 2

Danger H312-H315-H318-H360Df-H373

Guarantee analysis
Application test ..... complies

Art. No.	Pack Qty.	Pack.	€
1KPP.1	10 unit(s)	glass	155,90

Karl Fischer ROTI®Hydroquant coulo Oil
for KF titration, coulometric

Anolyte for cells with diaphragm. Use with Karl Fischer ROTI®Hydroquant coulo CG.

D 0,98 g/cm³ · bp 58 °C · flp 8 °C

UN no. 3286 · ADR 3 (6.1, 8) II · WGK 3

Danger H225-H301+H311+H331-H304-H314-H335-H351-H360D-H370-H372

Guarantee analysis
Application test ..... complies

Art. No.	Pack Qty.	Pack.	€
9960.1	100 ml	glass	37,55

Karl Fischer Reagents ROTI®Hydroquant Standards

Reagents for water analysis · Water determination acc. to Karl Fischer

Karl Fischer ROTI®Hydroquant standard sodium tartrate dihydrate
≥99 %, for KF titration

Primary standard substance for Karl Fischer titration. Water standard for KF volumetry.

D 1,82 g/cm³

WGK 1

Guarantee analysis
Assay (perchloric acidim) ..... 99,0-101,0 %
Loss on drying (150 °C) ..... 15,66 ±0,05 %

Art. No.	Pack Qty.	Pack.	€
5229.1	100 g	glass	89,15

Karl Fischer ROTI®Hydroquant water standard 0.1
0,1 mg H_2O/g

Water standard for KF coulometry.

D 0,86 g/cm³ · mp -34 °C · bp 137 to 143 °C · flp 27 °C

UN no. 1307 · ADR 3 III · WGK 2

Danger H226-H304-H312+H332-H315-H319-H335-H373

Guarantee analysis
Water content ..... 0,1 mg H_2O/g

Art. No.	Pack Qty.	Pack.	€
1KPT.1	10 unit(s)	glass	90,20

Karl Fischer ROTI®Hydroquant water standard 1.0
1 mg H_2O/g

Water standard for KF coulometry.

D 1,025 g/cm³ · mp -37 °C · bp 153 °C · flp 43 °C

UN no. 2222 · ADR 3 III · WGK 2

Warning H226

Guarantee analysis
Water content ..... 1,0 ± 0,05 mg H_2O/g

Art. No.	Pack Qty.	Pack.	€
9971.1	10 unit(s)	glass	67,65

Karl Fischer ROTI®Hydroquant water standard 5.0
5,0 mg H_2O/ml

Water standard for KF volumetry

D 0,8527 g/cm³ · flp 21 °C

UN no. 1993 · ADR 3 III · WGK 2

Danger H226-H302+H312+H332-H304-H315-H318-H335-H336-H373

Guarantee analysis
Water content (KF) ..... 5,88 ±0,02 mg/g
Water content ..... 5,00 ±0,02 mg/ml

Store under inert gas.

Art. No.	Pack Qty.	Pack.	€
1KPX.1	500 ml	glass	70,85

Karl Fischer ROTI®Hydroquant water standard 10.0
10 mg H_2O/g

Water standard for KF volumetry

D 1,019 g/cm³ · flp 30 °C

UN no. 1993 · ADR 3 III · WGK 2

Danger H226-H304-H315-H318-H335-H336-H373

Guarantee analysis
Water content ..... 10,0 ±0,1 mg H_2O/g

Art. No.	Pack Qty.	Pack.	€
5219.2	10 unit(s)	glass	99,90

Karl Fischer Reagents ROTI®Hydroquant for volumetry

Reagents for water analysis · Volumetric Karl Fischer solutions · Water determination acc. to Karl Fischer

Karl Fischer ROTI®Hydroquant Working Medium K
for KF titration, for aldehydes and ketones

Solvent component. For use with article number 5211.

Use with Karl Fischer ROTI®hydroquant C5 K.

D 1,34 g/cm³ · bp 60 °C · flp >100 °C

UN no. 2810 · ADR 6.1 I · WGK 3

Danger H300+H310+H330-H315-H319-H351-H361d-H372

Guarantee analysis
Application test ..... complies

Art. No.	Pack Qty.	Pack.	€
5215.1	1 l	glass	85,90
Original pack 6 x 1 l			81,61/1 l

Karl Fischer ROTI®Hydroquant C5 K
5 mg H_2O/ml, for KF titration, for aldehydes and ketones

Single-component reagent. For use with article number 5215.

D 1,17 g/cm³ · bp 194 °C · flp 90 °C

UN no. 1760 · ADR 8 II · WGK 2

Danger H314-H360D-H372

Guarantee analysis
Efficiency ..... ≥5 mg H_2O/ml

at the time of manufacture.

Art. No.	Pack Qty.	Pack.	€
5211.1	1 l	glass	203,20
Original pack 6 x 1 l			193,04/1 l

Karl Fischer ROTI®Hydroquant C2
2 mg H_2O/ml, pyridine-free

Single-component reagent. For use with article number T193.

D 1,11 g/cm³ · mp -54 °C · bp 196 °C · flp 90 °C

UN no. 1760 · ADR 8 II · WGK 2

Danger H314-H332-H360D-H373

Guarantee analysis
Efficiency ..... ≥2 mg H_2O/ml

at the time of manufacture.

Art. No.	Pack Qty.	Pack.	€
T194.1	1 l	glass	160,20
Original pack 6 x 1 l			152,19/1 l

Karl Fischer ROTI®Hydroquant C5
5 mg H_2O/ml, pyridine-free

Single-component reagent. For use with article number T193.

D 1,17 g/cm³ · bp 194 °C · flp 90 °C

UN no. 1760 · ADR 8 II · WGK 2

Danger H314-H332-H360D-H372

Guarantee analysis
Efficiency ..... ≥5 mg H_2O/ml

at the time of manufacture.

Art. No.	Pack Qty.	Pack.	€
T190.1	1 l	glass	181,70
Original pack 6 x 1 l			172,62/1 l

Karl Fischer methanol ROTI®Hydroquant D
for KF titration, dry

Solvent component. For use with article number T194 or T190.

D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C

UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H370

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Water (H_2O) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
T193.1	1 l	glass	38,20
Original pack 6 x 1 l			36,29/1 l
T193.2	2.5 l	glass	64,40
Original pack 4 x 2.5 l			61,18/2.5 l

Karl Fischer ROTI®Hydroquant S
for KF titration

Solvent component. For use with article number X947 or T191.

D 0,891 g/cm³ · bp 65 °C · flp 11 °C

UN no. 3286 · ADR 3 (6.1, 8) II · WGK 2

Danger H225-H301+H311+H331-H314-H360D-H370

Guarantee analysis
Application test ..... complies

Art. No.	Pack Qty.	Pack.	€
T192.1	1 l	glass	64,40
Original pack 6 x 1 l			61,18/1 l

Karl Fischer ROTI®Hydroquant S CM
for KF titration

Solvent component. For use with article number X947 or T191.

For oils and fats

D 1,277 g/cm³ · bp 60 to 65 °C · flp 42 to 54 °C

UN no. 1992 · ADR 3 (6.1) III · WGK 3

Danger H226-H302+H312-H314-H331-H351-H360D-H370-H372

Guarantee analysis
Application test ..... complies

Art. No.	Pack Qty.	Pack.	€
5218.1	1 l	glass	49,35
Original pack 6 x 1 l			46,88/1 l

Karl Fischer ROTI®Hydroquant T2
2 mg H_2O/ml, pyridine-free

Titrant component.
Two-components reagent. For use with article number T192 or 5218.

D 0,8 g/cm³ · bp 65 °C · flp 11 °C

UN no. 1992 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H370-H373

Guarantee analysis
Efficiency ..... ≥2 mg H_2O/ml

at the time of manufacture.

Art. No.	Pack Qty.	Pack.	€
X947.1	1 l	glass	69,80
Original pack 6 x 1 l			66,31/1 l

Karl Fischer ROTI®Hydroquant T5
5 mg H_2O/ml, pyridine-free

Titrant component.
Two-components reagent. For use with article number T192 or 5218.

D 0,85 g/cm³ · mp -97,8 °C · bp 64 °C · flp 11 °C

UN no. 1992 · ADR 3 (6.1) II · WGK 2

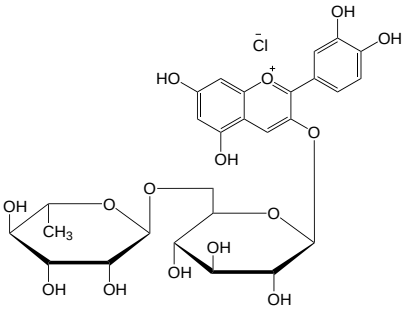
Danger H225-H301+H311+H331-H370-H373

Guarantee analysis
Efficiency ..... ≥5 mg H_2O/ml

at the time of manufacture.

Art. No.	Pack Qty.	Pack.	€
T191.1	1 l	glass	77,30
Original pack 6 x 1 l			73,44/1 l

Keracyanine chloride



$C_{27}H_{31}ClO_{15}$
CAS No. 18719-76-1 · EC no. 242-528-6
WGK 1

Keracyanine chloride
ROTICHROM® HPLC

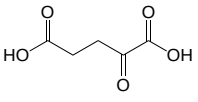
Reference substance for HPLC.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥96,5 %

Art. No.	Pack Qty.	Pack.	€
6134.2	10 mg	glass	289,20

α-Ketoglutaric acid



2-Oxoglutaric acid

$C_5H_6O_5$ · D 1,64 g/cm³ · mp 112 to 117 °C
CAS No. 328-50-7 · EC no. 206-330-3
WGK 1

Danger H318

α-Ketoglutaric acid
≥99 %, for biochemistry

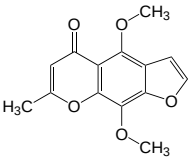
Storage temperature: +4 °C

Type analysis
Assay ..... ≥99,0 %
Heavy metals ..... ≤0,001 %
Loss on drying ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
5901.1	100 g	plastic	74,75

α-Ketopropionic acid
▸ Pyruvic acid see page 1193

Khellin



$C_{14}H_{12}O_5$ · mp 150 to 154 °C
CAS No. 82-02-0 · EC no. 201-392-8
UN no. 2811 · ADR 6.1 III · WGK 1

Danger H301-H315

Khellin
ROTICHROM® CHR ≥98 %, for biochemistry

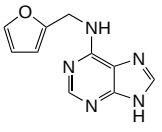
From *Amni Visnaga*.

Type analysis
Appearance ..... light yellow powder
Assay (HPLC) ..... ≥98,0 %
Sulphated ash ..... ≤0,1 %
Heavy metals ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
5911.1	10 g	glass	56,90
5911.2	50 g	glass	213,95

Kieselguhr
▸ Celite® 503 see page 823

Kinetin



6-Furfurylaminopurine · N6-Furfuryladenine

$C_{10}H_9N_5O$ · mp 267 to 271 °C
CAS No. 525-79-1 · EC no. 208-382-2
WGK 1

Kinetin
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥98 %
Solution (1 % in 1 mol/l NaOH) ..... colourless
Solution (1 % in 1 mol/l HCl) ..... colourless
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
4142.1	1 g	glass	25,70
4142.2	5 g	glass	69,35

King's B Medium (Base)

WGK 1

King's B Medium (Base)
DEV, EN ISO 16266:2008, for microbiology

For confirmation of *Pseudomonas aeruginosa* in water samples.

Application: Use 38 g for 990 ml agar. Add 10 ml glycerol.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Peptone ..... 20 g/l
di-Potassium hydrogen phosphate ..... 1,5 g/l
Magnesium sulphate heptahydrate ..... 1,5 g/l
Agar ..... 15 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CP64.1	500 g	plastic	212,35
Original pack 6 x 500 g			201,73/500 g

Kjeldahl tablets

Kjeldahl tablets antifoam
tablet 1 g

For determination of nitrogen.

D ~2,5 g/cm³ · mp ~880 °C

WGK 1

Type analysis
Appearance ..... white tablets

Composition: Na_2SO_4, silicone antifoam.

Art. No.	Pack Qty.	Pack.	€
8225.1	250 unit(s)	plastic	127,95
8225.2	1,000 unit(s)	plastic	407,45

Kjeldahl tablets C
tablet 5,1 g

For determination of nitrogen.

D 2,7 g/cm³

WGK 3

Warning H319-H412

Type analysis
Appearance ..... light blue tablets

Composition: K_2SO_4, $CuSO_4 \cdot 5\ H_2O$.

Art. No.	Pack Qty.	Pack.	€
8241.1	250 unit(s)	plastic	149,45
8241.2	1,000 unit(s)	plastic	467,65

Kjeldahl tablets CK
tablet 3,9 g

For determination of nitrogen.

D 2,7 g/cm³ · mp >30 °C

UN no. 3077 · ADR 9 III · WGK 3

Danger H318-H410

Type analysis
Appearance ..... blue tablets

Composition: K_2SO_4, $CuSO_4 \cdot 5\ H_2O$.

Art. No.	Pack Qty.	Pack.	€
8243.1	250 unit(s)	plastic	149,45
8243.2	1,000 unit(s)	plastic	467,65

Kjeldahl tablets CT
tablet 5,3 g

For determination of nitrogen.

D 2,7 g/cm³

UN no. 3077 · ADR 9 III · WGK 3

Warning H319-H410

Type analysis
Appearance ..... light blue tablets

Composition: K_2SO_4, $CuSO_4 \cdot 5\ H_2O$, TiO_2.

Art. No.	Pack Qty.	Pack.	€
9637.1	250 unit(s)	plastic	149,45
9637.2	1,000 unit(s)	plastic	467,65

Kjeldahl tablets CX
tablet 5,5 g

For determination of nitrogen.

D 2,7 g/cm³ · mp >30 °C

UN no. 3077 · ADR 9 III · WGK 3

Danger H318-H410

Type analysis
Appearance ..... blue tablets

Composition: K_2SO_4, $CuSO_4 \cdot 5\ H_2O$.

Art. No.	Pack Qty.	Pack.	€
8236.1	250 unit(s)	plastic	149,45
8236.2	1,000 unit(s)	plastic	467,65

Kjeldahl tablets (free of mercury and selenium)
tablet 5 g

For determination of nitrogen.

D 2,7 g/cm³

WGK 2

H412

Type analysis
Appearance ..... light grey tablets

Composition: TiO_2, $CuSO_4$, K_2SO_4 and Na_2SO_4.

Art. No.	Pack Qty.	Pack.	€
HN19.1	250 unit(s)	plastic	177,40
HN19.2	1,000 unit(s)	plastic	628,90

Kjeldahl tablets (free of mercury and selenium)
tablet 2,5 g

For determination of nitrogen.

D 2,7 g/cm³

WGK 2

H412

Type analysis
Appearance ..... light grey to light green tablets

Composition: TiO_2, $CuSO_4$, K_2SO_4 and Na_2SO_4.

Art. No.	Pack Qty.	Pack.	€
HN20.1	250 unit(s)	plastic	149,45
HN20.2	1,000 unit(s)	plastic	467,65

Kjeldahl tablets (Missouri catalyst)
tablet 2,5 g

For determination of nitrogen.

D 2,7 g/cm³

WGK 2

H412

Type analysis
Appearance ..... blue tablets

Composition: acc. to Missouri (K_2SO_4, Na_2SO_4 and $CuSO_4$).

Art. No.	Pack Qty.	Pack.	€
HN22.1	250 unit(s)	plastic	149,45
HN22.2	1,000 unit(s)	plastic	467,65

Kjeldahl tablets ST
tablet 3,5 g

For determination of nitrogen.

D 2,5 to 2,9 g/cm³ · mp 1069 °C · bp 1689 °C

WGK 1

Type analysis
Appearance ..... grey tablets

Composition: K_2SO_4, Se.

Art. No.	Pack Qty.	Pack.	€
9693.1	250 unit(s)	plastic	149,45
9693.2	1,000 unit(s)	plastic	467,65

Kjeldahl tablets TCT
tablet 3.71 g

For determination of nitrogen.

D 2,7 g/cm³

UN no. 3077 · ADR 9 III · WGK 3

Warning H319-H410

Type analysis
Appearance ..... light blue tablets

Composition: K_2SO_4, $CuSO_4 \cdot 5\ H_2O$, TiO_2.

Art. No.	Pack Qty.	Pack.	€
9763.1	250 unit(s)	plastic	149,45
9763.2	1,000 unit(s)	plastic	467,65

Kjeldahl tablets (Wieninger catalyst)
tablet 2,5 g

For determination of nitrogen.

D 2,7 g/cm³

WGK 2

H412

Type analysis
Appearance ..... grey tablets

Composition: acc. to Wieninger (Na_2SO_4, $CuSO_4$ and Se).

Art. No.	Pack Qty.	Pack.	€
HN21.1	250 unit(s)	plastic	149,45
HN21.2	1,000 unit(s)	plastic	467,65

Kligler Iron Agar

Double Sugar Iron Agar · KIA

WGK 3

Kligler Iron Agar
for microbiology

For differentiation of gram-negative enterobacteria.

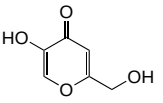
Application: Use 52 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Peptone mixture ..... 20 g/l
Lactose ..... 10 g/l
Sodium chloride ..... 5 g/l
Glucose ..... 1 g/l
Ammonium iron(III) citrate ..... 0,5 g/l
Sodium thiosulphate ..... 0,5 g/l
Phenol red ..... 0,025 g/l
Agar ..... 15 g/l
pH value ..... 7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
5758.1	500 g	plastic	115,60
Original pack 6 x 500 g			109,82/500 g

Kojic acid



5-Hydroxy-2-(hydroxymethyl)-4*H*-pyran-4-one

$C_6H_6O_4$ · mp 152 to 156 °C
CAS No. 501-30-4 · EC no. 207-922-4
WGK 1

Kojic acid
>98 %, for biochemistry

Type analysis
Assay (titr.) ..... >98,0 %
Melting point ..... 154-158 °C

Art. No.	Pack Qty.	Pack.	€
5927.1	10 g	glass	34,30
5927.2	50 g	glass	74,20

Komplexon®
▸ Nitrilotriacetic acid see page 1108

Koser Citrate Agar (modified)
▸ Simmons Citrate Agar see page 1274

Kovacs' Reagent

Indole Reagent

D 0,92 g/cm³ · bp 108 °C · flp 36 °C
UN no. 2920 · ADR 8 (3) II · WGK 1

Danger H226-H290-H302-H315-H318-H335-H336

Kovacs' Reagent
for microbiology

Media supplement for detection of microbial indole.

Application: Customary concentration in medium: 4–10 %

100 ml Kovacs' Reagent is sufficient for approx. 2 l medium.

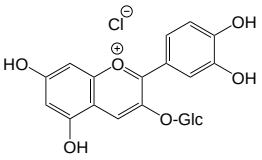
Storage temperature: +4 °C

Type analysis
Appearance ..... yellowish, clear liquid
4-(Dimethylamino)benzaldehyde ..... 50 g/l
1-Butanol ..... 75 %
Hydrochloric acid (37 %) ..... 25 %

Art. No.	Pack Qty.	Pack.	€
2950.1	100 ml	glass	59,05

K-Oxyma
▸ Ethyl cyanoglyoxylate-2-oxyme potassium salt (K-Oxyma) see page 920

Kuromanin chloride



Cyanidin-3-*O*-glucoside

$C_{21}H_{21}ClO_{11}$ · mp 150 °C
CAS No. 7084-24-4 · EC no. 230-384-7
WGK 1

Kuromanin chloride
ROTICHROM® HPLC

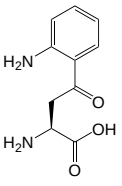
Reference substance for HPLC.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
6136.2	10 mg	glass	289,20

L-Kynurenine



(*S*)-Kynurenine · (*S*)-2-Amino-4-(2-aminophenyl)-4-oxo-butanoic acid

$C_{10}H_{12}N_2O_3$ · mp 185 °C
CAS No. 2922-83-0
WGK 1

L-Kynurenine
≥98 %, for biochemistry

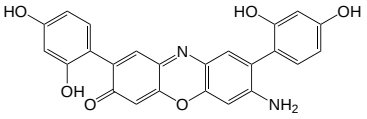
Type analysis
Appearance slightly yellow to light yellow powder
Assay (titr.) ..... ≥98,0 %
Appearance of solution (50 mg/ml in 0,5 M HCl) ..... dark yellow to yellow orange
Water (KF) ..... ≤5,0 %

Art. No.	Pack Qty.	Pack.	€
8456.1	100 mg	glass	73,65
8456.2	250 mg	glass	141,40
8456.3	500 mg	glass	256,95

(*S*)-Kynurenine
▸ L-Kynurenine see page 1031

Lab
▸ Rennin see page 1202

Lacmoid



Resorcin blue

$C_{24}H_{16}N_2O_6$
CAS No. 42249-61-6 · EC no. 255-736-7
WGK 1

Warning H315-H319-H335

Lacmoid
p.a.

Indicator pH 4,4-6,4

Type analysis
Appearance ..... dark blue to black powder
Appearance of solution (0,1 % in MeOH) opaque, dark blue
pH-transition range ..... 4,4 (red)-6,4 (blue)

Art. No.	Pack Qty.	Pack.	€
7699.1	5 g	glass	18,85
7699.2	25 g	glass	33,25
7699.3	100 g	glass	80,55

Lacmus
▸ Litmus see page 1049

Lactalbumin

CAS No. 68458-87-7 · EC no. 270-615-9
WGK 1

Lactalbumin
for microbiology and biochemistry

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Total nitrogen ..... ≥10 %
Amino nitrogen ..... ≥4,8 %
Loss on drying ..... ≤6 %
Ash ..... ≤15 %
pH (2 % solution) ..... 6,5 - 7,5

Art. No.	Pack Qty.	Pack.	€
7597.1	250 g	plastic	98,40
7597.2	500 g	plastic	175,80
Original pack 6 x 500 g			167,01/500 g

γ-Lactame
▸ 2-Pyrrolidone see page 1193

Lactate Standards
▸ Lactate IC Standard Solution see page 1335

Lactate dehydrogenase (LDH)

LD · LDH · Lactic dehydrogenase

CAS No. 9001-60-9 · EC no. 232-617-8
WGK 1

Lactate dehydrogenase (LDH)
≥290 U/mg protein

From porcine heart, freeze-dried

Packaging: 0,05 Mega Unit

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white powder
Activity ..... ≥290 U/mg protein
Pyruvate kinase ..... ≤0,01 %
Alanine aminotransferase (GPT) ..... ≤0,025 %
Malate dehydrogenase ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
6060.1	1 unit(s)	plastic	203,20

Lactic acid

2-Hydroxypropionic acid · Sarcolactic acid · Lactol

$C_3H_6O_3$ · D 1,21 to 1,22 g/cm³ · bp >100 °C · flp >110 °C
CAS No. 79-33-4 · EC no. 201-196-2
UN no. 3265 · ADR 8 III · WGK 1

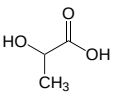
Danger H314-EUH071

Lactic acid
80 %, of which ≥95 % L(+)-lactic acid

Type analysis
Appearance ..... clear, light, viscous, colourless or pale yellow solution
Assay (GC) ..... 79,5-80,5 %
Purity (GC, Isomers) ..... ≥97,0 %
Colour (APHA) ..... ≤50
Density (20 °C) 1,18-1,20
Sulphated ash ..... ≤0,1 %
Arsenic (As) ..... ≤0,0001 %
Calcium (Ca) ..... ≤0,002 %
Iron (Fe) ..... ≤0,001 %
Heavy metals ..... ≤0,001 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,002 %
Reducing substances ..... complies

Art. No.	Pack Qty.	Pack.	€
8460.1	1 l	plastic	46,15
Original pack 6 x 1 l			43,84/1 l
8460.2	5 l	plastic	145,15
Original pack 2 x 5 l			137,89/5 l

DL-Lactic acid



2-Hydroxypropionic acid · Sarcolactic acid

$C_3H_6O_3$ · D 1,2 g/cm³ · mp 18 °C · bp 122 °C · flp 113 °C
CAS No. 598-82-3 · EC no. 209-954-4
WGK 1

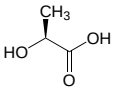
Danger H315-H318

DL-Lactic acid
90 %, Ph. Eur., synthetic

Guarantee analysis
Appearance . colourless to light yellowish, syrupy liquid
Assay (acidim.) ..... 88,0-92,0 %
Identity ..... complies
Relative density (20/20 °C) 1,20-1,21
Miscible ..... water, alcohol
Appearance of the substance ..... complies
Citric, oxalic and phosphoric acid ..... complies
Ether insoluble substances ..... complies
Sulphated ash ..... ≤0,1 %
Chloride (Cl) ..... complies
Sulphate (SO_4) ..... ≤0,02 %
Calcium (Ca) ..... ≤0,02 %
Heavy metals (as Pb) ..... ≤0,001 %
Volatile fatty acids ..... complies
Sugar and other reducing substances .. complies

Art. No.	Pack Qty.	Pack.	€
8994.1	1 l	glass	58,60
Original pack 6 x 1 l			55,67/1 l
8994.2	2.5 l	glass	123,65
Original pack 4 x 2.5 l			117,47/2.5 l

L-Lactic acid



2-Hydroxypropionic acid · Sarcolactic acid

$C_3H_6O_3$ · D 1,19 g/cm³ · mp 53 °C · bp 227,6 °C · flp 110 °C
CAS No. 79-33-4 · EC no. 201-196-2
UN no. 3261 · ADR 8 III · WGK 1

Danger H314-EUH071

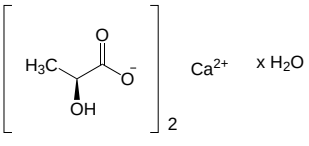
L-Lactic acid
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance .. white to almost white cryst. powder
Assay (titr.) ..... ≥98,0 %
Appearance of solution (20 %, H_2O) colourless to almost colourless
Specific rotation $[\alpha]_D^{20}$ (c=2,5 in 1,5 M NaOH) ..... -15,0° to -13,0°
Magnesium (Mg) ..... ≤0,05 %
Sodium (Na) ..... ≤0,05 %
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8360.1	5 g	plastic	45,70
8360.2	10 g	plastic	71,95
8360.3	25 g	plastic	138,70

L(+)-Lactic acid calcium salt hydrate



Calcium-L-lactate hydrate

$C_6H_{10}CaO_6 \cdot x\ H_2O$ · mp 200 °C
CAS No. 41372-22-9 · EC no. 248-953-3
WGK 1

L(+)-Lactic acid calcium salt hydrate
≥98 %

Type analysis
Appearance ..... white powder
Assay (dry substance) ..... ≥98 %
Specific rotation $[\alpha]_D^{20}$ (c=5 in H_2O) ... -4,7° to -3,7°
Loss on drying ..... 22,0-27,0 %

Contains 4 mol water.

Art. No.	Pack Qty.	Pack.	€
8795.1	25 g	plastic	26,80

L(+)-Lactic acid calcium salt pentahydrate

Calcium L-lactate pentahydrate

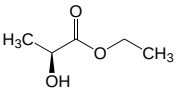
$C_6H_{10}CaO_6 \cdot 5\ H_2O$ · D 1,495 g/cm³ · mp >200 °C · bp >400 °C
CAS No. 28305-25-1 · EC no. 248-953-3
WGK 1

L(+)-Lactic acid calcium salt pentahydrate
≥98 %

Guarantee analysis
Appearance ..... white powder
Assay (dry substance) ..... 98,0-101,0 %
pH value (5 % in H_2O) 6,0-8,0
Calcium (Ca) ..... 13,4-14,5 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,05 %
Phosphate (PO_4) ..... ≤0,015 %
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As) ..... ≤0,0001 %
Mg and alkali salts ..... ≤1,0 %
Loss on drying (125 °C) ..... 22,0-27,0 %

Art. No.	Pack Qty.	Pack.	€
4071.2	500 g	plastic	23,15
Original pack 6 x 500 g			21,99/500 g
4071.1	1 kg	plastic	40,35
Original pack 6 x 1 kg			38,33/1 kg

L(–)-Lactic acid ethyl ester



Ethyl lactate

$C_5H_{10}O_3$ · D 1,035 g/cm³ · mp -26 °C · bp 154 °C · flp 46 °C
CAS No. 687-47-8 · EC no. 211-694-1
UN no. 1192 · ADR 3 III · WGK 1

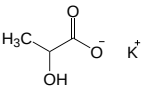
Danger H226-H318-H335

L(–)-Lactic acid ethyl ester
≥96 %

Type analysis
Assay ..... ≥96 %
Density (20 °C) 1,030-1,038
Refractive index n_D^{20} 1,410-1,420
Free acid ..... ≤0,1 %
Water (KF) ..... ≤0,3 %

Art. No.	Pack Qty.	Pack.	€
5016.1	1 l	plastic	56,90
Original pack 6 x 1 l			54,06/1 l
5016.2	5 l	plastic	223,10
Original pack 2 x 5 l			211,95/5 l

Lactic acid potassium salt



Potassium lactate

$C_3H_5KO_3$ · D 1,276 g/cm³ · bp ~110 °C
CAS No. 996-31-6 · EC no. 213-631-3
WGK 3

Lactic acid potassium salt
50 %, extra pure

50 % aqueous solution

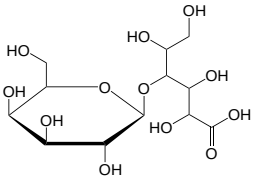
Type analysis
Appearance ..... clear, almost colourless liquid
Assay ..... 49,0-51,0 %
pH value (10 % in H_2O) 5,0-7,0
Relative density (20 °C) 1,270-1,282
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
7989.2	500 g	plastic	37,55
Original pack 6 x 500 g			35,67/500 g
7989.1	1 kg	plastic	64,40
Original pack 6 x 1 kg			61,18/1 kg
7989.3	5 kg	plastic	224,70

Lactic dehydrogenase
▸ Lactate dehydrogenase (LDH) see page 1031

Lactobacillus Selective Agar acc. to Rogosa
▸ Rogosa Agar see page 1208

Lactobionic acid



$C_{12}H_{22}O_{12}$ · mp 113 to 118 °C
CAS No. 96-82-2 · EC no. 202-538-3
WGK 1

Lactobionic acid
≥97 %

Type analysis
Appearance ..... white to almost white crystalline powder
Assay (titr.) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
9242.1	10 g	plastic	46,15

Lactobiose
▸ α-Lactose monohydrate see page 1033

Lactoflavine

▸ Riboflavine see page 1205

Lactol

▸ Lactic acid see page 1031

Lactophenol blue solution

D 1,2 g/cm³
UN no. 3265 · ADR 8 III · WGK 2
Danger H302-H314-H341-H373-H412-EUH071

Lactophenol blue solution
for microscopy

Fungal stain for microbiological material.

Art. No.	Pack Qty.	Pack.	€
3097.1	100 ml	glass	36,45

Lactose Broth

Liquid medium D (Ph. Eur. 6.0)

Lactose Broth
for microbiology

For detection and enumeration of coliform bacteria and for enrichment of *Salmonellae*.

Application: Use 13 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis
Gelatin peptone (Pancreas hydrolysate) ..... 5 g/l
Lactose monohydrate ..... 5 g/l
Beef extract ..... 3 g/l
pH value ..... 6,9 ±0,2

Art. No.	Pack Qty.	Pack.	€
X921.1	500 g	plastic	112,90
Original pack 6 x 500 g			107,26/500 g

Lactose Broth (DEV)
for microbiology

For confirmation of *Escherichia coli* in water samples by lactose fermentation.

Application: Use 28 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Guarantee analysis
Meat peptone ..... 10 g/l
Meat extract ..... 3 g/l
Sodium chloride (NaCl) ..... 5 g/l
Lactose ..... 10 g/l
Bromcresol purple ..... 0,02 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL76.1	500 g	plastic	122,05
Original pack 6 x 500 g			115,95/500 g

Lactose Peptone Broth (DEV)
DEV, for microbiology

For enrichment and enumeration of coliform bacteria in water samples.

Application: Use 35 g for 1 l broth.

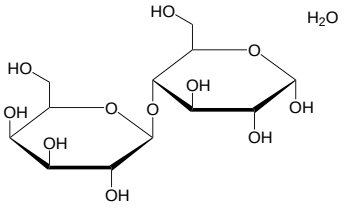
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Guarantee analysis
Meat peptone ..... 17 g/l
Soy peptone ..... 3 g/l
Sodium chloride (NaCl) ..... 5 g/l
Lactose ..... 10 g/l
Bromcresol purple ..... 0,02 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL77.1	500 g	plastic	145,15
Original pack 6 x 500 g			137,89/500 g
CL77.2	1 kg	plastic	246,75
Original pack 6 x 1 kg			234,41/1 kg

α-Lactose monohydrate



Lactobiose · Milk sugar

$C_{12}H_{22}O_{11} \cdot H_2O$ · D 1,525 g/cm³ · mp 200 to 202 °C
CAS No. 10039-26-6 · EC no. 200-559-2
WGK 1

α-Lactose monohydrate
Ph. Eur., for biochemistry

Guarantee analysis
Appearance ..... white or almost white, crystalline odourless powder
Appearance of solution ..... complies
Identity ..... complies
Acid or alkaline react. substances ..... complies
Specific rotation $[\alpha]_D^{20}$ (dry substance) .. + 54,4° to + 55,9°
Water ..... 4,5-5,5 %
Loss on drying ..... ≤0,5 %
Sulphated ash ..... ≤0,1 %
Heavy metals ..... ≤0,0005 %
Microbiological impurities ..... complies

Absorbance:
400 nm ..... ≤0,04
210-220 nm ..... ≤0,25
270-300 nm ..... ≤0,07

Art. No.	Pack Qty.	Pack.	€
8921.1	1 kg	plastic	28,95
Original pack 6 x 1 kg			27,50/1 kg
8921.2	5 kg	plastic	105,25
8921.3	10 kg	plastic	177,40
8921.5	25 kg	plastic	385,95

α-Lactose monohydrate
for microbiology

Guarantee analysis
Appearance ..... white to almost white powder
Heavy metals ..... ≤0,0005 %
Specific rotation $[\alpha]_D^{20}$ ..... +54,4° to +55,9°
Loss on drying ..... ≤0,5 %
Sulphated ash ..... ≤0,1 %
Water ..... 4,5-5,5 %

Absorbance:
400 nm ..... ≤0,04
210-220 nm ..... ≤0,25
270-300 nm ..... ≤0,07

Art. No.	Pack Qty.	Pack.	€
6868.1	1 kg	plastic	32,15
Original pack 6 x 1 kg			30,54/1 kg
6868.2	5 kg	plastic	112,35
6868.4	10 kg	plastic	188,15
6868.3	50 kg	plastic	719,20

Lactose Sulphite Broth (Base)

Medium R (Ph. Eur. 6.0)

WGK 1

Lactose Sulphite Broth (Base)
ISO 7937, for microbiology

For selective detection and enumeration of *C. perfringens*.

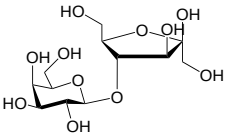
Application: Use 20.3 g for 1 l broth. Prior to use add sodium bisulphite solution and iron(III) ammonium citrate solution (Art. No. 3130.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Casein peptone (Pancreas hydrolysate) ..... 5 g/l
Yeast extract ..... 2,5 g/l
Sodium chloride (NaCl) ..... 2,5 g/l
Lactose monohydrate ..... 10 g/l
Cystein hydrochloride ..... 0,3 g/l
pH value ..... 7,1 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE46.1	500 g	plastic	114,50
Original pack 6 x 500 g			108,78/500 g

Lactulose



4-*O*-ß-D-Galactopyranosyl-D-fructose

$C_{12}H_{22}O_{11}$ · mp 169 °C
CAS No. 4618-18-2 · EC no. 225-027-7
WGK 1

Lactulose
≥98 %, for biochemistry

Type analysis
Assay ..... ≥98 %
Water (KF) ..... ≤2,0 %
Specific rotation $[\alpha]_D^{20}$ ..... -50° to -46°

Art. No.	Pack Qty.	Pack.	€
CN98.1	10 g	plastic	32,15
CN98.2	25 g	plastic	64,00
CN98.3	50 g	plastic	114,50

Laemmli buffer

▸ ROTI®Load see page 1228
▸ ROTIPHORESE®SDS-PAGE see page 1234
▸ ROTI®Fair SDS-PAGE see page 1221

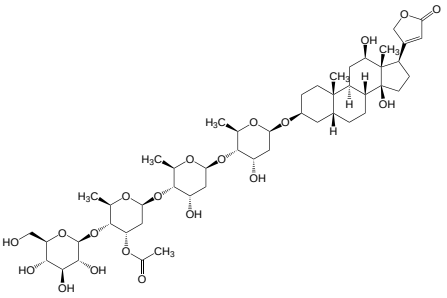
Laevulose

▸ D(–)-Fructose see page 949

Lambda DNA-Marker

▸ Lambda Hind III / phiX Hae III Marker see page 897
▸ Lambda Hind III Marker see page 897

Lanatoside C



Digilanide

$C_{49}H_{76}O_{20}$ · mp 235 °C
CAS No. 17575-22-3 · EC no. 241-546-1
UN no. 2811 · ADR 6.1 III · WGK 3

Danger H301+H311+H331-H373

Lanatoside C
ROTICHROM® HPLC

From *Digitalis lanata*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
7321.1	50 mg	glass	155,90

Lanolin

Wool fat · Adeps Lanae anhydricum

D 0,94 g/cm³ · mp 38 to 44 °C · flp >113 °C
CAS No. 8006-54-0 · EC no. 232-348-6
WGK 1

Lanolin
Ph. Eur., low in pesticides

Wool fat

Guarantee analysis
Appearance ..... light yellow to brownish-yellow, viscous matter
Identity ..... complies
Acid value ..... ≤1
Saponification value 90-105
Drop point ..... 38-44 °C
Water absorption ..... ≥20 g
Peroxide value ..... ≤10
Butylated hydroxytoluene ..... ≤0,01 %
Loss on drying ..... ≤0,5 %
Sulphated ash ..... ≤0,15 %
Chloride (Cl) ..... ≤0,015 %
Colour (Gardner) 6-8
Acid or alkaline react. substances ..... complies
Paraffine ..... ≤1,0 %
Water soluble, oxidising substances ..... complies
Organochlorine pesticides (each pesticide) ..... ≤0,000005 %
Other pesticides (each pesticide) ..... ≤0,00005 %
Pesticide residues total ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
5314.2	500 g	plastic	40,75
Original pack 6 x 500 g			38,71/500 g
5314.1	1 kg	plastic	71,95
Original pack 6 x 1 kg			68,35/1 kg

Lanolin
technical

Type analysis
Melting point ..... 38-50°C
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
5313.2	500 g	plastic	27,85
Original pack 6 x 500 g			26,46/500 g
5313.1	1 kg	plastic	45,70
Original pack 6 x 1 kg			43,42/1 kg

Lanolin alcohols

D 0,932 to 0,945 g/cm³ · mp 45 to 70 °C · bp 220 to 420 °C · flp 250 °C
CAS No. 8027-33-6 · EC no. 232-430-1
WGK 1

Lanolin alcohols
Ph. Eur.

Guarantee analysis
Identity ..... complies
Appearance of solution ..... complies
Alkaline reacting substances ..... complies
Melting temperature ..... ≥56 °C
Acid value ..... ≤2,0 mg KOH/g
Hydroxyl value ..... 120-180 mg KOH/g
Peroxide value ..... ≤15 meq O_2/kg
Saponification value ..... ≤12 mg KOH/g
Loss on drying ..... ≤0,5 %
BHT ..... ≤0,02 %
Ash ..... ≤0,1 %
Content of cholesterol ..... ≥30 %
Water capacity ..... complies

Art. No.	Pack Qty.	Pack.	€
5085.2	500 g	plastic	106,45
Original pack 6 x 500 g			101,13/500 g
5085.1	1 kg	plastic	188,15
Original pack 6 x 1 kg			178,74/1 kg

Lanoxin

▸ Digoxin see page 880

Lanthanum Standards

▸ Lanthanum ICP Standard Solution see page 1318
▸ Lanthanum ICP Standard Solution see page 1317

Lanthanum(III) acetate hydrate

$La(CH_3CO_2)_3$ · x H_2O · D 1,64 g/cm³
CAS No. 25721-92-0 · EC no. 213-034-8
UN no. 3077 · ADR 9 III · WGK 2

Danger H318-H410

Lanthanum(III) acetate hydrate
ROTI®REMETIC 99,9 %

Type analysis
Assay (TREO*) ..... 99,9 %

*Total rare earth oxide.
Chemical analysis (ICP, AAS): specified trace impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
7031.1	100 g	plastic	104,85
7031.2	250 g	plastic	222,00

Lanthanum(III) chloride heptahydrate

Lanthanum trichloride

$LaCl_3$ · 7 H_2O · D 2,23 g/cm³ · mp 858 to 860 °C
CAS No. 10025-84-0 · EC no. 233-237-5
UN no. 3077 · ADR 9 III · WGK 2

Danger H290-H317-H318-H411

Lanthanum(III) chloride heptahydrate
≥99,9 %, cryst.

Type analysis
Assay La_2O_3 (TREO) ..... ≥99,9 %
Assay (TREO*) ..... ~43,0 %
Calcium oxide (CaO) ..... ≤0,01 %
Ferric oxide (Fe_2O_3) ..... ≤0,002 %
Natriumoxide (Na_2O) ..... ≤0,005 %
Total REO impurities ..... ≤0,1 %

*Total rare earth oxide.

Art. No.	Pack Qty.	Pack.	€
3979.1	100 g	glass	80,55

Lanthanum(III) nitrate hexahydrate

$La(NO_3)_3$ · 6 H_2O · mp >40 °C
CAS No. 10277-43-7 · EC no. 233-238-0
UN no. 1477 · ADR 5.1 II · WGK 3

Danger H272-H318-H410

Lanthanum(III) nitrate hexahydrate
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5366.1	25 g	plastic	130,65
5366.2	100 g	plastic	327,90

Lanthanum(III) nitrate hexahydrate
ROTI®REMETIC 99,999 %

Type analysis
Assay (metals basis) ..... 99,999 %

*Total rare earth oxide.
Chemical analysis (ICP, AAS): specified trace impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
7019.1	25 g	plastic	104,20
7019.2	100 g	plastic	315,55

Lanthanum(III) nitrate hexahydrate
ROTI®REMETIC 99,99 %

Type analysis
Purity (TREO*) ..... 99,99 %

*Total rare earth oxide.
Chemical analysis (ICP, AAS): specified trace impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
7180.1	50 g	plastic	127,95
7180.2	250 g	plastic	418,20

Lanthanum(III) nitrate hexahydrate
≥99,99 %, p.a.

Type analysis
Assay La_2O_3 (TREO) ..... ≥99,99 %
Assay (TREO*) ..... ~37,0 %
Ferric oxide (Fe_2O_3) ..... ≤0,0005 %
Natriumoxide (Na_2O) ..... ≤0,001 %
Total REO impurities ..... ≤0,01 %
Chloride (Cl) ..... ≤0,002 %

*Total rare earth oxide.

Art. No.	Pack Qty.	Pack.	€
8358.2	50 g	plastic	64,40
8358.1	100 g	plastic	117,20
8358.3	250 g	plastic	246,20

Lanthanum(III) oxide

Dilanthanum trioxide

La_2O_3 · D 6,51 g/cm³ · mp 2315 °C · bp 4200 °C
CAS No. 1312-81-8 · EC no. 215-200-5

Lanthanum(III) oxide
ROTI®REMETIC 99,999 %

Type analysis
Assay (TREO*) ..... 99,999 %

*Total rare earth oxide.
Chemical analysis (ICP, AAS): specified trace impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
7410.1	25 g	plastic	81,60
7410.2	100 g	plastic	267,70

Lanthanum(III) oxide
≥99,99 %, p.a.

Type analysis
Assay La_2O_3 (TREO) ..... ≥99,99 %
Assay (TREO*) ..... ~99,0 %
Calcium oxide (CaO) ..... ≤0,006 %
Chromium oxide (Cr_2O_3) ..... ≤0,001 %
Ferric oxide (Fe_2O_3) ..... ≤0,0005 %
Cobalt oxide (Co_3O_4) ..... ≤0,001 %
Copper oxide (CuO) ..... ≤0,001 %
Nickel oxide (NiO) ..... ≤0,001 %
Total REO impurities ..... ≤0,005 %
Loss on ignition ..... ≤1,0 %

*Total rare earth oxide.

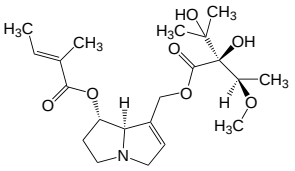
Art. No.	Pack Qty.	Pack.	€
8373.2	50 g	plastic	38,60
8373.1	100 g	plastic	64,40
8373.3	250 g	plastic	134,40

Lanthanum(III) oxide
for atomic absorption spectroscopy

Art. No.	Pack Qty.	Pack.	€
3045.1	5 g	plastic	20,35

Lanthanum trichloride
▸ Lanthanum(III) chloride heptahydrate see page 1034

Lasiocarpine



7-Angelyleuropine

$C_{21}H_{33}NO_7$ · mp 90 to 95 °C
CAS No. 303-34-4
UN no. 2811 · ADR 6.1 III · WGK 1

Danger H301

Lasiocarpine
ROTICHROM® HPLC

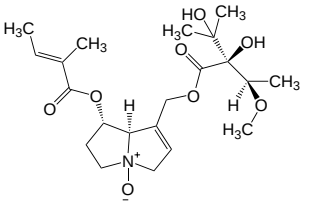
Reference substance for HPLC.
From *Heliotropium*

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥96,0 %

Art. No.	Pack Qty.	Pack.	€
2090.1	10 mg	glass	396,70

Lasiocarpine *N*-oxide



7-Angelyleuropine *N*-oxide

$C_{21}H_{33}NO_8$ · mp 110 to 120 °C
CAS No. 127-30-0
WGK 1

Warning H302

Lasiocarpine *N*-oxide
ROTICHROM® HPLC

Reference substance for HPLC.
From *Heliotropium*

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥96,0 %

Art. No.	Pack Qty.	Pack.	€
2202.1	10 mg	glass	396,70

Lateral Flow Assay
▸ RiboFlow® Kits see page 1205

Lauraldehyde
▸ Dodecyl aldehyde see page 899

Laurel oil

Laurel oil
essential, natural

Oleum Lauri aetherum

D 0,92 g/cm³ · mp <-20 °C · bp 150 to 185 °C · flp 49,68 °C

CAS No. 84603-73-6 · EC no. 283-272-5

UN no. 1169 · ADR 3 III · WGK 2

Danger H226-H304-H315-H317-H319-H411

Type analysis
Appearance ..... clear yellow to brownish oil
Density (20 °C) ..... 0,905-0,929 g/cm³
Refractive index (20 °C) 1,465-1,470
Optical rotation (20 °C) ..... -19° to -10°

Art. No.	Pack Qty.	Pack.	€
6609.1	100 ml	glass	80,55

Laurel oil
artificial

Oleum Lauri

D 0,91 g/cm³ · flp 46 °C

UN no. 1993 · ADR 3 III · WGK 2

Danger H226-H304-H315-H317-H319-H411

Type analysis
Appearance ..... clear, light yellow brownish oil
Relative density (20 °C) 0,890-0,930
Refractive index (20 °C) 1,4650-1,4750
Optical rotation (20 °C) ..... -15° to 0°

Art. No.	Pack Qty.	Pack.	€
3314.1	250 ml	glass	64,00

Lauryl alcohol
▸ 1-Dodecanol see page 899

Lauryl-β-D-maltoside
▸ Dodecyl-β-D-maltoside (DDM) see page 900

Lauryl Sulphate Broth

Flu Broth

WGK 1

Lauryl Sulphate Broth
ISO 4831:2006, ISO 7251, ISO 11133, for microbiology

For enrichment and detection of coliform bacteria in waters.

Application: Use 35.6 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Tryptose ..... 20 g/l
Lactose ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
di-Potassium phosphate ..... 2,75 g/l
Potassium phosphate ..... 2,75 g/l
Sodium lauryl sulphate ..... 0,1 g/l
pH value ..... 6,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL80.1	500 g	plastic	134,40
Original pack 6 x 500 g			127,68/500 g

Lauryl sulphate sodium salt
▸ SDS see page 1254

Lauth's violet
▸ Thionine (acetate) (C. I. 52000) see page 1365

LB Agar (Lennox)

WGK 1

LB Agar (Lennox)
for molecular biology

Application: Use 35 g for 1 l agar.

5 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar-Agar ..... 15 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X965.1	500 g	plastic	96,65
Original pack 6 x 500 g			91,82/500 g
X965.2	1 kg	plastic	184,40
Original pack 6 x 1 kg			175,18/1 kg
X965.3	2.5 kg	plastic	424,65

LB-Agar (Lennox), granulated
granulated, for molecular biology

Application: Use 35 g for 1 l agar.

5 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar-Agar ..... 15 g/l
pH value ..... 7,0 ±0,2
Granulation ..... complies

Art. No.	Pack Qty.	Pack.	€
6671.1	500 g	plastic	127,95
Original pack 6 x 500 g			121,55/500 g
6671.2	1 kg	plastic	240,30
Original pack 6 x 1 kg			228,29/1 kg
6671.3	2.5 kg	plastic	525,70

LB Agar (Lennox) vegetal
animal-free, for molecular biology

Application: Use 35 g for 1 l agar.

5 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Vegetable peptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar-Agar ..... 15 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
0159.1	500 g	plastic	111,30
Original pack 6 x 500 g			105,74/500 g
0159.2	1 kg	plastic	203,75
Original pack 6 x 1 kg			193,56/1 kg

LB-Agar (Lennox) / Amp100

Ampicillin-LB Selective Agar

WGK 1

EUH208

LB-Agar (Lennox) / Amp100
for molecular biology

For preparation of LB agar with 100 µg/ml ampicillin.

Application: Use 35 g for 1 l agar. Boil for 1 min, do not autoclave.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Ampicillin ..... 0,1 g/l
Agar-Agar ..... 15 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
8852.1	500 g	plastic	127,95
Original pack 6 x 500 g			121,55/500 g
8852.2	1 kg	plastic	231,15
Original pack 6 x 1 kg			219,59/1 kg
8852.3	2.5 kg	plastic	514,95

LB-Agar (Lennox) / Kana50

Kanamycin-LB Selective Agar

WGK 1

LB-Agar (Lennox) / Kana50
for molecular biology

For preparation of LB agar with 50 µg/ml kanamycin.

Application: Use 35 g for 1 l agar. Autoclavable (118 °C, 10 min).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Kanamycin ..... 0,05 g/l
Agar-Agar ..... 15 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
8853.1	500 g	plastic	278,45
Original pack 6 x 500 g			264,53/500 g
8853.2	1 kg	plastic	532,15
Original pack 6 x 1 kg			505,54/1 kg

LB Agar (Luria/Miller)

WGK 1

LB Agar (Luria/Miller)
for molecular biology

Application: Use 40 g for 1 l agar.

10 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 10 g/l
Agar-Agar ..... 15 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X969.1	500 g	plastic	85,90
Original pack 6 x 500 g			81,61/500 g
X969.2	1 kg	plastic	158,60
Original pack 6 x 1 kg			150,67/1 kg
X969.3	2.5 kg	plastic	360,15
X969.4	5 kg	plastic	682,65

LB Agar (Luria/Miller), granulated
granulated, for molecular biology

Application: Use 40 g for 1 l agar.

10 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 10 g/l
Agar-Agar ..... 15 g/l
pH value ..... 7,0 ±0,2
Granulation ..... complies

Art. No.	Pack Qty.	Pack.	€
6675.1	500 g	plastic	117,20
Original pack 6 x 500 g			111,34/500 g
6675.2	1 kg	plastic	219,85
Original pack 6 x 1 kg			208,86/1 kg
6675.3	2.5 kg	plastic	489,15

LB-Agar (Luria/Miller) / Amp100

Ampicillin-LB Selective Agar

WGK 1

EUH208

LB Agar

LB-Agar (Luria/Miller) / Amp100
for molecular biology

For preparation of LB agar with 100 µg/ml ampicillin.

Application: Use 40 g for 1 l agar. Boil for 1 min, do not autoclave.

Storage temperature: +4 °C
Transport temperature: ambient temp.

Composition
Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 10 g/l
Ampicillin ..... 0,1 g/l
Agar-Agar ..... 15 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
8855.1	500 g	plastic	100,55
Original pack 6 x 500 g			95,52/500 g
8855.2	1 kg	plastic	192,45
Original pack 6 x 1 kg			182,83/1 kg
8855.3	2.5 kg	plastic	446,15

LB-Agar (Luria/Miller) / Amp50

Ampicillin-LB Selective Agar

WGK 1

EUH208

LB-Agar (Luria/Miller) / Amp50
for molecular biology

For preparation of LB agar with 50 µg/ml ampicillin.

Application: Use 40 g for 1 l agar. Boil for 1 min, do not autoclave.

Storage temperature: +4 °C
Transport temperature: ambient temp.

Composition
Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 10 g/l
Ampicillin ..... 0,05 g/l
Agar-Agar ..... 15 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
8858.1	500 g	plastic	99,45
Original pack 6 x 500 g			94,48/500 g
8858.2	1 kg	plastic	188,15
Original pack 6 x 1 kg			178,74/1 kg
8858.3	2.5 kg	plastic	439,70

LB-Agar (Luria/Miller) / Chloramph34

Chloramphenicol-LB Selective Agar

WGK 1

LB-Agar (Luria/Miller) / Chloramph34
for molecular biology

For preparation of LB agar with 34 µg/ml chloroamphenicol.

Application: Use 40 g for 1 l agar. Autoclavable (118 °C, 10 min).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 10 g/l
Chloroamphenicol ..... 0,034 g/l
Agar-Agar ..... 15 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
8861.1	500 g	plastic	87,00
Original pack 6 x 500 g			82,65/500 g
8861.2	1 kg	plastic	156,45
Original pack 6 x 1 kg			148,63/1 kg
8861.3	2.5 kg	plastic	364,45

LB-Agar (Luria/Miller) / Kana50

Kanamycin-LB Selective Agar

WGK 1

LB-Agar (Luria/Miller) / Kana50
for molecular biology

For preparation of LB agar with 50 µg/ml kanamycin.

Application: Use 40 g for 1 l agar. Autoclavable (118 °C, 10 min).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 10 g/l
Kanamycin ..... 0,05 g/l
Agar-Agar ..... 15 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
8860.1	500 g	plastic	160,20
Original pack 6 x 500 g			152,19/500 g
8860.2	1 kg	plastic	295,65
Original pack 6 x 1 kg			280,87/1 kg

LB Broth (Lennox)

WGK 1

LB Broth (Lennox)
for molecular biology

Application: Use 20 g for 1 l broth.

5 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X964.1	500 g	plastic	77,95
Original pack 6 x 500 g			74,05/500 g
X964.2	1 kg	plastic	137,10
Original pack 6 x 1 kg			130,25/1 kg
X964.3	2.5 kg	plastic	306,40
X964.4	5 kg	plastic	568,70

LB Broth (Lennox), granulated
granulated, for molecular biology

Application: Use 20 g for 1 l broth.

5 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
pH value ..... 7,0 ±0,2
Granulation ..... complies

Art. No.	Pack Qty.	Pack.	€
6669.1	500 g	plastic	115,60
Original pack 6 x 500 g			109,82/500 g
6669.2	1 kg	plastic	203,75
Original pack 6 x 1 kg			193,56/1 kg
6669.3	2.5 kg	plastic	459,60
6669.4	5 kg	plastic	857,35

LB Broth (Lennox) vegetal
animal-free, for molecular biology

Application: Use 20 g for 1 l broth.

5 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Vegetable peptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
0155.1	500 g	plastic	89,80
Original pack 6 x 500 g			85,31/500 g
0155.2	1 kg	plastic	161,80
Original pack 6 x 1 kg			153,71/1 kg

LB Broth (Luria/Miller)

WGK 3

LB Broth (Luria/Miller)
for molecular biology

Application: Use 25 g for 1 l broth.

10 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 10 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X968.1	500 g	plastic	68,30
Original pack 6 x 500 g			64,89/500 g
X968.2	1 kg	plastic	127,95
Original pack 6 x 1 kg			121,55/1 kg
X968.3	2.5 kg	plastic	271,45
X968.4	5 kg	plastic	507,95

LB Broth (Luria/Miller), granulated
granulated, for molecular biology

Application: Use 25 g for 1 l broth.

10 g/l NaCl

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Tryptone ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 10 g/l
pH value ..... 7,0 ±0,2
Granulation ..... complies

Art. No.	Pack Qty.	Pack.	€
6673.1	500 g	plastic	103,75
Original pack 6 x 500 g			98,56/500 g
6673.2	1 kg	plastic	195,15
Original pack 6 x 1 kg			185,39/1 kg
6673.3	2.5 kg	plastic	424,65
6673.4	5 kg	plastic	790,15

LCV

▸ Leuco crystal violet see page 1041

LD

▸ Lactate dehydrogenase (LDH) see page 1031

LDH

▸ Lactate dehydrogenase (LDH) see page 1031

LDS

▸ Lithiumdodecyl sulphate (LDS) see page 1047

Lead

Pb · D 11,35 g/cm³ · mp 327,5 °C · bp >600 °C
CAS No. 7439-92-1 · EC no. 231-100-4

Lead foil
≥99,8 %

Foil ~9,5 cm wide, 0,12 mm thick.

Danger H360FD-H362-H372

Type analysis
Appearance ..... grey colored foil
Assay ..... ≥99,8 %

Art. No.	Pack Qty.	Pack.	€
1HEC.1	10 cm	plastic	23,15
1HEC.2	20 cm	plastic	34,30
1HEC.3	50 cm	plastic	57,55

Lead granulate
≥99,9 %, ~20 mesh

UN no. 3077 · ADR 9 III

Danger H360FD-H362-H372-H410

Type analysis
Assay ..... ≥99,9 %
Particle size ..... ~20 mesh

Art. No.	Pack Qty.	Pack.	€
2734.1	50 g	plastic	55,80
2734.2	100 g	plastic	94,50

Lead wool
~99 %, fine

Fibre diameter approx. 0,35 mm

Danger H360FD-H362-H372

Type analysis
Assay (Pb) ..... ~99 %

Art. No.	Pack Qty.	Pack.	€
2248.1	250 g	plastic	28,95
2248.2	500 g	plastic	41,85
Original pack 6 x 500 g			39,76/500 g
2248.3	1 kg	plastic	69,35
Original pack 6 x 1 kg			65,88/1 kg
2248.4	2.5 kg	plastic	134,40

Lead Standards

▸ Lead AAS Standard Solution see page 1318
▸ Lead ICP Standard Solution see page 1318
▸ Lead ICP Standard Solution see page 1318

Lead(II) acetate, basic

Lead(II) hydroxide acetate · Lead subacetate

$Pb(CH_3COO)_2 \cdot 2\,Pb(OH)_2$ · mp 75 °C
CAS No. 1335-32-6 · EC no. 215-630-3
UN no. 1616 · ADR 6.1 III · WGK 3

Danger H351-H360Df-H373-H410

Lead(II) acetate, basic
≥33 % PbO, p.a., ACS

For analysis of sugar acc. to Horne.

Guarantee analysis
Lead oxide (PbO) ..... ≥33,0 %
Loss on drying ..... ≤1,5 %
In dilute CH_3COOH insoluble matter ..... ≤0,02 %
In H_2O insoluble matter ..... ≤1,0 %
Chloride (Cl) ..... ≤0,003 %
Nitrate (NO_3) ..... ≤0,003 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,002 %
Potassium (K) ..... ≤0,02 %
Copper (Cu) ..... ≤0,002 %
Sodium (Na) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
2559.3	25 g	plastic	19,25
2559.1	500 g	plastic	47,85
Original pack 6 x 500 g			45,46/500 g
2559.2	1 kg	plastic	74,75
Original pack 6 x 1 kg			71,01/1 kg

Lead(II) acetate trihydrate

Sugar of lead

$Pb(CH_3COO)_2 \cdot 3\,H_2O$ · D 2,55 g/cm³ · mp 75 °C
CAS No. 6080-56-4 · EC no. 612-031-2
UN no. 1616 · ADR 6.1 III · WGK 3

Danger H360Df-H373-H410

Lead(II) acetate trihydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L50.1	5 g	HDPE	30,65
1L50.2	25 g	HDPE	127,95

Lead(II) acetate trihydrate
≥99,5 %, p.a., ACS, ISO

Reagent for detection of H_2S and preparation of lead acetate paper.

Guarantee analysis
Assay (compl.) ..... ≥99,5 %
In CH_3COOH insoluble matter ..... ≤0,005 %
Nitrate and nitrite (as NO_3) ..... ≤0,002 %
Chloride (Cl) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,005 %
Copper (Cu) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,005 %
Sodium (Na) ..... ≤0,005 %
Zinc (Zn) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
P739.1	500 g	plastic	117,20
Original pack 6 x 500 g			111,34/500 g
P739.2	1 kg	plastic	205,90
Original pack 6 x 1 kg			195,61/1 kg
P739.3	2.5 kg	plastic	424,65

Lead(II) carbonate

$PbCO_3$ · D 6,6 g/cm³ · mp 315 °C
CAS No. 598-63-0 · EC no. 209-943-4
UN no. 3077 · ADR 9 III · WGK 3

Danger H302+H332-H360Df-H373-H410

Lead(II) carbonate
≥98 %, p.a., ACS

Guarantee analysis
Assay (compl.) ..... ≥98,0 %
In dilute CH_3COOH insoluble matter ..... ≤0,02 %
Chloride (Cl) ..... ≤0,002 %
Nitrate and nitrite (as NO_3) ..... complies
Cadmium (Cd) ..... ≤0,002 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,005 %
Potassium (K) ..... ≤0,02 %
Sodium (Na) ..... ≤0,05 %
Zinc (Zn) ..... ≤0,003 %

Art. No.	Pack Qty.	Pack.	€
2558.1	100 g	plastic	46,15
2558.2	250 g	plastic	73,00
2558.3	500 g	plastic	118,15
Original pack 6 x 500 g			112,24/500 g

Lead(II) chloride

$PbCl_2$ · D 5,85 g/cm³ · mp 500 °C · bp 950 °C
CAS No. 7758-95-4 · EC no. 231-845-5
UN no. 2291 · ADR 6.1 III · WGK 3

Danger H302+H332-H360Df-H373-H410

Lead(II) chloride
≥98 %

Type analysis
Appearance ..... white to off-white powder and /or chunks
Assay (titr.) ..... ≥98 %
Nitrate (NO_3) ..... ≤0,005 %
Insoluble matter ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
5299.1	100 g	plastic	18,85
5299.2	500 g	plastic	55,40
Original pack 6 x 500 g			52,63/500 g
5299.3	1 kg	plastic	99,90
Original pack 6 x 1 kg			94,91/1 kg

Lead(II) hydroxide acetate

▸ Lead(II) acetate, basic see page 1038

Lead(II) iodide

PbI_2 · D 6,16 g/cm³ · mp 402 °C · bp 954 °C
CAS No. 10101-63-0 · EC no. 233-256-9
UN no. 2291 · ADR 6.1 III · WGK 3

Danger H302+H332-H360FD-H373-H410

Lead(II) iodide
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L5P.1	5 g	HDPE	38,60
1L5P.2	25 g	HDPE	140,30

Lead(II) nitrate

$Pb(NO_3)_2$ · D 4,49 g/cm³ · mp 458 to 459 °C · bp >500 °C
CAS No. 10099-74-8 · EC no. 233-245-9
UN no. 1469 · ADR 5.1 (6.1) II · WGK 3

Danger H302+H332-H360Df-H372-H410

Lead(II) nitrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L4N.1	10 g	HDPE	55,80
1L4N.2	50 g	HDPE	213,95

Lead(II) nitrate
≥99 %, p.a., ACS

Guarantee analysis
Assay (compl.) ..... ≥99,0 %
Insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,005 %
Copper (Cu) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,005 %
Sodium (Na) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
HN32.1	100 g	plastic	23,55
HN32.2	250 g	plastic	46,80

Lead(II) oxide

PbO · D 9,53 g/cm³ · mp >600 °C · bp >600 °C
CAS No. 1317-36-8 · EC no. 215-267-0
UN no. 3077 · ADR 9 III · WGK 3

Danger H302+H332-H351-H360Df-H362-H372-H410

Lead(II) oxide
≥99 %, extra pure

Type analysis
Assay (metals basis) ..... 99,0-100,5 %
Chloride (Cl) ..... ≤0,05 %
Copper (Cu) ..... ≤0,005 %
Iron (Fe) ..... ≤0,01 %
Loss on ignition ..... ≤0,2 %
Insoluble in CH_3COOH ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
4456.1	250 g	plastic	31,75

Lead(IV) oxide

PbO_2 · D 9,4 g/cm³ · mp >290 °C
CAS No. 1309-60-0 · EC no. 215-174-5
UN no. 1872 · ADR 5.1 (6.1) III · WGK 3

Danger H272-H302+H332-H360Df-H373-H410

Lead(IV) oxide
≥97 %, p.a.

Type analysis
Assay (titr.) ..... ≥97 %
In HCl insoluble matter ..... ≤0,05 %
Loss on drying (105 °C) ..... ≤0,5 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,1 %
Manganese (Mn) ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
4479.1	100 g	plastic	75,15

Lead subacetate

▸ Lead(II) acetate, basic see page 1038

Lead(II) sulphate

$PbSO_4$ · D 6,2 g/cm³ · mp 1170 °C
CAS No. 7446-14-2 · EC no. 231-198-9
UN no. 3077 · ADR 9 III · WGK 3

Danger H302+H332-H360Df-H373-H410

Lead(II) sulphate
≥98 %, extra pure

Type analysis
Assay ..... ≥98,0 %
Nitrate (NO_3) ..... ≤0,005 %
Copper (Cu) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
2560.1	100 g	plastic	32,15
2560.2	500 g	plastic	73,00
Original pack 6 x 500 g			69,35/500 g
2560.3	1 kg	plastic	123,10
Original pack 6 x 1 kg			116,95/1 kg

Lecithin

Phosphatidylcholine

D <1 g/cm³
EC no. 232-307-2
WGK 1

Lecithin
≥97 %, made from soybeans, GVO-free, for biochemistry

Fat-free soy-lecithin, made from genetically unmodified plants.

CAS No. 8002-43-5

Guarantee analysis
Appearance ..... light brown to brown powder
Phospholipids (Px31,5) ..... ≥97,0 %
Lysophosphatidylcholine ..... ≤10 %
Water ..... ≤2,0 %
Acid value ..... ≤35
Peroxide value ..... ≤5,0
Free fatty acid ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
AE81.1	100 g	plastic	19,25
AE81.2	250 g	plastic	33,25
AE81.3	1 kg	plastic	87,00
Original pack 6 x 1 kg			82,65/1 kg

Lecithin
≥97 %, made from soybeans, for biochemistry

Made from soybeans.

CAS No. 8002-43-5

Guarantee analysis
Appearance pale yellow to light brownish powder
Phospholipids (Px31,5) ..... ≥97,0 %
Lysophosphatidylcholine ..... ≤3,0 %
Water (KF) ..... ≤2,0 %
Peroxide value ..... ≤3

Art. No.	Pack Qty.	Pack.	€
9812.1	250 g	plastic	26,80
9812.3	1 kg	plastic	70,85
Original pack 6 x 1 kg			67,31/1 kg
9812.2	2.5 kg	plastic	163,95
9812.8	25 kg	plastic	994,40

Lecithin
from eggs, for biochemistry

CAS No. 93685-90-6

Storage temperature: –20 °C
Transport temperature: ambient temp.

Guarantee analysis
Phosphatidylcholine ..... 64,0 - 79,0 %
Phosphatidylethanolamine ..... 12,0 - 18,0 %
Lysophosphatidylcholine ..... ≤3 %
Sphingomyelin ..... ≤3 %
Water ..... ≤2 %
Cholesterol ..... ≤1 %
Peroxide value ..... ≤3 meq/kg
Acid value ..... ≤25 mg KOH/g
Iodine value ..... ≥64

Art. No.	Pack Qty.	Pack.	€
7514.1	25 g	plastic	55,80
7514.2	100 g	plastic	155,35

Legionella Acid Buffer

0.2 M HCl/KCl Solution, pH 2.2 · Acid buffer pH 2.2 · HCl/KCl buffer

D 1,012 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

Legionella Acid Buffer
EN ISO 11731-2, sterile, ready-to-use, for microbiology

Sterile acid buffer solution for detection of legionella.

Bottle with 50 ml graduation. With original seal. The buffer should be used within 4 weeks after opening.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... clear, colourless
pH value (20 °C) ..... 2,2 ±0,2
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
9979.1	1 l	plastic	49,35
Original pack 6 x 1 l			46,88/1 l

Legionella Agar (Base)

BCYE Agar (Base) · GVCP Agar (Base)

WGK 3

Legionella Agar (Base)
ISO 11133, EN ISO 11731-2, for microbiology

For selective cultivation of *Legionella.*

Application: Use 12.5 g for 500 ml agar. After autoclaving add 1 vial (10 ml) reconstituted Legionella Growth Supplement (Art. No. CL49.1). If required also add reconstituted Legionella GVCP Supplement (Art. No. CL50.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Yeast extract ..... 10,0 g/l
Charcoal activated ..... 2,0 g/l
Agar ..... 13,0 g/l
pH value ..... 6,9 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL48.1	500 g	plastic	162,90
Original pack 6 x 500 g			154,76/500 g

Legionella BCYE Growth Supplement

BCYE additive

UN no. 1759 · ADR 8 II · WGK 3

Danger H290-H302-H314

Legionella BCYE Growth Supplement
lyophilized

Growth supplement for isolation of *Legionella.*

Application: Reconstitute 1 vial of BCYE selective supplement with 9 ml of sterile solvent under aseptic conditions and add to 500 ml of melted Legionella Agar Base (Cat. No. CL48.1) that has been cooled to 47 – 50 °C. Do not overheat the agar once it has been added. For selective isolation of legionella we recommend additional supplementation with Legionella GVPC Supplement (Cat. No. CL50.1).

One box with 5 tubes of Legionella growth supplement (lyophilisate) and 5 tubes of sterile solvent is sufficient for 5 x 500 ml Legionella agar (Cat. no. CL48).

Storage temperature: +4 °C

Composition
ACES Buffer ..... 5,000 g
Potassium hydroxide (KOH) ..... 1,400 g
alpha-Ketoglutarate ..... 0,500 g
L-Cysteine ..... 0,200 g
Ferric pyrophosphate ..... 0,125 g

per vial.

Art. No.	Pack Qty.	Pack.	€
CL49.1	1 set	glass	306,40

Legionella GVPC Supplement

mp >200 °C
UN no. 2811 · ADR 6.1 III · WGK 3

Danger H301-H341-H360D-H412-EUH208

Legionella GVPC Supplement
lyophilized

Media supplement for selective isolation of *Legionella.*

Application: One vial Legionella GVPC Supplement is reconstituted in 10 ml of sterile, distilled water and is subsequently added to 500 ml autoclaved Legionella Agar (Art. No. CL48.1).

One box of 10 vials Legionella GVPC Supplement is sufficient for 10 x 500 ml Legionella Agar (Art. No. CL48).

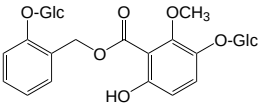
Storage temperature: +4 °C

Composition
Glycine ..... 1,5 g
Polymyxin B ..... ~40000 IU
Cycloheximide ..... 0,04 g
Vancomycin ..... 0,5 mg

per vial.

Art. No.	Pack Qty.	Pack.	€
CL50.1	10 unit(s)	glass	248,90

Leiocarposide



2'-Hydroxybenzyl-3-methoxybenzoate-2',4-diglucoside

$C_{27}H_{34}O_{16}$ · mp 130 °C
CAS No. 71953-77-0
WGK 1

Leiocarposide
ROTICHROM® HPLC

Reference substance for HPLC.
From *Solidago virgaurea.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
2825.1	5 mg	glass	310,70

Leishman stain

Eosin methylene blue acc. to Leishman

mp 79 to 81 °C
CAS No. 12627-53-1 · EC no. 235-732-1
WGK 1

Leishman stain
for microscopy

Mixture of methylen blue, Azure A, B and C

Type analysis
Appearance ..... dark green to black powder
Appearance of solution (0,1 % in MeOH) .... clear, blue
Loss on drying (3 h, 105 °C) ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
7702.1	5 g	glass	18,85
7702.2	25 g	glass	33,25
7702.3	100 g	glass	80,55

Letheen Agar modified

WGK 3

Letheen Agar modified
for microbiology

For microbiological analyses of cosmetics, and samples containing disinfectants or preservatives.

Application: Use 59.1 g for 1 l agar.

Storage temperature: +4 °C
Transport temperature: ambient temp.

Composition
Meat peptone ..... 10 g/l
Casein peptone ..... 10 g/l
Polysorbate 80 ..... 7 g/l
Sodium chloride ..... 5 g/l
Beef extract ..... 3 g/l
Yeast extract ..... 2 g/l
Glucose ..... 1 g/l
Lecithin ..... 1 g/l
Sodium bisulfite ..... 0,1 g/l
Agar ..... 20 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
5759.1	500 g	plastic	152,15
Original pack 6 x 500 g			144,54/500 g

Letheen Broth modified

Letheen Broth modified
for microbiology

For microbiological analyses of cosmetics, and samples containing disinfectants or preservatives.

Application: Use 42.8 g for 1 l broth.

Storage temperature: +4 °C
Transport temperature: ambient temp.

WGK 3

Composition
Meat peptone ..... 20 g/l
Casein peptone ..... 5 g/l
Polysorbate 80 ..... 5 g/l
Sodium chloride ..... 5 g/l
Beef extract ..... 5 g/l
Yeast extract ..... 2 g/l
Lecithin ..... 0,7 g/l
Sodium bisulfite ..... 0,1 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
5761.1	500 g	plastic	141,40
Original pack 6 x 500 g			134,33/500 g

Letheen Broth modified
for microbiology

For microbiological analyses of cosmetics, and samples containing disinfectants or preservatives.

D 1,035 g/cm³ · mp 0 °C · bp 100 °C

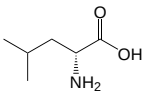
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 2

Casein peptone ..... 15 g/l
Meat peptone ..... 10 g/l
Meat extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Yeast extract ..... 2 g/l
Polysorbate 80 ..... 5 g/l
Lecithin ..... 0,7 g/l
Sodium bisulfite ..... 0,1 g/l
pH value (25 °C) 7,0-7,4

Art. No.	Pack Qty.	Pack.	€
1L85.1	180 ml	glass	53,65
1L85.2	900 ml	glass	83,75

D-Leucine



2-Amino-4-methylpentanoic acid · H-D-Leu-OH

$C_6H_{13}NO_2$ · mp 98 °C
CAS No. 328-38-1 · EC no. 206-327-7
WGK 1

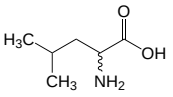
D-Leucine
≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... 99,0-100,5 %
Specific rotation $[\alpha]_D^{20}$ (c=4 in 6 N HCl) ... -16,9° to -14,9°
Loss on drying ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
7882.1	5 g	plastic	35,40
7882.2	25 g	plastic	105,25
7882.3	100 g	plastic	317,15

DL-Leucine



2-Amino-4-methylpentanoic acid · H-DL-Leu-OH

$C_6H_{13}NO_2$ · mp 293 °C
CAS No. 328-39-2 · EC no. 206-328-2
WGK 1

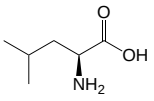
DL-Leucine
≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white cryst. powder
Assay ..... ≥98,5 %
Identity (IR) ..... complies
Heavy metals (as Pb) ..... ≤0,001 %
Ash content ..... ≤0,1 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8599.1	25 g	plastic	27,85
8599.2	50 g	plastic	46,15
8599.3	250 g	plastic	192,45

L-Leucine



2-Amino-4-methylpentanoic acid · H-L-Leu-OH

$C_6H_{13}NO_2$ · D 1,29 g/cm³ · mp 286 to 290 °C
CAS No. 61-90-5 · EC no. 200-522-0
WGK 1

L-Leucine
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤6,0 E.U./g
Assay (dry substance) ..... ≥99 %
Loss on drying ..... ≤0,2 %
Specific rotation $[\alpha]_D^{20}$ ..... +14,9° to +16,0°
Foreign amino acids ..... ≤1,0 %
Ammonium (NH_4) ..... ≤0,05 %
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,05 %
Heavy metals (as Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %

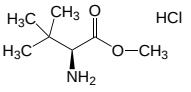
Art. No.	Pack Qty.	Pack.	€
1699.1	25 g	plastic	25,70
1699.2	100 g	plastic	62,25
1699.3	500 g	plastic	231,15
Original pack 6 x 500 g			219,59/500 g

L-Leucine
≥98,5 %, Ph. Eur., for biochemistry

Guarantee analysis
Appearance ..... white cryst. powder
Assay (dry substance) ..... 98,5-101,0 %
Identity ..... complies
Specific rotation $[\alpha]_D^{20}$ ..... +14,5° to +16,5°
Sulphated ash ..... ≤0,1 %
Loss on drying ..... ≤0,5 %
Foreign amino acids ..... complies
Ammonium (NH_4) ..... ≤0,02 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
3984.1	100 g	plastic	49,35
3984.3	250 g	plastic	96,65
3984.4	500 g	plastic	177,40
Original pack 6 x 500 g			168,53/500 g
3984.2	1 kg	plastic	332,20
Original pack 6 x 1 kg			315,59/1 kg

L-*tert*-Leucine methylester hydrochloride



H-L-Tle-OMe · HCl

$C_7H_{15}NO_2$ · HCl · mp 183 °C
CAS No. 63038-27-7

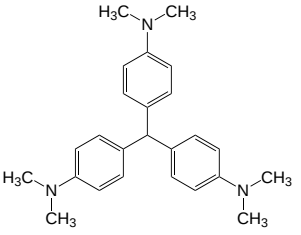
L-*tert*-Leucine methylester hydrochloride
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥98,0 %
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
6664.1	500 mg	glass	38,60
6664.2	1 g	glass	60,10

Leuco crystal violet



LCV

$C_{25}H_{31}N_3$ · D 1,14 g/cm³ · mp 175 to 180 °C
CAS No. 603-48-5 · EC no. 210-043-9
UN no. 3077 · ADR 9 III · WGK 2

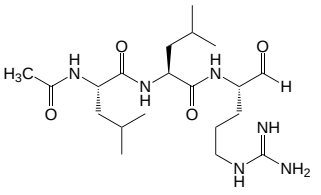
Warning H410

Leuco crystal violet
≥98 %, p.a.

Type analysis
Appearance ..... white to pale lavender powder
Assay ..... ≥98 %
Loss on drying ..... ≤2 %
Sulphated ash ..... ≤1 %

Art. No.	Pack Qty.	Pack.	€
7703.1	5 g	glass	18,85
7703.2	25 g	glass	33,25
7703.3	100 g	glass	80,55

Leupeptin hemisulphate



Acetyl-Leu-Leu-Argininal

$C_{20}H_{38}N_6O_4 \cdot 0,5\ H_2SO_4$ · mp 139 to 141 °C
CAS No. 103476-89-7
WGK 1

Leupeptin hemisulphate
≥96,5 %, for biochemistry

Reversible inhibitor of serine- and cysteine proteases.

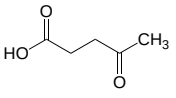
Stock solution: 5 mg/ml (10 mM) in H_2O, ethanol, acetic acid and DMF. Stock solution is stabile at +4 °C for approx. 7 days. Recommended storage of stock solution at –20 °C (6 months).

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (HPLC) ..... ≥96,5 %
Solution (1 % in H_2O) ..... clear

Art. No.	Pack Qty.	Pack.	€
CN33.1	10 mg	glass	58,60
CN33.2	25 mg	glass	117,20
CN33.3	50 mg	glass	213,95
CN33.4	100 mg	glass	396,70

Levulinic acid



4-Oxopentanoic acid · 3-Acetopropionic acid

$C_5H_8O_3$ · D 1,15 g/cm³ · mp 27,21 to 29,56 °C · bp 251,7 to 252,2 °C · flp 163,5 °C
CAS No. 123-76-2 · EC no. 204-649-2
WGK 2

Danger H302-H317-H318

Levulinic acid
≥98 %, for synthesis

Type analysis
Appearance ..... Yellowish to brownish crystals
Assay (titr.) ..... ≥98,0 %
Melting point ..... 26-32 °C
Density (20 °C) ..... 1,132-1,136 g/cm³
Water (KF) ..... ≤1 %

Art. No.	Pack Qty.	Pack.	€
3976.1	50 g	glass	16,05
3976.2	500 g	glass	64,40
Original pack 6 x 500 g			61,18/500 g
3976.3	1 kg	glass	85,90
Original pack 6 x 1 kg			81,61/1 kg
3976.4	2.5 kg	glass	160,20

LFHP
▸ Lithium hexafluorophosphate see page 1047

LFP
▸ Lithium hexafluorophosphate see page 1047

Ligase quick
5 U/µl, for molecular biology

ATP-dependent T4 DNA ligase for efficient ligation of sticky and or blunt ends.

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Concentration ..... 5 U/µl
DNA nucleases ..... not detectable

Art. No.	Pack Qty.	Pack.	€
3733.1	50 µl	plastic	142,45
3733.2	150 µl	plastic	322,00

Ligase T4
5 U/µl, for molecular biology

ATP-dependent recombinant ligase for molecular cloning.

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Concentration ..... 5 U/µl
DNA nucleases ..... not detectable

Art. No.	Pack Qty.	Pack.	€
3729.1	100 µl	plastic	125,25
3729.2	500 µl	plastic	450,45

Ligase Tth
5 U/µl, for molecular biology

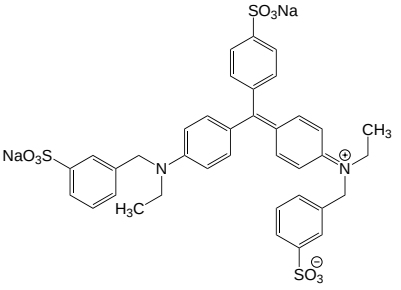
NAD-dependent ligase for molecular cloning.

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Concentration ..... 5 U/µl
DNA nucleases ..... not detectable

Art. No.	Pack Qty.	Pack.	€
3736.1	50 µl	plastic	112,90
3736.2	500 µl	plastic	740,70

Light green SF (C.I. 42095)



Acid green 5

$C_{37}H_{34}N_2Na_2O_9S_3$ · mp 285 to 290 °C
CAS No. 5141-20-8 · EC no. 225-906-5
WGK 1

Light green SF (C.I. 42095)
for microscopy

Type analysis
Appearance ..... dark purple powder
Assay ..... ≥65 %
Appearance of solution (H_2O) ..... clear, green

Art. No.	Pack Qty.	Pack.	€
7706.1	5 g	glass	27,45
7706.2	25 g	glass	66,15
7706.3	100 g	glass	224,70

Light green SF yellowish solution
▸ Goldner's staining III see page 970

Lignoceryl alcohol

1-Tetracosanol

$C_{24}H_{50}O$ · mp 73 to 77 °C · flp >150 °C
CAS No. 506-51-4 · EC no. 208-043-9

Lignoceryl alcohol
≥98 %, for biochemistry

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6029.1	250 mg	glass	456,90

Lignosulphonic acid calcium salt

Calcium-lignosulphonate

D 1,5 g/cm³
CAS No. 8061-52-7
WGK 1

Lignosulphonic acid calcium salt
≥93 %, powdered

Type analysis
Assay (dry substance) ..... ≥93 %
pH-value (10 % solution) ..... 4,5 ±0,5
Insoluble matter ..... ≤0,3 %
Calcium (Ca) ..... ~5 %
Reducing sugar ..... ~6 %
Total sulphur ..... ~7 %

Art. No.	Pack Qty.	Pack.	€
8208.1	1 kg	plastic	37,55
Original pack 6 x 1 kg			35,67/1 kg

Lignosulphonic acid sodium salt

Sodium lignosulphonate

mp >130 °C
CAS No. 8061-51-6
WGK 1

Lignosulphonic acid sodium salt
≥93 %, powdered

Type analysis
Assay (dry substance) ..... ≥93 %
pH-value (10 % solution) ..... 8,0 ±1,0
Insoluble (v/v) ..... ≤0,3 %

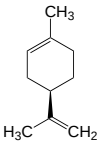
Art. No.	Pack Qty.	Pack.	€
8999.1	1 kg	plastic	38,60
Original pack 6 x 1 kg			36,67/1 kg

Ligroin
▸ Petroleum benzine 30-75 see page 1146

Lime caustic
▸ Calcium oxide see page 809

Lime salpetre
▸ Calcium nitrate tetrahydrate see page 809

D-(+)-Limonene



(–)-*p*-Mentha-1.8-diene

$C_{10}H_{16}$ · D 0,84 g/cm³ · mp -74 °C · bp 175 to 178 °C · flp 51 °C
CAS No. 5989-27-5 · EC no. 227-813-5
UN no. 2052 · ADR 3 III · WGK 2

Danger H226-H304-H315-H317-H410

D-(+)-Limonene

approx. 95 % D-(+)-Limonene

Storage temperature: +4 °C

Type analysis
Appearance ..... colourless oil
Density (20 °C) 0,836-0,848
Refractive index n_D^{20} 1,468-1,478
Specific rotation $[\alpha]_D^{20}$ ..... +96° to +108°

Art. No.	Pack Qty.	Pack.	€
6722.1	500 ml	glass	46,80

D-(+)-Limonene
ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
5198.2	100 mg	glass	162,90

DL-Limonene

Dipentene · (–)-*p*-Mentha-1.8-diene

$C_{10}H_{16}$ · D 0,84 g/cm³ · mp -89 °C · bp 170 to 180 °C · flp 43 °C
CAS No. 138-86-3 · EC no. 205-341-0
UN no. 2052 · ADR 3 III · WGK 3

Warning H226-H315-H317-H410

DL-Limonene
≥95 %

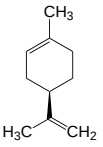
Mixture of terpenes.

Storage temperature: +4 °C

Type analysis
Appearance ..... clear, colourless liquid
Assay (GC) ..... ≥95 %
Density (d 20 °C/4 °C) 0,841-0,845

Art. No.	Pack Qty.	Pack.	€
7516.1	250 ml	glass	51,10

L-(–)-Limonene



(–)-*p*-Mentha-1.8-diene

$C_{10}H_{16}$ · D 0,84 g/cm³ · mp -90 °C · bp 176 to 178 °C · flp 51 °C
CAS No. 5989-54-8 · EC no. 227-815-6
UN no. 2052 · ADR 3 III · WGK 3

Warning H226-H315-H317-H410

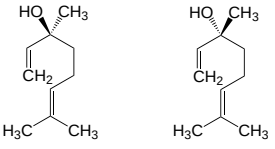
L-(–)-Limonene
≥95 %

Storage temperature: +4 °C

Type analysis
Assay (GC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
1LE0.1	25 ml	glass	18,20
1LE0.2	100 ml	glass	34,30
1LE0.3	500 ml	glass	138,70

Linalool



$C_{10}H_{18}O$ · D 0,86 g/cm³ · mp <-74 °C · bp 198 °C · flp 77,2 °C
CAS No. 78-70-6 · EC no. 201-134-4
WGK 1

Warning H315-H317-H319

Linalool
pure

Storage temperature: +4 °C

Type analysis
Appearance ..... clear, almost colourless to pale yellow oil
Density (20 °C) ..... 0,855-0,868 g/cm³
Refractive index (20 °C) 1,457-1,468
Optical rotation (20 °C) ..... -1° to +1 °

Art. No.	Pack Qty.	Pack.	€
3992.1	100 ml	glass	27,85

Linalool
ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

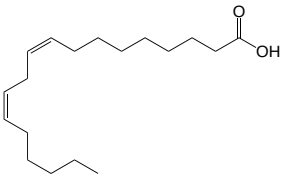
Type analysis
Purity (GC) ..... ≥96,5 %

Art. No.	Pack Qty.	Pack.	€
5201.2	100 mg	glass	138,70

Linalylacetate
▸ Acetic acid linalyl ester see page 695

Linarigenin
▸ Acacetin see page 688

Linoleic acid



$C_{18}H_{32}O_2$ · D 0,9 g/cm³ · mp -12 °C · bp >230 °C · flp >110 °C
CAS No. 60-33-3
WGK 1

Linoleic acid
ROTICHROM® GC

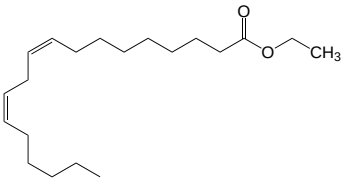
Reference substance for GC.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (GC) ..... ≥94 %

Art. No.	Pack Qty.	Pack.	€
5315.1	1 g	glass	80,55

Linoleic acid ethyl ester



$C_{20}H_{36}O_2$ · D 0,88 g/cm³ · mp 25 °C · bp 193 °C · flp 167 °C
CAS No. 544-35-4
WGK 1

Warning H315

Linoleic acid ethyl ester
ROTICHROM® GC

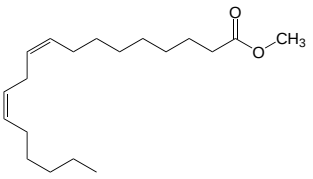
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥98,5 %

Art. No.	Pack Qty.	Pack.	€
3198.1	1 g	glass	40,35

Linoleic acid methyl ester



$C_{19}H_{34}O_2$ · D 0,89 g/cm³ · mp -35 °C · bp >200 °C · flp 113 °C
CAS No. 112-63-0 · EC no. 203-993-0

Linoleic acid methyl ester
≥99 %

Storage temperature: +4 °C

Type analysis
Assay (GC) ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
7217.1	5 ml	glass	61,85
7217.2	50 ml	glass	514,95

Linoleic acid methyl ester
ROTICHROM® GC

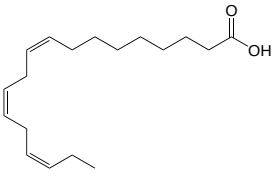
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
3199.1	1 g	glass	44,65

Linolenic acid



9,12,15-Octadecatrienoic acid

$C_{18}H_{30}O_2$ · D 0,91 g/cm³ · mp -11 °C · bp 231 °C · flp 113 °C
CAS No. 463-40-1 · EC no. 207-334-8
WGK 1

Linolenic acid
ROTICHROM® CHR ~94 %

Mixture of isomers.

Storage temperature: +4 °C

Type analysis
Assay (GC) ..... ~94 %

Art. No.	Pack Qty.	Pack.	€
6039.1	5 ml	glass	115,60

Linolenic acid
ROTICHROM® GC

Reference substance for GC.
Mixture of isomers.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
5320.1	1 g	glass	241,90

Linseed oil

Oleum Lini

D 0,931 g/cm³ · bp >350 °C · flp >300 °C
CAS No. 8001-26-1 · EC no. 232-278-6
WGK awg

Linseed oil
virgin, cold-pressed

Oleum lini

Type analysis
Appearance ..... clear, gold-yellow or brownish to greenish-yellow oil
Density (20 °C) ..... ~0,931
Water ..... ≤0,1 %
Cadmium (Cd) ..... ≤0,00005 %
Refractive index n_D^{20} ..... ~1,480
Acid value ..... ≤4,5
Peroxide value ..... ≤15
Iodine value 160-200
Saponification value 188-195
Unsaponifiable matter ..... ≤1,5 %
Fatty acid compound ..... complies

Art. No.	Pack Qty.	Pack.	€
9338.2	500 ml	glass	34,30
9338.1	1 l	glass	52,70
Original pack 6 x 1 l			50,07/1 l
9338.3	2.5 l	glass	99,45
Original pack 4 x 2.5 l			94,48/2.5 l

α-Lipoic acid
▸ DL-6,8-Dithiooctanoic acid see page 895

Lipoxidase
▸ Lipoxygenase see page 1044

Lipoxygenase

Lipoxidase

CAS No. 9029-60-1 · EC no. 232-853-1
WGK 1

Lipoxygenase
≥100 000 U/mg, for biochemistry

Made from soybeans. For oxidation of arachidonic acid.

Well soluble in H_2O or buffer.
Recommended storage of stock solution in aliquots at –20 °C.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Activity ..... ≥100 000 U/mg

Art. No.	Pack Qty.	Pack.	€
CN73.1	100 mg	glass	99,45
CN73.2	500 mg	glass	353,70
CN73.3	1 g	glass	600,95

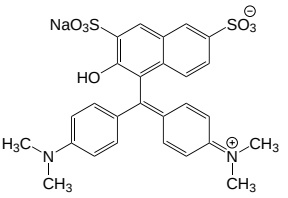
Liquid glass
▸ Sodium silicate see page 1295

Liquid glass
▸ Potassium silicate see page 1180

Liquid medium D (Ph. Eur. 6.0)
▸ Lactose Broth see page 1033

Liquid medium I (Ph. Eur. 6.0)
▸ Brilliant Green Tetrathionate Bile Broth see page 786

Lissamine green B (C.I. 44090)



Acid green 50 · Woolgreen S

$C_{27}H_{25}N_2NaO_7S_2$ · D 0,541 g/cm³ · mp ≥321,3 to ≤325 °C · flp 284,6 °C
CAS No. 3087-16-9 · EC no. 221-409-2
WGK 1

Warning H302-H315-H319-H335

Lissamine green B (C.I. 44090)
p.a.

Type analysis
Appearance ..... dark red to black powder
Assay ..... ≥80 %
Appearance of solution (0,1 % in H_2O) clear, dark blue to dark green
Arsenic (As) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0001 %
Mercury (Hg) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
7707.1	5 g	glass	21,00
7707.2	25 g	glass	38,20
7707.3	100 g	glass	96,25

Listeria chromogenic Agar (Base)

ALOA

bp 1360 °C
WGK 3

Warning H315-H319

Listeria chromogenic Agar (Base)
ISO 11133, ISO 11290:2004, for microbiology

Selective medium for detection and enumeration of *Listeria monocytogenes* acc. to Ottaviani and Agosti.

Application: Use 70.55 g for 1 l agar. After cooling to 47-50°C add 2 vials (2x6 ml reconstituted) Listeria Chromo Selective Supplement (Art. No. 2947.1) and 2 vials (24 ml each) Listeria Chromo Lipase C Supplement (Art. No. 2948.1).

Storage temperature: +4 °C

Guarantee analysis
Meat peptone ..... 18 g/l
Lithium chloride ..... 10 g/l
Yeast extract ..... 10 g/l
Tryptone ..... 6 g/l
Sodium chloride ..... 5 g/l

di-Sodium hydrogen phosphate ..... 2,5 g/l
Glucose ..... 2 g/l
Sodium pyruvate ..... 2 g/l
Magnesium glycerophosphate ..... 1 g/l
Magnesium sulphate ..... 0,5 g/l
Chromogene Mixture ..... 0,05 g/l
Agar ..... 13,5 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
3008.1	100 g	plastic	82,70
3008.2	500 g	plastic	295,65
Original pack 6 x 500 g			280,87/500 g

Listeria Chromo Lipase C Supplement

D 1,03 g/cm³
WGK 1

Listeria Chromo Lipase C Supplement
0,04 g/ml, sterile, ready-to-use

Media supplement for selective isolation of *Listeria*.

Application: One vial Listeria Chromo Lipase C Supplement is added to 470 ml autoclaved Listeria chromogenic Agar (Art. No. 3008.1). The total volume of Listeria chromogenic agar is 500 ml. For selective isolation of *Listeriae* we recommend additional supplementation with Listeria Chromo Selective Supplement (Art. No. 2947.1).

One box of 10 vials Listeria Chromo Lipase C Supplement is sufficient for 10 x 500 ml Listeria chromogenic Agar (Art. No. 3008).

Storage temperature: +4 °C

Composition
Phospholipase C substrate ..... 1 g

per vial.

Art. No.	Pack Qty.	Pack.	€
2948.1	10 unit(s)	glass	141,40

Listeria Chromo Selective Supplement

UN no. 2811 · ADR 6.1 II · WGK 3
Danger H300-H317-H334-H341-H360D-H411

Listeria Chromo Selective Supplement
lyophilized

Media supplement for selective isolation of *Listeria*.

Application: One vial Listeria Chromo Selective Supplement is reconstituted in 6 ml sterile distilled water and is subsequently added to 470 ml autoclaved Listeria chromogenic Agar (Art. No. 3008.1). For activation of the listerial phospholipase C we recommend additional supplementation with Listeria Chromo Lipase C Supplement (Art. No. 2948.1).

One box of 10 vials Listeria Chromo Selective Supplement is sufficient for 10 x 500 ml Listeria chromogenic Agar (Art. No. 3008).

Storage temperature: +4 °C

Composition
Cycloheximide ..... 0,025 g
Polymyxin B sulphate ..... 38350 I.U.
Nalidixic acid sodium salt ..... 0,01 g
Ceftazidime (Fortam) ..... 0,01 g

per vial.

Art. No.	Pack Qty.	Pack.	€
2947.1	10 unit(s)	glass	141,40

Listeria Oxford Supplement

Oxford Supplement

mp 112 °C
UN no. 2811 · ADR 6.1 II · WGK 3
Danger H300-H341-H360D-H411

Listeria Oxford Supplement
lyophilized

Media supplement for selective isolation of *Listeria monocytogenes.*

Application: One vial Listeria-Oxford Supplement is reconstituted in 9 ml of a sterile 1:1 mixture of ethanol and distilled water, and is subsequently added to 500 ml autoclaved Oxford Listeria Agar (Base) (Art. No. 5767.1).

One box of 10 vials Listeria Oxford Supplement is sufficient for 10 x 500 ml Oxford Listeria Agar (Art. No. 5767).

Storage temperature: +4 °C

Composition
Cycloheximide ..... 200 mg
Colistinsulphate ..... 10 mg
Fosfomycin ..... 5 mg
Cefotetan ..... 1 mg
Acriflavine ..... 2,5 mg

per vial.

Art. No.	Pack Qty.	Pack.	€
5801.1	10 unit(s)	glass	255,35

Listeria Palcam Supplement

Palcam Supplement

WGK 2
Danger H302-H315-H317-H319-H334-H335-H412

Listeria Palcam Supplement
lyophilized

Media supplement for selective isolation of *Listeria monocytogenes.*

Application: One vial Listeria-Palcam Supplement is reconstituted in 6 ml sterile distilled water, and is subsequently added to 500 ml autoclaved Palcam Listeria Agar (Base) (Art. No. 5768.1).

One box of 10 vials Listeria Palcam Supplement is sufficient for 10 x 500 ml Palcam Listeria Agar (Art. No. 5768).

Storage temperature: +4 °C

Composition
Ceftazidime (Fortam) ..... 10 mg
Polymyxin B ..... 5 mg
Acryflavine ..... 2,5 mg

per vial.

Art. No.	Pack Qty.	Pack.	€
5803.1	10 unit(s)	glass	160,20

Lithium

Li · mp 180 °C · bp 1342 °C
CAS No. 7439-93-2 · EC no. 231-102-5
UN no. 1415 · ADR 4.3 I · WGK 1
Danger H260-H314-EUH014

Lithium
≥99,5 %, Ø 70 mm, h: 55 mm

Type analysis
Assay ..... ≥99,5 %

Art. No.	Pack Qty.	Pack.	€
1HEA.1	100 g	aluminium	671,90

Lithium Standards
- Lithium ICP Standard Solution see page 1318
- Lithium IC Standard Solution see page 1336
- Lithium AAS Standard Solution see page 1318
- Lithium ICP Standard Solution see page 1318

Lithium acetate

Lithium ethanoate

Li CH_3COO · D 1,25 g/cm³ · mp 283 to 285 °C
CAS No. 546-89-4 · EC no. 208-914-3
WGK 1

Lithium acetate
≥99 %, cryst.

Type analysis
Assay ..... ≥99,0 %
Water (KF) ..... <0,3 %
Chloride (Cl) ..... <0,02 %
Sulphate (SO_4) ..... <0,02 %
Sodium (Na) ..... <0,01 %
Potassium (K) ..... <0,005 %
Calcium (Ca) ..... <0,02 %
Magnesium (Mg) ..... <0,001 %
Heavy metals ..... <0,002 %
Iron (Fe) ..... <0,001 %

Art. No.	Pack Qty.	Pack.	€
5447.2	100 g	plastic	39,70
5447.1	500 g	plastic	160,20
Original pack 6 x 500 g			152,19/500 g

Lithium acetate dihydrate

Lithium ethanoate

$LiCH_3COO \cdot 2\,H_2O$ · D 1,3 g/cm³ · mp 53 to 56 °C
CAS No. 6108-17-4 · EC no. 612-081-5
WGK 1

Lithium acetate dihydrate
≥98 %

Type analysis
Appearance ..... white cryst. powder
Assay ..... ≥98,0 %
Calcium (Ca) ..... ≤0,01 %
Chloride (Cl) ..... ≤0,05 %
Iron (Fe) ..... ≤0,005 %
Sodium (Na) ..... ≤0,05 %
In water insoluble matter ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
6713.1	50 g	plastic	19,90
6713.2	100 g	plastic	30,00
6713.3	500 g	plastic	110,65
Original pack 6 x 500 g			105,12/500 g

Lithium bromide

LiBr · D 3,46 g/cm³ · mp 547 to 550 °C · bp 1265 °C
CAS No. 7550-35-8 · EC no. 231-439-8
WGK 1

Warning H302-H315-H317-H319

Lithium bromide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5062.1	25 g	plastic	166,65
5062.2	50 g	plastic	265,00

Lithium bromide
≥99 %, anhydrous

Type analysis
Appearance ..... white to slightly pink powder
Assay ..... ≥99,0 %
Chlorine (Cl) ..... ≤0,2 %
Sulphate (SO_4) ..... ≤0,05 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,001 %
Sodium (Na) ..... ≤0,2 %
Insoluble matter in acid ..... ≤0,01 %
Water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6712.1	25 g	plastic	27,85
6712.2	100 g	plastic	56,45
6712.3	500 g	plastic	209,65
Original pack 6 x 500 g			199,17/500 g

Lithium carbonate

Li_2CO_3 · D 2,11 g/cm³ · mp 722 °C
CAS No. 554-13-2 · EC no. 209-062-5
WGK 1

Warning H302-H319

Lithium carbonate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5635.1	10 g	plastic	54,75
5635.2	25 g	plastic	97,30
5635.3	100 g	plastic	298,35

Lithium carbonate
≥99 %, p.a., ACS

Reagent for microscopy; starting material for other lithium compounds.

Guarantee analysis
Assay (acidim.) ..... ≥99,0 %
In diluted HCl insoluble matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,005 %
Nitrate (NO_3) ..... ≤0,0005 %
Sulphur compounds (as SO_4) ..... ≤0,2 %
Heavy metals (as Pb) ..... ≤0,002 %
Iron (Fe) ..... ≤0,002 %
Sodium (Na) ..... ≤0,1 %
Potassium (K) ..... ≤0,01 %
Calcium (Ca) ..... ≤0,01 %
Ammonium (NH_4) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
3995.1	250 g	plastic	149,45
3995.2	500 g	plastic	274,15
Original pack 6 x 500 g			260,44/500 g

Lithium carbonate
≥99 %, extra pure

Type analysis
Assay ..... ≥99,0 %
Water ..... ≤0,5 %
Chloride (Cl) ..... ≤0,05 %
Calcium (Ca) ..... ≤0,05 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,05 %
Magnesium (Mg) ..... ≤0,01 %
Sodium (Na) ..... ≤0,1 %
Lead (Pb) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
7324.1	100 g	plastic	42,90
7324.2	500 g	plastic	170,95
Original pack 6 x 500 g			162,40/500 g
7324.3	1 kg	plastic	332,20
Original pack 6 x 1 kg			315,59/1 kg
7324.4	2.5 kg	plastic	693,40
7324.5	5 kg	plastic	1.343,75

Lithium chloride

LiCl · D 2,07 g/cm³ · mp 608,5 °C · bp 1360 °C
CAS No. 7447-41-8 · EC no. 231-212-3
WGK 1

Warning H302-H315-H319

Lithium chloride
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5079.1	25 g	plastic	166,65
5079.2	50 g	plastic	265,00

Lithium chloride
≥99 %, p.a., Ultra Quality

For molecular biology: used for salt-precipitation of DNA. For use in heating and cooling baths.

Guarantee analysis
Assay ..... ≥99,0 %
Solubility (8M, solution) ..... clear, colourless
Sulphate (SO_4) ..... ≤0,006 %
Heavy metals (as Pb) ..... ≤0,002 %
Barium (Ba) ..... ≤0,003 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,01 %
Sodium (Na) ..... ≤0,06 %
Loss on drying (105 °C) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
3739.1	250 g	plastic	192,45
3739.2	1 kg	plastic	676,20
Original pack 6 x 1 kg			642,39/1 kg

Lithium chloride
≥99 %, p.a., ACS

Guarantee analysis
Appearance ..... white cryst. powder
Assay (arg. titr.) ..... ≥99,0 %
Titrable base ..... ≤0,008 meq/g
Nitrate (NO_3) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,01 %
Barium (Ba) ..... ≤0,003 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,01 %
Sodium (Na) ..... ≤0,2 %
Heavy metals ..... ≤0,002 %
Insoluble matter ..... ≤0,01 %
Loss on drying (105 °C) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
6698.1	50 g	plastic	65,50
6698.2	100 g	plastic	110,65
6698.3	500 g	plastic	428,95
Original pack 6 x 500 g			407,50/500 g
6698.4	1 kg	plastic	762,20
Original pack 6 x 1 kg			724,09/1 kg

Lithium chloride
≥98,5 %, pure

Type analysis
Assay ..... ≥98,5 %
Water ..... ≤0,5 %
Sodium (Na) ..... ≤0,35 %
Potassium (K) ..... ≤0,5 %
Calcium (Ca) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
P007.1	250 g	plastic	105,25
P007.2	1 kg	plastic	385,95
Original pack 6 x 1 kg			366,65/1 kg
P007.3	2.5 kg	plastic	848,20

tri-Lithium citrate tetrahydrate

$C_6H_5Li_3O_7$ · 4 H_2O · D 1,64 g/cm³ · mp 333 °C
CAS No. 6080-58-6 · EC no. 612-032-8
WGK 1

Warning H302

tri-Lithium citrate tetrahydrate
≥98 %, Ph. Eur.

Guarantee analysis
Appearance ..... white to off-white powder
Assay (titr. dry substance) ..... 98,0-102,0 %
Identity ..... complies
Appearance of solution (10 %, water) ... complies
Acidity/alkalinity ..... complies
Reaction with H_2SO_4 ..... complies
Chloride (Cl) ..... ≤0,01 %
Oxalate (as $C_2H_2O_4$) ..... ≤0,03 %
Sulphate (SO_4) ..... ≤0,05 %
Heavy metals (as Pb) ..... ≤0,001 %
Water ..... 24,0-27,0 %

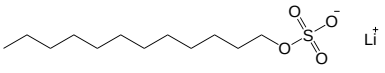
Art. No.	Pack Qty.	Pack.	€
9443.1	50 g	plastic	28,95
9443.2	100 g	plastic	42,90
9443.3	500 g	plastic	127,95
Original pack 6 x 500 g			121,55/500 g

tri-Lithium citrate tetrahydrate
≥99 %, extra pure

Type analysis
Assay ..... ≥99,0 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,05 %
Fe (Iron) ..... ≤0,0005 %
K (Potassium) ..... ≤0,005 %
Na (Sodium) ..... ≤0,05 %
Pb (Lead) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
1L0E.1	100 g	plastic	24,65
1L0E.2	500 g	plastic	81,60
Original pack 6 x 500 g			77,52/500 g
1L0E.3	1 kg	plastic	149,45
Original pack 6 x 1 kg			141,98/1 kg
1L0E.4	2.5 kg	plastic	306,40

Lithiumdodecyl sulphate (LDS)



LDS · Lithium lauryl sulphate

$C_{12}H_{25}LiO_4S$ · mp 100 to 123 °C · bp 199 °C
CAS No. 2044-56-6 · EC no. 218-058-2
UN no. 1325 · ADR 4.1 III · WGK 2
Danger H228-H302+H332-H315-H318-H335-H412

Lithiumdodecyl sulphate (LDS)
≥99 %, for biochemistry

Anionic detergent

Type analysis
Assay ..... ≥99,0 %
Chloride (Cl) ..... ≤0,01 %
Loss on drying ..... ≤1,0 %

Absorbance:
260 nm ..... ≤0,1
280 nm ..... ≤0,075

Art. No.	Pack Qty.	Pack.	€
CN25.1	10 g	plastic	34,95
CN25.2	25 g	plastic	69,80
CN25.3	50 g	plastic	127,95

Lithium ethanoate

- Lithium acetate dihydrate see page 1045
- Lithium acetate see page 1045

Lithium fluoride

LiF · D 2,64 g/cm³ · mp 848 °C · bp 1676 °C
CAS No. 7789-24-4 · EC no. 232-152-0
UN no. 3288 · ADR 6.1 III · WGK 2
Danger H301-H315-H319-H335

Lithium fluoride
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5082.1	5 g	plastic	74,10
5082.2	25 g	plastic	230,60

Lithium fluoride
≥99 %, p.a.

Type analysis
Appearance ..... white powder
Assay ..... ≥99,0 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,05 %
Aluminium (Al) ..... ≤0,05 %
Barium (Ba) ..... ≤0,005 %
Lead (Pb) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,05 %
Iron (Fe) ..... ≤0,005 %
Potassium (K) ..... ≤0,01 %
Copper (Cu) ..... ≤0,005 %
Magnesium (Mg) ..... ≤0,01 %
Sodium (Na) ..... ≤0,05 %
Zinc (Zn) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
6715.1	25 g	plastic	23,55
6715.2	100 g	plastic	42,90
6715.3	250 g	plastic	82,70

Lithium fluoride
≥98,5 %

Type analysis
Appearance ..... white powder
Assay ..... ≥98,5 %
Chloride (Cl) ..... ≤0,1 %
Sulphate (SO_4) ..... ≤0,1 %
Iron (Fe) ..... ≤0,01 %
Lead (Pb) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
6702.1	25 g	plastic	17,75
6702.2	100 g	plastic	39,25
6702.3	250 g	plastic	80,10

Lithium hexafluorophosphate

Lithium phosphorus fluoride · LFHP · LFP

$LiPF_6$ · D 2,83 g/cm³
CAS No. 21324-40-3 · EC no. 244-334-7
UN no. 2923 · ADR 8 (6.1) I · WGK 2
Danger H301-H314-H372

Lithium hexafluorophosphate
≥99,9 %, p.a.

Type analysis
Assay ..... ≥99,9 %
Insoluble matter ..... ≤0,02 %
Water ..... ≤0,002 %
Chloride (Cl) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,0005 %
Potassium (K) ..... ≤0,0001 %
Sodium (Na) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,0005 %
Free acid (as HF) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
2243.1	5 g	glass	37,55
2243.2	25 g	glass	134,40
2243.3	100 g	glass	403,15

Lithium hydroxide

LiOH · D 1,54 g/cm³ · mp 423,9 °C
CAS No. 1310-65-2 · EC no. 215-183-4
UN no. 2680 · ADR 8 II · WGK 1
Danger H302-H314

Lithium hydroxide
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L5X.1	5 g	HDPE	80,10
1L5X.2	25 g	HDPE	254,25

Lithium hydroxide
≥99 %, anhydrous

Type analysis
Appearance ..... white granular powder
Assay (LiOH) ..... ≥99 %
Calcium (Ca) ..... ≤0,01 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,05 %
Iron (Fe) ..... ≤0,005 %
Potassium (K) ..... ≤0,05 %
Sodium (Na) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
6705.1	25 g	plastic	26,80
6705.2	100 g	plastic	74,20
6705.3	250 g	plastic	155,90

Lithium hydroxide monohydrate

LiOH · H_2O · D 1,51 g/cm³ · mp 424 °C
CAS No. 1310-66-3 · EC no. 215-183-4
UN no. 2680 · ADR 8 II · WGK 1
Danger H302-H314

Lithium hydroxide monohydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L73.1	5 g	HDPE	64,40
1L73.2	25 g	HDPE	157,50

Lithium hydroxide monohydrate
≥56,5 % LiOH

Type analysis

Assay (LiOH)	≥56,5 %
Chloride (Cl)	≤0,01 %
Sulphate (SO_4)	≤0,05 %
Potassium (K)	≤0,01 %
Sodium (Na)	≤0,05 %
Insoluble in HCl	≤0,01 %

Art. No.	Pack Qty.	Pack.	€
3997.1	250 g	plastic	106,45
3997.2	1 kg	plastic	353,70
Original pack 6 x 1 kg			336,02/1 kg

Lithium iodide trihydrate

LiI · 3 H_2O · D 3,43 g/cm³ · mp 73 °C · bp 1171 °C
CAS No. 7790-22-9 · EC no. 233-822-5
WGK 3

Warning H315-H319

Lithium iodide trihydrate
≥99 %, extra pure

Type analysis

Assay	≥99,0 %
Chloride (Cl)	≤0,05 %
Sulphate (SO_4)	≤0,05 %
Ca (Calcium)	≤0,05 %
Fe (Iron)	≤0,05 %
K (Potassium)	≤0,05 %
Mg (Magnesium)	≤0,05 %
Na (Sodium)	≤0,01 %
Heavy metals (as Pb)	≤0,005 %

Art. No.	Pack Qty.	Pack.	€
1ALT.1	50 g	plastic	40,35
1ALT.2	100 g	plastic	75,15
1ALT.3	250 g	plastic	160,20
1ALT.4	500 g	plastic	299,95
Original pack 6 x 500 g			284,95/500 g

Lithium lauryl sulphate
▸ Lithiumdodecyl sulphate (LDS) see page 1047

Lithium metaborate

D 2,18 g/cm³ · mp 849 °C
CAS No. 13453-69-5 · EC no. 236-631-5
WGK 1

Danger H302-H318-H361d

Lithium metaborate
≥98 %, p.a., ACS, anhydrous

Guarantee analysis

Assay (acidim.)	98,0-102,0 %
Insoluble matter	≤0,01 %
Loss on fusion (950 °C, 15 min)	≤2,0 %
Phosphate (PO_4)	≤0,004 %
Aluminium (Al)	≤0,001 %
Calcium (Ca)	≤0,01 %
Iron (Fe)	≤0,002 %
Potassium (K)	≤0,005 %
Magnesium (Mg)	≤0,0005 %
Sodium (Na)	≤0,005 %
Silicon (Si)	≤0,01 %
Heavy metals	≤0,001 %
Bulk density	≥0,25 g/ml

Art. No.	Pack Qty.	Pack.	€
9840.1	50 g	plastic	58,60
9840.2	100 g	plastic	103,75

Lithium nitrate

$LiNO_3$ · D 2,38 g/cm³ · mp 264 °C · bp 600 °C
CAS No. 7790-69-4 · EC no. 232-218-9
UN no. 2722 · ADR 5.1 III · WGK 1

Danger H272-H302-H319

Lithium nitrate
ROTI®METIC 99,999 % (5N), anhydrous

Type analysis

Assay (metals basis)	99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5281.1	10 g	plastic	99,90
5281.2	25 g	plastic	198,35

Lithium nitrate
≥99,5 %, anhydrous

Type analysis

Appearance	white hygroscopic powder
Assay	≥99,5 %
Chlorine (Cl)	≤0,01 %
Sulphate (SO_4)	≤0,02 %
Calcium (Ca)	≤0,01 %
Lead (Pb)	≤0,001 %
Iron (Fe)	≤0,001 %
Sodium (Na)	≤0,02 %
Water	≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6699.1	10 g	plastic	19,90
6699.2	50 g	plastic	34,95
6699.3	250 g	plastic	103,75
6699.4	500 g	plastic	192,45
Original pack 6 x 500 g			182,83/500 g

Lithium octadecanoate
▸ Stearic acid lithium salt see page 1339

tri-Lithium phosphate

Lithium orthophosphate · Lithium phosphate tribasic · Phosphoric acid trilithium salt

Li_3PO_4 · mp 1200 to 1205 °C
CAS No. 10377-52-3 · EC no. 233-823-0
WGK 1

Warning H302

tri-Lithium phosphate
≥99 %, pure

Type analysis

Assay	≥99,0 %
Ca (Calcium)	≤0,05 %
Fe (Iron)	≤0,005 %
Water	≤1,0 %

Art. No.	Pack Qty.	Pack.	€
1EHT.1	50 g	plastic	32,15
1EHT.2	250 g	plastic	90,85
1EHT.3	500 g	plastic	170,95
Original pack 6 x 500 g			162,40/500 g
1EHT.4	1 kg	plastic	321,45
Original pack 6 x 1 kg			305,38/1 kg

Lithium phosphorus fluoride
▸ Lithium hexafluorophosphate see page 1047

Lithium stearate
▸ Stearic acid lithium salt see page 1339

Lithium sulphate

Li_2SO_4 · D 2,22 g/cm³ · mp 845 to 859 °C
CAS No. 10377-48-7 · EC no. 233-820-4
WGK 1

Warning H302-H319

Lithium sulphate
≥99 %, anhydrous

Type analysis

Appearance	white cryst. powder
Assay	≥99,0 %
Calcium (Ca)	≤0,1 %
Lead (Pb)	≤0,001 %
Iron (Fe)	≤0,001 %
Sodium (Na)	≤0,1 %
Water	≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6700.1	50 g	plastic	34,95
6700.2	100 g	plastic	69,35
6700.3	250 g	plastic	103,75
6700.4	500 g	plastic	192,45
Original pack 6 x 500 g			182,83/500 g

Lithium sulphate monohydrate

Li_2SO_4 · H_2O · D 2,06 g/cm³ · mp 130 °C
CAS No. 10102-25-7 · EC no. 233-820-4
WGK 1

Warning H302-H319

Lithium sulphate monohydrate
≥99 %, p.a.

Guarantee analysis

Assay	≥99 %
Water	13,0-15,0 %
Iron (Fe)	≤0,01 %
Fe_2O_3	≤0,005 %
Lead (Pb)	≤0,01 %
Calcium (Ca)	≤0,1 %
Potassium (K)	≤0,05 %
Sodium (Na)	≤0,1 %
Magnesium (Mg)	≤0,01 %

Art. No.	Pack Qty.	Pack.	€
4393.1	250 g	plastic	53,65
4393.2	500 g	plastic	95,70
Original pack 6 x 500 g			90,92/500 g
4393.3	1 kg	plastic	160,20
Original pack 6 x 1 kg			152,19/1 kg

Lithium tetraborate

$Li_2B_4O_7$ · D 2,35 g/cm³ · mp >500 °C
CAS No. 12007-60-2 · EC no. 234-514-3
WGK 1

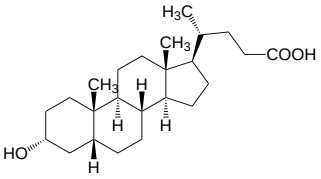
Danger H302-H318-H361d

Lithium tetraborate
≥99 %

Type analysis
Appearance ..... white cryst. powder
Assay ..... ≥99,0 %
Sulphate (SO_4) ..... ≤0,1 %
Calcium (Ca) ..... ≤0,1 %
Lead (Pb) ..... ≤0,01 %
Iron (Fe) ..... ≤0,01 %
Sodium (Na) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
6706.1	25 g	plastic	21,00
6706.2	100 g	plastic	47,20
6706.3	250 g	plastic	100,95
6706.4	500 g	plastic	188,15
Original pack 6 x 500 g			178,74/500 g

Lithocholic acid



3α-Hydroxy-5ß-cholanic acid

$C_{24}H_{40}O_3$ · mp 183 °C
CAS No. 434-13-9 · EC no. 207-099-1
WGK 1

Lithocholic acid
≥98 %

Type analysis
Appearance ..... white to nearly whitepowder
Assay (titr.) ..... ≥98 %
Melting point ..... 182-188 °C
Loss on drying ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
8147.1	5 g	glass	45,05
8147.2	10 g	glass	67,65
8147.3	25 g	glass	134,40

Litmus

Lacmus

Litmus (C.I. 1242)
p.a.

Indicator pH 4.5-8.3

Dissolve 4 g in 100 ml water

CAS No. 1393-92-6 · EC no. 215-739-6

WGK 1

Type analysis
Appearance ..... bluish-black powder
pH-transition range ..... 4,5 (red) - 8,3 (blue)

Art. No.	Pack Qty.	Pack.	€
0248.1	5 g	glass	17,10
0248.2	25 g	glass	44,00

Litmus indicator solution
2,5 %, in ethanol

Indicator pH 4.5-8.3

ready-to-use

D 0,97 g/cm³

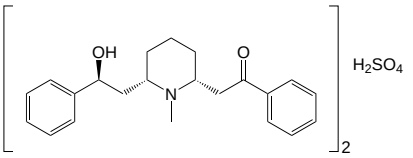
WGK 2

Type analysis
Appearance ..... blue solution
pH-transition range 5,0-8,0

Art. No.	Pack Qty.	Pack.	€
1EE2.1	250 ml	glass	37,10

Litsea
▸ Oil of cubeb see page 1122

Lobeline sulphate



$(C_{22}H_{27}NO_2)_2 \cdot H_2SO_4$ · mp 140 °C
CAS No. 134-64-5 · EC no. 205-151-8
UN no. 1544 · ADR 6.1 III · WGK 1

Danger H301

Lobeline sulphate
ROTICHROM® CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
8997.1	100 mg	glass	21,40

LOEFFLER's methylene blue solution

Methylene blue solution 0,5 %

D 1 g/cm³ · bp 100 °C
WGK 1

LOEFFLER's methylene blue solution
for microscopy and cell counting

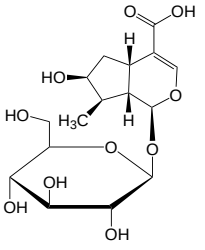
For visualising nuclei.

Cytological and bacteriological staining, vitality tests

Type analysis
Suitability for microscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
AE64.1	500 ml	glass	34,95
AE64.2	1 l	glass	49,35
Original pack 6 x 1 l			46,88/1 l
AE64.3	2.5 l	plastic	98,40
Original pack 4 x 2.5 l			93,48/2.5 l

Loganic acid



$C_{16}H_{24}O_{10}$ · mp 179 to 184 °C
CAS No. 22255-40-9 · EC no. 244-875-9
WGK 1

Loganic acid
ROTICHROM® HPLC

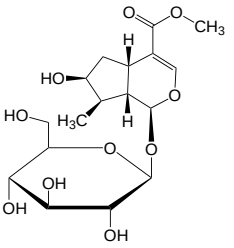
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
4158.2	20 mg	glass	299,95

Loganin



$C_{17}H_{26}O_{10}$ · mp 209 to 224 °C
CAS No. 18524-94-2 · EC no. 242-398-0
WGK 1

Loganin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
4162.1	10 mg	glass	231,15

Longilobin
▸ Seneciphylline see page 1256

β-Longilobin
▸ Retrorsine see page 1203

α-Longilobine
▸ Seneciphylline see page 1256

D-Luciferin

(*S*)-2-(6-Hydroxy-2-benzothiazolyl)-2-thiazoline-4-carboxylic acid

$C_{11}H_8N_2O_3S_2$ · mp 201 to 204 °C
CAS No. 2591-17-5
WGK 1

D-Luciferin
≥99 %, for biochemistry

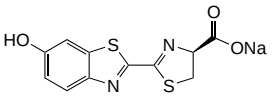
Substrate of Luciferase

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥99 %
Water ..... ≤2 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in DMF) ... -36° to -32°

Art. No.	Pack Qty.	Pack.	€
CN24.1	10 mg	glass	70,45
CN24.2	25 mg	glass	138,70
CN24.3	50 mg	glass	241,90

D-Luciferin sodium salt



· H_2O

(*S*)-2-(6-Hydroxy-2-benzothiazolyl)-2-thiazoline-4-carboxylic acid

$C_{11}H_7N_2O_3S_2Na \cdot H_2O$
CAS No. 103404-75-7
WGK 1

D-Luciferin sodium salt
≥99 %, for biochemistry

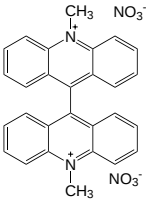
Luciferase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (HPLC) ..... ≥99 %
Solution (1 % in water) ..... yellowish, clear
Water (KF) ..... ≤8 %

Art. No.	Pack Qty.	Pack.	€
4096.1	10 mg	glass	42,50
4096.2	25 mg	glass	76,90

Lucigenin



Bis-*N*-methylacridinium nitrate · *N*,*N*'-Dimethyl-9,9'-biacridinium dinitrate

$C_{28}H_{22}N_4O_6$ · mp 247 °C
CAS No. 2315-97-1 · EC no. 219-023-4
WGK 1

Lucigenin
≥97 %, p.a., for chemiluminescence assays

Guarantee analysis
Assay (HPLC) ..... ≥97,0 %

Art. No.	Pack Qty.	Pack.	€
6272.1	500 mg	glass	127,95

LuciPac®Pen

WGK 1

LuciPac® Pen
sterile, for hygiene control of surfaces

Kikkoman.

For testing for the contamination of surfaces by ATP/AMP measurement using Lumitester PD20 and PD30.

20 LuciPac® Pens each are packed in a resealable aluminium bag. Store in a dark place.

Storage temperature: +4 °C

Guarantee analysis
Sterility ..... complies
Luminescence control ..... complies

Art. No.	Pack Qty.	Pack.	€
NC59.1	20 unit(s)	aluminium bag	123,65
NC59.2	100 unit(s)	aluminium bag	547,20

LuciPac® Pen Aqua
sterile, for hygiene control of liquids

Kikkoman.

For testing for the contamination of liquids by ATP/AMP measurement using Lumitester PD20 and PD30.

20 LuciPac® Pens Aqua each are packed in a resealable aluminium bag. Store in a dark place.

Storage temperature: +4 °C

Guarantee analysis
Sterility ..... complies
Luminescence control ..... complies

Art. No.	Pack Qty.	Pack.	€
NC58.1	20 unit(s)	aluminium bag	123,65
NC58.2	100 unit(s)	aluminium bag	547,20

LuciPac®A3

WGK 1

LuciPac®A3
sterile, for hygiene control of surfaces

Kikkoman.

For testing for the contamination of surfaces by ATP/ADP/AMP measurement using Lumitester PD30 and SMART.

20 LuciPac®A3 each are packed in a resealable aluminium bag. Store in a dark place.

Storage temperature: +4 °C

Guarantee analysis
RLU after adding 100 µl of 5 pmol ADP .... 9100-16900 RLU
RLU after adding 100 µl of 5 pmol AMP .... 9100-16900 RLU
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
1ENH.1	20 unit(s)	aluminium bag	123,65
1ENH.2	100 unit(s)	aluminium bag	547,20

LuciPac®A3 Aqua
sterile, for hygiene control of liquids

Kikkoman.

For testing for the contamination of liquids by ATP/ADP/AMP measurement using Lumitester PD30 and SMART.

20 LuciPac®A3 Aqua each are packed in a resealable aluminium bag. Store in a dark place.

Storage temperature: +4 °C

RLU after adding 100 µl of 5 pmol ADP .... 9100-16900 RLU
RLU after adding 100 µl of 5 pmol AMP .... 9100-16900 RLU
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
1ENK.1	20 unit(s)	aluminium bag	123,65
1ENK.2	100 unit(s)	aluminium bag	547,20

Luff-Schoorl's solution

D 1,15 g/cm³ · bp >100 °C
UN no. 3082 · ADR 9 III · WGK 3

Warning H319-H411

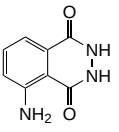
Luff-Schoorl's solution
for sugar determination

Art. No.	Pack Qty.	Pack.	€
X874.1	1 l	plastic	42,50
Original pack 6 x 1 l			40,38/1 l

Lugol solution

▸ Iodine-potassium iodide solution acc. to Lugol see page 1011

Luminol



3-Aminophthalhydrazide · 5-Amino-2,3-dihydro-phthalazine-1,4-dione

$C_8H_7N_3O_2$ · mp 325 to 330 °C
CAS No. 521-31-3 · EC no. 208-309-4
WGK 1

Warning H302-H315-H319-H335

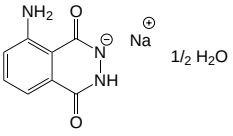
Luminol
≥95 %, for synthesis

Fluorescence indicator, peroxidase reagent

Type analysis
Appearance ..... yellow-green powder
Assay (titr.) ..... ≥95 %
Water (KF) ..... <1 %
Solubility (0,1 % in 0,1 N NaOH) ..... completely soluble

Art. No.	Pack Qty.	Pack.	€
4203.1	5 g	plastic	61,85
4203.2	25 g	plastic	241,90

Luminol sodium salt hemihydrate



$C_8H_6N_3NaO_2$ · ½ H_2O · mp >300 °C
CAS No. 206658-90-4
WGK 1

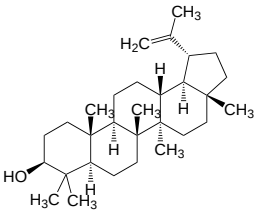
Warning H315-H319-H335

Luminol sodium salt hemihydrate
≥98 %, p.a.

Type analysis
Appearance ..... off-white powder
Assay ..... ≥98 %
Appearance of solution (5 % in H_2O) clear, yellow

Art. No.	Pack Qty.	Pack.	€
7708.1	1 g	glass	25,30
7708.2	5 g	glass	58,60
7708.3	10 g	glass	104,85

Lupeol



β-Viscol

$C_{30}H_{50}O$ · mp 210 to 218 °C
CAS No. 545-47-1 · EC no. 208-889-9
WGK 1

Warning H302

Lupeol
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

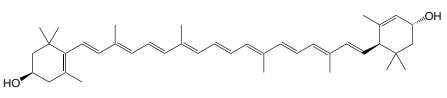
Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
8863.2	20 mg	glass	224,70

Lupeose

▸ Stachyose Hydrate see page 1305

Lutein



Xanthophyll

$C_{40}H_{56}O_2$ · D 0,93 g/cm³ · mp 174 to 181 °C
CAS No. 127-40-2 · EC no. 204-840-0
WGK 1

Lutein
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Purity (HPLC) ..... ≥92 %

Art. No.	Pack Qty.	Pack.	€
1L9C.1	5 mg	glass	407,45

Lutein in oil

$C_{40}H_{56}O_2$ · D 0,93 g/cm³ · mp -12 °C · bp >230 °C
CAS No. 127-40-2 · EC no. 204-840-0
WGK 1

Lutein
natural, oil-soluble, liquid

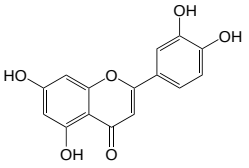
Carotenoids from *Tagetes erecta*

Storage temperature: +4 °C

Type analysis
Appearance ..... red-brown liquid
Solubility ..... completely soluble in cooking-oils
Dye content ..... ≥2,5 % lutein
Water (KF) ..... ≤1 %
Density (20 °C) 0,92-0,94
Viscosity (20 °C/Brookfield) ..... ≤300 mPa s
E/1 %/443 nm 69-73
Arsenic (As) ..... ≤0,0003 %
Lead (Pb) ..... ≤0,0002 %

Art. No.	Pack Qty.	Pack.	€
7864.1	250 g	glass	59,05

Luteolin



3',4',5,7-Tetrahydroxyflavone

$C_{15}H_{10}O_6$ · mp 326 to 330 °C
CAS No. 491-70-3 · EC no. 207-741-0
WGK 1

Warning H315-H319-H335

Luteolin
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥90,0 %
Residual solvents (GC) ..... ≤10,0 %
Water (KF) ..... ≤4,0 %
Assay (qNMR) ..... ≥80,0 %

Proof of identity by ^1H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE49.1	25 mg	glass	1.020,20

Luteolin
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥80,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC49.2	25 mg	glass	385,95

Luteolin
ROTICHROM® HPLC

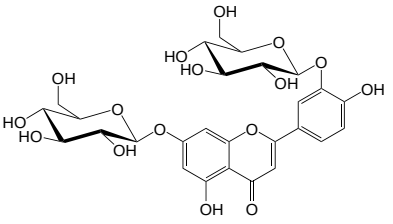
Reference substance for HPLC.
From *Reseda luteola*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
4546.1	10 mg	glass	164,40

Luteolin-3',7-diglucoside



$C_{27}H_{30}O_{16}$
CAS No. 52187-80-1 · EC no. 257-724-7
WGK 1

Luteolin-3',7-diglucoside
ROTICHROM® HPLC

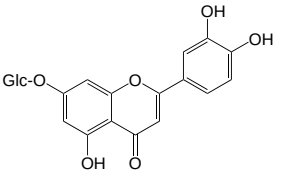
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥96 %

Art. No.	Pack Qty.	Pack.	€
6760.2	10 mg	glass	499,90

Luteolin-7-glucoside



Digitoflavone

$C_{21}H_{20}O_{11}$
CAS No. 5373-11-5 · EC no. 226-365-8
WGK 1

Luteolin-7-glucoside
ROTICHROM® HPLC

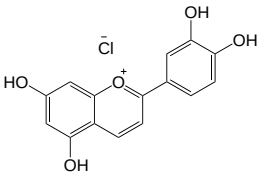
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
4164.1	10 mg	glass	246,20

Luteolinidin chloride



3',4',5,7-Tetrahydroxyflavylium chloride

$C_{15}H_{11}O_5Cl$
CAS No. 1154-78-5
WGK 1

Luteolinidin chloride
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥91 %

Art. No.	Pack Qty.	Pack.	€
9325.1	10 mg	plastic	499,90

Lutetium Standards
- Lutetium ICP Standard Solution see page 1318
- Lutetium ICP Standard Solution see page 1318

Lutetium(III) oxide

Lu_2O_3 · D 9,41 g/cm³ · mp 2427 °C · bp 3980 °C
CAS No. 12032-20-1 · EC no. 234-764-3
WGK 1

Warning H315-H319-H335

Lutetium(III) oxide
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5296.1	1 g	plastic	118,80

Lutetium(III) oxide
ROTI®REMETIC 99,99 %

Type analysis
Assay (TREO*) ..... 99,99 %

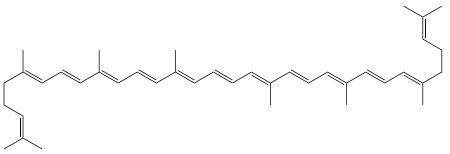
*Total rare earth oxide.
Chemical analysis (ICP, AAS): specified trace impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
7177.1	1 g	plastic	91,30
7177.2	5 g	plastic	375,20

Lutrol®
- Polyethylene glycol see page 1161

Luxol® Fast Blue MBSN
- Solvent blue 38 (C. I. 74180) see page 1299

Lycopene



ψ,ψ-Carotene · all-*trans*-Lycopene

$C_{40}H_{56}$ · mp 166 to 170 °C
CAS No. 502-65-8 · EC no. 207-949-1
WGK 1

Lycopene
ROTICHROM® HPLC

Reference substance for HPLC.
From *Solanum lycopersicum.*

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... >90 %

Art. No.	Pack Qty.	Pack.	€
1180.1	5 mg	glass	317,15

Lycopene
ROTICHROM® CHR$_{TLC}$

Reference substance for thin layer chromatography.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
5670.1	5 mg	glass	461,20

Lycopodium

Club-moss spores

CAS No. 84082-56-4 · EC no. 282-002-3
WGK 1

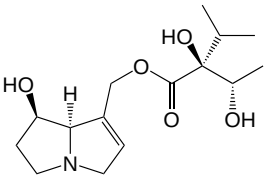
Lycopodium
extra pure

Spores of *Lycopodium clavatum L.*

Type analysis
Appearance ..... fiine, yellow powder
Identity ..... complies
Ash content ..... ≤3 %

Art. No.	Pack Qty.	Pack.	€
8253.1	250 g	plastic	64,40

Lycopsamine



$C_{15}H_{25}NO_5$
CAS No. 10285-07-1
WGK 1

Warning H302

Lycopsamine
ROTICHROM® HPLC

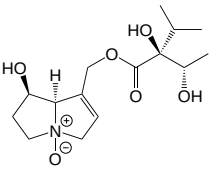
Reference substance for HPLC.
From *Symphytum*

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥95,0 %

Art. No.	Pack Qty.	Pack.	€
2208.1	5 mg	glass	418,20

Lycopsamine *N*-oxide



$C_{15}H_{25}NO_6$
CAS No. 95462-15-0
WGK 1

Warning H302

Lycopsamine *N*-oxide
ROTICHROM® HPLC

Reference substance for HPLC.
From *Symphythum.*

Storage temperature: –20 °C
Transport temperature: ambient temp.

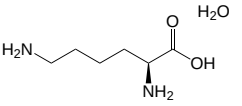
Type analysis
Purity (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
8022.1	5 mg	glass	471,95

Lycoricidinol
- Narciclasine see page 1100

Lymphocyte separation medium
- ROTI®Sep 1077 human/tube see page 1240
- ROTI®Sep 1086 mouse see page 1240
- ROTI®Sep 1077 animal see page 1240
- ROTI®Sep 1077 human see page 1240

L-Lysine monohydrate



$C_6H_{14}N_2O_2 \cdot H_2O$ · mp ~215 °C
CAS No. 39665-12-8 · EC no. 200-294-2
WGK 1

L-Lysine monohydrate
CELLPURE® ≥98,5 %

For cell culture and biochemistry.

Storage temperature: +4 °C

Type analysis
Endotoxins ..... ≤6 I.U./g
Assay (dry substance) ..... ≥98,5 %
Specific rotation $[\alpha]_D^{20}$ ..... +25,5° to +27,0°
Water (KF) ..... 10,0-11,5 %
Ammonium (NH_4) ..... ≤0,02 %

Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,02 %
Heavy metals (as Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
6829.1	25 g	plastic	64,40
6829.2	100 g	plastic	138,70
6829.3	500 g	plastic	532,15
Original pack 6 x 500 g			505,54/500 g

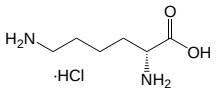
L-Lysine monohydrate
≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (dry substance) ..... 98,5-101,5 %
Specific rotation $[\alpha]_D^{20}$ ..... +21,5° to +24,5°
Water (KF) ..... 10,0-11,5 %
Chloride (Cl) ..... ≤0,03 %
Sulphate (SO_4) ..... ≤0,02 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
4207.1	25 g	plastic	60,10
4207.2	100 g	plastic	127,95

D-Lysine hydrochloride



2,6-Diaminohexanoic acid hydrochloride · H-D-Lys-OH · HCl

$C_6H_{14}N_2O_2$ · HCl · mp 266 °C
CAS No. 7274-88-6 · EC no. 230-691-6
WGK 1

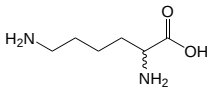
D-Lysine hydrochloride
≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... 99,0-100,5 %
Specific rotation $[\alpha]_D^{20}$ (1 % in 1,6 N HCl) -23,0° to -19,0°
Loss on drying (105 °C, 3 h) ..... ≤0,4 %

Art. No.	Pack Qty.	Pack.	€
7883.1	1 g	glass	30,00
7883.2	5 g	plastic	67,20
7883.3	25 g	plastic	160,20

DL-Lysine hydrochloride



2,6-Diaminohexanoic acid hydrochloride · H-DL-Lys-OH · HCl

$C_6H_{14}N_2O_2$ · HCl · mp 265 to 270 °C
CAS No. 70-53-1 · EC no. 200-739-0
WGK 1

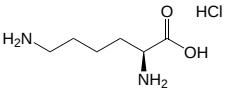
DL-Lysine hydrochloride
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98 %
Heavy metals (as Pb) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
8600.1	500 mg	glass	22,50
8600.2	1 g	glass	37,10
8600.3	5 g	plastic	67,20

L-Lysine hydrochloride



2,6-Diaminohexanoic acid hydrochloride · H-L-Lys-OH · HCl

$C_6H_{15}ClN_2O_2$ · D 0,67 g/cm³ · mp 262 °C
CAS No. 657-27-2 · EC no. 211-519-9
WGK 1

L-Lysine hydrochloride
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤6,0 E.U./g
Assay ..... ≥99 %
Loss on drying ..... ≤0,4 %
Specific rotation $[\alpha]_D^{20}$ (dry substance, 20 °C) ..... 20,7° to 21,5°
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... 19,1-19,5 %
Sulphate (SO_4) ..... ≤0,02 %
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As_2O_3) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,003 %

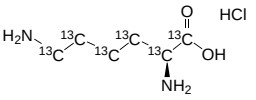
Art. No.	Pack Qty.	Pack.	€
1700.1	25 g	plastic	20,35
1700.2	100 g	plastic	42,90
1700.3	500 g	plastic	149,45
Original pack 6 x 500 g			141,98/500 g

L-Lysine hydrochloride
≥98,5 %, Ph. Eur., USP, JP, for biochemistry

Guarantee analysis
Appearance white to off-white crystalline powder
Assay (dry substance) ..... 98,5-101,0 %
Identity ..... complies
Appearance of solution ..... complies
Specific rotation $[\alpha]_D^{20}$ (dry substance, 20 °C) ..... 20,7° to 21,5°
Specific rotation $[\alpha]_D^{25}$ (dry substance, 25 °C) ..... 20,4° to 21,4°
pH-value 5,0-6,0
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... 19,1-19,5 %
Sulphate (SO_4) ..... ≤0,02 %
Arsenic (As_2O_3) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %
Foreign amino acids ..... ≤0,2 %
Related substances (total) ..... ≤1,0 %
Loss on drying (3 h, 105 °C) ..... ≤0,4 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
9357.1	100 g	plastic	27,85
9357.3	250 g	plastic	53,65
9357.4	500 g	plastic	96,65
Original pack 6 x 500 g			91,82/500 g
9357.2	1 kg	plastic	177,40
Original pack 6 x 1 kg			168,53/1 kg

L-Lysine $^{13}C_6$ hydrochloride



SILAC (Stable Isotope Labelling by amino acids in cell culture) · ^{13}C labelled lysine hydrochloride · (2S)-2,6-Diaminohexanoic acid $^{13}C_6$ Hydrochlorid hydrochloride · ^{13}C labelled Lys · H-L-Lys-OH · HCl $^{13}C_6$

$^{13}C_6H_{14}N_2O_2$ · HCl
CAS No. 1228077-86-8
WGK 1

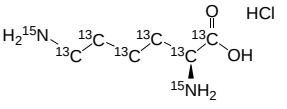
L-Lysine $^{13}C_6$ hydrochloride
≥98 % ^{13}C

For proteomics by mass spectrometry.

Type analysis
Appearance ..... white solid
Assay (HPLC) ..... ≥95 %
Isotope enrichment (^{13}C) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
2083.1	100 mg	glass	353,70

L-Lysine$^{13}C_6{}^{15}N_2$ hydrochloride



(2S)-2,6-Diaminohexanoic acid $^{13}C_6{}^{15}N_2$ hydrochloride · ^{13}C and ^{15}N labelled lysine hydrochloride · SILAC (Stable Isotope Labelling by amino acids in cell culture) · ^{13}C and ^{15}N labelled Lys · H-L-Lys-OH · HCl $^{13}C_6{}^{15}N_2$

$^{13}C_6H_{14}{}^{15}N_2O_2$ · HCl
CAS No. 1200447-00-2
WGK 1

L-Lysine $^{13}C_6{}^{15}N_2$ hydrochloride
≥98 % $^{13}C{}^{15}N$

For proteomics by mass spectrometry.

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥95 %
Isotope enrichment (^{13}C, ^{15}N) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
2085.1	100 mg	glass	418,20

Lysine Iron Agar

WGK 1

Lysine Iron Agar
for microbiology

For rapid differentiation of *Enterobacteriaceae,* particularly *Salmonella arizonae.*

Application: Use 33 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

L-Lysin ..... 10 g/l
Gelatine peptone ..... 5 g/l
Yeast extract ..... 3 g/l
Dextrose ..... 1 g/l
Ammonium iron(III) citrate ..... 0,5 g/l
Sodium thiosulphate ..... 0,04 g/l
Bromocresol purple ..... 0,02 g/l
Agar ..... 13,5 g/l
pH value ..... 6,7 ±0,2

Art. No.	Pack Qty.	Pack.	€
8322.1	500 g	plastic	228,45
Original pack 6 x 500 g			217,03/500 g

Lysozyme

CAS No. 12650-88-3 · EC no. 235-747-3
WGK 1

Danger H334

Lysozyme
≥45 000 FIP U/mg, lyophilized

From chicken egg white, free from albumin.

Stock solution: 10–50 mg/ml in 10 mM Tris (pH 8,0), prepare directly before use

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis

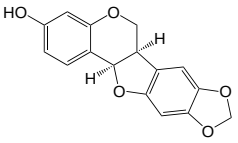
Appearance ..... white powder
Activity ..... ≥45000 FIP U/mg
Water content ..... ≤8,0 %
Ash content ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
8259.1	1 g	glass	36,45
8259.2	10 g	glass	188,15
8259.3	25 g	glass	375,20

Lyticase

▸ Zymolyase® see page 1417

(–)-Maackiain



Inermin

$C_{16}H_{12}O_5$ · mp 175 to 180 °C
CAS No. 2035-15-6
WGK 1

(–)-Maackiain
ROTICHROM® HPLC

Reference substance for HPLC.
From *Baptisia tinctoria*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6496.1	10 mg	glass	338,65

MacConkey Agar

Agar medium H (Ph. Eur. 6.0) · MacConkey Agar (Ph.Eur. 6.3, 7.0, 8.0 and 9.0)

WGK 1

MacConkey Agar
Ph. Eur., ISO 21150, EN ISO 21567, for microbiology

For selective isolation and identification of enterobacteria from waste water, foods and other samples.

Application: Use 50 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Gelatin peptone (Pancreas hydrolysate) ..... 17 g/l
Meat and casein peptone ..... 3 g/l
Lactose monohydrate ..... 10 g/l
Bile salt (Cholate) ..... 1,5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Neutral red ..... 0,03 g/l
Crystal Violet ..... 0,001 g/l
Agar ..... 13,5 g/l
pH value ..... 7,1 ±0,2

Art. No.	Pack Qty.	Pack.	€
X922.3	100 g	plastic	35,40
X922.1	500 g	plastic	109,15
Original pack 6 x 500 g			103,69/500 g
X922.2	1 kg	plastic	196,20
Original pack 6 x 1 kg			186,39/1 kg

MacConkey Agar, granulated
Ph. Eur., granulated, for microbiology

For selective isolation and identification of enterobacteria from waste water, foods and other samples.

Application: Use 49.53 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Gelatin peptone (Pancreas hydrolysate) ..... 17 g/l
Meat and casein peptone ..... 3 g/l
Lactose monohydrate ..... 10 g/l
Bile salt (Cholate) ..... 1,5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Neutral red ..... 0,03 g/l
Crystal Violet ..... 0,001 g/l
Agar ..... 13,5 g/l
pH value ..... 7,1 ±0,2

Art. No.	Pack Qty.	Pack.	€
1514.1	500 g	plastic	181,70
Original pack 6 x 500 g			172,62/500 g

MacConkey Agar (Ph.Eur. 6.3, 7.0, 8.0 and 9.0)
▸ MacConkey Agar see page 1055

MacConkey Agar with sorbitol
▸ Sorbitol MacConkey Agar see page 1304

MacConkey Broth

Broth medium G (Ph. Eur. 6.0) · MacConkey Broth (Ph.Eur. 6.3, 7.0, 8.0 and 9.0)

WGK 1

MacConkey Broth
Ph. Eur., USP, for microbiology

For detection of coliform bacteria in water, milk and other liquids.

Application: Use 35 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Gelatin peptone (Pancreas hydrolysate) ..... 20 g/l
Lactose monohydrate ..... 10 g/l
Dehydrated ox bile ..... 5 g/l
Bromocresol purple ..... 0,01 g/l
pH value ..... 7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE47.1	500 g	plastic	107,40
Original pack 6 x 500 g			102,03/500 g

MacConkey Broth
Ph. Eur. , USP, for microbiology

For detection of coliform bacteria in water, milk and other liquids.

D 1,032 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Bromocresol purple ..... 0,01 g/l
Gelatin Peptone ..... 20 g/l
Lactose ..... 10 g/l
Dehydrated ox bile ..... 5 g/l
pH value (25 °C) 7,1-7,5

Art. No.	Pack Qty.	Pack.	€
1L87.1	180 ml	glass	47,85
1L87.2	1 l	glass	77,95
Original pack 6 x 1 l			74,05/1 l

MacConkey Broth (Ph.Eur. 6.3, 7.0, 8.0 and 9.0)
▸ MacConkey Broth see page 1055

Macleyine
▸ Protopine see page 1189

Macrogol
▸ Polyethylene glycol see page 1161

Madecassoside

$C_{48}H_{78}O_{20}$
CAS No. 34540-22-2 · EC no. 252-076-1
WGK 1

Madecassoside
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
6138.1	10 mg	glass	375,20

Magenta 0
▸ Pararosaniline base see page 1138

Magenta I
▸ Fuchsine basic (C.I. 42510) see page 950

Magenta III
▸ New fuchsin see page 1102

Magnesia burnt
▸ Magnesium oxide see page 1059

Magnesium

Mg · D 1,75 g/cm³ · mp 650 °C · bp 1107 °C
CAS No. 7439-95-4 · EC no. 231-104-6

Magnesium ribbon
≥99,5 %

For the detection of sodium. A coil with about 25 g, ribbon ~0,2 mm thick, 3 mm wide.

UN no. 1869 · ADR 4.1 III

Danger H228-H261

Type analysis
Assay (Mg) ..... ≥99,5 %
In HCl insoluble matter ..... ≤0,05 %
Lead (Pb) ..... ≤0,01 %
Iron (Fe) ..... ≤0,05 %
Copper (Cu) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
4468.1	25 g	box	120,95

Magnesium turnings
≥99,9 %, for synthesis, acc. to Grignard

For synthesis of organometallic compounds. Application in Gringnard reaction.

UN no. 1869 · ADR 4.1 III

Danger H228-H261

Type analysis
Assay (Mg) ..... ≥99,9 %
Aluminium (Al) ..... ≤0,05 %
Manganese (Mn) ..... ≤0,05 %
Iron (Fe) ..... ≤0,05 %
Nickel (Ni) ..... ≤0,001 %
Silicon (Si) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
AE61.1	250 g	tin	21,40
AE61.2	500 g	tin	34,30
Original pack 6 x 500 g			32,59/500 g
AE61.3	1 kg	tin	55,80
Original pack 6 x 1 kg			53,01/1 kg

Magnesium granulate
ROTI®METIC 99,99 % (4N)

UN no. 1869 · ADR 4.1 III

Danger H228-H261

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L6K.1	10 g	HDPE	46,15
1L6K.2	50 g	HDPE	169,35

Magnesium powder
≥99,8 %, <75 µm

UN no. 1418 · ADR 4.3 (4.2) II

Danger H228-H261

Type analysis
Assay (Mg) ..... ≥99,8 %

Art. No.	Pack Qty.	Pack.	€
CP20.1	100 g	plastic	18,20
CP20.2	500 g	plastic	55,80
Original pack 6 x 500 g			53,01/500 g

Magnesium Standards
- Magnesium AAS Standard Solution see page 1318
- Magnesium ICP Standard Solution see page 1318
- Magnesium IC Standard Solution see page 1336
- Magnesium ICP Standard Solution see page 1318

Magnesium acetate tetrahydrate

$Mg(CH_3COO)_2 \cdot 4\ H_2O$ · D 1,45 g/cm³ · mp 80 °C
CAS No. 16674-78-5 · EC no. 205-554-9
WGK 1

Magnesium acetate tetrahydrate
≥99,5 %, p.a., ACS

For the detection of sodium.

Guarantee analysis
Assay (compl.) ..... ≥98,0 %
pH value (5 % in H_2O) 8-9
Insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Barium (Ba) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,001 %
Strontium (Sr) ..... ≤0,005 %
Potassium (K) ..... ≤0,005 %
Sodium (Na) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
P026.1	500 g	plastic	64,40
Original pack 6 x 500 g			61,18/500 g
P026.2	1 kg	plastic	117,20
Original pack 6 x 1 kg			111,34/1 kg

Magnesium acetate tetrahydrate
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤6,0 E.U./g
Assay (dry substance) ..... ≥99 %
pH value (5 % solution) 7,5-8,5
Chloride (Cl) ..... ≤0,033 %
Sulphate (SO_4) ..... ≤0,06 %
Nitrate (NO_3) ..... ≤0,0003 %
Heavy metals (as Pb) ..... ≤0,004 %
Aluminium (Al) ..... ≤0,0001 %
Calcium (Ca) ..... ≤0,01 %
Potassium (K) ..... ≤0,1 %
Sodium (Na) ..... ≤0,5 %
Easily oxidizable substance. ..... complies

Art. No.	Pack Qty.	Pack.	€
HN11.1	100 g	plastic	23,15
HN11.2	500 g	plastic	70,45
Original pack 6 x 500 g			66,93/500 g
HN11.3	1 kg	plastic	123,65
Original pack 6 x 1 kg			117,47/1 kg

Magnesium acetate tetrahydrate
≥98 %, Ph. Eur., extra pure

For biochemistry.

Guarantee analysis
Assay ..... 98,0-101,0 %
Identity ..... complies
pH value (5 % in H_2O) 7,5-8,5
Water ..... 33,0-35,0 %
Chloride (Cl) ..... ≤0,033 %
Sulphate (SO_4) ..... ≤0,06 %
Nitrate (NO_3) ..... ≤0,0003 %
Aluminium (Al) ..... ≤0,0001 %
Calcium (Ca) ..... ≤0,01 %
Potassium (K) ..... ≤0,1 %
Sodium (Na) ..... ≤0,5 %
Easily oxidizable substance. ..... complies

Art. No.	Pack Qty.	Pack.	€
0275.1	500 g	plastic	37,10
Original pack 6 x 500 g			35,25/500 g
0275.2	1 kg	plastic	61,20
Original pack 6 x 1 kg			58,14/1 kg
0275.3	5 kg	plastic	235,45

Magnesium carbonate

Magnesium hydroxide carbonate · Magnesium carbonate basic

$(MgCO_3)_4\ Mg(OH)_2 \cdot 5\ H_2O$ · D 2,16 g/cm³ · mp ≥300 °C
CAS No. 12125-28-9 · EC no. 235-192-7
WGK 1

Magnesium carbonate
Ph. Eur., light

Guarantee analysis
Appearance ..... white powder
Appearance of solution ..... complies
Assay (compl.) ..... 40,0-45,0 %
Identity ..... complies
Water-soluble content ..... ≤1,0 %
Substances insoluble in CH_3COOH ..... ≤0,05 %
Chloride (Cl) ..... ≤0,07 %
Sulphate (SO_4) ..... ≤0,3 %
Arsenic (As) ..... ≤0,0002 %
Calcium (Ca) ..... ≤0,75 %
Iron (Fe) ..... ≤0,04 %

Art. No.	Pack Qty.	Pack.	€
3530.2	1 kg	plastic	49,35
Original pack 6 x 1 kg			46,88/1 kg
3530.1	2.5 kg	cardboard	99,90

Magnesium carbonate
Ph. Eur., USP, heavy

Guarantee analysis
Appearance ..... white to off-white powder
Assay (MgO) ..... 40,0-43,5 %
Identity ..... complies
Appearance of solution ..... complies
Soluble substances ..... ≤1,0 %
In CH_3COOH insoluble matter ..... ≤0,05 %
In HCl insoluble matter ..... ≤0,05 %
Chloride (Cl) ..... ≤0,07 %
Sulphate (SO_4) ..... ≤0,6 %
As (Arsenic) ..... ≤0,0002 %
Ca (Calcium) ..... ≤0,45 %
Fe (Iron) ..... ≤0,02 %
Hg (Mercury) ..... ≤0,00001 %
Heavy metals ..... ≤0,001 %
Bulk density ..... 0,5-0,7 g/ml

Art. No.	Pack Qty.	Pack.	€
2598.1	500 g	plastic	40,75
Original pack 6 x 500 g			38,71/500 g
2598.2	1 kg	plastic	69,80
Original pack 6 x 1 kg			66,31/1 kg
2598.3	2.5 kg	plastic	138,70

Magnesium carbonate
Ph. Eur., USP, granulated

Guarantee analysis
Appearance ..... white to off-white granules
Assay (MgO) ..... 40,0-43,5 %
Identity ..... complies
Appearance of solution ..... complies
Soluble substances ..... ≤1,0 %
In CH_3COOH insoluble matter ..... ≤0,05 %
In HCl insoluble matter ..... ≤0,05 %
Chloride (Cl) ..... ≤0,07 %
Sulphate (SO_4) ..... ≤0,6 %
As (Arsenic) ..... ≤0,0002 %
Ca (Calcium) ..... ≤0,45 %
Fe (Iron) ..... ≤0,02 %
Hg (Mercury) ..... ≤0,00001 %
Heavy metals ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
2789.1	100 g	plastic	23,15
2789.2	500 g	plastic	40,75
Original pack 6 x 500 g			38,71/500 g
2789.3	1 kg	plastic	76,25
Original pack 6 x 1 kg			72,44/1 kg
2789.4	2.5 kg	plastic	149,45

Magnesium chloride

$MgCl_2$ · D 2,32 g/cm³ · mp 708 to 712 °C · bp 1412 °C
CAS No. 7786-30-3 · EC no. 232-094-6
WGK 1

Magnesium chloride
≥99 %, anhydrous

Type analysis
Assay (dry substance) ..... ≥99,0 %
Water ..... ≤2,0 %
NaCl ..... ≤0,01 %
$CaCl_2$ ..... ≤0,05 %
Fe (Iron) ..... ≤0,001 %
Aluminium (Al) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
KK36.1	100 g	plastic	17,10
KK36.2	500 g	plastic	38,60
Original pack 6 x 500 g			36,67/500 g
KK36.3	1 kg	plastic	66,55
Original pack 6 x 1 kg			63,22/1 kg

Magnesium chloride hexahydrate

$MgCl_2 \cdot 6\,H_2O$ · D 1,57 g/cm³ · mp 117 °C
CAS No. 7791-18-6 · EC no. 232-094-6
WGK 1

Magnesium chloride hexahydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5347.1	25 g	plastic	265,00
5347.2	100 g	plastic	779,40

Magnesium chloride hexahydrate
≥99 %, p.a., ACS

Reagent for the detection of phosphate, molecular biology.

Guarantee analysis
Assay (compl.) ..... ≥99,0 %
pH value (5 % in water) 5,0-6,5
In H_2O insoluble matter ..... ≤0,005 %
Total nitrogen (as N) ..... ≤0,002 %
Phosphate (PO_4) ..... ≤0,0005 %
Nitrate (NO_3) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,002 %
Ammonium (NH_4) ..... ≤0,002 %
Barium (Ba) ..... ≤0,005 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,005 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Strontium (Sr) ..... ≤0,005 %
Zinc (Zn) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
2189.2	250 g	plastic	20,35
2189.1	1 kg	plastic	38,60
Original pack 6 x 1 kg			36,67/1 kg
2189.3	2.5 kg	plastic	71,95
2189.5	25 kg	plastic	542,90

Magnesium chloride hexahydrate
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤3,0 I.U./g
Assay ..... ≥99,0 %
Appearance of solution ..... clear, colourless
In H_2O insoluble matter ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,0005 %
Aluminium (Al) ..... ≤0,00005 %
Arsenic (As) ..... ≤0,0002 %
Cadmium (Cd) ..... ≤0,0001 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,05 %
Mercury (Hg) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
HN03.1	250 g	plastic	26,35
HN03.2	500 g	plastic	39,70
Original pack 6 x 500 g			37,72/500 g
HN03.3	1 kg	plastic	61,85
Original pack 6 x 1 kg			58,76/1 kg
HN03.4	2.5 kg	plastic	115,60
HN03.5	5 kg	plastic	209,65

Magnesium chloride hexahydrate
≥98 %, Ph. Eur., USP, BP

Guarantee analysis
Appearance ..... fine, white crystals
Assay ..... 98,0-101,0 %
Identity ..... complies
Water ..... 51,0-55,0 %
Appearance of solution (10 %) ... clear, colourless
pH value (5 % in H_2O) 4,5-7,0
In H_2O insoluble matter ..... ≤0,005 %
Acidity (0,01 M NaOH/0,5 g) ..... ≤0,30 ml
Alkalinity (0,01 M HCl/0,5 g) ..... ≤0,30 ml
Sulphate (SO_4) ..... ≤0,005 %
Bromide (Br) ..... ≤0,05 %
Aluminium (Al) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,01 %
Barium (Ba) ..... complies
Potassium (K) ..... ≤0,05 %
Potassium (K) ..... complies

Art. No.	Pack Qty.	Pack.	€
A537.4	500 g	plastic	22,50
Original pack 6 x 500 g			21,38/500 g
A537.1	1 kg	plastic	33,25
Original pack 6 x 1 kg			31,59/1 kg
A537.5	2.5 kg	plastic	64,00
A537.2	10 kg	plastic	198,90
A537.3	50 kg	cardboard	843,90

Magnesium chloride hexahydrate
technical, in sheds

Type analysis
Appearance ..... white-yellowish flakes
$MgCl_2$ ..... ≥46,5 %
$MgSO_4$ ..... ≤0,6 %
pH value (10 % solution) 5,5-9,0
Potassium chloride (KCl) ..... ≤0,8 %
Sodium chloride (NaCl) ..... ≤0,9 %
Iron (Fe) ..... ≤0,0025 %

Art. No.	Pack Qty.	Pack.	€
3532.1	1 kg	plastic	24,65
Original pack 6 x 1 kg			23,42/1 kg
3532.2	10 kg	plastic	96,65
3532.3	50 kg	cardboard	278,45

Magnesium chloride solution

WGK 1

Magnesium chloride solution
0,1 mol/l – 0,1 M, volumetric standard solution

D 1,003 g/cm³ · bp 100 °C

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,4 %
Titer 0,996-1,004

Art. No.	Pack Qty.	Pack.	€
1E2Y.1	1 l	plastic	152,15
Original pack 6 x 1 l			144,54/1 l

Magnesium chloride solution
25 mM, for PCR, for molecular biology

For optimisation of PCR reaction conditions.

$MgCl_2$ · D 1,003 g/cm³ · bp 100 °C

M 95,22 g/mol

Storage temperature: +4 °C
Transport temperature: ambient temp.

Appearance ..... clear, colourless solution
Concentration ..... 25 mM
DNases, RNases ..... none detected
DNA (human, bacterial) ..... none detected
RNA (human) ..... none detected
Suitable for PCR ..... complies

Art. No.	Pack Qty.	Pack.	€
1HY7.1	1 ml	plastic	12,80
1HY7.2	2.5 ml	plastic	23,15

Magnesium citrate

$C_6H_6MgO_7$
CAS No. 7779-25-1 · EC no. 231-923-9
WGK 1

Magnesium citrate
pure

Type analysis
Assay (Mg) ..... 6,0-8,0 %
pH value (5 % in H_2O) 3,5-4,0
Sulphate (SO_4) ..... ≤1,0 %
Heavy metals (as Pb) ..... ≤0,001 %

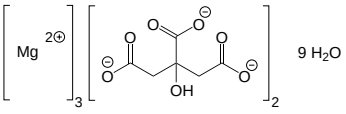
Art. No.	Pack Qty.	Pack.	€
9361.1	100 g	plastic	19,25
9361.2	500 g	plastic	51,10
Original pack 6 x 500 g			48,55/500 g
9361.3	1 kg	plastic	83,35
Original pack 6 x 1 kg			79,18/1 kg

tri-Magnesium citrate
Ph. Eur., USP, anhydrous

Guarantee analysis
Appearance ..... white to off-white powder
Assay (Mg) ..... 15,0-16,4 %
Identity ..... complies
Appearance of solution ..... complies
pH value (5 % in H_2O) 6,0-8,5
Oxalate (C_2O_4) ..... ≤0,028 %
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,2 %
Ca (Calcium) ..... ≤0,2 %
Fe (Iron) ..... ≤0,01 %
Loss on drying (180 °C) ..... ≤3,5 %
Loss on drying (135 °C) ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
2798.1	100 g	plastic	24,65
2798.2	500 g	plastic	50,45
Original pack 6 x 500 g			47,93/500 g
2798.3	1 kg	plastic	88,05
Original pack 6 x 1 kg			83,65/1 kg

tri-Magnesium citrate nonahydrate



Magnesium Citrate, tribasic · Trimagnesium dicitrate · Citric acid magnesium salt

$C_{12}H_{10}Mg_3O_{14}$ · 9 H_2O · mp 184 °C
CAS No. 153531-96-5 · EC no. 222-093-9
WGK 1

tri-Magnesium citrate nonahydrate
Ph. Eur., USP

Guarantee analysis
Appearance ..... white to off-white powder
Assay (metal based, dry substance, 135 °C) ..... 14,5-16,4 %
Assay (metal based, dry substance, 180 °C) ..... 15,0-16,5 %
Identity ..... complies
Appearance of solution ..... complies
pH value (5 % in H_2O) 6,0-8,5
Oxalate (C_2O_4) ..... ≤0,028 %
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,2 %
As (Arsenic) ..... ≤0,0003 %
Ca (Calcium) ..... ≤0,2 %
Fe (Iron) ..... ≤0,01 %
Loss on drying (180 °C) ..... 24,0-28,0 %
Loss on drying (135 °C) ..... ≤29,0 %

Art. No.	Pack Qty.	Pack.	€
3260.1	100 g	plastic	21,40
3260.2	500 g	plastic	48,30
Original pack 6 x 500 g			45,89/500 g
3260.3	1 kg	plastic	85,90
Original pack 6 x 1 kg			81,61/1 kg

Magnesium EDTA disodium salt dihydrate
▸ Ethylenediamine tetraacetic acid magnesium disodium salt dihydrate see page 922

Magnesium hexafluorosilicate hexahydrate

$MgSiF_6$ · 6 H_2O · D 1,79 g/cm³ · mp 120 °C
CAS No. 18972-56-0 · EC no. 241-022-2
UN no. 2853 · ADR 6.1 III · WGK 2

Danger H301-H318-H412

Magnesium hexafluorosilicate hexahydrate
≥98 %, pure

Type analysis
Assay ..... ≥98,0 %
In water insoluble matter ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
0325.1	100 g	plastic	20,35
0325.2	500 g	plastic	34,30
Original pack 6 x 500 g			32,59/500 g
0325.3	1 kg	plastic	54,75
Original pack 6 x 1 kg			52,01/1 kg
0325.4	2.5 kg	plastic	107,40

Magnesium hydrogen phosphate trihydrate

Magnesium phosphate dibasic

$MgHPO_4$ · D 2,13 g/cm³
CAS No. 7782-75-4 · EC no. 231-823-5
WGK 1

Magnesium hydrogen phosphate trihydrate
≥96 %, pure

Type analysis
Assay (based on calcinated substance) . ≥96,0 %
Arsenic (As) ..... ≤0,001 %
Lead (Pb) ..... ≤0,001 %
Loss on ignition (800 °C) ..... 29,0-36,5 %

Art. No.	Pack Qty.	Pack.	€
0502.1	250 g	plastic	21,40
0502.2	1 kg	plastic	56,90
Original pack 6 x 1 kg			54,06/1 kg
0502.3	2.5 kg	plastic	127,95

Magnesium hydroxide

$Mg(OH)_2$ · D 2,41 g/cm³ · mp >320 °C
CAS No. 1309-42-8 · EC no. 215-170-3

Magnesium hydroxide
≥95 %, Ph. Eur.

Guarantee analysis
Appearance ..... white powder
Assay (titr.) ..... 95,0-100,5 %
Identity ..... complies
Appearance of solution ..... complies
Substances soluble in H_2O ..... ≤2,0 %
In CH_3COOH insoluble matter ..... ≤0,1 %
Chloride (Cl) ..... ≤0,1 %
Sulphate (SO_4) ..... ≤1,0 %
Calcium (Ca) ..... ≤1,5 %
Iron (Fe) ..... ≤0,07 %
Loss on ignition (900 °C) ..... 29,0-32,5 %

Art. No.	Pack Qty.	Pack.	€
9453.1	100 g	plastic	18,20
9453.2	500 g	plastic	37,55
Original pack 6 x 500 g			35,67/500 g
9453.3	1 kg	plastic	64,40
Original pack 6 x 1 kg			61,18/1 kg

Magnesium hydroxide
≥95 %, Ph. Eur., USP, granulated

Guarantee analysis
Appearance ..... white granules
Assay ..... 95,0-100,5 %
Identity ..... complies
Appearance of solution ..... complies
Soluble substances ..... ≤10 mg
In CH_3COOH insoluble matter ..... ≤0,1 %
Carbonate (CO_3) ..... complies
Chloride (Cl) ..... ≤0,1 %
Sulphate (SO_4) ..... ≤1,0 %
As (Arsenic) ..... ≤0,0004 %
Ca (Calcium) ..... ≤1,5 %
Fe (Iron) ..... ≤0,07 %
Pb (Lead) ..... ≤0,00015 %
Loss on ignition (800 °C) ..... 30,0-33,0 %
Loss on ignition (900 °C) ..... 29,0-32,5 %
Loss on drying (105 °C) ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
2684.1	100 g	plastic	21,40
2684.2	500 g	plastic	40,75
Original pack 6 x 500 g			38,71/500 g
2684.3	1 kg	plastic	64,40
Original pack 6 x 1 kg			61,18/1 kg
2684.4	2.5 kg	plastic	127,95
2684.5	25 kg	plastic	1.069,65

Magnesium matrix modifier
▸ Magnesium nitrate matrix modifier solution see page 1070
▸ Magnesium nitrate matrix modifier solution see page 1070

Magnesium nitrate hexahydrate

$Mg(NO_3)_2$ · 6 H_2O · D 1,46 g/cm³ · mp 89 °C
CAS No. 13446-18-9 · EC no. 233-826-7
WGK 1

Magnesium nitrate hexahydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5420.1	10 g	plastic	67,65
5420.2	50 g	plastic	140,30

Magnesium nitrate hexahydrate
≥98 %, p.a., ACS

Oxidising agent

Guarantee analysis
Assay (compl.) ..... 98,0-102,0 %
pH value (5 % in H_2O) 5,0-8,2
In H_2O insoluble matter ..... ≤0,003 %
Chloride (Cl) ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,002 %
Ammonium (NH_4) ..... ≤0,003 %
Heavy metals ..... ≤0,0005 %
Arsenic (As) ..... ≤0,0001 %
Aluminium (Al) ..... ≤0,0005 %
Barium (Ba) ..... ≤0,002 %
Calcium (Ca) ..... ≤0,01 %
Cobalt (Co) ..... ≤0,0005 %
Chromium (Cr) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0002 %
Potassium (K) ..... ≤0,005 %

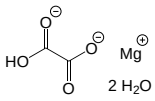
Manganese (Mn) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,005 %
Strontium (Sr) ..... ≤0,002 %
Nickel (Ni) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
HN31.1	500 g	plastic	50,45
Original pack 6 x 500 g			47,93/500 g
HN31.2	1 kg	plastic	91,30
Original pack 6 x 1 kg			86,74/1 kg
HN31.3	2.5 kg	plastic	203,20

Magnesium nitrate matrix modifier solution

- Magnesium nitrate matrix modifier solution see page 1070
- Magnesium nitrate matrix modifier solution see page 1070

Magnesium oxalate dihydrate



Oxalic acid magnesium salt

$MgC_2O_4 \cdot 2\ H_2O$
CAS No. 547-66-0 · EC no. 208-932-1
WGK 1

Warning H302+H312

Magnesium oxalate dihydrate
≥99 %, pure

Type analysis
Assay ..... ≥99,0 %
Chloride (Cl) ..... ≤0,05 %
Lead (Pb) ..... ≤0,005 %
Calcium (Ca) ..... ≤1,0 %
Iron (Fe) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
0495.1	100 g	plastic	27,45
0495.2	500 g	plastic	75,15
Original pack 6 x 500 g			71,39/500 g
0495.3	1 kg	plastic	127,95
Original pack 6 x 1 kg			121,55/1 kg
0495.4	2.5 kg	plastic	278,45

Magnesium oxide

Magnesia burnt

MgO · D 3,58 g/cm³ · mp 2800 °C · bp 3600 °C
CAS No. 1309-48-4 · EC no. 215-171-9
WGK 1

Magnesium oxide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5639.1	10 g	plastic	145,15
5639.2	50 g	plastic	661,15

Magnesium oxide
≥98 %, Ph. Eur., light

Guarantee analysis
Appearance ..... white, fine powder
Assay (based on calcinated substance) ..... 98,0-100,5 %
Identity ..... complies
Appearance of solution ..... complies
Soluble substances ..... ≤2,0 %
Substances insoluble in CH_3COOH ..... ≤0,1 %
Chloride (Cl) ..... ≤0,15 %
Sulphate (SO_4) ..... ≤1,0 %
Arsenic (As) ..... ≤0,0004 %
Calcium (Ca) ..... ≤1,5 %
Iron (Fe) ..... ≤0,1 %
Loss on ignition (900 °C) ..... ≤8,0 %

Art. No.	Pack Qty.	Pack.	€
8280.2	500 g	plastic	35,40
Original pack 6 x 500 g			33,63/500 g
8280.1	1 kg	plastic	62,90
Original pack 6 x 1 kg			59,76/1 kg
8280.3	5 kg	plastic	256,95

Magnesium oxide
≥98 %, Ph. Eur., USP, heavy

Guarantee analysis
Appearance ..... white powder
Assay (based on calcinated substance) ..... 98,0-100,5 %
Identity ..... complies
Appearance of solution ..... complies
Soluble substances ..... ≤2,0 %
In CH_3COOH insoluble matter ..... ≤0,1 %
In HCl insoluble matter ..... ≤0,1 %
Free alkali ..... ≤2,0 ml
Chloride (Cl) ..... ≤0,1 %
Sulphate (SO_4) ..... ≤1,0 %
As (Arsenic) ..... ≤0,0004 %
Ca (Calcium) ..... ≤1,1 %
Fe (Iron) ..... ≤0,05 %
Hg (Mercury) ..... ≤0,00005 %
Pb (Lead) ..... ≤0,0001 %
Loss on ignition (800 °C) ..... ≤8,0 %
Bulk density ..... 250-650 g/l

Art. No.	Pack Qty.	Pack.	€
3273.1	500 g	plastic	44,65
Original pack 6 x 500 g			42,42/500 g
3273.2	1 kg	plastic	70,45
Original pack 6 x 1 kg			66,93/1 kg
3273.3	2.5 kg	plastic	138,70
3273.4	5 kg	plastic	256,95

Magnesium oxide
≥98 %, Ph. Eur., USP, granulated

Guarantee analysis
Appearance ..... white granules
Assay (based on calcinated substance) ..... 98,0-100,5 %
Identity ..... complies
Appearance of solution ..... complies
Soluble substances ..... ≤2,0 %
In CH_3COOH insoluble matter ..... ≤0,1 %
In HCl insoluble matter ..... ≤0,1 %
Free alkali ..... ≤2,0 ml
Chloride (Cl) ..... ≤0,1 %
Sulphate (SO_4) ..... ≤1,0 %
As (Arsenic) ..... ≤0,0004 %
Ca (Calcium) ..... ≤1,1 %
Fe (Iron) ..... ≤0,05 %
Pb (Lead) ..... ≤0,0001 %
Loss on ignition (800 °C) ..... ≤8,0 %
Bulk density ..... 850-1050 g/l

Art. No.	Pack Qty.	Pack.	€
3286.1	500 g	plastic	40,75
Original pack 6 x 500 g			38,71/500 g
3286.2	1 kg	plastic	70,85
Original pack 6 x 1 kg			67,31/1 kg
3286.3	2.5 kg	plastic	134,40

Magnesium reagent acc. to Mann and Yoe

- Xylidyl blue sodium salt see page 1408

Magnesium silicate

- Talcum see page 1353
- Florisil® see page 937

Magnesium sulphate

$MgSO_4 \cdot D\ 2,66\ g/cm^3$
CAS No. 7487-88-9 · EC no. 231-298-2
WGK 1

Magnesium sulphate
≥99 %, p.a., anhydrous

Type analysis
Appearance ..... white to off-white powder
Assay (dry substance) ..... ≥99,0 %
Chloride (Cl) ..... ≤0,05 %
Arsenic (As) ..... ≤0,001 %
Iron (Fe) ..... ≤0,002 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
0682.1	100 g	glass	24,65
0682.2	500 g	glass	67,65
Original pack 6 x 500 g			64,27/500 g
0682.3	1 kg	glass	123,65
Original pack 6 x 1 kg			117,47/1 kg
0682.4	2.5 kg	plastic	241,90

Magnesium sulphate
≥98 %, p.a., anhydrous, granulated

Type analysis
Assay ..... ≥98,0 %
pH (5 % in H_2O) 5,0-9,2
Arsenic (As) ..... ≤0,005 %
Calcium (Ca) ..... ≤0,05 %
Iron (Fe) ..... ≤0,005 %
Selenium (Se) ..... ≤0,005 %
Heavy metals ..... ≤0,001 %
Particle size ..... 10-20 mesh

Art. No.	Pack Qty.	Pack.	€
2278.1	100 g	glass	23,55
2278.2	500 g	glass	55,80
Original pack 6 x 500 g			53,01/500 g
2278.3	1 kg	glass	98,80
Original pack 6 x 1 kg			93,86/1 kg

Magnesium sulphate
≥97 %, pure, anhydrous

Type analysis
Assay ..... ≥97,0 %
Calcium sulphate ($CaSO_4$) ..... ≤1,0 %
Potassium sulphate (K_2SO_4) ..... ≤1,5 %
Water ..... ≤1,5 %

Art. No.	Pack Qty.	Pack.	€
1A99.1	500 g	plastic	23,55
Original pack 6 x 500 g			22,37/500 g
1A99.2	1 kg	plastic	35,40
Original pack 6 x 1 kg			33,63/1 kg
1A99.3	2.5 kg	plastic	58,60
1A99.4	10 kg	plastic	149,45

Magnesium sulphate hydrate

$MgSO_4 \cdot x\ H_2O$ · D 2,45 g/cm³
CAS No. 22189-08-8 · EC no. 231-298-2
WGK 1

Magnesium sulphate hydrate
≥99 %, extra pure, dried

Guarantee analysis
Assay (in annealed substances) ..... 99,0-101,0 %
Chloride (Cl) ..... ≤0,022 %
Arsenic (As) ..... ≤0,0002 %
Calcium (Ca) ..... ≤0,033 %
Iron (Fe) ..... ≤0,0014 %
Heavy metals (as Pb) ..... ≤0,0015 %
Loss on ignition (400 °C) ..... 26,0-32,0 %

Art. No.	Pack Qty.	Pack.	€
0261.1	500 g	plastic	21,40
Original pack 6 x 500 g			20,33/500 g
0261.2	1 kg	plastic	30,00
Original pack 6 x 1 kg			28,50/1 kg
0261.3	2.5 kg	plastic	55,80
0261.7	25 kg	plastic	353,70

Magnesium sulphate heptahydrate

Bitter salt · Epson salt

$MgSO_4 \cdot 7\ H_2O$ · D 1,67 g/cm³ · bp >70 °C
CAS No. 10034-99-8 · EC no. 231-298-2
WGK 1

Magnesium sulphate heptahydrate
≥99 %, p.a., ACS

Guarantee analysis
Assay (compl.) ..... 99,0-102,0 %
pH-value 5,0-8,2
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,0005 %
Phosphate (PO_4) ..... ≤0,001 %
Nitrate (NO_3) ..... ≤0,001 %
Ammonium (NH_4) ..... ≤0,002 %
Heavy metals ..... ≤0,0005 %
Arsenic (As) ..... ≤0,00005 %
Copper (Cu) ..... ≤0,0005 %
Potassium (K) ..... ≤0,005 %
Sodium (Na) ..... ≤0,005 %
Lead (Pb) ..... ≤0,0005 %
Strontium (Sr) ..... ≤0,005 %
Calcium (Ca) ..... ≤0,004 %
Iron (Fe) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %
Silicon (Si) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
P027.1	500 g	plastic	31,75
Original pack 6 x 500 g			30,16/500 g
P027.2	1 kg	plastic	50,45
Original pack 6 x 1 kg			47,93/1 kg
P027.3	2.5 kg	plastic	96,65

Magnesium sulphate heptahydrate
≥99 %, Ph. Eur., USP, BP

Guarantee analysis
Assay (compl., dry substance) ..... 99,0-100,5 %
Identity ..... complies
pH value (5 % in H_2O) 5,0-9,2
Appearance of solution ..... complies
Acid and alkaline reacting substances .. complies
Chloride (Cl) ..... ≤0,014 %
Arsenic (As) ..... ≤0,0002 %
Iron (Fe) ..... ≤0,002 %
Selenium (Se) ..... ≤0,003 %
Loss on drying ..... 48,0-52,0 %
Loss on ignition ..... 40,0-52,0 %

Art. No.	Pack Qty.	Pack.	€
T888.1	500 g	plastic	22,50
Original pack 6 x 500 g			21,38/500 g
T888.2	1 kg	plastic	32,15
Original pack 6 x 1 kg			30,54/1 kg
T888.3	5 kg	plastic	104,85
T888.5	25 kg	plastic	375,20

Magnesium sulphate heptahydrate
extra pure

Type analysis
Appearance ..... crystalline powder
Assay ($MgSO_4$) ..... ≥48 %
Chloride (Cl) ..... ≤0,05 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,0001 %
Potassium (K) ..... ≤0,3 %
Sodium (Na) ..... ≤0,015 %
Water ..... 50,0-52,0 %

Art. No.	Pack Qty.	Pack.	€
8283.2	1 kg	plastic	21,40
Original pack 6 x 1 kg			20,33/1 kg
8283.1	2.5 kg	plastic	35,40
8283.3	10 kg	plastic	88,05

Magnesium sulphate solution

D 1,016 g/cm³ · bp 100 °C
WGK 1

Magnesium sulphate solution
0,1 mol/l – 0,1 M, volumetric standard solution

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,4 %
Titer 0,996-1,004

Art. No.	Pack Qty.	Pack.	€
1E2X.1	1 l	plastic	152,15
Original pack 6 x 1 l			144,54/1 l

Magnesium trisilicate

$Mg_2O_8Si_3$ · mp >1000 °C
CAS No. 14987-04-3 · EC no. 239-076-7
WGK 1

Magnesium trisilicate
Ph. Eur., USP

Guarantee analysis
Appearance ..... white powder
Assay (MgO) ..... ≥29,0 %
Assay (SiO_2) ..... ≥65,0 %
Identity ..... complies
Weight ratio SiO_2/MgO ..... complies
Soluble substances ..... ≤1,5 %
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,5 %
As (Arsenic) ..... ≤0,0004 %
Heavy metals (as Pb) ..... ≤0,003 %
Acidity ..... complies
Alkalinity ..... complies
Loss on ignition (1000 °C) ..... 17,0-34,0 %

Art. No.	Pack Qty.	Pack.	€
3258.1	100 g	plastic	23,55
3258.2	500 g	plastic	52,15
Original pack 6 x 500 g			49,54/500 g
3258.3	1 kg	plastic	85,50
Original pack 6 x 1 kg			81,23/1 kg
3258.4	2.5 kg	plastic	170,95

Magneson I
- 4-(4-Nitrophenylazo)-resorcinol see page 1112

Magneson II
- 4-(4-Nitrophenylazo)-1-naphthol see page 1112

Magnetic beads
- MagSi-DNA see page 1060
- MagSi-DNA saliva see page 1061
- MagSi-Wash Buffer III see page 1062
- MagSi-Direct see page 1060
- MagSi-DNA Vegetal see page 1061
- MagSi-STA see page 1062
- MagSi-gDNA blood see page 1062

MagSi-Direct

Magnetic beads

WGK 1

MagSi-Direct 1.0
for protein biochemistry and molecular biology

magtivio.

Magnetic beads for covalent coupling of chosen ligands.

Storage temperature: +4 °C

Type analysis
d50 ..... 1 µm

Art. No.	Pack Qty.	Pack.	€
1615.1	1 kit	cardboard	600,95
1615.2	1 kit	cardboard	2.338,15

MagSi-Direct 3.0
for protein biochemistry and molecular biology

magtivio.

Magnetic beads for covalent coupling of chosen ligands.

Storage temperature: +4 °C

Type analysis
d50 ..... 3 µm

Art. No.	Pack Qty.	Pack.	€
1620.1	1 kit	cardboard	600,95
1620.2	1 kit	cardboard	2.338,15

MagSi-DNA

Magnetic beads

WGK 1

MagSi-DNA
300 mg/ml, for molecular biology

magtivio.

Magnetic beads for nucleic acid isolation from various sources.

Fast magenetic separation, very large total surface, high yield. Silica surface. For chaotropic buffer systems only.

Storage temperature: +4 °C

Type analysis
Concentration ..... 300 ±15 mg/ml
d50 ..... 300 nm
DNA yield (20 µl beads) ..... >3 µg

Art. No.	Pack Qty.	Pack.	€
1540.1	2 ml	plastic	120,95
1540.2	10 ml	plastic	489,15
1540.3	100 ml	plastic	3.923,75

MagSi-DNA COOH
300 mg/ml, for molecular biology

magtivio.

Magnetic beads for nucleic acid isolation from various sources.

Fast magenetic separation, very large total surface, high yield. Carboxyl-modified surface.

Storage temperature: +4 °C

Type analysis
Concentration ..... 300 ±15 mg/ml
d50 ..... 300 nm
DNA yield (20 µl beads) ..... >3 µg

Art. No.	Pack Qty.	Pack.	€
1552.1	2 ml	plastic	134,40
1552.2	10 ml	plastic	557,95
1552.3	100 ml	plastic	4.509,65

MagSi-DNA allround
20 mg/ml, for molecular biology

magtivio.

Magnetic beads for nucleic acid isolation from various sources.

Medium magnetic separation. Silica surface. For chaotropic buffer systems only.

Storage temperature: +4 °C

Type analysis
Concentration ..... 20 ±1 mg/ml
d50 ..... 1,1-1,3 µm
Bead number ..... 0,6-2 x 1010 beads/ml
Assay (Iron oxide) ..... ≥50 %
DNA yield (20 µl beads) ..... >3 µg

Art. No.	Pack Qty.	Pack.	€
1544.1	2 ml	plastic	120,95
1544.2	10 ml	plastic	489,15
1544.3	100 ml	plastic	3.923,75

MagSi-DNA allround COOH
20 mg/ml, for molecular biology

magtivio.

Magnetic beads for nucleic acid isolation from various sources.

Medium magnetic separation. Carboxyl-modified surface.

Storage temperature: +4 °C

Type analysis
Concentration ..... 20 ±1 mg/ml
d50 ..... 1,1-1,3 µm
Bead number ..... 0,6-2 x 1010 beads/ml
Assay (Iron oxide) ..... ≥50 %
DNA yield (20 µl beads) ..... >3 µg

Art. No.	Pack Qty.	Pack.	€
1558.1	2 ml	plastic	155,90
1558.2	10 ml	plastic	643,95
1558.3	100 ml	plastic	5.213,75

MagSi-DNA 600
20 mg/ml, for molecular biology

magtivio.

Magnetic beads for nucleic acid isolation from various sources.

Slow magnetic separation, for long incubation times. Silica surface. For chaotropic buffer systems only.

Storage temperature: +4 °C

Type analysis
Concentration ..... 20 ±1 mg/ml
d50 ..... 530-600 nm
Bead number ..... 1,6-4 x 1010 beads/ml
Assay (Iron oxide) ..... 35-45 %
DNA yield (20 µl beads) ..... >3 µg

Art. No.	Pack Qty.	Pack.	€
1542.1	2 ml	plastic	120,95
1542.2	10 ml	plastic	489,15
1542.3	100 ml	plastic	3.923,75

MagSi-DNA 600 COOH
20 mg/ml, for molecular biology

magtivio.

Magnetic beads for nucleic acid isolation from various sources.

Slow magnetic separation, for long incubation times. Carboxyl-modified surface.

Storage temperature: +4 °C

Type analysis
Concentration ..... 20 ±1 mg/ml
d50 ..... 530-600 nm
Bead number ..... 1,6-4 x 1010 beads/ml
Assay (Iron oxide) ..... 35-45 %
DNA yield (20 µl beads) ..... >3 µg

Art. No.	Pack Qty.	Pack.	€
1557.1	2 ml	plastic	155,90
1557.2	10 ml	plastic	643,95
1557.3	100 ml	plastic	5.213,75

MagSi-DNA 3.0
20 mg/ml, for molecular biology

magtivio.

Magnetic beads for nucleic acid isolation from various sources.

Ultra fast magnetic separation, for rapid preparations. Silica surface. For chaotropic buffer systems only.

Storage temperature: +4 °C

Type analysis
Concentration ..... 20 ±1 mg/ml
d50 ..... 2,4-3,6 µm
Bead number ..... 2-6 x 109 beads/ml
Assay (Iron oxide) ..... ≥55 %
DNA yield (20 µl beads) ..... >3 µg

Art. No.	Pack Qty.	Pack.	€
1549.1	2 ml	plastic	120,95
1549.2	10 ml	plastic	489,15
1549.3	100 ml	plastic	3.923,75

MagSi-DNA 3.0 COOH
20 mg/ml, for molecular biology

magtivio.

Magnetic beads for covalent coupling of chosen ligands.

Ultra fast magnetic separation, for rapid preparations. Carboxyl-modified surface.

Storage temperature: +4 °C

Type analysis
Concentration ..... 20 ±1 mg/ml
d50 ..... 2,4-3,6 µm
Bead number ..... 2-6 x 109 beads/ml
Assay (Iron oxide) ..... ≥55 %
DNA yield (20 µl beads) ..... >3 µg

Art. No.	Pack Qty.	Pack.	€
1559.1	2 ml	plastic	155,90
1559.2	10 ml	plastic	643,95
1559.3	100 ml	plastic	5.213,75

MagSi-DNA Trial kit
for molecular biology

magtivio.

Magnetic beads for covalent coupling of chosen ligands.

Kit for development of new assays.

Storage temperature: +4 °C

Composition

2 ml each of MagSi-DNA, -DNA 600, -DNA allround, -DNA 3.0, DNA COOH, -DNA 600 COOH, -DNA allround COOH, and -DNA 3.0 COOH.

Art. No.	Pack Qty.	Pack.	€
1560.1	1 kit	cardboard	238,15

MagSi-DNA saliva

Magnetic beads

D 0,88 g/cm³
UN no. 1987 · ADR 3 II · WGK 1

Danger H225-H302-H319-H336

MagSi-DNA saliva
for molecular biology

magtivio.

Magnetic beads for isolation of genomic DNA from saliva or buccal swabs.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
1648.1	96 unit(s)	cardboard	299,95
1648.2	960 unit(s)	cardboard	2.230,65

MagSi-DNA Vegetal

Magnetic beads

D 0,88 g/cm³
UN no. 1987 · ADR 3 II · WGK 1
Danger H225-H302-H319-H336

MagSi-DNA Vegetal
for molecular biology

magtivio.

Magnetic beads for nucleic acid isolation from plant tissue.

Storage temperature: +15 to +25 °C

Art. No.	Pack Qty.	Pack.	€
1624.1	96 unit(s)	cardboard	299,95
1624.2	960 unit(s)	cardboard	2.230,65

MagSi-gDNA blood

Magnetic beads

D 0,88 g/cm³
UN no. 1987 · ADR 3 II · WGK 1
Danger H225-H302-H319-H336

MagSi-gDNA blood
for molecular biology

magtivio.

Magnetic beads for isolation of genomic DNA from whole blood.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
1630.1	96 unit(s)	cardboard	299,95
1630.2	960 unit(s)	cardboard	2.230,65

MagSi-STA

Magnetic beads

WGK 1

MagSi-STA 600
10 mg/ml, for protein biochemistry and molecular biology

magtivio.

Magnetic beads for capture or purification of biotinylated molecules.

Use with PBS or glycine buffer. Slow magnetic separation, for long incubation times.

Storage temperature: +4 °C

Type analysis
Concentration ..... 10±0,5 mg/ml
d50 ..... 530-600 nm
Bead number ..... 8-20 x 109 beads/ml
Assay (Iron oxide) ..... 35-45 %
Binding capacity (biotinylated fluorescein) ..... 3,5-5 nmol/mg

Art. No.	Pack Qty.	Pack.	€
1562.1	2 ml	plastic	628,90
1562.2	10 ml	plastic	2.252,15

MagSi-STA 1.0
10 mg/ml, for protein biochemistry and molecular biology

magtivio.

Magnetic beads for capture or purification of biotinylated molecules.

Use with PBS or glycine buffer. Medium magnetic separation.

Storage temperature: +4 °C

Type analysis
Concentration ..... 10±0,5 mg/ml
d50 ..... 0,95-1,05 µm
Bead number ..... 6-12 x 109 beads/ml
Assay (Iron oxide) ..... ≥50 %
Binding capacity (biotinylated fluorescein) ..... 3,5-5 nmol/mg

Art. No.	Pack Qty.	Pack.	€
1561.1	2 ml	plastic	575,15
1561.2	10 ml	plastic	2.069,40

MagSi-STA 3.0 L
10 mg/ml, for protein biochemistry and molecular biology

magtivio.

Magnetic beads for capture or purification of biotinylated molecules.

Use with PBS or glycine buffer. Ultra fast magnetic separation, for rapid preparations.

Storage temperature: +4 °C

Type analysis
Concentration ..... 10±0,5 mg/ml
d50 ..... 2,4-3,6 µm
Bead number ..... 1-3 x 109 beads/ml
Assay (Iron oxide) ..... ≥55 %
Binding capacity (biotinylated fluorescein) ..... 0,7-1,2 nmol/mg

Art. No.	Pack Qty.	Pack.	€
1563.1	2 ml	plastic	493,45
1563.2	10 ml	plastic	1.816,75

MagSi-STA Trial kit
for protein biochemistry and molecular biology

magtivio.

Magnetic beads for capture or purification of biotinylated molecules.

Kit for development of new assays.

Storage temperature: +4 °C

Composition

1 ml each of MagSi-STA 600, -STA 600 BI, -STA 1.0 L, -STA 1.0, -STA 1.0 TL, -STA 1.0 TS, -STA 3.0 L, -STA 3.0 TL.

Art. No.	Pack Qty.	Pack.	€
1566.1	1 kit	cardboard	338,65

MagSi-Wash Buffer III

Magnetic beads

WGK 1

MagSi-Wash Buffer III
for molecular biology

magtivio.

Solution for optimising DNA isolation using MagSi-DNA Kits.

For use with MagSi-gDNA blood-, -saliva- or -Vegetal kit.

Storage temperature: +4 °C

Type analysis
pH value 6,0-6,5

Art. No.	Pack Qty.	Pack.	€
1649.1	80 ml	plastic	49,35
1649.2	800 ml	plastic	342,95

Maize oil

Oleum Maydis

D 0,92 g/cm³ · flp 254 °C
CAS No. 8001-30-7 · EC no. 232-281-2
WGK awg

Maize oil
Ph. Eur., refined

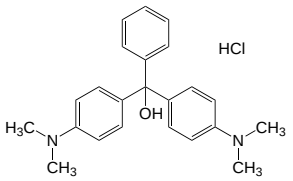
Guarantee analysis
Relative density (20 °C) ..... ~0,920
Refractive index n_D^{20} ..... ~1,474
Acid value ..... ≤0,5 mg KOH/g
Peroxide value ..... ≤10 meq O_2/kg
Water ..... ≤0,1 %
Alkaline reacting substances ..... complies
Unsaponifiable matter ..... ≤2,8 %
Brassicasterol ..... ≤0,3 %
<C 16:0 ..... ≤0,6 %
C 16:0 Palmitic acid ..... 8,6-16,5 %
C 18:0 Stearic acid ..... ≤3,3 %
C 18:1 Oleic acid ..... 20,0-42,2 %
C 18:2 Linoleic acid ..... 39,4-65,6 %
C 18:3 Linolenic acid ..... 0,5-1,5 %
C 20:0 Arachidic acid ..... ≤0,8 %
C 20:1 Gadoleic acid ..... ≤0,5 %
C 22:0 Behenic acid ..... ≤0,5 %
Other fatty acids ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6212.1	1 l	glass	49,35
Original pack 6 x 1 l			46,88/1 l
6212.3	5 l	plastic	138,70
Original pack 2 x 5 l			131,77/5 l

Malachite green G

▸ Brilliant green (C.I. 42040) see page 786

Malachite green hydrochloride



Basic green 4

$C_{23}H_{26}N_2O \cdot HCl$
CAS No. 123333-61-9
UN no. 2811 · ADR 6.1 III · WGK 3

Danger H301-H318-H361fd-H410

Malachite green hydrochloride
p.a.

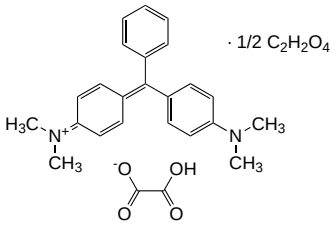
Indicator pH 0.0-2.0 and 11.6-14.0

Dissolve 0.1 g in 100 ml of water

Type analysis
Appearance ..... green to light brownish powder
Appearance of solution (0,1 % in H_2O) ... green to blue
Loss on drying ..... ≤6 %

Art. No.	Pack Qty.	Pack.	€
7710.1	5 g	glass	18,85
7710.2	25 g	glass	33,25
7710.3	100 g	glass	80,55

Malachite green oxalate (C.I. 42000)



Basic green 4

$C_{52}H_{54}N_4O_{12}$ · mp 159 °C
CAS No. 2437-29-8 · EC no. 219-441-7
UN no. 2811 · ADR 6.1 III · WGK 3

Danger H301-H318-H361d-H410

Malachite green oxalate (C.I. 42000)
for microscopy

Indicator pH 0.0-2.0, for protein analysis

Dissolve 0.1 g in 100 ml of water

Type analysis
Dye content ..... ≥90,0 %
Absorption max. (in H_2O) ..... ~614 nm
Suitability for microscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
5895.2	25 g	glass	21,00
5895.1	100 g	glass	42,90
5895.3	250 g	glass	63,35

Malate dehydrogenase (MDH)

MDH

CAS No. 9001-64-3 · EC no. 232-622-5
WGK 1

Danger H334

Malate dehydrogenase (MDH)
≥1 250 U/mg protein

From porcine heart, freeze-dried

Packaging: 0,05 MU

Storage temperature: –20 °C
Transport temperature: ambient temp.

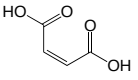
Type analysis
Appearance ..... white powder
Activity ..... ≥1250 U/mg protein
Alanine aminotransferase (GPT) ..... <0,005 %
Lactate dehydrogenase (LDH) ..... <0,005 %
Aspartate aminotransferase (GOT) ..... <0,005 %

Art. No.	Pack Qty.	Pack.	€
6062.1	1 unit(s)	glass	198,90

Maleate Standards

▸ Maleate IC Standard Solution see page 1335

Maleic acid



Toxilic acid · *cis*-Butenedioic acid

$C_4H_4O_4$ · D 1,59 g/cm³ · mp 130 to 135 °C · bp 157,8 °C · flp 127 °C
CAS No. 110-16-7 · EC no. 203-742-5
WGK 1

Warning H302+H312-H315-H317-H319-H335

Maleic acid
≥99 %, Ph. Eur., BP

Guarantee analysis
Assay (acidim., dry substance) ..... 99,0-101,0 %
Identity ..... complies
Appearance of solution ..... complies
In H_2O insoluble matter ..... complies
Ash content (as SO_4) ..... ≤0,1 %
Fumaric acid ..... complies
Water ..... ≤1,5 %
Heavy metals (as Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0005 %

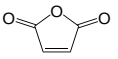
Art. No.	Pack Qty.	Pack.	€
K304.1	500 g	plastic	52,60
Original pack 6 x 500 g			49,97/500 g
K304.2	1 kg	plastic	91,30
Original pack 6 x 1 kg			86,74/1 kg

Maleic acid
≥99 %, for synthesis

Type analysis
Assay (acidim.) ..... ≥99 %
Water ..... ≤0,5 %
Heavy metals (as Pb) ..... ≤0,005 %
Iron (Fe) ..... ≤0,005 %
Sulphated ash ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
3538.2	100 g	plastic	21,40
3538.1	500 g	plastic	41,85
Original pack 6 x 500 g			39,76/500 g
3538.3	1 kg	plastic	67,65
Original pack 6 x 1 kg			64,27/1 kg
3538.4	2.5 kg	plastic	138,70
3538.5	5 kg	plastic	246,20

Maleic anhydride



2,5-Furandione · *cis*-Butenedioic anhydride

$C_4H_2O_3$ · D 1,59 g/cm³ · mp 53 °C · bp 200,1 °C · flp 103 °C
CAS No. 108-31-6 · EC no. 203-571-6
UN no. 2215 · ADR 8 III · WGK 1

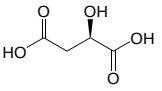
Danger H302-H314-H317-H334-H372-EUH071

Maleic anhydride
≥99,5 %, for synthesis

Type analysis
Appearance ..... white briquettes
Assay (titr.) ..... ≥99 %
Melting point ..... 51-54 °C
Sulphated ash ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
0975.1	250 g	glass	23,15
0975.2	1 kg	glass	57,55
Original pack 6 x 1 kg			54,67/1 kg

D(+)-Malic acid



2-Hydroxysuccinic acid · Hydroxybutanedioic acid

$C_4H_6O_5$ · mp 101 to 104 °C
CAS No. 636-61-3 · EC no. 211-262-2
WGK 1

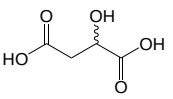
Warning H319

D(+)-Malic acid
≥99 %, for biochemistry

Type analysis
Assay ..... ≥99,0 %
Melting point ..... 101-104 °C

Art. No.	Pack Qty.	Pack.	€
8633.1	1 g	plastic	52,60
8633.2	5 g	plastic	220,40

DL-Malic acid



2-Hydroxysuccinic acid · Hydroxybutanedioic acid

$C_4H_6O_5$ · D 1,601 g/cm³ · mp 131 to 132 °C · bp 150 °C · flp 203 °C
CAS No. 6915-15-7 · EC no. 230-022-8
WGK 1

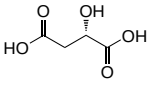
Warning H319

DL-Malic acid
≥99 %, for biochemistry

Type analysis
Assay ..... ≥99,0 %
In H_2O insoluble matter ..... ≤0,1 %
Arsenic (As) ..... ≤0,0002 %
Mercury (Hg) ..... ≤0,0001 %
Heavy metals (as Pb) ..... ≤0,001 %
Fumaric acid ..... ≤1,0 %
Maleic acid ..... ≤0,05 %
Melting point ..... 127-132 °C

Art. No.	Pack Qty.	Pack.	€
3034.1	250 g	plastic	19,25
3034.2	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg

L(–)-Malic acid



2-Hydroxysuccinic acid · Hydroxybutanedioic acid

$C_4H_6O_5$ · D 1,595 g/cm³ · mp 100 to 101 °C · bp 140 °C
CAS No. 97-67-6 · EC no. 202-601-5
WGK 1

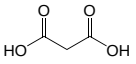
Warning H319

L(–)-Malic acid
≥99 %, for biochemistry

Type analysis
Appearance white to off-white crystalline powder
Assay (titr.) ..... ≥99 %
Specific rotation $[\alpha]_D^{20}$ ..... -2,6° to -1,6°
Specific rotation $[\alpha]_D^{20}$ (c=5 in pyridine) ..... -31° to -27°
Melting point ..... 102-106 °C

Art. No.	Pack Qty.	Pack.	€
8684.1	10 g	plastic	28,95
8684.2	50 g	plastic	83,75

Malonic acid



Propanedioic acid · Methanedicarboxylic acid

$C_3H_4O_4$ · D 1,03 g/cm³ · mp 135 °C · flp 172 °C
CAS No. 141-82-2 · EC no. 205-503-0
WGK 1

Danger H302-H318

Malonic acid
≥99 %, for synthesis

Type analysis
Assay ..... ≥99,0 %
Melting point ..... 133-136 °C
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,05 %
Heavy metals ..... ≤0,005 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
9851.1	100 g	glass	19,25
9851.2	500 g	glass	72,60
Original pack 6 x 500 g			68,97/500 g
9851.3	1 kg	glass	127,95
Original pack 6 x 1 kg			121,55/1 kg

Malt extract

CAS No. 8002-48-0
WGK 1

Malt extract, bacteriological
powdered, for microbiology

Additive to malt containing culture media and agars.

Free of nitrite. Do not overheat!

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Colour ..... beige
Loss on drying ..... ≤6 %
Maltose ..... ≥70 %
Sulphated ash ..... ≤3 %
pH value (1,5 % sol.) 4,5-5,5

Art. No.	Pack Qty.	Pack.	€
AE68.1	500 g	plastic	77,95
Original pack 6 x 500 g			74,05/500 g

Malt extract, standard
powdered, for culture media

Additive to malt containing culture media and agars.

Do not overheat!

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Colour ..... beige
Loss on drying ..... ≤6,0 %
Reducing sugar ..... ≥60,0 %
Ash ..... ≤4,5 %
pH value (3 % aqueous solution) 4,8-5,8

Art. No.	Pack Qty.	Pack.	€
X976.1	500 g	plastic	45,70
Original pack 6 x 500 g			43,42/500 g
X976.2	1 kg	plastic	82,25
Original pack 6 x 1 kg			78,14/1 kg

Malt Extract Agar

MEA

WGK 1

Malt Extract Agar
for microbiology

For cultivation of fungi and yeasts.

Application: Use 33.6 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Malt extract ..... 12,75 g/l
Gelatine peptone ..... 0,78 g/l
Glycerol ..... 2,35 g/l
Dextrine ..... 2,75 g/l
Agar ..... 15 g/l
pH value ..... 4,7 ±0,2

Art. No.	Pack Qty.	Pack.	€
X923.1	500 g	plastic	109,15
Original pack 6 x 500 g			103,69/500 g
X923.2	1 kg	plastic	188,15
Original pack 6 x 1 kg			178,74/1 kg

Malt Extract Broth

Malt Extract Broth
for microbiology

For isolation and enumeration of yeasts and moulds, as well as for sterility testing.

Application: Use 19 g for 1 l broth.

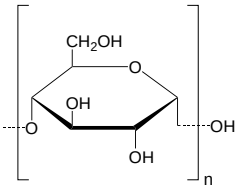
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Malt extract ..... 13,0 g/l
Gelatine peptone ..... 5,5 g/l
Yeast extract ..... 0,5 g/l
pH value ..... 4,7 ±0,2

Art. No.	Pack Qty.	Pack.	€
CP75.1	500 g	plastic	115,60
Original pack 6 x 500 g			109,82/500 g

Maltobiose
▸ D(+)-Maltose monohydrate see page 1065

Maltodextrin 4.0–7.0



α-1,4

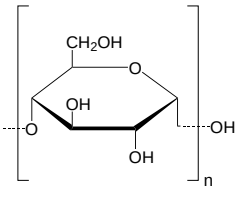
$(C_6H_{10}O_5)_{4-7}$ · mp 240 °C
CAS No. 9050-36-6 · EC no. 232-940-4
WGK 1

Maltodextrin 4.0–7.1
for biochemistry

Type analysis
Appearance ..... white powder
Dextrose equivalent 4,0-7,0

Art. No.	Pack Qty.	Pack.	€
2260.1	25 g	plastic	20,35
2260.2	100 g	plastic	51,10
2260.3	250 g	plastic	104,85

Maltodextrin 16.5–19.5



α-1,4

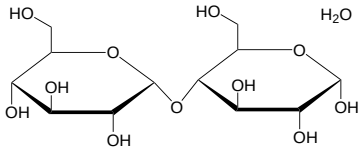
mp 240 °C
CAS No. 9050-36-6 · EC no. 232-940-4
WGK 1

Maltodextrin 16.5–19.6
for biochemistry

Type analysis
Appearance ..... white powder
Dextrose equivalent 16,5-19,5

Art. No.	Pack Qty.	Pack.	€
2270.1	25 g	plastic	18,85
2270.2	100 g	plastic	40,75
2270.3	500 g	plastic	138,70
Original pack 6 x 500 g			131,77/500 g

D(+)-Maltose monohydrate



Maltobiose

$C_{12}H_{22}O_{11} \cdot H_2O$ · mp 119 to 121 °C
CAS No. 6363-53-7 · EC no. 200-716-5
WGK 1

D(+)-Maltose monohydrate
CELLPURE® ≥97 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤1,0 E.U./g
Appearance ..... white powder
Assay ..... ≥97,0 %
pH value (10 % in H_2O) 4,0-5,5
Water (KF) ..... 4,5-6,5 %
Ash content ..... ≤0,05 %
Ethanol ..... ≤0,1 %
Methanol ..... ≤0,05 %
Cu (Copper) ..... ≤0,0001 %
Cr (Chrom) ..... ≤0,0001 %
Fe (Iron) ..... ≤0,0001 %

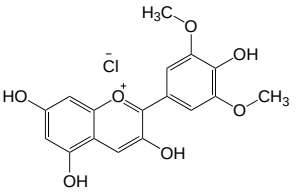
Art. No.	Pack Qty.	Pack.	€
8882.1	25 g	plastic	33,90
8882.2	100 g	plastic	79,45
8882.3	250 g	plastic	160,75
8882.4	500 g	plastic	289,20
Original pack 6 x 500 g			274,74/500 g

D(+)-Maltose monohydrate
≥92 %, for biochemistry

Type analysis
Assay (HPLC, dry substance) ..... ≥92 %
pH (30% in water) 4,0-5,5
Heavy metals (as Pb) ..... ≤0,001 %
Loss on drying (120 °C) ..... ≤7,0 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
8951.1	100 g	plastic	26,35
8951.2	250 g	plastic	45,05
8951.3	500 g	plastic	81,60
Original pack 6 x 500 g			77,52/500 g
8951.4	1 kg	plastic	126,35
Original pack 6 x 1 kg			120,03/1 kg

Malvidin chloride



$C_{17}H_{15}ClO_7$ · mp 300 °C
CAS No. 643-84-5 · EC no. 211-403-8
WGK 1

Malvidin chloride
ROTICHROM® HPLC

Reference substance for HPLC.
From *Malva silvestris*

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥97 %

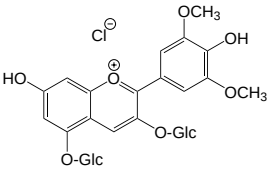
Art. No.	Pack Qty.	Pack.	€
6140.1	10 mg	glass	364,45

Malvidin-3,5-diglucosid chloride
▸ Malvin chloride see page 1065

Malvidin 3-galactoside chloride
▸ Primulin chloride see page 1183

Malvidin 3-glucoside chloride
▸ Oenin chloride see page 1119

Malvin chloride



Malvidin-3,5-diglucosid chloride

$C_{29}H_{35}O_{17}Cl$
CAS No. 16727-30-3
WGK 1

Malvin chloride
ROTICHROM® HPLC

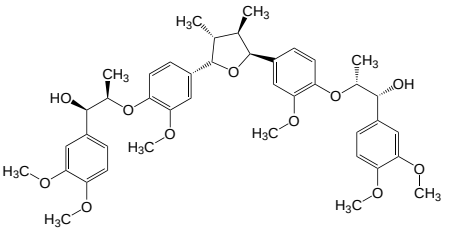
Reference substance for HPLC.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
K013.1	10 mg	glass	310,70

Manassantin A



$C_{42}H_{52}O_{11}$
CAS No. 88497-87-4
WGK 1

Warning H302+H332-H319-H335

Manassantin A
ROTICHROM® HPLC

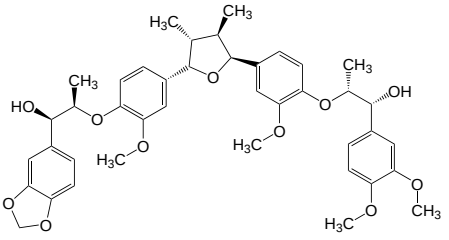
Reference substance for HPLC.
From *Saururus chinensis.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6497.1	10 mg	glass	482,70

Manassantin B



$C_{41}H_{48}O_{11}$
CAS No. 88497-88-5
WGK 1

Warning H302+H332-H319-H335

Manassantin B
ROTICHROM® HPLC

Reference substance for HPLC.
From *Saururus chinensis.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6684.1	10 mg	glass	424,65

Manchester yellow
▸ Martius yellow (C. I. 10315) see page 1069

Manganese

Mn · D 7,3 g/cm³ · mp 1246 °C · bp >1900 °C
CAS No. 7439-96-5 · EC no. 231-105-1

Manganese powder
≥99,6 %, <100 mesh

UN no. 3089 · ADR 4.1 III · WGK 2

Warning H228

Type analysis
Assay (metals basis) ..... ≥99,6 %
Phosphorus (P) ..... ≤0,005 %
Sulphur (S) ..... ≤0,05 %
Fe (Iron), Se (Selenium), Si (Silicon) ..... ≤0,3 %

Art. No.	Pack Qty.	Pack.	€
1HX8.1	50 g	plastic	42,90
1HX8.2	100 g	plastic	69,35
1HX8.3	250 g	plastic	134,40

Manganese flakes
ROTI®METIC 99,98 % (3N8)

WGK 2

Type analysis
Assay (metals basis) ..... 99,98 %
Thickness ..... ≤1,5 mm

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
4509.1	25 g	plastic	120,95
4509.2	50 g	plastic	177,40

Manganese Standards

- Manganese ICP Standard Solution see page 1319
- Manganese ICP Standard Solution see page 1319
- Manganese AAS Standard Solution see page 1318

Manganese(II) acetate tetrahydrate

$Mn(CH_3COO)_2 \cdot 4\ H_2O$ · D 1,58 g/cm³ · bp >300 °C · flp >130 °C
CAS No. 6156-78-1 · EC no. 211-334-3
WGK 1

Warning H315-H319-H335

Manganese(II) acetate tetrahydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5641.1	5 g	plastic	69,35
5641.2	25 g	plastic	209,65

Manganese(II) acetate tetrahydrate
≥99 %, extra pure

Type analysis
Assay ..... ≥99,0 %
pH-value (5 % solution) 6,0-8,0
Chloride (Cl) ..... ≤0,002 %
Sulphate (SO_4) ..... ≤0,01 %
Lead (Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
Zinc (Zn) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
0277.1	500 g	plastic	26,35
Original pack 6 x 500 g			25,03/500 g
0277.2	1 kg	plastic	46,15
Original pack 6 x 1 kg			43,84/1 kg
0277.3	2.5 kg	plastic	95,70
0277.7	25 kg	plastic	740,70

Manganese(II) carbonate

$MnCO_3$ · D 3,12 g/cm³ · mp >450 °C
CAS No. 598-62-9 · EC no. 209-942-9
WGK 1

Manganese(II) carbonate
ROTI®METIC 99,98 % (3N8)

Type analysis
Assay (metals basis) ..... 99,98 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L68.1	5 g	HDPE	67,20
1L68.2	25 g	HDPE	254,25

Manganese(II) carbonate
≥44 % Mn, p.a.

Guarantee analysis
Assay (Mn) ..... ≥44 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,5 %
Manganese dioxide (MnO_2) ..... ≤0,5 %
Aluminium (Al) ..... ≤0,005 %
Arsenic (As) ..... ≤0,001 %
Lead (Pb) ..... ≤0,001 %
Cadmium (Cd) ..... ≤0,001 %
Water ..... ≤2,5 %

Particle size:
<75 µm ..... ≥90 %

Art. No.	Pack Qty.	Pack.	€
9927.1	250 g	plastic	25,70
9927.2	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
9927.3	1 kg	plastic	75,15
Original pack 6 x 1 kg			71,39/1 kg
9927.4	2.5 kg	plastic	147,85

Manganese(II) chloride monohydrate

$MnCl_2 \cdot H_2O$ · mp 449,9 °C
CAS No. 64333-01-3 · EC no. 231-869-6
UN no. 3288 · ADR 6.1 III · WGK 2

Danger H301-H318-H373

Manganese(II) chloride monohydrate
≥99 %, p.a.

Guarantee analysis
Assay ..... ≥99,0 %
Insoluble matter ..... ≤0,005 %
pH value 4,5-6,0
Water ..... 12,5-13,5 %
Sulphate (SO_4) ..... ≤0,05 %
Barium (Ba) ..... ≤0,05 %
Lead (Pb) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,025 %
Cadmium (Cd) ..... ≤0,0005 %
Chromium (Cr) ..... ≤0,00005 %
Iron (Fe) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,01 %
Nickel (Ni) ..... ≤0,035 %
Mercury (Hg) ..... ≤0,000001 %
Zinc (Zn) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
4320.1	100 g	plastic	17,10
4320.2	500 g	plastic	36,45
Original pack 6 x 500 g			34,63/500 g
4320.3	1 kg	plastic	59,70
Original pack 6 x 1 kg			56,72/1 kg
4320.4	2.5 kg	plastic	117,20
4320.5	25 kg	plastic	794,45

Manganese(II) chloride tetrahydrate

$MnCl_2 \cdot 4\ H_2O$ · D 2,01 g/cm³ · mp 58 °C
CAS No. 13446-34-9 · EC no. 231-869-6
UN no. 3288 · ADR 6.1 III · WGK 2

Danger H301-H318-H373

Manganese(II) chloride tetrahydrate
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5304.1	25 g	plastic	149,45
5304.2	100 g	plastic	450,45

Manganese(II) chloride tetrahydrate
≥99 %, p.a.

Analytical reagent

Guarantee analysis
Appearance ..... fine pink crystals
Identity ..... complies
Assay (compl.) ..... ≥99,0 %
pH value (5 % in H_2O) 4,0-6,0
In H_2O insoluble matter ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,02 %
Lead (Pb) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,001 %
Copper (Cu) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,005 %
Sodium (Na) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,001 %
$KMnO_4$ reducing substances (as O) ... ≤0,0005 %
Loss on drying (220 °C) ..... 35,0-40,0 %

Art. No.	Pack Qty.	Pack.	€
T881.3	100 g	plastic	21,00
T881.1	500 g	plastic	52,15
Original pack 6 x 500 g			49,54/500 g
T881.2	1 kg	plastic	91,30
Original pack 6 x 1 kg			86,74/1 kg

Manganese(II) chloride tetrahydrate
≥98 %, extra pure

Type analysis
Assay ..... ≥98,0 %
In H_2O insoluble matter ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,01 %
Iron (Fe) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
0276.1	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
0276.2	1 kg	plastic	77,30
Original pack 6 x 1 kg			73,44/1 kg
0276.3	2.5 kg	plastic	170,95

Manganese dioxide

▸ Manganese(IV) oxide see page 1067

Manganese EDTA disodium salt dihydrate

▸ Ethylenediamine tetraacetic acid manganese disodium salt dihydrate see page 923

Manganese(II) nitrate hydrate

$Mn(NO_3)_2 \cdot x\ H_2O$ · mp 26 °C
CAS No. 15710-66-4
UN no. 2724 · ADR 5.1 III · WGK 2

Warning H272-H315-H319-H335

Manganese(II) nitrate hydrate
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5392.1	10 g	plastic	120,95
5392.2	25 g	plastic	241,90

Manganese(II) nitrate tetrahydrate

$Mn(NO_3)_2 \cdot 4\ H_2O$ · D 2,13 g/cm³ · mp 37 °C · bp 129 °C
CAS No. 20694-39-7 · EC no. 233-828-8
UN no. 2724 · ADR 5.1 III · WGK 2

Danger H272-H302-H314-H373-H412

Manganese(II) nitrate tetrahydrate
≥98 %, p.a.

For preparation of manganese oxides.

Guarantee analysis
Assay (compl.) ..... ≥98 %
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,005 %
Ammonium (NH_4) ..... ≤0,05 %
Calcium (Ca) ..... ≤0,005 %
Cadmium (Cd) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,01 %
Magnesium (Mg) ..... ≤0,005 %
Sodium (Na) ..... ≤0,05 %
Nickel (Ni) ..... ≤0,002 %
Lead (Pb) ..... ≤0,001 %
Zinc (Zn) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
HN26.1	250 g	plastic	31,75
HN26.2	500 g	plastic	52,70
Original pack 6 x 500 g			50,07/500 g
HN26.3	1 kg	plastic	94,50
Original pack 6 x 1 kg			89,78/1 kg
HN26.4	2.5 kg	plastic	201,60

Manganese(II) oxide

MnO · D 5,45 g/cm³ · mp >450 °C
CAS No. 1344-43-0 · EC no. 215-695-8
WGK 1

Manganese(II) oxide
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L4X.1	5 g	HDPE	120,95
1L4X.2	10 g	HDPE	181,70

Manganese(IV) oxide

Manganese dioxide

MnO_2 · D 5,08 g/cm³ · mp 535 °C
CAS No. 1313-13-9 · EC no. 215-202-6
WGK 1

Warning H302+H332-H373

Manganese(IV) oxide
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5383.1	5 g	plastic	59,05
5383.2	25 g	plastic	194,05

Manganese(IV) oxide
≥98 %, extra pure

Type analysis
Assay (compl.) ..... ≥98,0 %
Sulphate (SO_4) ..... ≤0,5 %
Iron (Fe) ..... ≤0,5 %
Heavy metals (as Pb) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
7751.1	100 g	glass	26,35
7751.2	250 g	glass	52,15
7751.3	1 kg	glass	145,15
Original pack 6 x 1 kg			137,89/1 kg
7751.4	2.5 kg	glass	306,40

Manganese(IV) oxide
≥90 %, precipitated, active

Type analysis
Assay (iodom., dry substance) ..... ≥90 %
Oxidation activity ..... complies

Art. No.	Pack Qty.	Pack.	€
4486.1	250 g	glass	41,85

Manganese(II) sulphate monohydrate

$MnSO_4 \cdot H_2O$ · D 2,95 g/cm³ · mp >449 °C
CAS No. 10034-96-5 · EC no. 232-089-9
UN no. 3077 · ADR 9 III · WGK 2

Danger H318-H373-H411

Manganese(II) sulphate monohydrate
≥99 %, p.a., ACS

Guarantee analysis
Assay (compl.) ..... ≥99 %
In H_2O insoluble matter ..... ≤0,005 %
Loss on ignition ..... 10,0-12,0 %
Chloride (Cl) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,002 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,002 %
Potassium (K) ..... ≤0,01 %
Magnesium (Mg) ..... ≤0,005 %
Copper (Cu) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,05 %
Nickel (Ni) ..... ≤0,02 %
Lead (Pb) ..... ≤0,001 %
Zinc (Zn) ..... ≤0,005 %
$KMnO_4$ reducing substances (as O) ... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4487.1	250 g	plastic	40,75
4487.2	500 g	plastic	73,65
Original pack 6 x 500 g			69,97/500 g

Manganese(II) sulphate monohydrate
≥99 %, Ph. Eur.

Guarantee analysis
Appearance ..... light pink, crystalline powder
Assay (based on calcinated substance) ..... 99,0-101,0 %
Identity ..... complies
Appearance of solution ..... complies
Chloride (Cl) ..... ≤0,01 %
Iron (Fe) ..... ≤0,001 %
Zinc (Zn) ..... ≤0,005 %
Loss on ignition (500 °C) ..... 10,0-12,0 %

Art. No.	Pack Qty.	Pack.	€
X890.1	500 g	plastic	78,40
Original pack 6 x 500 g			74,48/500 g
X890.2	1 kg	plastic	137,10
Original pack 6 x 1 kg			130,25/1 kg
X890.3	2.5 kg	plastic	299,95

Manganese(II) sulphate monohydrate
≥98 %, extra pure

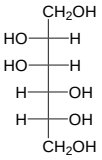
Type analysis
Assay ..... ≥98,0 %
Arsenic (As) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,005 %
Mercury (Hg) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,005 %
Iron (Fe) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
7347.1	100 g	plastic	15,60
7347.2	500 g	plastic	26,80
Original pack 6 x 500 g			25,46/500 g
7347.3	1 kg	plastic	41,85
Original pack 6 x 1 kg			39,76/1 kg
7347.4	2.5 kg	plastic	91,95

ManNAc

▸ *N*-Acetyl-D-mannosamine see page 703

D(–)-Mannitol



D-Mannitol

$C_6H_{14}O_6$ · mp 165 to 169 °C
CAS No. 69-65-8 · EC no. 200-711-8
WGK 1

D(–)-Mannitol
CELLPURE® ≥97 %

For cell culture and biochemistry.

Guarantee analysis

Endotoxins ..... ≤2,5 E.U./g
Appearance ..... white to off-white powder
Assay (HPLC) ..... 97,0-102,0 %
Loss on drying (105 °C) ..... ≤0,5 %
Melting point ..... 165-170 °C
Conductivity ..... ≤20 µS/cm
Heavy metals (as Pb) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0001 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
8883.1	100 g	plastic	32,15
8883.3	250 g	plastic	64,40
8883.2	500 g	plastic	117,75
Original pack 6 x 500 g			111,86/500 g

D(–)-Mannitol
≥98 %, Ph. Eur., USP, BP, for biochemistry

For biochemistry.

Guarantee analysis

Appearance ..... white, fine powder
Assay (HPLC, dry substance) ..... 98,0-101,0 %
Identity ..... complies
Appearance of solution (10 %, H_2O) ..... complies
Lead (Pb) ..... ≤0,00005 %
Nickel (Ni) ..... ≤0,0001 %
Heavy metals (as Pb) ..... ≤0,0005 %
Sulphated ash ..... ≤0,1 %
Reducing sugar ..... ≤0,1 %
Loss on drying (105 °C) ..... ≤0,3 %
Melting range ..... 165-169 °C
Conductivity ..... ≤20 µS/cm
Water ..... ≤0,5 %
Microbiological assay ..... complies

Related Substances:
Impurity A ..... ≤2,0 %
Impurities B and C (sum) ..... ≤2,0 %
Related substances (unspecific impurities) ..... ≤1,0 %
Related substances (total) ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
4175.3	250 g	plastic	34,30
4175.1	1 kg	plastic	112,80
Original pack 6 x 1 kg			107,16/1 kg
4175.4	2.5 kg	plastic	231,15
4175.2	5 kg	plastic	439,70

Mannitol Egg Yolk Polymyxin Agar (Base)

Bacillus cereus Selective Agar · MYP Agar

WGK 3

Mannitol Egg Yolk Polymyxin Agar (Base)
for microbiology

For enumeration and isolation of *Bacillus cereus* in food, acc. to Mossel.

Application: Use 43 g for 900 ml agar. After cooling add 100 ml Egg Yolk Emulsion (Art. No. 0402.1) and 2 vials (2x6 ml) reconstituted *Bacillus cereus* Supplement (Art. No. 4856.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

Meat peptone ..... 10 g/l
Sodium chloride ..... 10 g/l
D-Mannitol ..... 10 g/l
Beef extract ..... 1 g/l
Phenol red ..... 0,025 g/l
Agar ..... 12 g/l
pH value ..... 7,1 ±0,2

Art. No.	Pack Qty.	Pack.	€
5765.1	500 g	plastic	127,95
Original pack 6 x 500 g			121,55/500 g

Mannitol Salt Agar

Mannitol Salt Agar
(Ph.Eur. 6.3, 7.0, 8.0 and 9.0) · Chapman Agar

mp 801 °C · bp >1450 °C
WGK 2

Mannitol Salt Agar
Ph. Eur., ISO 22718, for microbiology

For isolation of pathogenic *Staphylococci*.

Application: Use 111 g for 1 l agar. Optional: Add egg yolk emulsion (Art. No. 0402.1) to 5 % final concentration.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis

Pancreatic digest of casein ..... 5 g/l
Peptone (peptic digest of animal tissue) ..... 5 g/l
Beef extract ..... 1 g/l
Sodium chloride ..... 75 g/l
D-Mannitol ..... 10 g/l
Phenol red ..... 0,025 g/l
Agar ..... 15 g/l
pH value ..... 7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL81.1	500 g	plastic	83,35
Original pack 6 x 500 g			79,18/500 g

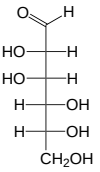
Mannitol Salt Agar (Ph.Eur. 6.3, 7.0, 8.0 and 9.0)

▸ Mannitol Salt Agar see page 1068

L-Mannomethylose

▸ L(+)-Rhamnose monohydrate see page 1203

D(+)-Mannose



$C_6H_{12}O_6$ · D 1,465 g/cm³ · mp 128,5 °C · bp 180,4 °C
CAS No. 3458-28-4 · EC no. 222-392-4
WGK 1

D(+)-Mannose
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis

Endotoxins ..... ≤10 E.U./g
Appearance ..... white to off-white, cryst. powder
Assay ..... ≥99,0 %
Loss on drying (3 h, 110 °C) ..... ≤0,5 %
Specific rotation $[\alpha]_D^{20}$ (10 % in NH_4OH, TS) +13,3° to +14,4°
Sulphated ash ..... ≤0,3 %
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As) ..... ≤0,0001 %
Cadmium (Cd) ..... ≤0,0001 %
Mercury (Hg) ..... ≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
8887.1	10 g	plastic	34,30
8887.2	25 g	plastic	67,65
8887.3	50 g	plastic	117,20
8887.4	100 g	plastic	209,65

D(+)-Mannose
≥99,5 %, for biochemistry

Type analysis

Appearance white to off-white crystalline powder
Assay (HPLC) ..... ≥99,5 %
Specific rotation $[\alpha]_D^{20}$ (10 % in NH_4OH, TS) ... +13° to +15°
Loss on drying (3 h, 110 °C) ..... ≤0,5 %
Melting point ..... 124-136 °C
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
4220.1	10 g	plastic	24,65
4220.2	50 g	plastic	64,00

Marble

$CaCO_3$ · D 2,93 g/cm³ · mp 825 °C
CAS No. 471-34-1 · EC no. 207-439-9

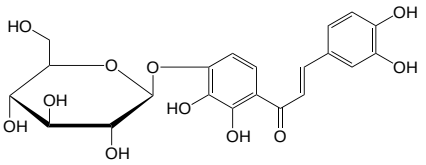
Marble
in Stücken, ca. 12–16 mm

Type analysis

Appearance ..... coarse, white pieces
Granulation ..... ~12-16 mm

Art. No.	Pack Qty.	Pack.	€
7098.1	2.5 kg	plastic	22,50

Marein



Okanin-4'-glucoside

$C_{21}H_{22}O_{11}$ · mp 195 to 200 °C
CAS No. 535-96-6
WGK 1

Marein
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
4171.1	5 mg	glass	342,95

Marine Broth

WGK 2

Warning H319

Marine Broth
for microbiology

For enumeration and isolation of heterotropic marine bacteria.

Application: Use 40.1 g for 1 l broth. May be slightly opalescent and may present a light precipitation.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Sodium chloride (NaCl) ..... 19,4 g/l
Magnesium chloride ..... 8,8 g/l
Peptone ..... 5 g/l
Sodium sulphate (Na_2SO_4) ..... 3,24 g/l
Calcium chloride ..... 1,8 g/l
Yeast extract ..... 1 g/l
Potassium chloride (KCl) ..... 0,55 g/l
Sodium bicarbonate ..... 0,16 g/l
Ferric citrate ..... 0,1 g/l
Potassium bromide ..... 0,08 g/l
Strontium chloride ..... 0,034 g/l
Boric acid ..... 0,022 g/l
Sodium silicate ..... 0,004 g/l
Sodium fluoride ..... 0,0024 g/l
Ammonium nitrate ..... 0,0016 g/l
Disodium phosphate ..... 0,008 g/l
pH value ..... 7,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
CP73.1	500 g	plastic	117,75
Original pack 6 x 500 g			111,86/500 g
CP73.2	1 kg	plastic	201,60
Original pack 6 x 1 kg			191,52/1 kg

Maritimein

$C_{21}H_{20}O_{11}$ · mp 204 to 208 °C
CAS No. 490-54-0 · EC no. 207-712-2
WGK 1

Maritimein
ROTICHROM® HPLC

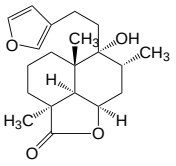
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
4172.1	5 mg	plastic	489,15

Marrubiin



$C_{20}H_{28}O_4$ · mp 153 to 160 °C
CAS No. 465-92-9
WGK 1

Warning H302

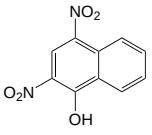
Marrubiin
ROTICHROM® HPLC

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
3448.2	10 mg	glass	381,65

Martius yellow (C. I. 10315)



2,4-Dinitro-1-naphthol · Manchester yellow · Saffron yellow

$C_{10}H_5N_2O_5$ · mp 130 to 133 °C
CAS No. 605-69-6
WGK 1

Warning H315-H319-H335

Martius yellow (C. I. 10315)
extra pure

Indicator pH 2.0-3.2

Dissolve 0.1 g in 100 ml of water or ethanol

Type analysis
Appearance ..... yellow to orange powder
Appearance of solution (0,1 % in MeOH) .... clear, yellow
Loss on drying (1 h, 110 °C) ..... ≤8,0 %

Art. No.	Pack Qty.	Pack.	€
7713.1	5 g	glass	25,30
7713.2	25 g	glass	47,85
7713.3	100 g	glass	131,70

Masson-Goldner's trichrome staining kit

D ~1 g/cm³
UN no. 1219 · ADR 3 II

Danger H225-H290-H315-H318-H336

Masson-Goldner's trichrome staining kit
for microscopy

Staining kit for visualising connective tissue (Masson-Goldner trichrome staining), incl. instructions for use.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Composition
Hematoxylin solution A acc. to Weigert (Art. No. X906) ..... 500 ml
Hematoxylin solution B acc. to Weigert (Art. No. X907) ..... 500 ml
Goldner's stain I (Art. No. 3469) ..... 500 ml
Goldner's stain II (Art. No. 3470) ..... 500 ml
Goldner's stain III (Art. No. 3473) ..... 500 ml

Art. No.	Pack Qty.	Pack.	€
3459.1	1 kit	glass	223,10

Master mix Taq DNA polymerase, recombinant

- ROTI®Pol TaqS Red-Mix (2x) see page 1237
- ROTI®Pol Hot-TaqS Mix (2x) see page 1237
- ROTI®Pol Hot-TaqS Red-Mix (2x) see page 1237
- ROTI®Pol TaqS Mix (2x) see page 1237

Matrix modifier solution

Matrix modifier solution Ammonium dihydrogen phosphate

Ammonium dihydrogen phosphate matrix modifier solution
20 g/l $NH_4H_2PO_4$ (99,999 %) in 1 % HNO_3

For graphite furnace AAS

Ammonium dihydrogene phosphate matrix modifier solution · Phosphate matrix modifier

D ~1 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c ($NH_4H_2PO_4$) in 1 % HNO_3 ..... 20 g/l ±1 %

Art. No.	Pack Qty.	Pack.	€
5150.1	50 ml	HDPE	102,05

Ammonium dihydrogen phosphate matrix modifier solution
100 g/l $NH_4H_2PO_4$ (99,999 %) in 1 % HNO_3

For graphite furnace AAS

Ammonium dihydrogene phosphate matrix modifier solution · Phosphate matrix modifier

D ~1 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c ($NH_4H_2PO_4$) in 1 % HNO_3 ..... 100 g/l ±1 %

Art. No.	Pack Qty.	Pack.	€
5148.1	50 ml	LDPE	192,45

Matrix modifier solution Ammonium nitrate

Ammonium nitrate matrix modifier solution
50 g/l NH_4NO_3 (99,999 %) in H_2O

For graphite furnace AAS

Ammonium matrix modifier · Ammonium nitrate matrix modifier solution

D 1 g/cm³ · bp 100 °C

WGK 1

Type analysis
c (NH_4NO_3) in H_2O ..... 50 g/l ±1 %

Art. No.	Pack Qty.	Pack.	€
5145.1	50 ml	HDPE	170,95

Matrix modifier solution Magnesium nitrate

Magnesium nitrate matrix modifier solution
10 g/l $Mg(NO_3)_2$ (99,999 %) in H_2O

For graphite furnace AAS

Magnesium matrix modifier · Magnesium nitrate matrix modifier solution

D 1 g/cm³ · bp 100 °C

Type analysis
c ($Mg(NO_3)_2$) in H_2O ..... 10 g/l ±1 %

Art. No.	Pack Qty.	Pack.	€
5140.1	50 ml	HDPE	102,05

Magnesium nitrate matrix modifier solution
20 g/l $Mg(NO_3)_2$ (99,999 %) in H_2O

For graphite furnace AAS

Magnesium matrix modifier · Magnesium nitrate matrix modifier solution

D 1 g/cm³ · bp 100 °C

Type analysis
c ($Mg(NO_3)_2$) in H_2O ..... 20 g/l ±1 %

Art. No.	Pack Qty.	Pack.	€
5142.1	50 ml	HDPE	171,50

Matrix modifier solution Nickel nitrate

Nickel nitrate matrix modifier solution
10 g/l $Ni(NO_3)_2$ (99,999 %) in 1 % HNO_3

For graphite furnace AAS

Nickel matrix modifier · Nickel nitrate matrix modifier solution

D 1,016 g/cm³

UN no. 3264 · ADR 8 III · WGK 2

Danger H290-H315-H317-H319-H334-H341-H350i-H360D-H372-H412

Type analysis
c ($Ni(NO_3)_2$) in 1 % HNO_3 ..... 10 g/l ±1 %

Art. No.	Pack Qty.	Pack.	€
5146.1	50 ml	HDPE	107,00

Matrix modifier solution Palladium nitrate

Palladium nitrate matrix modifier solution
2 g/l $Pd(NO_3)_2$ (99,999 %) in 1 % HNO_3

For graphite furnace AAS

Palladium matrix modifier

D ~1 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c ($Pd(NO_3)_2$) in 1 % HNO_3 ..... 2 g/l ±1 %

Art. No.	Pack Qty.	Pack.	€
5143.1	50 ml	HDPE	188,15

Palladium nitrate matrix modifier solution
5 g/l $Pd(NO_3)_2$ (99,999 %) in 1 % HNO_3

For graphite furnace AAS

Palladium matrix modifier

D ~1 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c ($Pd(NO_3)_2$) in 1 % HNO_3 ..... 5 g/l ±1 %

Art. No.	Pack Qty.	Pack.	€
5144.1	50 ml	HDPE	332,20

Palladium nitrate matrix modifier solution
10 g/l $Pd(NO_3)_2$ (99,999 %) in 1 % HNO_3

For graphite furnace AAS

Palladium matrix modifier

D ~1 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c ($Pd(NO_3)_2$) in 1 % HNO_3 ..... 10 g/l ±1 %

Art. No.	Pack Qty.	Pack.	€
4842.1	50 ml	HDPE	618,15

Matrix modifier solution Palladium nitrate & Magnesium nitrate

Palladium nitrate & Magnesium nitrate matrix modifier solution
2 g/l $Pd(NO_3)_2$ (99,999 %) and 10 g/l $Mg(NO_3)_2$ (99,999 %) in 1 % HNO_3

For graphite furnace AAS

Palladium & Magnesium matrix modifier · Palladium nitrate & Magnesium nitrate matrix modifier solution

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Type analysis
c ($Pd(NO_3)_2$) in 1 % HNO_3 ..... 2 g/l ±1 %
c ($Mg(NO_3)_2$) in 1 % HNO_3 ..... 10 g/l ±1 %

Art. No.	Pack Qty.	Pack.	€
5139.1	50 ml	HDPE	278,45

Maximum Recovery Solution

Solution de revivification maximale

WGK 1

Maximum Recovery Solution
DIN EN ISO 6887-1, ISO 8199, ISO 11133, ISO 22718, for microbiology

For homogenization and dilution of microbiological samples.

Application: Use 9.5 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Sodium chloride ..... 8,5 g/l
Casein peptone ..... 1 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
5766.1	500 g	plastic	74,20
Original pack 6 x 500 g			70,49/500 g

Maximum Recovery Solution
ISO 6887, ISO 8199, ISO 22718, for microbiology

For homogenization and dilution of microbiological samples.

D 1,037 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Casein peptone (pancreas hydrolysate) ..... 1 g/l
Sodium chloride (NaCl) ..... 8,5 g/l
pH value (25 °C) 6,8-7,2

Art. No.	Pack Qty.	Pack.	€
1L84.1	180 ml	glass	36,05
1L84.2	900 ml	glass	69,80

Maximum Recovery Solution in racks
▸ Compact Dry Dilution Rack MRD
see page 846

May-Gruenwald's solution

Eosin methylene blue solution

D 0,8 g/cm³ · mp -98 °C · bp 65 °C · flp 12 °C
UN no. 1230 · ADR 3 (6.1) II · WGK 1

Danger H225-H301+H311+H331-H370

May-Gruenwald's solution
for microscopy

For differential staining of blood smears and cytological specimens.

Type analysis
Suitability for microscopy (blood smear) ..... complies

Art. No.	Pack Qty.	Pack.	€
T863.1	500 ml	plastic	32,80
T863.2	1 l	glass	42,90
Original pack 6 x 1 l			40,76/1 l
T863.3	2.5 l	plastic	85,50
Original pack 4 x 2.5 l			81,23/2.5 l

MBAA
- *N,N'*-Methylene bisacrylamide see page 1084

MBTH
- 3-Methyl-2-benzothiazolinone hydrazone hydrochloride see page 1082

McFarland turbidity standards

Turbidity Standard

D 1,01 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

McFarland BSS 0.5
for microbiology

Turbidity Standard for adjusting the density of a bacterial suspension.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Guarantee analysis
Turbidity (625 nm, 1 cm cuvette) ..... 0,5 MFU

Art. No.	Pack Qty.	Pack.	€
1307.1	1 unit(s)	tube	31,75

McFarland PMS 0.5
for microbiology

Turbidity Standard for adjusting the density of a bacterial suspension.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Guarantee analysis
Turbidity (625 nm, 1 cm cuvette) ..... 0,5 MFU

Art. No.	Pack Qty.	Pack.	€
1440.1	1 unit(s)	tube	31,75

MCP
- *m*-Cresol purple see page 853

m-CP Agar

WGK 1

m-CP Agar
for microbiology

For isolation and enumeration of *Clostridium perfringens.*

Application: Use 71.1 g for 1 l agar. After autoclaving add 2 vials (2x2 ml) reconstituted *Clostridium perfringens* Supplement (Art. No. CL52.1) and other supplements.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Tryptose ..... 30 g/l
Yeast extract ..... 20 g/l
Saccharose ..... 5 g/l
L-Cysteine hydrochloride ..... 1 g/l
Magnesium sulphate heptahydrate ..... 0,1 g/l
Bromocresol purple ..... 0,04 g/l
Agar ..... 15 g/l
pH-value ..... 7,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL55.1	500 g	plastic	266,10
Original pack 6 x 500 g			252,80/500 g

MDH
- Malate dehydrogenase (MDH) see page 1063

Meat extract

CAS No. 68990-09-0 · EC no. 273-578-7
WGK 1

Meat extract
powdered, for culture media

Corresponds to Lab-Lemco™

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Total nitrogen (as N) ..... ≥10 %
Loss on drying ..... ≤6 %
Ash ..... ≤16 %
pH (2 % solution) ..... 7,0 ±0,5

Art. No.	Pack Qty.	Pack.	€
X975.1	500 g	plastic	165,05
Original pack 6 x 500 g			156,80/500 g
X975.2	1 kg	plastic	290,80
Original pack 6 x 1 kg			276,26/1 kg

Media plates
- CompactDry™ X-BC see page 846
- CompactDry™ TC see page 846
- ROTI®ContiPlate VRB see page 1215
- CompactDry™ SL see page 845
- ROTI®Aquatest Plate Staph see page 1212
- CompactDry™ ETB see page 845
- CompactDry™ EC see page 845
- CompactDry™ CF see page 845
- ROTI®ContiPlate TSA see page 1215
- ROTI®ContiPlate TSA-Letheen see page 1215
- ROTI®Aquatest Plate Sab4 see page 1212
- ROTI®ContiPlate MacCon see page 1214
- ROTI®Aquatest Plate Cetr see page 1211
- ROTI®Aquatest Plate YE see page 1212
- ROTI®ContiPlate VRBD see page 1215
- CompactDry™ YM see page 846
- CompactDry™ X-SA see page 846
- ROTI®ContiPlate RBC see page 1214
- ROTI®ContiPlate PCA see page 1214
- CompactDry™ PA see page 845
- ROTI®Aquatest Plate R2A see page 1211
- ROTI®Aquatest Plate PCA see page 1211
- ROTI®ContiPlate Sab4plus see page 1215

Medium P (Ph. Eur. 6.0)
- Reinforced Clostridial Medium see page 1202

Medium Q (Ph. Eur. 6.0)
- Columbia Agar (Base) see page 844

Medium R (Ph. Eur. 6.0)
- Lactose Sulphite Broth (Base) see page 1033

m-EI-chromogenic Agar (Base)

WGK 1

m-EI-chromogenic Agar (Base)
for microbiology

For detection and enumeration of *Enterococcus* in water via single step membrane filtration.

Application: Use 71.95 g for 1 l agar. After autoclaving add 0.24 g nalidixic acid (Art. No. CN32.1) solubilised in water.

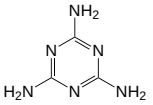
Storage temperature: +4 °C

Composition
Yeast extract ..... 30 g/l
Sodium chloride ..... 15 g/l
Peptone ..... 10 g/l
Esculin ..... 1 g/l
Chromogene Mixture ..... 0,75 g/l
Sodium azide ..... 0,15 g/l
Cycloheximide ..... 0,05 g/l
Agar ..... 15 g/l
pH value ..... 7,1 ±0,2

Art. No.	Pack Qty.	Pack.	€
3014.1	100 g	plastic	186,55

MEK
- 2-Butanone see page 797

Melamine



2,4,6-Triamino-1,3,5-triazine · sym.-Triamino-triazine

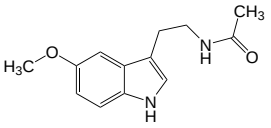
$C_3H_6N_6$ · D 1,57 g/cm³ · mp 361 °C
CAS No. 108-78-1 · EC no. 203-615-4
WGK 1

Melamine
≥99 %, for biochemistry

Type analysis
Assay ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
6034.1	1 kg	plastic	46,15
Original pack 6 x 1 kg			43,84/1 kg

Melatonin



N-Acetyl-5-methoxytryptamine

$C_{13}H_{16}N_2O_2$ · mp 117 °C
CAS No. 73-31-4 · EC no. 200-797-7
WGK 2

Melatonin
≥97 %, for biochemistry

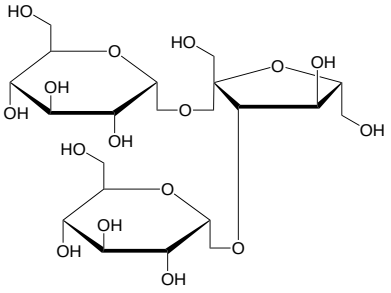
Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white to light yellowish cryst. powder
Assay (HPLC) ..... ≥97 %
Water (KF) ..... ≤0,3 %
Sulphated ash ..... ≤0,1 %
Heavy metals ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
6956.1	250 mg	glass	78,40

Meletin
- Quercetin dihydrate see page 1196
- Quercetin see page 1196

D(+)-Melezitose monohydrate



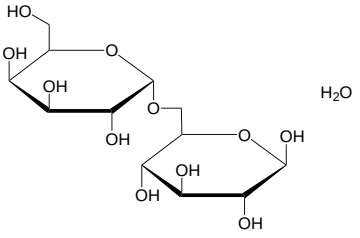
$C_{18}H_{32}O_{16}$ · H_2O · mp 156 °C
CAS No. 597-12-6 · EC no. 209-894-9
WGK 1

D(+)-Melezitose monohydrate
≥99 %, for biochemistry

Type analysis
Assay (HPLC) ..... ≥99,0 %
Water (KF) ..... 3,5-6,0 %
Sulphated ash ..... <0,1 %

Art. No.	Pack Qty.	Pack.	€
4222.1	2.5 g	glass	29,60
4222.2	25 g	plastic	117,75
4222.3	50 g	plastic	217,70
4222.4	100 g	plastic	405,85

D(+)-Melibiose monohydrate



$C_{12}H_{22}O_{11}$ · H_2O · mp 175 to 190 °C
CAS No. 66009-10-7 · EC no. 209-568-6
WGK 1

D(+)-Melibiose monohydrate
≥99 %, for biochemistry

Type analysis
Appearance ..... white to yellowish crystals
Assay (HPLC) ..... ≥99,0 %
Specific rotation $[\alpha]_D^{20}$ ..... +133° to +137°
Water (KF) ..... ≤6,0 %
Heavy metals (as Pb) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
4223.1	2.5 g	glass	37,55
4223.3	10 g	plastic	94,10
4223.2	50 g	plastic	332,20

Melitose
- D(+)-Raffinose pentahydrate see page 1198

Melitriose
- D(+)-Raffinose pentahydrate see page 1198

Melting point standards

Art. No.	Description	Page
2902	4-Acetylbenzonitrile, ROTI®Calipure	701
9754	Anthraquinone, ROTI®Calipure	746
9722	Benzoic acid, ROTI®Calipure	768
9709	Benzophenone, ROTI®Calipure	769
9739	Caffeine, ROTI®Calipure	804
9752	Carbazole, ROTI®Calipure	815
2921	Melting point standard set 1, ROTI®Calipure	1072
2942	Melting point standard set 2, ROTI®Calipure	1072
2928	Melting point standard set 3, ROTI®Calipure	1072
9712	*p*-Nitrotoluene, ROTI®Calipure	1114
9728	Phenacetin, ROTI®Calipure	1149
2919	Phenolphthalein (C.I. 764), ROTI®Calipure	1150
9731	Salicylic acid, ROTI®Calipure	1249
9734	Sulphanilamide, ROTI®Calipure	1345
2916	*m*-Toluic acid, ROTI®Calipure	1374
9714	Vanillin, ROTI®Calipure	1394

Melting point standard set

Melting point standard set

Melting point standard set 1
ROTI®Calipure

WGK 1

Warning H302-H319

Composition
Caffeine (Art. No. 9739) ..... 1 g
Sulfanilamide (Art. No. 9734) ..... 1 g
Vanillin (Art. No. 9714) ..... 1 g

Art. No.	Pack Qty.	Pack.	€
2921.1	1 set	glass	85,90

Melting point standard set 2
ROTI®Calipure

Danger H315-H317-H318-H350-H372-H412

Composition
Anthraquinone (Art. No. 9754) ..... 1 g
Benzoic acid (Art. No. 9722) ..... 1 g
Benzophenone (Art. No. 9709) ..... 1 g

Art. No.	Pack Qty.	Pack.	€
2942.1	1 set	glass	85,90

Melting point standard set 3
ROTI®Calipure

Danger H302-H319-H350

Composition
Caffeine (Art. No. 9739) ..... 1 g
Phenacetin (Art. No. 9728) ..... 1 g
Vanillin (Art. No. 9714) ..... 1 g

Art. No.	Pack Qty.	Pack.	€
2928.1	1 set	glass	85,90

(–)-*p*-Mentha-1.8-diene
- D-(+)-Limonene see page 1043
- L-(–)-Limonene see page 1043
- DL-Limonene see page 1043

p-Mentha-6,8-dien-2-ol
- (–)-Carveol see page 819

(1R,3S,4R)-*p*-Menthan-3-ol
- (+)-Isomenthol see page 1021

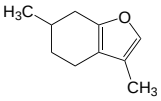
p-Menthan-3-one
- (–)-Menthone see page 1073

p-Menth-1-en-8-ol
- α-Terpineol see page 1358

p-Menth-8-en-3-ol

▸ Isopulegol see page 1023

Menthofuran



$C_{10}H_{14}O$ · D 0,97 g/cm³ · bp 210 °C · flp 76 °C
CAS No. 494-90-6 · EC no. 207-795-5
WGK 2

Menthofuran
ROTICHROM® GC

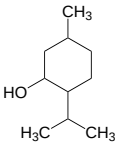
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥90 %

Art. No.	Pack Qty.	Pack.	€
5188.1	1 g	plastic	105,25

Menthol



Hexahydrothymol

$C_{10}H_{20}O$ · D 0,89 g/cm³ · mp 41 to 43 °C · bp 212 °C · flp 93 °C
CAS No. 89-78-1 · EC no. 201-939-0
WGK 1

Warning H315-H319

Menthol
Chinese

Type analysis
Appearance ..... white crystals
Specific rotation $[\alpha]_D^{20}$ ..... -46° to -38°

Art. No.	Pack Qty.	Pack.	€
6725.1	250 g	glass	89,15

DL-Menthol

Hexahydrothymol

$C_{10}H_{20}O$ · D 0,89 g/cm³ · mp 41 to 43 °C · bp 212 °C · flp 93 °C
CAS No. 89-78-1 · EC no. 201-939-0
WGK 1

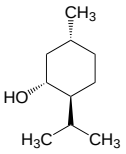
Warning H315-H319

DL-Menthol
≥99 %, synthetic

Type analysis
Appearance . colourless to white crystalline mass
Assay (GLC) ..... ≥99 %
Melting point ..... 30,5-32,0 °C
Specific rotation $[\alpha]_D^{20}$ (in ethanol) ..... -2° to +2°

Art. No.	Pack Qty.	Pack.	€
8391.1	100 g	glass	36,45

(–)-Menthol



$C_{10}H_{20}O$ · D 0,89 g/cm³ · mp 40 to 45 °C · bp 210 to 220 °C · flp 93 °C
CAS No. 2216-51-5 · EC no. 218-690-9
WGK 1

Warning H315-H319

(–)-Menthol
ROTICHROM® GC

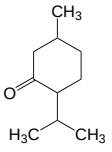
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
9061.1	1 g	plastic	111,70

Menthone



$C_{10}H_{18}O$ · D 0,896 g/cm³ · mp -6 °C · bp 85 to 88 °C · flp 69 °C
CAS No. 10458-14-7 · EC no. 233-944-9
WGK 1

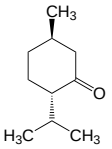
Warning H302-H319-H412

Menthone
≥96 %, mixture of isomers

Type analysis
Appearance ..... light yellow clear liquid
Assay ..... ≥96,0 %

Art. No.	Pack Qty.	Pack.	€
4226.1	50 ml	glass	46,15
4226.2	250 ml	glass	160,20

(–)-Menthone



p-Menthan-3-one

$C_{10}H_{18}O$ · D 0,893 g/cm³ · mp <-20 °C · bp 210,7 °C · flp 74 °C
CAS No. 14073-97-3 · EC no. 237-926-1
WGK 1

Warning H315-H317

(–)-Menthone
ROTICHROM® CHR ≥88 %

Storage temperature: +4 °C

Type analysis
Appearance ..... colourless liquid
Assay (GC) ..... ≥88,0 %
Optical rotation (20 °C) ..... -30° to -20°

Art. No.	Pack Qty.	Pack.	€
6930.1	25 ml	glass	117,75

Menthyl acetate

▸ Acetic acid (L)-menthyl ester see page 695

2-Mercaptoethanol



β-Mercaptoethanol · Hydroxyethyl mercaptan · Thioethyleneglycol · Thioglycol · BME

C_2H_6OS · D 1,12 g/cm³ · mp <-50 °C · bp 155,8 °C · flp 71 °C
CAS No. 60-24-2 · EC no. 200-464-6
UN no. 2966 · ADR 6.1 II · WGK 3

Danger H301+H331-H310-H315-H317-H318-H373-H410

2-Mercaptoethanol
≥99 %, p.a.

Reducing agent.

Storage temperature: +4 °C

Type analysis
Appearance ..... colourless to slightly pink liquid
Assay ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
4227.3	100 ml	glass	18,85
4227.1	250 ml	glass	27,85
4227.2	1 l	glass	64,00
Original pack 6 x 1 l			60,80/1 l

β-Mercaptoethanol

▸ 2-Mercaptoethanol see page 1073

2-Mercaptoethylamine hydrochloride

▸ Cysteamine hydrochloride see page 859

Mercury

Hg · D 13,55 g/cm³ · mp -38,48 °C · bp 356,8 °C
CAS No. 7439-97-6 · EC no. 231-106-7
UN no. 2809 · ADR 8 (6.1) III · WGK 3

Danger H330-H360D-H372-H410

Mercury
≥99,9995 %, p.a.

Guarantee analysis
Assay ..... ≥99,9995 %
Aluminium (Al) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,00001 %
Silver (Ag) ..... ≤0,00001 %
Magnesium (Mg) ..... ≤0,00001 %
Copper (Cu) ..... ≤0,00001 %
Tin (Sn) ..... ≤0,00005 %
Nickel (Ni) ..... ≤0,00001 %
Iron (Fe) ..... ≤0,00002 %
Cadmium (Cd) ..... ≤0,00001 %
Zinc (Zn) ..... ≤0,00005 %

Art. No.	Pack Qty.	Pack.	€
8530.1	100 g	glass	n. a.
8530.2	1 kg	plastic	n. a.
Original pack 6 x 1 kg			#WERT!/1 kg

Mercury
≥99,999 %

Type analysis
Assay ..... ≥99,999 %

Art. No.	Pack Qty.	Pack.	€
7593.1	100 g	glass	n. a.
7593.3	500 g	glass	n. a.
Original pack 6 x 500 g			#WERT!/500 g
7593.2	1 kg	plastic	n. a.
Original pack 6 x 1 kg			#WERT!/1 kg

Mercury
≥99,9 %

Type analysis
Assay ..... ≥99,9 %

Art. No.	Pack Qty.	Pack.	€
7594.2	100 g	glass	n. a.
7594.1	1 kg	plastic	n. a.
Original pack 6 x 1 kg			#WERT!/1 kg

Mercury standards

- Mercury ICP Standard Solution see page 1319
- Mercury AAS Standard Solution see page 1319
- Mercury ICP-MS Standard Solution see page 1319
- Mercury ICP Standard Solution see page 1319

Mercury(II) acetate

$Hg(CH_3COO)_2$ · D 3,27 g/cm³ · mp 179 to 182 °C
CAS No. 1600-27-7 · EC no. 216-491-1
UN no. 1629 · ADR 6.1 II · WGK 3

Danger H300+H310+H330-H373-H410

Mercury(II) acetate
≥99 %, p.a., ACS

Catalyst for organic synthesis.

Guarantee analysis
Assay ..... ≥99,0 %
In H_2O insoluble matter ..... ≤0,01 %
Residue after reduction ..... ≤0,02 %
Chloride (Cl) ..... ≤0,005 %
Nitrate (NO_3) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,005 %
Heavy metals (different from Pb) ..... ≤0,002 %
Lead (Pb) ..... ≤0,001 %
Cadmium (Cd) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,001 %
Copper (Cu) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,0005 %
Mercury I (Hg I) ..... ≤0,4 %
Silver (Ag) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
KK05.1	50 g	glass	75,15
KK05.2	100 g	glass	134,95

Mercury(II) bromide

$HgBr_2$ · D 6,05 g/cm³ · mp 237 °C · bp 322 °C
CAS No. 7789-47-1 · EC no. 232-169-3
UN no. 1634 · ADR 6.1 II · WGK 3

Danger H300+H310+H330-H373-H410

Mercury(II) bromide
≥98 %, p.a., ACS

Guarantee analysis
Appearance ..... white to very faint yellow powder
Assay ..... ≥98,0 %
Chloride (Cl) ..... ≤0,25 %
Residue after reduction ..... ≤0,02 %
Insoluble in methanol ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
6581.1	50 g	plastic	70,45
6581.2	250 g	plastic	274,15

Mercury(I) chloride

Dimercury dichloride · Calomel

Hg_2Cl_2 · D 7,15 g/cm³ · mp 543 °C · bp 400 °C
CAS No. 10112-91-1 · EC no. 233-307-5
UN no. 2025 · ADR 6.1 III · WGK 3

Danger H301-H312-H315-H319-H335-H410

Mercury(I) chloride
≥99,5 %, p.a., ACS

Guarantee analysis
Appearance ..... white to off-white powder
Assay ..... ≥99,5 %
Residue after reduction ..... ≤0,02 %
Mercuric chloride ($HgCl_2$) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
6601.1	50 g	glass	71,95
6601.2	100 g	glass	120,95
6601.3	500 g	glass	456,90
Original pack 6 x 500 g			434,06/500 g

Mercury(II) chloride

$HgCl_2$ · D 5,44 g/cm³ · mp 277 °C · bp 302 °C
CAS No. 7487-94-7 · EC no. 231-299-8
UN no. 1624 · ADR 6.1 II · WGK 3

Danger H300+H310-H314-H341-H361f-H372-H410

Mercury(II) chloride
≥99,5 %, p.a., ACS

Catalyst

Guarantee analysis
Assay (compl.) ..... ≥99,5 %
In $C_2H_5OC_2H_5$ insoluble matter ..... complies
Residue after reduction ..... ≤0,02 %
Iron (Fe) ..... ≤0,002 %
Loss on drying ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
KK04.1	50 g	glass	86,55
KK04.2	100 g	glass	160,20

Mercury(II) chloride
≥99,5 %, extra pure

Type analysis
Appearance ..... white, cryst. powder
Assay ..... ≥99,5 %
Iron (Fe) ..... ≤0,002 %
Residue after reduction ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
7904.1	100 g	plastic	112,90
7904.3	500 g	plastic	482,70
Original pack 6 x 500 g			458,57/500 g
7904.2	1 kg	plastic	901,95
Original pack 6 x 1 kg			856,85/1 kg

Mercury(II) iodide

HgI_2 · D 6,36 g/cm³ · mp 259 °C · bp 350 °C
CAS No. 7774-29-0 · EC no. 231-873-8
UN no. 1638 · ADR 6.1 II · WGK 3

Danger H300+H310+H330-H373-H410

Mercury(II) iodide
≥99 %, p.a., ACS, red

Guarantee analysis
Appearance ..... red powder
Assay (dry substance) ..... ≥99,0 %
Mercury I (Hg I) ..... ≤0,1 %
Solubility in KI solution ..... complies
Soluble mercury salts (as Hg) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
6590.1	50 g	plastic	69,80
6590.2	100 g	plastic	112,90
6590.3	500 g	plastic	471,95
Original pack 6 x 500 g			448,35/500 g

Mercury(I) nitrate dihydrate

$Hg_2(NO_3)_2 \cdot 2\,H_2O$ · D 4,78 g/cm³ · mp 70 °C
CAS No. 14836-60-3 · EC no. 233-886-4
UN no. 1627 · ADR 6.1 II · WGK 3

Danger H300+H310+H330-H373-H410

Mercury(I) nitrate dihydrate
≥97 %, p.a.

Guarantee analysis
Appearance ..... white to yellow cryst. powder
Assay ..... ≥97,0 %
Insoluble matter ..... ≤0,005 %
Residue after reduction ..... ≤0,01 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,005 %
Iron (Fe) ..... ≤0,001 %
Mercury (Hg) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6605.1	50 g	plastic	60,10
6605.2	100 g	plastic	99,90
6605.3	500 g	plastic	461,20
Original pack 6 x 500 g			438,14/500 g

Mercury(II) nitrate monohydrate

$Hg(NO_3)_2 \cdot H_2O$ · D 4,39 g/cm³ · mp 77 to 79 °C
CAS No. 7783-34-8 · EC no. 233-152-3
UN no. 1625 · ADR 6.1 II · WGK 3

Danger H300+H310+H330-H373-H410

Mercury(II) nitrate monohydrate
≥98 %, p.a., ACS

Guarantee analysis
Appearance ..... white to slightly yellowish powder
Assay ..... ≥98,0 %
Residue after reduction ..... ≤0,01 %
Chloride (Cl) ..... ≤0,002 %
Sulphate (SO_4) ..... ≤0,002 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
6595.1	50 g	plastic	63,45
6595.2	250 g	plastic	235,45
6595.3	1 kg	plastic	901,95
Original pack 6 x 1 kg			856,85/1 kg

Mercury(II) nitrate solution (0.1 N)

D 1,017 g/cm³ · mp 0 °C · bp 100 °C
UN no. 2024 · ADR 6.1 III · WGK 2

Danger H302+H332-H311-H373-H412

Mercury(II) nitrate solution
0,05 mol/l – 0,1 N, volumetric standard solution

Type analysis
Amount-of-substance conc. (20 °C) .. 0,05 mol/l ± 0,5 %

Art. No.	Pack Qty.	Pack.	€
KK72.1	1 l	plastic	73,00
Original pack 6 x 1 l			69,35/1 l

Mercury(II) oxide

HgO · D 11,14 g/cm³ · mp 500 °C
CAS No. 21908-53-2 · EC no. 244-654-7
UN no. 1641 · ADR 6.1 II · WGK 3

Danger H300+H310+H330-H373-H410

Mercury(II) oxide
≥99 %, p.a., red

Guarantee analysis
Assay ..... ≥99,0 %
Insoluble in HCl ..... ≤0,03 %
Total nitrogen (N) ..... ≤0,005 %
Ash content ..... ≤0,025 %
Chloride (Cl) ..... ≤0,025 %
Sulphate (SO_4) ..... ≤0,015 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,005 %
Copper (Cu) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4470.2	25 g	plastic	57,55
4470.1	50 g	plastic	101,60

Mercury(II) sulphate

$HgSO_4$ · D 6,47 g/cm³ · mp >450 °C · bp >450 °C
CAS No. 7783-35-9 · EC no. 231-992-5
UN no. 1645 · ADR 6.1 II · WGK 3

Danger H300+H310+H330-H373-H410

Mercury(II) sulphate
≥98 %, p.a., ACS

For determination of COD, catalyst in Kjeldahl determination.

Type analysis
Assay (compl.) ..... ≥98,0 %
Chloride (Cl) ..... ≤0,003 %
Nitrate (NO_3) ..... ≤0,005 %
Iron (Fe) ..... ≤0,005 %
Mercury I (Hg I) ..... ≤0,15 %
Residue after reduction ..... ≤0,02 %

For the preparation of solutions for COD-determination acc. DIN 38403.

Art. No.	Pack Qty.	Pack.	€
T112.1	100 g	plastic	96,65
T112.2	500 g	plastic	349,40
Original pack 6 x 500 g			331,93/500 g

Mercury(II) sulphate solution 80 g/l

D 1,19 g/cm³
UN no. 3289 · ADR 6.1 (8) I · WGK 3

Danger H290-H300+H310+H330-H314-H340-H350-H360FD-H373-H411-EUH208

Mercury(II) sulphate solution 80 g/l
0,02 mol $K_2Cr_2O_7$/l, volumetric standard solution, potassium dichromate in sulphuric acid, for COD determination

According to DIN 38409 part H41.

Type analysis
Type analysis:
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
X871.1	1 l	glass	128,90
Original pack 6 x 1 l			122,46/1 l
X871.2	2.5 l	glass	256,95
Original pack 4 x 2.5 l			244,10/2.5 l

Mercury(II) thiocyanate

$Hg(SCN)_2$ · D 3,71 g/cm³ · mp 165 °C · flp 120 °C
CAS No. 592-85-8 · EC no. 209-773-0
UN no. 1646 · ADR 6.1 II · WGK 3

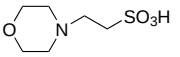
Danger H300+H310+H330-H373-H410-EUH032

Mercury(II) thiocyanate
≥99 %, p.a.

Guarantee analysis
Appearance ..... white to slightly yellow powder
Assay ..... ≥99,0 %
Assay (Hg) ..... 61,7-64,9 %
Sodium (Na) ..... ≤0,01 %
Iron (Fe) ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
6600.1	25 g	plastic	56,45
6600.2	100 g	plastic	181,70
6600.3	500 g	plastic	794,45
Original pack 6 x 500 g			754,73/500 g

MES



2-(*N*-Morpholino)-ethane sulphonic acid

$C_6H_{13}NO_4S$ · mp 335,5 °C
CAS No. 4432-31-9 · EC no. 224-632-3
WGK 1

MES
PUFFERAN® ≥99 %

For molecular biology and biochemistry

Guarantee analysis
Appearance ..... white powder
Assay (titr., dry substance) ..... ≥99,0 %
pH-value 2,5-4,0
Loss on drying ..... ≤1,0 %
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,001 %

Absorbance:
280 nm ..... ≤0,02
260 nm ..... ≤0,04

Art. No.	Pack Qty.	Pack.	€
4256.2	100 g	plastic	79,45
4256.5	250 g	plastic	170,95
4256.3	500 g	plastic	321,45
Original pack 6 x 500 g			305,38/500 g
4256.4	1 kg	plastic	557,95
Original pack 6 x 1 kg			530,05/1 kg

MES
≥99 %, for biochemistry

Type analysis
Assay ..... ≥99 %
pH value 2,5-4,0
Chloride (Cl) ..... ≤0,1 %
Sulphate (SO_4) ..... ≤0,05 %
Loss on drying ..... ≤1,0 %
Heavy metals (as Pb) ..... ≤0,001 %
UV (0,1 M in H_2O) A280 nm ..... ≤0,02

Art. No.	Pack Qty.	Pack.	€
4259.1	50 g	plastic	40,75
4259.2	100 g	plastic	62,90
4259.3	250 g	plastic	112,90
4259.4	500 g	plastic	213,95
Original pack 6 x 500 g			203,25/500 g
4259.5	1 kg	plastic	403,15
Original pack 6 x 1 kg			382,99/1 kg

MES monohydrate

2-(*N*-Morpholino)-ethane sulphonic acid

$C_6H_{13}NO_4S \cdot H_2O$ · mp 335,5 °C · bp 342,9 °C
CAS No. 145224-94-8 · EC no. 224-632-3
WGK 1

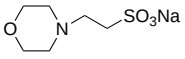
MES monohydrate
PUFFERAN® ≥99 %

Guarantee analysis
Appearance ..... white powder
Assay (titr.) ..... ≥99,0 %
pH value (1 % in H_2O) 3,5-4,1
Loss on drying ..... 7,9-8,9 %
Solubility (0,1 M in H_2O) . clear, colorless solution

Absorbance:
260 nm ..... ≤0,04
280 nm ..... ≤0,02

Art. No.	Pack Qty.	Pack.	€
6066.1	50 g	plastic	32,15
6066.2	100 g	plastic	53,65
6066.3	500 g	plastic	203,20
Original pack 6 x 500 g			193,04/500 g
6066.4	1 kg	plastic	385,95
Original pack 6 x 1 kg			366,65/1 kg

MES sodium salt



2-(*N*-Morpholino)-ethane sulphonic acid

$C_6H_{12}NaNO_4S$ · mp 300 °C
CAS No. 71119-23-8 · EC no. 275-203-2
WGK 1

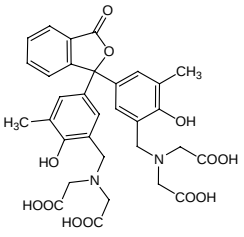
MES sodium salt
PUFFERAN® ≥99 %

Type analysis
Assay (titr., dry substance) ..... ≥99 %
Loss of drying (140 °C, 30 min) ..... ≤1,0 %
pH value (1 % solution) 8,9-10,1

Art. No.	Pack Qty.	Pack.	€
6922.1	25 g	plastic	30,00
6922.2	100 g	plastic	107,40

Metal enhancer
▸ DAB Metal Enhancer see page 863

Metal phthaleine



Phthalein purple · *o*-Cresolphthalein complexone

$C_{32}H_{32}N_2O_{12}$ · mp 186 °C
CAS No. 2411-89-4 · EC no. 219-318-8
WGK 1

Metal phthaleine
p.a.

Indicator for complexometry

Dissolve 0.1 g in dil. NH_3

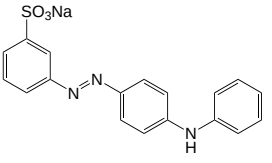
Type analysis
Absorption max. (NaOH 0,1 mol/l) .... 577-580 nm
Water (KF) ..... ≤10 %
Suitability as indicator for complexometry .. complies

Art. No.	Pack Qty.	Pack.	€
4231.1	1 g	glass	31,10
4231.2	5 g	glass	61,20

Metals

Art. No.	Description	Page
1H45	Alloy acc. to Devarda, p.a.	720
1980	Alloy acc. to Wood, Use as metal bath	720
5577	Aluminium granulate, ROTI®METIC, 99,995 % (4N5)	721
5280	Aluminium granulate, ≥99 %, ~1–5 mm	721
5285	Aluminium powder, ≥99 %, <160 µm	721
2272	Aluminium wool, ~99 %, fine	721
2630	Aluminium wool, ~99 %, coarse	721
4516	Antimony shot, ROTI®METIC, 99,999 % (5N)	747
9258	Antimony powder, ≥99,5 %, ~325 mesh	747
1HX4	Antimony powder, ≥99,5 %	747
1L6H	Bismuth pieces, ROTI®METIC, 99,999 % (5N)	776
2735	Bismuth powder, ≥99,5 %, ~200 mesh	776
0753	Brass wool, ~66 % Cu, ~33 % Zn	785
2729	Calcium granulate, ≥99,5 %, ~6 mesh	805
0886	Chromium shot, ≥99,95 %	836
5620	Cobalt powder, ROTI®METIC, 99,999 % (5N)	841
1KNE	Copper foil, p.a.	848
8540	Copper foil	848
2728	Copper beads, ≥99,9 %	848
8279	Copper, nano, ROTI®nanoMETIC, ≥99 %, ≥80 nm	848
5621	Copper pellets, ROTI®METIC, 99,999 % (5N)	848
5386	Copper powder, ROTI®METIC, 99,999 % (5N)	848
CP21	Copper powder, ≥99,7 %, p.a., <63 µm	848
9597	Copper wool, ~99 %	848
3761	Gallium, 99,9999 %	952
1HN8	Gallium, 99,99 %	952
1L54	Germanium pieces, ROTI®METIC, 99,999 % (5N)	956
5622	Gold shot, ROTI®METIC, 99,999 % (5N)	969
0882	Gold shot, ≥99,95 %, 1–6 mm	969
1HN9	Indium wire, 99,99 %, Ø 0,5 mm	1007
9803	Indium foil, 99,99 % (4N)	1007
5629	Indium shot, ROTI®METIC, 99,999 % (5N)	1007
3906	Indium granules, >99,97 %	1007
1EHP	Indium powder, ≥99 %, p.a.	1007
0540	Iron foil, 99,99 % (4N)	1016
5631	Iron granules, ROTI®METIC, 99,99 % (4N)	1016
3718	Iron powder , ≥99,5 %, p.a., ~10 µm	1016
9454	Iron powder reduced, ≥96 %, extra pure, <149 µm	1016
9588	Iron wool, ~97 %	1016
1HEC	Lead foil, ≥99,8 %	1038
2734	Lead granulate, ≥99,9 %, ~20 mesh	1038
2248	Lead wool, ~99 %, fine	1038
1HEA	Lithium, ≥99,5 %, Ø 70 mm, h: 55 mm	1045
4468	Magnesium ribbon, ≥99,5 %	1055
AE61	Magnesium turnings, ≥99,9 %, for synthesis, acc. to Grignard	1056
1L6K	Magnesium granulate, ROTI®METIC, 99,99 % (4N)	1056
CP20	Magnesium powder, ≥99,8 %, <75 µm	1056
1HX8	Manganese powder, ≥99,6 %, <100 mesh	1066
4509	Manganese flakes, ROTI®METIC, 99,98 % (3N8)	1066
8530	Mercury, ≥99,9995 %, p.a.	1074
7593	Mercury, ≥99,999 %	1074
7594	Mercury, ≥99,9 %	1074
1L4T	Molybdenum pieces, ROTI®METIC, 99,98 % (3N8)	1092
0529	Nickel foil, 99,99 % (4N)	1103
5643	Nickel powder, ROTI®METIC, 99,995 % (4N5)	1103
CP22	Nickel powder, ≥99 %, <63 µm	1103
0663	Nickel-aluminium alloy, 50/50 % Ni/Al, for synthesis, powder	1103
5648	Palladium powder, ROTI®METIC, 99,999 % (5N)	1135
8408	Platinum black, 98,2–98,7 %	1160
5654	Platinum powder, ROTI®METIC, 99,999 % (5N)	1160
0737	Platinum wire, ≥99,95 %, Ø 0,2 mm	1160
8415	Platinum wire, ≥99,9 %, Ø 0,3 mm	1160
0803	Platinum wire, ≥99,95 %, Ø 0,5 mm	1160
4547	Selenium pellets, ROTI®METIC, 99,999 % (5N)	1255
8816	Silver sheet, 100 × 100 × 0,1 mm	1271
8819	Silver wire, ≥99,9 %, Ø 0,1 mm	1271
8821	Silver wire, ≥99,9 %, Ø 0,5 mm	1271
0884	Silver pellets, ≥99,99 %	1271
9373	Silver wool, ≥99,9 %, for elemental analysis	1271
4469	Sodium, ≥99 %, rods, in paraffin wax oil	1276
1L6L	Tantalum powder, ROTI®METIC, 99,99 % (4N)	1353
1L5N	Tellurium pices, ROTI®METIC, 99,999 % (5N)	1356
1L7Y	Tin foil, 98 % Sn, 2 % Sb, pure	1369
5097	Tin shot, ROTI®METIC, 99,999 % (5N)	1369
4016	Tin granules, ≥99,8 %, p.a., ~1-4 mm	1369
1ET2	Tin granules, ≥99,9 %, p.a., ~5-12 mm	1369
2731	Tin beads, ≥99,8 %, 8-20 mesh	1369
1L66	Titanium pieces, ROTI®METIC, 99,99 % (4N)	1370
9835	Tungsten powder, ≥99 %, ~325 mesh	1387
1HT6	Vanadium powder, 99,5 %	1393
5345	Zinc shot, ROTI®METIC, 99,999 % (5N)	1412
3093	Zinc granules, ≥99,99 %, p.a., 0,3–1,5 mm	1412
AE99	Zinc granules, ≥99,99 %, p.a., 5–15 mm	1412
9524	Zinc dust, ≥98 %, <63 µm, stabilised	1412

Metanil yellow (C. I. 13065)



Acid yellow 36

$C_{18}H_{14}N_3NaO_3S$ · D 0,488 g/cm³ · mp 326 to 332,7 °C · bp >325 °C · flp >250 °C
CAS No. 587-98-4 · EC no. 209-608-2
WGK 1

Danger H318-H412

Metanil yellow (C. I. 13065)
p.a.

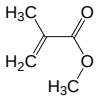
Indicator pH 1.2-2.7

Dissolve 0.1 g in 100 ml of water

Type analysis
Appearance ..... yellow to orange powder
Appearance of solution (0,1 % in MeOH) .... clear, yellow orange
pH-transition range ..... 1,2 (dark red)-2,7 (yellow)

Art. No.	Pack Qty.	Pack.	€
7714.1	5 g	glass	18,85
7714.2	25 g	glass	33,25
7714.3	100 g	glass	80,55

Methacrylic acid methyl ester



MMA · Methyl methacrylate

$C_5H_8O_2$ · D 0,94 g/cm³ · mp -48 °C · bp 100,4 °C · flp 10 °C
CAS No. 80-62-6 · EC no. 201-297-1
UN no. 1247 · ADR 3 II · WGK 1

Danger H225-H315-H317-H335

Methacrylic acid methyl ester
≥99 %, extra pure

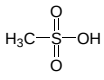
For electron microscopy.

Type analysis
Appearance ..... clear, colourless liquid
Assay (GC) ..... ≥99 %
Acid content ..... ≤0,005 %
Water (KF) ..... ≤0,01 %

stabilised with 100 ±10 ppm MEHQ (mequinol).

Art. No.	Pack Qty.	Pack.	€
4233.7	250 ml	glass	18,20
4233.1	1 l	glass	40,35
Original pack 6 x 1 l			38,33/1 l
4233.2	2.5 l	glass	81,60
Original pack 4 x 2.5 l			77,52/2.5 l
4233.8	25 l	tinplate	654,70

Methanesulphonic acid



MSA · Methylsulphonic acid

CAS No. 75-75-2 · EC no. 200-898-6
UN no. 2586 · ADR 8 III · WGK 1

Danger H290-H302+H312-H314-H335

Methanesulphonic acid
≥99,5 %, for synthesis

CH_4O_3S · D 1,48 g/cm³ · mp 20 °C · bp 167 °C · flp 189 °C

Type analysis
Assay ..... ≥99,5 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,005 %
Colour (APHA) ..... ≤150
Heavy metals ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
4090.1	100 ml	glass	24,20
4090.2	250 ml	glass	38,20
4090.3	1 l	glass	102,05
Original pack 6 x 1 l			96,95/1 l
4090.4	2.5 l	glass	203,20
Original pack 4 x 2.5 l			193,04/2.5 l

Methanesulphonic acid
70 %, for synthesis

CH_4O_3S · D 1,35 g/cm³ · mp -54 °C · bp 167 °C · flp 189 °C

Type analysis
Assay ..... 69,5-70,5 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,005 %
Colour (APHA) ..... ≤10
Heavy metals ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
4236.1	100 ml	glass	19,90
4236.2	1 l	glass	50,45
Original pack 6 x 1 l			47,93/1 l
4236.3	2.5 l	glass	100,55
Original pack 4 x 2.5 l			95,52/2.5 l

Methanoic acid
▸ Formic acid see page 947

Methanol

$H_3C—OH$

Carbinol · Methyl alcohol

CAS No. 67-56-1 · EC no. 200-659-6
UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H370

Methanol
ROTISOLV® ≥99,98 %, Ultra LC-MS

CH_3OH · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C

Guarantee analysis
Assay (GC) ..... ≥99,98 %
Colour (APHA) ..... ≤5
Water ..... ≤0,03 %
Acidity (as CH_3COOH) ..... ≤0,002 %
Alkalinity (as NH_3) ..... ≤0,0001 %
Non volatile matter ..... ≤0,0001 %
Aluminium (Al) ..... ≤20 ppb
Calcium (Ca) ..... ≤100 ppb
Iron (Fe) ..... ≤20 ppb
Potassium (K) ..... ≤50 ppb
Magnesium (Mg) ..... ≤20 ppb
Sodium (Na) ..... ≤100 ppb

Fluorescence (as quinine):
254 nm ..... ≤0,5 ppb
365 nm ..... ≤0,3 ppb

Gradient test UV absorption of the greatest eluated peak:
220 nm ..... ≤0,004 AU
235 nm ..... ≤0,002 AU

Transmission:
260 nm ..... ≥99 %
230 nm ..... ≥80 %
220 nm ..... ≥65 %
210 nm ..... ≥30 %

Filtered through 0.1 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
HN41.1	1 l	glass	45,70
Original pack 6 x 1 l			43,42/1 l
HN41.2	2.5 l	glass	103,75
Original pack 4 x 2.5 l			98,56/2.5 l

Methanol
ROTISOLV® ≥99,95 %, LC-MS Grade

CH_3OH · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C

Guarantee analysis
Assay (GC) ..... ≥99,95 %
Colour (APHA) ..... ≤5
Water (KF) ..... ≤0,03 %
Free acid (as CH_3COOH) ..... ≤0,002 %
Free alkali (as NH_3) ..... ≤0,0001 %
Non volatile matter ..... ≤0,0001 %
260 nm ..... ≥98 %
235 nm ..... ≥85 %
220 nm ..... ≥60 %
210 nm ..... ≥40 %
Aluminium (Al) ..... ≤0,05 ppm
Calcium (Ca) ..... ≤0,05 ppm
Iron (Fe) ..... ≤0,05 ppm
Potassium (K) ..... ≤0,05 ppm
Magnesium (Mg) ..... ≤0,05 ppm
Sodium (Na) ..... ≤0,05 ppm
LC-MS suitability test ..... complies

Fluorescence (as quinine):
254 nm ..... ≤0,5 ppb
365 nm ..... ≤0,5 ppb

Gradient test UV absorption of the greatest eluated peak:
235 nm ..... ≤0,002 AU
254 nm ..... ≤0,001 AU

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
AE71.1	1 l	glass	39,70
Original pack 6 x 1 l			37,72/1 l
AE71.2	2.5 l	glass	85,50
Original pack 4 x 2.5 l			81,23/2.5 l
AE71.70	2.5 l	glass	

Methanol
ROTISOLV® HPLC Ultra Gradient Grade

CH_3OH · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C

Guarantee analysis
Assay (GC) ..... ≥99,95 %
Colour (Hazen) ..... ≤10
Water (KF) ..... ≤0,03 %
Free acid (as CH_3COOH) ..... ≤0,002 %
Non volatile matter ..... ≤0,0001 %
Suitability for PAH analysis (HPLC fluorescence detection) ..... complies

Fluorescence (as quinine):
254 nm ..... ≤1,0 ppb
365 nm ..... ≤0,5 ppb

Gradient test UV absorption of the greatest eluated peak:
220 nm ..... ≤0,004 AU
235 nm ..... ≤0,002 AU

Transmission:
>260 nm ..... ≥99 %
230 nm ..... ≥80 %
220 nm ..... ≥60 %
210 nm ..... ≥40 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
X948.1	1 l	glass	33,25
Original pack 6 x 1 l			31,59/1 l
X948.2	2.5 l	glass	59,05
Original pack 4 x 2.5 l			56,10/2.5 l

Methanol
ROTISOLV® HPLC Gradient Grade

CH_3OH · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Colour (Hazen) ..... ≤10
Water (KF) ..... ≤0,02 %
Free acid ..... ≤0,001 %
Non volatile matter ..... ≤0,0002 %

Fluorescence (as quinine):
254 nm ..... ≤1,0 ppb
365 nm ..... ≤0,5 ppb

Gradient test UV absorption of the greatest eluated peak:
235 nm ..... ≤2,0 mAU
254 nm ..... ≤1,0 mAU

Transmission:
>260 nm ..... ≥99 %
235 nm ..... ≥85 %
220 nm ..... ≥60 %
210 nm ..... ≥40 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
7342.2	1 l	glass	30,00
Original pack 6 x 1 l			28,50/1 l
7342.1	2.5 l	glass	51,50
Original pack 4 x 2.5 l			48,93/2.5 l

Methanol
ROTISOLV® HPLC Gradient

CH_3OH · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,05 %
Free acid (as CH_3COOH) ..... ≤0,002 %
Non volatile matter ..... ≤0,0003 %

Gradient test:
254 nm ..... ≤0,005 AU

Transmission:
260 nm ..... ≥98 %
235 nm ..... ≥85 %
210 nm ..... ≥30 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
KK39.2	2.5 l	glass	42,90
Original pack 4 x 2.5 l			40,76/2.5 l

Methanol
ROTISOLV® HPLC

CH_3OH · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,05 %
Free acid ..... ≤0,002 %
Non volatile matter ..... ≤0,0003 %

Transmission:
260 nm ..... ≥99 %
235 nm ..... ≥85 %
220 nm ..... ≥60 %
210 nm ..... ≥30 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
P717.2	1 l	glass	25,30
Original pack 6 x 1 l			24,04/1 l
P717.1	2.5 l	glass	42,90
Original pack 4 x 2.5 l			40,76/2.5 l

Methanol
ROTISOLV® ≥99,9 %, GC Ultra Grade

For gaschromatographic residue analysis.

CH_3OH · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,05 %
Free acid (as CH_3COOH) ..... ≤0,003 %
Evaporation residue ..... ≤0,0002 %
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD pesticides (as lindane) ..... ≤5 ng/l
GC/NPD pesticides (as parathion) ..... ≤5 ng/l
PAH-test (less than 2 ppb, HPLC) ..... complies

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
KK44.1	2.5 l	glass	66,15
Original pack 4 x 2.5 l			62,84/2.5 l

Methanol
ROTISOLV® Pestilyse® plus ≥99,9 %

For determination of dioxins, furans, PCBs, pesticides, hydrocarbons etc.

CH_3OH · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,05 %
Free acid (as CH_3COOH) ..... ≤0,002 %
Free alkali (as NH_3) ..... ≤0,0002 %
Evaporation residue ..... ≤0,0002 %
GC/FID suitability (as 2-octanol) ..... ≤10 ng/ml
GC/ECD suitability (as heptachloro epoxide) ..... ≤10 ng/l
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD pesticides (as lindane) ..... ≤5 ng/l
GC/NPD pesticides (as parathion) ..... ≤10 ng/l
Oil index (any hydrocarbon C_{10}-C_{40}) ..... ≤0,1 mg/l
GC/ECD volatile impurities (as ethylene dibromide) ..... ≤5 ng/ml
PAH-test (less than 2 ppb, HPLC) ..... complies

Fluorescence (as quinine):
254 nm ..... ≤0,5 ppb
365 nm ..... ≤0,5 ppb

Art. No.	Pack Qty.	Pack.	€
7583.1	2.5 l	glass	56,90
Original pack 4 x 2.5 l			54,06/2.5 l

Methanol
ROTISOLV® Pestilyse® ≥99,9 %

For residue and environmental analysis.

CH_3OH · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,1 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %
GC/ECD (individual signal as lindane) ..... ≤5 ng/l
GC/PND (individual signal as ethylparathion) ..... ≤10 ng/l

Art. No.	Pack Qty.	Pack.	€
T169.2	1 l	glass	30,65
Original pack 6 x 1 l			29,12/1 l
T169.1	2.5 l	glass	42,90
Original pack 4 x 2.5 l			40,76/2.5 l
T169.3	4 l	glass	64,00

Methanol
ROTISOLV® ≥99,9 %, UV/IR Grade

For chromatography and spectroscopy.

CH_3OH · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,02 %
Acidity ..... ≤0,005 meq/g
Evaporation residue ..... ≤0,005 %

Fluorescence (as quinine):
254 nm ..... ≤1,0 ppb
365 nm ..... ≤1,0 ppb

Transmission:
260 nm ..... ≥98 %
242 nm ..... ≥90 %
232 nm ..... ≥80 %
220 nm ..... ≥50 %
207 nm ..... ≥10 %

Art. No.	Pack Qty.	Pack.	€
T909.1	2.5 l	glass	45,05
Original pack 4 x 2.5 l			42,80/2.5 l

Methanol
ROTIDRY®Sept ≥99,9 % (≤50 ppm H_2O)

Dried; in a septum bottle

CH_3OH · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,005 %
Acidity (as CH_3COOH) ..... ≤0,002 %
Evaporation residue ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
5181.1	250 ml	septum bottle	48,30

Methanol
ROTIDRY® plus ≥99,8 % (≤50 ppm H_2O), with molecular sieve

CH_3OH · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C

Type analysis
Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,005 %
Relative density (20/20 °C) 0,791-0,793
Acidity ..... ≤0,0003 meq/g
Alkalinity ..... ≤0,0002 meg/g
Chloride (Cl) ..... ≤0,0001 %
Sulphate (SO_4) ..... ≤0,0005 %
Acetone (GC) ..... ≤0,001 %
Ethanol (GC) ..... ≤0,1 %
Fe (Iron) ..... ≤0,0001 %
Heavy metals (as Pb) ..... ≤0,0002 %

Art. No.	Pack Qty.	Pack.	€
1A9L.1	1 l	glass	73,00
Original pack 6 x 1 l			69,35/1 l

Methanol
ROTIDRY® ≥99,9 % (≤50 ppm H_2O)

Dried; for analysis and organic synthesis.

CH_3OH · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Colour (Hazen) ..... ≤10
Water (KF) ..... ≤0,005 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

Filtered through a membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
AE01.1	1 l	glass	38,60
Original pack 6 x 1 l			36,67/1 l
AE01.2	2.5 l	glass	70,85
Original pack 4 x 2.5 l			67,31/2.5 l

Methanol
≥99,9 %, Blotting Grade

For Western blotting

CH_3OH · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C

Storage temperature: +15 to +25 °C

Type analysis
Appearance ..... clear
Assay (GC) ..... ≥99,9 %
Colour (Hazen) ..... ≤10
Water ..... ≤0,1 %
Evaporation residue ..... ≤0,0005 %
Ethanol (GC) ..... ≤0,05 %
Acetone (GC) ..... ≤0,001 %
Carbonylic compounds ..... ≤0,002 %
Formaldehyde ..... ≤0,001 %
Bismuth (Bi) ..... ≤0,000005 %
Lead (Pb) ..... ≤0,00001 %
Gold (Au) ..... ≤0,000005 %
Molybdenum (Mo) ..... ≤0,000002 %
Silver (Ag) ..... ≤0,000005 %
Platinum (Pt) ..... ≤0,000005 %
Thallium (Tl) ..... ≤0,000002 %

Art. No.	Pack Qty.	Pack.	€
0082.1	500 ml	glass	27,85
0082.2	1 l	glass	38,60
Original pack 6 x 1 l			36,67/1 l
0082.3	2.5 l	glass	80,10
Original pack 4 x 2.5 l			76,10/2.5 l

Methanol
≥99,5 %, VLSI Grade

Semiconductor grade

CH_3OH · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C

Guarantee analysis
Assay ..... ≥99,5 %
Bead number (≥0,5 µm) ..... ≤250 p/ml
Water ..... ≤0,1 %
Colour (APHA) ..... ≤10
Alkalinity ..... 0,5 µeq/g
Acidity ..... 1 µeq/g
Chloride (Cl) ..... ≤0,00005 %
Nitrate (NO_3) ..... ≤0,0001 %
Sulphate (SO_4) ..... ≤0,0001 %
Ash content ..... ≤0,001 %
Aluminium (Al) ..... ≤50 ppb
Antimony (Sb) ..... ≤10 ppb
Arsenic (As) ..... ≤10 ppb
Barium (Ba) ..... ≤10 ppb
Bismuth (Bi) ..... ≤10 ppb
Lead (Pb) ..... ≤10 ppb
Boron (B) ..... ≤10 ppb
Cadmium (Cd) ..... ≤10 ppb
Calcium (Ca) ..... ≤50 ppb
Chromium (Cr) ..... ≤10 ppb
Iron (Fe) ..... ≤50 ppb
Gallium (Ga) ..... ≤10 ppb
Gold (Au) ..... ≤10 ppb
Potassium (K) ..... ≤50 ppb
Cobalt (Co) ..... ≤10 ppb
Copper (Cu) ..... ≤20 ppb
Lithium (Li) ..... ≤10 ppb
Magnesium (Mg) ..... ≤20 ppb
Manganese (Mn) ..... ≤10 ppb
Molybdenum (Mo) ..... ≤10 ppb
Sodium (Na) ..... ≤100 ppb
Nickel (Ni) ..... ≤10 ppb
Silver (Ag) ..... ≤10 ppb
Strontium (Sr) ..... ≤10 ppb
Tantal (Ta) ..... ≤10 ppb
Thallium (Tl) ..... ≤10 ppb
Titanium (Ti) ..... ≤10 ppb
Vanadium (V) ..... ≤10 ppb
Zinc (Zn) ..... ≤100 ppb
Tin (Sn) ..... ≤10 ppb

Art. No.	Pack Qty.	Pack.	€
9785.1	2.5 l	plastic	77,95
Original pack 4 x 2.5 l			74,05/2.5 l
9785.2	5 l	plastic	145,15
Original pack 2 x 5 l			137,89/5 l

Methanol
ROTIPURAN® ≥99,9 %, p.a., ACS, ISO

CH_3OH · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Colour (Hazen) ..... ≤10
Solubility in H_2O ..... complies
Evaporation residue ..... ≤0,0005 %
Acidity ..... ≤0,0002 meq/g
Alkalinity ..... ≤0,0002 meq/g
Water ..... ≤0,05 %
Density (d 20 °C/20 °C) 0,791-0,793
Acetone (GC) ..... ≤0,001 %
Acetaldehyde ..... ≤0,001 %
Formaldehyde ..... ≤0,001 %
Aluminium (Al) ..... ≤0,00005 %
Barium (Ba) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,00001 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Tin (Sn) ..... ≤0,00001 %
Zinc (Zn) ..... ≤0,00001 %
Carbonylic compounds (as CO) ..... ≤0,001 %
$KMnO_4$ reducing substances (as O) . ≤0,00025 %
Matter discoloured by H_2SO_4 (Hazen) ... complies

Art. No.	Pack Qty.	Pack.	€
4627.1	1 l	glass	32,80
Original pack 6 x 1 l			31,16/1 l
4627.4	1 l	plastic	30,65
Original pack 6 x 1 l			29,12/1 l
4627.2	2.5 l	glass	57,95
Original pack 4 x 2.5 l			55,05/2.5 l
4627.5	2.5 l	plastic	55,40
Original pack 4 x 2.5 l			52,63/2.5 l
4627.6	5 l	plastic	103,75
Original pack 2 x 5 l			98,56/5 l
4627.3	25 l	tinplate	232,75

Methanol
≥99,5 %, Ph. Eur., extra pure

CH_3OH · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Identity ..... complies
Absorption ..... complies
Appearance of solution ..... complies
Acid react. substances ..... complies
Density (d 20 °C/20 °C) 0,791-0,793
Refractive index n_D^{20} 1,328-1,330
Reducing substances ..... complies
Water ..... ≤0,1 %
Benzene (GC) ..... ≤0,0002 %
Related substances (GC) ..... complies
Non volatile matter ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
CP43.1	1 l	glass	24,65
Original pack 6 x 1 l			23,42/1 l
CP43.2	2.5 l	glass	41,85
Original pack 4 x 2.5 l			39,76/2.5 l
CP43.3	2.5 l	plastic	39,70
Original pack 4 x 2.5 l			37,72/2.5 l
CP43.4	5 l	plastic	61,20
Original pack 2 x 5 l			58,14/5 l
CP43.5	10 l	tinplate	101,60
CP43.6	25 l	tinplate	188,15

Methanol
≥99 %, for synthesis

CH_3OH · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C

Type analysis
Assay (GC) ..... ≥99 %
Water ..... ≤0,1 %
Density (20 °C) ..... 0,790-0,793 g/cm³

Art. No.	Pack Qty.	Pack.	€
8388.1	1 l	glass	19,90
Original pack 6 x 1 l			18,91/1 l
8388.2	2.5 l	glass	39,70
Original pack 4 x 2.5 l			37,72/2.5 l
8388.5	2.5 l	plastic	26,80
Original pack 4 x 2.5 l			25,46/2.5 l
8388.6	5 l	plastic	56,45
Original pack 2 x 5 l			53,63/5 l
8388.3	10 l	tinplate	90,20
8388.4	25 l	tinplate	149,45

Methanol 60 %

Methanol
60 %, for synthesis

CH_3OH · D 0,895 g/cm³ · bp 65 °C · flp 10 °C

Type analysis
Assay (MeOH, v/v) ..... 59-61 %
Density (d 20 °C/20 °C) 0,9060-0,9104

Art. No.	Pack Qty.	Pack.	€
9976.1	1 l	plastic	17,10
Original pack 6 x 1 l			16,25/1 l
9976.2	2.5 l	plastic	26,80
Original pack 4 x 2.5 l			25,46/2.5 l
9976.3	5 l	plastic	48,30
Original pack 2 x 5 l			45,89/5 l
9976.4	10 l	plastic	75,80
9976.5	25 l	plastic	138,70

Methanol with 0.1 % trifluoroacetic acid

Methanol mixture

CH_3OH · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 9,7 °C
CAS No. 67-56-1 · EC no. 200-659-6
UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H370

Methanol with 0.1 % trifluoroacetic acid
ROTISOLV® ≥99,9 %, LC-MS Grade

Eluent mixture for high performance liquid chromatography.

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Trifluoroacetic acid (v/v) ..... 0,095-0,105 %
Aluminium (Al) ..... ≤0,05 ppm
Calcium (Ca) ..... ≤0,05 ppm
Iron (Fe) ..... ≤0,05 ppm
Potassium (K) ..... ≤0,05 ppm
Magnesium (Mg) ..... ≤0,05 ppm
Sodium (Na) ..... ≤0,05 ppm
LC-MS suitability test ..... complies
254 nm ..... ≥90 %
230 nm ..... ≥35 %
210 nm ..... ≥5 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
CP06.1	1 l	glass	54,75
Original pack 6 x 1 l			52,01/1 l

Methanol D1

Methyl alcohol deuterated

CH_3OD · D 0,81 g/cm³ · mp -99 °C · bp 65 °C · flp 11 °C
CAS No. 1455-13-6 · EC no. 215-933-0
UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H370

Methanol D1
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

Guarantee analysis
Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
HN86.1	25 ml	glass	85,90
HN86.2	100 ml	glass	287,60

Methanol D3

Methyl alcohol deuterated

CD_3OH · D 0,867 g/cm³ · mp -98 °C · bp 64,5 °C · flp 11 °C
CAS No. 1849-29-2 · EC no. 217-435-9
UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H370

Methanol D3
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

Type analysis
Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
9910.1	1 ml	glass ampoule	41,85
9910.2	5 ml	glass	127,95

Methanol D4

Methyl alcohol deuterated

CD_3OD · D 0,89 g/cm³ · mp -99 °C · bp 65 °C · flp 11 °C
CAS No. 811-98-3 · EC no. 212-378-6
UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H370

Methanol D4
100 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging for 7918.2: 10 x 0.75 ml in ampoules

Type analysis
Deuterising degree ..... ≥99,95 %
Water (KF, H_2O+D_2O) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
7918.2	7.5 ml	glass ampoule	181,70
7918.1	10 ml	glass	177,40

Methanol D4
99,8 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging for AE57.3: 10 x 0.75 ml in ampoules

Guarantee analysis
Deuterising degree ..... ≥99,8 %
Water (KF, H_2O+D_2O) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
AE57.3	7.5 ml	glass ampoule	88,05
AE57.1	10 ml	glass	83,75
AE57.4	10 ml	septum bottle	85,90
AE57.5	25 ml	glass	188,15
AE57.2	50 ml	glass	353,70

Methanol D4 with TMS (0.03 vol.%)

CD_3OD · D 0,89 g/cm³ · mp -99 °C · bp 65 °C · flp 11 °C
CAS No. 811-98-3 · EC no. 212-378-6
UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H370

Methanol D4 with TMS (0.03 vol.%)
99,8 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging for 7919.3: 10 x 0.75 ml in ampoules

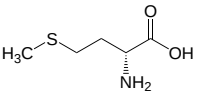
Type analysis
Deuterising degree ..... ≥99,8 %
Water (KF, H_2O+D_2O) ..... ≤0,03 %
Trimethylsilane (TMS) ..... 0,02-0,04 %

Art. No.	Pack Qty.	Pack.	€
7919.3	7.5 ml	glass ampoule	81,60
7919.1	10 ml	glass	78,40
7919.2	25 ml	glass	181,70

Methenamine

▸ Hexamethylene tetramine see page 982

D-Methionine



2-Amino-4-methyl-mercapto butyric acid · H-D-Met-OH

$C_5H_{11}NO_2S$ · D 1,34 g/cm³ · mp 273 °C
CAS No. 348-67-4 · EC no. 206-483-6
WGK 1

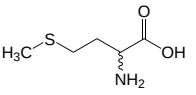
D-Methionine
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... 98,0-101,0 %
Specific rotation $[\alpha]_D^{20}$ (c= 2 in 6 N HCl) ..... -24° to -22°
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
7885.1	5 g	plastic	24,65
7885.2	25 g	plastic	75,15
7885.3	100 g	plastic	198,90

DL-Methionine



2-Amino-4-methyl-mercapto butyric acid

$C_5H_{11}NO_2S$ · D 1,34 g/cm³ · mp 281 °C
CAS No. 59-51-8 · EC no. 200-432-1
WGK 1

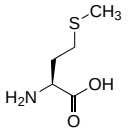
DL-Methionine
≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white, crystalline powder
Assay ..... ≥99,0 %
Ash content ..... ≤0,1 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8602.1	100 g	plastic	33,90
8602.2	500 g	plastic	134,40
Original pack 6 x 500 g			127,68/500 g
8602.3	1 kg	plastic	82,70
Original pack 6 x 1 kg			78,57/1 kg
8602.4	2.5 kg	plastic	170,95

L-Methionine



2-Amino-4-methyl-mercapto butyric acid · H-L-Met-OH

$C_5H_{11}NO_2S$ · mp 280 to 283 °C
CAS No. 63-68-3 · EC no. 200-562-9
WGK 1

L-Methionine
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis

Endotoxins	≤6,0 E.U./g
Assay	≥99 %
Loss on drying	≤0,2 %
Specific rotation $[\alpha]_D^{20}$	+23,0° to +24,0°
Ammonium (NH_4)	≤0,02 %
Chloride (Cl)	≤0,02 %
Sulphate (SO_4)	≤0,02 %
Heavy metals (as Pb)	≤0,001 %
Arsenic (As_2O_3)	≤0,0001 %
Iron (Fe)	≤0,001 %

Art. No.	Pack Qty.	Pack.	€
1702.1	25 g	plastic	21,40
1702.2	100 g	plastic	45,05
1702.3	500 g	plastic	174,70
Original pack 6 x 500 g			165,97/500 g

L-Methionine
≥99 %, for biochemistry

Type analysis

Appearance	white crystal. powder
Assay (dry substance)	99,0-101,0 %
Specific rotation $[\alpha]_D^{20}$	+23,0° to +24,0°
pH-value	5,6-6,1
Chloride (Cl)	≤0,02 %
Sulphate (SO_4)	≤0,02 %
Ammonium (NH_4)	≤0,02 %
Arsenic (As_2O_3)	≤0,0001 %
Iron (Fe)	≤0,001 %
Heavy metals (as Pb)	≤0,001 %
Foreign amino acids	complies
Loss on drying	≤0,2 %
Sulphated ash	≤0,1%

Art. No.	Pack Qty.	Pack.	€
9359.1	100 g	plastic	37,10
9359.3	250 g	plastic	74,20
9359.4	500 g	plastic	137,10
Original pack 6 x 500 g			130,25/500 g
9359.2	1 kg	plastic	252,65
Original pack 6 x 1 kg			240,02/1 kg

Methoxsalen
▸ Xanthotoxin see page 1405

4-Methoxybenzaldehyde
▸ 4-Anisaldehyde see page 745

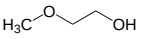
Methoxybenzene
▸ Anisole see page 745

4-Methoxybenzoic acid
▸ 4-Anisic acid see page 745

7-Methoxycoumarin
▸ Herniarin see page 980

Methoxycyclopentane
▸ Cyclopentyl methyl ether see page 859

2-Methoxyethanol



Ethylene glycol monomethyl ether

$C_3H_8O_2$ · D 0,964 to 0,966 g/cm³ · mp -85,1 °C · bp 123,5 to 125,5 °C · flp 37 °C
CAS No. 109-86-4 · EC no. 203-713-7
UN no. 1188 · ADR 3 III · WGK 2

Danger H226-H302+H312+H332-H360FD

2-Methoxyethanol
ROTIPURAN® ≥99,5 %, p.a., ACS

Guarantee analysis

Assay (GC)	≥99,5 %
Density (d 20 °C/20 °C)	0,965-0,970
Colour (APHA)	≤10
Water	≤0,1 %
Acidity	≤0,001 meq/g
Calcium (Ca)	≤0,00005 %
Cadmium (Cd)	≤0,000005 %
Cobalt (Co)	≤0,000002 %
Chromium (Cr)	≤0,000002 %
Copper (Cu)	≤0,000002 %
Iron (Fe)	≤0,00005 %
Magnesium (Mg)	≤0,00001 %
Manganese (Mn)	≤0,000002 %
Nickel (Ni)	≤0,000002 %
Lead (Pb)	≤0,00001 %
Zinc (Zn)	≤0,00001 %
Evaporation residue	≤0,005 %

Art. No.	Pack Qty.	Pack.	€
CP08.1	500 ml	glass	44,65
CP08.2	1 l	glass	80,10
Original pack 6 x 1 l			76,10/1 l
CP08.3	2.5 l	glass	170,95
Original pack 4 x 2.5 l			162,40/2.5 l

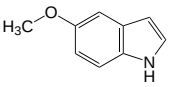
2-Methoxyethanol
≥99 %, for synthesis

Type analysis

Assay (GC)	≥99 %
Water (KF)	≤0,2 %
Density (d 20 °C/4 °C)	0,964-0,968

Art. No.	Pack Qty.	Pack.	€
8892.1	1 l	glass	52,60
Original pack 6 x 1 l			49,97/1 l
8892.2	2.5 l	glass	99,45
Original pack 4 x 2.5 l			94,48/2.5 l

5-Methoxyindole



C_9H_9NO · mp 52 to 55 °C · bp 176 to 178 °C
CAS No. 1006-94-6 · EC no. 213-745-3
WGK 1

Warning H315-H319-H335

5-Methoxyindole
≥98 %, for synthesis

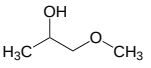
Type analysis

Assay	≥98,0 %
Loss on drying (105 °C)	≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6546.1	1 g	glass	36,05
6546.2	5 g	glass	66,15
6546.3	25 g	glass	203,20

(2-Methoxymethylethoxy)propanol
▸ Dipropylene glycol monomethyl ether see page 893

1-Methoxy-2-propanol



Propylene glycol methyl ether

$C_4H_{10}O_2$ · D 0,92 g/cm³ · mp -96 °C · bp 120,2 °C · flp 31,1 °C
CAS No. 107-98-2 · EC no. 203-539-1
UN no. 3092 · ADR 3 III · WGK 1

Warning H226-H336

1-Methoxy-2-propanol
≥99 %, for synthesis

Type analysis

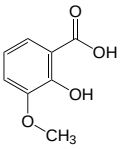
Appearance	colourless liquid
Assay (GC)	≥99 %
Water	≤0,1 %
Density (20 °C)	0,920-0,927
Refractive index n_D^{20}	1,402-1,404

Art. No.	Pack Qty.	Pack.	€
3123.1	1 l	glass	37,55
Original pack 6 x 1 l			35,67/1 l
3123.2	2.5 l	glass	70,45
Original pack 4 x 2.5 l			66,93/2.5 l

1-Methoxy-2-propyl acetate
▸ Propylene glycol methyl ether acetate see page 1188

8-Methoxypsoralen
▸ Xanthotoxin see page 1405

3-Methoxysalicylic acid



2-Hydroxy-5-methoxybenzoic acid

$C_8H_8O_4$ · mp 147 to 150 °C
CAS No. 877-22-5 · EC no. 212-888-9
WGK 1

3-Methoxysalicylic acid
≥97 %, for synthesis

Type analysis
Appearance ..... white to brown powder
Assay (titr.) ..... ≥97,0 %

Art. No.	Pack Qty.	Pack.	€
4504.1	5 g	glass	25,30
4504.2	25 g	glass	66,15

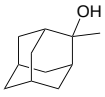
4'-Methoxy-3,5,7-trihydroxyflavone
▸ Kaempferide see page 1026

Methyl acetate
▸ Acetic acid methyl ester see page 695

Methylacetic acid
▸ Propionic acid see page 1187

(E)-β-Methylacrylic acid
▸ Crotonic acid see page 854

2-Methyl-2-adamantanol



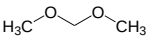
$C_{11}H_{18}O$ · mp 208 to 215 °C
CAS No. 702-98-7
WGK 1

2-Methyl-2-adamantanol
≥98 %, for synthesis

Type analysis
Appearance ..... white to off-white cryst. powder
Assay ..... ≥98,0 %
Identity ..... complies
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
7630.1	1 g	glass	19,90
7630.2	5 g	glass	51,10

Methylal



Dimethoxymethane · Formaldehyde dimethylacetal · Methylene dimethyl ether

$C_3H_8O_2$ · D 0,8593 g/cm³ · mp -104,8 °C · bp 45,5 °C · flp -30,5 °C
CAS No. 109-87-5 · EC no. 203-714-2
UN no. 1234 · ADR 3 II · WGK 1

Danger H225

Methylal
SOLVAGREEN® ≥99,5 %, for synthesis

Acetal and protecting group. Alternative for dichloromethane, acetone, MEK.

Type analysis
Assay ..... ≥99,5 %
Methanol ..... ≤0,05 %
Water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
0783.1	100 ml	glass	21,00
0783.2	500 ml	glass	45,70
0783.3	1 l	glass	66,55
Original pack 6 x 1 l			63,22/1 l
0783.4	2.5 l	glass	132,15
Original pack 4 x 2.5 l			125,54/2.5 l

2-Methylalanine
▸ 2-Aminoisobutyric acid see page 728

Methyl alcohol
▸ Methanol see page 1077

Methyl alcohol deuterated
▸ Methanol D1 see page 1080
▸ Methanol D3 see page 1080
▸ Methanol D4 see page 1080

Methylamine

NH_2CH_3

Monomethylamine · Aminomethane

CH_5N · D 0,9 g/cm³ · mp -40 °C · bp 48 °C · flp -18 °C
CAS No. 74-89-5 · EC no. 200-820-0
UN no. 1235 · ADR 3 (8) II · WGK 2

Danger H225-H302+H332-H314-H335

Methylamine
40 % in water, for synthesis

Type analysis
Appearance ..... clear, colourless solution
Assay (acidim.) ..... 38,0-42,0 %
Density (d 20 °C/4 °C) 0,893-0,897

Art. No.	Pack Qty.	Pack.	€
1E51.1	250 ml	glass	16,05
1E51.2	1 l	plastic	31,75
Original pack 6 x 1 l			30,16/1 l
1E51.3	2.5 l	plastic	60,75
Original pack 4 x 2.5 l			57,71/2.5 l

4-(Methylamino)-phenol sulphate
▸ Metol see page 1091

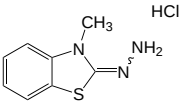
2-Methylaniline
▸ *o*-Toluidine see page 1374

Methylbenzene
▸ Toluene see page 1372

Methylbenzene deuterated
▸ Toluene D8 see page 1373

Methylbenzoate
▸ Benzoic acid methyl ester see page 769

3-Methyl-2-benzothiazolinone hydrazone hydrochloride



MBTH

$C_8H_9N_3S$ · HCl · mp 276 to 278 °C
CAS No. 4338-98-1 · EC no. 224-393-5
UN no. 2811 · ADR 6.1 III · WGK 1

Danger H301-H319

3-Methyl-2-benzothiazolinone hydrazone hydrochloride
≥98 %, p.a.

Analytical reagent for the qualitative determination of aldehydes.

Type analysis
Assay (HPLC) ..... ≥98,0 %
Loss on drying ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
8413.1	10 g	glass	181,70

Methyl blue
▸ Acid blue 93 (C.I. 42780) see page 703

2-Methylbutane



Isopentane · *iso*-Pentane

C_5H_{12} · D 0,62 g/cm³ · mp -159,8 °C · bp 27,8 °C · flp -51 °C
CAS No. 78-78-4 · EC no. 201-142-8
UN no. 1265 · ADR 3 I · WGK 2

Danger H224-H304-H336-H411-EUH066

2-Methylbutane
ROTIPURAN® ≥99,5 %, p.a.

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Water ..... ≤0,05 %
Aluminium (Al) ..... ≤0,00005 %
Barium (Ba) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,00001 %
Calcium (Ca) ..... ≤0,00005 %
Cadmium (Cd) ..... ≤0,000005 %
Chromium (Cr) ..... ≤0,000002 %

Iron (Fe) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Cobalt (Co) ..... ≤0,000002 %
Potassium (K) ..... ≤0,00005 %
Bismuth (Bi) ..... ≤0,00001 %
Copper (Cu) ..... ≤0,000002 %
Lithium (Li) ..... ≤0,00001 %
Magnesium (Mg) ..... ≤0,00001 %
Molybdenum (Mo) ..... ≤0,00001 %
Sodium (Na) ..... ≤0,00005 %
Nickel (Ni) ..... ≤0,000002 %
Strontium (Sr) ..... ≤0,00002 %
Zinc (Zn) ..... ≤0,00001 %

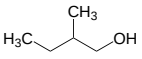
Art. No.	Pack Qty.	Pack.	€
3926.1	250 ml	glass	100,55
3926.2	1 l	glass	295,65
Original pack 6 x 1 l			280,87/1 l

2-Methylbutane
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99 %
Density (15 °C) 0,623-0,627
Aromatic compounds ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
3927.1	1 l	glass	48,95
Original pack 6 x 1 l			46,50/1 l
3927.2	2.5 l	glass	100,55
Original pack 4 x 2.5 l			95,52/2.5 l

2-Methyl-1-butanol



2-Methylbutyl alcohol · sec-Butyl carbinol

$C_5H_{12}O$ · D 0,82 g/cm³ · mp -70 °C · bp 127 to 130 °C · flp 42,5 °C
CAS No. 137-32-6 · EC no. 205-289-9
UN no. 1105 · ADR 3 III · WGK 1

Warning H226-H332-H335-EUH066

2-Methyl-1-butanol
≥97,5 %, for synthesis

Type analysis
Assay (GC) ..... ≥97,5 %
Density (d 20 °C/4 °C) 0,816-0,821

Art. No.	Pack Qty.	Pack.	€
4379.1	100 ml	glass	19,25
4379.2	500 ml	glass	64,40
4379.3	1 l	glass	106,45
Original pack 6 x 1 l			101,13/1 l

3-Methyl-1-butanol
▸ Isoamyl alcohol see page 1019

3-Methylbutyl acetate
▸ Acetic acid isoamyl ester see page 694

2-Methylbutyl alcohol
▸ 2-Methyl-1-butanol see page 1083

Methyl butyrate
▸ Butyric acid methyl ester see page 801

Methyl caprylate
▸ Caprylic acid methyl ester see page 814

Methyl carbonate
▸ Dimethyl carbonate see page 887

Methylcellulose

Tylose® · Methylhydroxyethylcellulose

D 1,1 to 1,5 g/cm³
CAS No. 9032-42-2
WGK 1

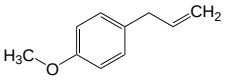
Methylcellulose
powdered

Type analysis
Appearance ..... powder
Viscosity (Brookfield, 1,9 % sol., 20 °C) ..... 3300-4500 mPa s
Moisture ..... ≤7,0 %
NaCl ..... ≤1,5 %

Particle size:
<0,180 mm ..... ≥90 %
<0,100 mm ..... ≥25 %

Art. No.	Pack Qty.	Pack.	€
8421.1	250 g	plastic	40,75
8421.2	1 kg	plastic	134,40
Original pack 6 x 1 kg			127,68/1 kg

Methylchavicol



4-Allyl anisole · Estragole

$C_{10}H_{12}O$ · D 0,967 g/cm³ · mp ≥-60 to ≤-59,7 °C · bp 216 °C · flp 80 °C
CAS No. 140-67-0 · EC no. 205-427-8
WGK 1

Warning H302-H315

Methylchavicol
ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
9413.2	100 mg	glass	105,25

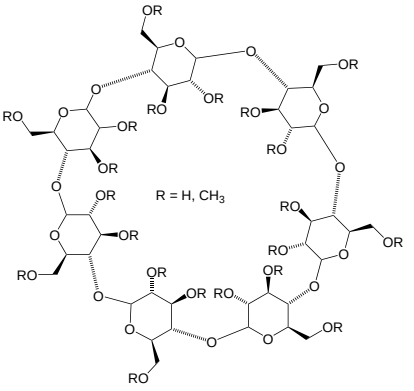
Methylchrysoidine
▸ Chrysoidine R see page 838

Methyl cinnamate
▸ Cinnamic acid methyl ester see page 839

Methyl cyanide
▸ Acetonitrile see page 697

Methyl cyanide deuterated
▸ Acetonitrile D3 see page 700

Methyl-β-cyclodextrin



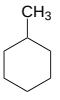
mp 180 to 182 °C · flp 187 °C
CAS No. 128446-36-6 · EC no. 418-850-1
WGK 1

Methyl-β-cyclodextrin
≥98 %, for synthesis

Type analysis
Appearance ..... white powder
Assay ..... ≥98,0 %
Loss on drying ..... ≤5 %
Degree of substitution 7-14

Art. No.	Pack Qty.	Pack.	€
3041.1	1 g	glass	23,55
3041.2	5 g	glass	45,05
3041.3	10 g	glass	81,60
3041.4	50 g	glass	224,70

Methylcyclohexane



Cyclohexylmethane · Hexahydrotoluene

C_7H_{14} · D 0,769 g/cm³ · mp -126,4 °C · bp 100 to 103 °C · flp -4 °C
CAS No. 108-87-2 · EC no. 203-624-3
UN no. 2296 · ADR 3 II · WGK 2

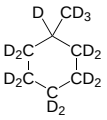
Danger H225-H304-H315-H336-H411

Methylcyclohexane
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,0 %
Density (20 °C) ..... 0,768-0,770 g/cm³
Water ..... ≤0,1 %
Refractive index n_D^{20} 1,420-1,427

Art. No.	Pack Qty.	Pack.	€
0752.1	1 l	glass	26,35
Original pack 6 x 1 l			25,03/1 l
0752.2	2.5 l	glass	53,25
Original pack 4 x 2.5 l			50,59/2.5 l
0752.3	5 l	aluminium	92,35
Original pack 2 x 5 l			87,73/5 l
0752.4	10 l	tinplate	160,20
0752.5	25 l	tinplate	299,95

Methylcyclohexane D14



C_7D_{14} · D 0,88 g/cm³ · mp -126,4 °C · bp 100,9 °C · flp -4 °C
CAS No. 10120-28-2 · EC no. 233-325-3
UN no. 2296 · ADR 3 II · WGK 2

Danger H225-H304-H315-H336-H410

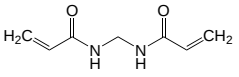
Methylcyclohexane D14
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

Type analysis
Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
9913.1	5 ml	glass	146,75

N,N'-Methylene bisacrylamide



Bis · Bisacrylamide · MBAA

$C_7H_{10}N_2O_2$ · D 1,222 g/cm³ · mp 175 °C · bp 331 °C
CAS No. 110-26-9 · EC no. 203-750-9
WGK 1

Warning H302

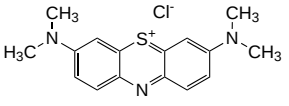
N,N'-Methylene bisacrylamide
≥98 %, for gel electrophoresis

Storage temperature: +4 °C

Type analysis
Assay ..... ≥98 %
Water ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
7867.1	50 g	plastic	37,55
7867.2	100 g	plastic	62,25

Methylene blue (C. I. 52015)



Basic blue 9

$C_{16}H_{18}ClN_3S$ · mp 180 to 190 °C
CAS No. 61-73-4 · EC no. 200-515-2
WGK 1

Warning H302

Methylene blue (C.I. 52015)
pure

For microscopy and staining of nucleic acids in polyacrylamide gels.

Dissolve 0.1–0.5 g in 100 ml of water

Type analysis
Maximum absorption ..... 655-670 nm
Loss on drying (110 °C) ..... ≤18,0 %

Art. No.	Pack Qty.	Pack.	€
A514.1	10 g	glass	23,55
A514.2	50 g	glass	62,25
A514.3	100 g	glass	107,40

Methylene blue indicator solution

D 1,001 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

Methylene blue indicator solution
0,01 mol/l in water

Redox indicator

ready-to-use

Art. No.	Pack Qty.	Pack.	€
9953.1	100 ml	glass	41,85

Methylene blue solution 0,1 % acidic
▸ Neisser's solution I see page 1101

Methylene blue solution 0,5 %
▸ LOEFFLER's methylene blue solution see page 1049

Methylene blue solution 0.1 %. aqueous

Gabett solution

D 1 g/cm³ · bp 100 °C
WGK 1

Methylene blue solution 0.1 % aqueous
0,1 %, aqueous, for microscopy

For staining of nuclei.

Cold staining of acid-fast bacteria (Kinyoun and Gabett's staining), vitality testing of cells.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... blue-violet liquid
Odour ..... odourless

Art. No.	Pack Qty.	Pack.	€
1433.1	250 ml	glass	25,70
1433.2	500 ml	glass	36,05
1433.3	1 l	glass	48,30
Original pack 6 x 1 l			45,89/1 l

Methylene blue staining concentrate
▸ ROTI®Methylene blue staining concentrate see page 1230

Methylene chloride
▸ Dichloromethane see page 875

Methylene chloride D2
▸ Dichloromethane D2 see page 876

Methylene dimethyl ether
▸ Methylal see page 1082

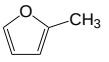
Methylene violet 3RAX
▸ Diethyl safranine (C.I. 50206) see page 880

ß-Methylesculetin
▸ Scopoletin see page 1253

Methyl ethyl glycol
▸ 1,2-Propanediol see page 1184

Methyl ethyl ketone
▸ 2-Butanone see page 797

2-Methylfuran



Silvan

C_5H_6O · D 0,91 g/cm³ · mp -89 °C · bp 63 to 66 °C · flp -27 °C
CAS No. 534-22-5 · EC no. 208-594-5
UN no. 2301 · ADR 3 II · WGK 1

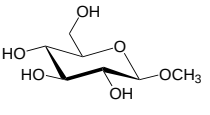
Danger H225-H301-H330

2-Methylfuran
≥99 %, for synthesis

Type analysis
Assay ..... ≥99,0 %
Identity (IR) ..... complies
Density (d 20 °C/4 °C) 0,913-0,916
Furfural ..... ≤0,5 %
Water ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
7470.1	100 ml	glass	26,35
7470.2	500 ml	glass	69,80
7470.3	1 l	glass	112,35
Original pack 6 x 1 l			106,73/1 l
7470.4	2.5 l	glass	224,70
Original pack 4 x 2.5 l			213,47/2.5 l

1-*O*-Methyl-β-D-glucopyranoside



1-*O*-Methyl-glucoside

$C_7H_{14}O_6$ · mp 111 to 113 °C
CAS No. 709-50-2 · EC no. 211-909-9
WGK 1

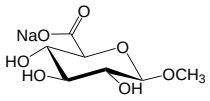
1-*O*-Methyl-β-D-glucopyranoside
≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay (HPLC) ..... ≥99,0 %
Appearance of solution (1 % in H_2O) ... colourless
Specific rotation $[\alpha]_D^{20}$ (1 % in H_2O, dry substance) ..... -35,0° to -31,0°
Water (KF) ..... ≤6,0 %

Art. No.	Pack Qty.	Pack.	€
8356.1	1 g	glass	34,30
8356.2	5 g	plastic	127,95

1-*O*-Methyl-β-D-glucuronic acid, sodium salt



1-OMe-β-D-GlcA

$C_7H_{11}NaO_7$
WGK 1

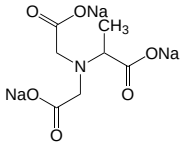
1-*O*-Methyl-β-D-glucuronic acid, sodium salt
≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to brownish cryst. powder
Assay (perchloric acid titration) ..... ≥99,0 %
Appearance of solution (5 % in H_2O) ... colourless to light brown
Water (KF) ..... ≤1,0 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in H_2O) ..... -62,0° to -58,0°

Art. No.	Pack Qty.	Pack.	€
8407.1	250 mg	glass	64,00
8407.2	500 mg	glass	106,45
8407.3	1 g	glass	181,70

Methylglycinediacetic acid trisodium salt



MGDA · *N*,*N*-bis(Carboxymethyl)-DL-alanine trisodium salt · Trisodium *N*-(1-carboxylato-ethyl)iminodiacetate · α-Alanine diacetic acid

$C_7H_8NNa_3O_6$
CAS No. 164462-16-2 · EC no. 605-362-9
WGK 1

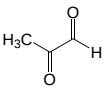
Methylglycinediacetic acid trisodium salt (MGDA)
≥85 %

Complexing agents

Type analysis
Assay (dry substance) ..... ≥85 %
Water ..... ≤12 %

Art. No.	Pack Qty.	Pack.	€
0877.1	100 g	plastic	24,65
0877.2	500 g	plastic	49,35
Original pack 6 x 500 g			46,88/500 g
0877.3	1 kg	plastic	76,90
Original pack 6 x 1 kg			73,06/1 kg

Methylglyoxal



Pyruvaldehyde

$C_3H_4O_2$ · D 1,11 g/cm³ · mp -20 °C · bp 97,9 °C · flp 72 °C
CAS No. 78-98-8 · EC no. 201-164-8
UN no. 1760 · ADR 8 III · WGK 1

Danger H290-H302-H317-H318-H341

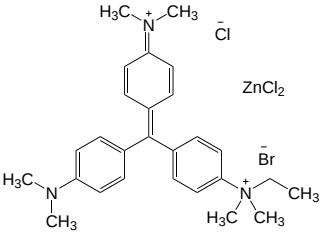
Methylglyoxal
40 % in water

Storage temperature: +4 °C

Type analysis
Appearance ..... yellow to brown liquid
Assay ..... 35-45 %

Art. No.	Pack Qty.	Pack.	€
6399.1	100 ml	glass	188,15
6399.2	500 ml	glass	811,65

Methyl green (C. I. 42590)



Ethyl green zinc chloride double salt · Methyl green zinc chloride double salt

$C_{27}H_{35}Cl_2N_3 \cdot ZnCl_2$ · mp >300 °C
CAS No. 7114-03-6 · EC no. 230-415-4
UN no. 1759 · ADR 8 II · WGK 2

Danger H314-H351-H411

Methyl green (C. I. 42590)
for microscopy

Indicator pH 0.1-2.3

Dissolve 0.1 g in 100 ml of water

Type analysis
Appearance ..... dark red to dark green powder
Absorption max. (in H_2O) ..... 625-635 nm

Art. No.	Pack Qty.	Pack.	€
5159.1	5 g	glass	28,50
5159.2	10 g	glass	46,15
5159.3	25 g	glass	92,35

Methyl green zinc chloride double salt
▸ Methyl green (C. I. 42590) see page 1085

1-Methyl hexane
▸ *n*-Heptane see page 979

2-Methyl hydroquinone
▸ Toluhydroquinone see page 1374

Methyl-*p*-hydroxybenzoate
▸ 4-Hydroxybenzoic acid methyl ester see page 998

1-Methylimidazole



N-Methylimidazole

$C_4H_6N_2$ · D 1,035 g/cm³ · mp -2 °C · bp 198 °C · flp 92 °C
CAS No. 616-47-7
UN no. 2922 · ADR 8 (6.1) II · WGK 1

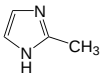
Danger H302-H311-H314

1-Methylimidazole
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,0 %
Water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
N353.1	100 ml	glass	24,65
N353.2	1 l	glass	145,15
Original pack 6 x 1 l			137,89/1 l

2-Methylimidazole



2-Methyl-1H-imidazole · 2-Methylglyoxaline

$C_4H_6N_2$ · D 1,096 g/cm³ · mp 142 to 143 °C · bp 267 to 270 °C · flp 155 °C
CAS No. 693-98-1 · EC no. 211-765-7
UN no. 3259 · ADR 8 II · WGK 2

Danger H302-H314-H351-H360Df

2-Methylimidazole
≥98 %, for synthesis

Type analysis
Assay (GC) ..... ≥98 %
Melting range ..... 142-147 °C

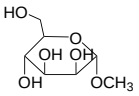
Art. No.	Pack Qty.	Pack.	€
1C4A.1	100 g	glass	25,30
1C4A.2	500 g	glass	100,95
Original pack 6 x 500 g			95,90/500 g
1C4A.3	1 kg	glass	170,95
Original pack 6 x 1 kg			162,40/1 kg

3-Methyl-indol
▸ Skatole see page 1275

Methyl isobutyl ketone
▸ Isobutyl methylketone see page 1020

Methyliodide D3
▸ Iodomethane D3 see page 1012

Methyl-α-D-mannopyranoside



$C_7H_{14}O_6$ · D 1,5 g/cm³ · mp 178 °C · bp 364,6 °C · flp 206,7 °C
CAS No. 617-04-9 · EC no. 210-502-3
WGK 1

Methyl-α-D-mannopyranoside
≥99 %, for biochemistry

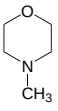
Type analysis
Appearance ..... white to almost white powder
Appearance of solution (10 %, H_2O) ..... clear, colourless
Purity (HPLC) ..... ≥99,0 %
Specific rotation $[\alpha]_D^{20}$ (10 % in H_2O) ..... 77-81 °
Melting range ..... 187-193 °C
Loss on drying (3 h, 110 °C) ..... ≤0,2 %
Water (KF) ..... ≤0,2 %
Sulphated ash ..... ≤0,3 %

Art. No.	Pack Qty.	Pack.	€
1K5Y.1	25 g	plastic	37,55
1K5Y.2	100 g	plastic	112,90
1K5Y.3	250 g	plastic	256,95

Methyl methacrylate
▸ Methacrylic acid methyl ester see page 1077

2-Methyl-2-methoxypropane
▸ *tert*-Butyl methyl ether see page 799

N-Methylmorpholine



NMM

$C_5H_{11}NO$ · D 0,92 g/cm³ · mp -66 °C · bp 112 to 116 °C · flp 12,5 °C
CAS No. 109-02-4 · EC no. 203-640-0
UN no. 2535 · ADR 3 (8) II · WGK 1

Danger H225-H302-H314

N-Methylmorpholine
≥99 %, for synthesis

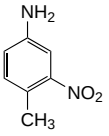
Type analysis
Assay (GC) ..... ≥99,0 %
Colour number (APHA) ..... ≤50
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
9672.1	100 ml	glass	18,20
9672.2	250 ml	glass	31,10
9672.3	1 l	glass	83,75
Original pack 6 x 1 l			79,56/1 l
9672.4	2.5 l	glass	160,20
Original pack 4 x 2.5 l			152,19/2.5 l

Methyl myristate
▸ Myristic acid methyl ester see page 1097

Methyl nadic anhydride
▸ Glycidether Hardener MNA see page 967

4-Methyl-3-nitroaniline



3-Nitro-4-methylaniline · 3-Nitro-*p*-toluidine · 4-Amino-2-nitro-toluene

$C_7H_8N_2O_2$ · D 1,312 g/cm³ · mp 77 to 79 °C · bp 306,1 °C · flp 138,9 °C
CAS No. 119-32-4 · EC no. 204-314-0
UN no. 2660 · ADR 6.1 III · WGK 3

Danger H301+H311+H331-H373-H411

4-Methyl-3-nitroaniline
≥99 %, for synthesis

Type analysis
Assay (HPLC) ..... ≥99,0 %
Melting point ..... 77-79 °C
Loss on drying ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
5532.1	25 g	glass	50,45
5532.2	50 g	glass	91,95

1-Methyl-2-nitrobenzene
▸ *o*-Nitrotoluene see page 1114

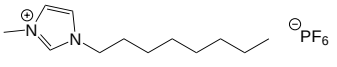
1-Methyl-4-nitrobenzene
▸ *p*-Nitrotoluene see page 1114

1-Methyl-4-nitrobenzene
▸ *p*-Nitrotoluene see page 1114

Methyl octadecanoate
▸ Stearic acid methyl ester see page 1339

Methyloctanoate
▸ Caprylic acid methyl ester see page 814

1-Methyl-3-octyl-imidazolium-hexafluorophosphate (OMIM PF_6)



OMIM PF_6

$C_{12}H_{23}F_6N_2P$ · D 1,23 g/cm³ · mp -82 °C
CAS No. 304680-36-2
WGK 1

Warning H315-H319-H335

1-Methyl-3-octyl-imidazolium-hexafluorophosphate (OMIM PF_6)
>99 %

Ionic liquid

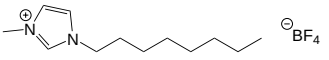
Type analysis
Appearance ..... yellow to orange liquid
Assay ..... >99 %
Water (KF) ..... <0,025 %
Halogens ..... <0,01 %

Art. No.	Pack Qty.	Pack.	€
2076.1	25 g	glass	246,20
2076.2	100 g	glass	514,95

Lit.: **"Use of 1-alkyl-3-methylimidazolium hexafluorophosphate room temperature ionic liquids as chelate extraction solvent with 4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedione"** I. Naoki; D. Mika; K. Hitomi; H. Takaharu, *Talanta* **2005,** 65, 255-260.

"On the solubilization of water with ethanol in hydrophobic hexafluoro-phosphate ionic liquids" R. P. Swatloski, A. E. Visser, W. M. Reichert, G. A. Broker, L. M. Farina, J. D. Holbrey, R. D. Rogers, *Green Chem.* **2002,** 4, 81 – 87.

1-Methyl-3-octyl-imidazolium-tetrafluoroborate (OMIM BF_4)



OMIM BF_4

$C_{12}H_{23}BF_4N_2$ · D 1,107 g/cm³ · mp -81 °C
CAS No. 244193-52-0
WGK 1

Warning H315-H319-H335

1-Methyl-3-octyl-imidazolium-tetrafluoroborate (OMIM BF_4)
>99 %

Ionic liquid

Type analysis
Appearance ..... yellow to orange liquid
Assay ..... >99 %
Water (KF) ..... <0,025 %
Halogens ..... <0,01 %

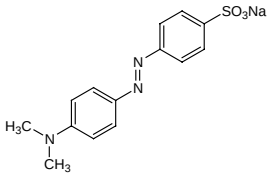
Art. No.	Pack Qty.	Pack.	€
2081.1	25 g	glass	246,20
2081.2	100 g	glass	514,95

Lit.: **"Tribological behavior of sialon ceramics sliding against steel lubricated by fluorine-containing oils"** W. Liu, C.Ye, Y. Chen, Z.Ou, D.C. Sun, *Tribology International* **2002,** 35, 503–509.

"High-pressure phase behavior of the binary ionic liquid system 1-octyl-3-methyl-imidazolium tetrafluoroborate plus carbon dioxide" K. I. Gutkowski, A.Shariati, C. J.Peters, *J. Supercritical Fluids* **2006,** 39, 187-191.

Methyl oleate
▸ Oleic acid methyl ester see page 1130

Methyl orange (C. I. 13025)



4-(Dimethylamino)-azobenzene-4'-sulphonic acid sodium salt · Orange III

$C_{14}H_{14}N_3NaO_3S$ · mp >300 °C
CAS No. 547-58-0 · EC no. 208-925-3
UN no. 3143 · ADR 6.1 III · WGK 1

Danger H301

Methyl orange (C.I. 13025)
ACS, for microscopy

Indicator pH 3.2-4.4

Dissolve 0.04 g in 100 ml of ethanol (20 %) or 0.4 g in 100 ml of water

Guarantee analysis
Appearance ..... orange powder
Appearance of solution ..... complies
pH-transition range ..... 3,2 (pink)- 4,4 (yellow)
Loss on drying (110 °C) ..... ≤3,0 %

Art. No.	Pack Qty.	Pack.	€
T118.1	50 g	glass	34,30
T118.2	100 g	glass	50,45
T118.3	250 g	glass	77,95

Methyl orange indicator solution

D 1 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

Methyl orange indicator solution
0,1 % in water

Indicator pH 3.2-4.4

ready-to-use

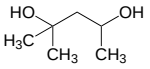
Art. No.	Pack Qty.	Pack.	€
T119.1	500 ml	plastic	24,65
T119.2	1 l	plastic	43,55
Original pack 6 x 1 l			41,37/1 l

Methyl palmitate
▸ Palmitic acid methyl ester see page 1136

Methylparaben
▸ 4-Hydroxybenzoic acid methyl ester see page 998

1-Methylpentane
▸ *n*-Hexane see page 982

2-Methyl-2,4-pentanediol



Hexyleneglycol

$C_6H_{14}O_2$ · D 0,92 g/cm³ · mp -40 °C · bp 196 °C · flp 93 °C
CAS No. 107-41-5 · EC no. 203-489-0
WGK 1

Warning H315-H319

2-Methyl-2,4-pentanediol
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99 %
Density (20 °C) 0,919-0,925
Colour (Hazen) ..... ≤15
Water (KF) ..... ≤0,2 %
Refractive index (20 °C) 1,4240-1,4300

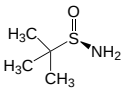
Art. No.	Pack Qty.	Pack.	€
CN17.1	100 ml	plastic	17,10
CN17.2	1 l	plastic	38,60
Original pack 6 x 1 l			36,67/1 l
CN17.3	2.5 l	plastic	76,90
Original pack 4 x 2.5 l			73,06/2.5 l
CN17.4	10 l	plastic	224,70

4-Methyl-2-pentanone
▸ Isobutyl methylketone see page 1020

3-Methylphenol
▸ *m*-Cresol see page 853

3-(4-Methylpiperazinyl-iminomethyl)rifamycin SV
▸ Rifampicin see page 1207

(*R*)-(+)-2-Methyl-2-propanesulfinamide



(*R*)-(+)-*tert*-Butyl sulfinamide

$C_4H_{11}NOS$ · mp 104 to 108 °C
CAS No. 196929-78-9
WGK 1

(*R*)-(+)-2-Methyl-2-propanesulfinamide
≥97 %

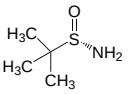
Chiral auxiliar

Storage temperature: +4 °C

Type analysis
Appearance ..... white cryst. solid
Assay (HPLC) ..... ≥97 %
Melting point ..... 103-107 °C

Art. No.	Pack Qty.	Pack.	€
0610.1	1 g	glass	21,40
0610.2	5 g	glass	64,40
0610.3	25 g	glass	203,20

(*S*)-(–)-2-Methyl-2-propanesulfinamide



(*S*)-(–)-*tert*-Butyl sulfinamide

$C_4H_{11}NOS$ · mp 95 to 106 °C
CAS No. 343338-28-3
WGK 1

(*S*)-(–)-2-Methyl-2-propanesulfinamide
≥98 %

Chiral auxiliar

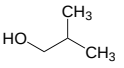
Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay (HPLC) ..... ≥98 %
Enantiomeric purity ..... ≥98 %
Melting point ..... 95-106 °C

Art. No.	Pack Qty.	Pack.	€
1442.1	1 g	glass	26,80
1442.2	5 g	glass	81,60
1442.3	25 g	glass	241,90

2-Methylpropanoic acid
▸ Isobutyric acid see page 1020

2-Methyl-1-propanol



Isobutanol · Isobutyl alcohol · *iso*-Butanol

$C_4H_{10}O$ · D 0,8 g/cm³ · mp <-90 °C · bp 108 °C · flp 31 °C
CAS No. 78-83-1 · EC no. 201-148-0
UN no. 1212 · ADR 3 III · WGK 1

Danger H226-H315-H318-H335-H336

2-Methyl-1-propanol
ROTIPURAN® ≥99 %, p.a., ACS

Guarantee analysis
Assay (GC) ..... ≥99 %
Acidity ..... ≤0,0005 meq/g
Alkalinity ..... ≤0,0005 meq/g
Colour (APHA) ..... ≤10
In H_2O insoluble matter ..... complies
Non volatile matter ..... ≤0,001 %
Matter discoloured by H_2SO_4 ..... complies
Water ..... ≤0,1 %
Butanal (GC) ..... ≤0,01 %
iso-Butanal (GC) ..... ≤0,05 %
Butanone (GC) ..... ≤0,02 %
Peroxides (as H_2O_2) ..... ≤0,001 %
Lead (Pb) ..... ≤0,00001 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
6772.1	1 l	glass	117,20
Original pack 6 x 1 l			111,34/1 l
6772.2	2.5 l	glass	235,45
Original pack 4 x 2.5 l			223,68/2.5 l

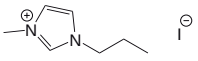
2-Methyl-1-propanol
≥99 %, for synthesis

Type analysis
Purity (GC) ..... ≥99,0 %
Density (20 °C) ..... 0,801-0,804 g/cm³
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
CP09.1	1 l	plastic	38,60
Original pack 6 x 1 l			36,67/1 l
CP09.2	2.5 l	plastic	76,90
Original pack 4 x 2.5 l			73,06/2.5 l
CP09.3	5 l	plastic	134,40
Original pack 2 x 5 l			127,68/5 l

2-Methyl-2-propanol
▸ *tert*-Butanol see page 797

1-Methyl-3-propyl-imidazolium-iodide (PMIM I)



PMIM I

$C_7H_{13}N_2I$ · D 1,55 g/cm³ · mp -17 °C · bp 301 to 304 °C · flp 220 °C
CAS No. 119171-18-5
WGK 1

Warning H315-H319-H335

1-Methyl-3-propyl-imidazolium-iodide (PMIM I)
≥98 %

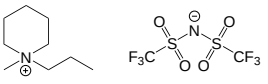
Ionic liquid

Type analysis
Appearance ..... yellow to orange liquid
Assay ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
2091.1	25 g	glass	203,20
2091.2	100 g	glass	428,95

Lit.: **"A Quasi-Solid-State Dye-Sensitized Solar Cell Based on a Sol-Gel Nanocomposite Electrolyte Containing Ionic Liquid"** E. Stathatos, P. Lianos, S. M. Zakeeruddin, P. Liska, M. Graetzel, *Chemistry of Materials* **2003,** 15, 1825-1829.

1-Methyl-1-propyl-piperidinium-bis-(trifluoromethylsulphonyl)-imide (PMPip BTA)



PMPip BTA

$C_{11}H_{20}F_6N_2O_4S_2$ · D 1,41 g/cm³
CAS No. 608140-12-1
WGK 1

Warning H315-H319

1-Methyl-1-propyl-piperidinium-bis-(trifluoromethylsulphonyl)-imide (PMPip BTA)
≥99 %

Ionic liquid

Type analysis
Appearance ..... colourless to yellowish liquid
Assay ..... ≥99 %
Water (KF) ..... ≤0,01 %
Halogens ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
2095.1	25 g	glass	246,20
2095.2	100 g	glass	514,95

Lit.: **"Electrochemical Magnesium Deposition and Dissolution with High Efficiency in Ionic Liquid"** Y. NuLi, J. Yang, J. Wang, J. Xu, P. Wang, Electrochem. *Solid-State Lett.* **2005,** 8, C166-C169.

Methyl 3-pyridyl ketone
▸ 3-Acetylpyridine see page 703

N-Methyl-2-pyrrolidone (NMP)



NMP

C_5H_9NO · D 1,03 g/cm³ · mp -24,2 °C · bp 204,3 °C · flp 91 °C
CAS No. 872-50-4 · EC no. 212-828-1
WGK 1

Danger H315-H319-H335-H360D

N-Methyl-2-pyrrolidone (NMP)
≥99,8 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,8 %
Colour (APHA) ..... ≤50
Water ..... ≤0,05 %
Butyrolactone ..... ≤0,05 %
Monomethylamine ..... ≤0,005 %
Dimethyl pyrrolidones, mixture of isomers ≤0,4 %

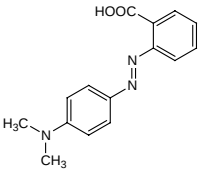
Art. No.	Pack Qty.	Pack.	€
4306.1	500 ml	glass	31,20
4306.3	1 l	glass	47,85
Original pack 6 x 1 l			45,46/1 l
4306.2	2.5 l	glass	95,60
Original pack 4 x 2.5 l			90,82/2.5 l
4306.5	25 l	tinplate	783,70

N-Methyl-2-pyrrolidone (NMP)
PEPTIPURE® ≥99,8 %, for peptide synthesis

Type analysis
Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,03 %
Non volatile matter ..... ≤0,005 %
Free amines ..... ≤0,001 %
Free acid (as CH_3COOH) ..... ≤0,0006 %

Art. No.	Pack Qty.	Pack.	€
P052.1	2.5 l	glass	192,45
Original pack 4 x 2.5 l			182,83/2.5 l

Methyl red (C. I. 13020)



2-[(4-Dimethylamino)-phenylazo]-benzoic acid

$C_{15}H_{15}N_3O_2$ · D 0,989 g/cm³ · mp 179 to 182 °C
CAS No. 493-52-7 · EC no. 207-776-1
WGK 1

Methyl red (C. I. 13020)
p.a., ACS

Indicator pH 4.2-6.2

Dissolve 0.1 g in 100 ml ethanol (96 %)

Guarantee analysis
Appearance ..... reddish powder
Appearance of solution ..... complies
Melting point ..... 179-182 °C
pH-transition range ..... 4,2 (pink)- 6,2 (yellow)
Loss on drying (110 °C) ..... ≤3,0 %

Art. No.	Pack Qty.	Pack.	€
T120.1	10 g	glass	22,50
T120.2	25 g	glass	36,05

Methyl red hydrochloride (C.I. 13020)

2-[(4-Dimethylamino)-phenylazo]-benzoic acid

$C_{15}H_{15}N_3O_2$ · HCl · mp 175 °C
CAS No. 63451-28-5 · EC no. 264-190-9
WGK 1

Methyl red hydrochloride (C.I. 13020)
p.a.

Indicator pH 4.2-6.2

Dissolve 0.1 g in 100 ml ethanol (96 %)

Guarantee analysis
Appearance ..... dark purple cryst. powder
pH transition range ..... 4,2 (red)- 6,2 (yellow)

Art. No.	Pack Qty.	Pack.	€
2562.1	25 g	glass	33,25
2562.2	100 g	glass	80,55

Methyl red indicator solution

D 0,79 g/cm³ · mp -114 °C · bp 78 °C · flp 13 °C
UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

Methyl red indicator solution
0,1 % in ethanol, denatured

Indicator pH 4.2-6.2

ready-to-use

Art. No.	Pack Qty.	Pack.	€
T121.1	250 ml	glass	36,45
T121.2	1 l	glass	94,10
Original pack 6 x 1 l			89,40/1 l

Methyl red sodium salt (C.I. 13020)

2-[(4-Dimethylamino)-phenylazo]-benzoic acid

$C_{15}H_{14}N_3NaO_2$
CAS No. 845-10-3 · EC no. 212-682-9
WGK 1

Methyl red sodium salt (C.I. 13020)
p.a., water-soluble

Indicator pH 4.2-6.2

Dissolve 0.1 g in 100 ml water

Type analysis
pH-transition range ..... 4,2 (red)-6,2 (yellow)
Solubility ..... water-soluble

Art. No.	Pack Qty.	Pack.	€
5003.1	25 g	glass	30,65
5003.2	100 g	glass	89,15

Methyl red solution

$C_{15}H_{15}N_3O_2$ · D ~0,79 g/cm³ · mp -114 °C · bp 78 °C · flp 22 °C
CAS No. 493-52-7
UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

Methyl red solution
2 %, for microbiology

Indicator solution for testing mixed acid fermentation in enterobacteria.

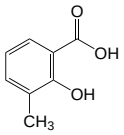
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... clear, red liquid
Concentration ..... 2 %
Suitability for microscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
1HHP.1	100 ml	glass	52,15

Methyl salicylate
▸ Salicylic acid methyl ester see page 1249

3-Methylsalicylic acid



2-Hydroxy-3-methylbenzoic acid

$C_8H_8O_3$ · mp 166 °C · bp 246 °C
CAS No. 83-40-9 · EC no. 201-473-8
WGK 1

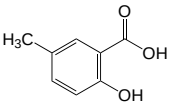
Danger H318

3-Methylsalicylic acid
≥98,5 %, for synthesis

Type analysis
Appearance ..... white to pale pink cryst. powder
Assay ..... ≥98,5 %

Art. No.	Pack Qty.	Pack.	€
4525.1	100 g	glass	38,20
4525.2	500 g	glass	138,70
Original pack 6 x 500 g			131,77/500 g

5-Methylsalicylic acid



2-Hydroxy-5-methylbenzoic acid

$C_8H_8O_3$ · mp 151 to 154 °C
CAS No. 89-56-5 · EC no. 201-918-6
WGK 1

Warning H302-H315-H319-H335

5-Methylsalicylic acid
≥98 %, for synthesis

Type analysis
Appearance ..... white to off-white cryst. powder
Assay ..... ≥98,0 %
Ash content ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
6547.1	1 g	glass	16,05
6547.2	5 g	plastic	26,80
6547.3	25 g	plastic	85,90

Methyl stearate
▸ Stearic acid methyl ester see page 1339

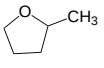
3-(Methylsulfinyl)propyl-glucosinolate potassium salt
▸ Glucoiberin see page 960

3-(Methylsulphinyl)butyl-glucosinolate potassium salt
▸ Glucoraphanin see page 961
▸ Glucoraphenin see page 961

Methylsulphonic acid
▸ Methanesulphonic acid see page 1077

Methyl sulphoxide deuterized
▸ Dimethyl sulphoxide D6 see page 890

2-Methyltetrahydrofuran



Methyl-THF · Me-THF

$C_5H_{10}O$ · D 0,86 g/cm³ · mp <-20 °C · bp 78 °C · flp -10 °C
CAS No. 96-47-9 · EC no. 202-507-4
UN no. 2536 · ADR 3 II · WGK 2

Danger H225-H302-H315-H318-EUH019

2-Methyltetrahydrofuran
SOLVAGREEN® ≥99 %, extra pure

Alternative for THF, dichloromethane, DMSO, tBME/MTBE.

Type analysis
Appearance ..... clear, colourless liquid
Assay (GC) ..... ≥99 %
Water (KF) ..... ≤0,05 %
Density (20 °C) ..... 0,850-0,865 g/cm³

stabilised with 150–400 ppm BHT.

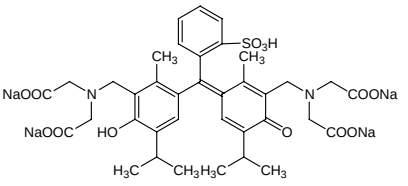
Art. No.	Pack Qty.	Pack.	€
6845.1	250 ml	glass	32,15
6845.2	500 ml	glass	52,60
6845.3	1 l	glass	74,20
Original pack 6 x 1 l			70,49/1 l
6845.4	2.5 l	glass	138,70
Original pack 4 x 2.5 l			131,77/2.5 l
6845.5	10 l	PE/steel	467,65

7-Methyltheobromine
▸ Caffeine see page 804

Methyl-THF
▸ 2-Methyltetrahydrofuran see page 1089

4-Methylthiobutylglucosinolate potassium salt
▸ Glucoerucin see page 960

Methylthymol blue sodium salt



$C_{37}H_{40}N_2Na_4O_{13}S$
CAS No. 1945-77-3 · EC no. 217-743-3
WGK 1

Methylthymol blue sodium salt
p.a., ACS

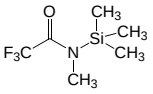
Indicator for titration of metal ions (complexometry).

Prepare trituration with KNO_3 (1:99)

Guarantee analysis
Clarity of solution (ACS-test) ..... complies
Loss on drying ..... ≤10 %
pH-transition range ..... 6,5 (yellow)-8,5 (blue)
Suitability as indicator ..... complies

Art. No.	Pack Qty.	Pack.	€
KK17.1	1 g	glass	19,90
KK17.2	5 g	glass	58,60

N-Methyl-*N*-(trimethylsilyl)-trifluoroacetamide (MSTFA)



MSTFA

$C_6H_{12}F_3NOSi$ · D 1,076 g/cm³ · bp 130 to 132 °C · flp 25 °C
CAS No. 24589-78-4 · EC no. 246-331-6
UN no. 1993 · ADR 3 III · WGK 1

Warning H226-H315-H319-H335

N-Methyl-*N*-(trimethylsilyl)-trifluoroacetamide (MSTFA)
≥99 %, for the GC

Silylation agent

Storage temperature: +4 °C

Type analysis
Assay (GC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
9933.1	10 ml	septum bottle	116,10

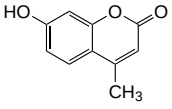
N-Methyl-*N*-(trimethylsilyl)-trifluoroacetamide (MSTFA)
≥97 %, for the GC

Silylation agent

Type analysis
Appearance .. clear, colourless to yellowish liquid
Assay (GC) ..... ≥97 %
Heptamethyldisilazane (GC) ..... ≤0,4 %

Art. No.	Pack Qty.	Pack.	€
8007.1	5 g	glass	66,55

4-Methylumbelliferone



Hymecromone · 4-MU · 7-Hydroxy-4-methyl-coumarin

$C_{10}H_8O_3$ · mp 187 to 191 °C
CAS No. 90-33-5 · EC no. 201-986-7
WGK 1

Warning H315-H319-H335

4-Methylumbelliferone
≥98 %, for biochemistry

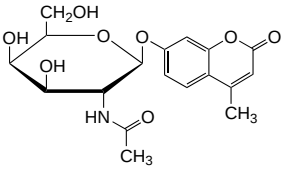
Type analysis
Assay (HPLC) ..... ≥98,0 %
Solution (5 % in ethanol at 50 °C) ..... colourless
Water (KF) ..... ≤1,0 %
Melting point ..... 187-191 °C

Art. No.	Pack Qty.	Pack.	€
5512.1	50 g	plastic	59,05
5512.2	100 g	plastic	106,45

4-Methylumbelliferyl-2-acetamido-2-deoxy-β-D-galactopyranoside

▸ 4-Methylumbelliferyl-*N*-acetyl-β-D-galactosaminide see page 1090

4-Methylumbelliferyl-*N*-acetyl-β-D-galactosaminide



4-MU-β-D-GalNAc · 4-Methylumbelliferyl-2-acetamido-2-deoxy-β-D-galactopyranoside · MU-*N*-acetyl-β-D-galactosaminide

$C_{18}H_{21}NO_8$ · mp 226 °C · bp 732,2 °C · flp 396,6 °C
CAS No. 36476-29-6 · EC no. 253-052-3
WGK 1

4-Methylumbelliferyl-*N*-acetyl-β-D-galactosaminide
≥98 %, for biochemistry

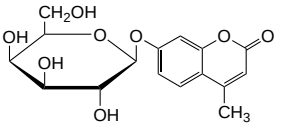
Glycosidase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (HPLC) ..... ≥98 %
Water (KF) ..... ≤3,0 %
Free 4-methylumbelliferone ..... ≤0,005 %
Specific rotation $[\alpha]_D^{20}$ (c=0,3 in pyridine) ... -48° to -44°

Art. No.	Pack Qty.	Pack.	€
4083.1	100 mg	glass	55,40
4083.2	250 mg	glass	97,30
4083.3	500 mg	glass	174,70

4-Methylumbelliferyl-β-D-galactopyranoside



4-MU-β-D-Gal · MUGalactoside

$C_{16}H_{18}O_8$ · mp 230 °C · bp 626,9 °C · flp 233,9 °C
CAS No. 6160-78-7 · EC no. 228-185-5
WGK 1

4-Methylumbelliferyl-β-D-galactopyranoside
for biochemistry

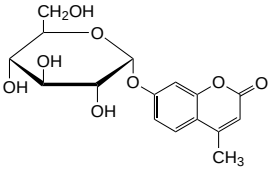
Glycosidase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥98,0 %
Water (KF) ..... ≤1 %
4-Methylumbelliferone ..... ≤0,005 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in DMF) ..... -41,0° to -37,0°

Art. No.	Pack Qty.	Pack.	€
4084.1	500 mg	glass	45,05
4084.2	1 g	glass	77,95
4084.3	5 g	glass	353,70

4-Methylumbelliferyl-α-D-glucopyranoside



4-MU-α-D-Glc

$C_{16}H_{18}O_8$
CAS No. 17833-43-1 · EC no. 241-794-0
WGK 1

4-Methylumbelliferyl-α-D-glucopyranoside
≥99 %, for biochemistry

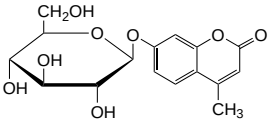
Glycosidase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (TLC) ..... ≥99 %
Solubility (4 % in pyridine) ... colourless to slightly yellow
Water (KF) ..... 4-6 %
4-Methylumbelliferone ..... ≤0,001 %
Specific rotation $[\alpha]_D^{20}$ (c=0,8 in pyridine) +155° to +161°

Art. No.	Pack Qty.	Pack.	€
4086.1	100 mg	glass	56,90
4086.2	250 mg	glass	109,15

4-Methylumbelliferyl-β-D-glucopyranoside



4-MU-β-D-Glc · MUGlucoside

$C_{16}H_{18}O_8$ · mp 211 °C
CAS No. 18997-57-4 · EC no. 242-736-7
WGK 1

4-Methylumbelliferyl-β-D-glucopyranoside
≥99 %, for biochemistry

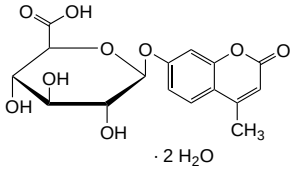
Glycosidase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (TLC) ..... ≥99 %
Solution (3 % in water/acetone 1:2) .... colourless, clear
Water (KF) ..... ≤2 %
4-Methylumbelliferone ..... ≤0,001 %
Specific rotation $[\alpha]_D^{20}$ (c=0,3 in water) ..... -102° to -98°

Art. No.	Pack Qty.	Pack.	€
4093.1	500 mg	glass	55,80
4093.2	1 g	glass	96,65
4093.3	2.5 g	glass	185,45

4-Methylumbelliferyl-β-D-glucuronide dihydrate



MUG

$C_{16}H_{16}O_9 \cdot 2\ H_2O$ · mp 102 °C
CAS No. 6160-80-1 · EC no. 228-186-0
WGK 1

4-Methylumbelliferyl-β-D-glucuronide dihydrate
≥99 %, p.a.

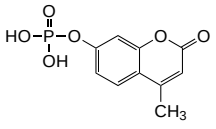
MUG. Substrate for β-glucuronidase for detection of *E. coli*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (titr.) ..... ≥99,0 %
Water (KF) ..... ≤10,2 %
Free 4-methylumbelliferone ..... ≤0,0025 %

Art. No.	Pack Qty.	Pack.	€
6394.1	50 mg	glass	28,95
6394.2	250 mg	glass	79,45
6394.3	1 g	glass	246,20

4-Methylumbelliferyl phosphate



4-MUP phos, free acid

$C_{10}H_9O_6P$ · mp 205 °C
CAS No. 3368-04-5 · EC no. 222-137-7
WGK 1

Warning H315-H319-H335

4-Methylumbelliferyl phosphate
≥99 %, for biochemistry

Phosphatase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

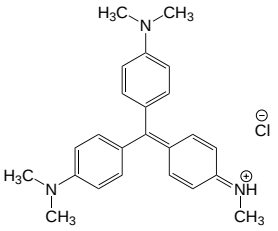
Type analysis
Assay (titr.) ..... ≥99 %
Solution (1 % in H_2O) ..... colourless, clear
Water (KF) ..... ≤0,5 %
4-Methylumbelliferone ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
4103.1	250 mg	glass	45,05
4103.2	1 g	glass	134,40

5-Methyluracil
▸ Thymine see page 1367

Methyl-valerate
▸ *n*-Valeric acid methyl ester see page 1393

Methyl violet 2B (C. I. 42535)



Basic violet

$C_{24}H_{28}N_3Cl$ · mp 137 °C
CAS No. 8004-87-3
UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H318-H351-H410

Methyl violet 2B (C.I. 42535)
for microscopy

Dissolve 0.1 g in 100 ml of water or ethanol (96 %)

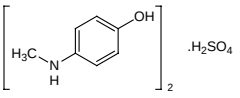
Type analysis
Appearance ..... green cryst. powder
Loss on drying ..... ≤10,0 %

Art. No.	Pack Qty.	Pack.	€
7715.1	5 g	glass	18,85
7715.2	25 g	glass	33,25
7715.3	100 g	glass	80,55

Methyl violet 10B
▸ Crystal violet (C.I. 42555) see page 854

7-Methylquercetin
▸ Rhamnetin see page 1203

Metol



4-(Methylamino)-phenol sulphate

$C_{14}H_{20}N_2O_8S$ · D 0,7 g/cm³ · mp 260 °C
CAS No. 55-55-0 · EC no. 200-237-1
UN no. 3077 · ADR 9 III · WGK 3

Warning H302-H317-H373-H410

Metol
≥99 %, ACS, photo quality

For use in photography.

Type analysis
Appearance white to off-white crystalline powder
Assay ..... ≥99 %
In HCl insoluble matter ..... complies
2-Aminophenol ..... complies
Sulphated ash ..... ≤0,1 %
Fe (Iron) ..... ≤0,002 %
Pb (Lead) ..... ≤0,002 %
Sensitivity to phosphate ..... complies

Art. No.	Pack Qty.	Pack.	€
4315.1	100 g	plastic	52,60
4315.2	500 g	plastic	195,15
Original pack 6 x 500 g			185,39/500 g

MIBK
▸ Isobutyl methylketone see page 1020

Mineral Oil

D 0,84 to 0,88 g/cm³ · bp >200 °C · flp >115 °C
CAS No. 8020-83-5 · EC no. 617-002-8
WGK 1

Danger H304

Mineral Oil
for molecular biology

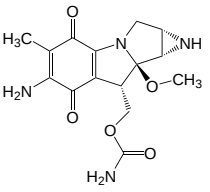
For overlaying PCR and other enzymatic reactions.

Type analysis
Colour ..... clear, colourless
RNAse ..... ≤1 ppb
DNAse ..... ≤0,01 ppb
Protease ..... ≤0,1 ppm
Suitable for PCR ..... complies

Each batch is functionally tested for its suitability in PCR.

Art. No.	Pack Qty.	Pack.	€
HP50.1	10 ml	glass	18,20
HP50.4	15 ml	dropp. bottle	30,00
HP50.2	50 ml	plastic	36,05
HP50.3	250 ml	plastic	107,00

Mitomycin C



$C_{15}H_{18}N_4O_5$ · mp 360 °C · bp 581,8 °C · flp 305,6 °C
CAS No. 50-07-7 · EC no. 200-008-6
UN no. 3462 · ADR 6.1 II · WGK 3

Danger H300-H351

Mitomycin C
≥98 %, for biochemistry

Mitosis inhibitor

Mitomycin C is unstable at low pH-value.
Store away from light.
Stock solution: 1 mg/ml in H_2O
Storage of stock solution: –20 °C
Working concentration: variable (1 µg/ml up to 100 µg/ml)

Storage temperature: +4 °C

Type analysis
Activity ..... ≥970 I.U./mg
Water (KF) ..... ≤2,5 %
pH value (0,5 % in H_2O) 6,0-7,5

Art. No.	Pack Qty.	Pack.	€
4150.1	2 mg	glass	128,50

Mixed bed ion exchangers
▸ Amberjet™ see page 724

Mixed indicator 5

D 0,79 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C
UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

Mixed indicator 5
for ammonia titration

ready-to-use

Art. No.	Pack Qty.	Pack.	€
T125.1	250 ml	glass	96,65

MMA

▸ Methacrylic acid methyl ester see page 1077

Mohr's salt

▸ Ammonium iron(II) sulphate hexahydrate see page 738

Molecular sieves

mp >400 °C
CAS No. 1318-02-1 · EC no. 215-283-8
WGK 1

Molecular sieve 3 Å
activated, under argon, for DNA synthesis

Thread size 27 mm

Suitable for Expedite™89xx and Polygen®

Art. No.	Pack Qty.	Pack.	€
N893.1	100 ml	glass	15,60

Molecular sieve 3 Å
0,3 nm, type 564, beads

Metal-aluminium silicates for drying, cleaning or separating of liquids and gases. Spheres Ø 1.6–2.5 mm.

Type analysis
H_2O ads. capacity (10 % R.H./25 °C) ..... ≥15,5 %
Loss on ignition ..... ≤2,5 %
Globe diameter ..... 1,6-2,5 mm
Crush strength ..... ≥15 N

Art. No.	Pack Qty.	Pack.	€
8487.1	250 g	glass	37,55
8487.2	750 g	glass	88,05
8487.3	2.5 kg	plastic	231,15
8487.7	5 kg	plastic	424,65

Molecular sieve 3 Å
0,3 nm, type 562 C, beads

Metal-aluminium silicates for drying, cleaning or separating of liquids and gases. Spheres Ø 2.5–5.0 mm.

Type analysis
H_2O ads. capacity (10 % R.H./25 °C) ..... ≥15,5 %
Loss on ignition ..... ≤2,5 %
Globe diameter ..... 2,5-5,0 mm
Crush strength ..... ≥50 N

Art. No.	Pack Qty.	Pack.	€
P729.1	250 g	glass	37,55
P729.2	750 g	glass	88,05
P729.3	2.5 kg	plastic	231,15

Molecular sieve 4 Å
0,4 nm, type 514, beads

Metal-aluminium silicates for drying, cleaning or separating of liquids and gases. Spheres Ø 1.6–2.5 mm.

Type analysis
H_2O ads. capacity (10 % R.H./25 °C) ..... ≥17,5 %
Loss on ignition ..... ≤3,0 %
Globe diameter ..... 1,6-2,5 mm
Crush strength ..... ≥20 N

Art. No.	Pack Qty.	Pack.	€
8471.1	250 g	glass	40,35
8471.2	750 g	glass	90,20
8471.3	2.5 kg	plastic	235,45

Molecular sieve 5 Å
0,5 nm, type 522, beads

Metal-aluminium silicates for drying, cleaning or separating of liquids and gases. Spheres Ø 1.6–2.5 mm.

Type analysis
H_2O ads. capacity (10 % R.H./25 °C) ..... ≥17,0 %
Water content ..... ≤0,9 %
Globe diameter ..... 1,6-2,5 mm
Crush strength ..... ≥25 N

Art. No.	Pack Qty.	Pack.	€
8475.1	250 g	glass	40,35
8475.2	750 g	glass	90,20
8475.3	2.5 kg	plastic	235,45

Molecular sieve 10 Å
1,0 nm, type 544, beads

Metal-aluminium silicates for drying, cleaning or separating of liquids and gases. Spheres Ø 1.6–2.5 mm.

Type analysis
H_2O ads. capacity (10 % R.H./25 °C) ..... ≥17,0 %
Water content ..... ≤0,8 %
Globe diameter ..... 1,6-2,5 mm
Crush strength ..... ≥35 N

Art. No.	Pack Qty.	Pack.	€
8483.1	250 g	glass	40,35
8483.2	750 g	glass	90,20
8483.3	2.5 kg	plastic	235,45

Molybdate-Reagent

D 1,29 g/cm³ · mp -15 °C · bp 100 °C
UN no. 2796 · ADR 8 II · WGK 1

Danger H290-H314

Molybdate-Reagent
for total phosphate determination

Type analysis
Suitability for determination of phosphate ... complies

Composition: Ammonium heptamolybdate tetrahydrate, Potassium antimony(III) tartrate, Sulphuric acid, distilled Water.

Art. No.	Pack Qty.	Pack.	€
2442.1	1 l	plastic	74,10
Original pack 6 x 1 l			70,40/1 l

Molybdatophosphoric acid hydrate

Phosphomolybdic acid

$H_3[P(Mo_3O_{10})_4]$ · x H_2O · D 2,52 g/cm³ · mp 78 to 98 °C
CAS No. 51429-74-4 · EC no. 234-713-5
UN no. 3260 · ADR 8 II · WGK 1

Danger H314

Molybdatophosphoric acid hydrate
≥99 %, p.a., ACS

Staining reagent for TLC, biochemical analysis, microscopy.

Storage temperature: +4 °C

Guarantee analysis
Appearance ..... yellow to yellow-orange crystals
Assay ..... ≥99 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,025 %
Ammonium (NH_4) ..... ≤0,01 %
In H_2O insoluble matter ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,005 %
Calcium (Ca) ..... ≤0,02 %
Iron (Fe) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
4440.1	25 g	glass	49,35
4440.2	50 g	plastic	77,30
4440.3	100 g	plastic	138,70
4440.7	1 kg	plastic	1.170,70
Original pack 6 x 1 kg			1.112,17/1 kg

Molybdatophosphoric acid spray solution

Molybdatophosphoric acid spray solution
for TLC

Ready-to-use spray solution for detection of reducing compound lipids, fatty acids and steroids.
4 g Molybdatophosphoric acid dissolved in 100 ml ethanol.

D ~0,82 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C

Storage temperature: +4 °C

UN no. 1993 · ADR 3 II · WGK 1

Danger H225-H315-H318

Type analysis
TLC-application ..... complies

Art. No.	Pack Qty.	Pack.	€
CP31.1	100 ml	glass	42,90

Molybdenum

Mo · D 10,3 g/cm³ · mp 2623 °C · bp 4639 °C
CAS No. 7439-98-7 · EC no. 231-107-2

Molybdenum pieces
ROTI®METIC 99,98 % (3N8)

Type analysis
Assay (metals basis) ..... 99,98 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L4T.1	10 g	HDPE	38,60
1L4T.2	50 g	HDPE	157,50

Molybdenum Standards

- Molybdenum AAS Standard Solution see page 1319
- Molybdenum ICP Standard Solution see page 1319
- Molybdenum ICP Standard Solution see page 1319

Molybdenum(VI) oxide

Molybdenum trioxide · Molybdic anhydride

MoO_3 · D 4,7 g/cm³ · mp 802 °C · bp 1155 °C
CAS No. 1313-27-5 · EC no. 215-204-7
WGK 1

Warning H319-H335-H351

Molybdenum(VI) oxide
ROTI®METIC 99,98 % (3N8)

Type analysis
Assay (metals basis) ..... 99,98 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
4548.1	5 g	plastic	64,40
4548.2	10 g	plastic	107,40

Molybdenum(VI) oxide
≥99,8 %, p.a.

Type analysis
Assay (as MoO_3) ..... ≥99,8 %
Ammonium (NH_4) ..... ≤0,002 %
Chloride (Cl) ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,02 %
Lead (Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,003 %
Potassium oxide (K_2O) ..... ≤0,025 %
Silicate (SiO_2) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
0142.1	50 g	plastic	22,50
0142.2	250 g	plastic	53,65
0142.3	500 g	plastic	99,90
Original pack 6 x 500 g			94,91/500 g
0142.4	1 kg	plastic	188,15
Original pack 6 x 1 kg			178,74/1 kg

Molybdenum(IV) sulphide

MoS2 · D 5,06 g/cm³ · mp 1750 °C
CAS No. 1317-33-5 · EC no. 215-263-9

Molybdenum(IV) sulphide
≥98 %, pure

Type analysis
Assay ..... ≥98,0 %
Carbon (C) ..... ≤1,5 %
Fe (Iron) ..... ≤0,5 %
Molybdenum trioxide (MoO_3) ..... ≤0,15 %
Oil ..... ≤0,5 %
Acid value ..... ≤3,0 %
Water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
1L0K.1	100 g	plastic	36,45
1L0K.2	500 g	plastic	112,90
Original pack 6 x 500 g			107,26/500 g
1L0K.3	1 kg	plastic	209,65
Original pack 6 x 1 kg			199,17/1 kg

Molybdenum trioxide

- Molybdenum(VI) oxide see page 1093

Molybdic acid

H_2MoO_4 · mp 300 °C
CAS No. 7782-91-4 · EC no. 231-970-5
WGK 1

Warning H319-H335-H373

Molybdic acid
≥85 %, p.a., ACS

Guarantee analysis
Assay (based on MoO_3) ..... ≥85,0 %
In NH_4OH insoluble matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,002 %
Phosphate (PO_4) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,2 %
Heavy metals (as Pb) ..... ≤0,003 %
Arsenate, phosphate and silicate (as SiO_2) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
2722.1	100 g	plastic	60,10
2722.2	250 g	plastic	120,95
2722.3	500 g	plastic	203,20
Original pack 6 x 500 g			193,04/500 g

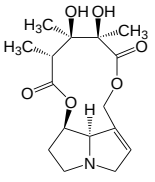
Monoammonium glycyrrhizinate

- Glycyrrhizic acid ammonium salt hydrate see page 969

Monochlorobenzene

- Chlorobenzene see page 830

Monocrotaline



Crotaline

$C_{16}H_{23}NO_6$ · mp 197 to 202 °C
CAS No. 315-22-0
UN no. 1544 · ADR 6.1 III · WGK 2

Danger H301-H351

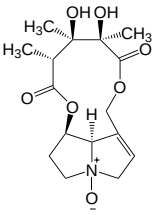
Monocrotaline
≥99 %

Storage temperature: +4 °C

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥99,0 %
Melting point ..... 197-202 °C

Art. No.	Pack Qty.	Pack.	€
3418.1	500 mg	glass	532,15

Monocrotaline *N*-oxide



$C_{16}H_{23}NO_7$ · mp 134 to 138 °C
CAS No. 35337-98-5
UN no. 1544 · ADR 6.1 III · WGK 1

Danger H301

Monocrotaline *N*-oxide
ROTICHROM® HPLC

Reference substance for HPLC.
From *Crotalaria*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
2249.1	10 mg	glass	493,45

Monoethanolamine

- Ethanolamine see page 918

Monoethylene glycol

- Ethylene glycol see page 924

Monomethylthionin

- Azure C (C.I. 52002) see page 762

Monopotassium phosphate

- Potassium dihydrogen phosphate see page 1171

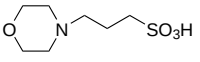
Monorhein

- Rhein see page 1203

Montmorillonite

- Bentonite see page 766

MOPS



3-(*N*-Morpholino)-propane sulphonic acid

$C_7H_{15}NO_4S$ · mp 281,6 °C · bp 354,6 °C · flp 116 °C
CAS No. 1132-61-2 · EC no. 214-478-5
WGK 1

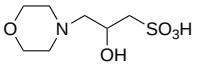
MOPS
PUFFERAN® ≥99,5 %

Guarantee analysis
Assay (dry substance) ..... ≥99,5 %
pH value (10 % in water) 3,0-5,0
pK_a (at 25 °C) 7,0-7,4
Loss of drying (140 °C, 30 min) ..... ≤1,0 %

Absorbance:
260 nm ..... ≤0,05

Art. No.	Pack Qty.	Pack.	€
6979.2	250 g	plastic	94,50
6979.4	500 g	plastic	170,95
Original pack 6 x 500 g			162,40/500 g
6979.3	1 kg	plastic	321,45
Original pack 6 x 1 kg			305,38/1 kg
6979.5	2.5 kg	plastic	654,70

MOPSO



3-(*N*-Morpholino)-2-hydroxypropane sulphonic acid

$C_7H_{15}NO_5S$ · mp 273 to 274 °C
CAS No. 68399-77-9 · EC no. 269-989-6
WGK 1

Warning H315-H319-H335

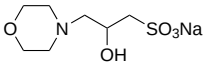
MOPSO
PUFFERAN® ≥99 %

Guarantee analysis
Assay (titr.) ..... ≥99,0 %
Solubility (10 % in H_2O) ..... clear
Loss on drying ..... ≤1,0 %

Absorbance:
260 nm ..... ≤0,04
280 nm ..... ≤0,04

Art. No.	Pack Qty.	Pack.	€
7117.1	25 g	plastic	52,60
7117.2	100 g	plastic	170,95
7117.3	1 kg	plastic	1.451,25
Original pack 6 x 1 kg			1.378,69/1 kg

MOPSO sodium salt



3-(*N*-Morpholino)-2-hydroxypropane sulphonic acid

$C_7H_{14}NaNO_5S$ · mp 273 to 274 °C
CAS No. 79803-73-9
WGK 1

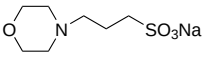
MOPSO sodium salt
PUFFERAN® ≥98 %

Type analysis
Assay (titr.) ..... ≥98 %
Water (KF) ..... ≤1,0 %
pH value (1 % solution) 8,9-9,7

Absorbance:
280 nm ..... ≤0,05
260 nm ..... ≤0,06

Art. No.	Pack Qty.	Pack.	€
7101.1	25 g	plastic	81,60
7101.2	100 g	plastic	278,45

MOPS sodium salt



3-(*N*-Morpholino)-propane sulphonic acid

$C_7H_{14}NaNO_4S$ · D 1,41 g/cm³ · mp 220,9 °C · flp 110 °C
CAS No. 71119-22-7
WGK 1

MOPS sodium salt
PUFFERAN® ≥99 %

Guarantee analysis
Assay (titr. dry substance) ..... ≥99,0 %
Loss on drying ..... ≤3,0 %
pH value (1 M, H_2O) 10,0-12,0

Absorbance:
260 nm ..... ≤0,1
280 nm ..... ≤0,1

Art. No.	Pack Qty.	Pack.	€
6927.1	25 g	plastic	34,30
6927.2	100 g	plastic	107,40

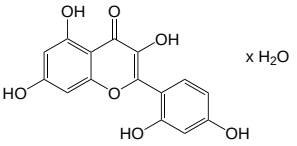
Mordant Black 3
▸ Eriochrome blue black B (C.I. 14640) see page 912

Mordant black 11
▸ Eriochrome black T (C.I. 14645) see page 912

Mordant Black 17
▸ Eriochrome blue black R (C.I. 15705) see page 912

Mordant blue 3
▸ Eriochrome cyanine R see page 913

Morin hydrate



2',3,4',5,7-Pentahydroxyflavone

$C_{15}H_{10}O_7$ · x H_2O · mp 295 °C
CAS No. 654055-01-3 · EC no. 207-542-9
WGK 1

Warning H315-H319-H335

Morin hydrate
for microscopy

Fluorescence indicator

Dissolve 0.1 g in 100 ml methanol

Type analysis
Appearance ..... powder
Reagent for: ..... Al, Be, Zn, Ga, In, Sc

Fluorescence indicator.

Art. No.	Pack Qty.	Pack.	€
6459.1	5 g	plastic	138,70
6459.2	50 g	plastic	1.177,15

Morpholine



Tetrahydro-1,4-oxazine · 1,4-Oxazinane

C_4H_9NO · D 1 g/cm³ · mp -4,9 °C · bp 128,3 °C · flp 32 °C
CAS No. 110-91-8 · EC no. 203-815-1
UN no. 2054 · ADR 8 (3) I · WGK 1

Danger H226-H302-H311+H331-H314-EUH208

Morpholine
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,0 %
Water (KF) ..... ≤0,3 %
2-Methoxyethanol (GC) ..... <0,3 %
1,2-Ethanediamine (GC) ..... ≤0,3 %
Ethylmorpholine (GC) ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
9691.1	100 ml	glass	17,10
9691.2	500 ml	glass	24,20
9691.3	1 l	glass	37,10
Original pack 6 x 1 l			35,25/1 l
9691.4	2.5 l	glass	57,95
Original pack 4 x 2.5 l			55,05/2.5 l
9691.5	10 l	PE/steel	198,90

Mossel EE Broth

Enriched broth medium E (Ph.Eur. 6.0) · Enterobacteria enrichment broth-Mossel (Ph.Eur. 6.3, 7.0, 8.0 and 9.0)

WGK 1

Mossel EE Broth
Ph. Eur., for microbiology

For selective enrichment of enterobacteria in foods, particularly *Salmonella* and Coliforms.

Application: Use 45 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Pancreas hydrolysate made from gelatin .... 10 g/l
Glucose monohydrate ..... 5 g/l
Dehydrated ox bile ..... 20 g/l
Potassium dihydrogen phosphate ..... 2 g/l
di-Sodium hydrogenphosphate dihydrate ..... 8 g/l
Brilliant green ..... 0,015 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE65.1	500 g	plastic	246,75
Original pack 6 x 500 g			234,41/500 g

Mowiol® 4-88

PVA · Polyvinyl alcohol

$(-CH_2CHOH-)_n$ · D ~1,27 g/cm³ · mp 230 to 250 °C
CAS No. 9002-89-5 · EC no. 618-340-9
WGK 1

Mowiol® 4-88
granulated

Aqueous mounting medium in histology.

Type analysis
Appearance .... colourless to light yellow granules
Viscosity (4 %, H_2O, 20 °C) ..... 3,0-5,0 mPa.s
Degree of hydrolysis, Mol.-% 86,7-88,7
Ash content (as Na_2O) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
0713.1	50 g	plastic	14,95
0713.2	100 g	plastic	22,05

MRSA Cefoxitin Supplement

mp 149 to 150 °C
WGK 1
Warning H317

MRSA Cefoxitin Supplement
lyophilized

Media supplement for selective detection of methicillin resistent *Staphylococcus aureus*.

Application: One vial MRSA Cefoxitin Supplement is reconstituted in 5 ml sterile, distilled water, and is subsequently added to 500 ml solubilised MRSA chromogenic Agar (Base) (Art. No. 3026.1).

One box of 10 vials MRSA Cefoxitin Supplement is sufficient for 10 x 500 ml MRSA chromogenic Agar (Art. No. 3026).

Storage temperature: +4 °C

Composition
Cefoxitin ..... 0,002 g

per vial.

Art. No.	Pack Qty.	Pack.	€
2975.1	10 unit(s)	glass	98,40

MRSA chromogenic Agar (Base)

WGK 3

MRSA chromogenic Agar (Base)
for microbiology

For detection of methicillin resistant staphylococci.

Application: Use 103.4 g for 1 l agar.
Do not overheat! After cooling add 2 vials (2 x5 ml) reconstituted MRSA Cefoxitin Supplement (Art. No. 2975.1).

Storage temperature: +4 °C

Composition
Nutrients ..... 78 g/l
Peptone ..... 11 g/l
Chromogene Mixture ..... 1,9 g/l
Agar ..... 12,5 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
3026.1	100 g	plastic	98,40

MRS Agar

MRS Agar
for microbiology

For cultivation of lactobacilli. According to deMan, Rogosa and Sharpe.

Application: Use 62 g for 1 l agar.

Storage temperature: +4 °C

WGK 2

Composition
Peptone ..... 10 g/l
Yeast extract ..... 4 g/l
Beef extract ..... 8 g/l
Glucose ..... 20 g/l
Dipotassium phosphate ..... 2 g/l
Sodium acetate ..... 5 g/l
Ammonium citrate ..... 2 g/l
Magnesium sulphate ($MgSO_4$) ..... 0,2 g/l
Manganese sulphate ..... 0,05 g/l
Polysorbate 80 ..... 1 g/l
Agar ..... 10 g/l
pH value ..... 6,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
X924.5	100 g	plastic	35,40
X924.1	500 g	plastic	101,60
Original pack 6 x 500 g			96,52/500 g
X924.2	1 kg	plastic	176,85
Original pack 6 x 1 kg			168,01/1 kg
X924.3	2.5 kg	plastic	385,95
X924.4	5 kg	plastic	762,20

MRS Agar pH 5.7
ISO 11133, ISO 15214, for microbiology

For cultivation of pH sensitive lactobacilli from foods and feeding stuff. According to deMan, Rogosa and Sharpe.

Application: Use 66 g for 1 l agar.

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Casein peptone ..... 10 g/l
Yeast extract ..... 4 g/l
Beef extract ..... 10 g/l
Glucose ..... 20 g/l
Dipotassium phosphate ..... 2 g/l
Sodium acetate ..... 5 g/l
Triammonium citrate ..... 2 g/l
Magnesium sulphate heptahydrate ..... 0,20 g/l
Mangansulphate tetrahydrate ..... 0,05 g/l
Polysorbate 80 ..... 1,08 g/l
Agar ..... 12 g/l
pH value ..... 5,7 ±0,1

Art. No.	Pack Qty.	Pack.	€
HP65.1	500 g	plastic	111,30
Original pack 6 x 500 g			105,74/500 g

MRS Broth

WGK 1

MRS Broth
for microbiology

For cultivation of lactobacilli. According to deMan, Rogosa and Sharpe.

Application: Use 52 g for 1 l broth.

Storage temperature: +4 °C

Composition
Peptone ..... 10 g/l
Yeast extract ..... 4 g/l
Beef extract ..... 8 g/l
Glucose ..... 20 g/l
Dipotassium phosphate ..... 2 g/l
Sodium acetate ..... 5 g/l
Ammonium citrate ..... 2 g/l
Magnesium sulphate ($MgSO_4$) ..... 0,2 g/l
Manganese sulphate ..... 0,05 g/l
Polysorbate 80 ..... 1 g/l
pH value ..... 6,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
X925.1	500 g	plastic	98,40
Original pack 6 x 500 g			93,48/500 g
X925.2	1 kg	plastic	165,05
Original pack 6 x 1 kg			156,80/1 kg
X925.3	2.5 kg	plastic	353,70

MRS Broth pH 5.7
for microbiology

For cultivation of pH sensitive lactobacilli from foods and feeding stuff. According to deMan, Rogosa and Sharpe.

Application: Use 54 g for 1 l broth.

Storage temperature: +4 °C

Guarantee analysis
Casein peptone ..... 10 g/l
Yeast extract ..... 4 g/l
Beef extract ..... 10 g/l
Glucose ..... 20 g/l
Dipotassium phosphate ..... 2 g/l
Sodium acetate ..... 5 g/l
Triammonium citrate ..... 2 g/l
Magnesium sulphate heptahydrate ..... 0,20 g/l
Mangansulphate tetrahydrate ..... 0,05 g/l
Polysorbate 80 ..... 1,08 g/l
pH value ..... 5,7 ±0,1

Art. No.	Pack Qty.	Pack.	€
HP64.1	500 g	plastic	101,60
Original pack 6 x 500 g			96,52/500 g

MR/VP Broth

WGK 1

MR/VP Broth
for microbiology

For the differentiation of the *Escherichia-Enterobacter* group (Methyl Red and Voges-Proskauer reactions)

Application: Use 17 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Composition
Peptone mixture ..... 7 g/l
Dextrose ..... 5 g/l
Potassium phosphate ..... 5 g/l
pH value (25 °C) 6,7-7,1

Art. No.	Pack Qty.	Pack.	€
1E1K.1	500 g	plastic	107,00
Original pack 6 x 500 g			101,65/500 g
1E1K.2	1 kg	plastic	198,90
Original pack 6 x 1 kg			188,96/1 kg

MSTFA

▸ *N*-Methyl-*N*-(trimethylsilyl)-trifluoroacetamide (MSTFA) see page 1090

MTAB
▸ Tetradecyltrimethylammonium bromide (MTAB) see page 1360

MTBE
▸ *tert*-Butyl methyl ether see page 799

MTT
▸ Thiazolyl blue see page 1365

4-MU
▸ 4-Methylumbelliferone see page 1090

MU-*N*-acetyl-β-D-galactosaminide
▸ 4-Methylumbelliferyl-*N*-acetyl-β-D-galactosaminide see page 1090

Mucin

CAS No. 91053-71-3 · EC no. 282-357-4
WGK 1

Mucin
75–95 %, for biochemistry

Isolated from porcine stomach lining.

Storage temperature: +4 °C

Type analysis
Assay ..... 75-95 %
Sulphated ash ..... <7,0 %
Total nitrogen ..... 7,5-9,9 %
Nitrogen (in alcoholic extract) ..... 7,0-9,9 %
pH value (2 %, water) 3,0-6,5
Loss on drying ..... ≤6 %
Viscosity (rel. to H_2O) ..... ≥2 %

Art. No.	Pack Qty.	Pack.	€
8494.3	25 g	plastic	30,00
8494.1	100 g	plastic	85,90
8494.2	250 g	plastic	181,70
8494.7	1 kg	plastic	686,95
Original pack 6 x 1 kg			652,60/1 kg

Mueller Hinton Agar

WGK 1

Mueller Hinton Agar
for microbiology

For testing of organism susceptibility to antimicrobial agents by disk diffusion method. Also for cultivation of *Neisseria*.

Application: Use 38 g for 1 l agar. Slightly opalescent.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Beef Infusion ..... 2 g/l
Casein peptone (acidic hydrolysate) ..... 17,5 g/l
Corn starch ..... 1,5 g/l
Agar ..... 17 g/l
pH value ..... 7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
X926.1	500 g	plastic	122,05
Original pack 6 x 500 g			115,95/500 g
X926.2	1 kg	plastic	220,40
Original pack 6 x 1 kg			209,38/1 kg

Mueller Hinton Broth

WGK 1

Mueller Hinton Broth
ISO 16782, for microbiology

For cultivation of microorganisms and for antibiotic-sensitivity testing.

Application: Use 21 g for 1 l broth. Slightly opalescent.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Beef Infusion ..... 2 g/l
Casein peptone (acidic hydrolysate) ..... 17,5 g/l
Corn starch ..... 1,5 g/l
pH value ..... 7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
X927.1	500 g	plastic	160,20
Original pack 6 x 500 g			152,19/500 g

Mueller Kauffmann Broth (Base)

Tetrathionate Enrichment Broth · Tetrathionate Broth

D 1,863 g/cm³
WGK 3

Mueller Kauffmann Broth (Base)
for microbiology

For selective enrichment of *Salmonella* from meat and other foods.

Application: Use 82 g for 1 l broth. Add iodine and brilliant green.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Sodium thiosulphate ..... 40,7 g/l
Calcium carbonate ..... 25 g/l
Dehydrated ox bile ..... 4,75 g/l
Sodium chloride (NaCl) ..... 4,5 g/l
Meat peptone ..... 4,5 g/l
Yeast extract ..... 1,8 g/l
Meat extract ..... 0,9 g/l
pH value ..... 7,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
8323.1	500 g	plastic	107,40
Original pack 6 x 500 g			102,03/500 g

MUG
▸ 4-Methylumbelliferyl-β-D-glucuronide dihydrate see page 1091

4-MU-β-D-GalNAc
▸ 4-Methylumbelliferyl-*N*-acetyl-β-D-galactosaminide see page 1090

4-MU-β-D-Gal
▸ 4-Methylumbelliferyl-β-D-galactopyranoside see page 1090

MUGalactoside
▸ 4-Methylumbelliferyl-β-D-galactopyranoside see page 1090

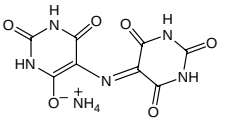
4-MU-α-D-Glc
▸ 4-Methylumbelliferyl-α-D-glucopyranoside see page 1090

4-MU-β-D-Glc
▸ 4-Methylumbelliferyl-β-D-glucopyranoside see page 1090

MUGlucoside
▸ 4-Methylumbelliferyl-β-D-glucopyranoside see page 1090

4-MUP phos, free acid
▸ 4-Methylumbelliferyl phosphate see page 1091

Murexide (C. I. 56085)



Ammonium purpurate

$C_8H_8N_6O_6$ · mp >300 °C
CAS No. 3051-09-0 · EC no. 221-266-6
WGK 1

Murexide (C. I. 56085)
ACS

Indicator

freshly made saturated solution in water

Guarantee analysis
Loss on drying ..... ≤2,0 %
Suitability as indicator for complexometry .. complies

Art. No.	Pack Qty.	Pack.	€
T124.1	5 g	glass	33,25
T124.2	25 g	glass	77,30
T124.3	50 g	glass	127,95

Musculamine
▸ Spermine see page 1305

Musk oil

D 1,05 g/cm³ · mp <-20 °C · flp >100 °C
WGK 2

Warning H317-H412

Musk oil
artificial

Type analysis
Appearance clear, colourless to light yellowish oil
Relative density (20 °C) 1,000-1,100
Refractive index (20 °C) 1,4500-1,4600
Optical rotation (20 °C) ..... -2° to +2°

Art. No.	Pack Qty.	Pack.	€
3364.1	100 ml	glass	51,50

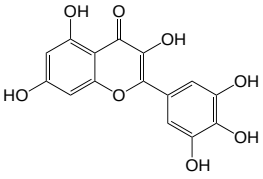
Mycoplasm eradication solution
▸ ROTI®Cell Myco-Free see page 1213

Mycose
▸ D(+)-Trehalose dihydrate see page 1375

Mycostatin
▸ Nystatin dihydrate see page 1116

MYP Agar
▸ Mannitol Egg Yolk Polymyxin Agar (Base) see page 1068

Myricetin



3,3',4',5,5',7-Hexahydroxyflavone · Cannabiscetin

$C_{15}H_{10}O_8$ · mp >300 °C
CAS No. 529-44-2 · EC no. 208-463-2
WGK 1

Myricetin
ROTICHROM® CHR ≥95 %

Storage temperature: +4 °C

Type analysis
Appearance ..... yellow to green powder
Assay (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
6461.1	25 mg	glass	39,25

Myricetin
ROTICHROM® HPLC

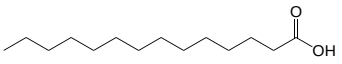
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
4187.2	20 mg	glass	289,20

Myristic acid



Tetradecanoic acid

$C_{14}H_{28}O_2$ · D 0,89 to 0,9 g/cm³ · mp 52 to 56 °C · bp >320 °C · flp >170 °C
CAS No. 544-63-8 · EC no. 208-875-2

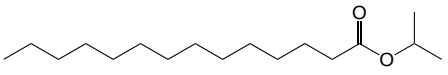
Myristic acid
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (GC) ..... 98-100 %
Acid value (mg KOH/g) 244-248

Art. No.	Pack Qty.	Pack.	€
6469.2	100 g	plastic	15,60
6469.3	500 g	plastic	39,70
Original pack 6 x 500 g			37,72/500 g
6469.1	1 kg	plastic	64,40
Original pack 6 x 1 kg			61,18/1 kg

Myristic acid isopropyl ester



IPM · Isopropyl myristate

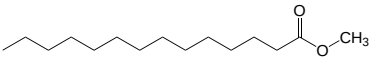
$C_{17}H_{32}O_2$ · D 0,8532 g/cm³ · mp 3 °C · bp 193 °C · flp 150 to 168 °C
CAS No. 110-27-0 · EC no. 203-751-4
WGK awg

Myristic acid isopropyl ester
≥92 %, extra pure

Type analysis
Assay ..... ≥92 %
Saponification value 205-211
Iodine value ..... ≤0,5
Acid value ..... ≤0,1
Viscosity ..... 5-6 mPa s
Relative density (20 °C) 0,850-0,855
Refractive index n_D^{20} 1,4335-1,4355

Art. No.	Pack Qty.	Pack.	€
5527.1	500 ml	glass	42,90
5527.2	1 l	glass	75,15
Original pack 6 x 1 l			71,39/1 l
5527.3	2.5 l	glass	139,65
Original pack 4 x 2.5 l			132,67/2.5 l

Myristic acid methyl ester



Methyl myristate · Methyl tetradecanoate

$C_{15}H_{30}O_2$ · D 0,867 g/cm³ · mp 19 °C · bp 295,9 °C · flp 160,5 °C
CAS No. 124-10-7 · EC no. 204-680-1

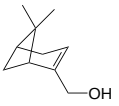
Myristic acid methyl ester
≥99 %

Type analysis
Assay (GC, area %) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
3753.1	50 ml	glass	42,90

Myristyltrimethylammonium bromide
▸ Tetradecyltrimethylammonium bromide (MTAB) see page 1360

(1R)-(–)-Myrtenol



$C_{10}H_{16}O$ · D 0,954 g/cm³ · bp 221 to 222 °C · flp 68 °C
CAS No. 19894-97-4 · EC no. 243-409-1
WGK 1

(1R)-(–)-Myrtenol
≥95 %

Type analysis
Assay (GC) ..... ≥95,0 %
Specific rotation $[\alpha]_D^{20}$ ..... -53° to -49°
Refractive index (20 °C) 1,494-1,498

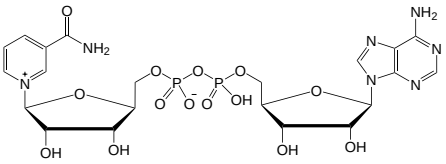
Art. No.	Pack Qty.	Pack.	€
7123.1	10 ml	glass	63,45

Myrtillin
▸ Delphinidin 3-glucoside chloride see page 866

NAA
▸ 1-Naphthyl acetic acid see page 1100

NAC
▸ *N*-Acetyl-L-cysteine see page 701

NAD



β-Nicotine amide adenine dinucleotide · Coenzyme I · DPN · NAD free acid

$C_{21}H_{27}N_7O_{14}P_2$ · mp 140 to 142 °C
CAS No. 53-84-9 · EC no. 200-184-4
WGK 1

NAD
≥95 %, for biochemistry

Storage temperature: +4 °C

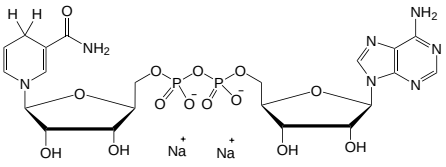
Type analysis
Assay (NAD, HPLC) ..... ≥95 %
β-NAD (Enzyme, 340 nm) ..... ≥94,5 %
Water (KF) ..... ≤3,5 %

Absorbance:
A_{280}/A_{260} 0,20-0,24
A_{250}/A_{260} 0,81-0,85

Art. No.	Pack Qty.	Pack.	€
AE11.1	1 g	glass	37,55
AE11.2	5 g	glass	150,40
AE11.3	10 g	glass	263,40

NAD free acid
▸ NAD see page 1098

NADH disodium salt



ß-Nicotine amide adenine dinucleotide disodium salt · $DPNH_2$-Na_2 · NADH-Na_2

$C_{21}H_{27}N_7O_{14}P_2Na_2$ · mp 140 to 142 °C
CAS No. 606-68-8 · EC no. 210-123-3
WGK 1

NADH disodium salt
≥84 %, for biochemistry

Storage temperature: +4 °C

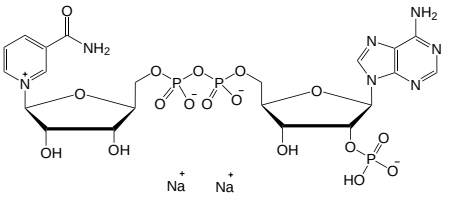
Type analysis
Assay (NADH, enzymatic) ..... ≥84,0 %
Sodium (flame photometry) ..... 6,0-7,0 %
Water (KF) ..... ≤6,0 %

Absorbance:
A_{260}/A_{340} ..... ≤2,40
A_{260}/A_{240} 1,57-2,17

Art. No.	Pack Qty.	Pack.	€
AE12.1	1 g	glass	55,80
AE12.2	5 g	glass	246,20
AE12.3	10 g	glass	446,15

$NADH\text{-}Na_2$
▸ NADH disodium salt see page 1098

NADP disodium salt



ß-Nicotine amideadenine dinucleotide phosphate disodium salt · $NADP\text{-}Na_2$

$C_{21}H_{26}N_7O_{17}P_3Na_2$ · D 1,66 g/cm³
CAS No. 24292-60-2 · EC no. 246-129-8
WGK 1

NADP disodium salt
≥85 %, for biochemistry

Storage temperature: +4 °C

Type analysis
NADP(HPLC) ..... ≥94 area -%
Sodium (flame photometry) ..... 4,0-5,0 %
Water (KF) ..... ≤6,0 %

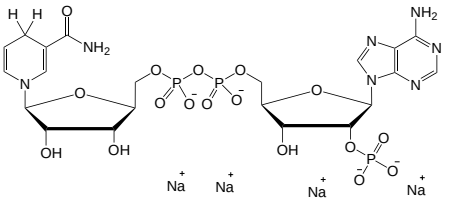
Absorbance:
A_{360} (H_2O) ..... ≤0,6
A_{340} (c=0,01 mg/l buffer, pH 7,0) ..... ≤0,005

Art. No.	Pack Qty.	Pack.	€
AE13.1	250 mg	glass	45,05
AE13.2	500 mg	glass	81,60
AE13.3	1 g	glass	155,90

$NADP\text{-}Na_2$
▸ NADP disodium salt see page 1098

$NADPH\text{-}Na_4$
▸ NADPH tetrasodium salt see page 1098

NADPH tetrasodium salt



ß-Nicotine amide adenine dinucleotide phosphate tetrasodium salt · $NADPH\text{-}Na_4$

$C_{21}H_{26}N_7O_{17}P_3Na_4$
CAS No. 2646-71-1 · EC no. 220-163-3
WGK 1

NADPH tetrasodium salt
≥95 %, for biochemistry

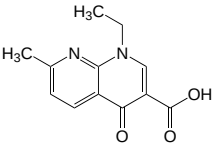
Storage temperature: +4 °C

Type analysis
Assay (NADPH, HPLC) ..... ≥95 %
NADPH (enzyme, 340 nm) ..... ≥79,0 %
Water (KF) ..... ≤6,0 %

Absorbance:
A_{260}/A_{340} 2,32-2,65

Art. No.	Pack Qty.	Pack.	€
AE14.1	100 mg	glass	103,10
AE14.2	250 mg	glass	224,70
AE14.3	500 mg	glass	407,45

Nalidixic acid



1,4-Dihydro-1-ethyl-7-methyl-1,8-naphthyridin-4-on-3-carbolic acid

$C_{12}H_{12}N_2O_3$ · mp 228 to 230 °C
CAS No. 389-08-2 · EC no. 206-864-7
WGK 1

Danger H317-H334

Nalidixic acid
≥99 %, for biochemistry

Quinolon antibiotic

Stock solution: 10 mg/ml in chloroform or toluol.
Storage of stock solution: –20 °C.
Working concentration: 2–200 µg/ml.

Type analysis
Assay ..... ≥98 %

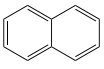
Art. No.	Pack Qty.	Pack.	€
CN32.1	10 g	plastic	22,05
CN32.2	25 g	plastic	44,65
CN32.3	100 g	plastic	130,65

Nanoparticles

Art. No.	Description	Page
8250	Aluminium oxide, nano, ROTI®nanoMETIC, ≥99,9 %, 40 nm	723
8279	Copper, nano, ROTI®nanoMETIC, ≥99 %, ≥80 nm	848
8251	Copper(II) oxide, nano, ROTI®nanoMETIC, ≥99 %, 15–50 nm	850
8256	Cadmium telluride, ROTI®nanoMETIC, λ max. 510 ±5 nm	1194
8257	Cadmium telluride, ROTI®nanoMETIC, λ max. 570 ±5 nm	1195
8258	Cadmium telluride, ROTI®nanoMETIC, λ max. 610 ±5 nm	1195
8260	Cadmium telluride, ROTI®nanoMETIC, λ max. 710 ±5 nm	1195
8261	Cadmium telluride, ROTI®nanoMETIC, λ max. 780 ±5 nm	1195

Art. No.	Description	Page
8609	Zn-Cu-In-S/ZnS, ROTI®nanoMETIC, λ max. 530 ±15 nm	1195
8610	Zn-Cu-In-S/ZnS, ROTI®nanoMETIC, λ max. 560 ±15 nm	1195
8618	Zn-Cu-In-S/ZnS, ROTI®nanoMETIC, λ max. 590 ±15 nm	1195
8614	Zn-Cu-In-S/ZnS, ROTI®nanoMETIC, λ max. 610 ±15 nm	1195
8616	Zn-Cu-In-S/ZnS, ROTI®nanoMETIC, λ max. 650 ±15 nm	1195
8615	Zn-Cu-In-S/ZnS, ROTI®nanoMETIC, λ max. 700 ±15 nm	1195
8254	Titanium(IV) oxide, nano, ROTI®nanoMETIC, ≥99,9 %, 4–8 nm	1371
8278	Zinc oxide, nano, ROTI®nanoMETIC, ≥99 %, 25 nm	1414
1776	Zirconium(IV) oxide, nano, ROTI®nanoMETIC, 3 nm, hydrophobic	1416
2097	Zirconium(IV) oxide, nano, ROTI®nanoMETIC, 3 nm, hydrophilic	1416

Naphthalene



$C_{10}H_8$ · D 1,069 g/cm³ · mp 79 to 82 °C · bp 218,1 °C · flp 78,5 °C
CAS No. 91-20-3 · EC no. 202-049-5
UN no. 1334 · ADR 4.1 III · WGK 3

Warning H228-H302-H351-H410

Naphthalene
≥99 %, for synthesis

Type analysis
Assay ..... ≥99,0 %
Melting range ..... 79-81 °C

Art. No.	Pack Qty.	Pack.	€
6714.1	100 g	plastic	18,20
6714.2	500 g	plastic	39,25
Original pack 6 x 500 g			37,29/500 g
6714.3	1 kg	plastic	64,40
Original pack 6 x 1 kg			61,18/1 kg
6714.4	2.5 kg	plastic	115,60
6714.5	5 kg	plastic	195,15

1-Naphthaleneacetic acid
▸ 1-Naphthyl acetic acid see page 1100

1-Naphthol



1-Hydroxynaphthalene · α-Naphthol

$C_{10}H_8O$ · D 1,28 g/cm³ · mp 95 to 96 °C · bp 278 to 280 °C · flp 125 °C
CAS No. 90-15-3 · EC no. 201-969-4
UN no. 2811 · ADR 6.1 III · WGK 1

Danger H302-H311-H315-H318-H335

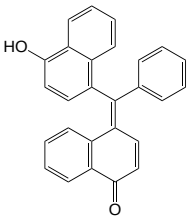
1-Naphthol
≥99 %, p.a.

Reagent for carbohydrates.

Guarantee analysis
Assay (GC) ..... ≥99,0 %
Sulphated ash ..... ≤0,05 %
Chloride (Cl) ..... ≤0,005 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %
Water (KF) ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
KK14.1	50 g	glass	66,55
KK14.2	100 g	glass	114,50

1-Naphtholbenzein



α-Naphtholbenzein · p-Naphtholbenzein · 4,4'-(α-Hydroxybenzylidene)di-1-naphthol

$C_{27}H_{18}O_2$ · mp 243 to 245 °C
CAS No. 145-50-6 · EC no. 205-656-3
WGK 1

1-Naphtholbenzein
extra pure

Indicator pH 8.5-9.8

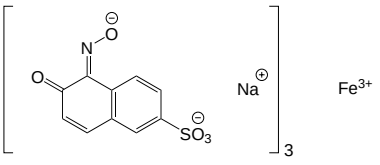
Dissolve 0.1 g in 100 ml 2-propanol

Type analysis
Appearance ... orange red brown to black powder
Maximum absorption ..... 622-626 nm
pH-transition range . 8,5 (yellow)-9,8 (green-blue)

Art. No.	Pack Qty.	Pack.	€
1H56.1	5 g	glass	23,15
1H56.2	10 g	glass	40,35
1H56.3	25 g	glass	80,55

Naphthol blue black
▸ Amido Black 10 B (C.I. 20470) see page 724

Naphthol green B (C.I. 10020)



Acid green 1

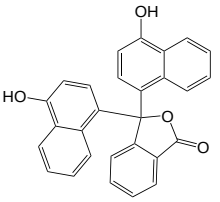
$(C_{10}H_5NNaO_5S)_3Fe$
CAS No. 19381-50-1 · EC no. 243-010-2
WGK 1

Naphthol green B (C.I. 10020)
for microscopy

Type analysis
Appearance ..... dark green powder
Absorption max. (in H_2O) ..... 710-720 nm
Loss on drying (110 °C) ..... ≤15 %

Art. No.	Pack Qty.	Pack.	€
5161.1	25 g	glass	23,55
5161.2	100 g	glass	64,00

1-Naphtholphthalein



α-Naphtholphthalein · 3,3-bis(4-hydroxynaphthalen-1-yl)-2-benzofuran-1-one

$C_{28}H_{18}O_4$ · mp 238 to 240 °C
CAS No. 596-01-0 · EC no. 209-875-5
WGK 1

1-Naphtholphthalein
extra pure

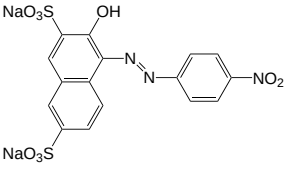
Indicator pH 7.1-8.3

Dissolve 0.1 g in 100 ml ethanol (96 %)

Type analysis
Appearance ..... light pink to beige to red-brown powder
pH-transition range . 7,3 (pink-yellow)-8,7 (green-blue)
Loss on drying (110 °C) ..... ≤5 %

Art. No.	Pack Qty.	Pack.	€
1H5A.1	5 g	glass	34,30
1H5A.2	10 g	glass	57,55
1H5A.3	25 g	glass	102,70

β-Naphthol violet



$C_{16}H_9N_3O_9S_2Na_2$
CAS No. 7143-21-7 · EC no. 230-443-7
WGK 1

β-Naphthol violet
extra pure

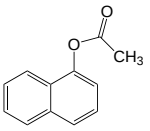
Indicator pH 10-12

Dissolve 0.1 g in 100 ml water

Type analysis
Appearance ..... red brown powder
pH-transition range ..... 10 (brown)-12 (violet)

Art. No.	Pack Qty.	Pack.	€
1H5K.1	10 g	glass	28,95
1H5K.2	25 g	glass	52,15
1H5K.3	50 g	glass	86,55

α-Naphthyl acetate



$C_{12}H_{10}O_2$ · mp 44 to 46 °C · flp >110 °C
CAS No. 830-81-9 · EC no. 212-599-8
WGK 1

Danger H318

α-Naphthyl acetate
≥99 %

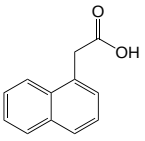
For determination of esterase.

Storage temperature: +4 °C

Type analysis
Appearance ..... almost white, fine crystals
Assay (GC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
8509.1	25 g	plastic	149,45

1-Naphthyl acetic acid



1-Naphthaleneacetic acid · NAA

$C_{12}H_{10}O_2$ · mp 125 to 135 °C
CAS No. 86-87-3 · EC no. 201-705-8
WGK 2

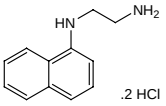
Warning H302-H319-H412

1-Naphthyl acetic acid
≥99 %, p.a.

Type analysis
Appearance ..... white to off-white powder
Assay (acidim., titr.) ..... ≥99,0 %
Melting point ..... 127-132 °C

Art. No.	Pack Qty.	Pack.	€
4343.2	25 g	plastic	26,35
4343.1	100 g	plastic	82,70

N-(1-Naphthyl)-ethylenediamine dihydrochloride



$C_{12}H_{14}N_2$ · 2 HCl · mp 188 to 190 °C
CAS No. 1465-25-4 · EC no. 215-981-2
WGK 1

Warning H315-H319-H335

N-(1-Naphthyl)-ethylenediamine dihydrochloride
≥99 %, p.a.

For the detection of sulphonamide and the determination of nitrite.

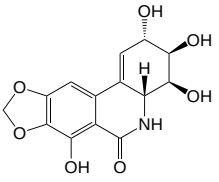
Guarantee analysis
Appearance .. white to light pink to cream colored powder or crystals
Assay (dry substance) ..... ≥98,5 %
Water content (KF) ..... ≤5,0 %
Suitability for the detection of sulphonamide ..... complies

Art. No.	Pack Qty.	Pack.	€
4342.2	10 g	glass	49,35
4342.1	25 g	glass	112,90
4342.3	50 g	glass	209,65

Naramycin A
▸ Cycloheximide see page 858

Narangetol
▸ Naringenin see page 1100

Narciclasine



Lycoricidinol

$C_{14}H_{13}NO_7$ · mp 230 to 235 °C
CAS No. 29477-83-6 · EC no. 687-829-7
UN no. 1544 · ADR 6.1 III · WGK 3

Danger H301-H340

Narciclasine
ROTICHROM® HPLC

Reference substance for HPLC.
From *Narcissus pseudonarcissus*.

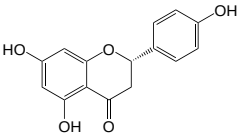
Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
6689.1	10 mg	glass	504,20

Narcisin
▸ Isorhamnetin-3-rutinoside see page 1024

Naringenin



4',5,7-Trihydroxyflavanone · Narangetol · Pelarginadon

$C_{15}H_{12}O_5$ · mp 245 to 250 °C
CAS No. 480-41-1 · EC no. 207-550-2
WGK 1

Warning H315-H319

Naringenin
ROTICHROM® CHR ≥98 %, for biochemistry

Storage temperature: +4 °C

Guarantee analysis
Appearance ..... white to off white powder
Assay (HPLC) ..... ≥98,0 %
Loss on drying ..... ≤2 %

Art. No.	Pack Qty.	Pack.	€
8524.1	2.5 g	glass	89,15

Naringenin
ROTICHROM® HPLC

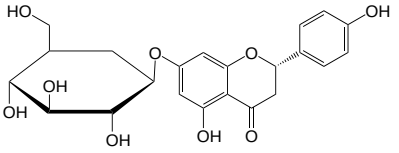
Reference substance for HPLC.
From *Citrus paradisi*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1186.1	50 mg	glass	504,20

Naringenin-7-glucoside



Prunin

$C_{21}H_{22}O_{10}$ · mp 222 to 224 °C
CAS No. 529-55-5 · EC no. 208-464-8
WGK 1

Naringenin-7-glucoside
ROTICHROM® HPLC

Reference substance for HPLC.

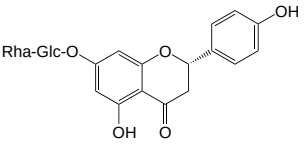
Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
8865.1	10 mg	glass	213,95

Naringenin-7-*O*-rutinoside
▸ Narirutin see page 1101

Naringin



$C_{27}H_{32}O_{14}$ · D 1,411 g/cm³ · mp 171 °C
CAS No. 10236-47-2 · EC no. 233-566-4

Naringin
≥98 %

Storage temperature: +4 °C

Type analysis
Appearance ..... off white to tan powder
Assay ..... ≥98 %
Heavy metals ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
6481.1	10 g	plastic	36,45
6481.2	50 g	plastic	107,40
6481.3	100 g	plastic	198,90

Naringin
ROTICHROM® HPLC

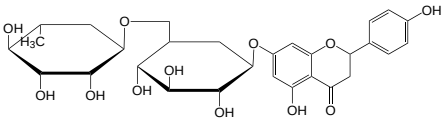
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
4200.2	20 mg	glass	198,90

Narirutin



Naringen*in*-7-*O*-rutinoside

$C_{27}H_{32}O_{14}$
CAS No. 14259-46-2 · EC no. 238-138-0
WGK 1

Narirutin
ROTICHROM® HPLC

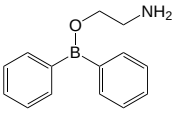
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
5185.2	10 mg	glass	364,45

Natural product reagent A



Diphenylboric acid β-aminoethyl ester complex

$C_{14}H_{16}BNO$ · D 1,17 to 1,2 g/cm³ · mp 190 to 192 °C
CAS No. 524-95-8
WGK 1

Warning H315-H319-H335

Natural product reagent A
≥98 %, p.a.

Biochemical analytical reagent for determination of flavonoids and vegetable acids.

Application: Natural substance-polyethylene glycol reagent (NST/PEG). Spray a 1 % methanol solution of natural substance reagent A and a 5 % ethanol PEG 4000 solution, one after the other onto the TLC-plate (approx. 10 ml and 8 ml). Intensive fluorescent colours will appear immediately or after 15 min in UV-365 nm. Adding PEG will lead to an increase in detection sensitivity (from 10 µg to 2.5 µg). The fluorescence behaviour depends on the structure. The reagent must be freshly prepared before use (1 % in methanol). Spray under the fume hood!

Storage temperature: +4 °C

Type analysis
Appearance ..... white cryst. powder
Assay ..... ≥98 %
Melting point ..... 190-194 °C

Art. No.	Pack Qty.	Pack.	€
9920.1	5 g	plastic	70,45
9920.2	25 g	plastic	192,45
9920.3	50 g	plastic	332,20

Natural Red 28
▸ Orcein see page 1132

NBS
▸ *N*-Bromosuccinimide see page 791

NBT
▸ *p*-Nitrotetrazolium blue chloride see page 1114

NDF solution (neutral detergent solution)

D 1,016 g/cm³ · bp 100 °C
WGK 2

Danger H360FD

NDF solution (neutral detergent solution)
for the determination of the neutral detergent fibre (NDF)

acc. to VDLUFA method book, volume 3.

Art. No.	Pack Qty.	Pack.	€
9943.1	1 l	plastic	123,10
Original pack 6 x 1 l			116,95/1 l
9943.2	5 l	plastic	364,45
Original pack 2 x 5 l			346,23/5 l

Neisser's solutions

D ~1 g/cm³ · bp ~100 °C

Neisser's solution I
for microscopy

Solution for diphtheria staining acc. to Neisser.

Neisser's solution Ia · Methylene blue solution 0,1 % acidic

Methylene blue solution 0.1 %

WGK 1

Art. No.	Pack Qty.	Pack.	€
3463.1	100 ml	glass	26,35
3463.2	500 ml	glass	52,60

Neisser's solution II
for microscopy

Solution for diphtheria staining acc. to Neisser.

Crystal violet solution · Neisser's solution Ib

Crystal Violet solution

WGK 3

Warning H371-H412

Art. No.	Pack Qty.	Pack.	€
3464.1	100 ml	glass	26,35
3464.2	500 ml	glass	52,60

Neisser's solution III
for microscopy

Solution for diphtheria staining acc. to Neisser.

Chrysoidine solution

Chrysoidin solution

WGK 2

Warning H371-H412

Art. No.	Pack Qty.	Pack.	€
3466.1	100 ml	glass	26,35
3466.2	500 ml	glass	52,60

Neodymium Standards
▸ Neodymium ICP Standard Solution see page 1319
▸ Neodymium ICP Standard Solution see page 1319

Neodymium(III) acetate hydrate

$Nd(CH_3CO_2)_3$ · x H_2O · D 2,264 g/cm³ · mp 287 °C
CAS No. 6192-13-8 · EC no. 228-244-5
WGK 1

Neodymium(III) acetate hydrate
ROTI®REMETIC 99,9 %

Type analysis
Assay (TREO*) ..... 99,9 %

*Total rare earth oxide.
Chemical analysis (ICP, AAS): specified trace impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
7107.1	50 g	plastic	117,20
7107.2	100 g	plastic	203,20

Neodymium(III) nitrate hexahydrate

$Nd(NO_3)_3$ · 6 H_2O · mp 69 to 71 °C
CAS No. 16454-60-7 · EC no. 677-724-4
UN no. 1477 · ADR 5.1 III · WGK 1

Warning H272-H315-H319-H335

Neodymium(III) nitrate hexahydrate
ROTI®REMETIC 99,9 %

Type analysis
Assay (TREO*) ..... 99,9 %

*Total rare earth oxide.
Chemical analysis (ICP, AAS): specified trace impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
7097.1	25 g	plastic	83,75
7097.2	100 g	plastic	192,45

Neodymium(III) oxide

Dineodym trioxide

Nd_2O_3 · D 7,24 g/cm³ · mp 2272 °C
CAS No. 1313-97-9 · EC no. 215-214-1
WGK 1

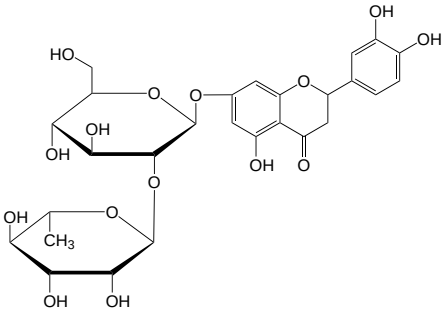
Neodymium(III) oxide
ROTI®REMETIC 99,999 %

Type analysis
Assay (TREO*) ..... 99,999 %

*Total rare earth oxide.
Chemical analysis (ICP, AAS): specified trace impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
7092.2	25 g	plastic	235,45

Neoeriocitrin



Eriodictyol-7-neohesperidoside

$C_{27}H_{32}O_{15}$
CAS No. 13241-32-2 · EC no. 236-215-3
WGK 1

Neoeriocitrin
ROTICHROM® HPLC

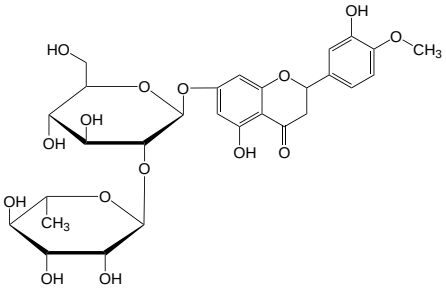
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
4206.1	10 mg	glass	403,15

Neohesperidin



$C_{28}H_{34}O_{15}$ · D 1,447 g/cm³ · mp 245,3 °C
CAS No. 13241-33-3 · EC no. 236-216-9
WGK 1

Neohesperidin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
6767.1	10 mg	glass	299,95

Neomycin sulphate
▸ Neomycin sulphate see page 1102

Neomycin

Neomycin sulphate

$C_{23}H_{46}N_6O_{13} \cdot 3\ H_2SO_4$
CAS No. 1405-10-3 · EC no. 215-773-1
WGK 1

Danger H317-H334

Neomycin sulphate
≥600 µg/mg, for biochemistry

Inhibitor for protein biosynthesis, aminoglycoside antibiotic.

Main component: Neomycin B
Stock solution: e.g. 100 mg/ml in H_2O
Storage of stock solution: –20 °C
Working concentration: variable

Storage temperature: +4 °C

Type analysis
Assay (microbiol. activity) ..... ≥600 µg/mg
Specific rotation $[\alpha]_D^{20}$ ..... +53,0° to +59,0°
pH value (10 % in H_2O) 5,0-7,5
Sulphated ash ..... ≤1,0 %
Water content ..... ≤8,0 %

Art. No.	Pack Qty.	Pack.	€
8668.1	10 g	plastic	19,90
8668.2	100 g	plastic	92,35

Neopentyl glycol
▸ 2,2-Dimethyl-1,3-propanediol see page 889

NEP
▸ *N*-Ethyl-2-pyrrolidone (NEP) see page 926

Neptune black
▸ Sudan black B (C. I. 26150) see page 1344

Nessler's Reagent

Potassium tetraiodomercurate(II) · Potassium mercuric iodide

$K_2[HgI_4]$ · D 1,16 g/cm³
CAS No. 7783-33-7 · EC no. 231-990-4
UN no. 2922 · ADR 8 (6.1) II · WGK 2

Danger H290-H301+H311-H314-H332-H373-H412

Nessler's Reagent
for ammonium determination

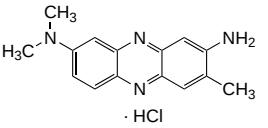
Type analysis
Suitability for determination of ammonium .. complies

Art. No.	Pack Qty.	Pack.	€
8132.1	100 ml	plastic	43,55

Neuridine
▸ Spermine see page 1305

Neutral acriflavine
▸ Trypaflavine see page 1384

Neutral red (C.I. 50040)



Toluylene red

$C_{15}H_{17}ClN_4$ · mp 290 °C
CAS No. 553-24-2 · EC no. 209-035-8
WGK 1

Neutral red (C.I. 50040)
p.a.

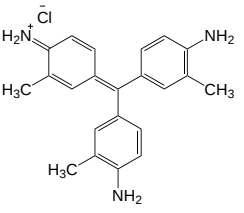
Indicator pH 6,8-8,0

Dissolve 0.3 g in 100 ml of ethanol (70 %)

Type analysis
Appearance of solution ..... clear red
pH-transition range ..... 6,8 (red)- 8,0 yellow)
Maximum absorption ..... 528-558 nm
Suitability for microscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
T122.2	1 g	glass	30,00
T122.1	10 g	glass	90,85
T122.3	25 g	glass	181,70

New fuchsin



Basic violet 2 · Magenta III

$C_{22}H_{24}ClN_3$ · D 0,541 g/cm³ · mp 225 to 228 °C · bp >300 °C · flp 268 °C
CAS No. 3248-91-7
WGK 1

Warning H315-H319-H335-H351

New fuchsin (C. I. 42520)
extra pure

Dye and detection reagent for aldehydes

Dissolve 0.1 g in 100 ml water

EC no. 221-831-7

Type analysis
Appearance ..... green to dark green powder
Maximum absorption ..... 548-558 nm

Art. No.	Pack Qty.	Pack.	€
1H5E.1	25 g	glass	28,95
1H5E.2	50 g	glass	46,15
1H5E.3	100 g	glass	75,15

NHS
▸ *N*-Hydroxysuccinimide see page 1001

Niacin

▸ Nicotinic acid see page 1105

Nickel

CAS No. 7440-02-0 · EC no. 231-111-4

Nickel foil
99,99 % (4N)

Foil 50 mm long, 25 mm wide, 0,25 mm thick.

Ni · D 8,9 g/cm³ · mp 1453 °C · bp 2832 °C

WGK 2

Danger H317-H351-H372

Type analysis

Purity ..... 99,99 %

Art. No.	Pack Qty.	Pack.	€
0529.1	1 unit(s)	plastic	112,35
0529.2	5 unit(s)	plastic	493,45

Nickel powder
ROTI®METIC 99,995 % (4N5)

Catalyst

Ni · D 8,9 g/cm³ · mp 1455 °C · bp 2832 °C

WGK 1

Danger H317-H351-H372-H412

Type analysis

Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5643.1	25 g	plastic	104,20
5643.2	100 g	plastic	328,45

Nickel powder
≥99 %, <63 µm

Catalyst

Ni · D 8,9 g/cm³ · mp 1455 °C · bp 2832 °C

WGK 1

Danger H317-H351-H372-H412

Type analysis

Assay (Ni) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
CP22.1	100 g	plastic	37,55

Nickel Standards

▸ Nickel ICP Standard Solution see page 1320
▸ Nickel ICP Standard Solution see page 1319
▸ Nickel AAS Standard Solution see page 1319

Nickel(II) acetate tetrahydrate

$C_4H_6NiO_4 \cdot 4\ H_2O$ · D 1,74 g/cm³ · mp 50 to 110 °C
CAS No. 6018-89-9 · EC no. 611-946-4
UN no. 3077 · ADR 9 III · WGK 3

Danger H302+H332-H317-H334-H341-H350i-H360D-H372-H410

Nickel(II) acetate tetrahydrate
≥97,5 %, extra pure

Type analysis

Assay ..... ≥97,5 %
Chloride (Cl) ..... ≤0,01 %
Ca (Calcium) ..... ≤0,01 %
Cu (Copper) ..... ≤0,001 %
Fe (Iron) ..... ≤0,005 %
Mg (Magnesium) ..... ≤0,005 %
Mn (Manganese) ..... ≤0,001 %
Pb (Lead) ..... ≤0,0005 %
Zn (Zinc) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
3274.1	100 g	plastic	21,40
3274.2	500 g	plastic	58,60
Original pack 6 x 500 g			55,67/500 g
3274.3	1 kg	plastic	104,85
Original pack 6 x 1 kg			99,61/1 kg
3274.4	2.5 kg	plastic	223,10

Nickel agarose beads

▸ ROTI®Garose-His/Ni HPBeads see page 1224
▸ ROTI®Garose-His/Ni HPBeads plus see page 1224
▸ ROTI®Garose-His/Ni NTA-Cartridges see page 1225
▸ ROTI®Garose-His/Ni NTA-Beads see page 1225
▸ ROTI®Garose-His/Ni Beads see page 1224
▸ ROTI®Garose-His/Ni Columns see page 1225
▸ ROTI®Garose-His/Ni NTA-HPBeads see page 1225
▸ ROTI®Garose-His/Ni HPCartridges see page 1225

Nickel-aluminium alloy

Aluminium-nickel alloy

Ni:Al · D 4,3 g/cm³ · mp 1460 °C
CAS No. 12635-29-9
UN no. 1396 · ADR 4.3 III · WGK 2

Danger H261-H317-H351-H372-H412

Nickel-aluminium alloy
50/50 % Ni/Al, for synthesis, powder

For the production of Raney® nickel.

Guarantee analysis

Appearance ..... grey to grey black cryst. powder
Aluminium (Al) ..... 47,0-52,0 %
Nickel (Ni) ..... 48,0-53,0 %
Particle size ..... 100-160 mesh

Art. No.	Pack Qty.	Pack.	€
0663.1	50 g	plastic	32,15
0663.2	250 g	plastic	120,95
0663.3	500 g	plastic	224,70
Original pack 6 x 500 g			213,47/500 g

Nickel(II) bromide hydrate

$NiBr_2 \cdot x\ H_2O$ · mp 300 °C
CAS No. 207569-11-7
UN no. 3077 · ADR 9 III · WGK 3

Danger H317-H334-H341-H350-H360D-H372-H410

Nickel(II) bromide hydrate
pure

Type analysis

Appearance ..... yellow to green crystals
Nickel (Ni) ..... 19,0-23,0 %

Art. No.	Pack Qty.	Pack.	€
8680.2	25 g	plastic	85,90

Nickel charged IMAC columns

▸ ROTI®Garose-His/Ni HPCartridges see page 1225
▸ ROTI®Garose-His/Ni Columns see page 1225

Nickel(II) chloride hexahydrate

Chlornickel · Nickelous chloride

$NiCl_2 \cdot 6\ H_2O$ · D 1,92 g/cm³ · mp 1000 °C
CAS No. 7791-20-0 · EC no. 231-743-0
UN no. 3288 · ADR 6.1 III · WGK 3

Danger H301+H331-H315-H317-H334-H341-H350i-H360D-H372-H410

Nickel(II) chloride hexahydrate
ROTI®METIC 99,999 % (5N)

Type analysis

Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5373.1	50 g	plastic	446,15

Nickel(II) chloride hexahydrate
≥98 %, p.a.

Guarantee analysis

Assay (compl.) ..... ≥98 %
pH value (5 % solution 25 °C) 4,0-7,0
Sulphate (SO_4) ..... ≤0,005 %
Lead (Pb) ..... ≤0,001%
Sodium (Na) ..... ≤0,005 %
Magnesium (Mg) ..... ≤0,001 %
Cadmium (Cd) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,002%
Cobalt (Co) ..... ≤0,01 %
Copper (Cu) ..... ≤0,001 %
Zinc (Zn) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
4489.1	100 g	plastic	58,60
4489.2	250 g	plastic	117,20

Nickel(II) chloride hexahydrate
≥97 %, extra pure

Type analysis

Assay ..... ≥97,0 %
Arsenic (As) ..... ≤0,001 %
Lead (Pb) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,001 %
Copper (Cu) ..... ≤0,001 %
Zinc (Zn) ..... ≤0,0005 %
In water insoluble matter ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
7312.1	250 g	plastic	28,95
7312.2	500 g	plastic	49,35
Original pack 6 x 500 g			46,88/500 g
7312.3	1 kg	plastic	87,65
Original pack 6 x 1 kg			83,27/1 kg
7312.4	2.5 kg	plastic	188,15

Nickel matrix modifier

▸ Nickel nitrate matrix modifier solution see page 1070

Nickel monoxide

▸ Nickel(II) oxide see page 1104

Nickel(II) nitrate hexahydrate

$Ni(NO_3)_2 \cdot 6\ H_2O$ · D 2,05 g/cm³ · mp 56 to 57 °C · bp 136 to 137 °C
CAS No. 13478-00-7 · EC no. 236-068-5
UN no. 2725 · ADR 5.1 III · WGK 3

Danger H272-H302+H332-H315-H317-H318-H334-H341-H350i-H360D-H372-H410

Nickel(II) nitrate hexahydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5387.1	100 g	plastic	298,35
5387.2	500 g	plastic	998,70
Original pack 6 x 500 g			948,77/500 g

Nickel(II) nitrate hexahydrate
≥99 %, p.a.

For manufacturing of Ni/Cd batteries.

Guarantee analysis
Assay (compl.) ..... ≥99 %
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,002 %
Sulphate (SO_4) ..... ≤0,01 %
Ammonium (NH_4) ..... ≤0,5 %
Lead (Pb) ..... ≤0,003 %
Cadmium (Cd) ..... ≤0,002 %
Calcium (Ca) ..... ≤0,1 %
Iron (Fe) ..... ≤0,002 %
Cobalt (Co) ..... ≤0,001 %
Copper (Cu) ..... ≤0,005 %
Zinc (Zn) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
4395.1	100 g	plastic	37,10
4395.2	250 g	plastic	75,15
4395.3	500 g	plastic	138,70
Original pack 6 x 500 g			131,77/500 g

Nickel(II) nitrate hexahydrate
≥98 %, extra pure

Type analysis
Assay ..... ≥98,0 %
pH (5 % H_2O, 25 °C) 4,0-6,5
Chloride (Cl) ..... ≤0,01 %
Co (Cobalt) ..... ≤0,05 %
Cr (Chrom) ..... ≤0,001 %
Copper (Cu) ..... ≤0,005 %
Iron (Fe) ..... ≤0,005 %
Ni (Nickel) ..... ≥19,8 %

Art. No.	Pack Qty.	Pack.	€
0337.1	100 g	plastic	23,55
0337.2	500 g	plastic	88,05
Original pack 6 x 500 g			83,65/500 g
0337.3	1 kg	plastic	162,90
Original pack 6 x 1 kg			154,76/1 kg
0337.4	2.5 kg	plastic	327,90

Nickel nitrate matrix modifier solution

▸ Nickel nitrate matrix modifier solution see page 1070

Nickelous chloride

▸ Nickel(II) chloride hexahydrate see page 1103

Nickel(II) oxide

Nickel monoxide · Oxonickel

NiO · D 6,72 g/cm³ · mp 1955 °C
CAS No. 1313-99-1 · EC no. 215-215-7
WGK 1

Danger H317-H350i-H372-H413

Nickel(II) oxide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5388.1	50 g	plastic	303,70
5388.2	100 g	plastic	557,95

Nickel(II) oxide
≥78 % Ni, p.a., green, 325 mesh

Guarantee analysis
Appearance ..... green powder
Assay (Ni) ..... ≥78 %
Aluminium (Al) ..... ≤0,05 %
Iron (Fe) ..... ≤0,1 %
Cobalt (Co) ..... ≤0,1 %
Copper (Cu) ..... ≤0,05 %
Manganese (Mn) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
9996.1	100 g	plastic	28,95
9996.2	500 g	plastic	82,25
Original pack 6 x 500 g			78,14/500 g
9996.3	1 kg	plastic	140,30
Original pack 6 x 1 kg			133,29/1 kg

Nickel(II) oxide
≥75 % Ni, p.a., black, 400 mesh

Guarantee analysis
Appearance ..... black powder
Assay (Ni) ..... ≥75,0 %
Iron (Fe) ..... ≤0,01 %
Cobalt (Co) ..... ≤0,05 %
Copper (Cu) ..... ≤0,01 %
Manganese (Mn) ..... ≤0,01 %

Particle size:
<37 µm ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
9925.1	100 g	plastic	28,95
9925.2	500 g	plastic	82,25
Original pack 6 x 500 g			78,14/500 g
9925.3	1 kg	plastic	140,30
Original pack 6 x 1 kg			133,29/1 kg

Nickel(II) sulphate hexahydrate

$NiSO_4 \cdot 6\ H_2O$ · D 2,07 g/cm³ · mp ≥53 °C
CAS No. 10101-97-0 · EC no. 600-152-3
UN no. 3077 · ADR 9 III · WGK 3

Danger H302+H332-H315-H317-H334-H341-H350i-H360D-H372-H410

Nickel(II) sulphate hexahydrate
≥98 %, extra pure

Type analysis
Assay ..... ≥98,0 %
Lead (Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
Copper (Cu) ..... ≤0,001 %

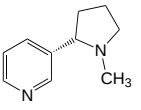
Art. No.	Pack Qty.	Pack.	€
7322.1	250 g	plastic	34,30
7322.2	500 g	plastic	53,65
Original pack 6 x 500 g			50,97/500 g
7322.3	1 kg	plastic	96,65
Original pack 6 x 1 kg			91,82/1 kg
7322.4	2.5 kg	plastic	209,65
7322.5	25 kg	plastic	

Nickel(II) sulphate hexahydrate
≥99 %, p.a., ACS

Guarantee analysis
Assay (compl.) ..... ≥99,0 %
In H_2O insoluble matter ..... ≤0,005 %
Total nitrogen (as N) ..... ≤0,002 %
Chloride (Cl) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,01 %
Cobalt (Co) ..... ≤0,002 %
Copper (Cu) ..... ≤0,005 %
Magnesium (Mg) ..... ≤0,005 %
Manganese (Mn) ..... ≤0,002 %
Sodium (Na) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
T111.1	250 g	plastic	83,75
T111.2	1 kg	plastic	289,20
Original pack 6 x 1 kg			274,74/1 kg

(–)-Nicotine



$C_{10}H_{14}N_2$ · D 1,01 g/cm³ · mp -79 °C · bp 248,8 °C · flp 111 °C
CAS No. 54-11-5 · EC no. 200-193-3
UN no. 1654 · ADR 6.1 II · WGK 3

Danger H300+H310+H330-H411

(–)-Nicotine
≥99 %, for biochemistry

Type analysis
Assay (GC) ..... ≥99 %
Specific rotation $[\alpha]_D^{20}$ ..... -164° to -168°

Art. No.	Pack Qty.	Pack.	€
8746.1	10 g	glass	36,45

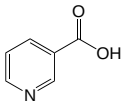
β-Nicotine amide adenine dinucleotide
▸ NAD see page 1098

ß-Nicotine amide adenine dinucleotide disodium salt
▸ NADH disodium salt see page 1098

ß-Nicotine amideadenine dinucleotide phosphate disodium salt
▸ NADP disodium salt see page 1098

ß-Nicotine amide adenine dinucleotide phosphate tetrasodium salt
▸ NADPH tetrasodium salt see page 1098

Nicotinic acid



3-Pyridine carboxylic acid · Niacin · Vitamin B_3

$C_6H_5NO_2$ · D 1,473 g/cm³ · mp 236,6 °C · flp 130,7 °C
CAS No. 59-67-6 · EC no. 200-441-0
WGK 1

Warning H319

Nicotinic acid
≥99,5 %, for biochemistry

Type analysis
Appearance ..... white to off white cryst. powder
Assay ..... ≥99,5 %
Chloride (Cl) ..... ≤0,02 %
Heavy metals ..... ≤0,005 %
Loss on drying (105 °C, 1 h) ..... ≤1,0 %
Sulphated ash ..... ≤0,1 %
Melting temperature ..... 234-240 °C

Art. No.	Pack Qty.	Pack.	€
3815.1	100 g	plastic	44,65
3815.2	250 g	plastic	89,15

Nigrosin, soluble in alcohol (C.I. 50415)

CAS No. 11099-03-9
WGK 1

Nigrosin, soluble in alcohol (C.I. 50415)
extra pure

Type analysis
Appearance ..... black powder

Art. No.	Pack Qty.	Pack.	€
7716.1	5 g	glass	18,85
7716.2	25 g	glass	33,25
7716.3	100 g	glass	80,55

Nigrosin, water soluble (C.I. 50420)

Acid black 2

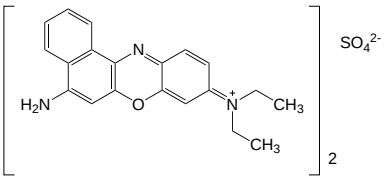
CAS No. 8005-03-6
WGK 1

Nigrosin, water soluble (C.I. 50420)
for microscopy

Type analysis
Appearance ..... black powder
Appearance of solution (0,1 % in H_2O) .... black to purple

Art. No.	Pack Qty.	Pack.	€
7718.1	25 g	glass	18,85
7718.2	100 g	glass	46,80

Nile blue A (C.I. 51180)



Nile blue sulphate

$C_{40}H_{40}N_6O_8S$ · mp >300 °C
CAS No. 3625-57-8 · EC no. 222-832-5
WGK 1

Nile blue A (C.I. 51180)
~80 %

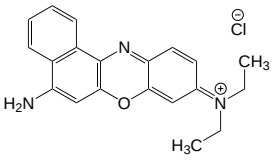
Redox indicator

Dissolve 0.1 g in 100 ml of water

Type analysis
Appearance ..... dark green powder
Dye content ..... ~80 %
Suitability for microscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
4377.2	5 g	glass	22,50
4377.1	10 g	glass	36,05
4377.3	25 g	glass	69,80

Nile blue chloride (C.I. 51180)



$C_{20}H_{20}ClN_3O$
CAS No. 2381-85-3
WGK 1

Nile blue chloride (C.I. 51180)
extra pure

Indicator pH 9,4-11,0

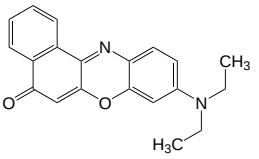
Dissolve 0.1 g in 100 ml ethanol or water

Type analysis
Appearance ..... dark green to black powder
Solubility (0,2 % in H_2O) ..... clear, blue solution
Loss on drying (1 h, 110 °C) ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
7723.1	5 g	glass	33,25
7723.2	25 g	glass	96,25
7723.3	100 g	glass	263,40

Nile blue sulphate
▸ Nile blue A (C.I. 51180) see page 1105

Nile red



$C_{20}H_{18}N_2O_2$ · mp 203 to 205 °C
CAS No. 7385-67-3
WGK 1

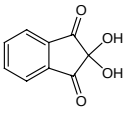
Nile red
extra pure

Fluorescent dye

Type analysis
Appearance ..... brown to green cryst. powder

Art. No.	Pack Qty.	Pack.	€
7726.1	1 g	glass	51,50
7726.2	5 g	glass	203,20
7726.3	10 g	glass	385,95

Ninhydrin



2,2-Dihydroxy-1,3-indanedione · Indantrione-hydrate

$C_9H_6O_4$ · mp 250 °C
CAS No. 485-47-2 · EC no. 207-618-1
WGK 1

Warning H302-H315-H319-H335

Ninhydrin
≥99 %, p.a., ACS

For the detection of amino acids.

Guarantee analysis
Appearance ... yellowish crystals or cryst. powder
Assay ..... ≥99,0 %
Solubility (0,1 g/10 ml H_2O) ..... conforms to ACS
Loss on drying (105 °C) ..... ≤11,0 %
Melting point ..... conforms to ACS
Sensitivity ..... conforms to ACS

Application: 0.1 % in ethanol for determination of amino acids in chromatography.

Art. No.	Pack Qty.	Pack.	€
4378.1	25 g	glass	51,50
4378.2	100 g	glass	131,70
4378.3	500 g	glass	504,20
Original pack 6 x 500 g			478,99/500 g

Ninhydrin spray solution

Ninhydrin spray solution
for TLC

Ready-to-use spray solution for detection of amino acids, amines and amino sugars.
0,5 g Ninhydrin dissolved in 100 ml ethanol.

D 0,82 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C

Storage temperature: +4 °C

UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

Type analysis
TLC-application ..... complies

Art. No.	Pack Qty.	Pack.	€
CP30.1	100 ml	glass	42,90

Niobium Standards
- Niobium ICP Standard Solution see page 1320
- Niobium ICP Standard Solution see page 1320

Niobium(V) oxide

Nb_2O_5 · D 4,6 g/cm³ · mp 1512 °C
CAS No. 1313-96-8 · EC no. 215-213-6

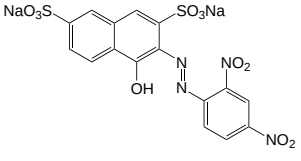
Niobium(V) oxide
≥99,9 %

Type analysis
Appearance ..... white powder
Assay ..... ≥99,9 %
Loss on ignition ..... ≤0,4 %
Iron (Fe) ..... ≤0,003 %
Nickel (Ni) ..... ≤0,002 %
Silicon (Si) ..... ≤0,003 %
Tantal (Ta) ..... ≤0,015 %
Titanium (Ti) ..... ≤0,0002 %
Tungsten (W) ..... ≤0,0005 %
Zirconium (Zr) ..... ≤0,0002 %

Art. No.	Pack Qty.	Pack.	€
4381.1	50 g	plastic	127,95
4381.2	250 g	plastic	532,15

Nitrate Standards
- Nitrate IC Standard Solution see page 1335

Nitrazine yellow (C.I. 14890)



$C_{16}H_8N_4Na_2O_{11}S_2$
CAS No. 5423-07-4
WGK 1

Nitrazine yellow (C.I. 14890)
p.a.

Indicator pH 6,0-7,2

Dissolve 0.1 g in 100 ml water

Type analysis
Appearance ..... brown to orange powder
Appearance of solution (0,1 % in H_2O) ..... clear, yellow to brown
pH-transition range ..... 6,0 (yellow)-7,2 (blue)

Art. No.	Pack Qty.	Pack.	€
7727.1	1 g	glass	24,20
7727.2	5 g	glass	88,70
7727.3	10 g	glass	166,65

Nitric acid

CAS No. 7697-37-2 · EC no. 231-714-2

Nitric acid Ultra-quality

Nitric acid
ROTIPURAN®Ultra 69 %

Extra highpure acid (ppt quality) for sample preparation in ultra trace analysis.

HNO_3 · D 1,39 to 1,41 g/cm³ · mp -38 °C · bp 120 to 121 °C

UN no. 2031 · ADR 8 (5.1) II · WGK 1

Danger H272-H290-H314-H331-EUH071

Guarantee analysis
Assay (w/w) ..... 67-69 %
Aluminium (Al) ..... ≤20 ppt
Antimony (Sb) ..... ≤10 ppt
Arsenic (As) ..... ≤20 ppt
Barium (Ba) ..... ≤10 ppt
Beryllium (Be) ..... ≤10 ppt
Lead (Pb) ..... ≤10 ppt
Boron (B) ..... ≤10 ppt
Cadmium (Cd) ..... ≤10 ppt
Cesium (Cs) ..... ≤10 ppt
Calcium (Ca) ..... ≤10 ppt
Cerium (Ce) ..... ≤10 ppt
Chromium (Cr) ..... ≤10 ppt
Dysprosium (Dy) ..... ≤1 ppt
Iron (Fe) ..... ≤10 ppt
Erbium (Er) ..... ≤1 ppt
Europium (Eu) ..... ≤1 ppt
Gadolinium (Gd) ..... ≤1 ppt
Gallium (Ga) ..... ≤10 ppt
Germanium (Ge) ..... ≤10 ppt
Gold (Au) ..... ≤20 ppt
Hafnium (Hf) ..... ≤10 ppt
Holmium (Ho) ..... ≤1 ppt
Indium (In) ..... ≤1 ppt
Potassium (K) ..... ≤10 ppt
Cobalt (Co) ..... ≤10 ppt
Copper (Cu) ..... ≤10 ppt
Lanthanum (La) ..... ≤1 ppt
Lithium (Li) ..... ≤10 ppt
Lutetium (Lu) ..... ≤1 ppt
Magnesium (Mg) ..... ≤10 ppt
Manganese (Mn) ..... ≤10 ppt
Molybdenum (Mo) ..... ≤10 ppt
Sodium (Na) ..... ≤10 ppt
Neodymium (Nd) ..... ≤1 ppt
Nickel (Ni) ..... ≤20 ppt
Niobium (Nb) ..... ≤1 ppt
Palladium (Pd) ..... ≤20 ppt
Platinum (Pt) ..... ≤20 ppt
Praseodymium (Pr) ..... ≤1 ppt
Mercury (Hg) ..... ≤50 ppt
Rhenium (Re) ..... ≤10 ppt
Rhodium (Rh) ..... ≤10 ppt
Rubidium (Rb) ..... ≤10 ppt
Ruthenium (Ru) ..... ≤20 ppt
Samarium (Sm) ..... ≤1 ppt
Scandium (Sc) ..... ≤10 ppt
Silver (Ag) ..... ≤10 ppt
Strontium (Sr) ..... ≤10 ppt
Tellur (Te) ..... ≤1 ppt
Terbium (Tb) ..... ≤1 ppt
Thallium (Tl) ..... ≤10 ppt
Thorium (Th) ..... ≤1 ppt
Thulium (Tm) ..... ≤1 ppt
Titanium (Ti) ..... ≤10 ppt
Uranium (U) ..... ≤1 ppt
Vanadium (V) ..... ≤10 ppt
Bismuth (Bi) ..... ≤10 ppt
Tungsten (W) ..... ≤10 ppt
Ytterbium (Yb) ..... ≤1 ppt
Yttrium (Y) ..... ≤1 ppt
Zinc (Zn) ..... ≤10 ppt
Tin (Sn) ..... ≤20 ppt
Zirconium (Zr) ..... ≤10 ppt

Art. No.	Pack Qty.	Pack.	€
HN60.1	250 ml	plastic (FEP)	489,15
HN60.2	500 ml	plastic (FEP)	686,95
HN60.3	1 l	plastic (FEP)	1.106,20
Original pack 6 x 1 l			1.050,89/1 l
HN60.4	2 l	plastic (FEP)	1.772,70

Nitric acid Supra-quality

Nitric acid
ROTIPURAN®Supra 69 %

Highpure acid (ppb quality) for sample preparation in trace analysis (e.g. using ICP, AAS, Ion chromatography etc.).

HNO_3 · D 1,39 to 1,41 g/cm³ · mp -38 °C · bp 120 to 121 °C

UN no. 2031 · ADR 8 (5.1) II · WGK 1

Danger H272-H290-H314-H331-EUH071

Guarantee analysis
Assay (w/w) ..... 67-69 %
Colour (APHA) ..... ≤10
Chloride (Cl) ..... ≤0,00002 %
Total Phosphorous (P) ..... ≤0,000001 %
Total Sulfur (S) ..... ≤0,00003 %
Aluminium (Al) ..... ≤1 ppb
Antimony (Sb) ..... ≤0,5 ppb
Arsenic (As) ..... ≤0,5 ppb
Barium (Ba) ..... ≤0,1 ppb
Beryllium (Be) ..... ≤0,1 ppb
Lead (Pb) ..... ≤0,1 ppb
Boron (B) ..... ≤1 ppb
Cadmium (Cd) ..... ≤0,5 ppb
Cesium (Cs) ..... ≤0,1 ppb
Calcium (Ca) ..... ≤1 ppb
Cerium (Ce) ..... ≤0,1 ppb
Chromium (Cr) ..... ≤1 ppb
Dysprosium (Dy) ..... ≤0,1 ppb
Iron (Fe) ..... ≤1 ppb
Erbium (Er) ..... ≤0,1 ppb
Europium (Eu) ..... ≤0,1 ppb
Gadolinium (Gd) ..... ≤0,1 ppb
Gallium (Ga) ..... ≤0,1 ppb
Germanium (Ge) ..... ≤0,1 ppb
Gold (Au) ..... ≤0,1 ppb
Hafnium (Hf) ..... ≤0,1 ppb
Holmium (Ho) ..... ≤0,1 ppb
Indium (In) ..... ≤0,1 ppb
Potassium (K) ..... ≤1 ppb
Cobalt (Co) ..... ≤0,5 ppb
Copper (Cu) ..... ≤0,5 ppb
Lanthanum (La) ..... ≤0,1 ppb
Lithium (Li) ..... ≤0,1 ppb
Lutetium (Lu) ..... ≤0,1 ppb
Magnesium (Mg) ..... ≤1 ppb

Manganese (Mn) ..... ≤0,1 ppb
Molybdenum (Mo) ..... ≤0,1 ppb
Sodium (Na) ..... ≤1 ppb
Neodymium (Nd) ..... ≤0,1 ppb
Nickel (Ni) ..... ≤0,5 ppb
Niobium (Nb) ..... ≤0,1 ppb
Palladium (Pd) ..... ≤0,5 ppb
Platinum (Pt) ..... ≤0,5 ppb
Praseodymium (Pr) ..... ≤0,1 ppb
Mercury (Hg) ..... ≤0,1 ppb
Rhenium (Re) ..... ≤0,1 ppb
Rhodium (Rh) ..... ≤0,5 ppb
Rubidium (Rb) ..... ≤0,1 ppb
Ruthenium (Ru) ..... ≤0,5 ppb
Samarium (Sm) ..... ≤0,1 ppb
Scandium (Sc) ..... ≤0,1 ppb
Selenium (Se) ..... ≤1 ppb
Silver (Ag) ..... ≤0,1 ppb
Strontium (Sr) ..... ≤0,1 ppb
Tellur (Te) ..... ≤0,1 ppb
Terbium (Tb) ..... ≤0,1 ppb
Thallium (Tl) ..... ≤0,1 ppb
Thorium (Th) ..... ≤0,1 ppb
Thulium (Tm) ..... ≤0,1 ppb
Titanium (Ti) ..... ≤0,5 ppb
Uranium (U) ..... ≤0,1 ppb
Vanadium (V) ..... ≤0,5 ppb
Bismuth (Bi) ..... ≤0,1 ppb
Tungsten (W) ..... ≤0,1 ppb
Ytterbium (Yb) ..... ≤0,1 ppb
Yttrium (Y) ..... ≤0,1 ppb
Zinc (Zn) ..... ≤0,5 ppb
Tin (Sn) ..... ≤0,5 ppb
Zirconium (Zr) ..... ≤0,1 ppb

Art. No.	Pack Qty.	Pack.	€
HN50.1	500 ml	HDPE	101,60
HN50.2	1 l	HDPE	155,90
Original pack 6 x 1 l			148,11/1 l
HN50.3	2.5 l	HDPE	188,15
Original pack 4 x 2.5 l			178,74/2.5 l

Nitric acid 68 %

Nitric acid
ROTIPURAN® 68–70 %, p.a., ACS, ISO

HNO_3 · D 1,39 to 1,41 g/cm³ · bp 120 to 121 °C

UN no. 2031 · ADR 8 (5.1) II · WGK 1

Danger H272-H290-H314-H331-EUH071

Guarantee analysis
Assay (acidim.) ..... 68,0-70,0 %
Colour (APHA) ..... ≤10
Chloride (Cl) ..... ≤0,00005 %
Ash content (as SO_4) ..... ≤0,0005 %
Nitrite (NO_2) ..... ≤0,0005 %
Phosphate (PO_4) ..... ≤0,0001 %
Sulphate (SO_4) ..... ≤0,0001 %
Heavy metals (as Pb) ..... ≤0,00002 %
Ag (Silver) ..... ≤0,000005 %
Al (Aluminium) ..... ≤0,00005 %
As (Arsenic) ..... ≤0,000001 %
Ba (Barium) ..... ≤0,000005 %
Be (Beryllium) ..... ≤0,000005 %
Bi (Bismuth) ..... ≤0,000005 %
Ca (Calcium) ..... ≤0,00005 %
Cd (Cadmium) ..... ≤0,000005 %
Co (Cobalt) ..... ≤0,000005 %
Cr (Chromium) ..... ≤0,00005 %
Cu (Copper) ..... ≤0,000001 %
Fe (Iron) ..... ≤0,00002 %
K (Potassium) ..... ≤0,00001 %
Li (Lithium) ..... ≤0,000005 %
Mg (Magnesium) ..... ≤0,00001 %
Mn (Manganese) ..... ≤0,000005 %
Mo (Molybdenum) ..... ≤0,000005 %
Na (Sodium) ..... ≤0,00005 %
Pb (Lead) ..... ≤0,00001 %
Ti (Titanium) ..... ≤0,000005 %
Tl (Thallium) ..... ≤0,000005 %
V (Vanadium) ..... ≤0,000005 %
Zn (Zinc) ..... ≤0,000005 %
Zr (Zirkonium) ..... ≤0,000005 %

Art. No.	Pack Qty.	Pack.	€
1C8Y.1	1 l	glass	42,50
Original pack 6 x 1 l			40,38/1 l
1C8Y.2	2.5 l	glass	80,10
Original pack 4 x 2.5 l			76,10/2.5 l

Nitric acid
68 %, extra pure

HNO_3 · D 1,39 to 1,41 g/cm³ · mp -38 °C · bp 120 to 121 °C

UN no. 2031 · ADR 8 (5.1) II · WGK 1

Danger H272-H290-H314-H331-EUH071

Type analysis
Assay ..... 67,5-68,5 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,005 %
Lead (Pb) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %
Ash content ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
2616.1	250 ml	glass	18,20
2616.2	1 l	glass	32,15
Original pack 6 x 1 l			30,54/1 l
2616.3	2.5 l	glass	53,65
Original pack 4 x 2.5 l			50,97/2.5 l

Nitric acid 65 %

Nitric acid
ROTIPURAN® ≥65 %, p.a., ISO, max. 0,005 ppm Hg

Dissolving agent for organic and anorganic samples. For determination of mercury.

HNO_3 · D 1,39 to 1,41 g/cm³ · mp -32 °C · bp 120 to 121 °C

UN no. 2031 · ADR 8 (5.1) II · WGK 1

Danger H272-H290-H314-H331-EUH071

Guarantee analysis
Assay (acidim.) ..... ≥65 %
Chloride (Cl) ..... ≤0,00005 %
Sulphate (SO_4) ..... ≤0,0002 %
Phosphate (PO_4) ..... ≤0,0001 %
Mercury (Hg) ..... ≤0,0000005 %
Silver (Ag) ..... ≤0,000002 %
Aluminium (Al) ..... ≤0,000005 %
Arsenic (As) ..... ≤0,000001 %
Barium (Ba) ..... ≤0,000002 %
Beryllium (Be) ..... ≤0,000002 %
Calcium (Ca) ..... ≤0,00005 %
Cadmium (Cd) ..... ≤0,000001 %
Cobalt (Co) ..... ≤0,000002 %
Chromium (Cr) ..... ≤0,00001 %
Copper (Cu) ..... ≤0,000001 %
Iron (Fe) ..... ≤0,00002 %
Potassium (K) ..... ≤0,00001 %
Lithium (Li) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000001 %
Sodium (Na) ..... ≤0,00005 %
Nickel (Ni) ..... ≤0,000005 %
Lead (Pb) ..... ≤0,000002 %
Strontium (Sr) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,000005 %
Ash content (as SO_4) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
X943.1	1 l	glass	40,75
Original pack 6 x 1 l			38,71/1 l
X943.2	2.5 l	glass	80,10
Original pack 4 x 2.5 l			76,10/2.5 l

Nitric acid
ROTIPURAN® ≥65 %, p.a., ISO

HNO_3 · D 1,39 to 1,41 g/cm³ · mp -32 °C · bp 120 to 121 °C

UN no. 2031 · ADR 8 (5.1) II · WGK 1

Danger H272-H290-H314-H331-EUH071

Guarantee analysis
Assay (acidim.) ..... ≥65,0 %
Heavy metals (as Pb) ..... ≤0,0002 %
Ash content (as SO_4) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,00005 %
Sulphate (SO_4) ..... ≤0,00005 %
Phosphate (PO_4) ..... ≤0,00005 %
Silver (Ag) ..... ≤0,000002 %
Aluminium (Al) ..... ≤0,000005 %
Arsenic (As) ..... ≤0,000001 %
Barium (Ba) ..... ≤0,000005 %
Beryllium (Be) ..... ≤0,000001 %
Bismuth (Bi) ..... ≤0,00001 %
Calcium (Ca) ..... ≤0,00002 %
Cadmium (Cd) ..... ≤0,000002 %
Cobalt (Co) ..... ≤0,000002 %
Chromium (Cr) ..... ≤0,000005 %
Copper (Cu) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00002 %
Germanium (Ge) ..... ≤0,000005 %
Potassium (K) ..... ≤0,00001 %
Lithium (Li) ..... ≤0,000001 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Molybdenum (Mo) ..... ≤0,000002 %
Sodium (Na) ..... ≤0,00005 %
Nickel (Ni) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,000005 %
Titanium (Ti) ..... ≤0,00001 %
Thallium (Tl) ..... ≤0,000005 %
Vanadium (V) ..... ≤0,000005 %
Zinc (Zn) ..... ≤0,00001 %
Zirconium (Zr) ..... ≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
4989.3	250 ml	glass	24,65
4989.1	1 l	glass	44,65
Original pack 6 x 1 l			42,42/1 l
4989.2	2.5 l	glass	91,95
Original pack 4 x 2.5 l			87,35/2.5 l
4989.4	2.5 l	plastic	89,15
Original pack 4 x 2.5 l			84,69/2.5 l

Nitric acid
65 %, pure

HNO_3 · D 1,39 to 1,41 g/cm³ · mp -32 °C · bp 120 to 121 °C

UN no. 2031 · ADR 8 (5.1) II · WGK 1

Danger H272-H290-H314-H331-EUH071

Type analysis
Assay ..... 64,0-66,0 %
Density (20 °C) 1,386-1,395

Art. No.	Pack Qty.	Pack.	€
X898.1	1 l	glass	31,75
Original pack 6 x 1 l			30,16/1 l
X898.2	2.5 l	glass	52,60
Original pack 4 x 2.5 l			49,97/2.5 l

Nitric acid 60 %

Nitric acid
60 %, pure

HNO_3 · D 1,3 to 1,4 g/cm³ · bp 120 °C

UN no. 2031 · ADR 8 II · WGK 1

Danger H290-H314-H331-EUH071

Type analysis

Assay ..... 59,0-61,0 %
Chloride (Cl) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,001 %
Ash content ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
6745.1	1 l	glass	26,80
Original pack 6 x 1 l			25,46/1 l
6745.5	2.5 l	glass	46,15
Original pack 4 x 2.5 l			43,84/2.5 l

Nitric acid 53 %

Nitric acid
53 %, pure

HNO_3 · D 1,3 to 1,4 g/cm³ · bp 118 °C

UN no. 2031 · ADR 8 II · WGK 1

Danger H290-H314-H331-EUH071

Type analysis

Assay ..... 51,5-54,5 %
Density (20 °C) 1,3219-1,3336
Chloride (Cl) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
9274.1	1 l	glass	26,35
Original pack 6 x 1 l			25,03/1 l
9274.3	2.5 l	glass	45,05
Original pack 4 x 2.5 l			42,80/2.5 l
9274.4	5 l	plastic	63,35
Original pack 2 x 5 l			60,18/5 l
9274.2	10 l	plastic	85,90
9274.5	25 l	plastic	181,70

Nitric acid 40 %

Nitric acid
40 %, pure

HNO_3 · D 1,25 g/cm³ · bp 100 °C

UN no. 2031 · ADR 8 II · WGK 1

Danger H290-H314-H331-EUH071

Type analysis

Assay ..... 39,0-41,0 %
Chloride (Cl) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0005 %
Ash ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
6748.1	1 l	glass	23,15
Original pack 6 x 1 l			21,99/1 l
6748.2	5 l	plastic	61,20
Original pack 2 x 5 l			58,14/5 l
6748.3	10 l	plastic	83,75
6748.4	25 l	plastic	177,40

Nitric acid 25 %

Nitric acid
25 %, pure

HNO_3 · D 1,15 g/cm³

UN no. 2031 · ADR 8 II · WGK 1

Danger H290-H314-H332-EUH071

Type analysis

Assay ..... 24,0-26,0 %
Density (20 °C) 1,1404-1,1534
Chloride (Cl) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0005 %
Ash content ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
4339.1	1 l	plastic	22,50
Original pack 6 x 1 l			21,38/1 l
4339.2	5 l	plastic	58,60
Original pack 2 x 5 l			55,67/5 l
4339.3	10 l	plastic	80,10
4339.4	25 l	plastic	163,95

Nitric acid 20 %

Nitric acid
20 %, pure

HNO_3 · D 1,12 g/cm³

UN no. 2031 · ADR 8 II · WGK 1

Danger H290-H314-H332-EUH071

Type analysis

Assay ..... 19,0-21,0 %
Density (20 °C) 1,1088-1,1213
Chloride (Cl) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0003 %
Ash content ..... ≤0,003 %

Art. No.	Pack Qty.	Pack.	€
4337.1	1 l	plastic	21,40
Original pack 6 x 1 l			20,33/1 l
4337.2	2.5 l	plastic	31,75
Original pack 4 x 2.5 l			30,16/2.5 l
4337.3	5 l	plastic	48,95
Original pack 2 x 5 l			46,50/5 l
4337.4	10 l	plastic	66,15

Nitric acid (0.1 N)

Nitric acid
0,1 mol/l – 0,1 N, volumetric standard solution

HNO_3 · D 1 g/cm³ · bp 100 °C

WGK 1

Type analysis

Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
KK73.1	1 l	plastic	25,70
Original pack 6 x 1 l			24,42/1 l

Nitric acid (1 N)

Nitric acid
1 mol/l – 1 N, volumetric standard solution

HNO_3 · D 1,034 g/cm³ · bp 83 °C

UN no. 2031 · ADR 8 II · WGK 1

Danger H290-H314-EUH071

Type analysis

Amount-of-substance conc. (20 °C) ..... 1 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
N070.1	1 l	plastic	27,85
Original pack 6 x 1 l			26,46/1 l

Nitric acid (2 N)

Nitric acid
2 mol/l – 2 N, volumetric standard solution

HNO_3 · D 1,065 g/cm³ · bp 83 °C

UN no. 2031 · ADR 8 II · WGK 1

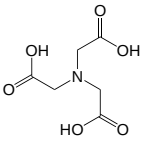
Danger H290-H314-H332-EUH071

Type analysis

Amount-of-substance conc. (20 °C) ..... 2 mol/l ±0,2 %
Titer 0,9980-1,0020

Art. No.	Pack Qty.	Pack.	€
9887.1	500 ml	plastic	34,95
9887.2	1 l	plastic	49,35
Original pack 6 x 1 l			46,88/1 l

Nitrilotriacetic acid



Komplexon® · NTA · Titration complex I · Tris(carboxymethyl)-amine

$C_6H_9NO_6$ · D 1,67 g/cm³ · mp 242 °C · bp 160 °C · flp 100 °C
CAS No. 139-13-9 · EC no. 205-355-7
WGK 2

Warning H319-H351

Nitrilotriacetic acid
≥99 %, p.a., ACS

Guarantee analysis

Assay (titr. NaOH) ..... ≥99,0 %
Appearance of solution ..... clear, colorless
Ash content (as SO_4) ..... ≤0,1 %
Loss on drying ..... ≤0,1 %
Chloride (Cl) ..... ≤0,01 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,001 %
Chromium (Cr) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,002 %
Potassium (K) ..... ≤0,005 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,05 %
Nickel (Ni) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4384.1	100 g	plastic	83,75

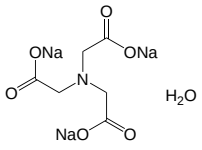
Nitrilotriacetic acid
≥99 %, extra pure

Type analysis

Assay ..... ≥99,0 %
Chloride (Cl) ..... ≤0,01 %
Iron (Fe) ..... ≤0,005 %
Heavy metals ..... ≤0,001 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
8653.1	100 g	plastic	25,70
8653.2	500 g	plastic	81,60
Original pack 6 x 500 g			77,52/500 g
8653.3	1 kg	plastic	149,45
Original pack 6 x 1 kg			141,98/1 kg

Nitrilotriacetic acid trisodium salt monohydrate



NTA-Na_3 · Sodium nitrilotriacetate tribasic monohydrate

$C_6H_6NO_6Na_3 \cdot H_2O$ · D 1,77 g/cm³
CAS No. 18662-53-8 · EC no. 225-768-6
WGK 2

Warning H302-H319-H351

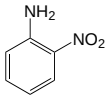
Nitrilotriacetic acid trisodium salt monohydrate
≥99 %, extra pure

Type analysis
Assay ..... ≥99,0 %
pH (2 % solution) 10,5-11,5
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %
Water ..... 6,0-7,0 %

Art. No.	Pack Qty.	Pack.	€
8242.1	100 g	plastic	24,65
8242.2	500 g	plastic	77,30
Original pack 6 x 500 g			73,44/500 g
8242.3	1 kg	plastic	138,70
Original pack 6 x 1 kg			131,77/1 kg
8242.4	2.5 kg	plastic	321,45

Nitrite Standards
▸ Nitrite IC Standard Solution see page 1335

2-Nitroaniline



1-Amino-2-nitrobenzene · *o*-Nitroaniline

$C_6H_6N_2O_2$ · D 0,901 g/cm³ · mp 74 °C · bp 284 °C · flp 167 °C
CAS No. 88-74-4 · EC no. 201-855-4
UN no. 1661 · ADR 6.1 II · WGK 3

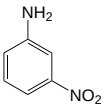
Danger H301+H311+H331-H373-H412

2-Nitroaniline
≥98 %, for synthesis

Type analysis
Assay ..... ≥98,0 %
Melting point ..... 68-71 °C

Art. No.	Pack Qty.	Pack.	€
9878.1	100 g	plastic	21,40
9878.2	500 g	plastic	52,15
Original pack 6 x 500 g			49,54/500 g
9878.3	1 kg	plastic	81,60
Original pack 6 x 1 kg			77,52/1 kg

3-Nitroaniline



1-Amino-3-nitrobenzene · *m*-Nitroaniline

$C_6H_6N_2O_2$ · D 0,9 g/cm³ · mp 109 to 112 °C · bp 306 °C · flp 196 °C
CAS No. 99-09-2 · EC no. 202-729-1
UN no. 1661 · ADR 6.1 II · WGK 3

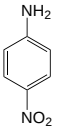
Danger H301+H311+H331-H373-H412

3-Nitroaniline
≥99 %, for synthesis

Type analysis
Assay ..... ≥99,0 %
Melting point ..... 109-112 °C

Art. No.	Pack Qty.	Pack.	€
9867.1	100 g	plastic	23,55
9867.2	500 g	plastic	66,55
Original pack 6 x 500 g			63,22/500 g
9867.3	1 kg	plastic	111,30
Original pack 6 x 1 kg			105,74/1 kg

4-Nitroaniline



1-Amino-4-nitrobenzene · *p*-Nitroaniline

$C_6H_6N_2O_2$ · D 0,951 g/cm³ · mp 158 °C · bp >336 °C · flp 100,8 °C
CAS No. 100-01-6 · EC no. 202-810-1
UN no. 1661 · ADR 6.1 II · WGK 3

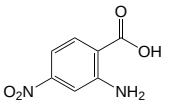
Danger H301+H311+H331-H373-H412

4-Nitroaniline
≥98,5 %, for synthesis

Type analysis
Assay ..... ≥98,5 %
Melting point ..... 146-149 °C
Sulphated ash ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
9850.1	100 g	plastic	28,50
9850.2	500 g	plastic	57,55
Original pack 6 x 500 g			54,67/500 g
9850.3	1 kg	plastic	103,75
Original pack 6 x 1 kg			98,56/1 kg

4-Nitroanthranilic acid



$C_7H_6N_2O_4$ · mp 257 °C
CAS No. 619-17-0 · EC no. 210-583-5
WGK 1

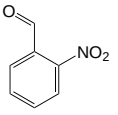
Warning H319-H335

4-Nitroanthranilic acid
≥98 %, for synthesis

Type analysis
Appearance ..... orange powder
Assay (titr.) ..... ≥98,0 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
4543.1	1 g	glass	56,45
4543.2	5 g	glass	109,55

2-Nitrobenzaldehyde



o-Nitrobenzaldehyde

$C_7H_5NO_3$ · mp 42 to 44 °C · bp 153 to 156 °C
CAS No. 552-89-6 · EC no. 209-025-3
WGK 2

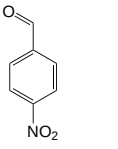
Warning H302-H315-H319-H335

2-Nitrobenzaldehyde
≥98 %, for synthesis

Type analysis
Appearance . yellow to light gold cryst. powder or pieces
Assay ..... ≥98,0 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
4224.1	25 g	plastic	41,40
4224.2	100 g	plastic	85,50
4224.3	250 g	plastic	146,75

4-Nitrobenzaldehyde



p-Nitrobenzaldehyde

$C_7H_5NO_3$ · mp 103 to 106 °C
CAS No. 555-16-8 · EC no. 209-084-5
WGK 1

Warning H315-H317-H319-H335-H412

4-Nitrobenzaldehyde
≥98 %, for synthesis

Type analysis
Appearance ..... yellow to light gold cryst. powder
Assay ..... ≥98,0 %
Loss on drying ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
5667.1	25 g	plastic	33,25
5667.2	100 g	plastic	67,20
5667.3	250 g	plastic	123,55

Nitrobenzene



$C_6H_5NO_2$ · D 1,2 g/cm³ · mp 5,26 °C · bp 210,8 °C · flp 88 °C
CAS No. 98-95-3 · EC no. 202-716-0
UN no. 1662 · ADR 6.1 II · WGK 3

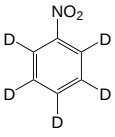
Danger H301+H311+H331-H351-H360F-H372-H412

Nitrobenzene
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99 %
Density (d 20 °C/4 °C) 1,201-1,205
Freezing point ..... 5-6 °C

Art. No.	Pack Qty.	Pack.	€
4394.2	500 ml	glass	40,75
4394.1	1 l	glass	69,80
Original pack 6 x 1 l			66,31/1 l

Nitrobenzene D5



$C_6D_5NO_2$ · D 1,55 g/cm³ · mp 6 °C · bp 210,8 °C · flp 88 °C
CAS No. 4165-60-0 · EC no. 224-014-3
UN no. 1662 · ADR 6.1 II · WGK 3

Danger H301+H311+H331-H351-H360F-H372-H412

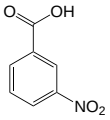
Nitrobenzene D5
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

Type analysis
Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
9914.1	5 ml	glass	99,90
9914.2	10 ml	glass	176,85

3-Nitrobenzoic acid



m-Nitrobenzoic acid · *meta*-Nitrobenzoic acid

$C_7H_5NO_4$ · D 1,49 g/cm³ · mp 139 to 142 °C · flp 190 °C
CAS No. 121-92-6 · EC no. 204-508-5
WGK 1

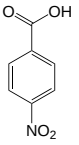
Warning H302-H319

3-Nitrobenzoic acid
≥99 %, for synthesis

Type analysis
Assay (HPLC) ..... ≥99,0 %
Melting point ..... 140-143 °C
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
0445.1	100 g	plastic	18,20
0445.2	500 g	plastic	55,80
Original pack 6 x 500 g			53,01/500 g
0445.3	1 kg	plastic	99,90
Original pack 6 x 1 kg			94,91/1 kg

4-Nitrobenzoic acid



p-Nitrobenzoic acid · *para*-Nitrobenzoic acid

$C_7H_5NO_4$ · D 1,61 g/cm³ · mp ≥239 to ≤242 °C · bp 323,2 °C · flp 237 °C
CAS No. 62-23-7 · EC no. 200-526-2
WGK 1

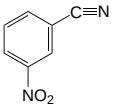
Warning H302-H319

4-Nitrobenzoic acid
≥99,5 %, for synthesis

Type analysis
Assay (acidim.) ..... ≥99,5 %
Melting point ..... 239-242 °C
Water (KF) ..... ≤0,5 %
Ash content ..... ≤0,01 %
Iron (Fe) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
0450.1	100 g	plastic	18,20
0450.2	500 g	plastic	44,65
Original pack 6 x 500 g			42,42/500 g
0450.3	1 kg	plastic	80,10
Original pack 6 x 1 kg			76,10/1 kg

3-Nitrobenzonitrile



3-Cyano-1-nitrobenzene

$C_7H_4N_2O_2$ · D 0,33 g/cm³ · mp 115 to 117 °C · bp 164 to 166 °C
CAS No. 619-24-9 · EC no. 210-587-7
WGK 2

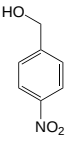
Warning H302+H312+H332-H412

3-Nitrobenzonitrile
≥98 %, for synthesis

Type analysis
Appearance ..... pale yellow cryst. powder
Assay ..... ≥98,0 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
4530.1	25 g	glass	55,40
4530.2	100 g	glass	120,30

4-Nitrobenzylalcohol



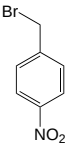
$C_7H_7NO_3$ · mp 92 to 95 °C · bp 185 °C · flp 180 °C
CAS No. 619-73-8 · EC no. 210-611-6
WGK 1

4-Nitrobenzylalcohol
≥99 %, for synthesis

Type analysis
Appearance ..... pale yellow cryst. powder
Assay ..... ≥99,0 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6522.1	25 g	glass	37,10
6522.2	100 g	glass	77,95
6522.3	250 g	glass	134,40

4-Nitrobenzyl bromide



α-Bromo-4-nitrotoluene

$C_7H_6NO_2Br$ · mp 96 to 100 °C
CAS No. 100-11-8 · EC no. 202-820-6
UN no. 3261 · ADR 8 II · WGK 1

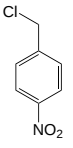
Danger H314

4-Nitrobenzyl bromide
≥99 %, for synthesis

Type analysis
Appearance ..... off-white to light yellow to beige cryst. powder
Assay ..... ≥99,0 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
5680.1	25 g	glass	34,95
5680.2	100 g	glass	68,30
5680.3	250 g	glass	125,25

4-Nitrobenzyl chloride



α-Chloro-4-nitrotoluene

$C_7H_6NO_2Cl$ · mp 70 to 73 °C
CAS No. 100-14-1 · EC no. 202-822-7
UN no. 3261 · ADR 8 II · WGK 1

Danger H302-H314

4-Nitrobenzyl chloride
≥98 %, for synthesis

Type analysis
Appearance ..... off-white to light yellow cryst. powder
Assay ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
5697.1	10 g	glass	22,50
5697.2	50 g	glass	51,50

Nitro-BT
▸ *p*-Nitrotetrazolium blue chloride see page 1114

Nitromethane



CH_3NO_2 · D 1,138 g/cm³ · mp -28,4 °C · bp 101,2 °C · flp 36 °C
CAS No. 75-52-5 · EC no. 200-876-6
UN no. 1261 · ADR 3 II · WGK 2

Warning H226-H302+H332-H351-H361fd

Nitromethane
≥98,5 %, for synthesis

Type analysis
Assay (GC) ..... ≥98,5 %
Colour (APHA) ..... ≤20
Water ..... ≤0,3 %
Acidity (as CH_3COOH) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4406.1	500 ml	glass	42,90
4406.2	25 l	tinplate	1.005,15

Nitromethane
≥97 %

Type analysis
Assay ..... ≥97,0 %

Art. No.	Pack Qty.	Pack.	€
5173.1	1 l	glass	70,85
Original pack 6 x 1 l			67,31/1 l
5173.8	10 l	tinplate	482,70
5173.7	25 l	tinplate	962,15

Nitromethane D3

CD_3NO_2 · D 1,19 g/cm³ · mp -28 °C · bp 101 °C · flp 44 °C
CAS No. 13031-32-8 · EC no. 235-892-2
UN no. 1261 · ADR 3 II · WGK 2

Warning H226-H302+H332-H351-H361fd

Nitromethane D3
99 Atom%D

For nuclear magnetic resonance spectroscopy.

Guarantee analysis
Deuterising degree ..... ≥99 %
Water (KF, H_2O+D_2O) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
HN91.2	5 ml	glass	110,20
HN91.1	10 ml	glass	196,20

3-Nitro-4-methylaniline
▸ 4-Methyl-3-nitroaniline see page 1086

2-Nitrophenol



o-Nitrophenol

$C_6H_5NO_3$ · D 1,495 g/cm³ · mp 44 °C · bp 214 °C · flp 108 °C
CAS No. 88-75-5 · EC no. 201-857-5
UN no. 1663 · ADR 6.1 III · WGK 3

Warning H302-H315-H319-H335

2-Nitrophenol
pure

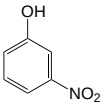
Indicator pH 5.0-7.0

Dissolve 2 g in 100 ml ethanol

Type analysis
Appearance ..... greenish to yellow powder
pH-transition range 5,0 (colourless) - 7,0 (yellow)

Art. No.	Pack Qty.	Pack.	€
1LAH.1	25 g	glass	17,75
1LAH.2	100 g	glass	32,15
1LAH.3	500 g	glass	99,45
Original pack 6 x 500 g			94,48/500 g

3-Nitrophenol



m-Nitrophenol · 1-Hydroxy-3-nitrobenzene

$C_6H_5NO_3$ · D 1,49 g/cm³ · mp 96 to 98 °C · bp 194 °C · flp >100 °C
CAS No. 554-84-7 · EC no. 209-073-5
UN no. 1663 · ADR 6.1 III · WGK 1

Warning H302-H319

3-Nitrophenol
≥99 %, for synthesis

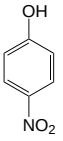
Indicator pH 6,8-8,6

Dissolve 0.3 g in 100 ml ethanol (50 %)

Type analysis
Appearance ..... yellow to tan cryst. powder
Assay ..... ≥99,0 %
Loss on drying ..... ≤0,5 %
pH-transition range .. 6,8 (colourless)-8,6 (yellow)

Art. No.	Pack Qty.	Pack.	€
4533.1	25 g	glass	69,80
4533.2	100 g	glass	174,70
4533.3	250 g	glass	370,90

4-Nitrophenol



p-Nitrophenol · 1-Hydroxy-4-nitrobenzene

$C_6H_5NO_3$ · D 1,48 g/cm³ · mp 112 to 115 °C · bp 279 °C · flp 169 °C
CAS No. 100-02-7 · EC no. 202-811-7
UN no. 1663 · ADR 6.1 III · WGK 2

Danger H301-H312+H332-H373

4-Nitrophenol
≥99 %, for synthesis

Indicator pH 5.4-7.5

Dissolve 0.25 g in 100 ml ethanol (50 %)

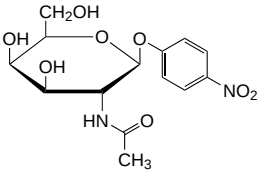
Type analysis
Appearance . white to yellow-brown cryst. powder
Assay ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
6524.1	25 g	glass	16,70
6524.2	100 g	glass	30,00
6524.3	500 g	glass	77,95
Original pack 6 x 500 g			74,05/500 g

p-Nitrophenyl-2-acetamido-2-deoxy-β-D-galactoside
▸ 4-Nitrophenyl-*N*-acetyl-β-D-galactosaminide see page 1111

4-Nitrophenyl-2-acetamido-2-deoxy-β-D-glucosaminide
▸ 4-Nitrophenyl-*N*-acetyl-β-D-glucosaminide see page 1112

4-Nitrophenyl-*N*-acetyl-β-D-galactosaminide



PNP-β-D-GalNAc · *p*-Nitrophenyl-2-acetamido-2-deoxy-β-D-galactoside

$C_{14}H_{18}N_2O_8$ · mp 181 °C
CAS No. 14948-96-0 · EC no. 239-024-3
WGK 1

4-Nitrophenyl-*N*-acetyl-β-D-galactosaminide
≥98 %, for biochemistry

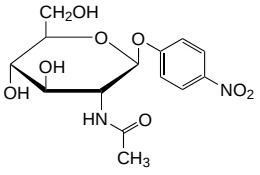
Glycosidase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (TLC) ..... ≥98 %
Solution (0,5 % in DMF/water 1:1) ..... nearly colourless, clear
Solution (5 % in DMF) . yellow to greenish yellow, clear
Water (KF) ..... ≤6,0 %
p-Nitrophenol ..... ≤0,1 %
Specific rotation $[\alpha]_D^{20}$ (c=0,1 in water) . +19,0° ±2°

Art. No.	Pack Qty.	Pack.	€
4058.1	250 mg	glass	97,75
4058.2	500 mg	glass	182,25

4-Nitrophenyl-*N*-acetyl-β-D-glucosaminide



4-Nitrophenyl-2-acetamido-2-deoxy-β-D-glucosaminide · PNAG · PNP-β-D-GlcNAc

$C_{14}H_{18}N_2O_8$ · mp 210 to 212 °C
CAS No. 3459-18-5 · EC no. 222-398-7
WGK 1

4-Nitrophenyl-*N*-acetyl-β-D-glucosaminide
≥99 %, for biochemistry

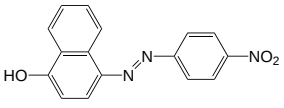
Glycosidase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (TLC) ..... ≥99 %
Solution (0,5 % in water, gently warmed) .. colourless, clear
Water (KF) ..... ≤0,5 %
p-Nitrophenol ..... ≤0,1 %
Specific rotation $[\alpha]_D^{20}$ (c=0,5 in water) -16,0° ±1,0°

Art. No.	Pack Qty.	Pack.	€
4062.1	100 mg	glass	34,95
4062.2	500 mg	glass	99,45
4062.3	1 g	glass	185,45

4-(4-Nitrophenylazo)-1-naphthol



Magneson II

$C_{16}H_{11}N_3O_3$ · mp 277 to 280 °C
CAS No. 5290-62-0 · EC no. 226-129-4
WGK 1

Warning H315-H319-H335

4-(4-Nitrophenylazo)-1-naphthol
p.a.

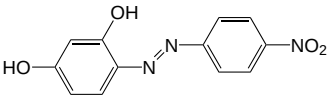
Indicator for metal ions

Dissolve 0.1 g in 100 ml ethanol (96 %)

Type analysis
Appearance ..... red brown powder
Suitability as indicator for complexometry .. complies
Loss on drying ..... ≤1 %

Art. No.	Pack Qty.	Pack.	€
1H46.1	10 g	glass	37,55
1H46.2	25 g	glass	64,40
1H46.3	100 g	glass	203,20

4-(4-Nitrophenylazo)-resorcinol



Magneson I · Azo violet

$C_{12}H_9N_3O_4$ · mp 195 to 200 °C
CAS No. 74-39-5 · EC no. 200-808-5
WGK 1

Warning H315-H319

4-(4-Nitrophenylazo)-resorcinol
p.a.

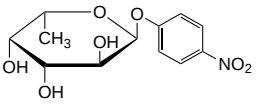
Metal indicator, pH indicator 11,0-13,0

Dissolve 0.1 g in dil. NaOH

Guarantee analysis
Appearance ..... red-orange powder
Loss on drying ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
2563.1	10 g	glass	34,30
2563.2	25 g	glass	52,15

4-Nitrophenyl-α-L-fucopyranoside



PNP-α-L-Fuc · *p*-Nitrophenyl-α-L-fucoside

$C_{12}H_{15}NO_7$ · mp 195 °C
CAS No. 10231-84-2 · EC no. 233-553-3
WGK 1

4-Nitrophenyl-α-L-fucopyranoside
≥98 %, for biochemistry

Glycosidase substrate

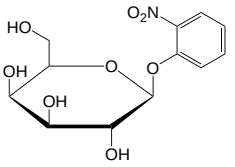
Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (TLC) ..... ≥98 %
Water (KF) ..... ≤1,0 %
p-Nitrophenol ..... ≤0,1 %
Specific rotation $[\alpha]_D^{20}$ (c=0,2 in ethanol) ... -245,0° ±2°

Art. No.	Pack Qty.	Pack.	€
4018.1	100 mg	glass	79,05
4018.2	250 mg	glass	160,20

p-Nitrophenyl-α-L-fucoside
▸ 4-Nitrophenyl-α-L-fucopyranoside
see page 1112

2-Nitrophenyl-β-D-galacto-pyranoside



ONPG · *ortho*-Nitrophenyl-β-D-galacto-pyranoside

$C_{12}H_{15}NO_8$ · mp 189 to 193 °C
CAS No. 369-07-3 · EC no. 206-716-1
WGK 1

2-Nitrophenyl-β-D-galacto-pyranoside
≥99 %, for biochemistry

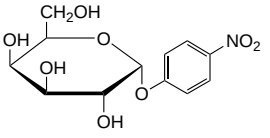
Substrate of β-galactosidase.

Storage temperature: +4 °C

Type analysis
Assay ..... ≥99 %
Water ..... ≤0,5 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in H_2O) ..... -71° to -67°

Art. No.	Pack Qty.	Pack.	€
CN22.1	5 g	glass	42,50
CN22.2	10 g	glass	74,20

4-Nitrophenyl-α-D-galacto-pyranoside



PNP-α-D-Gal · PNPG · *p*-Nitrophenyl-α-D-galactoside

$C_{12}H_{15}NO_8$ · mp 166 °C
CAS No. 7493-95-0 · EC no. 231-343-6
WGK 1

4-Nitrophenyl-α-D-galacto-pyranoside
for biochemistry

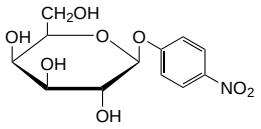
Glycosidase substrate

Storage temperature: +4 °C

Type analysis
Identity (TLC) ..... complies
Solution (5 % in H_2O) ..... colourless to nearly colourless
Water (KF) ..... ≤1,0 %
Spec. rotation $[\alpha]_D^{20}$ (c=1 in water) +242° to +248°

Art. No.	Pack Qty.	Pack.	€
4063.1	100 mg	glass	25,70
4063.2	500 mg	glass	62,25
4063.3	1 g	glass	103,75

4-Nitrophenyl-β-D-galacto-pyranoside



PNP-β-D-Gal · *p*-Nitrophenyl-β-D-galactoside · PNPG

$C_{12}H_{15}NO_8$ · mp 180 °C
CAS No. 3150-24-1 · EC no. 221-584-5
WGK 1

4-Nitrophenyl-β-D-galacto-pyranoside
≥98 %, for biochemistry

Glycosidase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

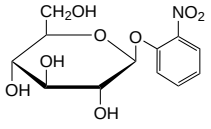
Type analysis
Assay (HPLC) ..... ≥98 %
Solution (1 % in H_2O) . clear, colourless to slightly yellowish
Water (KF) ..... ≤7,0 %
p-Nitrophenol ..... ≤0,1 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in H_2O) ..... -84° ±2°

Art. No.	Pack Qty.	Pack.	€
4081.1	1 g	glass	43,55
4081.2	2.5 g	glass	99,45
4081.3	5 g	glass	182,25

p-Nitrophenyl-α-D-galactoside
▸ 4-Nitrophenyl-α-D-galactopyranoside see page 1112

p-Nitrophenyl-β-D-galactoside
▸ 4-Nitrophenyl-β-D-galactopyranoside see page 1113

2-Nitrophenyl-β-D-gluco-pyranoside



ONP-β-D-Glc · *o*-Nitrophenyl-β-D-glucoside

$C_{12}H_{15}NO_8$ · mp 143 °C
CAS No. 2816-24-2 · EC no. 220-568-5
WGK 1

2-Nitrophenyl-β-D-gluco-pyranoside
≥99 %, for biochemistry

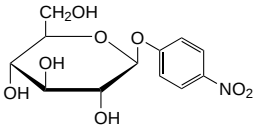
Glycosidase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (HPLC) ..... ≥99 %
Assay (NMR) ..... ≥99 %
Solution (5 % in methanol) ..... clear, colourless to light yellowish
Water (KF) ..... ≤0,5 %
o-Nitrophenol ..... ≤0,05 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in H_2O) ..... -105° ±2°

Art. No.	Pack Qty.	Pack.	€
4077.1	500 mg	glass	54,30
4077.2	1 g	glass	94,10

4-Nitrophenyl-β-D-gluco-pyranoside



PNP-β-D-Glc · *p*-Nitrophenyl-β-D-glucoside

$C_{12}H_{15}NO_8$ · mp 164 °C
CAS No. 2492-87-7 · EC no. 219-661-3
WGK 1

4-Nitrophenyl-β-D-gluco-pyranoside
≥99 %, for biochemistry

Glycosidase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

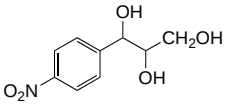
Type analysis
Assay (HPLC) ..... ≥99 %
Solution (1 % in H_2O) ..... colourless
Water (KF) ..... ≤6,0 %
p-Nitrophenol ..... ≤0,1 %
Spec. rotation $[\alpha]_D^{20}$ (c=1 in water, dry substance) ..... -109° to -105°

Art. No.	Pack Qty.	Pack.	€
4082.1	500 mg	glass	64,00
4082.2	1 g	glass	115,60
4082.3	5 g	glass	504,20

o-Nitrophenyl-β-D-glucoside
▸ 2-Nitrophenyl-β-D-glucopyranoside see page 1113

p-Nitrophenyl-β-D-glucoside
▸ 4-Nitrophenyl-β-D-glucopyranoside see page 1113

4-Nitrophenylglycerol



1-(4-Nitrophenyl)-1,2,3-propanetriol

$C_9H_{11}O_5N$ · mp 98 to 101 °C
CAS No. 2207-68-3 · EC no. 218-624-9
WGK 1

Warning H315-H319-H335

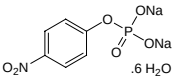
4-Nitrophenylglycerol
>98 %, for biochemistry

Type analysis
Appearance ..... white to yellow crystals
Assay ..... >98 %
Melting point ..... 98 - 101 °C

Art. No.	Pack Qty.	Pack.	€
9240.1	250 mg	glass	82,25
9240.2	1 g	glass	198,90

p-Nitrophenyl phosphate
▸ ROTI®Fair pNPP see page 1221

4-Nitrophenyl phosphate disodium salt hexahydrate



p-Nitrophenyl phosphate · pNPP

$C_6H_4NNa_2O_6P \cdot 6\,H_2O$ · mp >300 °C
CAS No. 4264-83-9 · EC no. 224-246-5
WGK 1

4-Nitrophenyl phosphate disodium salt hexahydrate
≥99 %, for biochemistry

Substrate for alkaline phosphatase, particularly for ELISA.

Storage temperature: –20 °C
Transport temperature: ambient temp.

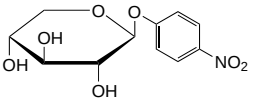
Guarantee analysis
Assay (HPLC) ..... ≥99,0 %
Solution (5 % in H_2O) .. clear, colourless to yellow
Water (KF) ..... 27,5-30,5 %

Art. No.	Pack Qty.	Pack.	€
4165.1	2.5 g	glass	19,25
4165.9	25 g	glass	81,60
4165.7	100 g	glass	228,45

1-(4-Nitrophenyl)-1,2,3-propanetriol
▸ 4-Nitrophenylglycerol see page 1113

p-Nitrophenyl-β-D-xylopyranoside
▸ 4-Nitrophenyl-β-D-xyloside see page 1113

4-Nitrophenyl-β-D-xyloside



PNP-β-D-Xyl · PNPX · *p*-Nitrophenyl-β-D-xylo-pyranoside

$C_{11}H_{13}NO_7$ · mp 160 °C
CAS No. 2001-96-9 · EC no. 217-897-1
WGK 1

4-Nitrophenyl-β-D-xyloside
≥99 %, for biochemistry

Glycosidase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

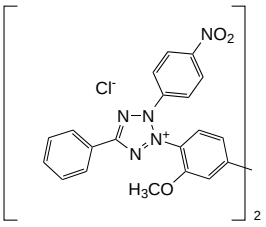
Type analysis
Assay (TLC) ..... ≥99 %
Solution (1 % in H_2O) ..... colourless
Water (KF) ..... ≤1 %
p-Nitrophenol ..... ≤0,05 %
Specific rotation $[\alpha]_D^{20}$ (c=0,4 in H_2O) .. -57° to -53°

Art. No.	Pack Qty.	Pack.	€
4079.1	100 mg	glass	32,15
4079.2	500 mg	glass	103,75
4079.3	1 g	glass	185,45

Nitroprusside sodium

▸ Sodium nitroprusside dihydrate see page 1292

p-Nitrotetrazolium blue chloride



NBT · Nitro-BT · Nitroblue tetrazolium chloride

$C_{40}H_{30}Cl_2N_{10}O_6$ · mp 189 °C
CAS No. 298-83-9 · EC no. 206-067-4
WGK 1

p-Nitrotetrazolium blue chloride
≥98 %, p.a.

Substrate for alkaline phosphatase

Stock solution: 0.5 g NBT in 10 ml 70 % dimethylformamide. Protect from light and humidity.

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥98 %
Water (KF) ..... ≤5,0 %

Art. No.	Pack Qty.	Pack.	€
4421.1	100 mg	glass	22,05
4421.2	500 mg	glass	57,55
4421.3	1 g	glass	105,90
4421.4	5 g	glass	381,65

Nitro thinner

D 0,85 to 0,89 g/cm³ · mp <-25 °C · bp 50 to 180 °C · flp <21 °C
UN no. 1993 · ADR 3 II · WGK 2

Danger H225-H304-H315-H318-H335-H336-H361d-H373-EUH066

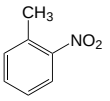
Nitro thinner
technical

Art. No.	Pack Qty.	Pack.	€
3036.5	1 l	tinplate	18,20
Original pack 6 x 1 l			17,29/1 l
3036.3	10 l	tinplate	101,60
3036.4	25 l	tinplate	192,45

2-Nitrotoluene

▸ *o*-Nitrotoluene see page 1114

o-Nitrotoluene



2-Nitrotoluene · *ortho*-Nitrotoluene · 1-Methyl-2-nitrobenzene

$C_7H_7NO_2$ · D 1,16 g/cm³ · mp -9,3 °C · bp 222 °C · flp 95 °C
CAS No. 88-72-2 · EC no. 201-853-3
UN no. 1664 · ADR 6.1 II · WGK 3

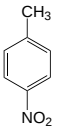
Danger H302-H340-H350-H361f-H411

o-Nitrotoluene
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99 %
Density (d 20 °C/4 °C) 1,161-1,164
Refractive index (20 °C) 1,5445-1,5465

Art. No.	Pack Qty.	Pack.	€
0961.1	100 ml	glass	19,25
0961.2	1 l	glass	57,55
Original pack 6 x 1 l			54,67/1 l

p-Nitrotoluene



1-Methyl-4-nitrobenzene · 4-Nitrotoluene · *para*-Nitrotoluene · 1-Methyl-4-nitrobenzene

$C_7H_7NO_2$ · D 1,1 to 1,2 g/cm³ · mp 52 to 54 °C · bp 238 to 240 °C · flp 103 °C
CAS No. 99-99-0 · EC no. 202-808-0
UN no. 3446 · ADR 6.1 II · WGK 3

Danger H301+H311+H331-H373-H411

p-Nitrotoluene
≥98 %, for synthesis

Type analysis
Assay (GC) ..... ≥98 %
Melting range ..... 50-53 °C
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
0881.1	100 g	glass	22,50
0881.2	1 kg	glass	63,35
Original pack 6 x 1 kg			60,18/1 kg

p-Nitrotoluene
ROTI®Calipure melting point standard 52–54 °C

Type analysis
Meniscus formation ..... 52-54 °C
Complete liquefaction ..... 52-54 °C
Measurement uncertainty ..... ±0,3 °C

Art. No.	Pack Qty.	Pack.	€
9712.1	1 g	glass	40,75

4-Nitrotoluene

▸ *p*-Nitrotoluene see page 1114

ortho-Nitrotoluene

▸ *o*-Nitrotoluene see page 1114

para-Nitrotoluene

▸ *p*-Nitrotoluene see page 1114

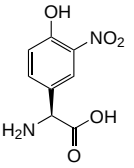
3-Nitro-*p*-toluidine

▸ 4-Methyl-3-nitroaniline see page 1086

H-3-Nitro-Tyr-OH

▸ 3-Nitro-L-tyrosine see page 1114

3-Nitro-L-tyrosine



H-3-Nitro-Tyr-OH

$C_9H_{10}N_2O_5$ · mp 233 to 235 °C · bp 431,6 °C · flp 214,8 °C
CAS No. 621-44-3 · EC no. 210-688-6
WGK 1

3-Nitro-L-tyrosine
≥98 %, for biochemistry

Type analysis
Assay (NMR) ..... ≥98,0 %
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
5275.1	5 g	plastic	78,40
5275.2	10 g	plastic	134,40

NMM

▸ *N*-Methylmorpholine see page 1086

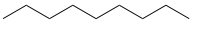
NMP

▸ *N*-Methyl-2-pyrrolidone (NMP) see page 1088

NMR solvents

▸ Deuterated Compounds see page 869

n-Nonane



C_9H_{20} · D 0,72 g/cm³ · mp -51 °C · bp 143,6 to 147,1 °C · flp 38 °C
CAS No. 111-84-2 · EC no. 203-913-4
UN no. 1920 · ADR 3 III · WGK 3

Danger H226-H304-H315-H336-H410

n-Nonane
≥99 %, for synthesis

Type analysis
Appearance ..... clear, colourless liquid
Assay (GC) ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
4310.2	100 ml	glass	30,00
4310.1	250 ml	glass	53,65
4310.3	500 ml	glass	91,30
4310.4	1 l	glass	145,15
Original pack 6 x 1 l			137,89/1 l

Nonanedioic acid
▸ Azelaic acid see page 759

Nonanoic acid
▸ Pelargonic acid see page 1139

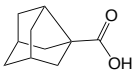
Non-ionic polymer of saccharose
▸ Ficoll® 400 see page 935

Nonivamide
▸ Pelargonic acid vanillylamide see page 1139

Nonylvanylamide
▸ Pelargonic acid vanillylamide see page 1139

NOP
▸ *N*-Octyl-2-pyrrolidone (NOP) see page 1119

3-Noradamantanecarboxylic acid



$C_{10}H_{14}O_2$ · mp 102 to 106 °C
CAS No. 16200-53-6
WGK 1

3-Noradamantanecarboxylic acid
≥99 %, for synthesis

Type analysis
Appearance ..... white, crystalline powder
Assay (GC) ..... ≥99,0 %
Identity (GC) ..... complies
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
7631.1	1 g	glass	29,60
7631.2	5 g	glass	99,45

Noraristolochic acid
▸ Aristolochic acid II see page 752

2,5-Norbornadiene



Bicyclo-[2,2,1]-hepta-2,5-diene

C_7H_8 · D 0,906 g/cm³ · mp -19,1 °C · bp 89,5 °C · flp -21 °C
CAS No. 121-46-0 · EC no. 204-472-0
UN no. 2251 · ADR 3 II · WGK 1

Danger H225

2,5-Norbornadiene
~97 %

Type analysis
Assay (GC) ..... ~97 %

Art. No.	Pack Qty.	Pack.	€
3201.1	50 ml	glass	95,70

Norkanugin
▸ Robinetin see page 1208

Nourseothricin

Nourseothricin dihydrogen sulphate

CAS No. 96736-11-7
WGK 1

Warning H302-H315-H319-H335

Nourseothricin
≥85 %, for biochemistry and microbiology

Broad-band antibiotic and antimycotic of viruses, bacteria and fungi.

Stock solution: 100 mg/ml in water
Storage of stock solution at –20 °C
Working concentration: ca. 100 µg/ml
One package Nourseothricin should be solubilized in whole and the stock solution should be frozen in aliquots.

Storage temperature: +4 °C

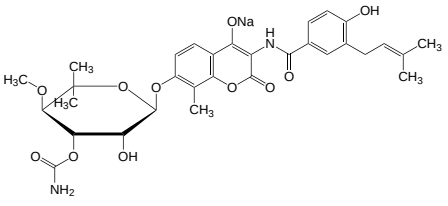
Type analysis
Appearance ..... beige powder
Streptothricine D, F ..... ≥85 %
Streptothricine C, E ..... <15 %
Ash ..... ≤3,0 %

Packed under argon.

Art. No.	Pack Qty.	Pack.	€
3011.1	25 mg	plastic	53,65
3011.2	100 mg	plastic	125,70
3011.3	1 g	plastic	643,95

Nourseothricin dihydrogen sulphate
▸ Nourseothricin see page 1115

Novobiocin sodium salt



$C_{31}H_{35}N_2NaO_{11}$ · mp 215 to 220 °C
CAS No. 1476-53-5 · EC no. 216-023-6
WGK 1

Warning H317-H319

Novobiocin sodium salt
≥850 µg/mg, for biochemistry

Bacteriostatic antibiotic, HSP90 inhibitor.

Stock solution: 100 mg/ml in H_2O.
Storage of stock solution: –20 °C

Storage temperature: +4 °C

Type analysis
Activity ..... ≥850 µg/mg
Specific rotation $[\alpha]_D^{20}$ (dry substance) ..... -58° to -50°
pH value (2,5 % in H_2O) 6,5-8,5
Sulphated ash ..... ≤12,0 %
Water ..... ≤6,0 %

Art. No.	Pack Qty.	Pack.	€
0247.1	1 g	glass	37,55
0247.2	5 g	glass	149,45
0247.3	10 g	glass	246,20

NTA-Na_3
▸ Nitrilotriacetic acid trisodium salt monohydrate see page 1109

NTP-set

D 1 g/cm³
WGK 1

NTP-set
≥99 % ATP, CTP, GTP, UTP, 100 mM per NTP

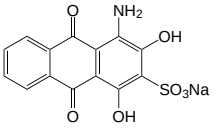
for molecular biology, nucleotide set composed of solutions of ATP, CTP, GTP, UTP

Concentration: 100 mM per NTP

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
K049.1	1 set	plastic	162,90
K049.2	1 set	plastic	547,20

Nuclear fast red (C.I. 60760)



$C_{14}H_8NNaO_7S$
CAS No. 6409-77-4 · EC no. 229-088-0
WGK 3

Nuclear fast red (C.I. 60760)
for microscopy

Type analysis
Appearance ..... dark red to brown powder
Appearance of solution (0,1 % in H_2O) ... dark red

Art. No.	Pack Qty.	Pack.	€
7728.1	1 g	glass	33,25
7728.2	5 g	glass	101,60
7728.3	10 g	glass	181,70

Nuclear fast red aluminium sulphate solution

D 1 g/cm³ · bp 100 °C
WGK 1

Danger H318

Nuclear fast red aluminium sulphate solution
0,1 %, for microscopy

For visualising nuclei e.g. during Elastica Staining.

Art. No.	Pack Qty.	Pack.	€
N069.1	500 ml	glass	61,20
N069.2	1 l	glass	100,95
Original pack 6 x 1 l			95,90/1 l
N069.3	2.5 l	plastic	198,90
Original pack 4 x 2.5 l			188,96/2.5 l

Nuclease Removal

- RNase AWAY® see page 1208
- DNA AWAY® see page 896
- ROTI®Nucleic Acid-free see page 1231

Nucleotide mix for PCR

- ROTI®Mix PCR see page 1230

Nucleotides / Nucleosides

Art. No.	Description	Page
6122	Adenosine	708
HN35	Adenosin-5'-triphosphate disodium salt (ATP)	708
K054	ATP	758
K045	ATP solution	758
3243	5-Bromo-2'-deoxyuridine	790
K057	CTP	855
K048	CTP solution	855
0717	Cytidine	861
K035	dATP solution	864
K038	dCTP solution	864
K037	dGTP solution	871
P732	dITP solution	895
K039	dNTP-Set 1	898
0178	dNTP-Set 1 (pH 7)	899
L540	dNTP-Set 2	899
P731	dNTP-Set 3	899
K036	dTTP solution	903
L539	dUTP solution	903
7845	5-Ethynyl-2'-deoxyuridine (EdU)	919
7802	5-Ethynyl-dUTP	927
7848	5-Ethynyl uridine (EU)	927
K056	GTP	971
K047	GTP solution	971
0715	Guanosine	972
K049	NTP-set	1115
1049	Rhodamine-12-dUTP	1204
L541	ROTI®Mix PCR 1	1230
L785	ROTI®Mix PCR 3	1231
0179	ROTI®Mix PCR 3 (pH 7)	1231
3005	Thymidine	1367
0714	Uridine	1391
K055	UTP	1392
K046	UTP solution	1392

Nucleotide set for PCR

- dNTP-Set see page 898

Nutrient Agar

Nutrient Agar
EN ISO 6579, ISO 10273, ISO 11133 , ISO 19250, for microbiology

For cultivation of non-fastidious microorganisms.

Application: Use 23 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Gelatine peptone ..... 5 g/l
Beef extract ..... 3 g/l
Agar ..... 15 g/l
pH value ..... 6,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
X928.1	500 g	plastic	117,75
Original pack 6 x 500 g			111,86/500 g
X928.2	1 kg	plastic	209,10
Original pack 6 x 1 kg			198,65/1 kg

Nutrient Agar (DEV/ISO)
DEV, EN ISO 16266:2008, for microbiology

For confirmation of *Pseudomonas aeruginosa* in water samples.

Application: Use 28 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis

Peptone ..... 5 g/l
Meat extract ..... 1 g/l
Yeast extract ..... 2 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar ..... 15 g/l
pH value ..... 7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
CP66.1	500 g	plastic	147,85
Original pack 6 x 500 g			140,46/500 g

Nutrient Agar (DEV)
DEV, DIN 38 411, for microbiology

For biochemical analysis of *E.coli* and Coliforms in water samples and other sample material.

Application: Use 43 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Guarantee analysis

Meat peptone ..... 10 g/l
Meat extract ..... 10 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar ..... 18 g/l
pH value ..... 7,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL02.1	500 g	plastic	134,40
Original pack 6 x 500 g			127,68/500 g
CL02.2	1 kg	plastic	241,90
Original pack 6 x 1 kg			229,81/1 kg
CL02.7	5 kg	plastic	1.058,90

Nutrient Broth

WGK 1

Nutrient Broth
for microbiology

For cultivation of non-fastidious microorganisms.

Application: Use 8 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

Beef extract ..... 3 g/l
Gelatine peptone ..... 5 g/l
pH value ..... 6,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
X929.1	500 g	plastic	100,55
Original pack 6 x 500 g			95,52/500 g
X929.2	1 kg	plastic	176,85
Original pack 6 x 1 kg			168,01/1 kg

Nystatin dihydrate

Fungicidine · Mycostatin

$C_{47}H_{75}NO_{17} \cdot 2\ H_2O$
CAS No. 1400-61-9 · EC no. 215-749-0
WGK 1

Nystatin dihydrate
≥4 400 I.U./mg, for biochemistry

Broad-range fungizide, polyene.

Stock solution: 5 mg/ml in DMSO or DMF.
Storage of stock solution: –20 °C.
Working concentration: 2–50 µg/ml

Storage temperature: +4 °C

Type analysis

Purity (HPLC) ..... ≥85,0%
Loss on drying ..... ≤5,0 %

Art. No.	Pack Qty.	Pack.	€
0241.1	5 g	glass	46,80
0241.2	10 g	glass	80,10

NZamine

WGK 1

NZamine
for molecular biology

Component of nutrition media for molecular biological assays, particularly LB Broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis

Total nitrogen ..... ≥10 %
Amino nitrogen ..... ≥3,9 %
Loss on drying ..... ≤6 %
Ash ..... ≤15 %
pH value (2 % solution) ..... 7,0 ±0,5

Art. No.	Pack Qty.	Pack.	€
CP76.2	250 g	plastic	60,75
CP76.1	500 g	plastic	98,40
Original pack 6 x 500 g			93,48/500 g

NZCYM Broth

WGK 3

NZCYM Broth
for molecular biology

For the cultivation of *E. coli* and phages Lambda.

Application: Use 22 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Casein, enzymatically digested ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Casamino Acids ..... 1 g/l
Magnesium sulphate ($MgSO_4$), anhydrous ..... 0,98 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X974.1	500 g	plastic	77,95
Original pack 6 x 500 g			74,05/500 g

NZYM Broth

WGK 1

NZYM Broth
for molecular biology

For the cultivation of recombinant *E. coli* and for the replication of phages Lambda.

Application: Use 21 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Casein, enzymatically digested ..... 10 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Magnesium sulphate ($MgSO_4$), anhydrous ..... 0,98 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X973.1	500 g	plastic	70,85
Original pack 6 x 500 g			67,31/500 g

Octacedyl modified silica – endcapped
- Silica gel 60 C_{18} see page 1261
- Silica gel C_{18} see page 1261
- Silica gel 60 C_{18}ec see page 1261

Octadecanoic acid
- Stearic acid see page 1339

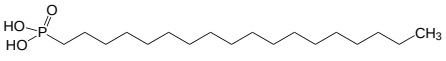
1-Octadecanol
- Stearyl alcohol see page 1340

9,12,15-Octadecatrienoic acid
- Linolenic acid see page 1044

cis-9-Octadecenoic acid
- Oleic acid see page 1130

Octadecyl-modified silica gel
- Silica gel 60 C_{18} see page 1261

Octadecylphosphonic acid



ODPA

$C_{18}H_{39}O_3P$ · mp 95 to 100 °C
CAS No. 4724-47-4
WGK 1

Octadecylphosphonic acid

Suitable for the production and modification of nanoparticles.

Storage temperature: +4 °C

Type analysis
Melting point ..... 95-100 °C

Art. No.	Pack Qty.	Pack.	€
8468.1	1 g	glass	67,65
8468.2	5 g	glass	278,45

Octadeutero tetrahydrofurane
- Tetrahydrofuran D8 see page 1362

4,4,4',4',5,5,5',5'-Octamethyl-2,2'-bi-(1,3,2-dioxaborolane)
- Bis(pinacolato)diboron see page 778

Octamethylene glycol
- 1,8-Octanediol see page 1118

iso-Octane
- Isooctane see page 1022

n-Octane



C_8H_{18} · D 0,71 g/cm³ · mp -56,5 °C · bp 124 to 126,6 °C · flp 13 °C
CAS No. 111-65-9 · EC no. 203-892-1
UN no. 1262 · ADR 3 II

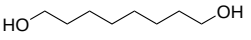
Danger H225-H304-H315-H336-H410

n-Octane
≥99 %, for synthesis

Type analysis
Appearance ..... clear colourless liquid
Assay ..... ≥99,0 %
Density (15 °C) 0,706-0,710
Aromatic compounds ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
8753.1	100 ml	glass	28,95
8753.2	500 ml	glass	75,15
8753.3	1 l	glass	131,70
Original pack 6 x 1 l			125,12/1 l
8753.4	2.5 l	glass	263,40
Original pack 4 x 2.5 l			250,23/2.5 l

1,8-Octanediol



Octamethylene glycol

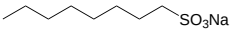
$C_8H_{18}O_2$ · D 0,913 g/cm³ · mp 59 °C · bp 274 °C · flp 148 °C
CAS No. 629-41-4 · EC no. 211-090-8
WGK 1

1,8-Octanediol
≥98 %

Type analysis
Appearance ..... white to almost white crystalline powder
Assay (GC) ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
5273.1	25 g	plastic	27,85
5273.2	50 g	plastic	47,20

Octane-1-sulphonic acid sodium salt



Sodium-1octane sulphonate

$C_8H_{17}NaO_3S$ · D 0,96 g/cm³ · mp >300 °C
CAS No. 5324-84-5 · EC no. 226-195-4
WGK 1

Warning H315-H319-H335

Octane-1-sulphonic acid sodium salt
≥98 %, for ion pair chromatography

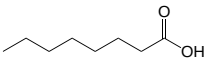
Ion pair reagent for HPLC.

Guarantee analysis
Assay (acidim.) ..... ≥98,0 %
Water ..... ≤2 %
A 200 nm (0,25 M in water) ..... ≤0,1 AU
A 210 nm (0,25 M in water) ..... ≤0,05 AU
A 220 nm (0,25 M in water) ..... ≤0,03 AU
A 230 nm (0,25 M in water) ..... ≤0,02 AU
A 240 nm (0,25 M in water) ..... ≤0,01 AU
A 250 nm (0,25 M in water) ..... ≤0,01 AU
A 260 nm (0,25 M in water) ..... ≤0,01 AU

Art. No.	Pack Qty.	Pack.	€
KK55.1	10 g	glass	64,40
KK55.2	25 g	glass	126,35
KK55.3	100 g	glass	370,90

n-Octanoic acid
- Caprylic acid see page 814

Octanoic acid



Caprylic acid

$C_8H_{16}O_2$ · D 0,91 g/cm³ · mp 16,5 °C · bp 237 °C · flp 132 °C
CAS No. 124-07-2 · EC no. 204-677-5
UN no. 3265 · ADR 8 III · WGK 1

Danger H314-H412

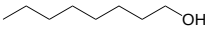
Octanoic acid
≥99,5 %, for synthesis

Type analysis
Assay ..... ≥99,0 %
Melting point ..... 15-17 °C

Art. No.	Pack Qty.	Pack.	€
2613.1	100 ml	glass	18,20
2613.2	500 ml	glass	28,95
2613.3	1 l	glass	41,85
Original pack 6 x 1 l			39,76/1 l
2613.4	2.5 l	glass	83,75
Original pack 4 x 2.5 l			79,56/2.5 l

Octanoic acid methylester
- Caprylic acid methyl ester see page 814

1-Octanol



Caprylic alcohol · *n*-Octyl alcohol

$C_8H_{18}O$ · D 0,828 g/cm³ · mp -13,5 °C · bp 194 °C · flp 86,5 °C
CAS No. 111-87-5 · EC no. 203-917-6
WGK 1

Warning H319-H412

1-Octanol
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,0 %
Density (d 20 °C/4 °C) 0,824-0,826
Water ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4439.1	100 ml	glass	22,50
4439.2	500 ml	glass	46,80
4439.3	1 l	glass	80,55
Original pack 6 x 1 l			76,52/1 l

1-Octanol
ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
3182.1	1 g	plastic	114,50

OCT Embedding Matrix

D 1,034 g/cm³
WGK 1
In vitro diagnostic medical device according to IVDD

OCT Embedding Matrix
ready-to-use, for histology

CellPath.

Embedding medium for frozen tissue sections.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

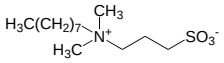
In vitro diagnostic medical device according to IVDD

Type analysis
Appearance ..... viscous, colourless liquid
Specific weight 1,032-1,040
Micro examination ..... free of undissolved matter

Art. No.	Pack Qty.	Pack.	€
6478.1	125 ml	plastic	31,75
6478.2	375 ml	plastic	87,65

n-Octyl alcohol
▸ 1-Octanol see page 1118

N-Octyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate



SB-8 · Sulfobetaine-8

$C_{13}H_{29}NO_3S$ · mp 217 °C
CAS No. 15178-76-4
WGK 1

Warning H315-H319-H335

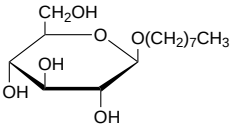
N-Octyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate
≥98 %, for biochemistry

Zwitterionic detergent

Type analysis
Assay (HPLC) ..... ≥98,0 %
Loss on drying ..... ≤2,0 %
Ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
1800.1	5 g	glass	61,20
1800.2	25 g	glass	160,20

n-Octyl-β-D-glucopyranoside (OGP)



OGP · Octylglucoside

$C_{14}H_{28}O_6$ · mp 105 °C
CAS No. 29836-26-8 · EC no. 249-887-8
WGK 1

n-Octyl-β-D-glucopyranoside (OGP)
≥98 %, for biochemistry

Non-ionic detergent.

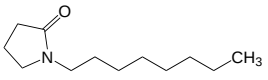
Storage temperature: +4 °C

Type analysis
Assay ..... ≥98 %
Spez. Drehung $[\alpha]_D^{20}$ (c=1 in Methanol) ..... -32° to -29°

Art. No.	Pack Qty.	Pack.	€
CN23.1	1 g	glass	37,55
CN23.2	5 g	glass	134,40
CN23.3	10 g	glass	241,90

Octylglucoside
▸ *n*-Octyl-β-D-glucopyranoside (OGP) see page 1119

N-Octyl-2-pyrrolidone (NOP)



NOP · 1-Octyl-2-pyrrolidone

$C_{12}H_{23}NO$ · D 0,92 g/cm³ · mp -26 °C · bp 297 to 307 °C · flp 142 °C
CAS No. 2687-94-7 · EC no. 403-700-8
UN no. 3267 · ADR 8 II · WGK 2

Danger H314-H411

N-Octyl-2-pyrrolidone (NOP)
SOLVAGREEN® ≥99 %, for synthesis

Alternative for NMP, NEP.

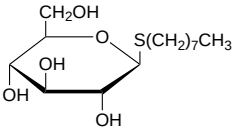
Type analysis
Assay (GC) ..... ≥99,0 %
Water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
0358.1	100 ml	glass	25,70
0358.2	500 ml	plastic	59,05
0358.3	1 l	plastic	91,30
Original pack 6 x 1 l			86,74/1 l
0358.4	2.5 l	plastic	170,95
Original pack 4 x 2.5 l			162,40/2.5 l

1-Octyl-2-pyrrolidone
▸ *N*-Octyl-2-pyrrolidone (NOP) see page 1119

n-Octyl-1-thio-β-D-Glc
▸ *n*-Octyl-β-D-thioglucopyranoside see page 1119

n-Octyl-β-D-thiogluco-pyranoside



Octyl-β-D-thioglucoside · *n*-Octyl-1-thio-β-D-Glc

$C_{14}H_{28}O_5S$ · mp 126 to 128 °C
CAS No. 85618-21-9
WGK 1

n-Octyl-β-D-thioglucopyranoside
≥95 %, for biochemistry

Non-ionic detergent.

Storage temperature: –20 °C
Transport temperature: ambient temp.

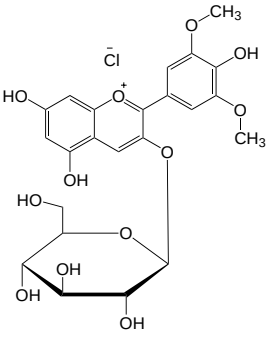
Type analysis
Assay (H-NMR) ..... ≥95 %
Water (KF) ..... ≤4 %
Spec. rotation $[\alpha]_D^{20}$ (c=1 in ethanol) ... -51° to -47°

Art. No.	Pack Qty.	Pack.	€
4139.3	500 mg	glass	49,35
4139.1	1 g	glass	75,15
4139.2	5 g	glass	317,15

Octyl-β-D-thioglucoside
▸ *n*-Octyl-β-D-thioglucopyranoside see page 1119

ODPA
▸ Octadecylphosphonic acid see page 1118

Oenin chloride



Malvidin 3-glucoside chloride

$C_{23}H_{25}O_{12}Cl$ · mp 150 °C
CAS No. 7228-78-6
WGK 1

Oenin chloride
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
K030.1	5 mg	glass	353,70

OGP

▸ *n*-Octyl-β-D-glucopyranoside (OGP)
see page 1119

Oil of angelica

Oleum Angelicae e seminis

D 0,865 g/cm³ · flp 48 °C
CAS No. 8015-64-3 · EC no. 283-871-1
UN no. 1169 · ADR 3 III · WGK 2

Danger H226-H304-H315-H317-H410

Oil of angelica roots
Hungarian, natural

Type analysis
Appearance ..... clear, yellowish to brownish oil
Density (20 °C) ..... 0,850-0,880 g/cm³
Refractive index (20 °C) 1,473-1,487
Optical rotation (20 °C) ..... 0° to +46°

Art. No.	Pack Qty.	Pack.	€
6587.1	10 ml	glass	104,85

Oil of anise

Oleum Anisi

EC no. 283-518-1

Oil of anise
natural

D 0,985 g/cm³ · bp 232,9 °C · flp 97,6 °C

CAS No. 84650-59-9

UN no. 3082 · ADR 9 III · WGK 2

Warning H317-H341-H351-H411

Type analysis
Appearance clear, almost colourless to yellow oil
Relative density (20 °C) 0,979-0,990
Refractive index (20 °C) 1,553-1,556

Art. No.	Pack Qty.	Pack.	€
7036.1	100 ml	glass	40,35

Oil of anise
artificial

D 0,9 g/cm³ · flp 46 °C

UN no. 1993 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H341-H351-H410

Type analysis
Appearance ..... clear almost colourless to pale yellow oil
Density (20 °C) ..... 0,880-0,920 g/cm³
Refractive index (20 °C) 1,49-1,50
Optical rotation (20 °C) ..... +0° to +30°

Art. No.	Pack Qty.	Pack.	€
3278.2	100 ml	glass	21,40
3278.1	500 ml	glass	64,00

Oil of balm

Oleum Melissae indicum

D 0,89 g/cm³ · mp <-20 °C · bp 92 °C · flp 78 °C
CAS No. 91771-61-8 · EC no. 294-954-7
UN no. 3082 · ADR 9 III · WGK 2

Danger H302-H304-H317-H318-H411

Oil of balm
natural

Type analysis
Appearance ..... clear, colourless to yellowish oil
Density (20 °C) ..... 0,880-0,896 g/cm³
Refractive index (20 °C) 1,4630-1,4750
Optical rotation (20 °C) ..... -4° to +1°

Art. No.	Pack Qty.	Pack.	€
6507.1	100 ml	glass	21,40

Oil of basil

D 0,94 g/cm³ · mp -20 °C · bp 201,3 °C · flp 70,5 °C
CAS No. 8015-73-4 · EC no. 616-962-5
WGK 1

Warning H302-H315-H317-H319-H341-H351-H412

Oil of basil
all-natural

Type analysis
Appearance ..... clear yellow to brownish oil
Density (20 °C) ..... 0,920-0,960 g/cm³
Refractive index (20 °C) 1,495-1,515
Optical rotation (20 °C) ..... -10° to 0°

Art. No.	Pack Qty.	Pack.	€
7039.1	25 ml	glass	56,45

Oil of bergamot

Oleum Bergamottae

Oil of bergamot
natural

D 0,88 g/cm³ · mp <-30 °C · bp 175 °C · flp 56 °C

CAS No. 8007-75-8 · EC no. 616-915-9

UN no. 1169 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H319-H412

Type analysis
Appearance .. clear, green-yellow to green-amber oil
Relative density (20 °C) 0,870-0,880
Refractive index (20 °C) 1,464-1,468
Optical rotation (20 °C) ..... +15° to +35°

Art. No.	Pack Qty.	Pack.	€
6501.1	50 ml	glass	40,35

Oil of bergamot
artificial

D 0,88 g/cm³ · flp 57 °C

UN no. 1993 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H319-H410

Type analysis
Appearance ..... clear, green-yellow oil
Density (20 °C) ..... 0,875-0,885 g/cm³
Refractive index (20 °C) 1,450-1,470
Optical rotation (20 °C) ..... +20° to +40°

Art. No.	Pack Qty.	Pack.	€
3282.2	100 ml	glass	27,85
3282.1	250 ml	glass	45,70

Oil of cajeput

Oleum Cajeput

D 0,92 g/cm³ · mp <-20 °C · bp 157 to 210 °C · flp 54,6 °C
CAS No. 85480-37-1 · EC no. 287-316-4
UN no. 1169 · ADR 3 III · WGK 2

Danger H226-H304-H315-H317-H319-H411

Oil of cajeput
natural

Type analysis
Appearance ..... clear, colourless to yellow oil
Density (20 °C) ..... 0,910-0,925 g/cm³
Refractive index (20 °C) 1,462-1,472
Optical rotation (20 °C) ..... -5° to 0°
1,8-Cineole ..... 50- 70 %
α-Terpineol ..... 5-15 %

Art. No.	Pack Qty.	Pack.	€
6105.1	100 ml	glass	34,30
6105.2	500 ml	glass	117,20

Oil of camphor

Oleum Camphorae

D 0,895 g/cm³ · mp <-20 °C · bp 155 to 172 °C · flp 45,75 °C
CAS No. 8008-51-3 · EC no. 616-922-7
UN no. 1130 · ADR 3 III · WGK 2

Danger H226-H304-H315-H317-H319-H411

Oil of camphor
all-natural

Type analysis
Appearance ..... clear, pale yellow to yellowish to brownish oil
Density (20 °C) ..... 0,870-0,920 g/cm³
Refractive index (20 °C) 1,465-1,475
Optical rotation (20 °C) ..... -5° to 15°

Art. No.	Pack Qty.	Pack.	€
3357.1	1 l	glass	69,35
Original pack 6 x 1 l			65,88/1 l

Oil of caraway

Oleum Carvi

CAS No. 8000-42-8 · EC no. 616-773-8

Oil of caraway
natural

D 0,91 g/cm³ · flp 60 °C

UN no. 3082 · ADR 9 III · WGK 3

Danger H226-H304-H312-H315-H317-H410

Type analysis
Appearance ..... clear, almost colourless to light yellowish oil
Solubility in ethanol % vol. L96: 1:10 v/v clear sol.
Miscible ..... ethanol 90 %, ether
Relative density (20 °C) 0,904-0,920
Refractive index (20 °C) 1,484-1,490
Optical rotation (20 °C) ..... +65° to +81°

Art. No.	Pack Qty.	Pack.	€
7050.1	25 ml	glass	27,85

Oil of caraway
artificial

D 0,87 g/cm³ · flp 53 °C

UN no. 1993 · ADR 3 III · WGK 2

Danger H226-H304-H315-H317-H410

Type analysis
Appearance ..... clear, yellowish to brownish oil
Density (20 °C) ..... 0,850-0,890 g/cm³
Refractive index (20 °C) 1,470-1,480
Optical rotation (20 °C) ..... +65° to +95°

Art. No.	Pack Qty.	Pack.	€
3307.1	250 ml	glass	45,70

Oil of cassia

Oleum Cassiae

D 1,06 g/cm³ · mp -20 °C · bp 253 °C · flp 122 °C
CAS No. 8007-80-5 · EC no. 284-635-0
UN no. 2810 · ADR 6.1 III · WGK 3

Danger H311-H315-H317-H319

Oil of cassia
Chinese, natural

Type analysis
Appearance ..... clear, yellow to brown oil
Relative density (20 °C) 1,052-1,070
Refractive index (20 °C) 1,600-1,614
Optical rotation (20 °C) ..... -1° to +1°

Art. No.	Pack Qty.	Pack.	€
6593.1	100 ml	glass	51,50

Oil of cedar leaf

Oleum Foliorum cedri

Oil of cedar leaf
pure

D 0,915 g/cm³ · mp <20 °C · bp 193 °C · flp 62 °C

CAS No. 8007-20-3 · EC no. 616-907-5

UN no. 1992 · ADR 3 (6.1) III · WGK 2

Danger H226-H301-H304-H315-H317-H411

Type analysis
Appearance ..... yellow to brownish oil
Density (20 °C) ..... 0,900-0,940 g/cm³
Refractive index (20 °C) 1,450-1,470
Optical rotation (20 °C) ..... -14° to -4 °

Art. No.	Pack Qty.	Pack.	€
6594.1	100 ml	glass	104,85

Oil of cedar leaf
artificial

D 0,9 g/cm³ · flp 51 °C

UN no. 1169 · ADR 3 III · WGK 2

Danger H226-H302-H304-H315-H317-H319-H411

Type analysis
Appearance ..... clear yellowish to brownish oil
Density (20 °C) ..... 0,880-0,920 g/cm³
Refractive index (20 °C) 1,4640-1,4740
Optical rotation (20 °C) ..... +5° to +15°

Art. No.	Pack Qty.	Pack.	€
3291.2	50 ml	glass	24,65
3291.1	250 ml	glass	74,75

Oil of cedar wood

Oleum Ligni cedri

D 0,99 g/cm³ · mp 90 °C · bp 279 °C · flp 113 °C
UN no. 3082 · ADR 9 III · WGK 3

Danger H304-H410

Oil of cedar wood
ready-to-use, for microscopic purposes

The classical medium for immersion microscopy

CAS No. 8000-27-9 · EC no. 616-769-6

Type analysis
Appearance ..... yellow to brownish, translucent
Odour ..... characteristic
Density (20 °C) 0,936-0,970
Refractive index n_D^{20} 1,495-1,510

Art. No.	Pack Qty.	Pack.	€
5308.1	100 ml	glass	31,10

Oil of celery

Oleum Apii · Apium graveoleus oil

D 0,88 g/cm³ · mp -74 °C · bp 175 °C · flp 56 °C
CAS No. 89997-35-3 · EC no. 289-668-4
UN no. 1993 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H410

Oil of celery

Oleum Apii, from seeds

Type analysis
Appearance ..... clear, light yellow-brownish oil
Relative density (20 °C) 0,880-0,905
Refractive index (20 °C) 1,4780-1,4860
Optical rotation (20 °C) ..... +50° to +70°

Art. No.	Pack Qty.	Pack.	€
7040.2	5 ml	glass	27,85
7040.1	25 ml	glass	74,75

Oil of cembra pine

Oleum Cembrae

D 0,86 g/cm³ · flp 45 °C
CAS No. 92202-04-5 · EC no. 296-036-1
UN no. 1272 · ADR 3 III · WGK 2

Danger H226-H304-H315-H317-H319-H411

Oil of cembra pine
pure

Type analysis
Appearance ..... clear, light yellowish oil
Density (20 °C) ..... 0,850-0,890 g/cm³
Refractive index (20 °C) 1,4700-1,4800
Optical rotation (20 °C) ..... -15° to -5°

Art. No.	Pack Qty.	Pack.	€
4208.2	25 ml	glass	21,40
4208.1	100 ml	glass	56,45

Oil of chamomile

Oleum Chamomillae

Oil of chamomile
blue

D 0,94 g/cm³ · mp -78,3 to 15,6 °C · bp 300,1 °C · flp 115 °C

CAS No. 8002-66-2 · EC no. 628-919-8

WGK 3

Danger H304-H412

Type analysis
Appearance ..... blue oil
Density (20 °C) ..... 0,922-0,964 g/cm³
Refractive index (20 °C) ..... 1,450 - 1,550

Art. No.	Pack Qty.	Pack.	€
6504.1	10 ml	glass	80,55

Oil of chamomile
Roman, natural

D 0,92 g/cm³ · flp 47 °C

CAS No. 84649-86-5 · EC no. 282-006-5

UN no. 1169 · ADR 3 III · WGK 2

Warning H226-H317-H412

Type analysis
Appearance ..... clear, yellowish oil
Relative density (20 °C) 0,890-0,930
Refractive index (20 °C) 1,440-1,455
Optical rotation (20 °C) ..... -5° to +5°

Art. No.	Pack Qty.	Pack.	€
3354.1	5 ml	glass	45,70

Oil of chamomile
artificial

D 0,95 g/cm³ · mp -15,4 °C · bp 205,3 °C · flp 51 °C

UN no. 1169 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H318-H410

Type analysis
Appearance ..... clear, blue to green oil
Density (20 °C) ..... 0,900-1,000 g/cm³
Refractive index (20 °C) 1,500-1,520
Optical rotation (20 °C) ..... -10° to 0°

Art. No.	Pack Qty.	Pack.	€
3305.1	50 ml	glass	69,35

Oil of cinnamon

Oleum Cinnamomi ceylanici

D 1,02 to 1,03 g/cm³ · flp >63 °C
WGK 2

Warning H312-H315-H317-H319-H412

Oil of cinnamon
natural

Type analysis
Appearance .... clear, yellowish to yellowbrownish oil
Density (20 °C) ..... 1,000-1,050 g/cm³
Refractive index (20 °C) 1,580-1,600
Optical rotation (20 °C) ..... -2° to +2°

Art. No.	Pack Qty.	Pack.	€
A432.2	10 ml	glass	21,40
A432.1	50 ml	glass	74,75

Oil of cinnamon
artificial

Type analysis
Appearance .. clear, light yellow to medium yellow oil
Density (20 °C) ..... 1,020-1,040 g/cm³
Refractive index (20 °C) 1,590-1,596
Optical rotation (20 °C) ..... -5° to +5°

Art. No.	Pack Qty.	Pack.	€
6512.1	50 ml	glass	34,30

Oil of citronella

Oleum Citronellae

EC no. 294-954-7

Oil of citronella
natural

D 0,89 g/cm³ · mp <-20 °C · bp 92 °C · flp 78 °C

CAS No. 91771-61-8

UN no. 3082 · ADR 9 III · WGK 2

Danger H302-H304-H317-H318-H411

Type analysis
Appearance . clear, colourless to yellow-brownish oil
Density (20 °C) ..... 0,860-0,895 g/cm³
Refractive index (20 °C) 1,4630-1,4750
Optical rotation (20 °C) ..... -4° to +1°

Art. No.	Pack Qty.	Pack.	€
6502.1	250 ml	glass	51,50

Oil of citronella
artificial

D 0,89 g/cm³ · flp 53 °C

UN no. 1993 · ADR 3 III · WGK 3

Danger H226-H302-H304-H315-H317-H318-H410

Type analysis
Appearance ..... clear, yellowish to brownish oil
Density (20 °C) ..... 0,850-0,900 g/cm³
Refractive index n_D^{20} 1,4650-1,4750
Optical rotation (20 °C) ..... +20° to +50°

Art. No.	Pack Qty.	Pack.	€
3292.1	500 ml	glass	40,35

Oil of clary-sage

Oleum Salviae sclareae

D 0,897 g/cm³ · mp <-20 °C · bp 189,2 °C · flp 84,5 °C
CAS No. 84775-83-7 · EC no. 283-911-8
WGK 3

Warning H315-H317-H319-H412

Oil of clary-sage
natural

Type analysis
Appearance ..... clear, light yellow oil
Density (20 °C) ..... 0,890-0,920 g/cm³
Refractive index (20 °C) 1,456-1,468
Optical rotation (20 °C) ..... -20° to -5°

Art. No.	Pack Qty.	Pack.	€
3355.1	25 ml	glass	56,45

Oil of cloves

Oleum Caryophyllorum

D 1,03 to 1,06 g/cm³ · mp -9 °C · bp 248 °C · flp 117 °C
CAS No. 84961-50-2 · EC no. 284-638-7
WGK 2

Danger H304-H315-H317-H319

Oil of cloves
≥80 %, natural, rectified

Guarantee analysis
Appearance ..... colourless to yellow
Assay (eugenol) ..... ≥80 %
Density (20 °C) ..... 1,028-1,053 g/cm³
Refractive index (20 °C) 1,5280-1,5370
Optical rotation (20 °C) ..... -2° to 0°

Art. No.	Pack Qty.	Pack.	€
8662.1	250 ml	glass	46,15
8662.2	1 l	glass	149,45
Original pack 6 x 1 l			141,98/1 l

Oil of coriander

Oleum Coriandri

D 0,867 g/cm³ · mp <-20 °C · bp 178,5 °C · flp 62,5 °C
CAS No. 84775-50-8 · EC no. 283-880-0
UN no. 3082 · ADR 9 III · WGK 2

Danger H304-H315-H317-H319-H411

Oil of coriander
natural

Type analysis
Appearance .... clear, colourless-light to yellowish oil
Relative density (20 °C) 0,860-0,880
Refractive index (20 °C) 1,4620-1,4700
Optical rotation (20 °C) ..... +7° to +13°

Art. No.	Pack Qty.	Pack.	€
7052.1	25 ml	glass	27,85

Oil of cubeb

Litsea · Oleum Cubebarum

D 0,88 g/cm³ · mp <-20 °C · bp 83 °C · flp 68,3 °C
CAS No. 90063-59-5 · EC no. 290-018-7
UN no. 3082 · ADR 9 III · WGK 2

Danger H304-H315-H317-H319-H411

Oil of cubeb
natural

Type analysis
Appearance ..... clear, yellowish to yellowish-brownish oil
Density (20 °C) ..... 0,850-0,900 g/cm³
Refractive index (20 °C) 1,4750-1,4850
Optical rotation (20 °C) ..... +5° to +20°

Art. No.	Pack Qty.	Pack.	€
6608.1	100 ml	glass	34,30

Oil of cypress

Oleum Cupressi

D 0,869 g/cm³ · mp -20 °C · bp 176,8 °C · flp 40 °C
CAS No. 8013-86-3 · EC no. 283-626-9
UN no. 1169 · ADR 3 III · WGK 2

Danger H226-H304-H315-H317-H411

Oil of cypress
French, natural

Type analysis
Appearance ..... clear, yellow to brown oil
Density (20 °C) ..... 0,850-0,890 g/cm³
Refractive index (20 °C) 1,450-1,480
Optical rotation (20 °C) ..... +10° to +30°

Art. No.	Pack Qty.	Pack.	€
6596.1	100 ml	glass	56,45

Oil of dill herb

Oleum Anethi e herba

D 0,89 g/cm³ · flp 53 °C
CAS No. 8006-75-5 · EC no. 289-790-8
UN no. 1169 · ADR 3 III · WGK 2

Danger H226-H304-H315-H317-H410

Oil of dill herb
all-natural

Type analysis
Appearance ..... clear yellow to brown oil
Density (20 °C) ..... 0,880-0,920 g/cm³
Refractive index (20 °C) 1,4800-1,4900
Optical rotation (20 °C) ..... +70° to +90°

Art. No.	Pack Qty.	Pack.	€
6597.1	100 ml	glass	56,45

Oil of dill seed

Oleum Anethi e seminis

D 0,89 g/cm³ · flp 57 °C
CAS No. 8006-75-5 · EC no. 289-790-8
UN no. 1169 · ADR 3 III · WGK 2

Danger H226-H304-H315-H317-H410

Oil of dill seed
extra pure

Type analysis
Appearance ..... clear colourless to yellowish oil
Density (20 °C) ..... 0,895-0,925 g/cm³
Refractive index (20 °C) 1,481-1,492
Optical rotation (20 °C) ..... +70° to +80°

Art. No.	Pack Qty.	Pack.	€
3352.1	100 ml	glass	56,45

Oil of estragon

Oleum Dracunculi

D 0,95 g/cm³ · mp ≥-60 °C · bp 203 °C · flp 70 °C
CAS No. 90131-45-6 · EC no. 290-356-5
UN no. 3082 · ADR 9 III · WGK 3

Danger H302-H304-H315-H317-H341-H351-H411

Oil of estragon
pure

Type analysis
Appearance clear, light yellow-green to brownish oil
Relative density (20 °C) 0,900-0,956
Refractive index (20 °C) 1,504-1,520
Optical rotation (20 °C) ..... +1° to +9°

Art. No.	Pack Qty.	Pack.	€
6602.1	50 ml	glass	91,95

Oil of eucalyptus

Oleum Eucalypti artificiale

Oil of eucalyptus
nature identical

D 0,87 g/cm³ · flp 31 °C

UN no. 1169 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H318-H410

Type analysis
Appearance .. clear, colorless to slightly yellow oil
Density (20 °C) ..... 0,850-0,900 g/cm³
Refractive index (20 °C) 1,4650-1,4750
Optical rotation (20 °C) ..... +5° to +15°

Art. No.	Pack Qty.	Pack.	€
3297.2	500 ml	glass	40,35
3297.1	1 l	glass	69,35
Original pack 6 x 1 l			65,88/1 l

Oil of evening primrose

Oleum Oenotherae

D 0,925 g/cm³ · bp >350 °C · flp >295 °C
CAS No. 90028-66-3 · EC no. 289-859-2
WGK 1

Oil of evening primrose
refined

Type analysis
Appearance ..... clear, yellowish to yellow oil
Density (20 °C) 0,920-0,930
Refractive index n_D^{20} 1,475-1,480

Art. No.	Pack Qty.	Pack.	€
3691.1	50 ml	glass	18,85
3691.2	500 ml	glass	83,75

Oil of fennel

D 0,89 g/cm³ · flp 40 °C
UN no. 1993 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H319-H341-H351-H410

Oil of fennel
artificial

Type analysis
Appearance . clear, yellowish to yellow - brownish oil
Density (20 °C) ..... 0,871-0,921 g/cm³
Refractive index (20 °C) 1,480-1,500
Optical rotation (20 °C) ..... +10° to +30°

Art. No.	Pack Qty.	Pack.	€
3299.2	100 ml	glass	21,40
3299.1	500 ml	glass	56,45

Oil of fir needles

Oleum Pini

Oil of fir needles
artificial

D 0,88 g/cm³ · flp 33 °C

UN no. 1993 · ADR 3 III · WGK 3

Danger H226-H302-H304-H315-H317-H319-H410

Type analysis
Appearance clear, almost colourless to yellowish oil
Density (20 °C) ..... 0,850-0,900 g/cm³
Refractive index (20 °C) 1,465-1,475
Optical rotation (20 °C) ..... -35° to -15°

Art. No.	Pack Qty.	Pack.	€
3301.1	500 ml	glass	45,70

Oil of gardensage

Oleum Salviae

D 0,914 g/cm³ · mp <-20 °C · bp 189,3 °C · flp 54 °C
CAS No. 8022-56-8 · EC no. 616-985-0
UN no. 1169 · ADR 3 III · WGK 2

Danger H226-H304-H315-H317-H371-H412

Oil of gardensage
natural, Dalmatian

Type analysis
Appearance clear, pale yellow to green-yellowish oil
Density (20 °C) ..... 0,905-0,925 g/cm³
Refractive index (20 °C) 1,457-1,473
Optical rotation (20 °C) ..... -3° to +15°

Art. No.	Pack Qty.	Pack.	€
7075.1	50 ml	glass	34,30

Oil of garlic

Oleum Allii sativi

D 1,13 g/cm³ · flp 54 °C
CAS No. 8008-99-9 · EC no. 232-371-1
UN no. 1197 · ADR 3 III · WGK 2

Warning H226-H302-H315-H317-H319-H412

Oil of garlic
natural

Storage temperature: +4 °C

Type analysis
Appearance ..... clear, yellow to brown oil
Density (20 °C) ..... 1,050-1,200 g/cm³
Refractive index (20 °C) 1,570-1,590

Art. No.	Pack Qty.	Pack.	€
3540.2	50 ml	glass	80,55
3540.1	100 ml	glass	149,45

Oil of geranium

Oleum Geranii

D 0,9 g/cm³ · mp <-20 °C · bp 224,1 °C · flp 91 °C
CAS No. 90082-51-2 · EC no. 290-140-0
UN no. 3082 · ADR 9 III · WGK 3

Danger H315-H317-H318-H411

Oil of geranium
natural

Type analysis
Appearance ..... clear, colourless to brown oil
Density (20 °C) ..... 0,870-0,910 g/cm³
Refractive index (20 °C) 1,460-1,470
Optical rotation (20 °C) ..... -10° to +10°

Art. No.	Pack Qty.	Pack.	€
7054.1	25 ml	glass	27,85

Oil of grapefruit

D 0,853 g/cm³ · mp <-25 °C · bp 160 °C · flp 54,8 °C
CAS No. 8016-20-4 · EC no. 616-973-5
UN no. 1169 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H411

Oil of grapefruit
natural

Type analysis
Appearance ..... yellow-brown oil
Density (20 °C) 0,846-0,864
Refractive index n_D^{20} 1,470-1,482
Rotation $[\alpha]_D^{20}$ ..... +90,0° to +104,0°
Aldehyde (calc. as decanal) ..... 0,8-1,6 %

Art. No.	Pack Qty.	Pack.	€
6718.1	250 ml	glass	115,60

Oil of juniper

Oleum Juniperi e baccis

D 0,867 g/cm³ · mp <-20 °C · bp 171,1 °C · flp 38,5 °C
CAS No. 8002-68-4 · EC no. 616-801-9
UN no. 1169 · ADR 3 III · WGK 2

Danger H226-H304-H317-H411-EUH066

Oil of juniper
pure

Type analysis
Appearance ..... clear, colorless to yellow oil
Density (20 °C) ..... 0,857-0,876 g/cm³
Refractive index (20 °C) 1,470-1,485
Optical rotation (20 °C) ..... -15° to 0°

Art. No.	Pack Qty.	Pack.	€
7059.1	25 ml	glass	40,35

Oil of juniper wood

Oleum Juniperi e ligno

D 0,86 g/cm³ · flp 33 °C
UN no. 1993 · ADR 3 III · WGK 3

Danger H226-H302-H304-H315-H317-H410

Oil of juniper wood
natural

Type analysis
Appearance ..... clear, colourless to yellowish oil
Relative density (20 °C) 0,8400-0,8800
Refractive index (20 °C) 1,4650-1,4750
Optical rotation (20 °C) ..... -12° to -2°

Art. No.	Pack Qty.	Pack.	€
7057.1	25 ml	glass	24,65

Oil of lavandin

D 0,89 g/cm³ · bp 211 °C · flp 63 to 73 °C
CAS No. 8022-15-9 · EC no. 294-470-6
WGK 1

Danger H304-H315-H317-H412

Oil of lavandin
French

Type analysis
Appearance ..... clear, pale yellow oil
Relative density (20 °C) 0,87-0,91
Refractive index (20 °C) 1,455-1,465
Optical rotation (20 °C) ..... -10° to -2°

Art. No.	Pack Qty.	Pack.	€
6603.1	100 ml	glass	34,30

Oil of lavender

Oleum Lavendulae

D 0,88 to 0,89 g/cm³ · flp 61 °C
UN no. 3082 · ADR 9 III · WGK 3

Danger H304-H315-H317-H319-H410

Oil of lavender
natural

Type analysis
Appearance ..... clear, pale yellow oil
Density (20 °C) ..... 0,870-0,910 g/cm³
Refractive index (20 °C) 1,4600-1,4700
Optical rotation (20 °C) ..... -5° to +5°

Art. No.	Pack Qty.	Pack.	€
3367.1	250 ml	glass	64,00

Oil of lemon

Oleum Citri

EC no. 284-515-8

Oil of lemon
natural

D 0,85 g/cm³ · bp 160 °C · flp 48 °C

CAS No. 84929-31-7

UN no. 1169 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H411

Type analysis
Appearance ..... clear, yellow oill
Relative density (20 °C) 0,848-0,854
Refractive index (20 °C) 1,470-1,4770
Optical rotation (20 °C) ..... +55° to +65°

Art. No.	Pack Qty.	Pack.	€
5213.1	100 ml	glass	46,80

Oil of lemon
artificial

D 0,85 g/cm³ · mp -74 °C · flp 48 °C

UN no. 1993 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H319-H410

Type analysis
Appearance .. clear, light yellow to medium yellow oil
Density (20 °C) ..... 0,840-0,860 g/cm³
Refractive index (20 °C) 1,4710-1,4760
Optical rotation (20 °C) ..... +55° to +75°

Art. No.	Pack Qty.	Pack.	€
3346.1	500 ml	glass	56,45

Oil of lemon-grass

Cochin · Oleum Lemon-grass

D 0,9 g/cm³ · flp 88 °C
CAS No. 8007-02-1 · EC no. 616-903-3
UN no. 3082 · ADR 9 III · WGK 2

Danger H315-H317-H318-H411

Oil of lemon-grass
all-natural

Guarantee analysis
Appearance .. clear, light yellow to medium yellow oil
Relative density (20 °C) 0,880-0,920
Refractive index (20 °C) 1,480-1,490
Optical rotation (20 °C) ..... -5° to +5°

Art. No.	Pack Qty.	Pack.	€
6606.1	100 ml	glass	34,30

Oil of lime

Oleum Limettae

D 0,862 g/cm³ · mp <-25 °C · bp 130 °C · flp 53,4 °C
UN no. 1169 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H410

Oil of lime
natural

Type analysis
Density (20 °C) 0,855-0,870
Refractive index (20 °C) 1,470-1,482
Optical rotation (20 °C) ..... +30° to +40°

Art. No.	Pack Qty.	Pack.	€
6721.1	50 ml	glass	34,95

Oil of lovage

Oleum Levistici

D 0,95 g/cm³ · flp 70 °C
CAS No. 8016-31-7 · EC no. 284-292-7
UN no. 3082 · ADR 9 III · WGK 2

Danger H304-H317-H411

Oil of lovage
pure

Type analysis
Appearance ..... clear, yellowish to brownish oil
Solubility in ethanol % vol. ..... L80: 1:4 v/v almost clear sol.
Relative density (20 °C) 0,970-1,030
Refractive index (20 °C) 1,5050-1,5350
Optical rotation (20 °C) ..... +5° to +25°

Art. No.	Pack Qty.	Pack.	€
6607.1	10 ml	glass	127,95

Oil of mandarin

Oleum Mandarinae

D 0,849 g/cm³ · bp 160 °C · flp 51 °C
CAS No. 84929-38-4 · EC no. 284-521-0
UN no. 1169 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H410

Oil of mandarin
Italian

Type analysis
Relative density (20 °C) 0,840-0,860
Refractive index (20 °C) 1,470-1,480
Optical rotation (20 °C) ..... +70° to +80°

Art. No.	Pack Qty.	Pack.	€
3796.1	100 ml	glass	58,60

Oil of mint
▸ Oil of peppermint see page 1126

Oil of mint

Oleum Menthae arvensis

D 0,893 g/cm³ · mp <-25 °C · bp 102 °C · flp 68,7 °C
CAS No. 90063-97-1 · EC no. 290-058-5
UN no. 3082 · ADR 9 III · WGK 1

Warning H302-H315-H317-H319-H411

Oil of mint
Chinese, crude

Type analysis
Appearance ..... pale oil
Density (20 °C) 0,885-0,905
Refractive index n_D^{20} 1,450-1,470
Specific rotation $[\alpha]_D^{20}$ ..... -15° to -25°

Art. No.	Pack Qty.	Pack.	€
6730.2	50 ml	glass	32,80
6730.1	250 ml	glass	129,55

Oil of mint
Japanese, natural

Type analysis
Appearance ..... clear, colourless-yellow to green-yellow oil
Density (20 °C) ..... 0,888-0,910 g/cm³
Refractive index (20 °C) 1,456-1,470
Optical rotation (20 °C) ..... -34° to -16°

Art. No.	Pack Qty.	Pack.	€
6731.2	50 ml	glass	24,65
6731.1	250 ml	glass	69,35

Oil of mint
rectified twice

Type analysis
Appearance ..... colourless to pale yellow oil
Refractive index n_D^{20} 1,458-1,465
Optical rotation $[\alpha]_D^{20}$ ..... -16° to -23°
Density (20 °C) 0,895-0,905

Art. No.	Pack Qty.	Pack.	€
6732.1	50 ml	glass	67,20
6732.2	250 ml	glass	252,65

Oil of niaouli

Melaleuca viridiflora

D 0,92 g/cm³ · mp <-20 °C · bp 163 to 181 °C · flp 50,3 °C
CAS No. 132940-73-9 · EC no. 616-951-5
UN no. 1169 · ADR 3 III · WGK 2

Danger H226-H304-H315-H317-H319-H411

Oil of niaouli
natural

Type analysis
Appearance ..... clear, yellowish oil
Density (20 °C) ..... 0,904-0,925 g/cm³
Refractive index (20 °C) 1,4630-1,4720
Optical rotation (20 °C) ..... -4° to +1°

Art. No.	Pack Qty.	Pack.	€
6610.1	100 ml	glass	40,35

Oil of nutmeg

Oleum Myristicae aethereum

D 0,895 g/cm³ · flp 42 °C
CAS No. 8008-45-5 · EC no. 282-013-3
UN no. 1993 · ADR 3 III · WGK 3

Danger H226-H304-H317-H341-H350-H411

Oil of nutmeg
essential

Type analysis
Appearance ..... clear, colourless to yellow oil
Density (20 °C) ..... 0,885-0,920 g/cm³
Refractive index (20 °C) 1,475-1,489
Optical rotation (20 °C) ..... +8° to +18°

Art. No.	Pack Qty.	Pack.	€
7064.1	50 ml	glass	34,30

Oil of orange

EC no. 232-433-8

Oil of orange
bitter, Italian

Oleum Aurantii amari

D 0,85 g/cm³ · flp 49 °C

CAS No. 68916-04-1

UN no. 1993 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H411

Type analysis
Appearance ..... clear, yellow to brownish oil
Density (20 °C) ..... 0,840-0,860 g/cm³
Refractive index (20 °C) 1,470-1,480
Optical rotation (20 °C) ..... +85° to +95°

Art. No.	Pack Qty.	Pack.	€
6509.1	100 ml	glass	45,70

Oil of orange
Brazilian

Oleum Aurantii

D 0,846 g/cm³ · mp <-25 °C · bp 165 to 175 °C · flp 50 °C

CAS No. 8028-48-6

UN no. 1169 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H411

Type analysis
Relative density (20 °C) 0,840-0,850
Refractive index (20 °C) 1,468-1,478
Optical rotation (20 °C) ..... +95° to +101°

Art. No.	Pack Qty.	Pack.	€
3803.1	100 ml	glass	91,30

Oil of orange
Floridian

From orange peel, cold-pressed.

Oleum Aurantii amari

D 0,846 g/cm³ · mp <-25 °C · bp 165 to 175 °C · flp 50 °C

CAS No. 8028-48-6

UN no. 1169 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H411

Type analysis
Specific rotation $[\alpha]_D^{20}$ ..... +92 to +102°
Refractive index n_D^{20} 1,468-1,480
Aldehydes (as decanal) ..... 1,2-1,8 %

Art. No.	Pack Qty.	Pack.	€
6728.2	250 ml	glass	37,55
6728.3	500 ml	glass	69,80
6728.1	1 l	glass	127,95
Original pack 6 x 1 l			121,55/1 l

Oil of orange
sweet, natural

Oleum Aurantii dulcis

D 0,846 g/cm³ · mp <-25 °C · bp 160 °C · flp 53,4 °C

CAS No. 8008-57-9

UN no. 1993 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H411

Type analysis
Appearance ..... clear, yellowish to brownish oil
Relative density (20 °C) 0,840-0,860
Refractive index (20 °C) 1,4680-1,4760
Optical rotation (20 °C) ..... +75° to +100°

Art. No.	Pack Qty.	Pack.	€
6611.1	100 ml	glass	56,45

Oil of orange flowers

Oleum Neroli

D 0,87 g/cm³ · bp 160 °C · flp 53,5 °C
CAS No. 84929-31-7 · EC no. 284-515-8
UN no. 3082 · ADR 9 III · WGK 3

Danger H226-H304-H315-H317-H411

Oil of orange flowers
artificial

Type analysis
Appearance ..... clear, yellow to brown oil
Density (20 °C) ..... 0,860-0,920 g/cm³
Refractive index (20 °C) 1,460-1,480

Art. No.	Pack Qty.	Pack.	€
3323.1	50 ml	glass	80,55

Oil of origanum

Oleum Origani cretici

D 0,915 g/cm³ · flp 76 °C
CAS No. 84012-24-8 · EC no. 281-670-3
WGK 2

Danger H302+H312-H304-H315-H317-H412

Oil of origanum
natural

Type analysis
Appearance ..... clear, yellow to red-brown oil
Density (20 °C) ..... 0,915-0,975 g/cm³
Refractive index (20 °C) 1,500-1,520
Optical rotation (20 °C) ..... -5° to +1°

Art. No.	Pack Qty.	Pack.	€
6612.2	25 ml	glass	27,85
6612.1	100 ml	glass	74,75

Oil of palmarosa

Oleum Palmae rosae

D 0,88 g/cm³ · flp 90 °C
CAS No. 8014-19-5 · EC no. 283-461-2
WGK 1

Danger H315-H317-H318-H412

Oil of palmarosa
East Indian

Guarantee analysis
Appearance ..... clear yellow to brownish oil
Density (20 °C) ..... 0,880-0,900 g/cm³
Refractive index (20 °C) 1,465-1,475
Optical rotation (20 °C) ..... -5° to +3°

Art. No.	Pack Qty.	Pack.	€
6613.2	25 ml	glass	27,85
6613.1	100 ml	glass	56,45

Oil of parsley

Oleum Petroselini

D 1,066 g/cm³ · flp 52 °C
CAS No. 8000-68-8 · EC no. 281-677-1
UN no. 1169 · ADR 3 III · WGK 2

Danger H226-H304-H315-H317-H411

Oil of parsley
French

Type analysis
Appearance ..... clear, yellow to yellow brown greenish oil
Relative density (20 °C) 1,037-1,095
Refractive index (20 °C) 1,492-1,522
Optical rotation (20 °C) ..... -9° to -4°

Art. No.	Pack Qty.	Pack.	€
7072.1	10 ml	glass	27,85

Oil of patchouli

D 0,96 g/cm³ · flp 110 °C
CAS No. 8014-09-3 · EC no. 282-493-4
UN no. 3082 · ADR 9 III · WGK 1

Danger H304-H411

Oil of patchouli
artificial

Type analysis
Appearance ..... clear medium to dark brown oil
Density (20 °C) 0,955-0,980
Refractive index (20 °C) 1,505-1,515
Optical rotation (20 °C) ..... -60° to -30°

Art. No.	Pack Qty.	Pack.	€
6511.2	25 ml	glass	27,85
6511.1	100 ml	glass	74,75

Oil of pepper

Oleum Piperis

D 0,88 g/cm³ · mp <-20 °C · bp 196 °C · flp 49,8 °C
CAS No. 84929-41-9 · EC no. 284-524-7
UN no. 1169 · ADR 3 III · WGK 2

Danger H226-H304-H315-H317-H411

Oil of pepper
natural

Type analysis
Appearance ..... clear, yellow-yellowbrownish oil
Density (20 °C) ..... 0,864-0,915 g/cm³
Refractive index (20 °C) 1,4700-1,4900
Optical rotation (20 °C) ..... -23° to -1°

Art. No.	Pack Qty.	Pack.	€
6616.2	25 ml	glass	40,35
6616.1	100 ml	glass	117,20

Oil of peppermint

Oil of mint · Oleum Menthae piperitae

Oil of peppermint
pure, Italian

D 0,901 g/cm³ · bp 92 °C · flp 72 °C

CAS No. 8006-90-4 · EC no. 282-015-4

UN no. 3082 · ADR 9 III · WGK 1

Warning H315-H317-H319-H411

Type analysis
Appearance ..... colourless to yellow oil
Density (20 °C) ..... 0,900-0,916 g/cm³
Refractive index (20 °C) 1,4570-1,4670
Optical rotation (20 °C) ..... -30° to -10°

Art. No.	Pack Qty.	Pack.	€
7063.1	25 ml	glass	34,30

Oil of peppermint
pure

D 0,91 g/cm³ · flp 74 °C

UN no. 3082 · ADR 9 III · WGK 3

Warning H315-H317-H319-H411

Type analysis
Appearance ..... colourless to light yellow oil
Density (20 °C) 0,898-0,908
Refractive index (20 °C) 1,455-1,465
Optical rotation (20 °C) ..... -30° to -20°

Art. No.	Pack Qty.	Pack.	€
9318.1	50 ml	glass	34,95

Oil of peppermint
artificial

D 0,85 to 0,9 g/cm³ · flp 48 °C

UN no. 1169 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H319-H410

Type analysis
Appearance .. clear, yellowish to light brownish oil
Density (20 °C) ..... 0,850-0,900 g/cm³
Refractive index (20 °C) 1,4600-1,4800
Optical rotation (20 °C) ..... +15° to +30°

Art. No.	Pack Qty.	Pack.	€
3329.2	100 ml	glass	21,40
3329.1	500 ml	glass	56,45

Oil of petitgrain

Oleum Petigrain americ.

D 0,87 g/cm³ · flp 66 °C
CAS No. 8014-17-3 · EC no. 277-143-2
UN no. 3082 · ADR 9 III · WGK 3

Danger H304-H315-H317-H318-H411

Oil of petitgrain
South American

Type analysis
Appearance ..... clear, yellow to yellow brown oil
Density (20 °C) ..... 0,870-0,910 g/cm³
Refractive index (20 °C) 1,455-1,495
Optical rotation (20 °C) ..... -5° to +10°

Art. No.	Pack Qty.	Pack.	€
6614.1	100 ml	glass	56,45

Oil of rose

Oleum Rosae

Oil of rose
Bulgarian, natural

D 0,85 to 0,86 g/cm³ · bp 222 to 225 °C · flp 67 °C

CAS No. 90106-38-0 · EC no. 290-260-3

WGK 1

Danger H304-H315-H317-H318-H341-H351-H412

Type analysis
Appearance ..... yellowish oil

Art. No.	Pack Qty.	Pack.	€
5733.1	1 ml	glass	56,45
5733.2	10 ml	glass	407,45

Oil of rose
artificial

D 0,84 to 0,88 g/cm³ · mp <20 °C · bp 223,8 °C · flp 102 °C

WGK 2

Danger H315-H317-H318-H412

Type analysis
Appearance ..... clear, pale yellow to yellowish to brownish oil
Density (20 °C) ..... 0,860-0,920 g/cm³
Refractive index (20 °C) 1,4700-1,4800
Optical rotation (20 °C) ..... -2° to +2°

Art. No.	Pack Qty.	Pack.	€
4092.1	10 ml	glass	34,30

Oil of rosemary

Oleum Rosmarini

Oil of rosemary
Spanish

D 0,91 g/cm³ · flp 47 °C

UN no. 1993 · ADR 3 III · WGK 3

Danger H226-H302+H332-H304-H315-H317-H318-H371-H410

Type analysis
Appearance .... clear, colourless to pale yellow oil
Density (20 °C) ..... 0,891-0,917 g/cm³
Refractive index (20 °C) 1,4650-1,4750
Optical rotation (20 °C) ..... -5° to +15°

Art. No.	Pack Qty.	Pack.	€
6514.1	100 ml	glass	34,30

Oil of rosemary
artificial

D 0,91 g/cm³ · flp 35 °C

UN no. 1993 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H318-H410

Type analysis
Appearance ..... clear, light yellow oil
Density (20 °C) ..... 0,890-0,920 g/cm³
Refractive index (20 °C) 1,4650-1,4750
Optical rotation (20 °C) ..... -10° to +10°

Art. No.	Pack Qty.	Pack.	€
3336.2	100 ml	glass	21,40
3336.1	500 ml	glass	64,00

Oil of rose-wood

Oleum Ligni Rhodii

D 0,887 g/cm³ · bp 177 °C · flp 75 °C
CAS No. 8015-77-8 · EC no. 281-093-7
WGK 1

Warning H315-H317-H412

Oil of rose-wood
nature identical

Type analysis
Appearance ..... colorless to yellow oil
Purity ..... ≥99 %
Density (25 °C) 0,866-0,877
Refractive index (20 °C) 1,461-1,467

Art. No.	Pack Qty.	Pack.	€
3275.2	50 ml	glass	52,15
3275.1	100 ml	glass	94,10

Oil of sandal-wood

Oleum Santali

EC no. 284-111-1

Oil of sandal-wood
West Indian

D 0,96 g/cm³ · mp -21 °C · bp 89,5 °C · flp 142,5 °C

CAS No. 84787-70-2

UN no. 3082 · ADR 9 III · WGK 2

Warning H315-H317-H319-H400

Type analysis
Appearance ..... clear, yellowish to brownish oil
Relative density (20 °C) 0,935-0,975
Refractive index (20 °C) 1,5000-1,5150
Optical rotation (20 °C) ..... +15° to +40°

Art. No.	Pack Qty.	Pack.	€
6620.2	25 ml	glass	21,40
6620.1	100 ml	glass	56,45

Oil of sandal-wood
artificial

D 0,98 g/cm³ · flp 90 °C

UN no. 3082 · ADR 9 III · WGK 3

Warning H315-H319-H411-EUH208

Type analysis
Appearance ..... clear yellow to brownish oil
Miscible ..... ethanol 96 %
Density (20 °C) ..... 0,950-1,000 g/cm³
Refractive index (20 °C) 1,500-1,510
Optical rotation (20 °C) ..... -5° to +5°

Art. No.	Pack Qty.	Pack.	€
3341.2	50 ml	glass	24,65
3341.1	250 ml	glass	69,35

Oil of Scotch pine needles

Oleum Pini silvestris

Oil of Scotch pine needles
natural

D 0,87 g/cm³ · mp <-20 °C · bp 169,4 °C · flp 37 °C

CAS No. 8023-99-2 · EC no. 640-016-0

UN no. 1272 · ADR 3 III · WGK 2

Danger H226-H304-H315-H317-H411

Type analysis
Appearance .... clear, colourless to light yellow oil
Density (20 °C) ..... 0,855-0,875 g/cm³
Refractive index (20 °C) 1,465-1,480
Optical rotation (20 °C) ..... -30° to -9°

Art. No.	Pack Qty.	Pack.	€
7073.1	100 ml	glass	40,35

Oil of Scotch pine needles
artificial

D 0,87 g/cm³ · bp ~154 °C · flp 45 °C

UN no. 1993 · ADR 3 III · WGK 3

Danger H226-H302-H304-H315-H317-H410

Type analysis
Appearance ..... clear, light yellowish oil
Density (20 °C) ..... 0,855-0,885 g/cm³
Refractive index (20 °C) 1,4700-1,4850
Optical rotation (20 °C) ..... -25° to -5°

Art. No.	Pack Qty.	Pack.	€
3306.2	250 ml	glass	27,85
3306.1	500 ml	glass	56,45

Oil of silver fir

Oleum Abietis

D 0,88 g/cm³ · flp 45 °C
UN no. 1993 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H410

Oil of silver fir
artificial

Type analysis
Appearance clear, almost colourless to yellowish to brownish oil
Relative density (20 °C) 0,850-0,900
Refractive index (20 °C) 1,4700-1,4800
Optical rotation (20 °C) ..... -70° to -30°

Art. No.	Pack Qty.	Pack.	€
3295.1	250 ml	glass	34,30

Oil of silver fir cones

Oleum Templini

D 0,86 g/cm³ · flp 46 °C
CAS No. 90028-76-5
UN no. 1272 · ADR 3 III · WGK 2

Danger H226-H304-H315-H317-H410

Oil of silver fir cones
natural

Type analysis
Appearance ..... clear, yellow to brownish oil
Density (20 °C) ..... 0,840-0,880 g/cm³
Refractive index (20 °C) 1,470-1,480
Optical rotation (20 °C) ..... -90° to -50°

Art. No.	Pack Qty.	Pack.	€
6598.1	100 ml	glass	64,00

Oil of silver fir needles

Oleum Abietis

D 0,86 g/cm³ · mp <-20 °C · bp 169,5 °C · flp 36 °C
CAS No. 8021-27-0
UN no. 1272 · ADR 3 III · WGK 2

Danger H226-H304-H315-H317-H319-H411

Oil of silver fir needles
natural

Type analysis
Appearance ..... clear, light yellow-brownish oil
Density (20 °C) ..... 0,850-0,890 g/cm³
Refractive index (20 °C) 1,465-1,475
Optical rotation (20 °C) ..... -60° to -30°

Art. No.	Pack Qty.	Pack.	€
3353.1	100 ml	glass	51,50

Oil of spike

Oleum Spicae

D 0,9 g/cm³ · bp 150 °C · flp 58 °C
CAS No. 84837-04-7 · EC no. 284-290-6
UN no. 1169 · ADR 3 III · WGK 1

Danger H226-H304-H315-H317-H319-H371-H411

Oil of spike
all-natural

Type analysis
Appearance ..... clear, light yellow oil
Density (20 °C) ..... 0,893-0,909 g/cm³
Refractive index (20 °C) 1,4630-1,4680
Optical rotation (20 °C) ..... -5° to +5°

Art. No.	Pack Qty.	Pack.	€
7079.1	50 ml	glass	34,30

Oil of sweet almond

Oleum Amygdalae dulcis

D 0,91 to 0,92 g/cm³ · bp >316 °C · flp >300 °C
CAS No. 8007-69-0
WGK 1

Oil of sweet almond
refined

Type analysis
Appearance ..... clear, yellow liquid
Relative density (20 °C) ..... ~0,916
Acid value (mg KOH/g) ..... ≤1,0
Peroxide value ..... ≤5 meq O_2/kg
Unsaponifiable matter ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
9342.1	1 l	glass	52,60
Original pack 6 x 1 l			49,97/1 l
9342.3	2.5 l	glass	110,20
Original pack 4 x 2.5 l			104,69/2.5 l
9342.2	10 l	tinplate	375,20

Oil of tansy

Oleum Tanaceti

D 1,22 g/cm³
CAS No. 84961-64-8 · EC no. 284-653-9
WGK 2

Warning H302-H315-H319-H335

Oil of tansy
pure

Type analysis
Appearance ..... clear brown oil
Density (20 °C) ..... 1,210-1,230 g/cm³
Refractive index 1,435-1,455
pH-value 4-5

Art. No.	Pack Qty.	Pack.	€
7081.2	5 ml	glass	21,40
7081.1	25 ml	glass	62,25

Oil of tea tree

Melaleuca alternifolia aetheroleum

D 0,88 to 0,89 g/cm³ · mp -22 °C · bp >95 to <225 °C · flp 53 °C
CAS No. 85085-48-9 · EC no. 285-377-1
UN no. 1169 · ADR 3 III · WGK 2

Danger H226-H302+H332-H304-H315-H317-H411

Oil of tea tree
Australian, natural

Type analysis
Appearance clear, colourless to light yellowish oil
Density (20 °C) 0,885-0,996
Refractive index (20 °C) 1,475-1,482
Optical rotation (20 °C) ..... 0° to +15°

Art. No.	Pack Qty.	Pack.	€
K032.1	50 ml	glass	34,30

Oil of theobroma

Oleum Cacao

D 0,96 g/cm³ · mp 30 to 34 °C
CAS No. 8002-31-1 · EC no. 310-127-6
WGK 1

Oil of theobroma
pure, double filtered

Type analysis
Appearance ..... light yellow pellets
Refractive index (40 °C) 1,456-1,459
Melting point ..... 30-34 °C
Saponification value 192-198
Iodine value 33-42

Art. No.	Pack Qty.	Pack.	€
3515.2	100 g	plastic	21,40
3515.1	500 g	plastic	68,70
Original pack 6 x 500 g			65,27/500 g

Oil of thyme

Oleum Thymi

EC no. 284-023-3

Oil of thyme
natural

ex *Thymus serpyllum*

D 0,91 g/cm³ · flp 53 °C

CAS No. 84776-98-7

UN no. 2924 · ADR 3 (8) III · WGK 3

Danger H226-H304-H314-H317-H361fd-H411

Type analysis
Appearance ..... clear, brown oil
Relative density (20 °C) 0,880-0,940
Refractive index (20 °C) 1,480-1,500
Optical rotation (20 °C) ..... -10° to +1°

Art. No.	Pack Qty.	Pack.	€
K500.1	50 ml	glass	51,50

Oil of thyme
nature identical

D 0,92 g/cm³ · bp >100 °C · flp 57 °C

UN no. 2924 · ADR 3 (8) III · WGK 3

Danger H226-H302-H304-H314-H317-H335-H411

Type analysis
Appearance ... clear, yellowish to red-brownish oil
Miscible ..... ethanol 96 %
Density (20 °C) ..... 0,915-0,935 g/cm³
Refractive index (20 °C) 1,490-1,505
Optical rotation (20 °C) ..... -10° to 0°

Art. No.	Pack Qty.	Pack.	€
6513.1	100 ml	glass	27,85

Oil of turpentine

D 0,86 to 0,87 g/cm³ · mp -60 °C · bp 154 to 170 °C · flp 35 °C
CAS No. 8006-64-2 · EC no. 232-350-7
UN no. 1299 · ADR 3 III · WGK 2

Danger H226-H304-H312+H332-H315-H317-H319-H411

Oil of turpentine
DAB, rectified

Guarantee analysis
Identity (TLC) ..... complies
Solubility L90: 1,5:10,5
Relative density (20 °C) 0,856-0,867
Optical rotation (20 °C) ..... -40° to +48°
Refractive index n_D^{20} 1,467-1,478
Non volatile matter ..... ≤1,0 %
Water-soluble content ..... complies
Boiling behaviour ..... complies
Heavy metals ..... complies
Pine oil ..... complies
Fatty oils, resinified volatile oils ..... complies
Foreign ester ..... complies
Halogen-containing impurities ..... complies
Acid reacting impurities ..... complies

Art. No.	Pack Qty.	Pack.	€
T139.1	1 l	glass	85,90
Original pack 6 x 1 l			81,61/1 l
T139.2	2.5 l	glass	177,40
Original pack 4 x 2.5 l			168,53/2.5 l
T139.3	10 l	tinplate	547,20

Oil of valerian

Oleum Valerianae

Oil of valerian
all-natural

D ~0,97 g/cm³ · flp 78 °C

CAS No. 8008-88-6 · EC no. 616-930-0

UN no. 3082 · ADR 9 III · WGK 2

Danger H304-H317-H410

Type analysis
Appearance ..... clear, yellowish to brownish oil
Density (20 °C) ..... 0,890-0,990 g/cm³
Refractive index (20 °C) 1,4700-1,4800
Optical rotation (20 °C) ..... -15° to -35°

Art. No.	Pack Qty.	Pack.	€
6588.2	10 ml	glass	56,45
6588.3	25 ml	glass	117,20
6588.1	50 ml	glass	224,70

Oil of valerian
artificial

D ~0,97 g/cm³ · flp 85 °C

UN no. 3082 · ADR 9 III · WGK 2

Danger H304-H315-H317-H319-H332-H411

Type analysis
Appearance ..... clear yellowish to brownish oil
Density (20 °C) ..... 0,950-1,050 g/cm³
Refractive index (20 °C) 1,5000-1,5200
Optical rotation (20 °C) ..... -20° to 0°

Art. No.	Pack Qty.	Pack.	€
3279.1	100 ml	glass	40,35

Oil of vetiver

Oleum Vetiverae

D 0,992 g/cm³ · mp 20 °C · bp 276 °C · flp 119 °C
CAS No. 8016-96-4 · EC no. 616-993-4
UN no. 3082 · ADR 9 III · WGK 1

Warning H315-H317-H319-H411

Oil of vetiver
natural

Type analysis
Appearance ..... clear, brownish oil
Density (20 °C) ..... 0,980-1,040 g/cm³
Refractive index (20 °C) 1,515-1,535
Optical rotation (20 °C) ..... +10° to +30°

Art. No.	Pack Qty.	Pack.	€
6622.2	10 ml	glass	27,85
6622.1	50 ml	glass	104,85

Oil of wintergreen

Oleum Gaultheriae

D 1,19 g/cm³ · flp >100 °C
WGK 1

Warning H302-H317-H361fd-H412

Oil of wintergreen
artificial

Main constituent: methyl salicylate

Type analysis
Appearance ..... clear, yellowish to brownish oil
Density (20 °C) ..... 1,181-1,188 g/cm³
Refractive index (20 °C) 1,530-1,540
Optical rotation (20 °C) ..... -1° to +1°

Art. No.	Pack Qty.	Pack.	€
7053.1	100 ml	glass	40,35

Oil of ylang-ylang
comoric, all-natural

D 0,94 g/cm³ · mp -80 °C · flp 88 °C

CAS No. 8006-81-3

WGK 2

Danger H304-H315-H317-H412

Type analysis
Appearance ..... clear yellow to brownish oil
Density (20 °C) ..... 0,935-0,980 g/cm³
Refractive index (20 °C) 1,495-1,515
Optical rotation (20 °C) ..... -50° to -20°

Art. No.	Pack Qty.	Pack.	€
6624.2	25 ml	glass	56,45
6624.1	100 ml	glass	188,15

Oil of ylang-ylang

Oleum Anonae

EC no. 281-092-1

Oil of ylang-ylang
artificial

D 0,96 g/cm³ · flp 78 °C

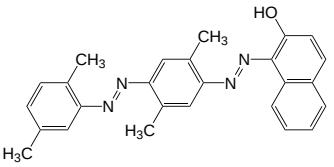
WGK 2

Danger H304-H315-H317-H318-H412

Type analysis
Appearance ..... clear yellow to brownish oil
Density (20 °C) ..... 0,940-0,980 g/cm³
Refractive index (20 °C) 1,5000-1,5200
Optical rotation (20 °C) ..... -20° to 0°

Art. No.	Pack Qty.	Pack.	€
3343.2	50 ml	glass	21,40
3343.1	250 ml	glass	74,75

Oil red O



Solvent red 27 · Sudan red 5B

$C_{26}H_{24}N_4O$ · mp 120 °C
CAS No. 1320-06-5
WGK 1

Oil red O (C. I. 26125)
extra pure

fat soluble dye

Type analysis
Appearance ..... red brown powder
Dye content ..... ≥75 %
Maximum absorption ..... 528-534 nm

Art. No.	Pack Qty.	Pack.	€
1H5H.1	25 g	glass	23,15
1H5H.2	100 g	glass	57,55

Oil soluble red A

▸ Rhodamine B (C.I. 45170) see page 1204

Oil standards

▸ Standards for Determination of the Hydrocarbon Index see page 1311

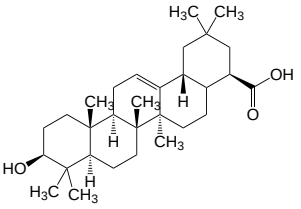
Okanin-4'-glucoside

▸ Marein see page 1069

Oleanol

▸ Oleanolic acid see page 1129

Oleanolic acid



Oleanol · Caryophylline

$C_{30}H_{48}O_3$ · mp 300 to 310 °C
CAS No. 508-02-1 · EC no. 208-081-6
WGK 1

Oleanolic acid
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤1,0 %
Water (KF) ..... ≤4,0 %
Assay (qNMR) ..... ≥90,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE50.1	10 mg	glass	697,70

Oleanolic acid
ROTICHROM® HPLC

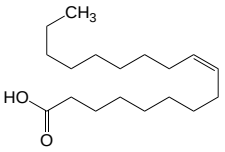
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7402.2	20 mg	glass	192,45

Oleic acid



cis-9-Octadecenoic acid

$C_{18}H_{34}O_2$ · D 0,89 g/cm³ · mp 14 to 17 °C · bp 360 °C · flp >180 °C
CAS No. 112-80-1 · EC no. 204-007-1
WGK 1

Oleic acid
≥99 %, natural

Storage temperature: +4 °C

Type analysis
Assay (GC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7213.1	5 ml	glass	41,40
7213.2	50 ml	glass	295,65

Oleic acid
≥78 %, pure

Type analysis
Iodine value (g I_2/ 100 g) 85-105
Acid value (mg KOH/g) 190-205
Saponification value (mg KOH/g) 190-210
C 18:1 Oleic acid ..... ≥78 %
C 18:2 Linoleic acid ..... ≤13 %
C 18:3 Linolenic acid ..... ≤0,5 %
C 18:0 Stearic acid ..... ≤2 %

Art. No.	Pack Qty.	Pack.	€
3589.1	250 ml	glass	23,15
3589.2	1 l	glass	53,65
Original pack 6 x 1 l			50,97/1 l
3589.3	2.5 l	glass	107,00
Original pack 4 x 2.5 l			101,65/2.5 l

Oleic acid
technical

Type analysis
Appearance ..... yellow oily liquid

Art. No.	Pack Qty.	Pack.	€
3562.1	250 ml	glass	16,05
3562.2	1 l	glass	33,25
Original pack 6 x 1 l			31,59/1 l
3562.3	2.5 l	glass	69,80
Original pack 4 x 2.5 l			66,31/2.5 l

Oleic acid
ROTICHROM® GC

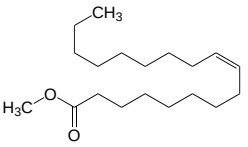
Reference substance for GC

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
5362.1	1 g	glass	46,15

Oleic acid methyl ester



Methyl oleate

$C_{19}H_{36}O_2$ · D 0,879 g/cm³ · mp -20 °C · bp 202 to 210 °C · flp 113 °C
CAS No. 112-62-9 · EC no. 203-992-5

Oleic acid methyl ester
ROTICHROM® GC

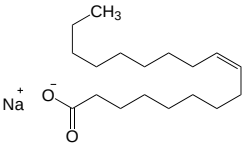
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
3186.1	1 g	glass	42,50

Oleic acid sodium salt



Sodium oleate

$C_{18}H_{33}NaO_2$ · D 1,02 g/cm³ · mp 232 to 235 °C
CAS No. 143-19-1 · EC no. 205-591-0
WGK 1

Oleic acid sodium salt
~90 %

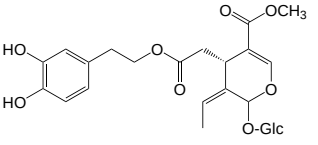
Type analysis
Appearance ..... white to yellowish
Total fatty acids ..... 88,0-92,0 %
Moisture ..... 1,0-4,0 %
Free NaOH ..... 0,2-0,6 %

Art. No.	Pack Qty.	Pack.	€
8856.1	500 g	plastic	49,35
Original pack 6 x 500 g			46,88/500 g

Oleoside-1-methylester

▸ Elenolic acid glucoside see page 909

Oleuropein



$C_{25}H_{32}O_{13}$
CAS No. 32619-42-4 · EC no. 251-129-6
WGK 1

Oleuropein
≥90 %

Type analysis
Appearance ..... powder, coloured like ivory
Assay ..... ≥90 %

Art. No.	Pack Qty.	Pack.	€
7018.2	1 g	glass	579,45

Oleuropein
ROTICHROM® HPLC

Reference substance for HPLC.
From *Olea europaea.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1191.1	20 mg	glass	317,15

Olive oil

Oleum Olivarum

D 0,91 to 0,92 g/cm³ · bp >350 °C · flp >300 °C
CAS No. 8001-25-0 · EC no. 232-277-0
WGK awg

Olive oil
Ph. Eur., virgin

Guarantee analysis
Identity ..... complies
Relative density ..... ~0,913
Absorption ..... complies
Acid value ..... ≤2,0
Peroxide value ..... ≤20
Unsaponifiable matter ..... ≤1,5 %
Water ..... ≤0,1 %
Campesterol ..... ≤4,0 %
Cholesterol ..... ≤0,5 %
delta-7-Stigmastenol ..... ≤0,5 %
Other sterols ..... ≥93,0 %
Sesame oil ..... not existing

GC-fatty acid constituents:
C <16 Saturated fatty acid ..... ≤0,1 %
C 16:0 Palmitic acid ..... 7,5-20,0 %
C 16:1 Palmitoleic acid ..... ≤3,5 %
C 18:0 Stearic acid ..... 0,5-5,0 %
C 18:1 Oleic acid ..... 56,0-85,0 %
C 18:2 Linoleic acid ..... 3,5-20,0 %
C 18:3 Linolenic acid ..... ≤1,2 %
C 20:0 Arachidic acid ..... ≤0,7 %
C 20:1 Eicosenoic acid ..... ≤0,4 %
C 22:0 Behenic acid ..... ≤0,2 %
C 24:0 Lignoceric acid ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
8873.1	500 ml	glass	31,10
8873.2	2.5 l	glass	107,40
Original pack 4 x 2.5 l			102,03/2.5 l

O'Meara's reagent

D 1,171 g/cm³ · bp 100 °C
UN no. 1814 · ADR 8 II · WGK 1

Danger H290-H302-H314

O'Meara's reagent
for microbiology

For the detection of acetoin production in the Voges-Proskauer test.

Please note: Add Barritt's reagent **before** O'Meara's reagent.

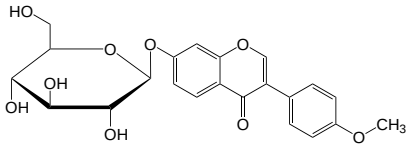
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Appearance ..... clear, colourless liquid
Suitable for microbiology ..... complies

Art. No.	Pack Qty.	Pack.	€
1HHX.1	100 ml	glass	51,50

1-OMe-β-D-GlcA
▸ 1-*O*-Methyl-β-D-glucuronic acid, sodium salt see page 1085

Ononin



Formononetin-7-*O*-glucoside

$C_{22}H_{22}O_9$ · mp 214 to 222 °C
CAS No. 486-62-4
WGK 1

Ononin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

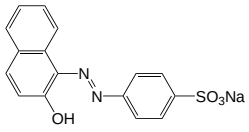
Art. No.	Pack Qty.	Pack.	€
9411.2	10 mg	glass	381,65

ONPG
▸ 2-Nitrophenyl-β-D-galactopyranoside see page 1112

ONP-β-D-Glc
▸ 2-Nitrophenyl-β-D-glucopyranoside see page 1113

OPA
▸ *o*-Phthaldialdehyde see page 1157

Orange II sodium salt (C.I. 15510)



Acid orange 7

$C_{16}H_{11}N_2NaO_4S$ · D 1,53 g/cm³ · mp 290 °C
CAS No. 633-96-5 · EC no. 211-199-0
WGK 2

Danger H372-H412

Orange II sodium salt (C.I. 15510)
for microscopy

Indicator pH 7.4-8.6 and pH 10.2-11.8

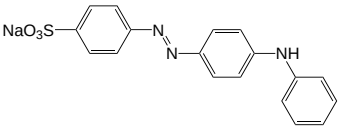
Dissolve 0.1 g in 100 ml of water

Type analysis
Appearance ..... orange to brown powder
pH-transition range ..... 7,4 (amber)-8,6 (orange)
pH-transition range ..... 10,2 (orange)-11,8 (red)

Art. No.	Pack Qty.	Pack.	€
7729.1	5 g	glass	18,85
7729.2	25 g	glass	33,25
7729.3	100 g	glass	80,55

Orange III
▸ Methyl orange (C. I. 13025) see page 1086

Orange IV sodium salt (C.I. 13080)



Tropaeolin OO

$C_{18}H_{14}N_3NaO_3S$
CAS No. 554-73-4 · EC no. 209-071-4
WGK 1

Warning H315-H319-H335

Orange IV sodium salt (C.I. 13080)
for microscopy

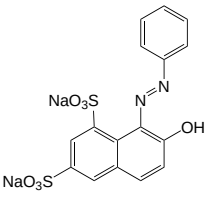
Indicator pH 1.2-2.7

Dissolve 0.1 g in 100 ml of water

Type analysis
Appearance ..... orange powder
pH-transition range ..... 1,2 (red)-2,7 (yellow)

Art. No.	Pack Qty.	Pack.	€
7731.1	5 g	glass	20,35
7731.2	25 g	glass	36,05
7731.3	100 g	glass	84,40

Orange G (C.I. 16230)



Acid orange 10

$C_{16}H_{10}N_2Na_2O_7S_2$ · mp 141 °C
CAS No. 1936-15-8 · EC no. 217-705-6
WGK 1

Orange G (C.I. 16230)
for microscopy and electrophoresis

Type analysis
Appearance ..... orange powder
Maximum absorption ..... ≥440 nm
Loss on drying ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
0318.1	10 g	glass	17,75
0318.2	25 g	glass	26,35
0318.3	100 g	glass	60,10

Orange Serum Agar

UN no. 3077 · ADR 9 III · WGK 3

Warning H315-H317-H411-EUH208

Orange Serum Agar
for microbiology

For isolation, detection and counting of acid-tolerant pathogenic and non-pathogenic germs in fruit juices and fruit juice concentrate, especially from citrus fruits.

Application: Use 40 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Casein peptone ..... 10 g/l
Orange extract ..... 5 g/l
Glucose ..... 4 g/l
Potassium phosphate ..... 3 g/l
Yeast extract ..... 3 g/l
Agar ..... 15 g/l
pH value ..... 5,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
HP09.1	500 g	plastic	216,65
Original pack 6 x 500 g			205,82/500 g

Orange Serum Agar, granulated
granulated, for microbiology

For isolation, detection and enumeration of acid-tolerant pathogens in fruit juices and fruit juice concentrates, particularly citrus products.

Application: Use 45.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Casein peptone ..... 10 g/l
Orange extract ..... 9 g/l
Glucose ..... 4 g/l
Dipotassium phosphate ..... 2,5 g/l
Yeast extract ..... 3 g/l
Agar ..... 17 g/l
pH value ..... 5,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
1520.1	500 g	plastic	310,70
Original pack 6 x 500 g			295,17/500 g

Orange terpenes

D 0,846 g/cm³ · mp <-25 °C · bp 160 °C · flp 53,4 °C
UN no. 2319 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H411

Orange terpenes
pure

Natural solvent

Type analysis
Appearance ..... clear to nearly colorless liquid
Density (20 °C) 0,836-0,850
Specific rotation $[\alpha]_D^{20}$ ..... +96 to +105°
Refractive index n_D^{20} 1,468-1,478

Art. No.	Pack Qty.	Pack.	€
3098.2	500 ml	glass	25,30
3098.3	1 l	glass	45,05
Original pack 6 x 1 l			42,80/1 l
3098.1	2.5 l	glass	88,05
Original pack 4 x 2.5 l			83,65/2.5 l

Orcein

Natural Red 28

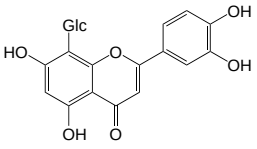
CAS No. 1400-62-0 · EC no. 215-750-6
WGK 1

Orcein
for microscopy

Type analysis
Absorption max. (NaOH 0,1 mol/l) .... 575-585 nm
Specific extinction E 1 %/1 cm ..... ≥500

Art. No.	Pack Qty.	Pack.	€
0320.2	1 g	glass	26,35
0320.3	10 g	glass	87,00
0320.1	25 g	glass	170,95

Orientin



$C_{21}H_{20}O_{11}$ · mp 270 to 280 °C
CAS No. 28608-75-5
WGK 1

Orientin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Adonis vernalis*.

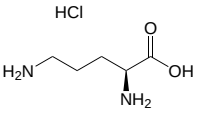
Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
6151.1	5 mg	glass	317,15

Orientosid
▸ Vitexin see page 1397

L-Ornithine monohydrochloride



L(+)-2,5-Diaminovaleriic acid hydrochloride

$C_5H_{12}N_2O_2$ · HCl · mp 245 °C
CAS No. 3184-13-2 · EC no. 221-678-6
WGK 1

L-Ornithine monohydrochloride
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤6,0 E.U./g
Assay (dry substance) ..... ≥99 %
Loss on drying ..... ≤0,2 %
Specific rotation $[\alpha]_D^{20}$ ..... +23,3° to +25,0°
Ammonium (NH_4) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As_2O_3) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %

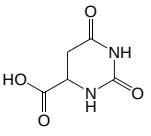
Art. No.	Pack Qty.	Pack.	€
1703.1	25 g	plastic	28,95
1703.2	100 g	plastic	65,50
1703.3	500 g	plastic	246,20
Original pack 6 x 500 g			233,89/500 g

L-Ornithine monohydrochloride
≥99 %, for biochemistry

Type analysis
Appearance ..... white cryst. powder
Assay (dry substance) ..... 99,0-101,0 %
Appearance of solution ..... clear, colourless
Specific rotation $[\alpha]_D^{20}$ ..... +23,3° to +25,0°
pH-value 5,0-6,0
Ammonium (NH_4) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Arsenic (As_2O_3) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %
Loss on drying ..... ≤0,2 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
T204.1	25 g	plastic	18,20
T204.2	100 g	plastic	47,20
T204.3	500 g	plastic	166,65
Original pack 6 x 500 g			158,32/500 g

Orotic acid



Uracil-6-carboxylic acid

$C_5H_4N_2O_4$ · mp 345 to 350 °C
CAS No. 65-86-1 · EC no. 200-619-8
WGK 1

Warning H302-H315-H319-H335

Orotic acid
≥99 %, anhydrous

Type analysis
Assay ..... ≥99,0 %
Heavy metals (as Pb) ..... ≤0,002 %
Sulphated ash ..... ≤0,1 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6820.2	25 g	plastic	40,75
6820.1	100 g	plastic	91,30

Orotic acid Monohydrate

Uracil-6-carboxylic acid

$C_5H_4N_2O_4$ · H_2O · mp 334 °C
CAS No. 50887-69-9 · EC no. 200-619-8
WGK 1

Warning H315-H319-H335

Orotic acid Monohydrate
≥99 %

Type analysis
Appearance ..... white crystalline powder
Assay (HPLC) ..... ≥99,0 %
Water ..... ≤12,0 %

Art. No.	Pack Qty.	Pack.	€
7285.1	10 g	plastic	21,40
7285.2	50 g	plastic	50,45
7285.3	250 g	plastic	213,95

Orthophosphoric acid
▸ *ortho*-Phosphoric acid see page 1155

Orthophosphoric acid deuterated
▸ *ortho*-Phosphoric acid D3, 85 % solution in D_2O see page 1156

Orthotungstic acid
▸ Tungstic acid see page 1388

Osmium Standards
▸ Osmium ICP Standard Solution see page 1320

Osmium(IV) ammonium chloride
▸ Ammonium hexachloroosmate (IV) see page

Osmic acid
▸ Osmium tetraoxide see page 1132

Osmium(VIII) oxide
▸ Osmium tetraoxide see page 1132

Osmium tetraoxide

Osmium(VIII) oxide · Osmic acid

CAS No. 20816-12-0 · EC no. 244-058-7

Osmium tetraoxide
≥99,95 %, p.a., for electron microscopy

In sealed off glass ampoules.

OsO_4 · D 4,9 g/cm³ · mp 40 °C · bp 130 °C

Storage temperature: +4 to +15 °C

UN no. 2471 · ADR 6.1 I · WGK 1

Danger H300+H310+H330-H314

Guarantee analysis

Appearance	pale yellow crystals
Assay	≥99,95 %
Osmium (Os)	74-76 %
Aluminium (Al)	≤0,001 %
Calcium (Ca)	≤0,001 %
Lead (Pb)	≤0,001 %
Sodium (Na)	≤0,001 %
Nickel (Ni)	≤0,001 %
Non volatile matter	≤0,02 %

Art. No.	Pack Qty.	Pack.	€
8371.1	100 mg	glass	56,90
8371.2	500 mg	glass	138,70
8371.3	1 g	glass	217,70

Osmium tetraoxide solution 2 %
2 %, for electron microscopy

In sealed off glass ampoules.

OsO_4 · D 1,01 g/cm³ · bp 100 °C

Storage temperature: +4 to +15 °C

UN no. 3287 · ADR 6.1 III · WGK 1

Danger H301+H311-H315-H319-H332

Type analysis

Assay (OsO_4)	2 % in water

Art. No.	Pack Qty.	Pack.	€
7436.1	5 ml	glass	52,15

Osmium tetraoxide solution 4 %
4 %, for electron microscopy

In sealed off glass ampoules.

OsO_4 · D 1,01 g/cm³ · bp 100 °C

Storage temperature: +4 to +15 °C

UN no. 3287 · ADR 6.1 II · WGK 1

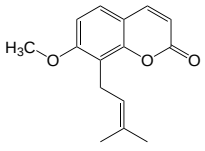
Danger H301-H310-H315-H318-H332

Type analysis

Assay (OsO_4)	4 % in water

Art. No.	Pack Qty.	Pack.	€
8088.1	5 ml	glass	81,60

Osthol



$C_{15}H_{16}O_3$ · mp 83,5 °C
CAS No. 484-12-8
WGK 1

Osthol
ROTI®Star Primary Standard

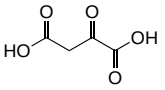
Type analysis

Assay (HPLC)	≥95,0 %
Residual solvents (GC)	≤1,0 %
Water (KF)	≤1,0 %
Assay (qNMR)	≥95,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE51.1	10 mg	glass	1.020,20

Oxalacetic acid



2-Oxosuccinic acid

$C_4H_4O_5$ · mp 153,5 °C · flp 174 °C
CAS No. 328-42-7 · EC no. 206-329-8
WGK 1

Warning H319

Oxalacetic acid
≥98 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis

Assay (titr.)	≥98,0 %
Solution (10 % in water)	colourless to almost colourless
Water (KF)	≤2,0 %
Sulphated ash	≤0,1 %

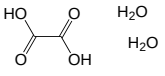
Art. No.	Pack Qty.	Pack.	€
4032.1	5 g	glass	46,15
4032.2	10 g	glass	84,85
4032.3	25 g	glass	174,70

Oxalane
▸ Tetrahydrofuran see page 1361

Oxalate Standards
▸ Oxalate IC Standard Solution see page 1335

Oxaldehyde
▸ Glyoxal see page 969

Oxalic acid dihydrate



Ethanedioic acid · Ethanedioic acid

$C_2H_2O_4$ · 2 H_2O · D 1,65 g/cm³ · mp 98 to 101 °C · bp 149 to 160 °C
CAS No. 6153-56-6 · EC no. 205-634-3
WGK 1

Danger H302+H312-H318

Oxalic acid dihydrate
≥99,5 %, p.a., ACS, ISO

Titrimetric standard substance in manganometry.

Guarantee analysis

Assay (perm.)	≥99,5 %
In H_2O insoluble matter	≤0,005 %
Ash content (as SO_4)	≤0,01 %
Reaction with H_2SO_4	complies
Total nitrogen (as N)	≤0,001 %
Chloride (Cl)	≤0,0005 %
Sulphate (SO_4)	≤0,005 %
Lead (Pb)	≤0,0005 %
Calcium (Ca)	≤0,001 %
Iron (Fe)	≤0,0002 %
Copper (Cu)	≤0,0005 %
Magnesium (Mg)	≤0,001 %
Nickel (Ni)	≤0,0005 %
Heavy metals	≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
T113.1	500 g	plastic	53,65
Original pack 6 x 500 g			50,97/500 g
T113.2	1 kg	plastic	95,70
Original pack 6 x 1 kg			90,92/1 kg
T113.3	2.5 kg	plastic	209,65

Oxalic acid dihydrate
≥99 %, cryst.

Type analysis

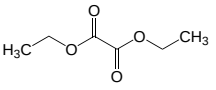
Appearance	white, crystal. powder
Assay	≥99,0 %
Ash content	≤0,03 %

Art. No.	Pack Qty.	Pack.	€
8879.1	1 kg	plastic	28,95
Original pack 6 x 1 kg			27,50/1 kg
8879.3	5 kg	plastic	107,40
8879.2	10 kg	plastic	198,90

Oxalic acid ammonium salt monohydrate
▸ di-Ammonium oxalate monohydrate see page 739

Oxalic acid calcium salt monohydrate
▸ Calcium oxalate monohydrate see page 809

Oxalic acid diethylester



Diethyl oxalate

$C_6H_{10}O_4$ · D 1,08 g/cm³ · mp -38,5 °C · bp 185,7 °C · flp 75,56 °C
CAS No. 95-92-1 · EC no. 202-464-1
UN no. 2525 · ADR 6.1 III · WGK 1

Warning H302-H319

Oxalic acid diethylester
≥99 %, for synthesis

Type analysis

Assay	≥99,0 %
Density (d 20 °C/4 °C)	1,076-1,081
Refractive index (20 °C)	1,4085-1,4105

Art. No.	Pack Qty.	Pack.	€
1E83.1	250 ml	plastic	20,35
1E83.2	1 l	plastic	52,15
Original pack 6 x 1 l			49,54/1 l
1E83.3	2.5 l	plastic	103,75
Original pack 4 x 2.5 l			98,56/2.5 l

Oxalic acid magnesium salt
▸ Magnesium oxalate dihydrate see page 1059

Oxalic acid di-potassium salt monohydrate

▸ di-Potassium oxalate monohydrate see page 1178

Oxalic acid disodium salt

▸ di-Sodium oxalate see page 1292

Oxalic acid solution

CAS No. 6153-56-6 · EC no. 205-634-3

Oxalic acid solution (0,1 N)

Oxalic acid solution

0,05 mol/l – 0,1 N, volumetric standard solution

D 1 g/cm³ · mp ~0 °C · bp ~100 °C

WGK 1

Type analysis

Amount-of-substance conc. (20 °C) ..... 0,05 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
CN35.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l

Oxalic acid solution

ROTI®Volum 0,05 mol/l – 0,1 N

Ampoule for preparation of 1000 ml volumetric solution.

D 1,02 g/cm³

WGK 1

Type analysis

Amount-of-substance conc. (20 °C) ..... 0,05 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
CN59.1	1 unit(s)	plastic ampoule	27,45

Oxalic acid solution (0,2 N)

Oxalic acid solution

0,1 mol/l – 0,2 N, volumetric standard solution

D 1 g/cm³

WGK 1

Warning H319

Type analysis

Titer 0,998-1,002
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
0764.1	1 l	plastic	58,60
Original pack 6 x 1 l			55,67/1 l

Oxalic acid solution (0,5 N)

Oxalic acid solution

0,25 mol/l – 0,5 N, volumetric standard solution

D 1,008 g/cm³ · bp 100 °C

WGK 1

Warning H319

Type analysis

Amount-of-substance conc. (20 °C) ..... 0,25 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
1E2L.1	1 l	plastic	37,55
Original pack 6 x 1 l			35,67/1 l

Oxamycin

▸ D-Cycloserine see page 859

1,4-Oxazinane

▸ Morpholine see page 1094

Oxazine 170 perchlorate

▸ Oxazine 720 perchlorate see page 1134

Oxazine 720 perchlorate

Oxazine 170 perchlorate

$C_{21}H_{22}N_3O \cdot ClO_4$ · mp 260 °C
CAS No. 62669-60-7 · EC no. 263-682-0
WGK 1

Warning H315-H319-H335

Oxazine 720 perchlorate

≥96 %

Laser and scintillation dye

Type analysis

Appearance ..... dark-green crystalline powder
Assay (HPLC) ..... ≥96 %
Maximum absorption ..... 626 ±1 nm (EtOH)

Art. No.	Pack Qty.	Pack.	€
7306.1	100 mg	glass	30,00
7306.2	500 mg	glass	59,05
7306.3	1 g	glass	89,15

Ox Bile, bacteriological

D ~1,1 g/cm³
CAS No. 8008-63-7 · EC no. 232-369-0
WGK 1

Ox Bile, bacteriological

for microbiology

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis

Cholic acid ..... ≥45 %
Loss on drying ..... ≤6 %
pH (2 % solution) 6,0-8,5
Solubility (2 % solution) ..... clear

Art. No.	Pack Qty.	Pack.	€
7595.1	250 g	plastic	160,20
7595.2	500 g	plastic	284,90
Original pack 6 x 500 g			270,66/500 g

Oxford Agar

▸ Oxford Listeria Agar (Base) see page 1134

Oxford Listeria Agar (Base)

Oxford Agar

WGK 3

Warning H302-H315-H319

Oxford Listeria Agar (Base)

ISO 11290-1, for microbiology

Selective medium for detection of *Listeria monocytogenes*.

Application: Use 55.5 g for 1 l agar. After cooling add 2 vials (2 x 9 ml) reconstituted Listeria Oxford Supplement (Art. No. 5801.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis

Peptone mixture ..... 23 g/l
Sodium chloride ..... 5 g/l
Starch ..... 1 g/l
Lithium chloride ..... 15 g/l
Esculin ..... 1 g/l
Ammonium iron(III) citrate ..... 0,5 g/l
Agar ..... 10 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
5767.1	500 g	plastic	203,20
Original pack 6 x 500 g			193,04/500 g

Oxford Supplement

▸ Listeria Oxford Supplement see page 1045

Oxidation reagent

Iodine/water/pyridine/tetrahydrofuran-mixture. 0,02 M iodine.

D 0,8 g/cm³ · mp -108,5 °C · bp 65 °C · flp -21 °C
UN no. 1993 · ADR 3 II · WGK 2

Danger H225-H302-H315-H319-H335-H351-H373-EUH019

Oxidation reagent

for DNA synthesis

0.05 M iodine. Thread sizes: 200 ml – 27 mm, 450 ml – 27 mm. The 2.5 l bottle can be used with all instruments.

Suitable for Expedite™89xx and Polygen®

Art. No.	Pack Qty.	Pack.	€
2254.1	200 ml	glass	34,30
2254.2	450 ml	glass	66,15
2254.3	2.5 l	glass	271,45
Original pack 4 x 2.5 l			257,88/2.5 l

Oxidation-Reagent, Fast

▸ Fast Oxidation reagent see page 930

Oxine

▸ 8-Hydroxyquinoline see page 1001

2-Oxoglutaric acid
▸ α-Ketoglutaric acid see page 1029

4-Oxopentanoic acid
▸ Levulinic acid see page 1042

2-Oxopropanoic acid
▸ Pyruvic acid see page 1193

2-Oxosuccinic acid
▸ Oxalacetic acid see page 1133

5'-Oxyfisetin
▸ Robinetin see page 1208

Oxyma Pure
▸ Ethyl(hydroxyimino)cyanoacetate (Oxyma Pure) see page 925

PABA
▸ 4-Aminobenzoic acid see page 726

PAGE gel solutions
▸ ROTIPHORESE®acrylamide solution 40 % see page 1233
▸ ROTIPHORESE®Gel solution 30 % see page 1232
▸ ROTIPHORESE®acrylamide solution 30 % see page 1233
▸ ROTIPHORESE®bisacrylamide solution see page 1233
▸ ROTIPHORESE®Gel solution 40 % see page 1232

PAH
▸ 4-Aminohippuric acid see page 728

Palatinose®
▸ Isomaltulose see page 1021

Palcam Agar
▸ Palcam Listeria Agar (Base) see page 1135

Palcam Listeria Agar (Base)

Palcam Agar

WGK 3

Warning H315-H319

Palcam Listeria Agar (Base)
ISO 11290-1, for microbiology

Differential medium for detection of *Listeria ssp.*, particularly *L. monocytogenes.*

Application: Use 68.8 g for 1 l agar. After cooling add 2 vials (2 x 6 ml) reconstituted Listeria Palcam Supplement (Art. No. 5803.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis

Peptone mixture	23 g/l
Sodium chloride	5 g/l
Starch	1 g/l
Lithium chloride	15 g/l
D-Mannitol	10 g/l
Yeast extract	3 g/l
Esculin	0,8 g/l
Glucose	0,5 g/l
Phenol red	0,08 g/l
Ammonium iron(III) citrate	0,5 g/l
Agar	10 g/l
pH value	7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
5768.1	500 g	plastic	188,15
Original pack 6 x 500 g			178,74/500 g

Palcam Supplement
▸ Listeria Palcam Supplement see page 1045

Palladium powder

Pd · D 12,02 g/cm³ · mp 1555 °C · bp 2963 °C
CAS No. 7440-05-3 · EC no. 231-115-6
UN no. 3089 · ADR 4.1 II

Danger H228-H315-H319-H335

Palladium powder
ROTI®METIC 99,999 % (5N)

Type analysis

Assay (metals basis)	99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5648.1	1 g	plastic	335,95

Palladium Standards
▸ Palladium ICP Standard Solution see page 1320
▸ Palladium ICP Standard Solution see page 1320
▸ Palladium AAS Standard Solution see page 1320

Palladium (10 %) on activated carbon

Pd/C 10 %

Pd/C · D 1,353 g/cm³ · mp 1554 °C · bp 2963 °C
CAS No. 7440-05-3 · EC no. 231-115-6
WGK 1

Palladium on activated carbon
10 % Pd/C with approx. 60 % water

Catalyst

Type analysis

Appearance	black wet powder
Assay (Pd)	≥10 %
Water	50-70 %
Specific surface	900-1300 m²/g
Mean particle sizing	30,0 µm
Aluminium (Al)	≤0,05 %
Copper (Cu)	≤0,01 %
Iron (Fe)	≤0,01 %
Magnesium (Mg)	≤0,05 %
Manganese (Mn)	≤0,01 %
Tin (Sn)	≤0,05 %

Store under inert gas.

Art. No.	Pack Qty.	Pack.	€
1446.1	1 g	glass	26,80
1446.2	2.5 g	glass	55,80
1446.3	5 g	glass	97,75

Palladium(II) chloride

$PdCl_2$ · D 4 g/cm³ · mp 678 to 680 °C
CAS No. 7647-10-1 · EC no. 231-596-2
UN no. 1759 · ADR 8 III · WGK 3

Danger H290-H302-H317-H318-H410

Palladium(II) chloride
ROTI®METIC 99,999 % (5N)

Type analysis

Assay (metals basis)	99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5653.1	1 g	plastic	267,15
5653.2	5 g	plastic	1.091,15

Palladium & Magnesium matrix modifier
▸ Palladium nitrate & Magnesium nitrate matrix modifier solution see page 1070

Palladium matrix modifier
▸ Palladium nitrate matrix modifier solution see page 1070
▸ Palladium nitrate matrix modifier solution see page 1070
▸ Palladium nitrate matrix modifier solution see page 1070

Palladium monoxide
▸ Palladium(II) oxide see page 1136

Palladium(II) nitrate dihydrate

$Pd(NO_3)_2$ · 2 H_2O · D 1,118 g/cm³
CAS No. 32916-07-7 · EC no. 233-265-8
UN no. 3085 · ADR 5.1 (8) II · WGK 3

Danger H272-H301-H314-H410

Palladium(II) nitrate dihydrate
~40 % Pd

Type analysis
Palladium (Pd) ..... 39,9-42,0 %
Lead (Pb) ..... ≤0,01 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,02 %
Gold (Au) ..... ≤0,02 %
Copper (Cu) ..... ≤0,005 %
Magnesium (Mg) ..... ≤0,005 %
Silver (Ag) ..... ≤0,005 %
Silicon (Si) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
9026.1	1 g	glass	203,20
9026.2	10 g	glass	1.773,75

Palladium nitrate & Magnesium nitrate matrix modifier solution

▸ Palladium nitrate & Magnesium nitrate matrix modifier solution see page 1070

Palladium(II) oxide

Palladium monoxide

PdO · D 8,3 g/cm³ · mp 750 °C
CAS No. 1314-08-5 · EC no. 215-218-3
UN no. 1479 · ADR 5.1 I · WGK 1

Danger H271

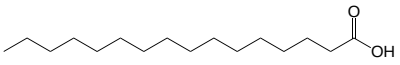
Palladium(II) oxide
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5393.1	1 g	plastic	218,15
5393.2	5 g	plastic	779,95

Palmitic acid



Hexadecanoic acid

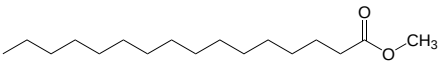
$C_{16}H_{32}O_2$ · D 0,853 g/cm³ · mp 62,5 °C · bp 351,5 °C · flp 205 °C
CAS No. 57-10-3 · EC no. 200-312-9

Palmitic acid
≥98 %, extra pure

Type analysis
Appearance ..... white fatty tablets
Assay ..... ≥98,0 %
Iodine value ..... ≤0,8
Acid value 217-221
Melting point ..... 61-63 °C

Art. No.	Pack Qty.	Pack.	€
5907.3	500 g	plastic	24,65
Original pack 6 x 500 g			23,42/500 g
5907.1	1 kg	plastic	37,10
Original pack 6 x 1 kg			35,25/1 kg
5907.2	5 kg	plastic	128,50

Palmitic acid methyl ester



Methyl palmitate

$C_{17}H_{34}O_2$ · D 0,86 g/cm³ · mp 30 to 35 °C · bp 330 to 340 °C · flp 176 °C
CAS No. 112-39-0 · EC no. 203-966-3
WGK 1

Palmitic acid methyl ester
≥97 %

Type analysis
Assay (GC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
4459.1	25 g	glass	31,10
4459.2	100 g	glass	82,70
4459.3	500 g	glass	317,15
Original pack 6 x 500 g			301,29/500 g

PAN

▸ 1-(2-Pyridylazo)-2-naphthol see page 1191

Panoptical fast staining kit

Pappenheim fast staining · Fast staining kits for histology & cytology

D 1 g/cm³
UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H370

Panoptical fast staining kit
for microscopy

Staining kit for fast oversight staining of blood smears and other cytological preparations (modified method acc. to Pappenheim), incl. instructions for use.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Composition

Panoptical fast staining solution 1 (Art. No. 8934).
Panoptical fast staining solution 2 (Art. No. 8935).
Panoptical fast staining solution, fixative (Art. No. 8939).
Contents of this kit may not be bought separately.

Art. No.	Pack Qty.	Pack.	€
6487.1	1 kit	plastic	99,45
6487.2	1 kit	plastic	182,25

D(+)-Pantothenic acid calcium salt

▸ Calcium D(+)-pantothenate see page 810

Papain

CAS No. 9001-73-4 · EC no. 232-627-2
WGK 1

Danger H315-H319-H334-H335

Papain
>30 000 USP-U/mg, for biochemistry

Made from *Carica papaya*.

Stock solution: 10 mg/ml in water

Storage temperature: +4 °C

Type analysis
Identity ..... complies
Activity (casein, pH 6,0, 40 °C) .. >30 000 USP-U/mg
pH value (2 % in H_2O) 4,8-6,2
Loss on drying ..... <5 %

Art. No.	Pack Qty.	Pack.	€
8933.1	25 g	plastic	64,40
8933.2	100 g	plastic	177,40

Papanicolaou solution 1

▸ Hematoxylin solution acc. to Harris see page 977

Papanicolaou-orange solution 2a (OG 6)

D 0,85 g/cm³ · bp 78 °C · flp 17 °C
UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

Papanicolaou-orange solution 2a (OG 6)
for microscopy

Type analysis
Suitability for microscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
T867.1	500 ml	glass	38,60
T867.2	1 l	glass	58,60
Original pack 6 x 1 l			55,67/1 l
T867.3	2.5 l	plastic	120,30
Original pack 4 x 2.5 l			114,29/2.5 l

Papanicolaou solution 2b Orange II solution

D 0,8 g/cm³ · bp >65 °C · flp 12 °C
UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H370

Papanicolaou solution 2b Orange II solution
for microscopy

Type analysis
Suitability for microscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
AE62.1	500 ml	glass	38,60
AE62.2	1 l	glass	58,60
Original pack 6 x 1 l			55,67/1 l
AE62.3	2.5 l	plastic	120,30
Original pack 4 x 2.5 l			114,29/2.5 l

Papanicolaou polychrome solution 3a (EA31)

D 0,8 g/cm³ · bp >65 °C · flp 12 °C
UN no. 1230 · ADR 3 (6.1) II · WGK 2

 **Danger** H225-H301+H311+H331-H370-EUH208

Papanicolaou polychrome solution 3a (EA31)
for microscopy

Type analysis
Suitability for microscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
AE63.1	500 ml	glass	38,60
AE63.2	1 l	glass	58,60
Original pack 6 x 1 l			55,67/1 l
AE63.3	2.5 l	plastic	120,30
Original pack 4 x 2.5 l			114,29/2.5 l

Papanicolaou polychrome solution 3b (EA 50)

D 0,8 g/cm³ · bp >65 °C · flp 12 °C
UN no. 1230 · ADR 3 (6.1) II · WGK 2

 **Danger** H225-H301+H311+H331-H370-EUH208

Papanicolaou polychrome solution 3b (EA 50)
for microscopy

Type analysis
Suitability for microscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
T866.1	500 ml	glass	38,60
T866.2	1 l	glass	58,60
Original pack 6 x 1 l			55,67/1 l
T866.3	2.5 l	plastic	120,30
Original pack 4 x 2.5 l			114,29/2.5 l

PAP fast staining kit

Fast staining kits for histology & cytology

UN no. 1987 · ADR 3 II · WGK 2

 **Danger** H225-H302+H312+H332-H319-H370-H373-EUH208

PAP fast staining kit
for microscopy

Staining kit for fast staining of cytological specimens (fast staining acc. to Papanicolaou), incl. instructions for use.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Composition

PAP fast staining, solution 1 (Art. No. 9197).
PAP fast staining, solution 2 (Art. No. 9199).
Contents of this kit may not be bought separately.

Art. No.	Pack Qty.	Pack.	€
9195.1	1 kit	plastic	76,25
9195.2	1 kit	plastic	117,75

Pappenheim fast staining

▸ Panoptical fast staining kit see page 1136

PAR

▸ 4-(2'-Pyridylazo)-resorcinol see page 1192

Paraffin

CAS No. 8002-74-2 · EC no. 232-315-6

Paraffin 50–52 °C
extra pure, for histology

D 0,88 to 0,92 g/cm³ · mp 50 to 52 °C · bp >300 °C · flp >200 °C

Not a medical device / Not an IVD product

Type analysis
Appearance ..... pastilles
Solidification point ..... 50-52 °C

Art. No.	Pack Qty.	Pack.	€
CN48.1	500 g	plastic	26,80
Original pack 6 x 500 g			25,46/500 g
CN48.2	1 kg	plastic	43,55
Original pack 6 x 1 kg			41,37/1 kg

Paraffin 52–54 °C
extra pure, for histology

D 0,88 to 0,92 g/cm³ · mp 52 to 54 °C · bp >300 °C · flp >200 °C

Not a medical device / Not an IVD product

Type analysis
Appearance ..... pastilles
Solidification point ..... 52-54 °C

Art. No.	Pack Qty.	Pack.	€
CN49.1	500 g	plastic	26,80
Original pack 6 x 500 g			25,46/500 g
CN49.2	1 kg	plastic	43,55
Original pack 6 x 1 kg			41,37/1 kg

Paraffin 52–54 °C

▸ Granopent® P see page 970

Paraffin in droplets

▸ Paraplast® see page 1137
▸ ROTI®Plast Special paraffin see page 1235

Paraffin oil

CAS No. 8042-47-5 · EC no. 232-455-8

Paraffin oil high viscosity
Ph. Eur.

D 0,881 g/cm³ · mp -15 °C · bp 600 °C · flp >210 °C

WGK 1

Guarantee analysis
Identity ..... complies
Relative density (20 °C) 0,827-0,890
Dynamic viscosity (20 °C) ..... 110,0-230,0 mPas
Refractive index n_D^{20} 1,478-1,481
Reaction with H_2SO_4 ..... complies
Acid or alkaline react. substances ..... complies
Aromatic polycyclic hydrocarbons ..... complies
Solid paraffins ..... complies

Conforms in all points to the corresponding pharmacopeia.

Art. No.	Pack Qty.	Pack.	€
8904.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l
8904.2	10 l	plastic	198,90

Paraffin oil low viscosity
Ph. Eur.

D 0,81 to 0,875 g/cm³ · mp -60 to -9 °C · bp 218 to 800 °C · flp >112 °C

WGK 1

 **Danger** H304

Guarantee analysis
Identity ..... complies
Relative density (20 °C) 0,810-0,875
Dynamic viscosity (20 °C) ..... 25,0-80,0 mPa
Refractive index n_D^{20} 1,462-1,472
Reaction with H_2SO_4 ..... complies
Acid or alkaline react. substances ..... complies
Aromatic polycyclic hydrocarbons ..... complies
Solid paraffins ..... complies

Conforms in all points to the corresponding pharmacopeia.

Art. No.	Pack Qty.	Pack.	€
9190.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l
9190.2	10 l	plastic	198,90
9190.3	25 l	plastic	392,40
9190.4	200 l	PE/steel	2.741,25

Paraformaldehyde

Polyoxymethylene

$(CH_2O)_n$ · D 1,3 g/cm³ · mp 120 to 170 °C · flp 71 °C
CAS No. 30525-89-4 · EC no. 200-001-8
UN no. 2213 · ADR 4.1 III · WGK 2

 **Danger** H228-H302+H332-H315-H317-H318-H335-H341-H350

Paraformaldehyde, granulated
granulated

Fixative

Store product below 15 °C.

Storage temperature: +4 to +15 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Guarantee analysis
Assay (acidim.) ..... 94,5-96,5 %
Ash content (as SO_4) ..... ≤0,1 %
Free acid (as HCOOH) ..... ≤0,1 %
pH value 4,0-5,5

Art. No.	Pack Qty.	Pack.	€
0335.1	250 g	plastic	18,20
0335.2	500 g	plastic	24,20
Original pack 6 x 500 g			22,99/500 g
0335.3	1 kg	plastic	36,45
Original pack 6 x 1 kg			34,63/1 kg
0335.5	2.5 kg	plastic	73,65
0335.4	5 kg	plastic	137,10

Parafuchsin

▸ Pararosaniline base see page 1138

Paramagenta

▸ Pararosaniline base see page 1138

Paraplast®

Paraffin in droplets

Paraplast®
for histology

Leica.

Tissue embedding medium composed of highly purified paraffin containing complex elastomers with regulated molecular weights.

Melting point: 56 °C

Paraffin in pellets

D 0,8 g/cm³ · mp 56 °C

In vitro diagnostic medical device according to IVDD

Type analysis
Appearance ..... pellets
Melting point ..... 56 °C

Art. No.	Pack Qty.	Pack.	€
X880.1	1 kg	paper bag	22,50
Original pack 6 x 1 kg			21,38/1 kg
X880.3	3 kg	paper bag	61,85
X880.2	8 kg	paper bag	149,45

Paraplast Plus®
for histology

Leica.

Tissue embedding medium composed of highly purified paraffin containing complex elastomers with regulated molecular weights and an addition of DMSO for large and difficult-to-infiltrate tissue samples.

Melting point: 56 °C

Paraffin in pellets

D 0,8 g/cm³ · mp 56 °C

In vitro diagnostic medical device according to IVDD

Type analysis
Appearance ..... pellets
Melting point ..... 56 °C

Art. No.	Pack Qty.	Pack.	€
X881.1	1 kg	paper bag	26,35
Original pack 6 x 1 kg			25,03/1 kg
X881.3	3 kg	paper bag	75,15
X881.2	8 kg	paper bag	170,95

Paraplast X-tra®
for histology

Leica.

Tissue embedding medium composed of polymers with low molecular weights and highly purified paraffin for large and difficult-to-infiltrate tissue samples at low temperatures.

Melting point: 52 °C

paraffin in pellets

D 0,8 g/cm³ · mp 52 °C

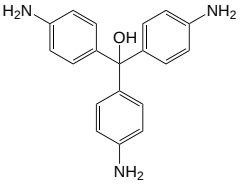
WGK 1

In vitro diagnostic medical device according to IVDD

Type analysis
Appearance ..... pellets
Melting point ..... 52 °C

Art. No.	Pack Qty.	Pack.	€
X882.1	1 kg	paper bag	28,95
Original pack 6 x 1 kg			27,50/1 kg
X882.2	8 kg	paper bag	209,65

Pararosaniline base



Parafuchsin · Paramagenta · Magenta 0

$C_{19}H_{18}N_3O$ · D 1,287 g/cm³ · mp 205 °C · bp 516,8 °C · flp 308,3 °C
CAS No. 467-62-9
WGK 1

Warning H351

Pararosaniline base (C. I. 42500)
extra pure

Dye and detection reagent for aldehydes

Dissolve 0.1 g in 100 ml ethanol (96 %)

EC no. 207-395-0

Type analysis
Appearance ..... purple to red-brown powder
Dye content ..... ≥95 %
Absorption max. (C_2H_5OH) ..... 544-547 nm
Loss on drying ..... ≤5 %

Art. No.	Pack Qty.	Pack.	€
1H5L.1	5 g	glass	23,15
1H5L.2	10 g	glass	40,35
1H5L.3	25 g	glass	68,30

Paratoluolsulphonic acid

▸ *p*-Toluenesulphonic acid monohydrate see page 1374

Parietin

▸ Physcion see page 1157

PAS staining kit

D 1 g/cm³
UN no. 1789 · ADR 8 III · WGK 3

Danger H290-H302-H315-H319-H350-H373

PAS staining kit
for microscopy

Staining kit for Periodic Acid Schiff (PAS) staining, incl. instructions for use.

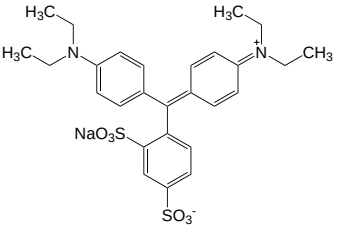
Storage temperature: +15 to +25 °C

Not a medical device / Not an IVD product

Composition
Periodic acid solution 1 % (Art. No. HP00) 500 ml
Schiff´s reagent (Art. No. X900) ..... 500 ml
Hemalum solution acid acc. to Mayer (Art. No. T865) ..... 500 ml

Art. No.	Pack Qty.	Pack.	€
HP01.1	1 kit	glass	117,75

Patent blue VF



Acid blue 1 · Disulfin blue VN 150 · Sulfan blue

$C_{27}H_{31}N_2NaO_6S_2$ · D 0,294 g/cm³ · mp >316 °C · flp 180,6 °C
CAS No. 129-17-9
WGK 1

Patent blue VF (C. I. 42045)
extra pure

Vital staining

EC no. 204-934-1

Type analysis
Appearance ..... dark blue-green to dark purple powder
Absorption max. (in H_2O) ..... 637-640 nm

Art. No.	Pack Qty.	Pack.	€
1H5N.1	10 g	glass	23,15
1H5N.2	25 g	glass	40,35
1H5N.3	100 g	glass	92,35

Patton and Reeder's Reagent

▸ Calconcarboxylic acid see page 810

PBS powder

▸ ROTI®PreMix PBS see page 1238

PBS powder (pouch)

▸ ROTI®Fair PBS 7.4 pouches see page 1220

10 x PBS ready-to-use solution

▸ ROTI®Stock 10x PBS see page 1242

PBS (tablet)

▸ ROTI®Fair PBS 7.2 see page 1219
▸ ROTI®Fair PBS 7.4 tablets see page 1219
▸ ROTI®Fair PBS potassium-free 7.4 see page 1220

10 x PBST ready-to-use solution

▸ ROTI®Stock 10x PBST see page 1242

PBST powder

▸ ROTI®PreMix PBST see page 1239

PBST (tablet)

▸ ROTI®Fair PBST 7.4 see page 1220

PCA
- Plate Count Agar see page 1160
- ROTI®ContiPlate PCA see page 1214
- ROTI®Aquatest Plate PCA see page 1211

PCA with Powdered Milk
- Plate Count Agar with Powdered Milk see page 1160

PCR master mix
- ROTI®Pol TaqS Red-Mix (2x) see page 1237
- ROTI®Pol TaqS Mix (2x) see page 1237
- ROTI®Pol Hot-TaqS Mix (2x) see page 1237
- ROTI®Pol Hot-TaqS Red-Mix (2x) see page 1237

PDA
- Potato Extract Glucose Agar see page 1182

Pd/C 10 %
- Palladium (10 %) on activated carbon see page 1135

PDO
- 1,3-Propanediol see page 1184

$Pd(PPh_3)_4$
- Tetrakis(triphenylphosphine)palladium(0) see page 1362

Peanut oil

D 0,915 g/cm³ · flp 282 °C
CAS No. 8002-03-7 · EC no. 232-296-4
WGK awg

Peanut oil
refined

Type analysis
Refractive index n_D^{20} 1,468-1,472

Art. No.	Pack Qty.	Pack.	€
9332.2	500 ml	glass	21,40
9332.1	1 l	glass	32,15
Original pack 6 x 1 l			30,54/1 l
9332.3	2.5 l	glass	59,05
Original pack 4 x 2.5 l			56,10/2.5 l

Pectin A

CAS No. 9000-69-5 · EC no. 232-553-0
WGK 1

Pectin A
natural, for biochemistry

From apples.

Type analysis
Appearance ..... red-brown flakes/needles
Odour ..... fruity, light sour
Content (pectin) ..... ≥20 %
Solubility ..... colloidal solution in water
Sulphur dioxide (SO_2) ..... ≤500 mg/kg
Water ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
4510.1	1 kg	plastic	102,70
Original pack 6 x 1 kg			97,57/1 kg
4510.2	5 kg	cardboard	456,90

Pectin C

CAS No. 9000-69-5
WGK 1

Pectin C
for biochemistry

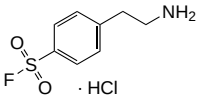
From citrus fruits.

Type analysis
Appearance ..... powder, coloured like ivory
Arsenic (As) ..... ≤0,0003 %
Lead (Pb) ..... ≤0,0005 %
Water content ..... ≤12 %
Degree of esterification ..... ≥69 %
pH value (2 % in H_2O) 2,5-3,8

Art. No.	Pack Qty.	Pack.	€
8911.1	100 g	plastic	25,70
8911.2	1 kg	plastic	170,95
Original pack 6 x 1 kg			162,40/1 kg

Pectinose
- L(+)-Arabinose see page 750

Pefabloc® SC-Protease Inhibitor



4-(2-Aminoethyl)-benzylsulphonyl Fluoride hydrochloride

$C_8H_{10}NSO_2F$ · HCl · mp 174 to 178 °C
CAS No. 30827-99-7
UN no. 3261 · ADR 8 III · WGK 1

Danger H314

Pefabloc® SC-Protease Inhibitor
Pefabloc® ≥95 %, for biochemistry

Irreversible inhibitor of serine proteases.

Stock solution 5–50 mg/ml in H_2O; stable with neutral pH.

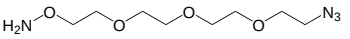
Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
A154.1	100 mg	glass	85,90
A154.2	500 mg	glass	349,40
A154.3	1 g	glass	628,90

PEG
- Polyethylene glycol see page 1161

Aminooxy-PEG3-Azide



O-(2-(2-(2-(2-Azidoethoxy)ethoxy)ethoxy)ethyl) hydroxylamine

$C_8H_{18}N_4O_4$ · D 1 g/cm³
CAS No. 1306615-51-9
WGK 1

Aminooxy-PEG3-Azide
≥90 %

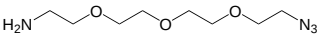
Linker

Storage temperature: +4 °C
Transport temperature: cooled

Type analysis
Appearance ..... pale yellow oil
Assay (TLC) ..... ≥90 %

Art. No.	Pack Qty.	Pack.	€
7832.1	5 mg	plastic	99,45
7832.2	10 mg	plastic	150,40

H_2N-PEG3-Azide



11-Azido-3,6,9-trioxaundecan-1-amine · H_2N-PEG3-Azide

$C_8H_{18}N_4O_3$ · D 1 g/cm³
CAS No. 134179-38-7
UN no. 1760 · ADR 8 II · WGK 1

Danger H314

H_2N-PEG3-Azide
≥90 %

Linker

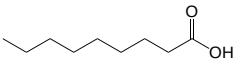
Storage temperature: +4 °C
Transport temperature: cooled

Type analysis
Appearance ..... colourless liquid
Assay (GC) ..... ≥90 %

Art. No.	Pack Qty.	Pack.	€
7830.1	5 mg	plastic	51,10
7830.2	10 mg	plastic	82,25

Pelarginadon
- Naringenin see page 1100

Pelargonic acid



Nonanoic acid

$C_9H_{18}O_2$ · D 0,9046 g/cm³ · mp 13 °C · bp 253 to 255 °C · flp 137 °C
CAS No. 112-05-0 · EC no. 203-931-2
WGK 1

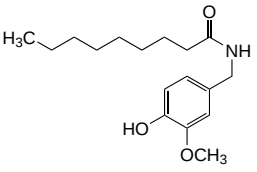
Warning H315-H319-H412

Pelargonic acid
≥97 %

Type analysis
Assay (GC) ..... ≥97,0 %

Art. No.	Pack Qty.	Pack.	€
7015.1	50 ml	glass	44,65

Pelargonic acid vanillylamide



Nonivamide · Nonylvanylamide · so called synth. Capsaicin

$C_{17}H_{27}NO_3$ · D 1,1 g/cm³ · mp 52 to 57 °C · flp 190 °C
CAS No. 2444-46-4 · EC no. 219-484-1
WGK 2

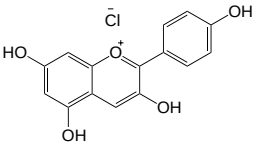
Warning H315-H317-H319-H335

Pelargonic acid vanillylamide
≥97 %

Type analysis
Assay (HPLC) ..... ≥97,0 %
Loss on drying ..... ≤1,0 %
Heavy metals ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4462.1	10 g	glass	41,85
4462.2	50 g	glass	160,20

Pelargonidin chloride



$C_{15}H_{11}O_5Cl$ · mp 350 °C
CAS No. 134-04-3 · EC no. 205-127-7
WGK 1

Pelargonidin chloride
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
4541.1	10 mg	glass	375,20

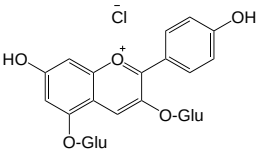
Pelargonidin chloride
ROTICHROM® ~CHR$_{TLC}$

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
6853.1	25 mg	glass	112,35

Pelargonidin chloride 3-glucoside
▸ Callistephin (chloride) see page 811

Pelargonidin 3,5-diglucoside chloride



Salvinin · Pelargonin chloride

$C_{27}H_{31}O_{15}Cl$
CAS No. 17334-58-6
WGK 1

Pelargonidin 3,5-diglucoside chloride
ROTICHROM® HPLC

Reference substance for HPLC.
From *Pelargonium zonale.*

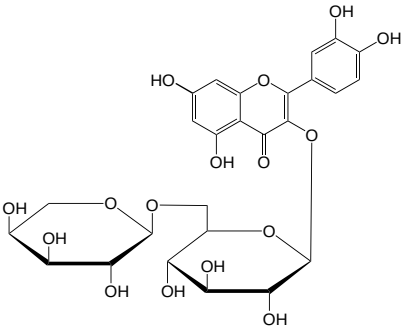
Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
1646.1	5 mg	glass	332,20

Pelargonin chloride
▸ Pelargonidin 3,5-diglucoside chloride see page 1140

Peltatoside



Quercetin-3-arabinoglucoside

$C_{26}H_{28}O_{16}$ · mp 202 °C
CAS No. 23284-18-6 · EC no. 245-555-1
WGK 1

Peltatoside
ROTICHROM® HPLC

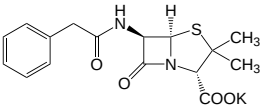
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7406.1	10 mg	glass	392,40

Penicillin G potassium salt



Benzyl penicillin potassium salt

$C_{16}H_{17}KN_2O_4S$ · mp 214 to 217 °C · flp 335 °C
CAS No. 113-98-4 · EC no. 204-038-0
WGK 1

Danger H317-H334

Penicillin G potassium salt
CELLPURE® ≥1550 U/mg

β-Lactam antibiotic. For cell culture and biochemistry.

Stock solution: 10–100 mg/ml in H_2O.
Storage of stock solution: –20 °C.
Working concentration: 20–100 µg/ml.

Storage temperature: +4 °C

Type analysis
Endotoxins ..... ≤0,5 I.U./mg
Activity ..... ≥1550 U/mg
Assay ..... 96,0-101,0 %
pH value 5,5-7,5
Loss on drying ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
HP49.1	1 g	plastic	24,65
HP49.2	10 g	plastic	49,35
HP49.3	25 g	plastic	97,30

Penicillin G potassium salt
~1.600 U/mg, for biochemistry

β-Lactam antibiotic

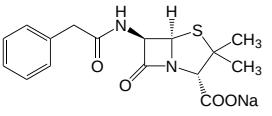
Stock solution: 10–100 mg/ml in H_2O.
Storage of stock solution: –20 °C.
Working concentration: 20–100 µg/ml.

Storage temperature: +4 °C

Type analysis
Activity ..... ~1600 U/mg
Assay ..... 96,0-101,0 %
pH value 5,0-7,5
Loss on drying ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
CN29.1	10 g	plastic	26,35
CN29.2	25 g	plastic	47,85
CN29.3	100 g	plastic	138,70

Penicillin G sodium salt



Benzyl penicillin sodium salt

$C_{16}H_{17}N_2NaO_4S$ · D 1,41 g/cm³ · mp 227 °C
CAS No. 69-57-8 · EC no. 200-710-2
WGK 1

Danger H317-H334

Penicillin G sodium salt
CELLPURE® ≥1550 U/mg

β-Lactam antibiotic. For cell culture and biochemistry.

Stock solution: 10–100 mg/ml in H_2O.
Storage of stock solution: –20 °C.
Working concentration: 20–100 µg/ml.

Storage temperature: +4 °C

Type analysis
Endotoxins ..... ≤0,25 I.U./mg
Activity ..... ≥1550 U/mg
Assay ..... 96,0-101,0 %
pH value 5,5-7,5
Loss on drying ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
HP48.1	1 g	plastic	19,90
HP48.2	10 g	plastic	40,75
HP48.3	25 g	plastic	80,55

Penicillin G sodium salt
≥96 %, for biochemistry

β-Lactam antibiotic

Stock solution: 10–100 mg/ml in H_2O.
Storage of stock solution: –20 °C.
Working concentration: 20–100 µg/ml.

Storage temperature: +4 °C

Type analysis
Assay ..... 96,0-102,0 %
pH value 5,5-7,5
Specific rotation $[\alpha]_D^{20}$ ..... 285-310 °
Loss on drying ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
CN28.1	10 g	plastic	21,40
CN28.2	25 g	plastic	38,60
CN28.3	100 g	plastic	107,00

Pen/Strep-PreMix

Antibiotic mixture

WGK 1

Danger H302-H317-H334-H361d

Pen/Strep-PreMix
CELLPURE®

Antibiotic compound of penicillin, streptomycin and stabilising sodium chloride for application in cell culture.
For elimination and prevention of bacterial contamination in cell culture.

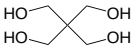
PreMix powder for 2x 50 ml 100x stock solution (for 10 l medium total).
Storage of stock solution: in 1–10 ml aliquots at –20 °C.
Comes with original seal.

Storage temperature: +4 °C

Guarantee analysis
Penicillin G sodium salt ..... 312,5 mg/vial
Streptomycin ..... 0,5 g/vial
Sodium chloride ..... 0,45 g/vial
Endotoxins ..... ≤210 I.U./vial
pH-value (stock solution in water) ..... 5,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
HP10.1	1 set	plastic	78,40

Pentaerythritol



2,2-Bis(hydroxymethyl)-1,3-propanediol

$C_5H_{12}O_4$ · D 1,37 g/cm³ · mp 259 °C · bp 369 °C
CAS No. 115-77-5 · EC no. 204-104-9
WGK 1

Pentaerythritol
≥98 %, for synthesis

Type analysis
Assay ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7522.2	100 g	plastic	22,50
7522.1	500 g	plastic	70,85
Original pack 6 x 500 g			67,31/500 g

trans-3,3',4',5,7-Pentahydroxy-flavan
▸ DL-Catechin hydrate see page 821

2',3,4',5,7-Pentahydroxyflavone
▸ Morin hydrate see page 1094

3',4',5,6,7-Pentamethoxyflavone
▸ Sinensetin see page 1274

1-Pentanal
▸ *n*-Valeraldehyde see page 1392

iso-Pentane
▸ 2-Methylbutane see page 1082

n-Pentane



1,3-Dimethylpropane · Diethylmethane

C_5H_{12} · D 0,63 g/cm³ · bp 35 to 36 °C · flp -40 °C
CAS No. 109-66-0 · EC no. 203-692-4
UN no. 1265 · ADR 3 II · WGK 2

Danger H225-H304-H336-H411-EUH066

n-Pentane
ROTISOLV® HPLC

Guarantee analysis
Assay (GC) ..... ≥99 %
Water (KF) ..... ≤0,005 %
Free acid (as CH_3COOH) ..... ≤0,002 %
Non volatile matter ..... ≤0,0003 %

Transmission:
270 nm ..... ≥99 %
220 nm ..... ≥90 %
200 nm ..... ≥40 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
CN99.1	1 l	glass	88,05
Original pack 6 x 1 l			83,65/1 l
CN99.2	2.5 l	glass	181,70
Original pack 4 x 2.5 l			172,62/2.5 l

n-Pentane
ROTISOLV® ≥99 %, GC Ultra Grade

For gaschromatographic residue analysis.

Guarantee analysis
Assay (GC) ..... ≥99 %
Colour (APHA) ..... ≤5
Water (KF) ..... ≤0,005 %
Free acid (as CH_3COOH) ..... ≤0,005 %
Evaporation residue ..... ≤0,0001 %
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD pesticides (as lindane) ..... ≤3 ng/l
GC/NPD pesticides (as parathion) ..... ≤5 ng/l
PAH-test (less than 2 ppb, HPLC) ..... complies

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
KK45.1	2.5 l	glass	270,40
Original pack 4 x 2.5 l			256,88/2.5 l

n-Pentane
ROTISOLV® Pestilyse® plus ≥99 %

For determination of dioxins, furans, PCBs, pesticides, hydrocarbons etc.

Guarantee analysis
Assay (GC) ..... ≥99,0 %
Colour (APHA) ..... ≤5
Water (KF) ..... ≤0,005 %
Free acid (as CH_3COOH) ..... ≤0,002 %
Evaporation residue ..... ≤0,0001 %
GC/FID suitability (as 2-octanol) ..... ≤10 ng/ml
GC/ECD suitability (as heptachloro epoxide) ..... ≤10 ng/l
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD pesticides (as lindane) ..... ≤5 ng/l
GC/NPD pesticides (as parathion) ..... ≤5 ng/l
Oil index (any hydrocarbon C_{10}-C_{40}) .... ≤0,05 mg/l
GC/ECD volatile impurities (as ethylene dibromide) ..... ≤5 ng/ml

Fluorescence (as quinine):
254 nm ..... ≤1 ppb
365 nm ..... ≤1 ppb

Art. No.	Pack Qty.	Pack.	€
7587.1	2.5 l	glass	160,20
Original pack 4 x 2.5 l			152,19/2.5 l

n-Pentane
ROTISOLV® Pestilyse® ≥99 %

For residue and environmental analysis.

Guarantee analysis
Assay (GC) ..... ≥99 %
Water (KF) ..... ≤0,01 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %
GC/ECD (individual signal as lindane) ..... ≤5 ng/l
GC/PND (individual signal as ethylparathion) ..... ≤10 ng/l

Art. No.	Pack Qty.	Pack.	€
T903.2	1 l	glass	66,15
Original pack 6 x 1 l			62,84/1 l
T903.1	2.5 l	glass	131,70
Original pack 4 x 2.5 l			125,12/2.5 l

n-Pentane
ROTISOLV® ≥99 %, UV/IR Grade

For chromatography and spectroscopy.

Guarantee analysis
Assay (GC) ..... ≥99 %
Water (KF) ..... ≤0,01 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

Transmission:
240 nm ..... ≥98 %
230 nm ..... ≥95 %
220 nm ..... ≥85 %
210 nm ..... ≥60 %
200 nm ..... ≥20 %

Art. No.	Pack Qty.	Pack.	€
4443.1	2.5 l	glass	139,25
Original pack 4 x 2.5 l			132,29/2.5 l

n-Pentane
ROTIPURAN® ≥99 %, p.a.

Guarantee analysis
Assay (GC) ..... ≥99,0 %
Water (KF) ..... ≤0,01 %
Evaporation residue ..... ≤0,001 %
Aluminium (Al) ..... ≤0,00005 %
Barium (Ba) ..... ≤0,00001 %
Boron (B) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,00001 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Iron (Fe) ..... ≤0,00001 %
Chromium (Cr) ..... ≤0,000002 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %
Tin (Sn) ..... ≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
4978.1	1 l	glass	62,90
Original pack 6 x 1 l			59,76/1 l
4978.2	2.5 l	glass	131,70
Original pack 4 x 2.5 l			125,12/2.5 l

n-Pentane
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,0 %
Density (15 °C) 0,629-0,633
Aromatic compounds (GC) ..... ≤0,001 %
Evaporation residue ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
8720.1	1 l	glass	46,15
Original pack 6 x 1 l			43,84/1 l
8720.3	2.5 l	glass	92,35
Original pack 4 x 2.5 l			87,73/2.5 l
8720.4	5 l	aluminium	162,90
Original pack 2 x 5 l			154,76/5 l
8720.2	10 l	tinplate	310,70
8720.5	25 l	tinplate	654,70

n-Pentane
≥95 %, extra pure

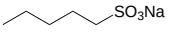
Type analysis
Assay (GC) ..... ≥95,0 %
Density (15 °C) 0,622-0,642
Isopentane ..... ≤5 %
Cyclopentane ..... ≤1,4 %
n-Hexane ..... ≤0,5 %
Benzene ..... ≤0,002 %
Total sulphur ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
3747.1	1 l	glass	31,10
Original pack 6 x 1 l			29,55/1 l
3747.3	2.5 l	glass	53,25
Original pack 4 x 2.5 l			50,59/2.5 l
3747.5	5 l	aluminium	82,70
Original pack 2 x 5 l			78,57/5 l
3747.2	10 l	tinplate	134,40
3747.4	25 l	tinplate	263,40

1,5-Pentanedial
▸ Glutaraldehyde for Electron Microscopy see page 964

Pentane-2,4-dione
▸ Acetyl acetone see page 700

Pentane-1-sulphonic acid sodium salt



Sodium-1-pentane sulphonate

$C_5H_{11}NaO_3S$ · mp 300 °C
CAS No. 22767-49-3 · EC no. 245-208-4
WGK 1

Pentane-1-sulphonic acid sodium salt
≥98 %, for ion pair chromatography

Ion pair reagent for HPLC.

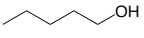
Guarantee analysis
Assay (acidim.) ..... ≥98,0 %
Water ..... ≤2 %

Absorbance:
A 200 nm (0,25 M in water) ..... ≤0,1 AU
A 210 nm (0,25 M in water) ..... ≤0,05 AU
A 220 nm (0,25 M in water) ..... ≤0,04 AU
A 230 nm (0,25 M in water) ..... ≤0,03 AU
A 240 nm (0,25 M in water) ..... ≤0,01 AU
A 250 nm (0,25 M in water) ..... ≤0,01 AU
A 260 nm (0,25 M in water) ..... ≤0,01 AU

Art. No.	Pack Qty.	Pack.	€
KK56.1	10 g	glass	64,40
KK56.2	25 g	glass	126,35
KK56.3	100 g	glass	370,90

Pentanoic acid
▸ *n*-Valeric acid see page 1393

1-Pentanol



1-Pentyl alcohol · *n*-Amyl alcohol · *n*-Butyl carbinol

$C_5H_{12}O$ · D 0,81 to 0,83 g/cm³ · mp -78 °C · bp 138 °C · flp 47 °C
CAS No. 71-41-0 · EC no. 200-752-1
UN no. 1105 · ADR 3 III · WGK 1

Warning H226-H315-H332-H335

1-Pentanol
≥98 %, for synthesis

Type analysis
Assay (GC) ..... ~98 %
Density (20 °C) 0,810-0,830
Refractive index n_D^{20} 1,4090-1,4120

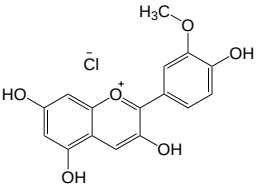
Art. No.	Pack Qty.	Pack.	€
8949.2	500 ml	glass	33,90
8949.1	1 l	glass	56,45
Original pack 6 x 1 l			53,63/1 l

3-Pentanone
▸ Diethylketone see page 879

4-Pentenylglucosinolate potassium salt
▸ Glucobrassicanapin see page 959

1-Pentyl alcohol
▸ 1-Pentanol see page 1142

Peonidin chloride



$C_{16}H_{13}O_6Cl$
CAS No. 134-01-0 · EC no. 205-125-6
WGK 1

Peonidin chloride
ROTICHROM® HPLC

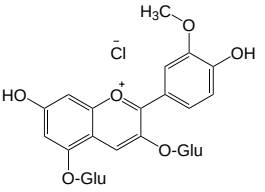
Reference substance for HPLC.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥97,0 %

Art. No.	Pack Qty.	Pack.	€
4540.1	5 mg	glass	375,20

Peonidin 3,5-diglucoside chloride



Peonine

$C_{28}H_{33}O_{16}Cl$
CAS No. 132-37-6
WGK 1

Peonidin 3,5-diglucoside chloride
ROTICHROM® HPLC

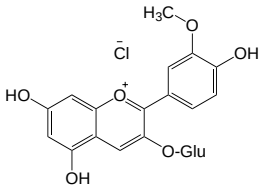
Reference substance for HPLC.
From *Rosa Centifolia*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
1413.1	10 mg	glass	504,20

Peonidin 3-glucoside chloride



$C_{22}H_{23}O_{11}Cl$
CAS No. 6906-39-4
WGK 1

Peonidin 3-glucoside chloride
ROTICHROM® HPLC

Reference substance for HPLC.
From *Vitis vinifera*

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
1619.1	5 mg	glass	353,70

Peonine
▸ Peonidin 3,5-diglucoside chloride see page 1142

PEP-3 Na
▸ Phosphoenolpyruvic acid, trisodium salt heptahydrate see page 1154

Pepsin

CAS No. 9001-75-6 · EC no. 232-629-3
WGK 1
Danger H315-H319-H334-H335

Pepsin
≥2 000 FIP-U/g, for biochemistry

From porcine gastric mucosa. For detection of trichina in meat.

Well soluble in water, stable in aqueous solutions of pH up to 5.5, unstable above pH 6.0

Storage temperature: +4 °C

Guarantee analysis
Appearance .... white to clear beige, crystalline or amorphous powder
Specific activity ..... ≥2000 FIP-U/g
pH value (1 % in H_2O) 3,0-5,0
Loss on drying ..... ≤5,0 %

Art. No.	Pack Qty.	Pack.	€
KK38.1	50 g	plastic	77,95
KK38.2	100 g	plastic	128,50
KK38.3	250 g	plastic	278,45
KK38.4	1 kg	plastic	1.048,15
Original pack 6 x 1 kg			995,74/1 kg

Pepsin
≥0,5 E/mg, Ph. Eur., for biochemistry

Isolated from pigs stomach.

Storage temperature: +4 °C

Type analysis
Assay ..... ≥0,5 Ph.Eur.-E/mg
Identity ..... complies
Loss on drying ..... <5,0 %

Art. No.	Pack Qty.	Pack.	€
0230.1	25 g	glass	36,45
0230.2	50 g	glass	61,85
0230.3	250 g	plastic	169,35
0230.4	1 kg	plastic	600,95
Original pack 6 x 1 kg			570,90/1 kg

Pepstatin A

$C_{34}H_{63}N_5O_9$ · mp 228 to 230 °C
CAS No. 26305-03-3 · EC no. 247-600-0
WGK 1

Pepstatin A
≥98 %, for biochemistry

Inhibitor of acidic / aspartic proteases

Stock solution: 1 mM (685 µg/ml) in DMSO or methanol.
Storage of stock solution: at –20 °C max. 1 month, at +4 °C max. 1 week.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥98 %
Specific rotation $[\alpha]_D^{20}$ (c=0,5 in methanol) . -97° to -89°

Art. No.	Pack Qty.	Pack.	€
2936.1	5 mg	plastic	38,20
2936.2	25 mg	plastic	120,95
2936.3	100 mg	plastic	392,40

Peptide Synthesis, reagents for
▸ Reagents for Peptide Synthesis see page 1201

Peptone ex casein

CAS No. 91079-40-2 · EC no. 293-428-4
WGK 1

Peptone ex casein
tryptically digested, for microbiology

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Total nitrogen ..... ≥12,5 %
Amino nitrogen ..... ≥3,0 %
Loss on drying ..... ≤6 %
Ash ..... ≤16 %
pH-value 6,5-7,5

Art. No.	Pack Qty.	Pack.	€
8986.1	500 g	plastic	106,45
Original pack 6 x 500 g			101,13/500 g
8986.2	1 kg	plastic	192,45
Original pack 6 x 1 kg			182,83/1 kg
8986.3	2.5 kg	plastic	418,20
8986.4	5 kg	plastic	740,70

Peptone ex casein, pancreatic digest
▸ Tryptone/Peptone ex casein see page 1385

Peptone ex gelatin

CAS No. 91079-43-5 · EC no. 293-431-0
WGK 1

Peptone ex gelatin
pancreatically digested, for microbiology

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Total nitrogen ..... ≥10 %
Amino nitrogen ..... ≥2,7 %
Loss on drying ..... ≤6 %
Ash ..... ≤15 %
pH value (2 % solution) ..... 7,0 ±0,5

Art. No.	Pack Qty.	Pack.	€
HP99.1	500 g	plastic	92,35
Original pack 6 x 500 g			87,73/500 g

Peptone ex meat

CAS No. 91079-38-8 · EC no. 293-426-3
WGK 3

Peptone ex meat
peptically digested, for microbiology

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Total nitrogen ..... ≥10,0 %
Amino nitrogen ..... ≥3,4 %
Loss on drying ..... ≤6 %
Ash ..... ≤20 %
pH-value 6,5-7,5
Solubility (2 % solution) ..... clear

Art. No.	Pack Qty.	Pack.	€
2366.1	250 g	plastic	73,65
2366.3	500 g	plastic	134,40
Original pack 6 x 500 g			127,68/500 g
2366.2	1 kg	plastic	255,35
Original pack 6 x 1 kg			242,58/1 kg
2366.4	2.5 kg	plastic	496,15

Peptone ex pea

D 0,18 to 0,19 g/cm³
WGK 1

Peptone ex pea
for microbiology

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Total nitrogen ..... ≥12 %
Amino nitrogen ..... ≥3,8 %
Loss on drying ..... ≤6 %
Ash ..... ≤16 %
pH value (5 % solution) 6,7-7,7

Art. No.	Pack Qty.	Pack.	€
2122.1	250 g	plastic	96,25
2122.2	500 g	plastic	185,45
Original pack 6 x 500 g			176,18/500 g

Peptone ex soya

Soy peptone

D 1,41 g/cm³
CAS No. 91079-46-8 · EC no. 293-434-7
WGK 1

Peptone ex soya (animal-free/ GMO-free)
papainic digested, animal-free, GVO-free, for microbiology

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Total nitrogen ..... ≥7 %
Amino nitrogen ..... ≥2,2 %
Loss on drying ..... ≤6 %
Animal-free ..... complies
GMO-free ..... complies
pH-value (5 % solution) 6,5-7,5

Art. No.	Pack Qty.	Pack.	€
2832.1	250 g	plastic	69,80
2832.2	500 g	plastic	117,20
Original pack 6 x 500 g			111,34/500 g
2832.3	1 kg	plastic	212,35
Original pack 6 x 1 kg			201,73/1 kg
2832.4	2.5 kg	plastic	403,15

Peptone ex soya
papainic digested, for microbiology

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Total nitrogen ..... ≥9,0 %
Amino nitrogen ..... ≥2,5 %
Loss on drying ..... ≤6 %
Ash ..... ≤21,0 %
pH-value (5 % solution) 6,5-7,5

Art. No.	Pack Qty.	Pack.	€
2365.1	250 g	plastic	48,30
2365.3	500 g	plastic	83,75
Original pack 6 x 500 g			79,56/500 g
2365.2	1 kg	plastic	160,20
Original pack 6 x 1 kg			152,19/1 kg
2365.4	2.5 kg	plastic	306,40

Peptone Water, buffered

WGK 1

Peptone Water, buffered
Ph. Eur., for microbiology

For dilution and homogenisation of samples during microbiological analysis of food.

Sodium peptone buffer solution pH 7,0 (Ph. Eur. 6.0) · Buffered Sodium Chloride-Peptone Solution pH 7,0 (Ph.Eur. 6.3, 7.0, 8.0 et 9.0)

Application: Use 16.1 g for 1 l broth.

D 1,8 g/cm³

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Potassium dihydrogen phosphate ..... 3,6 g/l
di-Sodium hydrogenphosphate dihydrate .. 7,2 g/l
Sodium chloride (NaCl) ..... 4,3 g/l
Casein peptone (Pancreas hydrolysate) .... 1,0 g/l
pH value ..... 7,0 ±0,2

*Equivalent to 0.067 M phosphate.

Art. No.	Pack Qty.	Pack.	€
AE67.1	500 g	plastic	84,40
Original pack 6 x 500 g			80,18/500 g
AE67.2	1 kg	plastic	144,60
Original pack 6 x 1 kg			137,37/1 kg

Peptone Water, buffered
EN ISO 6579, EN ISO 6887, ISO 11133, ISO 11290, ISO 19250, ISO 21528, for microbiology

Diluent for homogenisation of food samples and for sample preparation for microbiological analysis.

Application: Use 20 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Pancreatic digest of casein ..... 10 g/l
Sodium chloride (NaCl) ..... 5 g/l
Disodium phosphate ..... 3,5 g/l
Potassium dihydrogen phosphate ..... 1,5 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X917.1	500 g	plastic	75,15
Original pack 6 x 500 g			71,39/500 g
X917.2	1 kg	plastic	134,40
Original pack 6 x 1 kg			127,68/1 kg
X917.3	2.5 kg	plastic	278,45

Peptone water, buffered, granulated
EN ISO 6579, EN ISO 6887, ISO 11133, ISO 11290, EN ISO 19250, ISO 21528, granulated, for microbiology

Diluent for homogenisation of food samples and for sample preparation for microbiological analysis.

Application: Use 20 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Pancreatic digest of casein ..... 10 g/l
Sodium chloride (NaCl) ..... 5 g/l
Disodium phosphate ..... 3,5 g/l
Potassium dihydrogen phosphate ..... 1,5 g/l
pH value ..... 7,0 ±0,2
Granulation ..... complies

Art. No.	Pack Qty.	Pack.	€
6680.1	500 g	plastic	109,15
Original pack 6 x 500 g			103,69/500 g
6680.2	1 kg	plastic	190,85
Original pack 6 x 1 kg			181,31/1 kg

Peptone Water, buffered
ISO 6579, ISO 6887, ISO 22964, for microbiology

For homogenising food and preparing samples for microbiological analyses.

D 1,037 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Casein peptone ..... 10 g/l
Sodium chloride (NaCl) ..... 5 g/l
di-Sodium hydrogen phosphate ..... 3,5 g/l
Dipotassium hydrogen phosphate ..... 1,5 g/l
pH value (25 °C) 6,8-7,2

Art. No.	Pack Qty.	Pack.	€
1L8H.1	180 ml	glass	42,90
1L8H.2	900 ml	glass	66,15
1L8H.3	1 l	glass	74,10
Original pack 6 x 1 l			70,40/1 l

Peptone Water 0.1%, buffered
Ph. Eur., USP, for microbiology

For homogenising food and preparing samples for microbiological analyses.

Sodium peptone buffer solution pH 7,0 (Ph. Eur. 6.0) · Buffered Sodium Chloride-Peptone Solution pH 7,0 (Ph.Eur. 6.3, 7.0, 8.0 et 9.0)

D 1,039 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

di-Sodium hydrogenphosphate dihydrate 7,23 g/l
Peptone ..... 1 g/l
Sodium chloride (NaCl) ..... 4,3 g/l
Potassium dihydrogen phosphate ..... 3,6 g/l
pH value (25 °C) 6,8-7,2

Art. No.	Pack Qty.	Pack.	€
1L8E.1	180 ml	glass	42,90
1L8E.2	900 ml	glass	66,15
1L8E.3	1 l	glass	74,10
Original pack 6 x 1 l			70,40/1 l

Perchlorate Standards
▸ Perchlorate IC Standard Solution
see page 1335

Perchloric acid

CAS No. 7601-90-3 · EC no. 231-512-4

Perchloric acid Ultra-quality

Perchloric acid
ROTIPURAN®Ultra 70 %

Extra highpure acid (ppt quality) for sample preparation in ultra trace analysis. The quality for highest demands on purity.

$HClO_4$ · D 1,68 g/cm³ · mp -18 °C · bp 198 °C

UN no. 1873 · ADR 5.1 (8) I · WGK 1

Danger H271-H290-H314

Guarantee analysis

Assay (w/w) ..... 65-71 %
Aluminium (Al) ..... ≤100 ppt
Antimony (Sb) ..... ≤100 ppt
Arsenic (As) ..... ≤100 ppt
Barium (Ba) ..... ≤100 ppt
Beryllium (Be) ..... ≤100 ppt
Lead (Pb) ..... ≤10 ppt
Cadmium (Cd) ..... ≤10 ppt
Cesium (Cs) ..... ≤10 ppt
Calcium (Ca) ..... ≤100 ppt
Cerium (Ce) ..... ≤10 ppt
Dysprosium (Dy) ..... ≤10 ppt
Iron (Fe) ..... ≤100 ppt
Erbium (Er) ..... ≤10 ppt
Europium (Eu) ..... ≤10 ppt
Gadolinium (Gd) ..... ≤10 ppt
Gallium (Ga) ..... ≤10 ppt
Holmium (Ho) ..... ≤10 ppt
Indium (In) ..... ≤10 ppt
Potassium (K) ..... ≤100 ppt
Cobalt (Co) ..... ≤100 ppt
Copper (Cu) ..... ≤100 ppt
Lanthanum (La) ..... ≤10 ppt
Lithium (Li) ..... ≤100 ppt
Lutetium (Lu) ..... ≤10 ppt
Magnesium (Mg) ..... ≤100 ppt
Manganese (Mn) ..... ≤100 ppt
Molybdenum (Mo) ..... ≤100 ppt
Sodium (Na) ..... ≤100 ppt
Neodymium (Nd) ..... ≤10 ppt
Nickel (Ni) ..... ≤100 ppt
Palladium (Pd) ..... ≤10 ppt
Platinum (Pt) ..... ≤100 ppt
Praseodymium (Pr) ..... ≤10 ppt
Rhodium (Rh) ..... ≤10 ppt
Rubidium (Rb) ..... ≤10 ppt
Samarium (Sm) ..... ≤10 ppt
Scandium (Sc) ..... ≤100 ppt
Silver (Ag) ..... ≤100 ppt
Strontium (Sr) ..... ≤100 ppt
Tellur (Te) ..... ≤10 ppt
Terbium (Tb) ..... ≤10 ppt
Thallium (Tl) ..... ≤100 ppt
Thorium (Th) ..... ≤10 ppt
Thulium (Tm) ..... ≤10 ppt
Titanium (Ti) ..... ≤100 ppt
Uranium (U) ..... ≤10 ppt
Vanadium (V) ..... ≤100 ppt
Bismuth (Bi) ..... ≤10 ppt
Ytterbium (Yb) ..... ≤10 ppt
Yttrium (Y) ..... ≤10 ppt
Zinc (Zn) ..... ≤100 ppt
Tin (Sn) ..... ≤100 ppt
Zirconium (Zr) ..... ≤100 ppt

Art. No.	Pack Qty.	Pack.	€
HN61.2	250 ml	plastic (FEP)	611,70
HN61.1	500 ml	plastic (FEP)	854,65
HN61.3	1 l	plastic (FEP)	1.386,75
Original pack 6 x 1 l			1.317,41/1 l

Perchloric acid Supra-quality

Perchloric acid
ROTIPURAN®Supra 70 %

Highpure acid (ppb quality) for sample preparation in trace analysis (e.g. using ICP, AAS, Ion chromatography etc.).

$HClO_4$ · D 1,68 g/cm³ · mp -18 °C · bp 198 °C

UN no. 1873 · ADR 5.1 (8) I · WGK 1

Danger H271-H290-H314

Guarantee analysis

Assay (w/w) ..... 65-71 %
Colour (APHA) ..... ≤10
Aluminium (Al) ..... ≤1 ppb
Antimony (Sb) ..... ≤0,5 ppb
Arsenic (As) ..... ≤0,5 ppb
Barium (Ba) ..... ≤1 ppb
Beryllium (Be) ..... ≤0,5 ppb
Lead (Pb) ..... ≤1 ppb
Cadmium (Cd) ..... ≤1 ppb
Cesium (Cs) ..... ≤0,5 ppb
Calcium (Ca) ..... ≤1 ppb
Cerium (Ce) ..... ≤0,5 ppb
Dysprosium (Dy) ..... ≤0,5 ppb
Iron (Fe) ..... ≤1 ppb
Erbium (Er) ..... ≤0,5 ppb
Europium (Eu) ..... ≤0,5 ppb
Gadolinium (Gd) ..... ≤0,5 ppb
Gallium (Ga) ..... ≤0,5 ppb
Gold (Au) ..... ≤0,5 ppb
Holmium (Ho) ..... ≤0,5 ppb
Indium (In) ..... ≤0,5 ppb
Potassium (K) ..... ≤1 ppb
Cobalt (Co) ..... ≤0,5 ppb
Copper (Cu) ..... ≤0,5 ppb
Lanthanum (La) ..... ≤0,5 ppb
Lithium (Li) ..... ≤0,5 ppb
Lutetium (Lu) ..... ≤0,5 ppb
Magnesium (Mg) ..... ≤1 ppb
Manganese (Mn) ..... ≤1 ppb
Molybdenum (Mo) ..... ≤0,5 ppb
Sodium (Na) ..... ≤1 ppb
Neodymium (Nd) ..... ≤0,5 ppb
Nickel (Ni) ..... ≤1 ppb
Palladium (Pd) ..... ≤0,5 ppb
Platinum (Pt) ..... ≤0,5 ppb
Praseodymium (Pr) ..... ≤0,5 ppb
Rhodium (Rh) ..... ≤0,5 ppb
Rubidium (Rb) ..... ≤0,5 ppb
Samarium (Sm) ..... ≤0,5 ppb
Scandium (Sc) ..... ≤0,5 ppb
Silver (Ag) ..... ≤1 ppb
Strontium (Sr) ..... ≤0,5 ppb
Tellur (Te) ..... ≤0,5 ppb
Terbium (Tb) ..... ≤0,5 ppb
Thallium (Tl) ..... ≤0,5 ppb
Thorium (Th) ..... ≤1 ppb
Thulium (Tm) ..... ≤0,5 ppb
Titanium (Ti) ..... ≤1 ppb
Uranium (U) ..... ≤0,5 ppb
Vanadium (V) ..... ≤0,5 ppb
Bismuth (Bi) ..... ≤0,5 ppb
Ytterbium (Yb) ..... ≤0,5 ppb
Yttrium (Y) ..... ≤0,5 ppb
Zinc (Zn) ..... ≤1 ppb
Tin (Sn) ..... ≤1 ppb
Zirconium (Zr) ..... ≤0,5 ppb

Art. No.	Pack Qty.	Pack.	€
HN51.1	500 ml	HDPE	220,40
HN51.3	1 l	HDPE	356,40
Original pack 6 x 1 l			338,58/1 l
HN51.4	2.5 l	HDPE	532,15
Original pack 4 x 2.5 l			505,54/2.5 l

Perchloric acid 70 %

Perchloric acid
ROTIPURAN® 70 %, p.a.

$HClO_4$ · D 1,68 g/cm³ · mp -18 °C · bp 198 °C

UN no. 1873 · ADR 5.1 (8) I · WGK 1

Danger H271-H290-H314

Guarantee analysis

Assay ..... 69-72 %
Free chlorine (Cl_2) ..... ≤0,0005 %
Ash content (as SO_4) ..... ≤0,005 %
Total nitrogen (as N) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,001 %
Barium (Ba) ..... ≤0,0001 %
Beryllium (Be) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,0001 %
Cadmium (Cd) ..... ≤0,0001 %
Calcium (Ca) ..... ≤0,0001 %
Cobalt (Co) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,0001 %
Potassium (K) ..... ≤0,0001 %
Copper (Cu) ..... ≤0,0001 %
Manganese (Mn) ..... ≤0,0001 %
Nickel (Ni) ..... ≤0,0001 %
Silver (Ag) ..... ≤0,0001 %
Strontium (Sr) ..... ≤0,0001 %
Zinc (Zn) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
9216.1	500 ml	glass	90,20
9216.2	1 l	glass	150,00
Original pack 6 x 1 l			142,50/1 l

Perchloric acid (0.1 N)

Perchloric acid
0,1 mol/l – 0,1 N, volumetric standard solution, in anhydrous acetic acid

$HClO_4$ · D 1,06 g/cm³ · mp 17 °C · bp 117 °C · flp 40 °C

UN no. 2789 · ADR 8 (3) II · WGK 1

Danger H226-H290-H314

Type analysis

Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
K023.1	1 l	glass	100,95
Original pack 6 x 1 l			95,90/1 l

Perchloric acid
0,1 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur., in anhydrous acetic acid

$HClO_4$ · D 1,06 g/cm³ · mp 17 °C · bp 117 °C · flp 40 °C

UN no. 2789 · ADR 8 (3) II · WGK 1

Danger H226-H290-H314

Type analysis

Amount-of-substance conc. (20 °C) ..... 0,1 mol/l
Measurement uncertainty ..... ±0,2 %

Art. No.	Pack Qty.	Pack.	€
9525.1	1 l	glass	105,90
Original pack 6 x 1 l			100,61/1 l

Perchloric acid (1 N)

Perchloric acid
1 mol/l – 1 N, volumetric standard solution, in water

$HClO_4$ · D 1,055 g/cm³ · bp 100 °C

UN no. 1802 · ADR 8 (5.1) II · WGK 1

Danger H272-H290-H315-H319

Type analysis

Amount-of-substance conc. (20 °C) ..... 1 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
1E2K.1	1 l	glass	134,40
Original pack 6 x 1 l			127,68/1 l

Perchloroethylene

▸ Tetrachloroethylene see page 1360

Perfringens Agar

▸ TSC Agar (Base) see page 1387

Perhydrosqualene

▸ Squalane see page 1305

Periodic acid

H_5IO_6 · D 3,37 g/cm³ · mp 127,7 °C
CAS No. 10450-60-9 · EC no. 233-937-0
UN no. 3085 · ADR 5.1 (8) I · WGK 3

Danger H271-H314-H372-H400

Periodic acid
≥99 %, p.a.

Pulping agent for organic substances.

Guarantee analysis
Assay (iodom.) ..... ≥99,0 %
Chloride, chlorate, bromide, bromate (as Cl) ..... ≤0,02 %
Iodide (I) ..... ≤0,001 %
Iodic acid (HIO_3) ..... ≤1 %
Nitrate (NO_3) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,01 %
Iron (Fe) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
3257.3	50 g	glass	45,05
3257.1	100 g	glass	85,90
3257.2	500 g	glass	299,95
Original pack 6 x 500 g			284,95/500 g
3257.4	1 kg	glass	547,20
Original pack 6 x 1 kg			519,84/1 kg

Periodic acid
≥99 %, for synthesis

Type analysis
Assay ..... ≥99,0 %
Insoluble matter ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
2612.1	50 g	glass	40,75
2612.2	100 g	glass	62,90
2612.3	500 g	glass	239,20
Original pack 6 x 500 g			227,24/500 g

Periodic acid solution 1 %

$H_5IO_6 + H_2O$ · D 1 g/cm³ · bp 100 °C
CAS No. 10450-60-9
WGK 3

Warning H315-H319-H373

Periodic acid solution 1 %
1 %, ready-to-use, for microscopy

For hydrolysis of carbohydrates, e.g. in PAS reaction (Periodic Acid Schiff reaction).

Not a medical device / Not an IVD product

Type analysis
Assay (H_5IO_6) ..... 1 % in water

Art. No.	Pack Qty.	Pack.	€
HP00.1	500 ml	glass	56,45

Peroxidase

HRP · Horseradish peroxidase

CAS No. 9003-99-0 · EC no. 232-668-6
WGK 1

Danger H317-H334

Peroxidase
≥250 U/mg material

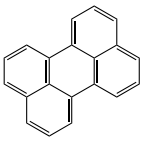
From horseradish, freeze-dried

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... brown powder
Activity ..... ≥250 U/mg material
RZ (E_{403}/E_{275}) ..... >3,0

Art. No.	Pack Qty.	Pack.	€
6055.1	0.05 g	plastic	149,45

Perylene



Dibenz[de,kl]anthracene

$C_{20}H_{12}$ · mp 277 to 279 °C · bp 497 °C
CAS No. 198-55-0 · EC no. 205-900-9
WGK 1

Perylene
≥99 %

Type analysis
Assay (HPLC) ..... ≥99,0 %
Melting point ..... 275-279 °C

Art. No.	Pack Qty.	Pack.	€
5272.1	1 g	glass	38,60
5272.2	5 g	plastic	139,25

Petroleum 132–175 °C

D 0,776 g/cm³ · mp -87 °C · bp 140 to 164 °C · flp 29 °C
CAS No. 64742-82-1 · EC no. 927-344-2
UN no. 1300 · ADR 3 III · WGK 2

Danger H226-H304-H336-H372-H411-EUH066

Petroleum 132–175 °C
special fraction 132–175 °C

Type analysis
Boiling range ..... 132-175 °C
Colour (Hazen) ..... ≤20
Density (15 °C) ..... 0,757-0,785 g/cm³
Refractive index (20 °C) 1,401-1,440

Art. No.	Pack Qty.	Pack.	€
5661.1	1 l	glass	27,85
Original pack 6 x 1 l			26,46/1 l
5661.2	10 l	tinplate	127,95

Petroleum 175–230 °C

D 0,805 g/cm³ · mp -57 °C · bp 185 to 215 °C · flp 66 °C
CAS No. 64742-81-0 · EC no. 919-164-8
WGK 1

Danger H304-H372-H412-EUH066

Petroleum 175–230 °C
special fraction 175–230 °C

Type analysis
Appearance ..... colorless liquid
Boiling range ..... 175-230 °C
Colour number (Saybolt) ..... +30
Density (15 °C) ..... 0,790-0,820 g/cm³

Art. No.	Pack Qty.	Pack.	€
9015.1	1 l	glass	30,00
Original pack 6 x 1 l			28,50/1 l
9015.2	10 l	tinplate	138,70

Petroleum 180–250 °C

D 0,77 to 0,85 g/cm³ · mp -49 °C · bp 180 to 250 °C · flp >62 °C
CAS No. 64742-81-0 · EC no. 265-184-9
UN no. 3082 · ADR 9 III · WGK 1

Danger H304-H315-H336-H411

Petroleum 180–250 °C
boiling range 180–250 °C

Type analysis
Boiling range ..... 180 - 250 °C
Flash point ..... ≥61 °C
Density ..... ~0,795

Art. No.	Pack Qty.	Pack.	€
5149.1	1 l	glass	22,05
Original pack 6 x 1 l			20,95/1 l
5149.3	10 l	tinplate	117,20

Petroleum benzine 30-50

Dry cleaning gasoline · Gasoline

D 0,63 g/cm³ · bp 30 to 50 °C · flp -31 °C
UN no. 3295 · ADR 3 I · WGK 3

Danger H224-H304-H336-H411-EUH066

Petroleum benzine 30-50
extra pure

Type analysis
Boiling range ..... 30-50 °C
Benzene (GC) ..... ≤0,02 %
Density (15 °C) 0,625-0,636

Art. No.	Pack Qty.	Pack.	€
3523.1	1 l	glass	32,15
Original pack 6 x 1 l			30,54/1 l
3523.3	2.5 l	glass	53,65
Original pack 4 x 2.5 l			50,97/2.5 l
3523.4	5 l	aluminium	103,10
Original pack 2 x 5 l			97,95/5 l
3523.2	10 l	tinplate	177,40

Petroleum benzine 30-75

Ligroin · Dry cleaning gasoline

D 0,65 g/cm³ · bp 36 to 83 °C · flp <-21 °C
UN no. 3295 · ADR 3 II · WGK 3

Danger H225-H304-H315-H336-H411

Petroleum benzine 30-75
extra pure

Type analysis
Boiling range ..... 30-80 °C
Aromatic compounds ..... ≤0,02 %
Benzene ..... ≤0,01 %
n-Hexane ..... ≤5,0 %
Density (15 °C) 0,650-0,680
Refractive index n_D^{20} 1,3670-1,3780

Art. No.	Pack Qty.	Pack.	€
8961.1	1 l	glass	32,15
Original pack 6 x 1 l			30,54/1 l
8961.3	2.5 l	glass	53,65
Original pack 4 x 2.5 l			50,97/2.5 l
8961.4	5 l	aluminium	103,10
Original pack 2 x 5 l			97,95/5 l
8961.2	10 l	tinplate	177,40

Petroleum benzine 40-60

Dry cleaning gasoline

D 0,65 g/cm³ · bp 40 to 60 °C · flp -35 °C
UN no. 3295 · ADR 3 II · WGK 3

Danger H225-H304-H315-H336-H411

Petroleum benzine 40-60
extra pure

Type analysis
Boiling range ..... 40-61 °C
Aromatic compounds (GC) ..... ≤0,01 %
Evaporation residue ..... ≤0,002 %
Density (15 °C) 0,647-0,654

Art. No.	Pack Qty.	Pack.	€
9320.4	500 ml	glass	24,65
9320.1	1 l	glass	34,30
Original pack 6 x 1 l			32,59/1 l
9320.5	2.5 l	glass	60,10
Original pack 4 x 2.5 l			57,10/2.5 l
9320.3	5 l	aluminium	120,95
Original pack 2 x 5 l			114,90/5 l
9320.2	10 l	tinplate	198,90
9320.9	25 l	tinplate	396,70

Petroleum benzine 40-65

Dry cleaning gasoline

D 0,65 g/cm³ · bp 44 to 62 °C · flp -43 °C
UN no. 3295 · ADR 3 II · WGK 3

Danger H225-H304-H315-H336-H411

Petroleum benzine 40-65
extra pure

Type analysis
Boiling range ..... 40-65 °C
Benzene ..... ≤0,001 %
n-Hexane ..... ≤2 %
Density (15 °C) 0,645-0,660

Art. No.	Pack Qty.	Pack.	€
8573.1	1 l	glass	32,15
Original pack 6 x 1 l			30,54/1 l
8573.2	2.5 l	glass	53,65
Original pack 4 x 2.5 l			50,97/2.5 l
8573.3	5 l	aluminium	103,10
Original pack 2 x 5 l			97,95/5 l
8573.4	10 l	tinplate	177,40
8573.5	25 l	tinplate	342,95

Petroleum benzine 40-80

Dry cleaning gasoline

D 0,66 g/cm³ · bp 40 to 80 °C · flp <-20 °C
UN no. 3295 · ADR 3 II · WGK 3

Danger H225-H304-H315-H336-H411

Petroleum benzine 40-80
extra pure

Type analysis
Boiling range ..... 40-80 °C
Aromatic compounds (GC) ..... ≤0,01 %
Density (15 °C) 0,650-0,670

Art. No.	Pack Qty.	Pack.	€
CP48.1	1 l	glass	32,15
Original pack 6 x 1 l			30,54/1 l
CP48.4	2.5 l	glass	53,65
Original pack 4 x 2.5 l			50,97/2.5 l
CP48.2	5 l	aluminium	103,10
Original pack 2 x 5 l			97,95/5 l
CP48.3	10 l	tinplate	177,40

Petroleum benzine 50-70

Dry cleaning gasoline · Special Petroleum

D 0,665 g/cm³ · bp 50 to 70 °C · flp -26 °C
UN no. 3295 · ADR 3 II · WGK 3

Danger H225-H304-H315-H336-H361fd-H373-H411

Petroleum benzine 50-70
extra pure

Type analysis
Boiling range ..... 50-70 °C
Aromatic compounds (GC) ..... ≤0,01 %
Density (15 °C) 0,660-0,675

Art. No.	Pack Qty.	Pack.	€
0969.1	1 l	glass	37,10
Original pack 6 x 1 l			35,25/1 l
0969.4	2.5 l	glass	69,80
Original pack 4 x 2.5 l			66,31/2.5 l
0969.5	5 l	aluminium	127,95
Original pack 2 x 5 l			121,55/5 l
0969.2	10 l	tinplate	241,90
0969.3	25 l	tinplate	461,20

Petroleum benzine 60-70

Dry cleaning gasoline

D 0,675 g/cm³ · mp <-20 °C · bp 65 to 70 °C · flp -26 °C
CAS No. 64742-49-0 · EC no. 925-292-5
UN no. 1208 · ADR 3 II · WGK 3

Danger H225-H304-H315-H336-H361fd-H373-H411

Petroleum benzine 60-70
extra pure

Type analysis
Boiling range ..... 60-70 °C
Aromatic compounds (GC) ..... ≤0,01 %
Density (15 °C) 0,670-0,680

Art. No.	Pack Qty.	Pack.	€
9735.1	1 l	glass	34,30
Original pack 6 x 1 l			32,59/1 l
9735.4	2.5 l	glass	60,10
Original pack 4 x 2.5 l			57,10/2.5 l
9735.5	5 l	aluminium	120,95
Original pack 2 x 5 l			114,90/5 l
9735.2	10 l	tinplate	198,90
9735.3	20 l	tinplate	385,95

Petroleum benzine 60-95

Dry cleaning gasoline

D 0,67 to 0,8 g/cm³ · mp <-20 °C · bp 55 to 98 °C · flp <0 °C
UN no. 3295 · ADR 3 II · WGK 2

Danger H225-H304-H315-H336-H411

Petroleum benzine 60-95
extra pure

Type analysis
Boiling range ..... 60-95 °C
Aromatic compounds (GC) ..... ≤0,01 %
n-Hexane ..... ≤5,0 %
Density (15 °C) 0,675-0,711

Art. No.	Pack Qty.	Pack.	€
8575.1	1 l	glass	30,65
Original pack 6 x 1 l			29,12/1 l
8575.2	2.5 l	glass	48,30
Original pack 4 x 2.5 l			45,89/2.5 l
8575.3	5 l	aluminium	85,90
Original pack 2 x 5 l			81,61/5 l
8575.4	10 l	tinplate	149,45
8575.5	25 l	tinplate	306,40

Petroleum benzine 63-80

Dry cleaning gasoline

D 0,66 to 0,68 g/cm³ · bp 63 to 80 °C · flp -26 °C
UN no. 3295 · ADR 3 II · WGK 3

Danger H225-H304-H315-H336-H361fd-H373-H411

Petroleum benzine 63-80
extra pure

Type analysis
Boiling range ..... 63-80 °C
Aromatic compounds (GC) ..... ≤0,01 %
Density (15 °C) 0,660-0,680

Art. No.	Pack Qty.	Pack.	€
5649.1	1 l	glass	34,30
Original pack 6 x 1 l			32,59/1 l
5649.3	2.5 l	glass	60,10
Original pack 4 x 2.5 l			57,10/2.5 l
5649.4	5 l	aluminium	120,95
Original pack 2 x 5 l			114,90/5 l
5649.2	10 l	tinplate	198,90

Petroleum benzine 80-110

Dry cleaning gasoline · White spirit

D 0,73 g/cm³ · mp <-30 °C · bp 84 to 106 °C · flp <0 °C
CAS No. 92128-66-0 · EC no. 921-024-6
UN no. 3295 · ADR 3 II · WGK 2

Danger H225-H304-H315-H336-H411

Petroleum benzine 80-110
extra pure

Type analysis

Boiling range	80-110 °C
Aromatic compounds (GC)	≤0,05 %
Benzene (GC)	≤0,005 %
n-Hexane (GC)	≤5 %
Density (15 °C)	0,695-0,735

Art. No.	Pack Qty.	Pack.	€
3259.1	1 l	glass	32,15
Original pack 6 x 1 l			30,54/1 l
3259.3	2.5 l	glass	53,65
Original pack 4 x 2.5 l			50,97/2.5 l
3259.4	5 l	aluminium	103,10
Original pack 2 x 5 l			97,95/5 l
3259.2	10 l	tinplate	177,40
3259.5	25 l	tinplate	342,95

Petroleum benzine 100-140

Dry cleaning gasoline

D 0,73 g/cm³ · mp <-60 °C · bp 100 to 160 °C · flp >-7,5 to <-5 °C
CAS No. 64742-49-0 · EC no. 920-750-0
UN no. 1268 · ADR 3 II · WGK 3

Danger H225-H304-H336-H411-EUH066

Petroleum benzine 100-140
extra pure

Type analysis

Appearance	clear, colourless
Boiling range	100-140 °C
Aromatic compounds	≤0,01 %
Benzene	≤0,001 %
Density (15 °C)	0,720-0,748 g/cm³

Art. No.	Pack Qty.	Pack.	€
9675.1	1 l	glass	30,65
Original pack 6 x 1 l			29,12/1 l
9675.4	2.5 l	glass	48,30
Original pack 4 x 2.5 l			45,89/2.5 l
9675.5	5 l	aluminium	85,90
Original pack 2 x 5 l			81,61/5 l
9675.2	10 l	tinplate	149,45
9675.3	25 l	tinplate	306,40

Petroleum benzine 135-180

Dry cleaning gasoline

D 0,775 g/cm³ · mp <-45 °C · bp 140 to 164 °C · flp 29 °C
CAS No. 64742-82-1 · EC no. 927-344-2
UN no. 3295 · ADR 3 III · WGK 2

Danger H226-H304-H336-H372-H411-EUH066

Petroleum benzine 135-180
extra pure

Type analysis

Boiling range	135-180 °C
Density (15 °C)	0,770-0,785
Refractive index (20 °C)	1,4260-1,4350

Art. No.	Pack Qty.	Pack.	€
8576.1	1 l	glass	40,35
Original pack 6 x 1 l			38,33/1 l
8576.2	2.5 l	glass	75,15
Original pack 4 x 2.5 l			71,39/2.5 l
8576.3	5 l	aluminium	138,70
Original pack 2 x 5 l			131,77/5 l
8576.4	10 l	tinplate	231,15

Petroleum benzine 145-200

Dry cleaning gasoline

D 0,785 g/cm³ · mp <-15 °C · bp 145 to 200 °C · flp 38,5 °C
CAS No. 64742-82-1 · EC no. 919-446-0
UN no. 3295 · ADR 3 III · WGK 2

Danger H226-H304-H336-H372-H411-EUH066

Petroleum benzine 145-200
extra pure

Type analysis

Boiling range	145-200 °C
Benzene (GC)	≤0,01 %
Density (15 °C)	0,780-0,798

Art. No.	Pack Qty.	Pack.	€
8577.1	1 l	glass	32,15
Original pack 6 x 1 l			30,54/1 l
8577.2	2.5 l	glass	53,65
Original pack 4 x 2.5 l			50,97/2.5 l
8577.3	5 l	aluminium	103,10
Original pack 2 x 5 l			97,95/5 l
8577.4	10 l	tinplate	177,40

Petroleum benzine 180-220

Dry cleaning gasoline

D 0,79 g/cm³ · mp -54 °C · bp 186 to 214 °C · flp 65 °C
CAS No. 64742-48-9 · EC no. 918-481-9
WGK 2

Danger H304-EUH066

Petroleum benzine 180-220
extra pure

Type analysis

Boiling range	180-220 °C
Aromatic compounds	≤0,4 %
Density (15 °C)	0,770-0,815

Art. No.	Pack Qty.	Pack.	€
8579.1	1 l	glass	32,15
Original pack 6 x 1 l			30,54/1 l
8579.2	2.5 l	glass	53,65
Original pack 4 x 2.5 l			50,97/2.5 l
8579.3	5 l	aluminium	103,10
Original pack 2 x 5 l			97,95/5 l
8579.4	10 l	tinplate	177,40

Petroleum benzine 190-245

Dry cleaning gasoline

D 0,78 to 0,82 g/cm³ · mp -45 °C · bp 190 to 245 °C · flp >70 °C
WGK 1

Danger H304-EUH066

Petroleum benzine 190-245
extra pure

Type analysis

Boiling range	190-245 °C
Aromatic compounds	≤0,2 %
Density (15 °C)	0,780-0,820

Art. No.	Pack Qty.	Pack.	€
8580.1	1 l	glass	32,15
Original pack 6 x 1 l			30,54/1 l
8580.2	2.5 l	glass	53,65
Original pack 4 x 2.5 l			50,97/2.5 l
8580.3	5 l	aluminium	103,10
Original pack 2 x 5 l			97,95/5 l
8580.4	10 l	tinplate	177,40

Petroleum benzine 235-265

Dry cleaning gasoline

D 0,82 g/cm³ · mp -30 °C · bp 233 to 266 °C · flp 102 °C
CAS No. 64742-47-8 · EC no. 920-107-4
WGK 1

Danger H304-EUH066

Petroleum benzine 235-265
extra pure

Type analysis

Boiling range	235-265 °C
Aromatic compounds	≤0,5 %
Density (15 °C)	~0,82

Art. No.	Pack Qty.	Pack.	€
8590.1	1 l	glass	32,15
Original pack 6 x 1 l			30,54/1 l
8590.2	2.5 l	glass	53,65
Original pack 4 x 2.5 l			50,97/2.5 l
8590.3	5 l	aluminium	103,10
Original pack 2 x 5 l			97,95/5 l
8590.4	10 l	tinplate	177,40

Petroleum Ether (Petroleum Benzine, Boiling Range 30-80 °C)

Art. No.	Description	Page
3523	Petroleum benzine 30-50	1146
8961	Petroleum benzine 30-75	1147
9320	Petroleum benzine 40-60	1147
8573	Petroleum benzine 40-65	1147
CP48	Petroleum benzine 40-80	1147
0969	Petroleum benzine 50-70	1147
9735	Petroleum benzine 60-70	1147
5649	Petroleum benzine 63-80	1147

Petroleum ether 40–60 °C

D 0,65 g/cm³ · bp 40 to 60 °C · flp -40 °C
UN no. 3295 · ADR 3 II · WGK 3

Danger H225-H304-H315-H336-H411

Petroleum ether 40–60 °C
ROTISOLV® HPLC

Guarantee analysis
Boiling range ..... 40-60 °C
Water (KF) ..... ≤0,005 %
Acidity (as CH_3COOH) ..... ≤0,002 %
Evaporation residue ..... ≤0,0005 %

Transmission:
270 nm ..... ≥98 %
220 nm ..... ≥75 %
200 nm ..... ≥10 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
0731.1	2.5 l	glass	85,90
Original pack 4 x 2.5 l			81,61/2.5 l

Petroleum ether 40–60 °C
ROTISOLV® Pestilyse® plus

For determination of dioxins, furans, PCBs, pesticides, hydrocarbons etc.

Guarantee analysis
Boiling range ..... 40-60 °C
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,005 %
Free acid (as CH_3COOH) ..... ≤0,002 %
Evaporation residue ..... ≤0,0003 %
GC/FID suitability (as 2-octanol) ..... ≤10 ng/ml
GC/ECD suitability (as heptachloro epoxide) ..... ≤10 ng/l
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD pesticides (as lindane) ..... ≤5 ng/l
GC/NPD pesticides (as parathion) ..... ≤10 ng/l
Oil index (any hydrocarbon C_{10}-C_{40}) .... ≤0,05 mg/l
PAH-test (less than 2 ppb, HPLC) ..... complies

Fluorescence (as quinine):
254 nm ..... ≤1 ppb
365 nm ..... ≤1 ppb

Art. No.	Pack Qty.	Pack.	€
7588.1	2.5 l	glass	96,25
Original pack 4 x 2.5 l			91,44/2.5 l

Petroleum ether 40–60 °C
ROTISOLV® Pestilyse®

For residue and environmental analysis.

Guarantee analysis
Boiling range ..... 40-60 °C
Water (KF) ..... ≤0,02 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0001 %
GC/ECD (individual signal as lindane) ..... ≤5 ng/l
GC/PND (individual signal as ethylparathion) ..... ≤10 ng/l

Art. No.	Pack Qty.	Pack.	€
T170.2	1 l	glass	44,65
Original pack 6 x 1 l			42,42/1 l
T170.1	2.5 l	glass	88,70
Original pack 4 x 2.5 l			84,27/2.5 l
T170.3	4 l	glass	125,25

Petroleum ether 40–60 °C
ROTIPURAN® p.a., ACS, ISO

Guarantee analysis
Boiling range ..... 40-60 °C
Density (d 20 °C/4 °C) 0,640-0,655
Colour (APHA) ..... ≤10
Acidity ..... ≤0,0003 meq/g
Water ..... ≤0,015 %
Aromatic compounds (as C_6H_6) ..... ≤0,025 %
Sulphur compounds (as CS_2) ..... ≤0,005 %
Evaporation residue ..... ≤0,001 %
Lead (Pb) ..... ≤0,00001 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
T173.1	1 l	glass	54,30
Original pack 6 x 1 l			51,59/1 l
T173.2	2.5 l	glass	110,20
Original pack 4 x 2.5 l			104,69/2.5 l
T173.3	5 l	aluminium	198,90
Original pack 2 x 5 l			188,96/5 l
T173.5	25 l	tinplate	697,70

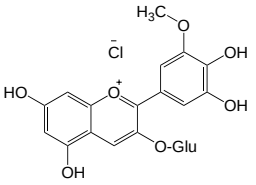
Petroleum ether 40–60 °C
extra pure, DAB

Guarantee analysis
Appearance ..... colourless, clear liquid

Identity ..... complies
Relative density (20/20 °C) 0,642-0,656
Boiling range (40-60 °C) ..... ≥75 Vol. %
Benzene (UV) ..... ≤0,001 Vol. %
n-Hexane (GC) ..... ≤2,0 Vol. %
Tetraethyl lead ..... complies
Reaction with H_2SO_4 ..... complies
Non volatile matter ..... ≤0,001 %
Reducing substances, incl. sulphur comp. . complies
Acid or alkaline react. substances ..... complies
Foreign odour, non volatile matter ..... complies

Art. No.	Pack Qty.	Pack.	€
CP44.1	1 l	glass	34,95
Original pack 6 x 1 l			33,20/1 l
CP44.2	2.5 l	glass	67,65
Original pack 4 x 2.5 l			64,27/2.5 l
CP44.3	5 l	aluminium	117,20
Original pack 2 x 5 l			111,34/5 l
CP44.4	10 l	tinplate	198,90
CP44.5	25 l	tinplate	392,40

Petunidin 3-glucoside chloride



$C_{22}H_{23}O_{12}Cl$
CAS No. 6988-81-4
WGK 1

Petunidin 3-glucoside chloride
ROTICHROM® HPLC

Reference substance for HPLC.
From *Vitis vinifera*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

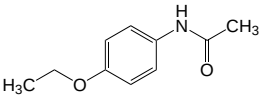
Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
1469.1	5 mg	glass	338,65

Pfu DNA polymerase, recombinant
▸ ROTI®Pol ProofRead see page 1238

PGDA
▸ Propylene glycol diacetate see page 1188

Phenacetin



Ethyl amyl carbinol · *N*-(4-Ethoxyphenyl) acetamide

$C_{10}H_{13}NO_2$ · D 1,23 g/cm³ · mp 133 to 136 °C
CAS No. 62-44-2 · EC no. 200-533-0
WGK 1

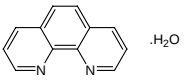
Danger H302-H350

Phenacetin
ROTI®Calipure melting point standard 133–135 °C

Type analysis
Meniscus formation ..... 133-136 °C
Complete liquefaction ..... 133-136 °C
Measurement uncertainty ..... ±0,3 °C

Art. No.	Pack Qty.	Pack.	€
9728.1	1 g	glass	40,75

1,10-Phenanthroline monohydrate



$C_{12}H_8N_2 \cdot H_2O$ · mp 100 to 104 °C
CAS No. 5144-89-8 · EC no. 200-629-2
UN no. 2811 · ADR 6.1 III · WGK 3

Danger H301-H410

1,10-Phenanthroline monohydrate
≥99 %, p.a., ACS

Redox indicator

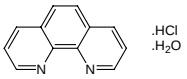
Dissolve 0.695 g $FeSO_4 \cdot 7\ H_2O$ and 1.487 g 1,10-phenanthroline in 100 ml water

Guarantee analysis
Assay (dry substance) ..... ≥99,0 %
Solubility in ethanol ..... clear, colorless
Melting point ..... ≥98 °C
Suitability as indicator ..... complies
Suitability for determination of iron ..... complies

1,10-Phenanthroline forms sparingly soluble complex compounds with a lot of heavy metal ions, and so it is suitable for their quantitative determination. The iron(II)-complex (Ferroin) is usable as redox indicator.

Art. No.	Pack Qty.	Pack.	€
9113.2	5 g	glass	37,10
9113.3	25 g	glass	131,70
9113.1	50 g	glass	235,45

1,10-Phenanthroline hydrochloride monohydrate



o-Phenanthroline hydrochloride monohydrate

$C_{12}H_8N_2 \cdot HCl \cdot H_2O$ · mp 224 to 225 °C
CAS No. 3829-86-5 · EC no. 223-325-1
UN no. 2811 · ADR 6.1 III · WGK 3

Danger H301-H410

1,10-Phenanthroline hydrochloride monohydrate
≥99 %, p.a.

Redox indicator, reagent for Iron(II).

Guarantee analysis
Appearance ..... white to pinkish powder
Assay (acidim.) ..... ≥99,0 %
Sulphated ash ..... ≤0,2 %
Water ..... ≤8,5 %
Suitability for determination of iron ..... complies

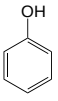
Art. No.	Pack Qty.	Pack.	€
KK21.1	5 g	glass	34,30
KK21.2	10 g	glass	60,75
KK21.3	50 g	glass	246,20

o-Phenanthroline hydrochloride monohydrate
▸ 1,10-Phenanthroline hydrochloride monohydrate see page 1150

1,10-Phenanthrolin iron(II) salt solution
▸ Ferroin see page 934

Phenethyl-3,4-dihydroxycinnamate
▸ Caffeic acid phenethyl ester see page 804

Phenol



Carbolic acid · Hydroxybenzene

C_6H_6O · D 1,07 g/cm³ · mp 40 to 42 °C · bp 180 to 182 °C · flp 81 °C
CAS No. 108-95-2 · EC no. 203-632-7
UN no. 1671 · ADR 6.1 II · WGK 2

Danger H301+H311+H331-H314-H341-H373-H411

Phenol
≥99,5 %, p.a., detached crystals

Guarantee analysis
Appearance ..... white crystals
Assay (GC) ..... ≥99,5 %
Water (KF) ..... ≤0,5 %
Chloride (Cl) ..... ≤0,0005 %
Sulphur (S) ..... ≤0,0002 %
Iron (Fe) ..... ≤0,0001 %
Non volatile matter ..... ≤0,01 %
Solidification point ..... ≥40,6 °C

Art. No.	Pack Qty.	Pack.	€
0040.1	250 g	glass	52,70
0040.2	1 kg	glass	163,95
Original pack 6 x 1 kg			155,75/1 kg

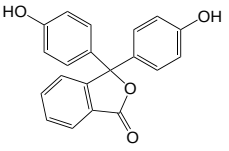
Phenol
≥99 %, Ph. Eur., cryst.

Type analysis
Assay ..... 99,0-100,5 %
Identity ..... complies
Water (KF) ..... ≤0,5 %
Appearance of solution ..... complies
Acid react. substances ..... complies
Non volatile matter ..... ≤0,05 %
Solidification point ..... ≥39,5 °C

Art. No.	Pack Qty.	Pack.	€
3215.2	500 g	glass	81,60
Original pack 6 x 500 g			77,52/500 g
3215.1	1 kg	glass	147,85
Original pack 6 x 1 kg			140,46/1 kg

Phenol solutions
▸ ROTI®Aqua-P/C/I see page 1232
▸ ROTI®Phenol/Chloroform/Isoamyl alcohol see page 1232
▸ ROTI®Aqua-Phenol see page 1232
▸ ROTI®Phenol see page 1232

Phenolphthalein (C.I. 764)



$C_{20}H_{14}O_4$ · D 1,3 g/cm³ · mp 258 to 263 °C · bp >450 °C
CAS No. 77-09-8 · EC no. 201-004-7
WGK 3

Danger H341-H350-H361f

Phenolphthalein (C.I. 764)
≥99 %, p.a.

Indicator pH 8.0-10.0

Dissolve 0.1 g in 100 ml ethanol (96 %)

Type analysis
Appearance ..... white to yellowish powder
Assay (HPLC) ..... ≥99,0 %
Transition range ..... 8,0 (colourless) - 10,0 (red-violet)
Absorption max. (buffer, pH 9,8) ..... 551-554 nm
Loss on drying (105 °C) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
T126.2	50 g	plastic	21,40
T126.1	100 g	plastic	30,00
T126.3	500 g	plastic	81,60
Original pack 6 x 500 g			77,52/500 g

Phenolphthalein (C.I. 764)
ROTI®Calipure melting point standard 258–263 °C

Type analysis
Meniscus formation ..... 258-263 °C
Complete liquefaction ..... 258-263 °C
Measurement uncertainty ..... ±0,3 °C

Art. No.	Pack Qty.	Pack.	€
2919.1	1 g	glass	40,75

Phenolphthalein indicator solutions

Phenolphthalein indicator solution
0,1 % in ethanol 90 %, denatured

Indicator pH 8.0-10.0

ready-to-use

D 0,82 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C

UN no. 1170 · ADR 3 II · WGK 3

Danger H225-H319

Art. No.	Pack Qty.	Pack.	€
8145.1	250 ml	glass	24,20
8145.2	500 ml	glass	36,45

Phenolphthalein indicator solution
1 % in ethanol 90 %, denatured

Indicator pH 8.0-10.0

ready-to-use

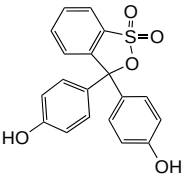
D 0,82 g/cm³ · bp 78 °C · flp 17 °C

UN no. 1170 · ADR 3 II · WGK 3

Danger H225-H319-H341-H350

Art. No.	Pack Qty.	Pack.	€
K034.1	250 ml	glass	26,35
K034.2	500 ml	glass	37,10
K034.3	1 l	glass	54,30
Original pack 6 x 1 l			51,59/1 l

Phenol red



Phenolsulphonphthalein

$C_{19}H_{14}O_5S$ · mp >300 °C
CAS No. 143-74-8 · EC no. 205-609-7
WGK 1

Phenol red
p.a., ACS

Indicator pH 6.5-8.2

Dissolve 0.1 g in 100 ml ethanol (20 %) or 0.04 g in 1.13 ml NaOH 0.1 mol/l and fill up with water to 100 ml

Guarantee analysis
Transition range ..... 6,8 (yellow)-8,2 (red)
Loss on drying (110 °C) ..... ≤5,0 %
Appearance of solution (ACS) ..... complies

Art. No.	Pack Qty.	Pack.	€
T127.1	5 g	glass	19,25
T127.2	25 g	glass	45,70
T127.3	100 g	glass	126,35

Phenol red
extra pure

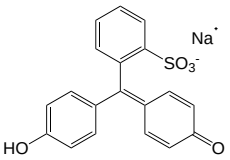
Indicator pH 6.5-8.2

Dissolve 0.1 g in 100 ml ethanol (20 %) or 0.04 g in 1.13 ml NaOH 0.1 mol/l and fill up with water to 100 ml

Type analysis
Assay ..... ≥95 %
Loss on drying ..... ≤1 %

Art. No.	Pack Qty.	Pack.	€
1HA8.1	5 g	glass	20,35
1HA8.2	25 g	glass	51,50

Phenol red sodium salt



Phenolsulphonphthalein sodium salt

$C_{19}H_{13}NaO_5S$ · mp 285 °C
CAS No. 34487-61-1 · EC no. 252-057-8
WGK 1

Phenol red sodium salt
p.a., ACS

Indicator pH 6,8-8,2

Dissolve 0.1 g in 100 ml water

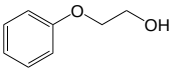
Guarantee analysis
Appearance ..... dark red to brownish-red powder
Appearance of solution (ACS) ..... complies
Loss on drying ..... ≤5 %
pH transition range ..... 6,8 (yellow)-8,2 (red)

Art. No.	Pack Qty.	Pack.	€
2566.1	5 g	glass	26,35
2566.2	25 g	glass	65,05

Phenolsulphonphthalein
▸ Phenol red see page 1150

Phenolsulphonphthalein sodium salt
▸ Phenol red sodium salt see page 1151

2-Phenoxyethanol



Ethylene glycol monophenyl ether · Ethylene glycol monophenyl ether

$C_8H_{10}O_2$ · D 1,11 g/cm³ · mp 9,1 °C · bp 244,3 °C · flp 126 °C
CAS No. 122-99-6 · EC no. 204-589-7
WGK 1

Danger H302-H318-H335

2-Phenoxyethanol
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,0 %
Colour (APHA) ..... ≤10
Water ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4348.1	250 ml	glass	30,00
4348.2	1 l	glass	60,75
Original pack 6 x 1 l			57,71/1 l
4348.3	10 l	tinplate	317,15

2-Phenoxyethanol
ROTI®Star Primary Standard

Type analysis
Assay (GC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤1,0 %
Water (KF) ..... ≤1,0 %
Assay (qNMR) ..... ≥95,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

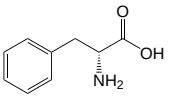
Art. No.	Pack Qty.	Pack.	€
NE12.1	250 mg	glass	869,70

Phenylacetylenecarboxylic acid
▸ Phenylpropiolic acid see page 1153

3-Phenylacrolein
▸ Cinnamaldehyde see page 839

Cbz-(L)-Phenylalanine
▸ Z-L-Phenylalanine see page 1417

D-Phenylalanine



2-Amino-3-phenylpropionic acid · H-D-Phe-OH

$C_9H_{11}NO_2$ · D 1,34 g/cm³ · mp 283 °C
CAS No. 673-06-3 · EC no. 211-603-5
WGK 1

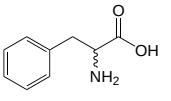
D-Phenylalanine
≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... 98,5-101,0 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in H_2O) ..... +33,0° to +35,0°
Loss on drying ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
7886.1	5 g	plastic	26,35
7886.2	25 g	plastic	81,60
7886.3	100 g	plastic	198,90

DL-Phenylalanine



2-Amino-3-phenylpropionic acid

$C_9H_{11}NO_2$ · D 1,34 g/cm³ · mp 186 °C
CAS No. 150-30-1 · EC no. 205-756-7
WGK 1

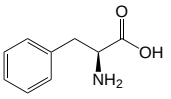
DL-Phenylalanine
≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white cryst. powder
Assay ..... ≥98,5 %
Heavy metals (as Pb) ..... ≤0,002 %
Ash content ..... ≤0,1 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8603.1	25 g	plastic	39,70
8603.2	100 g	plastic	126,35
8603.3	250 g	plastic	256,95

L-Phenylalanine



2-Amino-3-phenylpropionic acid · H-L-Phe-OH

$C_9H_{11}NO_2$ · D 1,343 g/cm³ · mp 270 to 284 °C · bp 295 °C
CAS No. 63-91-2 · EC no. 200-568-1
WGK 1

L-Phenyalanine
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤6,0 E.U./g
Assay ..... ≥99 %
Loss on drying ..... ≤0,5 %
Specific rotation $[\alpha]_D^{20}$ ..... -35,5° to -33,0°
Foreign amino acids ..... ≤0,5 %
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,03 %
Heavy metals (as Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
1709.1	25 g	plastic	23,15
1709.2	100 g	plastic	52,70
1709.3	500 g	plastic	209,65
Original pack 6 x 500 g			199,17/500 g

L-Phenylalanine
≥98,5 %, Ph. Eur., for biochemistry

Guarantee analysis
Appearance ..... white cryst. powder
Assay (dry substance) ..... 98,5-101,0 %
Identity ..... complies
Appearance of solution ..... complies
Specific rotation $[\alpha]_D^{20}$ ..... -35,5° to -33,0°
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,03 %
Ammonium (NH_4) ..... ≤0,02 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001%
Foreign amino acids ..... complies
Loss on drying ..... ≤0,5 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4491.3	25 g	plastic	18,20
4491.1	100 g	plastic	47,85
4491.4	250 g	plastic	99,90
4491.2	1 kg	plastic	349,40
Original pack 6 x 1 kg			331,93/1 kg

3-Phenylallyl alcohol
▸ Cinnamyl alcohol see page 839

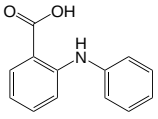
Phenylamine
▸ Aniline see page 744

Phenylamine hydrochloride
▸ Aniline hydrochloride see page 744

2-(Phenylamino)benzoic acid
▸ *N*-Phenylanthranilic acid see page 1151

N-Phenylaniline
▸ Diphenylamine see page 892

N-Phenylanthranilic acid



2-(Phenylamino)benzoic acid · Diphenylamine-2-carboxylic acid · *o*-Anilobenzoic acid · DpC · Fenamic acid

$C_{13}H_{11}NO_2$ · mp 182 to 185 °C
CAS No. 91-40-7 · EC no. 202-066-8
WGK 1

Warning H315-H319-H335

N-Phenylanthranilic acid
≥97 %, p.a.

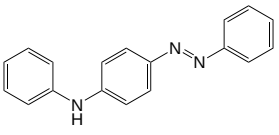
Redox indicator

Dissolve 0.1 g in 5 ml of 0.1 M sodium hydroxide solution and make up to 100 ml with water. Alternatively: Dissolve 0.107 g in 20 ml sodium carbonate solution (5 %) and make up to 100 ml water

Type analysis
Appearance ..... yellow powder
Assay (titr.) ..... ≥97,0 %
Melting point ..... 182-185 °C
Ash content ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
9858.1	25 g	plastic	33,25
9858.2	50 g	plastic	57,55
9858.3	100 g	plastic	102,70

4-(Phenylazo) diphenylamine



4-Anilinoazobenzene

$C_{18}H_{15}N_3$ · mp 84 to 91 °C
CAS No. 101-75-7 · EC no. 202-972-3
WGK 1

Warning H315-H319-H335

4-(Phenylazo) diphenylamine
≥97 %, p.a.

Indicator pH 1.2-2.5; for microscopy

Insoluble in water, soluble in methanol

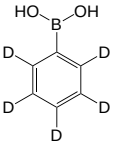
Guarantee analysis
Appearance ..... orange to orange-brown powder
Assay ..... ≥97,0 %
Absorption max. (in EtOH) ..... ~411 nm
pH-transition range ..... 1,2 (red)-2,5 (yellow)

Art. No.	Pack Qty.	Pack.	€
4538.1	5 g	glass	42,90
4538.2	25 g	glass	115,60

1-Phenylazo-2-naphthol
▸ Sudan I see page 1343

N-Phenylbenzenamine
▸ Diphenylamine see page 892

Phenylboronic acid D5



Dihydroxy(phenyl)borane · Benzeneboronic acid

$C_6D_5H_2BO_2$ · mp 217 to 220 °C
CAS No. 215527-70-1 · EC no. 623-841-0
WGK 1

Warning H302

Phenylboronic acid D5
98 Atom%D

For nuclear magnetic resonance spectroscopy.

Guarantee analysis
Deuterising degree ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1L3A.1	1 g	glass	192,45

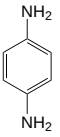
1-Phenyl-1,3-butadione
▸ Benzoylacetone see page 770

Phenyl carbinol
▸ Benzyl alcohol see page 771

Phenyl carbonate
▸ Diphenyl carbonate see page 893

Phenyl chloride
▸ Chlorobenzene see page 830

1,4-Phenylenediamine



1,4-Diaminobenzene

$C_6H_8N_2$ · D 1,14 g/cm³ · mp 142 °C · bp 274 °C · flp 156 °C
CAS No. 106-50-3 · EC no. 203-404-7
UN no. 1673 · ADR 6.1 III · WGK 3

Danger H301+H311+H331-H317-H319-H410

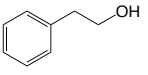
1,4-Phenylenediamine
≥99 %, for synthesis

Type analysis
Appearance ..... pink to brown crystals
Assay (GC) ..... ≥99,0 %
Melting point ..... ≥138,0 °C

Art. No.	Pack Qty.	Pack.	€
4499.2	50 g	glass	31,10
4499.1	100 g	glass	46,80
4499.3	250 g	glass	74,20

Phenylethane
▸ Ethylbenzene see page 920

2-Phenylethanol



β-Phenethyl alcohol · Benzyl carbinol

$C_8H_{10}O$ · D 1,02 g/cm³ · mp -27 °C · bp 219 °C · flp 96 °C
CAS No. 60-12-8 · EC no. 200-456-2
WGK 1

Warning H302-H319

2-Phenylethanol
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
4422.1	5 ml	glass	13,90
4422.2	250 ml	glass	22,05
4422.3	1 l	glass	58,60
Original pack 6 x 1 l			55,67/1 l

Phenylethanolamine
▸ 2-Amino-1-phenylethanol see page 730

β-Phenethyl alcohol
▸ 2-Phenylethanol see page 1152

Phenylethylene
▸ Styrene see page 1342

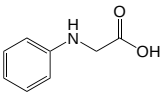
Phenylethylglucosinolate potassium salt

▸ Gluconasturtiin see page 960

Phenylformic acid

▸ Benzoic acid see page 768

N-Phenylglycine



Anilinoacetic acid

$C_8H_9NO_2$ · mp 125 °C
CAS No. 103-01-5 · EC no. 203-070-2
WGK 1

N-Phenylglycine
≥97 %, for biochemistry

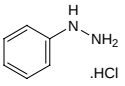
Type analysis
Assay (titr.) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
5939.1	10 g	plastic	61,20

2-Phenylhydracrylic acid

▸ DL-Tropic acid see page 1384

Phenylhydrazine hydrochloride



$C_6H_8N_2$ · HCl · mp 250 to 254 °C
CAS No. 59-88-1 · EC no. 200-444-7
UN no. 2811 · ADR 6.1 III · WGK 3

Danger H301+H311+H331-H315-H317-H319-H341-H350-H372-H400

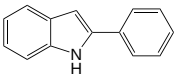
Phenylhydrazine hydrochloride
≥99 %, p.a.

Reagent for detection of sugar.

Guarantee analysis
Assay (titr.) ..... ≥99,0 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
KK20.1	25 g	glass	24,65
KK20.2	100 g	glass	66,55
KK20.3	250 g	glass	149,45

2-Phenylindole



α-Phenylindole

$C_{14}H_{11}N$ · mp 188 to 190 °C · bp 250 °C
CAS No. 948-65-2 · EC no. 213-436-3
WGK 3

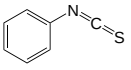
Danger H315-H318-H335

2-Phenylindole
≥94,5 %

Type analysis
Appearance ..... pale yellow powder
Assay ..... ≥94,5 %

Art. No.	Pack Qty.	Pack.	€
6279.1	50 g	plastic	60,75

Phenyl isothiocyanate



C_7H_5NS · D 1,13 g/cm³ · mp -21 °C · bp 221 °C · flp 87 °C
CAS No. 103-72-0 · EC no. 203-138-1
UN no. 2922 · ADR 8 (6.1) II · WGK 3

Danger H301-H314-H317-H334-H410

Phenyl isothiocyanate
PEPTIPURE® ≥99 %, for biochemistry

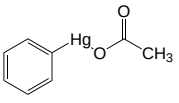
Type analysis
Appearance ..... colourless to pale yellow liquid
Assay (GC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7296.1	25 ml	glass	26,80
7296.2	100 ml	glass	63,45
7296.3	500 ml	glass	278,45

Phenyl ketone

▸ Benzophenone see page 769

Phenyl mercuric acetate



Acetoxyphenyl mercury

$C_8H_8HgO_2$ · mp 146 to 150 °C
CAS No. 62-38-4 · EC no. 200-532-5
UN no. 1674 · ADR 6.1 II · WGK 3

Danger H301-H314-H372-H410

Phenyl mercuric acetate
≥98 %, extra pure

Type analysis
Appearance ..... white cryst. powder
Assay ..... ≥98,0 %
Polymercurated benzene compounds ..... ≤1,5 %
Ash content ..... ≤0,2 %

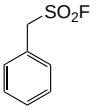
Sensitive to light.

Art. No.	Pack Qty.	Pack.	€
6626.1	50 g	glass	123,65
6626.2	250 g	glass	532,15

Phenylmethanol

▸ Benzyl alcohol see page 771

Phenylmethyl sulphonyl fluoride (PMSF)



α-Toluene sulphonyl fluoride · PMSF

$C_7H_7FO_2S$ · D 0,79 g/cm³ · mp 92 to 94 °C
CAS No. 329-98-6 · EC no. 206-350-2
UN no. 2923 · ADR 8 (6.1) II · WGK 1

Danger H301-H314

Phenylmethyl sulphonyl fluoride
≥98 %, for biochemistry

Irreversible inhibitor of serine- and thiol proteases. Reversible effect on cysteine proteases.

Stock solution: 17.4 mg/ml (100 mM) in isopropanol, ethanol or methanol.
Storage of stock solution protected from light at –20 °C.

For your convenience, **Art. No. 6367.4** comes packed in a 30 ml brown glass bottle. Addition of 20 ml 2-propanol results in a 100 mM stock solution.

Type analysis
Appearance .... White to beige powder or crystals
Assay ..... ≥98 %
Identity (Raman) ..... complies
Melting point ..... 91-95 °C
Solubility in ethanol ..... complies
Solubility in methanol ..... complies

Art. No.	Pack Qty.	Pack.	€
6367.4	348 mg	glass	18,20
6367.1	5 g	plastic	38,60
6367.2	25 g	plastic	127,95
6367.3	100 g	plastic	381,65

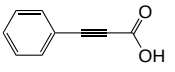
3-Phenyl-2-propen-1-ol

▸ Cinnamyl alcohol see page 839

3-Phenyl-2-propenal

▸ Cinnamaldehyde see page 839

Phenylpropiolic acid



Phenylacetylenecarboxylic acid

$C_9H_6O_2$ · mp 134 to 138 °C
CAS No. 637-44-5 · EC no. 211-285-8
WGK 1

Warning H315-H319-H335

Phenylpropiolic acid
≥98 %, for synthesis

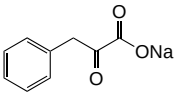
Type analysis
Assay (titr.) ..... ≥98,0 %
Water (KF) ..... ≤1,0 %
Melting point ..... 134-138 °C

Art. No.	Pack Qty.	Pack.	€
5271.1	5 g	plastic	64,40
5271.2	25 g	plastic	267,70

3-Phenylpropionic acid ethyl ester

▸ Hydrocinnamic acid ethyl ester see page 994

Phenylpyruvic acid sodium salt



Sodium phenylpyruvate

$C_9H_7NaO_3$ · mp >300 °C
CAS No. 114-76-1 · EC no. 204-053-2
WGK 1

Phenylpyruvic acid sodium salt
≥98 %

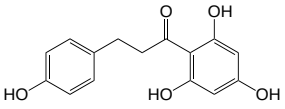
Type analysis
Assay (nonaqueous titration) ..... ≥98,0 %
Water ..... 7,0-10,0 %

Art. No.	Pack Qty.	Pack.	€
9246.1	5 g	glass	145,15

pH-indicators

▸ Indicators and Dyes see page 1006

Phloretin



Phloretol

$C_{15}H_{14}O_5$ · mp 255 to 263 °C
CAS No. 60-82-2 · EC no. 200-488-7
WGK 2

Phloretin
ROTICHROM® HPLC

Reference substance for HPLC.

Type analysis
Purity (HPLC) ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
7051.4	50 mg	glass	321,45

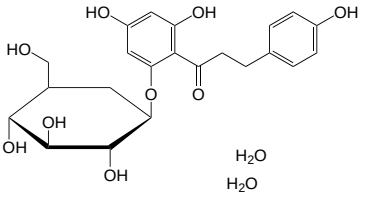
Phloretol

▸ Phloretin see page 1154

Phloridzin

▸ Phlorizin dihydrate see page 1154

Phlorizin dihydrate



Phloridzin

$C_{21}H_{24}O_{10}$ · 2 H_2O · D 1,491 g/cm³ · mp 113 to 114 °C
CAS No. 7061-54-3 · EC no. 200-487-1
WGK 1

Warning H315-H319-H335

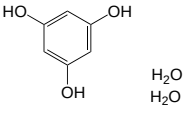
Phlorizin dihydrate
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥98 %
Loss on drying ..... ≤5,0 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
4196.1	2.5 g	glass	58,60
4196.2	10 g	plastic	166,65
4196.3	100 g	plastic	951,40

Phloroglucinol dihydrate



1,3,5-Trihydroxybenzene

$C_6H_6O_3$ · 2 H_2O · mp 219 °C
CAS No. 6099-90-7 · EC no. 203-611-2
WGK 2

Warning H315-H319-H335

Phloroglucinol dihydrate
≥98 %

Type analysis
Appearance ..... white to yellow powder
Assay ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7662.1	50 g	plastic	83,35

Phorbol 12-myristate 13-acetate

PMA · TPA · 12-O-Tetradecanoylphorbol-13-acetate

$C_{36}H_{56}O_8$ · mp 50 to 70 °C · bp 698,1 °C
CAS No. 16561-29-8 · EC no. 605-413-5
WGK 1

Warning H315

Phorbol 12-myristate 13-acetate
ROTICHROM® HPLC

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1LEK.1	1 mg	glass	99,90
1LEK.2	5 mg	glass	353,70

Phos-α-D-Gal

▸ α-D-Galactose-1-phosphate dipotassium salt pentahydrate see page 951

Phosphate Standards

▸ Phosphate IC Standard Solution see page 1335

Phosphatase, alkaline

▸ Alkaline phosphatase see page 718

Phosphate buffered formaldehyde

▸ ROTI®Histofix 4 %, prefilled containers see page 1227
▸ ROTI®Histofix 4,5 %, prefilled containers see page 1227
▸ ROTI®Histofix see page 1226

Phosphate buffered saline

▸ ROTI®Fair PBS 7.4 tablets see page 1219
▸ ROTI®Fair PBS 7.4 pouches see page 1220
▸ ROTI®PreMix PBS see page 1238
▸ ROTI®Fair PBS potassium-free 7.4 see page 1220
▸ ROTI®Fair PBS 7.2 see page 1219

Phosphate buffered saline with Tween

▸ ROTI®Fair PBST 7.4 see page 1220
▸ ROTI®PreMix PBST see page 1239

Phosphate matrix modifier

▸ Ammonium dihydrogen phosphate matrix modifier solution see page 1069
▸ Ammonium dihydrogen phosphate matrix modifier solution see page 1070

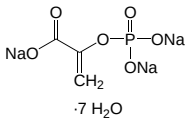
Phosphatidylcholine

▸ Lecithin see page 1039

Phosphine ligands

Art. No.	Description	Page
2040	(*R*)-BINAP	774
1845	(*rac*)-BINAP	774
1950	(*S*)-BINAP	774
1911	SPhos	1305
2058	Xantphos	1405
1445	XPhos	1406

Phosphoenolpyruvic acid, trisodium salt heptahydrate



PEP-3 Na

$C_3H_2Na_3O_6P \cdot 7\ H_2O$
CAS No. 5541-93-5 · EC no. 226-906-8
WGK 1

Warning H315-H319-H335

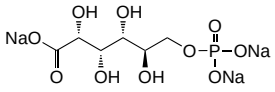
Phosphoenolpyruvic acid, trisodium salt heptahydrate
≥97 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance .. white to almost white cryst. powder
Assay (NMR) ..... ≥97 %
Identity (IR) ..... complies
Appearance of solution (5 % in H_2O) ... colourless

Art. No.	Pack Qty.	Pack.	€
8397.1	100 mg	glass	37,55
8397.2	250 mg	glass	54,30
8397.3	500 mg	glass	82,25

6-Phosphogluconic acid trisodium salt dihydrate



D-Gluconate-6-phosphate trisodium salt

$C_6H_{14}O_{12}PNa_3$
CAS No. 57775-17-4 · EC no. 258-543-6
WGK 1

Warning H315-H319-H335

6-Phosphogluconic acid trisodium salt dihydrate
≥98 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

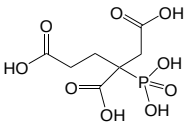
Type analysis
Assay (titr.) ..... ≥98 %
Solution (5 % in H_2O) ..... colourless, clear
Water (KF) ..... 8-12 %

Art. No.	Pack Qty.	Pack.	€
4167.1	250 mg	glass	127,95
4167.2	500 mg	glass	228,45

Phosphomolybdic acid

▸ Molybdatophosphoric acid hydrate
see page 1092

2-Phosphonobutane-1,2,4-tricarboxylic acid (PBTC)



PBTC · 3-Carboxy-3-phosphono adipinic acid

$C_7H_{11}O_9P$ · D 1,27 g/cm³
CAS No. 37971-36-1
UN no. 3265 · ADR 8 III · WGK 1

Warning H290-H319

2-Phosphonobutane-1,2,4-tricarboxylic acid (PBTC)
≥47 %

Complexing agents

Type analysis
Appearance ..... colourless to yellow liquid
Assay ..... 47-53 %

Art. No.	Pack Qty.	Pack.	€
0854.1	100 ml	glass	38,60
0854.2	500 ml	glass	117,20
0854.3	1 l	glass	209,65
Original pack 6 x 1 l			199,17/1 l

Phosphoramidite

Art. No.	Description	Page
K921	Adenosine-BCE-phosphoramidite	708
K922	Cytidine-BCE-phosphoramidite	861
K923	Guanosine-BCE-phosphoramidite	972
K924	Thymidine-BCE-phosphoramidite	1367

meta-Phosphoric acid

$(HPO_3)_n$ · D 2,2 to 2,4 g/cm³ · mp 200 to 250 °C · bp >500 °C
CAS No. 37267-86-0 · EC no. 253-433-4
UN no. 3453 · ADR 8 III · WGK 1

Danger H314

meta-Phosphoric acid
p.a., pieces (hyaline)

Reagent for protein, vitamines, urea and glucose. Stabilised with sodium metaphosphate $(NaPO_3)_n$.

Guarantee analysis
Assay (HPO_3) ..... 40-50 %
Assay ($NaPO_3$) ..... 50-60 %
Chloride (Cl) ..... ≤0,001 %
Nitrate (NO_3) ..... ≤0,001 %
reducing substances (as H_3PO_3) ..... ≤0,02 %
Arsenic (As) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
CN91.1	100 g	plastic	39,25
CN91.2	250 g	plastic	80,55
CN91.3	500 g	plastic	147,85
Original pack 6 x 500 g			140,46/500 g
CN91.4	1 kg	plastic	267,70
Original pack 6 x 1 kg			254,32/1 kg

ortho-Phosphoric acid

Orthophosphoric acid

CAS No. 7664-38-2 · EC no. 231-633-2

ortho-Phosphoric acid 85 %

ortho-Phosphoric acid
85 %, VLSI Grade

Semiconductor grade

H_3PO_4 · D 1,689 g/cm³ · mp 21 °C · bp 158 °C

UN no. 1805 · ADR 8 III · WGK 1

Danger H290-H302-H314

Guarantee analysis
Assay ..... 84-86 %
Bead number (≥0,5 µm) ..... ≤250 p/ml
Colour (APHA) ..... ≤10
Chloride (Cl) ..... ≤0,0001 %
Fluoride (F) ..... ≤0,0005 %
Nitrate (NO_3) ..... ≤0,0001 %
Sulphate (SO_4) ..... ≤0,0005 %
Insoluble matter ..... ≤0,001 %
$KMnO_4$ reducing substances ..... complies
Aluminium (Al) ..... ≤200 ppb
Antimony (Sb) ..... ≤2000 ppb
Arsenic (As) ..... ≤200 ppb
Lead (Pb) ..... ≤100 ppb
Cadmium (Cd) ..... ≤200 ppb
Calcium (Ca) ..... ≤300 ppb
Chromium (Cr) ..... ≤100 ppb
Iron (Fe) ..... ≤1000 ppb
Potassium (K) ..... ≤200 ppb
Cobalt (Co) ..... ≤300 ppb
Copper (Cu) ..... ≤100 ppb
Lithium (Li) ..... ≤50 ppb
Magnesium (Mg) ..... ≤100 ppb
Manganese (Mn) ..... ≤50 ppb
Sodium (Na) ..... ≤1000 ppb
Nickel (Ni) ..... ≤200 ppb
Strontium (Sr) ..... ≤200 ppb
Zinc (Zn) ..... ≤1000 ppb

Art. No.	Pack Qty.	Pack.	€
9788.1	2.5 l	plastic	181,70
Original pack 4 x 2.5 l			172,62/2.5 l

ortho-Phosphoric acid
ROTIPURAN® ≥85 %, p.a., ISO

H_3PO_4 · D 1,689 g/cm³ · mp 21 °C · bp 158 °C

UN no. 1805 · ADR 8 III · WGK 1

Danger H290-H302-H314

Guarantee analysis

Assay (acidim.) ..... ≥85 %
Colour (APHA) ..... ≤10
Heavy metals (as Pb) ..... ≤0,001 %
Volatile acids (as CH_3COOH) ..... ≤0,001 %
$KMnO_4$ reducing substances (as O) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,0003 %
Nitrate (NO_3) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,003 %
Arsenic (As) ..... ≤0,0001 %
Antimony (Sb) ..... ≤0,002 %
Lead (Pb) ..... ≤0,0001 %
Cadmium (Cd) ..... ≤0,0001 %
Calcium (Ca) ..... ≤0,001 %
Chromium (Cr) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,0005 %
Cobalt (Co) ..... ≤0,0001 %
Copper (Cu) ..... ≤0,0001 %
Magnesium (Mg) ..... ≤0,001 %
Manganese (Mn) ..... ≤0,00005 %
Sodium (Na) ..... ≤0,025 %
Nickel (Ni) ..... ≤0,0001 %
Zinc (Zn) ..... ≤0,0002 %

Art. No.	Pack Qty.	Pack.	€
6366.3	500 ml	plastic	50,45
6366.1	1 l	plastic	85,90
Original pack 6 x 1 l			81,61/1 l
6366.2	2.5 l	plastic	174,70
Original pack 4 x 2.5 l			165,97/2.5 l
6366.4	5 l	plastic	299,95
Original pack 2 x 5 l			284,95/5 l

ortho-Phosphoric acid
85 %, Ph. Eur.

H_3PO_4 · D 1,689 g/cm³ · mp 21 °C · bp 158 °C

UN no. 1805 · ADR 8 III · WGK 1

Danger H290-H302-H314

Guarantee analysis

Assay (acidim.) ..... 85,0-88,0 %
Identity ..... complies
Appearance of solution ..... complies
Substances precipitated by NH_4OH ..... complies
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,01 %
Hypophosphorous acid, phosphorous acid . complies
Arsenic (As) ..... ≤0,0002 %
Iron (Fe) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
2608.1	1 l	plastic	85,90
Original pack 6 x 1 l			81,61/1 l
2608.2	2.5 l	plastic	170,95
Original pack 4 x 2.5 l			162,40/2.5 l
2608.3	5 l	plastic	321,45
Original pack 2 x 5 l			305,38/5 l
2608.4	10 l	plastic	579,45

ortho-Phosphoric acid
85 %, extra pure

H_3PO_4 · D 1,689 g/cm³ · mp 21 °C · bp 158 °C

UN no. 1805 · ADR 8 III · WGK 1

Danger H290-H302-H314

Type analysis

Assay ..... 84,0-86,0 %
Density (20 °C) 1,678-1,700
Arsenic (As) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %
Cadmium (Cd) ..... ≤0,0001 %
Copper (Cu) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
9079.1	1 l	plastic	64,40
Original pack 6 x 1 l			61,18/1 l
9079.2	2.5 l	plastic	127,95
Original pack 4 x 2.5 l			121,55/2.5 l
9079.3	10 l	plastic	342,95

ortho-Phosphoric acid 75 %

ortho-Phosphoric acid
75 %, extra pure

H_3PO_4 · D 1,58 g/cm³ · mp -20 °C · bp 135 °C

UN no. 1805 · ADR 8 III · WGK 1

Danger H290-H302-H314

Type analysis

Assay ..... 74,0-76,0 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,05 %
Heavy metals (as Pb) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,00005 %
Cadmium (Cd) ..... ≤0,00002 %
Iron (Fe) ..... ≤0,001 %
Nickel (Ni) ..... ≤0,0002 %
Mercury (Hg) ..... ≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
2614.1	1 l	plastic	41,85
Original pack 6 x 1 l			39,76/1 l
2614.2	2.5 l	plastic	80,55
Original pack 4 x 2.5 l			76,52/2.5 l
2614.3	5 l	plastic	138,70
Original pack 2 x 5 l			131,77/5 l
2614.4	10 l	plastic	235,45

ortho-Phosphoric acid 50 %

ortho-Phosphoric acid
50 %, extra pure

H_3PO_4 · D 1,33 g/cm³ · mp -41,9 °C · bp 108 °C

UN no. 1805 · ADR 8 III · WGK 1

Danger H290-H302-H314

Type analysis

Assay ..... 49,0-51,0 %
Density (20 °C) 1,3250-1,3460
Chloride (Cl) ..... ≤0,005 %
Iron (Fe) ..... ≤0,001%
Arsenic (As) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
4336.1	1 l	plastic	35,40
Original pack 6 x 1 l			33,63/1 l
4336.2	2.5 l	plastic	68,70
Original pack 4 x 2.5 l			65,27/2.5 l
4336.3	5 l	plastic	121,40
Original pack 2 x 5 l			115,33/5 l
4336.4	10 l	plastic	198,35

ortho-Phosphoric acid 40 %

ortho-Phosphoric acid
40 %, extra pure

H_3PO_4 · D 1,25 g/cm³ · mp -30 °C · bp 104 °C

UN no. 1805 · ADR 8 III · WGK 1

Danger H290-H302-H314

Type analysis

Assay ..... 39,0-41,0 %
Density (20 °C) 1,2468-1,2622
Chloride (Cl) ..... ≤0,002 %
Iron (Fe) ..... ≤0,001%
Arsenic (As) ..... ≤0,0001 %
Heavy metals (as Pb) ..... ≤0,0005%

Art. No.	Pack Qty.	Pack.	€
4334.1	1 l	plastic	34,30
Original pack 6 x 1 l			32,59/1 l
4334.2	2.5 l	plastic	66,55
Original pack 4 x 2.5 l			63,22/2.5 l
4334.3	5 l	plastic	118,15
Original pack 2 x 5 l			112,24/5 l
4334.4	10 l	plastic	192,45

ortho-Phosphoric acid 25 %

ortho-Phosphoric acid
25 %, extra pure

H_3PO_4 · D 1,15 g/cm³ · mp -11,8 °C · bp 100 °C

UN no. 1805 · ADR 8 III · WGK 1

Danger H290-H302-H314

Type analysis

Assay ..... 24,0-27,0 %
Density (20 °C) 1,1395-1,1597
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,05 %
Iron (Fe) ..... ≤0,002 %
Arsenic (As) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
4332.1	1 l	plastic	28,95
Original pack 6 x 1 l			27,50/1 l
4332.2	2.5 l	plastic	53,65
Original pack 4 x 2.5 l			50,97/2.5 l
4332.3	5 l	plastic	89,15
Original pack 2 x 5 l			84,69/5 l
4332.4	10 l	plastic	138,70

ortho-Phosphoric acid (0.3 N)

ortho-Phosphoric acid
0,1 mol/l – 0,3 N, volumetric standard solution

H_3PO_4 · D 1,004 g/cm³ · bp 100 °C

UN no. 1805 · ADR 8 III · WGK 1

Warning H290

Type analysis

Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,3 %
Titer 0,997-1,003

Art. No.	Pack Qty.	Pack.	€
8089.1	1 l	plastic	69,35
Original pack 6 x 1 l			65,88/1 l

ortho-Phosphoric acid (0.5 N)

ortho-Phosphoric acid
1/6 mol/l – 0,5 N, volumetric standard solution

H_3PO_4 · D 1,006 g/cm³ · bp 100 °C

UN no. 1805 · ADR 8 III · WGK 1

Warning H290

Type analysis

Amount-of-substance conc. (20 °C) ..... 1/6 mol/l ±0,3 %
Titer 0,997-1,003

Art. No.	Pack Qty.	Pack.	€
8091.1	1 l	plastic	69,35
Original pack 6 x 1 l			65,88/1 l

ortho-Phosphoric acid (3 N)

ortho-Phosphoric acid
1 mol/l – 3 N, volumetric standard solution

H_3PO_4 · D 1,05 g/cm³ · bp 100 °C

UN no. 1805 · ADR 8 III · WGK 1

Warning H290

Type analysis
Amount-of-substance conc. (20 °C) ..... 1 mol/l ±0,3 %
Titer 0,997-1,003

Art. No.	Pack Qty.	Pack.	€
8141.1	1 l	plastic	69,35
Original pack 6 x 1 l			65,88/1 l

ortho-Phosphoric acid D3, 85 % solution in D_2O

Orthophosphoric acid deuterated

D_3PO_4 · D 1,74 g/cm³ · mp 41 to 44 °C · bp 158 °C
CAS No. 14335-33-2
UN no. 1805 · ADR 8 III · WGK 1

Danger H290-H302-H314

ortho-Phosphoric acid D3, 85 % solution in D_2O
99 Atom%D

For nuclear magnetic resonance spectroscopy.

Type analysis
Deuterising degree ..... ≥99 %
Assay (titr.) ..... ≥85 %

Art. No.	Pack Qty.	Pack.	€
9915.1	10 ml	glass	77,95
9915.2	25 ml	glass	166,65

Phosphoric anhydride
▸ Phosphorus pentoxide see page 1157

Phosphorous acid

H_3PO_3 · D 1,65 g/cm³ · mp 68 to 74 °C
CAS No. 13598-36-2 · EC no. 237-066-7
UN no. 2834 · ADR 8 III · WGK 1

Danger H290-H302-H314

Phosphorous acid
≥98 %, cryst.

Type analysis
Assay ..... ≥98,0 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,008 %
Iron (Fe) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
2620.1	100 g	glass	21,40
2620.2	500 g	glass	33,25
Original pack 6 x 500 g			31,59/500 g
2620.3	1 kg	glass	51,50
Original pack 6 x 1 kg			48,93/1 kg

Phosphor(V) oxid
▸ Phosphorus pentoxide see page 1157

Phosphorus Standards
▸ Phosphorus AAS Standard Solution see page 1320
▸ Phosphorus ICP Standard Solution see page 1320
▸ Phosphorus ICP Standard Solution see page 1320

Phosphorus pentoxide

Diphosphorous pentoxide · Granulopent® · Phosphor(V) oxid · Phosphoric anhydride

P_2O_5 · D 2,284 g/cm³ · mp 420 °C
CAS No. 1314-56-3 · EC no. 215-236-1
UN no. 1807 · ADR 8 II · WGK 1

Danger H314-EUH014

Phosphorus pentoxide
≥99 %, powdered

Drying agent

Type analysis
Appearance ..... white powder
Assay ..... ≥99,0 %
Heavy metals (as Pb) ..... ≤0,02 %
Arsenic (As) ..... ≤0,015 %
Iron (Fe) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
9076.1	500 g	plastic	32,15
Original pack 6 x 500 g			30,54/500 g
9076.2	1 kg	plastic	49,35
Original pack 6 x 1 kg			46,88/1 kg
9076.3	2.5 kg	plastic	107,00

Phosphotungstic acid hydrate

Tungstophosphoric acid

H_3PO_4 · 12 WO_3 · x H_2O · mp 95 °C · bp 107,9 °C
CAS No. 12501-23-4 · EC no. 603-020-3
UN no. 3260 · ADR 8 III · WGK 1

Danger H302-H314

Phosphotungstic acid hydrate
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L78.1	5 g	HDPE	87,65

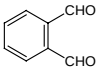
Phosphotungstic acid hydrate
p.a., cryst.

Guarantee analysis
Chloride (Cl) ..... ≤0,03 %
Sulphate (SO_4) ..... ≤0,02 %
Ammonium (NH_4) ..... ≤0,005 %
Nitrate (NO_3) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,005 %
Iron (Fe) ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
2635.1	50 g	glass	59,70
2635.2	100 g	glass	96,65
2635.3	250 g	glass	192,45
2635.4	500 g	glass	364,45
Original pack 6 x 500 g			346,23/500 g

Phosphotungstic acid-Orange G solution
▸ Goldner's staining II see page 970

o-Phthaldialdehyde



Benzene 1,2-dialdehyde · OPA

$C_8H_6O_2$ · D 1,13 g/cm³ · mp 55,8 °C · bp 83 °C · flp 132 °C
CAS No. 643-79-8 · EC no. 211-402-2
UN no. 2923 · ADR 8 (6.1) II · WGK 3

Danger H301-H314-H317-H335-H410

o-Phthaldialdehyde
≥98 %, for synthesis

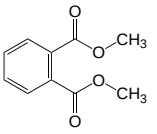
Storage temperature: +4 °C

Type analysis
Purity ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
5980.1	25 g	glass	145,15

Phthalein purple
▸ Metal phthaleine see page 1076

Phthalic acid dimethyl ester



DMP · Dimethylphthalate

$C_{10}H_{10}O_4$ · D 1,19 g/cm³ · mp 5 to 6 °C · bp 282 to 284 °C · flp 154 °C
CAS No. 131-11-3 · EC no. 205-011-6
WGK 1

Phthalic acid dimethyl ester
≥99 %, for synthesis

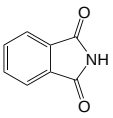
Transparent liquid

Type analysis
Assay ..... ≥99,0 %
Density (20 °C) 1,189-1,198
Refractive index n_D^{20} 1,514-1,516

Art. No.	Pack Qty.	Pack.	€
4576.1	1 l	glass	52,60
Original pack 6 x 1 l			49,97/1 l
4576.2	2.5 l	glass	107,00
Original pack 4 x 2.5 l			101,65/2.5 l

Phthalic acid monopotassium salt
▸ Potassium hydrogen phthalate see page 1174

Phthalimide



$C_8H_5NO_2$ · D 1,13 g/cm³ · mp 238 °C · bp 310 °C · flp 150 °C
CAS No. 85-41-6 · EC no. 201-603-3
WGK 1

Phthalimide
≥98 %, for synthesis

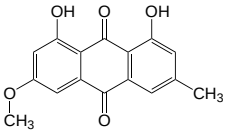
Type analysis
Melting range ..... 232-238 °C
Assay (acidim.) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1E88.1	250 g	plastic	16,05
1E88.2	1 kg	plastic	38,20
Original pack 6 x 1 kg			36,29/1 kg
1E88.3	2.5 kg	plastic	76,25

Phytomenadione
▸ Vitamin K_1 see page 1396

Phylloquinone
▸ Vitamin K_1 see page 1396

Physcion



1,8-Dihydroxy-3-methoxy-6-methylanthraquinone · Parietin

$C_{16}H_{12}O_5$ · mp 206 to 212 °C
CAS No. 521-61-9 · EC no. 208-315-7
WGK 1

Warning H315-H319-H335

Physcion
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7412.2	20 mg	plastic	274,15

Phytohistol® plus

D 1,11 g/cm³ · mp ~0 °C · bp ~100 °C
WGK 1

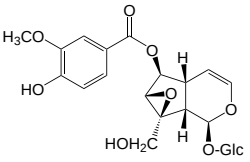
Phytohistol® plus
ready-to-use, for microscopy

Botanical mounting medium based on sugar

Type analysis
Appearance ..... yellow to brownish, viscous liquid
Refractive index (20 °C) 1,42-1,44

Art. No.	Pack Qty.	Pack.	€
6471.1	15 ml	dropp. bottle	25,30
6471.2	50 ml	plastic	70,85

Picrosid II



6-Vanilloylcatalpol

$C_{23}H_{28}O_{13}$ · mp 185 °C
CAS No. 39012-20-9 · EC no. 254-247-6
WGK 1

Warning H302

Picrosid II
ROTICHROM® HPLC

Reference substance for HPLC.
From *Picrorhiza kurroa*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1197.1	20 mg	glass	289,20

Picrotoxin

$C_{30}H_{34}O_{13}$ · mp 199 to 202 °C
CAS No. 124-87-8 · EC no. 204-716-6
UN no. 3462 · ADR 6.1 II · WGK 1

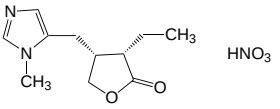
Danger H300

Picrotoxin
ROTICHROM® CHR ≥97,5 %

Type analysis
Assay (TLC) ..... ≥97,5 %

Art. No.	Pack Qty.	Pack.	€
7093.1	1 g	glass	145,15

Pilocarpin nitrate



$C_{11}H_{17}N_3O_5$ · mp 169 to 173 °C
CAS No. 148-72-1 · EC no. 205-723-7
UN no. 2811 · ADR 6.1 I · WGK 3

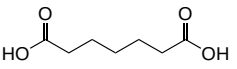
Danger H300+H330

Pilocarpin nitrate
≥98,5 %, extra pure

Type analysis
Assay (titr.) ..... ≥98,5 %
Specific rotation $[\alpha]_D^{20}$ ..... +80,0° to +84,0°

Art. No.	Pack Qty.	Pack.	€
7523.1	1 g	glass	170,95

Pimelic acid



Heptanedioic acid

$C_7H_{12}O_4$ · D 1,33 g/cm³ · mp 102 to 106 °C
CAS No. 111-16-0 · EC no. 203-840-8
WGK 1

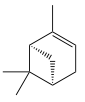
Warning H319-H335

Pimelic acid
≥99 %

Type analysis
Assay (titr.) ..... ≥99,0 %
Solution (10 % in methanol) ..... colourless, clear
Water (KF) ..... ≤0,5 %
Melting point ..... 104-106 °C

Art. No.	Pack Qty.	Pack.	€
5270.1	25 g	plastic	42,50
5270.2	50 g	plastic	76,25

(+)-α-Pinene



2-Pinene

$C_{10}H_{16}$ · D 0,857 g/cm³ · mp -61,95 °C · bp 156 °C · flp 32 °C
CAS No. 7785-70-8 · EC no. 232-077-3
UN no. 2368 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H410

(+)-α-Pinene
ROTICHROM® GC

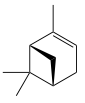
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
3857.2	100 mg	glass	107,00

(–)-α-Pinene



2-Pinene

$C_{10}H_{16}$ · D 0,858 g/cm³ · mp -64 °C · bp 155 to 156 °C · flp 33 °C
CAS No. 7785-26-4 · EC no. 232-077-3
UN no. 2368 · ADR 3 III · WGK 3

Danger H226-H302-H304-H315-H317-H410

(–)-α-Pinene
≥98 %, for synthesis

Storage temperature: +4 °C

Type analysis
Appearance ..... clear, colourless liquid
Assay ..... ≥98,0 %
Specific rotation $[\alpha]_D^{20}$ ..... -45° to -35°

Art. No.	Pack Qty.	Pack.	€
5647.1	100 ml	glass	42,90

(–)-α-Pinene
ROTICHROM® GC

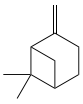
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
5170.2	100 mg	glass	104,85

β-Pinene



$C_{10}H_{16}$ · D 0,87 g/cm³ · bp 169 to 179 °C · flp 39 °C
CAS No. 127-91-3 · EC no. 204-872-5
UN no. 2319 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H410

β-Pinene
pure

Type analysis
Appearance ... clear, colourless-light yellowish oil
Density (20 °C) ..... 0,860-0,880 g/cm³
Refractive index (20 °C) 1,4700-1,4800
Optical rotation (20 °C) ..... -25° to -15°

Art. No.	Pack Qty.	Pack.	€
7106.1	250 ml	glass	27,85

β-Pinene
ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥90 %

Art. No.	Pack Qty.	Pack.	€
5172.1	1 g	plastic	107,40

Piperazine-*N*,*N*'-bis-(2-hydroxypropane sulphonic acid) 1,5 sodium salt
▸ POPSO 1.5 Na see page 1166

2,5-Piperazinedione
▸ Glycine anhydride see page 968

Piperazine-*N*,*N*'-bis-(2-ethanesulphonic acid)
▸ PIPES see page 1159
▸ PIPES disodium salt see page 1159
▸ PIPES monosodium salt see page 1159

Piperazine-*N*',*N*'-bis-(2-hydroxypropane sulphonic acid)
▸ POPSO see page 1166

Piperidine



Hexahydropyridine

$C_5H_{11}N$ · D 0,862 g/cm³ · mp -10 °C · bp 107,2 °C · flp 4 °C
CAS No. 110-89-4 · EC no. 203-813-0
UN no. 2401 · ADR 8 (3) I · WGK 1

Danger H225-H302-H311+H331-H314

Piperidine
PEPTIPURE® ≥99,5 %, for peptide synthesis

Type analysis
Assay ..... ≥99,5 %
Water (KF) ..... ≤0,2 %
Lead (Pb) ..... ≤0,00001 %
Iron (Fe) ..... ≤0,00001 %
Magnesium (Mg) ..... ≤0,00001 %
Zinc (Zn) ..... ≤0,00001 %

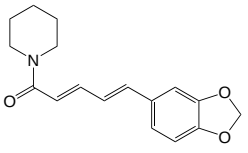
Art. No.	Pack Qty.	Pack.	€
A122.1	200 ml	glass	40,75
A122.2	500 ml	glass	76,90
A122.3	1 l	glass	127,95
Original pack 6 x 1 l			121,55/1 l
A122.4	2.5 l	glass	220,40
Original pack 4 x 2.5 l			209,38/2.5 l

Piperidine
≥99 %, for synthesis

Type analysis
Assay ..... ≥99 %
Water (KF) ..... ≤0,5 %
Pyridine (GC) ..... ≤0,5 %
Specific density (20 °C) 0,859-0,867

Art. No.	Pack Qty.	Pack.	€
0976.1	250 ml	glass	26,80
0976.2	1 l	glass	71,50
Original pack 6 x 1 l			67,93/1 l
0976.3	2.5 l	glass	141,40
Original pack 4 x 2.5 l			134,33/2.5 l

Piperine



1-Piperoylpiperidin

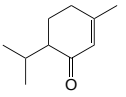
$C_{17}H_{19}NO_3$ · mp 127 to 130 °C
CAS No. 94-62-2 · EC no. 202-348-0
UN no. 3077 · ADR 9 III · WGK 2

Warning H302-H411

Piperine
ROTICHROM® ~CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
7099.1	5 g	glass	112,90

Piperitone



$C_{10}H_{16}O$ · D 0,93 g/cm³ · mp <-50 °C · bp 225 to 235 °C · flp >80 °C
CAS No. 89-81-6 · EC no. 201-942-7
WGK 1

Piperitone
ROTICHROM® GC

Reference substance for GC.

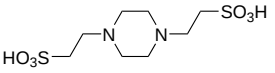
Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥96 %

Art. No.	Pack Qty.	Pack.	€
5174.1	1 g	plastic	100,95

1-Piperoylpiperidin
▸ Piperine see page 1159

PIPES



Piperazine-*N*,*N*'-bis(2-ethanesulphonic acid)

$C_8H_{18}N_2O_6S_2$ · mp >300 °C
CAS No. 5625-37-6 · EC no. 227-057-6
WGK 1

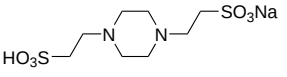
PIPES
PUFFERAN® ≥99 %

Guarantee analysis
Appearance ..... white powder
Assay (titr.) ..... ≥99 %
Water ..... ≤1,0 %
Solubility ..... clear, soluble

Absorbance:
280 nm ..... ≤0,1
260 nm ..... ≤0,1

Art. No.	Pack Qty.	Pack.	€
9156.1	25 g	plastic	24,65
9156.2	100 g	plastic	75,15
9156.3	250 g	plastic	160,20
9156.4	500 g	plastic	289,20
Original pack 6 x 500 g			274,74/500 g

PIPES monosodium salt



Piperazine-*N*,*N*'-bis(2-ethanesulphonic acid)

$C_8H_{17}NaN_2O_6S_2 \cdot H_2O$
CAS No. 10010-67-0 · EC no. 233-005-3
WGK 1

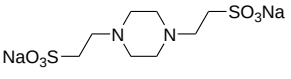
PIPES monosodium salt
PUFFERAN® ≥97 %

Guarantee analysis
Assay ..... ≥97,0 %
Water (KF) ..... ≤3,0 %
Solubility (1% in H_2O) ..... clear, soluble
pH value (1 % in H_2O) 4,0-6,0

Absorbance:
280 nm ..... ≤0,04
260 nm ..... ≤0,05

Art. No.	Pack Qty.	Pack.	€
9153.1	25 g	plastic	46,15

PIPES disodium salt



Piperazine-*N*,*N*'-bis(2-ethanesulphonic acid) · Piperazine-*N*,*N*'-bis(2-ethanesulphonic acid) disodium salt

$C_8H_{16}Na_2N_2O_6S_2$ · D 1,72 g/cm³
CAS No. 76836-02-7
WGK 1

PIPES disodium salt
PUFFERAN® ≥99 %

Type analysis
Appearance ..... white powder
Assay (titr.) ..... ≥99,0 %
Solubility (0,1 M in H_2O) ..... colourless
pK_a (at 25 °C) 6,5-6,9
Water (H_2O) ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
7109.2	100 g	plastic	149,45

Plant culture agar
▸ Agar-Agar, plant see page 710

Plant Growth Regulators

Art. No.	Description	Page
5552	6-Benzylaminopurine	771
7464	Gibberellic acid, ROTICHROM® CHR	956
4143	Indole-3-butyric acid	1008
4144	Indole-3-propionic acid	1009
7280	Indolyl 3-acetic acid	1009
4142	Kinetin	1029
8379	Putrescin	1190
4141	Putrescine dihydrochloride	1190
8367	Serotonin hydrochloride	1258
7161	Spermidine	1304
7162	Spermine	1305

Plant Indican
▸ 3-Indoxyl-β-D-glucopyranoside see page 1009

Plasmides

WGK 1

Plasmid DNA pUC19
lyophilized

High-purity plasmid-DNA of pUC19 for genetic engineering

pUC19c, Acc. No. L09137
full llength: 2686 bp

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
X911.1	50 µg	plastic	65,05

Plasmid DNA pBR322
lyophilized

High-purity plasmid-DNA of pBR322 for genetic engineering

pBR322, Acc. No. V01119
full lenght: 4361 bp

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
X912.1	50 µg	plastic	76,90

Plate Count Agar

PCA

WGK 1

Plate Count Agar
APHA, ISO 4833:2003, for microbiology

For enumeration of the aerobic microbial flora in milk, foods and other material.

Application: Use 23.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Casein peptone ..... 5 g/l
Yeast extract ..... 2,5 g/l
Glucose ..... 1 g/l
Agar ..... 15 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X930.1	500 g	plastic	112,35
Original pack 6 x 500 g			106,73/500 g
X930.2	1 kg	plastic	206,95
Original pack 6 x 1 kg			196,60/1 kg
X930.3	2.5 kg	plastic	424,65

Plate Count Agar, granulated
granulated, for microbiology

For enumeration of the aerobic microbial flora in milk, foods and other material.

Application: Use 23.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Casein peptone ..... 5 g/l
Yeast extract ..... 2,5 g/l
Glucose ..... 1 g/l
Agar ..... 15 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
1521.1	500 g	plastic	224,70
Original pack 6 x 500 g			213,47/500 g

Plate Count Agar with Powdered Milk

PCA with Powdered Milk · Powdered Milk Agar · PCM

WGK 1

Plate Count Agar with Powdered Milk
ISO 4833, ISO 11133, APHA, IDF, LMBG, for microbiology

For enumeration of microorganisms in milk and dairy derivatives.

Application: Use 24.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Tryptone (Peptone from Casein) ..... 5 g/l
Yeast extract ..... 2,5 g/l
Glucose ..... 1 g/l
Skimmed Milk Powder ..... 1 g/l
Agar ..... 15 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
HP08.1	500 g	plastic	126,35
Original pack 6 x 500 g			120,03/500 g

Platinum black

Platinummoor

Pt · D 21,45 g/cm³ · mp 1768 °C · bp 3825 °C
CAS No. 7440-06-4 · EC no. 231-116-1
UN no. 3089 · ADR 4.1 III

Warning H228

Platinum black
98,2–98,7 %

Type analysis
Appearance ..... black, fine powder

Art. No.	Pack Qty.	Pack.	€
8408.1	250 mg	glass	44,65
8408.2	1 g	glass	155,35

Platinum powder

Pt · D 21,45 g/cm³ · mp 1768 °C · bp 3825 °C
CAS No. 7440-06-4 · EC no. 231-116-1
UN no. 3089 · ADR 4.1 III

Warning H228

Platinum powder
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5654.1	1 g	plastic	575,15

Platinum wire

Pt · D 21,45 g/cm³ · mp 1772 °C · bp 3827 °C
CAS No. 7440-06-4 · EC no. 231-116-1

Platinum wire
≥99,95 %, Ø 0,2 mm

Type analysis
Assay ..... ≥99,95 %
Diameter ..... 0,2 mm

Art. No.	Pack Qty.	Pack.	€
0737.1	25 cm	plastic	103,10
0737.2	50 cm	plastic	192,45
0737.3	1 m	plastic	364,45

Platinum wire
≥99,9 %, Ø 0,3 mm

Type analysis
Assay ..... ≥99,9 %
Diameter ..... 0,3 mm

Art. No.	Pack Qty.	Pack.	€
8415.1	10 cm	plastic	88,05
8415.2	50 cm	plastic	340,25

Platinum wire
≥99,95 %, Ø 0,5 mm

Type analysis
Assay ..... ≥99,95 %
Diameter ..... 0,5 mm

Art. No.	Pack Qty.	Pack.	€
0803.1	5 cm	plastic	96,25
0803.2	10 cm	plastic	177,40
0803.3	25 cm	plastic	385,95

Platinum Standards
- Platinum AAS Standard Solution see page 1320
- Platinum ICP Standard Solution see page 1320

Platinum(II) chloride

$PtCl_2$ · D 6,1 g/cm³ · mp 580 °C
CAS No. 10025-65-7 · EC no. 233-034-1
WGK 1

Danger H315-H317-H319-H334

Platinum(II) chloride
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L76.1	250 mg	HDPE	335,95
1L76.2	1 g	HDPE	536,45

Platinummoor
- Platinum black see page 1160

PMA
- Propylene glycol methyl ether acetate see page 1188

PMA
- Phorbol 12-myristate 13-acetate see page 1154

PMSF
- Phenylmethyl sulphonyl fluoride (PMSF) see page 1153

PNAG
- 4-Nitrophenyl-*N*-acetyl-β-D-glucosaminide see page 1112

PNP-α-L-Fuc
- 4-Nitrophenyl-α-L-fucopyranoside see page 1112

PNPG
- 4-Nitrophenyl-α-D-galactopyranoside see page 1112

PNP-α-D-Gal
- 4-Nitrophenyl-α-D-galactopyranoside see page 1112

PNP-β-D-Gal
- 4-Nitrophenyl-β-D-galactopyranoside see page 1113

PNP-β-D-GalNAc
- 4-Nitrophenyl-*N*-acetyl-β-D-galactosaminide see page 1111

PNP-β-D-Glc
- 4-Nitrophenyl-β-D-glucopyranoside see page 1113

PNP-β-D-GlcNAc
- 4-Nitrophenyl-*N*-acetyl-β-D-glucosaminide see page 1112

PNPX
- 4-Nitrophenyl-β-D-xyloside see page 1113

PNP-β-D-Xyl
- 4-Nitrophenyl-β-D-xyloside see page 1113

pNPP (tablet)
- ROTI®Fair pNPP see page 1221

Podophyllin

CAS No. 9000-55-9 · EC no. 232-546-2
UN no. 2811 · ADR 6.1 II · WGK 2

Danger H300+H310+H330-H314-H360D

Podophyllin
powdered

From *Podophyllum emodii.*

Storage temperature: +4 °C

Type analysis
Appearance ..... brown powder
Origin ..... Podophyllum emodii

Art. No.	Pack Qty.	Pack.	€
7525.1	5 g	plastic	160,20

Polyacrylamide

$(C_3H_5NO)_n$ · D 0,75 to 0,95 g/cm³
CAS No. 9003-05-8
WGK 2

Polyacrylamide
pure

Flocculating agent, usable in a wide pH range.

Type analysis
Appearance ..... white to off-white granules
pH (range of application) 4-13

Art. No.	Pack Qty.	Pack.	€
3048.1	500 g	plastic	53,65
Original pack 6 x 500 g			50,97/500 g
3048.2	2.5 kg	plastic	198,90

Polyamide

Filter aids

D 1,14 g/cm³ · mp >215 °C
CAS No. 25038-54-4
WGK 1

Polyamide
for column chromatography

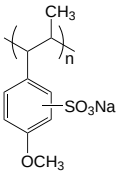
Particle size 0,05-0,16 mm. Excellent for purification of plant extracts.

Guarantee analysis
Appearance ..... white powder
pH-value 5,5-7,5
Water ..... <5 %
Ash content ..... <0,3 %

Particle size distribution:
>0,315 mm ..... ≤15 %

Art. No.	Pack Qty.	Pack.	€
9620.2	100 g	plastic	78,40
9620.1	250 g	plastic	166,65

Polyanetholesulphonic acid, sodium salt



Sodium polyanetholesulfonate · SPS

$(C_{10}H_{11}NaO_4S)_n$
CAS No. 55963-78-5
WGK 1

Warning H315-H319-H335

Polyanetholesulphonic acid, sodium salt
for biochemistry

Type analysis
Appearance ..... cream to light brown, amorphous powder
Appearance of solution (20 %, H_2O) ..... yellow to brown
Acetone (GC) ..... ≤0,2 %
Ethanol (GC) ..... ≤0,2 %
Calcium (Ca) ..... ≤0,1 %
Water (KF) ..... 8,0-15,0 %

Art. No.	Pack Qty.	Pack.	€
8369.1	5 g	glass	39,25
8369.2	25 g	glass	145,15

Polyarabinic acid
▸ Arabic acid see page 750

Polydimethyl siloxane
▸ Silicone oils TT-series see page 1270
▸ Silicone oils M-series, coloured see page 1270
▸ Silicone oils M-series see page 1267

Polyethylene glycol

Carbowax · Lutrol® · Macrogol · PEG · Polyethylene oxide · Polyglycol · Polyoxyethylene · Polyglycol

CAS No. 25322-68-3 · EC no. 500-038-2
WGK 1

Polyethylene glycol 200
ROTIPURAN® Ph. Eur.

Type 200 (liquid)

D 1,116 g/cm³ · mp <-14,08 °C · bp 205,7 °C · flp 138,6 °C

M 190-210 g/mol

Guarantee analysis
Appearance (20 °C) ..... liquid, clear
Identity ..... complies
Average molar mass ..... 190-210 g/mol
Colour count (APHA, 25 % in H_2O) ..... ≤30
Hydroxyl value ..... 534-591 mg KOH/g
pH value (5 % in H_2O) 4,5-7,5
Water (KF) ..... ≤1,0 %
Viscosity (20 °C) ..... 60-67 mPa s
Ethylene and diethylene glycol ..... ≤0,2 %
Sulphated ash ..... ≤0,1 %
Dioxane ..... ≤0,0001 %
Ethylene oxide ..... ≤0,0001 %
Formaldehyde ..... ≤0,003 %
Acid reacting substances (0,1 M NaOH/5 g) ..... ≤0,1 ml
Reducing substances ..... complies

Art. No.	Pack Qty.	Pack.	€
2631.1	1 l	plastic	56,90
Original pack 6 x 1 l			54,06/1 l
2631.2	5 l	plastic	224,70
Original pack 2 x 5 l			213,47/5 l

Polyethylene glycol 300
ROTIPURAN® Ph. Eur.

Type 300 (liquid)

D 1,116 g/cm³ · mp <-14,08 °C · bp 205,7 °C · flp 138,6 °C

M 285-315 g/mol

Guarantee analysis
Appearance (20 °C) ..... liquid, clear
Identity ..... complies
Average molar mass ..... 285-315 g/mol
Colour count (APHA, 25 % in H_2O) ..... ≤15
Hydroxyl value ..... 356-394 mg KOH/g
pH value (5 % in H_2O) 5,0-7,0
Water (KF) ..... ≤1,0 %
Viscosity (20 °C) ..... 88-96 mPa s
Ethylene and diethylene glycol ..... ≤0,2 %
Sulphated ash ..... ≤0,1 %
Dioxane ..... ≤0,0001 %
Ethylene oxide ..... ≤0,0001 %
Formaldehyde ..... ≤0,0015 %
Acid reacting substances (0,1 M NaOH/5 g) ..... ≤0,1 ml
Reducing substances ..... complies

Art. No.	Pack Qty.	Pack.	€
2632.1	1 l	plastic	56,90
Original pack 6 x 1 l			54,06/1 l
2632.2	5 l	plastic	224,70
Original pack 2 x 5 l			213,47/5 l

Polyethylene glycol 400
ROTIPURAN® Ph. Eur.

Type 400 (liquid)

D 1,116 g/cm³ · mp <-14,08 °C · bp 205,7 °C · flp 138,6 °C

M 380-420 g/mol

Guarantee analysis
Appearance (20 °C) ..... liquid, clear
Identity ..... complies
Average molar mass ..... 380-420 g/mol
Appearance of solution (25 % in H_2O) ... complies
Hydroxyl value ..... 267-295 mg KOH/g
pH value (10 % in H_2O) 4,5-7,0
Water ..... ≤1,0 %
Viscosity (20 °C) ..... 105-130 mPa s
Heavy metals (as Pb) ..... ≤0,0005 %
Ethylene and diethylene glycol ..... ≤0,25 %
Sulphated ash ..... ≤0,1 %
Dioxane ..... ≤0,001 %
Ethylene oxide ..... ≤0,0001 %
Formaldehyde ..... ≤0,003 %
Acid/alkaline reac. substances (0,1 M NaOH/5 g) ..... complies
Reducing substances ..... complies

Art. No.	Pack Qty.	Pack.	€
0144.1	1 l	plastic	40,75
Original pack 6 x 1 l			38,71/1 l
0144.2	5 l	plastic	149,45
Original pack 2 x 5 l			141,98/5 l
0144.4	25 l	plastic	557,95

Polyethylene glycol 600
ROTIPURAN® Ph. Eur.

Type 600 (liquid)

D 1,116 g/cm³ · mp 17 to 22 °C · bp 205,7 °C · flp 138,6 °C

M 570-630 g/mol

Guarantee analysis
Appearance (30 °C) ..... liquid, clear
Identity ..... complies
Average molar mass ..... 570-630 g/mol
Colour count (APHA, 25 % in H_2O) ..... ≤15
Hydroxyl value ..... 178-197 mg KOH/g
Solidification point ..... 17-22 °C
pH value (5 % in H_2O) 5,0-7,5
Water (KF) ..... ≤1,0 %
Viscosity (20 °C, 50 % in H_2O) ..... 17-18 mPa s
Ethylene and diethylene glycol ..... ≤0,2 %
Sulphated ash ..... ≤0,1 %
Dioxane ..... ≤0,0001 %
Ethylene oxide ..... ≤0,0001 %
Formaldehyde ..... ≤0,0015 %
Acid reacting substances (0,1 M NaOH/5 g) ..... ≤0,1 ml
Reducing substances ..... complies

Art. No.	Pack Qty.	Pack.	€
2633.1	1 l	plastic	56,90
Original pack 6 x 1 l			54,06/1 l
2633.2	5 l	plastic	224,70
Original pack 2 x 5 l			213,47/5 l

Polyethylene glycol 1000
ROTIPURAN® Ph. Eur.

Type 1000 (solid)

D 1,2 g/cm³ · mp 35 to 40 °C · flp 240 to 270 °C

M 950-1050 g/mol

Guarantee analysis
Appearance (20 °C) ..... wax like
Identity ..... complies
Average molar mass ..... 950-1050 g/mol
Colour count (APHA, 25 % in H_2O) ..... ≤30
Hydroxyl value ..... 107-118 mg KOH/g
Solidifying point ..... 35-40 °C
pH-value (5 %, water) 5,0-7,5
Water (KF) ..... ≤1,0 %
Viscosity (20 °C, 50 % in H_2O) ..... 24-28 mPa s
Ethylene and diethylene glycol ..... ≤0,2 %
Sulphated ash ..... ≤0,1 %
Dioxane ..... ≤0,0001 %
Ethylene oxide ..... ≤0,0001 %
Formaldehyde ..... ≤0,0015 %
Acid reacting substances (0,1 M NaOH/5 g) ..... ≤0,1 ml
Reducing substances ..... complies

Art. No.	Pack Qty.	Pack.	€
0150.3	500 g	plastic	36,45
Original pack 6 x 500 g			34,63/500 g
0150.1	1 kg	plastic	57,55
Original pack 6 x 1 kg			54,67/1 kg
0150.2	5 kg	plastic	213,95

Polyethylene glycol 1500
ROTIPURAN® Ph. Eur.

Type 1500 (solid)

D 1,2 g/cm³ · mp 44 to 48 °C · flp 240 to 270 °C

M 1400-1600 g/mol

Guarantee analysis
Appearance (20 °C) ..... solid, scaly
Identity ..... complies
Average molar mass ..... 1400-1600 g/mol
Colour count (APHA, 25 % in H_2O) ..... ≤30
Hydroxyl value ..... 70-80 mg KOH/g
Solidifying point ..... 44-48 °C
pH value (5 % in H_2O) 5,0-7,5
Water (KF) ..... ≤1,0 %
Viscosity (20 °C, 50 % in H_2O) ..... 36-42 mPa s
Ethylene and diethylene glycol ..... ≤0,20 %
Sulphated ash ..... ≤0,1 %
Dioxane ..... ≤0,0001 %
Ethylene oxide ..... ≤0,0001 %
Formaldehyde ..... ≤0,0015 %
Acid reacting substances (0,1 M NaOH/5 g) ..... ≤0,1 ml
Reducing substances ..... complies

Art. No.	Pack Qty.	Pack.	€
0152.3	500 g	plastic	36,45
Original pack 6 x 500 g			34,63/500 g
0152.1	1 kg	plastic	57,55
Original pack 6 x 1 kg			54,67/1 kg
0152.2	5 kg	plastic	213,95

Polyethylene glycol 2000
ROTIPURAN® Ph. Eur.

Type 2000 (solid)

D 1,2 g/cm³ · mp 48 to 52 °C · flp 240 to 270 °C

M 1800-2200 g/mol

Guarantee analysis
Appearance (20 °C) ..... solid, scaly
Identity ..... complies
Average molar mass ..... 1800-2200 g/mol
Colour count (APHA, 25 % in H_2O) ..... ≤30
Hydroxyl value ..... 51-62 mg KOH/g
Solidifying point ..... 48-52 °C
pH value (5 % in H_2O) 5,0-7,5
Water (KF) ..... ≤1,0 %
Viscosity (20 °C, 50 % in H_2O) ..... 50-58 mPa s
Ethylene and diethylene glycol ..... ≤0,25 %
Sulphated ash ..... ≤0,1 %
Dioxane content (GC) ..... ≤0,0001 %
Ethylene oxide (GC) ..... ≤0,0001 %
Formaldehyde ..... ≤0,0015 %
Acid reacting substances (0,1 M NaOH/5 g) ..... ≤0,1 ml
Reducing substances ..... complies

Art. No.	Pack Qty.	Pack.	€
0154.3	500 g	plastic	27,85
Original pack 6 x 500 g			26,46/500 g
0154.1	1 kg	plastic	42,90
Original pack 6 x 1 kg			40,76/1 kg
0154.2	5 kg	plastic	160,20

Polyethylene glycol 4000
ROTIPURAN® Ph. Eur.

Type 4000 (solid)

D 1,2 g/cm³ · mp 53 to 58 °C · flp 240 to 270 °C

M 3500-4500 g/mol

Guarantee analysis
Appearance (20 °C) ..... solid, scaly
Identity ..... complies
Colour count (APHA, 25 % in H_2O) ..... ≤30
Hydroxyl value ..... 25-30 mg KOH/g
Average molar mass ..... 3700-4400 g/mol
Solidifying point ..... 53-58 °C
pH value (5 % in H_2O) 5,0-7,5
Water ..... ≤1,0 %
Viscosity (20 °C, 50 % in H_2O) ..... 114-142 mPa s
Ethylene and diethylene glycol ..... ≤0,20 %
Sulphated ash ..... ≤0,1 %
Dioxane ..... ≤0,0001 %
Ethylene oxide ..... ≤0,0001 %
Formaldehyde ..... ≤0,0015 %
Acid reacting substances (0,1 M NaOH/5 g) ..... ≤0,1 ml
Reducing substances ..... complies

Art. No.	Pack Qty.	Pack.	€
0156.3	500 g	plastic	32,15
Original pack 6 x 500 g			30,54/500 g
0156.1	1 kg	plastic	59,05
Original pack 6 x 1 kg			56,10/1 kg
0156.2	5 kg	plastic	213,95

Polyethylene glycol 6000
ROTIPURAN® Ph. Eur.

For biochemical applications and molecular biology. Type 6000 (solid)

D 1,2 g/cm³ · mp 55 to 60 °C · flp 240 to 270 °C

M 5000-7000 g/mol

Guarantee analysis
Appearance ..... powdered
Identity ..... complies
Colour count (APHA, 25 % in H_2O) ..... ≤30
Hydroxyl value ..... 17-20 mg KOH/g
Average molar mass ..... 5600-6600 g/mol
Solidifying point ..... 55-60 °C
pH value (5 % in H_2O) 4,5-7,5
Water (KF) ..... ≤1,0 %
Viscosity (20 °C, 50 % in H_2O) ..... 210-262 mPa s
Sulphated ash ..... ≤0,1 %
Dioxane ..... ≤0,0001 %
Ethylene oxide ..... ≤0,0001 %
Formaldehyde ..... ≤0,0015 %
Acid reacting substances (0,1 M NaOH/5 g) ..... ≤0,1 ml
Reducing substances ..... complies

Art. No.	Pack Qty.	Pack.	€
0158.4	500 g	plastic	36,45
Original pack 6 x 500 g			34,63/500 g
0158.1	1 kg	plastic	57,95
Original pack 6 x 1 kg			55,05/1 kg
0158.2	5 kg	plastic	213,95
0158.3	50 kg	plastic	2.047,90

Polyethylene glycol 6000
ROTIPURAN® Ph. Eur., scaled

D 1,2 g/cm³ · mp 55 to 60 °C · flp 240 to 270 °C

Guarantee analysis
Appearance ..... solid, scaled
Identity ..... complies
Average molar mass ..... 5600-6600 g/mol
Colour count (APHA, 25 % in H_2O) ..... ≤30
Hydroxyl value ..... 17-20 mg KOH/g
Solidifying point ..... 55-60 °C
pH value (5 % in H_2O) 4,5-7,5
Water (KF) ..... ≤1,0 %
Viscosity (20 °C, 50 % in H_2O) ..... 210-262 mPas
Sulphated ash ..... ≤0,1 %
Dioxane ..... ≤0,0001 %
Ethylene oxide ..... ≤0,0001 %
Ethylene and diethylene glycol ..... ≤0,2 %
Formaldehyde ..... ≤0,0015 %
Acid reacting substances (0,1 M NaOH/5 g) ..... ≤0,1 ml
Reducing substances ..... complies

Art. No.	Pack Qty.	Pack.	€
1HPL.1	250 g	plastic	21,40
1HPL.2	1 kg	plastic	59,05
Original pack 6 x 1 kg			56,10/1 kg
1HPL.3	2.5 kg	plastic	124,60

Polyethylene glycol 8000
ROTIPURAN® Ph. Eur.

For biochemical applications and molecular biology. Type 8000 (solid)

D 1,2 g/cm³ · mp 55 to 60 °C · flp 240 to 270 °C

M 7300-9000 g/mol

Guarantee analysis
Appearance ..... solid, scaled
Identity ..... complies
Average molar mass ..... 7300-9000 g/mol
Colour count (APHA, 25 % in H_2O) ..... ≤30
Hydroxyl value ..... 12-16 mg KOH/g
Solidifying point ..... 56-61 °C
pH value (5 % in H_2O) 5,0-7,5
Water (KF) ..... ≤1,0 %
Viscosity (20 °C, 50 % in H_2O) ..... 290-450 mPa s
Sulphated ash ..... ≤0,1 %
Dioxane ..... ≤0,0001 %
Ethylene oxide ..... ≤0,0001 %
Formaldehyde ..... ≤0,0015 %
Acid reacting substances (0,1 M NaOH/5 g) ..... ≤0,1 ml
Reducing substances ..... complies

Art. No.	Pack Qty.	Pack.	€
0263.1	500 g	plastic	38,20
Original pack 6 x 500 g			36,29/500 g
0263.2	1 kg	plastic	63,45
Original pack 6 x 1 kg			60,28/1 kg
0263.3	5 kg	plastic	235,45

Polyethylene glycol 10000
ROTIPURAN® Ph. Eur.

Type 10000 (solid)

D 1,2 g/cm³ · mp 55 to 60 °C · flp 240 to 270 °C

M 9000-11250 g/mol

Guarantee analysis
Appearance (20 °C) ..... solid, scaled
Appearance of solution (25 % in H_2O) ..... clear
Identity ..... complies
Average molar mass ..... 9000-11250 g/mol
Colour count (APHA, 25 % in H_2O) ..... ≤30
Hydroxyl value ..... 10-12 mg KOH/g
pH value (5 % in H_2O) 4,5-7,5
Melting point ..... 58-63 °C
Water (KF) ..... ≤1,0 %
Viscosity (20 °C, 50 % in H_2O) ..... 550-750 mPa s
Sulphated ash ..... ≤0,1 %
Dioxane ..... ≤0,0001 %
Ethylene oxide ..... ≤0,0001 %
Formaldehyde ..... ≤0,003 %
Acid reacting substances (0,1 M NaOH/5 g) ..... ≤0,1 ml
Reducing substances ..... complies

Art. No.	Pack Qty.	Pack.	€
2634.1	500 g	plastic	47,85
Original pack 6 x 500 g			45,46/500 g
2634.2	1 kg	plastic	84,95
Original pack 6 x 1 kg			80,70/1 kg
2634.3	5 kg	plastic	349,40

Polyethylene glycol 20000
ROTIPURAN® Ph. Eur.

Type 20000 (solid)

D 1,2 g/cm³ · mp 55 to 60 °C · flp 240 to 270 °C

M ~20000 g/mol

Guarantee analysis
Appearance (20 °C) ..... solid, scales
Identity ..... complies
Average molar mass ..... ≥16000 g/mol
Colour count (APHA, 25 % in H_2O) ..... ≤30
Hydroxyl value ..... ≤7 mg KOH/g
Solidifying point ..... ≥57 °C
pH value (5 % in H_2O) 4,5-7,5
Water (KF) ..... ≤1,0 %
Viscosity (20 °C, 50 % in H_2O) . 2700-3500 mPa s
Sulphated ash ..... ≤0,1 %
Dioxane ..... ≤0,0001 %
Ethylene oxide ..... ≤0,0001 %
Formaldehyde ..... ≤0,0015 %
Acid reacting substances (0,1 M NaOH/5 g) ..... ≤0,1 ml
Reducing substances ..... complies

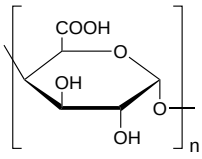
Art. No.	Pack Qty.	Pack.	€
0165.3	500 g	plastic	31,75
Original pack 6 x 500 g			30,16/500 g
0165.1	1 kg	plastic	48,30
Original pack 6 x 1 kg			45,89/1 kg
0165.2	5 kg	plastic	170,95

Polyethylene glycol ether
▸ Tergitol™ 15-S-9 see page 1357

Polyethylene glycol lauryl ether
▸ Brij® 35 see page 785

Polyethylene oxide
▸ Polyethylene glycol see page 1162

Polygalacturonic acid



$(C_6H_8O_6)_n$ · mp 60 °C
CAS No. 25990-10-7 · EC no. 205-676-2
WGK 1

Polygalacturonic acid
≥85 %

Guarantee analysis
Assay (titr.) ..... ≥85,0 %
Loss on drying ..... ≤10,0 %
pH value (1 % in H_2O) 2,5-3,5
Sulphated ash ..... ≤2,0 %
Heavy metals (as Pb) ..... ≤0,004 %

Art. No.	Pack Qty.	Pack.	€
5269.1	25 g	plastic	82,25
5269.2	100 g	plastic	281,15

Polyglycol
▸ Polyethylene glycol see page 1162
▸ Polypropylene glycol see page 1164

Polymerase (thermostable)
▸ ROTI®Pol TaqUltra see page 1238
▸ ROTI®Pol Hot-TaqHY see page 1238
▸ ROTI®Pol Hot-TaqUltra see page 1238
▸ ROTI®Pol TaqS see page 1237
▸ ROTI®Pol TaqHY see page 1237
▸ ROTI®Pol Hot-TaqS see page 1237
▸ ROTI®Pol ProofRead see page 1238

Polymer microparticle suspension
▸ McFarland PMS 0.5 see page 17

Polymyxin B sulphate

Aerosporin

$C_{55}H_{96}N_{16}O_{13} \cdot 2\ H_2SO_4$
CAS No. 1405-20-5 · EC no. 215-774-7
WGK 1

Warning H302

Polymyxin B sulphate
≥80 %, for biochemistry

Bacteriostatic antibiotic, peptide antibiotic

Stock solution: 10–20 mg/ml in H_2O or methanol. Storage of stock solution: –20 °C. Working concentration: 5–500 ng/ml.

Storage temperature: +4 °C

Guarantee analysis
Assay (HPLC) ..... ≥80 %
pH value (2 % in H_2O) 5,0-7,0
Sulphate (SO_4) ..... 15,5-17,5 %
Sulphated ash ..... ≤0,75 %
Loss on drying ..... ≤6,0 %

Art. No.	Pack Qty.	Pack.	€
0235.1	1 g	glass	61,20
0235.2	5 g	glass	241,90
0235.3	10 g	glass	439,70

Polymyxin E_1-disulphate
▸ Colistinsulphate see page 844

Polyoxyethylene
▸ Polyethylene glycol see page 1162

Polyoxyethylene lauryl ether
▸ Brij® 35 see page 785

Polyoxyethylene-20-sorbitan monolaurate
▸ Tween® 20 see page 1388

Polyoxyethylene-40-sorbitan monooleate
▸ Tween® 80 see page 1388

Polyoxyethylene-40-sorbitan monopalmitate
▸ Tween® 40 see page 1388

Polyoxyethylene-60-sorbitan monostearate
▸ Tween® 60 see page 1388

Polyoxymethylene
▸ Paraformaldehyde see page 1137

Polypeptone

WGK 3

Polypeptone
for microbiology

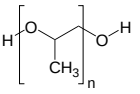
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Total nitrogen ..... ≥10 %
Amino nitrogen ..... ≥3,7 %
Loss on drying ..... ≤6 %
Ash ..... ≤15 %
pH (2 % solution) 6,5-7,5

Art. No.	Pack Qty.	Pack.	€
2903.1	250 g	plastic	67,20
2903.2	500 g	plastic	126,35
Original pack 6 x 500 g			120,03/500 g
2903.3	1 kg	plastic	228,45
Original pack 6 x 1 kg			217,03/1 kg

Polyphenylethylene
▸ Polystyrene see page 1164

Polypropylene glycol



Polyglycol · Polypropylene oxide · Polyglycol · PPG

CAS No. 25322-69-4
WGK 1

Polypropylene glycol 400
for biochemistry

$[C_3H_6O]_n$ · D 1,01 g/cm³ · bp 288 to 310 °C · flp 195 °C

M ~400 g/mol

Type analysis
Colour number (APHA) ..... ≤50
Refractive index (20 °C) 1,445-1,450
Cloud point (50 % in H_2O) ..... 45-55 °C

Art. No.	Pack Qty.	Pack.	€
3555.1	250 ml	glass	37,55
3555.2	1 l	plastic	81,20
Original pack 6 x 1 l			77,14/1 l
3555.3	2.5 l	plastic	160,20
Original pack 4 x 2.5 l			152,19/2.5 l

Polypropylene glycol 600
for biochemistry

$[C_3H_6O]_n$ · D 1 to 1,02 g/cm³ · bp 288 to 310 °C · flp >100 °C

M ~600 g/mol

Type analysis
Colour number (APHA) ..... ≤50
Refractive index (20 °C) 1,4460-1,4500

Art. No.	Pack Qty.	Pack.	€
3588.1	250 ml	glass	42,90
3588.2	1 l	plastic	99,45
Original pack 6 x 1 l			94,48/1 l
3588.3	2.5 l	plastic	198,90
Original pack 4 x 2.5 l			188,96/2.5 l

Polypropylene glycol 1000
for biochemistry

$[C_3H_6O]_n$ · D 1,004 g/cm³ · bp 288 to 310 °C · flp >100 °C

M ~1000 g/mol

Type analysis
Colour number (APHA) ..... ≤50
Refractive index (20 °C) 1,448-1,452
pH value 5,0-7,0

Art. No.	Pack Qty.	Pack.	€
3602.1	250 ml	glass	42,90
3602.2	1 l	plastic	99,45
Original pack 6 x 1 l			94,48/1 l
3602.3	2.5 l	plastic	198,90
Original pack 4 x 2.5 l			188,96/2.5 l

Polypropylene glycol 1200
for biochemistry

$[C_3H_6O]_n$ · D 1 to 1,02 g/cm³ · bp 288 to 310 °C · flp >100 °C

M ~1200 g/mol

Type analysis
Appearance ..... clear, colourless to almost colourless liquid
Colour number (APHA) ..... ≤50
Refractive index (20 °C) 1,448-1,452
pH value 4,5-7,0

Art. No.	Pack Qty.	Pack.	€
1AA2.1	250 ml	plastic	38,60
1AA2.2	1 l	plastic	85,90
Original pack 6 x 1 l			81,61/1 l
1AA2.3	2.5 l	plastic	170,95
Original pack 4 x 2.5 l			162,40/2.5 l

Polypropylene glycol 2000
for biochemistry

$[C_3H_6O]_n$ · D 1,004 g/cm³ · bp 288 to 310 °C · flp >100 °C

M ~2000 g/mol

Type analysis
Colour number (APHA) ..... ≤50
Refractive index (20 °C) 1,4480-1,4530
pH value 4,5-6,5

Art. No.	Pack Qty.	Pack.	€
3611.1	250 ml	glass	38,60
3611.2	1 l	plastic	85,90
Original pack 6 x 1 l			81,61/1 l
3611.3	2.5 l	plastic	170,95
Original pack 4 x 2.5 l			162,40/2.5 l

Polypropylene glycol 4000
for biochemistry

$[C_3H_6O]_n$ · D 1,004 g/cm³ · bp 288 to 310 °C · flp >100 °C

M ~4000 g/mol

Type analysis
Colour number (APHA) ..... ≤50
Refractive index (20 °C) 1,4490-1,4530
pH value 5,5-8,5

Art. No.	Pack Qty.	Pack.	€
3616.1	250 ml	glass	26,80
3616.2	1 l	plastic	75,15
Original pack 6 x 1 l			71,39/1 l
3616.3	2.5 l	plastic	149,45
Original pack 4 x 2.5 l			141,98/2.5 l

Polysorbate

- Tween® 20 see page 1388
- Tween® 80 see page 1388
- Tween® 60 see page 1388
- Tween® 40 see page 1388

Polystyrene

Polyphenylethylene · Polyvinylbenzene

D 1,05 g/cm³ · mp 90 to 130 °C
CAS No. 9003-53-6 · EC no. 500-008-9
WGK 1

Polystyrene
granulated

Type analysis
Appearance ..... colourless granules
Density (DIN 53479) 1,05
Vicat softening point ..... 85 °C

Art. No.	Pack Qty.	Pack.	€
9151.1	1 kg	plastic	33,90
Original pack 6 x 1 kg			32,21/1 kg

Polysucrose 400

Sucrose epichlorhydrin copolymer · Sucrose polymer

$(C_{12}H_{22}O_{11})_n$ x $(C_3H_5ClO)_n$
CAS No. 26873-85-8
WGK 1

Polysucrose 400
BioScience Grade, for molecular biology

For density gradient centrifugation during cell separation and isolation of cell organelles.

May be used as direct replacement for Ficoll® in common protocols.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white powder
Loss on drying ..... ≤5 %
Specific optical rotation $[\alpha]_D^{20}$ ..... +53° to +59°
Intrinsic viscosity (20 °C) 0,14-0,20
pH value (10 % in H_2O) 7,0-9,0
Sulphated ash ..... ≤0,3 %
Chloride (Cl) ..... ≤500 ppm

Art. No.	Pack Qty.	Pack.	€
4668.1	10 g	plastic	34,95
4668.2	25 g	plastic	78,40
4668.3	100 g	plastic	267,70

Polysucrose solution

- ROTI®Sep 1077 human/tube see page 1240
- ROTI®Sep 1077 animal see page 1240
- ROTI®Sep 1077 human see page 1240
- ROTI®Sep 1086 mouse see page 1240

Polyvidon

- Polyvinylpyrrolidone see page 1165

Polyvinyl acetate

D 1,17 g/cm³ · mp 60 to 100 °C
CAS No. 9003-20-7

Polyvinyl acetate
extra pure

Type analysis
Softening point ..... 119 °C
Viscosity (10 % in ethyl acetate) .... 3,5-5,0 mPa s
Density (D) ..... 1,18 ± 0,01
Acid value ..... <0,5 mg KOH/g
Molecular weight ..... 55000-70000 g/mol

Art. No.	Pack Qty.	Pack.	€
9154.1	1 kg	plastic	73,65
Original pack 6 x 1 kg			69,97/1 kg
9154.7	5 kg	plastic	317,15

Polyvinyl alcohol

- Mowiol® 4-88 see page 1094

Polyvinylbenzene

- Polystyrene see page 1165

Polyvinyl chloride

PVC

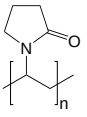
D 1,4 g/cm³
WGK 1

Polyvinyl chloride
powdered

Type analysis
Appearance ..... white to beige powder
K-value ..... 42 ±1
Chlorine (Cl) ..... 48,8 % ±0,6 %
Volatile parts ..... <1,0 %
Viscosity (20 % in MEK) ..... 28 ±5 mPa s

Art. No.	Pack Qty.	Pack.	€
9163.1	250 g	plastic	33,90
9163.2	1 kg	plastic	87,00
Original pack 6 x 1 kg			82,65/1 kg

Polyvinylpyrrolidone



PVP · Polyvidon · Povidon

$(C_6H_9NO)_n$ · D 1,2 g/cm³ · mp 130 °C
CAS No. 9003-39-8
WGK 1

Polyvinylpyrrolidone K 12
CELLPURE®

M 2000-3000 g/mol

Type analysis
Endotoxins ..... tested
Appearance ..... white to off-white powder
K-value 10,2-13,8
Nitrogen content (N) ..... 11,5-12,8 %
Identity (IR) ..... complies
Clearness (5 % in H_2O) ..... clear
Water (KF) ..... ≤5,0 %
Sulphated ash ..... ≤0,1 %
pH value (5 % in H_2O) 3,0-5,0
Vinylpyrrolidone (HPLC) ..... ≤0,001 %
2-Pyrrolidone (HPLC) ..... ≤3,0 %
Heavy metals ..... ≤0,001 %
Aldehyde ..... ≤0,05 %
Hydrazine ..... ≤0,0001 %
Peroxides (as H_2O_2) ..... ≤0,04 %

Art. No.	Pack Qty.	Pack.	€
7598.1	100 g	plastic	31,10
7598.2	500 g	plastic	123,65
Original pack 6 x 500 g			117,47/500 g

Polyvinylpyrrolidone K 25
extra pure

M ~24000 g/mol

Type analysis
Appearance ..... white to off-white powder
K-value 22,5-27,0
Nitrogen content (N) ..... 11,5-12,8 %
Clearness (5 % in H_2O) ..... clear
Water (KF) ..... ≤5,0 %
Sulphated ash ..... ≤0,1 %
pH value (5 % in H_2O) 3,0-5,0
Vinylpyrrolidone (HPLC) ..... ≤0,001 %
Heavy metals ..... ≤0,001 %
Aldehyde ..... ≤0,05 %
Hydrazine ..... ≤0,0001 %
Peroxides (as H_2O_2) ..... ≤0,04 %

Art. No.	Pack Qty.	Pack.	€
4606.1	100 g	plastic	24,65
4606.2	500 g	plastic	75,15
Original pack 6 x 500 g			71,39/500 g
4606.3	1 kg	plastic	131,70
Original pack 6 x 1 kg			125,12/1 kg
4606.4	2.5 kg	plastic	314,45
4606.7	5 kg	plastic	596,65

Polyvinylpyrrolidone K 30
extra pure

M ~40000 g/mol

Type analysis
Appearance ..... white to off-white powder
K-value 27,0-32,4
Nitrogen content (N) ..... 11,5-12,8 %
Clearness (5 % in H_2O) ..... clear
Water (KF) ..... ≤5,0 %
Sulphated ash ..... ≤0,1 %
pH value (5 % in H_2O) 3,0-5,0
Vinylpyrrolidone (HPLC) ..... ≤0,001 %
Heavy metals ..... ≤0,001 %
Aldehyde ..... ≤0,05 %
Hydrazine ..... ≤0,0001 %
Peroxides (as H_2O_2) ..... ≤0,04 %

Art. No.	Pack Qty.	Pack.	€
4607.1	100 g	plastic	27,85
4607.2	500 g	plastic	93,45
Original pack 6 x 500 g			88,78/500 g
4607.3	1 kg	plastic	158,60
Original pack 6 x 1 kg			150,67/1 kg
4607.4	2.5 kg	plastic	360,15
4607.5	5 kg	plastic	654,70

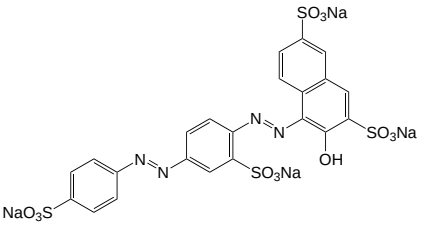
Polyvinylpyrrolidone K 90
extra pure

M ~360000 g/mol

Type analysis
Appearance ..... white to off-white powder
K-value 81,0-97,2
Nitrogen content (N) ..... 11,5-12,8 %
Clearness (5 % in H_2O) ..... clear
Water (KF) ..... ≤5,0 %
pH value (5 % in H_2O) 4,0-7,0
Vinylpyrrolidone (HPLC) ..... ≤0,001 %
Heavy metals ..... ≤0,001 %
Aldehydes ..... ≤0,05 %
Hydrazine ..... ≤0,0001 %
Peroxides (as H_2O_2) ..... ≤0,04 %

Art. No.	Pack Qty.	Pack.	€
CP15.1	100 g	plastic	28,95
CP15.2	500 g	plastic	95,15
Original pack 6 x 500 g			90,39/500 g
CP15.3	1 kg	plastic	169,35
Original pack 6 x 1 kg			160,88/1 kg
CP15.4	2.5 kg	plastic	381,65

Ponceau S (C.I. 27195)



Scarlet red

$C_{22}H_{12}N_4Na_4O_{13}S_4$
CAS No. 6226-79-5 · EC no. 228-319-2
WGK 1

Warning H315-H319-H335

Ponceau S (C.I. 27195)
for histology and electrophoresis

For reversible protein staining on membranes and for microscopy.

Suitable for NC and PVDF membranes as well as prior to Western analyses.

Type analysis
Absorption max. (in H_2O) ..... 517-523 nm
Specific extinction E 1 %/1 cm ..... >460
Loss on drying (110 °C) ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
5938.2	10 g	glass	32,15
5938.1	25 g	glass	65,50

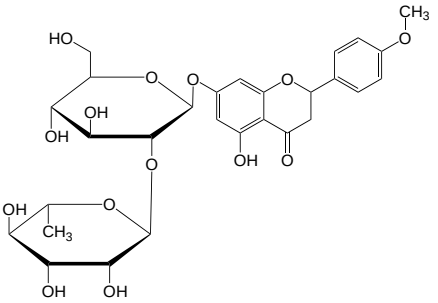
Ponceau BS
▸ Biebrich scarlet see page 773

Ponceau de Xylidine
▸ Xylidine Ponceau 2R (C.I. 16150) see page 1408

Ponceau-Fuchsin solution
▸ Goldner's staining I see page 970

Ponceau 4G
▸ Crocein orange G (C.I. 15970) see page 854

Poncirin



$C_{28}H_{34}O_{14}$ · mp 210 to 211 °C
CAS No. 14941-08-3 · EC no. 239-020-1
WGK 1

Poncirin
ROTICHROM® HPLC

Reference substance for HPLC.

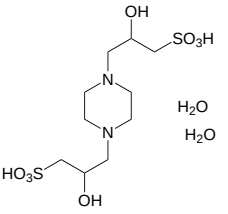
Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
7413.1	10 mg	plastic	289,20

POPOP
▸ 1,4-Bis[2-(5-phenyloxazolyl)]-benzene see page 778

POPSO



Piperazine-*N*',*N*'-bis(2-hydroxypropane sulphonic acid)

$C_{10}H_{22}N_2O_8S_2$ · 2 H_2O · mp 320 °C
CAS No. 68189-43-5 · EC no. 269-199-1
WGK 1

POPSO
PUFFERAN® ≥99 %

Type analysis
Assay (titr.) ..... ≥99 %
Water (KF) ..... ~9,0 %

Art. No.	Pack Qty.	Pack.	€
6632.1	25 g	plastic	46,15
6632.2	100 g	plastic	145,15

POPSO 1.5 Na

Piperazine-*N*,*N*'-bis(2-hydroxypropane sulphonic acid) 1,5 sodium salt

$C_{20}H_{41}N_4Na_3O_{16}S_4$
CAS No. 108321-08-0
WGK 1

POPSO 1.5 Na
PUFFERAN® ≥99 %

Type analysis
Assay (titr., dry substance) ..... ≥99,0 %
Water (KF) ..... ≤1,0 %
pH value (1 % solution) 7,9-8,5

Absorbance:
280 nm ..... ≤0,04
260 nm ..... ≤0,06

Art. No.	Pack Qty.	Pack.	€
6965.1	25 g	plastic	75,15
6965.2	100 g	plastic	224,70

Potash
▸ Potassium carbonate see page 1168

Potassium Standards

- Potassium ICP Standard Solution see page 1321
- Potassium ICP Standard Solution see page 1321
- Potassium AAS Standard Solution see page 1321
- Potassium IC Standard Solution see page 1336

Potassium acetate

$K(CH_3COO)$ · D 1,57 g/cm³ · mp 292 °C · bp 392,4 °C
CAS No. 127-08-2 · EC no. 204-822-2
WGK 1

Potassium acetate
≥99 %, p.a.

Buffer substance, molecular biology.

Guarantee analysis

Assay (perchloric acid titration) ..... ≥99,0 %
In H_2O insoluble matter ..... ≤0,005 %
pH value (5 % in H_2O) 6,5-9,0
Nitrogen compounds (as N) ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,005 %
Chloride (Cl) ..... ≤0,002 %
Sulphate (SO_4) ..... ≤0,005 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,0005 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,005 %
Sodium (Na) ..... ≤0,25 %
Nickel (Ni) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
T874.1	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
T874.2	1 kg	plastic	78,40
Original pack 6 x 1 kg			74,48/1 kg
T874.3	2.5 kg	plastic	160,20
T874.5	25 kg	plastic	1.279,25

Potassium acetate
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis

Endotoxins ..... ≤6,0 E.U./g
Assay (dry substance) ..... ≥99 %
Appearance of solution ..... complies
pH value (5 % in H_2O) 7,5-9,0
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Iron (Fe) ..... ≤0,002 %
Sodium (Na) ..... ≤0,5 %
Reducing substances ..... complies
Loss on drying (105 °C) ..... ≤3,0 %

Art. No.	Pack Qty.	Pack.	€
HN10.1	250 g	plastic	37,55
HN10.2	500 g	plastic	67,20
Original pack 6 x 500 g			63,84/500 g
HN10.3	1 kg	plastic	123,65
Original pack 6 x 1 kg			117,47/1 kg
HN10.4	2.5 kg	plastic	267,70

Potassium acetate
≥99 %, Ph. Eur., BP

Buffer substance, molecular biology.

Guarantee analysis

Assay (perchloric acid titration, dry substance) ..... 99,0-101,0 %
Identity ..... complies
Appearance of solution ..... complies
pH value (5 % in water) 7,5-9,0
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Iron (Fe) ..... ≤0,002 %
Sodium (Na) ..... ≤0,5 %
Reducing substances ..... complies
Loss on drying (105 °C) ..... ≤3,0 %

Art. No.	Pack Qty.	Pack.	€
4986.1	1 kg	plastic	64,40
Original pack 6 x 1 kg			61,18/1 kg
4986.2	5 kg	plastic	203,20
4986.5	25 kg	plastic	805,20

Potassium acid tartrate

- Potassium hydrogen tartrate see page 1175

Potassium alum

- Potassium aluminium sulphate dodecahydrate see page 1167

Potassium aluminium sulphate dodecahydrate

Alum · Aluminium potassium sulphate · Potassium alum

$KAl(SO_4)_2$ · 12 H_2O · D 1,75 g/cm³ · mp 92,5 °C
CAS No. 7784-24-9 · EC no. 233-141-3
WGK 1

Potassium aluminium sulphate dodecahydrate
≥98 %, p.a., ACS

Guarantee analysis

Assay (compl.) ..... 98,0-102,0 %
pH value (5 % in water) ..... ≥3,0
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,0005 %
Phosphate (PO_4) ..... ≤0,0005 %
Ammonium (NH_4) ..... ≤0,005 %
Arsenic (As) ..... ≤0,0002 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0005 %
Chromium (Cr) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,02 %
Nickel (Ni) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
P724.2	500 g	plastic	34,30
Original pack 6 x 500 g			32,59/500 g
P724.1	1 kg	plastic	60,10
Original pack 6 x 1 kg			57,10/1 kg
P724.3	2.5 kg	plastic	123,65

Potassium aluminium sulphate dodecahydrate
≥99 %, Ph. Eur.

Guarantee analysis

Appearance ..... fine, white crystals
Assay ..... 99,0-100,5 %
Identity ..... complies
Loss on drying ..... 43-46 %
Appearance of solution ..... complies
pH-value (10 % in H_2O) 3,0-3,5
Ammonium (NH_4) ..... ≤0,2 %
Iron (Fe) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,002 %
Arsenic (As) ..... ≤0,0003 %

Art. No.	Pack Qty.	Pack.	€
CN78.1	500 g	plastic	24,65
Original pack 6 x 500 g			23,42/500 g
CN78.2	1 kg	plastic	36,45
Original pack 6 x 1 kg			34,63/1 kg
CN78.3	5 kg	plastic	128,50

Potassium aluminium sulphate dodecahydrate
≥98 %

Type analysis

Assay ..... ≥98,0 %
pH-Wert (10 % in H_2O) 3,0-3,5
Iron (Fe) ..... ≤0,02 %
Lead (Pb) ..... ≤0,03 %
Insoluble matter ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
8896.1	1 kg	plastic	21,40
Original pack 6 x 1 kg			20,33/1 kg
8896.2	5 kg	plastic	61,85
8896.3	10 kg	plastic	112,35
8896.4	25 kg	plastic	241,90

Potassium antimonate

- Potassium hexahydroxoantimonate(V) see page 1173

Potassium antimony(III) oxide tartrate trihydrate

Potassium antimonyl tartrate trihydrate

$K_2(SbO)_2C_8H_4O_{10}$ · 3 H_2O
CAS No. 28300-74-5 · EC no. 234-293-3
UN no. 1551 · ADR 6.1 III · WGK 3

Warning H302+H332-H411

Potassium antimony(III) oxide tartrate trihydrate
≥99 %, extra pure

Type analysis

Assay (iodom.) ..... ≥99,0 %
Chloride (Cl) ..... ≤0,005 %
As (Arsenic) ..... ≤0,05 %
Fe (Iron) ..... ≤0,001 %
pH (2 % solution) 3,5-4,5
In water insoluble matter ..... ≤0,05 %
Loss on drying (105 °C) ..... ≤3,0 %

Art. No.	Pack Qty.	Pack.	€
1H4E.1	100 g	plastic	28,95
1H4E.2	250 g	plastic	58,60
1H4E.3	500 g	plastic	101,60
Original pack 6 x 500 g			96,52/500 g
1H4E.4	1 kg	plastic	177,40
Original pack 6 x 1 kg			168,53/1 kg

Potassium antimonyl tartrate trihydrate
▸ Potassium antimony(III) oxide tartrate trihydrate see page 1167

Potassium bicarbonate
▸ Potassium hydrogen carbonate see page 1173

Potassium bichromate
▸ Potassium dichromate see page 1170

Potassium biphosphate
▸ Potassium dihydrogen phosphate see page 1171

Potassium biphthalate
▸ Potassium hydrogen phthalate see page 1174

Potassium bisulphate
▸ Potassium hydrogen sulphate see page 1174

Potassium bitartrate
▸ Potassium hydrogen tartrate see page 1175

Potassium bromate

$KBrO_3$ · D 3,13 g/cm³ · mp >409 to <413 °C · bp >425 °C
CAS No. 7758-01-2 · EC no. 231-829-8
UN no. 1484 · ADR 5.1 II · WGK 3

Danger H271-H301-H350

Potassium bromate
≥99,8 %, p.a., ACS, ISO

Standard substance for oxidimetric titrations, powerful bromination reagent.

Guarantee analysis

Assay (iodom.)	≥99,8 %
In H_2O insoluble matter	≤0,003 %
pH value (5 % in H_2O)	5,0-9,0
Loss on drying (150 °C)	≤0,1 %
Total nitrogen (N)	≤0,001 %
Bromide (Br)	≤0,02 %
Sulphate (SO_4)	≤0,005 %
Cadmium (Cd)	≤0,0005 %
Calcium (Ca)	≤0,005 %
Iron (Fe)	≤0,0005 %
Sodium (Na)	≤0,01 %
Nickel (Ni)	≤0,0005 %
Zinc (Zn)	≤0,0005 %
Heavy metals (as Pb)	≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4396.1	100 g	plastic	61,85
4396.2	250 g	plastic	134,40
4396.3	500 g	plastic	246,20
Original pack 6 x 500 g			233,89/500 g

Potassium bromide

Brome potassium

KBr · D 2,75 g/cm³ · mp 730 °C · bp 1435 °C
CAS No. 7758-02-3 · EC no. 231-830-3
WGK 1

Warning H319

Potassium bromide
ROTI®METIC 99,995 % (4N5)

Type analysis

Assay (metals basis)	99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5064.1	10 g	plastic	132,80
5064.2	50 g	plastic	438,10

Potassium bromide
≥99 %, p.a., ACS

Guarantee analysis

Assay (arg.)	≥99,0 %
In H_2O insoluble matter	≤0,005 %
pH-value (5 % solution)	5,0-8,8
Bromate (BrO_3)	≤0,001 %
Chloride (Cl)	≤0,2 %
Iodate (IO_3)	≤0,001 %
Iodide (I)	≤0,001 %
Sulphate (SO_4)	≤0,005 %
Heavy metals (as Pb)	≤0,0005 %
Barium (Ba)	≤0,002 %
Calcium (Ca)	≤0,002 %
Iron (Fe)	≤0,0005 %
Magnesium (Mg)	≤0,001 %
Sodium (Na)	≤0,02 %

Art. No.	Pack Qty.	Pack.	€
A137.1	100 g	plastic	26,80
A137.2	500 g	plastic	52,60
Original pack 6 x 500 g			49,97/500 g
A137.3	1 kg	plastic	93,45
Original pack 6 x 1 kg			88,78/1 kg

Potassium bromide
≥98 %, Ph. Eur.

Guarantee analysis

Assay (arg., dry substance)	98,5-101,0 %
Identity	complies
Appearance of solution	complies
Acid or alkaline react. substances	complies
Loss on drying (105 °C)	≤1,0 %
Chloride (Cl)	≤0,6 %
Sulphate (SO_4)	≤0,01 %
Iodide (I)	complies
Bromate (BrO_3)	complies
Iron (Fe)	≤0,001 %
Mg and alkaline-earth metals (as Ca)	≤0,02 %

Art. No.	Pack Qty.	Pack.	€
9252.1	250 g	plastic	44,00
9252.2	1 kg	plastic	123,65
Original pack 6 x 1 kg			117,47/1 kg

Potassium bromide
for IR spectroscopy

Embedding reagent for the manufacture of KBr pellets.

Type analysis

Suitability for IR spectrometry	complies
H2O (⍰ = 3775-3050 / 1760-1520 cm-1)	≤0,15
CH-compounds (⍰ = 3050-2750 cm-1)	≤0,004
Others (⍰ = 4000-400 cm-1)	≤0,020

Particle size:

d10	≤150 µm
d50	≤250 µm
d90	≤500 µm

Art. No.	Pack Qty.	Pack.	€
CP19.2	50 g	plastic	67,65
CP19.1	100 g	plastic	117,75

Potassium bromide bromate solution
▸ Bromide bromate solution see page 787

Potassium bromide solution (0.1 N)

D 1,007 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

Potassium bromide solution
0,1 mol/l – 0,1 N, volumetric standard solution

Type analysis

Amount-of-substance conc. (20 °C) ±0,5 %	0,1 mol/l
Titer	0,995-1,005

Art. No.	Pack Qty.	Pack.	€
8130.1	1 l	plastic	113,85
Original pack 6 x 1 l			108,16/1 l

Potassium carbonate

Potash

K_2CO_3 · D 2,43 g/cm³ · mp 891 °C
CAS No. 584-08-7 · EC no. 209-529-3
WGK 1

Warning H315-H319-H335

Potassium carbonate
ROTI®METIC 99,995 % (4N5)

Type analysis

Assay (metals basis)	99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5335.1	10 g	plastic	64,00
5335.2	50 g	plastic	203,20

Potassium carbonate
≥99 %, p.a., ACS

Drying agent, disintegrating agent.

Guarantee analysis

Assay (acidim., dry substance)	≥99,0 %
In H_2O insoluble matter	≤0,005 %
Loss on drying (300 °C)	≤1,0 %
Nitrogen compounds (as N)	≤0,001 %
Sulphur compounds (as SO_4)	≤0,003 %
Chloride (Cl)	≤0,002 %
Phosphate (PO_4)	≤0,001 %
Silicate (SiO_2)	≤0,005 %
Aluminium (Al)	≤0,001 %
Arsenic (As)	≤0,0001 %
Lead (Pb)	≤0,0005 %
Calcium (Ca)	≤0,002 %
Iron (Fe)	≤0,0005 %
Copper (Cu)	≤0,0005 %

Magnesium (Mg) ..... ≤0,002 %
Sodium (Na) ..... ≤0,02 %
Nickel (Ni) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
P743.1	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
P743.2	1 kg	plastic	71,95
Original pack 6 x 1 kg			68,35/1 kg
P743.3	2.5 kg	plastic	160,20

Potassium carbonate
≥99 %, Ph. Eur.

Guarantee analysis
Appearance ..... white almost white powder
Assay (dry substance) ..... 99,0-101,0 %
Identity ..... complies
Appearance of solution ..... complies
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,002 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,001 %
Loss on drying (120 °C) ..... ≤5,0 %

Art. No.	Pack Qty.	Pack.	€
X894.1	500 g	plastic	24,65
Original pack 6 x 500 g			23,42/500 g
X894.2	1 kg	plastic	38,60
Original pack 6 x 1 kg			36,67/1 kg
X894.3	2.5 kg	plastic	85,50

Potassium carbonate
≥98 %

Type analysis
Assay (K_2CO_3) ..... ≥98,0 %
Sodium (Na) ..... ≤0,25 %

Art. No.	Pack Qty.	Pack.	€
7956.1	1 kg	plastic	21,40
Original pack 6 x 1 kg			20,33/1 kg
7956.2	5 kg	plastic	85,90
7956.5	25 kg	plastic	299,95

Potassium chlorate

$KClO_3$ · D 2,34 g/cm³ · mp 356 °C · bp 400 °C
CAS No. 3811-04-9 · EC no. 223-289-7
UN no. 1485 · ADR 5.1 II · WGK 2

Danger H271-H302+H332-H411

Potassium chlorate
≥99 %, p.a., ACS

Oxidant

Guarantee analysis
Assay ..... ≥99,0 %
In H_2O insoluble matter ..... ≤0,005 %
Bromate (BrO_3) ..... ≤0,015 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,002 %
Heavy metals (as Pb) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,002 %
Iron (Fe) ..... ≤0,0003 %
Magnesium (Mg) ..... ≤0,002 %
Sodium (Na) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
HN27.1	100 g	plastic	19,25
HN27.2	250 g	plastic	30,00
HN27.3	500 g	plastic	46,15
Original pack 6 x 500 g			43,84/500 g

Potassium chlorate
≥99,7 %, cryst.

Oxidation reagent

Type analysis
Appearance ..... white
Assay ..... ≥99,7 %
Water content ..... ≤0,05 %
Insoluble matter ..... ≤0,45 %

The parameter 'Insoluble' consider insoluble contents of the anti-caking agent.

Art. No.	Pack Qty.	Pack.	€
7959.1	1 kg	plastic	99,45
Original pack 6 x 1 kg			94,48/1 kg
7959.2	5 kg	plastic	424,65

Potassium chloride

KCl · D 1,98 g/cm³ · mp 770 °C · bp 1413 °C
CAS No. 7447-40-7 · EC no. 231-211-8
WGK 1

Potassium chloride
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5346.1	25 g	plastic	102,05
5346.2	100 g	plastic	298,35

Potassium chloride
≥99,5 %, p.a., ACS, ISO

Reagent for buffer solutions, for molecular biology.

Guarantee analysis
Assay (arg.) ..... ≥99,5 %
In H_2O insoluble matter ..... ≤0,005 %
pH value (5 % solution) 5,4-8,0
Bromide (Br) ..... ≤0,01 %
Iodide (I) ..... ≤0,002 %
Phosphate (PO_4) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,001 %
Chlorate and nitrate (as NO_3) ..... ≤0,003 %
Total nitrogen (as N) ..... ≤0,001 %
Loss on drying (150 °C) ..... ≤1,0 %
Heavy metals (as Pb) ..... ≤0,0005 %
Barium (Ba) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,002 %
Cadmium (Cd) ..... ≤0,0005 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0002 %
Magnesium (Mg) ..... ≤0,001 %
Sodium (Na) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,002 %
Lead (Pb) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
6781.3	500 g	plastic	23,55
Original pack 6 x 500 g			22,37/500 g
6781.1	1 kg	plastic	38,60
Original pack 6 x 1 kg			36,67/1 kg
6781.2	5 kg	plastic	155,90
6781.5	25 kg	plastic	600,95

Potassium chloride
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤3,0 I.U./g
Assay (dry substance) ..... ≥99 %
Appearance of solution ..... complies
Loss on drying ..... ≤0,5 %
Bromide (Br) ..... ≤0,1 %
Iodide (I) ..... complies
Sulphate (SO_4) ..... ≤0,03 %
Heavy metals (as Pb) ..... ≤0,0005 %
Aluminium (Al) ..... ≤0,00002 %
Arsenic (As) ..... ≤0,0002 %
Iron (Fe) ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
HN02.1	250 g	plastic	22,50
HN02.2	500 g	plastic	32,15
Original pack 6 x 500 g			30,54/500 g
HN02.3	1 kg	plastic	59,05
Original pack 6 x 1 kg			56,10/1 kg
HN02.4	2.5 kg	plastic	117,20
HN02.7	25 kg	plastic	779,40

Potassium chloride
≥99 %, Ph. Eur., USP, BP

Guarantee analysis
Assay (dry substance) ..... 99,0-100,5 %
Identity ..... complies
Appearance of solution ..... complies
Loss on drying (105 °C) ..... ≤1,0 %
Acid or alkaline react. substances ..... complies
Volatile organic impurities ..... complies
Bromide (Br) ..... ≤0,1 %
Iodide (I) ..... complies
Iodide (I) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,03 %
Aluminium (Al) ..... ≤0,0001 %
Barium (Ba) ..... complies
Calcium, Magnesium ..... complies
Iron (Fe) ..... ≤0,002 %
Magnesium, alkaline-earth metals (as Ca) ..... ≤0,02 %
Sodium (Na) ..... complies
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
P017.2	500 g	plastic	23,15
Original pack 6 x 500 g			21,99/500 g
P017.1	1 kg	plastic	38,60
Original pack 6 x 1 kg			36,67/1 kg
P017.3	5 kg	plastic	131,70
P017.5	25 kg	plastic	564,40

Potassium chloride
≥99 %, pure

Type analysis
Assay ..... ≥99,0 %
Sulphate (SO_4) ..... ≤0,1 %
Ca (Calcium) ..... ≤0,005 %
Mg (Magnesium) ..... ≤0,01 %
Na (Sodium) ..... ≤0,5 %
Loss on drying (2 h, 105 °C) ..... ≤0,1 %

The product contains no anti-caking agent. Possible caking can be crushed with a spatula.

Art. No.	Pack Qty.	Pack.	€
1LCT.1	1 kg	plastic	21,40
Original pack 6 x 1 kg			20,33/1 kg
1LCT.2	2.5 kg	plastic	39,25
1LCT.3	5 kg	plastic	71,95
1LCT.4	10 kg	plastic	131,70

Potassium chloride
≥99 %, pure, with anti-caking agent

Type analysis
Assay ..... ≥99,0 %
Sulphate (SO_4) ..... ≤0,1 %
Ca (Calcium) ..... ≤0,005 %
Mg (Magnesium) ..... ≤0,01 %
Na (Sodium) ..... ≤0,5 %
Loss on drying (2 h, 105 °C) ..... ≤0,1 %

Product with anticaking agent.

Art. No.	Pack Qty.	Pack.	€
1LCY.1	1 kg	plastic	20,35
Original pack 6 x 1 kg			19,33/1 kg
1LCY.2	2.5 kg	plastic	37,55
1LCY.3	5 kg	plastic	67,20
1LCY.4	10 kg	plastic	120,95

Potassium chloride powder (pouch)
▸ ROTI®Fair KCl see page 1218

Potassium chloride solution

CAS No. 7447-40-7 · EC no. 231-211-8
WGK 1

Potassium chloride solution (0.2 N)

Potassium chloride solution
0,2 mol/l – 0,2 N, volumetric standard solution

D 1,01 g/cm³ · bp 100 °C

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,2 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
4117.1	1 l	plastic	34,95
Original pack 6 x 1 l			33,20/1 l

Potassium chloride solution (3 N)

Potassium chloride solution
3 mol/l – 3 N, volumetric standard solution

Storage solution for pH-electrodes

D 1,13 g/cm³ · bp 100 °C

Type analysis
Amount-of-substance conc. (20 °C) ..... 3 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
T138.1	250 ml	plastic	23,55
T138.2	1 l	plastic	36,45
Original pack 6 x 1 l			34,63/1 l

Potassium chloride solution (3 N) with AgCl

Storage solution for pH-electrodes

D 1,12 g/cm³
WGK 2

H412

Potassium chloride solution
3 mol/l – 3 N, volumetric standard solution, saturated with AgCl

Type analysis
Amount-of-substance conc. (20 °C) ..... 3 mol/l ±0,2 %
Titer 0,9980-1,0020
Measurement uncertainty ..... ±0,2 %

Art. No.	Pack Qty.	Pack.	€
9880.1	250 ml	plastic	29,60
9880.2	1 l	plastic	49,35
Original pack 6 x 1 l			46,88/1 l

Potassium chromate

Chromic acid potassium salt

K_2CrO_4 · D 2,732 g/cm³ · mp 968,3 °C · bp 1000 °C
CAS No. 7789-00-6 · EC no. 232-140-5
UN no. 3288 · ADR 6.1 III · WGK 3

Danger H315-H317-H319-H335-H340-H350i-H410

Potassium chromate
≥99 %, p.a., ACS

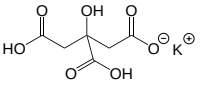
Indicator for argentometry.

Guarantee analysis
Assay (iodom.) ..... ≥99 %
pH value (5 % in H_2O) 8,6-9,8
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,005 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,002 %
Lead (Pb) ..... ≤0,005 %
Sodium (Na) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
HN33.1	100 g	plastic	46,80
HN33.2	250 g	plastic	89,15
HN33.3	500 g	plastic	158,60
Original pack 6 x 500 g			150,67/500 g
HN33.4	1 kg	plastic	267,70
Original pack 6 x 1 kg			254,32/1 kg

Potassium chromium(III) sulphate
▸ Chromium(III) potassium sulphate dodecahydrate see page 837

mono-Potassium citrate



Citric acid monopotassium salt · Potassium hydrogen citrate

$C_6H_7KO_7$
CAS No. 866-83-1 · EC no. 212-753-4
WGK 1

mono-Potassium citrate
≥99 %, anhydrous, pure

Type analysis
Assay (dry substance) ..... ≥99,0 %
pH value (1 % in H_2O) 3,5-4,0
Oxalate (as $C_2H_2O_4$) ..... ≤0,01 %
Arsenic (As) ..... ≤0,001 %
Lead (Pb) ..... ≤0,001 %
Mercury (Hg) ..... ≤0,001 %
Loss on drying (180 °C, 4 h) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
0481.1	250 g	plastic	38,20
0481.2	500 g	plastic	66,15
Original pack 6 x 500 g			62,84/500 g
0481.3	1 kg	plastic	117,20
Original pack 6 x 1 kg			111,34/1 kg
0481.4	2.5 kg	plastic	252,65

tri-Potassium citrate monohydrate

Citric acid potassium salt

$C_6H_5K_3O_7 \cdot H_2O$ · D 1,98 g/cm³ · mp >180 °C
CAS No. 6100-05-6 · EC no. 212-755-5
WGK 1

tri-Potassium citrate monohydrate
≥99 %, Ph. Eur., USP

Guarantee analysis
Appearance ..... white crystals
Assay (dry substance) ..... 99,0-100,5 %
Identity ..... complies
Appearance of solution ..... complies
pH value (5 % in H_2O) 7,5-9,0
Alkalinity/acidity ..... complies
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,015 %
Oxalate (as $C_2H_2O_4$) ..... ≤0,01 %
Tartrate ($C_4H_4O_6$) ..... complies
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,0001 %
Sodium (Na) ..... ≤0,3 %
Mercury (Hg) ..... ≤0,0001 %
Water (KF) ..... 4,0-7,0 %
Loss on drying (180 °C/ 4h) ..... 3,0-6,0 %
Reaction with H_2SO_4 ..... complies

Art. No.	Pack Qty.	Pack.	€
X888.1	500 g	plastic	32,15
Original pack 6 x 500 g			30,54/500 g
X888.2	1 kg	plastic	56,45
Original pack 6 x 1 kg			53,63/1 kg
X888.3	2.5 kg	plastic	112,90

Potassium dichromate

Potassium bichromate · Potassium pyrochromat

$K_2Cr_2O_7$ · D 2,68 g/cm³ · mp 398 °C
CAS No. 7778-50-9 · EC no. 231-906-6
UN no. 3086 · ADR 6.1 (5.1) II · WGK 3

Danger
H272-H301-H312-H314-H317-H330-H334-H335-H340-H350-H360FD-H372-H410

Potassium dichromate
≥99,5 %, p.a., ACS, ISO

Strong oxidizing agent for oxidative disintegration. Titrimetric standard substance in oxidimetry and iodometry.

Guarantee analysis
Assay (iodom.) ..... ≥99,5 %
In H_2O insoluble matter ..... ≤0,005 %
Loss on drying (105 °C) ..... ≤0,05 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,005 %
Lead (Pb) ..... ≤0,005 %
Calcium (Ca) ..... ≤0,002 %
Iron (Fe) ..... ≤0,001 %
Copper (Cu) ..... ≤0,001 %
Sodium (Na) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
P744.3	100 g	plastic	33,90
P744.1	500 g	plastic	119,90
Original pack 6 x 500 g			113,91/500 g
P744.2	1 kg	plastic	220,40
Original pack 6 x 1 kg			209,38/1 kg

Potassium dichromate
≥99,5 %, cryst.

Strong oxidizing agent for oxidative disintegration.Titrimetric standard substance in oxidimetry and iodometry.

Type analysis
Appearance ..... Orange crystalline powder
Assay ($K_2Cr_2O_7$) ..... ≥99,5 %
In water insoluble matter ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Sodium (Na) ..... ≤0,3 %

Art. No.	Pack Qty.	Pack.	€
7953.3	100 g	plastic	22,50
7953.1	1 kg	plastic	114,50
Original pack 6 x 1 kg			108,78/1 kg
7953.2	5 kg	plastic	448,85

Potassium dichromate solution

CAS No. 7778-50-9

Potassium dichromate solution (0.1 N)

Potassium dichromate solution
1/60 mol/l – 0,1 N, volumetric standard solution

D 1 g/cm³

WGK 3

Danger H340-H350-H360FD-H412-EUH208

Type analysis
Amount-of-substance conc. (20 °C) ..... 1/60 mol/l ±0,2 %
Titer ..... 0,9980 - 1,0020

Art. No.	Pack Qty.	Pack.	€
P722.1	1 l	plastic	44,00
Original pack 6 x 1 l			41,80/1 l

Potassium dichromate solution (0.12 N)

Potassium dichromate solution
0,02 mol/l – 0,12 N, volumetric standard solution, for COD determination

According to DIN 38409 part H41 and H43.

D 1 g/cm³

WGK 3

Danger H340-H350-H360FD-H412-EUH208

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,02 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
P720.1	1 l	plastic	33,90
Original pack 6 x 1 l			32,21/1 l

Potassium dichromate solution (0.25 N)

Potassium dichromate solution
1/24 mol/l – 0,25 N, volumetric standard solution, for COD determination

D 1,008 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Danger H340-H350-H360FD-H373-H412-EUH208

Type analysis
Amount-of-substance conc. (20 °C) ..... 1/24 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
P721.1	1 l	plastic	67,20
Original pack 6 x 1 l			63,84/1 l

Potassium dicyanoaurate

Gold potassium cyanide

$K[Au(CN)_2]$ · D 3,45 g/cm³ · mp 383 °C
CAS No. 13967-50-5 · EC no. 237-748-4
UN no. 1588 · ADR 6.1 I · WGK 3

Danger H290-H300+H310+H330-H315-H317-H318-H410-EUH032

Potassium dicyanoaurate
extra pure

Type analysis
Au assay ..... 68,2 % ±0,1 %
Iron (Fe) ..... ≤0,0001 %
Sodium (Na) ..... ≤0,04 %
Silver (Ag) ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
3959.1	1 g	glass	203,20

Potassium dihydrogen phosphate

Potassium phosphate monobasic · Monopotassium phosphate · Potassium biphosphate

KH_2PO_4 · D 2,34 g/cm³ · mp 250 to 255 °C
CAS No. 7778-77-0 · EC no. 231-913-4
WGK 1

Potassium dihydrogen phosphate
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L6N.1	5 g	HDPE	80,55
1L6N.2	25 g	HDPE	213,95

Potassium dihydrogen phosphate
≥99 %, p.a., ACS

Reagent for phosphate, buffer, molecular biology.

Guarantee analysis
Assay (acidim.) ..... ≥99,0 %
pH value (5 % in H_2O) 4,2-4,5
In H_2O insoluble matter ..... ≤0,01 %
Loss on drying (105 °C) ..... ≤0,2 %
Total nitrogen (as N) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,003 %
Heavy metals ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
Arsenic (As) ..... ≤0,00005 %
Lead (Pb) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,005 %
Cadmium (Cd) ..... ≤0,0005 %
Cobalt (Co) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
3904.2	250 g	plastic	25,70
3904.1	1 kg	plastic	81,60
Original pack 6 x 1 kg			77,52/1 kg
3904.3	5 kg	plastic	338,65
3904.5	25 kg	plastic	1.558,75

Potassium dihydrogen phosphate
≥98 %, Ph. Eur., BP

Guarantee analysis
Assay (acidimetric, dry substance) 98,0-100,5 %
Identity ..... complies
pH value (5 % in H_2O) 4,2-4,5
Appearance of solution ..... complies
Loss on drying (130 °C) ..... ≤2,0 %
Reducing substances ..... complies
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,03 %
Arsenic (As) ..... ≤0,0002 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
P018.1	500 g	plastic	26,35
Original pack 6 x 500 g			25,03/500 g
P018.2	1 kg	plastic	45,05
Original pack 6 x 1 kg			42,80/1 kg
P018.3	5 kg	plastic	190,85
P018.5	25 kg	plastic	654,70

Potassium disulphate

Potassium pyrosulphate · Dipotassium (sulphonatooxy)sulfonate

$K_2S_2O_7$ · D 2,28 g/cm³ · mp 325 °C
CAS No. 7790-62-7 · EC no. 232-216-8
UN no. 2923 · ADR 8 (6.1) I · WGK 1

Danger H314-H331-EUH071

Potassium disulphate
≥98 %, extra pure

Type analysis
Assay ..... ≥98,0 %
Chloride (Cl) ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,001 %
As (Arsenic) ..... ≤0,0005 %
Ca (Calcium) ..... ≤0,005 %
Fe (Iron) ..... ≤0,001 %
Heavy metals ..... ≤0,0005 %
In water insoluble matter ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
1H4C.1	100 g	plastic	42,50
1H4C.2	250 g	plastic	89,15
1H4C.3	500 g	plastic	166,65
Original pack 6 x 500 g			158,32/500 g
1H4C.4	1 kg	plastic	306,40
Original pack 6 x 1 kg			291,08/1 kg

Potassium disulphite

Potassium *meta*bisulphite · Potassium pyrosulphite

$K_2S_2O_5$ · D 2,34 g/cm³
CAS No. 16731-55-8 · EC no. 240-795-3
WGK 1

Danger H318-H335-EUH031

Potassium disulphite
≥96 %, p.a.

Reducing agent, bleaching agent.

Guarantee analysis

Assay (iodom.)	≥96 %
In H_2O insoluble matter	≤0,005 %
Chloride (Cl)	≤0,005 %
Phosphate (PO_4)	≤0,0002 %
Thiosulphate	≤0,05 %
Arsenic (As)	≤0,0001 %
Lead (Pb)	≤0,001 %
Iron (Fe)	≤0,001 %
Copper (Cu)	≤0,001 %
Nickel (Ni)	≤0,001 %

Art. No.	Pack Qty.	Pack.	€
P019.1	500 g	plastic	31,75
Original pack 6 x 500 g			30,16/500 g
P019.2	1 kg	plastic	47,85
Original pack 6 x 1 kg			45,46/1 kg
P019.3	5 kg	plastic	188,15

Potassium disulphite
≥96 %, powdered

Type analysis

Assay	≥96 %
pH value (10 % solution)	3,8-4,8
Arsenic (As)	≤0,0001 %
Lead (Pb)	≤0,0001 %
Iron (Fe)	≤0,0005 %
Copper (Cu)	≤0,0001 %
Heavy metals (as Pb)	≤0,001 %
Selenium (Se)	≤0,0001 %
Zinc (Zn)	≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
7995.1	1 kg	plastic	32,15
Original pack 6 x 1 kg			30,54/1 kg
7995.3	2.5 kg	plastic	56,90
7995.2	10 kg	plastic	185,45

Potassium ferricyanide
▸ Potassium hexacyanoferrate(III) see page 1172

Potassium ferrocyanide
▸ Potassium hexacyanoferrate(II) trihydrate see page 1172

Potassium ferrocyanide trihydrate
▸ Potassium hexacyanoferrate(II) trihydrate see page 1172

Potassium fluoride

KF · D 2,48 g/cm³ · mp 846 °C · bp 1505 °C
CAS No. 7789-23-3 · EC no. 232-151-5
UN no. 1812 · ADR 6.1 III · WGK 1

Danger H301+H311+H331-H318

Potassium fluoride
ROTI®METIC 99,99 % (4N)

Type analysis

Assay (metals basis)	99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5656.1	5 g	plastic	72,60
5656.2	25 g	plastic	249,95

Potassium fluoride
≥99 %, p.a.

For fluorination of organic compounds.

Guarantee analysis

Assay	≥99 %
Free acid (as HF)	≤0,01 %
Free alkali (as K_2CO_3)	≤0,01 %
Chloride (Cl)	≤0,005 %
Sulphate (SO_4)	≤0,02 %
Hexafluorosilicate (as K_2SiF_6)	≤0,1 %
Cadmium (Cd)	≤0,0005 %
Cobalt (Co)	≤0,0005 %
Copper (Cu)	≤0,0005 %
Iron (Fe)	≤0,0005 %
Nickel (Ni)	≤0,0005 %
Lead (Pb)	≤0,0005 %
Zinc (Zn)	≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
CN83.1	100 g	plastic	23,55
CN83.2	250 g	plastic	45,70
CN83.3	500 g	plastic	82,25
Original pack 6 x 500 g			78,14/500 g
CN83.4	1 kg	plastic	150,00
Original pack 6 x 1 kg			142,50/1 kg

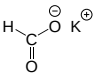
Potassium fluoride
≥99 %, cryst.

Type analysis

Assay	≥99,0 %
Hexafluorosilicate (as K_2SiF_6)	≤0,2 %
Loss on drying	≤0,5 %
Chloride (Cl)	≤0,05 %

Art. No.	Pack Qty.	Pack.	€
2617.1	250 g	plastic	21,40
2617.2	500 g	plastic	37,55
Original pack 6 x 500 g			35,67/500 g
2617.3	1 kg	plastic	64,40
Original pack 6 x 1 kg			61,18/1 kg
2617.4	2.5 kg	plastic	127,95

Potassium formate



HCO_2K · D 1,91 g/cm³ · mp 165 to 168 °C
CAS No. 590-29-4 · EC no. 209-677-9
WGK 1

Potassium formate
≥98 %, for synthesis

Type analysis

Appearance	colourless crystals
Assay (titr.)	≥98,0 %
pH (5 % in H_2O)	6,0-8,5

Art. No.	Pack Qty.	Pack.	€
0980.1	250 g	plastic	28,95
0980.2	1 kg	plastic	83,75
Original pack 6 x 1 kg			79,56/1 kg

Potassium gluconate
▸ Gluconic acid potassium salt see page 960

Potassium hexachloroplatinate(IV)

Hexachloroplatinic acid potassium salt

$K_2[PtCl_6]$ · D 3,5 g/cm³ · mp >250 °C
CAS No. 16921-30-5 · EC no. 240-979-3
UN no. 2923 · ADR 8 (6.1) III · WGK 1

Danger H290-H301-H317-H318-H334

Potassium hexachloroplatinate(IV)
≥99,9 %, p.a.

Type analysis

Purity	≥99,9 %
Assay (on Pt)	≥37 %
Ag (Silver)	≤0,0025 %
Gold (Au)	≤0,0025 %
Cd (Cadmium)	≤0,0025 %
Co (Cobalt)	≤0,0025 %
Cr (Chrom)	≤0,0025 %
Cu (Copper)	≤0,0025 %
Fe (Iron)	≤0,005 %
Iridium (Ir)	≤0,005 %
Mn (Manganese)	≤0,0025 %
Ni (Nickel)	≤0,005 %
Pb (Lead)	≤0,0025 %
Pd (Palladium)	≤0,0075 %
Rhodium (Rh)	≤0,0075 %
Ruthenium (Ru)	≤0,0025 %
Zn (Zinc)	≤0,0025 %

Art. No.	Pack Qty.	Pack.	€
1H54.1	500 mg	glass	73,00
1H54.2	1 g	glass	120,95
1H54.3	5 g	glass	499,90

Potassium hexacyanoferrate(II) trihydrate

Yellow prussiate of potash · Potassium ferrocyanide · Potassium ferrocyanide trihydrate

$K_4[Fe(CN)_6]$ · 3 H_2O · D 1,85 g/cm³ · mp ~70 °C
CAS No. 14459-95-1 · EC no. 237-722-2
WGK 2

H412-EUH032

Potassium hexacyanoferrate(II) trihydrate
ROTI®METIC 99,99 % (4N)

Type analysis

Assay (metals basis)	99,99 %

Art. No.	Pack Qty.	Pack.	€
1L7C.1	5 g	HDPE	71,95
1L7C.2	25 g	HDPE	169,35

Potassium hexacyanoferrate(II) trihydrate
≥99 %, p.a., ACS, ISO

Reagent for the determination of Fe, Cu, Zn, protein.
For preparation of Berlin blue.

Guarantee analysis

Assay (perm.)	99,0-102,0 %

In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,005 %
Lead (Pb) ..... ≤0,002 %
Cadmium (Cd) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,002 %
Sodium (Na) ..... ≤0,02 %
Ca (Calcium) ..... ≤0,005 %
Co (Cobalt) ..... ≤0,001 %
Mg (Magnesium) ..... ≤0,001 %
Ni (Nickel) ..... ≤0,0005 %
Zn (Zinc) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
P745.1	500 g	plastic	110,20
Original pack 6 x 500 g			104,69/500 g
P745.2	1 kg	plastic	203,20
Original pack 6 x 1 kg			193,04/1 kg
P745.3	2.5 kg	plastic	456,90

Potassium hexacyanoferrate(II) trihydrate
≥98,5 %, cryst.

Type analysis
Appearance ..... pale yellow crystals
Assay ..... ≥98,5 %
Chloride (Cl) ..... ≤0,3 %
In H_2O insoluble matter ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
7974.1	250 g	plastic	26,35
7974.2	1 kg	plastic	75,15
Original pack 6 x 1 kg			71,39/1 kg
7974.3	5 kg	plastic	295,65

Potassium hexacyanoferrate(II) solution
▸ Carrez solution II see page 818

Potassium hexacyanoferrate(III)

Potassium ferricyanide · Red prussiate of potash

$K_3[Fe(CN)_6]$ · D 1,893 g/cm³
CAS No. 13746-66-2 · EC no. 237-323-3
WGK 2

EUH032

Potassium hexacyanoferrate(III)
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L6A.1	5 g	HDPE	88,70
1L6A.2	25 g	HDPE	254,25

Potassium hexacyanoferrate(III)
≥99 %, p.a., ACS

Oxidizing agent in organic synthesis. Reagent for the determination to Co, Zn and alkaloids.

Guarantee analysis
Assay (iodom.) ..... ≥99,0 %
In H_2O insoluble matter ..... ≤0,005 %
Hexacyanoferrate (II) $[Fe(CN)_6]$ ..... ≤0,05 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
P746.3	100 g	plastic	39,70
P746.1	500 g	plastic	139,65
Original pack 6 x 500 g			132,67/500 g
P746.2	1 kg	plastic	267,70
Original pack 6 x 1 kg			254,32/1 kg

Potassium hexacyanoferrate(III)
≥99 %, technical

Type analysis
Appearance ..... ruby crystals
Assay ..... ≥99,0 %
Potassium hexacyanoferrate(II) trihydrate ≤0,5 %
In H_2O insoluble matter ..... ≤0,1 %
Chloride (as KCl) ..... ≤0,3 %

Art. No.	Pack Qty.	Pack.	€
7971.3	500 g	plastic	47,85
Original pack 6 x 500 g			45,46/500 g
7971.1	1 kg	plastic	83,75
Original pack 6 x 1 kg			79,56/1 kg
7971.2	5 kg	plastic	342,95

Potassium hexacyanoferrate(III) spray solution

Potassium hexacyanoferrate(III) spray solution
for TLC

In combination with iron(III) chloride for visualisation of e.g., acetylsalicylic acid and paracetamol.

D 0,82 g/cm³ · bp 100 °C

Storage temperature: +4 °C

WGK 2

Type analysis
TLC-application ..... complies

Art. No.	Pack Qty.	Pack.	€
1H06.1	100 ml	glass	40,10

Potassium hexafluorotitanate

$K_2[TiF_6]$ · mp 780 °C · bp 780 °C
CAS No. 16919-27-0 · EC no. 240-969-9
WGK 2

Danger H302-H318

Potassium hexafluorotitanate
≥98 %, pure

Type analysis
Assay ..... ≥98,0 %
Fe (Iron) ..... ≤0,05 %
Heavy metals (as Pb) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,01 %
Loss on drying (120 °C) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
1HE8.1	100 g	plastic	21,40
1HE8.2	500 g	plastic	45,05
Original pack 6 x 500 g			42,80/500 g
1HE8.3	1 kg	plastic	71,95
Original pack 6 x 1 kg			68,35/1 kg
1HE8.4	2.5 kg	plastic	138,70

Potassium hexafluoro-zirconate(IV)

Dipotassium hexafluorozirconate

K_2ZrF_6 · D 3,48 g/cm³ · mp 840 °C
CAS No. 16923-95-8 · EC no. 240-985-6
UN no. 3288 · ADR 6.1 III · WGK 2

Danger H301-H318-EUH071

Potassium hexafluoro-zirconate(IV)
≥97,5 %, pure

Type analysis
Assay ..... ≥97,5 %
Chloride (Cl) ..... ≤0,05 %
Na (Sodium) ..... ≤0,5 %
Silicon (Si) ..... ≤0,5 %
Ti (Titanium) ..... ≤0,05 %
Loss on drying (110 °C) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
1H97.1	100 g	plastic	24,65
1H97.2	500 g	plastic	75,15
Original pack 6 x 500 g			71,39/500 g
1H97.3	1 kg	plastic	134,40
Original pack 6 x 1 kg			127,68/1 kg

Potassium hexahydroxo-antimonate(V)

Potassium antimonate

$K[Sb(OH)_6]$ · D 3,221 g/cm³ · mp >224 °C
CAS No. 12208-13-8 · EC no. 235-387-7
UN no. 1549 · ADR 6.1 III · WGK 2

Warning H302+H332-H411

Potassium hexahydroxo-antimonate(V)
≥98 %

Reagent for the detection of sodium (precipitation).

Type analysis
Assay ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
1HEK.1	100 g	plastic	37,55
1HEK.2	500 g	plastic	117,20
Original pack 6 x 500 g			111,34/500 g
1HEK.3	1 kg	plastic	209,65
Original pack 6 x 1 kg			199,17/1 kg

Potassium hydrogen carbonate

Potassium bicarbonate

$KHCO_3$ · D 2,17 g/cm³ · mp 100 °C
CAS No. 298-14-6 · EC no. 206-059-0
WGK 1

Potassium hydrogen carbonate
≥99,7 %, p.a., ACS

Neutralizing agent

Guarantee analysis

Assay (acidim., dry substance) ..... 99,7-100,5 %
In H_2O insoluble matter ..... ≤0,005 %
Ammonium (NH_4) ..... ≤0,0005 %
Sulphur compounds (as SO_4) ..... ≤0,003 %
Chloride (Cl) ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,001 %
Sodium (Na) ..... ≤0,03 %
Heavy metals (as Pb) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
P748.1	500 g	plastic	39,70
Original pack 6 x 500 g			37,72/500 g
P748.2	1 kg	plastic	70,85
Original pack 6 x 1 kg			67,31/1 kg
P748.3	2.5 kg	plastic	160,20

Potassium hydrogen carbonate
≥99 %, Ph. Eur.

Guarantee analysis

Appearance ..... white crystal powder
Assay ..... 99,0-101,0 %
Identity ..... complies
Appearance of solution ..... complies
pH value (5 % in H_2O) ..... ≤8,6
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,015 %
Ammonium (NH_4) ..... ≤0,002 %
Heavy metals (as Pb) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,001 %
Iron (Fe) ..... ≤0,002 %
Sodium (Na) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
X887.1	500 g	plastic	21,40
Original pack 6 x 500 g			20,33/500 g
X887.2	1 kg	plastic	33,25
Original pack 6 x 1 kg			31,59/1 kg
X887.3	2.5 kg	plastic	66,55

Potassium hydrogen carbonate
≥99 %, extra pure

Type analysis

Assay (dry substance) ..... ≥99,0 %
Arsenic (As) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,0005 %
Mercury (Hg) ..... ≤0,0001 %
Loss on drying ..... ≤0,25 %

Art. No.	Pack Qty.	Pack.	€
9437.1	500 g	plastic	22,50
Original pack 6 x 500 g			21,38/500 g
9437.2	1 kg	plastic	38,60
Original pack 6 x 1 kg			36,67/1 kg
9437.3	2.5 kg	plastic	81,60

Potassium hydrogen citrate
▸ mono-Potassium citrate see page 1170

di-Potassium hydrogen phosphate

Dipotassium hydrogen phosphate · Potassium phosphate, dibasic · sec. Potassium phosphate

K_2HPO_4 · D 2,44 g/cm³ · mp >180 °C
CAS No. 7758-11-4 · EC no. 231-834-5
WGK 1

di-Potassium hydrogen phosphate
ROTI®METIC 99,99 % (4N), anhydrous

Type analysis

Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5066.1	25 g	plastic	205,90

di-Potassium hydrogen phosphate
≥99 %, p.a., anhydrous

Buffer substance, molecular biology

Guarantee analysis

Assay (acidim.) ..... ≥99,0 %
pH value (5 % in H_2O) 8,5-9,6
In H_2O insoluble matter ..... ≤0,005 %
Loss on drying (105 °C) ..... ≤1,0 %
Nitrogen compounds (as N) ..... ≤0,002 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,01 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,001 %
Cadmium (Cd) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,001 %
Cobalt (Co) ..... ≤0,001 %
Copper (Cu) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,005 %
Manganese (Mn) ..... ≤0,001 %
Nickel (Ni) ..... ≤0,001 %
Zinc (Zn) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
P749.1	500 g	plastic	37,55
Original pack 6 x 500 g			35,67/500 g
P749.2	1 kg	plastic	67,65
Original pack 6 x 1 kg			64,27/1 kg
P749.3	2.5 kg	plastic	138,70
P749.5	25 kg	plastic	1.069,65

di-Potassium hydrogen phosphate
≥98 %, Ph. Eur., BP, anhydrous

Guarantee analysis

Assay (acidim., dry substance) ..... 98,0-100,5 %
Identity ..... complies
Appearance of solution ..... complies
In H_2O insoluble matter ..... ≤0,01 %
pH value (5 % in H_2O) 8,5-9,6
Loss on drying (130 °C) ..... ≤1,0 %
Chloride (Cl) ..... ≤0,02 %
Fluoride (F) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,05 %
Arsenic (As) ..... ≤0,0002 %
Lead (Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
Copper (Cu) ..... ≤0,025 %
Nickel (Ni) ..... ≤0,0025 %
Potassium dihydrogen phosphate ..... complies
$KMnO_4$ reducing substances (as O) ..... complies

Art. No.	Pack Qty.	Pack.	€
T875.1	500 g	plastic	34,95
Original pack 6 x 500 g			33,20/500 g
T875.2	1 kg	plastic	57,55
Original pack 6 x 1 kg			54,67/1 kg
T875.3	5 kg	plastic	246,20

di-Potassium hydrogen phosphate
≥98 %, anhydrous

Type analysis

Assay (acidim.) ..... 98,0-100,5 %
pH value (5 % in H_2O) 8,5-9,6
Sulphate (SO_4) ..... ≤0,05 %
Chloride (Cl) ..... ≤0,02 %
Arsenic (As) ..... ≤0,0002 %
Iron (Fe) ..... ≤0,001 %
Loss on drying (130 °C) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
6875.2	500 g	plastic	28,95
Original pack 6 x 500 g			27,50/500 g
6875.1	1 kg	plastic	49,35
Original pack 6 x 1 kg			46,88/1 kg
6875.3	5 kg	plastic	192,45
6875.7	25 kg	plastic	815,95

di-Potassium hydrogen phosphate trihydrate

Dipotassium hydrogen phosphate · Potassium phosphate, dibasic · Dipotassium hydrogen phosphate trihydrate

$K_2HPO_4 \cdot 3\ H_2O$
CAS No. 16788-57-1 · EC no. 231-834-5
WGK 1

di-Potassium hydrogen phosphate trihydrate
≥99 %, p.a.

Buffer substance

Type analysis

Assay ($K_2HPO_4\ 3\ H_2O$) ..... ≥99 %
pH value (5 % in H_2O) 9,1-9,3
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,005 %
Total nitrogen (as N) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As) ..... ≤0,00005 %
Lead (Pb) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,005 %
Sodium (Na) ..... ≤0,1 %
Nickel (Ni) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
6878.2	250 g	plastic	45,05
6878.1	1 kg	plastic	134,40
Original pack 6 x 1 kg			127,68/1 kg
6878.3	2.5 kg	plastic	278,45

Potassium hydrogen phthalate

Potassium biphthalate · Phthalic acid monopotassium salt

$C_8H_5KO_4$ · D 1,636 g/cm³ · mp 301,7 to 303,7 °C · bp >300 °C · flp 197,3 °C
CAS No. 877-24-7 · EC no. 212-889-4
WGK 1

Potassium hydrogen phthalate
≥99,5 %, p.a., ISO

Buffer substance and titrimetric standard substance for alkalimetry.

Guarantee analysis

Assay (acidim.)	≥99,5 %
In H_2O insoluble matter	≤0,003 %
Loss on drying (110 °C)	≤0,05 %
Nitrogen compounds (as N)	≤0,001 %
Sulphur compounds (as S)	≤0,002 %
Chloride (Cl)	≤0,002 %
Lead (Pb)	≤0,0005 %
Cadmium (Cd)	≤0,0005 %
Calcium (Ca)	≤0,001 %
Chromium (Cr)	≤0,001 %
Iron (Fe)	≤0,0005 %
Cobalt (Co)	≤0,0005 %
Copper (Cu)	≤0,0005 %
Magnesium (Mg)	≤0,001 %
Manganese (Mn)	≤0,0005 %
Sodium (Na)	≤0,01 %
Nickel (Ni)	≤0,0005 %
Zinc (Zn)	≤0,0005 %
Heavy metals (as Pb)	≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
P750.1	500 g	plastic	92,35
Original pack 6 x 500 g			87,73/500 g
P750.2	1 kg	plastic	170,95
Original pack 6 x 1 kg			162,40/1 kg
P750.3	2.5 kg	plastic	370,90

Potassium hydrogen phthalate solution

D 1 g/cm³ · mp 0 °C · bp 100 °C
UN no. 3264 · ADR 8 III · WGK 1

Warning H290

Potassium hydrogen phthalate solution
200 mg CSB/l (0,170 g $C_8H_5KO_4$/l)

For determination of COD; DIN 38409-41:1980, DEV H41; DIN 38409-44:1992, DEV H44

Note: Possible storage time is limited!

Art. No.	Pack Qty.	Pack.	€
2055.1	250 ml	plastic	61,85
2055.2	500 ml	plastic	77,30

Potassium hydrogen sulphate

Potassium bisulphate

$KHSO_4$ · D 2,32 g/cm³ · mp 197 °C
CAS No. 7646-93-7 · EC no. 231-594-1
UN no. 2509 · ADR 8 II · WGK 1

Danger H314-H335

Potassium hydrogen sulphate
≥99 %, p.a.

For disintegration of ores and silicates, detection of acetate. Cleaning of Pt crucibles.

Guarantee analysis

Assay (acidim.)	≥98,0 %
Chloride (Cl)	≤0,005 %
Phosphate (PO_4)	≤0,001 %
Iron (Fe)	≤0,005 %
Calcium (Ca)	≤0,005 %
Magnesium (Mg)	≤0,005 %
Lead (Pb)	≤0,001 %
In NH_4OH insoluble matter	≤0,01 %

Art. No.	Pack Qty.	Pack.	€
P020.1	500 g	plastic	37,55
Original pack 6 x 500 g			35,67/500 g
P020.2	1 kg	plastic	67,65
Original pack 6 x 1 kg			64,27/1 kg
P020.3	2.5 kg	plastic	149,45

Potassium hydrogen sulphate
≥98 %, extra pure

Type analysis

Assay (acidim.)	≥98 %
Chloride (Cl)	≤0,005 %
Heavy metals (as Pb)	≤0,005 %
Calcium (Ca)	≤0,02 %
Iron (Fe)	≤0,005 %

Art. No.	Pack Qty.	Pack.	€
X989.1	500 g	plastic	28,50
Original pack 6 x 500 g			27,08/500 g
X989.2	1 kg	plastic	49,35
Original pack 6 x 1 kg			46,88/1 kg
X989.3	2.5 kg	plastic	99,90
X989.7	25 kg	plastic	837,45

Potassium hydrogen tartrate

Potassium acid tartrate · Potassium bitartrate · Cream of tartar

$C_4H_5KO_6$ · D 1,98 g/cm³ · mp 230 °C · bp 328 °C
CAS No. 868-14-4 · EC no. 212-769-1
WGK 1

Potassium hydrogen tartrate
≥99,5 %, extra pure

Type analysis

Assay (acidim., dry substance)	≥99,5 %
Specific rotation $[\alpha]_D^{20}$ (dry substance)	+8,0° to +9,2°
Oxalic acid ($C_2H_2O_4$)	≤0,05 %
Chloride (Cl)	≤0,05 %
Sulphate (SO_4)	≤0,05 %
Heavy metals (as Pb)	≤0,001 %
Loss on drying (105 °C)	≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8645.1	100 g	plastic	16,05
8645.2	500 g	plastic	38,60
Original pack 6 x 500 g			36,67/500 g
8645.3	1 kg	plastic	63,45
Original pack 6 x 1 kg			60,28/1 kg

Potassium hydroxide

Potassium oxide hydrate

KOH · D 2,04 g/cm³ · mp 406 °C · bp 1327 °C
CAS No. 1310-58-3 · EC no. 215-181-3
UN no. 1813 · ADR 8 II · WGK 1

Danger H290-H302-H314

Potassium hydroxide
ROTI®METIC 99,98 % (3N8)

Type analysis

Assay (metals basis)	99,98 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5658.1	100 g	plastic	153,20

Potassium hydroxide
≥85 %, p.a., in pellets

Reagent for the preparation of potassium hydroxide solution. Filled under protective gas.

Guarantee analysis

Assay (as KOH)	≥85 %
Carbonate (as K_2CO_3)	≤0,5 %
Sodium (as NaOH)	≤1,0 %
Chloride (Cl)	≤0,005 %
Sulphate (SO_4)	≤0,001 %
Phosphate (PO_4)	≤0,0005 %
Nitrogen (N)	≤0,0005 %
Silicate (SiO_2)	≤0,001 %
Arsenic (As)	≤0,00005 %
Iron (Fe)	≤0,0005 %
Nickel (Ni)	≤0,001 %
Heavy metals (as Pb)	≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
6751.3	250 g	plastic	21,00
6751.1	1 kg	plastic	42,50
Original pack 6 x 1 kg			40,38/1 kg
6751.4	2.5 kg	plastic	85,90
6751.2	5 kg	plastic	160,20
6751.6	10 kg	plastic	289,20
6751.5	25 kg	plastic	579,45

Potassium hydroxide
≥85 %, Ph. Eur., in pellets

Filled under protective gas.

Guarantee analysis

Assay (acidim.)	85,0-100,5 %
Identity	complies
Appearance of solution	complies
Carbonate (as K_2CO_3)	≤2,0 %
Chloride (Cl)	≤0,02 %
Phosphate (PO_4)	≤0,01 %
Sulphate (SO_4)	≤0,02 %
Heavy metals (as Pb)	≤0,001 %
Iron (Fe)	≤0,001 %
Sodium (Na)	≤1,0 %
Lead (Pb)	≤0,001 %
Arsenic (As)	≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
P747.1	500 g	plastic	27,85
Original pack 6 x 500 g			26,46/500 g
P747.2	1 kg	plastic	47,20
Original pack 6 x 1 kg			44,84/1 kg
P747.6	2.5 kg	plastic	95,60
P747.3	5 kg	plastic	177,40
P747.5	10 kg	plastic	332,20
P747.4	25 kg	plastic	665,45

Potassium hydroxide
≥85 %, in sheds

Filled under protective gas.

Type analysis

Assay (KOH)	≥85 %
Carbonate (as K_2CO_3)	≤1,0 %
Chloride (Cl)	≤0,01 %
Iron (Fe)	≤0,003 %

Art. No.	Pack Qty.	Pack.	€
7986.1	1 kg	plastic	38,60
Original pack 6 x 1 kg			36,67/1 kg
7986.3	2.5 kg	plastic	70,45
7986.4	5 kg	plastic	117,20
7986.2	10 kg	plastic	209,65
7986.5	25 kg	plastic	446,15

Potassium hydroxide solution

CAS No. 1310-58-3 · EC no. 215-181-3

Potassium hydroxide solution 50 %

Potassium hydroxide solution
50 %, extra pure

KOH · D 1,5 g/cm³ · bp >100 °C

UN no. 1814 · ADR 8 II · WGK 1

Danger H290-H302-H314

Type analysis
Assay (KOH) ..... 49,0-51,0 %
Carbonate (CO_3) ..... ≤0,5 %
Chloride (Cl) ..... ≤0,01 %
Sodium hydroxide (NaOH) ..... ≤1 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
7949.1	1 l	plastic	31,75
Original pack 6 x 1 l			30,16/1 l
7949.3	2.5 l	plastic	62,90
Original pack 4 x 2.5 l			59,76/2.5 l
7949.4	5 l	plastic	111,70
Original pack 2 x 5 l			106,12/5 l
7949.2	10 l	plastic	185,45
7949.5	25 l	plastic	349,40

Potassium hydroxide solution 45 %

Potassium hydroxide solution
45 %, extra pure

KOH · D 1,45 g/cm³ · bp >100 °C

UN no. 1814 · ADR 8 II · WGK 1

Danger H290-H302-H314

Type analysis
Assay (KOH) ..... 44-46 %
Carbonate (CO_3) ..... ≤0,5 %
Chloride (Cl) ..... ≤0,01 %
Sodium hydroxide (NaOH) ..... ≤1 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
0995.1	1 l	plastic	27,45
Original pack 6 x 1 l			26,08/1 l
0995.2	2.5 l	plastic	45,05
Original pack 4 x 2.5 l			42,80/2.5 l
0995.4	5 l	plastic	79,05
Original pack 2 x 5 l			75,10/5 l
0995.3	10 l	plastic	133,85
0995.5	25 l	plastic	281,15

Potassium hydroxide solution 20 %

Potassium hydroxide solution
20 %, pure

KOH · D 1,19 g/cm³ · bp >100 °C

UN no. 1814 · ADR 8 II · WGK 1

Danger H290-H302-H314

Type analysis
Appearance ..... clear, colorless
Assay (KOH) ..... 19,0-21,0 %
Density (20 °C) 1,177-1,196

Art. No.	Pack Qty.	Pack.	€
4330.1	1 l	plastic	24,20
Original pack 6 x 1 l			22,99/1 l
4330.2	2.5 l	plastic	41,40
Original pack 4 x 2.5 l			39,33/2.5 l
4330.3	5 l	plastic	69,35
Original pack 2 x 5 l			65,88/5 l
4330.4	10 l	plastic	111,30
4330.5	25 l	plastic	213,95

Potassium hydroxide solution (0.01 N)

Potassium hydroxide solution
0,01 mol/l – 0,01 N, volumetric standard solution

KOH · D 1 g/cm³ · bp 100 °C

WGK 1

Type analysis
Titer 0,995-1,005
Amount-of-substance conc. (20 °C) .. 0,01 mol/l ± 0,5 %

Art. No.	Pack Qty.	Pack.	€
1E31.1	1 l	plastic	47,85
Original pack 6 x 1 l			45,46/1 l

Potassium hydroxide solution (0.1 N)

Potassium hydroxide solution
0,1 mol/l – 0,1 N, volumetric standard solution

KOH · D 1,003 g/cm³ · mp ~0 °C · bp 100 °C

UN no. 1814 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
K018.1	1 l	plastic	29,60
Original pack 6 x 1 l			28,12/1 l
K018.2	5 l	plastic	94,10
Original pack 2 x 5 l			89,40/5 l
K018.3	5 l	ROTI®CUBE	97,75
Original pack 2 x 5 l			92,86/5 l

Potassium hydroxide solution
ROTI®Volum 0,1 mol/l – 0,1 N

Ampoule for preparation of 1000 ml volumetric solution.

KOH · D 1,19 g/cm³ · bp 100 °C

UN no. 1814 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
CN53.1	1 unit(s)	plastic ampoule	26,35

Potassium hydroxide solution (0.5 N)

Potassium hydroxide solution
0,5 mol/l – 0,5 N, volumetric standard solution

KOH · D 1,028 g/cm³ · bp 100 °C

UN no. 1814 · ADR 8 III · WGK 1

Danger H290-H314

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,5 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
N071.1	1 l	plastic	35,40
Original pack 6 x 1 l			33,63/1 l
N071.2	5 l	plastic	114,50
Original pack 2 x 5 l			108,78/5 l
N071.3	5 l	ROTI®CUBE	117,20
Original pack 2 x 5 l			111,34/5 l

Potassium hydroxide solution (1 N)

Potassium hydroxide solution
1 mol/l – 1 N, volumetric standard solution

KOH · D 1,045 g/cm³ · bp 100 °C

UN no. 1814 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Amount-of-substance conc. (20 °C) ..... 1 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
K017.1	1 l	plastic	29,60
Original pack 6 x 1 l			28,12/1 l
K017.2	5 l	plastic	80,10
Original pack 2 x 5 l			76,10/5 l
K017.3	5 l	ROTI®CUBE	84,40
Original pack 2 x 5 l			80,18/5 l

Potassium hydroxide solution
1 mol/l – 1 N, volumetric standard solution, Reag. Ph. Eur.

KOH · D 1,045 g/cm³ · bp 100 °C

UN no. 1814 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Amount-of-substance conc. (20 °C) ..... 1 mol/l
Measurement uncertainty ..... ±0,1 %

Art. No.	Pack Qty.	Pack.	€
9522.1	1 l	plastic	57,55
Original pack 6 x 1 l			54,67/1 l

Potassium hydroxide solution (3 N)

Potassium hydroxide solution
3 mol/l – 3 N, volumetric standard solution

KOH · D 1,135 g/cm³ · bp 100 °C

UN no. 1814 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Titer 0,998-1,002
Amount-of-substance conc. (20 °C) ..... 3 mol/l ± 0,2 %

Art. No.	Pack Qty.	Pack.	€
1E32.1	1 l	plastic	46,80
Original pack 6 x 1 l			44,46/1 l

Potassium hydroxide solution in ethanol

Potassium hydroxide solution in ethanol (0.05 N)

Potassium hydroxide solution in ethanol
0,05 mol/l – 0,05 N, volumetric standard solution

D 0,796 g/cm³ · mp -114 °C · bp >78 °C · flp 12 °C

UN no. 2924 · ADR 3 (8) II · WGK 1

Danger H225-H290-H319

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,05 mol/l ±0,4 %
Titer 0,996-1,004

Discolouration (yellow) is possible, but it has no effect on the usability.

Art. No.	Pack Qty.	Pack.	€
0765.1	1 l	glass	73,00
Original pack 6 x 1 l			69,35/1 l

Potassium hydroxide solution in ethanol (0.1 N)

Potassium hydroxide solution in ethanol
0,1 mol/l – 0,1 N, volumetric standard solution

D 0,827 g/cm³ · bp >78 °C · flp 12 °C

UN no. 2924 · ADR 3 (8) II · WGK 1

Danger H225-H290-H315-H319

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,4 %
Titer 0,996-1,004

Discolouration (yellow) is possible, but it has no effect on the usability.

Art. No.	Pack Qty.	Pack.	€
P706.1	1 l	glass	52,60
Original pack 6 x 1 l			49,97/1 l

Potassium hydroxide solution in ethanol (0.5 N)

Potassium hydroxide solution in ethanol
0,5 mol/l – 0,5 N, volumetric standard solution

D 0,842 g/cm³ · bp 78 °C · flp 12 °C

UN no. 2924 · ADR 3 (8) II · WGK 1

Danger H225-H290-H314

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,5 mol/l ±0,4 %
Titer 0,996-1,004

Discolouration (yellow) is possible, but it has no effect on the usability.
Note: Possible storage time is limited!

Art. No.	Pack Qty.	Pack.	€
P707.1	1 l	glass	73,00
Original pack 6 x 1 l			69,35/1 l

Potassium hydroxide solution in methanol

Potassium hydroxide solution in methanol (0.1 N)

Potassium hydroxide solution in methanol
0,1 mol/l – 0,1 N, volumetric standard solution

D 0,8107 g/cm³ · mp -98 °C · bp 64 °C · flp 11 °C

UN no. 3286 · ADR 3 (6.1, 8) II · WGK 2

Danger H225-H290-H301+H311+H331-H315-H319-H370

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
KK66.1	1 l	glass	40,75
Original pack 6 x 1 l			38,71/1 l

Potassium hydroxide solution in methanol (0.5 N)

Potassium hydroxide solution in methanol
0,5 mol/l – 0,5 N, volumetric standard solution

D 0,8442 g/cm³ · bp 64 °C · flp <21 °C

UN no. 3286 · ADR 3 (6.1, 8) II · WGK 2

Danger H225-H290-H301+H311+H331-H314-H370

Type analysis
Titer ..... 0,998 - 1,002
Amount-of-substance conc. (20 °C) ..... 0,5 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
KK67.1	1 l	glass	40,75
Original pack 6 x 1 l			38,71/1 l

Potassium hydroxide solution in isopropanol (0.1 N)

D 0,812 g/cm³ · bp 82 °C · flp 13 °C
UN no. 2924 · ADR 3 (8) II · WGK 1

Danger H225-H290-H315-H319-H336

Potassium hydroxide solution in isopropanol
0,1 mol/l – 0,1 N, volumetric standard solution

For determination of neutralisation number acc. to DIN 51558 part 1.

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
KK68.1	1 l	glass	65,50
Original pack 6 x 1 l			62,23/1 l

Potassium iodate

KIO_3 · D 3,52 g/cm³ · mp 560 °C
CAS No. 7758-05-6 · EC no. 231-831-9
UN no. 1479 · ADR 5.1 II · WGK 1

Danger H272-H318

Potassium iodate
≥99,4 %, p.a., ACS

Titrimetric standard substance in iodometry and in determination of morpholine.

Guarantee analysis
Assay (iodom.) ..... 99,4-100,4 %
pH value (5 % solution) 5,0-8,0
In H_2O insoluble matter ..... ≤0,005 %
Nitrogen compounds (as N) ..... ≤0,005 %
Bromide and chloride (as Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,005 %
Iodide (I) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
Sodium (Na) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
P751.1	100 g	plastic	46,15
P751.2	250 g	plastic	99,90

Potassium iodate
≥99 %, extra pure

Type analysis
Appearance ..... white crystals
Assay ..... ≥99,0 %
pH value (5 % solution) 5,0-8,0
Chlorate (as Cl) ..... ≤0,01 %
Iodide (I) ..... ≤0,002 %
Loss on drying ..... ≤0,5 %
Arsenic (As) ..... ≤0,0002 %
Lead (Pb) ..... ≤0,0004 %
Cadmium (Cd) ..... ≤0,001 %
Mercury (Hg) ..... ≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
5301.1	100 g	plastic	42,90
5301.2	500 g	plastic	181,70
Original pack 6 x 500 g			172,62/500 g
5301.3	1 kg	plastic	342,95
Original pack 6 x 1 kg			325,80/1 kg
5301.4	2.5 kg	plastic	747,15

Potassium iodide

KI · D 3,12 g/cm³ · mp 681 °C · bp 1325 °C
CAS No. 7681-11-0 · EC no. 231-659-4
WGK 3

Danger H372

Potassium iodide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5067.1	25 g	plastic	167,20

Potassium iodide
≥99,5 %, p.a., ISO

Reagent used in iodometry and for the preparation of iodine-starch paper.

Guarantee analysis
Assay (dry substance) ..... ≥99,5 %
pH value (5 % solution) 6,0-8,0
Loss on drying (105 °C) ..... ≤0,2 %
Chloride and bromide (as Cl) ..... ≤0,01 %
Iodate (IO_3) ..... ≤0,0003 %
Phosphate (PO_4) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Barium (Ba) ..... ≤0,002 %
Calcium (Ca) ..... ≤0,002 %
Iron (Fe) ..... ≤0,0003 %
Magnesium (Mg) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
6750.4	50 g	glass	26,80
6750.1	250 g	glass	107,00
6750.3	500 g	glass	198,90
Original pack 6 x 500 g			188,96/500 g
6750.2	1 kg	glass	375,20
Original pack 6 x 1 kg			356,44/1 kg
6750.5	2.5 kg	glass	740,70
6750.6	5 kg	plastic	1.392,15

Potassium iodide
≥99 %, Ph. Eur., USP, BP

Guarantee analysis
Appearance ..... white to almost white crystalline powder
Identity ..... complies
Assay ..... 99,0-100,5 %
Appearance of solution ..... complies
Alkaline reacting substances ..... complies
Iodate (IO_3) ..... complies
Sulphate (SO_4) ..... ≤0,015 %
Thiosulphate (S_2O_3) ..... complies
Heavy metals (as Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,002 %
Loss on drying (105 °C) ..... ≤1,0 %

The product contains no anti-caking agent. Possible caking can be crushed with a spatula.

Art. No.	Pack Qty.	Pack.	€
8491.4	100 g	glass	42,90
8491.1	250 g	glass	103,10
8491.3	500 g	glass	192,45
Original pack 6 x 500 g			182,83/500 g
8491.2	1 kg	glass	364,45
Original pack 6 x 1 kg			346,23/1 kg
8491.5	2.5 kg	glass	708,45

Potassium iodide
≥99 %, extra pure

Type analysis
Assay (dry substance) ..... ≥99,0 %
Sulphate (SO_4) ..... ≤0,05 %
Iron (Fe) ..... ≤0,005 %
Heavy metals ..... ≤0,005 %
Loss on drying ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
0323.1	100 g	glass	38,60
0323.2	500 g	glass	145,15
Original pack 6 x 500 g			137,89/500 g
0323.3	1 kg	glass	274,15
Original pack 6 x 1 kg			260,44/1 kg
0323.4	2.5 kg	glass	547,20

Potassium iodide solution

D 1,01 g/cm³ · bp 100 °C
WGK 3

Danger H372

Potassium iodide solution
10 %, p.a.

Type analysis
Assay (mass %) ..... ~10 %

Art. No.	Pack Qty.	Pack.	€
8121.1	1 l	plastic	65,50
Original pack 6 x 1 l			62,23/1 l

Potassium lactate
▸ Lactic acid potassium salt see page 1032

Potassium *meta*bisulphite
▸ Potassium disulphite see page 1172

Potassium *meta*-periodate
▸ Potassium periodate see page 1178

Potassium myronate
▸ Sinigrin monohydrate see page 1275

Potassium nitrate

KNO_3 · D 2,1 g/cm³ · mp 334 °C
CAS No. 7757-79-1 · EC no. 231-818-8
UN no. 1486 · ADR 5.1 III · WGK 1

Warning H272

Potassium nitrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5659.1	10 g	plastic	70,45
5659.2	50 g	plastic	224,70

Potassium nitrate
≥99 %, p.a., ISO

Reagent for the oxidative disintegration of anorganic and organic samples.

Guarantee analysis
Assay (titr. NaOH) ..... ≥99,0 %
pH value (5 % in water) ..... 5 - 8
In H_2O insoluble matter ..... ≤0,005 %
Ammonium (NH_4) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,0005 %
Nitrite (NO_2) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,003 %
Iodate (IO_3) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,002 %
Sodium (Na) ..... ≤0,02 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,0003 %

Art. No.	Pack Qty.	Pack.	€
P021.1	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
P021.2	1 kg	plastic	83,75
Original pack 6 x 1 kg			79,56/1 kg
P021.3	2.5 kg	plastic	181,70

Potassium nitrate
≥99 %, Ph. Eur., BP

Guarantee analysis
Assay (acidim., dry substance) ..... ≥99,0 %
Identity ..... complies
pH (5 % in H_2O) 4,5- 8,5
Appearance of solution ..... complies
In H_2O insoluble matter ..... ≤0,025 %
Loss on drying (105 °C) ..... ≤0,5 %
Residual solvents ..... complies
Acid or alkaline react. substances ..... complies
Reducible substances ..... complies
Chloride (Cl) ..... ≤0,002 %
Phosphate (PO_4) ..... ≤0,003 %
Sulphate (SO_4) ..... ≤0,01 %
Ammonium (NH_4) ..... ≤0,005 %
Arsenic (As) ..... ≤0,0002 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,001 %
Copper (Cu) ..... ≤0,03 %
Magnesium (Mg) ..... ≤0,005 %
Sodium (Na) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4397.1	500 g	plastic	51,50
Original pack 6 x 500 g			48,93/500 g
4397.2	1 kg	plastic	94,50
Original pack 6 x 1 kg			89,78/1 kg
4397.3	5 kg	plastic	407,45

Potassium nitrate
≥99 %, with anti-caking agent

Type analysis
Assay (KNO_3) ..... ≥99,0 %
Loss on drying (105 °C) ..... ≤0,1 %
Chloride (Cl) ..... ≤0,2 %
Insoluble matter ..... ≤0,035 %
Anticaking agent ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8001.1	500 g	plastic	19,25
Original pack 6 x 500 g			18,29/500 g
8001.3	1 kg	plastic	28,95
Original pack 6 x 1 kg			27,50/1 kg
8001.2	2.5 kg	plastic	54,75

Potassium nitrate solution (1 N)

D 1,06 g/cm³
WGK 3

Potassium nitrate solution
1 mol/l – 1 N, volumetric standard solution

Type analysis
Amount-of-substance conc. (20 °C) ..... 1 mol/l ±0,5 %
Titer 0,9950-1,0050

Art. No.	Pack Qty.	Pack.	€
9898.1	500 ml	plastic	46,80
9898.2	1 l	plastic	77,30
Original pack 6 x 1 l			73,44/1 l

Potassium oxalate

▸ di-Potassium oxalate monohydrate
see page 1178

di-Potassium oxalate monohydrate

Potassium oxalate · Oxalic acid di-potassium salt monohydrate

$C_2K_2O_4 \cdot H_2O$ · D 2,13 g/cm³
CAS No. 6487-48-5 · EC no. 209-506-8
WGK 1

Warning H302+H312

di-Potassium oxalate monohydrate
≥98,5 %, p.a., ACS

For determination of Manganese.

Guarantee analysis
Assay (perm.) ..... 98,5-101,0 %
In H_2O insoluble matter ..... ≤0,01 %
Neutrality ..... complies
Chloride (Cl) ..... ≤0,002 %
Sulphate (SO_4) ..... ≤0,01 %
Ammonium (NH_4) ..... ≤0,002 %
Dark coloured substance with H_2SO_4 .... complies
Heavy metals (as Pb) ..... ≤0,002 %
Iron (Fe) ..... ≤0,001 %
Sodium (Na) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
HN38.1	250 g	plastic	36,45
HN38.2	500 g	plastic	58,60
Original pack 6 x 500 g			55,67/500 g
HN38.3	1 kg	plastic	106,45
Original pack 6 x 1 kg			101,13/1 kg

di-Potassium oxalate monohydrate
≥98 %, extra pure

Type analysis
Appearance ..... white cryst. powder
Assay ($C_2K_2O_4 \cdot H_2O$) ..... ≥98,0 %
Sulphate (SO_4) ..... ≤1,0 %
Chloride (Cl) ..... ≤0,1 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
4264.3	500 g	plastic	29,60
Original pack 6 x 500 g			28,12/500 g
4264.1	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg
4264.4	5 kg	plastic	213,95
4264.2	10 kg	plastic	418,20

Potassium oxide hydrate

▸ Potassium hydroxide see page 1175

Potassium periodate

Potassium *meta*-periodate

KIO_4 · D 3,618 g/cm³ · mp 582 °C
CAS No. 7790-21-8 · EC no. 232-196-0
UN no. 3085 · ADR 5.1 (8) I · WGK 3

Danger H271-H314-H335-H372-H410

Potassium periodate
≥99,8 %, p.a., ACS

Guarantee analysis
Assay (dry substance) ..... 99,8-100,3 %
Solubility ..... complies
Other halogens (as Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,01 %
Manganese (Mn) ..... ≤0,0001 %
Loss on drying ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
2588.1	25 g	plastic	36,05
2588.2	100 g	plastic	85,90
2588.3	500 g	plastic	317,15
Original pack 6 x 500 g			301,29/500 g

Potassium permanganate

$KMnO_4$ · D 2,7 g/cm³ · mp >240 °C
CAS No. 7722-64-7 · EC no. 231-760-3
UN no. 1490 · ADR 5.1 II · WGK 3

Danger H272-H302-H314-H361d-H373-H410

Potassium permanganate
≥99 %, p.a., ACS

Oxidizing agent, volumetric solution in manganometry.

Guarantee analysis
Assay (iodom.) ..... ≥99,0 %
In H_2O insoluble matter ..... ≤0,2 %
Chloride, chlorate (as Cl) ..... ≤0,005 %
Nitrogen compounds (as N) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
P752.1	500 g	plastic	67,65
Original pack 6 x 500 g			64,27/500 g
P752.2	1 kg	plastic	112,90
Original pack 6 x 1 kg			107,26/1 kg
P752.3	2.5 kg	plastic	224,70

Potassium permanganate
≥99 %, Ph. Eur., USP, BP

Guarantee analysis
Assay (titr.) ..... 99,0-100,5 %
Appearance of solution ..... complies
Identity ..... complies
In H_2O insoluble matter ..... ≤0,2 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,05 %
Loss on drying (105 °C) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8004.1	250 g	plastic	30,00
8004.2	1 kg	plastic	76,25
Original pack 6 x 1 kg			72,44/1 kg
8004.3	5 kg	plastic	268,75

Potassium permanganate
≥98 %, technical

Type analysis
Assay ..... ≥98,0 %
Chloride (Cl) ..... ≤0,1 %
Sulphate (SO_4) ..... ≤0,5 %
Insoluble matter ..... ≤1,0 %
Water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
1HH5.1	500 g	plastic	30,00
Original pack 6 x 500 g			28,50/500 g
1HH5.2	1 kg	plastic	49,35
Original pack 6 x 1 kg			46,88/1 kg
1HH5.3	5 kg	plastic	170,95
1HH5.4	10 kg	plastic	310,70

Potassium permanganate solution

CAS No. 7722-64-7 · EC no. 231-760-3

Potassium permanganate solution (0.1 N)

Potassium permanganate solution
0,02 mol/l – 0,1 N, volumetric standard solution

D 1,002 g/cm³ · bp 100 °C

UN no. 3082 · ADR 9 III · WGK 3

H411

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,02 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
K019.1	1 l	glass	30,65
Original pack 6 x 1 l			29,12/1 l

Potassium permanganate solution
0,02 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.

D 1,002 g/cm³ · bp 100 °C

UN no. 3082 · ADR 9 III · WGK 3

H411

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,02 mol/l
Measurement uncertainty ..... ±0,1 %

Art. No.	Pack Qty.	Pack.	€
9523.1	1 l	glass	56,45
Original pack 6 x 1 l			53,63/1 l

Potassium permanganate solution (0.5 N)

Potassium permanganate solution
0,1 mol/l – 0,5 N, volumetric standard solution

D 1,009 g/cm³ · bp 100 °C

UN no. 3082 · ADR 9 III · WGK 3

Warning H315-H319-H411

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
KK69.1	1 l	glass	43,55
Original pack 6 x 1 l			41,37/1 l

Potassium peroxodisulphate

▸ Potassium persulphate see page 1179

Potassium peroxymonosulphate triple salt

Pentapotassium bis(peroxymonosulphate) bis(sulphate)

$H_3K_5O_{18}S_4$ · D 2,35 g/cm³ · mp 90 °C
CAS No. 70693-62-8 · EC no. 274-778-7
UN no. 3260 · ADR 8 II · WGK 1

Danger H302-H314-H412-EUH208

Potassium peroxymonosulphate triple salt
pure

Oxidant

Type analysis
Active oxygen ..... ≥4,5 %
Water ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
1AA1.1	100 g	plastic	21,00
1AA1.2	500 g	plastic	38,20
Original pack 6 x 500 g			36,29/500 g
1AA1.3	1 kg	plastic	64,40
Original pack 6 x 1 kg			61,18/1 kg
1AA1.4	2.5 kg	plastic	138,70

Potassium persulphate

Potassium peroxodisulphate

$K_2S_2O_8$ · D 2,48 g/cm³ · mp 100 °C
CAS No. 7727-21-1 · EC no. 231-781-8
UN no. 1492 · ADR 5.1 III · WGK 1

Danger H272-H302-H315-H317-H319-H334-H335

Potassium persulphate
≥99 %, extra pure

Type analysis
Assay ..... ≥99,0 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
6795.2	500 g	plastic	30,00
Original pack 6 x 500 g			28,50/500 g
6795.1	1 kg	plastic	41,85
Original pack 6 x 1 kg			39,76/1 kg
6795.3	5 kg	plastic	117,75

sec. Potassium phosphate

▸ di-Potassium hydrogen phosphate see page 1174

tri-Potassium phosphate

Potassium phosphate tribasic

K_3PO_4 · D 2,564 g/cm³ · mp 1340 °C
CAS No. 7778-53-2 · EC no. 231-907-1
WGK 1

Danger H318-H335

tri-Potassium phosphate
≥97 %, pure, anhydrous

Type analysis
Assay (dry substance) ..... ≥97,0 %
As (Arsenic) ..... ≤0,0005 %
Pb (Lead) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,001 %
Loss on ignition (800 °C) ..... ≤5,0 %
pH (1 % solution) 11,5-12,5
In water insoluble matter ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
1H55.1	100 g	plastic	27,85
1H55.2	500 g	plastic	69,80
Original pack 6 x 500 g			66,31/500 g
1H55.3	1 kg	plastic	127,95
Original pack 6 x 1 kg			121,55/1 kg
1H55.4	2.5 kg	plastic	256,95

Potassium phosphate, dibasic

▸ di-Potassium hydrogen phosphate trihydrate see page 1174
▸ di-Potassium hydrogen phosphate see page 1174

Potassium phosphate monobasic

▸ Potassium dihydrogen phosphate see page 1171

Potassium phosphate tribasic

▸ tri-Potassium phosphate see page 1180
▸ tri-Potassium phosphate trihydrate see page 1180

tri-Potassium phosphate trihydrate

Potassium phosphate tribasic

K_3PO_4 · 3 H_2O · D 3,12 g/cm³ · mp >70 °C
CAS No. 22763-03-7 · EC no. 231-907-1
WGK 1

Danger H318-H335

tri-Potassium phosphate trihydrate
≥99 %, p.a.

Type analysis
Assay ..... ≥99,0 %
Chloride (Cl) ..... ≤0,005 %
Nitrogen (N) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,01 %
As (Arsenic) ..... ≤0,0001 %
Fe (Iron) ..... ≤0,005 %
Na (Sodium) ..... ≤0,05 %
Heavy metals ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
1HEE.1	100 g	plastic	23,55
1HEE.2	500 g	plastic	53,65
Original pack 6 x 500 g			50,97/500 g
1HEE.3	1 kg	plastic	91,30
Original pack 6 x 1 kg			86,74/1 kg
1HEE.4	2.5 kg	plastic	170,95

Potassium platinum(II) chloride

▸ Potassium tetrachloroplatinate(II) see page 1181

Potassium polysulphide

Potassium sulphide

$(k*K_2S)(l*K_2S_x)(m*K_2S_2O_3)(n*K_2SO_4)$ ·
D 2,192 g/cm³ · mp 195,5 to 201,9 °C ·
flp >200 °C
CAS No. 39365-88-3 · EC no. 677-755-3
WGK 1

Danger H302-H317-H318-EUH031

Potassium polysulphide
≥44 %, extra pure

Type analysis
Appearance ..... buff-coloured or yellow-green fragments
Assay (K_2S) ..... ≥44,0 %
Total nitrogen (as N) ..... ~0,01 %
In water insoluble matter ..... ~1,0 %
Size of fragments ..... ~5-60 mm

Art. No.	Pack Qty.	Pack.	€
8010.2	500 g	plastic	64,40
Original pack 6 x 500 g			61,18/500 g
8010.1	1 kg	plastic	118,80
Original pack 6 x 1 kg			112,86/1 kg
8010.3	2.5 kg	plastic	263,40

Potassium pyrochromat

▸ Potassium dichromate see page 1170

Potassium pyrosulphate

▸ Potassium disulphate see page 1171

Potassium pyrosulphite

▸ Potassium disulphite see page 1172

Potassium rhodanide

▸ Potassium thiocyanate see page 1182

Potassium silicate

Water glass · Liquid glass

D 1,25 g/cm³ · bp 100 °C
CAS No. 1312-76-1 · EC no. 215-199-1
WGK 3

Potassium silicate
extra pure, 28/30 °Bé

Type analysis
K_2O ..... 7,5-8,7 %
SiO_2 ..... 19,5-21,8 %
Density ..... 1,24-1,26 g/cm³

Art. No.	Pack Qty.	Pack.	€
0748.1	1 l	plastic	64,40
Original pack 6 x 1 l			61,18/1 l
0748.2	2.5 l	plastic	126,35
Original pack 4 x 2.5 l			120,03/2.5 l
0748.3	5 l	plastic	224,70
Original pack 2 x 5 l			213,47/5 l
0748.4	10 l	plastic	424,65

Potassium sodium tartrate solution

▸ Fehling's solution II see page 934

Potassium sodium tartrate tetrahydrate

Seignette salt

$C_4H_4KNaO_6 \cdot 4\ H_2O$ · D 1,79 g/cm³ · mp 70 to 80 °C
CAS No. 6381-59-5 · EC no. 205-698-2
WGK 1

Potassium sodium tartrate tetrahydrate
≥99 %, p.a., ACS, ISO

Used as a constituent of Fehling's solution.

Guarantee analysis

Assay (perchloric acid titration)	≥99 %
pH value (5 % in water)	6,5-8,5
In H_2O insoluble matter	≤0,003 %
Chloride (Cl)	≤0,0005 %
Sulphate (SO_4)	≤0,005 %
Phosphate (PO_4)	≤0,001 %
Ammonium (NH_4)	≤0,002 %
Arsenic (As)	≤0,00002 %
Lead (Pb)	≤0,0002 %
Calcium (Ca)	≤0,002 %
Iron (Fe)	≤0,0002 %
Copper (Cu)	≤0,0002 %
Magnesium (Mg)	≤0,002 %
Nickel (Ni)	≤0,0005 %
Heavy Metals (ICP-OES)	≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
8087.2	500 g	plastic	53,25
Original pack 6 x 500 g			50,59/500 g
8087.1	1 kg	plastic	89,15
Original pack 6 x 1 kg			84,69/1 kg
8087.3	2.5 kg	plastic	192,45

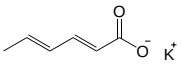
Potassium sodium tartrate tetrahydrate
≥99 %, USP

Guarantee analysis

Assay (dry substance)	99,0-102,0 %
Identity	complies
Water (KF)	21,0-27,0 %
Loss on drying (150 °C)	21,0-26,0 %
pH value (1 % in H_2O)	6,5-8,5
Ammonia (NH_3)	complies
Alkalinity	complies
Oxalate (as oxalic acid)	≤0,01 %
Heavy metals (as Pb)	≤0,001 %
Arsenic (As)	≤0,0003 %
Lead (Pb)	≤0,0005 %
Mercury (Hg)	≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
7998.3	500 g	plastic	37,10
Original pack 6 x 500 g			35,25/500 g
7998.1	1 kg	plastic	67,65
Original pack 6 x 1 kg			64,27/1 kg
7998.2	5 kg	plastic	246,20

Potassium sorbate



Sorbic acid potassium salt

$C_6H_7KO_2$ · D 1,36 g/cm³ · mp 205 to 270 °C
CAS No. 24634-61-5 · EC no. 246-376-1
WGK 1

Warning H319

Potassium sorbate
≥99 %, pure

Type analysis

Appearance	white crystalline powder
Assay	99-101 %
Loss on drying (105 °C, 3 h)	≤1,0 %
Melting range	133-135 °C
Alkalinity	≤1,0 %
Acid content	≤1,0 %
Aldehydes (as CH_2O)	≤0,1 %
Arsenic (As)	≤0,0003 %
Lead (Pb)	≤0,0002 %
Mercury (Hg)	≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
1AT7.1	250 g	plastic	25,70
1AT7.2	1 kg	plastic	81,60
Original pack 6 x 1 kg			77,52/1 kg
1AT7.3	2.5 kg	plastic	181,70
1AT7.4	10 kg	plastic	590,20

Potassium sorbate
≥99 %, pure, granulated

Type analysis

Appearance	white granules
Assay	≥99 %
Loss on drying	≤1,0 %
Acidity/alkalinity	≤1,0 %
Aldehydes	≤0,1 %
Arsenic (As)	≤0,0003 %
Lead (Pb)	≤0,0002 %
Mercury (Hg)	≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
1AT8.1	250 g	plastic	24,65
1AT8.2	1 kg	plastic	75,15
Original pack 6 x 1 kg			71,39/1 kg
1AT8.3	2.5 kg	plastic	169,35
1AT8.4	10 kg	plastic	557,95

Potassium sorbate
ROTI®Star Primary Standard

Type analysis

Assay (HPLC)	≥95,0 %
Residual solvents (GC)	≤1,0 %
Water (KF)	≤2,0 %
Assay (qNMR)	≥95,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE09.1	100 mg	glass	837,45

Potassium sorbate
ROTICHROM® Working Standard

Type analysis

Assay (HPLC)	≥85,0 %
Identity	complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC09.1	100 mg	glass	310,70

Potassium sulphate

K_2SO_4 · D 2,66 g/cm³ · mp 1067 °C · bp 1689 °C
CAS No. 7778-80-5 · EC no. 231-915-5
WGK 1

Potassium sulphate
ROTI®METIC 99,995 % (4N5)

Type analysis

Assay (metals basis)	≥99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5071.1	10 g	plastic	122,05

Potassium sulphate
≥99 %, p.a., ACS, ISO

For raising the boiling point.

Guarantee analysis

Assay	≥99,0 %
pH value (5 % in water)	5,5-8,0
In H_2O insoluble matter	≤0,01 %
Total nitrogen (as N)	≤0,0005 %
Chloride (Cl)	≤0,0005 %
Phosphate (PO_4)	≤0,001 %
Heavy metals (as Pb)	≤0,0005 %
Arsenic (As)	≤0,0002 %
Calcium (Ca)	≤0,005 %
Copper (Cu)	≤0,0005 %
Iron (Fe)	≤0,0005 %
Zinc (Zn)	≤0,0005 %
Cadmium (Cd)	≤0,0005 %
Magnesium (Mg)	≤0,002 %
Sodium (Na)	≤0,02 %
Lead (Pb)	≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
P022.1	500 g	plastic	50,00
Original pack 6 x 500 g			47,50/500 g
P022.2	1 kg	plastic	84,95
Original pack 6 x 1 kg			80,70/1 kg
P022.3	2.5 kg	plastic	188,15

Potassium sulphate
≥99 %, Ph. Eur.

Guarantee analysis

Assay (dry substance)	99,0-100,5 %
Identity	complies
Loss on drying	≤0,5 %
Appearance of solution	complies
Acidity/alkalinity	complies
pH-value (5%, water)	6,0-7,5
Chloride (Cl)	≤0,004 %
Heavy metals (as Pb)	≤0,001 %
Arsenic (As)	≤0,0002 %
Lead (Pb)	≤0,0002 %
Calcium (Ca)	≤0,02 %
Iron (Fe)	≤0,001 %
Magnesium (Mg)	≤0,002 %
Sodium (Na)	≤0,1 %
Mercury (Hg)	≤0,0001 %
Selenium (Se)	≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
CN79.1	500 g	plastic	22,50
Original pack 6 x 500 g			21,38/500 g
CN79.2	1 kg	plastic	34,30
Original pack 6 x 1 kg			32,59/1 kg
CN79.3	5 kg	plastic	126,35

Potassium sulphate
≥98 %, cryst.

Type analysis

Assay	≥98,0 %
Chloride (Cl)	~0,1 %
Calcium (Ca)	~0,02 %
Magnesium (Mg)	~0,02 %

Art. No.	Pack Qty.	Pack.	€
X889.1	500 g	plastic	19,25
Original pack 6 x 500 g			18,29/500 g
X889.2	1 kg	plastic	30,65
Original pack 6 x 1 kg			29,12/1 kg
X889.3	2.5 kg	plastic	60,10
X889.5	25 kg	plastic	482,70

Potassium sulphide

▸ Potassium polysulphide see page 1180

Potassium sulphocyanide

▸ Potassium thiocyanate see page 1182

Potassium tetraborate tetrahydrate

$K_2B_4O_7 \cdot 4\ H_2O$ · D 1,911 g/cm³ · mp >500 °C · bp 850 °C
CAS No. 12045-78-2 · EC no. 215-575-5
WGK 1

Warning H361d

Potassium tetraborate tetrahydrate
≥99,5 %, cryst.

Type analysis
Assay ..... ≥99,5 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,01 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
2615.1	250 g	plastic	26,80
2615.2	500 g	plastic	40,75
Original pack 6 x 500 g			38,71/500 g
2615.3	1 kg	plastic	67,65
Original pack 6 x 1 kg			64,27/1 kg

Potassium tetrachloroaurate(III)

$KAuCl_4$ · mp >300 °C
CAS No. 13682-61-6 · EC no. 237-190-1
WGK 1

Warning H315-H319-H335

Potassium tetrachloroaurate(III)
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5114.1	1 g	glass	335,95
5114.2	5 g	glass	1.370,65

Potassium tetrachloroplatinate(II)

Potassium platinum(II) chloride

K_2PtCl_4 · D 3,38 g/cm³
CAS No. 10025-99-7 · EC no. 233-050-9
UN no. 3288 · ADR 6.1 III · WGK 1

Danger H301-H315-H317-H318-H334

Potassium tetrachloroplatinate(II)
ROTI®METIC 99,95 % (3N5)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5660.1	1 g	plastic	315,55

Potassium tetrafluoroborate

KBF_4 · D 2,505 g/cm³ · mp 530 °C
CAS No. 14075-53-7 · EC no. 237-928-2
WGK 1

Potassium tetrafluoroborate
≥98 %, pure

Type analysis
Assay ..... ≥98,0 %
Sodium (Na) ..... ≤0,05 %
Chloride (Cl) ..... ≤0,05 %
Loss on drying (120 °C) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
1HE7.1	100 g	plastic	23,55
1HE7.2	500 g	plastic	47,85
Original pack 6 x 500 g			45,46/500 g
1HE7.3	1 kg	plastic	78,40
Original pack 6 x 1 kg			74,48/1 kg
1HE7.4	2.5 kg	plastic	155,90

Potassium tetraiodomercurate(II)

▸ Nessler's Reagent see page 1102

Potassium tetraoxalate

▸ Buffer solution
pH 1.679 ±0.03 (25 °C) see page 793

Potassium thiocyanate

Potassium rhodanide · Potassium sulphocyanide

KSCN · D 1,91 g/cm³ · mp 177 °C
CAS No. 333-20-0 · EC no. 206-370-1
WGK 1

Warning H302+H312+H332-H412-EUH032

Potassium thiocyanate
≥98,5 %, p.a., ACS

Reagent for the detection of iron(III)-ions.

Guarantee analysis
Assay (arg.) ..... ≥98,5 %
pH value (5 % solution) 5,3-8,7
In H_2O insoluble matter ..... ≤0,005 %
Iodine consuming substances (I) ..... complies
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,005 %
Ammonium (NH_4) ..... ≤0,003 %
Iron (Fe) ..... ≤0,0002 %
Sodium (Na) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
P753.1	500 g	plastic	96,65
Original pack 6 x 500 g			91,82/500 g
P753.2	1 kg	plastic	170,95
Original pack 6 x 1 kg			162,40/1 kg
P753.3	2.5 kg	plastic	403,15

Potassium thiocyanate solution (1 N)

D 1,047 g/cm³
WGK 1

EUH031

Potassium thiocyanate solution
1 mol/l – 1 N, volumetric standard solution

Type analysis
Amount-of-substance conc. (20 °C) ..... 1 mol/l ±0,2 %
Titer 0,9980-1,0020

Art. No.	Pack Qty.	Pack.	€
9899.1	1 l	plastic	77,30
Original pack 6 x 1 l			73,44/1 l

Potato Dextrose Agar (Ph.Eur. 6.3, 7.0, 8.0 and 9.0)

▸ Potato Extract Glucose Agar see page 1182

Potato Extract Glucose Agar

Potato Dextrose Agar
(Ph.Eur. 6.3, 7.0, 8.0 and 9.0) · PDA

WGK 1

Potato Extract Glucose Agar
Ph. Eur., for microbiology

For cultivation and identification of yeasts and moulds.

Application: Use 39 g for 1 l agar. Slightly opalescent.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Potato infusion ..... 4 g/l
Glucose ..... 20 g/l
Agar ..... 15 g/l
pH value ..... 5,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
X931.1	500 g	plastic	127,95
Original pack 6 x 500 g			121,55/500 g
X931.2	1 kg	plastic	227,40
Original pack 6 x 1 kg			216,03/1 kg
X931.3	2.5 kg	plastic	507,95

Potato Extract Glucose Broth

WGK 1

Potato Extract Glucose Broth
for microbiology

For identification, cultivation and enumeration of yeasts and moulds.

Application: Use 26.5 g for 1 l broth. Slightly opalescent.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Potato infusion ..... 6,5 g/l
Glucose ..... 20 g/l
pH value ..... 5,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
CP74.1	500 g	plastic	88,70
Original pack 6 x 500 g			84,27/500 g
CP74.2	1 kg	plastic	160,20
Original pack 6 x 1 kg			152,19/1 kg

Potato starch
- Starch from potatoes, soluble see page 1338
- Dextrin see page 870
- Starch from potatoes see page 1339

Povidon
- Polyvinylpyrrolidone see page 1165

Powdered milk

Skimmed milk powder · BLOTTO reagent · Milk powder

CAS No. 68514-61-4 · EC no. 271-045-3

Powdered milk
Blotting Grade, powdered, low in fat

For biochemistry, molecular biology and microbiology

Milk contains biotin.

Type analysis
Water ..... ≤4,0 %
Fat ..... ≤1,0 %
Ash ..... ≤8,5 %
Lactose ..... 45,0-54,0 %
Protein ..... 33,0-40,0 %
pH-value 6,4-6,7

Art. No.	Pack Qty.	Pack.	€
T145.1	250 g	plastic	18,20
T145.2	500 g	plastic	27,85
Original pack 6 x 500 g			26,46/500 g
T145.3	1 kg	plastic	45,05
Original pack 6 x 1 kg			42,80/1 kg
T145.5	2.5 kg	plastic	95,15
T145.4	5 kg	plastic	170,95

Powdered Milk Agar
- Plate Count Agar with Powdered Milk see page 1160

PPh_3
- Triphenylphosphine see page 1381

PPO
- 2,5-Diphenyloxazole see page 893

Praseodymium Standards
- Praseodymium ICP Standard Solution see page 1321
- Praseodymium ICP Standard Solution see page 1321

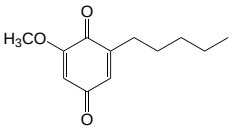
Precipitation reagent (DNA)
- Glycogen see page 968

Preston Agar
- Campylobacter Selective Agar (Base) see page 812

Preston Supplement
- Campylobacter Preston Supplement see page 812

Primer
- ROTH poly d(T)$_{12-18}$ Primer see page 1209
- ROTH Hexanucleotide Random-Primer Mix see page 1209
- ROTH Random-Primer sets for RAPD-PCR see page 1209

Primin



$C_{12}H_{16}O_3$ · mp 62 to 63 °C
CAS No. 15121-94-5
WGK 1

Danger H302+H312+H332-H317-H334

Primin
ROTICHROM® with analytical records

Synthetic

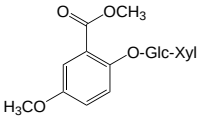
Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Analytical records: HPLC, TLC, ^{1}H NMR, ^{13}C NMR, UV, IR, MS, elementary analysis, melting point.

Art. No.	Pack Qty.	Pack.	€
T898.1	20 mg	glass	590,20

Primulaverin



$C_{20}H_{28}O_{13}$ · D 1,56 g/cm³ · mp 170 to 175 °C · flp 256 °C
CAS No. 154-61-0
WGK 1

Warning H302

Primulaverin
ROTICHROM® HPLC

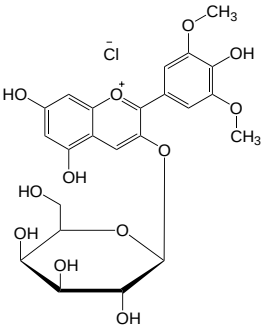
Reference substance for HPLC.
From *Primula veris*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1201.1	10 mg	glass	342,95

Primulin chloride



Malvidin 3-galactoside chloride

$C_{23}H_{25}O_{12}Cl$
CAS No. 30113-37-2
WGK 1

Primulin chloride
ROTICHROM® HPLC

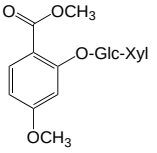
From *Vitis vinifera*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
K014.1	5 mg	plastic	671,90

Primverin



$C_{20}H_{28}O_{13}$ · D 1,56 g/cm³ · mp 185 to 190 °C · flp 259 °C
CAS No. 154-60-9
WGK 1

Warning H302

Primverin
ROTICHROM® HPLC

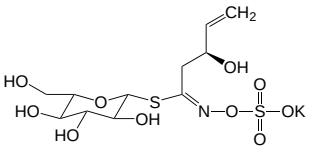
Reference substance for HPLC.
From *Primula veris*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
1203.1	10 mg	glass	342,95

Progoitrin



2-Hydroxybut-3-enyl glucosinolate potassium salt

$C_{11}H_{18}KNO_{10}S_2$
CAS No. 21087-77-4
WGK 1

Progoitrin
ROTICHROM® HPLC

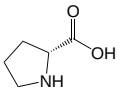
Reference substance for HPLC.
From *Brassica napus*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97,0 %

Art. No.	Pack Qty.	Pack.	€
2436.1	10 mg	glass	310,70

D-Proline



Pyrrolidine-2-carboxylic acid · H-D-Pro-OH

$C_5H_9NO_2$ · D 1,35 to 1,38 g/cm³ · mp 223 °C
CAS No. 344-25-2 · EC no. 206-452-7
WGK 1

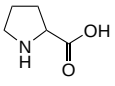
D-Proline
≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98,5 %
Specific rotation $[\alpha]_D^{20}$ (c=4 in H_2O) ..... +84,5° to +86,5°
Loss on drying ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
7888.1	1 g	glass	29,60
7888.2	5 g	plastic	85,90
7888.3	25 g	plastic	224,70

DL-Proline



Pyrrolidine-2-carboxylic acid · H-DL-Pro-OH

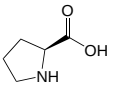
$C_5H_9NO_2$ · D 1,35 to 1,38 g/cm³ · mp 208 to 210 °C
CAS No. 609-36-9 · EC no. 210-189-3
WGK 1

DL-Proline
≥99 %, for biochemistry

Type analysis
Appearance ..... white to off-white powder
Assay (titr.) ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
5267.1	5 g	plastic	32,15
5267.2	10 g	plastic	58,60
5267.3	25 g	plastic	117,20

L-Proline



Pyrrolidine-2-carboxylic acid · H-L-Pro-OH

$C_5H_9NO_2$ · D 1,37 g/cm³ · mp 221 °C
CAS No. 147-85-3 · EC no. 205-702-2
WGK 1

L-Proline
CELLPURE® ≥98,5 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤6,0 E.U./g
Assay ..... ≥98,5 %
Loss on drying ..... ≤0,5 %
Specific rotation $[\alpha]_D^{20}$ ..... -86,0° to -84,0°
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,03 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
1713.1	25 g	plastic	37,10
1713.2	100 g	plastic	93,45
1713.3	500 g	plastic	349,40
Original pack 6 x 500 g			331,93/500 g

L-Proline
≥98,5 %, Ph. Eur., for biochemistry

Guarantee analysis
Appearance .... white to off-white cryst. powder or colourless crystals
Assay (dry substance) ..... 98,5-101,0 %
Identity ..... complies
Appearance of solution ..... complies
Specific rotation $[\alpha]_D^{20}$ ..... -86° to -84°
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,03 %
Iron (Fe) ..... ≤0,001 %
Elemental impurities ..... complies
Residual solvents ..... complies
Foreign amino acids ..... ≤0,5 %
Loss on drying ..... ≤0,5 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
T205.1	25 g	plastic	31,10
T205.2	100 g	plastic	79,05
T205.3	500 g	plastic	299,95
Original pack 6 x 500 g			284,95/500 g

Propanedioic acid

▸ Malonic acid see page 1064

1,2-Propanediol



Methyl ethyl glycol · Propylene glycol

$C_3H_8O_2$ · D 1,04 g/cm³ · mp <-20 °C · bp 184 °C · flp 104 °C
CAS No. 57-55-6 · EC no. 200-338-0
WGK 1

1,2-Propanediol
≥99,5 %, Ph. Eur.

Guarantee analysis
Assay ..... ≥99,5 %
Appearance ..... clear, colourless
Acidity ..... complies
Refractive index (20 °C) 1,4310-1,4330
Relative density 1,035-1,040
Oxidizing substances ..... complies
Reducing substances ..... complies
Boiling range ..... 184-189 °C
Sulphated ash ..... ≤0,01 %
Water ..... ≤0,2 %

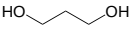
Art. No.	Pack Qty.	Pack.	€
1LA5.1	1 l	plastic	44,65
Original pack 6 x 1 l			42,42/1 l
1LA5.2	2.5 l	plastic	88,05
Original pack 4 x 2.5 l			83,65/2.5 l
1LA5.3	5 l	plastic	149,45
Original pack 2 x 5 l			141,98/5 l
1LA5.4	10 l	plastic	252,65
1LA5.5	25 l	plastic	525,70

1,2-Propanediol
≥99,5 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,5 %
Density (25 °C) ..... 1,035-1,040 g/cm³
Water (KF) ..... ≤0,2 %
Heavy metals ..... ≤0,0005 %
Arsenic (As) ..... ≤0,0003 %

Art. No.	Pack Qty.	Pack.	€
0340.1	1 l	plastic	34,30
Original pack 6 x 1 l			32,59/1 l
0340.2	2.5 l	plastic	65,50
Original pack 4 x 2.5 l			62,23/2.5 l
0340.3	5 l	plastic	117,20
Original pack 2 x 5 l			111,34/5 l
0340.4	10 l	plastic	209,65
0340.5	25 l	plastic	456,90

1,3-Propanediol



Trimethylene glycol · 1,3-Dihydroxypropane · PDO

$C_3H_8O_2$ · D 1,05 g/cm³ · mp -25 to -27 °C · bp 213 to 215 °C · flp >99 °C
CAS No. 504-63-2 · EC no. 207-997-3
WGK 1

1,3-Propanediol
≥98 %, for synthesis

Type analysis
Assay (GC) ..... ≥98 %
Density (20 °C) ..... 1,051-1,053 g/cm³
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
0958.1	100 ml	glass	26,35
0958.2	500 ml	glass	90,85
0958.3	1 l	glass	166,65
Original pack 6 x 1 l			158,32/1 l
0958.4	2.5 l	glass	353,70
Original pack 4 x 2.5 l			336,02/2.5 l

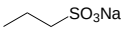
1,2-Propanediol cyclic carbonate

▸ Propylene carbonate see page 1188

1,2-Propanediol diacetate

▸ Propylene glycol diacetate see page 1188

Propane-1-sulphonic acid sodium salt



Sodium-1-propane sulphonate

$C_3H_7NaO_3S$
CAS No. 14533-63-2 · EC no. 238-564-7
WGK 1

Propane-1-sulphonic acid sodium salt

≥98 %, for ion pair chromatography

Ion pair reagent for HPLC.

Guarantee analysis

Assay (acidim.) ..... ≥98,0 %
Water ..... ≤2,0 %

Absorbance:
A 200 nm (0,005 M in Wasser) ..... ≤0,05 AU
A 210 nm (0,005 M in Wasser) ..... ≤0,03 AU
A 220 nm (0,005 M in Wasser) ..... ≤0,02 AU
A 230 nm (0,005 M in Wasser) ..... ≤0,02 AU
A 250 nm (0,005 M in Wasser) ..... ≤0,01 AU
A 260 nm (0,005 M in water) ..... ≤0,01 AU

Art. No.	Pack Qty.	Pack.	€
KK57.1	10 g	glass	64,40
KK57.2	25 g	glass	126,35
KK57.3	100 g	glass	370,90

1,2,3-Propanetriol

▸ Glycerol see page 965

Propanoic acid

▸ Propionic acid see page 1187

Propanoic anhydride

▸ Propionic anhydride see page 1187

n-Propanol

▸ 1-Propanol see page 1184

1-Propanol



1-Hydroxypropane · *n*-Propanol · *n*-Propyl alcohol

C_3H_8O · D 0,8 g/cm³ · mp -127 °C · bp 96 to 98 °C · flp 15 °C
CAS No. 71-23-8 · EC no. 200-746-9
UN no. 1274 · ADR 3 II · WGK 1

Danger H225-H318-H336

1-Propanol
ROTISOLV® HPLC

Guarantee analysis

Assay (GC) ..... ≥99,5 %
Water (KF) ..... ≤0,05 %
Acidity ..... ≤0,002 meq/g
Non volatile matter ..... ≤0,0003 %

Transmission:
300 nm ..... ≥99 %
290 nm ..... ≥98 %
250 nm ..... ≥90 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
T177.1	2.5 l	glass	155,35
Original pack 4 x 2.5 l			147,58/2.5 l

1-Propanol
ROTIPURAN® ≥99,5 %, p.a.

Guarantee analysis

Assay (GC) ..... ≥99,5 %
Water (KF) ..... ≤0,1 %
Density (d 20 °C/4 °C) 0,803-0,805
Acetone (GC) ..... ≤0,01 %
Ethanol (GC) ..... ≤0,05 %
Methanol (GC) ..... ≤0,05 %
2-Propanol (GC) ..... ≤0,05 %
Propionaldehyde (GC) ..... ≤0,03 %
Evaporation residue ..... ≤0,001 %
Lead (Pb) ..... ≤0,00001 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
6776.1	1 l	glass	69,80
Original pack 6 x 1 l			66,31/1 l
6776.2	2.5 l	glass	137,10
Original pack 4 x 2.5 l			130,25/2.5 l

1-Propanol
≥99,5 %, for synthesis

Type analysis

Assay (GC) ..... ≥99,5 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,1 %
Density (20 °C) 0,803-0,805

Art. No.	Pack Qty.	Pack.	€
9169.1	1 l	glass	35,40
Original pack 6 x 1 l			33,63/1 l
9169.2	2.5 l	glass	67,65
Original pack 4 x 2.5 l			64,27/2.5 l
9169.3	10 l	tinplate	169,35
9169.4	25 l	tinplate	321,45

2-Propanol



2-Hydroxypropane · Dimethyl carbinol · IPA · Isopropanol · Isopropyl alcohol

CAS No. 67-63-0 · EC no. 200-661-7
UN no. 1219 · ADR 3 II · WGK 1

Danger H225-H319-H336

2-Propanol
ROTISOLV® ≥99,95 %, Ultra LC-MS

C_3H_8O · D 0,79 g/cm³ · mp -89 °C · bp 82 to 83 °C · flp 12 °C

Guarantee analysis

Assay (GC) ..... ≥99,95 %
Colour (APHA) ..... ≤5
Water (KF) ..... ≤0,05 %
Acidity (as CH_3COOH) ..... ≤0,001 %
Alkalinity (as NH_3) ..... ≤0,0001 %
Evaporation residue ..... ≤0,0001 %
Aluminium (Al) ..... ≤20 ppb
Calcium (Ca) ..... ≤50 ppb
Iron (Fe) ..... ≤20 ppb
Potassium (K) ..... ≤50 ppb
Magnesium (Mg) ..... ≤20 ppb
Sodium (Na) ..... ≤50 ppb

Fluorescence (as quinine):
254 nm ..... ≤0,5 ppb
365 nm ..... ≤0,5 ppb

Gradient test:
235 nm ..... ≤0,001 AU
254 nm ..... ≤0,001 AU

Transmission:
250 nm ..... ≥99 %
230 nm ..... ≥90 %
220 nm ..... ≥80 %

Filtered through 0.1 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
0733.1	1 l	glass	74,75
Original pack 6 x 1 l			71,01/1 l
0733.2	2.5 l	glass	133,85
Original pack 4 x 2.5 l			127,16/2.5 l

2-Propanol
ROTISOLV® ≥99,95 %, LC-MS Grade

C_3H_8O · D 0,79 g/cm³ · mp -89 °C · bp 82 to 83 °C · flp 12 °C

Guarantee analysis

Assay (GC)	≥99,95 %
Colour (APHA)	≤5
Water (KF)	≤0,05 %
Free acid (as CH_3COOH)	≤0,001 %
Free alkali (as NH_3)	≤0,0005 %
Non volatile matter	≤0,0001 %
260 nm	≥98 %
220 nm	≥60 %
210 nm	≥30 %
Aluminium (Al)	≤0,05 ppm
Calcium (Ca)	≤0,05 ppm
Iron (Fe)	≤0,05 ppm
Potassium (K)	≤0,05 ppm
Magnesium (Mg)	≤0,05 ppm
Sodium (Na)	≤0,05 ppm
LC-MS suitability test	complies

Fluorescence (as quinine):

254 nm	≤0,5 ppb
365 nm	≤0,5 ppb

Gradient test UV absorption of the greatest eluated peak:

254 nm	≤0,001 AU

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
AE73.1	1 l	glass	52,60
Original pack 6 x 1 l			49,97/1 l
AE73.2	2.5 l	glass	104,85
Original pack 4 x 2.5 l			99,61/2.5 l

2-Propanol
ROTISOLV® HPLC

C_3H_8O · D 0,79 g/cm³ · mp -89 °C · bp 82 to 83 °C · flp 12 °C

Guarantee analysis

Assay (GC)	≥99,9 %
Water (KF)	≤0,05 %
Free acid	≤0,001 %
Non volatile matter	≤0,0001 %

Transmission:

255 nm	≥99 %
240 nm	≥90 %
210 nm	≥40 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
7343.2	1 l	glass	43,55
Original pack 6 x 1 l			41,37/1 l
7343.1	2.5 l	glass	92,35
Original pack 4 x 2.5 l			87,73/2.5 l

2-Propanol
ROTISOLV® Pestilyse® plus ≥99,9 %

For determination of dioxins, furans, PCBs, pesticides, hydrocarbons etc.

C_3H_8O · D 0,79 g/cm³ · mp -89 °C · bp 82 to 83 °C · flp 12 °C

Guarantee analysis

Assay (GC)	≥99,9 %
Colour (APHA)	≤10
Water (KF)	≤0,03 %
Free acid (as CH_3COOH)	≤0,001 %
Free alkali (as NH_3)	≤0,0001 %
Evaporation residue	≤0,0003 %
GC/ECD suitability (as heptachloro epoxide)	≤10 ng/l
GC/ECD dioxins, furans and PCBs (as lindane)	≤5 ng/l
GC/ECD pesticides (as lindane)	≤5 ng/l
GC/NPD pesticides (as parathion)	≤10 ng/l
PAH-test (less than 2 ppb, HPLC)	complies
Oil index (any hydrocarbon C_{10}-C_{40})	≤0,1 mg/l

Fluorescence (as quinine):

254 nm	≤1 ppb
365 nm	≤1 ppb

Transmission:

220 nm	≥80 %

Art. No.	Pack Qty.	Pack.	€
7590.1	2.5 l	glass	73,00
Original pack 4 x 2.5 l			69,35/2.5 l

2-Propanol
ROTISOLV® Pestilyse® ≥99,8 %

For residue and environmental analysis.

C_3H_8O · D 0,79 g/cm³ · mp -89 °C · bp 82 to 83 °C · flp 12 °C

Guarantee analysis

Assay (GC)	≥99,8 %
Water (KF)	≤0,1 %
Acidity	≤0,0005 meq/g
Evaporation residue	≤0,0005 %
GC/ECD (individual signal as lindane)	≤5 ng/l
GC/PND (individual signal as ethylparathion)	≤10 ng/l

Art. No.	Pack Qty.	Pack.	€
T902.1	2.5 l	glass	71,50
Original pack 4 x 2.5 l			67,93/2.5 l

2-Propanol
ROTISOLV® ≥99,9 %, UV/IR Grade

For chromatography and spectroscopy.

C_3H_8O · D 0,79 g/cm³ · mp -89 °C · bp 82 to 83 °C · flp 12 °C

Guarantee analysis

Assay (GC)	≥99,9 %
Water (KF)	≤0,05 %
Acidity	≤0,0005 meq/g
Evaporation residue	≤0,0005 %

Fluorescence (as quinine):

254 nm	≤1,0 ppb
365 nm	≤1,0 ppb

Transmission:

260 nm	≥98 %
242 nm	≥90 %
232 nm	≥80 %
217 nm	≥50 %
207 nm	≥10 %

Art. No.	Pack Qty.	Pack.	€
T910.1	2.5 l	glass	93,00
Original pack 4 x 2.5 l			88,35/2.5 l

2-Propanol
≥99,9 %, VLSI Grade

Semiconductor grade

C_3H_8O · D 0,79 g/cm³ · mp -89 °C · bp 82 to 83 °C · flp 12 °C

Guarantee analysis

Assay	≥99,9 %
Bead number (≥0,5 µm)	≤250 p/ml
Water	≤0,1 %
Alkalinity	<0,1 µeq/g
Acidity	<0,2 µeq/g
Colour (APHA)	≤10
Chloride (Cl)	≤0,0001 %
Nitrate (NO_3)	≤0,0001 %
Sulphate (SO_4)	≤0,0001 %
Sulphite (SO_3)	≤0,0001 %
Ash content	≤0,0005 %
Aluminium (Al)	≤20 ppb
Antimony (Sb)	≤10 ppb
Arsenic (As)	≤10 ppb
Barium (Ba)	≤20 ppb
Bismuth (Bi)	≤10 ppb
Lead (Pb)	≤10 ppb
Boron (B)	≤20 ppb
Cadmium (Cd)	≤10 ppb
Calcium (Ca)	≤50 ppb
Chromium (Cr)	≤10 ppb
Iron (Fe)	≤50 ppb
Gallium (Ga)	≤10 ppb
Gold (Au)	≤20 ppb
Potassium (K)	≤20 ppb
Cobalt (Co)	≤10 ppb
Copper (Cu)	≤10 ppb
Lithium (Li)	≤10 ppb
Magnesium (Mg)	≤50 ppb
Manganese (Mn)	≤10 ppb
Molybdenum (Mo)	≤10 ppb
Sodium (Na)	≤50 ppb
Nickel (Ni)	≤10 ppb
Silver (Ag)	≤10 ppb
Strontium (Sr)	≤20 ppb
Titanium (Ti)	≤10 ppb
Vanadium (V)	≤10 ppb
Zinc (Zn)	≤20 ppb
Tin (Sn)	≤10 ppb

Art. No.	Pack Qty.	Pack.	€
9781.1	2.5 l	plastic	89,15
Original pack 4 x 2.5 l			84,69/2.5 l
9781.2	5 l	plastic	146,75
Original pack 2 x 5 l			139,41/5 l

2-Propanol
≥99,5 %, for molecular biology

C_3H_8O · D 0,79 g/cm³ · mp -89 °C · bp 82 to 83 °C · flp 12 °C

Type analysis

Assay (GC)	≥99,5 %
Colour (APHA)	≤10
Water (KF)	≤0,05 %
Acidity (as CH_3COOH)	≤0,003 %
Evaporation residue	≤0,0005 %
DNAse	not detected
RNAse	not detected
Protease	not detected

Art. No.	Pack Qty.	Pack.	€
1HPK.1	1 l	glass	58,60
Original pack 6 x 1 l			55,67/1 l

2-Propanol
ROTIPURAN® ≥99,8 %, p.a., ACS, ISO

C_3H_8O · D 0,79 g/cm³ · mp -89 °C · bp 82 to 83 °C · flp 12 °C

Guarantee analysis

Assay (GC)	≥99,8 %
Colour (Hazen)	≤10
Acidity	≤0,0001 meq/g
Solubility in H_2O	complies
Density (d 20 °C/4 °C)	0,784-0,787
Water	≤0,05 %
Acetone (GC)	≤0,01 %
Ethanol (GC)	≤0,01 %
Methanol (GC)	≤0,01 %
Evaporation residue	≤0,001 %
Carbonylic compounds (as CO)	≤0,002 %
Matter discoloured by H_2SO_4 (Hazen)	≤10
Aluminium (Al)	≤0,00005 %
Barium (Ba)	≤0,00001 %

Lead (Pb) ..... ≤0,00001 %
Boron (B) ..... ≤0,000002 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %
Tin (Sn) ..... ≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
6752.1	1 l	glass	39,70
Original pack 6 x 1 l			37,72/1 l
6752.3	1 l	plastic	37,55
Original pack 6 x 1 l			35,67/1 l
6752.2	2.5 l	glass	94,10
Original pack 4 x 2.5 l			89,40/2.5 l
6752.4	2.5 l	plastic	91,95
Original pack 4 x 2.5 l			87,35/2.5 l
6752.5	5 l	plastic	152,15
Original pack 2 x 5 l			144,54/5 l
6752.7	10 l	PE/steel	267,70
6752.6	25 l	tinplate	493,45

2-Propanol
≥99,5 %, Ph. Eur., extra pure

C_3H_8O · D 0,79 g/cm³ · mp -89 °C · bp 82 to 83 °C · flp 12 °C

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Identity ..... complies
Appearance ..... complies
Acid or alkaline react. substances ..... complies
Density (d 20 °C/20 °C) 0,785-0,789
Refractive index n_D^{20} 1,376-1,379
Water (KF) ..... ≤0,5 %
Benzene (GC) ..... ≤0,0002 %
Benzene and related substances ..... ≤0,3 %
Peroxides ..... complies
Evaporation residue ..... ≤0,002 %

Absorbance:
230 nm ..... ≤0,3
250 nm ..... ≤0,1
270 nm ..... ≤0,03
290 nm ..... ≤0,02
310 nm ..... ≤0,01

Art. No.	Pack Qty.	Pack.	€
CP41.1	1 l	glass	32,80
Original pack 6 x 1 l			31,16/1 l
CP41.2	2.5 l	glass	68,70
Original pack 4 x 2.5 l			65,27/2.5 l
CP41.3	2.5 l	plastic	66,55
Original pack 4 x 2.5 l			63,22/2.5 l
CP41.4	5 l	plastic	109,15
Original pack 2 x 5 l			103,69/5 l
CP41.5	10 l	tinplate	185,45
CP41.6	25 l	tinplate	338,65

2-Propanol
≥99,5 %, for synthesis

C_3H_8O · D 0,79 g/cm³ · mp -89 °C · bp 82 to 83 °C · flp 12 °C

Type analysis
Assay (GC) ..... ≥99,5 %
Colour (Hazen) ..... ≤10
Water (KF) ..... ≤0,5 %
Density (20 °C) ..... 0,784-0,789 g/cm³
Refractive index n_D^{20} 1,375-1,379

Art. No.	Pack Qty.	Pack.	€
9866.1	1 l	glass	28,95
Original pack 6 x 1 l			27,50/1 l
9866.2	2.5 l	glass	66,55
Original pack 4 x 2.5 l			63,22/2.5 l
9866.5	2.5 l	plastic	64,40
Original pack 4 x 2.5 l			61,18/2.5 l
9866.6	5 l	plastic	105,90
Original pack 2 x 5 l			100,61/5 l
9866.3	10 l	tinplate	170,95
9866.4	25 l	tinplate	342,95

2-Propanol 70 %

2-Propanol
70 %, USP

C_3H_8O · D 0,85 to 0,86 g/cm³ · mp -89 °C · bp 82 °C · flp 12 °C

Guarantee analysis
Assay ..... 68,0-72,0 vol.-%
Water ..... 36,2-38,3 wt.-%
Appearance of solution ..... clear, colourless
Acidity ..... complies
Non volatile matter ..... ≤0,01 %
Relative density (20/20 °C) 0,872-0,883

Art. No.	Pack Qty.	Pack.	€
3510.1	1 l	plastic	37,10
Original pack 6 x 1 l			35,25/1 l
3510.2	2.5 l	plastic	73,00
Original pack 4 x 2.5 l			69,35/2.5 l
3510.3	5 l	plastic	128,50
Original pack 2 x 5 l			122,08/5 l
3510.4	10 l	plastic	231,15
3510.5	25 l	plastic	471,95

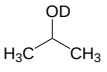
2-Propanol
70 %, pure

C_3H_8O · D 0,85 to 0,86 g/cm³ · mp -89 °C · bp 82 °C · flp 12 °C

Type analysis
Assay (V/V) ..... ~70 %
Density (20 °C) ..... 0,85-0,88 g/cm³
Refractive index (20 °C) 1,371-1,375

Art. No.	Pack Qty.	Pack.	€
CN09.1	1 l	plastic	26,35
Original pack 6 x 1 l			25,03/1 l
CN09.2	2.5 l	plastic	41,85
Original pack 4 x 2.5 l			39,76/2.5 l
CN09.3	5 l	plastic	71,95
Original pack 2 x 5 l			68,35/5 l
CN09.4	10 l	plastic	112,90
CN09.5	25 l	plastic	256,95

2-Propanol D1



Isopropanol deuterated

$(CH_3)_2CHOD$ · D 0,798 g/cm³ · mp -89,5 °C · bp 82,4 °C · flp 12 °C
CAS No. 3979-51-9 · EC no. 223-616-3
UN no. 1993 · ADR 3 II · WGK 1

Danger H225-H319-H336

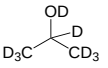
2-Propanol D1
98 Atom%D

For nuclear magnetic resonance spectroscopy.

Type analysis
Deuterising degree ..... ≥98 %
Water (KF, H_2O+D_2O) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
9917.1	25 ml	glass	155,90

2-Propanol D8



Isopropanol deuterated

C_3D_8O · D 0,79 g/cm³ · mp -89,5 °C · bp 82,4 °C · flp 12 °C
CAS No. 22739-76-0 · EC no. 245-189-2
UN no. 1219 · ADR 3 II · WGK 1

Danger H225-H319-H336

2-Propanol D8
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

Type analysis
Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
9919.1	5 ml	glass	152,15

2-Propanone
▸ Acetone see page 695

2-Propenamide
▸ Acrylamide see page 706

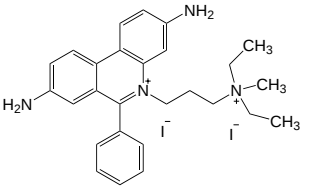
Propenamide
▸ Acrylamide see page 706

1,2,3-Propenetricarboxylic acid
▸ *trans*-Aconitic acid see page 705

trans-Propene-1,2,3-tricarboxylic acid
▸ *trans*-Aconitic acid see page 705

p-Propenylanisole
▸ Anethole see page 744

Propidiumiodide



3,8-Diamino-5-(3-diethylaminopropyl)-6-phenyl-phenanthridinium iodide-methiodide

$C_{27}H_{34}I_2N_4$ · mp 220 to 225 °C
CAS No. 25535-16-4 · EC no. 247-081-0
WGK 1

Warning H315-H319-H335-H341

Propidiumiodide
≥95 %, p.a.

For fluorescence staining of DNA.

Application: Living cells: approx. 1–5 mg/ml in medium. Fixed cells: approx. 1–50 µg/ml in PBS. Excitation maximum: 535 nm. Emission maximum: 617 nm. Note: Store solution and powder at +4 °C protected from light (stabile for approx. 6 months).

Storage temperature: +4 °C

Type analysis
Assay (TLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
CN74.1	25 mg	glass	92,35
CN74.2	50 mg	glass	158,60
CN74.3	100 mg	glass	281,15

Propionate Standards
▸ Propionate IC Standard Solution see page 1335

Propione
▸ Diethylketone see page 879

Propionic acid



Methylacetic acid · Propanoic acid

$C_3H_6O_2$ · D 0,99 to 0,995 g/cm³ · mp -20 °C · bp 140 to 142 °C · flp 50 °C
CAS No. 79-09-4 · EC no. 201-176-3
UN no. 3463 · ADR 8 (3) II · WGK 1

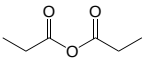
Danger H226-H314-H335

Propionic acid
≥99,5 %, for synthesis

Type analysis
Assay ..... ≥99,5 %
Colour (APHA) ..... ≤10
Water ..... ≤0,15 %

Art. No.	Pack Qty.	Pack.	€
6026.2	500 ml	glass	21,00
6026.1	1 l	glass	30,65
Original pack 6 x 1 l			29,12/1 l
6026.3	2.5 l	glass	62,25
Original pack 4 x 2.5 l			59,14/2.5 l

Propionic anhydride



Propanoic anhydride

$C_6H_{10}O_3$ · D 1,01 g/cm³ · mp -43 °C · bp 168 °C · flp 63 °C
CAS No. 123-62-6 · EC no. 204-638-2
UN no. 2496 · ADR 8 III · WGK 1

Danger H314

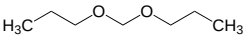
Propionic anhydride
≥98,5 %, for synthesis

Type analysis
Assay ..... ≥98,5 %
Acetic anhydride ($(CH_3CO)_2O$) ..... <0,05 %

Art. No.	Pack Qty.	Pack.	€
7432.1	100 ml	glass	18,20
7432.2	500 ml	glass	40,75
7432.3	1 l	glass	67,65
Original pack 6 x 1 l			64,27/1 l
7432.4	2.5 l	glass	144,60
Original pack 4 x 2.5 l			137,37/2.5 l

1-(Propoxymethoxy)propane
▸ Propylal see page 1187

Propylal



Dipropoxymethane · 1-(Propoxymethoxy) propane

$C_7H_{16}O_2$ · D 0,83 g/cm³ · mp -97,3 °C · bp 137,4 °C · flp 26 °C
CAS No. 505-84-0 · EC no. 208-021-9
UN no. 3271 · ADR 3 III · WGK 1

Warning H226-H412

Propylal
SOLVAGREEN® ≥99 %, for synthesis

Alternative for aromatics.

Type analysis
Assay ..... ≥99,0 %
Water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
0795.1	100 ml	glass	20,35
0795.2	500 ml	glass	44,00
0795.3	1 l	glass	64,40
Original pack 6 x 1 l			61,18/1 l
0795.4	2.5 l	glass	127,40
Original pack 4 x 2.5 l			121,03/2.5 l

n-Propyl alcohol
▸ 1-Propanol see page 1185

Propyl bromide



Bromopropane

C_3H_7Br · D 1,35 g/cm³ · mp -110 °C · bp 71 °C · flp 69 °C
CAS No. 106-94-5 · EC no. 203-445-0
UN no. 2344 · ADR 3 II · WGK 2

Danger H225-H304-H315-H319-H335-H336-H360-H373-H420

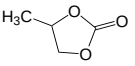
Propyl bromide
≥98 %, for synthesis

Type analysis
Appearance ..... colourless to yellowish liquid
Assay (GC) ..... ≥98 %
Density (d 20 °C/4 °C) ..... 1,351 - 1,353

Art. No.	Pack Qty.	Pack.	€
4631.1	100 ml	glass	18,20
4631.2	250 ml	glass	35,40
4631.3	1 l	glass	106,45
Original pack 6 x 1 l			101,13/1 l
4631.4	2.5 l	glass	241,90
Original pack 4 x 2.5 l			229,81/2.5 l

(±)-1,2-Propylene carbonate
▸ Propylene carbonate see page 1188

Propylene carbonate



(±)-1,2-Propylene carbonate · 1,2-Propanediol cyclic carbonate

$C_4H_6O_3$ · D 1,21 g/cm³ · mp -49 °C · bp 241 to 243 °C · flp 116 °C
CAS No. 108-32-7 · EC no. 203-572-1
WGK 1

Warning H319

Propylene carbonate
SOLVAGREEN® ≥99,7 %, for synthesis

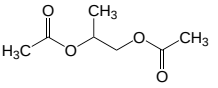
Alternative for acetone, DMF, chlorinated solvents.

Type analysis
Appearance ..... colourless liquid
Assay (GC) ..... ≥99,7 %
Water ..... ≤0,1 %
Colour (Hazen) ..... ≤10

Art. No.	Pack Qty.	Pack.	€
5022.2	100 ml	glass	17,10
5022.1	250 ml	glass	30,00
5022.3	1 l	glass	50,00
Original pack 6 x 1 l			47,50/1 l
5022.4	2.5 l	glass	96,65
Original pack 4 x 2.5 l			91,82/2.5 l

Propylene glycol
▸ 1,2-Propanediol see page 1184

Propylene glycol diacetate



1,2-Propanediol diacetate · PGDA

$C_7H_{12}O_4$ · D 1,051 g/cm³ · mp <-70 °C · bp 191,5 °C · flp 87 °C
CAS No. 623-84-7 · EC no. 210-817-6
WGK 1

Propylene glycol diacetate
≥99 %, pure

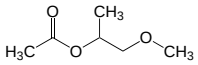
Type analysis
Assay ..... ≥99,0 %
Colour (Hazen) ..... ≤20
Density (d 20 °C/20 °C) 1,055-1,060

Art. No.	Pack Qty.	Pack.	€
7657.1	1 l	plastic	53,65
Original pack 6 x 1 l			50,97/1 l
7657.2	2.5 l	plastic	106,45
Original pack 4 x 2.5 l			101,13/2.5 l

Propylene glycol methyl ether

▸ 1-Methoxy-2-propanol see page 1081

Propylene glycol methyl ether acetate



1-Methoxy-2-propyl acetate · PMA

$C_6H_{12}O_3$ · D 0,967 g/cm³ · mp -66 °C · bp 145,8 °C · flp 45,5 °C
CAS No. 108-65-6 · EC no. 203-603-9
UN no. 3272 · ADR 3 III · WGK 1

Warning H226

Propylene glycol methyl ether acetate
≥99 %, pure

Type analysis
Assay (GC) ..... ≥99,0 %
Density (20 °C) ..... 0,965-0,970 g/cm³
Water (KF) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
7966.1	1 l	glass	52,15
Original pack 6 x 1 l			49,54/1 l
7966.2	2.5 l	glass	102,05
Original pack 4 x 2.5 l			96,95/2.5 l

Propyl 4-hydroxybenzoate

▸ 4-Hydroxybenzoic acid propyl ester see page 998

Propylparaben

▸ 4-Hydroxybenzoic acid propyl ester see page 998

Propynol ethoxylate

PME

$C_5H_8O_2$ · D 1,03 g/cm³
CAS No. 3973-18-0 · EC no. 223-601-1
WGK 1

Warning H319-H332

Propynol ethoxylate
≥98 %, for synthesis

For the production of nickel baths.

Type analysis
Assay ..... ≥98 %
pH-Wert (10 % in H_2O) 6-8
Loss on drying ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
3285.1	100 ml	glass	25,70
3285.2	500 ml	glass	76,90
3285.3	1 l	glass	127,95
Original pack 6 x 1 l			121,55/1 l

Protaminsulphate

▸ Salmine sulphate see page 1249

Protective Groups

Art. No.	Description	Page
4483	Acetic acid anhydride	692
7456	Benzoyl chloride	770
9671	4,4'-Dimethoxytrityl chloride (DMT-Cl)	885
2201	9-Fluorenylmethoxy-carbonyl chloride (Fmoc-Cl), PEPTIPURE®	938
2338	Trimethylchlorosilane (TMCS), PEPTIPURE®	1380
1444	2-(Trimethylsilyl)ethoxymethyl chloride	1381

Proteicolor®

▸ Silver nitrate see page 1273

Protein A/G agarose beads

▸ ROTI®Garose-Protein A/G HPBeads see page 1226

Proteinase K

Endopeptidase

CAS No. 39450-01-6 · EC no. 254-457-8

Proteinase K
≥35 U/mg, BioScience Grade, lyophilised

High-quality endopeptidase for molecular biology. Isolated from fungi (*Tritirachium album*).

Stock solution: 20 mg/ml in water. Storage temperature (stock solution): -20 °C

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Danger H315-H317-H319-H334-H335

Guarantee analysis
Appearance ..... white powder
Activity ..... ≥35 U/mg
Specific activity ..... ≥45 U/mg
Solubility in H_2O ..... ≥50 mg/ml
Assay DNA ..... ≤0,1 pg/mg
Exonuclease activity ..... not detectable
Endonuclease activity ..... not detectable
Ribonucleases activity ..... not detectable

Art. No.	Pack Qty.	Pack.	€
3726.1	100 mg	glass	203,20
3726.2	1 g	glass	919,15

Proteinase K
≥30 mAnson U/mg, lyophilized

Non-specific protease for degrading proteins in biological samples. Isolated from fungi (*Tritirachium album).*

Stock solution: 20 mg/ml in water. Storage temperature (stock solution): -20 °C.
Art. No. 7528.3: A The stock solution (20 mg/ml) can be prepared directly in the bottle.

Storage temperature: +4 °C

WGK 1

Danger H315-H317-H319-H334-H335

Guarantee analysis
Activity (Hemoglobin, 37 °C) ..... ≥30 U/mg
DNases, RNases ..... not detected
Endonucleases ..... not detected

Art. No.	Pack Qty.	Pack.	€
7528.1	100 mg	glass	117,20
7528.5	250 mg	glass	220,40
7528.2	500 mg	glass	396,70
7528.3	500 mg	glass	435,40
7528.4	1 g	glass	654,70
7528.6	5 g	glass	2.606,90

Protein G agarose beads

▸ ROTI®Garose-Protein G HPBeads see page 1226

Protein glycerol

D 1,1 g/cm³ · bp >110 °C · flp 180 °C
WGK 1

Protein glycerol
ready-to-use, for microscopy

For fixing and stretching of the cuts.

Type analysis

Art. No.	Pack Qty.	Pack.	€
P049.1	100 ml	glass	24,65

Protein quick test

▸ ROTITEST®Protein see page 1243
▸ Clean Card® PRO see page 840

Proteose Peptone

CAS No. 91079-38-8 · EC no. 293-426-3
WGK 3

Proteose Peptone
for microbiology

Rich component of microbiological nutrition media, particularly used for production of toxins and vaccines. From enzymatic digestion of animal tissue.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Total nitrogen ..... ≥10 %
Amino nitrogen ..... ≥3,4 %
Loss on drying ..... ≤6 %
Ash ..... ≤10 %
pH value (2 % solution) ..... 7,0 ±0,5

Art. No.	Pack Qty.	Pack.	€
HP32.1	500 g	plastic	158,60
Original pack 6 x 500 g			150,67/500 g

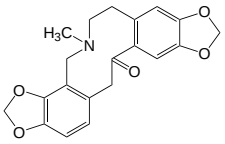
Protocatechualdehyde

▸ 3,4-Dihydroxybenzaldehyde see page 882

Protocatechuic acid

▸ 3,4-Dihydroxybenzoic acid see page 882

Protopine



Biflorine · Fumarine · Macleyine

$C_{20}H_{19}NO_5$ · mp 198 to 203 °C
CAS No. 130-86-9 · EC no. 204-999-6
UN no. 1544 · ADR 6.1 III · WGK 1

Warning H302

Protopine
ROTICHROM® HPLC

Reference substance for HPLC.
From *Chelidonium majus*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6690.1	10 mg	glass	317,15

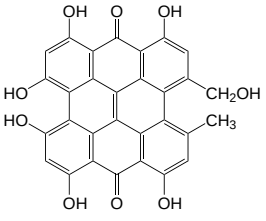
Prunetol
▸ Genistein see page 955

Prunin
▸ Naringenin-7-glucoside see page 1100

PSA
▸ Silica gel 60 diamino see page 1261

Pseudocef
▸ Cefsulodin sodium salt see page 822

Pseudohypericin



$C_{30}H_{18}O_9$ · mp 300 °C
CAS No. 55954-61-5
WGK 1

Pseudohypericin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Hypericum perforatum*.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
2846.1	5 mg	glass	590,20

Pseudomonas chromogenic Agar

WGK 3

Pseudomonas chromogenic Agar
for microbiology

For detection and isolation of *Pseudomonas*.

Application: Use 37 g for 1 l agar. Do not overheat!

Storage temperature: +4 °C

Composition
Nutrients ..... 14 g/l
Peptone ..... 10 g/l
Chromogene Mixture ..... 1 g/l
Bromothymol blue ..... 0,02 g/l
Agar ..... 12 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
3075.1	100 g	plastic	149,45

Pseudomonas Selective Agar (Base)

CN Agar

UN no. 3077 · ADR 9 III · WGK 3

Warning H410

Pseudomonas Selective Agar (Base)
DEV, ISO 11133, EN ISO 16266:2008, for microbiology

For determination and enumeration of *Pseudomonas aeruginosa* from water samples by membrane filtration method.

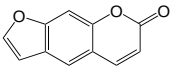
Application: Use 50.6 g for 990 ml agar. Add 10 ml glycerol.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Gelatine peptone ..... 16 g/l
Casein hydrolysed ..... 10 g/l
Anhydrous potassium sulphate ..... 10 g/l
Anhydrous magnesium chloride ..... 1,4 g/l
Cetrimide ..... 0,2 g/l
Nalidixic acid ..... 0,015 g/l
Agar ..... 13 g/l
pH value ..... 7,1 ±0,2

Art. No.	Pack Qty.	Pack.	€
CP67.1	500 g	plastic	181,70
Original pack 6 x 500 g			172,62/500 g

Psoralen



7-*H*-Furo[3,2-g]benzopyran-7-one

$C_{11}H_6O_3$ · mp 158 to 161 °C
CAS No. 66-97-7 · EC no. 200-639-7
WGK 1

Warning H302-H315-H319-H335

Psoralen
ROTICHROM® HPLC

Reference substance for HPLC.

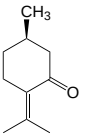
Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98,5 %

Art. No.	Pack Qty.	Pack.	€
7415.1	10 mg	glass	209,65

Pteroyl glutamic acid
▸ Folic acid see page 945

(+)-Pulegone



$C_{10}H_{16}O$ · D 0,936 g/cm³ · mp 25 °C ·
bp 224 °C · flp 82 °C
CAS No. 89-82-7 · EC no. 201-943-2
WGK 1

Warning H302

(+)-Pulegone
ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
5168.2	100 mg	glass	160,20

Pumice stone

mp 1200 °C
CAS No. 1332-09-8 · EC no. 215-108-5

Pumice stone
fine grained, <0,5 mm

Filtration aids. Bulk density 350-900 g/l

Art. No.	Pack Qty.	Pack.	€
5832.2	1 kg	plastic	23,15
Original pack 6 x 1 kg			21,99/1 kg
5832.1	2.5 kg	plastic	40,35

Pumice stone
2–5 mm

Filtration aids

Type analysis
Silicate (SiO_2) ..... 73-75 %
Aluminium oxide (Al_2O_3) ..... 12,0-13,0 %
Ferric oxide (Fe_2O_3) ..... 1,0-1,5 %
Magnesium oxide (MgO) ..... 0,1-0,5 %
Titanium dioxide (TiO_2) ..... 0,05-0,5 %
K (Potassium) ..... 2,5-3,5 %
Na (Sodium) ..... 2,0-2,5 %
Substances soluble in H_2O ..... 0,1-0,5 %
Water ..... 3,0-4,0 %

Art. No.	Pack Qty.	Pack.	€
1HHY.1	1 kg	plastic	23,15
Original pack 6 x 1 kg			21,99/1 kg
1HHY.2	2.5 kg	plastic	40,35
1HHY.3	5 kg	plastic	64,00

Purification solution for surfaces

- ROTI®Nucleic Acid-free see page 1231
- ROTI®Nucleic Acid-free see page 1231
- RNase AWAY® see page 1208
- DNA AWAY® see page 896

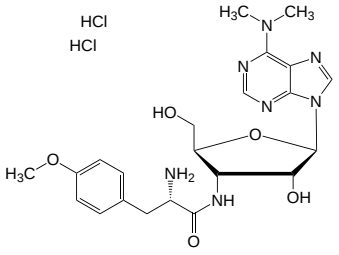
Purimycin

- Puromycin dihydrochloride see page 1190

1*H*-Purine-6-amine

- Adenine see page 708

Puromycin dihydrochloride



Purimycin

$C_{22}H_{29}N_7O_5$ · 2 HCl · mp 176 to 180 °C
CAS No. 58-58-2 · EC no. 200-387-8
WGK 1

Warning H302

Puromycin dihydrochloride
≥98 %, for biochemistry

Inhibitor of proteine biosynthesis, aminonucleoside antibiotic.

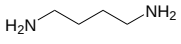
Stock solution: 1–100 mg/ml in H_2O or HEPES. Storage of stock solution: –20 °C. Working solution: 1–50 µg/ml

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white to off white powder
Assay (HPLC) ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
0240.1	5 mg	glass	27,85
0240.2	10 mg	glass	45,70
0240.3	25 mg	glass	96,25
0240.4	50 mg	glass	174,70

Putrescin



1,4-Diaminobutane · Tetramethylenediamine

$C_4H_{12}N_2$ · D 0,877 g/cm³ · mp 28 °C · bp 158 to 159 °C · flp 45 °C
CAS No. 110-60-1 · EC no. 203-782-3
UN no. 3286 · ADR 3 (6.1, 8) II · WGK 1

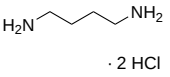
Danger H226-H290-H302-H311-H314-H330

Putrescin
≥99 %, for biochemistry

Type analysis
Appearance ..... colourless liquid or white solid
Assay (GC) ..... ≥99,0 %
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
8379.1	25 g	glass	26,80
8379.2	100 g	glass	55,40
8379.3	500 g	glass	174,70
Original pack 6 x 500 g			165,97/500 g

Putrescine dihydrochloride



1,4-Diaminobutane · Tetramethylenediamine

$C_4H_{12}N_2$ · 2 HCl · mp 280 °C
CAS No. 333-93-7 · EC no. 206-375-9
WGK 1

Warning H315-H319-H335

Putrescine dihydrochloride
≥97 %, for biochemistry

Type analysis
Assay (titr.) ..... ≥97 %
Solution (10 % in water) ..... colourless, clear
Water (KF) ..... ≤2 %
Loss on drying (3 h, 105 °C, vacuum) ..... ≤3 %
pH-value (10 % in H_2O) 3,0-6,0
Heavy metals (as Pb) ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
4141.1	10 g	glass	32,80
4141.2	25 g	glass	64,00
4141.3	50 g	glass	114,50

PVA

- Mowiol® 4-88 see page 1094

PVC

- Polyvinyl chloride see page 1165

PVP

- Polyvinylpyrrolidone see page 1165

PyBOP®

- Benzotriazole-1-yl-oxy-tris-pyrrolidino-phosphonium hexafluorophosphate (PyBOP®) see page 770

PyBrOP®

- Bromo-tris-pyrrolidino-phosphonium hexafluorophosphate (PyBroP®) see page 792

PyClock®

- 6-Chloro-benzotriazole-1-yl-oxy-tris-pyrrolidinophosphonium hexafluoro-phosphate (PyClock®) see page 831

PyOxim

- (Ethylcyano(hydroxyimino)-acetato-O_2)tri-1-pyrrolidinylphosphonium hexafluorophosphate (PyOxim) see page 920

Pyridine



C_5H_5N · D 0,982 g/cm³ · mp -41,6 °C · bp 115,2 °C · flp 17 °C
CAS No. 110-86-1 · EC no. 203-809-9
UN no. 1282 · ADR 3 II · WGK 2

Danger H225-H302+H312+H332-H315-H319

Pyridine
ROTIPURAN® ≥99,5 %, p.a., ACS

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Water ..... ≤0,1 %
Piperidine (GC) ..... ≤0,01 %
2-Methylpyridine (GC) ..... ≤0,1 %
Evaporation residue ..... ≤0,001 %
$KMnO_4$ reducing substances (as O) ... ≤0,0005 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,001 %
Aluminium (Al) ..... ≤0,00005 %
Ammonia (NH_3) ..... ≤0,002 %
Barium (Ba) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,00001 %
Boron (B) ..... ≤0,000002 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %
Tin (Sn) ..... ≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
9729.3	500 ml	glass	83,75
9729.1	1 l	glass	155,35
Original pack 6 x 1 l			147,58/1 l
9729.2	2.5 l	glass	321,45
Original pack 4 x 2.5 l			305,38/2.5 l

Pyridine
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,0 %
Water ..... ≤0,1 %
Evaporation residue ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
CP07.1	500 ml	glass	42,90
CP07.2	1 l	glass	81,60
Original pack 6 x 1 l			77,52/1 l
CP07.3	2.5 l	glass	171,50
Original pack 4 x 2.5 l			162,93/2.5 l

Pyridine D5

C_5D_5N · D 1,05 g/cm³ · mp -41 °C · bp 114 °C · flp 20 °C
CAS No. 7291-22-7 · EC no. 230-720-2
UN no. 1282 · ADR 3 II · WGK 1

Danger H225-H302+H312+H332-H315-H319

Pyridine D5
99,8 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging for 7922.2: 10 x 0,75 ml in ampoules

Type analysis
Deuterising degree ..... ≥99,8 %
Water (KF, H_2O+D_2O) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
7922.2	7.5 ml	glass ampoule	193,40
7922.1	10 ml	glass	191,25

Pyridine D5
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging for CP94.3: 10 x 0,75 ml in ampoules

Type analysis
Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,05 %

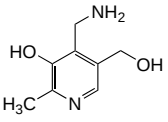
Art. No.	Pack Qty.	Pack.	€
CP94.3	7.5 ml	glass ampoule	171,90
CP94.1	10 ml	glass	166,65
CP94.2	10 ml	septum bottle	169,35

3-Pyridine carboxylic acid
▸ Nicotinic acid see page 1105

Pyridine-4-carboxylic acid
▸ Isonicotinic acid see page 1022

1-(3-Pyridinyl)-ethanone
▸ 3-Acetylpyridine see page 703

Pyridoxamine dihydrochloride



· 2 HCl

4-(Aminomethyl)-5-hydroxy-6-methyl-3-pyridinemethanol dihydrochloride

$C_8H_{14}Cl_2N_2O_2$ · mp 223 to 229 °C
CAS No. 524-36-7 · EC no. 208-357-6
WGK 1

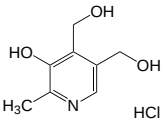
Warning H315-H319-H335

Pyridoxamine dihydrochloride
≥99 %

Type analysis
Appearance ..... white to off-white powder
Assay (HPLC) ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
5254.1	1 g	glass	51,50
5254.2	5 g	plastic	181,70

Pyridoxine hydrochloride



Adermine hydrochloride · Vitamin B_6 hydrochloride

$C_8H_{12}ClNO_3$ · D 0,8 g/cm³ · mp 217 °C
CAS No. 58-56-0 · EC no. 200-386-2
WGK 1

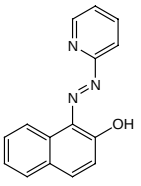
Danger H318

Pyridoxine hydrochloride
≥99 %, for biochemistry

Type analysis
Appearance .. white to almost white cryst. powder
Assay (titr. dry substance) ..... 99,0-101,0 %
pH value (5 % in H_2O) 2,4-3,0
Loss on drying ..... ≤0,5 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
T914.1	50 g	plastic	37,10
T914.2	100 g	plastic	64,40

1-(2-Pyridylazo)-2-naphthol



PAN

$C_{15}H_{11}N_3O$ · mp 138 to 141 °C
CAS No. 85-85-8 · EC no. 201-637-9
WGK 3

Warning H315-H319-H335

1-(2-Pyridylazo)-2-naphthol
≥98 %, p.a., ACS

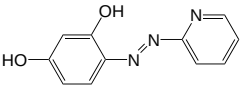
Metal indicator

Dissolve 0.01–0.1 g in 100 ml ethanol (96 %)

Guarantee analysis
Assay ..... ≥98,0 %
Melting point ..... 128-143 °C
Loss on drying (110 °C) ..... ≤5,0 %
Suitability as indicator for complexometry .. complies

Art. No.	Pack Qty.	Pack.	€
KK12.1	1 g	glass	24,65
KK12.2	5 g	glass	85,90

4-(2'-Pyridylazo)-resorcinol



PAR

$C_{11}H_9N_3O_2$ · mp 192 to 202 °C
CAS No. 1141-59-9 · EC no. 214-528-6
WGK 1

Warning H315-H319-H335

4-(2'-Pyridylazo)-resorcinol
p.a., ACS

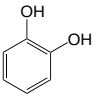
Metal indicator

Dissolve 0.1 g in 100 ml water

Guarantee analysis
Appearance ..... orange powder
Appearance of solution (ACS) ..... complies
Loss on drying ..... ≤5 %
Suitability as indicator for complexometry .. complies

Art. No.	Pack Qty.	Pack.	€
2564.1	5 g	glass	105,90
2564.2	25 g	glass	370,90

Pyrocatechol



1,2-Dihydroxybenzene

$C_6H_6O_2$ · D 1,34 to 1,37 g/cm³ · mp 105 °C · bp 245,5 °C · flp 127 °C
CAS No. 120-80-9 · EC no. 204-427-5
UN no. 2811 · ADR 6.1 III · WGK 2

Danger H301+H311-H315-H319-H341-H350

Pyrocatechol
≥99 %, for biochemistry

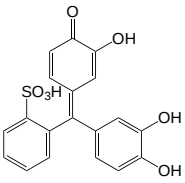
Type analysis
Assay (GC, area %) ..... ≥99 %
Melting range ..... 103-105 °C

Art. No.	Pack Qty.	Pack.	€
4249.1	25 g	glass	24,65

Pyrocatechol-3,5-disulfonic acid disodium salt
▸ Tiron see page 1370

Pyrocatecholsulphonphthalein
▸ Pyrocatechol violet see page 1192

Pyrocatechol violet



Catechol violet · Pyrocatecholsulphonphthalein

$C_{19}H_{14}O_7S$ · mp 185 °C
CAS No. 115-41-3 · EC no. 204-088-3
WGK 1

Pyrocatechol violet
p.a.

For metal titration

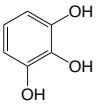
Dissolve 0.1 g in 100 ml water

Type analysis
Appearance ..... dark-green metallic to brown powder
Appearance of solution (0,1 % in H_2O) ..... clear
Absorption max. (CH_3OH) ..... 441-449 nm
Suitability as indicator for complexometry .. complies

Art. No.	Pack Qty.	Pack.	€
1H5P.1	1 g	glass	18,20
1H5P.2	5 g	glass	40,35
1H5P.3	10 g	glass	68,30

Pyrogallic acid
▸ Pyrogallol see page 1192

Pyrogallol



1,2,3-Trihydroxybenzene · Pyrogallic acid

$C_6H_6O_3$ · D 1,45 g/cm³ · mp 131 to 135 °C · bp 309 °C · flp 117,9 °C
CAS No. 87-66-1 · EC no. 201-762-9
WGK 2

Warning H302+H312+H332-H341-H412

Pyrogallol
ROTIPURAN® ≥99 %, p.a., ACS

Guarantee analysis
Assay (GC) ..... ≥99 %
Melting point ..... 131-135 °C
Insoluble matter ..... ≤0,01 %
Ash content (as SO_4) ..... ≤0,005 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,001 %
Copper (Cu) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %

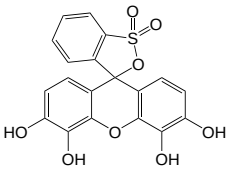
Art. No.	Pack Qty.	Pack.	€
4364.1	50 g	glass	49,35
4364.2	100 g	glass	82,25
4364.3	250 g	glass	166,65
4364.4	1 kg	glass	568,70
Original pack 6 x 1 kg			540,27/1 kg

Pyrogallol
≥98 %, for synthesis

Type analysis
Assay (GC) ..... ≥98 %
Ash content ..... ≤0,05 %
Melting point ..... 131-135 °C

Art. No.	Pack Qty.	Pack.	€
3963.2	50 g	glass	33,25
3963.1	100 g	glass	62,25
3963.3	250 g	glass	117,20
3963.4	1 kg	glass	428,95
Original pack 6 x 1 kg			407,50/1 kg

Pyrogallol red



Pyrogallol sulphonic phthalein · Sulphonic alizarin violet

$C_{19}H_{12}O_8S$ · mp >300 °C
CAS No. 32638-88-3 · EC no. 251-134-3
WGK 1

Pyrogallol red
p.a.

Indicator for metal titration

Dissolve 0.05 g in ethanol (96 %)

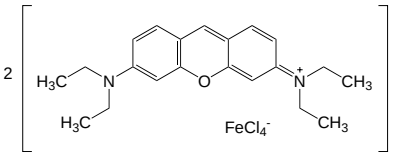
Type analysis
Sulphated ash ..... <0,5 %
Solubility (10 mg/ml in 1 M NH_4OH) .. dark, purple solution
Absorption max. (in EtOH) ..... 475 - 515 nm
Suitability as indicator ..... complies

Art. No.	Pack Qty.	Pack.	€
0287.1	1 g	glass	33,25
0287.2	5 g	glass	66,15

Pyrogallol sulphonic phthalein
▸ Pyrogallol red see page 1193

Pyrogenous silicic acid
▸ Aerosil® see page 709

Pyronin B



Pyronin bluish

$C_{42}H_{54}Cl_8Fe_2N_4O_2$ · mp 174 to 176 °C
CAS No. 2150-48-3
WGK 1

Pyronin B (C. I. 45010)
extra pure

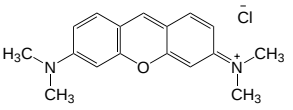
Cationic xanthene dye

Dissolve 0.1 g in 100 ml water

Type analysis
Appearance ..... dark green powder
Maximum absorption ..... 545-560 nm

Art. No.	Pack Qty.	Pack.	€
1H57.1	1 g	glass	28,95
1H57.2	5 g	glass	57,55
1H57.3	10 g	glass	102,70

Pyronin G



Pyronin yellow

$C_{17}H_{19}ClN_2O$ · mp 250 to 260 °C
CAS No. 92-32-0
WGK 1

Pyronin G (C. I. 45005)
extra pure

Cationic xanthene dye

Dissolve 0.1 g in 100 ml ethanol (96 %)

EC no. 202-147-8

Type analysis
Appearance ..... green to black powder
Dye content ..... ≥50 %
Absorption max. (50 % C_2H_5OH) ..... 546-551 nm
Loss on drying (110 °C) ..... ≤15 %

Art. No.	Pack Qty.	Pack.	€
1H5T.1	1 g	glass	38,20
1H5T.2	5 g	glass	107,00
1H5T.3	10 g	glass	202,00

Pyrrodiazole
▸ 1,2,4-Triazole see page 1375

Pyrrolidine-2-carboxylic acid
▸ DL-Proline see page 1184
▸ L-Proline see page 1184
▸ D-Proline see page 1184

2-Pyrrolidone



C_4H_7NO · D 1,11 g/cm³ · mp 25 to 26 °C · bp 245 to 255 °C · flp 138 °C
CAS No. 616-45-5 · EC no. 210-483-1
WGK 1

Warning H319

2-Pyrrolidone
SOLVAGREEN® ≥99,5 %, for synthesis

Alternative for NMP, NEP.

Type analysis
Assay (GC) ..... ≥99,5 %
1,4-Butanediol ..... ≤0,1 %
Butyrolactone ..... ≤0,1 %
Water (KF) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
8779.1	500 ml	plastic	45,05
8779.2	1 l	plastic	81,20
Original pack 6 x 1 l			77,14/1 l
8779.3	2.5 l	plastic	162,90
Original pack 4 x 2.5 l			154,76/2.5 l
8779.4	5 l	plastic	299,95
Original pack 2 x 5 l			284,95/5 l

Pyrrolizidine Alkaloids

Art. No.	Description	Page
7975	7-*O*-Acetylintermedine, ROTICHROM®, HPLC	702
7980	7-*O*-Acetylintermedine *N*-oxide, ROTICHROM®, HPLC	702
7992	Echimidine, ROTICHROM®, HPLC	904
8011	Echimidine *N*-oxide, ROTICHROM®, HPLC	904
1657	(*Z*)-Erucifoline, ROTICHROM®, HPLC	914
1664	(*Z*)-Erucifoline *N*-oxide, ROTICHROM®, HPLC	914
1676	Europine hydrochloride, ROTICHROM®, HPLC	928
1687	Europine-*N*-oxide, ROTICHROM®, HPLC	928
1929	Heliotrine, ROTICHROM®, HPLC	976
1944	Heliotrine *N*-oxide, ROTICHROM®, HPLC	976
1960	Indicine hydrochloride, ROTICHROM®, HPLC	1006
1961	Indicine *N*-oxide, ROTICHROM®, HPLC	1007
1962	Intermedine, ROTICHROM®, HPLC	1011
8018	Intermedine *N*-oxide, ROTICHROM®, HPLC	1011
1963	Jacobine, ROTICHROM®, HPLC	1025
1970	Jacobine *N*-oxide, ROTICHROM®, HPLC	1025
2090	Lasiocarpine, ROTICHROM®, HPLC	1035
2202	Lasiocarpine *N*-oxide, ROTICHROM®, HPLC	1035
2208	Lycopsamine, ROTICHROM®, HPLC	1052
8022	Lycopsamine *N*-oxide, ROTICHROM®, HPLC	1052
3418	Monocrotaline, ≥99 %	1093
2249	Monocrotaline *N*-oxide, ROTICHROM®, HPLC	1093
1213	Retrorsine, ROTICHROM®, HPLC	1203
6733	Retrorsine-*N*-oxide, ROTICHROM®, HPLC	1203
2261	Senecionine, ROTICHROM®, GC	1256
6734	Senecionine *N*-oxide, ROTICHROM®, HPLC	1256
1214	Seneciphylline, ROTICHROM®, with analytical records	1256
6735	Seneciphylline *N*-oxide, ROTICHROM®, HPLC	1256
2209	Senecivernine, ROTICHROM®, HPLC	1256
2215	Senecivernine *N*-oxide, ROTICHROM®, HPLC	1256
4934	Senkirkine, ROTICHROM®, HPLC	1256

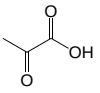
1*H*-Pyrrolo[2,3-b]pyridine

▸ 7-Azaindole see page 759

Pyruvaldehyde

▸ Methylglyoxal see page 1085

Pyruvic acid



α-Ketopropionic acid · 2-Oxopropanoic acid

$C_3H_4O_3$ · D 1,27 g/cm³ · mp 12 °C · bp 165 °C · flp 82 to 83 °C
CAS No. 127-17-3 · EC no. 204-824-3
UN no. 3265 · ADR 8 III · WGK 1

Danger H314

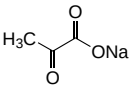
Pyruvic acid
≥98 %

Storage temperature: +4 °C

Type analysis
Assay (titr.) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
8788.1	25 ml	glass	37,55

Pyruvic acid sodium salt



Sodium pyruvate

$C_3H_3NaO_3$ · D 1,781 g/cm³ · mp 220 to 230 °C
CAS No. 113-24-6 · EC no. 204-024-4
WGK 1

Pyruvic acid sodium salt
≥99 %, for biochemistry

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥99 %
Heavy metals ..... ≤0,01%
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8793.1	25 g	plastic	21,40
8793.2	250 g	plastic	106,45

Q-PAGE™ TGN precast gels

Ready-made gels

bp 100 °C
WGK 1

Q-PAGE™ 10% TGN Mini
Q-PAGE™ 10 %, ready-to-use, 12 wells

SMOBIO.

Precast mini gels with 10 % polyacrylamide, for rapid and easy gel electrophoresis of proteins of 25 to 200 kD.

Gel cassette: 10 x 8.3 cm, 12 wells

Storage temperature: +4 °C
Transport temperature: cooled

Gel parameters
Gel type ..... Tris-Glycine Novel TGN
Gel matrix ..... 10 % polyacrylamide
Buffer system ..... Tris-Glycine
Cassette size (W x L) ..... Mini (10 x 8,3 cm)
Gel strength ..... 1 mm
Gel pockets 12

Art. No.	Pack Qty.	Pack.	€
3681.1	2 unit(s)	box	52,60
3681.2	10 unit(s)	box	223,10

Q-PAGE™ 10% TGN Mini
Q-PAGE™ 10 %, ready-to-use, 15 wells

SMOBIO.

Precast mini gels with 10 % polyacrylamide, for rapid and easy gel electrophoresis of proteins of 25 to 200 kD.

Gel cassette: 10 x 8.3 cm, 15 wells

Storage temperature: +4 °C
Transport temperature: cooled

Gel parameters
Gel type ..... Tris-Glycine Novel TGN
Gel matrix ..... 10 % polyacrylamide
Buffer system ..... Tris-Glycine
Cassette size (W x L) ..... Mini (10 x 8,3 cm)
Gel strength ..... 1 mm
Gel pockets 15

Art. No.	Pack Qty.	Pack.	€
3682.1	2 unit(s)	box	52,60
3682.2	10 unit(s)	box	223,10

Q-PAGE™ 4–15% TGN Mini
Q-PAGE™ 4–15 % gradient, ready-to-use, 12 wells

SMOBIO.

Precast mini gels with 4–15 % polyacrylamide, for rapid and easy gel electrophoresis of proteins of 25 to 200 kD.

Gel cassette: 10 x 8.3 cm, 12 wells

Storage temperature: +4 °C
Transport temperature: cooled

Gel parameters
Gel type ..... Tris-Glycine Novel TGN
Gel matrix ..... 4-15 % polyacrylamide
Buffer system ..... Tris-Glycine
Cassette size (W x L) ..... Mini (10 x 8,3 cm)
Gel strength ..... 1 mm
Gel pockets 12

Art. No.	Pack Qty.	Pack.	€
3670.1	2 unit(s)	box	52,60
3670.2	10 unit(s)	box	223,10

Q-PAGE™ 4–15% TGN Mini
Q-PAGE™ 4–15 % gradient, ready-to-use, 15 wells

SMOBIO.

Precast mini gels with 10 % polyacrylamide, for rapid and easy gel electrophoresis of proteins of 25 to 200 kD.

Gel cassette: 10 x 8.3 cm, 15 wells

Storage temperature: +4 °C
Transport temperature: cooled

Gel parameters
Gel type ..... Tris-Glycine Novel TGN
Gel matrix ..... 4-15 % polyacrylamide
Buffer system ..... Tris-Glycine
Cassette size (W x L) ..... Mini (10 x 8,3 cm)
Gel strength ..... 1 mm
Gel pockets 15

Art. No.	Pack Qty.	Pack.	€
3671.1	2 unit(s)	box	52,60
3671.2	10 unit(s)	box	223,10

Q-PAGE™ 10% TGN Midi
Q-PAGE™ 10 %, ready-to-use, 12 wells

SMOBIO.

Precast mini gels with 10 % polyacrylamide, for rapid and easy gel electrophoresis of proteins of 25 to 200 kD.

Gel cassette: 10 x 10 cm, 12 wells

Storage temperature: +4 °C
Transport temperature: cooled

Gel parameters
Gel type ..... Tris-Glycine Novel TGN
Gel matrix ..... 10 % polyacrylamide
Buffer system ..... Tris-Glycine
Cassette size (W x L) ..... Midi (10 x 10 cm)
Gel strength ..... 1 mm
Gel pockets 12

Art. No.	Pack Qty.	Pack.	€
3683.1	2 unit(s)	box	52,60
3683.2	10 unit(s)	box	223,10

Q-PAGE™ 10% TGN Midi
Q-PAGE™ 10 %, ready-to-use, 15 wells

SMOBIO.

Precast mini gels with 10 % polyacrylamide, for rapid and easy gel electrophoresis of proteins of 25 to 200 kD.

Gel cassette: 10 x 10 cm, 15 wells

Storage temperature: +4 °C
Transport temperature: cooled

Gel parameters
Gel type ..... Tris-Glycine Novel TGN
Gel matrix ..... 10 % polyacrylamide
Buffer system ..... Tris-Glycine
Cassette size (W x L) ..... Midi (10 x 10 cm)
Gel strength ..... 1 mm
Gel pockets 15

Art. No.	Pack Qty.	Pack.	€
3684.1	2 unit(s)	box	52,60
3684.2	10 unit(s)	box	223,10

Q-PAGE™ 4–15% TGN Midi
Q-PAGE™ 4–15 % gradient, ready-to-use, 12 wells

SMOBIO.

Precast mini gels with 4–15 % polyacrylamide, for rapid and easy gel electrophoresis of proteins of 25 to 200 kD.

Gel cassette: 10 x 10 cm, 12 wells

Storage temperature: +4 °C
Transport temperature: cooled

Gel parameters
Gel type ..... Tris-Glycine Novel TGN
Gel matrix ..... 4-15 % polyacrylamide
Buffer system ..... Tris-Glycine
Cassette size (W x L) ..... Midi (10 x 10 cm)
Gel strength ..... 1 mm
Gel pockets 12

Art. No.	Pack Qty.	Pack.	€
3673.1	2 unit(s)	box	52,60
3673.2	10 unit(s)	box	223,10

Q-PAGE™ 4–15% TGN Midi
Q-PAGE™ 4–15 % gradient, ready-to-use, 15 wells

SMOBIO.

Precast mini gels with 4–15 % polyacryamide, for rapid and easy gel electrophoresis of proteins of 25 to 200 kD.

Gel cassette: 10 x 10 cm, 15 wells

Storage temperature: +4 °C
Transport temperature: cooled

Gel parameters
Gel type ..... Tris-Glycine Novel TGN
Gel matrix ..... 4-15 % polyacrylamide
Buffer system ..... Tris-Glycine
Cassette size (W x L) ..... Midi (10 x 10 cm)
Gel strength ..... 1 mm
Gel pockets 15

Art. No.	Pack Qty.	Pack.	€
3676.1	2 unit(s)	box	52,60
3676.2	10 unit(s)	box	223,10

Quantum Dots, hydrophilic

Cadmium telluride · CdTe

D 5,83 g/cm³ · mp 649 to 707 °C
CAS No. 1306-25-8 · EC no. 215-149-9
UN no. 3077 · ADR 9 III · WGK 3

Warning H302+H312+H332-H410

Cadmium telluride
ROTI®nanoMETIC λ max. 510 ±5 nm

Storage temperature: +4 °C

Type analysis
Fluorescence λ max. ..... 505-515 nm

Art. No.	Pack Qty.	Pack.	€
8256.1	5 mg	glass	131,70
8256.2	10 mg	glass	241,90

Cadmium telluride
ROTI®nanoMETIC λ max. 570 ±5 nm

Storage temperature: +4 °C

Type analysis
Fluorescence λ max. ..... 565-575 nm

Art. No.	Pack Qty.	Pack.	€
8257.1	5 mg	glass	131,70
8257.2	10 mg	glass	241,90

Cadmium telluride
ROTI®nanoMETIC λ max. 610 ±5 nm

Storage temperature: +4 °C

Type analysis
Fluorescence λ max. ..... 605-615 nm

Art. No.	Pack Qty.	Pack.	€
8258.1	5 mg	glass	131,70
8258.2	10 mg	glass	241,90

Cadmium telluride
ROTI®nanoMETIC λ max. 710 ±5 nm

Storage temperature: +4 °C

Type analysis
Fluorescence λ max. ..... 705-715 nm

Art. No.	Pack Qty.	Pack.	€
8260.1	5 mg	glass	131,70
8260.2	10 mg	glass	241,90

Cadmium telluride
ROTI®nanoMETIC λ max. 780 ±5 nm

Storage temperature: +4 °C

Type analysis
Fluorescence λ max. ..... 775-785 nm

Art. No.	Pack Qty.	Pack.	€
8261.1	5 mg	glass	131,70
8261.2	10 mg	glass	241,90

Quantum Dots, hydrophobic

Cadmium-free Quantum Dots

WGK 1

Warning H302+H332-H315-H319-H335-EUH032

Zn-Cu-In-S/ZnS
ROTI®nanoMETIC
λ max. 530 ±15 nm

Cd-free

Storage temperature: +4 °C

Type analysis
Fluorescence λ max. ..... 515-545 nm

Art. No.	Pack Qty.	Pack.	€
8609.1	5 mg	glass	64,00
8609.2	10 mg	glass	96,25

Zn-Cu-In-S/ZnS
ROTI®nanoMETIC
λ max. 560 ±15 nm

Cd-free

Storage temperature: +4 °C

Type analysis
Fluorescence λ max. ..... 545-575 nm

Art. No.	Pack Qty.	Pack.	€
8610.1	5 mg	glass	64,00
8610.2	10 mg	glass	96,25

Zn-Cu-In-S/ZnS
ROTI®nanoMETIC
λ max. 590 ±15 nm

Cd-free

Storage temperature: +4 °C

Type analysis
Fluorescence λ max. ..... 575-605 nm

Art. No.	Pack Qty.	Pack.	€
8618.1	5 mg	glass	64,00
8618.2	10 mg	glass	96,25

Zn-Cu-In-S/ZnS
ROTI®nanoMETIC
λ max. 610 ±15 nm

Cd-free

Storage temperature: +4 °C

Type analysis
Fluorescence λ max. ..... 595-625 nm

Art. No.	Pack Qty.	Pack.	€
8614.1	5 mg	glass	64,00
8614.2	10 mg	glass	96,25

Zn-Cu-In-S/ZnS
ROTI®nanoMETIC
λ max. 650 ±15 nm

Cd-free

Storage temperature: +4 °C

Type analysis
Fluorescence λ max. ..... 635-665 nm

Art. No.	Pack Qty.	Pack.	€
8616.1	5 mg	glass	64,00
8616.2	10 mg	glass	96,25

Zn-Cu-In-S/ZnS
ROTI®nanoMETIC
λ max. 700 ±15 nm

Cd-free

Storage temperature: +4 °C

Type analysis
Fluorescence λ max. ..... 685-715 nm

Art. No.	Pack Qty.	Pack.	€
8615.1	5 mg	glass	64,00
8615.2	10 mg	glass	96,25

Quartz

Filter aids

SiO_2 · D 2,65 g/cm³ · mp >1610 °C · bp >2230 °C
CAS No. 14808-60-7 · EC no. 238-878-4

Quartz
≥99 %, powdered, <125 µm

Resistant to chemicals (except very strong alkalis).

Danger H372

Type analysis
Assay ..... ≥99 %
Al_2O_3 ..... 0,3 %
Fe_2O_3 ..... 0,05 %
CaO + MgO ..... 0,1 %
$Na_2O + K_2O$ ..... 0,2 %
Loss on ignition ..... 0,25 %

Particle size distribution:
>125 µm ..... 0,1 %
>100 µm ..... 0,5 %
>63 µm ..... 1-3 %
>40 µm ..... 12 %

Art. No.	Pack Qty.	Pack.	€
4651.2	500 g	plastic	21,40
Original pack 6 x 500 g			20,33/500 g
4651.1	1 kg	plastic	30,65
Original pack 6 x 1 kg			29,12/1 kg
4651.3	5 kg	plastic	69,80

Quartz
fine, cryst., 0,4–0,8 mm

Filtration aids

Art. No.	Pack Qty.	Pack.	€
7897.1	2.5 kg	plastic	23,55
7897.2	20 kg	plastic	81,60

Quartz
cryst., 0,6–1,3 mm

Filtration aids

Art. No.	Pack Qty.	Pack.	€
7898.1	2.5 kg	plastic	24,65
7898.2	20 kg	plastic	85,90

Quarz
▸ Sea sand see page 1254

Quartz wool

Filter aids

D 2,1 to 2,2 g/cm³ · mp 1713 °C
CAS No. 14808-60-7 · EC no. 238-878-4

Quartz wool
chemically pure

Ideal for elementary analysis or as a final stopper in chromatography columns; filter aid.

Art. No.	Pack Qty.	Pack.	€
9208.1	10 g	plastic	26,80
9208.2	100 g	plastic	188,15
9208.3	250 g	plastic	403,15

QuEChERS Mixtures

WGK 1

QuEChERS Extraction Mix I
CHROMABOND® Citrat mix

Macherey-Nagel.

For pesticide residue analysis in food.

Composition
Magnesium sulphate anhydrous ..... 4 g
Sodium chloride ..... 1 g
di-Sodium hydrogen citrate 1,5-hydrate ..... 0,5 g
tri-Sodium citrate dihydrate ..... 1 g

Art. No.	Pack Qty.	Pack.	€
4867.1	50 unit(s)	plastic	167,70

QuEChERS Extraction Mix II
CHROMABOND® Acetate mix

Macherey-Nagel.

For pesticide residue analysis in food.

bp 401 °C · flp 251 °C

Composition
Magnesium sulphate anhydrous ..... 6 g
Sodium acetate ..... 1,5 g

Art. No.	Pack Qty.	Pack.	€
4868.1	50 unit(s)	plastic	167,70

QuEChERS Clean-up Mix III
CHROMABOND® Diamino mix

Macherey-Nagel.

For pesticide residue analysis in food.

bp >999 °C

Composition
Magnesium sulphate anhydrous ..... 0,9 g
CHROMABOND® Diamino (PSA) ..... 0,15 g

Art. No.	Pack Qty.	Pack.	€
4870.1	50 unit(s)	plastic	112,90

QuEChERS Clean-up Mix IV
CHROMABOND® Diamino/Carbon mix

Macherey-Nagel.

For pesticide residue analysis in food.

bp >999 °C

Composition
Magnesium sulphate anhydrous ..... 0,9 g
CHROMABOND® Diamino (PSA) ..... 0,15 g
CHROMABOND® Carbon ..... 0,015 g

Art. No.	Pack Qty.	Pack.	€
4871.1	50 unit(s)	plastic	140,85

QuEChERS Clean-up Mix V
CHROMABOND® Diamino/Carbon mix

Macherey-Nagel.

For pesticide residue analysis in food.

bp >999 °C

Composition
Magnesium sulphate anhydrous ..... 0,9 g
CHROMABOND® Diamino (PSA) ..... 0,15 g
CHROMABOND® Carbon ..... 0,045 g

Art. No.	Pack Qty.	Pack.	€
4875.1	50 unit(s)	plastic	140,85

QuEChERS Clean-up Mix VI
CHROMABOND® Diamino/C_{18} ec mix

Macherey-Nagel.

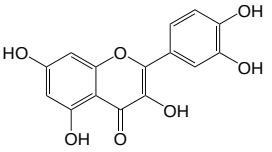
For pesticide residue analysis in food.

bp >999 °C

Composition
Magnesium sulphate anhydrous ..... 0,9 g
CHROMABOND® Diamino (PSA) ..... 0,15 g
CHROMABOND® C_{18} ec ..... 0,15 g

Art. No.	Pack Qty.	Pack.	€
4877.1	50 unit(s)	plastic	112,90

Quercetin



Meletin · Sophoretin

$C_{15}H_{10}O_7$ · mp 310 to 320 °C
CAS No. 117-39-5 · EC no. 204-187-1
UN no. 2811 · ADR 6.1 III · WGK 1

Danger H301

Quercetin
ROTICHROM® with analytical records

Synthetical from Rutin.

Storage temperature: +4 °C

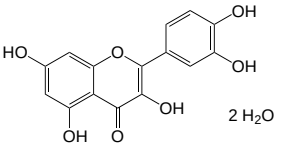
Type analysis
Purity (HPLC) ..... >99 %

Analytical records: HPLC, TLC, ^{1}H NMR, ^{13}C NMR, UV, IR, MS, melting point.

Art. No.	Pack Qty.	Pack.	€
1210.1	50 mg	glass	590,20

Quercetin-3-arabinoglucoside
▸ Peltatoside see page 1140

Quercetin dihydrate



Meletin · Sophoretin

$C_{15}H_{10}O_7$ · 2 H_2O · mp 305 to 310 °C
CAS No. 6151-25-3 · EC no. 204-187-1
UN no. 2811 · ADR 6.1 III · WGK 1

Danger H301

Quercetin dihydrate (C.I. 75670)
≥98 %

Storage temperature: +4 °C

Type analysis
Appearance ..... yellow-brown powder
Assay ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7138.1	25 g	plastic	63,35
7138.2	100 g	plastic	203,20

Quercetin dihydrate (C.I. 75670)
≥95 %

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥95,0 %
Water (KF) ..... ≤12 %

Art. No.	Pack Qty.	Pack.	€
2629.1	25 g	plastic	49,35
2629.2	50 g	plastic	92,35
2629.3	100 g	plastic	170,95

Quercetin dihydrate
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤1,0 %
Water (KF) ..... ≤15,0 %
Assay (qNMR) ..... ≥85,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE27.1	50 mg	glass	891,20

Quercetin dihydrate
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥80,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC27.1	100 mg	glass	532,15

Quercetin dihydrate
ROTICHROM® HPLC

Reference substance for HPLC.
Synthetic, from rutin.

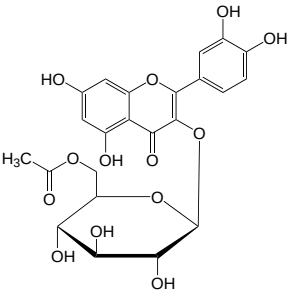
Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
7417.1	10 mg	glass	123,65
7417.7	25 mg	glass	220,40

Quercetin-3-galactoside
▸ Hyperoside see page 1003

Quercetin-3-*O*-glucose-6''-acetate



$C_{23}H_{22}O_{13}$
CAS No. 54542-51-7
WGK 1

Quercetin-3-*O*-glucose-6''-acetate
ROTICHROM® ~CHR$_{TLC}$

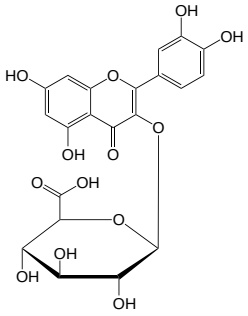
Art. No.	Pack Qty.	Pack.	€
9419.1	10 mg	glass	364,45

Quercetin-3-glucoside
▸ Isoquercitrin see page 1023

Quercetin-4'-glucoside

▸ Spiraeoside see page 1305

Quercetin-3-*O*-ß-Glucuronide



$C_{21}H_{18}O_{13}$ · D 1,96 g/cm³ · mp 193 to 195 °C
CAS No. 22688-79-5
WGK 1

Quercetin-3-*O*-ß-Glucuronide
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥90,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤8,0 %
Assay (qNMR) ..... ≥85,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE28.1	25 mg	glass	1.499,65

Quercetin-3-*O*-ß-Glucuronide
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥80,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC28.1	50 mg	glass	822,40

Quercetin-4'-methyl ether

▸ Tamarixetin see page 1353

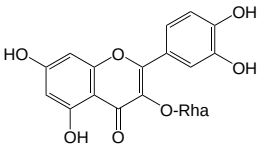
Quercetin-3-rhamnoside

▸ Quercitrin see page 1197

Quercetin-3-rutinoside

▸ Rutin trihydrate see page 1245

Quercitrin



Quercetin-3-rhamnoside

$C_{21}H_{20}O_{11}$ · mp 165 to 175 °C
CAS No. 522-12-3 · EC no. 208-322-5
WGK 1

Quercitrin
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤7,0 %
Water (KF) ..... ≤10,0 %
Assay (qNMR) ..... ≥80,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE29.1	25 mg	glass	1.009,45

Quercitrin
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥70,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC29.2	50 mg	glass	783,70

Quercitrin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Aesculus hippocastanum.*

Storage temperature: +4 °C

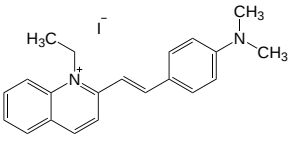
Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
9417.1	10 mg	glass	241,90

Quicklime

▸ Calcium oxide see page 809

Quninaldine red



2-(4-Dimethylaminostyryl)-1-ethylquinolinium iodide

$C_{21}H_{23}IN_2$ · mp 240 °C
CAS No. 117-92-0
WGK 1

Quninaldine red
pure

Indicator pH 1.4-3.2, for non-aqueous acid-base titrations

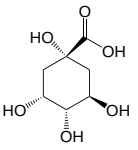
Dissolve 0.1 g in 100 ml ethanol

EC no. 204-221-5

Type analysis
Appearance ..... green powder
Maximum absorption ..... 528-533 nm
pH-transition range ..... 1,4 (colourless) - 3,2 (red violet)
Water ..... ≤5 %
Suitability as indicator ..... complies

Art. No.	Pack Qty.	Pack.	€
1LA9.1	1 g	glass	23,15
1LA9.2	5 g	glass	57,55
1LA9.3	10 g	glass	102,70

(–)-Quinic acid



$C_7H_{12}O_6$ · D 1,637 g/cm³ · mp 164 °C · bp 396,8 °C · flp 233,1 °C
CAS No. 77-95-2 · EC no. 201-072-8
WGK 1

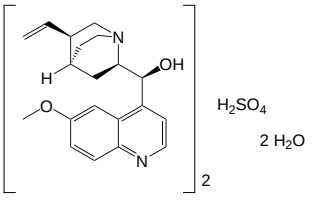
(–)-Quinic acid
ROTICHROM® CHR ≥98 %

For resolutions of racemates for synthesis.

Type analysis
Assay (acidim.) ..... ≥98 %
Melting range ..... 160-165 °C
Specific rotation $[\alpha]_D^{20}$ (c=10 in H_2O) ... -42° to -44°

Art. No.	Pack Qty.	Pack.	€
8835.1	25 g	plastic	123,65
8835.2	100 g	plastic	396,70

Quinidine sulphate dihydrate



$(C_{20}H_{24}N_2O_2)_2 \cdot H_2SO_4 \cdot 2\,H_2O$ · mp 204 °C
CAS No. 6591-63-5 · EC no. 200-046-3
WGK 1

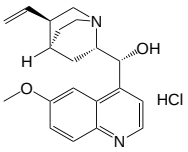
Warning H302

Quinidine sulphate dihydrate
≥99 %

Type analysis
Assay ..... ≥99,0 %
pH-value 6,0-6,8
Specific rotation $[\alpha]_D^{20}$ ..... +275 ° to +290°
Loss on drying ..... ≤5,0 %

Art. No.	Pack Qty.	Pack.	€
3348.1	10 g	glass	38,60

Quinine hydrochloride dihydrate



$C_{20}H_{25}ClN_2O_2 \cdot 2\ H_2O$ · mp 123 °C · flp 122 °C
CAS No. 6119-47-7 · EC no. 231-437-7
WGK 1

Danger H302-H317-H334

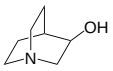
Quinine hydrochloride dihydrate
ROTICHROM® CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
6225.1	25 g	plastic	53,65

8-Quinolinol

▸ 8-Hydroxyquinoline see page 1001

(*R*)-3-Quinuclidinol



$C_7H_{13}NO$ · D 1,23 g/cm³ · mp 217 to 224 °C
CAS No. 25333-42-0 · EC no. 246-857-6
UN no. 3263 · ADR 8 II · WGK 1

Danger H314

(*R*)-3-Quinuclidinol
≥99 %

Chiral building block.

Type analysis
Appearance ..... white to off-white solid
Assay (GC) ..... ≥99 %
Enantiomeric excess (GC) ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
7483.1	1 g	glass	24,20
7483.2	5 g	glass	88,05
7483.3	10 g	glass	163,95

R2A-Agar

Agar medium S (Ph. Eur. 6.0) · Reasoner's 2A Agar

WGK 1

R2A-Agar
Ph. Eur., for microbiology

For enumeration of heterotrophic bacteria from water samples.

Application: Use 18.1 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Yeast extract ..... 0,5 g/l
Peptone ..... 0,5 g/l
Casein hydrolysed ..... 0,5 g/l
Glucose ..... 0,5 g/l
Starch ..... 0,5 g/l
di-Potassium hydrogen phosphate ..... 0,3 g/l
Magnesium sulphate ($MgSO_4$) ..... 0,024 g/l
Sodium pyruvate ..... 0,3 g/l
Agar ..... 15 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL01.1	500 g	plastic	180,10
Original pack 6 x 500 g			171,10/500 g

R2A-Agar, granulated
Ph. Eur., granulated, for microbiology

For enumeration of heterotrophic bacteria from water samples.

Application: Use 18.1 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Yeast extract ..... 0,5 g/l
Peptone ..... 0,5 g/l
Casein hydrolysed ..... 0,5 g/l
Glucose ..... 0,5 g/l
Starch ..... 0,5 g/l
di-Potassium hydrogen phosphate ..... 0,3 g/l
Magnesium sulphate ($MgSO_4$) ..... 0,024 g/l
Sodium pyruvate ..... 0,3 g/l
Agar ..... 15 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
1523.1	500 g	plastic	278,45
Original pack 6 x 500 g			264,53/500 g

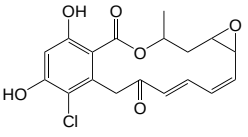
Rabbit Plasma Fibrinogen Supplement

▸ RPF Supplement see page 1244

Racemic acid

▸ DL-Tartaric acid see page 1354

Radicicol



$C_{18}H_{17}ClO_6$ · mp 205 to 209 °C
CAS No. 12772-57-5
UN no. 2811 · ADR 6.1 III · WGK 1

Danger H301-H315-H319-H335

Radicicol
≥98 %, for biochemistry

Strong HSP90 inhibitor, macrolactone antibiotic. Binds specifically to the heat shock protein HSP90.

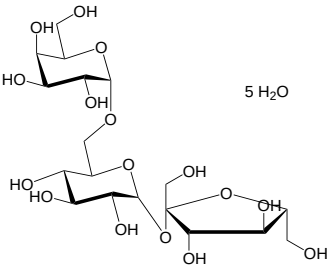
Stock solution: 10 mg/ml (27 mM) in ethanol or DMSO
Storage of stock solution at –20 °C, max. 2 weeks at 4 °C
Photo sensitive! Store protected from light.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
HN72.1	1 mg	glass	117,20
HN72.2	5 mg	glass	482,70
HN72.3	10 mg	glass	762,20

D(+)-Raffinose pentahydrate



Melitose · Melitriose

$C_{18}H_{32}O_{16} \cdot 5\ H_2O$ · D 1,47 g/cm³ · mp 80 °C
CAS No. 17629-30-0 · EC no. 208-146-9
WGK 1

D(+)-Raffinose pentahydrate
≥98 %, for biochemistry

Type analysis
Appearance ..... white to off-white, crystalline powder
Assay (HPLC) ..... ≥98,0 %
Loss on drying ..... ≤15,0 %
Heavy metals (as Pb) ..... ≤0,001 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
5241.1	10 g	plastic	26,80
5241.4	25 g	plastic	49,35
5241.2	50 g	plastic	85,90
5241.3	100 g	plastic	138,70
5241.5	250 g	plastic	246,20
5241.6	500 g	plastic	403,15
Original pack 6 x 500 g			382,99/500 g

Rapeseed oil

Colza oil · Oleum Rapae

D 0,91 to 0,92 g/cm³ · mp -2 to -10 °C · flp >100 °C
CAS No. 8002-13-9 · EC no. 232-299-0
WGK awg

Rapeseed oil
extra pure, refined

Type analysis
Peroxide value ..... ≤10,0
Iodine value 100-130
Free fatty acid ..... ≤0,1 %
Water ..... ≤0,1 %

GC-fatty acid constituents:
C 14:0 Myristic acid ..... ≤0,2 %
C 16:0 Palmitic acid ..... 2,5-7,0 %
C 18:0 Stearic acid ..... 0,8-3,0 %
C 18:1 Oleic acid ..... 51,0-70,0 %
C 18:2 Linoleic acid ..... 15,0-30,0 %
C 18:3 Linolenic acid ..... 5,0-14,0 %
C 20:1 Gadoleic acid ..... 0,1-4,3 %
C 22:1 Erucic acid ..... ≤2,0 %
Trans-isomer fatty acids ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
0754.1	500 ml	plastic	17,10
0754.2	1 l	plastic	25,70
Original pack 6 x 1 l			24,42/1 l
0754.3	2.5 l	plastic	53,25
Original pack 4 x 2.5 l			50,59/2.5 l
0754.4	10 l	plastic	139,25
0754.5	25 l	plastic	289,20

Rappaport Vassiliadis Broth

RVS Broth · R10 Broth · Rappaport Vassiliadis Salmonella Enrichment Broth (Ph. Eur. 6.3, 7.0, 8.0 and 9.0)

WGK 1

Rappaport Vassiliadis Broth
Ph. Eur., for microbiology

For selective enrichment of *Salmonellae* in foods, water- and other samples.

Application: Use 27.1 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis

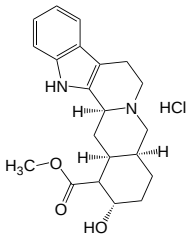
Anhydrous magnesium chloride ..... 13,58 g/l
Sodium chloride (NaCl) ..... 8,0 g/l
Soy peptone ..... 4,5 g/l
Potassium dihydrogen phosphate ..... 0,6 g/l
di-Potassium hydrogen phosphate ..... 0,4 g/l
Malachite green ..... 0,036 g/l
pH value ..... 5,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL03.1	500 g	plastic	126,35
Original pack 6 x 500 g			120,03/500 g

Rappaport Vassiliadis Salmonella Enrichment Broth (Ph. Eur. 6.3, 7.0, 8.0 and 9.0)
▸ Rappaport Vassiliadis Broth see page 1199

Raubasine
▸ Ajmalicine see page 712

Rauwolscine hydrochloride



α-Yohimbine hydrochloride

$C_{21}H_{26}N_2O_3$ · HCl · mp 270 to 280 °C
CAS No. 6211-32-1 · EC no. 228-279-6
UN no. 1544 · ADR 6.1 III · WGK 1

Danger H301

Rauwolscine hydrochloride
ROTICHROM® ~CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
7144.1	100 mg	glass	21,40
7144.2	1 g	glass	127,95

RBC Agar
▸ Bengal Red Agar (with chloroamphenicol) see page 766
▸ ROTI®ContiPlate RBC see page 1214

R10 Broth
▸ Rappaport Vassiliadis Broth see page 1199

RCM
▸ Reinforced Clostridial Medium see page 1202

Ready-made gels
▸ Q-PAGE™ TGN precast gels see page 1194

Ready-made Media

Art. No.	Description	Page
1L83	CASO Broth	820
4827	CompactDry™ CF	845
4826	CompactDry™ EC	845
4828	CompactDry™ ETB	845
1L17	CompactDry™ PA	845
4817	CompactDry™ SL	845
4816	CompactDry™ TC	846
1070	CompactDry™ X-BC	846
1087	CompactDry™ X-SA	846
4818	CompactDry™ YM	846
1L8A	D/E Neutralisation buffer	866
1L86	Fraser Half Broth	949
1L85	Letheen Broth modified	1041
1L87	MacConkey Broth	1055
1L84	Maximum Recovery Solution	1070
1L8H	Peptone Water, buffered	1144
1L8E	Peptone Water 0.1%, buffered	1144
1L88	Ringer solution 1/4	1207
9646	ROTI®Aquatest Plate Cetr	1211
9640	ROTI®Aquatest Plate PCA	1211
9644	ROTI®Aquatest Plate R2A	1211
9643	ROTI®Aquatest Plate Sab4	1212
9650	ROTI®Aquatest Plate Staph	1212
9642	ROTI®Aquatest Plate YE	1212
2313	ROTI®ContiPlate MacCon	1214
9630	ROTI®ContiPlate PCA	1214
9632	ROTI®ContiPlate RBC	1214
9633	ROTI®ContiPlate Sab4plus	1215
2312	ROTI®ContiPlate TSA	1215
9634	ROTI®ContiPlate TSA-Letheen	1215
2314	ROTI®ContiPlate VRB	1215
9631	ROTI®ContiPlate VRBD	1215
3934	ROTI®DipSlide CASO-TTC/ RBCenr	1215
2957	ROTI®DipSlide CLED/MacCon	1216
8023	ROTI®DipSlide D/Eneutral	1216
8045	ROTI®DipSlide MacCon/Cetr	1216
2837	ROTI®DipSlide Nutrient-TTC	1216
2927	ROTI®DipSlide PCA	1216
2493	ROTI®DipSlide PCA/Legio-nella	1216
2926	ROTI®DipSlide PCA/RBCplus	1216
8715	ROTI®DipSlide PCA/TSA-Letheen	1217
2925	ROTI®DipSlide PCA/VRB	1217
2924	ROTI®DipSlide PCA/VRBD	1217
2956	ROTI®DipSlide Sab4plus	1217
2954	ROTI®DipSlide VRBD	1217
1ATX	ROTI®Plate90 CASO	1235
1K27	ROTI®Plate90 Columbia	1235
1K24	ROTI®Plate90 DG18	1235
1LE1	ROTI®Plate90 Endo	1235
1K23	ROTI®Plate90 MEA	1236
1K26	ROTI®Plate90 MRS	1236
1K22	ROTI®Plate90 Mueller Hinton	1236
1AX1	ROTI®Plate90 PCA	1236
1K25	ROTI®Plate90 Sab4	1236
1AX0	ROTI®Plate90 Sab4Cla	1236
1LNY	ROTI®Plate90 Sab4Cla	1236
1ATT	ROTI®Plate90 TSA	1236
1K21	ROTI®Plate90 TSA 4N	1236
1AX2	ROTI®Plate90 VRBD	1237
1ATY	ROTI®Plate90 YGC	1237
1L89	Sabouraud 2 % Glucose Broth	1247
1L8C	Thioglycolate Broth	1365

Ready-made plate *Bacillus cereus*
▸ CompactDry™ X-BC see page 846

Ready-made plate *Pseudomonas aeruginosa*
▸ ROTI®Aquatest Plate Cetr see page 1211
▸ CompactDry™ PA see page 845

Ready-made plate *E. coli*/ Coliforms
▸ CompactDry™ EC see page 845
▸ ROTI®ContiPlate VRB see page 1215
▸ CompactDry™ CF see page 845

Ready-made plate enterobacteria
▸ CompactDry™ ETB see page 845
▸ ROTI®ContiPlate MacCon see page 1214
▸ ROTI®ContiPlate VRBD see page 1215

Ready-made plate heterotrophic bacteria
▸ ROTI®Aquatest Plate R2A see page 1211

Ready-made plate pathogenic staphylococci
▸ ROTI®Aquatest Plate Staph see page 1212

Ready-made plate salmonells
▸ CompactDry™ SL see page 845

Ready-made plate *Staphylococcus aureus*
▸ CompactDry™ X-SA see page 846

Ready-made plate total count
▸ ROTI®ContiPlate TSA see page 1215
▸ ROTI®Aquatest Plate PCA see page 1211
▸ ROTI®Aquatest Plate YE see page 1212
▸ CompactDry™ TC see page 846
▸ ROTI®ContiPlate PCA see page 1214
▸ ROTI®ContiPlate TSA-Letheen see page 1215

Ready-made plate yeasts and moulds
▸ ROTI®ContiPlate RBC see page 1214
▸ ROTI®Aquatest Plate Sab4 see page 1212
▸ ROTI®ContiPlate Sab4plus see page 1215
▸ CompactDry™ YM see page 846

Ready-made primers

- ROTH poly d(T)$_{12-18}$ Primer see page 1209
- ROTH Random-Primer sets for RAPD-PCR see page 1209
- ROTH Hexanucleotide Random-Primer Mix see page 1209

Ready-made Reagents (pouches)

Art. No.	Description	Page
1011	ROTI®Fair BSC	1218
1026	ROTI®Fair BSC	1218
1031	ROTI®Fair 0.5M EDTA	1218
1030	ROTI®Fair 20% Glucose	1218
1032	ROTI®Fair Glycine 3.0	1218
1034	ROTI®Fair 1M KCl	1218
1035	ROTI®Fair 3M KCl	1218
1195	ROTI®Fair Na-Acetate 5.2	1219
1071	ROTI®Fair 3M NaCl	1219
1079	ROTI®Fair 5M NaCl	1219
1090	ROTI®Fair 0.02M Na-Phosphate 7.0	1219
1094	ROTI®Fair 0.02M Na-Phosphate 7.0	1219
1095	ROTI®Fair 1M Na-Phosphate 6.5	1219
1097	ROTI®Fair 1M Na-Phosphate 7.2	1219
1101	ROTI®Fair PBS 7.4	1220
1103	ROTI®Fair PBS 7.4	1220
1104	ROTI®Fair PBS 7.4	1220
1105	ROTI®Fair 10x PBS 7.4	1220
1249	ROTI®Fair SDS-PAGE	1221
1250	ROTI®Fair SDS-PAGE	1221
1232	ROTI®Fair 20x SSC	1221
1234	ROTI®Fair 50x TAE	1221
1240	ROTI®Fair 50x TAE	1221
1241	ROTI®Fair 1x TBE	1221
1242	ROTI®Fair 5x TBE	1221
1243	ROTI®Fair 10x TBE	1222
1245	ROTI®Fair TBS 8.0	1222
1247	ROTI®Fair 10x TBS 8.0	1222
1268	ROTI®Fair 10x TE	1222
1269	ROTI®Fair TG-Western	1222
1276	ROTI®Fair TG-Western	1222
1251	ROTI®Fair 1M Tris 7.4	1222
1260	ROTI®Fair 1M Tris 8.0	1222
1261	ROTI®Fair 1M Tris 8.3	1222

Ready-made Reagents (tablets)

Art. No.	Description	Page
1005	ROTI®Fair BBS	1218
1033	ROTI®Fair HBS	1218
1053	ROTI®Fair 0.9 % NaCl	1219
1067	ROTI®Fair 0.9 % NaCl	1219
1106	ROTI®Fair PBS 7.2	1219
1107	ROTI®Fair PBS 7.4	1220
1108	ROTI®Fair PBS 7.4	1220
1111	ROTI®Fair PBS 7.4	1220
1112	ROTI®Fair PBS 7.4	1220
1113	ROTI®Fair PBS potassium-free 7.4	1220
1114	ROTI®Fair PBS potassium-free 7.4	1220
1115	ROTI®Fair PBST 7.4	1220
1116	ROTI®Fair PBST 7.4	1221
1117	ROTI®Fair pNPP 5mg	1221
1128	ROTI®Fair pNPP 20mg	1221
1233	ROTI®Fair SSPE	1221
1244	ROTI®Fair TBS 7.6	1222
1248	ROTI®Fair TBST 7.6	1222

Ready made solutions, others

- Embedding- / Inclusion Media see page 909
- Cell Culture Media see page 24
- Gel Running Buffer see page 954
- Gel Loading Buffer see page 954
- Cell Culture Ready-made Solutions see page 824
- Nucleotides / Nucleosides see page 1116
- Formaldehyde Solutions, Phosphate Buffered see page 946
- Staining Solutions for Histology / Microscopy see page 1306
- Gel Media and Additives see page 954
- Gel Staining Solutions and Kits see page 954

Ready-made Solutions

Art. No.	Description	Page
3130	Ammonium iron(III) citrate solution	738
0509	Antibody Diluent clear	747
0070	Antibody Diluent green	747
1096	Compact Dry Dilution Rack MRD	846
4823	Compact Dry Dilution Rack PBS	846
6484	Decalcifier soft, SOLVAGREEN®	864
6483	Decalcifier standard	864
CP11	Geneticin disulphate (G418) solution, CELLPURE®	955
2039	Geneticin disulphate (G418) solution	955
HN09	Gentamycin sulphate solution, CELLPURE®	955
2475	Gentamycin solution	955
9465	Guanidine hydrochloride solution	971
9969	HCl-ethanol solution 0.75 %	975
6477	HCl-ethanol solution 3 %	975
CP12	Hygromycin B solution, CELLPURE®	1002
1287	Hygromycin B solution	1002
2950	Kovacs' Reagent	1031
9979	Legionella Acid Buffer	1040
P049	Protein glycerol	1189
A151	ROTI®Block	1212
L509	ROTI®Blot 1	1212
X984	ROTI®C/I	1214
A538	ROTICLEAR®, ROTICLEAR®	1214
CL85	ROTI®Fix spray fixative	1223
3337	ROTI®Free Stripping Buffer 2.2 plus	1223
3319	ROTI®Free Stripping Buffer 2.0	1223
0083	ROTI®Free Stripping Buffer	1223
P087	ROTI®Histofix 4 %	1226
2213	ROTI®Histofix 4.5 %	1226
A146	ROTI®Histofix 10 %	1226
3105	ROTI®Histofix 4 %, prefilled containers	1227
8244	ROTI®Histofix 4,5 %, prefilled containers	1227
8907	ROTI®Histofix ECO Plus, SOLVAGREEN®	1227
6640	ROTI®Histol	1227
A981	ROTI®Hybri-Quick	1227
T144	ROTI®ImmunoBlock	1227
AN91	ROTI®Liquid Barrier Marker, colourless	1228
AN92	ROTI®Liquid Barrier Marker, red	1228
P078	ROTI®Lumin	1230
K880	ROTI®Nanoquant	1231
HP69	ROTI®Nucleic Acid-free	1231
1312	ROTI®Nucleic Acid-free eXtra	1231
0038	ROTI®Phenol	1232
A980	ROTI®Aqua-Phenol	1232
A156	ROTI®Phenol/Chloroform/ Isoamyl alcohol	1232
X985	ROTI®Aqua-P/C/I	1232
8996	ROTIPHORESE®PAGE Matrix Buffer plus, ROTIPHORESE®	1233
K015	ROTI®Quant	1239
0120	ROTI®Quant universal	1240
0642	ROTI®Sep 1077 human, CELLPURE®	1240
1058	ROTI®Stock 10x PBS	1242
1059	ROTI®Stock 10x PBST	1242
1057	ROTI®Stock 20 % SDS	1242
1054	ROTI®Stock 20x SSC	1242
1060	ROTI®Stock 10x TBS	1242
1061	ROTI®Stock 10x TBST	1243
1052	ROTI®Stock 100x TE	1243
0016	ROTISZINT®eco plus, ROTISZINT®	1243
7735	ROTITEST®Annexin V, ROTITEST®	1243
0069	ROTITEST®Vital, ROTITEST®	1244
P043	ROTI®Transform	1244
9319	ROTI®ZOL RNA	1244
9211	Signal Enhancer Western/ ELISA Set	1258
9213	Signal Enhancer Western/ ELISA-1	1258
9214	Signal Enhancer Western/ ELISA-2	1259
T143	Water	1401

Reagents for water analysis

- Karl Fischer Reagents ROTI®Hydroquant for volumetry see page 1028
- Karl Fischer Reagents ROTI®Hydroquant Standards see page 1027
- Karl Fischer Reagents ROTI®Hydroquant for coulometry see page 1027

Reagents for Peptide Synthesis

Art. No.	Description	Page
4483	Acetic acid anhydride	692
4380	Acetonitrile	699
2131	*O*-(7-Azabenzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium hexafluorophosphate (HATU), PEPTIPURE®	759
2168	Benzotriazole-1-yl-oxy-tris-(dimethylamino)-phosphonium hexafluorophosphate (BOP), PEPTIPURE®	770
2178	Benzotriazole-1-yl-oxy-tris-pyrrolidino-phosphonium hexafluorophosphate (PyBOP®), PEPTIPURE®	770
2132	*O*-(Benzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium hexafluorophosphate (HBTU), PEPTIPURE®	770
2140	*O*-(Benzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium tetrafluoroborate (TBTU), PEPTIPURE®	770
6907	Boc-L-Alanine, PEPTIPURE®	779
6914	Boc-L-Arginine hydrochloride monohydrate, PEPTIPURE®	780
6915	Boc-L-Asparagine, PEPTIPURE®	780
8846	Boc-L-Aspartic acid-(O-Benzyl), PEPTIPURE®	780
6917	Boc-L-Glutamic acid, PEPTIPURE®	780
6916	Boc-L-Glutamine, PEPTIPURE®	780

Art. No.	Description	Page
6918	Boc-Glycine, PEPTIPURE®	780
6920	Boc-L-Histidine, PEPTIPURE®	781
6921	Boc-L-Hydroxyproline, PEPTIPURE®	781
6923	Boc-L-Isoleucine hemihydrate, PEPTIPURE®	781
6924	Boc-L-Leucine monohydrate, PEPTIPURE®	781
6942	Boc-L-*tert*-Leucine, PEPTIPURE®	781
6926	Boc-L-Lysine, PEPTIPURE®	781
6928	Boc-L-Methionine, PEPTIPURE®	782
6931	Boc-L-Phenylalanine, PEPTIPURE®	782
6932	Boc-L-Proline, PEPTIPURE®	782
6933	Boc-L-Serine, PEPTIPURE®	782
6935	Boc-L-Threonine, PEPTIPURE®	782
6945	Boc-L-Tryptophan, PEPTIPURE®	782
6949	Boc-L-Tyrosine, PEPTIPURE®	782
6950	Boc-L-Valine, PEPTIPURE®	783
2200	Bromo-tris-pyrrolidino-phosphonium hexafluo-rophosphate (PyBroP®), PEPTIPURE®	792
6992	1,1'-Carbonyldiimidazole (CDI), PEPTIPURE®	816
6636	Cbz-Cyclohexyl-L-glycine, PEPTIPURE®	822
2112	*O*-(1*H*-6-Chlorobenzotriazole-1-yl)-*N*,*N*,*N*',*N*'-tetramethyl-uronium hexafluorophosphate (HCTU), PEPTIPURE®	831
6893	4-((6-Chloro-1*H*-benzo{d}[1,2,3]triazol-1-yloxy)(dimethylamino)methylene) morpholin-4-ium hexafluoro-phosphate (HDMC), PEPTIPURE®	831
2123	6-Chloro-benzotriazole-1-yl-oxy-tris-pyrrolidinophosphonium hexafluorophosphate (PyClock®), PEPTIPURE®	831
6890	*O*-(6-Chlorobenzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium tetrafluoroborate (TCTU), PEPTIPURE®	831
7405	2-Chlorotrityl chloride resin, PEPTIPURE®	834
2100	1-[(1-(Cyano-2-ethoxy-2-oxoethylideneaminooxy) dimethylaminomorpholino)] uronium hexafluorophosphate (COMU®), PEPTIPURE®	856
P089	Dichloromethane, PEPTIPURE®	876
4193	*N*,*N*'-Dicyclohexylcarbodiimide (DCC), PEPTIPURE®	876
6981	*N*,*N*'-Diisopropylcarbodiimide (DIC), PEPTIPURE®	884
2474	*N*,*N*-Diisopropylethylamine (DIPEA), PEPTIPURE®	884
3617	*N*,*N*-Dimethylacetamide (DMA)	885
6888	1-[(Dimethylamino)(morpho-lino)methylene]-1*H*-[1,2,3] triazolo[4,5-b]pyridine-1-ium 3-oxide hexafluorophosphate (HDMA), PEPTIPURE®	886
6988	4-(Dimethylamino)pyridine (DMAP), PEPTIPURE®	886
A529	*N*,*N*-Dimethylformamide (DMF), PEPTIPURE®	888
2110	*N*,*N*'-Disuccinimidyl carbonate (DSC), PEPTIPURE®	894
6891	Ethyl cyanoglyxylate-2-oxyme potassium salt (K-Oxyma), PEPTIPURE®	920
2120	(Ethylcyano(hydroxyimino)-acetato-O_2)tri-1-pyrrolidinyl-phosphonium hexafluo-rophosphate (PyOxim), PEPTIPURE®	920
2156	1-Ethyl-3-(3-dimethylamino-propyl)carbodiimide hydrochloride (EDC-HCl), PEPTIPURE®	921
2118	Ethyl(hydroxyimino) cyanoacetate (Oxyma Pure), PEPTIPURE®	925
2201	9-Fluorenylmethoxy-carbonyl chloride (Fmoc-Cl), PEPTIPURE®	938
6646	Fmoc-L-Alanine monohydrate, PEPTIPURE®	939
7400	Fmoc-8-Amino-3,6-dioxa-octanoic acid, PEPTIPURE®	939
6896	Fmoc-L-Arginine, PEPTIPURE®	939
8833	Fmoc-L-Arginine-(Pbf), PEPTIPURE®	939
6897	Fmoc-L-Asparagine, PEPTIPURE®	939
9652	Fmoc-L-Asparagine-(Trityl), PEPTIPURE®	939
6641	Fmoc-L-Aspartic acid-(OAllyl), PEPTIPURE®	940
9654	Fmoc-L-Aspartic acid-(OtBu), PEPTIPURE®	940
7369	Fmoc-L-β-Azidoalanine, PEPTIPURE®	940
7363	Fmoc-L-γ-Azidohomoalanine, PEPTIPURE®	940
7357	Fmoc-L-Azidolysine, PEPTIPURE®	940
7362	Fmoc-L-Azidoornithine, PEPTIPURE®	940
7485	Fmoc-L-4-Azidophenylalanine, PEPTIPURE®	940
7367	Fmoc-L-4-Azidoproline (2S,4R), PEPTIPURE®	941
8842	Fmoc-L-Cysteine-(Acetamidomethyl), PEPTIPURE®	941
8841	Fmoc-L-Cysteine-(Trityl), PEPTIPURE®	941
9655	Fmoc-L-Glutamic acid-(OtBu) monohydrate, PEPTIPURE®	941
6898	Fmoc-L-Glutamine, PEPTIPURE®	941
9653	Fmoc-L-Glutamine-(Trityl), PEPTIPURE®	941
6899	Fmoc-Glycine, PEPTIPURE®	942
8843	Fmoc-L-Histidine-(Trityl), PEPTIPURE®	942
6647	Fmoc-L-Isoleucine, PEPTIPURE®	942
6654	Fmoc-L-Leucine, PEPTIPURE®	942
6900	Fmoc-L-Lysine, PEPTIPURE®	942
8840	Fmoc-L-Lysine-(Boc), PEPTIPURE®	942
6656	Fmoc-L-Methionine, PEPTIPURE®	943
6658	Fmoc-L-Phenylalanine, PEPTIPURE®	943
6659	Fmoc-L-Proline, PEPTIPURE®	943
7491	Fmoc-L-Propargylglycine, PEPTIPURE®	943
6901	Fmoc-L-Serine monohydrate, PEPTIPURE®	943
9666	Fmoc-L-Serine-(tBu), PEPTIPURE®	943
9659	Fmoc-L-Threonine-(tBu), PEPTIPURE®	944
6903	Fmoc-L-Tryptophan, PEPTIPURE®	944
9668	Fmoc-L-Tryptophan-(Boc), PEPTIPURE®	944
6906	Fmoc-L-Tyrosine, PEPTIPURE®	944
9669	Fmoc-L-Tyrosine-(tBu), PEPTIPURE®	944
6660	Fmoc-L-Valine, PEPTIPURE®	944
6665	*N*-Formyl-L-Leucine	948
2473	1,1,1,3,3,3-Hexafluoro-2-pro-panol (HFIP) , PEPTIPURE®	981
9670	*N*-Hydroxysuccinimide	1001
6664	L-*tert*-Leucine methylester hydrochloride	1041
P052	*N*-Methyl-2-pyrrolidone (NMP), PEPTIPURE®	1088
7830	H_2N-PEG3-Azide	1139
7823	NHS-PEG4-Azide	
A122	Piperidine, PEPTIPURE®	1159
7515	Rink amide resin, PEPTIPURE®	1207
7408	Sieber amide resin, PEPTIPURE®	1258
2130	*O*-(*N*-Succinimidyl)-*N*,*N*,*N*',*N*'-tetramethyluronium tetrafluoroborate (TSTU), PEPTIPURE®	1343
P088	Trifluoroacetic acid (TFA), PEPTIPURE®	1379
7506	Wang resin, PEPTIPURE®	1399
3478	Water	1401
1914	Z-L-Arginine, PEPTIPURE®	1411
1894	Z-L-Aspartic acid, PEPTIPURE®	1411
1885	Z-L-Glutamic acid, PEPTIPURE®	1412
1859	Z-L-Leucine, PEPTIPURE®	1416
1907	Z-L-Lysine, PEPTIPURE®	1417
1865	Z-L-Phenylalanine, PEPTIPURE®	1417

Reasoner's 2A Agar

▸ R2A-Agar see page 1198

Red prussiate of potash

▸ Potassium hexacyanoferrate(III) see page 1172

Red tetrazolium

▸ 2,3,5-Triphenyltetrazolium chloride see page 1381

Reinecke salt monohydrate

Ammonium tetrathiocyanato-diamminechromate(III) monohydrate

$NH_4[Cr(SCN)_4(NH_3)_2] \cdot H_2O$ · mp 268 to 272 °C
CAS No. 13573-17-6 · EC no. 237-003-3
WGK 1

⚠ **Warning** H302+H312+H332-EUH032

Reinecke salt monohydrate

≥93 %, p.a., ACS

Guarantee analysis

Appearance ..... red-brown to purple powder
Assay ..... ≥93,0 %
In diluted HCl insoluble matter ..... ≤0,05 %
Sensitivity ..... complies

Art. No.	Pack Qty.	Pack.	€
6629.1	25 g	glass	78,40
6629.2	100 g	glass	224,70

Reinforced Clostridial Medium

Medium P (Ph. Eur. 6.0) · RCM · Reinforced Medium for Clostridia (Ph. Eur. 6.3, 7.0, 8.0 and 9.0)

WGK 3

Reinforced Clostridial Medium
Ph. Eur., for microbiology

For enrichment and enumeration of *Clostridiae* and other anaerobes from foods and other specimens.

Application: Use 38 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis

Beef extract	10 g/l
Peptone	10 g/l
Yeast extract	3 g/l
Soluble starch	1 g/l
Glucose monohydrate	5 g/l
Cystein hydrochloride	0,5 g/l
Sodium chloride (NaCl)	5 g/l
Sodium acetate	3 g/l
Agar	0,5 g/l
pH value	6,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE66.1	500 g	plastic	143,55
Original pack 6 x 500 g			136,37/500 g

Renardin
▸ Senkirkine see page 1256

Rennase
▸ Rennin see page 1202

Rennin

Lab · Rennase

CAS No. 9001-98-3 · EC no. 232-645-0
WGK 1

Danger H315-H319-H334-H335

Rennin
for biochemistry

Storage temperature: +4 °C

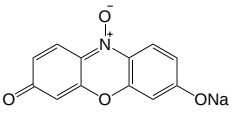
Type analysis

Appearance	light brown, saline powder
Odour	typical odour of rennin
Chymosin	≥95 %
Pepsin	≤5 %
Rennet strength	≥800 IMCU/g

Preserved with benzoic acid. From the fourth calf stomach.

Art. No.	Pack Qty.	Pack.	€
8178.1	50 g	plastic	73,65

Resazurin sodium salt



$C_{12}H_8NNaO_4$
CAS No. 62758-13-8 · EC no. 263-718-5
WGK 1

Resazurin sodium salt
extra pure

Redocindicator, indicator pH 5-7, reagent for hyposulphites

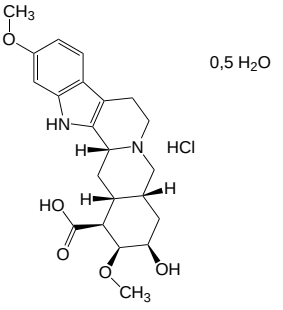
Dissolve 0.1 g in 100 ml water, freshly made

Type analysis

Appearance	dark green to black powder
pH-transition range	5 (pink)-7 (blue violet)

Art. No.	Pack Qty.	Pack.	€
1H5X.1	1 g	glass	27,45
1H5X.2	5 g	glass	76,25
1H5X.3	10 g	glass	137,10

Reserpic acid hydrochloride hemihydrate



$C_{22}H_{28}N_2O_5$ · HCl · 0,5 H_2O · mp 259 to 265 °C
UN no. 1544 · ADR 6.1 III · WGK 1

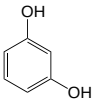
Danger H301

Reserpic acid hydrochloride hemihydrate
ROTICHROM® ~CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
4295.1	100 mg	glass	53,65

Resorcin blue
▸ Lacmoid see page 1031

Resorcinol



1,3-Benzenediol · 1,3-Dihydroxybenzene · Resorcinol

$C_6H_6O_2$ · D 1,28 g/cm³ · mp 108 to 110 °C · bp 277 to 280 °C · flp 127 °C
CAS No. 108-46-3 · EC no. 203-585-2
UN no. 2876 · ADR 6.1 III · WGK 2

Warning H302-H315-H319-H400

Resorcinol
≥99 %, for biochemistry

Reagent on alkaloids, aldehydes and invert sugar.

Type analysis

Assay	≥99,0 %
In H_2O insoluble matter	≤0,01 %
Melting range	109-111 °C
Loss on drying	≤1,0 %

Art. No.	Pack Qty.	Pack.	€
5727.1	100 g	plastic	28,95
5727.2	500 g	plastic	85,90
Original pack 6 x 500 g			81,61/500 g
5727.3	1 kg	plastic	149,45
Original pack 6 x 1 kg			141,98/1 kg
5727.4	2.5 kg	plastic	317,15

Resorcinol-Fuchsine-solution acc. to Weigert

Weigert's Resorcinol-Fuchsine solution

D 0,9 g/cm³ · bp >65 °C · flp 12 °C
UN no. 2924 · ADR 3 (8) II · WGK 2

Danger H225-H290-H302+H312+H332-H318-H336-H370

Resorcinol-Fuchsine-solution acc. to Weigert
for microscopy

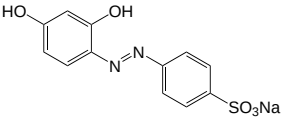
For visualising elastic fibres.

Type analysis

Suitability for microscopy (tissue section)	complies

Art. No.	Pack Qty.	Pack.	€
X877.1	500 ml	glass	59,70
X877.2	1 l	glass	103,75
Original pack 6 x 1 l			98,56/1 l
X877.3	2.5 l	plastic	210,60
Original pack 4 x 2.5 l			200,07/2.5 l

Resorcinol yellow (C.I. 14270)



Tropaeolin O sodium salt

$C_{12}H_9NaN_2O_5S$
CAS No. 547-57-9
WGK 1

Resorcinol yellow (C.I. 14270)
extra pure

Indicator pH 11,0-12,7

Dissolve 0.1 g in 100 ml ethanol or water

Type analysis

Appearance	dark orange to rust colored powder
Appearance of solution (10 mg/ml in 1 N NH_3)	clear, red brown
pH-transition range	11,0 (yellow)-12,7 (red)

Art. No.	Pack Qty.	Pack.	€
7741.1	5 g	glass	18,85
7741.2	25 g	glass	33,25
7741.3	100 g	glass	80,55

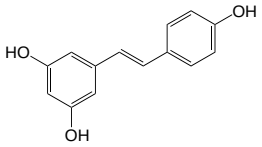
Resorcinophthalein sodium

▸ Fluorescein disodium salt see page 938

β-Resorcylaldehyde

▸ 2,4-Dihydroxy benzaldehyde see page 882

Resveratrol



trans-3,4',5-Trihydroxystilbene

$C_{14}H_{12}O_3$ · mp 253 to 257 °C
CAS No. 501-36-0
WGK 1

Warning H319

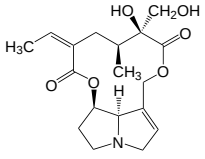
Resveratrol
ROTICHROM® CHR ≥98 %

Storage temperature: +4 °C

Type analysis
Appearance ..... fine off white powder
Assay (HPLC) ..... ≥98,0 %
Loss on drying ..... ≤7,0 %

Art. No.	Pack Qty.	Pack.	€
N811.1	500 mg	glass	55,80
N811.2	1 g	glass	90,20
N811.3	5 g	glass	224,70

Retrorsine



β-Longilobin · 12,18-Dihydroxysenecionan-11,16-dion

$C_{18}H_{25}NO_6$ · mp 207 to 211 °C
CAS No. 480-54-6
UN no. 1544 · ADR 6.1 II · WGK 1

Danger H300

Retrorsine
ROTICHROM® HPLC

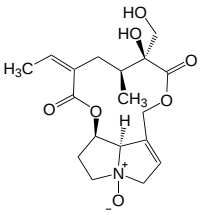
Reference substance for HPLC.
From *Senecio retrorsus*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1213.1	20 mg	glass	332,20

Retrorsine-*N*-oxide



12,18-Dihydroxysenecionan-11,16-dione-4-oxide · Isatidine

$C_{18}H_{25}NO_7$ · mp 140 to 150 °C
CAS No. 15503-86-3
UN no. 1544 · ADR 6.1 II · WGK 2

Danger H300-H373

Retrorsine-*N*-oxide
ROTICHROM® HPLC

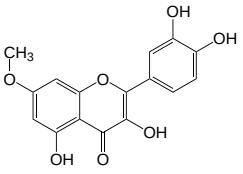
Reference substance for HPLC.
From *Senecio retrorsus*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
6733.1	10 mg	glass	338,65

Rhamnetin



β-Rhamnocitrin · 7-Methylquercetin

$C_{16}H_{12}O_7$ · mp 285 to 298 °C
CAS No. 90-19-7 · EC no. 201-974-1
WGK 1

Warning H315-H319-H335

Rhamnetin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

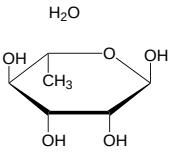
Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7418.1	10 mg	glass	274,15

β-Rhamnocitrin

▸ Rhamnetin see page 1203

L(+)-Rhamnose monohydrate



Isodulcit · L-Mannomethylose

$C_6H_{12}O_5 \cdot H_2O$ · D 1,397 g/cm³ · mp 84,8 °C · bp 123,3 to 139,6 °C
CAS No. 3615-41-6 · EC no. 222-793-4
WGK 1

L(+)-Rhamnose monohydrate
≥98 %, for biochemistry

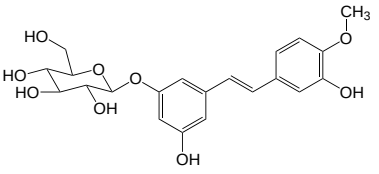
Type analysis
Assay (HPLC) ..... ≥98,0 %
Water (KF) ..... 9,0-11,0 %
Melting point ..... 88-94 °C
Specific rotation $[\alpha]_D^{20}$ (c=5 in H_2O) .. +7,7° to +8,9°

Art. No.	Pack Qty.	Pack.	€
4655.1	5 g	glass	39,70
4655.2	25 g	plastic	107,00

Rhamnoxanthine

▸ Frangulin A see page 948

Rhaponticin



Rhapontin

$C_{21}H_{24}O_9$ · mp 233 to 237 °C
CAS No. 155-58-8 · EC no. 205-845-0
WGK 1

Rhaponticin
ROTICHROM® ~CHR$_{TLC}$

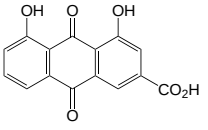
Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
7152.1	1 g	glass	53,65

Rhapontin

▸ Rhaponticin see page 1203

Rhein



Cassic acid · Monorhein

$C_{15}H_8O_6$ · mp 321 to 324 °C
CAS No. 478-43-3 · EC no. 207-521-4
WGK 1

Warning H315-H319-H335

Rhein
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7419.2	20 mg	glass	299,95

Rhein
ROTICHROM® CHR$_{TLC}$

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
8868.1	50 mg	glass	68,70

Rhenium Standards

- Rhenium ICP Standard Solution see page 1321
- Rhenium ICP Standard Solution see page 1321

Rhinanthin

- Aucubin see page 758

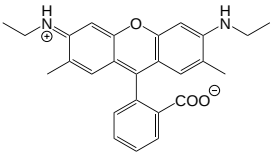
Rhodamine 19

- Rhodamine 575 see page 1204

Rhodamine 590

- Rhodamine 6G (C.I. 45160) see page 1204

Rhodamine 575



Rhodamine 19

$C_{26}H_{26}N_2O_3$ · mp 313 to 317 °C
CAS No. 25152-49-2 · EC no. 246-666-8
WGK 1

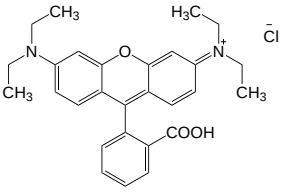
Rhodamine 575
≥98 %

Laser and scintillation dye

Type analysis
Appearance ..... Coral-red crystalline powder
Assay (HPLC) ..... ≥98 %
Maximum absorption ..... 518±2 nm (MeOH)

Art. No.	Pack Qty.	Pack.	€
7310.1	100 mg	glass	30,00
7310.2	500 mg	glass	53,65

Rhodamine B (C.I. 45170)



Oil soluble red A · Rosaceine · Safraniline

Rhodamine B (C.I. 45170)
for microscopy

Water-soluble fluorescent dye

$C_{28}H_{31}ClN_2O_3$ · D 1,31 g/cm³ · mp 199 to 201 °C

CAS No. 81-88-9 · EC no. 201-383-9

WGK 1

Danger H318-H412

Type analysis
Dye content ..... ~80 %
Maximum absorption ..... 540-560 nm
Loss on drying (60 °C) ..... ≤5,0 %

Art. No.	Pack Qty.	Pack.	€
T130.1	25 g	glass	42,90
T130.7	50 g	plastic	71,95

Rhodamine B solution
0,5 % in 2-Propanol

Fluorescent dye

ready-to-use

$C_{28}H_{31}ClN_2O_3$ · D 0,7916 g/cm³ · mp -89 °C · bp 82 °C · flp 13 °C

UN no. 1219 · ADR 3 II · WGK 1

Danger H225-H319-H336

Art. No.	Pack Qty.	Pack.	€
1E02.1	100 ml	glass	77,30

Rhodamine B spray solution

Rhodamine B spray solution
for TLC

Ready-to-use spray solution for detection of lipids.
0,1 g Rhodamine B dissolved in 100 ml ethanol.

D 0,83 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C

Storage temperature: +4 °C

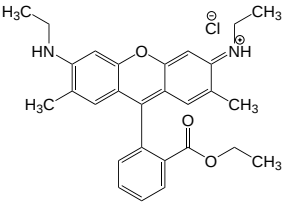
UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

Type analysis
TLC-application ..... complies

Art. No.	Pack Qty.	Pack.	€
CP37.1	100 ml	glass	42,90

Rhodamine 6G (C.I. 45160)



Rhodamine 590 · Basic red 1

$C_{28}H_{31}ClN_2O_3$
CAS No. 989-38-8 · EC no. 213-584-9
WGK 1

Warning H302

Rhodamine 6G (C.I. 45160)
pure

Type analysis
Appearance of solution (1 % in H_2O) ..... opaque, dark red
Loss on drying (1 h, 110 °C) ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
0749.1	5 g	glass	21,40
0749.2	25 g	glass	41,40
0749.3	100 g	glass	111,30

Rhodamine-6-carboxyamino-caproyl-[5-(3-aminoallyl)-2'-desoxyuridine-5'-triphosphate]

- Rhodamine-12-dUTP see page 1204

Rhodamine-12-dUTP

Rhodamine-6-carboxyaminocaproyl-[5-(3-aminoallyl)-2'-desoxyuridine-5'-triphosphate]

$C_{39}H_{41}N_6O_{19}P_3$ · D 1 g/cm³ · bp 100 °C
WGK 1

Rhodamine-12-dUTP
≥95 %, 1 mM solution

For non-radioactive, enzymatic labelling of DNA.

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
1049.1	25 µl	plastic	228,45
1049.2	50 µl	plastic	403,15

Rhodium Standards

- Rhodium ICP Standard Solution see page 1321

Rhodium(III) ammonium chloride

- Ammonium hexachlororhodate(III) see page 735

Rhodium(III) chloride hydrate

Rhodium trichloride hydrate

$RhCl_3 \cdot x\ H_2O$ · mp 100 °C
CAS No. 20765-98-4 · EC no. 233-165-4
WGK 1

Danger H302-H318

Rhodium(III) chloride hydrate
ROTI®METIC 99,95 % (3N5)

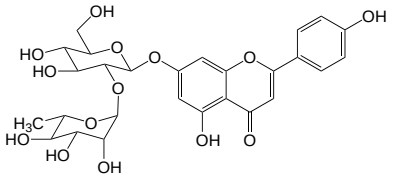
Type analysis
Assay (metals basis) ..... 99,95 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5668.1	1 g	plastic	1.822,15

Rhodium trichloride hydrate
▸ Rhodium(III) chloride hydrate see page 1205

Rhoifolin



Apigenin-7-rhamnoglucoside

$C_{27}H_{30}O_{14}$ · mp 245 °C
CAS No. 17306-46-6 · EC no. 241-335-4
WGK 1

Rhoifolin
ROTICHROM® HPLC

Reference substance for HPLC.

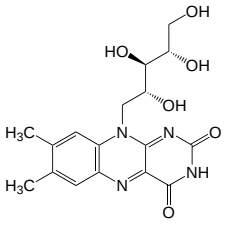
Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7420.2	20 mg	glass	332,20

Ribitol
▸ Adonitol see page 709

Riboflavine



Lactoflavine · Vitamin B_2

$C_{17}H_{20}N_4O_6$ · mp 280 to 290 °C
CAS No. 83-88-5 · EC no. 201-507-1
WGK 1

Riboflavine
≥97 %, Ph. Eur., for biochemistry

Guarantee analysis
Appearance ..... yellow to orange-yellow cryst. powder
Assay (UV-absorption, dry substance) ..... 97,0-103,0 %
Identity ..... complies
Specific rotation $[\alpha]_D^{20}$ (0,5 % in 0,05 N NaOH) ..... -135° to -115°
Absorption ..... complies
Sulphated ash ..... ≤0,1 %
Loss on drying (105 °C) ..... ≤1,5 %
Related substances ..... complies

Art. No.	Pack Qty.	Pack.	€
9607.1	25 g	plastic	38,60
9607.2	50 g	plastic	67,65
9607.3	100 g	plastic	115,60
9607.4	250 g	plastic	224,70

Riboflavine-5'-adenosine-diphosphate disodium salt
▸ Flavine-adenine-dinucleotide disodium salt (FAD) see page 936

RiboFlow® Kits

Biomolecular rapid test · Immunochromatography · Lateral Flow Assay

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314-H360FD

RiboFlow® Campylobacter
ready-to-use, for microbiology

SY-LAB.

For the confirmation of thermophilic *Campylobacter* spp. colonies.

D 1 g/cm³

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Components
Solution A ..... 2 ml
Solution B ..... 1 ml
Solution C ..... 2 ml
Reaction tubes ..... 30 pieces
RiboFlow® test cassettes ..... 4 x 6 pieces

Art. No.	Pack Qty.	Pack.	€
9885.1	1 kit	cardboard	365,50

RiboFlow® Candida albicans
ready-to-use, for microbiology

SY-LAB.

For detection of *Candida albicans.*

D 1 g/cm³

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Components
Solution A ..... 2 ml
Solution B ..... 1 ml
Solution C ..... 2 ml
Reaction tubes ..... 30 pieces
RiboFlow® test cassettes ..... 4 x 6 pieces

Art. No.	Pack Qty.	Pack.	€
9893.1	1 kit	cardboard	349,40

RiboFlow® Cosmetics
ready-to-use, for microbiology

SY-LAB.

Combi test for 4 target organisms each – for detection and differentiation of *E. coli, Ps. aeruginosa, S. aureus, C. albicans.*

The RiboFlow® Cosmetics Combi test Kit consists of 6 sets with 4 test cassettes each with whom the target organisms *Escherichia coli*, *Pseudomonas aeruginosa*, *Staphylococcus aureus* and *Candida albicans* can be tested parallely.

D 1 g/cm³

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Components
Solution A ..... 2 ml
Solution B ..... 1 ml
Solution C ..... 2 ml
Reaction tubes 2 ml ..... 8 pieces
RiboFlow® test cassettes ..... 6 sets of 4 tests

Art. No.	Pack Qty.	Pack.	€
9894.1	1 kit	cardboard	267,70

RiboFlow® Cronobacter
ready-to-use, for microbiology

SY-LAB.

For detection of *Cronobacter* spp.

D 1 g/cm³

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Components
Solution A ..... 2 ml
Solution B ..... 1 ml
Solution C ..... 2 ml
Reaction tubes ..... 30 pieces
RiboFlow® test cassettes ..... 4 x 6 pieces

Art. No.	Pack Qty.	Pack.	€
9882.1	1 kit	cardboard	289,20

RiboFlow® E. coli
ready-to-use, for microbiology

SY-LAB.

For detection of *E. coli.*

D 1 g/cm³

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Components
Solution A ..... 2 ml
Solution B ..... 1 ml
Solution C ..... 2 ml
Reaction tubes ..... 30 pieces
RiboFlow® test cassettes ..... 4 x 6 pieces

Art. No.	Pack Qty.	Pack.	€
9891.1	1 kit	cardboard	349,40

RiboFlow® Enterobacteriaceae
ready-to-use, for microbiology

SY-LAB.

For detection of enterobacteria.

D 1 g/cm³

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Components
Solution A ..... 2 ml
Solution B ..... 1 ml
Solution C ..... 2 ml
Reaction tubes ..... 30 pieces
RiboFlow® test cassettes ..... 4 x 6 pieces

Art. No.	Pack Qty.	Pack.	€
9890.1	1 kit	cardboard	317,15

RiboFlow® Listeria Twin
ready-to-use, for microbiology

SY-LAB.

For detection and differentiation of *Listeria* spp. and *Listeria monocytogenes.*

Within the RiboFlow® Listeria Twin Kit, one test cassette detects simultaneously the presence of *Listeria monocytogenes* and/or of other *Listeria* spp.

D 1 g/cm³

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Components
Solution A ..... 2 ml
Solution B ..... 1 ml
Solution C ..... 2 ml
Reaction tubes ..... 30 pieces
RiboFlow® test cassettes ..... 4 x 6 pieces

Art. No.	Pack Qty.	€
9884.1	1 kit	450,45

RiboFlow® P/En
ready-to-use, for microbiology

SY-LAB.

For detection and differentiation of *Pseudomonas* spp. and *Enterobacteriaceae.*

Within the RiboFlow® P/En Kit, one test cassette detects simultaneously the presence of *Pseudomonas aeruginosa* and/or of enterobacteria.

D 1 g/cm³

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Components
Solution A ..... 2 ml
Solution B ..... 1 ml
Solution C ..... 2 ml
Reaction tubes ..... 30 pieces
RiboFlow® test cassettes ..... 4 x 6 pieces

Art. No.	Pack Qty.	Pack.	€
9895.1	1 kit	cardboard	349,40

RiboFlow® Pseudomonas aeruginosa
ready-to-use, for microbiology

SY-LAB.

For detection of *Pseudomonas aeruginosa.*

D 1 g/cm³

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Components
Solution A ..... 2 ml
Solution B ..... 1 ml
Solution C ..... 2 ml
Reaction tubes ..... 30 pieces
RiboFlow® test cassettes ..... 4 x 6 pieces

Art. No.	Pack Qty.	Pack.	€
9892.1	1 kit	cardboard	349,40

RiboFlow® Salmonella
ready-to-use, for microbiology

SY-LAB.

For detection of *Salmonella* spp.

D 1,01 g/cm³

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Components
Solution A ..... 2 ml
Solution B ..... 1 ml
Solution C ..... 2 x 2 ml
RiboExtract ..... 6 ml
Reaction tubes ..... 50 pieces
RiboFlow® test cassettes ..... 4 x 6 pieces

Art. No.	Pack Qty.	Pack.	€
9881.1	1 kit	cardboard	338,65

RiboFlow® Staphylococcus aureus
ready-to-use, for microbiology

SY-LAB.

For detection of *Staphylococcus aureus.*

D 1 g/cm³

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Components
Solution A ..... 2 ml
Solution B ..... 1 ml
Solution C ..... 2 ml
Reaction tubes ..... 30 pieces
RiboFlow® test cassettes ..... 4 x 6 pieces

Art. No.	Pack Qty.	Pack.	€
9889.1	1 kit	cardboard	349,40

RiboFlow® Vibrio parahaemolyticus
ready-to-use, for microbiology

SY-LAB.

For the confirmation of *Vibrio parahaemolyticus.*

D 1 g/cm³

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Components
Solution A ..... 2 ml
Solution B ..... 1 ml
Solution C ..... 2 ml
Reaction tubes ..... 30 pieces
RiboFlow® test cassettes ..... 4 x 6 pieces

Art. No.	Pack Qty.	Pack.	€
9888.1	1 kit	cardboard	392,40

D(–)-Ribofuranose
▸ D(–)-Ribose see page 1207

D-Ribofuranose 5-phosphate disodium salt
▸ D-Ribose-5-phosphate disodium salt see page 1207

9-β-D-Ribofuranosyladenine
▸ Adenosine see page 708

Ribonuclease

RNase

CAS No. 9001-99-4 · EC no. 232-646-6
WGK 1

Ribonuclease
>70 U/mg (Kunitz), salt-free, protease-free

Purified by chromatography, for biochemistry.

Stock solution: 10 mg/ml in water.
Working solution: 5–20 µg/ml in 10 mM Tris (pH 7,5), 15 mM NaCl.
Store solution in aliquots at –20 °C.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white, freeze-dried powder
Activity (Kunitz) ..... >70 U/mg

Art. No.	Pack Qty.	Pack.	€
7164.1	100 mg	glass	42,90
7164.2	1 g	glass	327,90

Ribonuclease A
90 U/mg (Kunitz), BioScience Grade, salt-free

Acc. to Hirs, extracted from bovine pancreas.

Stock solution: 10 mg/ml in water (pH ≤6,0) or 0,01 M sodium acetate (pH 5,2). Do not heat RNAse prepared in sodium acetate.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis

Appearance ..... white, freeze-dried powder
Assay (IEC, Amberlit CG50) ..... >95 %
Solubility (2 mg/ml, H_2O) ..... clear, soluble
Activity (Kunitz) ..... ~90 U/mg
DNAse ..... not detected
Protease ..... not detected

Art. No.	Pack Qty.	Pack.	€
7156.1	100 mg	glass	127,95
7156.4	250 mg	glass	289,20
7156.2	500 mg	glass	553,65
7156.3	1 g	glass	1.021,25

Ribonuclease H
5 U/µl, for molecular biology

For hydrolytic cleavage of phosphodiester bonds between RNA and DNA.

250 U correspond to 50 preparations with a volume of 20 µl.

D 1,18 g/cm³

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Purity ..... ≥90 %
Concentration ..... 5 U/µl
DNases (exo-and endonucleases) ..... no

Art. No.	Pack Qty.	Pack.	€
3728.1	50 µl	plastic	220,40
3728.2	250 µl	plastic	886,90

Ribonucleic acid sodium salt

Sodium nucleinate

CAS No. 63231-63-0
WGK 1

Ribonucleic acid sodium salt
≥93 %, for biochemistry

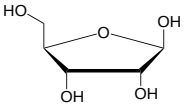
from pure cultured yeasts (*Candida Utilis*).

Storage temperature: +4 °C

Type analysis
Appearance ..... yellowish powder
Assay (dry substance) ..... ≥93,0 %

Art. No.	Pack Qty.	Pack.	€
4362.1	25 g	plastic	49,35

D(–)-Ribose



D(–)-Ribofuranose

$C_5H_{10}O_5$ · D 0,8 g/cm³ · mp 87 °C · bp >150 °C
CAS No. 50-69-1 · EC no. 200-059-4
WGK 1

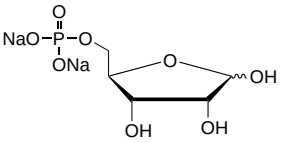
D(–)-Ribose
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... pale white to white powder
Assay (HPLC, dry substance) ..... ≥98,0 %
Specific rotation $[\alpha]_D^{20}$ ..... -18° to -22°
Loss on drying (3 h, 110 °C) ..... ≤3,0 %
Heavy metals (as Pb) ..... ≤0,001 %
Loss on ignition ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
7168.1	10 g	plastic	24,65
7168.3	25 g	plastic	48,95
7168.2	100 g	plastic	128,50

D-Ribose-5-phosphate disodium salt



D-Ribofuranose 5-phosphate disodium salt · R-5-P-Na_2

$C_5H_9Na_2O_8P$
CAS No. 18265-46-8 · EC no. 242-140-7
WGK 1

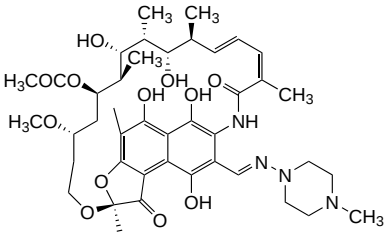
D-Ribose-5-phosphate disodium salt
≥85 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (titr.) ..... ≥85,0 %
Solution (5 % in H_2O) .... colourless to light yellow
Water (KF) ..... ≤15,0 %
pH value (1 % in H_2O) 6,5-7,5

Art. No.	Pack Qty.	Pack.	€
5253.1	250 mg	glass	73,00
5253.2	1 g	glass	223,10

Rifampicin



3-(4-Methylpiperazinyl-iminomethyl)rifamycin SV

$C_{43}H_{58}N_4O_{12}$ · mp 183 to 188 °C
CAS No. 13292-46-1 · EC no. 236-312-0
WGK 1

Warning H302-H315-H319-H335

Rifampicin
≥90 %, for biochemistry

Bacteriostatic antibiotic

Art. No. 4163.3: A stock solution with a concentration of 100 mg/ml can be prepared directly by adding 5 ml chloroform or DMSO.

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥90 %
Solution (5 % in chloroform) ..... orange to dark brown
Loss on drying (60 °C, vacuum) ..... ≤2 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4163.1	500 mg	glass	40,75
4163.3	500 mg	glass	50,45
4163.2	1 g	glass	74,10

Ringer solution 1/4

D 1,039 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

Ringer solution 1/4
ISO 8199, ISO 10718, for microbiology

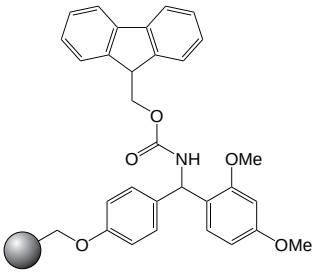
Isotonic solution for cell suspensions according to ISO standards.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Sodium chloride (NaCl) ..... 2,25 g/l
Calcium chloride ..... 0,06 g/l
Potassium chloride (KCl) ..... 0,1 g/l
Sodium bicarbonate ..... 0,05 g/l

Art. No.	Pack Qty.	Pack.	€
1L88.1	180 ml	glass	40,75

Rink amide resin



4-(2',4'-Dimethoxyphenyl-Fmoc-aminomethyl) phenoxy resin

WGK 1

Rink amide resin
PEPTIPURE® 100–200 mesh, 1 % DVB

For peptide synthesis

Type analysis
Appearance ..... white to slightly yellow beads
Loading ..... 0,3-0,8 mmol/g
Identity (IR) ..... complies
Swelling ..... 4,0-7,0 ml/g (DMF, 24 h)
Swelling ..... 4,5-8,5 ml/g (CH_2Cl_2, 24 h)
Kaiser test ..... negative
Loss on drying ..... ≤2 %

Art. No.	Pack Qty.	Pack.	€
7515.1	1 g	glass	42,90
7515.2	5 g	plastic	181,70

RNA-isolation kit
▸ ROTI®Quick kit see page 1240

RNA isolation reagent
▸ ROTI®ZOL RNA see page 1244

RNase
▸ Ribonuclease see page 1206

RNase AWAY®

Decontamination solution · Nuclease Removal · Purification solution for surfaces

D 1 g/cm³ · mp ~0 °C · bp ~100 °C
UN no. 1824 · ADR 8 III · WGK 1

Danger H314

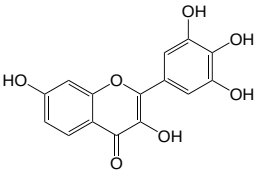
RNase AWAY®
ready-to-use

for removal of RNase-contaminations from surfaces

Art. No.	Pack Qty.	Pack.	€
A998.1	250 ml	plastic	62,25
A998.4	475 ml	spray bottle	96,65
A998.2	1 l	plastic	131,70
Original pack 6 x 1 l			125,12/1 l
A998.3	4 l	plastic	256,95

Robigenin
▸ Kaempferol see page 1026

Robinetin



5'-Oxyfisetin · Norkanugin

$C_{15}H_{10}O_7$ · mp 300 °C
CAS No. 490-31-3 · EC no. 207-709-6
WGK 1

Robinetin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7421.1	10 mg	glass	263,40

Rogosa Agar

Lactobacillus Selective Agar acc. to Rogosa

WGK 2

Rogosa Agar
for microbiology

For selective cultivation of lactobacilli.

Application: Use 75 g for 1 l agar.

Storage temperature: +4 °C
Transport temperature: ambient temp.

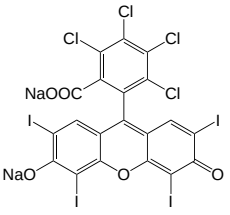
Composition
Sodium acetate ..... 15 g/l
Tryptone ..... 10 g/l
Dextrose ..... 10 g/l
Potassium phosphate ..... 6 g/l
Yeast extract ..... 5 g/l
Sucrose ..... 5 g/l
Arabinose ..... 5 g/l
Ammonium citrate ..... 2 g/l
Polysorbate 80 ..... 1 g/l
Magnesium sulphate ($MgSO_4$) ..... 0,57 g/l
Manganese sulphate ..... 0,12 g/l
Iron sulphate ..... 0,03 g/l
Agar ..... 15 g/l
pH value ..... 5,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
8329.1	500 g	plastic	183,30
Original pack 6 x 500 g			174,14/500 g

Rongalit®
▸ Sodium formaldehyde sulphoxylate see page 1283

Rosaceine
▸ Rhodamine B (C.I. 45170) see page 1204

Rose Bengale B (C.I. 45440)



4,5,6,7-Tetrachloro-2',4',5',7'-tetraiodofluorescein disodium salt

$C_{20}H_2Cl_4I_4Na_2O_5$
CAS No. 632-69-9 · EC no. 211-183-3
WGK 1

Rose Bengale B (C.I. 45440)
for microscopy

Water-soluble fluorescent dye, e.g. for use in bacteriological assays.
Solubility: 1 % in water. Excitation maximum: 540 nm, Emission maximum: 550–600 nm

Type analysis
Maximum absorption ..... 540-555 nm
Loss on drying (110 °C) ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
3162.1	50 g	plastic	149,45

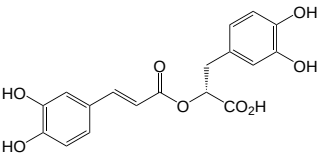
Rose-Gal
▸ 6-Chloro-3-indoxyl-β-D-galactopyranoside see page 832

Rose-Glucuro CHAsalt
▸ 6-Chloro-3-indoxyl-β-D-glucuronic acid cyclohexylammonium salt see page 832

Rose-Phos *p*-toluidine salt
▸ 6-Chloro-3-indoxyl phosphate *p*-toluidine salt see page 832

Rosinduline
▸ Azocarmine G see page 761

Rosmarinic acid



$C_{18}H_{16}O_8$ · D 0,91 g/cm³ · mp 170 to 175 °C · bp 694 °C · flp 254 °C
CAS No. 20283-92-5
WGK 1

Rosmarinic acid
ROTI®Star Primary Standard

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Assay (HPLC) ..... ≥85,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤5,0 %
Assay (qNMR) ..... ≥80,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE30.1	50 mg	glass	1.181,45

Rosmarinic acid
ROTICHROM® Working Standard

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Assay (HPLC) ..... ≥85,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC30.1	100 mg	glass	676,20

Rosmarinic acid
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
N816.2	20 mg	glass	256,95

Rosmarinic acid
ROTICHROM® ~CHR$_{TLC}$

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
A558.1	100 mg	glass	299,95

p-Rosolic acid
▸ Aurin see page 758

ROTH Hexanucleotide Random-Primer Mix

Ready-made primers · Primer

ROTH Hexanucleotide Random-Primer Mix
HPLC-purified, lyophilized

For random priming during probe generation or during total genome-amplification.

N_6 mix (N for A, G, C, T).
10 OD_{260} units.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
HP28.1	1 set	plastic	87,65

ROTH poly d(T)$_{12-18}$ Primer

Ready-made primers · Primer

ROTH poly d(T)$_{12-18}$ Primer
HPLC-purified, lyophilized

For sequence unspecific priming during reverse transcription.

Mix of d(T) 12 to 18mers.
5 OD_{260} units.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
HP27.1	1 set	plastic	64,40

ROTH Random-Primer sets for RAPD-PCR

Ready-made primers · Primer

ROTH Random-Primer set A
desalinated and lyophilized

20 x 10mer/set

2,0 OD_{260} units per primer, aliquoted in 2 vials each.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
HP22.1	1 set	box	246,20

ROTH Random-Primer set B
desalinated and lyophilized

20 x 10mer/set

2,0 OD_{260} units per primer, aliquoted in 2 vials each.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
HP23.1	1 set	box	246,20

ROTH Random-Primer set C
desalinated and lyophilized

20 x 10mer/set

2,0 OD_{260} units per primer, aliquoted in 2 vials each.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
HP24.1	1 set	box	246,20

ROTH Random-Primer set D
desalinated and lyophilized

20 x 10mer/set

2,0 OD_{260} units per primer, aliquoted in 2 vials each.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
HP25.1	1 set	box	246,20

ROTI®Antibiotic Discs

Antimicrobial Susceptibility Disc · Antibiotic resistance test · Test sheets with antibiotics · Kirby-Bauer agar diffusion test

WGK 1

ROTI®Antibiotic Discs Amphotericin B (AP)
100 Units, for microbiology

For antimicrobial susceptibility testing of fungal cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Activity ..... 100 U

Inhibiting zone diameter:
Candida albicans ATCC 10231 ..... 10-18 mm
Candida albicans ATCC 90028 ..... 10-17 mm
Candida parapsilosis ATCC 22019 ... 11-20 mm
Candida tropicalis ATCC 750 ..... 8-12 mm
Sacchromyces cerevisae ATCC 9763 ..... 11-18 mm
Candida krusei ATCC 6258 ..... 9-14 mm

Art. No.	Pack Qty.	Pack.	€
1454.2	50 unit(s)	plastic	18,20
1454.1	250 unit(s)	plastic	64,00

ROTI®Antibiotic Discs Ampicillin (AMP)
10 µg, for microbiology

For antimicrobial susceptibility testing of bacterial cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Concentration ..... 10 µg

Inhibiting zone diameter:
Escherichia coli ATCC 25922 ..... 15-22 mm
Staphylococcus aureus ATCC 25923 ..... 27-35 mm

Art. No.	Pack Qty.	Pack.	€
1456.2	50 unit(s)	plastic	13,90
1456.1	250 unit(s)	plastic	42,50

ROTI®Antibiotic Discs Bacitracin (B)
10 Units, for microbiology

For antimicrobial susceptibility testing of bacterial cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Activity ..... 10 U

Inhibiting zone diameter:
Staphylococcus aureus ATCC 25923 ..... 12-22 mm

Art. No.	Pack Qty.	Pack.	€
1458.2	50 unit(s)	plastic	13,90
1458.1	250 unit(s)	plastic	42,50

ROTI®Antibiotic Discs Carbenicillin (CB)
100 µg, for microbiology

For antimicrobial susceptibility testing of bacterial cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Concentration ..... 100 µg

Inhibiting zone diameter:
Escherichia coli ATCC 25922 ..... 23-29 mm
Pseudomonas aeruginosa ATCC 27853 ..... 18-24 mm

Art. No.	Pack Qty.	Pack.	€
1459.2	50 unit(s)	plastic	13,90
1459.1	250 unit(s)	plastic	42,50

ROTI®Antibiotic Discs Cefoxitin (CX)
30 µg, for microbiology

For antimicrobial susceptibility testing of bacterial cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Concentration ..... 30 µg

Inhibiting zone diameter:
Escherichia coli ATCC 25922 ..... 23-29 mm
Staphylococcus aureus ATCC 25923 ..... 23-29 mm

Art. No.	Pack Qty.	Pack.	€
1460.2	50 unit(s)	plastic	13,90
1460.1	250 unit(s)	plastic	42,50

ROTI®Antibiotic Discs Chloramphenicol (C)
30 µg, for microbiology

For antimicrobial susceptibility testing of bacterial cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Concentration ..... 30 µg

Inhibiting zone diameter:
Escherichia coli ATCC 25922 ..... 21-27 mm
Staphylococcus aureus ATCC 25923 ..... 19-26 mm
Staphylococcus aureus ATCC 29213 ..... 20-28 mm

Art. No.	Pack Qty.	Pack.	€
1461.2	50 unit(s)	plastic	13,90
1461.1	250 unit(s)	plastic	42,50

ROTI®Antibiotic Discs Colistin (CL)
10 µg, for microbiology

For antimicrobial susceptibility testing of bacterial cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Concentration ..... 10 µg

Inhibiting zone diameter:
Escherichia coli ATCC 25922 ..... 11-17 mm
Pseudomonas aeruginosa ATCC 27853 ..... 11-17 mm

Art. No.	Pack Qty.	Pack.	€
1462.2	50 unit(s)	plastic	16,05
1462.1	250 unit(s)	plastic	49,35

ROTI®Antibiotic Discs Erythromycin (E)
15 µg, for microbiology

For antimicrobial susceptibility testing of bacterial cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Concentration ..... 15 µg

Inhibiting zone diameter:
Staphylococcus aureus ATCC 25923 ..... 22-30 mm
Staphylococcus aureus ATCC 29213 ..... 23-29 mm

Art. No.	Pack Qty.	Pack.	€
1463.2	50 unit(s)	plastic	13,90
1463.1	250 unit(s)	plastic	42,50

ROTI®Antibiotic Discs Gentamicin (GEN)
10 µg, for microbiology

For antimicrobial susceptibility testing of bacterial cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Concentration ..... 10 µg

Inhibiting zone diameter:
Escherichia coli ATCC 25922 ..... 19-26 mm
Staphylococcus aureus ATCC 25923 ..... 19-27 mm
Pseudomonas aeruginosa ATCC 27853 ..... 17-23 mm
Staphylococcus aureus ATCC 29213 ..... 19-25 mm

Art. No.	Pack Qty.	Pack.	€
1464.2	50 unit(s)	plastic	13,90
1464.1	250 unit(s)	plastic	42,50

ROTI®Antibiotic Discs Kanamycin (K)
5 µg, for microbiology

For antimicrobial susceptibility testing of bacterial cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Concentration ..... 5 µg

Inhibiting zone diameter:
Escherichia coli ATCC 25922 ..... 16-22 mm
Staphylococcus aureus ATCC 25923 ..... 19-26 mm

Art. No.	Pack Qty.	Pack.	€
1465.2	50 unit(s)	plastic	16,05
1465.1	250 unit(s)	plastic	49,35

ROTI®Antibiotic Discs Nalidixic acid (NA)
30 µg, for microbiology

For antimicrobial susceptibility testing of bacterial cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Concentration ..... 30 µg

Inhibiting zone diameter:
Escherichia coli ATCC 25922 ..... 22-28 mm

Art. No.	Pack Qty.	Pack.	€
1466.2	50 unit(s)	plastic	13,90
1466.1	250 unit(s)	plastic	42,50

ROTI®Antibiotic Discs Neomycin (N)
10 µg, for microbiology

For antimicrobial susceptibility testing of bacterial cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Concentration ..... 10 µg

Inhibiting zone diameter:
Escherichia coli ATCC 25922 ..... 13-19 mm
Staphylococcus aureus ATCC 25923 ..... 17-25 mm

Art. No.	Pack Qty.	Pack.	€
1467.2	50 unit(s)	plastic	13,90
1467.1	250 unit(s)	plastic	42,50

ROTI®Antibiotic Discs Novobiocin (NV)
30 µg, for microbiology

For antimicrobial susceptibility testing of bacterial cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Concentration ..... 30 µg

Inhibiting zone diameter:
Staphylococcus aureus ATCC 25923 ..... 22-31 mm

Art. No.	Pack Qty.	Pack.	€
1468.2	50 unit(s)	plastic	13,90
1468.1	250 unit(s)	plastic	42,50

ROTI®Antibiotic Discs Nystatin (NS)
100 Units, for microbiology

For antimicrobial susceptibility testing of fungal cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Activity ..... 100 U

Inhibiting zone diameter:
Candida albicans ATCC 10231 ..... 15-23 mm
Sacchromyces cerevisae ATCC 9763 ..... 17-25 mm
Candida albicans ATCC 90028 ..... 19-27 mm
Candida parapsilosis ATCC 22019 .. 16-25 mm
Candida tropicalis ATCC 750 ..... 16-21 mm
Candida krusei ATCC 6258 ..... 15-20 mm

Art. No.	Pack Qty.	Pack.	€
1476.2	50 unit(s)	plastic	13,90
1476.1	250 unit(s)	plastic	42,50

ROTI®Antibiotic Discs Penicillin (P)
10 Units, for microbiology

For antimicrobial susceptibility testing of bacterial cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Activity ..... 10 U

Inhibiting zone diameter:
Staphylococcus aureus ATCC 25923 ..... 26-37 mm

Art. No.	Pack Qty.	Pack.	€
1494.2	50 unit(s)	plastic	13,90
1494.1	250 unit(s)	plastic	42,50

ROTI®Antibiotic Discs Polymyxin B (PB)
300 Units, for microbiology

For antimicrobial susceptibility testing of bacterial cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis

Activity ..... 300 U

Inhibiting zone diameter:
Escherichia coli ATCC 25922 ..... 13-19 mm
Pseudomonas aeruginosa ATCC 27853 ..... 14-18 mm

Art. No.	Pack Qty.	Pack.	€
1495.2	50 unit(s)	plastic	13,90
1495.1	250 unit(s)	plastic	42,50

ROTI®Antibiotic Discs Rifampicin (RIF)
5 µg, for microbiology

For antimicrobial susceptibility testing of bacterial cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Concentration ..... 5 µg

Inhibiting zone diameter:
Escherichia coli ATCC 25922 ..... 8-10 mm
Staphylococcus aureus ATCC 25923 ..... 26-34 mm

Art. No.	Pack Qty.	Pack.	€
1496.2	50 unit(s)	plastic	13,90
1496.1	250 unit(s)	plastic	42,50

ROTI®Antibiotic Discs Streptomycin (*S*)
10 µg, for microbiology

For antimicrobial susceptibility testing of bacterial cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Concentration ..... 10 µg

Inhibiting zone diameter:
Escherichia coli ATCC 25922 ..... 12-20 mm
Staphylococcus aureus ATCC 25923 ..... 14-22 mm

Art. No.	Pack Qty.	Pack.	€
1497.2	50 unit(s)	plastic	13,90
1497.1	250 unit(s)	plastic	42,50

ROTI®Antibiotic Discs Tetracycline (TE)
30 µg, for microbiology

For antimicrobial susceptibility testing of bacterial cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Concentration ..... 30 µg

Inhibiting zone diameter:
Escherichia coli ATCC 25922 ..... 18-25 mm
Staphylococcus aureus ATCC 25923 ..... 24-30 mm

Art. No.	Pack Qty.	Pack.	€
1498.2	50 unit(s)	plastic	13,90
1498.1	250 unit(s)	plastic	42,50

ROTI®Antibiotic Discs Ticarcillin (TI)
75 µg, for microbiology

For antimicrobial susceptibility testing of bacterial cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Concentration ..... 75 µg

Inhibiting zone diameter:
Escherichia coli ATCC 25922 ..... 24-30 mm
Pseudomonas aeruginosa ATCC 27853 ..... 21-27 mm

Art. No.	Pack Qty.	Pack.	€
1499.2	50 unit(s)	plastic	13,90
1499.1	250 unit(s)	plastic	42,50

ROTI®Antibiotic Discs Vancomycin (VA)
30 µg, for microbiology

For antimicrobial susceptibility testing of bacterial cultures.

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Guarantee analysis
Concentration ..... 30 µg

Inhibiting zone diameter:
Staphylococcus aureus ATCC 25923 ..... 17-21 mm

Art. No.	Pack Qty.	Pack.	€
1501.2	50 unit(s)	plastic	13,90
1501.1	250 unit(s)	plastic	42,50

ROTI®Aqua-P/C/I
▸ ROTI®Phenol/Chloroform/Isoamyl alcohol see page 1232

ROTI®Aqua-Phenol
▸ ROTI®Phenol see page 1232

ROTI®Aquatest Plates

ROTI®Aquatest Plate Cetr
Ph. Eur., ready-to-use, sterile, for microbiology

For isolation of *Pseudomonas aeruginosa*.

Ready-made media · Media plates · Ready-made plate *Pseudomonas aeruginosa*

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

UN no. 3077 · ADR 9 III · WGK 3

Warning H400

Composition
Gelatin peptone (Pancreas hydrolysate) ..... 20 g/l
Potassium sulphate (K_2SO_4) ..... 10 g/l
Magnesium chloride ..... 1,4 g/l
Cetrimide ..... 0,3 g/l
Glycerol ..... 10 ml/l
Agar ..... 13,6 g/l
pH value ..... 7,2 ±0,2
Colour ..... opaque white
Growth of test strains ..... complies
Diameter ..... 55 mm

Art. No.	Pack Qty.	Pack.	€
9646.1	30 unit(s)	box	74,20

ROTI®Aquatest Plate PCA
APHA, ISO 4833, ready-to-use, sterile, for microbiology

For enumeration of the aerobic microbial flora.

Ready-made media · Media plates · PCA · Ready-made plate total count

Expiration time on request.
Do NOT freeze!

D 1,033 g/cm³

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition
Casein peptone ..... 5 g/l
Yeast extract ..... 2,5 g/l
Glucose ..... 1 g/l
Agar ..... 14 g/l
pH value ..... 7,0 ±0,2
Colour ..... amber, slightly opalescent
Growth of test strains ..... complies
Diameter ..... 55 mm

Art. No.	Pack Qty.	Pack.	€
9640.1	30 unit(s)	box	74,20

ROTI®Aquatest Plate R2A
Ph. Eur., ready-to-use, sterile, for microbiology

For enumeration of heterotrophic bacteria.

Ready-made media · Media plates · Ready-made plate heterotrophic bacteria

Expiration time on request.
Do NOT freeze!

D 1,033 g/cm³

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition
Yeast extract ..... 0,5 g/l
Peptone ..... 0,5 g/l
Casein hydrolysed ..... 0,5 g/l
Glucose ..... 0,5 g/l
Starch ..... 0,5 g/l
di-Potassium hydrogen phosphate ..... 0,3 g/l
Magnesium sulphate ($MgSO_4$) ..... 0,024 g/l
Sodium pyruvate ..... 0,3 g/l
Agar ..... 15 g/l
pH value ..... 7,2 ±0,2
Colour ..... amber
Growth of test strains ..... complies
Diameter ..... 55 mm

Art. No.	Pack Qty.	Pack.	€
9644.1	30 unit(s)	box	74,20

ROTI®Aquatest Plate Sab4
Ph. Eur., ready-to-use, sterile, for microbiology

For cultivation of yeasts and fungi.

Ready-made media · Media plates · Ready-made plate yeasts and moulds

Expiration time on request.
Do NOT freeze!

D 1,053 g/cm³

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Glucose	40 g/l
Meat and casein peptone	10 g/l
Agar	15 g/l
pH value	5,6 ±0,2
Colour	amber, slightly opalescent
Growth of test strains	complies
Diameter	55 mm

Art. No.	Pack Qty.	Pack.	€
9643.1	30 unit(s)	box	74,20

ROTI®Aquatest Plate Staph
Ph. Eur., ready-to-use, sterile, for microbiology

For isolation of pathogenic staphylococci.

Ready-made plate Staphylococci · Ready-made media · Media plates · Ready-made plate pathogenic staphylococci

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Pancreatic digest of casein	5 g/l
Peptone (peptic digest of animal tissue)	5 g/l
Beef extract	1 g/l
Sodium chloride (NaCl)	75 g/l
D-Mannitol	10 g/l
Phenol red	0,025 g/l
Agar	15 g/l
pH value	7,4 ±0,2
Colour	red
Growth of test strains	complies
Diameter	55 mm

Art. No.	Pack Qty.	Pack.	€
9650.1	30 unit(s)	box	74,20

ROTI®Aquatest Plate YE
DEV, ISO 6222, ready-to-use, sterile, for microbiology

For enumeration of microorganisms in general, e.g. bacteria, moulds or yeast.

Ready-made media · Media plates · Ready-made plate total count

Expiration time on request.
Do NOT freeze!

D 1,032 g/cm³

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Tryptone	6 g/l
Yeast extract	3 g
Agar	15 g/l
pH value	7,2 ±0,2
Colour	amber, slightly opalescent
Growth of test strains	complies
Diameter	55 mm

Art. No.	Pack Qty.	Pack.	€
9642.1	30 unit(s)	box	74,20

ROTI®Black N

Silver staining

UN no. 3316 · ADR 9 II · WGK 3

Danger H272-H290-H301+H311+H331-H314-H317-H335-H341-H350-H370-H373-H410

ROTI®Black N
for electrophoresis

Silver staining kit for DNA-polyacrylamide gels

One kit is adequate for staining 10 gels of 10 or 40 mls gel volume.

Art. No.	Pack Qty.	Pack.	€
N769.1	1 kit	cardboard	122,05
N769.2	1 kit	cardboard	213,95

ROTI®Black NSeq

Silver staining

UN no. 3316 · ADR 9 II · WGK 3

Danger H272-H290-H301+H311+H331-H314-H317-H335-H341-H350-H370-H373-H410

ROTI®Black NSeq
for electrophoresis

Silver staining kit for sequencing gels

One kit is adequate for staining 10 gels of 48 mls gel volume.

Art. No.	Pack Qty.	Pack.	€
P081.1	1 kit	cardboard	174,70

ROTI®Black P

Silver staining

UN no. 3316 · ADR 9 II · WGK 3

Danger H272-H290-H301+H311+H331-H314-H317-H335-H341-H350-H370-H410

ROTI®Black P
for electrophoresis

Silver staining kit for protein gels

One kit is adequate for staining 10 gels.

Art. No.	Pack Qty.	Pack.	€
L533.1	1 kit	cardboard	97,30
L533.2	1 kit	cardboard	117,20

ROTI®Block

Blocking reagents

D 1,086 g/cm³ · bp 100 °C
WGK 1

ROTI®Block
10x conc., ready-to-use

Protein free blocking solution

Contains Tween® 20

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
A151.1	250 ml	glass	62,90
A151.4	500 ml	glass	106,45
A151.2	1 l	glass	190,85
Original pack 6 x 1 l			181,31/1 l
A151.3	2.5 l	glass	353,70
Original pack 4 x 2.5 l			336,02/2.5 l

ROTI®Blot

Blotting buffers

ROTI®Blot 1
10x conc., for electrophoresis

Discontinuous transfer buffer for semi dry blotting.

Kit of two solutions. Both solutions may be bought separately.

D 1 g/cm³

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Warning H290-H315-H319

Art. No.	Pack Qty.	Pack.	€
L509.1	1 kit	glass	127,95

ROTI®Blot A
10x conc., for electrophoresis

Anode buffer to Roti®-Blot 1 (L509)

D 1,035 g/cm³

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Warning H290-H315-H319

Art. No.	Pack Qty.	Pack.	€
L510.1	1 l	glass	77,95
Original pack 6 x 1 l			74,05/1 l

ROTI®Blot K
10x conc., for electrophoresis

Cathode buffer to Roti®-Blot 1 (L509)

D 1,035 g/cm³

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 2

Art. No.	Pack Qty.	Pack.	€
L511.1	1 l	glass	80,10
Original pack 6 x 1 l			76,10/1 l

ROTI®Blue

Coomassie®-Staining solution

D 1,24 g/cm³
UN no. 1805 · ADR 8 III · WGK 1

Warning H290

ROTI®Blue
5x conc.

Colloidal Coomassie® staining solution for protein gels.

1 l concentrated solution is sufficient for approx. 50 mini gels.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... dark blue, colloidale solution
pH-value ..... 1 - 4

Art. No.	Pack Qty.	Pack.	€
A152.2	250 ml	plastic	39,25
A152.1	1 l	plastic	114,50
Original pack 6 x 1 l			108,78/1 l

ROTI®Blue quick

Coomassie®-Staining solution

D 1 g/cm³ · bp 100 °C
UN no. 1760 · ADR 8 II · WGK 1

Danger H314

ROTI®Blue quick
1x conc., ready-to-use

For rapid, sensitive staining of protein gels.

1 l solution is sufficient for approx. 40 mini gels.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
4829.1	250 ml	glass	98,40
4829.2	1 l	plastic	360,15
Original pack 6 x 1 l			342,14/1 l

ROTI®Cell amino acids

WGK 1

ROTI®Cell MEM-AA solution
CELLPURE® 50x conz., sterile, w/o glutamine

for cell culture

Amino acids, essential · Essential amino acids

Solution in water.
Dilution 1:50 in cell culture medium. End concentration per amino acid conforms to EMEM.

D 1,1 g/cm³ · mp ~0 °C · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: cooled

Type analysis
pH value 1,2-1,6
Cell growth promotion test ..... complies
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
0647.1	100 ml	plastic	38,60

ROTI®Cell Bicarbonate solution

Bicarbonate solution · Sodium bicarbonate solution

D 1 g/cm³
WGK 1

ROTI®Cell Bicarbonate solution
CELLPURE® 7,5 %, sterile

For cell culture

Solution in water

Type analysis
Sodium bicarbonate ..... 7,5 %
pH value 7,5-8,1
Osmolality ..... 133-177 mOsm/kg
Endotoxins ..... <1,0 EU/ml

Art. No.	Pack Qty.	Pack.	€
9165.1	100 ml	plastic	36,45

ROTI®Cell DPBS/EDTA

EDTA solution in DPBS · Versene®/DPBS

WGK 1

ROTI®Cell DPBS/EDTA
CELLPURE® sterile, 0,02 % EDTA (Versene®), w/o Ca/Mg

Balanced salt solution with EDTA for cell culture.

ready-to-use

Not a medical device / Not an IVD product

Type analysis
EDTA (Versene®) ..... 0,02 %
pH value 7,0-7,5
Osmolality ..... 275-291 mOsm/kg
Endotoxins ..... ≤1,0 EU/ml
Toxicity ..... none detected
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
9135.1	100 ml	plastic	27,45

ROTI®Cell Gelatine solution

Gelatine solution

D 1,1 g/cm³
WGK 1

ROTI®Cell 0.1% Gelatine solution
CELLPURE® 0,1 % conc., sterile, ready-to-use, in PBS, w/o Ca/Mg

From porcine skin, for cell culture, protein biochemistry and molecular biology

For coating cell culture vessels: 100–200 µg (0,1–0,2 ml)/cm²

Storage temperature: +4 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Type analysis
pH value 7,2-7,8
Osmolality ..... tested
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
0621.1	500 ml	plastic	117,20

ROTI®Cell 2% Gelatine solution
CELLPURE® 2 % conc., sterile, ready-to-use, in PBS, w/o Ca/Mg

From porcine skin, for cell culture, protein biochemistry and molecular biology

For coating cell culture vessels: 100–200 µg (5–10 µl)/cm²

Storage temperature: +4 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Type analysis
pH value ..... getested
Osmolality ..... getested
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
0646.1	100 ml	plastic	37,65

ROTI®Cell Glutamine solution

Alanyl-L-glutamine solution · Glutamine solution

WGK 1

ROTI®Cell Glutamine solution
CELLPURE® 200 mM, sterile

For cell culture

Temperature-stable solution in 145 mM NaCl

Type analysis
Glutamin, stable ..... 200 mM
pH value 5,58-6,78
Osmolality ..... 423-499 mOsm/kg
Endotoxins ..... <1,0 EU/ml
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
9183.1	100 ml	plastic	30,00

ROTI®Cell Hanks' BSS

HBBS · Hanks' salt solution

WGK 1

ROTI®Cell Hanks' BSS
CELLPURE® ready-to-use, sterile, with Ca/Mg, with Phenolrot

Balanced salt solution acc. to Hanks for cell culture

ready-to-use

Not a medical device / Not an IVD product

Type analysis
Glucose ..... 1,0 g/l
pH value 7,1-7,4
Osmolality ..... 277-299 mOsm/kg
Endotoxins ..... ≤1,0 EU/ml
Toxicity ..... none detected
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
9122.1	500 ml	plastic	26,80

ROTI®Cell Myco-Free

Mycoplasm eradication solution · Antibiotic mixture

WGK 3

ROTI®Cell Myco-Free
CELLPURE® 50x conc., sterile, ready-to-use

For elimination of mycoplasm contamination in cell culture.

One bottle of 100 ml is sufficient for approx. 300 applications.

Storage temperature: –20 °C
Transport temperature: cooled

Guarantee analysis
Appearance of solution ..... clear, colourless
pH value 4,0-4,5
Osmolality ..... 280-340 mOsm/kg
Endotoxins ..... <10 EU/ml
Sterility ..... complies
Toxicity ..... none detected

Art. No.	Pack Qty.	Pack.	€
9830.1	100 ml	plastic	274,15

ROTI®Cell PBS/EDTA

EDTA solution in PBS

D 1 g/cm³
WGK 1

ROTI®Cell PBS/EDTA
CELLPURE® sterile, 0,046 % EDTA, w/o Ca/Mg

Balanced salt solution with EDTA for cell culture.

Not a medical device / Not an IVD product

Type analysis
EDTA ..... 0,046 %
pH value 7,4-7,6
Osmolality ..... 290-320 mOsm/kg
Endotoxins ..... ≤0,25 EU/ml
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
9152.1	500 ml	plastic	19,25

ROTI®C/I

D 1,47 g/cm³ · bp 61 °C
UN no. 1888 · ADR 6.1 III · WGK 3

Danger H302-H315-H319-H331-H351-H361d-H372

ROTI®C/I
ready-to-use, for the extraction of nucleic acids

Chloroform/Isoamyl alcohol at a ratio of 24:1.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
X984.3	100 ml	glass	13,45
X984.1	250 ml	glass	21,00
X984.2	500 ml	glass	32,80

ROTICLEAR®

Xylene substitutes

D 0,76 to 0,77 g/cm³ · mp <-20 °C · bp 130 to 170 °C · flp >23 °C
EC no. 265-150-3
UN no. 3295 · ADR 3 III · WGK 3

Danger H226-H304-H336-H412-EUH066

ROTICLEAR®
ROTICLEAR® ready-to-use, for histology

Clearing agent of aliphatic hydrocarbons, practically free from aromatic compounds. For dewaxing of histological sections.
Alternative product for xylene.

Type analysis
Density (15 °C) 0,7440-0,7638
Colour (Hazen) ..... ≤10
Flash point ..... ≥23 °C
Boiling range ..... 130-170 °C
Aromatic compounds ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
A538.1	1 l	glass	21,40
Original pack 6 x 1 l			20,33/1 l
A538.5	2.5 l	glass	40,75
Original pack 4 x 2.5 l			38,71/2.5 l
A538.6	5 l	aluminium	67,20
Original pack 2 x 5 l			63,84/5 l
A538.2	10 l	tinplate	126,35
A538.3	25 l	tinplate	252,65
A538.4	200 l	barrel	1.343,75

ROTI®ContiPlates

ROTI®ContiPlate MacCon
ready-to-use, sterile, for microbiology

For detection of enterobacteria on surfaces.

Contact plates · Ready-made media · Media plates · Ready-made plate enterobacteria

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition
Gelatine peptone ..... 17 g/l
Meat and casein peptone ..... 3 g/l
Lactose ..... 10 g/l
Bile salt (Cholate) ..... 1,5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Neutral red ..... 0,03 g/l
Crystal Violet ..... 0,001 g/l
Agar ..... 15 g/l
pH value ..... 7,1±0,2
Colour ..... pink
Growth of test strains ..... complies
Diameter ..... 60 mm

Art. No.	Pack Qty.	Pack.	€
2313.1	30 unit(s)	box	91,40

ROTI®ContiPlate PCA
ready-to-use, sterile, for microbiology

For total germ count on surfaces.

Contact plates · Ready-made media · Media plates · PCA · Ready-made plate total count

Expiration time on request.
Do NOT freeze!

D 1,032 g/cm³

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition
Casein peptone ..... 5 g/l
Yeast extract ..... 2,5 g/l
Glucose ..... 1 g/l
Agar ..... 15 g/l
pH value ..... 7,0 ±0,2
Colour ..... amber, slightly opalescent
Growth of test strains ..... complies
Diameter ..... 60 mm

Art. No.	Pack Qty.	Pack.	€
9630.1	30 unit(s)	box	91,40

ROTI®ContiPlate RBC
ready-to-use, sterile, for microbiology

For counting yeasts and moulds on surfaces.

Contact plates · Ready-made media · Media plates · RBC Agar · Ready-made plate yeasts and moulds

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 3

Danger H318

Composition
Glucose ..... 10 g/l
Peptone ..... 5 g/l
Potassium phosphate ..... 1 g/l
Magnesium sulphate ($MgSO_4$) ..... 0,5 g/l
Chloroamphenicol ..... 0,1 g/l
Bengal red ..... 0,05 g/l
Agar ..... 15 g/l
pH-value ..... 7,2 ±0,2
Colour ..... intense pink
Growth of test strains ..... complies
Diameter ..... 60 mm

Art. No.	Pack Qty.	Pack.	€
9632.1	30 unit(s)	box	91,40

ROTI®ContiPlate Sab4plus
ready-to-use, sterile, for microbiology

For selective detection of yeasts and pathogenic fungi on surfaces.

Contact plates · Ready-made media · Media plates · Ready-made plate yeasts and moulds

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 3

Composition
Glucose ..... 40 g/l
Meat and casein peptone ..... 10 g/l
Chloroamphenicol ..... 0,5 g/l
Agar ..... 15 g/l

pH value ..... 5,6 ±0,2
Colour ..... amber, slightly opalescent
Growth of test strains ..... complies
Diameter ..... 60 mm

Art. No.	Pack Qty.	Pack.	€
9633.1	30 unit(s)	box	91,40

ROTI®ContiPlate TSA
ready-to-use, sterile, for microbiology

For total germ count on surfaces.

Contact plates · Ready-made media · Media plates · TSA · ROTI®ContiPlate CASO · Ready-made plate total count

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition
Casein peptone ..... 15 g/l
Soy peptone ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar ..... 15 g/l
pH value ..... 7,3±0,2
Colour ..... straw-colored
Growth of test strains ..... complies
Diameter ..... 60 mm

Art. No.	Pack Qty.	Pack.	€
2312.1	30 unit(s)	box	91,40

ROTI®ContiPlate TSA-Letheen
ready-to-use, sterile, for microbiology

For detection of microorganisms on disinfected surfaces.

Contact plates · Ready-made media · Media plates · Ready-made plate total count

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Warning H319

Composition
Pancreatic digest of casein ..... 15 g/l
Soy peptone (papain hydrolysate) ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Triton® X-100 ..... 1,0 g/l
Lecithin ..... 0,7 g/l
Polysorbate 80 ..... 5 g/l
Agar ..... 15 g/l
pH value ..... 7,0 ±0,2
Colour ..... amber, slightly opalescent
Growth of test strains ..... complies
Diameter ..... 60 mm

Art. No.	Pack Qty.	Pack.	€
9634.1	30 unit(s)	box	91,40

ROTI®ContiPlate VRB
ready-to-use, sterile, for microbiology

For detection of coliforms on surfaces.

Contact plates · Ready-made media · Media plates · VRB Agar · Ready-made plate *E. coli*/ Coliforms

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 3

Composition
Yeast extract ..... 3 g/l
Meat peptone ..... 7 g/l
Sodium chloride (NaCl) ..... 5 g/l
Bile salt (Cholate) ..... 1,5 g/l
Lactose ..... 10 g/l
Neutral red ..... 0,03 g/l
Crystal Violet ..... 0,002 g/l
Agar ..... 15 g/l
pH value ..... 7,4±0,2
Colour ..... purple-pink
Growth of test strains ..... complies
Diameter ..... 60 mm

Art. No.	Pack Qty.	Pack.	€
2314.1	30 unit(s)	box	91,40

ROTI®ContiPlate VRBD
ISO 11133, ready-to-use, sterile, for microbiology

For detection of enterobacteria on surfaces.

Contact plates · Ready-made media · Media plates · VRBD Agar · Ready-made plate enterobacteria

Expiration time on request.
Do NOT freeze!

D 1,046 g/cm³

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition
Glucose ..... 10 g/l
Gelatine peptone ..... 7 g/l
Sodium chloride (NaCl) ..... 5 g/l
Yeast extract ..... 3 g/l
Bile salts ..... 1,5 g/l
Neutral red ..... 0,03 g/l
Crystal Violet ..... 0,002 g/l
Agar ..... 13 g/l
pH value ..... 7,4 ±0,2
Colour ..... purple-red
Growth of test strains ..... complies
Diameter ..... 60 mm

Art. No.	Pack Qty.	Pack.	€
9631.1	30 unit(s)	box	91,40

ROTI®ContiPlate CASO
▸ ROTI®ContiPlate TSA see page 1215

ROTI®DAB Kit

DAB substrate kit · HRP substrate kit

WGK 1

Danger H302-H341-H351-H360D-H373

ROTI®DAB Kit
for immunochemistry

Substrate kit for detection of HRP activity on blot membranes and slides.

One kit is sufficient for staining of approx. 44 minigel blot membranes or 500 slides.

Storage temperature: +4 °C
Transport temperature: cooled

Type analysis
Application test (Blotting) ..... complies
RNAse ..... ≤1 ppb
DNAse ..... ≤1 ppm

Art. No.	Pack Qty.	Pack.	€
9202.1	1 kit	cardboard	224,70

ROTI®DipSlides

Ready-made media · Contact agar

ROTI®DipSlide CASO-TTC/RBCenr
ready-to-use, sterile, for microbiology

For total germ count and for detection of yeasts and moulds in solution or on surface. Suitable for analysis of water-mixable cooling lubricants, air conditions, water-soluble paint, and cosmetics.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 3

Composition

Agar side 1:
Caseine peptone ..... 15 g/l
Soja peptone ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
TTC ..... 0,05 g/l
Agar ..... 15 g/l
pH value ..... 7,3 ± 0,2
Colour ..... amber, slightly opalescent
Growth of test strains ..... complies

Agar side 2:
Peptone ..... 5,0 g/l
Glucose ..... 10 g/l
Bengal red ..... 0,05 g/l
Magnesium sulphate ($MgSO_4$) ..... 0,5 g/l
Potassium phosphate ..... 1,0 g/l
Chloroamphenicol ..... 0,1 g/l
Agar ..... 15 g/l
pH-value ..... 7,2 ± 0,2
Colour ..... intense pink
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
3934.1	20 unit(s)	box	79,45

ROTI®DipSlide CLED/MacCon
ready-to-use, sterile, for microbiology

For detection of bacteria of the urinary tract and of enterobacteria/Coliforms in liquids or on surfaces.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Agar side 1:
Casein peptone ..... 4 g/l
Gelatine peptone ..... 4 g/l
Beef extract ..... 3 g/l
Lactose ..... 10 g/l
L-Cystine ..... 0,128 g/l
Bromothymol blue ..... 0,02 g/l
Agar ..... 15 g/l
pH value ..... 7,3±0,2
Colour ..... green
Growth of test strains ..... complies

Agar side 2:
Gelatin peptone (Pancreas hydrolysate) ..... 17 g/l
Meat and casein peptone ..... 3 g/l
Lactose monohydrate ..... 10 g/l
Bile salt (Cholate) ..... 1,5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Neutral red ..... 0,03 g/l
Crystal Violet ..... 0,001 g/l
Agar ..... 13,5 g/l
pH-value ..... 7,1±0,2
Colour ..... violet-red
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
2957.1	20 unit(s)	box	79,45

ROTI®DipSlide D/Eneutral
ready-to-use, sterile, for microbiology

For total germ count on surface after disinfection. For hygiene monitoring. Contains 5 neutralizers.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition
Dextrose ..... 10 g/l
Lecithin ..... 7 g/l
Sodium thiosulphate ..... 6 g/l
Casein peptone ..... 5 g/l
Polysorbate 80 ..... 5 g/l
Yeast extract ..... 2,5 g/l
Sodium bisulfite ..... 2,5 g/l
Sodium thioglycolate ..... 1 g/l
Bromocresol purple ..... 0,02 g/l
Agar ..... 15 g/l
pH value ..... 7,6 ±0,2
Colour ..... purple
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
8023.1	20 unit(s)	box	79,45

ROTI®DipSlide MacCon/Cetr
ready-to-use, sterile, for microbiology

For detection of enterobacteria like salmonellae or shigellae and pseudomonads in liquids or on surfaces.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Agar side 1:
Casein peptone ..... 17,0 g/l
Meat and casein peptone ..... 3,0 g/l
Lactose monohydrate ..... 10,0 g/l
Sodium chloride (NaCl) ..... 5,0 g/l
Bile salt (Cholate) ..... 1,5 g/l
Neutral red ..... 0,03 g/l
Crystal Violet ..... 0,001 g/l
Agar ..... 13,5 g/l
pH value ..... 7,1 ± 0,2
Colour ..... violet-red
Growth of test strains ..... complies

Agar side 2:
Pancreas hydrolysate made from gelatin . 20,0 g/l
Magnesium chloride ..... 1,4 g/l
Potassium sulphate (K_2SO_4) ..... 10,0 g/l
Cetrimide ..... 0,3 g/l
Agar ..... 13,6 g/l
pH-value ..... 7,1 ±0,2
Colour ..... opaque white
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
8045.1	20 unit(s)	box	79,45

ROTI®DipSlide Nutrient-TTC
ready-to-use, sterile, for microbiology

For total germ count in liquids or on surfaces.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 3

Composition

Agar side 1:
Gelatine peptone ..... 5 g/l
Meat extract ..... 3 g/l
Agar ..... 15 g/l
pH value ..... 6,8 ± 0,2
Colour ..... amber, slightly opalescent
Growth of test strains ..... complies

Agar side 2:
Gelatin Peptone ..... 5 g/l
Meat extract ..... 3 g/l
TTC ..... 0,05 g/l
Agar ..... 15 g/l
pH-value ..... 6,8 ± 0,2
Colour ..... amber, slightly opalescent
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
2837.1	20 unit(s)	box	79,45

ROTI®DipSlide PCA
ready-to-use, sterile, for microbiology

For total germ count in liquids or on surfaces.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 3

Composition
Casein peptone ..... 5 g/l
Yeast extract ..... 2,5 g/l
Glucose ..... 1 g/l
Agar ..... 15 g/l
pH value ..... 7,2±0,2
Colour ..... amber, slightly opalescent
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
2927.1	20 unit(s)	box	79,45

ROTI®DipSlide PCA/Legionella
ready-to-use, sterile, for microbiology

For total germ count and for detection of legionells in solution or on surface.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Agar side 1:
Casein peptone ..... 5 g/l
Yeast extract ..... 2,5 g/l
Glucose ..... 1 g/l
Agar ..... 15 g/l
pH value ..... 7,0±0,2
Colour ..... amber, slightly opalescent
Growth of test strains ..... complies

Agar side 2:
Yeast extract ..... 10 g/l
Charcoal activated ..... 2 g/l
GVPC selective additive ..... complies
Growth additive ..... complies
Agar ..... 13 g/l
pH-value ..... 6,9±0,2
Colour ..... black
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
2493.1	20 unit(s)	box	79,45

ROTI®DipSlide PCA/RBCplus
ready-to-use, sterile, for microbiology

For total germ count and for detection of yeasts and moulds in liquids or on surfaces.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 3

Composition

Agar side 1:
Casein peptone ..... 5 g/l
Yeast extract ..... 2,5 g/l
Glucose ..... 1 g/l
Agar ..... 15 g/l
pH value ..... 7,0±0,2
Colour ..... amber, slightly opalescent
Growth of test strains ..... complies

Agar side 2:
Peptone ..... 5 g/l
Glucose ..... 10 g/l
Potassium phosphate ..... 1 g/l
Magnesium sulphate ($MgSO_4$) ..... 0,5 g/l
Chloroamphenicol ..... 0,1 g/l
Bengal red ..... 0,05 g/l
Agar ..... 15 g/l
pH-value ..... 7,2±0,2
Colour ..... intense pink
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
2926.1	20 unit(s)	box	79,45

ROTI®DipSlide PCA/TSA-Letheen
ready-to-use, sterile, for microbiology

For total germ count in liquids or on surfaces. Suitable for analysis of cosmetics and of preservative containing products or after disinfection. Contains two neutralizers.

Expiration time on request.
Do NOT freeze!

D 1,032 g/cm³

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Warning H319

Composition

Agar side 1:
Casein peptone ..... 5,0 g/l
Glucose ..... 1,0 g/l
Yeast extract ..... 2,5 g/l
Agar ..... 15,0 g/l
pH value ..... 7,2 ± 0,2
Colour ..... amber, slightly opalescent
Growth of test strains ..... complies

Agar side 2:
Pancreatic digest of casein ..... 15,0 g/l
Soy peptone (papain hydrolysate) ..... 5,0 g/l
Sodium chloride (NaCl) ..... 5,0 g/l
Lecithin ..... 0,7 g/l
Polysorbate 80 ..... 5 g/l
Agar ..... 15,0 g/l
pH-value ..... 7,2 ±0,2
Colour ..... amber, slightly opalescent
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
8715.1	20 unit(s)	box	79,45

ROTI®DipSlide PCA/VRB
ready-to-use, sterile, for microbiology

For total germ count and for detection of Coliforms in liquids or on surfaces.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Agar side 1:
Casein peptone ..... 5 g/l
Yeast extract ..... 2,5 g/l
Glucose ..... 1 g/l
Agar ..... 15 g/l
pH value ..... 7,2±0,2
Colour ..... amber, slightly opalescent
Growth of test strains ..... complies

Agar side 2:
Yeast extract ..... 3 g/l
Pancreas hydrolysate made from gelatin ..... 7 g/l
Sodium chloride (NaCl) ..... 5 g/l
Bile salts ..... 1,5 g/l
Lactose ..... 10 g/l
Neutral red ..... 0,03 g/l
Crystal Violet ..... 0,002 g/l
Agar ..... 15 g/l
pH-value ..... 7,4±0,2
Colour ..... purple-red
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
2925.1	20 unit(s)	box	79,45

ROTI®DipSlide PCA/VRBD
ready-to-use, sterile, for microbiology

For total germ count and for detection of enterobacteria in liquids or on surfaces.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 2

Composition

Agar side 1:
Casein peptone ..... 5 g/l
Yeast extract ..... 2,5 g/l
Glucose ..... 1 g/l
Agar ..... 15 g/l
pH value ..... 7,2±0,2
Colour ..... amber, slightly opalescent
Growth of test strains ..... complies

Agar side 2:
Yeast extract ..... 3 g/l
Pancreas hydrolysate made from gelatin ..... 7 g/l
Sodium chloride (NaCl) ..... 5 g/l
Bile salts ..... 1,5 g/l
Glucose monohydrate ..... 10 g/l
Neutral red ..... 0,03 g/l
Crystal Violet ..... 0,002 g/l
Agar ..... 15 g/l
pH-value ..... 7,4±0,2
Colour ..... purple-red
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
2924.1	20 unit(s)	box	79,45

ROTI®DipSlide Sab4plus
ready-to-use, sterile, for microbiology

For detection of yeasts and moulds in liquids or on surfaces.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Meat and casein peptone ..... 10 g/l
Glucose ..... 40 g/l
Chloroamphenicol ..... 0,5 g/l
Agar ..... 15 g/l
pH value ..... 5,6±0,2
Colour ..... amber, slightly opalescent
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
2956.1	20 unit(s)	box	79,45

ROTI®DipSlide VRBD
ready-to-use, sterile, for microbiology

For detection of enterobacteria in liquids or on surfaces.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 3

Composition

Yeast extract ..... 3 g/l
Pancreas hydrolysate made from gelatin ..... 7 g/l
Sodium chloride (NaCl) ..... 5 g/l
Bile salts ..... 1,5 g/l
Glucose monohydrate ..... 10 g/l
Neutral red ..... 0,03 g/l
Crystal Violet ..... 0,002 g/l
Agar ..... 15 g/l
pH value ..... 7,4±0,2
Colour ..... purple-red
Growth of test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
2954.1	20 unit(s)	box	79,45

ROTIDRY®Dry Solvents

Art. No.	Description	Page
4424	Acetic acid ethyl ester, ROTIDRY®, ≥99,8 % (≤100 ppm H_2O)	694
AE00	Acetonitrile, ROTIDRY®, ≥99,9 % (≤10 ppm H_2O)	699
AE03	Dichloromethane, ROTIDRY®, ≥99,8 % (≤50 ppm H_2O)	875
AE04	Diethyl ether, ROTIDRY®, ≥99,5 % (≤50 ppm H_2O), stabilised	879
AE02	Dimethyl sulphoxide (DMSO), ROTIDRY®, ≥99,5 % (≤200 ppm H_2O)	890
4429	1,4-Dioxane, ROTIDRY®, ≥99,8 % (≤100 ppm H_2O)	892
AE05	*n*-Hexane, ROTIDRY®, ≥99 % (≤50 ppm H_2O)	983
AE01	Methanol, ROTIDRY®, ≥99,9 % (≤50 ppm H_2O)	1079
AE07	Tetrahydrofuran, ROTIDRY®, ≥99,9 % (≤50 ppm H_2O)	1361
AE06	Toluene, ROTIDRY®, ≥99,5 % (≤50 ppm H_2O)	1373
4423	Trichloromethane/Chloroform, ROTIDRY®, ≥99,8 % (≤50 ppm H_2O)	1377

ROTIDRY®Sept Dried Solvents in a Septum Bottle

Art. No.	Description	Page
5175	Acetonitrile, ROTIDRY®Sept, ≥99,9 % (≤50 ppm H_2O)	699
5176	Dichloroethane, ROTIDRY®Sept, ≥99,9 % (≤50 ppm H_2O)	875
5177	Diethyl ether, ROTIDRY®Sept, ≥99,5 % (≤50 ppm H_2O), stabilised	879
5179	Dimethyl sulphoxide (DMSO), ROTIDRY®Sept, ≥99,8 % (≤100 ppm H_2O)	890
5180	*n*-Hexane, ROTIDRY®Sept, ≥99 % (≤30 ppm H_2O)	983
5181	Methanol, ROTIDRY®Sept, ≥99,9 % (≤50 ppm H_2O)	1078
5182	Tetrahydrofuran, ROTIDRY®Sept, ≥99,8 % (≤50 ppm H_2O)	1361
5191	Toluene, ROTIDRY®Sept, ≥99,5 % (≤30 ppm H_2O)	1373

ROTIDRY®plus Dried Solvents with Molecular Sieve

Art. No.	Description	Page
1A9P	Acetic acid ethyl ester, ROTIDRY® plus	694
1A9K	Dichloromethane, ROTIDRY® plus	875
1A9X	Diethyl ether, ROTIDRY® plus	879

Art. No.	Description	Page
1A9L	Methanol, ROTIDRY® plus	1078
1A9Y	Tetrahydrofuran, ROTIDRY® plus	1361
1A9T	Toluene, ROTIDRY® plus	1373
1A9N	Trichloromethane/Chloroform, ROTIDRY® plus	1377

ROTI®Fair BBS

Borate Buffered Saline (tablets)

D 2,065 g/cm³ · mp >75 °C
WGK 1

Danger H319-H360FD

ROTI®Fair BBS
for 500 ml/tablet, for biochemistry and molecular biology

Coating of ELISA plates and blocking supplement.

1x BBS solution is prepared by solubilization of 1 tablet in 500 ml highly pure water.

Composition

Prepared 1x BBS solution contains: 0.15 M NaCl, 10 mM borate buffer, pH-value 8.2 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1005.1	100 unit(s)	plastic	330,60

ROTI®Fair BSC

BSC buffer powder (pouch) · Buffered Sodium Citrate

WGK 1

ROTI®Fair BSC
for 100 ml/pouch, for cell culture and microscopy

Buffer solution for isolation of blood cells.

0,109 M BSC solution is prepared by dissolution of 1 pouch in 100 ml highly pure water.

Not a medical device / Not an IVD product

Composition

Prepared BSC solution contains: 0,109 M (3,2 %) buffered Na-citrate, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1011.1	10 unit(s)	box	117,75

ROTI®Fair BSC
for 1000 ml/pouch, for cell biology

Buffer solution for isolation of blood cells.

0,109 M BSC solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Not a medical device / Not an IVD product

Composition

Prepared BSC solution contains: 0,109 M (3,2 %) buffered Na-citrate, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1026.1	5 unit(s)	box	217,70

ROTI®Fair EDTA

EDTA powder (pouch) · Ethylenediamine tetraacetic acid

WGK 2

Warning H332-H373

ROTI®Fair 0.5M EDTA
for 500 ml/pouch, for life science applications in general

For preparation of bioanalytical solutions, anticoagulant.

0,5 M EDTA solution is prepared by dissolution of 1 pouch in 500 ml highly pure water.

Composition

Prepared solution contains: 0.5 M EDTA, pH value 8.0 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1031.1	5 unit(s)	box	321,45

ROTI®Fair Glucose

D(+)-Glucose · Dextrose · Glucose powder (pouch) · Blood sugar

D 1,54 g/cm³ · mp 146 °C
WGK 1

ROTI®Fair 20% Glucose
for 1000 ml/pouch, for microbiology and biochemistry

For preparation of nutrient media and solutions for enzymatics.

20 % glucose solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared solution contains: 20 % glucose, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1030.1	5 unit(s)	box	209,65

ROTI®Fair Glycine

Glycine powder (pouch)

WGK 1

ROTI®Fair Glycine 3.0
for 1000 ml/pouch, for biochemistry

For preparation of buffer solutions with acidic pH and elution buffer in affinity chromatography.

0,1 M glycine solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared solution contains: 0.1 M glycine-HCl, pH value 3.0 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1032.1	10 unit(s)	box	124,20

ROTI®Fair HBS

HEPES Buffered Saline (tablets)

WGK 1

ROTI®Fair HBS
for 500 ml/tablet, for biochemistry and cell biology

General buffer base and for calcium phosphate mediated transfection.

1x HBS solution is prepared by dissolution of 1 tablet in 500 ml highly pure water.

Composition

Prepared 1x HBS solution contains: 10 mM HEPES, 0.15 M NaCl, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1033.1	12 unit(s)	blister	84,40

ROTI®Fair KCl

Potassium chloride powder (pouch)

D 1,98 g/cm³ · mp 770 °C · bp 1413 °C
WGK 1

ROTI®Fair 1M KCl
for 1000 ml/pouch, for biochemistry and molecular biology

For preparation of salt solutions and buffer concoctions.

1 M KCl solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared solution contains: 1 M KCl, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1034.1	10 unit(s)	box	217,70

ROTI®Fair 3M KCl
for 1000 ml/pouch, for biochemistry and molecular biology

For preparation of salt solutions and buffer concoctions.

3 M KCl solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared solution contains: 3 M KCl, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1035.1	5 unit(s)	box	186,55

ROTI®Fair Na-Acetate

Sodium acetate powder (pouch)

D 1,5 g/cm³ · mp 324 °C · bp >400 °C · flp >250 °C
WGK 1

ROTI®Fair Na-Acetate 5.2
for 1000 ml/pouch, for molecular biology

For isolation of nucleic acids.

3 M sodium acetate solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared solution contains: 3 M sodium acetate, pH value 5,2 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1195.1	5 unit(s)	box	317,15

ROTI®Fair NaCl tablets

Sodium chloride (tablet)

D 2,17 g/cm³ · mp 801 °C · bp >1450 °C
WGK 1

ROTI®Fair 0.9 % NaCl
for 100 ml/tablet, for biochemistry and molecular biology

For preparation of salt solutions and buffer concoctions.

0,9 % NaCl solution is prepared by dissolution of 1 tablet in 100 ml highly pure water respectively.

Not a medical device / Not an IVD product

Composition

Prepared solution contains: 0.9 % NaCl, when prepared in deionized or distilled water.
For research use only. Not approved for human or veterinary use, for application to humans or animals, or for use in clinical or *in vitro* diagnostics.

Art. No.	Pack Qty.	Pack.	€
1053.1	100 unit(s)	plastic	70,45

ROTI®Fair 0.9 % NaCl
for 1000 ml/tablet, for biochemistry and molecular biology

For preparation of salt solutions and buffer concoctions.

0,9 % NaCl solution is prepared by dissolution of 1 tablet in 1000 ml highly pure water respectively.

Not a medical device / Not an IVD product

Composition

Prepared solution contains: 0.9 % NaCl, when prepared in deionized or distilled water.
For research use only. Not approved for human or veterinary use, for application to humans or animals, or for use in clinical or *in vitro* diagnostics.

Art. No.	Pack Qty.	Pack.	€
1067.1	10 unit(s)	blister	61,20
1067.2	100 unit(s)	plastic	152,15

ROTI®Fair NaCl pouches

Sodium chloride powder (pouch)

D 2,17 g/cm³ · mp 801 °C · bp >1450 °C
WGK 1

ROTI®Fair 3M NaCl
for 1000 ml/pouch, for biochemistry and molecular biology

For preparation of salt solutions and buffer concoctions.

3 M NaCl solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared solution contains: 3 M NaCl, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1071.1	5 unit(s)	box	100,55

ROTI®Fair 5M NaCl
for 1000 ml/pouch, for biochemistry and molecular biology

For preparation of salt solutions and buffer concoctions.

5 M NaCl solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared solution contains: 5 M NaCl, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1079.1	5 unit(s)	box	117,75

ROTI®Fair Na-Phosphate

Sodium phosphate powder (pouch)

WGK 1

ROTI®Fair 0.02M Na-Phosphate 7.0
for 1000 ml/pouch, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

0,02 M sodium phosphate solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared solution contains: 20 mM sodium phosphate, pH-value 7.0 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1090.1	10 unit(s)	box	114,50

ROTI®Fair 0.02M Na-Phosphate 7.0
for 5000 ml/pouch, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

0,02 M sodium phosphate solution is prepared by dissolution of 1 pouch in 5000 ml highly pure water.

Composition

Prepared solution contains: 20 mM sodium phosphate, pH-value 7.0 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1094.1	10 unit(s)	box	331,00

ROTI®Fair 1M Na-Phosphate 6.5
for 1000 ml/pouch, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1 M sodium phosphate solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared solution contains: 1 M sodium phosphate, pH-value 6.5 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1095.1	10 unit(s)	box	310,70

ROTI®Fair 1M Na-Phosphate 7.2
for 1000 ml/pouch, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1 M sodium phosphate solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared solution contains: 1 M sodium phosphate, pH-value 7.2 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1097.1	10 unit(s)	box	310,70

ROTI®Fair PBS 7.2

PBS (tablet) · Phosphate buffered saline

D 2,01 g/cm³ · mp 770 °C · bp 1413 °C
WGK 1

ROTI®Fair PBS 7.2
for 1000 ml/tablet, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1x PBS solution is prepared by dissolution of 1 tablet in 1000 ml highly pure water.

Composition

Prepared 1x PBS solution contains: 0.14 M NaCl, 2.7 mM KCl, 10 mM phosphate, pH-value 7.2 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1106.1	10 unit(s)	blister	94,10
1106.2	100 unit(s)	plastic	464,95

ROTI®Fair PBS 7.4 tablets

PBS (tablet) · Phosphate buffered saline

D 2,01 g/cm³ · mp 770 °C · bp 1413 °C
WGK 1

ROTI®Fair PBS 7.4
for 100 ml/tablet, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1x PBS solution is prepared by dissolution of 1 tablet in 100 ml highly pure water.

Composition

Prepared 1x PBS solution contains: 0.14 M NaCl, 2.7 mM KCl, 10 mM phosphate, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1107.1	100 unit(s)	plastic	73,00

ROTI®Fair PBS 7.4
for 200 ml/tablet, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1x PBS solution is prepared by dissolution of 1 tablet in 200 ml highly pure water.

Composition

Prepared 1x PBS solution contains: 0.14 M NaCl, 2.7 mM KCl, 10 mM phosphate, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1108.1	100 unit(s)	plastic	120,30

ROTI®Fair PBS 7.4
for 500 ml/tablet, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1x PBS solution is prepared by dissolution of 1 tablet in 500 ml highly pure water.

Composition

Prepared 1x PBS solution contains: 0.14 M NaCl, 2.7 mM KCl, 10 mM phosphate, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1111.1	12 unit(s)	blister	63,35
1111.2	100 unit(s)	plastic	255,35

ROTI®Fair PBS 7.4
for 1000 ml/tablet, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1x PBS solution is prepared by dissolution of 1 tablet in 1000 ml highly pure water.

Composition

Prepared 1x PBS solution contains: 0.14 M NaCl, 2.7 mM KCl, 10 mM phosphate, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1112.1	10 unit(s)	blister	94,10
1112.2	100 unit(s)	plastic	459,60

ROTI®Fair PBS 7.4 pouches

PBS powder (pouch) · Phosphate buffered saline

WGK 1

ROTI®Fair PBS 7.4
for 10 l/pouch, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1x PBS solution is prepared by dissolution of 1 pouch in 10 litre highly pure water.

Composition

Prepared 1x PBS solution contains: 0.14 M NaCl, 2.7 mM KCl, 10 mM phosphate, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1101.1	1 unit(s)	box	49,35

ROTI®Fair PBS 7.4
for 50 l/pouch, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1x PBS solution is prepared by dissolution of 1 pouch in 50 litre highly pure water.

Composition

Prepared 1x PBS solution contains: 0.14 M NaCl, 2.7 mM KCl, 10 mM phosphate, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1103.1	1 unit(s)	box	155,90

ROTI®Fair PBS 7.4
for 100 l/pouch, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1x PBS solution is prepared by dissolution of 1 pouch in 100 litre highly pure water.

Composition

Prepared 1x PBS solution contains: 0.14 M NaCl, 2.7 mM KCl, 10 mM phosphate, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1104.1	1 unit(s)	box	255,35

ROTI®Fair 10x PBS 7.4
for 1000 ml/pouch, for biochemistry and molecular biology

Concentrated general solution for assays in molecular biology and biochemistry.

10x PBS solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared 10x PBS solution contains: 1.4 M NaCl, 27 mM KCl, 0.1 M phosphate, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1105.1	5 unit(s)	box	123,10

ROTI®Fair PBS potassium-free 7.4

PBS (tablet) · Phosphate buffered saline

WGK 1

ROTI®Fair PBS potassium-free 7.4
for 1000 ml/tablet, for biochemistry and molecular biology

Potassium-free, general solution for assays in molecular biology and biochemistry.

1x PBS solution (potassium-free) is prepared by dissolution of 1 tablet in 1000 ml highly pure water.

Composition

Prepared 1x PBS solution contains: 0.14 M NaCl, 10 mM phosphate, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1113.1	10 unit(s)	blister	94,10
1113.2	100 unit(s)	plastic	459,60

ROTI®Fair PBS potassium-free 7.4
for 1000 ml/tablet, phosphatreich, for biochemistry and molecular biology

Potassium-free, **high-phosphate** general solution for assays in molecular biology and biochemistry.

1x PBS solution (potassium-free, high-phosphate) is prepared by dissolution of 1 tablet in 1000 ml highly pure water.

Composition

Prepared 1x PBS solution contains: 0.15 M NaCl, 20 mM phosphate, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1114.1	100 unit(s)	plastic	534,85

ROTI®Fair PBST 7.4

PBST (tablet) · Phosphate buffered saline with Tween

WGK 1

ROTI®Fair PBST 7.4
for 500 ml/tablet, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1x PBST solution is prepared by dissolution of 1 tablet in 500 ml highly pure water.

Composition

Prepared 1x PBST solution contains: 0.14 M NaCl, 2,7 mM KCl, 10 mM phosphate, 0.05 % Tween® 20, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1115.1	12 unit(s)	blister	81,60
1115.2	100 unit(s)	plastic	330,60

ROTI®Fair PBST 7.4
for 1000 ml/tablet, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1x PBST solution is prepared by dissolution of 1 tablet in 1000 ml highly pure water.

Composition

Prepared 1x PBST solution contains: 0.14 M NaCl, 2,7 mM KCl, 10 mM phosphate, 0.05 % Tween® 20, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1116.1	10 unit(s)	blister	106,35
1116.2	100 unit(s)	plastic	524,10

ROTI®Fair pNPP

p-Nitrophenyl phosphate · pNPP (tablet)

WGK 1

ROTI®Fair pNPP 5mg
5 mg/tablet, for biochemistry

For preparation of pNPP substrate solution for alkaline phosphatase.

0.1 % pNPP solution (1 mg/ml) is prepared by dissolution of 1 tablet in 5 ml substrate buffer.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Composition

Prepared solution contains 1 mg/ml pNPP, when 1 tablet is dissolved in 5 ml substrate buffer or deionized, or distilled, water.

Art. No.	Pack Qty.	Pack.	€
1117.1	24 unit(s)	blister	143,55

ROTI®Fair pNPP 20mg
20 mg/tablet, for biochemistry

For preparation of pNPP substrate solution for alkaline phosphatase.

0.1 % pNPP solution (1 mg/ml) is prepared by dissolution of 1 tablet in 20 ml substrate buffer.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Composition

Prepared solution contains 1 mg/ml pNPP, when 1 tablet is dissolved in 20 ml substrate buffer or deionized, or distilled, water.

Art. No.	Pack Qty.	Pack.	€
1128.1	24 unit(s)	blister	124,20

ROTI®Fair SDS-PAGE

SDS-PAGE powder (pouch) · Tris-glycine-SDS buffer · Laemmli buffer

WGK 2

Danger H318

ROTI®Fair SDS-PAGE
for 1000 ml/pouch, for electrophoresis

Buffer for protein electrophoresis.

1x SDS-PAGE solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared 1x SDS-PAGE solution contains: 25 mM Tris, 0.192 M glycine, 0,1 % SDS, pH 8.3 ±0,05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1249.1	10 unit(s)	box	299,95

ROTI®Fair SDS-PAGE
for 5000 ml/pouch, for electrophoresis

Buffer for protein electrophoresis.

1x SDS-PAGE solution is prepared by dissolution of 1 pouch in 5000 ml highly pure water.

Composition

Prepared 1x SDS-PAGE solution contains: 25 mM Tris, 0.192 M glycine, 0,1 % SDS, pH 8.3 ±0,05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1250.1	10 unit(s)	box	542,90

ROTI®Fair SSC

SSC buffer powder (pouch) · Sodium sodium citrate

WGK 1

ROTI®Fair 20x SSC
for 1000 ml/pouch, for molecular biology

Concentrated buffer solution for Southern- and Northern transfer.

20x SSC solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared 20x SSC solution contains: 3.0 M NaCl, 0.3 M Na-Citrat, pH-value 7.0 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1232.1	5 unit(s)	box	197,30

ROTI®Fair SSPE

SSPE buffer (tablets) · Sodium sodium phosphate EDTA

WGK 1

ROTI®Fair SSPE
for 200 ml/tablet, for molecular biology

Buffer solution for DNA- and RNA hybridisation.

1x SSPE solution is prepared by dissolution of 1 tablet in 200 ml highly pure water.

Composition

Prepared 1x SSPE solution contains: 0.15 M NaCl, 1 mM EDTA, 10 mM Na-phosphate, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1233.1	100 unit(s)	plastic	130,65

ROTI®Fair TAE

TAE powder (pouch)

WGK 1

Warning H315-H319

ROTI®Fair 50x TAE
for 500 ml/pouch, for electrophoresis

Buffer concentrate for DNA electrophoresis.

50x TAE solution is prepared by dissolution of 1 pouch in 500 ml highly pure water.

Composition

Prepared 50x TAE solution contains: 2 M Tris acetate, 50 mM EDTA, pH-value 8.3 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1234.1	5 unit(s)	box	524,10

ROTI®Fair 50x TAE
for 1000 ml/pouch, for electrophoresis

Buffer concentrate for DNA electrophoresis.

50x TAE solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared 50x TAE solution contains: 2 M Tris acetate, 50 mM EDTA, pH-value 8.3 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1240.1	5 unit(s)	box	1.009,45

ROTI®Fair TBE

TBE powder (pouch)

WGK 1

Danger H360FD

ROTI®Fair 1x TBE
for 1000 ml/pouch, for electrophoresis

Buffer for DNA electrophoresis.

1x TBE solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared 1x TBE solution contains: 89 mM Tris-Borat, 2 mM EDTA, pH-value 8.3 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1241.1	10 unit(s)	box	238,15

ROTI®Fair 5x TBE
for 1000 ml/pouch, for electrophoresis

Buffer concentrate for DNA electrophoresis.

5x TBE solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared 5x TBE solution contains: 0.445 M Tris borate, 10 mM EDTA, pH-value 8.3 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1242.1	10 unit(s)	box	349,40

ROTI®Fair 10x TBE
for 1000 ml/pouch, for electrophoresis

Buffer concentrate for DNA electrophoresis.

10x TBE solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared 10x TBE solution contains: 0.89 M Tris borate, 20 mM EDTA, pH-value 8.3 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1243.1	10 unit(s)	box	542,90

ROTI®Fair TBS 7.6

TBS (tablet) · Tris buffered saline

D 1,63 g/cm³
WGK 1

ROTI®Fair TBS 7.6
for 500 ml/tablet, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1x PBS solution is prepared by dissolution of 1 tablet in 500 ml highly pure water.

Composition

Prepared 1x TBS solution contains: 0.15 M NaCl, 50 mM Tris-HCl, pH-value 7.6 ±0.01, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1244.1	10 unit(s)	blister	80,55
1244.2	100 unit(s)	plastic	413,90

ROTI®Fair TBS 8.0

TBS powder (pouch) · Tris buffered saline

D 1,63 g/cm³
WGK 1

ROTI®Fair TBS 8.0
for 1000 ml/pouch, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1x TBS solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared 1x TBS solution contains: 0.138 M NaCl, 2,7 mM KCl, 50 mM Tris-HCl, pH-value 8.0 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1245.1	10 unit(s)	box	223,10

ROTI®Fair 10x TBS 8.0
for 1000 ml/pouch, for biochemistry and molecular biology

Concentrated general solution for assays in molecular biology and biochemistry.

10x TBS solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared 10x TBS solution contains: 1.38 M NaCl, 27 mM KCl, 0.5 M Tris-HCl, pH-value 8.0 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1247.1	10 unit(s)	box	858,95

ROTI®Fair TBST 7.6

TBST (tablet) · Tris buffered saline with Tween

WGK 1

ROTI®Fair TBST 7.6
for 500 ml/tablet, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1x TBST solution is prepared by dissolution of 1 tablet in 500 ml highly pure water.

Composition

Prepared 1x SDS-PAGE solution contains: 25 mM Tris, 0.192 M glycine, 0.1 % SDS, pH-value 8.3 ±0.01, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1248.1	10 unit(s)	blister	112,35
1248.2	100 unit(s)	plastic	504,20

ROTI®Fair TE

TE buffer powder (pouch) · TRIS-EDTA-Buffer

WGK 1

Warning H373

ROTI®Fair 10x TE
for 1000 ml/pouch, for molecular biology

Concentrated buffer solution for solubilisation and dilution of nucleic acids.

1x TE solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared 10x TE solution contains: 0.1 M Tris-HCl, 10 mM EDTA, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1268.1	10 unit(s)	box	284,90

ROTI®Fair TG-Western

TG buffer powder (pouch) · Tris-glycine buffer

D 1,19 g/cm³
WGK 1

ROTI®Fair TG-Western
for 1000 ml/pouch, for electrophoresis

Buffer for protein electrophoresis and transfer.

1x TG-Western solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared 1x TG-Western solution contains: 25 mM Tris, 0.192 M glycine, pH-value 8.3 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1269.1	10 unit(s)	box	231,15

ROTI®Fair TG-Western
for 5000 ml/pouch, for electrophoresis

Buffer for protein electrophoresis and transfer.

1x TG-Western solution is prepared by dissolution of 1 pouch in 5000 ml highly pure water.

Composition

Prepared 1x TG-Western solution contains: 25 mM Tris, 0.192 M glycine, pH-value 8.3 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1276.1	10 unit(s)	box	467,65

ROTI®Fair Tris

Tris powder (pouch)

mp 150 °C
WGK 1

ROTI®Fair 1M Tris 7.4
for 1000 ml/pouch, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1 M Tris solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared solution contains: 1 M Tris, pH-value 7.4 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1251.1	10 unit(s)	box	542,90

ROTI®Fair 1M Tris 8.0
for 1000 ml/pouch, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1 M Tris solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared solution contains: 1 M Tris, pH-value 8.0 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1260.1	10 unit(s)	box	542,90

ROTI®Fair 1M Tris 8.3
for 1000 ml/pouch, for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1 M Tris solution is prepared by dissolution of 1 pouch in 1000 ml highly pure water.

Composition

Prepared solution contains: 1 M Tris, pH-value 8.3 ±0.05, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
1261.1	10 unit(s)	box	542,90

ROTI®Fect

Transfection reagents

D 1 g/cm³
WGK 3

ROTI®Fect
CELLPURE® ready-to-use, for transfection

Reagent for liposoma-mediated transfection of eukaryotic cells.

Approx. 400 assays per ml in 24wells. Dependent on the cell line used.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
P001.1	0.2 ml	plastic	97,75
P001.2	0.5 ml	plastic	209,65
P001.3	1 ml	plastic	327,90
P001.4	5 ml	plastic	1.451,25

ROTI®Fect Plus

Transfection reagents

D 1 g/cm³
WGK 3

ROTI®Fect Plus
CELLPURE® ready-to-use, for transfection

Reagent for transfection of all eukaryotic cells in culture, particularly suited for hard-to-transfect cell lines.

Approx. 500 assays per ml in 24wells. Dependent on the cell line used.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
CL21.1	0.2 ml	plastic	117,75
CL21.2	1 ml	plastic	424,65

ROTI®Fect RNAi Kit

ROTI®Fect RNAi Kit
CELLPURE® ready-to-use, for transfection

Reagent for transfection of mammalian cells with siRNA and miRNA, for efficient gene silencing.

Approx. 250 assays per ml in 24wells. Dependend on the cell line used.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
3129.1	0.2 ml	plastic	142,45
3129.2	1 ml	plastic	456,90

ROTI®Fix spray fixative

Fixation spray

D 0,79 g/cm³ · bp 78 °C · flp 12 °C
UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

ROTI®Fix spray fixative
ready-to-use, for cytology

For fixation of samples from cytological material.

Type analysis

Alcoholic solution of ethanol and 2-propanol.

Art. No.	Pack Qty.	Pack.	€
CL85.1	100 ml	spray bottle	20,35

ROTI®Free Stripping Buffer

Stripping Buffer

ROTI®Free Stripping Buffer 2.2 plus
ready-to-use

Premixed buffer for efficient stripping of Western-Blot membranes after Chemo-luminescence detection, even with hard-to-remove antibodies.

Suitable for nitrocellulose and PVDF-membranes.

D 1,01 g/cm³ · bp 100 °C

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 1760 · ADR 8 III · WGK 1

Warning H290

Notes on the product

Remark: Contains SDS. Can be redissolved by heating (max. 45 °C).

Art. No.	Pack Qty.	Pack.	€
3337.1	250 ml	glass	60,75
3337.2	1 l	glass	149,45
Original pack 6 x 1 l			141,98/1 l

ROTI®Free Stripping Buffer 2.0
ready-to-use

Premixed buffer for gentle stripping of Western-Blot membranes after Chemo-luminescence detection.

Suitable for nitrocellulose and PVDF-membranes.

D 1 g/cm³ · bp 100 °C

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 1760 · ADR 8 III · WGK 1

Warning H290-H319

Notes on the product

Remark: Contains SDS. Can be redissolved by heating (max. 45 °C).

Art. No.	Pack Qty.	Pack.	€
3319.1	250 ml	glass	52,15
3319.2	1 l	glass	134,40
Original pack 6 x 1 l			127,68/1 l

ROTI®Free Stripping Buffer
ready-to-use

Premixed buffer for stripping of Western-Blot membranes.

Suitable for nitrocellulose and PVDF-membranes.

D 1 g/cm³ · mp ~0 °C · bp ~100 °C

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 2

Warning H317-H319-H412

Notes on the product

Remark: Contains SDS. Can be redissolved by heating (max. 60 °C).

Art. No.	Pack Qty.	Pack.	€
0083.2	250 ml	glass	24,20
0083.1	1 l	glass	75,15
Original pack 6 x 1 l			71,39/1 l
0083.3	2.5 l	glass	131,70
Original pack 4 x 2.5 l			125,12/2.5 l

ROTI®garose-Biotin/Streptavidin

D 0,85 to 0,95 g/cm³ · bp >80 °C · flp >50 °C
UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319

ROTI®Garose-Biotin Beads
ROTI®Garose for biochemistry

For isolation of avidin/streptavidin-coupled molecules by affinity chromatography

Agarose beads for affinity chromatography · Biotin-Agarose Beads · Column matrix for protein isolation

For batch mode and gravity flow

Bead suspension, binding capacity >30 mgl/ml packed matrix

Storage temperature: +4 °C

Type analysis

Particle size ..... 50-150 µm
Beads (cross-linked agarose) ..... 4 %
Ligand ..... Biotin
Binding capacity (gel) (Avidin) ..... ≥ 30 mg/ml
Sodium azide ..... 0,02 %

Art. No.	Pack Qty.	Pack.	€
0844.1	5 ml	plastic	521,40
0844.2	10 ml	plastic	929,90

ROTI®Garose-Glu/GST

D 0,85 to 0,95 g/cm³ · bp >80 °C · flp >50 °C
UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319

ROTI®Garose-Glu/GST Beads
ROTI®Garose for biochemistry

For isolation of GST-tagged proteins by affinity chromatography

Agarose beads for affinity chromatography · Glutathione-agarose beads · Column matrix for protein isolation

Suitable for batch mode, LPLC, FPLC and MPLC and big matrix volumes

Bead suspension, binding capacity ≥8 mgl/ml packed matrix

Storage temperature: +4 °C

Type analysis

Particle size ..... 50-150 µm
Beads (un-cross-linked agarose) ..... 4 %
Ligand ..... Glutathione
Binding capacity (gel) (GST_{rek}) ..... ≥8 mg/ml
Ethanol ..... 20 %

Art. No.	Pack Qty.	Pack.	€
0841.1	10 ml	plastic	349,40
0841.2	100 ml	plastic	2.402,65

ROTI®Garose-Glu/GST Cartridges
ROTI®Garose for biochemistry

For isolation of GST-tagged proteins by high pressure affinity chromatography

Affinity chromatography colums · Glutathione-agarose beads · Column matrix for protein isolation

Suitable for MPLC, FPLC, ÄKTA™ and peristaltic pumps

Prepacked columns, binding capacity ≥50 mgl/column

Storage temperature: +4 °C

Type analysis
Column volume ..... 5 ml
Particle size 50-150
Beads (un-cross-linked agarose) ..... 4 %
Ligand ..... Glutathione
Binding capacity/cartridge (GST_{rek}) ..... ≥50 mg

Art. No.	Pack Qty.	Pack.	€
0843.1	5 ml	plastic	521,40
0843.2	25 ml	plastic	2.101,65

ROTI®Garose-His/Co

D 0,85 to 0,95 g/cm³ · bp >80 °C · flp >50 °C
UN no. 1170 · ADR 3 III · WGK 3

Danger H226-H319-H350-H411-EUH208

ROTI®Garose-His/Co Beads
ROTI®Garose for biochemistry

For isolation of His-tagged proteins by affinity chromatography.

Agarose beads for affinity chromatography · Cobalt agarose beads · IMAC matrix/cobalt charged · Column matrix for protein isolation · IMAC beads

For batch mode and gravity flow

Bead suspension, binding capacity 135 mg/ml packed matrix $(His)_6$

Storage temperature: +4 °C

Type analysis
Particle size ..... 50-150 µm
Beads (cross-linked agarose) ..... 6 %
Ligand ..... IDA
Metal ion ..... Cobalt
Binding capacity (DHAK-6xHis) ..... 135 mg/ml
Stabilizer ..... 20 % ethanol

Art. No.	Pack Qty.	Pack.	€
1235.1	25 ml	plastic	375,20
1235.2	100 ml	plastic	1.015,90

ROTI®Garose-His/Co HPBeads
ROTI®Garose for biochemistry

For isolation of His-tagged proteins by fast or large scale affinity chromatography

Agarose beads for affinity chromatography · Cobalt agarose beads · IMAC matrix/cobalt charged · Column matrix for protein isolation · IMAC beads

Suitable for LPLC, FPLC and MPLC and big matrix volumes

Bead suspension

Storage temperature: +4 °C

Type analysis
Particle size ..... 50-150 µm
Beads (cross-linked agarose) ..... 6 %
Ligand ..... IDA
Metal ion ..... cobalt
Loading capacity (gel) (Co^{2+}) ..... ~20 µmol/ml
Size exclusion limit (Da) ..... ~4x10^6
Ethanol ..... 20 %

Art. No.	Pack Qty.	Pack.	€
0838.1	25 ml	plastic	360,15
0838.2	100 ml	plastic	983,65

ROTI®Garose-His/Co Columns
ROTI®Garose for biochemistry

For isolation of His-tagged proteins by affinity chromatography.

Affinity chromatography colums · Cobalt agarose beads · Cobalt charged IMAC columns · IMAC columns

Prefilled colums for gravity flow chromatography.
Matrix volume 1 or 5 ml, whole volume 12 or 35 ml, respectively.
For approx. 120 and 600 mg His labelled protein.

Prepacked columns, binding capacity ca. 120 (.1) resp. 600 (.2) mg/column $(His)_6$

Storage temperature: +4 °C

Type analysis
Particle size ..... 50-150 µm
Beads (cross-linked agarose) ..... 6 %
Ligand ..... IDA
Metal ion ..... Cobalt
Binding capacity (DHAK-6xHis) ..... 135 mg/ml
Activating agent ..... Epichlorohydrin
Stabilizer ..... 20 % ethanol

Art. No.	Pack Qty.	Pack.	€
1267.2	5 unit(s)	cardboard	908,40
1267.1	8 unit(s)	cardboard	349,40

ROTI®Garose-His/Ni IDA

D 0,85 to 0,95 g/cm³ · bp >80 °C · flp >50 °C
UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319-EUH208

ROTI®Garose-His/Ni Beads
ROTI®Garose for biochemistry

For isolation of His-tagged proteins by affinity chromatography.

Agarose beads for affinity chromatography · IMAC matrix/nickel charged · Nickel agarose beads · Column matrix for protein isolation · IMAC beads

For batch mode and gravity flow

Bead suspension, binding capacity 117 mg/ml packed matrix $(His)_6$

Storage temperature: +4 °C

Type analysis
Particle size ..... 50-150 µm
Beads (cross-linked agarose) ..... 6 %
Ligand ..... IDA
Metal ion ..... nickel
Binding capacity (DHAK-6xHis) ..... 117 mg/ml
Stabilizer ..... 20 % ethanol

Art. No.	Pack Qty.	Pack.	€
1308.1	25 ml	plastic	342,95
1308.2	100 ml	plastic	1.015,90

ROTI®Garose-His/Ni HPBeads
ROTI®Garose for biochemistry

For isolation of His-tagged proteins by fast or large scale affinity chromatography

Agarose beads for affinity chromatography · IMAC matrix/nickel charged · Nickel agarose beads · Column matrix for protein isolation · IMAC beads

Suitable for LPLC, FPLC and MPLC and big matrix volumes

Bead suspension

Storage temperature: +4 °C

Type analysis
Particle size ..... 50-150 µm
Beads (cross-linked agarose) ..... 6 %
Ligand ..... IDA
Metal ion ..... nickel
Loading capacity (gel) (Ni2+) ..... ~20 µmol/ml
Size exclusion limit (Da) ..... ~4x106
Ethanol ..... 20 %

Art. No.	Pack Qty.	Pack.	€
0835.1	25 ml	plastic	360,15
0835.2	100 ml	plastic	983,65

ROTI®Garose-His/Ni HPBeads plus
ROTI®Garose for biochemistry

For isolation of His-tagged proteins by fast or large scale affinity chromatography under presence of EDTA or DTT

Agarose beads for affinity chromatography · IMAC matrix/nickel charged · Nickel agarose beads · Column matrix for protein isolation · IMAC beads

Suitable for LPLC, FPLC and MPLC and all matrix volumes

Bead suspension, binding capacity ≥80 mg/ml packed matrix $(His)_6$

Storage temperature: +4 °C

Type analysis
Particle size ..... 50-150 µm
Beads (cross-linked agarose) ..... 6 %
Ligand ..... polychelator
Metal ion ..... nickel
Binding capacity (gel) (GFPuv-6xHis) ≥ 80 mg/ml
Ethanol ..... 20 %

Art. No.	Pack Qty.	Pack.	€
0806.1	25 ml	plastic	719,20
0806.2	100 ml	plastic	2.467,15

ROTI®Garose-His/Ni Columns
ROTI®Garose for biochemistry

For isolation of His-tagged proteins by affinity chromatography.

Affinity chromatography colums · IMAC columns · Nickel agarose beads · Nickel charged IMAC columns

Prepacked colums for gravity flow chromatography.
Matrix volume 1 or 5 ml, whole volume 12 or 35 ml, respectively.
For approx. 100 and 500 mg His labelled protein.

Prepacked columns, binding capacity ca. 100 (.1) resp. 500 (.2) mg/column $(His)_6$

Storage temperature: +4 °C

Type analysis

Particle size ..... 50-150 µm
Beads (cross-linked agarose) ..... 6 %
Ligand ..... IDA
Metal ion ..... nickel
Binding capacity (DHAK-6xHis) ..... 117 mg/ml
Stabilizer ..... 20 % ethanol

Art. No.	Pack Qty.	Pack.	€
1314.2	5 unit(s)	cardboard	908,40
1314.1	8 unit(s)	cardboard	349,40

ROTI®Garose-His/Ni HPCartridges

ROTI®Garose for biochemistry

For isolation of His-tagged proteins by high pressure affinity chromatography.

Affinity chromatography colums · IMAC columns · Nickel agarose beads · Nickel charged IMAC columns

Suitable for MPLC, FPLC, ÄKTA™ and peristaltic pumps.
Matrix volume 5 ml, whole volume 10 ml. For approx. 500 mg His labelled protein.

Prepacked columns, binding capacity ca. 500 mgl/column

Storage temperature: +4 °C

Type analysis
Particle size ..... 20-50 µm
Beads (cross-linked agarose) ..... 6 %
Ligand ..... IDA
Metal ion ..... nickel
Binding capacity (DHAK-6xHis) ..... 110 mg/ml
Stabilizer ..... 20 % ethanol

Art. No.	Pack Qty.	Pack.	€
1318.1	1 unit(s)	cardboard	217,70
1318.2	5 unit(s)	cardboard	919,15

ROTI®Garose-His/Ni NTA

D 0,85 to 0,95 g/cm³ · bp >80 °C · flp >50 °C
UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319-EUH208

ROTI®Garose-His/Ni NTA-Beads

ROTI®Garose for biochemistry

For isolation of His-tagged proteins by affinity chromatography under reducing conditions

Agarose beads for affinity chromatography · IMAC matrix/nickel charged · Nickel agarose beads · Column matrix for protein isolation · IMAC beads

For batch mode and gravity flow

Bead suspension, binding capacity ≥50 mg/ml packed matrix $(His)_6$

Storage temperature: +4 °C

Type analysis
Particle size ..... 50-150 µm
Beads (cross-linked agarose) ..... 6 %
Ligand ..... NTA
Metal ion ..... nickel
Binding capacity (gel) (GFPuv-6xHis) ≥ 50 mg/ml
Ethanol ..... 15 %

Art. No.	Pack Qty.	Pack.	€
0807.1	25 ml	plastic	461,20
0807.2	100 ml	plastic	1.488,90

ROTI®Garose-His/Ni NTA-HPBeads

ROTI®Garose for biochemistry

For isolation of His-tagged proteins by fast or large scale affinity chromatography under reducing conditions

Agarose beads for affinity chromatography · IMAC matrix/nickel charged · Nickel agarose beads · Column matrix for protein isolation · IMAC beads

Suitable for LPLC, FPLC and MPLC and big matrix volumes

Bead suspension, binding capacity ≥60 mg/ml packed matrix $(His)_6$

Storage temperature: +4 °C

Type analysis
Particle size ..... 50-150 µm
Beads (cross-linked agarose) ..... 6 %
Ligand ..... NTA
Metal ion ..... nickel
Binding capacity (gel) (GFPuv-6xHis) ≥60 mg/ml
Ethanol ..... 20 %

Art. No.	Pack Qty.	Pack.	€
0805.1	25 ml	plastic	579,45
0805.2	100 ml	plastic	1.881,25

ROTI®Garose-His/Ni NTA-Cartridges

ROTI®Garose for biochemistry

For isolation of His-tagged proteins by high pressure affinity chromatography under reducing conditions

Agarose beads for affinity chromatography · IMAC columns · Nickel agarose beads

Suitable for MPLC, FPLC, ÄKTA™ and peristaltic pumps.
Matrix volume 5 ml, whole volume 10 ml. For approx. 250 mg His labelled protein.

Prepacked columns, binding capacity 50-250 mg/column $(His)_6$

Storage temperature: +4 °C

Type analysis
Column volume ..... 5 ml
Particle size ..... 50-150 µm
Beads (cross-linked agarose) ..... 6 %
Ligand ..... NTA
Metal ion ..... nickel
Binding capacity/cartridge (GFPuv-6xHis)
..... 250 mg

Art. No.	Pack Qty.	Pack.	€
0804.1	5 ml	plastic	267,70
0804.2	5 ml	plastic	966,45

ROTI®Garose-His uncharged

Agarose beads for affinity chromatography · IMAC matrix/uncharged · Column matrix for protein isolation · IMAC beads

D 0,85 to 0,95 g/cm³ · bp >80 °C · flp >50 °C
UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319

ROTI®Garose-His *uncharged* HPBeads

ROTI®Garose for biochemistry

For isolation of His-tagged proteins by fast or large scale affinity chromatography

Suitable for LPLC, FPLC and MPLC and big matrix volumes

Bead suspension

Storage temperature: +4 °C

Type analysis
Particle size ..... 50-150 µm
Beads (cross-linked agarose) ..... 6 %
Ligand ..... IDA
Metal ion ..... uncharged
Loading capacity (gel) (Ni2+) ..... ~20 µmol/ml
Size exclusion limit (Da) ..... ~4x106
Ethanol ..... 20 %

Art. No.	Pack Qty.	Pack.	€
0839.1	25 ml	plastic	360,15
0839.2	100 ml	plastic	983,65

ROTI®Garose-Streptavidin Beads

ROTI®Garose for biochemistry

For isolation of biotin-coupled molecules by affinity chromatography

Agarose beads for affinity chromatography · Streptavidin Agarose-Beads · Column matrix for protein isolation

For batch mode and gravity flow

Bead suspension, binding capacity ≥120 nmol/ml packed matrix

Storage temperature: +4 °C

Type analysis
Particle size ..... 50-150 µm
Beads (cross-linked agarose) ..... 6 %
Ligand ..... Streptavidin
Binding capacity (gel) (free biotin) .. ≥120 nmol/ml
Ethanol ..... 20 %

Art. No.	Pack Qty.	Pack.	€
0846.1	5 ml	plastic	510,65
0846.2	10 ml	plastic	880,45

ROTI®Garose-Protein A/G

ROTI®Garose-Protein A Beads

ROTI®Garose for biochemistry

For purification of immunoglobulins by affinity chromatography.

Agarose beads for affinity chromatography · Protein A agarose beads · Column matrix for protein isolation

For batch mode and gravity flow

Bead suspension, binding capacity ca. 25 mg/ml Suspension (human IgG)

D 0,85 to 0,95 g/cm³ · bp >80 °C · flp >50 °C

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319

Type analysis
Particle size ..... 50-150 µm
Beads (cross-linked agarose) ..... 4 %
Ligand ..... recombinant protein A
Chemical bonding ..... covalent
Ligand density (Protein A) ..... ca. 3 mg/ml
Binding capacity (humane IgG) ..... ca. 25 mg/ml
Stabilizer ..... 20 % ethanol

Art. No.	Pack Qty.	Pack.	€
1278.1	5 ml	plastic	740,70
1278.2	25 ml	plastic	2.617,65

ROTI®Garose-Protein A/G HPBeads
ROTI®Garose for biochemistry

For purification of immunoglobulins by affinity chromatography.

Agarose beads for affinity chromatography · Column matrix for protein isolation · Protein A/G agarose beads

Suitable for LPLC, FPLC and MPLC and big matrix volumes

Bead suspension, binding capacity ca. 25 mg/ml Suspension (human IgG)

D 0,85 to 0,95 g/cm³ · bp >80 °C · flp >50 °C

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319

Type analysis
Particle size ..... 50-150 µm
Beads (cross-linked agarose) ..... 4 %
Ligand ..... recombinant protein A/G
Chemical bonding ..... covalent
Binding capacity (humane IgG) ..... ~25 mg/ml
Ethanol ..... 20 %

Art. No.	Pack Qty.	Pack.	€
0809.1	0.5 ml	plastic	145,15
0809.2	1 ml	plastic	241,90
0809.3	2 ml	plastic	424,65

ROTI®Garose-Protein G HPBeads
ROTI®Garose for biochemistry

For purification of immunoglobulins by affinity chromatography.

Agarose beads for affinity chromatography · Column matrix for protein isolation · Protein G agarose beads

Suitable for LPLC, FPLC and MPLC and big matrix volumes

Bead suspension, binding capacity ca. 25 mg/ml Suspension (human IgG)

D 0,85 to 0,95 g/cm³ · bp >80 °C · flp >50 °C

Storage temperature: +4 °C

UN no. 1170 · ADR 3 III · WGK 3

Warning H226-H319

Type analysis
Particle size ..... 50-150 µm
Beads (cross-linked agarose) ..... 4 %
Ligand ..... recombinant protein G
Chemical bonding ..... covalent
Binding capacity (humane IgG) ..... ~20 mg/ml
Ethanol ..... 20 %

Art. No.	Pack Qty.	Pack.	€
0808.1	5 ml	plastic	747,15
0808.2	25 ml	plastic	2.123,15

ROTI®GelStain

Ethidium bromide substitutes

WGK 2

ROTI®GelStain
ready-to-use, for electrophoresis

For non-toxic fluorescent staining of nucleic acids in agarose gels. Green fluorescence. Direct addition to the agarose solution.

1 ml is sufficient for staining of approx. 600 minigels with 30 ml agarose volume each.

D 1 g/cm³ · bp 100 °C

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
3865.1	1 ml	plastic	123,65
3865.2	5 ml	plastic	547,20

ROTI®GelStain Red
ready-to-use, DNAse-free, RNAse-free, for electrophoresis

Red fluorescent staining reagent for non-toxic staining of nucleic acids in agarose and polyacrylamide gels.

1 ml is sufficient for staining of approx. 600 minigels with 30 ml agarose volume each.

Storage temperature: +4 °C

Type analysis
Appearance ..... red, transparent liquid, no precipitation
Staining of DNA in agarose gels ..... complies
Staining of DNA in PA gels ..... complies

Art. No.	Pack Qty.	Pack.	€
0984.1	1 ml	plastic	123,65
0984.2	5 ml	plastic	542,90

ROTI®Histofix

Phosphate buffered formaldehyde

ROTI®Histofix 4 %
4 % formaldehyde, ready-to-use, phosphate buffered, pH 7

Fixative for histology and immunocyto-chemistry, stabilised with methanol.

D 1 g/cm³ · mp -15 °C · bp 97 °C · flp 79 to 85 °C

Storage temperature: +15 to +25 °C

WGK 3

Danger H302-H317-H341-H350

Not a medical device / Not an IVD product

Type analysis
Appearance ..... clear, colourless solution
Assay (formaldehyde) ..... 4,0 %
pH-value ..... 7,0 ±0,5

Stabilised with methanol.

Art. No.	Pack Qty.	Pack.	€
P087.4	500 ml	plastic	11,75
P087.6	1 l	plastic	16,05
Original pack 6 x 1 l			15,25/1 l
P087.5	2.5 l	plastic	22,05
Original pack 4 x 2.5 l			20,95/2.5 l
P087.3	5 l	plastic	35,40
Original pack 2 x 5 l			33,63/5 l
P087.1	10 l	plastic	64,40
P087.2	30 l	plastic	163,95

ROTI®Histofix 4.5 %
4,5 % formaldehyde, ready-to-use, phosphate buffered, pH 7

Fixative for histology and immunocyto-chemistry, stabilised with methanol.

D 1 g/cm³ · mp -15 °C · bp 97 °C · flp 79 to 85 °C

Storage temperature: +15 to +25 °C

WGK 3

Danger H302-H317-H341-H350

Not a medical device / Not an IVD product

Type analysis
Appearance ..... clear, colourless solution
Assay (formaldehyde) ..... 4,5 %
pH-value ..... 7,0 ±0,5

Stabilised with methanol.

Art. No.	Pack Qty.	Pack.	€
2213.4	500 ml	plastic	11,75
2213.6	1 l	plastic	16,05
Original pack 6 x 1 l			15,25/1 l
2213.5	2.5 l	plastic	23,55
Original pack 4 x 2.5 l			22,37/2.5 l
2213.3	5 l	plastic	36,45
Original pack 2 x 5 l			34,63/5 l
2213.1	10 l	plastic	64,40
2213.2	30 l	plastic	160,75

ROTI®Histofix 10 %
10 % formaldehyde, ready-to-use, phosphate buffered, pH 7

Fixative for histology and immunocyto-chemistry, stabilised with methanol.

D 1,042 g/cm³ · mp -15 °C · bp 97 °C · flp 79 to 85 °C

Storage temperature: +15 to +25 °C

WGK 3

Danger H302+H312-H315-H317-H319-H335-H341-H350-H371

Not a medical device / Not an IVD product

Type analysis
Appearance ..... clear, colourless solution
Assay (formaldehyde) ..... 10 %
pH value ..... 7,0 ±0,5

Stabilised with methanol.

Art. No.	Pack Qty.	Pack.	€
A146.4	500 ml	plastic	15,60
A146.6	1 l	plastic	19,25
Original pack 6 x 1 l			18,29/1 l
A146.5	2.5 l	plastic	33,90
Original pack 4 x 2.5 l			32,21/2.5 l
A146.3	5 l	plastic	55,40
Original pack 2 x 5 l			52,63/5 l
A146.1	10 l	plastic	89,15
A146.2	30 l	plastic	220,40

ROTI®Histofix, prefilled containers

Phosphate buffered formaldehyde

D 1 g/cm³ · mp -15 °C · bp 97 °C · flp 79 to 85 °C
WGK 3

Danger H302-H317-H341-H350

ROTI®Histofix 4 %, prefilled containers
4 % formaldehyde, ready-to-use, phosphate buffered, pH 7

Fixative for histology, prefilled in screw cap containers. Stabilised with methanol.

Storage temperature: +15 to +25 °C

Not a medical device / Not an IVD product

Type analysis
Appearance ..... clear, colourless solution
Assay (formaldehyde) ..... ~4 %
pH value 6,5-7,5

Stabilised with methanol.
Do not store under 15 °C!

Art. No.	Pack Qty.	Pack.	€
3105.2	54 unit(s)	cardboard	74,75
3105.1	100 unit(s)	cardboard	112,90

ROTI®Histofix 4,5 %, prefilled containers
4,5 % formaldehyde, ready-to-use, phosphate buffered, pH 7

Fixative for histology, prefilled in screw cap containers. Stabilised with methanol.

Storage temperature: +15 to +25 °C

Not a medical device / Not an IVD product

Type analysis
Appearance ..... clear, colourless solution
Assay (formaldehyde) ..... 4,0-5,0 %
pH value ..... 7,2 ±0,2

Stabilised with methanol.
Do not store under 15 °C!

Art. No.	Pack Qty.	Pack.	€
8244.3	32 unit(s)	cardboard	67,65
8244.2	54 unit(s)	cardboard	78,40
8244.1	100 unit(s)	cardboard	107,40

ROTI®Histofix ECO Plus

D 1,005 g/cm³ · mp <0 °C · bp >100 °C
WGK 1

ROTI®Histofix ECO Plus
SOLVAGREEN® ready-to-use, formalin-free

For fixing of histological and immunochemical specimens. Formalin substitute.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Type analysis

Formalin-free, non-toxic solution. For fixing of histological specimens. Pleasantly aromatic odour. Formalin substitute.

Art. No.	Pack Qty.	Pack.	€
8907.1	500 ml	plastic	19,25
8907.2	2.5 l	plastic	59,70
Original pack 4 x 2.5 l			56,72/2.5 l
8907.3	5 l	plastic	111,70
Original pack 2 x 5 l			106,12/5 l

ROTI®Histokitt

ROTI®Histokitt
ready-to-use, for histology

Synthetic mounting medium. Compatible with ROTI®Histol (Art. No. 6640).

D 0,945 g/cm³ · bp 110 °C · flp 4 °C

UN no. 1866 · ADR 3 III · WGK 2

Danger H225-H315-H336-H361d-H373

Type analysis
Appearance ..... clear, viscous liquid
Refractive index n_D^{20} 1,4930-1,4960

Art. No.	Pack Qty.	Pack.	€
6638.1	100 ml	glass	17,10
6638.2	500 ml	glass	45,70

ROTI®Histokitt II
ready-to-use, for histology

Synthetic mounting medium. Compatible with xylene (e.g. Art. No. 9713).

D 0,95 g/cm³ · bp 137 °C · flp 23 °C

UN no. 1307 · ADR 3 III · WGK 2

Warning H226-H312-H315-H319-H335-H373-EUH208

Type analysis
Appearance ..... clear, viscous liquid
Density (d 20 °C/4 °C) 0,95
Viscosity (20 °C) ..... 250-450 mPa s

Art. No.	Pack Qty.	Pack.	€
T160.1	100 ml	glass	16,70
T160.2	500 ml	glass	46,15

ROTI®Histol

Xylene substitutes

D 0,846 g/cm³ · mp <-25 °C · bp 160 °C · flp 53,4 °C
CAS No. 8028-48-6 · EC no. 232-433-8
UN no. 2319 · ADR 3 III · WGK 3

Danger H226-H304-H315-H317-H411

ROTI®Histol
ready-to-use, for histology

Clearing agent on the basis of limonene. For dewaxing of histological sections. Alternative product for xylene.

Type analysis
Density (20 °C) 0,836-0,848
Refractive index n_D^{20} 1,468-1,478
Flash point ..... 50 °C

Art. No.	Pack Qty.	Pack.	€
6640.1	1 l	glass	46,15
Original pack 6 x 1 l			43,84/1 l
6640.4	2.5 l	glass	93,45
Original pack 4 x 2.5 l			88,78/2.5 l
6640.5	5 l	aluminium	170,95
Original pack 2 x 5 l			162,40/5 l
6640.2	10 l	tinplate	317,15
6640.6	25 l	tinplate	697,70

ROTI®Hybri-Quick

Hybridisation buffers

D 1,03 g/cm³ · bp 100 °C
WGK 2

ROTI®Hybri-Quick
BioScience Grade, ready-to-use, for molecular biology

Ready-made buffer for DNA- and RNA hybridisation.

Notes on the product

Remark: Contains SDS. Can be redissolved by heating (max. 45 °C).

Art. No.	Pack Qty.	Pack.	€
A981.1	1 l	glass	64,40
Original pack 6 x 1 l			61,18/1 l
A981.2	2.5 l	glass	117,20
Original pack 4 x 2.5 l			111,34/2.5 l

ROTI®ImmunoBlock

Blocking reagents

D 1,088 g/cm³
WGK 1

ROTI®ImmunoBlock
10x conc., ready-to-use

Protein free blocking reagent for immunocytological assays

Without detergent

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
T144.1	250 ml	glass	57,95

ROTI®Insectofect

Transfection reagents

D 1 g/cm³
WGK 3

ROTI®Insectofect
CELLPURE® ready-to-use, for transfection

For transfection of insect cells in culture.

Approx. 1000 assays per ml in 24wells.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
AE29.1	0.5 ml	plastic	174,70
AE29.2	1 ml	plastic	282,20

ROTI®Kits

Art. No.	Description	Page
7773	EdU Click-488, ROTI®Kit	906
7775	EdU Click-555, ROTI®Kit	906
7776	EdU Click-594, ROTI®Kit	906
7777	EdU Click-647, ROTI®Kit	907
7779	EdU Click FC-488, ROTI®Kit	907
7780	EdU Click FC-555, ROTI®Kit	907
7781	EdU Click FC-594, ROTI®Kit	907
7783	EdU Click FC-647, ROTI®Kit	907
7786	EdU Click HTS 2-488, ROTI®Kit	907
7787	EdU Click HTS 4-488, ROTI®Kit	907
7789	EdU Click HTS 2-555, ROTI®Kit	907
7791	EdU Click HTS 4-555, ROTI®Kit	908
HP02	Gram staining kit	970
9194	H&E fast staining kit	976
3459	Masson-Goldner's trichrome staining kit	1069
6487	Panoptical fast staining kit	1136
9195	PAP fast staining kit	1137
HP01	PAS staining kit	1138
N769	ROTI®Black N	1212
L533	ROTI®Black P	1212
L509	ROTI®Blot 1	1212
9202	ROTI®DAB Kit	1215
3129	ROTI®Fect RNAi Kit, CELLPURE®	1223
P078	ROTI®Lumin	1230
A431	ROTIPHORESE®DNA sequencing system, ROTIPHORESE®	1234
8620	ROTI®Prep Blood Genomic DNA MINI	1239
8510	ROTI®Prep Gel Extraction	1239
8472	ROTI®Prep Genomic DNA MINI	1239
8503	ROTI®Prep PCR Purification	1239
8546	ROTI®Prep Plasmid MINI-XL	1239
8485	ROTI®Prep RNA MINI	1239
0120	ROTI®Quant universal	1240
7735	ROTITEST®Annexin V, ROTITEST®	1243
P043	ROTI®Transform	1244

ROTI®Liquid Barrier Markers

D 0,74 g/cm³ · mp <-30 °C · bp 84 °C · flp <0 °C
UN no. 1268 · ADR 3 II · WGK 3

Danger H225-H304-H315-H319-H336-H411

ROTI®Liquid Barrier Marker, colourless

ready-to-use, for microscopy

For immunology, histology and molecular biology. Glass bottle with brush.

For use with aqueous liquids and organic solvents as ethanol or acetone.
Also available: ROTI®Liquid Barrier Marker, red (Art. No. AN92) for use without organic solvents.

Art. No.	Pack Qty.	Pack.	€
AN91.1	10 ml	glass	41,85
AN91.2	50 ml	glass	160,20

ROTI®Liquid Barrier Marker, red

ready-to-use, for microscopy

For immunology, histology and molecular biology. Glass bottle with brush.

For use with aqueous liquids only. The red dye is not solvent resistant.
Also available: ROTI®Liquid Barrier Marker, colourless (Art. No. AN91) for use with organic solvents.

Art. No.	Pack Qty.	Pack.	€
AN92.1	10 ml	glass	41,85
AN92.2	50 ml	glass	160,20

ROTI®Load

Laemmli buffer · Gel loading buffer

ROTI®Load 1

4x conc., reducing

Protein gel loading buffer, modified formulation acc. to Laemmli.

Contains SDS (approx. 8 % w/v), β-mercapto ethanol (approx. 20 % v/v), glycerol (approx. 40 % v/v) and bromophenol blue (approx. 0,015 % w/v). Phosphate buffered.

D 1,1 to 1,2 g/cm³

Storage temperature: +15 to +25 °C

UN no. 2810 · ADR 6.1 III · WGK 3

Danger H302+H332-H311-H315-H317-H318-H373-H411

Type analysis
Appearance ..... dark blue, clear solution
pH value (1x sol.) 6,6-7,2

Remark: Contains SDS. Can be redissolved by heating (max. 45 °C).

Art. No.	Pack Qty.	Pack.	€
K929.1	10 ml	glass	22,05
K929.2	40 ml	glass	65,50
K929.3	100 ml	glass	149,45

ROTI®Load 2

4x conc., unreducing

Protein gel loading buffer, modified formulation acc. to Laemmli. For protein complexes, secondary structures, and for native gels.

Contains SDS (approx. 8 % w/v), glycerol (approx. 40 % v/v) and bromophenol blue (approx. 0,015 % w/v). Phosphate buffered.

D 1,158 g/cm³

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 2

Danger H318

Type analysis
Appearance ..... dark blue, clear solution
pH value (1x sol.) 6,7-7,2

Remark: Contains SDS. Can be redissolved by heating (max. 45 °C).

Art. No.	Pack Qty.	Pack.	€
K930.1	10 ml	glass	19,25

ROTI®Load 3 (LDS)

4x conc., unreducing

Protein gel loading buffer for ready-made gels and cooled gels.

Contains LDS (approx. 4 % w/v), glycerol (approx. 40 % v/v) and Ficoll® 400 (approx. 4 % w/v), plus phenol red (approx. 0,025 % w/v) and Coomassie® G250 (approx. 0,025 % w/v). Triethanolamine buffered.

D 1,134 g/cm³ · mp 0 °C

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Warning H319

Type analysis
Appearance ..... green-blue, clear solution
pH value (1x sol.) ..... 7,7 ±0,1

Art. No.	Pack Qty.	Pack.	€
3359.1	10 ml	glass	25,30

ROTI®Load DNA

ROTI®Load DNA (with ficoll)

6x conc., DNase-free

DNA-gel loading buffer for DNA gel electrophoresis of small DNA amounts, produces especially sharp bands.

Contains: Tris, Na-acetate, EDTA, bromophenol blue, xylene cyanol and Ficoll®

D 1,1 g/cm³ · mp 0 °C

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Notes on the product

Each batch is functionally tested for its suitability in electrophoresis and for DNAse-freeness.

Art. No.	Pack Qty.	Pack.	€
X905.1	9 ml	plastic	54,75

ROTI®Load DNA (with glycerol)

6x conc., DNase-free

DNA-gel loading buffer for DNA gel electrophoresis of routine gels.

Contains: Tris, Na-acetate, EDTA, bromophenol blue, xylene cyanol and glycerol

D 1,15 g/cm³ · bp >100 °C

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Type analysis

Each batch is functionally tested for its suitability in electrophoresis and for DNAse-freeness.

Art. No.	Pack Qty.	Pack.	€
X904.1	9 ml	plastic	50,45

ROTI®Load DNA 1x (with glycerol)
1x conc., ready-to-use, DNase-free

DNA-gel loading buffer for DNA gel electrophoresis of routine gels, excellent for resolubilisation of DNA pellets.

Contains: Tris, Na-acetate, EDTA, bromophenol blue, xylene cyanol and glycerol

D 1 g/cm³ · bp 100 °C

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Notes on the product

Each batch is functionally tested for its suitability in electrophoresis and for DNAse-freeness.

Art. No.	Pack Qty.	Pack.	€
0100.1	5 ml	plastic	46,15

ROTI®Load DNA orange 1 (with glycerol)
6x conc., DNase-free

DNA-gel loading buffer for DNA gel electrophoresis, optimised for very short separation distances and small fragments. Suitable for high concentrated or High Resolution agarose.

Contains: Tris, Na-acetate, EDTA, orange G and glycerol

D 1,15 g/cm³ · bp ~100 °C

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Notes on the product

Each batch is functionally tested for its suitability in electrophoresis and for DNAse-freeness.

Art. No.	Pack Qty.	Pack.	€
HP04.1	9 ml	plastic	65,50

ROTI®Load DNA orange 2 (with glycerol)
6x conc., DNase-free

DNA-gel loading buffer for DNA gel electrophoresis, suitable for mixtures of small and big fragments.

Contains: Tris, Na-acetate, EDTA, orange G, xylene cyanol and glycerol

D 1 g/cm³ · bp ~100 °C

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Notes on the product

Each batch is functionally tested for its suitability in electrophoresis and for DNAse-freeness.

Art. No.	Pack Qty.	Pack.	€
HP05.1	9 ml	plastic	65,50

ROTI®Load DNA short-run (with glycerol)
6x conc., DNase-free

DNA-gel loading buffer for high-throughput DNA-electrophoresis and short separation distance. For fast gels.

Contains: Tris, Na-acetate, EDTA, bromophenol blue and glycerol

D 1,15 g/cm³ · mp 0 °C

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Notes on the product

Each batch is functionally tested for its suitability in electrophoresis and for DNAse-freeness.

Art. No.	Pack Qty.	Pack.	€
0095.1	9 ml	plastic	54,75

ROTI®Load DNA short-run 1x (with glycerol)
1x conc., ready-to-use, DNase-free

DNA-gel loading buffer for high-throughput DNA-electrophoresis and short separation distance. Especially suitable for resolubilisation of pelleted DNA. For fast gels.

Contains: Tris, Na-acetate, EDTA, bromophenol blue and glycerol

D 1 g/cm³ · mp 0 °C

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Notes on the product

Each batch is functionally tested for its suitability in electrophoresis and for DNAse-freeness.

Art. No.	Pack Qty.	Pack.	€
0099.1	5 ml	plastic	46,15

ROTI®Load DNA small (with glycerol)
6x conc., DNase-free

DNA-gel loading buffer for DNA gel electrophoresis of small or very big fragments.

Contains: Tris, Na-acetate, EDTA, xylene cyanol and glycerol

D 1,15 g/cm³ · bp ~100 °C

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Notes on the product

Each batch is functionally tested for its suitability in electrophoresis and for DNAse-freeness.

Art. No.	Pack Qty.	Pack.	€
HP03.1	9 ml	plastic	56,45

ROTI®Load DNA-tricolor (with glycerol)
6x conc., DNase-free

DNA-gel loading buffer for DNA gel electrophoresis, suitable for a broad range of fragments.

Contains: Tris, Na-acetate, EDTA, bromophenol blue, xylene cyanol, orange G and glycerol

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Notes on the product

Each batch is functionally tested for its suitability in electrophoresis and for DNAse-freeness.

Art. No.	Pack Qty.	Pack.	€
HP06.1	9 ml	plastic	65,50

ROTI®Load DNAstain SYBR® Green

WGK 1

ROTI®Load DNAstain 1 SYBR® Green
6x conc., ready-to-use

DNA-gel loading buffer with fluorescent DNA-dye SYBR® Green. For fragments >500 bp.

Contains: Tris, EDTA, bromophenol blue, xylencyanol, SYBR® Green, glycerol.
1.8 ml are sufficient for gel run and staining of approx. 1,800 lanes (5 µl sample + 1 µl loading buffer).

D ~1,12 g/cm³

Storage temperature: –20 °C
Transport temperature: ambient temp.

Notes on the product

Appearance ..... dark blue solution

Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
1CN5.1	1.8 ml	plastic	52,15
1CN5.2	9.0 ml	plastic	160,20

ROTI®Load DNAstain 2 SYBR® Green
6x conc., ready-to-use

DNA-gel loading buffer with fluorescent DNA-dye SYBR® Green. For fragments of 100–2000 bp.

Contains: Tris, EDTA, xylencyanol, tartrazine, SYBR® Green.
1.8 ml are sufficient for gel run and staining of approx. 1,800 lanes (5 µl sample + 1 µl loading buffer).

D ~1,12 g/cm³

Storage temperature: –20 °C
Transport temperature: ambient temp.

Notes on the product

Appearance ..... green solution

Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
1CN6.1	1.8 ml	plastic	52,15
1CN6.2	9.0 ml	plastic	160,20

ROTI®Load DNAstain 3 SYBR® Green

6x conc., ready-to-use

DNA-gel loading buffer with fluorescent DNA-dye SYBR® Green. For fragments <500 bp.

Contains: Tris, EDTA, orange G, SYBR® Green.
1.8 ml are sufficient for gel run and staining of approx. 1,800 lanes (5 µl sample + 1 µl loading buffer).

D ~1,115 g/cm³

Storage temperature: –20 °C
Transport temperature: ambient temp.

Notes on the product
Appearance ..... orange solution

Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
1CN7.1	1.8 ml	plastic	52,15
1CN7.2	9.0 ml	plastic	160,20

ROTI®Lumin

HRP substrate

D 1 g/cm³

ROTI®Lumin

10x conc., fluorescence-free, for protein and cytoimmunochemistry

Chemoluminescence substrate for peroxidase mediated detection systems.

2 x 120 ml is sufficient for approx. 3,500 cm² membrane (approx. 50 mini gel blots) or 2,400 wells in the ELISA.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
P078.1	1 kit	plastic	424,65
P078.2	1 kit	plastic	117,20

ROTI®Mark protein markers, not prestained

ROTI®Mark PETIT

ready-to-use, not prestained

Size range: 3,5-40 kD
Number of protein bands: 7
Number of lanes/ml: approx. 200 (mini gels)

Markers (protein gels) · Protein-Markers

For direct application to the gel.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
9299.1	100 µl	plastic	70,45
9299.2	500 µl	plastic	203,20

ROTI®Mark protein markers, prestained

Markers (protein gels) · Protein-Markers

ROTI®-Mark ALL BLUE

ready-to-use, prestained

Size range: 10-240 kD
Number of protein bands: 12
Number of lanes/ml: approx. 200 (mini gel)

For direct application to the gel.

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 2

Art. No.	Pack Qty.	Pack.	€
2242.1	250 µl	plastic	112,90
2242.2	500 µl	plastic	203,20

ROTI®Mark BI-PINK

ready-to-use, prestained

Size range: 10-175 kD
Number of protein bands: 11
Number of lanes/ml: approx. 200 (mini gels)

For direct application to the gel.

D 1 g/cm³ · bp 100 °C

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 2

Art. No.	Pack Qty.	Pack.	€
8269.1	500 µl	plastic	241,90

ROTI®Mark TRICOLOR

ready-to-use, prestained

Size range: 10-245 kD
Number of protein bands: 12
Number of lanes/ml: approx. 200 (mini gels)

For direct application to the gel.

D 1 g/cm³ · bp 100 °C

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 2

Art. No.	Pack Qty.	Pack.	€
8271.2	250 µl	plastic	115,60
8271.1	500 µl	plastic	212,35

ROTI®Mark TRICOLOR XTRA

ready-to-use, prestained

Size range: 10-310 kD
Number of protein bands: 12
Number of lanes/ml: approx. 200 (mini gel)

For direct application to the gel.

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 2

Art. No.	Pack Qty.	Pack.	€
2244.1	250 µl	plastic	131,70
2244.2	500 µl	plastic	246,20

ROTI®-Mark WESTERN PLUS

Markers (protein gels) · Protein-Markers

ROTI®-Mark WESTERN PLUS

ready-to-use, pre-dyed

Size range: 15-200 kD
Number of protein bands: 14
- 10 IgG binding
- 4 prestained (tricolour)
Number of lanes/ml: approx. 200 (mini gel)

For direct application to the gel.

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 2

Art. No.	Pack Qty.	Pack.	€
2245.1	250 µl	plastic	246,20
2245.2	500 µl	plastic	482,70

ROTI®Methylene blue staining concentrate

Methylene blue staining concentrate

D ~0,97 to 1 g/cm³ · mp ~0 °C · bp 100 °C · flp 40 °C
UN no. 1170 · ADR 3 III · WGK 1

 **Warning** H226-H319

ROTI®Methylene blue staining concentrate

200x conc.

For reversible staining of DNA in agarose gels

12 ml Roti®-methylene blue staining concentrate is sufficient for more than 50 mini gels.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
0648.1	3 ml	plastic	49,35
0648.2	12 ml	plastic	138,70

ROTI®Mix PCR

dNTP mix for PCR · Nucleotide mix for PCR

WGK 1

ROTI®Mix PCR 1

2 mM (/dNTP), 8 mM (total), dATP, dTTP, dGTP, dCTP, ready-to-use

for PCR and RT, nucleotide mix of dATP, dTTP, dGTP, dCTP

Concentration: 2 mM per dNTP
Typical end concentration in PCR: 200 µM each

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
L541.1	1 ml	plastic	30,00
L541.2	5 ml	plastic	119,90

ROTI®Mix PCR 3
10 mM (/dNTP), 40 mM (total), dATP, dTTP, dGTP, dCTP, ready-to-use

for PCR and RT, nucleotide mix of dATP, dTTP, dGTP, dCTP

Concentration: 10 mM per dNTP
Typical end concentration in PCR: 200 µM each

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
L785.1	0.2 ml	plastic	30,00
L785.2	1 ml	plastic	119,90
L785.3	5 ml	plastic	489,15

ROTI®Mix PCR 3 (pH 7)
10 mM (/dNTP), 40 mM (total), dATP, dTTP, dGTP, dCTP, ready-to-use

for PCR and RT, nucleotide mix of dATP, dTTP, dGTP, dCTP, **pH 7,0 ±0,1**

Concentration: 10 mM per dNTP
Typical end concentration in PCR: 200 µM each

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
0179.1	0.2 ml	plastic	30,00
0179.2	1 ml	plastic	119,90

ROTI®Mount

D 0,79 g/cm³ · bp 110 to 130 °C · flp >17 °C
UN no. 1993 · ADR 3 II · WGK 3

Danger H225-H304-H372-H411-EUH066

ROTI®Mount
ready-to-use, for histology

Synthetic mounting medium. Compatible with ROTICLEAR® (Art. No. A538) and n-Butyl acetate (Art. No. P036).

Type analysis
Appearance colourless to light yellowish, viscous liquid
Viscosity (20 °C) ..... 1000-1200 mPas
Refractive index (20 °C) 1,43-1,46
Density (20 °C) 0,850-0,900

Art. No.	Pack Qty.	Pack.	€
HP68.1	100 ml	glass	26,80
HP68.2	500 ml	glass	87,65

ROTI®Mount Aqua

D 1,05 to 1,18 g/cm³
WGK 1

ROTI®Mount Aqua
ready-to-use, for microscopy

Aqueous mounting medium

Store protected from light.

Type analysis
Appearance ..... colourless, viscous liquid
Viscosity (20 °C) ..... 170-220 mPas
Refractive index (20 °C) 1,3750-1,3950
Density (20 °C) ..... 1,05-1,18 g/cm³

Art. No.	Pack Qty.	Pack.	€
2848.1	15 ml	dropp. bottle	26,35
2848.2	50 ml	glass	51,50

ROTI®Mount FluorCare

D 1,05 to 1,18 g/cm³
WGK 1

ROTI®Mount FluorCare
ready-to-use, for fluorescence microscopy

Aqueous mounting medium with antifading effect for fluorescent dyes.

Store protected from light.

Storage temperature: +4 °C

Type analysis
Appearance ..... clear, viscous liquid

Sensitive to light.

Art. No.	Pack Qty.	Pack.	€
HP19.1	15 ml	dropp. bottle	70,85

ROTI®Mount FluorCare DAPI
ready-to-use, for fluorescence microscopy

Aqueous mounting medium with antifading effect for fluorescent dyes. Contains DAPI for counterstaining.

Store protected from light.

Storage temperature: +4 °C

Type analysis
Appearance ..... clear, viscous liquid
Viscosity (20 °C) ..... 170-220 mPas
Refractive index (20 °C) 1,44-1,465
Density (20 °C) 1,05-1,18

Sensitive to light.

Art. No.	Pack Qty.	Pack.	€
HP20.1	15 ml	dropp. bottle	87,00

ROTI®Mount FluorCare PI
ready-to-use, for fluorescence microscopy

Aqueous mounting medium with antifading effect for fluorescent dyes. Contains propidiumiodide (PI) for counterstaining.

Store protected from light.

Storage temperature: +4 °C

Type analysis
Appearance ..... viscous, slightly reddish liquid

Sensitive to light.

Art. No.	Pack Qty.	Pack.	€
HP21.1	15 ml	dropp. bottle	87,00

ROTI®Nanoquant

Bradford solution

D 1,37 g/cm³ · flp 36 °C
UN no. 2920 · ADR 8 (3) II · WGK 1

Danger H226-H290-H302-H314

ROTI®Nanoquant
5x conc.

For protein quantitation acc. to Bradford, for extremely small protein amounts.

50 ml ROTI®Nanoquant is sufficient for more than 200 macroassays (1 ml-cuvette) or more than 900 assays when using micro-titer plates

Storage temperature: +4 °C

Notes on the product

Tested for protein gel staining.

Art. No.	Pack Qty.	Pack.	€
K880.2	50 ml	plastic	19,25
K880.3	200 ml	plastic	57,95
K880.1	500 ml	plastic	115,60

ROTI®Nucleic Acid-free

ROTI®Nucleic Acid-free
ready-to-use

for removal of nucleic acid contaminations from surfaces

Decontamination solution · Nuclease Removal · Purification solution for surfaces

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 1824 · ADR 8 III · WGK 1

Warning H290-H315-H319

Art. No.	Pack Qty.	Pack.	€
HP69.1	500 ml	spray bottle	91,30
HP69.2	1 l	plastic	123,65
Original pack 6 x 1 l			117,47/1 l
HP69.3	2.5 l	plastic	267,70
Original pack 4 x 2.5 l			254,32/2.5 l

ROTI®Nucleic Acid-free eXtra
ready-to-use

Gentle solution for removal of nucleic acid contaminations from surfaces

Decontamination solution · Purification solution for surfaces

D 1 g/cm³ · bp 100 °C

WGK 1

Type analysis
Appearance ..... clear, colourless
Efficiency (strand breakage test) ..... complies
Efficiency (PCR) ..... complies

Art. No.	Pack Qty.	Pack.	€
1312.1	500 ml	plastic	107,00
1312.4	500 ml	spray bottle	112,35
1312.2	1 l	plastic	203,20
Original pack 6 x 1 l			193,04/1 l
1312.3	2.5 l	plastic	471,95
Original pack 4 x 2.5 l			448,35/2.5 l

ROTI®Phenol

ROTI®Phenol
ready-to-use, for the extraction of nucleic acids

Redistilled, in TE buffer equilibrated phenol, pH 7,5-8,0.

Phenol solutions · ROTI®Aqua-Phenol

Draw solution from lower phase. Do not shake before use!
Covered with buffer. Store in the dark!

D 1,03 to 1,05 g/cm³ · flp 79 °C

Storage temperature: +4 °C

UN no. 2821 · ADR 6.1 III · WGK 2

Danger H301+H311+H331-H314-H341-H373-H411

Notes on the product

Bottled under argon.

Art. No.	Pack Qty.	Pack.	€
0038.1	100 ml	glass	32,15
0038.2	250 ml	glass	64,40
0038.3	500 ml	glass	99,90

ROTI®Aqua-Phenol
ready-to-use, for RNA extraction

Redistilled, in water saturated phenol, pH 4,5-5.

Phenol solutions

Draw solution from lower phase. Do not shake before use!
Covered with water. Store in the dark!

D 1,06 g/cm³ · flp 81 °C

Storage temperature: +4 °C

UN no. 2821 · ADR 6.1 III · WGK 2

Danger H301-H312+H332-H314-H341-H373-H411

Notes on the product

Bottled under argon.

Art. No.	Pack Qty.	Pack.	€
A980.2	100 ml	glass	26,80
A980.1	250 ml	glass	52,15
A980.3	500 ml	glass	81,60

ROTI®Phenol/Chloroform/ Isoamyl alcohol

ROTI®Phenol/Chloroform/Isoamyl alcohol
ready-to-use, for the extraction of nucleic acids

Redistilled, in TE-buffer equilibrated phenol, chloroform and isoamyl alcohol at a ratio of 25:24:1, pH 7,5-8,0.

Phenol solutions · ROTI®Aqua-P/C/I

Draw solution from lower phase. Do not shake before use!
Covered with buffer. Store in the dark!

D 1,2 to 1,3 g/cm³ · bp >61 °C · flp >80 °C

Storage temperature: +4 °C

UN no. 2810 · ADR 6.1 III · WGK 3

Danger H301+H331-H312-H314-H341-H351-H361d-H372-H411

Notes on the product

Bottled under argon.

Art. No.	Pack Qty.	Pack.	€
A156.3	100 ml	glass	46,15
A156.1	250 ml	glass	91,95
A156.2	500 ml	glass	155,90

ROTI®Aqua-P/C/I
ready-to-use, for RNA extraction

Redistilled, in water saturated phenol, chloroform and isoamyl alcohol at a ratio of 25:24:1, pH 4,5-5.

Phenol solutions

Store in the dark!

D 1,26 g/cm³ · bp >60 °C

Storage temperature: +4 °C

UN no. 2821 · ADR 6.1 II · WGK 3

Danger H301+H331-H312-H314-H341-H351-H361d-H372-H411

Art. No.	Pack Qty.	Pack.	€
X985.3	100 ml	glass	35,40
X985.1	250 ml	glass	62,90
X985.2	500 ml	glass	96,25

ROTIPHORESE®Blue R

Coomassie®-Staining solution

D 0,8 g/cm³ · bp >65 °C · flp >10 °C
UN no. 3286 · ADR 3 (6.1, 8) II · WGK 1

Danger H225-H301+H311+H331-H315-H319-H370

ROTIPHORESE®Blue R
ROTIPHORESE® concentrate

Brillant Blue R solution for Coomassie® staining of protein gels.

600 ml concentrated solution is sufficient for approx. 12 mini gels.

Art. No.	Pack Qty.	Pack.	€
3074.1	600 ml	glass	39,25

ROTIPHORESE®Gel solution 30 %

PAGE gel solutions · Gel solution

WGK 3

Danger H302-H315-H317-H319-H340-H350-H361f-H372

ROTIPHORESE®Gel 30 (37.5:1)
ROTIPHORESE® 30 %, ready-to-use, gas-stabilized

Aqueous acrylamide and bisacrylamide stock solution at a ratio of 37,5:1 for preparation of protein gels.

Analysis of proteins/peptides >15 kD, DNA fragments and DNA/protein interaction. Cross linking 2,7.

D 1,02 g/cm³

Storage temperature: +4 °C

Notes on the product

Filled under protective gas.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
3029.3	250 ml	glass	31,75
3029.2	500 ml	glass	47,85
3029.1	1 l	glass	82,25
Original pack 6 x 1 l			78,14/1 l

ROTIPHORESE®NF-Acrylamide/ Bis-solution 30 (29:1)
ROTIPHORESE® 30 %, ready-to-use, gas-stabilized, fluorescence-free

Aqueous acrylamide and bisacrylamide stock solution at a ratio of 29:1 for PAGE and DNA sequencers.

Analysis of proteins/peptides <30 kD, DNA oligonucleotides and long-run DNA sequencing. Cross linking 3,3.

D 1,024 g/cm³

Storage temperature: +4 °C

Notes on the product

Filled under protective gas.
Tested for automatic sequencers.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
A124.1	250 ml	glass	69,80
A124.2	1 l	glass	209,65
Original pack 6 x 1 l			199,17/1 l

ROTIPHORESE®Gel solution 40 %

PAGE gel solutions · Gel solution

D 1,03 g/cm³
UN no. 3426 · ADR 6.1 III · WGK 3

Danger H301-H315-H317-H319-H332-H340-H350-H361f-H372

ROTIPHORESE®Gel 40 (37.5:1)
ROTIPHORESE® 40 %, ready-to-use, gas-stabilized

Aqueous acrylamide and bisacrylamide stock solution at a ratio of 37,5:1 for preparation of protein gels.

Analysis of proteins/peptides >15 kD, DNA fragments and DNA/protein interaction. Cross linking 2,7.

Storage temperature: +4 °C

Notes on the product

Filled under protective gas.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
T802.2	250 ml	glass	38,20
T802.1	1 l	glass	91,95
Original pack 6 x 1 l			87,35/1 l

ROTIPHORESE®Gel 40 (29:1)
ROTIPHORESE® 40 %, ready-to-use, gas-stabilized

Aqueous acrylamide and bisacrylamide stock solution at a ratio of 29:1 for preparation of protein- or DNA gels.

Analysis of proteins/peptides <30 kD, DNA oligonucleotides and long-run DNA sequencing. Cross linking 3,3.

Storage temperature: +4 °C

Notes on the product

Filled under protective gas.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
A515.2	250 ml	glass	41,85
A515.1	1 l	glass	101,60
Original pack 6 x 1 l			96,52/1 l

ROTIPHORESE®NF-Acrylamide/ Bis-solution 40 (29:1)

ROTIPHORESE® 40 %, ready-to-use, gas-stabilized, fluorescence-free

Aqueous acrylamide and bisacrylamide stock solution at a ratio of 29:1 for PAGE and automatic DNA sequencers.

Analysis of proteins/peptides <30 kD, DNA oligonucleotides and long-run DNA sequencing. Cross linking 3,3.

Storage temperature: +4 °C

Notes on the product

Filled under protective gas.
Tested for automatic sequencers.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
A121.1	250 ml	glass	58,60

ROTIPHORESE®Gel 40 (19:1)

ROTIPHORESE® 40 %, ready-to-use, gas-stabilized

Aqueous acrylamide and bisacrylamide stock solution at a ratio of 19:1 for preparation of DNA gels.

Optimal for DNA gels for separation of small fragments, manual sequencing and automatic sequencers. Cross linking 5.

Storage temperature: +4 °C

Notes on the product

Filled under protective gas.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
3030.2	250 ml	glass	39,70
3030.1	1 l	glass	96,25
Original pack 6 x 1 l			91,44/1 l

ROTIPHORESE®NF-Acrylamide/ Bis-solution 40 (19:1)

ROTIPHORESE® 40 %, ready-to-use, gas-stabilized, fluorescence-free

Aqueous acrylamide and bisacrylamide stock solution at a ratio of 19:1 for PAGE and automatic DNA sequencers.

Optimal for DNA gels for separation of small fragments, manual sequencing and automatic sequencers. Cross linking 5.

Storage temperature: +4 °C

Notes on the product

Filled under protective gas.
Tested for automatic sequencers.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
A516.1	250 ml	glass	72,60

ROTIPHORESE®acrylamide solution 30 %

PAGE gel solutions · Gel solution

D 1,023 g/cm³
WGK 3

Danger H302-H315-H317-H319-H340-H350-H361f-H372

ROTIPHORESE®Gel A

ROTIPHORESE® 30 %, gas-stabilized

Aqueous acrylamide stock solution for preparation of protein gels in combination with ROTIPHORESE® Gel B.

Gels with up to 20 % total acrylamide concentration can be produced.

Storage temperature: +4 °C

Notes on the product

Filled under protective gas.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
3037.2	250 ml	glass	25,70
3037.1	1 l	glass	66,15
Original pack 6 x 1 l			62,84/1 l

ROTIPHORESE®acrylamide solution 40 %

PAGE gel solutions · Gel solution

D 1,031 g/cm³
WGK 3

Danger H302+H332-H315-H317-H319-H340-H350-H361f-H372

ROTIPHORESE®Gel A-40

ROTIPHORESE® 40 %, gas-stabilized

Aqueous acrylamide stock solution for preparation of protein gels in combination with ROTIPHORESE® Gel B.

Gels with up to 25 % total acrylamide concentration can be produced.

Storage temperature: +4 °C

Notes on the product

Filled under protective gas.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
7748.1	250 ml	glass	35,40
7748.2	1 l	glass	84,85
Original pack 6 x 1 l			80,61/1 l

ROTIPHORESE®bisacrylamide solution

PAGE gel solutions · Gel solution

D 1 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

ROTIPHORESE®Gel B

ROTIPHORESE® 2 %, gas-stabilized

Aqueous bisacrylamide stock solution for preparation of protein gels in combination with ROTIPHORESE®Gel A or Gel A-40.

Gels with up to 25 % total acrylamide concentration can be produced.

Storage temperature: +4 °C

Notes on the product

Filled under protective gas.
Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
3039.2	250 ml	glass	24,65
3039.1	1 l	glass	59,70
Original pack 6 x 1 l			56,72/1 l

ROTIPHORESE®NF-Urea

Urea for electrophoresis

CH_4N_2O · D 1,33 g/cm³ · mp 134 °C
CAS No. 57-13-6
WGK 1

ROTIPHORESE®NF-Urea

ROTIPHORESE® fluorescence-free

for electrophoresis and fluorescent applications

Storage temperature: +4 to +15 °C

Notes on the product

Tested for automatic sequencers.

Art. No.	Pack Qty.	Pack.	€
A120.1	1 kg	plastic	85,90
Original pack 6 x 1 kg			81,61/1 kg

ROTIPHORESE®PAGE Matrix Buffer plus

Gel matrix buffer · SDS-PAGE buffer

WGK 1

ROTIPHORESE®PAGE Matrix Buffer plus

ROTIPHORESE® 4x conc., for electrophoresis

Ready-made buffer solution for pouring of optimized SDS-PAGE gels.

One bottle of 250 ml is sufficient for pouring of approx. 100 mini gels.

Storage temperature: +4 °C
Transport temperature: cooled

Type analysis

pH value 6,9-7,1
Stability test ..... complies

Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Pack.	€
8996.1	250 ml	plastic	149,45

ROTIPHORESE®SDS-PAGE

SDS-PAGE buffer · Tris-glycine-SDS buffer · Laemmli buffer

D 1,068 g/cm³
WGK 1

ROTIPHORESE®10x SDS-PAGE
ROTIPHORESE® 10x conc.

SDS-PAGE running buffer in electrophoresis.

Mix before use!

Composition

0.25 M TRIS, 1.92 M glycine.
1 % (g/v) SDS, distilled, deionized water.
Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Pack.	€
3060.1	1 l	glass	46,80
Original pack 6 x 1 l			44,46/1 l
3060.3	2.5 l	glass	85,50
Original pack 4 x 2.5 l			81,23/2.5 l
3060.2	5 l	plastic	123,10
Original pack 2 x 5 l			116,95/5 l

ROTIPHORESE®DNA sequencing system

Sequencing gel solutions · Gel solution

ROTIPHORESE®DNA sequencing system
ROTIPHORESE® for DNA sequencing

Set of ready-to-use solutions for preparation of DNA sequencing gels (manual sequencing).

One set is sufficient for 35 gels of 6 % (30 x 40 cm) with 40 % urea

D 1 g/cm³

Storage temperature: +4 to +15 °C

WGK 3

Danger H302-H315-H317-H319-H340-H350-H360FD-H372

Art. No.	Pack Qty.	Pack.	€
A431.1	1 kit	glass	134,40

ROTIPHORESE®Sequencing gel concentrate
ROTIPHORESE® 25 % solution (19:1), ready-to-use, gas-stabilized

Aqueous acrylamide and bisacrylamide stock solution at a ratio of 19:1 for preparation of sequencing gels of 0–20 % acrylamide.

One liter is sufficient for 70 gels of 6 % (30 x 40 cm). Cross linking 5.

D 1,14 g/cm³ · bp 100 °C

Storage temperature: +4 to +15 °C

WGK 3

Danger H302-H315-H317-H319-H340-H350-H361f-H372

Composition

Acrylamide ..... 237,5 g
Methylenebisacrylamide ..... 12,5 g
Urea ..... 500 g

per 1 l.
23.75 % acrylamide.
1.25 % methylene bisacrylamide.
50 % urea.
distilled, deionized water.
Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Pack.	€
3043.2	100 ml	glass	17,10
3043.1	1 l	glass	74,75
Original pack 6 x 1 l			71,01/1 l

ROTIPHORESE®Sequencing gel diluent
ROTIPHORESE® 50 % (w/v, 8.3 M), ready-to-use

Solution of urea in water for diluting ROTIPHORESE®Sequencing gel concentrate.

One liter is sufficient for 35 gels (30 x 40 cm) with 40 % urea

D 1,12 g/cm³ · bp 100 °C

Storage temperature: +4 to +15 °C

WGK 1

Composition

50 % urea.
distilled, deionized water.
Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Pack.	€
3047.1	1 l	glass	46,80
Original pack 6 x 1 l			44,46/1 l

ROTIPHORESE®Sequencing gel buffer concentrate
ROTIPHORESE® 50 % (w/v, 8,3 M) in 10x TBE

Solution of urea in 10x TBE for DNA sequencing

One liter is sufficient for 160 gels (30 x 40 cm)

D 1,185 g/cm³ · bp 100 °C

Storage temperature: +4 to +15 °C

WGK 1

Danger H360FD

Composition

1.0 M TRIS borate (pH 8.3), 20 mM EDTA.
50 % urea.
distilled, deionized water.
Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Pack.	€
3050.1	250 ml	glass	31,75

ROTIPHORESE®TAE Buffer

TAE-buffer

WGK 1

ROTIPHORESE®10x TAE Buffer
ROTIPHORESE® 10x conc.

Running buffer in DNA agarose gel electrophoresis.

Concentrated TAE tends to precipitate salts during storage. Mix before use!

D 1,018 g/cm³ · bp >100 °C

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

0.4 M TRIS acetate.
0.01 M EDTA.
distilled, deionized water.
Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Pack.	€
T845.1	1 l	glass	38,20
Original pack 6 x 1 l			36,29/1 l
T845.2	5 l	plastic	88,70
Original pack 2 x 5 l			84,27/5 l

ROTIPHORESE®10x TAE Buffer *light*
ROTIPHORESE® 10x conc., reduced EDTA concentration

Buffer concentrate for DNA agarose gel electrophoresis, ideal for DNA elution gels or in-gel-applications.

Concentrated TAE tends to precipitate salts during storage. Mix before use!

D 1,018 g/cm³ · bp >100 °C

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

0.4 M TRIS acetate.
1 mM EDTA.
distilled, deionized water.
Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Pack.	€
0122.1	1 l	glass	32,15
Original pack 6 x 1 l			30,54/1 l

ROTIPHORESE®50x TAE Buffer
ROTIPHORESE® 50x conc.

Running buffer in DNA agarose gel electrophoresis.

Concentrated TAE tends to precipitate salts during storage. Mix before use!

D 1,086 g/cm³

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

2 M TRIS acetate.
50 mM EDTA.
distilled, deionized water.
Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Pack.	€
CL86.1	1 l	glass	75,80
Original pack 6 x 1 l			72,01/1 l
CL86.3	2.5 l	glass	142,45
Original pack 4 x 2.5 l			135,33/2.5 l
CL86.2	5 l	plastic	220,40
Original pack 2 x 5 l			209,38/5 l

ROTIPHORESE®TBE Buffer

TBE-buffer

WGK 1

Danger H360FD

ROTIPHORESE®10x TBE Buffer
ROTIPHORESE® 10x conc.

TBE-buffer for preparing sequencing gels and as running buffer in electrophoresis.

Concentrated TBE tends to precipitate salts during storage. Mix before use!

D 1,068 g/cm³ · bp >100 °C

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

1.0 M TRIS borate (pH 8.3), 20 mM EDTA.
distilled, deionized water.
Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Pack.	€
3061.1	1 l	glass	34,95
Original pack 6 x 1 l			33,20/1 l
3061.3	2.5 l	glass	74,10
Original pack 4 x 2.5 l			70,40/2.5 l
3061.2	5 l	plastic	116,10
Original pack 2 x 5 l			110,30/5 l

ROTIPHORESE®NF 10x TBE Buffer
ROTIPHORESE® 10x conc., fluorescence-free

TBE-buffer for preparing sequencing gels and as running buffer in electrophoresis
Tested and optimised for automatic sequencers.

Concentrated TBE tends to precipitate salts during storage. Mix before use!

D 1,061 g/cm³ · bp 100 °C

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Notes on the product

Tested for automatic sequencers.
0.89 M TRIS borate (pH 8.3), 22 mM EDTA.
distilled, deionized water.
Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Pack.	€
A118.1	2.5 l	glass	127,95
Original pack 4 x 2.5 l			121,55/2.5 l

ROTI®Plast Special paraffin

Paraffin in droplets

D 0,79 to 0,94 g/cm³ · mp 54 to 56 °C · flp >200 °C
CAS No. 8002-74-2 · EC no. 232-315-6

ROTI®Plast
100 %, for histology

Tissue embedding medium composed of highly purified paraffin

Melting range: 54-56 °C

Paraffin in pellets

Not a medical device / Not an IVD product

Type analysis

Appearance ..... white pastilles
Solidification point ..... 54-56 °C

Art. No.	Pack Qty.	Pack.	€
6642.1	1 kg	plastic	31,10
Original pack 6 x 1 kg			29,55/1 kg
6642.5	2.5 kg	plastic	62,25
6642.2	10 kg	plastic	224,70
6642.6	20 kg	plastic	413,90

ROTI®Plast with DMSO

mp 56 to 58 °C · flp >100 °C
WGK 1

ROTI®Plast with DMSO
for histology

Melting range: 56-58 °C

paraffin in pellets

Not a medical device / Not an IVD product

Type analysis

Appearance ..... white droplets
Solidification point ..... 56-58 °C

Art. No.	Pack Qty.	Pack.	€
6643.1	1 kg	cardboard	28,95
Original pack 6 x 1 kg			27,50/1 kg
6643.2	2 kg	plastic	48,95
6643.3	20 kg	cardboard	421,95

ROTI®Plate90

Ready-made media

ROTI®Plate90 CASO
Ph. Eur., ISO 11133, ready-to-use, sterile, for microbiology

For the cultivation of non-demanding microorganisms.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Composition

Casein peptone ..... 15 g/l
Sodium chloride ..... 5 g/l
Soy peptone (papain hydrolysate) ..... 5 g/l
Agar ..... 15 g/l
pH value (25 °C) 7,1-7,5

Art. No.	Pack Qty.	Pack.	€
1ATX.1	10 unit(s)	box	17,10

ROTI®Plate90 Columbia
ISO 11133, for microbiology

For the isolation and cultivation of fastidious and non- fastidious microorganisms.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 3

Not a medical device / Not an IVD product

Composition

Peptone ..... 10 g/l
Sodium chloride (NaCl) ..... 5 g/l
Starch ..... 1 g/l
Agar-Agar ..... 13,5 g/l
pH value (25 °C) 7,1-7,5

Art. No.	Pack Qty.	Pack.	€
1K27.1	10 unit(s)	box	17,10

ROTI®Plate90 DG18
ISO 21527-2, EN ISO 11133, for microbiology

For counting and isolating xerophilic fungi, especially from semi-dry and dry foods.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Composition

Casein, enzymatically digested ..... 5 g/l
Glucose ..... 10 g/l
Potassium dihydrogen phosphate ..... 1 g/l
Magnesium sulphate ($MgSO_4$) ..... 0,5 g/l
Glycerol ..... 220 g/l
Dichlorane ..... 0,002 g/l
Chloroamphenicol ..... 0,1 g/l
Agar-Agar ..... 15 g/l
pH value (25 °C) 5,4-5,8

Art. No.	Pack Qty.	Pack.	€
1K24.1	10 unit(s)	box	20,35

ROTI®Plate90 Endo
for microbiology

For isolation of enteric gram-negative bacteria, especially coliforms, from water, dairy products and food.

Expiration time on request.
Do NOT freeze!

D ~1 g/cm³

Storage temperature: +4 °C
Transport temperature: cooled

WGK 2

Composition

Meat peptone ..... 10 g/l
Lactose ..... 10 g/l
Dikaliumhydrogenphosphat ..... 3,5 g/l
Sodium sulphite ..... 2,5 g/l
Fuchsine basic ..... 0,5 g/l
Agar-Agar ..... 15 g/l
pH value (25 °C) 7,2-7,6

Art. No.	Pack Qty.	Pack.	€
1LE1.1	10 unit(s)	box	17,10

ROTI®Plate90 MEA
EN ISO 11133, for microbiology

For the cultivation of moulds and yeasts.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Composition
Malt extract ..... 12,75 g/l
Dextrine ..... 2,75 g/l
Peptone ..... 0,78 g/l
Glycerol ..... 2,35 g/l
Agar-Agar ..... 15 g/l
pH value (25 °C) 5,2-5,6

Art. No.	Pack Qty.	Pack.	€
1K23.1	10 unit(s)	box	17,10

ROTI®Plate90 MRS
EN ISO 11133, for microbiology

Selective medium for the isolation of lactobacilli.

Expiration time on request.
Do NOT freeze!

mp 146 °C

Storage temperature: +4 °C
Transport temperature: cooled

WGK 2

Not a medical device / Not an IVD product

Composition
Casein, enzymatically digested ..... 10 g/l
Glucose ..... 20 g/l
Yeast extract ..... 4 g/l
Beef extract ..... 10 g/l
Dikaliumhydrogenphosphat ..... 2 g/l
Magnesium sulphate ($MgSO_4$) ..... 0,2 g/l
Sodium acetate ..... 5 g/l
Manganese sulphate ..... 0,05 g/l
Triammonium citrate ..... 2 g/l
Tween 80 ..... 1 g/l
Agar-Agar ..... 10 g/l
pH value (25 °C) 6,0-6,4

Art. No.	Pack Qty.	Pack.	€
1K26.1	10 unit(s)	box	17,10

ROTI®Plate90 Mueller Hinton
EUCAST, for microbiology

Nutrient medium for the sensitivity test.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Composition
Casein peptone (acidic hydrolysate) ..... 17,5 g/l
Beef Infusion ..... 2 g/l
Starch ..... 1,5 g/l
Agar-Agar ..... 17 g/l
pH value (25 °C) 7,1-7,5

Art. No.	Pack Qty.	Pack.	€
1K22.1	10 unit(s)	box	17,10

ROTI®Plate90 PCA
ISO 4833, ISO 11133, ready-to-use, sterile, for microbiology

For total bacterial count of aerobic microorganisms.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Composition
Casein peptone ..... 5 g/l
Yeast extract ..... 2,5 g/l
Glucose ..... 1 g/l
Agar ..... 15 g/l
pH value (25 °C) 6,8-7,2

Art. No.	Pack Qty.	Pack.	€
1AX1.1	10 unit(s)	box	17,10

ROTI®Plate90 Sab4
Ph. Eur., USP, JP, EN ISO 11133, for microbiology

For the cultivation and counting of yeasts, moulds and dermatophytes.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Composition
Peptone ..... 10 g/l
Glucose ..... 40 g/l
Agar-Agar ..... 15 g/l
pH value (25 °C) 5,4-5,8

Art. No.	Pack Qty.	Pack.	€
1K25.1	10 unit(s)	box	17,10

ROTI®Plate90 Sab4Cla
ISO 11133, ready-to-use, sterile, for microbiology

For selective isolation of yeasts and pathogenic fungi.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Composition
Meat and casein peptone ..... 10 g/l
Glucose ..... 40 g/l
Chloroamphenicol ..... 0,5 g/l
Agar ..... 15 g/l
pH value (25 °C) 5,4-5,8

Art. No.	Pack Qty.	Pack.	€
1AX0.1	10 unit(s)	box	17,10

ROTI®Plate90 Sab4Cla
Ph. Eur., ISO 11133, ready-to-use, sterile, for microbiology

Selective medium for isolation of fungi according to European Pharmacopoeia.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Composition
Peptone mixture ..... 10 g/l
Glucose ..... 40 g/l
Chloroamphenicol ..... 0,05 g/l
Agar-Agar ..... 15 g/l
pH value (25 °C) 5,4-5,8

Art. No.	Pack Qty.	Pack.	€
1LNY.1	10 unit(s)	box	22,05

ROTI®Plate90 TSA
Ph. Eur., USP, ISO 11133, ISO 21149:2017, ready-to-use, sterile, for microbiology

For detection and counting of *E. coli* and other coliform bacteria in food and water samples.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Composition
Casein peptone ..... 15 g/l
Sodium chloride (NaCl) ..... 5 g/l
Soy peptone ..... 5 g/l
Agar ..... 15 g/l
pH value (25 °C) 7,1-7,5

Art. No.	Pack Qty.	Pack.	€
1ATT.1	10 unit(s)	box	17,10

ROTI®Plate90 TSA 4N
Ph. Eur., USP, JP, EN ISO 11133, for microbiology

For monitoring microbial contamination.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Composition
Casein peptone ..... 15 g/l
Soy peptone ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Lecithin ..... 0,7 g/l
Sodium thiosulphate ..... 0,5 g/l
Polysorbate 80 ..... 5 g/l
Histidine ..... 1 g/l
Agar-Agar ..... 15 g/l
pH value (25 °C) 7,1-7,5

Art. No.	Pack Qty.	Pack.	€
1K21.1	10 unit(s)	box	30,65

ROTI®Plate90 VRBD
ISO 11133, ISO 21528, ready-to-use, sterile, for microbiology

For the cultivation of enterobacteria.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Composition
Yeast extract ..... 3 g/l
Bile salts No. 3 ..... 1,5 g/l
Sodium chloride ..... 5 g/l
Neutral red ..... 0,03 g/l
Gelatin peptone (Pancreas hydrolysate) ..... 7 g/l
Glucose ..... 10 g/l
Crystal Violet ..... 0,002 g/l
Agar ..... 15 g/l
pH value (25 °C) 7,2-7,6

Art. No.	Pack Qty.	Pack.	€
1AX2.1	10 unit(s)	box	17,10

ROTI®Plate90 YGC
ISO 11133, ready-to-use, sterile, for microbiology

For counting yeasts and moulds in milk and dairy products.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Composition
Yeast extract ..... 5 g/l
Glucose ..... 20 g/l
Chloroamphenicol ..... 0,1 g/l
Agar ..... 12 g/l
pH value (25 °C) 6,4-6,8

Art. No.	Pack Qty.	Pack.	€
1ATY.1	10 unit(s)	box	17,10

ROTI®Pol TaqS

WGK 1

ROTI®Pol TaqS
5 U/µl

For all standard PCR amplifications.

DNA polymerase (thermostable) · Polymerase (thermostable) · Taq DNA polymerase, recombinant

TaqS polymerase in storage buffer, PCR buffer (10x), PCR buffer red (10x)

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Type analysis
Purity (enzyme) ..... ≥98%
Enzyme activity ..... 5 U/µl
Endonuclease activity ..... none detected
Exonuclease activity ..... none detected
Suitability for PCR (400 bp) ..... complies
Suitability for PCR (3 kb) ..... complies
Selective specificity in PCR ..... complies
Stability (in storage buffer) ..... complies

Art. No.	Pack Qty.	Pack.	€
9223.1	100 µl	plastic	75,15
9223.2	500 µl	plastic	364,45

ROTI®Pol TaqS Mix (2x)
2x conc., ready-to-use

Taq master mix for all standard PCR amplifications.

Master mix Taq DNA polymerase, recombinant · PCR master mix

PCR premix w/o primers and template, optimized for reactions of 25 µl volume.

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Type analysis
Appearance ..... colourless
Endonuclease activity ..... none detected
Exonuclease activity ..... none detected
Suitability for PCR (400 bp) ..... complies
Suitability for PCR (3 kb) ..... complies
Selective specificity in PCR ..... complies

Art. No.	Pack Qty.	Pack.	€
9239.1	2 ml	plastic	54,30
9239.2	10 ml	plastic	217,70

ROTI®Pol TaqS Red-Mix (2x)
2x conc., ready-to-use

Taq master mix for standard PCR amplifications followed by direct gel-loading.

Master mix Taq DNA polymerase, recombinant · PCR master mix

Prestained PCR premix w/o primers and template, optimized for reactions of 25 µl volume.

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Type analysis
Appearance ..... red
Endonuclease activity ..... none detected
Exonuclease activity ..... none detected
Suitability for PCR (400 bp) ..... complies
Suitability for PCR (3 kb) ..... complies
Selective specificity in PCR ..... complies

Art. No.	Pack Qty.	Pack.	€
9241.1	2 ml	plastic	59,70
9241.2	10 ml	plastic	235,45

ROTI®Pol Hot-TaqS

ROTI®Pol Hot-TaqS
5 U/µl

For hot start PCR amplifications.

DNA polymerase (thermostable) · Polymerase (thermostable) · Taq DNA polymerase, recombinant · Hot start DNA polymerase

HotTaqS polymerase in storage buffer, PCR buffer (10x), PCR buffer red (10x)

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Type analysis
Purity (enzyme) ..... ≥98 %
Enzyme activity ..... 5 U/µl
Endonuclease activity ..... none detected
Exonuclease activity ..... none detected
Suitability for PCR (400 bp) ..... complies
Suitability for PCR (3 kb) ..... complies
Suitability for PCR (5 kb) ..... complies
Selective specificity in PCR ..... complies
Hot start functionality ..... complies
Stability (in storage buffer) ..... complies

Art. No.	Pack Qty.	Pack.	€
9245.1	40 µl	plastic	76,90
9245.2	200 µl	plastic	364,45

ROTI®Pol Hot-TaqS Mix (2x)
2x conc., ready-to-use

Taq master mix for hot start PCR amplifications.

Master mix Taq DNA polymerase, recombinant · PCR master mix

PCR premix w/o primers and template, optimized for reactions of 25 µl volume.

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Type analysis
Appearance ..... colourless
Endonuclease activity ..... none detected
Exonuclease activity ..... none detected
Suitability for PCR (400 bp) ..... complies
Suitability for PCR (3 kb) ..... complies
Suitability for PCR (5 kb) ..... complies
Selective specificity in PCR ..... complies

Art. No.	Pack Qty.	Pack.	€
9248.1	2 ml	plastic	82,70
9248.2	10 ml	plastic	385,95

ROTI®Pol Hot-TaqS Red-Mix (2x)
2x conc., ready-to-use

Taq master mix for hot start PCR amplifications followed by direct gel-loading.

Master mix Taq DNA polymerase, recombinant · PCR master mix

Prestained PCR premix w/o primers and template, optimized for reactions of 25 µl volume.

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Type analysis
Appearance ..... red
Endonuclease activity ..... none detected
Exonuclease activity ..... none detected
Suitability for PCR (400 bp) ..... complies
Suitability for PCR (3 kb) ..... complies
Suitability for PCR (5 kb) ..... complies
Selective specificity in PCR ..... complies

Art. No.	Pack Qty.	Pack.	€
9256.1	2 ml	plastic	86,55
9256.2	10 ml	plastic	396,70

ROTI®Pol TaqHY

DNA polymerase (thermostable) · Polymerase (thermostable) · Taq DNA polymerase, recombinant

WGK 1

ROTI®Pol TaqHY
5 U/µl

For rapid high yield PCR amplifications.

Modified Taq polymerase in storage buffer, PCR buffer (10x), PCR buffer red (10x)

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Type analysis
Purity (enzyme) ..... ≥98 %
Enzyme activity ..... 5 U/µl
Endonuclease activity ..... none detected
Exonuclease activity ..... none detected
Suitability for PCR (400 bp) ..... complies
Suitability for PCR (3 kb) ..... complies
Selective specificity in PCR ..... complies
Stability (in storage buffer) ..... complies

Art. No.	Pack Qty.	Pack.	€
9345.1	100 µl	plastic	86,55
9345.2	500 µl	plastic	396,70

ROTI®Pol TaqHY Mix (2x)
2x conc., ready-to-use

For rapid high yield PCR amplifications.

PCR premix w/o primers and template, optimized for reactions of 25 µl volume.

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Type analysis
Appearance ..... colourless
Endonuclease activity ..... none detected
Exonuclease activity ..... none detected
Suitability for PCR (400 bp) ..... complies
Suitability for PCR (3 kb) ..... complies
Selective specificity in PCR ..... complies

Art. No.	Pack Qty.	Pack.	€
1K33.1	2 ml	plastic	86,55
1K33.2	10 ml	plastic	396,70

ROTI®Pol TaqHY Red-Mix (2x)
2x conc., ready-to-use

For rapid high yield PCR amplifications followed by direct gel-loading.

Prestained PCR premix w/o primers and template, optimized for reactions of 25 µl volume.

D 1 g/cm³

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Type analysis
Appearance ..... colourless
Endonuclease activity ..... non detected
Exonuclease activity ..... non detected
Suitability for PCR (400 bp) ..... complies
Suitability for PCR (3 kb) ..... complies
Selective specificity in PCR ..... complies

Art. No.	Pack Qty.	Pack.	€
1K34.1	2 ml	plastic	86,55
1K34.2	10 ml	plastic	396,70

ROTI®Pol Hot-TaqHY

DNA polymerase (thermostable) · Polymerase (thermostable) · Taq DNA polymerase, recombinant · Hot start DNA polymerase

WGK 1

ROTI®Pol Hot-TaqHY
5 U/µl

For rapid high yield hot start PCR amplifications.

Modified HotTaq polymerase in storage buffer, PCR buffer (10x), PCR buffer red (10x)

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Type analysis
Purity (enzyme) ..... ≥98 %
Enzyme activity ..... 5 U/µl
Endonuclease activity ..... none detected
Exonuclease activity ..... none detected
Suitability for PCR (400 bp) ..... complies
Suitability for PCR (3 kb) ..... complies
Suitability for PCR (5 kb) ..... complies
Selective specificity in PCR ..... complies
Hot start functionality ..... complies
Stability (in storage buffer) ..... complies

Art. No.	Pack Qty.	Pack.	€
9346.1	40 µl	plastic	86,55
9346.2	200 µl	plastic	396,70

ROTI®Pol ProofRead

DNA polymerase (thermostable) · Pfu DNA polymerase, recombinant · Polymerase (thermostable)

WGK 1

ROTI®Pol ProofRead
5 U/µl

For high fidelity PCR amplifications.

Proof read polymerase in storage buffer, proof read PCR buffer (10x)

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Type analysis
Purity (enzyme) ..... ≥98 %
Enzyme activity ..... 5 U/µl

Art. No.	Pack Qty.	Pack.	€
9344.1	40 µl	plastic	99,45
9344.2	200 µl	plastic	456,90

ROTI®Pol TaqUltra

DNA polymerase (thermostable) · Polymerase (thermostable) · Taq DNA polymerase, recombinant

WGK 1

ROTI®Pol TaqUltra
5 U/µl, DNA-free

For PCR amplifications, particularly of bacterial DNA.

Ultra pure Taq polymerase in storage buffer

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Type analysis
Purity (enzyme) ..... ≥98 %
Enzyme activity ..... 5 U/µl
Endonuclease activity ..... none detected
Exonuclease activity ..... none detected
Suitability for PCR (400 bp) ..... complies
Suitability for PCR (3 kb) ..... complies
Bacterial DNA (enzyme) ..... none detected
Selective specificity in PCR ..... complies
Stability (in storage buffer) ..... complies

Art. No.	Pack Qty.	Pack.	€
9347.1	40 µl	plastic	177,40
9347.2	200 µl	plastic	886,90

ROTI®Pol Hot-TaqUltra

DNA polymerase (thermostable) · Polymerase (thermostable) · Taq DNA polymerase, recombinant · Hot start DNA polymerase

WGK 1

ROTI®Pol Hot-TaqUltra
5 U/µl, DNA-free

For hot start PCR amplifications, particularly of bacterial DNA.

Ultra pure HotTaq polymerase in storage buffer

Storage temperature: –20 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Type analysis
Purity (enzyme) ..... ≥98%
Enzyme activity ..... 5 U/µl
Endonuclease activity ..... none detected
Exonuclease activity ..... none detected
Suitability for PCR (400 bp) ..... complies
Suitability for PCR (3 kb) ..... complies
Bacterial DNA (enzyme) ..... none detected
Selective specificity in PCR ..... complies
Hot start functionality ..... complies
Stability (in storage buffer) ..... complies

Art. No.	Pack Qty.	Pack.	€
9350.1	40 µl	plastic	192,45
9350.2	200 µl	plastic	912,70

ROTI®PreMix PBS

PBS powder · Phosphate buffered saline

WGK 1

ROTI®PreMix PBS
for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1x PBS solution is prepared by dissolution of 9.55 g/l in highly pure water.

Composition

Prepared 1x PBS solution contains: 0.14 M NaCl, 2.7 mM KCl, 10 mM phosphate, pH-value 7.4 ±0.2, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
0890.1	250 g	plastic	94,10
0890.2	1.25 kg	plastic	317,15

ROTI®PreMix PBST

PBST powder · Phosphate buffered saline with Tween

WGK 1

ROTI®PreMix PBST
for biochemistry and molecular biology

General solution for assays in molecular biology and biochemistry.

1x PBS solution is prepared by dissolution of 10.05 g/l in highly pure water.

Composition

Prepared 1x PBST solution contains: 0.14 M NaCl, 2,7 mM KCl, 10 mM phosphate, 0.05 % Tween® 20, pH-value 7.4 ±0.2, when prepared in deionized or distilled water.

Art. No.	Pack Qty.	Pack.	€
0987.1	250 g	plastic	94,10
0987.2	1.25 kg	plastic	317,15

ROTI®Prep Blood Genomic DNA MINI

D 1 g/cm³ · flp <21 °C
UN no. 3316 · ADR 9 II · WGK 3

Danger H225-H315-H335

ROTI®Prep Blood Genomic DNA MINI
for molecular biology

Kit for isolation of DNA from whole blood

Preparation of up to 30 µg gDNA from up to 400 µl blood per column.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Notes on the product

Art. No.	Pack Qty.	Pack.	€
8620.1	1 kit	cardboard	65,50
8620.2	1 kit	cardboard	209,65
8620.3	1 kit	cardboard	740,70

ROTI®Prep Gel Extraction

D ~1 g/cm³
UN no. 3316 · ADR 9 III · WGK 2

Warning H290-H302+H312+H332-H315-H319-H412-EUH032

ROTI®Prep Gel Extraction
for molecular biology

Kit for DNA extraction from agarose gels.

Yield up to 90 %, elution in minimum 10 µl.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
8510.1	1 kit	cardboard	47,85
8510.2	1 kit	cardboard	122,45
8510.3	1 kit	cardboard	364,45

ROTI®Prep Genomic DNA MINI

bp 82 °C · flp <21 °C
UN no. 3316 · ADR 9 II · WGK 2

Danger H225-H315-H317-H318-H334-H335-H336-H411

ROTI®Prep Genomic DNA MINI
for molecular biology

Kit for isolation of genomic DNA from tissues, rodent tails, FFPE tissues, buccal swabs, cell cultures.

Preparation of up to 65 µg gDNA from up to 40 mg tissue per column.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Notes on the product

Art. No.	Pack Qty.	Pack.	€
8472.1	1 kit	cardboard	59,70
8472.2	1 kit	cardboard	197,30
8472.3	1 kit	cardboard	714,90

ROTI®Prep PCR Purification

D 0,882 g/cm³ · bp 82 °C · flp <21 °C
UN no. 3316 · ADR 9 II · WGK 1

Danger H225-H319-H336

ROTI®Prep PCR Purification
for molecular biology

Kit for concentration and purification of PCR products.

Yield up to 95 %, elution in minimum 10 µl.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
8503.1	1 kit	cardboard	47,85
8503.2	1 kit	cardboard	122,45
8503.3	1 kit	cardboard	364,45

ROTI®Prep Plasmid MINI

DNA-Isolation kits

ROTI®Prep Plasmid MINI-XL
for molecular biology

Kit for easy isolation of plasmids from up to 15 ml bacterial culture.

Preparation of up to 70 µg plasmid DNA from up to 15 ml bacterial culture per column.

D 1,05 g/cm³

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

UN no. 3316 · ADR 9 II · WGK 1

Danger H225-H302-H315-H318-H336

Art. No.	Pack Qty.	Pack.	€
8546.1	1 kit	cardboard	56,45
8546.2	1 kit	cardboard	151,50
8546.3	1 kit	cardboard	600,95

ROTI®Prep RNA MINI

D 1,13 g/cm³
WGK 2

Warning H302+H312-H412-EUH032

ROTI®Prep RNA MINI
for molecular biology

Kit for RNA isolation from eukaryotic cells, tissues, bacteria, biopsies.

Preparation of up to 100 µg whole RNA from up to 20 mg tissue or cells per column.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Notes on the product

Art. No.	Pack Qty.	Pack.	€
8485.1	1 kit	cardboard	66,15
8485.2	1 kit	cardboard	269,30
8485.3	1 kit	cardboard	1.073,95

ROTI®Quant

Bradford solution

D 1,37 g/cm³ · flp 36 °C
UN no. 2924 · ADR 3 (8) III · WGK 1

Danger H226-H290-H302-H314

ROTI®Quant
5x conc.

For protein quantitation acc. to Bradford.

50 ml Roti®-Quant is sufficient for more than 200 macroassays (1 ml-cuvette) or more than 900 assays when using microtiter plates.

Storage temperature: +4 °C

Notes on the product

Tested for protein gel staining.

Art. No.	Pack Qty.	Pack.	€
K015.2	50 ml	plastic	18,85
K015.3	200 ml	plastic	60,75
K015.1	500 ml	plastic	120,95

ROTI®Quant universal

Biuret solutions

D 1,1 g/cm³
UN no. 3082 · ADR 9 III · WGK 2

Danger H315-H318-H411

ROTI®Quant universal
for biochemistry

For protein quantitation (PCA enhanced Biuret reaction). High tolerance against detergents, salts and alcohols.

Kit contents are adequate for 500/200 preparations in photometer cuvettes or 5000/2000 preparations in microtiter plates.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Notes on the product

Tested for protein gel staining.

Art. No.	Pack Qty.	Pack.	€
0120.1	1 kit	plastic	235,45
0120.2	1 kit	plastic	115,60

ROTI®Quick kit

RNA-isolation kit

D 0,786 g/cm³
UN no. 2924 · ADR 3 (8) II · WGK 3

Danger H225-H301+H311+H331-H314-H336-H341-H351-H361d-H372-H411-EUH032 EUH208

ROTI®Quick kit
ready-to-use, for molecular biology

Kit for RNA-isolation from cells and tissues.

The Rot®-Quick Kit is sufficient for 20 isolations from 0,2 g tissue each.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
A979.1	1 kit	cardboard	111,30

ROTI®REMETIC Rare Earth Metal Inorganic Compounds

Art. No.	Description	Page
7049	Cerium(III) nitrate hexahydrate, ROTI®REMETIC, 99,9 %	825
7067	Cerium(III) oxalate hydrate, ROTI®REMETIC, 99,9 %	825
7042	Cerium(IV) oxide, ROTI®REMETIC, 99,99 %	825
7145	Dysprosium(III) oxide, ROTI®REMETIC, 99,9 %	903
7160	Erbium(III) oxide, ROTI®REMETIC, 99,9 %	912
7136	Gadolinium(III) oxide, ROTI®REMETIC, 99,99 %	951
7031	Lanthanum(III) acetate hydrate, ROTI®REMETIC, 99,9 %	1034
7019	Lanthanum(III) nitrate hexahydrate, ROTI®REMETIC, 99,999 %	1034
7180	Lanthanum(III) nitrate hexahydrate, ROTI®REMETIC, 99,99 %	1035
7410	Lanthanum(III) oxide, ROTI®REMETIC, 99,999 %	1035
7177	Lutetium(III) oxide, ROTI®REMETIC, 99,99 %	1052
7107	Neodymium(III) acetate hydrate, ROTI®REMETIC, 99,9 %	1101
7097	Neodymium(III) nitrate hexahydrate, ROTI®REMETIC, 99,9 %	1101
7092	Neodymium(III) oxide, ROTI®REMETIC, 99,999 %	1102
7108	Samarium(III) oxide, ROTI®REMETIC, 99,95 %	1252
7353	Ytterbium(III) oxide, ROTI®REMETIC, 99,99 %	1411
7352	Yttrium(III) oxide, ROTI®REMETIC, 99,99 %	1411

ROTI®Seal

D 1,05 g/cm³ · bp ~100 °C
WGK 1

ROTI®Seal
for microscopy

Aqueous cover slip sealant.

Melt on a water bath (50–55 °C) prior to use.

Type analysis
Appearance ..... yellowish clear coloured, flat medium
Refractive index (20 °C) 1,366-1,367

Art. No.	Pack Qty.	Pack.	€
6473.1	20 ml	glass	18,20

ROTI®Sep 1077 human

Lymphocyte separation medium · Polysucrose solution

ROTI®Sep 1077 human
CELLPURE® sterile, ready-to-use, for density gradient centrifugation

Polysucrose based medium for separation of lymphocytes/PBMC from human whole blood. Density: 1,077 g/ml

Long-term storage at approx. 4 °C recommended. Short-term storage at room temperature possible. Storage protected from light.

D 1,08 g/cm³ · bp 100 °C

Storage temperature: +4 °C

WGK 1

Danger H317-H334

Not a medical device / Not an IVD product

Type analysis
Appearance of solution ..... clear, colourless
Density ..... 1,077 ±0,001 g/ml
pH value ..... 7,0 ±0,5
Osmolality ..... 325 ±35 mOsm/kg
Sterility ..... complies
Endotoxins ..... tested

Art. No.	Pack Qty.	Pack.	€
0642.1	100 ml	plastic	61,85
0642.2	500 ml	plastic	220,40

ROTI®Sep 1077 human/tube
CELLPURE® sterile, ready-to-use, for density gradient centrifugation

Polysucrose based medium for separation of lymphocytes/PBMC from human whole blood. Density: 1,077 g/ml

15 ml prefilled in 50 ml tubes.
Long-term storage at approx. 4 °C recommended. Short-term storage at room temperature possible. Storage protected from light.

D 1,077 g/cm³

Storage temperature: +4 °C

WGK 1

Not a medical device / Not an IVD product

Type analysis
Appearance of solution ..... clear, colourless
Density ..... 1,077±0,001 g/ml
pH value ..... 7,15±0,35
Osmolality ..... 315±25 mOsm/kg
Endotoxins ..... tested
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
0634.1	25 unit(s)	cardboard	783,70

ROTI®Sep 1077 animal

Lymphocyte separation medium · Polysucrose solution

D 1,077 g/cm³
WGK 1

ROTI®Sep 1077 animal
CELLPURE® sterile, ready-to-use, for density gradient centrifugation

Polysucrose based medium for separation of lymphocytes/PBMC from mammalian whole blood. Density: 1,077 g/ml

Long-term storage at approx. 4 °C recommended. Short-term storage at room temperature possible. Storage protected from light.

Storage temperature: +4 °C

Not a medical device / Not an IVD product

Type analysis
Appearance of solution ..... clear, colourless
Density ..... 1,077±0,001 g/ml
pH value ..... 7,1±0,5
Osmolality ..... 265±10 mOsm/kg
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
0622.1	100 ml	plastic	91,40
0622.2	500 ml	plastic	311,75

ROTI®Sep 1086 mouse

Lymphocyte separation medium · Polysucrose solution

D 1,086 g/cm³
WGK 1

ROTI®Sep 1086 mouse

CELLPURE® sterile, ready-to-use, for density gradient centrifugation

Polysucrose based medium for separation of lymphocytes/PBMC from mouse whole blood. Density: 1,086 g/ml

Long-term storage at approx. 4 °C recommended.Short-term storage at room temperature possible.Storage protected from light.

Storage temperature: +4 °C

Not a medical device / Not an IVD product

Type analysis

Appearance of solution ..... clear, colourless
Density ..... 1,086±0,001 g/ml
pH value ..... 7,0±0,5
Osmolality ..... 285±15 mOsm/kg
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
0624.1	100 ml	plastic	81,60
0624.2	500 ml	plastic	299,95

ROTISOLV® GC Ultra Grade

Art. No.	Description	Page
KK42	Acetic acid ethyl ester, ROTISOLV®, ≥99,9 %, GC Ultra Grade	693
KK40	Acetone, ROTISOLV®, ≥99,9 %, GC Ultra Grade	696
KK41	Cyclohexane, ROTISOLV®, ≥99,9 %, GC Ultra Grade	857
KK47	Dichloromethane, ROTISOLV®, ≥99,9 %, GC Ultra Grade	875
KK48	*n*-Hexane, ROTISOLV®, ≥95 %, GC Ultra Grade	983
KK44	Methanol, ROTISOLV®, ≥99,9 %, GC Ultra Grade	1078
KK45	*n*-Pentane, ROTISOLV®, ≥99 %, GC Ultra Grade	1141
KK46	Toluene, ROTISOLV®, ≥99,8 %, GC Ultra Grade	1373

ROTISOLV® Headspace Grade

Art. No.	Description	Page
HN45	*N*,*N*-Dimethylacetamide (DMA), ROTISOLV®	885
HN46	*N*,*N*-Dimethylformamide (DMF), ROTISOLV®	888
HN48	1,3-Dimethyl-2-imidazolidinone (DMI), ROTISOLV®	889
HN47	Dimethyl sulphoxide (DMSO), ROTISOLV®	890

ROTISOLV® HPLC Grade

Art. No.	Description	Page
7336	Acetic acid ethyl ester, ROTISOLV®, HPLC	693
7328	Acetone, ROTISOLV®, HPLC	696
T195	Acetonitrile, ROTISOLV®, HPLC Ultra Gradient Grade	698
8825	Acetonitrile, ROTISOLV®, HPLC Gradient Grade	698
HN44	Acetonitrile, ROTISOLV®, HPLC Gradient	698
7330	Acetonitrile, ROTISOLV®, HPLC	698
CN20	Acetonitrile, ROTISOLV®, HPLC, isocratic	698
6827	Acetonitrile, ROTISOLV®, ≥99,8 %, for preparative HPLC	698
T178	1-Butanol, ROTISOLV®, HPLC	796
T175	*tert*-Butyl methyl ether, ROTISOLV®, HPLC	799
7333	Cyclohexane, ROTISOLV®, HPLC	857
7334	Dichloromethane, ROTISOLV®, HPLC	875
0702	*N*,*N*-Dimethylformamide (DMF), ROTISOLV®, HPLC	887
0728	Dimethyl sulphoxide (DMSO), ROTISOLV®, HPLC	889
X949	1,4-Dioxane, ROTISOLV®, HPLC, unstabilised	892
P076	Ethanol, ROTISOLV®, HPLC Gradient Grade	915
6828	*n*-Heptane, ROTISOLV®, ≥99 %, HPLC	979
7337	*n*-Heptane, ROTISOLV®, ≥95 %, HPLC	979
7339	*n*-Hexane, ROTISOLV®, HPLC	983
T176	Isohexane, ROTISOLV®, HPLC	1021
7340	Isooctane, ROTISOLV®, HPLC	1022
X948	Methanol, ROTISOLV®, HPLC Ultra Gradient Grade	1077
7342	Methanol, ROTISOLV®, HPLC Gradient Grade	1078
KK39	Methanol, ROTISOLV®, HPLC Gradient	1078
P717	Methanol, ROTISOLV®, HPLC	1078
CN99	*n*-Pentane, ROTISOLV®, HPLC	1141
0731	Petroleum ether 40–60 °C, ROTISOLV®, HPLC	1149
T177	1-Propanol, ROTISOLV®, HPLC	1184
7343	2-Propanol, ROTISOLV®, HPLC	1185
7344	Tetrahydrofuran, ROTISOLV®, HPLC, unstabilised	1361
7346	Toluene, ROTISOLV®, HPLC	1372
7331	Trichloromethane/Chloroform, ROTISOLV®, HPLC	1377
A511	Water, ROTISOLV®, HPLC Gradient Grade	1400
1C5K	Water, ROTISOLV®, HPLC	1400

ROTISOLV®LC-MS Eluent Mixtures

Art. No.	Description	Page
CP00	Acetonitrile with 0.1 % formic acid, ROTISOLV®	699
CP01	Acetonitrile with 0.1 % acetic acid, ROTISOLV®	699
CP02	Acetonitrile with 0.1 % trifluoroacetic acid, ROTISOLV®	700
CP06	Methanol with 0.1 % trifluoroacetic acid, ROTISOLV®	1080
CP03	Water with 0.1 % formic acid, ROTISOLV®	1402
CP05	Water with 0.1 % trifluoroacetic acid, ROTISOLV®	1402

ROTISOLV® LC-MS Grade

Art. No.	Description	Page
AE69	Acetic acid ethyl ester, ROTISOLV®, ≥99,9 %, LC-MS Grade	693
3153	Acetone, ROTISOLV®, ≥99,9 %, LC-MS Grade	696
AE70	Acetonitrile, ROTISOLV®, ≥99,95 %, LC-MS Grade	697
AE71	Methanol, ROTISOLV®, ≥99,95 %, LC-MS Grade	1077
AE73	2-Propanol, ROTISOLV®, ≥99,95 %, LC-MS Grade	1185
AE72	Water, ROTISOLV®, LC-MS Grade	1400

ROTISOLV® Pestilyse®

Art. No.	Description	Page
T164	Acetic acid ethyl ester, ROTISOLV® Pestilyse®	694
T161	Acetone, ROTISOLV® Pestilyse®	696
T168	Acetonitrile, ROTISOLV® Pestilyse®	698
T163	Cyclohexane, ROTISOLV® Pestilyse®	857
T162	Dichloromethane, ROTISOLV® Pestilyse®	875
T900	Diethyl ether, ROTISOLV® Pestilyse®	878
X878	*n*-Heptane, ROTISOLV® Pestilyse®	979
T861	*n*-Hexane, ROTISOLV® Pestilyse®	983
T165	*n*-Hexane, ROTISOLV® Pestilyse®	983
T904	Isohexane, ROTISOLV® Pestilyse®	1021
T167	Isooctane, ROTISOLV® Pestilyse®	1022
T169	Methanol, ROTISOLV® Pestilyse®	1078
T903	*n*-Pentane, ROTISOLV® Pestilyse®	1141
T170	Petroleum ether 40–60 °C, ROTISOLV® Pestilyse®	1149
T902	2-Propanol, ROTISOLV® Pestilyse®	1185
T166	Toluene, ROTISOLV® Pestilyse®	1373
T901	Trichloromethane/Chloroform, ROTISOLV® Pestilyse®	1377
T905	Water, ROTISOLV® Pestilyse®	1401

ROTISOLV® Pestilyse® plus

Art. No.	Description	Page
7565	Acetic acid ethyl ester, ROTISOLV® Pestilyse® plus	693
7535	Acetone, ROTISOLV® Pestilyse® plus	696
1HP5	Acetonitrile, ROTISOLV® Pestilyse® plus	698
7542	Cyclohexane, ROTISOLV® Pestilyse® plus	857
7562	Dichloromethane, ROTISOLV® Pestilyse® plus	875
1HP6	Ethanol, ROTISOLV® Pestilyse® plus	916
7566	*n*-Heptane, ROTISOLV® Pestilyse® plus	979
7573	*n*-Hexane, ROTISOLV® Pestilyse® plus	983
7567	*n*-Hexane, ROTISOLV® Pestilyse® plus	983
7576	Isohexane, ROTISOLV® Pestilyse® plus	1021
7580	Isooctane, ROTISOLV® Pestilyse® plus	1022
7583	Methanol, ROTISOLV® Pestilyse® plus	1078
7587	*n*-Pentane, ROTISOLV® Pestilyse® plus	1141
7588	Petroleum ether 40–60 °C, ROTISOLV® Pestilyse® plus	1149

Art. No.	Description	Page
7590	2-Propanol, ROTISOLV® Pestilyse® plus	1185
7591	Toluene, ROTISOLV® Pestilyse® plus	1373
7554	Trichloromethane/Chloroform, ROTISOLV® Pestilyse® plus	1377

ROTISOLV® Ultra LC-MS

Art. No.	Description	Page
1HP7	Acetic acid ethyl ester, ROTISOLV®, ≥99,9 %, Ultra LC-MS	693
HN40	Acetonitrile, ROTISOLV®, ≥99,98 %, Ultra LC-MS	697
1HP8	Ethanol, ROTISOLV®, ≥99,95 %, Ultra LC-MS	915
HN41	Methanol, ROTISOLV®, ≥99,98 %, Ultra LC-MS	1077
0733	2-Propanol, ROTISOLV®, ≥99,95 %, Ultra LC-MS	1185
0739	Tetrahydrofuran, ROTISOLV®, ≥99,9 %, Ultra LC-MS, unstabilised	1361
HN43	Water, ROTISOLV®, Ultra LC-MS	1400

ROTISOLV® UV/IR Grade

Art. No.	Description	Page
4442	Acetic acid ethyl ester, ROTISOLV®, ≥99,8 %, UV/IR Grade	694
T906	Acetone, ROTISOLV®, ≥99,9 %, UV/IR Grade	696
T907	Acetonitrile, ROTISOLV®, ≥99,9 %, UV/IR Grade	699
CP81	Cyclohexane, ROTISOLV®, ≥99,9 %, UV/IR Grade	857
4433	Dichloromethane, ROTISOLV®, ≥99,8 %, UV/IR Grade	875
CP79	*N,N*-Dimethylformamide (DMF), ROTISOLV®, ≥99,9 %, UV/IR Grade	888
CP78	*n*-Heptane, ROTISOLV®, ≥99 %, UV/IR Grade	979
T908	*n*-Hexane, ROTISOLV®, ≥99 %, UV/IR Grade	983
CP80	Isooctane, ROTISOLV®, ≥99,8 %, UV/IR Grade	1022
T909	Methanol, ROTISOLV®, ≥99,9 %, UV/IR Grade	1078
4443	*n*-Pentane, ROTISOLV®, ≥99 %, UV/IR Grade	1142
T910	2-Propanol, ROTISOLV®, ≥99,9 %, UV/IR Grade	1185
CP83	Tetrachloroethylene, ROTISOLV®, ≥99,9 %, UV/IR Grade	1360
CP82	Tetrahydrofuran, ROTISOLV®, ≥99,9 %, UV/IR Grade	1361
4445	Toluene, ROTISOLV®, ≥99,8 %, UV/IR Grade	1373
4432	Trichloromethane/Chloroform, ROTISOLV®, ≥99,8 %, UV/IR Grade	1377

ROTI®Stock 10x PBS

10 x PBS ready-to-use solution

D 1,1 g/cm³ · bp 100 °C
WGK 1

ROTI®Stock 10x PBS
10x conc., BioScience Grade, ready-to-use, sterile filtered

For protein biochemistry, cytology, and molecular biology.

Recommended for **HRP**-mediated detection systems.
With original seal.

Type analysis
Appearance of solution ..... colorless liquid
Colour ..... water-clear
pH value 7,15-7,65

1.37 M NaCl, 27 mM KCl, 100 mM Na_2HPO_4, 20 mM KH_2PO_4 in deionised water, pH-value 7.4 ±0.25, 0.2 µm filtered.

Art. No.	Pack Qty.	Pack.	€
1058.1	1 l	glass	149,45
Original pack 6 x 1 l			141,98/1 l

ROTI®Stock 10x PBST

10 x PBST ready-to-use solution

D 1,095 to 1,097 g/cm³ · bp 100 °C
WGK 1

ROTI®Stock 10x PBST
10x conc., BioScience Grade, ready-to-use, sterile filtered

For protein biochemistry, cytology, and molecular biology.

Recommended for **HRP**-mediated detection systems.
With original seal.

Type analysis
Appearance of solution ..... colorless liquid
Colour ..... water-clear
pH value 7,15-7,65

1.37 M NaCl, 27 mM KCl, 100 mM Na_2HPO_4, 20 mM KH_2PO_4, 0.5 % Tween® 20 in deionised water, pH value 7.4 ±0.25, 0.2 µm filtered.

Art. No.	Pack Qty.	Pack.	€
1059.1	1 l	glass	155,90
Original pack 6 x 1 l			148,11/1 l

ROTI®Stock 20 % SDS

20 % SDS Ready-to-use solution

D ~1 g/cm³ · bp 100 °C
WGK 2
Danger H315-H318-H335

ROTI®Stock 20 % SDS
20 % SDS, BioScience Grade, ready-to-use, sterile filtered

For molecular biology and electrophoresis.

With original seal.

Type analysis
Appearance of solution ..... colorless liquid
Colour ..... water-clear

20 % SDS in deionised water, 0.2 µm filtered. Remark: Contains SDS. Can be redissolved by heating (max. 45 °C).

Art. No.	Pack Qty.	Pack.	€
1057.1	1 l	glass	177,40
Original pack 6 x 1 l			168,53/1 l

ROTI®Stock 20x SSC

20x SSC Ready-to-use solution · Hybridisation buffers

D ~1,2 g/cm³ · mp 0 °C
WGK 1

ROTI®Stock 20x SSC
20x conc., BioScience Grade, ready-to-use, steam sterilized

For molecular biology.

With original seal.

Type analysis
Appearance of solution ..... water clear solution
Colour ..... colorless
pH value 6,75-7,25

3.0 M NaCl, 300 mM sodium citrate in deionised water, pH-value 7.0, steam sterilised.

Art. No.	Pack Qty.	Pack.	€
1054.1	1 l	glass	85,50
Original pack 6 x 1 l			81,23/1 l

ROTI®Stock 10x TBS

10x TBS ready-to-use solution

D ~1,1 g/cm³ · bp ~100 °C
WGK 1

ROTI®Stock 10x TBS
10x conc., BioScience Grade, ready-to-use, sterile filtered and steam sterilized

For protein biochemistry, cytology, and molecular biology.

Recommended for **AP**-mediated detection systems.
With original seal.

Type analysis
Appearance of solution ..... colourless liquid
Colour ..... water-clear
pH value ..... 7,15 - 7,65

1.5 M NaCl, 30 mM KCl, 250 mM Tris in deionised water, pH value 7.4 ±0.25, 0.2 µm filtered and steam sterilised.

Art. No.	Pack Qty.	Pack.	€
1060.1	1 l	glass	155,90
Original pack 6 x 1 l			148,11/1 l

ROTI®Stock 10x TBST

10x TBST ready-to-use solution

D 1 g/cm³ · bp 100 °C
WGK 1

ROTI®Stock 10x TBST
10x conc., BioScience Grade, ready-to-use, sterile filtered and steam sterilized

For protein biochemistry, cytology, and molecular biology.

Recommended for **AP**-mediated detection systems.
With original seal.

Type analysis

1.5 M NaCl, 30 mM KCl, 250 mM Tris, 0.5 % Tween® 20 in deionised water, pH value 7.4 ±0.25, 0.2 µm filtered and steam sterilised.

Art. No.	Pack Qty.	Pack.	€
1061.1	1 l	glass	155,90
Original pack 6 x 1 l			148,11/1 l

ROTI®Stock 100x TE

100x TE ready-to-use solution · TRIS-EDTA-Buffer

D 1,025 g/cm³ · bp 100 °C
WGK 1

ROTI®Stock 100x TE
100x conc., BioScience Grade, ready-to-use, steam sterilized

For molecular biology.

With original seal.

Type analysis
Appearance of solution ..... water clear solution
Colour ..... colorless
pH-value 7,75-8,25

1.0 M Tris (pH 8.0), 100 mM EDTA (pH 8.0) in deionised water, steam sterilised.

Art. No.	Pack Qty.	Pack.	€
1052.1	1 l	glass	104,85
Original pack 6 x 1 l			99,61/1 l

ROTI®Store cryo vials

D 1 g/cm³
WGK 1

ROTI®Store cryo vials
sterile, ready-to-use

Suitable for freezing all types of micro-organisms, including recombinant bacteria.

One cryo vial contains 25 beads in cryo medium suitable for 25 recultivations per cryogenic culture.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
P730.3	5 unit(s)	plastic	24,65
P730.1	50 unit(s)	plastic	205,90
P730.2	250 unit(s)	plastic	972,90

ROTI®Store yeast cryo vials
sterile, ready-to-use

Ideal for freezing yeast and monocellular moulds.

Suitable for preparing 50 different cryo-cultures and for up to 25 recultivations per cryogenic culture.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
X983.1	50 unit(s)	plastic	201,60

ROTISZINT®eco plus

Scintillation cocktail

D 0,96 g/cm³ · mp -47 °C · bp 290 °C · flp 148 °C
UN no. 3082 · ADR 9 III · WGK 3

Warning H315-H319-H411

ROTISZINT®eco plus
ROTISZINT® ready-to-use, for scintillation

LSC-universal cocktail, for hydrophilic and lipophilic samples.

Well suited for measurement of β-emitters like ^{3}H, ^{14}C, ^{32}P.

Art. No.	Pack Qty.	Pack.	€
0016.4	100 ml	glass	21,40
0016.3	5 l	plastic	321,45
Original pack 2 x 5 l			305,38/5 l

ROTITEST®Annexin V

Annexin-FITC conjugate · Apoptosis detection Kit

D 1 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

ROTITEST®Annexin V
ROTITEST® Bio Analysis, ready-to-use

For detection and enumeration of apoptotic cells and simultaneous differentiation from necrosis.

Store protected from light.

1 set is sufficient for analysis of 50 samples of 10^5 cells each

Storage temperature: +4 °C

Type analysis
Appearance (test solution) ..... colourless to yellowish
Appearance PI solution ..... orange to red
Dye content ..... complies
Appearance Binding Buffer ..... colourless
pH value Binding Buffer 7,3-7,5

Art. No.	Pack Qty.	Pack.	€
7735.1	1 kit	cardboard	256,95

ROTITEST®Coliform

D 1 g/cm³
WGK 1

ROTITEST®Coliform
ROTITEST® Bio Analysis, sterile, ready-to-use

Detection system for exclusion, or affirmation, of contamination by coliforms.

Suitable for testing of any surface. Store at 15–25 °C. Do not freeze.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance (nutrient medium) ..... red-brown
Sterility test ..... complies
Growth of bacterial test strains ..... complies

Art. No.	Pack Qty.	Pack.	€
4806.1	25 unit(s)	cardboard	192,45

ROTITEST®Listeria

D 1 g/cm³
WGK 1

ROTITEST®Listeria
ROTITEST® Bio Analysis, sterile, ready-to-use

Detection system for exclusion, or affirmation, of contamination by listeriae.

Suitable for testing of any surface. Store at 15–25 °C. Do not freeze.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance (nutrient medium) ..... brown
Sterility test ..... complies
Growth of bacterial test strains ..... complies

Art. No.	Pack Qty.	€
4805.1	25 unit(s)	192,45

ROTITEST®Oxidase strips

WGK 1

ROTITEST®Oxidase strips
ROTITEST® Bio Analysis, ready-to-use

Rapid test system for detection of cytochrome oxidase in microorganisms.

Storage temperature: +4 °C

Type analysis
Paper colour ..... white
Labelling reaction area ..... green
Colour shift to blue ..... complies
Colour shift test germs ..... complies

Art. No.	Pack Qty.	Pack.	€
8469.1	100 unit(s)	tube	45,05

ROTITEST®Phosphatase paper

WGK 1

ROTITEST®Phosphatase paper
ROTITEST® Bio Analysis, ready-to-use

For detection of phosphatase in Milk.

One package contains 10 single welded test papers, impregnated with detection reagent.

Storage temperature: +4 °C

Type analysis
Paper colour ..... white
Colour shift to yellow ..... complies
Sensitivity ..... complies

Art. No.	Pack Qty.	€
8470.1	10 unit(s)	24,65

ROTITEST®Protein

Protein quick test

D 1 g/cm³ · mp -114 °C · bp 78 °C · flp 29 °C
UN no. 1170 · ADR 3 III · WGK 1

Warning H226-H319

ROTITEST®Protein
ROTITEST® Bio Analysis, ready-to-use

Protein detection system for rapid control of surfaces after the cleaning process. Test result in max. 2 mins.

Suitable for testing of any surface. Store at 15–25 °C protected from light. Do not freeze.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance (test solution) ..... yellow-orange
Turbidity ..... transparent
Test (milk protein) ..... complies

Art. No.	Pack Qty.	Pack.	€
4803.1	20 unit(s)	cardboard	107,40

ROTITEST®Vital

Cell proliferation test solution

D 1,37 g/cm³
WGK 2

ROTITEST®Vital
ROTITEST® Bio Analysis, sterile, ready-to-use

Colorimetric test solution for evaluation of cell proliferation and -viability. Non toxic.

Stable at ambient temperature. Very stabile when being cooled.
Store protected from light. Do not freeze.

1 ml is sufficient for enumeration of 100 cell samples.

Storage temperature: +4 °C

Type analysis
Appearance (test solution) ..... red
Turbidity ..... transparent
Absorption ..... complies

Art. No.	Pack Qty.	Pack.	€
0069.3	1 ml	plastic	78,40
0069.1	5 ml	plastic	217,70
0069.2	20 ml	plastic	654,70

Heating bath fluid ROTITHERM® K + H

Modified polyglycol ether

D 1,13 to 1,17 g/cm³ · mp -39 °C · bp 200 °C · flp >290 °C
WGK 1

Heating bath fluid ROTITHERM® K + H
ROTITHERM®

Heat transfer fluid for cooling and heating baths.

Due to the low pour point, Rotitherm® K + H can also be used as a coolant. Mixes with water in any ratio, non-sensitive to water hardness. Mixtures with 10–30% proportion of water can be used up to –55 °C. Does not form build-up even when heated and can easily be removed using water.

Type analysis
Density (23 °C) ..... 1,13-1,17 g/cm³
Viscosity (23 °C) ..... 220-280 mm²/s
Pour point ..... <-39 °C
Flash point ..... >290 °C
Autoignition temperature ..... ~390 °C
Water ..... <0,5 %

Art. No.	Pack Qty.	Pack.	€
7143.1	1 l	plastic	51,10
Original pack 6 x 1 l			48,55/1 l
7143.2	5 l	plastic	198,90
Original pack 2 x 5 l			188,96/5 l

ROTI®Transform

Transformation kit

D 1 g/cm³
WGK 1

ROTI®Transform
sterile, ready-to-use

For preparation of competent *E. coli*.

One kit is sufficient to produce competent *E. coli* for 500 transformations.
Contents of this Kit may not be bought separately.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
P043.1	1 kit	cardboard	77,95

ROTI®Volum Volumetric Solutions in Ampoules

Art. No.	Description	Page
CN51	EDTA disodium salt solution, ROTI®Volum, 0,1 mol/l – 0,1 N	905
CN61	Hydrochloric acid, ROTI®Volum, 0,1 mol/l – 0,1 N, volumetric standard solution	992
CN62	Hydrochloric acid, ROTI®Volum, 0,5 mol/l – 0,5 N, volumetric standard solution	993
CN63	Hydrochloric acid, ROTI®Volum, 1 mol/l – 1 N, volumetric standard solution	993
CN59	Oxalic acid solution, ROTI®Volum, 0,05 mol/l – 0,1 N	1134
CN53	Potassium hydroxide solution, ROTI®Volum, 0,1 mol/l – 0,1 N	1176
CN66	Silver nitrate solution, ROTI®Volum, 0,1 mol/l – 0,1 N	1273
CN67	Sodium chloride solution, ROTI®Volum, 0,1 mol/l – 0,1 N	1281
CN56	Sodium hydroxide solution, ROTI®Volum, 0,1 mol/l – 0,1 N	1288
CN57	Sodium hydroxide solution, ROTI®Volum, 0,5 mol/l – 0,5 N	1289
CN58	Sodium hydroxide solution, ROTI®Volum, 1 mol/l – 1 N	1289
CN55	Sodium thiosulphate solution, ROTI®Volum, 0,1 mol/l – 0,1 N	1298
CN64	Sulphuric acid, ROTI®Volum, 0,05 mol/l – 0,1 N, volumetric standard solution	1349
CN65	Sulphuric acid, ROTI®Volum, 0,5 mol/l – 1 N, volumetric standard solution	1350

ROTI®ZOL RNA

RNA isolation reagent

D 1 g/cm³
UN no. 1760 · ADR 8 III · WGK 2

Danger H290-H302+H312+H332-H314-H341-H373-H411-EUH032 EUH208

ROTI®ZOL RNA
ready-to-use, for molecular biology

Ready-made solution with green dye for isolation of total RNA

1 ml ROTI®ZOL RNA is used for RNA isolation from 100 mg tissue or 10^7 cells, respectively.

Storage temperature: +4 °C

Type analysis
Colour ..... green
pH value (25 °C) 4,1-4,7

Art. No.	Pack Qty.	Pack.	€
9319.1	100 ml	plastic	278,45
9319.2	200 ml	plastic	499,90

RPF Supplement

Rabbit Plasma Fibrinogen Supplement

D 1,032 g/cm³
WGK 3

Warning H302+H312+H332-EUH208

RPF Supplement
lyophilized

Media supplement for identification and enumeration of *Staphylococcus aureus*.

Application: One vial RPF Supplement is reconstituted in 10 ml sterile distilled water, and is incubated for 10 mins. at room temperature until completely dissolved. Subsequently add to 90 ml autoclaved Baird Parker Agar (e.g. Art. No. X913.1).

One box of 10 vials RPF Supplement is sufficient for 10x 100 ml Baird Parker Agar (Art. No. X913).

Storage temperature: +4 °C

Composition
Rabbit plasma ..... 2,5 ml
Bovine fibrinogen ..... 380 mg
Trypsin inhibitor ..... 2,5 mg
Potassium tellurite ..... 2,5 mg

per vial.

Art. No.	Pack Qty.	Pack.	€
6064.1	10 unit(s)	glass	532,15

$R\text{-}5\text{-}P\text{-}Na_2$

▸ D-Ribose-5-phosphate disodium salt see page 1207

Rubeanic acid spray solution

Rubeanic acid spray solution
for TLC

Ready-to-use spray solution for detection of heavy metal ions.
0,2 g Rubeanic acid dissolved in 100 ml ethanol

D 0,82 g/cm³ · mp -114 °C · bp 78 °C · flp 12 °C

Storage temperature: +4 °C

UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

Type analysis
TLC-application ..... complies

Art. No.	Pack Qty.	Pack.	€
CP32.1	100 ml	glass	42,90

Rubidium Standards
- Rubidium ICP Standard Solution see page 1321
- Rubidium ICP Standard Solution see page 1321

Rubidium carbonate

Rb_2CO_3 · mp 837 °C
CAS No. 584-09-8 · EC no. 209-530-9
WGK 1

Warning H315-H319-H335

Rubidium carbonate
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L65.1	5 g	HDPE	206,95

Rubidium chloride

RbCl · D 2,76 g/cm³ · mp 715 °C · bp 1390 °C
CAS No. 7791-11-9 · EC no. 232-240-9
WGK 1

Rubidium chloride
ROTI®METIC 99,98 % (3N8)

Type analysis
Assay (metals basis) ..... 99,98 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5679.1	5 g	plastic	286,50
5679.2	10 g	plastic	486,45

Rubidium chloride
≥99 %, p.a.

Guarantee analysis
Appearance ..... white powder
Assay ..... ≥99 %
Aluminium (Al) ..... ≤0,001 %
Lead (Pb) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,005 %
Cesium (Cs) ..... ≤0,05 %
Iron (Fe) ..... ≤0,005 %
Potassium (K) ..... ≤0,05 %
Sodium (Na) ..... ≤0,005 %
Magnesium (Mg) ..... ≤0,001 %
Lithium (Li) ..... ≤0,001 %
Silicon (Si) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
4471.2	5 g	plastic	46,15
4471.1	10 g	plastic	81,60
4471.3	25 g	plastic	169,35
4471.4	50 g	plastic	317,15

Rubidium nitrate

$RbNO_3$ · D 3,11 g/cm³ · mp 310 °C
CAS No. 13126-12-0 · EC no. 236-060-1
UN no. 1477 · ADR 5.1 II · WGK 1

Danger H272-H315-H319-H335

Rubidium nitrate
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5293.1	5 g	plastic	205,90
5293.2	25 g	plastic	901,95

Rubidium sulphate

Rb_2SO_4 · D 3,613 g/cm³ · mp 1050 °C · bp 1700 °C
CAS No. 7488-54-2 · EC no. 231-301-7
WGK 1

Rubidium sulphate
ROTI®METIC 99,8 % (2N8)

Type analysis
Assay (metals basis) ..... 99,8 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L71.1	1 g	HDPE	56,90

Ruthenium Standards
- Ruthenium ICP Standard Solution see page 1321
- Ruthenium ICP Standard Solution see page 1321

Ruthenium(III) chloride

Ruthenium trichloride

$RuCl_3$ · D 3,11 g/cm³ · mp 500 °C
CAS No. 10049-08-8 · EC no. 233-167-5
UN no. 3260 · ADR 8 II · WGK 2

Danger H302-H314-H412

Ruthenium(III) chloride
ROTI®METIC 99,9 % (3N), anhydrous

Type analysis
Assay (metals basis) ..... 99,9 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5686.1	1 g	plastic	120,95
5686.2	5 g	plastic	542,90

Ruthenium(III) chloride
anhydrous, pure

Type analysis
Assay (Ru) ..... ≥48 %

Art. No.	Pack Qty.	Pack.	€
4659.1	1 g	glass	79,45

Ruthenium(III) chloride hydrate

$RuCl_3$ · x H_2O · D 3,1 g/cm³
CAS No. 14898-67-0 · EC no. 233-167-5
UN no. 3260 · ADR 8 II · WGK 2

Danger H302-H314

Ruthenium(III) chloride hydrate
pure

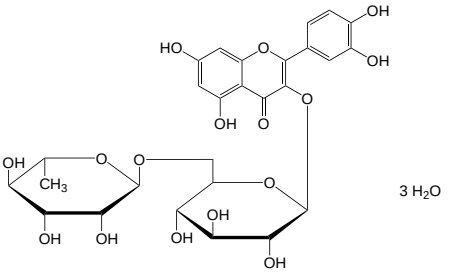
Contains 10–15 % water.

Type analysis
Assay (Ru) ..... 40,0-43,0 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,05 %
Sodium (Na) ..... ≤0,01 %
Palladium (Pd) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
7910.1	1 g	glass	92,35

Ruthenium trichloride
- Ruthenium(III) chloride see page 1245

Rutin trihydrate



Quercetin-3-rutinoside · Rutoside · Sophorin

$C_{27}H_{30}O_{16}$ · 3 H_2O · mp 192 to 198 °C
CAS No. 250249-75-3 · EC no. 205-814-1
WGK 1

Rutin trihydrate
≥95 %, Ph. Eur.

Guarantee analysis
Appearance yellow to yellow green cryst. powder
Assay (titr. dry substance) ..... 95,0-101,0 %
Identity ..... complies
Water (KF) ..... 7,5-9,5 %
In CH_3OH insoluble matter ..... ≤3,0 %
Light-absorbing contaminants (450-800 nm) ≤0,1
Sulphated ash ..... ≤0,1 %

Related Substances:
Impurities (A, B, C) ..... ≤2,0 %
Sum of all impurities ..... ≤4,0 %

Art. No.	Pack Qty.	Pack.	€
5154.1	25 g	plastic	37,10
5154.2	100 g	plastic	117,75

Rutin trihydrate
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥90,0 %
Residual solvents (GC) ..... ≤1,0 %
Water (KF) ..... ≤10,0 %
Assay (qNMR) ..... ≥90,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE14.1	50 mg	glass	837,45

Rutin trihydrate
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥85,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC14.1	100 mg	glass	310,70

Rutin trihydrate
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

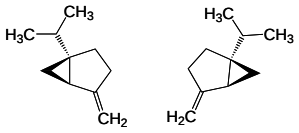
Art. No.	Pack Qty.	Pack.	€
7422.2	50 mg	glass	224,70

Rutinosyl-7-*iso*-sakuranetin
▸ Didymin see page 877

Rutoside
▸ Rutin trihydrate see page 1245

RVS Broth
▸ Rappaport Vassiliadis Broth see page 1199

Sabinene



$C_{10}H_{16}$ · D 0,902 g/cm³ · bp 163 to 165 °C · flp 38 °C
CAS No. 3387-41-5 · EC no. 222-212-4
UN no. 3295 · ADR 3 III · WGK 1

Warning H226-H302-H315-H319-H335

Sabinene
ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥98,5 %

Art. No.	Pack Qty.	Pack.	€
7188.2	100 mg	glass	192,45

Sabouraud Dextrose Agar (Ph.Eur. 6.3, 7.0, 8.0 and 9.0)
▸ Sabouraud 4 % Glucose Agar see page 1247

Sabouraud Dextrose Broth (Ph. Eur. 6.3, 7.0, 8.0 and 9.0)
▸ Sabouraud 2 % Glucose Broth see page 1247

Sabouraud 4 % Glucose Agar

Agar medium C (Ph. Eur. 6.0) · Sabouraud Dextrose Agar (Ph.Eur. 6.3, 7.0, 8.0 and 9.0)

WGK 1

Sabouraud 4 % Glucose Agar
Ph. Eur., ISO 11133, ISO 16212, for microbiology

For isolation, differentiation and cultivation of yeasts and fungi.

Application: Use 65 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Meat and casein peptone ..... 10 g/l
Glucose monohydrate ..... 40 g/l
Agar ..... 15 g/l
pH value ..... 5,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
X932.3	100 g	plastic	31,10
X932.1	500 g	plastic	88,70
Original pack 6 x 500 g			84,27/500 g
X932.2	1 kg	plastic	158,60
Original pack 6 x 1 kg			150,67/1 kg

Sabouraud 4 % Glucose Agar (with chloroamphenicol)

WGK 1

Sabouraud 4 % Glucose Agar (with chloroamphenicol)
Ph. Eur., ISO 11133, ISO 16212, for microbiology

Selective agar for cultivation and isolation of yeasts and pathogenic fungi.

Agar medium C with chloroamphenicol (Ph. Eur. 6.0)

Application: Use 65 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Meat and casein peptone ..... 10 g/l
Glucose ..... 40 g/l
Chloroamphenicol ..... 0,05 g/l
Agar ..... 15 g/l
pH value ..... 5,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE48.1	500 g	plastic	111,30
Original pack 6 x 500 g			105,74/500 g

Sabouraud 4 % Glucose Agar (with chloroamphenicol)
for microbiology

For selective isolation of yeasts and pathogenic fungi.

Application: Use 65.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Meat and casein peptone ..... 10 g/l
Glucose ..... 40 g/l
Chloroamphenicol ..... 0,5 g/l
Agar ..... 15 g/l
pH value ..... 5,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
X933.1	500 g	plastic	99,45
Original pack 6 x 500 g			94,48/500 g

Sabouraud 2 % Glucose Agar

WGK 1

Sabouraud 2 % Glucose Agar
for microbiology

Selective agar for taxonomic analysis of pathogenic fungi.

Application: Use 47 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Meat and casein peptone ..... 10 g/l
Glucose ..... 20 g/l
Agar ..... 17 g/l
pH value ..... 5,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE22.1	500 g	plastic	102,70
Original pack 6 x 500 g			97,57/500 g

Sabouraud 2 % Glucose Broth

Sabouraud Dextrose Broth (Ph. Eur. 6.3, 7.0, 8.0 and 9.0) · Sabouraud Glucose Medium (Ph. Eur. 6.0)

Sabouraud 2 % Glucose Broth
Ph. Eur., for microbiology

Selective media for taxonomic analysis of pathogenic fungi.

Application: Use 30 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis
Meat and casein peptone ..... 10 g/l
Glucose ..... 20 g/l
pH value ..... 5,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE23.1	500 g	plastic	93,45
Original pack 6 x 500 g			88,78/500 g

Sabouraud 2 % Glucose Broth, granulated
Ph. Eur., granulated, for microbiology

Selective media for taxonomic analysis of pathogenic fungi.

Application: Use 30 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Guarantee analysis
Meat and casein peptone ..... 10 g/l
Glucose ..... 20 g/l
pH value ..... 5,7 ±0,2

Art. No.	Pack Qty.	Pack.	€
1508.1	500 g	plastic	112,90
Original pack 6 x 500 g			107,26/500 g

Sabouraud 2 % Glucose Broth
Ph. Eur., for microbiology

Selective medium for the taxonomic study of pathogenic fungi.

D 1,039 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

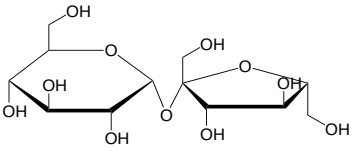
WGK 2

Casein peptone (pancreas hydrolysate) ..... 5 g/l
Meat peptone ..... 5 g/l
Dextrose ..... 20 g/l
pH value (25 °C) 5,4-5,8

Art. No.	Pack Qty.	Pack.	€
1L89.1	180 ml	glass	40,75
1L89.2	1 l	glass	72,60
Original pack 6 x 1 l			68,97/1 l

Saccharin sodium salt
▸ *o*-Benzoic sulphimide sodium salt see page 769

D(+)-Saccharose



D-Sucrose

$C_{12}H_{22}O_{11}$ · mp 169 to 170 °C
CAS No. 57-50-1 · EC no. 200-334-9
WGK 1

D(+)-Saccharose
CELLPURE®

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤1,5 E.U./g
Appearance ..... white to off-white powder
Loss on drying (3 h, 105 °C) ..... ≤0,1 %
Specific rotation $[\alpha]_D^{20}$ (c=26 in H_2O) ..... +66,3° to +67,0°
Conductivity ..... ≤35 µS/cm
Sulphite (SO_3) ..... ≤0,001 %
Ethanol ..... ≤0,1 %
Methanol ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
8890.1	50 g	plastic	23,55
8890.2	100 g	plastic	39,25
8890.3	250 g	plastic	78,40
8890.4	500 g	plastic	145,15
Original pack 6 x 500 g			137,89/500 g

D(+)-Saccharose
≥99,5 %, p.a.

For microbiology and molecular biology.

Guarantee analysis
Assay ..... ≥99,5 %
Invert sugar ..... ≤0,04 %
Loss on drying ..... ≤0,1 %
Sulfite (as SO_2) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,002 %
Arsenic (As) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,00005 %
Cadmium (Cd) ..... ≤0,00001 %
Chromium (Cr) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,005 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,0005 %
Mercury (Hg) ..... ≤0,000005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4621.1	1 kg	plastic	25,70
Original pack 6 x 1 kg			24,42/1 kg
4621.2	5 kg	plastic	112,35
4621.3	10 kg	plastic	144,60
4621.5	25 kg	plastic	266,10

D(+)-Saccharose
≥99,5 %, Ph. Eur.

For density gradient centrifugation;
for biochemical applications.

Guarantee analysis
Appearance of solution ..... complies
Identity ..... complies
Conductivity ..... ≤35 µS/cm
Colour ..... ≤45
Reducing sugar ..... complies
Specific rotation $[\alpha]_D^{20}$ ..... +66,3° to +67,0°
Loss on drying (105 °C) ..... ≤0,1 %
Sulfite (as SO_2) ..... complies

Art. No.	Pack Qty.	Pack.	€
4661.1	1 kg	plastic	24,65
Original pack 6 x 1 kg			23,42/1 kg
4661.2	5 kg	plastic	96,65
4661.4	10 kg	plastic	134,40
4661.3	50 kg	cardboard	439,70

D(+)-Saccharose
≥99,7 %, powdered

Type analysis
Appearance ..... fine white powder
Assay ..... ≥99,7 %
Water (KF) ..... 0,06 %
Reducing substances (invert sugar) ..... ≤0,04 %
Melting point ..... 185-187 °C

Grain size 80 % under 100 µm.

Art. No.	Pack Qty.	Pack.	€
9286.1	1 kg	plastic	23,55
Original pack 6 x 1 kg			22,37/1 kg
9286.2	5 kg	plastic	85,90

D(+)-Saccharose
≥99,5 %, RNAse/DNAse free

Reagent for density gradient centrifugation.

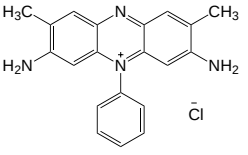
Guarantee analysis
Assay ..... ≥99,5 %

Art. No.	Pack Qty.	Pack.	€
9097.1	1 kg	plastic	46,15
Original pack 6 x 1 kg			43,84/1 kg
9097.2	5 kg	plastic	203,20

Saffron yellow
▸ Martius yellow (C. I. 10315) see page 1069

Safraniline
▸ Rhodamine B (C.I. 45170) see page 1204

Safranin O (C. I. 50240)



Safranin T

$C_{20}H_{19}ClN_4$
CAS No. 477-73-6 · EC no. 207-518-8
WGK 1

Warning H315-H319

Safranin O (C.I. 50240)
for microscopy

Dissolve 0.05 g in 100 ml of water

Type analysis
Absorption max. (ethanol 50 %) ..... 530-534 nm
Loss on drying (110 °C) ..... ≤15 %

Art. No.	Pack Qty.	Pack.	€
T129.1	10 g	glass	53,65

Safranin O solution

D 1 g/cm³ · bp 100 °C
CAS No. 477-73-6 · EC no. 207-518-8
WGK 1

Safranin O solution
for microscopy

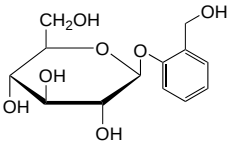
For Gram staining.

1 % safranine solution in water. Replaces Carbolic fuchsine solution during staining procedure of gram-negative bacteria.

Art. No.	Pack Qty.	Pack.	€
CN01.1	500 ml	glass	49,35

Safranin T
▸ Safranin O (C. I. 50240) see page 1248

D(–)-Salicin



Saligenin-β-D-glucopyranoside · Salicoside

$C_{13}H_{18}O_7$ · mp 196 to 202 °C
CAS No. 138-52-3 · EC no. 205-331-6
WGK 1

Warning H317

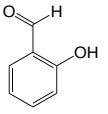
D(–)-Salicin
ROTICHROM® CHR ≥90 %, for biochemistry

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥90 %
Specific rotation $[\alpha]_D^{20}$ (in H_2O) ..... -62,5° ±2°
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
7192.1	5 g	plastic	37,55
7192.2	50 g	plastic	256,95

Salicoside
▸ D(–)-Salicin see page 1248

Salicylaldehyde



2-Formylphenol · 2-Hydroxybenzaldehyde

$C_7H_6O_2$ · D 1,167 g/cm³ · mp -7 °C · bp 197 °C · flp 78 °C
CAS No. 90-02-8 · EC no. 201-961-0
UN no. 3082 · ADR 9 III · WGK 2

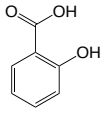
Warning H302-H315-H319-H411

Salicylaldehyde
≥99 %, for synthesis

Type analysis
Appearance ..... yellow to brown liquid
Assay (GC) ..... ≥99 %
Density (d 20 °C/4 °C) 1,164-1,167

Art. No.	Pack Qty.	Pack.	€
4662.1	100 ml	glass	26,35

Salicylic acid



2-Hydroxybenzoic acid

$C_7H_6O_3$ · D 1,44 g/cm³ · mp 158 to 160 °C · bp 256 °C · flp 157 °C
CAS No. 69-72-7 · EC no. 200-712-3
WGK 1

Danger H302-H318-H361d

Salicylic acid
≥99 %, p.a., ACS

Guarantee analysis
Assay ..... ≥99,0 %
Melting point ..... 158-161 °C
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,003 %
Heavy metals (as Pb) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0002 %
Matter discoloured by H_2SO_4 ..... complies
Ash content ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
2723.1	250 g	plastic	35,40
2723.2	500 g	plastic	50,45
Original pack 6 x 500 g			47,93/500 g
2723.3	1 kg	plastic	81,60
Original pack 6 x 1 kg			77,52/1 kg

Salicylic acid
≥99 %, Ph. Eur.

Guarantee analysis
Appearance ..... white to off-white cryst. powder
Assay ..... 99,0-100,5 %
Identity ..... complies
Appearance of solution ..... clear, colorless
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,02 %
Sulphated ash ..... ≤0,1 %
Loss on drying ..... ≤0,5 %
4-Hydroxybenzoic acid ..... ≤0,1 %
4-Hydroxyisophthalic acid ..... ≤0,05 %
Phenol ..... ≤0,02 %
Any other impurities ..... ≤0,05 %
Sum of all impurities ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
8626.1	250 g	plastic	25,70
8626.2	1 kg	plastic	76,25
Original pack 6 x 1 kg			72,44/1 kg
8626.3	2.5 kg	plastic	140,30

Salicylic acid
≥99 %, for biochemistry

Type analysis
Assay (dry substance) ..... 99,0-100,5 %
Loss on drying ..... ≤0,5 %
Colour number (Hazen) ..... ≤30
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,02 %
Sulphated ash ..... ≤0,1 %

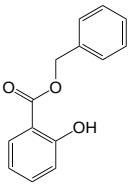
Art. No.	Pack Qty.	Pack.	€
9268.2	500 g	plastic	40,75
Original pack 6 x 500 g			38,71/500 g
9268.1	1 kg	plastic	69,80
Original pack 6 x 1 kg			66,31/1 kg
9268.3	2.5 kg	plastic	123,10

Salicylic acid
ROTI®Calipure melting point standard 158–160 °C

Type analysis
Meniscus formation ..... 158-160 °C
Complete liquefaction ..... 158-160 °C
Measurement uncertainty ..... ±0,3 °C

Art. No.	Pack Qty.	Pack.	€
9731.1	1 g	glass	40,75

Salicylic acid benzyl ester



Benzyl salicylate

$C_{14}H_{12}O_3$ · D 1,18 g/cm³ · bp 322 °C · flp 176 °C
CAS No. 118-58-1 · EC no. 204-262-9
WGK 2

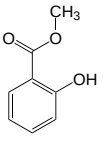
Warning H317-H319-H412

Salicylic acid benzyl ester
≥99 %

Type analysis
Assay (GC) ..... ≥99,0 %
Refractive index n_D^{20} 1,580-1,582

Art. No.	Pack Qty.	Pack.	€
4184.1	100 ml	glass	50,45

Salicylic acid methyl ester



2-Hydroxybenzoic acid methyl ester · Methyl salicylate

$C_8H_8O_3$ · D 1,18 g/cm³ · mp -8,6 °C · bp 221 °C · flp 96 °C
CAS No. 119-36-8 · EC no. 204-317-7
WGK 1

Warning H302-H317-H361d-H412

Salicylic acid methyl ester
≥99 %

Type analysis
Appearance clear, almost colourless to yellowish oil
Assay ..... ≥99 %
Density (20 °C) ..... 1,180-1,186 g/cm³
Refractive index (20 °C) 1,5350-1,5380
Optical rotation (20 °C) ..... -1° to +1°

Art. No.	Pack Qty.	Pack.	€
4529.1	250 ml	glass	34,30

Salicylic acid sodium salt
▸ Sodium salicylate see page 1294

5-Salicylsulphonic acid
▸ 5-Sulphosalicylic acid dihydrate see page 1345

Saligenin-β-D-glucopyranoside
▸ D(–)-Salicin see page 1248

Salmiac
▸ Ammonium chloride see page 734

Salmiac salt
▸ Ammonium chloride see page 734

Salmiac solution
▸ Ammonia solution see page 730

Salmine sulphate

Protaminsulphate

CAS No. 53597-25-4
WGK 1

Salmine sulphate
for biochemistry

From salmon sperm.

Type analysis
Appearance ..... white to light yellowish powder
Loss on drying ..... ≤5,0 %
Nitrogen (N) ..... 22-26 %
Sulphate (SO_4) ..... 16-21 %

Art. No.	Pack Qty.	Pack.	€
7194.1	5 g	plastic	160,20

Salmonella chromogenic Agar

WGK 1

Salmonella chromogenic Agar
for microbiology

For isolation of *Salmonella* from foods, waters and other samples.

Application: Use 37.1 g for 1 l agar.

Storage temperature: +4 °C

Composition
Sodium citrate ..... 8,5 g/l
Casein peptone ..... 5 g/l
Beef extract ..... 5 g/l
Chromogene Mixture ..... 5,81 g/l
Agar ..... 12,8 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL46.2	100 g	plastic	223,10
CL46.1	500 g	plastic	908,40
Original pack 6 x 500 g			862,98/500 g

Salmonella-Shigella Agar

WGK 2

Salmonella-Shigella Agar
for microbiology

For isolation of pathogenic enterobacteria, especially *Salmonella* and *Shigella*.

Application: Use 60 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

Beef extract ..... 5 g/l
Peptone mixture ..... 5 g/l
Lactose ..... 10 g/l
Ferric citrate ..... 1 g/l
Bile salts ..... 8,5 g/l
Sodium citrate ..... 8,5 g/l
Sodium thiosulphate ..... 8,5 g/l
Brilliant green ..... 0,0003 g/l
Neutral red ..... 0,025 g/l
Agar ..... 13,5 g/l
pH-value 6,8-7,2

Art. No.	Pack Qty.	Pack.	€
X934.1	500 g	plastic	79,05
Original pack 6 x 500 g			75,10/500 g

Salmon Sperm DNA sodium salt

DNA from salmon sperm · Deoxyribonucleic acid sodium salt

CAS No. 9007-49-2
WGK 1

Salmon Sperm DNA sodium salt
ex salmon testes

Stock solution: 10 mg/ml in H_2O. Storage of stock solution: –20 °C in aliquots. Working concentration: 100 µg/ml.

Storage temperature: +4 °C

Guarantee analysis

Appearance ..... off-white to light brown powder
Solution (10 % in H_2O at 40 °C) ..... colourless to slightly yellow
Loss on drying ..... ≤12,0 %
Sodium (dry substance) ..... ≥5,8 %
Maximum absorption ..... 258-262 nm
UV-Absorption (0,001 % in phosphate buffer pH 7) ..... ≥0,155 AU

Art. No.	Pack Qty.	Pack.	€
5434.1	5 g	plastic	45,70
5434.2	10 g	plastic	85,90

Salts for Analysis

Art. No.	Description	Page
X862	Aluminium ammonium sulphate dodecahydrate	721
CN85	Aluminium nitrate nonahydrate	722
5340	Aluminium sulphate hexadecahydrate	723
7869	Ammonium acetate	733
HN14	Ammonium bromide	733
CP98	Ammonium carbonate	733
4386	Ammonium cerium(IV) sulphate dihydrate	734
K298	Ammonium chloride	734
P727	Ammonium dihydrogen phosphate	735
3246	Ammonium dimolybdate	735
6549	Ammonium fluoride	735
3666	Ammonium heptamolybdate tetrahydrate	735
T871	Ammonium hydrogen carbonate	736
P735	di-Ammonium hydrogen citrate	736
P736	di-Ammonium hydrogen phosphate	737
5485	Ammonium hydrogen sulphate	737
9818	Ammonium iodide	737
P728	Ammonium iron(II) sulphate hexahydrate	738
P734	Ammonium iron(III) sulphate dodecahydrate	738
0742	Ammonium metatungstate hydrate	738
4232	Ammonium monovanadate	739
K299	Ammonium nitrate	739
P737	di-Ammonium oxalate monohydrate	739
9592	Ammonium peroxydisulphate	740
1LK4	tri-Ammonium phosphate trihydrate	740
3746	Ammonium sulphate	741
4477	Ammonium thiocyanate	742
9819	Antimony(III) chloride	748
9826	Antimony(III) oxide	748
2553	Barium acetate	764
P008	Barium carbonate	764
4453	Barium chloride dihydrate	764
P009	Barium hydroxide octahydrate	765
4387	Barium nitrate	765
4447	Bismuth(III) nitrate	777
2554	Bismuth(III) nitrate pentahydrate	777
6555	Bismuth(III) oxide	777
KK06	Cadmium acetate dihydrate	802
4482	Cadmium sulphate hydrate	803
6873	Caesium carbonate	803
8627	Caesium chloride	803
9355	Caesium sulphate	804
P011	Calcium acetate monohydrate	805
P012	Calcium carbonate	806
5239	Calcium chloride dihydrate	807
T886	Calcium chloride hexahydrate	807
P740	Calcium nitrate tetrahydrate	809
P741	Calcium sulphate dihydrate	810
HN28	Cerium(IV) ammonium nitrate	825
HN18	Cerium(III) nitrate hexahydrate	825
9837	Cerium(IV) oxide	825
P014	Cerium(IV) sulphate tetrahydrate	826
9832	Chromium(III) chloride hexahydrate	836
8773	Chromium(III) nitrate nonahydrate	836
4389	Chromium(III) potassium sulphate dodecahydrate	837
HN29	Cobalt(II) acetate tetrahydrate	842
T889	Cobalt(II) chloride hexahydrate	842
HN16	Cobalt(II) nitrate hexahydrate	843
9834	Cobalt(II,III) oxide	843
4390	Cobalt(II) sulphate heptahydrate	843
HN30	Copper(II) acetate monohydrate	848
4391	Copper(I) chloride	849
CN82	Copper(II) chloride dihydrate	849
P754	Copper(II) nitrate trihydrate	850
4467	Copper(II) oxide	850
P023	Copper(II) sulphate	851
P024	Copper(II) sulphate pentahydrate	851
3053	Ethylenediamine tetraacetic acid dipotassium salt dihydrate	922
8043	Ethylenediamine tetraacetic acid disodium salt dihydrate	922
CP87	Ethylenediamine tetraacetic acid tetrasodium salt tetrahydrate	923
1E11	Gallium(III) oxide	952
HN96	Hydrazinium sulphate	988
0307	Indium(III) chloride	1008
0314	Indium(III) sulphate	1008
P742	Iron(III) chloride hexahydrate	1017
P015	Iron(II) sulphate heptahydrate	1019
1HEL	Iron(III) sulphate hydrate	1019
8358	Lanthanum(III) nitrate hexahydrate	1035
8373	Lanthanum(III) oxide	1035
2559	Lead(II) acetate, basic	1038
P739	Lead(II) acetate trihydrate	1038
2558	Lead(II) carbonate	1038
HN32	Lead(II) nitrate	1039
4479	Lead(IV) oxide	1039
3995	Lithium carbonate	1046
3739	Lithium chloride	1046
6698	Lithium chloride	1046
6715	Lithium fluoride	1047
1ALT	Lithium iodide trihydrate	1048
9840	Lithium metaborate	1048
4393	Lithium sulphate monohydrate	1048
P026	Magnesium acetate tetrahydrate	1056
2189	Magnesium chloride hexahydrate	1057
HN31	Magnesium nitrate hexahydrate	1059
0682	Magnesium sulphate	1059
2278	Magnesium sulphate	1059
P027	Magnesium sulphate heptahydrate	1060
9927	Manganese(II) carbonate	1066
4320	Manganese(II) chloride monohydrate	1066
T881	Manganese(II) chloride tetrahydrate	1066
HN26	Manganese(II) nitrate tetrahydrate	1067
4487	Manganese(II) sulphate monohydrate	1067
KK05	Mercury(II) acetate	1074
6581	Mercury(II) bromide	1074
6601	Mercury(I) chloride	1074
KK04	Mercury(II) chloride	1074
6590	Mercury(II) iodide	1074
6605	Mercury(I) nitrate dihydrate	1074
6595	Mercury(II) nitrate monohydrate	1075
4470	Mercury(II) oxide	1075
T112	Mercury(II) sulphate	1075
6600	Mercury(II) thiocyanate	1075
0142	Molybdenum(VI) oxide	1093
4489	Nickel(II) chloride hexahydrate	1103
4395	Nickel(II) nitrate hexahydrate	1104
9996	Nickel(II) oxide	1104
9925	Nickel(II) oxide	1104
T111	Nickel(II) sulphate hexahydrate	1104
8371	Osmium tetraoxide	1133
T874	Potassium acetate	1166
P724	Potassium aluminium sulphate dodecahydrate	1167
4396	Potassium bromate	1167
A137	Potassium bromide	1168
P743	Potassium carbonate	1168
HN27	Potassium chlorate	1168
6781	Potassium chloride	1169
HN33	Potassium chromate	1170
P744	Potassium dichromate	1170
3904	Potassium dihydrogen phosphate	1171
P019	Potassium disulphite	1171
CN83	Potassium fluoride	1172
1H54	Potassium hexachloroplatinate(IV)	1172
P745	Potassium hexacyanoferrate(II) trihydrate	1172
P746	Potassium hexacyanoferrate(III)	1172
P748	Potassium hydrogen carbonate	1173

Art. No.	Description	Page
P749	di-Potassium hydrogen phosphate	1174
6878	di-Potassium hydrogen phosphate trihydrate	1174
P750	Potassium hydrogen phthalate	1174
P020	Potassium hydrogen sulphate	1174
P751	Potassium iodate	1177
6750	Potassium iodide	1177
P021	Potassium nitrate	1178
HN38	di-Potassium oxalate monohydrate	1178
2588	Potassium periodate	1178
P752	Potassium permanganate	1179
1HEE	tri-Potassium phosphate trihydrate	1180
8087	Potassium sodium tartrate tetrahydrate	1180
P022	Potassium sulphate	1181
P753	Potassium thiocyanate	1182
6629	Reinecke salt monohydrate	1201
4471	Rubidium chloride	1245
1L0N	Selenium(IV) oxide	1255
KK25	Silver diethyldithiocarbamate	1272
6874	Silver nitrate	1272
7908	Silver nitrate	1272
5309	Silver oxide	1273
6791	Silver sulphate	1274
6773	Sodium acetate	1276
6779	Sodium acetate trihydrate	1276
T882	Sodium ammonium hydrogen phosphate tetrahydrate	1277
K305	Sodium azide	1277
4401	Sodium bismuthate dihydrate	1277
HN15	Sodium bromide	1278
A135	Sodium carbonate	1278
2597	Sodium carbonate monohydrate	1279
K303	Sodium carbonate decahydrate	1279
3957	Sodium chloride	1280
3580	tri-Sodium citrate dihydrate	1281
2601	Sodium diethyldithiocarbamate trihydrate	1282
K300	Sodium dihydrogen phosphate monohydrate	1282
T879	Sodium dihydrogen phosphate dihydrate	1282
T883	tetra-Sodium diphosphate decahydrate	1283
P756	Sodium fluoride	1283
4404	Sodium formate	1284
4409	Sodium hexanitrocobaltate(III)	1284
6885	Sodium hydrogen carbonate	1284
P030	di-Sodium hydrogen phosphate	1285
4984	di-Sodium hydrogen phosphate dihydrate	1285
X987	di-Sodium hydrogen phosphate heptahydrate	1285
T106	di-Sodium hydrogen phosphate dodecahydrate	1286
HN17	Sodium iodate	1290
A134	Sodium iodide	1290
P755	Sodium metabisulphite	1290
0274	Sodium molybdate dihydrate	1291
A136	Sodium nitrate	1291
4411	Sodium nitrite	1292
HN34	Sodium nitroprusside dihydrate	1292
HN39	di-Sodium oxalate	1292
2603	Sodium periodate	1293
4412	Sodium peroxide	1293
T107	tri-Sodium phosphate dodecahydrate	1294
1K08	Sodium polytungstate hydrate	1294
CP39	Sodium salicylate	1294
1EH9	Sodium selenate	1295
1E0Y	Sodium selenite	1295
8560	Sodium sulphate	1295
0966	Sodium sulphate	1295
T108	Sodium sulphate decahydrate	1296
P033	Sodium sulphite	1296
T110	di-Sodium tartrate dihydrate	1296
T880	di-Sodium tetraborate decahydrate	1297
4385	Sodium tetraphenyl borate	1297
2724	Sodium thiocyanate	1297
HN25	Sodium thiosulphate	1297
P034	Sodium thiosulphate pentahydrate	1298
2604	Sodium tungstate dihydrate	1299
4473	Strontium chloride hexahydrate	1341
4413	Strontium nitrate	1341
0321	Tellurium(IV) oxide	1357
0689	Tetrachloroauric(III) acid trihydrate	1359
3867	Tetrachloroauric(III) acid trihydrate	1359
KK07	Tin(II) chloride dihydrate	1369
4977	Tin(II) chloride dihydrate	1369
9929	Tin(IV) oxide	1370
4382	Tin(II) sulphate	1370
0747	Tungstic acid	1388
P035	Zinc acetate dihydrate	1412
T887	Zinc chloride	1413
9839	Zinc iodide	1413
6634	Zinc nitrate hexahydrate	1414
T114	Zinc oxide	1414
K301	Zinc sulphate heptahydrate	1415

Salts in Pharmacopoeia Quality

Art. No.	Description	Page
CP88	Aluminium chloride hexahydrate, ≥95 %, Ph. Eur., USP	722
P726	Ammonium chloride, ≥99,5 %, Ph. Eur., USP, BP	734
7094	Ammonium hydrogen carbonate, ≥98 %, Ph. Eur., BP	736
4266	di-Ammonium oxalate monohydrate, ≥98 %, BP	739
6551	Bismuth subcarbonate, ≥97,5 %, USP	777
6552	Bismuth subsalicylate, USP	777
0260	Calcium acetate hydrate, ≥99 %, USP, extra pure	805
P013	Calcium carbonate, ≥98,5 %, Ph. Eur., USP, BP, precipitated	806
3249	Calcium carbonate, ≥98,5 %, Ph. Eur., USP, granulated	806
T885	Calcium chloride dihydrate, ≥99 %, Ph. Eur., USP	807
CP89	Calcium chloride hexahydrate, ≥97 %, Ph. Eur.	807
HN70	Calcium hydrogen phosphate dihydrate, ≥98 %, Ph. Eur., USP	808
8450	Calcium hydroxyphosphate, Ph. Eur., extra pure	808
0256	Calcium sulphate dihydrate, ≥98 %, Ph. Eur., extra pure	810
CP86	Copper(II) sulphate, ≥99 %, Ph. Eur., anhydrous	851
P025	Copper(II) sulphate pentahydrate, ≥99 %, Ph. Eur., BP	851
6506	Ethylenediamine tetraacetic acid calcium disodium salt hydrate, ≥98 %, Ph. Eur., USP	921
X986	Ethylenediamine tetraacetic acid disodium salt dihydrate, ≥99 %, USP	922
3722	Iron(II) sulphate heptahydrate, ≥99,5 %, Ph. Eur., USP	1019
9443	tri-Lithium citrate tetrahydrate, ≥98 %, Ph. Eur.	1047
0275	Magnesium acetate tetrahydrate, ≥98 %, Ph. Eur., extra pure	1056
3530	Magnesium carbonate, Ph. Eur., light	1056
2598	Magnesium carbonate, Ph. Eur., USP, heavy	1056
2789	Magnesium carbonate, Ph. Eur., USP, granulated	1056
A537	Magnesium chloride hexahydrate, ≥98 %, Ph. Eur., USP, BP	1057
2798	tri-Magnesium citrate, Ph. Eur., USP, anhydrous	1058
3260	tri-Magnesium citrate nonahydrate, Ph. Eur., USP	1058
9453	Magnesium hydroxide, ≥95 %, Ph. Eur.	1058
2684	Magnesium hydroxide, ≥95 %, Ph. Eur., USP, granulated	1058
8280	Magnesium oxide, ≥98 %, Ph. Eur., light	1059
3273	Magnesium oxide, ≥98 %, Ph. Eur., USP, heavy	1059
3286	Magnesium oxide, ≥98 %, Ph. Eur., USP, granulated	1059
T888	Magnesium sulphate heptahydrate, ≥99 %, Ph. Eur., USP, BP	1060
3258	Magnesium trisilicate, Ph. Eur., USP	1060
X890	Manganese(II) sulphate monohydrate, ≥99 %, Ph. Eur.	1067
4986	Potassium acetate, ≥99 %, Ph. Eur., BP	1167
CN78	Potassium aluminium sulphate dodecahydrate, ≥99 %, Ph. Eur.	1167
9252	Potassium bromide, ≥98 %, Ph. Eur.	1168
X894	Potassium carbonate, ≥99 %, Ph. Eur.	1168
P017	Potassium chloride, ≥99 %, Ph. Eur., USP, BP	1169
X888	tri-Potassium citrate monohydrate, ≥99 %, Ph. Eur., USP	1170
P018	Potassium dihydrogen phosphate, ≥98 %, Ph. Eur., BP	1171
X887	Potassium hydrogen carbonate, ≥99 %, Ph. Eur.	1173
T875	di-Potassium hydrogen phosphate, ≥98 %, Ph. Eur., BP, anhydrous	1174
8491	Potassium iodide, ≥99 %, Ph. Eur., USP, BP	1177
4397	Potassium nitrate, ≥99 %, Ph. Eur., BP	1178
8004	Potassium permanganate, ≥99 %, Ph. Eur., USP, BP	1179
7998	Potassium sodium tartrate tetrahydrate, ≥99 %, USP	1180
CN79	Potassium sulphate, ≥99 %, Ph. Eur.	1181
9370	Silver nitrate, ≥99 %, Ph. Eur., extra pure	1272
3856	Sodium acetate trihydrate, ≥99 %, Ph. Eur., USP	1276
P028	Sodium carbonate, ≥99,5 %, Ph. Eur., USP, BP, anhydrous	1278
8566	Sodium carbonate decahydrate, ≥99,5 %, Ph. Eur.	1279
P029	Sodium chloride, ≥99 %, Ph. Eur., USP	1280
4088	tri-Sodium citrate dihydrate, ≥99 %, Ph. Eur.	1281
T878	Sodium dihydrogen phosphate monohydrate, ≥98 %, USP, BP	1282
2370	Sodium dihydrogen phosphate dihydrate, ≥98 %, Ph. Eur., USP	1282
8551	Sodium hydrogen carbonate, ≥99 %, Ph. Eur., extra pure	1284

Art. No.	Description	Page
T876	di-Sodium hydrogen phosphate, ≥98 %, Ph. Eur., USP, anhydrous	1285
T877	di-Sodium hydrogen phosphate dihydrate, ≥98 %, Ph. Eur., USP	1285
N350	di-Sodium hydrogen phosphate dodecahydrate, ≥98,5 %, Ph. Eur.	1286
8783	Sodium iodide, ≥99 %, Ph. Eur.	1290
P032	Sodium sulphate, ≥98,5 %, Ph. Eur., anhydrous	1296
X892	Sodium sulphate decahydrate, ≥98,5 %, Ph. Eur.	1296
CN07	di-Sodium tetraborate decahydrate, ≥99 %, Ph. Eur., BP, NF	1297
T109	Sodium thiosulphate pentahydrate, ≥99 %, Ph. Eur., USP, BP	1298
X893	Zinc acetate dihydrate, ≥99 %, Ph. Eur.	1413
5297	Zinc oxide, ≥99 %, Ph. Eur., USP	1414
2293	Zinc sulphate monohydrate, ≥99 %, Ph. Eur., USP, BP	1415
T884	Zinc sulphate heptahydrate, ≥99 %, Ph. Eur., USP, BP	1415

Salvinin

▸ Pelargonidin 3,5-diglucoside chloride see page 1140

Samaria

▸ Samarium(III) oxide see page 1252

Samarium Standards

▸ Samarium ICP Standard Solution see page 1321
▸ Samarium ICP Standard Solution see page 1321

Samarium(III) oxide

Samarium trioxide · Samaria

Sm_2O_3 · D 8,34 g/cm³ · mp 2335 °C
CAS No. 12060-58-1 · EC no. 235-043-6
WGK 1

Samarium(III) oxide
ROTI®REMETIC 99,95 %

Type analysis
Assay (TREO*) ..... 99,95 %

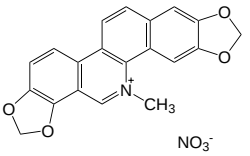
*Total rare earth oxide.
Chemical analysis (ICP, AAS): specified trace impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
7108.1	5 g	plastic	55,80
7108.2	25 g	plastic	123,55

Samarium trioxide

▸ Samarium(III) oxide see page 1252

Sanguinarine nitrate



$C_{20}H_{14}N_2O_7$
CAS No. 4752-86-7 · EC no. 225-276-1
WGK 1

⚠ **Warning** H302

Sanguinarine nitrate
≥95 %

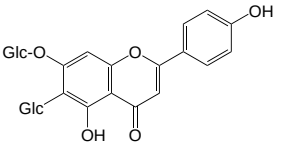
Type analysis
Appearance ..... Orange Powder
Assay (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
7200.2	10 mg	glass	332,20

Saponaretin

▸ Isovitexin see page 1024

Saponarin



Isovitexin-7-*O*-glucoside

$C_{27}H_{30}O_{16}$ · mp 228 °C
CAS No. 20310-89-8
WGK 1

Saponarin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Saponaria officinalis*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6413.1	5 mg	plastic	241,90

Saponin

D 1,218 g/cm³ · bp 101,9 °C
CAS No. 8047-15-2 · EC no. 232-462-6
WGK 2

⚠ **Warning** H319-H335

Saponin
DAB

From quillaja bark. Special quality for hemolysis.

Guarantee analysis
Appearance ..... whitish to pale yellow powder
Extinction (5 %, water) ..... ≤0,4
Identity ..... complies
pH-value (5 %, water) 4,0-7,0
Density (5 %, water) 1,01-1,02
Turbidity (5 %, water) ..... ≤30 TE/F
Lather value (5 %, water) 6-17
Surface tension (20 °C, 1 ‰ sol.) .. 35-55 dyn/cm

Art. No.	Pack Qty.	Pack.	€
9622.2	25 g	plastic	32,15
9622.1	100 g	plastic	80,55
9622.3	250 g	plastic	160,20

Saponin
tannin-free

From quillaja bark. Saponin content 8,5 %.
Main aglycone: quilliac acid.

Type analysis
Appearance ..... whitish to pale yellow powder
Extinction ..... ≤0,4
pH-value (5 %, water) 4,0-7,0
Density (5 %, water) 1,01-1,02

Art. No.	Pack Qty.	Pack.	€
6857.1	100 g	plastic	69,80
6857.2	250 g	plastic	138,70
6857.3	500 g	plastic	267,70
Original pack 6 x 500 g			254,32/500 g
6857.8	1 kg	plastic	504,20
Original pack 6 x 1 kg			478,99/1 kg

Saponin
pure

Type analysis
Appearance ..... whitish to pale yellow powder

Art. No.	Pack Qty.	Pack.	€
4185.1	100 g	plastic	64,40
4185.2	250 g	plastic	128,50
4185.3	500 g	plastic	246,20
Original pack 6 x 500 g			233,89/500 g

Sarcine

▸ Hypoxanthine see page 1004

Sarcolactic acid

▸ DL-Lactic acid see page 1031
▸ Lactic acid see page 1031
▸ L-Lactic acid see page 1032

SB-8

▸ *N*-Octyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate see page 1119

SB-10

▸ *N*-Decyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate see page 865

SB-12

▸ *N*-Dodecyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate see page 899

SB-14

▸ *N*-Tetradecyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate see page 1360

SB-16

▸ *N*-Hexadecyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate see page 981

Scandium Standards

- Scandium ICP Standard Solution see page 1322
- Scandium AAS Standard Solution see page 1322

Scandium oxide

- Scandium(III) oxide see page 1253

Scandium(III) oxide

Scandium oxide · Scandium oxide

Sc_2O_3 · D 3,86 g/cm³ · mp 2485 °C
CAS No. 12060-08-1 · EC no. 235-042-0
WGK 1

Scandium(III) oxide
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5735.1	1 g	plastic	209,65

Scandium oxide

- Scandium(III) oxide see page 1253

Scarlet red

- Ponceau S (C.I. 27195) see page 1166
- Sudan IV (C. I. 26105) see page 1344

Schaedler Agar

WGK 1

Schaedler Agar
for microbiology

For recovery and cultivation of anaerobic microorganisms.

Application: Use 41.9 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Casein peptone ..... 5,66 g/l
Soy peptone ..... 1 g/l
Sodium chloride ..... 1,66 g/l
Dipotassium hydrogen phosphate ..... 0,83 g/l
Peptone mixture ..... 5 g/l
Yeast extract ..... 5 g/l
Glucose ..... 5,83 g/l
Tris (hydroxymethyl aminomethane) ..... 3 g/l
L-Cystine ..... 0,4 g/l
Hemin ..... 0,01 g/l
Agar ..... 13,5 g/l
pH value ..... 7,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
5771.1	500 g	plastic	165,05
Original pack 6 x 500 g			156,80/500 g

Schaedler Broth

WGK 3

Schaedler Broth
for microbiology

For enrichment and cultivation of anaerobic microorganisms.

Application: Use 28.4 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Casein peptone ..... 5,66 g/l
Soy peptone ..... 1 g/l
Sodium chloride ..... 1,66 g/l
Dipotassium hydrogen phosphate ..... 0,83 g/l
Peptone mixture ..... 5 g/l
Yeast extract ..... 5 g/l
Glucose ..... 5,83 g/l
Tris (hydroxymethyl aminomethane) ..... 3 g/l
L-Cystine ..... 0,4 g/l
Hemin ..... 0,01 g/l
pH value ..... 7,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
5772.1	500 g	plastic	147,85
Original pack 6 x 500 g			140,46/500 g

Schiff's reagent

Fuchsine sulphurous acid

D 1 g/cm³ · bp 100 °C
UN no. 1789 · ADR 8 III · WGK 3

Danger H290-H350

Schiff's reagent
on aldehydes

For the detection of aldehydes in the range of ppm.

Art. No.	Pack Qty.	Pack.	€
N057.1	250 ml	glass	38,60

Schiff's reagent
for microscopy

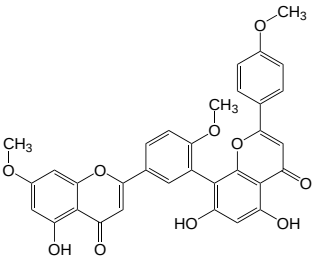
Staining reagent for detection of carbohydrates in tissue (PAS reaction).

Storage: After opening well-sealed at 4–8 °C. Discard solution if it turns reddish.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
X900.1	500 ml	glass	32,80
X900.2	1 l	glass	46,80
Original pack 6 x 1 l			44,46/1 l
X900.3	2.5 l	plastic	97,75
Original pack 4 x 2.5 l			92,86/2.5 l

Sciadopitysin



$C_{33}H_{24}O_{10}$ · mp 294 °C
CAS No. 521-34-6 · EC no. 208-311-5
WGK 1

Sciadopitysin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
9410.2	10 mg	glass	349,40

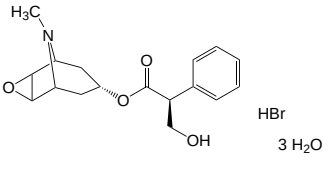
Scintillation cocktail

- ROTISZINT®eco plus see page 1243

Scintillation Products

Art. No.	Description	Page
3210	1,4-Bis[2-(5-phenyloxazolyl)]-benzene	778
7029	Dimethyl sulphoxide (DMSO)	890
3689	2,5-Diphenyloxazole	893
0016	ROTISZINT®eco plus, ROTISZINT®	1243
3107	Toluene, ROTISOLV®	1373

Scopolamine hydrobromide trihydrate



$C_{17}H_{22}BrNO_4 \cdot 3\,H_2O$ · mp 195 to 199 °C
CAS No. 6533-68-2
UN no. 1544 · ADR 6.1 I · WGK 1

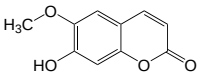
Danger H300+H310+H330

Scopolamine hydrobromide trihydrate
≥98 %

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7153.1	1 g	glass	155,90

Scopoletin



7-Hydroxy-6-methoxy-coumarin · Chrysatropic acid · Gelseminic acid · ß-Methylesculetin

$C_{10}H_8O_4$ · mp 200 to 207 °C
CAS No. 92-61-5 · EC no. 202-171-9
WGK 1

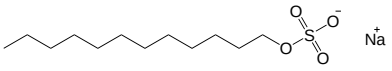
Warning H315-H319-H335

Scopoletin
ROTICHROM® CHR ≥98 %

Type analysis
Appearance ..... pale yellow powder
Assay (HPLC) ..... ≥98 %
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
7210.3	50 mg	glass	111,30
7210.1	100 mg	glass	175,15
7210.2	1 g	glass	1.284,65

SDS



Dodecylsulphate sodium salt · Lauryl sulphate sodium salt · Sodium dodecyl sulphate · Sodium lauryl sulphate · SLS

CAS No. 151-21-3 · EC no. 205-788-1

SDS
≥99,3 %, Blotting Grade

For Western- and Southern blotting

CMC (critical micelle concentration) = 8,5 mM SDS solution

$C_{12}H_{25}NaO_4S$ · mp 205 °C · bp 216 °C · flp 170 °C

UN no. 1325 · ADR 4.1 III · WGK 2

Danger H228-H302+H332-H315-H318-H335-H412

Type analysis
Appearance ..... white cryst. powder
Assay (titr.) ..... ≥99,3 %
Water (KF) ..... ≤1,0 %
Solubility (10 % in H_2O) ..... clear, colourless
Chloride (Cl) ..... ≤0,025 %
Heavy metals (as Pb) ..... ≤0,0005 %

Absorbance:
260 nm ..... ≤0,06
280 nm ..... ≤0,04

Art. No.	Pack Qty.	Pack.	€
0183.1	100 g	plastic	60,10
0183.2	250 g	plastic	127,95
0183.3	500 g	plastic	209,65
Original pack 6 x 500 g			199,17/500 g

SDS ultra pure
≥99 %, for electrophoresis, for biochemistry and molecular biology

Anionic detergent.

CMC (critical micelle concentration) = 8,5 mM SDS solution

$C_{12}H_{25}NaO_4S$ · mp 205 °C · bp 216 °C · flp 170 °C

UN no. 1325 · ADR 4.1 III · WGK 2

Danger H228-H302+H332-H315-H318-H335-H412

Guarantee analysis
Assay (titr.) ..... ≥99 %
Water (KF) ..... ≤1,0 %
Chloride (Cl) ..... ≤0,025 %
Heavy metals (as Pb) ..... ≤0,0005 %

Absorbance:
260 nm ..... ≤0,06
280 nm ..... ≤0,04

Art. No.	Pack Qty.	Pack.	€
2326.1	100 g	plastic	50,45
2326.4	250 g	plastic	106,45
2326.2	500 g	plastic	192,45
Original pack 6 x 500 g			182,83/500 g
2326.3	500 g	glass	198,35
Original pack 6 x 500 g			188,43/500 g
2326.5	1 kg	plastic	332,20
Original pack 6 x 1 kg			315,59/1 kg

SDS / Sodium lauryl sulphate
≥99 %, for biochemistry

Anionic detergent; active substance for studies with surfactants.

$C_{12}H_{25}NaO_4S$ · mp 205 °C · bp 216 °C · flp 170 °C

UN no. 1325 · ADR 4.1 III · WGK 2

Danger H228-H302+H332-H315-H318-H335-H412

Guarantee analysis
Appearance ..... white powder
Assay (GC) ..... ≥99 %
pH value (1 % in H_2O) 7,5-10,5
Solubility (10 % in H_2O) ..... clear, ≤50 Hazen

Absorbance:
260 nm ..... ≤1,5
280 nm ..... ≤1,0

Art. No.	Pack Qty.	Pack.	€
4360.1	250 g	plastic	32,15
4360.2	1 kg	plastic	87,00
Original pack 6 x 1 kg			82,65/1 kg

SDS / Sodium lauryl sulphate
≥95 %

Anionic detergent; active substance for studies with surfactants.

$C_{12}H_{25}NaO_4S$ · mp 205 °C · bp 216 °C · flp 170 °C

UN no. 1325 · ADR 4.1 III · WGK 2

Danger H228-H302+H332-H315-H318-H335-H412

Guarantee analysis
Appearance ..... white to yellowish powder
Assay ..... ≥95 %
Water (KF) ..... ≤5,0 %
Unsulphated Matter ..... ≤4,0 %

Art. No.	Pack Qty.	Pack.	€
5136.1	1 kg	plastic	64,40
Original pack 6 x 1 kg			61,18/1 kg
5136.2	5 kg	cardboard	224,70

SDS pellets

SDS pellets
≥99,5 %, ROTIPHORESE® Grade

Ultrapure, dust-free SDS for electrophoresis.

Each batch is tested for its functionality in electrophoresis.

$C_{12}H_{25}NaO_4S$ · D 0,63 g/cm³ · mp 205 °C · bp 216 °C · flp 170 °C

WGK 2

Danger H302-H315-H318-H412

Guarantee analysis
Appearance ..... white rods
Assay (titr.) ..... ≥99,5 %
pH-value (10 % in H_2O) 6,5-9,0
Water (KF) ..... ≤2,0 %
Solubility (10 % in H_2O) ..... clear, colourless
Colour number (APHA) ..... ≤10
Turbidity ..... ≤2,5 NTU
Chloride (Cl) ..... ≤0,01 %
Lead (Pb) ..... ≤0,0002 %

Absorbance:
A (40 % in H_2O; 1 cm/410 nm) ..... ≤0,1

Art. No.	Pack Qty.	Pack.	€
8029.1	100 g	plastic	40,75
8029.2	250 g	plastic	82,25
8029.3	500 g	plastic	145,15
Original pack 6 x 500 g			137,89/500 g
8029.4	1 kg	plastic	268,75
Original pack 6 x 1 kg			255,31/1 kg

SDS pellets
≥99 %, for biochemistry

Anionic detergent.

$C_{12}H_{25}NaO_4S$ · D 0,63 g/cm³ · mp 205 °C · bp 216 °C · flp 170 °C

WGK 2

Danger H302-H315-H318-H412

Guarantee analysis
Appearance ..... white to almost white pellets
Assay (GC) ..... ≥99 %
pH value (1 % in H_2O) 7,5-10,5
Solubility (10 % in H_2O) ..... clear, ≤50 Hazen

Absorbance:
260 nm ..... ≤1,5
280 nm ..... ≤1,0

Art. No.	Pack Qty.	Pack.	€
CN30.1	250 g	plastic	34,30
CN30.2	500 g	plastic	53,65
Original pack 6 x 500 g			50,97/500 g
CN30.3	1 kg	plastic	89,15
Original pack 6 x 1 kg			84,69/1 kg
CN30.4	2.5 kg	plastic	170,95
CN30.7	5 kg	plastic	268,75

20 % SDS Ready-to-use solution
▸ ROTI®Stock 20 % SDS see page 1242

SDS-PAGE buffer

- ROTIPHORESE®SDS-PAGE see page 1234
- ROTIPHORESE®PAGE Matrix Buffer plus see page 1233

SDS-PAGE powder (pouch)

- ROTI®Fair SDS-PAGE see page 1221

Sea sand

Filter aids · Quarz

SiO_2 · mp 1713 °C · bp >2200 °C
CAS No. 14808-60-7 · EC no. 238-878-4

Sea sand
p.a., cleaned with acid, annealed

Filtration aids

Guarantee analysis
Acid soluble iron (Fe) ..... ≤0,01 %
Loss on ignition (900 °C) ..... ≤0,05 %
Substances soluble in HCl ..... ≤0,2 %
Chloride (Cl) ..... ≤0,005 %
Particle size (0,1–0,315 mm) ..... ≥90 %

Art. No.	Pack Qty.	Pack.	€
4309.2	500 g	plastic	67,20
Original pack 6 x 500 g			63,84/500 g
4309.1	1 kg	plastic	117,75
Original pack 6 x 1 kg			111,86/1 kg
4309.3	2.5 kg	plastic	209,65
4309.4	5 kg	plastic	407,45
4309.5	10 kg	plastic	779,40

Sea sand
extra pure, cleaned with acid

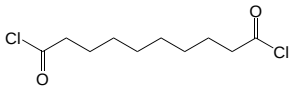
Filtration aids

Type analysis
Loss on ignition (900 °C) ..... ≤0,5 %
Substances soluble in HCl ..... ≤0,5 %
Chloride (Cl) ..... ≤0,02 %

Particle size:
100-360 µm ..... >98 %

Art. No.	Pack Qty.	Pack.	€
8441.3	500 g	plastic	37,55
Original pack 6 x 500 g			35,67/500 g
8441.1	1 kg	plastic	59,70
Original pack 6 x 1 kg			56,72/1 kg
8441.4	2.5 kg	plastic	117,20
8441.2	5 kg	plastic	220,40
8441.5	10 kg	plastic	418,20
8441.6	25 kg	plastic	848,20

Sebacic acid dichloride



Sebacoyl chloride

$C_{10}H_{16}Cl_2O_2$ · D 1,12 g/cm³ · mp -5 °C · bp 161 °C · flp 113 °C
CAS No. 111-19-3 · EC no. 203-843-4
UN no. 3265 · ADR 8 II · WGK 1

Danger H302-H314-H335

Sebacic acid dichloride
≥95 %

Type analysis
Assay (titr.) ..... ≥96,0 %
Refractive index (20 °C) 1,4665-1,4705

Art. No.	Pack Qty.	Pack.	€
4472.2	10 ml	glass	31,75
4472.1	50 ml	glass	91,95
4472.3	250 ml	glass	364,45

Sebacoyl chloride

- Sebacic acid dichloride see page 1255

Seignette salt

- Potassium sodium tartrate tetrahydrate see page 1180

Sekuroka® Decon-Bags

Ethidiumbromide adsorber bags · Activated carbon

mp >3500 °C
CAS No. 7440-44-0

Sekuroka® Decon-Bags

Carl ROTH.

Adsorber bags for removal of ethidium bromide from liquids.

Suitable for adsorption of ethidium bromide, propidium iodide, PicoGreen® and SYBR® Green.

Art. No.	Pack Qty.	Pack.	€
T856.2	10 unit(s)	bag	32,15
T856.1	50 unit(s)	box	138,70
T856.3	250 unit(s)	box	590,20

Selenium pellets

Se · D 4,809 g/cm³ · mp 220,8 °C · bp 685 °C
CAS No. 7782-49-2 · EC no. 231-957-4
UN no. 3288 · ADR 6.1 III · WGK 2

Danger H301+H331-H373-H413

Selenium pellets
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %
Particle size ..... ~3-6 mm

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
4547.1	10 g	plastic	64,00
4547.2	50 g	plastic	238,15

Selenium Standards

- Selenium AAS Standard Solution see page 1322
- Selenium ICP Standard Solution see page 1322
- Selenium ICP Standard Solution see page 1322

Selenium dioxide

- Selenium(IV) oxide see page 1255

Selenium(IV) oxide

Selenium dioxide

SeO_2 · D 3,95 g/cm³ · mp 340 °C
CAS No. 7446-08-4 · EC no. 231-194-7
UN no. 3283 · ADR 6.1 III · WGK 2

Danger H301+H331-H373-H410

Selenium(IV) oxide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5324.1	10 g	glass	181,70

Selenium(IV) oxide
≥99,5 %, p.a.

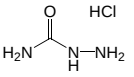
Type analysis
Assay ..... ≥99,5 %
As (Arsenic) ..... ≤0,005 %
Cd (Cadmium) ..... ≤0,0005 %
Cu (Copper) ..... ≤0,001 %
Fe (Iron) ..... ≤0,005 %
Ni (Nickel) ..... ≤0,001 %
Pb (Lead) ..... ≤0,005 %
Te (Tellur) ..... ≤0,05 %
Non volatile matters ..... ≤0,2 %
Insoluble matter ..... ≤0,2 %
Water ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
1L0N.1	100 g	plastic	37,10
1L0N.2	250 g	plastic	81,20
1L0N.3	500 g	plastic	146,75
Original pack 6 x 500 g			139,41/500 g
1L0N.4	1 kg	plastic	268,75
Original pack 6 x 1 kg			255,31/1 kg

SEM-chloride

- 2-(Trimethylsilyl)ethoxymethyl chloride see page 1381

Semicarbazide hydrochloride



N-Aminourea hydrochloride

CH_5N_3O · HCl · mp 175 to 180 °C
CAS No. 563-41-7 · EC no. 209-247-0
UN no. 2811 · ADR 6.1 III · WGK 1

Danger H301-H315-H319

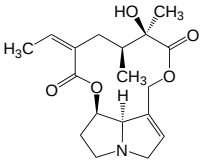
Semicarbazide hydrochloride
≥98 %, p.a.

Reagent for aldehydes and ketones.

Guarantee analysis
Assay ..... ≥98,0 %
Solution (10 % in water) ..... colorless
Loss on drying (105 °C) ..... ≤6,0 %

Art. No.	Pack Qty.	Pack.	€
4681.1	100 g	plastic	42,50
4681.2	500 g	plastic	152,15
Original pack 6 x 500 g			144,54/500 g

Senecionine



12-Hydroxysenecionan-11,16-dione · Aureine

$C_{18}H_{25}NO_5$ · mp 235 to 240 °C
CAS No. 130-01-8
UN no. 1544 · ADR 6.1 III · WGK 1

Danger H301

Senecionine
ROTICHROM® GC

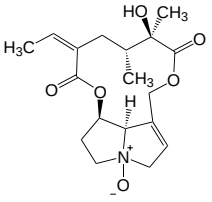
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥96 %

Art. No.	Pack Qty.	Pack.	€
2261.1	10 mg	glass	142,45

Senecionine *N*-oxide



12-Hydroxysenecionan-11,16-dione-4-oxide

$C_{18}H_{25}NO_6$
CAS No. 13268-67-2
UN no. 1544 · ADR 6.1 III · WGK 2

Danger H301-H373

Senecionine *N*-oxide
ROTICHROM® HPLC

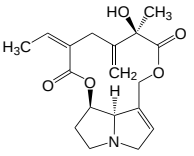
Reference substance for HPLC.
From *Senecio vulgaris.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
6734.1	10 mg	glass	514,95

Seneciphylline



α-Longilobine · 13,19-Didehydro-12-hydroxysenecionan-11,16-dione · Jacodin · Longilobin

$C_{18}H_{23}NO_5$ · mp 217 to 220 °C
CAS No. 480-81-9

Seneciphylline
ROTICHROM® with analytical records

From *Senecio vulgaris.*

Storage temperature: +4 °C

UN no. 1544 · ADR 6.1 III · WGK 1

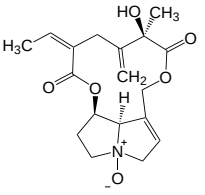
Danger H301

Type analysis
Purity (HPLC) ..... >99 %

Analytical records: HPLC, TLC, ^{1}H NMR, ^{13}C NMR, UV, IR, MS, melting point.

Art. No.	Pack Qty.	Pack.	€
1214.1	20 mg	glass	654,70

Seneciphylline *N*-oxide



$C_{18}H_{23}NO_6$
CAS No. 38710-26-8
UN no. 1544 · ADR 6.1 III · WGK 2

Danger H301-H373

Seneciphylline *N*-oxide
ROTICHROM® HPLC

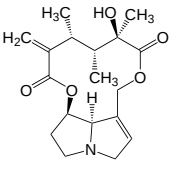
Reference substance for HPLC.
From *Senecio vulgaris.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
6735.1	10 mg	glass	590,20

Senecivernine



$C_{18}H_{25}NO_5$ · mp 103 to 108 °C
CAS No. 72755-25-0
WGK 1

Warning H302

Senecivernine
ROTICHROM® HPLC

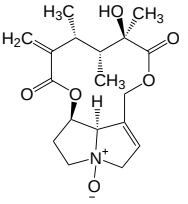
Reference substance for HPLC.
From *Senecio inaequidens*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥95,0 %

Art. No.	Pack Qty.	Pack.	€
2209.1	5 mg	glass	364,45

Senecivernine *N*-oxide



$C_{18}H_{25}NO_6$
WGK 1

Warning H302

Senecivernine *N*-oxide
ROTICHROM® HPLC

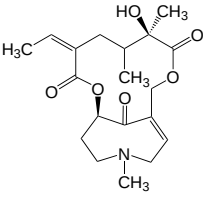
Reference substance for HPLC.
From *Senecio naequidens*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥95,0 %

Art. No.	Pack Qty.	Pack.	€
2215.1	5 mg	glass	381,65

Senkirkine



Renardin

$C_{19}H_{27}NO_6$ · mp 198 °C
CAS No. 6882-01-5
UN no. 1544 · ADR 6.1 II · WGK 2

Danger H301+H311+H331-H373

Senkirkine
ROTICHROM® HPLC

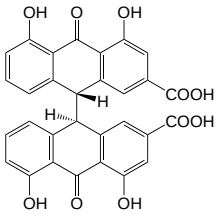
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
4934.1	10 mg	glass	407,45

Sennidine A



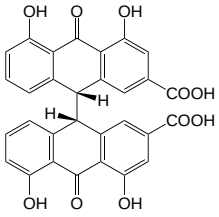
$C_{30}H_{18}O_{10}$
CAS No. 641-12-3 · EC no. 211-371-5
WGK 1

Sennidine A
ROTICHROM® ~CHR$_{TLC}$

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
7012.1	10 mg	glass	241,90

Sennidine B



$C_{30}H_{18}O_{10}$
CAS No. 517-44-2 · EC no. 208-239-4
WGK 1

Sennidine B
ROTICHROM® ~CHR$_{TLC}$

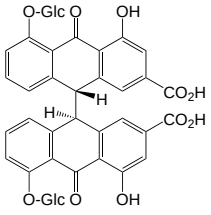
Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
7016.1	10 mg	glass	349,40

Sennoside A'

▸ Sennoside A1 see page 1257

Sennoside A



$C_{42}H_{38}O_{20}$ · mp 225 °C
CAS No. 81-27-6 · EC no. 201-339-9
WGK 1

Sennoside A
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥80,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤5,0 %
Assay (qNMR) ..... ≥75,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE53.1	50 mg	glass	1.235,20

Sennoside A
ROTICHROM® HPLC

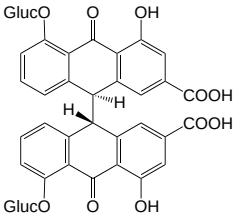
Reference substance for HPLC.
From *Cassia angustifolia.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
7423.1	10 mg	glass	149,45

Sennoside A1



Sennoside A' · Sennoside G

$C_{42}H_{38}O_{20}$ · mp 225 °C
CAS No. 66575-30-2
WGK 1

Sennoside A1
ROTICHROM® HPLC

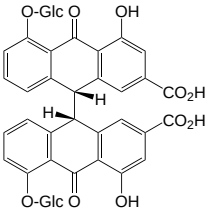
Reference substance for HPLC.
From *Cassia angustifolia.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
6693.1	10 mg	glass	375,20

Sennoside B



$C_{42}H_{38}O_{20}$ · mp 200 °C
CAS No. 128-57-4 · EC no. 204-895-0
WGK 1

Sennoside B
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥85,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤7,0 %
Assay (qNMR) ..... ≥80,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE54.1	50 mg	glass	1.235,20

Sennoside B
ROTICHROM® HPLC

Reference substance for HPLC.
From *Cassia angustifolia*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7424.1	10 mg	glass	246,20

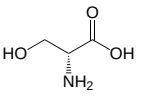
Sennoside G

▸ Sennoside A1 see page 1257

Sequencing gel solutions

▸ ROTIPHORESE®DNA sequencing system see page 1234

D-Serine



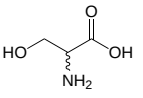
$C_3H_7NO_3$ · mp 215 to 225 °C
CAS No. 312-84-5 · EC no. 206-229-4
WGK 1

D-Serine
≥99 %, for biochemistry

Type analysis
Appearance ..... white, cryst. powder
Assay ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
7531.2	1 g	glass	14,95
7531.1	5 g	plastic	23,15
7531.3	25 g	plastic	93,45

DL-Serine



$C_3H_7NO_3$ · D 1,6 g/cm³ · mp 240 °C
CAS No. 302-84-1 · EC no. 206-130-6
WGK 1

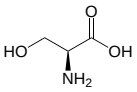
DL-Serine
≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white cryst. powder
Assay ..... ≥99,0 %
Heavy metals (as Pb) ..... ≤0,001 %
Ash content ..... ≤0,1 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8606.1	100 g	plastic	55,80
8606.2	500 g	plastic	235,45
Original pack 6 x 500 g			223,68/500 g

L-Serine



3-Hydroxy-L-alanin

$C_3H_7NO_3$ · mp 215 to 225 °C
CAS No. 56-45-1 · EC no. 200-274-3
WGK 1

L-Serine
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤6,0 E.U./g
Assay ..... ≥99,0 %
Loss on drying ..... ≤0,5 %
Specific rotation $[\alpha]_D^{20}$ ..... +14,0° to +15,5°
Ammonium (NH_4) ..... ≤0,05 %
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,05 %
Heavy metals (as Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %

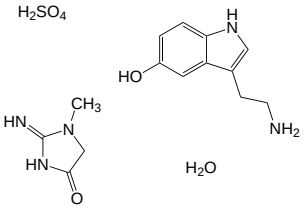
Art. No.	Pack Qty.	Pack.	€
1714.1	25 g	plastic	31,75
1714.2	100 g	plastic	80,55
1714.3	500 g	plastic	310,70
Original pack 6 x 500 g			295,17/500 g

L-Serine
≥98,5 %, Ph. Eur.

Guarantee analysis
Appearance ..... white, cryst. powder
Assay (dry substance) ..... 98,5-101,0 %
Identity ..... complies
Appearance of solution ..... complies
Specific rotation $[\alpha]_D^{20}$ ..... +14,0° to +16,0°
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,03 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %
Foreign amino acids ..... complies
Loss on drying ..... ≤0,5 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4682.1	100 g	plastic	56,90
4682.3	250 g	plastic	112,35
4682.4	500 g	plastic	203,20
Original pack 6 x 500 g			193,04/500 g
4682.2	1 kg	plastic	360,15
Original pack 6 x 1 kg			342,14/1 kg

Serotonin creatinine sulphate monohydrate



$C_{14}H_{21}N_5O_6S \cdot H_2O$ · mp 218 to 222 °C
CAS No. 61-47-2 · EC no. 213-539-3
WGK 1

Warning H361fd

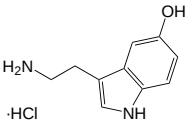
Serotonin creatinine sulphate monohydrate
≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (titr.) ..... ≥99,0 %
Melting point (dec.) ..... 218-222 °C
Water (KF) ..... 3,4-5,4 %

Art. No.	Pack Qty.	Pack.	€
8385.1	1 g	glass	174,70

Serotonin hydrochloride



3-(2-Aminoethyl)-5-hydroxyindole hydrochloride · 5-Hydroxytryptamine hydrochloride

$C_{10}H_{12}N_2O \cdot HCl$ · mp 168 to 171 °C
CAS No. 153-98-0 · EC no. 244-464-4
WGK 1

Warning H302+H312+H332-H315-H319-H335

Serotonin hydrochloride
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance .. white to almost white cryst. powder
Assay (arg.) ..... ≥98,0 %
Appearance of solution (1 % in MeOH) ..... colourless
Loss on drying (3 h, 115 °C, vacuum) ..... ≤5,0 %

Art. No.	Pack Qty.	Pack.	€
8367.1	100 mg	glass	26,35
8367.2	1 g	glass	49,35
8367.3	5 g	glass	192,45

SFP-Agar
▸ TSC Agar (Base) see page 1387

Shellac

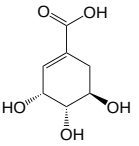
mp 65 to 80 °C · flp >300 °C
CAS No. 9000-59-3 · EC no. 232-549-9
WGK 1

Shellac
Orange lamella, dry flakes

Type analysis
Appearance ..... orange-coloured lamella
Acid value (mg KOH/g) 60-75
Melting point ..... 65-80 °C
Loss on drying ..... ≤2 %
Wax ..... ≤5,5 %

Art. No.	Pack Qty.	Pack.	€
9298.2	100 g	plastic	21,00
9298.3	500 g	plastic	62,25
Original pack 6 x 500 g			59,14/500 g
9298.1	1 kg	plastic	106,45
Original pack 6 x 1 kg			101,13/1 kg

Shikimic acid



$C_7H_{10}O_5$ · D 1,52 g/cm³ · mp 183 °C
CAS No. 138-59-0 · EC no. 205-334-2
WGK 1

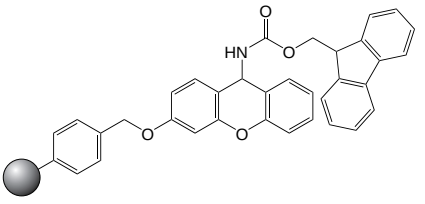
Shikimic acid
ROTICHROM® CHR ≥98 %, for biochemistry

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥98 %
Loss on drying ..... ≤5 %

Art. No.	Pack Qty.	Pack.	€
7305.2	250 mg	glass	28,95
7305.1	1 g	glass	96,65

Sialic acid
▸ *N*-Acetylneuraminic acid see page 703

Sieber amide resin



9-Fmoc-amino-xanthen-3-yloxy-Merrifield resin

WGK 1

Sieber amide resin
PEPTIPURE® 100–200 mesh

For peptide synthesis

Storage temperature: +4 °C

Type analysis
Appearance ..... white to slightly brown powder
Loading ..... 0,5-0,8 mmol/g
Swelling ..... 5-6 ml/g (DMF, 24 h)

Art. No.	Pack Qty.	Pack.	€
7408.1	1 g	glass	106,45
7408.2	5 g	plastic	428,95

Signal Enhancer Western/ELISA

Enhancer solution

Signal Enhancer Western/ELISA Set
for immunochemistry

For enhancement of immunochemical detection signals on blot membranes and in ELISA.

One set with 250 ml each is sufficient for optimization of approx. 25 minigel blots.

Storage temperature: +4 °C
Transport temperature: cooled

Type analysis
Application test (ELISA) ..... complies

Art. No.	Pack Qty.	Pack.	€
9211.1	1 kit	plastic	482,70
9211.2	1 kit	plastic	166,10

Signal Enhancer Western/ELISA-1
for immunochemistry

For optimisation of primary antibody binding in immunochemical assays.

One bottle with 250 ml is sufficient for approx. 25 assays.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Type analysis
Application test (ELISA) ..... complies

Art. No.	Pack Qty.	Pack.	€
9213.1	250 ml	plastic	278,45

Signal Enhancer Western/ELISA-2
for immunochemistry

For optimisation of binding of secondary and labelled antibodies in immunochemical assays.

Recommended for 1-antibody-assays (labelled).
One bottle with 250 ml is sufficient for approx. 25 assays.

D ~1 g/cm³

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Type analysis
Application test (ELISA) ..... complies

Art. No.	Pack Qty.	Pack.	€
9214.1	250 ml	plastic	278,45

SILAC (Stable Isotope Labelling by amino acids in cell culture)

- L-Lysine $^{13}C_6{}^{15}N_2$ hydrochloride see page 1053
- L-Arginine $^{13}C_6{}^{15}N_4$ monohydrochloride see page 752
- L- Arginine $^{13}C_6$ monohydrochloride see page 752
- L-Lysine $^{13}C_6$ hydrochloride see page 1053

Silica gel

CAS No. 7631-86-9 · EC no. 231-545-4

Silica gel 22

Silica gel 22 Grade 12
0,07–0,21 mm (200–70 mesh)

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis
Appearance ..... white powder
Pore volume (N_2) ..... ≤0,55 ml/g
Specific surface ..... ≥600 m²/g
Loss on drying ..... ≤5,0 %
pH value (5 % in H_2O) ..... ≥3,0
Volatile parts (950 °C) ..... ≤10,0 %
SiO_2 content (dry substance) ..... ≥99,4 %
Fe_2O_3 content (dry substance) ..... ≤0,03 %
Na_2O content (dry substance) ..... ≤0,3 %
SO_4 content ..... ≤0,4 %
80 % rel. humidity, 25 °C ..... ≥31,0 %
Bulk density ..... 640-800 g/l

Particle size distribution:
>30 mesh ..... ≤6,0 %
>70 mesh ..... ≥50,0 %
>140 mesh ..... ≥85,0 %
>200 mesh ..... ≥94,0 %
<200 mesh ..... ≤6,0 %

Art. No.	Pack Qty.	Pack.	€
9698.1	250 g	plastic	73,65
9698.2	500 g	plastic	111,30
Original pack 6 x 500 g			105,74/500 g
9698.3	1 kg	plastic	198,90
Original pack 6 x 1 kg			188,96/1 kg
9698.4	2.5 kg	plastic	385,95

Silica gel 35

Silica gel 35
0,04–0,063 mm (400–230 mesh)

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis
Appearance ..... white powder
Pore diameter ..... 25-40 Å
Loss on drying (160 °C) ..... ≤6 %
Pore volume (N_2) ..... 0,5-0,7 ml/g
Specific surface ..... ≥550 m²/g
pH-value 4,5-6,5
Volatile parts (950 °C) ..... ≤13,0 %
SiO_2 content (dry substance) ..... ≥99,4 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,1 %

Particle size distribution:
d10 ..... 23,4-41,1 µm
d50 ..... 48,2-65,3 µm
d90 ..... 75,5-96,0 µm

Art. No.	Pack Qty.	Pack.	€
5400.1	250 g	plastic	59,70
5400.2	500 g	plastic	105,90
Original pack 6 x 500 g			100,61/500 g
5400.3	1 kg	plastic	174,70
Original pack 6 x 1 kg			165,97/1 kg
5400.4	2.5 kg	plastic	338,65

Silica gel 60

Silica gel 60
0,006–0,035 mm

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis
Appearance ..... white powder
Pore diameter ..... 53-80 Å
Loss on drying (160 °C) ..... ≤6,0 %
Pore volume (N_2) ..... 0,8-1,0 ml/g
Specific surface ..... 500-600 m²/g
pH value 6,0-8,0
Volatile parts (950 °C) ..... ≤13,0 %
SiO_2 content (dry substance) ..... ≥99,4 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
D (90 %) ..... ≤50 µm
D (V, 0.12) ..... ≥6,5 µm

Art. No.	Pack Qty.	Pack.	€
9779.1	250 g	plastic	46,80
9779.2	500 g	plastic	82,25
Original pack 6 x 500 g			78,14/500 g
9779.3	1 kg	plastic	150,00
Original pack 6 x 1 kg			142,50/1 kg
9779.4	2.5 kg	plastic	268,75

Silica gel 60 Grade 710 NW
0,010–0,014 mm

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis
Appearance ..... white powder
Pore diameter ..... 53-80 Å
Loss on drying (200 °C) ..... ≤8,5 %
Pore volume (N_2) ..... 0,8-1,0 ml/g
Specific surface ..... 500-600 m²/g
pH value 6,5-8,0
Volatile parts (950 °C) ..... ≤13,0 %
SiO_2 content (dry substance) ..... ≥99,4 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
d10 ..... ≥5,5 µm
d50 ..... 10,0-14,0 µm
d90 ..... ≤23,0 µm

Art. No.	Pack Qty.	Pack.	€
9859.1	25 g	plastic	67,20
9859.2	50 g	plastic	120,30
9859.3	100 g	plastic	222,00

Silica gel 60
0,016–0,024 mm

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis
Appearance ..... white powder
Loss on drying (160 °C) ..... 3,0-9,0 %
Pore volume (H_2O) ..... 0,8-1,0 ml/g
Specific surface (BET) ..... 500-600 m²/g
pH value (5 % in H_2O) 6,0-8,0
Volatile parts (950 °C) ..... ≤13,0 %
SiO_2 content (dry substance) ..... ≥99,4 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,1 %

Particle size distribution:
d20 ..... ≥13,0 µm
d50 ..... 23,0-28,0 µm
d90 ..... ≤46,0 µm

Art. No.	Pack Qty.	Pack.	€
9817.1	250 g	plastic	97,75
9817.2	500 g	plastic	174,70
Original pack 6 x 500 g			165,97/500 g
9817.3	1 kg	plastic	321,45
Original pack 6 x 1 kg			305,38/1 kg
9817.4	2.5 kg	plastic	693,40

Silica gel 60
0,02–0,045 mm

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis
Appearance ..... white powder
Pore diameter ..... 53-80 Å
Loss on drying (160 °C) ..... ≤6 %
Pore volume (N_2) ..... 0,8-1,0 ml/g
Specific surface ..... 500-600 m^2/g
pH value 6,0-8,0
Volatile parts (950 °C) ..... ≤13,0 %
SiO_2 content (dry substance) ..... ≥99,4 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
D(V, 0.9) ..... ≤71,0 µm
D (V, 0.12) ..... ≥20,0 µm

Art. No.	Pack Qty.	Pack.	€
0712.1	250 g	plastic	40,75
0712.2	500 g	plastic	64,40
Original pack 6 x 500 g			61,18/500 g
0712.4	1 kg	plastic	112,35
Original pack 6 x 1 kg			106,73/1 kg
0712.3	2.5 kg	plastic	256,95

Silica gel 60
0,03–0,2 mm

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm^3 · mp 1713 °C

Type analysis
Appearance ..... white powder
Pore diameter ..... 53-80 Å
Loss on drying (160 °C) ..... ≤6,0 %
Pore volume (N_2) ..... 0,8-1,0 ml/g
Specific surface ..... 500-600 m^2/g
pH-value 6,0-8,0
Volatile parts (950 °C) ..... ≤13,0 %
SiO_2 content (dry substance) ..... ≥99,4 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
d10 ..... >30 µm
d90 ..... <250 µm

Art. No.	Pack Qty.	Pack.	€
P090.1	500 g	plastic	45,70
Original pack 6 x 500 g			43,42/500 g
P090.2	1 kg	plastic	82,25
Original pack 6 x 1 kg			78,14/1 kg
P090.3	2.5 kg	plastic	186,55
P090.4	5 kg	plastic	292,95
P090.5	25 kg	plastic	876,15

Silica gel 60
0,035–0,07 mm (400–220 mesh)

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm^3 · mp 1713 °C

Type analysis
Appearance ..... white powder
Pore diameter ..... 53-80 Å
Loss on drying (160 °C) ..... ≤6 %
Pore volume (N_2) ..... 0,8-1,0 ml/g
Specific surface ..... 500-600 m^2/g
pH-value 6,0-8,0
Volatile parts (950 °C) ..... ≤13,0 %
SiO_2 content (dry substance) ..... ≥99,4 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
d10 ..... ≥33 µm
d90 ..... ≤105 µm

Art. No.	Pack Qty.	Pack.	€
5401.1	250 g	plastic	40,75
5401.2	500 g	plastic	67,65
Original pack 6 x 500 g			64,27/500 g
5401.3	1 kg	plastic	117,20
Original pack 6 x 1 kg			111,34/1 kg
5401.4	2.5 kg	plastic	252,65

Silica gel 60
0,04–0,063 mm (400–230 mesh)

For column chromatography. Suitable for flash chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm^3 · mp 1713 °C

Type analysis
Appearance ..... white powder
Pore diameter ..... 53-80 Å
Loss on drying (160 °C) ..... ≤6,0 %
Pore volume (N_2) ..... 0,8-1,0 ml/g
Specific surface ..... 500-600 m^2/g
pH-value 6,0-8,0
Volatile parts (950 °C) ..... ≤13,0 %
SiO_2 content (dry substance) ..... ≥99,4 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
d10 ..... 23,4-41,1 µm
d50 ..... 48,2-65,3 µm
d90 ..... 75,5-96,0 µm

Art. No.	Pack Qty.	Pack.	€
P091.1	250 g	plastic	44,00
P091.2	1 kg	plastic	127,95
Original pack 6 x 1 kg			121,55/1 kg
P091.3	2.5 kg	plastic	292,95
P091.4	5 kg	plastic	439,70
P091.5	25 kg	plastic	1.558,75

Silica gel 60
0,07–0,2 mm

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm^3 · mp 1713 °C

Type analysis
Appearance ..... white powder
Pore diameter ..... 53-80 Å
Loss on drying (160 °C) ..... ≤6,0 %
Pore volume (N_2) ..... 0,8-1,0 ml/g
Specific surface ..... 500-600 m^2/g
pH value (5 % in H_2O) 6,0-8,0
Volatile parts (950 °C) ..... ≤13,0 %
SiO_2 content (dry substance) ..... ≥99,4 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
>0,063 mm ..... ≥98,0 %
>0,200 mm ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
9820.1	250 g	plastic	40,75
9820.2	500 g	plastic	70,45
Original pack 6 x 500 g			66,93/500 g
9820.3	1 kg	plastic	113,45
Original pack 6 x 1 kg			107,78/1 kg
9820.4	2.5 kg	plastic	194,05

Silica gel 60
0,09–0,13 mm

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,2 g/cm^3 · mp >1700 °C

Type analysis
Appearance ..... white powder
Pore diameter ..... 53-80 Å
Loss on drying (160 °C) ..... ≤6 %
pH value (5 % in H_2O) 6,0-8,0
Volatile parts (950 °C) ..... ≤13,0 %
SiO_2 content (dry substance) ..... ≥99,4 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content (dry substance) ..... ≤0,10 %

Particle size (µm):
>63 ..... ≥99,0 %
>90 ..... ≥90,0 %
>150 ..... ≤3,0 %

Art. No.	Pack Qty.	Pack.	€
0399.1	250 g	plastic	50,45
0399.2	500 g	plastic	87,65
Original pack 6 x 500 g			83,27/500 g
0399.3	1 kg	plastic	158,60
Original pack 6 x 1 kg			150,67/1 kg
0399.4	2.5 kg	plastic	321,45

Silica gel 60
0,2–0,5 mm

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm^3 · mp 1713 °C

Type analysis
Appearance ..... white powder
Pore diameter ..... 53-80 Å
Loss on drying (160 °C) ..... ≤6 %
Pore volume ..... 0,8-1,0 ml/g
Specific surface ..... 500-600 m^2/g
pH value 6,0-8,0
Volatile parts (950 °C) ..... ≤13,0 %
SiO_2 content (dry substance) ..... ≥99,4 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
<200µm ..... ≤10 %
>500 µm ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
CN18.1	500 g	plastic	64,00
Original pack 6 x 500 g			60,80/500 g
CN18.2	1 kg	plastic	111,30
Original pack 6 x 1 kg			105,74/1 kg
CN18.3	2.5 kg	plastic	246,20

Silica gel 60
1,0–3,0 mm

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm^3 · mp 1713 °C

Type analysis
Appearance ..... white powder
Pore diameter ..... 53-80 Å
Loss on drying (160 °C) ..... ≤6,0 %
Pore volume (N_2) ..... 0,8-1,0 ml/g
Specific surface ..... 500-600 m^2/g
pH value 6,0-8,0
Volatile parts (950 °C) ..... ≤13,0 %
SiO_2 content (dry substance) ..... ≥99,4 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %

SO_4 content ..... ≤0,10 %

Particle size distribution:
<1,0 mm ..... ≤5,0 %
>3,15 mm ..... ≤5,0 %
>3,55 mm ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
9833.1	250 g	plastic	51,10
9833.2	500 g	plastic	94,10
Original pack 6 x 500 g			89,40/500 g
9833.3	1 kg	plastic	162,90
Original pack 6 x 1 kg			154,76/1 kg
9833.4	2.5 kg	plastic	304,80

Silica gel 60 modified phases

Silica gel 60 amino
0,010–0,014 mm

For liquid chromatography. Normal or reversed-phase separations.

Silica gel NH_2

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis
Appearance ..... white powder
Pore diameter ..... 53-80 Å
Pore volume (N_2) ..... 0,8-1,0 ml/g
Specific surface ..... 500-600 m²/g
Carbon content ..... ~4 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
d10 ..... ≥5,5 µm
d50 ..... 10,0-14,0 µm
d90 ..... ≤23,0 µm

Art. No.	Pack Qty.	Pack.	€
0600.1	10 g	plastic	62,25
0600.2	50 g	plastic	222,00
0600.3	100 g	plastic	392,40

Silica gel 60 Amino
0,035–0,07 mm (400–220 mesh)

For liquid chromatography. Normal or reversed-phase separations.

Silica gel NH_2

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis
Appearance ..... white powder
Pore diameter ..... 53-80 Å
Pore volume (N_2) ..... 0,8-1,0 ml/g
Specific surface ..... 500-600 m²/g
Carbon content ..... 3,5-5,6 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
d50 ..... 47,0-60,0 µm
<31 µm ..... ≤17,0 %
<200 mesh ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
5475.1	50 g	glass	198,90
5475.2	100 g	glass	360,15
5475.3	250 g	glass	740,70

Silica gel 60 C_{18}
0,01–0,014 mm

For liquid chromatography. Reversed-phase separations.

Octadecyl-modified silica gel · Octacedyl modified silica – endcapped

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis
Appearance ..... white powder
Pore diameter ..... 53-80 Å
Pore volume (N_2) ..... 0,8-1,0 ml/g
Specific surface ..... 500-600 m²/g
Carbon content ..... 5-8 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
d10 ..... ≥5,5 µm
d50 ..... 10,0-14,0 µm
d90 ..... ≤23,0 µm

Art. No.	Pack Qty.	Pack.	€
5509.1	50 g	glass	205,90
5509.2	100 g	glass	396,70
5509.3	250 g	glass	833,15

Silica gel C_{18}
0,035–0,07 mm (400–220 mesh)

For liquid chromatography. Reversed-phase separations.

Octacedyl modified silica – endcapped

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis
Appearance ..... white powder
Pore diameter ..... 53-80 Å
Pore volume (N_2) ..... 0,8-1,0 ml/g
Specific surface ..... 500-600 m²/g
Carbon content ..... ~17 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
d50 ..... 47,0-60,0 µm
<31 µm ..... ≤17,0 %
<200 mesh ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
5504.1	50 g	glass	158,60
5504.2	100 g	glass	299,95
5504.3	250 g	glass	622,45

Silica gel 60 C_{18} ec
0,02–0,05 mm

For SPE and QuEChERS method

Octacedyl modified silica – endcapped

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis
Pore diameter ..... 55-75 Å
Particle size ..... 20-50 µm
Capacity (mg caffein/g sorbent) ..... ≥90
Loss on ignition ..... 17-23 %

Art. No.	Pack Qty.	Pack.	€
6070.1	10 g	glass	88,70
6070.2	25 g	glass	170,95

Silica gel cyano
0,01–0,014 mm

For liquid chromatography. Normal or reversed-phase separations.

Silica gel CN - endcapped

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis
Appearance ..... white powder
Pore diameter ..... 53-80 Å
Pore volume (N_2) ..... 0,8-1,0 ml/g
Specific surface ..... 500-600 m²/g
Carbon content ..... ~5 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
d10 ..... ≥5,5 µm
d50 ..... 10,0-14,0 µm
d90 ..... ≤23,0 µm

Art. No.	Pack Qty.	Pack.	€
5531.1	50 g	glass	253,20
5531.2	100 g	glass	446,15
5531.3	250 g	glass	951,40

Silica gel cyano
0,035–0,07 mm (400–220 mesh)

For liquid chromatography. Normal or reversed-phase separations.

Silica gel CN - endcapped

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis
Appearance ..... white powder
Pore diameter ..... 53-80 Å
Pore volume (N_2) ..... 0,8-1,0 ml/g
Specific surface ..... 500-600 m²/g
Carbon content ..... ~5 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
d50 ..... 47,0-60,0 µm
<31 µm ..... ≤17,0 %
<200 mesh ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
5499.1	50 g	glass	222,00
5499.2	100 g	glass	407,45
5499.3	250 g	glass	891,20

Silica gel 60 diamino
0,045 mm

For the QuEChERS method. Aminopropylmodified silica gel for pesticide residue analysis in food.

Aminopropyl-modified silica gel · PSA

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis
Mean pore diameter ..... 55-75 Å
Mean particle size ..... 20-50 µm
Capacity (mg caffein/g sorbent) ..... ≥15
Loss on ignition ..... ≤15 %

Art. No.	Pack Qty.	Pack.	€
4878.1	10 g	glass	105,90
4878.2	25 g	glass	224,70

Silica gel diol
0,010–0,014 mm

For liquid chromatography. Normal or reversed-phase separations.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis

Appearance ..... white powder
Pore diameter ..... 53-80 Å
Pore volume (N_2) ..... 0,8-1,0 ml/g
Specific surface ..... 500-600 m²/g
Carbon content ..... ~6,5 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
d10 ..... ≥5,5 µm
d50 ..... 10,0-14,0 µm
d90 ..... ≤23,0 µm

Art. No.	Pack Qty.	Pack.	€
0567.1	10 g	plastic	62,25
0567.2	50 g	plastic	222,00
0567.3	100 g	plastic	392,40

Silica gel diol
0,035–0,07 mm (400–220 mesh)

For liquid chromatography. Normal or reversed-phase separations.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis

Appearance ..... white powder
Pore diameter ..... 53-80 Å
Pore volume (N_2) ..... 0,8-1,0 ml/g
Specific surface ..... 500-600 m²/g
Carbon content ..... ~6,5 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
d50 ..... 47,0-60,0 µm
<31 µm ..... ≤17,0 %
<200 mesh ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
5458.1	50 g	glass	198,90
5458.2	100 g	glass	352,10
5458.3	250 g	glass	815,95

Silica gel 60 G

Silica gel 60 G
for TLC, with gypsum

For preparation of TLC plates.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,2 to 2,3 g/cm³ · mp 1713 °C

WGK 1

Type analysis

Loss on drying ..... <9 %
Calcium sulphate ($CaSO_4$) ..... 11-15 %
pH-value 5,5-7,5
Pore volume ..... 0,65-0,85 ml/g
Specific surface ..... 350-450 m²/g

Art. No.	Pack Qty.	Pack.	€
CN44.3	250 g	plastic	50,00
CN44.1	500 g	plastic	89,15
Original pack 6 x 500 g			84,69/500 g
CN44.2	1 kg	plastic	165,05
Original pack 6 x 1 kg			156,80/1 kg

Silica gel 60 N

Silica gel 60 N
for TLC, contains no binder

For preparation of TLC plates.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis

Particle size ..... 0-20 µm
Water ..... ≤9 %
pH value (5 % suspension) 5,5-7,5
Pore volume ..... ~0,8 ml/g
Specific surface ..... 350-450 m²/g
Mean particle sizing ..... 8-16 µm

Particle size distribution:
d5 ..... ≤22 µm
d95 ..... ≥2 µm

Art. No.	Pack Qty.	Pack.	€
CN46.1	500 g	plastic	94,10
Original pack 6 x 500 g			89,40/500 g
CN46.2	1 kg	plastic	162,90
Original pack 6 x 1 kg			154,76/1 kg

Silica gel 60 G/F_{254}

Silica gel 60 G/F_{254}
for TLC, with gypsum

For preparation of TLC plates.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,2 to 2,3 g/cm³ · mp 1713 °C

WGK 1

Type analysis

Particle size ..... 2-55 µm
Calcium sulphate ($CaSO_4$) ..... 11-15 %
pH value (5 % suspension) 5,5-7,5
Pore volume ..... 0,65-0,85 ml/g
Specific surface ..... 350-450 m²/g

Art. No.	Pack Qty.	Pack.	€
CN45.3	250 g	plastic	44,00
CN45.1	500 g	plastic	83,35
Original pack 6 x 500 g			79,18/500 g
CN45.2	1 kg	plastic	152,15
Original pack 6 x 1 kg			144,54/1 kg

Silica gel 60 P/F_{254}

Silica gel 60 P/F_{254}
for preparative TLC

For preparation of TLC plates.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis

Loss on drying ..... ≤9 %
pH value (5 % suspension) 5,5-7,5
Pore volume ..... 0,65-0,85 ml/g
Specific surface ..... 350-450 m²/g

Particle size distribution:
d5 ..... ≤55 µm
d95 ..... ≥2 µm

Art. No.	Pack Qty.	Pack.	€
CN47.3	250 g	plastic	51,10
CN47.1	500 g	plastic	91,95
Original pack 6 x 500 g			87,35/500 g
CN47.2	1 kg	plastic	162,90
Original pack 6 x 1 kg			154,76/1 kg

Silica gel 150

Silica gel 150
0,035–0,07 mm (400–220 mesh)

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis

Appearance ..... white powder
Pore diameter ..... ~150 Å
Loss on drying (160 °C) ..... ≤6 %
Pore volume (H_2O) ..... ≥1,05 ml/g
Specific surface ..... 285-355 m²/g
pH-value 6,0-8,0
Volatile parts (950 °C) ..... ≤13,0 %
SiO_2 content (dry substance) ..... ≥99,3 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
>32,0 µm ..... ≥90,0 %
>80,7 µm ..... ≤5,0 %

Art. No.	Pack Qty.	Pack.	€
5402.1	250 g	plastic	39,70
5402.2	500 g	plastic	63,35
Original pack 6 x 500 g			60,18/500 g
5402.3	1 kg	plastic	109,15
Original pack 6 x 1 kg			103,69/1 kg
5402.4	2.5 kg	plastic	246,20

Silica gel 150
0,07–0,2 mm (220–70 mesh)

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis

Appearance ..... white powder
Pore diameter ..... ~150 Å
Loss on drying (160 °C) ..... ≤6 %
Pore volume ..... ≥1,05 ml/g
Specific surface ..... 285-355 m²/g
pH-value 6,0-8,0
Volatile parts (950 °C) ..... ≤13,0 %
SiO_2 content (dry substance) ..... ≥99,3 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
d10 ..... >80 µm
d50 ..... 130-170 µm
d90 ..... <250 µm

Art. No.	Pack Qty.	Pack.	€
5403.1	250 g	plastic	39,70
5403.2	500 g	plastic	63,35
Original pack 6 x 500 g			60,18/500 g
5403.3	1 kg	plastic	109,15
Original pack 6 x 1 kg			103,69/1 kg
5403.4	2.5 kg	plastic	246,20

Silica gel 150
0,315–0,5 mm

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,2 g/cm³ · mp >1700 °C

Type analysis

Appearance ..... white powder
Pore diameter ..... 118-182 Å
Loss on drying (160 °C) ..... ≤6 %
Pore volume (H_2O) ..... ≥1,05 ml/g
Specific surface (BET) ..... 285-355 m²/g
pH value (5 % in H_2O) 6,0-8,0
Volatile parts (950 °C) ..... ≤13,0 %

SiO_2 content (dry substance) ..... ≥99,3 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content (dry substance) ..... ≤0,10 %

Particle size (µm):
<100 ..... ≤1,0 %
<250 ..... ≤2,0 %
<315 ..... ≤40,0 %
>500 ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
0485.1	250 g	plastic	45,70
0485.2	500 g	plastic	85,90
Original pack 6 x 500 g			81,61/500 g
0485.3	1 kg	plastic	152,15
Original pack 6 x 1 kg			144,54/1 kg
0485.4	2.5 kg	plastic	281,15

Silica gel 150
0,6–1,4 mm

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis
Appearance ..... white powder
Water (KF) ..... ≤4,0 %
Pore volume (H_2O) ..... ≥1,05 ml/g
Specific surface ..... 285-355 m²/g
pH value 6,0-8,0
Volatile parts (950 °C) ..... ≤13,0 %
SiO_2 content (dry substance) ..... ≥99,3 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
<0,63 mm ..... ≤5,0 %
>1,40 mm ..... ≤5,0 %

Art. No.	Pack Qty.	Pack.	€
9856.1	250 g	plastic	46,15
9856.2	500 g	plastic	82,25
Original pack 6 x 500 g			78,14/500 g
9856.3	1 kg	plastic	140,30
Original pack 6 x 1 kg			133,29/1 kg
9856.4	2.5 kg	plastic	256,95

Silica gel 250

Silica gel 250
0,04–0,063 mm (400–230 mesh)

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis
Appearance ..... white powder
Pore diameter ..... ~250 Å
Loss on drying (160 °C) ..... ≤6 %
Pore volume (N_2) ..... 1,60-1,95 ml/g
Specific surface ..... 280-355 m²/g
pH-value 6,0-8,0
Volatile parts (950 °C) ..... ≤13,0 %
SiO_2 content (dry substance) ..... ≥99,3 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
d12 ..... 23,4-41,1 µm
d50 ..... 48,2-65,3 µm
d90 ..... 75,5-96,0 µm

Art. No.	Pack Qty.	Pack.	€
5405.1	250 g	plastic	70,45
5405.2	500 g	plastic	128,50
Original pack 6 x 500 g			122,08/500 g
5405.3	1 kg	plastic	246,20
Original pack 6 x 1 kg			233,89/1 kg
5405.4	2.5 kg	plastic	547,10

Silica gel 500

Silica gel 500
0,035–0,07 mm (400–220 mesh)

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,1 to 2,2 g/cm³ · mp 1713 °C

Type analysis
Appearance ..... white powder
Pore diameter ..... ~500 Å
Loss on drying (160 °C) ..... ≤6 %
Pore volume (N_2) ..... ≥1,0 ml/g
Specific surface ..... 70-90 m²/g
Volatile parts (950 °C) ..... ≤10,0 %
SiO_2 content (dry substance) ..... ≥99,3 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,10 %

Particle size distribution:
d10 ..... ≥36 µm
d50 ..... 65-85 µm
d90 ..... ≤120 µm

Art. No.	Pack Qty.	Pack.	€
5407.5	100 g	plastic	198,90
5407.1	250 g	plastic	352,10
5407.2	500 g	plastic	676,20
Original pack 6 x 500 g			642,39/500 g
5407.3	1 kg	plastic	1.170,70
Original pack 6 x 1 kg			1.112,17/1 kg
5407.4	2.5 kg	plastic	2.633,75

Silica gel 500
0,09–0,13 mm

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,2 g/cm³ · mp >1700 °C

Type analysis
Appearance ..... white powder
Loss on drying (160 °C) ..... ≤6 %
Pore volume (H_2O) ..... ≥1,0 ml/g
Specific surface (BET) ..... 70-90 m²/g
Volatile parts (950 °C) ..... ≤10,0 %
SiO_2 content (dry substance) ..... ≥99,3 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content (dry substance) ..... ≤0,10 %

Particle size distribution:
>65 ..... ≥96,0 %
>90 ..... ≥70,0 %
>125 ..... 20-45 %
>150 ..... ≤24,5 %

Art. No.	Pack Qty.	Pack.	€
0512.1	50 g	plastic	80,10
0512.2	100 g	plastic	131,70
0512.3	250 g	plastic	268,75
0512.4	500 g	plastic	514,95
Original pack 6 x 500 g			489,20/500 g

Silica gel 500
0,1–0,3 mm

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,2 g/cm³ · mp >1700 °C

Type analysis
Appearance ..... white powder
Loss on drying (160 °C) ..... ≤6 %
Pore volume (H_2O) ..... ≥1,0 ml/g
Specific surface (BET) ..... 70-90 m²/g
Volatile parts (950 °C) ..... ≤10,0 %
SiO_2 content (dry substance) ..... ≥99,3 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content (dry substance) ..... ≤0,10 %

Particle size (µm):
<100 ..... ≤5,0 %
>315 ..... ≤2,0 %
>500 ..... 0 %

Art. No.	Pack Qty.	Pack.	€
0524.1	50 g	plastic	79,05
0524.2	100 g	plastic	131,70
0524.3	250 g	plastic	268,75
0524.4	500 g	plastic	493,45
Original pack 6 x 500 g			468,78/500 g

Silica gel 1000

Silica gel 1000
0,016–0,024 mm

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,2 g/cm³ · mp >1700 °C

Type analysis
Appearance ..... white powder
Loss on drying (160 °C) ..... ≤6 %
Specific surface (BET) ..... 30-55 m²/g
Volatile parts (950 °C) ..... ≤10,0 %
SiO_2 content (dry substance) ..... ≥99,3 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content (dry substance) ..... ≤0,10 %

Particle size:
d20 ..... ≥13 µm
d90 ..... ≤52 µm

Art. No.	Pack Qty.	Pack.	€
0533.1	10 g	plastic	39,70
0533.2	50 g	plastic	104,85
0533.3	100 g	plastic	182,25
0533.4	250 g	plastic	364,45

Silica gel 1000
0,035–0,07 mm (400–220 mesh)

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,2 g/cm³ · mp >1700 °C

Type analysis

Appearance ..... white powder
Pore diameter ..... ~1000 Å
Loss on drying (160 °C) ..... ≤6 %
Pore volume ..... ≥1,0 ml/g
Specific surface ..... 30-55 m^2/g
Volatile parts (950 °C) ..... ≤10,0 %
SiO_2 content (dry substance) ..... ≥99,3 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content ..... ≤0,1 %

Particle size distribution:
d10 ..... ≥36 µm
d50 ..... 62-85 µm

Art. No.	Pack Qty.	Pack.	€
5409.5	100 g	plastic	131,70
5409.1	250 g	plastic	281,15
5409.2	500 g	plastic	532,15
Original pack 6 x 500 g			505,54/500 g
5409.3	1 kg	plastic	1.037,40
Original pack 6 x 1 kg			985,53/1 kg
5409.4	2.5 kg	plastic	2.176,90

Silica gel 1000
0,09–0,13 mm

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,2 g/cm³ · mp >1700 °C

Type analysis

Appearance ..... white powder
Loss on drying (160 °C) ..... ≤6 %
Pore volume (H_2O) ..... ≥1,0 ml/g
Specific surface (BET) ..... 30-55 m^2/g
Volatile parts (950 °C) ..... ≤10,0 %
SiO_2 content (dry substance) ..... ≥99,3 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content (dry substance) ..... ≤0,10 %

Particle size (µm):
>65 ..... ≥96 %
>90 ..... ≥70 %
>125 ..... 20-45 %
>150 ..... ≤24,5 %

Art. No.	Pack Qty.	Pack.	€
0153.1	10 g	plastic	28,95
0153.2	50 g	plastic	79,05
0153.3	100 g	plastic	128,50
0153.4	250 g	plastic	281,15

Silica gel 1500

Silica gel 1500
0,016–0,024 mm

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,2 g/cm³ · mp >1700 °C

Type analysis

Appearance ..... white powder
Loss on drying (160 °C) ..... ≤6 %
Specific surface (BET) ..... 20-30 m^2/g
Volatile parts (950 °C) ..... ≤10,0 %
SiO_2 content (dry substance) ..... ≥99,3 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content (dry substance) ..... ≤0,10 %

Particle size distribution:
d50 ..... ~27 µm
d90 ..... ≤52 µm

Art. No.	Pack Qty.	Pack.	€
0559.1	10 g	plastic	38,60
0559.2	50 g	plastic	94,10
0559.3	100 g	plastic	174,70
0559.4	250 g	plastic	346,70

Silica gel 1500
0,09–0,13 mm

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,2 g/cm³ · mp >1700 °C

Type analysis

Appearance ..... white powder
Loss on drying (160 °C) ..... ≤6 %
Pore volume (H_2O) ..... ≥1,0 ml/g
Specific surface (BET) ..... 20-30 m^2/g
Volatile parts (950 °C) ..... ≤10,0 %
SiO_2 content (dry substance) ..... ≥99,3 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content (dry substance) ..... ≤0,10 %

Particle size (µm):
>65 ..... ≥96 %
>90 ..... ≥70 %
>125 ..... 20-45 %
>150 ..... ≤24,5 %

Art. No.	Pack Qty.	Pack.	€
0171.1	10 g	plastic	38,60
0171.2	50 g	plastic	128,50
0171.3	100 g	plastic	192,45
0171.4	250 g	plastic	478,40

Silica gel 2500

Silica gel 2500
0,09–0,13 mm

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,2 g/cm³ · mp >1700 °C

Type analysis

Appearance ..... white powder
Loss on drying (160 °C) ..... ≤6 %
Pore volume (H_2O) ..... ≥1,0 ml/g
Specific surface (BET) ..... 12-18 m^2/g
Volatile parts (950 °C) ..... ≤10,0 %
SiO_2 content (dry substance) ..... ≥99,3 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content (dry substance) ..... ≤0,10 %

Particle size (µm):
>65 ..... ≥96 %
>90 ..... ≥70 %
>125 ..... 20-45 %
>150 ..... ≤24,5 %

Art. No.	Pack Qty.	Pack.	€
0177.1	10 g	plastic	38,60
0177.2	50 g	plastic	128,50
0177.3	100 g	plastic	192,45

Silica gel 4500

Silica gel 4500
0,1–0,3 mm

For column chromatography.

Silicic acid, amorphous · Silicon dioxide

SiO_2 · D 2,2 g/cm³ · mp >1700 °C

Type analysis

Appearance ..... white powder
Loss on drying (160 °C) ..... ≤6 %
Pore volume (H_2O) ..... 0,9-1,2 ml/g
Specific surface (BET) ..... 8-12 m^2/g
Volatile parts (950 °C) ..... ≤13,0 %
SiO_2 content (dry substance) ..... ≥99,4 %
Fe_2O_3 content (dry substance) ..... ≤0,014 %
Na_2O content (dry substance) ..... ≤0,15 %
SO_4 content (dry substance) ..... ≤0,10 %

Particle size (µm):
<100 ..... ≤5,0 %
>315 ..... ≤2,0 %
>500 ..... 0 %

Art. No.	Pack Qty.	Pack.	€
0186.1	10 g	plastic	44,65
0186.2	50 g	plastic	141,40
0186.3	100 g	plastic	256,95

Silica gel with humidity indicator

- Silica Gel orange/green see page 1265
- Silica gels with humidity indicator see page 1264
- Silica gel blue see page 1264
- Silica Gel red/yellow see page 1265
- Silica Gel red/yellow see page 1265
- Silica Gel yellow/blue see page 1265
- Silica gel orange see page 1265

Silica gel without humidity indicator

- Silica gels without humidity indicator see page 1265
- Silica gel industry grade see page 1266

Silica gel water resistant

Drying pearls WS · Drying pearls water resistant · Drying agent water resistant

mp >550 °C · bp >999 °C
CAS No. 1327-36-2 · EC no. 215-475-1

Silica gel water resistant
2–5 mm, beads

Drying agent water resistant

Type analysis

Particle size ..... 2-5 mm
BET-surface ..... ca. 650 m^2/g
80 % rel. humidity ..... approx. 42 %

Regeneration at 130–150 °C.

Art. No.	Pack Qty.	Pack.	€
8109.1	500 g	plastic	33,90
Original pack 6 x 500 g			32,21/500 g
8109.2	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg
8109.3	2.5 kg	plastic	101,60
8109.4	10 kg	plastic	299,95

Silica gels with humidity indicator

Silica gel blue
2–4 mm, with indicator, beads

Drying agent

Silica gel with humidity indicator · Drying pearls blue

D 2,2 g/cm³ · mp 1713 °C · bp 2300 °C

CAS No. 7631-86-9 · EC no. 231-545-4

Type analysis
Particle size ..... 2-4 mm

Adsorptive capacity:
20 % rel. humidity ..... approx. 8 %
50 % rel. humidity ..... approx. 20 %

Filled under protective gas. Change in colour from blue to fuchsia. Regeneration at ca. 80–100 °C, approximately 2–4 hours.

Art. No.	Pack Qty.	Pack.	€
2440.1	500 g	plastic	21,40
Original pack 6 x 500 g			20,33/500 g
2440.2	1 kg	plastic	34,95
Original pack 6 x 1 kg			33,20/1 kg
2440.3	2.5 kg	plastic	70,45
2440.4	10 kg	plastic	233,85

Silica Gel yellow/blue
2.5–6 mm, with indicator, fractured

Drying agent

Drying pearls yellow/blue · Silica gel with humidity indicator

D 2,2 g/cm³ · mp >1700 °C

CAS No. 7631-86-9 · EC no. 231-545-4

Type analysis
Particle size ..... 2,5-6 mm

Adsorptive capacity:
20 % rel. humidity ..... approx. 11 weight-%
40 % rel. humidity ..... approx. weight-%
90 % rel. humidity ..... approx. 34 weight-%

Filled under protective gas. Change in colour from yellow to blue. Regeneration at max. 120 °C, approx. 4 hours.

Art. No.	Pack Qty.	Pack.	€
3650.1	500 g	plastic	26,35
Original pack 6 x 500 g			25,03/500 g
3650.2	1 kg	plastic	46,15
Original pack 6 x 1 kg			43,84/1 kg
3650.3	2.5 kg	plastic	96,25
3650.4	10 kg	plastic	317,15

Silica gel orange
2–5 mm, with indicator, beads

Drying agent

Silica gel with humidity indicator · Drying pearls orange

mp >550 °C · bp >999 °C

CAS No. 1327-36-2 · EC no. 215-475-1

Type analysis
Particle size ..... 2-5 mm
BET-surface ..... approx. 750 m²/g

Adsorptive capacity:
10 % rel. humidity ..... approx. 6,5 weight %
80 % rel. humidity ..... approx. 42 weight %

Filled under protective gas. Colour change from orange to colourless at approx. 6 weight-% load. Regeneration at 130 °C, approx. 4 hours.

Art. No.	Pack Qty.	Pack.	€
P077.4	500 g	plastic	32,15
Original pack 6 x 500 g			30,54/500 g
P077.1	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg
P077.2	2.5 kg	plastic	107,40
P077.3	10 kg	plastic	332,20

Silica Gel orange/green
2–5 mm, with indicator, beads

Drying agent

Drying pearls orange/green · Silica gel with humidity indicator

D 2,2 g/cm³ · mp >1700 °C

Type analysis
Particle size ..... 2-5 mm

Adsorptive capacity:
10 % rel. humidity ..... approx. 8 weight-%
20 % rel. humidity ..... aprox. 12 weight-%
30 % rel. humidity ..... approx. 20 weight-%
40 % rel. humidity ..... approx. 25 weight.-%
50 % rel. humidity ..... approx. 30 weight-%
60 % rel. humidity ..... approx. 35 weight-%

Filled under protective gas. Change in colour from orange to green. Regeneration at max. 110 °C, approx. 3–4 hours.

Art. No.	Pack Qty.	Pack.	€
1779.1	500 g	plastic	24,65
Original pack 6 x 500 g			23,42/500 g
1779.2	1 kg	plastic	42,90
Original pack 6 x 1 kg			40,76/1 kg
1779.3	2.5 kg	plastic	85,90
1779.4	10 kg	plastic	268,75

Silica Gel red/yellow
1–3 mm, with indicator, beads

Drying agent

Drying pearls red/yellow · Silica gel with humidity indicator

D 2,2 g/cm³ · mp >1700 °C

CAS No. 7631-86-9 · EC no. 231-545-4

Type analysis
Particle size ..... 1-3 mm

Adsorptive capacity:
40 % rel. humidity ..... approx. 20 weight %

Filled under protective gas. Change in colour from red to yellow. Regeneration at max. 120 °C, approx. 4 hours.

Art. No.	Pack Qty.	Pack.	€
3955.1	500 g	plastic	24,65
Original pack 6 x 500 g			23,42/500 g
3955.2	1 kg	plastic	42,90
Original pack 6 x 1 kg			40,76/1 kg
3955.3	2.5 kg	plastic	85,90
3955.4	10 kg	plastic	268,75

Silica Gel red/yellow
3–6 mm, with indicator, beads

Drying agent

Drying pearls red/yellow · Silica gel with humidity indicator

D 2,2 g/cm³ · mp >1700 °C

CAS No. 7631-86-9 · EC no. 231-545-4

Type analysis
Particle size ..... 3-6 mm

Adsorptive capacity:
20 % rel. humidity ..... approx. 8 weight %
50 % rel. humidity ..... approx. 20 weight %

Filled under protective gas. Change in colour from red to yellow. Regeneration at max. 120 °C, approx. 4 hours.

Art. No.	Pack Qty.	Pack.	€
4111.1	500 g	plastic	21,40
Original pack 6 x 500 g			20,33/500 g
4111.2	1 kg	plastic	34,95
Original pack 6 x 1 kg			33,20/1 kg
4111.3	2.5 kg	plastic	70,45
4111.4	10 kg	plastic	233,85

Silica gel Orange – Desiccant Sachet

Desiccant Sachets Silica Gel Orange

mp >1000 °C
WGK 1

Silica gel orange – Desiccant Sachets
10 g (4 × 9 cm), with indicator

Desiccant sachet made of white long fiber paper with Silica gel orange filling. **Regeneration is not possible.**

Type analysis

Adsorptive capacity:
20 % rel. humidity ..... approx. 10 %
40 % rel. humidity ..... approx. 19 %
50 % rel. humidity ..... approx. 23 %

Colour change from orange to colourless. Regeneration is not possible.

Art. No.	Pack Qty.	€
N077.2	75 unit(s)	42,50

Silica gel orange – Desiccant Sachets
25 g (10 × 10 cm), with indicator

Desiccant sachet made of white long fiber paper with Silica gel orange filling. **Regeneration is not possible.**

Type analysis

Adsorptive capacity:
20 % rel. humidity ..... approx. 10 %
40 % rel. humidity ..... approx. 19 %
50 % rel. humidity ..... approx. 23 %

Colour change from orange to colourless. Regeneration is not possible.

Art. No.	Pack Qty.	€
N078.1	30 unit(s)	35,40

Silica gel orange – Desiccant Sachets
50 g (9 × 12 cm), with indicator

Desiccant sachet made of white long fiber paper with Silica gel orange filling. **Regeneration is not possible.**

Type analysis

Adsorptive capacity:
20 % rel. humidity ..... approx. 10 %
40 % rel. humidity ..... approx. 19 %
50 % rel. humidity ..... approx. 23 %

Colour change from orange to colourless. Regeneration is not possible.

Art. No.	Pack Qty.	€
N079.1	20 unit(s)	50,45

Silica gels without humidity indicator

Silica gel without humidity indicator · Drying pearls white

SiO_2 · D 2,2 g/cm³ · mp >1700 °C
CAS No. 7631-86-9 · EC no. 231-545-4

Silica gel white
0,5–1 mm, granules

Drying agent

Type analysis
Bulk density ..... 650-770 g/l

Adsorptive capacity:
10 % rel. humidity ..... ≥5 weight %
80 % rel. humidity ..... ≥28 weight %

Regeneration at ca. 130 °C, approximately 4 hours.

Art. No.	Pack Qty.	Pack.	€
9376.1	1 kg	plastic	46,15
Original pack 6 x 1 kg			43,84/1 kg
9376.2	5 kg	plastic	162,90

Silica gel white
1–3 mm, granules

Drying agent

Type analysis

Adsorptive capacity:
10 % rel. humidity ..... approx. 6 weight %
80 % rel. humidity ..... approx. 32 weight %

Regeneration at ca. 130 °C, approximately 4 hours.

Art. No.	Pack Qty.	Pack.	€
T858.1	1 kg	plastic	51,50
Original pack 6 x 1 kg			48,93/1 kg
T858.2	5 kg	plastic	170,95

Silica gel industry grade

Silica gel without humidity indicator

D 2,2 g/cm³ · mp >1700 °C
CAS No. 7631-86-9

Silica gel industry grade
broken beads, w/o indicator

Universal drying agent, drying of buildings.

Type analysis
Appearance ..... Broken beads, transparent or translsucent glass-like
Particle size ..... 1-3 mm
Pore diameter ..... 2,0-3,0 nm
Specific surface (BET) ..... 650-800 m²/g
Residual humidity (at 150 °C) ..... ≤2 %
pH value 3,5-8,0
20 % rel. humidity ..... ≥10,5 %
40 % rel. humidity ..... ≥21,0 %
80 % rel. humidity ..... ≥32,0 %

Regeneration at 130–150 °C.

Art. No.	Pack Qty.	Pack.	€
CN70.1	1 kg	plastic	45,05
Original pack 6 x 1 kg			42,80/1 kg
CN70.2	5 kg	plastic	160,20
CN70.3	10 kg	plastic	299,95
CN70.4	25 kg	plastic	639,65

Silica sol

D 1,081 g/cm³ · bp 100 °C
WGK 1

Silica sol
15 % in water

Type analysis
pH value (25 °C) 9,0-10,0
Density (20 °C) ..... 1,09-1,1 g/cm³

Protect from frost.

Art. No.	Pack Qty.	Pack.	€
8025.1	1 l	plastic	32,15
Original pack 6 x 1 l			30,54/1 l

Silicic acid

Silicon dioxide

SiO_2 · D 2,2 g/cm³ · mp >1700 °C
CAS No. 7631-86-9 · EC no. 231-545-4

Silicic acid
for chromatography

Acc. to Ramsey and Patterson.

Type analysis
Silicate (SiO_2) ..... ≥99,0 %
Loss on ignition ..... ≤13 %

Art. No.	Pack Qty.	Pack.	€
0201.1	250 g	plastic	28,95
0201.2	1 kg	plastic	78,40
Original pack 6 x 1 kg			74,48/1 kg

Silicic acid, amorphous
▸ Silica gel see page 1259

Silicon Standards
▸ Silicon ICP Standard Solution see page 1322
▸ Silicon AAS Standard Solution see page 1322
▸ Silicon ICP Standard Solution see page 1322
▸ Silicon AAS Standard Solution see page 1322

Silicon dioxide

SiO_2 · D 2,2 g/cm³ · mp 1610 °C
CAS No. 60676-86-0 · EC no. 262-373-8

Silicon dioxide
ROTI®METIC 99,998 % (4N8)

Type analysis
Assay (metals basis) ..... 99,998 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5738.1	5 g	plastic	52,15
5738.2	25 g	plastic	144,60

Silicon dioxide
▸ Silica gel see page 1259
▸ Silicic acid see page 1266

Silicone anti-foaming emulsion

Defoamer

D 1 g/cm³ · mp ~0 °C · bp ~100 °C
WGK 1

Silicone anti-foaming emulsion 100

For use in non-aqueous, organic media. Suitable for adhesive production, paint production, lacquer production and polymerisation of plastics. Consists of polydimethylsiloxane with modified inorganic components. Applicable in the entire range of pH in non-ionic, cationic and anionic solutions. Above about pH 10, a time- and temperature-dependent reduction of the defoaming effect is to be expected.

The silicone antifoam emulsion 100 should be inserted into the medium where the foam is created before the working process. The foam already formed is very difficult to destroy afterwards. For defoaming in organic media, a very low concentration of about 2 ppm to 10 ppm is usually required. The defoaming effect or the optimal dosage should be determined in advance in the laboratory. Tip: To facilitate dosing, the silicone emulsion can be pre-diluted in the medium to be defoamed.

Type analysis
Defoaming effect (30 sec.) ..... ≤60 mm
Defoaming effect (200 sec.) ..... ≤100 mm
Viscosity (25 °C) ..... 900-2500 mPas

Art. No.	Pack Qty.	Pack.	€
1L15.1	250 ml	plastic	37,55
1L15.2	1 l	plastic	95,15
Original pack 6 x 1 l			90,39/1 l
1L15.3	2.5 l	plastic	181,70
Original pack 4 x 2.5 l			172,62/2.5 l

Silicone anti-foaming emulsion 30

Useful as anti-foaming agent in aqueous solutions of surfactants. The antifoam emulsion consists 30 % of polydimethylsiloxane in water and modified inorganic components. It applies to entire range of pH in non-ionic, cationic and anionic solutions. Above about pH 10, a time- and temperature-dependent reduction of the defoaming effect is to be expected.

Admixture upwards of 30 ppm. The antifoam emulsion must be homogenized by shaking briefly prior to use. When diluting, the emulsion should be placed in the vessel and the required amount of water added while stirring gently. Rapid stirring or shaking should be avoided. Shake well before using!

Type analysis
Appearance ..... white liquid
Defoaming effect (30 sec.) ..... ≤80 mm
Solids after 30 min./120 °C ..... 42,0-49,0 %

Art. No.	Pack Qty.	Pack.	€
0734.1	250 ml	plastic	34,30
0734.2	1 l	plastic	88,05
Original pack 6 x 1 l			83,65/1 l
0734.3	2.5 l	plastic	170,95
Original pack 4 x 2.5 l			162,40/2.5 l

Silicone-free antifoam

Silicone-free non-ionic antifoam

D 0,8 to 0,9 g/cm³ · mp 9 °C · bp >300 °C · flp 174 °C
WGK 2

Silicone-free antifoam

The composition is based on white oil, fatty acid derivatives and alkylpolyglycol ethers. Suitable for use in surfactant-containing aqueous solutions. Silicone-free defoamer can be used for aqueous mixtures in the pH range 2-12 and at higher temperatures.

Silicone-free defoamer can be used both as a foam prevention agent and for foam destruction. Use in pure form only in exceptional cases. Recommendation: 1:10 dilution with cold water. Mix the defoamer presented well with the same proportion of water and then slowly add the remaining water and mix homogeneously by hand or with a slow-running stirrer. The use of fast-running stirrers as well as the use of warm water should be avoided. Depending on the application, the recommended dosage in low-viscosity liquids is 0.05 to 2 g/l and in higher-viscosity systems up to 5 g/l. In the latter case, an additive should also be used. In the latter case, addition in pure form is also possible.

Type analysis
pH value (1 % in H_2O) 5-8

Art. No.	Pack Qty.	Pack.	€
1L2Y.1	500 ml	plastic	23,15
1L2Y.2	1 l	plastic	43,55
Original pack 6 x 1 l			41,37/1 l
1L2Y.3	2.5 l	plastic	88,05
Original pack 4 x 2.5 l			83,65/2.5 l

Silicone oils DC

Silicone oil DC 702
~45 cSt

D 1,09 g/cm³ · bp >300 °C · flp 380 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
0885.1	50 ml	glass	53,65

Silicone oils M

Thermal stability
In the presence of air, silicone oils M are stable up to 150 °C for a long time. If you impede the air supply they are even stable up to higher temperatures. If you stop the air supply totally, i.e. the oil is used in a closed system or in an inert atmosphere, e.g. in an atmosphere of nitrogen or carbon dioxide, the oils can be used up to peak temperatures of about 300 °C, but the viscosity will decrease continously.

Solubility
All silicone oils M can be solved easily in aliphatic and aromatic hydrocarbons, higher alcohols, ether, ester and chlorinated hydrocarbons, e.g.
petroleum benzine, benzene, toluene, ether, butyl alcohol, amyl alcohol, ethyl acetate, butyl acetate, carbon tetrachloride, chloroform, trichloroethylene, tetrachloroethane.

Silicon oils are not soluble in water, methanol and ethylene glycol. The solubility in organic solvents increases with decreasing viscosity. Therefore, in addition, silicone oils M 50 and M 100 are soluble in isopropanol and n-butanol and partially miscible with n-propanol. Silicone oils M with a viscosity below 20 $mm^2 \cdot s^{-1}$ can be solved in n-propanol and also in acetone and dioxane. Silicone oils M with a viscosity of 10 $mm^2 \cdot s^{-1}$ are even soluble in ethanol.

Lubricant and gliding properties
The lubrication properties of silicone oils M depend on the bearing material to a high degree. They give the best results with plastics, e.g. polyamides, polystyrene, phenol resins and with rubber. They are also suited as lubricants for some special combinations of metallic materials, e.g. steel combined with bronze, brass, chromium, zinc or cadmium, also chromium combined with bronze. However there is no lubricity when you combine steel with steel in the range of the critical friction. In each case you have to decide whether the use of pure silicone oils M is to be taken into account. It is necessary to distinguish between the lubricity and the gliding properties of the oils. Silicone oils M are excellent gliding agents in many cases, e.g. in the treatment of special plastics and man-made fibres. This property is not due to the building up of a load-bearing lubrication film, but to the separation effect of the silicone oils M.

Surface tension
The surface tension of the silicone oils M is in the range of about 19–21 mN · m^{-1}, so it is extremely low. It increases only a little with viscosity of the oils.

Refractive index
The refractive index of silicone oils M increases from n_D^{25} = 1.3941 for M 3 to 1.4000 for M 20, and it is almost constant at 1.4042 for M 1000 and higher.

Density
At 25 °C the densities of silicone oils M range between 0.90 and 0.97. So they are not very different from the density of water. With increasing viscosity the densities of the oils increase too. They depend on temperature nearly linear: The values mentioned above were measured between –40 °C and 175 °C.

Chemical inertness
Generally silicone oils M are inert. They are stable in contact with water, organic solvents, pure oxygen and many other chemicals. In contact with most metals they will not be changed, and on the other hand they will not corrode metals, wood, paper and plastics. Strong oxidising agents like concentrated nitric acid or elemental chlorine decompose silicone oils M especially at higher temperatures.

Main properties of silicone oils:

- Heat and cold resistance
- Low setting point
- Low temperature and pressure dependency of viscosity
- Low steam pressure
- Good dielectric strength, little depending on temperature and frequency
- High interfacial tension to water and organic polymers
- High surface activity
- High compressibility
- Chemical and physiological inertness

Due to these properties silicone oils M are ideal as:

- Heat transfer agents
- Hydraulic fluids
- Fluid dielectrics
- Surface agents
- Separating agents
- Gliding agents
- Defoamer
- Auxiliary agents in varnishes
- Damping fluids

Silicone oils M-series

Silicone oil M 2
low viscous, 2 cSt

Dodecamethylpentasiloxane

D 0,872 g/cm³ · bp 230 °C · flp 87 °C

CAS No. 141-63-9 · EC no. 205-492-2

WGK 1

Type analysis
Viscosity (25 °C) ..... 1,8-2,2 mm^2/s
Density (25 °C) 0,87
Pour point ..... ~-100 °C
Flash point ..... >87 °C

Art. No.	Pack Qty.	Pack.	€
2277.1	1 kg	plastic	75,15
Original pack 6 x 1 kg			71,39/1 kg
2277.2	5 kg	plastic	338,65
2277.3	10 kg	plastic	639,65
2277.4	25 kg	plastic	1.451,25

Silicone oil M 3
low viscous, 3 cSt

Polydimethyl siloxane

D 0,9 to 0,91 g/cm³ · mp -100 °C · flp >62 °C

CAS No. 63148-62-9

WGK 3

Type analysis
Viscosity (25 °C) ..... 2,7-3,3 mm^2/s
Density (25 °C) ..... ~0,90
Pour point ..... ~-100 °C
Flash point ..... >62 °C

Art. No.	Pack Qty.	Pack.	€
4106.1	1 kg	plastic	107,00
Original pack 6 x 1 kg			101,65/1 kg
4106.2	5 kg	plastic	424,65
4106.3	25 kg	plastic	1.929,65

Silicone oil M 5
low viscous, 5 cSt

Polydimethyl siloxane

D 0,92 to 0,93 g/cm³ · mp -100 °C · flp 120 °C

CAS No. 63148-62-9

WGK 3

Type analysis
Viscosity (25 °C) ..... 4,5-5,5 mm²/s
Density (25 °C) 0,92
Pour point ..... ~-100 °C
Flash point ..... >120 °C

Art. No.	Pack Qty.	Pack.	€
7844.1	1 l	plastic	55,80
Original pack 6 x 1 l			53,01/1 l
7844.2	5 l	plastic	220,40
Original pack 2 x 5 l			209,38/5 l
7844.3	10 l	plastic	421,95
7844.4	25 l	plastic	934,20

Silicone oil M 10
low viscous, 10 cSt

Polydimethyl siloxane

D 0,931 to 0,939 g/cm³ · mp -90 °C · flp 170 °C

CAS No. 63148-62-9

WGK 3

Type analysis
Viscosity (25 °C) ..... 9,0-11,0 mm²/s
Density (25 °C) 0,93-0,94
Pour point ..... -100 °C to -90 °C
Flash point ..... >165 °C

Art. No.	Pack Qty.	Pack.	€
4113.1	1 kg	plastic	65,50
Original pack 6 x 1 kg			62,23/1 kg
4113.2	5 kg	plastic	274,15
4113.4	10 kg	tinplate	525,70
4113.3	25 kg	plastic	1.149,20

Silicone oil M 20
low viscous, 20 cSt

Polydimethyl siloxane

D 0,95 to 0,96 g/cm³ · mp -70 °C · flp 240 °C

CAS No. 63148-62-9

WGK 3

Type analysis
Viscosity (25 °C) ..... 18-22 mm²/s
Density (25 °C) 0,95-0,96
Pour point ..... ~-70 °C
Flash point ..... ~240 °C

Art. No.	Pack Qty.	Pack.	€
4010.1	1 kg	plastic	60,10
Original pack 6 x 1 kg			57,10/1 kg
4010.3	5 kg	plastic	246,20
4010.4	10 kg	plastic	467,65
4010.2	25 kg	plastic	1.069,65

Silicone oil M 50
medium viscous, 50 cSt

Polydimethyl siloxane

D 0,967 to 0,975 g/cm³ · mp -55 °C · flp 280 °C

CAS No. 63148-62-9

WGK 1

Type analysis
Viscosity (25 °C) ..... 45-55 mm²/s
Density (25 °C) ..... ~0,96
Pour point ..... -70 to -55 °C
Flash point ..... >250 °C

Art. No.	Pack Qty.	Pack.	€
4020.1	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg
4020.4	5 kg	plastic	209,65
4020.2	10 kg	plastic	392,40
4020.3	25 kg	plastic	886,90

Silicone oil M 100
medium viscous, 100 cSt

Polydimethyl siloxane

D 0,96 to 0,97 g/cm³ · mp -55 °C · flp 300 °C

CAS No. 63148-62-9

WGK 1

Type analysis
Viscosity (25 °C) ..... 95-105 mm²/s
Density (25 °C) 0,97
Pour point ..... ~-55 °C
Flash point ..... >275 °C

Art. No.	Pack Qty.	Pack.	€
4025.5	250 ml	plastic	28,95
4025.1	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg
4025.2	5 kg	plastic	209,65
4025.3	10 kg	plastic	392,40
4025.4	25 kg	plastic	886,90

Silicone oil M 200
medium viscous, 200 cSt

Polydimethyl siloxane

D 0,967 to 0,975 g/cm³ · mp -50 °C · flp 310 °C

CAS No. 63148-62-9

WGK 3

Type analysis
Viscosity (25 °C) ..... 190-210 mm²/s
Pour point ..... ~-50 °C
Flash point ..... ~310 °C

Art. No.	Pack Qty.	Pack.	€
4030.1	1 kg	plastic	70,45
Original pack 6 x 1 kg			66,93/1 kg
4030.2	5 kg	plastic	317,15
4030.3	10 kg	plastic	575,15
4030.4	25 kg	plastic	1.236,25

Silicone oil M 350
medium viscous, 350 cSt

Polydimethyl siloxane

D 0,967 to 0,975 g/cm³ · mp -50 °C · flp 315 °C

CAS No. 63148-62-9

WGK 3

Type analysis
Viscosity (25 °C) ..... 333-368 mm²/s
Pour point ..... ~-50 °C
Flash point ..... >300 °C

Art. No.	Pack Qty.	Pack.	€
4035.6	250 ml	plastic	28,95
4035.1	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg
4035.5	2.5 kg	plastic	117,20
4035.2	5 kg	plastic	209,65
4035.4	10 kg	plastic	375,20
4035.3	25 kg	plastic	815,95

Silicone oil M 500
medium viscous, 500 cSt

Polydimethyl siloxane

D 0,962 to 0,97 g/cm³ · mp -47 °C · flp >300 °C

CAS No. 63148-62-9

WGK 1

Type analysis
Viscosity (25 °C) ..... 475-525 mm²/s
Density (25 °C) ..... ~0,97
Pour point ..... -50 to -47 °C
Flash point ..... >300 °C

Art. No.	Pack Qty.	Pack.	€
4040.5	250 ml	plastic	28,95
4040.1	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg
4040.2	5 kg	plastic	209,65
4040.4	10 kg	plastic	375,20
4040.3	25 kg	plastic	747,15

Silicone oil M 1000
medium viscous, 1 000 cSt

Polydimethyl siloxane

D 0,97 to 0,98 g/cm³ · mp -50 °C · flp 300 °C

CAS No. 63148-62-9

WGK 1

Type analysis
Viscosity (25 °C) ..... 950-1050 mm²/s
Density (25 °C) ..... ~0,97
Pour point ..... ~-50 °C
Flash point ..... >300 °C

Art. No.	Pack Qty.	Pack.	€
4045.5	250 ml	plastic	25,70
4045.1	1 kg	plastic	64,40
Original pack 6 x 1 kg			61,18/1 kg
4045.4	5 kg	plastic	256,95
4045.3	10 kg	plastic	467,65
4045.2	25 kg	plastic	962,15

Silicone oil M 5000
highly viscous, 5 000 cSt

Polydimethyl siloxane

D 0,97 to 0,98 g/cm³ · mp -50 °C · flp 320 °C

CAS No. 63148-62-9

WGK 3

Type analysis
Viscosity (25 °C) ..... 4750-5250 mm²/s
Density (25 °C) 0,97-0,98
Pour point ..... ~-50 °C
Flash point ..... ~320 °C

Art. No.	Pack Qty.	Pack.	€
4050.1	1 kg	plastic	77,30
Original pack 6 x 1 kg			73,44/1 kg
4050.2	5 kg	plastic	278,45
4050.3	10 kg	plastic	467,65
4050.4	25 kg	plastic	987,95

Silicone oil M 10 000
highly viscous, 10 000 cSt

Polydimethyl siloxane

D 0,97 to 0,98 g/cm³ · mp -50 °C · flp 320 °C

CAS No. 63148-62-9

WGK 3

Type analysis
Density (25 °C) 0,97-0,98
Viscosity (25 °C) ..... 9 500-11 000 mm²/s

Pour point ..... ~-50 °C
Flash point ..... ~320 °C

Art. No.	Pack Qty.	Pack.	€
4055.5	250 ml	plastic	30,00
4055.1	1 kg	plastic	82,70
Original pack 6 x 1 kg			78,57/1 kg
4055.2	5 kg	plastic	317,15
4055.4	10 kg	plastic	579,45
4055.3	25 kg	plastic	1.381,40

Silicone oil M 20 000
highly viscous, 20 000 cSt

Polydimethyl siloxane

D 0,97 to 0,98 g/cm³ · mp -50 °C · flp 320 °C

CAS No. 63148-62-9

WGK 3

Type analysis
Viscosity (25 °C) ..... 19 000-21 000 mm²/s
Density (25 °C) 0,97-0,98
Pour point ..... ~-50 °C
Flash point ..... ~320 °C

Art. No.	Pack Qty.	Pack.	€
4060.1	1 kg	plastic	77,30
Original pack 6 x 1 kg			73,44/1 kg
4060.3	5 kg	plastic	278,45
4060.4	10 kg	plastic	467,65
4060.2	25 kg	plastic	987,95

Silicone oil M 60 000
highly viscous, 60 000 cSt

Polydimethyl siloxane

D 0,97 to 0,98 g/cm³ · mp -50 °C · flp 320 °C

CAS No. 63148-62-9

WGK 3

Type analysis
Viscosity (25 °C) ..... 57000-63000 mm²/s
Density (25 °C) 0,97-0,98
Pour point ..... ~-50 °C
Flash point ..... ~320 °C

Art. No.	Pack Qty.	Pack.	€
4080.1	1 kg	plastic	80,10
Original pack 6 x 1 kg			76,10/1 kg
4080.2	5 kg	plastic	289,20
4080.3	10 kg	plastic	478,40
4080.4	25 kg	plastic	1.009,45

Silicone oil M 100 000
highly viscous, 100 000 cSt

Polydimethyl siloxane

D 0,97 to 0,98 g/cm³ · mp -50 °C · flp 320 °C

CAS No. 63148-62-9

WGK 3

Type analysis
Viscosity (25 °C) ..... 95 000-105 000 mm²/s
Density (25 °C) 0,97-0,98
Pour point ..... ~-50 °C
Flash point ..... ~320 °C

Art. No.	Pack Qty.	Pack.	€
4085.1	1 kg	plastic	81,20
Original pack 6 x 1 kg			77,14/1 kg
4085.3	5 kg	plastic	292,95
4085.2	10 kg	plastic	493,45
4085.4	25 kg	plastic	1.052,45

Silicone oil M 250 000
highly viscous, 250 000 cSt

Polydimethyl siloxane

D 0,97 to 0,98 g/cm³ · mp -40 °C · flp 320 °C

CAS No. 63148-62-9

WGK 3

Type analysis
Viscosity (25 °C) ..... 225000-275000 mm²/cm
Density (25 °C) 0,97-0,98
Pour point ..... ~-40 °C
Flash point ..... ~320 °C

Art. No.	Pack Qty.	Pack.	€
4112.1	1 kg	plastic	155,90
Original pack 6 x 1 kg			148,11/1 kg
4112.2	5 kg	plastic	665,45
4112.3	10 kg	plastic	1.263,15

Silicone oil M 500 000
super highly viscous, 500 000 cSt

Polydimethyl siloxane

D 0,97 to 0,98 g/cm³ · mp -40 °C · flp >300 °C

CAS No. 63148-62-9

WGK 1

Type analysis
Viscosity (25 °C) ..... ~500 000 mm²/s
Density (25 °C) 0,97-0,98
Pour point ..... ~-40 °C
Flash point ..... ~320 °C

Art. No.	Pack Qty.	Pack.	€
4109.1	1 kg	plastic	145,15
Original pack 6 x 1 kg			137,89/1 kg
4109.3	5 kg	plastic	633,20
4109.4	10 kg	plastic	1.138,45
4109.2	25 kg	plastic	2.633,75

Silicone oil M 1 000 000
super-highly viscous, 1 000 000 cSt

Polydimethyl siloxane

D 0,97 to 0,98 g/cm³ · mp -40 °C · flp 320 °C

CAS No. 63148-62-9

WGK 3

Type analysis
Viscosity (25 °C) ..... 900 000-1 100 000 mm²/s
Density (25 °C) 0,97-0,98
Pour point ..... ~-40 °C
Flash point ..... ~320 °C

Art. No.	Pack Qty.	Pack.	€
9375.1	1 kg	plastic	123,65
Original pack 6 x 1 kg			117,47/1 kg
9375.2	5 kg	plastic	532,15
9375.3	10 kg	plastic	998,70
9375.4	25 kg	plastic	2.252,15

Silicone oils M-series, pharma

WGK 1

Silicone oil MPH 100
medium viscous, pharma

D 0,967 to 0,975 g/cm³ · flp >300 °C

Guarantee analysis
Appearance ..... complies
Viscosity (25 °C) ..... 95-105 mm²/s
Acid content (HCl) ..... ≤0,0001 %
Volatile parts (1 g, 2 h, 150 °C) ..... ≤0,3 %
Odour ..... complies
IR-spectrum ..... complies
UV-spectrum ..... complies
Heavy metals (as Pb) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
6822.1	25 kg	plastic	944,95

Silicone oil MPH 350
medium viscous, pharma

D 0,97 to 0,98 g/cm³ · mp -50 °C · flp >300 °C

Guarantee analysis
Appearance ..... complies
Viscosity (25 °C) ..... 333-368 mm²/s
Acid value ..... ≤0,15 ml
Volatile parts (1 g, 2 h, 150 °C) ..... ≤0,3 %
IR-spectrum ..... complies
UV-spectrum (Composés phénytaux) ... complies
Fluorescence (quinine sulphate reference)
..... ≤0,1 ppm

Art. No.	Pack Qty.	Pack.	€
6825.1	25 kg	plastic	944,95

Silicone oil MPH 1000
medium viscous, pharma

D 0,967 to 0,975 g/cm³ · flp 300 °C

Guarantee analysis
Viscosity (25 °C) ..... 950-1050 mm²/s
Acid value ..... ≤0,15 ml
Volatile parts (1 g, 2 h, 150 °C) ..... ≤0,3 %
Appearance ..... complies
Odour ..... complies
IR-spectrum ..... complies
UV-spectrum ..... complies

Art. No.	Pack Qty.	Pack.	€
2190.3	25 kg	plastic	940,65

Silicone oils M-series, stabilised

Silicone oil M 3
low viscous, stabilised

D 0,9 to 0,91 g/cm³ · mp -100 °C · flp >62 °C

WGK 3

Type analysis
Appearance ..... yellowish-brown liquid
Viscosity (25 °C) ..... 2,7-3,3 mm²/s
Density (25 °C) ..... 0,90-0,91 g/cm³
Pour point ..... ~ -100 °C
Flash point ..... ~ 62 °C
Ignition point ..... ~ 110 °C

Art. No.	Pack Qty.	Pack.	€
4217.3	1 l	plastic	123,65
Original pack 6 x 1 l			117,47/1 l
4217.4	5 l	plastic	532,15
Original pack 2 x 5 l			505,54/5 l
4217.2	10 l	plastic	998,70
4217.1	25 kg	plastic	2.418,75

Silicone oil M 5
low viscous, stabilised

D 0,92 to 0,93 g/cm³ · mp -100 °C · flp 120 °C

WGK 3

Type analysis

Appearance ..... yellowish-brown liquid
Viscosity (25 °C) ..... 4,5-5,5 mm²/s
Density (25 °C) ..... 0,92-0,93 g/cm³
Pour point ..... ~ -100 °C
Flash point ..... ~ 120 °C

Art. No.	Pack Qty.	Pack.	€
A413.3	1 l	plastic	75,15
Original pack 6 x 1 l			71,39/1 l
A413.2	5 l	plastic	338,65
Original pack 2 x 5 l			321,72/5 l
A413.4	10 l	plastic	639,65
A413.1	25 kg	plastic	1.417,95

Silicone oil M 20
low viscous, stabilised

D 0,95 to 0,96 g/cm³ · mp -70 °C · flp 240 °C

WGK 3

Type analysis

Appearance ..... yellowish-brown liquid
Viscosity (25 °C) ..... 18-22 mm²/s
Density (25 °C) ..... 0,95-0,96 g/cm³
Pour point ..... ~ -70 °C
Flash point ..... ~ 240 °C

Art. No.	Pack Qty.	Pack.	€
2188.3	1 l	plastic	71,95
Original pack 6 x 1 l			68,35/1 l
2188.4	5 l	plastic	306,40
Original pack 2 x 5 l			291,08/5 l
2188.2	10 l	plastic	579,45
2188.1	25 kg	plastic	1.370,65

Silicone oil M 50
medium viscous, stabilised

D 0,967 to 0,975 g/cm³ · mp -60 °C · flp 280 °C

WGK 1

Type analysis

Appearance ..... yellowish-brown liquid
Viscosity (25 °C) ..... 45-55 mm²/s
Density (25 °C) ..... 0,96-0,97 g/cm³
Pour point ..... ~ -60 °C
Flash point ..... ~ 280 °C
Ignition point ..... ~ 350 °C

Art. No.	Pack Qty.	Pack.	€
4212.3	1 l	plastic	74,20
Original pack 6 x 1 l			70,49/1 l
4212.4	10 l	plastic	575,15
4212.2	5 kg	plastic	310,70
4212.1	25 kg	plastic	1.343,75

Silicone oil M 100
medium viscous, stabilised

D 0,97 to 0,98 g/cm³ · mp -50 °C · flp 300 °C

WGK 1

Type analysis

Appearance ..... yellowish-brown liquid
Viscosity (25 °C) ..... 95-105 mm²/s
Density (25 °C) ..... 0,97-0,98 g/cm³
Pour point ..... ~ -50 °C
Flash point ..... ~ 300 °C
Ignition point ..... ~ 370 °C

Art. No.	Pack Qty.	Pack.	€
A528.4	1 l	plastic	78,40
Original pack 6 x 1 l			74,48/1 l
A528.2	5 l	plastic	317,15
Original pack 2 x 5 l			301,29/5 l
A528.3	10 l	plastic	575,15
A528.1	25 kg	plastic	1.273,90

Silicone oils M-series, coloured

Polydimethyl siloxane

Silicone oil M 1000 red
medium viscous, 1 000 cSt

D 0,97 to 0,98 g/cm³ · flp 280 °C

CAS No. 63148-62-9

WGK 1

Type analysis

Viscosity (25 °C) ..... 950-1050 mm²/s

Art. No.	Pack Qty.	Pack.	€
2362.2	1 kg	plastic	74,20
Original pack 6 x 1 kg			70,49/1 kg
2362.1	25 kg	plastic	1.299,70

Silicone oil M 1000 light blue
medium viscous, 1 000 cSt

WGK 1

Type analysis

Viscosity (25 °C) ..... 950-1050 mm²/s

Art. No.	Pack Qty.	Pack.	€
A132.1	1 kg	plastic	83,35
Original pack 6 x 1 kg			79,18/1 kg

Silicone oil M 80 000 blue
highly viscous, 80 000 cSt

D 0,97 g/cm³ · flp >300 °C

Type analysis

Art. No.	Pack Qty.	Pack.	€
5467.1	1 kg	plastic	134,40
Original pack 6 x 1 kg			127,68/1 kg

Silicone oil M 140 000 red
medium viscous, 140 000 cSt

D 0,98 g/cm³ · flp 300 °C

WGK 1

Type analysis

Viscosity (25 °C) ..... 126,000-154,000 cst

Art. No.	Pack Qty.	Pack.	€
4069.1	1 kg	plastic	134,40
Original pack 6 x 1 kg			127,68/1 kg

Silicone oil M 500 000 light blue
medium viscous, 500 000 cSt

D 0,97 to 0,98 g/cm³ · flp >300 °C

WGK 3

Type analysis

Viscosity (25 °C) ..... 500000 mm²/s

Art. No.	Pack Qty.	Pack.	€
3132.1	1 kg	plastic	134,40
Original pack 6 x 1 kg			127,68/1 kg

Silicone oil, organofunctional

D 0,97 g/cm³ · mp -50 °C · bp 170 °C · flp >100 °C
WGK 1

Silicone oil OF-OH 50
organo functional

Type analysis

Viscosity (25 °C) ..... 40-70 mm²/s
Hydroxyl value 90-110
Water ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4076.1	25 kg	plastic	3.214,25

Silicone oils, phenylsubstituted

Phenyl-substituted dimethylsiloxane

WGK 1

Silicone oil PN 200
medium viscous, 200 cSt

D 1,04 g/cm³ · mp -55 °C · bp >315 °C · flp >295 °C

Type analysis

Viscosity (25 °C) ..... 180-220 mm²/s
Density (25 °C) ..... ~1,03

Art. No.	Pack Qty.	Pack.	€
4130.1	1 kg	plastic	170,95
Original pack 6 x 1 kg			162,40/1 kg
4130.2	5 kg	plastic	714,90
4130.3	25 kg	plastic	3.278,75

Silicone oil PN 1000
medium viscous, 1 000 cSt

D 1,07 g/cm³ · mp -17 °C · bp >300 °C · flp 285 °C

Type analysis

Viscosity (25 °C) ..... 925-1075 mm²/s
Density (25 °C) ..... ~1,07
Flash point ..... ~285 °C
Combustion point ..... ~425 °C

Art. No.	Pack Qty.	Pack.	€
6826.1	1 kg	plastic	166,65
Original pack 6 x 1 kg			158,32/1 kg
6826.2	5 kg	plastic	708,45
6826.3	25 kg	plastic	3.219,65

Silicone oils TT-series

Silicone oil TT 2
low viscous, 2 cSt, dried

Dodecamethylpentasiloxane

D 0,872 g/cm³ · flp 87 °C

WGK 1

Type analysis

Water ..... ≤0,005 %
Viscosity (25 °C) ..... 1,8-2,2 mm²/s

Art. No.	Pack Qty.	Pack.	€
1965.1	25 kg	plastic	2.569,25

Silicone oil TT 3
low viscous, 3 cSt, dried

Polydimethyl siloxane

D 0,9 to 0,91 g/cm³ · flp >62 °C

WGK 3

Type analysis
Water ..... ≤0,005 %
Viscosity (25 °C) ..... 2,7-3,3 mm²/s
Flash point ..... ≥62 °C

Art. No.	Pack Qty.	Pack.	€
1952.1	25 kg	plastic	2.526,25

Silicone oil TT 5
low viscous, 5 cSt, dried

Polydimethyl siloxane

D 0,92 to 0,93 g/cm³ · flp 120 °C

WGK 3

Type analysis
Water ..... ≤0,005 %
Viscosity (25 °C) ..... 4,5-5,5 mm²/s
Flash point ..... ≥120 °C

Art. No.	Pack Qty.	Pack.	€
1971.1	25 kg	plastic	2.096,25

Silicone paste

Heat resistance
Silicone pastes are stable within temperature range of –40 to +200 °C without any considerable change in their consistency.

Chemical resistance
Silicone pastes are resistant to steam, sulphur dioxide, diluted acids and alkaline solutions. They are chemically indifferent to metals and different kinds of plastic.

Applications:

- Laboratory techniques as an antiseize agentand lubricant for stopcocks, taper ground joints and regulating valves. Also suitable for sealing various glass apparatus.
- Apparatus engineering
- Electrotechnology

Silicone paste

WGK 1

Silicone paste
low viscous

D 0,97 g/cm³ · flp >250 °C

Type analysis
Appearance ..... whitish/translucent
Penetration (acc. to Klein) ..... 300 ±30
Consistency (30 h/200 °C) ..... stable

Art. No.	Pack Qty.	Pack.	€
5872.3	500 g	plastic	53,25
Original pack 6 x 500 g			50,59/500 g
5872.1	1 kg	plastic	90,85
Original pack 6 x 1 kg			86,31/1 kg
5872.2	5 kg	plastic	396,70
5872.4	10 kg	plastic	751,45

Silicone paste
medium viscous

D 0,97 g/cm³ · flp >300 °C

Type analysis
Appearance ..... whitish/translucent
Penetration (acc. to Klein) ..... 270 ±30
Consistency (30 h/200 °C) ..... stable

Art. No.	Pack Qty.	Pack.	€
5874.3	500 g	plastic	53,25
Original pack 6 x 500 g			50,59/500 g
5874.1	1 kg	plastic	90,85
Original pack 6 x 1 kg			86,31/1 kg
5874.2	5 kg	plastic	396,70

Silicone paste
highly viscous

D 0,97 g/cm³ · flp >300 °C

Type analysis
Appearance ..... whitish/translucent
Decrease in weight (30 h/200 °C) ..... <3 %
Penetration (acc. to Klein) ..... 200 ±30
Consistency (30 h/200 °C) ..... stable

Art. No.	Pack Qty.	Pack.	€
5876.7	100 g	plastic	21,40
5876.3	500 g	plastic	54,75
Original pack 6 x 500 g			52,01/500 g
5876.1	1 kg	plastic	93,45
Original pack 6 x 1 kg			88,78/1 kg
5876.2	5 kg	plastic	413,90

Silicone release agent SPM

Polydimethylsiloxane/Alumosiloxane

D 0,97 g/cm³ · mp -60 °C · flp >250 °C
WGK 1

Silicone release agent SPM

For the production of casting and moulded plastic parts. More heat stable than wax-based release agents.

Shake the silicone release agent SPM well before application. Apply very thinly using a brush or cloth to the mould surface to be treated. Compressed air may help to distribute the release agent evenly and remove potential excess.

Solids (120 °C) ..... 98,0-100,0 %

Art. No.	Pack Qty.	Pack.	€
1824.2	1 l	plastic	102,05
Original pack 6 x 1 l			96,95/1 l
1824.1	5 l	plastic	428,95
Original pack 2 x 5 l			407,50/5 l
1824.3	25 kg	plastic	2.203,75

Silicone remover

D 0,83 g/cm³ · flp >63 °C
UN no. 3265 · ADR 8 II · WGK 1

Danger H304-H314

Silicone remover, liquid

First remove silicone from the treated surface with a knife or similar tool. Apply the liquid silicone remover with a brush on the surface to remove remaining residues. After a dwell time of 3-20 hrs. (depending on the thickness of the layer), wiped off the liquid silicone remover. Any remaining residue is then removed with a wet cloth.

Type analysis
Density (20 °C) ..... ca. 0,83 g/cm³
Solids (120 °C) ..... 18-21 %

Art. No.	Pack Qty.	Pack.	€
1K1E.1	500 ml	HDPE	30,00
1K1E.2	1 l	HDPE	42,90
Original pack 6 x 1 l			40,76/1 l
1K1E.3	5 l	HDPE	170,95
Original pack 2 x 5 l			162,40/5 l
1K1E.4	10 l	HDPE	317,15

Silvan
▸ 2-Methylfuran see page 1084

Silver

Ag · D 10,5 g/cm³ · mp 961 °C · bp 2187 °C
CAS No. 7440-22-4 · EC no. 231-131-3

Silver sheet
100 × 100 × 0,1 mm

Weight per sheet ~10,5 g

Type analysis
Assay ..... ≥99,9 %

Art. No.	Pack Qty.	Pack.	€
8816.1	1 unit(s)	cardboard	92,35

Silver wire
≥99,9 %, Ø 0,1 mm

Weight per meter ~0,082 g

Type analysis
Assay ..... ≥99,9 %
Length (m) ..... 310 m (~25 g)
Diameter ..... 0,1 mm

Art. No.	Pack Qty.	Pack.	€
8819.1	350 m	plastic	193,50

Silver wire
≥99,9 %, Ø 0,5 mm

Weight per meter ~2,062 g

Type analysis
Assay ..... ≥99,9 %
Diameter ..... 0,5 mm

Art. No.	Pack Qty.	Pack.	€
8821.1	25 g	plastic	222,00
8821.2	100 g	plastic	725,65

Silver pellets
≥99,99 %

Type analysis
Purity ..... ≥99,99 %

Art. No.	Pack Qty.	Pack.	€
0884.1	5 g	glass	46,15
0884.2	10 g	glass	85,90
0884.3	25 g	glass	193,50
0884.4	50 g	glass	370,90

Silver wool
≥99,9 %, for elemental analysis

Type analysis
Assay (arg.) ..... ≥99,9 %
Diameter ..... ~45-55 µm

Art. No.	Pack Qty.	Pack.	€
9373.1	10 g	plastic	106,45

Silver Standards

- Silver ICP Standard Solution see page 1322
- Silver AAS Standard Solution see page 1322
- Silver ICP Standard Solution see page 1322

Silver bromide

AgBr · D 6,473 g/cm³ · mp 432 °C
CAS No. 7785-23-1 · EC no. 232-076-8

Silver bromide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5739.1	5 g	plastic	82,70
5739.2	25 g	plastic	298,35

Silver chloride

AgCl · D 5,56 g/cm³ · mp 455 °C · bp 1547 °C
CAS No. 7783-90-6 · EC no. 232-033-3
UN no. 3077 · ADR 9 III · WGK 2

Warning H410

Silver chloride
ROTI®METIC 99,9999 % (6N)

Type analysis
Assay (metals basis) ..... 99,9999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

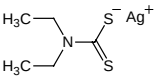
Art. No.	Pack Qty.	Pack.	€
5302.1	1 g	plastic	60,10
5302.2	5 g	plastic	103,75
5302.3	25 g	plastic	401,55

Silver chloride
≥99 %

Type analysis
Assay ..... ≥99 %
Assay (metals basis) ..... 74,51-75,26 %
Water ..... ≤0,2 %
In NH_4OH insoluble matter ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
6877.1	10 g	plastic	77,95
6877.2	25 g	plastic	140,30
6877.3	100 g	plastic	375,20

Silver diethyldithiocarbamate



Diethyldithiocarbamic acid silver salt

$C_5H_{10}AgNS_2$ · mp 172 to 175 °C
CAS No. 1470-61-7 · EC no. 216-003-7
WGK 1

Silver diethyldithiocarbamate
≥97 %, p.a.

Reagent for arsenic.

Dissolve 0.5 % in pyridine

Guarantee analysis
Assay ..... ≥97,0 %
Solubility (0,5 % in pyridine) ..... clearly soluble
Suitability for determination of arsenic .. complies

Art. No.	Pack Qty.	Pack.	€
KK25.1	5 g	glass	68,70
KK25.2	10 g	glass	125,70

Silver iodide

AgI · D 5,67 g/cm³ · mp 552 to 558 °C · bp 1506 °C
CAS No. 7783-96-2 · EC no. 232-038-0
UN no. 3077 · ADR 9 III · WGK 2

Warning H410

Silver iodide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L5C.1	5 g	glass	87,65
1L5C.2	25 g	glass	254,25

Silver iodide
≥99 %, extra pure

Type analysis
Appearance ..... fine bright yellow powder
Assay ..... ≥99,5 %
Chloride (Cl) ..... ≤0,0002 %
Sulphate (SO_4) ..... ≤0,005 %
Lead (Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0002 %
Copper (Cu) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
6630.1	25 g	glass	117,20
6630.2	100 g	glass	407,45

Silver nitrate

$AgNO_3$ · D 4,35 g/cm³ · mp 210 °C · bp 440 °C
CAS No. 7761-88-8 · EC no. 231-853-9
UN no. 1493 · ADR 5.1 II · WGK 3

Danger H272-H290-H314-H410

Silver nitrate
ROTI®METIC 99,9999 % (6N)

Type analysis
Assay (metals basis) ..... 99,9999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
4500.1	10 g	plastic	99,90
4500.2	50 g	plastic	450,45

Silver nitrate
≥99,9 %, p.a., Ultra Quality

Type analysis
Appearance ..... colourless to white crystalline powder
Assay ..... ≥99,9 %
Water content ..... ≤0,1 %
pH-value (10 % in H_2O) 3,6-5,0
Nitrite (NO_2) ..... ≤0,0002 %
Chloride (Cl) ..... ≤0,001 %
Antimony (Sb) ..... ≤0,00001 %
Bismuth (Bi) ..... ≤0,00001 %
Cadmium (Cd) ..... ≤0,00001 %
Calcium (Ca) ..... ≤0,0005 %
Chromium (Cr) ..... ≤0,00002 %
Copper (Cu) ..... ≤0,00001 %
Gold (Au) ..... ≤0,000001 %
Iridium (Ir) ..... ≤0,0000005 %
Iron (Fe) ..... ≤0,00004 %
Lead (Pb) ..... ≤0,00002 %
Manganese (Mn) ..... ≤0,00001 %
Nickel (Ni) ..... ≤0,00002 %
Palladium (Pd) ..... ≤0,000001 %
Platinum (Pt) ..... ≤0,0000005 %
Potassium (K) ..... ≤0,0005 %
Rhodium (Rh) ..... ≤0,0000005 %
Ruthenium (Ru) ..... ≤0,0000003 %
Selenium (Se) ..... ≤0,00001 %
Sodium (Na) ..... ≤0,008 %
Sulphur (S) ..... ≤0,0008 %
Tellur (Te) ..... ≤0,00004 %
Tin (Sn) ..... ≤0,00001 %
Zinc (Zn) ..... ≤0,00001 %
Particle size ..... >250 µm

Art. No.	Pack Qty.	Pack.	€
6874.1	10 g	plastic	49,35
6874.2	50 g	plastic	193,50
6874.3	250 g	plastic	698,75

Silver nitrate
≥99,9 %, p.a.

For detection of halogenides. For volumetric solutions in argentometry. For protein staining. For molecular biology.

Guarantee analysis
Assay ..... ≥99,9 %
Water ..... ≤0,1 %
Sulphate (SO_4) ..... ≤0,002 %
Lead (Pb) ..... ≤0,0001 %
Cadmium (Cd) ..... ≤0,0001 %
Calcium (Ca) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0001 %
Potassium (K) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0001 %
Sodium (Na) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
7908.1	50 g	plastic	149,45
7908.2	250 g	plastic	628,90
7908.3	1 kg	plastic	2.203,75
Original pack 6 x 1 kg			2.093,56/1 kg

Silver nitrate
≥99 %, Ph. Eur., extra pure

Guarantee analysis
Assay (titr.) ..... 99,0-100,5 %
Identity ..... complies
pH value (10 % in H_2O) 4,0-6,0
Appearance of solution ..... complies
Acid or alkaline react. substances ..... complies
Foreign salts ..... ≤0,3 %
Al, Pb, Cu, Bi ..... complies
Water content ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
9370.4	10 g	plastic	40,75
9370.1	50 g	plastic	140,30
9370.9	100 g	plastic	268,75
9370.2	250 g	plastic	585,90
9370.3	1 kg	plastic	2.096,25
Original pack 6 x 1 kg			1.991,44/1 kg

Silver nitrate
≥98 %, technical

Type analysis
Assay ..... ≥98,0 %
Loss on drying ..... ≤0,5 %
pH value (10 % in H_2O) 3,5-5,5

Art. No.	Pack Qty.	Pack.	€
2246.1	10 g	plastic	31,75
2246.2	50 g	plastic	107,40
2246.3	100 g	plastic	198,90
2246.4	500 g	plastic	923,45
Original pack 6 x 500 g			877,28/500 g
2246.5	1 kg	plastic	1.746,90
Original pack 6 x 1 kg			1.659,56/1 kg

Silver nitrate
Proteicolor® ≥99,9 %

For protein staining

Proteicolor®

Guarantee analysis
Assay ..... ≥99,9 %

Tested for protein gel staining.

Art. No.	Pack Qty.	Pack.	€
6207.1	50 g	plastic	170,95

Silver nitrate solution

CAS No. 7761-88-8 · EC no. 231-853-9

Silver nitrate solution 5 %

Silver nitrate solution
5 %

D 1,04 g/cm³

UN no. 1760 · ADR 8 III · WGK 3

Danger H290-H314-H410

Art. No.	Pack Qty.	Pack.	€
N053.1	250 ml	plastic	53,25

Silver nitrate solution (0.01 N)

Silver nitrate solution
0,01 mol/l – 0,01 N, volumetric standard solution

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 3082 · ADR 9 III · WGK 3

H411

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,01 mol/l ±0,5 %
Titer 0,9950-1,0050

Art. No.	Pack Qty.	Pack.	€
6838.3	1 l	plastic	42,50
Original pack 6 x 1 l			40,38/1 l

Silver nitrate solution (0.05 N)

Silver nitrate solution
0,05 mol/l – 0,05 N, volumetric standard solution

D 1,005 g/cm³ · bp 100 °C

UN no. 3082 · ADR 9 III · WGK 3

Warning H410

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,05 mol/l ±0,4 %
Titer 0,9960-1,0040

Art. No.	Pack Qty.	Pack.	€
6835.3	1 l	plastic	76,25
Original pack 6 x 1 l			72,44/1 l

Silver nitrate solution (0.1 N)

Silver nitrate solution
0,1 mol/l – 0,1 N, volumetric standard solution

D 1,006 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 3

Warning H290-H315-H319-H410

Type analysis
Amount-of-substance concentration (20 °C) ..... 0,1 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
K713.2	250 ml	plastic	44,65
K713.4	500 ml	plastic	58,60
K713.1	1 l	plastic	98,80
Original pack 6 x 1 l			93,86/1 l
K713.3	2.5 l	plastic	155,90
Original pack 4 x 2.5 l			148,11/2.5 l

Silver nitrate solution
0,1 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.

D 1,006 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 3

Warning H290-H315-H319-H410

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l
Measurement uncertainty ..... ±0,2 %

Art. No.	Pack Qty.	Pack.	€
9526.1	1 l	plastic	140,30
Original pack 6 x 1 l			133,29/1 l

Silver nitrate solution
ROTI®Volum 0,1 mol/l – 0,1 N

Ampoule for preparation of 1000 ml volumetric solution.

D 1,3 g/cm³

UN no. 1760 · ADR 8 II · WGK 3

Danger H290-H314-H410

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
CN66.1	1 unit(s)	plastic ampoule	85,50

Silver nitrate solution (0.5 N)

Silver nitrate solution
0,5 mol/l – 0,5 N, volumetric standard solution

D 1,069 g/cm³

UN no. 1760 · ADR 8 III · WGK 3

Danger H290-H314-H410

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,5 mol/l ±0,4 %
Titer 0,9960-1,0040

Art. No.	Pack Qty.	Pack.	€
6839.3	1 l	plastic	281,15
Original pack 6 x 1 l			267,09/1 l

Silver nitrate solution (1 N)

Silver nitrate solution
1 mol/l – 1 N, volumetric standard solution

D 1,138 g/cm³

UN no. 1760 · ADR 8 II · WGK 3

Danger H290-H314-H410

Type analysis
Amount-of-substance concentration (20 °C) ..... 1,0 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
6841.1	250 ml	plastic	128,50
6841.2	500 ml	plastic	216,65
6841.3	1 l	plastic	385,95
Original pack 6 x 1 l			366,65/1 l

Silver oxide

Ag_2O · D 7,2 g/cm³ · mp 230 °C
CAS No. 20667-12-3 · EC no. 243-957-1
UN no. 3085 · ADR 5.1 (8) II · WGK 2

Danger H271-H318-H410

Silver oxide
≥99 %, p.a.

Type analysis
Assay (calculated on Ag) ..... 99,0-101,0 %
Silver (Ag) ..... 92,2-94,0 %
Aluminium (Al) ..... ≤0,001 %
Cadmium (Cd) ..... ≤0,001 %
Cobalt (Co) ..... ≤0,001 %
Chromium (Cr) ..... ≤0,001 %
Copper (Cu) ..... ≤0,005 %
Iron (Fe) ..... ≤0,001 %
Mercury (Hg) ..... ≤0,01 %
Iridium (Ir) ..... ≤0,01 %
Potassium (K) ..... ≤0,005 %
Magnesium (Mg) ..... ≤0,005 %
Manganese (Mn) ..... ≤0,001 %
Sodium (Na) ..... ≤0,01 %
Nickel (Ni) ..... ≤0,001 %
Osmium (Os) ..... ≤0,01 %
Lead (Pb) ..... ≤0,005 %
Palladium (Pd) ..... ≤0,01 %
Platinum (Pt) ..... ≤0,01 %
Rhodium (Rh) ..... ≤0,01 %
Ruthenium (Ru) ..... ≤0,01 %
Zinc (Zn) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
5309.1	10 g	glass	73,65
5309.2	50 g	glass	268,75

Silver staining

- ROTI®Black P see page 1212
- ROTI®Black N see page 1212
- ROTI®Black NSeq see page 1212

Silver sulphate

Ag_2SO_4 · D 5,45 g/cm³ · mp 655 °C
CAS No. 10294-26-5 · EC no. 233-653-7
UN no. 3077 · ADR 9 III · WGK 2

Danger H318-H410

Silver sulphate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L6C.1	5 g	glass	87,65
1L6C.2	25 g	glass	254,25

Silver sulphate
≥99 %, p.a.

For COD analysis.

Guarantee analysis
Assay ..... ≥99,0 %
Water ..... ≤0,2 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
6791.1	25 g	plastic	145,15
6791.2	100 g	plastic	504,20

Silver sulphate solution (10 g/l)

D 1,82 g/cm³ · mp -15 °C · bp 295 °C
UN no. 3264 · ADR 8 II · WGK 2

Danger H290-H314-H410

Silver sulphate solution
10 g/l in sulphuric acid, for COD determination

According to DIN 38409 part H41.

Art. No.	Pack Qty.	Pack.	€
X870.1	1 l	glass	91,95
Original pack 6 x 1 l			87,35/1 l
X870.2	2.5 l	glass	194,05
Original pack 4 x 2.5 l			184,35/2.5 l

Silver sulphide

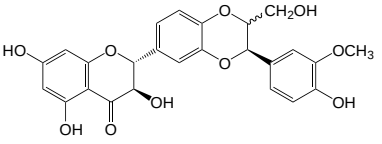
Ag_2S · D 7,234 g/cm³ · mp 845 °C
CAS No. 21548-73-2 · EC no. 244-438-2
WGK 1

Silver sulphide
≥98 %

Type analysis
Assay (calculated on Ag) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
5311.1	10 g	glass	209,65
5311.2	50 g	glass	833,15

Silybin



$C_{25}H_{22}O_{10}$ · mp 165 °C
CAS No. 22888-70-6 · EC no. 245-302-5
WGK 1

Warning H315-H319-H335

Silybin
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥85,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC31.1	100 mg	glass	532,15

Silybin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Sylibum marianum*. Diastereomere mixture of Silybin A and B.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1215.1	50 mg	glass	493,45

Silybin
ROTICHROM® CHR_{TLC}

Reference substance for thin layer chromatography.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
5578.1	100 mg	glass	77,95

Silyl 991

- *N,O*-Bis(trimethylsilyl)-trifluoroacetamide with 1 % trimethylchlorosilane see page 778

Simmons Citrate Agar

Koser Citrate Agar (modified)

WGK 1

Simmons Citrate Agar
ISO 10273, for microbiology

For differentiation of microorganisms on the basis of citrate utilization.

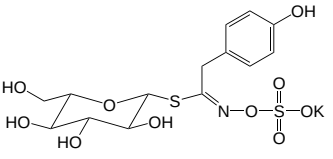
Application: Use 24.3 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Sodium chloride ..... 5 g/l
Sodium citrate ..... 2 g/l
Ammonium dihydrogen phosphate ..... 1 g/l
Dikaliumhydrogenphosphat ..... 1 g/l
Magnesium sulphate ..... 0,2 g/l
Bromothymol blue ..... 0,08 g/l
Agar ..... 15 g/l
pH value ..... 6,9 ±0,2

Art. No.	Pack Qty.	Pack.	€
5774.1	500 g	plastic	176,85
Original pack 6 x 500 g			168,01/500 g

Sinalbin potassium salt



$C_{14}H_{18}NO_{10}S_2K$
CAS No. 16411-05-5
WGK 1

Sinalbin potassium salt
ROTICHROM® HPLC

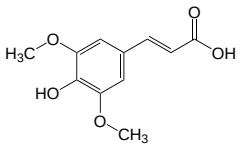
Reference substance for HPLC.
From *Sinapis alba*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
6694.1	20 mg	glass	306,40

Sinapic acid



3,5-Dimethoxy-4-hydrocinnamic-acid

$C_{11}H_{12}O_5$ · mp 202 °C
CAS No. 530-59-6 · EC no. 208-487-3
WGK 1

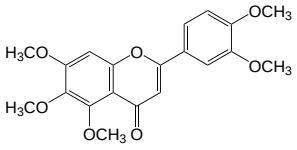
Warning H315-H319-H335

Sinapic acid
≥98 %

Type analysis
Appearance ..... whitish to pale yellow powder
Assay ..... ≥98,0 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
5317.1	1 g	glass	80,55
5317.2	10 g	glass	536,45

Sinensetin



3',4',5,6,7-Pentamethoxyflavone

$C_{20}H_{20}O_7$ · mp 177 to 181 °C
CAS No. 2306-27-6
UN no. 2811 · ADR 6.1 III · WGK 1

Danger H301

Sinensetin
ROTICHROM® HPLC

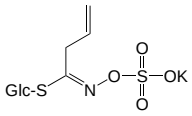
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
3497.2	10 mg	glass	413,90

Sinigrin monohydrate



Potassium myronate

$C_{10}H_{16}NO_9S_2K \cdot H_2O$ · mp 128 °C
CAS No. 3952-98-5 · EC no. 223-545-8
WGK 1

Sinigrin monohydrate
ROTICHROM® HPLC

Reference substance for HPLC.
From *Sinapis nigra*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
4542.2	50 mg	glass	375,20

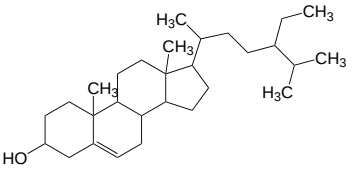
Sinigrin monohydrate
ROTICHROM® CHR$_{TLC}$

Reference substance for HPLC.
From *Sinapis nigra*.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
5319.1	250 mg	glass	112,80

β-Sitosterol



$C_{29}H_{50}O$ · mp 139 to 140 °C
CAS No. 83-46-5 · EC no. 201-480-6
WGK 1

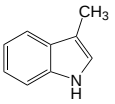
β-Sitosterol
≥80 %, HPLC

Storage temperature: +4 °C

Type analysis
Appearance ..... white to beige powder
Assay (HPLC) ..... ≥80 %
Melting point ..... 135-140 °C

Art. No.	Pack Qty.	Pack.	€
A540.1	100 mg	glass	224,70

Skatole



3-Methyl-indol

C_9H_9N · mp 95 °C · bp 265 to 266 °C · flp 132 °C
CAS No. 83-34-1 · EC no. 201-471-7
UN no. 3077 · ADR 9 III · WGK 2

Warning H315-H319-H335-H411

Skatole
>99 %

Type analysis
Assay ..... >99 %

Art. No.	Pack Qty.	Pack.	€
4696.1	10 g	glass	104,85

Skimmed milk powder
▸ Powdered milk see page 1182

Slaked lime
▸ Calcium hydroxide see page 808

Slanetz-Bartley Media

Slanetz-Bartley Agar
ISO 7899-2, ISO 11133, for microbiology

For detection and enumeration of faecal *streptococci* by membrane filtration method or by direct plating.

Application: Use 41.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Warning H302-H412

Composition
Tryptose ..... 20 g/l
Yeast extract ..... 5 g/l
Glucose ..... 2 g/l
Dipotassium phosphate ..... 4 g/l
Sodium azide ..... 0,4 g/l
Tetrazolium chloride (TTC) ..... 0,1 g/l
Agar ..... 10 g/l
pH value ..... 7,2 ±0,1

Art. No.	Pack Qty.	Pack.	€
X935.1	500 g	plastic	198,35
Original pack 6 x 500 g			188,43/500 g

Slanetz-Bartley Medium (with tetrazolium chloride)
DEV, ISO 7899-2:2000, ISO 11133, for microbiology

For detection and enumeration of intestinal enterococci from water samples.

Application: Use 41.5 g for 1 l agar. Sterilise by sterile filtration, do not autoclave.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 1

Warning H302-H412-EUH032

Guarantee analysis
Tryptose ..... 20 g/l
Yeast extract ..... 5 g/l
Glucose ..... 2 g/l
di-Potassium hydrogen phosphate ..... 4 g/l
Sodium azide ..... 0,4 g/l
Tetrazolium chloride (TTC) ..... 0,1 g/l
Agar ..... 10 g/l
pH value ..... 7,2 ±0,1

Art. No.	Pack Qty.	Pack.	€
CP68.1	500 g	plastic	214,50
Original pack 6 x 500 g			203,78/500 g

SLS
▸ SDS see page 1254

SMAC-Agar
▸ Sorbitol MacConkey Agar see page 1304

SOB Broth

WGK 1

SOB Broth
for molecular biology

Enriched broth for propagation of *E. coli*.

Application: Use 26,64 g for 1 l broth.
May be enriched to SOC-medium with 20 mM glucose.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

Tryptone ..... 20 g/l
Yeast extract ..... 5 g/l
Magnesium chloride ..... 0,96 g/l
Sodium chloride (NaCl) ..... 0,5 g/l
Potassium chloride (KCl) ..... 0,186 g/l
pH value ..... 7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE27.1	500 g	plastic	87,65
Original pack 6 x 500 g			83,27/500 g

Soda
▸ Sodium carbonate decahydrate
see page 1279

Soda lime

Calcaria natronata

WGK 1

Danger H290-H314-H335

Soda lime
granulated, 2–4 mm, with indicator

Type analysis

Granulation ..... ~2-4 mm
Bulk density ..... ~900 g/l

1 Litre absorbs more than 120 l CO_2.
CO_2-absorption in rebreathing anesthesia systems with indicator, colour changes to blue.
Mixture of calcium hydroxide with small amounts of NaOH and KOH.

Art. No.	Pack Qty.	Pack.	€
8652.1	1 l	plastic	51,50
Original pack 6 x 1 l			48,93/1 l
8652.3	5 l	plastic	160,20
Original pack 2 x 5 l			152,19/5 l

Soda monohydrate
▸ Sodium carbonate monohydrate
see page 1279

Sodium

Na · D 0,97 g/cm³ · mp 97,82 °C · bp 889 °C
CAS No. 7440-23-5 · EC no. 231-132-9
UN no. 1428 · ADR 4.3 I · WGK 1

Danger H260-H314-EUH014

Sodium
≥99 %, rods, in paraffin wax oil

Packaging: glass, outer packaging: metal can

Type analysis

Assay (Na) ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
4469.1	250 g	glass	198,90

Sodium Standards
▸ Sodium AAS Standard Solution
see page 1322
▸ Sodium ICP Standard Solution
see page 1323
▸ Sodium IC Standard Solution see page 1336
▸ Sodium ICP Standard Solution
see page 1323

Sodium acetate

$NaCH_3COO$ · D 1,53 g/cm³ · mp 324 to 328 °C
CAS No. 127-09-3 · EC no. 204-823-8
WGK 1

Sodium acetate
ROTI®METIC 99,99 % (4N), anhydrous

Type analysis

Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5380.1	25 g	plastic	111,30

Sodium acetate
≥99 %, p.a., ACS, anhydrous

Dehydrating agent, for molecular biology.

Guarantee analysis

Assay (titr.) ..... ≥99 %
pH value (5 % in H_2O) 7,5-9,2
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,002 %
Sulphate (SO_4) ..... ≤0,003 %
Phosphate (PO_4) ..... ≤0,001 %
Ammonium (NH_4) ..... ≤0,001 %
Aluminium (Al) ..... ≤0,001 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,002 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,02 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,001 %
Nickel (Ni) ..... ≤0,0005 %
Heavy metals ..... ≤0,001 %
Zinc (Zn) ..... ≤0,0005 %
Loss on drying (120 °C) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
6773.1	250 g	plastic	40,75
6773.2	1 kg	plastic	107,40
Original pack 6 x 1 kg			102,03/1 kg
6773.3	2.5 kg	plastic	235,45
6773.5	25 kg	plastic	1.666,25

Sodium acetate
≥98,5 %, anhydrous, extra pure

Type analysis

Assay (dry substance) ..... ≥98,5 %
pH value (1 % in H_2O) 8,0-9,5
Arsenic (As) ..... ≤0,0003 %
Lead (Pb) ..... ≤0,0005 %
Mercury (Hg) ..... ≤0,0001 %
Loss on drying (120 °C/4 h) ..... ≤2,0 %
Oxidizable impurities ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
X891.1	500 g	plastic	23,55
Original pack 6 x 500 g			22,37/500 g
X891.2	1 kg	plastic	40,75
Original pack 6 x 1 kg			38,71/1 kg
X891.3	2.5 kg	plastic	85,90
X891.5	25 kg	plastic	665,45

Sodium acetate trihydrate

$NaCH_3COO \cdot 3\,H_2O$ · D 1,42 g/cm³ · mp 58 °C · flp >250 °C
CAS No. 6131-90-4 · EC no. 204-823-8
WGK 1

Sodium acetate trihydrate
≥99,5 %, p.a., ACS, ISO

For molecular biology, component of acetate buffer; neutralization of mineral acids. Neutral to potassium permanganate.

Guarantee analysis

Assay (titr.) ..... ≥99,5 %
pH value (5 % in H_2O) 7,5-9,0
Appearance of solution (10 %, water) ... complies
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,002 %
Phosphate (PO_4) ..... ≤0,0002 %
Total nitrogen (as N) ..... ≤0,001 %
Aluminium (Al) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,00005 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0003 %
Potassium (K) ..... ≤0,005 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0003 %
Magnesium (Mg) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %
Ca, Mg and Me_2O_3-precipitate ..... ≤0,01 %
$KMnO_4$ reducing matter (as HCOOH) ... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
6779.2	500 g	plastic	34,30
Original pack 6 x 500 g			32,59/500 g
6779.1	1 kg	plastic	61,85
Original pack 6 x 1 kg			58,76/1 kg
6779.3	5 kg	plastic	209,65
6779.5	25 kg	plastic	880,45

Sodium acetate trihydrate
CELLPURE® ≥99,5 %

For cell culture and biochemistry.

Guarantee analysis

Endotoxins ..... ≤3,0 I.U./g
Assay (dry substance) ..... ≥99,5 %
Appearance of solution ..... clear and colorless
pH-value (5 % solution) 7,5-9,0
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Aluminium (Al) ..... ≤0,00002 %
Arsenic (As) ..... ≤0,0002 %
Iron (Fe) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
HN05.1	500 g	plastic	34,30
Original pack 6 x 500 g			32,59/500 g
HN05.2	1 kg	plastic	61,85
Original pack 6 x 1 kg			58,76/1 kg
HN05.3	2.5 kg	plastic	117,20

Sodium acetate trihydrate
≥99 %, Ph. Eur., USP

Guarantee analysis
Appearance ..... colourless crystals
Assay (dry substance) ..... 99,0-101,0 %
Identity ..... complies
Insoluble in water ..... ≤0,05 %
Appearance of solution (10 %, H_2O) ..... complies
pH value (5 % in H_2O) 7,5-9,0
Alkalinity ..... complies
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,005 %
Arsenic (As) ..... ≤0,0002 %
Calcium and Magnesium (as Ca) ..... ≤0,005 %
Calcium, Magnesium ..... complies
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... complies
Reducing substances ..... complies
Loss on drying (130 °C) ..... 39,0-40,5 %

Art. No.	Pack Qty.	Pack.	€
3856.1	1 kg	plastic	26,35
Original pack 6 x 1 kg			25,03/1 kg
3856.2	5 kg	plastic	96,65
3856.5	25 kg	plastic	396,70

Sodium acetate powder (pouch)
▸ ROTI®Fair Na-Acetate see page 1218

Sodium acetate solution (0.1 N)

D 1,05 g/cm³ · mp 17 °C · bp 117 °C · flp 40 °C
UN no. 2789 · ADR 8 (3) II · WGK 1

Danger H226-H290-H314

Sodium acetate solution
0,1 mol/l – 0,1 N, volumetric standard solution, in acetic acid

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
0151.1	1 l	plastic	55,80
Original pack 6 x 1 l			53,01/1 l

Sodium alginate
▸ Alginic acid sodium salt see page 717

Sodium aluminium hexafluoride
▸ Sodium hexafluoroaluminate see page 1284

Sodium ammonium hydrogen phosphate tetrahydrate

sec-Ammonium sodium phosphate ·
sec-Sodium ammonium phosphate

$NaNH_4HPO_4 \cdot 4\ H_2O$ · D 0,85 g/cm³ · mp 79 °C
CAS No. 7783-13-3 · EC no. 235-860-8
WGK 1

Sodium ammonium hydrogen phosphate tetrahydrate
≥99 %, p.a.

Reagent for Mg; phosphorus salt bead

Guarantee analysis
Assay (acidim.) ..... ≥99,0 %
In NH_4OH insoluble matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,002 %
Sulphate (SO_4) ..... ≤0,01 %
Nitrate (NO_3) ..... ≤0,002 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
Copper (Cu) ..... ≤0,001 %
Nickel (Ni) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
T882.1	500 g	plastic	127,95
Original pack 6 x 500 g			121,55/500 g
T882.2	1 kg	plastic	241,90
Original pack 6 x 1 kg			229,81/1 kg
T882.3	2.5 kg	plastic	514,95

sec-Sodium ammonium phosphate
▸ Sodium ammonium hydrogen phosphate tetrahydrate see page 1277

Sodium L(+)-ascorbate
▸ L(+)-Ascorbic acid sodium salt see page 756

Sodium azide

NaN_3 · D 1,846 g/cm³ · mp 370 °C
CAS No. 26628-22-8 · EC no. 247-852-1
UN no. 1687 · ADR 6.1 II · WGK 2

Danger H300+H310+H330-H373-H410-EUH032

Sodium azide
≥99 %, p.a.

Guarantee analysis
Appearance ..... colorless to white fine crystalline Powder
Assay (cerim.) ..... ≥99,0 %
In H_2O insoluble matter ..... ≤0,05 %
Chloride (Cl) ..... ≤0,005 %
Total sulphur (as SO_4) ..... ≤0,005 %
Free alkali (as NaOH) ..... ≤0,2 %
Aluminium (Al) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,0001 %
Barium (Ba) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,0005 %
Bismuth (Bi) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,005 %
Chromium (Cr) ..... ≤0,0005 %
Cobalt (Co) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,005 %
Copper (Cu) ..... ≤0,0005 %
Lithium (Li) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,001 %
Manganese (Mn) ..... ≤0,0005 %
Molybdenum (Mo) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %
Strontium (Sr) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %
Loss on drying ..... ≤0,2 %
pH value (1 % in H_2O) ..... ~10

Art. No.	Pack Qty.	Pack.	€
K305.1	100 g	plastic	60,10
K305.2	250 g	plastic	115,60
K305.3	500 g	plastic	203,20
Original pack 6 x 500 g			193,04/500 g
K305.4	1 kg	plastic	349,40
Original pack 6 x 1 kg			331,93/1 kg

Sodium azide
≥98 %, for synthesis

Type analysis
Assay (cerim.) ..... ≥98 %
Water insoluble residue ..... ≤0,1 %
Iron (Fe) ..... ≤0,001 %
pH value (1 % in H_2O) ..... ~10

Art. No.	Pack Qty.	Pack.	€
4221.1	100 g	plastic	31,10
4221.2	500 g	plastic	112,35
Original pack 6 x 500 g			106,73/500 g
4221.3	1 kg	plastic	209,65
Original pack 6 x 1 kg			199,17/1 kg
4221.4	2.5 kg	plastic	439,70

Sodium benzoate
▸ Benzoic acid sodium salt see page 769

Sodium bicarbonate
▸ Sodium hydrogen carbonate see page 1284

Sodium bicarbonate solution
▸ ROTI®Cell Bicarbonate solution see page 1213

Sodium biphosphate
▸ Sodium dihydrogen phosphate dihydrate see page 1282
▸ Sodium dihydrogen phosphate monohydrate see page 1282
▸ Sodium dihydrogen phosphate see page 1282

Sodium bismuthate dihydrate

Sodium bismuth oxide

$NaBiO_3 + 2\ H_2O$
CAS No. 12232-99-4 · EC no. 235-455-6
WGK 1

Warning H302

Sodium bismuthate dihydrate
≥99 %, p.a.

Oxidation reagent, determination of manganese in iron and steel.

Guarantee analysis
Assay (dry substance) ..... ≥99,0 %
Chloride (Cl) ..... ≤0,01 %
Manganese (Mn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4401.1	50 g	plastic	59,05
4401.2	100 g	plastic	109,15
4401.3	250 g	plastic	224,70

Sodium bismuth oxide
▸ Sodium bismuthate dihydrate see page 1277

Sodium bisulphate
▸ Sodium hydrogen sulphate see page 1286

Sodium bisulphite solution

Sodium hydrogen sulphite solution

$NaHSO_3$ · D 1,19 to 1,36 g/cm³ · mp -4 °C · bp 105 to 146 °C
CAS No. 7631-90-5 · EC no. 231-548-0
WGK 1

Warning H302-EUH031

Sodium bisulphite solution
≥37 % in water

Type analysis
Assay (iodom.) ..... 37,0-42,2 %
Density (20 °C) 1,310-1,380

Art. No.	Pack Qty.	Pack.	€
2372.1	1 l	plastic	21,00
Original pack 6 x 1 l			19,95/1 l
2372.2	5 l	plastic	53,65
Original pack 2 x 5 l			50,97/5 l

Sodium borodeuteride

$NaBD_4$ · mp >300 °C · flp 69 °C
CAS No. 15681-89-7 · EC no. 239-764-7
UN no. 1426 · ADR 4.3 I · WGK 2

Danger H260-H301-H314-H360FD-EUH014

Sodium borodeuteride
98 Atom%D

For nuclear magnetic resonance spectroscopy.

Guarantee analysis
Deuterising degree ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
HN89.1	1 g	glass	138,70

Sodium borohydride

Sodium tetrahydroborate

$NaBH_4$ · D 1,07 g/cm³ · mp >360 °C · bp >400 °C · flp 69 °C
CAS No. 16940-66-2 · EC no. 241-004-4
UN no. 1426 · ADR 4.3 I · WGK 2

Danger H260-H301-H314-H360FD-EUH014

Sodium borohydride
≥97 %, extra pure

Reducing agent

Type analysis
Appearance ..... white, hygroscopic crystals
Assay ..... ≥97 %
Chloride (Cl) ..... ≤0,5 %
Sulphate (SO_4) ..... ≤0,01 %
Cadmium (Cd) ..... ≤0,005 %
Cu (Copper) ..... ≤0,005 %
Fe (Iron) ..... ≤0,005 %
Pb (Lead) ..... ≤0,005 %
Zn (Zinc) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
4051.1	25 g	glass	49,35
4051.2	100 g	glass	107,40

Sodium bromide

NaBr · D 3,21 g/cm³ · mp 755 °C · bp 1390 °C
CAS No. 7647-15-6 · EC no. 231-599-9
WGK 1

Sodium bromide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5086.1	25 g	plastic	194,05

Sodium bromide
≥99 %, p.a., ACS

Guarantee analysis
Assay (arg.) ..... ≥99,0 %
In H_2O insoluble matter ..... ≤0,005 %
pH value (5 % solution) 5,0-8,8
Bromate (BrO_3) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,2 %
Sulphate (SO_4) ..... ≤0,002 %
Heavy metals (as Pb) ..... ≤0,0005 %
Barium (Ba) ..... ≤0,002 %
Calcium (Ca) ..... ≤0,002 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,1 %
Magnesium (Mg) ..... ≤0,001 %

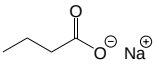
Art. No.	Pack Qty.	Pack.	€
HN15.1	250 g	plastic	23,55
HN15.2	1 kg	plastic	70,45
Original pack 6 x 1 kg			66,93/1 kg
HN15.3	2.5 kg	plastic	146,75
HN15.7	25 kg	plastic	1.284,65

Sodium 2-bromoethanesulfonate
▸ 2-Bromoethanesulfonic acid sodium salt see page 790

Sodium-1-butane sulphonate
▸ Butane-1-sulphonic acid sodium salt see page 796

Sodium butanoate
▸ Sodium butyrate see page 1278

Sodium butyrate



Sodium butanoate · Butanoic acid sodium salt · Butyric acid sodium salt

$C_4H_7O_2Na$ · D 1,324 g/cm³ · mp 250 to 253 °C
CAS No. 156-54-7 · EC no. 205-857-6
WGK 1

Warning H315-H319-H335

Sodium butyrate
≥98 %, for synthesis

Type analysis
Assay ..... ≥98,0 %
Loss on drying ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
1441.1	25 g	plastic	17,10
1441.2	100 g	plastic	31,10
1441.3	250 g	plastic	61,20
1441.4	500 g	plastic	101,60
Original pack 6 x 500 g			96,52/500 g

Sodium cacodylate
▸ Cacodylic acid sodium salt trihydrate see page 802

Sodium dimethylarsonate
▸ Cacodylic acid sodium salt trihydrate see page 802

Sodium carbonate

Anhydrous soda

Na_2CO_3 · D 2,532 g/cm³ · mp 851 °C
CAS No. 497-19-8 · EC no. 207-838-8
WGK 1

Warning H319

Sodium carbonate
ROTI®METIC 99,999 % (5N), anhydrous

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5740.1	5 g	plastic	56,90
5740.2	25 g	plastic	205,90

Sodium carbonate
≥99,5 %, p.a., ACS, anhydrous

Dissolving agent/soda extraction; molecular biology; glass industry.

Guarantee analysis
Assay (acidim., dry substance) ..... ≥99,5 %
In H_2O insoluble matter ..... ≤0,005 %
Loss on drying (285 °C) ..... ≤1,0 %
Total sulphur (as SO_4) ..... ≤0,003 %
Total nitrogen (as N) ..... ≤0,001%
Chloride (Cl) ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,001 %
Silicate (SiO_2) ..... ≤0,005 %
Heavy metals ..... ≤0,0005 %
Aluminium (Al) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,005 %
Potassium (K) ..... ≤0,005 %
Arsenic (As) ..... ≤0,0001 %
Copper (Cu) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
A135.1	500 g	plastic	27,85
Original pack 6 x 500 g			26,46/500 g
A135.2	1 kg	plastic	51,10
Original pack 6 x 1 kg			48,55/1 kg
A135.3	5 kg	plastic	209,65

Sodium carbonate
≥99,5 %, Ph. Eur., USP, BP, anhydrous

Guarantee analysis
Assay (dry substance) ..... 99,5-100,5 %
Appearance of solution ..... complies
Identity ..... complies
In H_2O insoluble matter ..... ≤0,025 %
Loss on drying ..... ≤0,5 %
Total nitrogen (as N) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,025 %
Alkali hydroxide and alkali hydrogen carbonate ..... complies
Volatile organic impurities ..... complies
Chloride (Cl) ..... ≤0,01 %
Phosphate (PO_4) ..... ≤0,005 %
Arsenic (As) ..... ≤0,0003 %
Lead (Pb) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,05 %
Magnesium (Mg) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
P028.1	500 g	plastic	21,40
Original pack 6 x 500 g			20,33/500 g
P028.2	1 kg	plastic	38,60
Original pack 6 x 1 kg			36,67/1 kg
P028.3	5 kg	plastic	131,70
P028.5	25 kg	plastic	493,45

Sodium carbonate
≥99 %, anhydrous

Type analysis
Assay ..... ≥99,0 %
Loss on drying ..... ≤0,5 %
Sodium chloride (NaCl) ..... ≤0,15 %
Ferric oxide (Fe_2O_3) ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
8563.1	1 kg	plastic	20,35
Original pack 6 x 1 kg			19,33/1 kg
8563.2	10 kg	plastic	80,10
8563.5	25 kg	plastic	149,45

Sodium carbonate monohydrate

Soda monohydrate

$Na_2CO_3 \cdot H_2O$ · D 2,25 g/cm³ · mp 100 °C
CAS No. 5968-11-6 · EC no. 207-838-8
WGK 1

Warning H319

Sodium carbonate monohydrate
≥99,5 %, p.a., ACS

Guarantee analysis
Assay (acidim.) ..... ≥99,5 %
In H_2O insoluble matter ..... ≤0,01 %
Loss on drying (150 °C) ..... 13,0-15,0 %
Total nitrogen (N) ..... ≤0,001 %
Total sulphur (as SO_4) ..... ≤0,004 %
Chloride (Cl) ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,0005 %
Silicate (SiO_2) ..... ≤0,005 %
Substances precipitated by ammonia .... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,0001 %
Calcium (Ca) ..... ≤0,03 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,005 %
Magnesium (Mg) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
2597.1	100 g	plastic	21,00
2597.2	500 g	plastic	39,25
Original pack 6 x 500 g			37,29/500 g

Sodium carbonate monohydrate
≥99 %, pure

Type analysis
Assay (dry substance) ..... ≥99,0 %
Heavy metals (as Pb) ..... ≤0,01 %
Loss on drying (105 °C, 4 h) ..... 12,0-15,0 %

Art. No.	Pack Qty.	Pack.	€
0474.1	500 g	plastic	28,95
Original pack 6 x 500 g			27,50/500 g
0474.2	1 kg	plastic	49,35
Original pack 6 x 1 kg			46,88/1 kg
0474.3	2.5 kg	plastic	99,90
0474.4	5 kg	plastic	170,95

Sodium carbonate decahydrate

Soda

$Na_2CO_3 \cdot 10\ H_2O$ · D 1,46 g/cm³ · mp 34 °C
CAS No. 6132-02-1 · EC no. 207-838-8
WGK 1

Warning H319

Sodium carbonate decahydrate
≥99 %, p.a., ISO

Guarantee analysis
Assay (acidim.) ..... ≥99 %
Chloride (Cl) ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,001 %
Phosphate and silicate (as SiO2) ..... ≤0,003 %
Silicate (SiO_2) ..... ≤0,003 %
Sulphate (SO_4) ..... ≤0,01 %
Total sulphur (as SO_4) ..... ≤0,003 %
Total nitrogen (as N) ..... ≤0,0005 %
Aluminium (Al) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,0002 %
Lead (Pb) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,003 %
Iron (Fe) ..... ≤0,0003 %
Potassium (K) ..... ≤0,005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,0003 %
Heavy metals (as Pb) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
K303.2	500 g	plastic	40,75
Original pack 6 x 500 g			38,71/500 g
K303.1	1 kg	plastic	74,10
Original pack 6 x 1 kg			70,40/1 kg
K303.3	2.5 kg	plastic	158,60

Sodium carbonate decahydrate
≥99,5 %, Ph. Eur.

Guarantee analysis
Appearance ..... colourless crystals
Assay (dry substance) ..... ≥99,5 %
Assay (Na_2CO_3) ..... 36,7-40,0 %
Identity ..... complies
Appearance of solution ..... complies
Alkali hydroxide and alkali bicarbonate . complies
Loss on drying ..... 55-65 %
Arsenic (As) ..... ≤0,0002 %
Lead (Pb) ..... ≤0,0002 %
Iron (Fe) ..... ≤0,002 %
Mercury (Hg) ..... ≤0,0001 %
Chloride (Cl) ..... ≤0,003 %
Sulphate (SO_4) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
8566.3	1 kg	plastic	32,15
Original pack 6 x 1 kg			30,54/1 kg
8566.1	2.5 kg	plastic	66,55
8566.2	10 kg	plastic	238,15

Sodium carbonate solution

D 1 g/cm³ · bp 100 °C
WGK 1

Sodium carbonate solution
0,05 mol/l – 0,1 N, volumetric standard solution

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,05 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
0187.1	1 l	plastic	135,35
Original pack 6 x 1 l			128,58/1 l

Sodium carbonate solution
0,5 mol/l – 1 N, volumetric standard solution

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,5 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
0211.1	1 l	plastic	147,20
Original pack 6 x 1 l			139,84/1 l

Sodium carboxymethylcellulose
▸ Carboxymethylcellulose sodium salt
see page 816

Sodium Casein

Casein-sodium

CAS No. 9005-46-3
WGK 1

Sodium-Casein
≥89 % lactoprotein

Type analysis
Appearance ..... white to cream-coloured powder
Protein ..... ≥89 %
Water ..... ≤6 %
pH-value 6,0-8,0
Fat ..... ≤1,85 %

Art. No.	Pack Qty.	Pack.	€
8569.2	500 g	plastic	40,75
Original pack 6 x 500 g			38,71/500 g
8569.1	1 kg	plastic	70,85
Original pack 6 x 1 kg			67,31/1 kg
8569.3	2.5 kg	plastic	160,20

Sodium chlorate

$NaClO_3$ · D 2,54 g/cm³ · mp 255 to 259 °C
CAS No. 7775-09-9 · EC no. 231-887-4
UN no. 1495 · ADR 5.1 II · WGK 2

Danger H271-H302-H411

Sodium chlorate
≥98 %, pure

Type analysis
Appearance ..... white, crystalline
Assay ..... ≥98 %
Sodium chloride (NaCl) ..... ≤0,1 %
In H_2O insoluble ..... ≤0,005 %
Water ..... ≤0,05 %
Calcium (Ca) ..... ≤0,10 %
Potassium (K) ..... ≤0,10 %
Chromium (Cr) ..... ≤0,001%
Iron (Fe) ..... ≤0,001%

Art. No.	Pack Qty.	Pack.	€
8572.3	500 g	plastic	30,00
Original pack 6 x 500 g			28,50/500 g
8572.1	1 kg	plastic	40,75
Original pack 6 x 1 kg			38,71/1 kg
8572.2	5 kg	plastic	115,60

Sodium chloride

Common salt

NaCl · D 2,17 g/cm³ · mp 801 °C · bp >1450 °C
CAS No. 7647-14-5 · EC no. 231-598-3
WGK 1

Sodium chloride
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5741.1	5 g	plastic	51,50
5741.2	25 g	plastic	102,05
5741.3	100 g	plastic	352,10

Sodium chloride
≥99,5 %, p.a., ACS, ISO

For freezing mixtures, salting-out soap, molecular biology.

Guarantee analysis
Assay (arg.) ..... ≥99,5 %
Appearance of solution ..... complies
pH value (5 % in water) 5,0-8,0
In H_2O insoluble matter ..... ≤0,005 %
Chlorate and nitrate (as NO_3) ..... ≤0,003 %
Hexacyanoferrate (II) [$Fe(CN)_6$] ..... ≤0,0001 %
Total nitrogen (as N) ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,002 %
Bromide (Br) ..... ≤0,01 %
Iodide (I) ..... complies
Iodide (I) ..... ≤0,002 %
Aluminium (Al) ..... ≤0,0002 %
Arsenic (As) ..... ≤0,0001 %
Barium (Ba) ..... complies
Barium (Ba) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,002 %
Iron (Fe) ..... ≤0,0002 %
Potassium (K) ..... ≤0,005 %
Copper (Cu) ..... ≤0,0002 %
Magnesium (Mg) ..... ≤0,001 %
Nickel (Ni) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,0005 %
Magnesium, alkaline-earth metals (as Ca) ..... ≤0,01 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
3957.3	500 g	plastic	18,20
Original pack 6 x 500 g			17,29/500 g
3957.1	1 kg	plastic	22,05
Original pack 6 x 1 kg			20,95/1 kg
3957.2	5 kg	plastic	80,55
3957.4	10 kg	plastic	120,95
3957.5	25 kg	plastic	241,90

Sodium chloride
CELLPURE® ≥99,5 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤5 I.U./g
Assay (dry substance) ..... ≥99,5 %
Appearance of solution ..... clear, colourless
Loss on drying ..... ≤0,1 %
Bromide (Br) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,02%
Phosphate (PO_4) ..... ≤0,002 %
Calcium, magnesium, alkaline-earth metals (as Ca) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,0005 %
Aluminium (Al) ..... ≤0,00002 %
Arsenic (As) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,0002 %

Art. No.	Pack Qty.	Pack.	€
HN00.1	500 g	plastic	23,55
Original pack 6 x 500 g			22,37/500 g
HN00.2	1 kg	plastic	32,80
Original pack 6 x 1 kg			31,16/1 kg
HN00.3	5 kg	plastic	109,15

Sodium chloride
≥99 %, Ph. Eur., USP

Guarantee analysis
Assay (dry substance) ..... 99,0-100,5 %
Chloride (Cl) ..... complies
Sodium (Na) ..... complies
Appearance of solution ..... complies
Loss on drying (105 °C) ..... ≤0,5 %
Acid or alkaline react. substances ..... complies
Bromide (Br) ..... ≤0,01 %
Iodide (I) ..... complies
Hexacyanoferrate (II) [$Fe(CN)_6$] ..... complies
Phosphate (PO_4) ..... ≤0,0025 %
Nitrite (NO_2) ..... complies
Sulphate (SO_4) ..... ≤0,02 %
Calcium, magnesium, alkaline-earth metals (as Ca) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,0005 %
Aluminium (Al) ..... ≤0,00002 %
Barium (Ba) ..... complies
Iron (Fe) ..... ≤0,0002 %
Arsenic (As) ..... ≤0,0001 %
Potassium (K) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
P029.1	500 g	plastic	13,90
Original pack 6 x 500 g			13,21/500 g
P029.2	1 kg	plastic	17,10
Original pack 6 x 1 kg			16,25/1 kg
P029.3	5 kg	plastic	51,50
P029.4	10 kg	plastic	87,65
P029.5	25 kg	plastic	163,95

Sodium chloride
≥99 %

Type analysis
Assay (dry substance) ..... ≥99,0 %
Phosphate (PO_4) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,05 %
Aluminium (Al) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %
Loss on drying ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
0601.1	1 kg	plastic	13,90
Original pack 6 x 1 kg			13,21/1 kg
0601.2	5 kg	plastic	40,75
0601.3	10 kg	plastic	70,85
0601.4	25 kg	plastic	137,10

Sodium chloride
≥99,8 %, extra fine, with anti-caking agent

Type analysis
Assay (dry substance) ..... ≥99,8 %
Calcium (Ca) ..... ≤0,05 %
Magnesium (Mg) ..... ≤0,005 %
Stripping agent ..... ≤0,005 %
Loss on drying (110 °C) ..... ≤0,15 %

Particle size distribution:
<63 µm ..... ≤10 %
>355 µm ..... ≤5 %

Art. No.	Pack Qty.	Pack.	€
0962.1	1 kg	plastic	13,45
Original pack 6 x 1 kg			12,78/1 kg
0962.2	5 kg	plastic	38,60
0962.3	25 kg	plastic	134,40

Sodium chloride
≥99,8 %, with anti-caking agent

Type analysis
Assay ..... ≥99,8 %
Calcium (Ca) ..... <0,01 %
Magnesium (Mg) ..... <0,002 %
Stripping agent ..... <0,0015 %
Bulk density ..... 1100-1300 kg/m³

Art. No.	Pack Qty.	Pack.	€
9265.1	1 kg	plastic	12,80
Original pack 6 x 1 kg			12,16/1 kg
9265.2	5 kg	plastic	37,55
9265.3	10 kg	plastic	67,65
9265.5	25 kg	plastic	134,40
9265.4	50 kg	cardboard	220,40

Sodium chloride powder (pouch)
▸ ROTI®Fair NaCl pouches see page 1219

Sodium chloride solution

WGK 1

Sodium chloride solution 0.9 %
CELLPURE®

D 1,002 g/cm³ · mp 0 °C · bp 100 °C

Not a medical device / Not an IVD product

Type analysis
pH value 4,5-7,0
Endotoxins ..... ≤0,5 I.U./ml

Art. No.	Pack Qty.	Pack.	€
8607.1	500 ml	plastic	19,90
8607.2	1 l	plastic	34,30
Original pack 6 x 1 l			32,59/1 l

Sodium chloride solution
0,1 mol/l – 0,1 N, volumetric standard solution

D 1,002 g/cm³ · mp 0 °C · bp 100 °C

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
1E2T.1	1 l	plastic	40,75
Original pack 6 x 1 l			38,71/1 l

Sodium chloride solution
ROTI®Volum 0,1 mol/l – 0,1 N

Ampoule for preparation of 1000 ml volumetric solution.

D ~1 g/cm³ · mp 0 °C · bp ~100 °C

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
CN67.1	1 unit(s)	plastic ampoule	27,45

Sodium chloride solution
1 mol/l – 1 N, volumetric standard solution

D ~1 g/cm³ · mp 0 °C · bp ~100 °C

Type analysis
Amount-of-substance conc. (20 °C) ..... 1 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
8115.1	1 l	plastic	36,45
Original pack 6 x 1 l			34,63/1 l

Sodium chloride (tablet)
▸ ROTI®Fair NaCl tablets see page 1219

Sodium chlorite

$NaClO_2$ · mp 180 °C
CAS No. 7758-19-2 · EC no. 231-836-6
UN no. 1496 · ADR 5.1 II · WGK 2

Danger H271-H301-H310-H314-H373-H410-EUH032 EUH071

Sodium chlorite
≥75 %, technical

Type analysis
Appearance ..... white powder
Assay ..... ≥75 %
NaCl ..... 7 - 9 %
Sodium chlorate ($NaClO_3$) ..... ≤1,0 %
Sodium carbonate (Na_2CO_3) ..... 5 - 8 %

Art. No.	Pack Qty.	Pack.	€
4352.1	250 g	plastic	26,35
4352.2	1 kg	plastic	67,20
Original pack 6 x 1 kg			63,84/1 kg
4352.3	5 kg	plastic	267,70

Sodium cholate
▸ Cholic acid sodium salt see page 835

mono-Sodium citrate

Citric acid mono sodium salt

$C_6H_7NaO_7$ · D 0,89 g/cm³ · mp 208 °C
CAS No. 18996-35-5 · EC no. 242-734-6
WGK 1

mono-Sodium citrate
≥99 %, anhydrous, extra pure

Type analysis
Assay (dry substance) ..... ≥99 %
Appearance of solution ..... complies
pH value (10 % solution) ..... 3,4 - 3,8
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,015 %
Oxalate (as $C_2H_2O_4$) ..... ≤0,03 %
Heavy metals (as Pb) ..... ≤0,001 %
Reaction with H_2SO_4 ..... complies
Loss on drying (120 °C) ..... ≤0,4 %

Art. No.	Pack Qty.	Pack.	€
HN13.1	100 g	plastic	18,20
HN13.2	500 g	plastic	49,35
Original pack 6 x 500 g			46,88/500 g
HN13.3	1 kg	plastic	76,90
Original pack 6 x 1 kg			73,06/1 kg

tri-Sodium citrate dihydrate

Citric acid trisodium salt dihydrate

$C_6H_5Na_3O_7 \cdot 2\,H_2O$ · mp 150 °C
CAS No. 6132-04-3 · EC no. 200-675-3
WGK 1

tri-Sodium citrate dihydrate
≥99 %, p.a., ACS

Reagent for buffers; sequestring agent.

Guarantee analysis
Assay (perchloric acidim) ..... ≥99,0 %
pH-value (5 %, water) 7,5-9,0
In H_2O insoluble matter ..... ≤0,003 %
Chloride (Cl) ..... ≤0,003 %
Phosphate (PO_4) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,005 %
Oxalate (as $C_2H_2O_4$) ..... ≤0,01 %
Ammonium (NH_4) ..... ≤0,001 %
Arsenic (As) ..... ≤0,00004 %
Lead (Pb) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
3580.4	250 g	plastic	24,65
3580.3	500 g	plastic	33,25
Original pack 6 x 500 g			31,59/500 g
3580.1	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg
3580.2	5 kg	plastic	213,95
3580.5	25 kg	plastic	564,40

tri-Sodium citrate dihydrate
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤6,0 E.U./g
Assay (dry substance) ..... ≥99 %
Appearance of solution ..... clear, colourless
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,015 %
Oxalate (as $C_2H_2O_4$) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
HN12.1	250 g	plastic	31,75
HN12.2	500 g	plastic	58,60
Original pack 6 x 500 g			55,67/500 g
HN12.3	1 kg	plastic	96,65
Original pack 6 x 1 kg			91,82/1 kg
HN12.4	2.5 kg	plastic	209,65

tri-Sodium citrate dihydrate
≥99 %, Ph. Eur.

Guarantee analysis
Appearance ..... white cryst. powder
Assay (dry substance) ..... 99,0-100,5 %
Identity ..... complies
Appearance of solution ..... clear, colourless
Acidity or alkalinity ..... complies
Reaction with H_2SO_4 ..... complies
pH value (5 % solution) 7,5-9,0
Water ..... 11,0-13,0 %
Sulphate (SO_4) ..... ≤0,01 %
Chloride (Cl) ..... ≤0,005 %
Oxalate (as $C_2H_2O_4$) ..... ≤0,01 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,00005 %
Mercury (Hg) ..... <0,00005 %
Heavy metals ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4088.3	500 g	plastic	20,35
Original pack 6 x 500 g			19,33/500 g
4088.1	1 kg	plastic	34,30
Original pack 6 x 1 kg			32,59/1 kg
4088.2	5 kg	plastic	138,70
4088.5	25 kg	plastic	456,90

Sodium cobalt nitrite
▸ Sodium hexanitrocobaltate(III) see page 1284

Sodium cyclamate
▸ Cyclohexane sulphamic acid sodium salt see page 858

Sodium-1-decane sulphonate
▸ Decane-1-sulphonic acid sodium salt see page 865

Sodium deoxycholate
▸ Deoxycholic acid sodium salt (DOC) see page 867

Sodium deuterium oxide solution in D_2O

CAS No. 14014-06-3 · EC no. 237-825-2
UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Sodium deuterium oxide 40 % solution in D_2O
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

NaOD · D 1,46 to 1,56 g/cm³ · bp 101 °C

Guarantee analysis
Deuterising degree ..... ≥99,5 %
Assay (mass %) ..... ≥40

Art. No.	Pack Qty.	Pack.	€
1K3N.1	10 g	glass	60,10

Sodium deuterium oxide 30 % solution in D_2O
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

NaOD · D 1,33 g/cm³ · bp 101 °C

Guarantee analysis
Deuterising degree ..... ≥99,5 %
Assay (mass %) ..... ≥30 %

Art. No.	Pack Qty.	Pack.	€
HN90.1	10 ml	glass	91,30

Sodium diacetate

Sodium hydrogen diacetate

$C_4H_7NaO_4$ · D 1,405 g/cm³
CAS No. 126-96-5 · EC no. 204-814-9
WGK 1

Danger H318

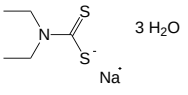
Sodium diacetate
extra pure

Type analysis
Assay (CH_3COONa) ..... 58,0-60,0 %
Free acid (as CH_3COOH) ..... 39,0-41,0 %
pH-value (10 % in H_2O) 4,5-5,0
Arsenic (As) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,0005 %
Mercury (Hg) ..... ≤0,0001 %
Water ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
9485.1	500 g	plastic	32,15
Original pack 6 x 500 g			30,54/500 g
9485.2	1 kg	plastic	49,35
Original pack 6 x 1 kg			46,88/1 kg
9485.3	2.5 kg	plastic	99,90

Sodium diethyldithiocarbamate
▸ Sodium diethyldithiocarbamate trihydrate
see page 1282

Sodium diethyldithiocarbamate trihydrate



Diethyldithiocarbamic acid sodium salt · Sodium diethyldithiocarbamate · Cupral · DDTC

$C_5H_{10}NNaS_2$ · 3 H_2O · D 1,1 g/cm³ · mp 95 °C
CAS No. 20624-25-3 · EC no. 205-710-6
UN no. 3077 · ADR 9 III · WGK 2

Warning H302-H410

Sodium diethyldithiocarbamate trihydrate
p.a., ACS

Reagent for copper.

Dissolve 0.1 g in 100 ml water

Guarantee analysis
Melting point ..... 92-96 °C
Solubility in H_2O ..... complies
Sodium (as Na_2SO_4) ..... 30,5-32,5 %
Suitability as reagent for copper ..... complies

Art. No.	Pack Qty.	Pack.	€
2601.1	25 g	plastic	28,95
2601.2	100 g	plastic	52,60
2601.3	500 g	plastic	177,40
Original pack 6 x 500 g			168,53/500 g

Sodium dihydrogen phosphate

Sodium biphosphate · Sodium phosphate, monobasic · Monosodium phosphate

NaH_2PO_4 · D 2,357 g/cm³ · mp 650 °C
CAS No. 7558-80-7 · EC no. 231-449-2
WGK 1

Sodium dihydrogen phosphate
≥98 %, extra pure, anhydrous

Type analysis
Assay ..... ≥98,0 %
Na_2O ..... 25,0-26,0 %
P_2O_5 ..... 58,0-60,0 %
Fluoride (F) ..... ≤0,001 %
As (Arsenic) ..... ≤0,0001 %
Cd (Cadmium) ..... ≤0,0001 %
Hg (Mercury) ..... ≤0,0001 %
Pb (Lead) ..... ≤0,0001 %
Heavy metals (as Pb) ..... ≤0,001 %
pH (1 % solution) 4,4-4,6
Loss on drying (105 °C) ..... ≤2,0 %
In water insoluble matter ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
1H52.1	100 g	plastic	21,40
1H52.2	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
1H52.3	1 kg	plastic	71,95
Original pack 6 x 1 kg			68,35/1 kg
1H52.4	2.5 kg	plastic	145,15

Sodium dihydrogen phosphate monohydrate

Sodium biphosphate · Sodium phosphate, monobasic · Monosodium phosphate

NaH_2PO_4 · H_2O · D 2,04 g/cm³ · mp >100 °C
CAS No. 10049-21-5 · EC no. 231-449-2
WGK 1

Sodium dihydrogen phosphate monohydrate
≥98 %, p.a., ACS

Molecular biology. For softening water. Additive for galvanic baths.

Guarantee analysis
Assay (acidim.) ..... 98,0-102,0 %
pH value (5 % in water) 4,1-4,5
In H_2O insoluble matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,003 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,005 %
Heavy metals ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
K300.1	500 g	plastic	34,30
Original pack 6 x 500 g			32,59/500 g
K300.2	1 kg	plastic	51,10
Original pack 6 x 1 kg			48,55/1 kg
K300.3	2.5 kg	plastic	103,10
K300.5	25 kg	plastic	697,70

Sodium dihydrogen phosphate monohydrate
≥98 %, USP, BP

Guarantee analysis
Assay (acidim., dry substance) ..... 98,0-100,5 %
Identity ..... complies
pH-value (5 % solution) 4,2-4,5
Appearance of solution ..... clear, colourless
In H_2O insoluble matter ..... ≤0,01 %
Loss on drying (130 °C) ..... 11,5-14,5 %
Chloride (Cl) ..... ≤0,014 %
Sulphate (SO_4) ..... ≤0,03 %
Al, Ca and related elements ..... complies
Arsenic (As) ..... ≤0,0002 %
Iron (Fe) ..... ≤0,001 %
Volatile organic impurities ..... complies
$KMnO_4$ reducing substances (as O) ..... complies

Art. No.	Pack Qty.	Pack.	€
T878.1	500 g	plastic	34,95
Original pack 6 x 500 g			33,20/500 g
T878.2	1 kg	plastic	55,40
Original pack 6 x 1 kg			52,63/1 kg
T878.3	2.5 kg	plastic	112,90
T878.4	5 kg	plastic	188,15
T878.7	25 kg	plastic	698,75

Sodium dihydrogen phosphate dihydrate

Sodium biphosphate · Sodium phosphate, monobasic · Monosodium phosphate

NaH_2PO_4 · 2 H_2O · D 1,91 g/cm³ · mp 60 °C
CAS No. 13472-35-0 · EC no. 231-449-2
WGK 1

Sodium dihydrogen phosphate dihydrate
≥99 %, p.a.

For molecular biology

Guarantee analysis
Assay (acidim.) ..... ≥99,0 %
pH value (5 % in H_2O) 4,2-4,5
In H_2O insoluble matter ..... ≤0,005 %
Total nitrogen (as N) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,003 %
Arsenic (As) ..... ≤0,00005 %
Lead (Pb) ..... ≤0,0002 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0002 %
Magnesium (Mg) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
T879.1	500 g	plastic	37,55
Original pack 6 x 500 g			35,67/500 g
T879.2	1 kg	plastic	62,25
Original pack 6 x 1 kg			59,14/1 kg
T879.3	2.5 kg	plastic	134,40
T879.5	25 kg	plastic	1.171,75

Sodium dihydrogen phosphate dihydrate
≥98 %, Ph. Eur., USP

Guarantee analysis
Assay ..... 98,0-100,5 %
Identity ..... complies
Appearance of solution ..... complies
In H_2O insoluble matter ..... ≤0,2 %
pH value (5 % in water) 4,2-4,5
Loss on drying (130 °C) ..... 21,5-24,0 %
Chloride (Cl) ..... ≤0,014 %

Sulphate (SO_4) ..... ≤0,03 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,0001 %
Mercury (Hg) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,001 %
Reducing substances ..... complies
Al, Ca and related elements ..... complies

Art. No.	Pack Qty.	Pack.	€
2370.3	500 g	plastic	20,35
Original pack 6 x 500 g			19,33/500 g
2370.1	1 kg	plastic	34,30
Original pack 6 x 1 kg			32,59/1 kg
2370.2	2.5 kg	plastic	64,40
2370.5	25 kg	plastic	450,45

Sodium diphenylaminesulfonate

▸ Diphenylamine-4-sulphonic acid sodium salt see page 892

tetra-Sodium diphosphate decahydrate

TSPP · tetra- Sodium pyrophosphate

$Na_4P_2O_7 \cdot 10\ H_2O$ · D 1,82 g/cm³ · mp 93,8 °C
CAS No. 13472-36-1 · EC no. 231-767-1
WGK 1

Danger H302-H318

tetra-Sodium diphosphate decahydrate
≥99 %, p.a.

Guarantee analysis
Assay (acidim.) ..... ≥99,0 %
pH value (5 % in H_2O) 9,5-10,7
In H_2O insoluble matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,005 %
Nitrate (NO_3) ..... ≤0,003 %
Arsenic (As) ..... ≤0,0003 %
Lead (Pb) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,01 %
Nickel (Ni) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
T883.1	500 g	plastic	55,80
Original pack 6 x 500 g			53,01/500 g
T883.2	1 kg	plastic	92,35
Original pack 6 x 1 kg			87,73/1 kg
T883.3	2.5 kg	plastic	188,15

tetra-Sodium diphosphate decahydrate
≥98 %, extra pure

Type analysis
Assay (acidim., dry substance) ..... ≥98,0 %
pH value (5 % in H_2O) 9,5-10,8
In H_2O insoluble matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,05 %
Iron (Fe) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
0269.1	500 g	plastic	26,35
Original pack 6 x 500 g			25,03/500 g
0269.2	1 kg	plastic	42,50
Original pack 6 x 1 kg			40,38/1 kg
0269.3	2.5 kg	plastic	96,25
0269.5	25 kg	plastic	736,40

Sodium-1-dodecane sulphonate

▸ Dodecane-1-sulphonic acid sodium salt see page 899

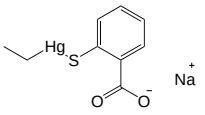
Sodium dodecyl sulphate

▸ SDS see page 1254

Sodium EDTA solution

▸ EDTA disodium salt solutions see page 905

Sodium ethylmercurithio-salicylate



Ethylmercurithiosalicylate sodium salt · Merthiolate · Thimerosal · Thiomersalate

$C_9H_9HgNaO_2S$ · mp 232 to 233 °C · flp 250 °C
CAS No. 54-64-8 · EC no. 200-210-4
UN no. 2025 · ADR 6.1 II · WGK 3

Danger H300+H310+H330-H373-H410

Sodium ethylmercurithiosalicylate
≥97 %

Type analysis
Assay (dry substance) ..... ≥97 %
Loss on drying ..... ≤0,5 %
Mercury ions ..... ≤0,7 %

Art. No.	Pack Qty.	Pack.	€
6389.1	10 g	plastic	85,90
6389.2	50 g	plastic	332,20

Sodium fluoride

NaF · D 2,76 g/cm³ · mp 996 °C · bp 1695 °C
CAS No. 7681-49-4 · EC no. 231-667-8
UN no. 1690 · ADR 6.1 III · WGK 1

Danger H301-H315-H319-EUH032

Sodium fluoride
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
4503.1	10 g	plastic	73,00
4503.2	50 g	plastic	238,15

Sodium fluoride
≥99 %, p.a., ACS, ISO

Guarantee analysis
Assay (compl.) ..... ≥99,0 %
In H_2O insoluble matter ..... ≤0,005 %
Loss on drying (150 °C) ..... ≤0,2 %
Acidity ..... ≤0,025 meq/g
Alkalinity ..... ≤0,01 meq/g
Sodium hexafluorosilicate (Na_2SiF_6) ..... ≤0,1 %
Chloride (Cl) ..... ≤0,003 %
Sulphate (SO_4) ..... ≤0,01 %
Sulphite (SO_3) ..... ≤0,005 %
Lead (Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,002 %
Potassium (K) ..... ≤0,01 %
Copper (Cu) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,003 %
Heavy metals (as Pb) ..... ≤0,001 %

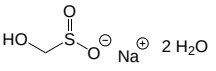
Art. No.	Pack Qty.	Pack.	€
P756.1	500 g	plastic	62,25
Original pack 6 x 500 g			59,14/500 g
P756.2	1 kg	plastic	117,20
Original pack 6 x 1 kg			111,34/1 kg
P756.3	2.5 kg	plastic	246,20

Sodium fluoride
≥99 %, extra pure

Type analysis
Assay (titr.) ..... ≥99,0 %
Free alkali (as NaOH) ..... ≤0,1 %
Sodium hexafluorosilicate (Na_2SiF_6) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,02 %
Arsenic (As) ..... ≤0,00005 %
Heavy metals (as Pb) ..... ≤0,001 %
Lead (Pb) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,005 %
Loss on drying (150 °C) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
2618.1	500 g	plastic	32,15
Original pack 6 x 500 g			30,54/500 g
2618.2	1 kg	plastic	47,85
Original pack 6 x 1 kg			45,46/1 kg
2618.3	2.5 kg	plastic	82,70

Sodium formaldehyde sulphoxylate



Rongalit®

$CH_3NaO_3S \cdot 2\ H_2O$ · D 1,74 g/cm³ · mp 50 °C · flp >100 °C
CAS No. 6035-47-8 · EC no. 205-739-4
WGK 1

Warning H341-H361d-EUH031

Sodium formaldehyde sulphoxylate
>98 %, for synthesis

Type analysis
Assay ..... >98 %

Art. No.	Pack Qty.	Pack.	€
4553.2	500 g	plastic	28,95
Original pack 6 x 500 g			27,50/500 g
4553.1	1 kg	plastic	49,35
Original pack 6 x 1 kg			46,88/1 kg

Sodium formate

Formic acid sodium salt

HCOONa · D 1,92 g/cm³ · mp 253 °C · bp >411 °C
CAS No. 141-53-7 · EC no. 205-488-0
WGK 1

Sodium formate
≥99 %, p.a., ACS

Precipitant for noble metals, extraction reagent for the determination of phosphate in soil samples.

Guarantee analysis
Assay (iodom.) ..... ≥99,0 %
pH value (5 % in H_2O) 7,0-8,5
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,002 %
Sulphate (SO_4) ..... ≤0,001%
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,0005 %
Loss on drying (150 °C) ..... ≤0,5 %
Heavy metals (as Pb) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4404.1	250 g	plastic	40,75
4404.2	500 g	plastic	71,95
Original pack 6 x 500 g			68,35/500 g
4404.3	1 kg	plastic	128,50
Original pack 6 x 1 kg			122,08/1 kg

Sodium formate D

DCOONa · D ~1,95 g/cm³ · mp 253 °C · bp >411 °C
CAS No. 3996-15-4 · EC no. 622-208-6
WGK 1

Sodium formate D
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

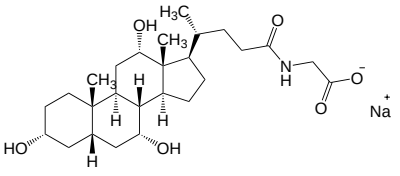
Guarantee analysis
Deuterising degree ..... ≥99,5 %
Loss on drying (160 °C) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
1L39.1	10 g	glass	66,55

Sodium gluconate
▸ Gluconic acid sodium salt see page 961

Sodium glucuronate
▸ D-Glucuronic acid sodium salt monohydrate see page 963

Sodium glycocholate



Glycocholic acid sodium salt

$C_{26}H_{42}NO_6Na$ · mp 210 to 215 °C
CAS No. 863-57-0 · EC no. 212-730-9
WGK 1

Sodium glycocholate
≥98 %, for biochemistry

Type analysis
Appearance ..... white to off-white powder
Assay (titr.) ..... ≥98 %
Assay ..... ≥98 %
Solution (5 % in water) ..... colourless to light yellowish, clear
Water (KF) ..... ≤10 %
Specific rotation $[\alpha]_D^{20}$ (c=2 in H_2O, dry substance) ..... +26° to +30°

Art. No.	Pack Qty.	Pack.	€
4181.1	250 mg	glass	49,35
4181.2	1 g	glass	149,45

Sodium-1-heptane sulphonate
▸ Heptane-1-sulphonic acid sodium salt see page 980

Sodium hexafluoroaluminate

Cryolite · Sodium aluminium hexafluoride

Na_3AlF_6 · D 2,95 g/cm³ · mp 1009 to 1012 °C
CAS No. 13775-53-6 · EC no. 237-410-6
UN no. 3077 · ADR 9 III · WGK 3

Danger H332-H372-H411

Sodium hexafluoroaluminate
pure, synthetic

Type analysis
Assay (Na) ..... 30,0-32,0 %
Assay (Al) ..... 12,0-13,5 %
Fluoride (F) ..... ≥53,0 %
Chloride (Cl) ..... ≤0,1 %
Silicate (SiO_2) ..... ≤0,5 %
Sulphate (SO_4) ..... ≤0,5 %
Fe (Iron) ..... ≤0,05 %
Pb (Lead) ..... ≤0,0005 %
Loss on ignition (550 °C) ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
1HH7.1	100 g	plastic	22,50
1HH7.2	500 g	plastic	46,15
Original pack 6 x 500 g			43,84/500 g
1HH7.3	1 kg	plastic	76,25
Original pack 6 x 1 kg			72,44/1 kg

Sodium-1-hexane sulphonate
▸ Hexane-1-sulphonic acid sodium salt see page 984

Sodium hexanitrocobaltate(III)

Cobalt(III) sodium nitrite · Sodium cobalt nitrite

$Na_3Co(NO_2)_6$ · mp 220 °C
CAS No. 13600-98-1 · EC no. 237-077-7
UN no. 1479 · ADR 5.1 II · WGK 1

Danger H272-H317-H351

Sodium hexanitrocobaltate(III)
p.a., ACS

Determination of potassium.

Guarantee analysis
In diluted acetic acid insoluble matter .... ≤0,02 %
Suitability for determination of potassium ... complies

Art. No.	Pack Qty.	Pack.	€
4409.1	25 g	plastic	25,30
4409.2	100 g	plastic	71,95
4409.3	250 g	plastic	149,45

Sodium hydrogen carbonate

Sodium bicarbonate

$NaHCO_3$ · D 2,21 g/cm³ · mp >500 °C
CAS No. 144-55-8 · EC no. 205-633-8
WGK 1

Sodium hydrogen carbonate
≥99,5 %, p.a., ACS, ISO

Neutralizing agent, buffer substance

Guarantee analysis
Assay (acidim.) ..... ≥99,5 %
In H_2O insoluble matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,001 %
Silicate (SiO_2) ..... ≤0,005 %
Total nitrogen (as N) ..... ≤0,0005 %
Sulphur containing parts (as SO_4) ..... ≤0,003 %
Iodine reducing substances (as I) ..... ≤0,005 %
Heavy metals ..... ≤0,0005 %
Arsenic (As) ..... ≤0,00004 %
Lead (Pb) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
6885.2	500 g	plastic	23,55
Original pack 6 x 500 g			22,37/500 g
6885.1	1 kg	plastic	38,60
Original pack 6 x 1 kg			36,67/1 kg
6885.3	5 kg	plastic	149,45
6885.5	25 kg	plastic	579,45

Sodium hydrogen carbonate
CELLPURE® ≥99,5 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤6 I.U./g
Assay ..... ≥99,5 %
Appearance of solution ..... clear and colorless
Loss on drying ..... ≤0,25 %
pH-value (5 % solution) ..... ≤8,6
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,015 %
Ammonium (NH_4) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,0002 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
HN01.1	500 g	plastic	19,25
Original pack 6 x 500 g			18,29/500 g
HN01.2	1 kg	plastic	29,60
Original pack 6 x 1 kg			28,12/1 kg
HN01.3	5 kg	plastic	95,70

Sodium hydrogen carbonate
≥99 %, Ph. Eur., extra pure

Guarantee analysis
Appearance ..... white or almost white, crystalline powder
Assay (titr.) ..... 99,0-100,5 %
Identity ..... complies
pH-value (5 %, water) ..... ≤8,6
Appearance of solution ..... complies
Chloride (Cl) ..... ≤0,015 %
Sulphate (SO_4) ..... ≤0,015 %
Ammonium (NH_4) ..... ≤0,002 %
Carbonate (CO_3) ..... complies
Heavy metals (as Pb) ..... ≤0,0005 %

Arsenic (As) ..... ≤0,0002 %
Iron (Fe) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,01 %

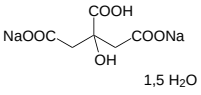
Art. No.	Pack Qty.	Pack.	€
8551.1	1 kg	plastic	24,65
Original pack 6 x 1 kg			23,42/1 kg
8551.2	5 kg	plastic	67,65
8551.5	25 kg	plastic	209,65

Sodium hydrogen carbonate
≥99 %

Type analysis
Assay ..... ≥99 %
Loss on drying ..... ≤0,25 %
Arsenic (As) ..... ≤0,0002 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
0965.1	500 g	plastic	14,55
Original pack 6 x 500 g			13,82/500 g
0965.2	1 kg	plastic	21,00
Original pack 6 x 1 kg			19,95/1 kg
0965.3	5 kg	plastic	59,05

di-Sodium hydrogen citrate 1,5-hydrate



$C_6H_6Na_2O_7 \cdot 1,5\ H_2O$ · mp 149 °C
CAS No. 6132-05-4 · EC no. 205-623-3
WGK 1

di-Sodium hydrogen citrate 1,5-hydrate
≥99 %, cryst.

Guarantee analysis
Assay (dry substance) ..... ≥99,0 %
pH value (1 % in H_2O) 4,9-5,2
Water ..... ≤13 %
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,15 %
Oxalate (as $C_2H_2O_4$) ..... ≤0,01 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,0001 %
Mercury (Hg) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
2611.1	250 g	plastic	26,80
2611.2	500 g	plastic	40,35
Original pack 6 x 500 g			38,33/500 g
2611.3	1 kg	plastic	67,65
Original pack 6 x 1 kg			64,27/1 kg

Sodium hydrogen diacetate
▸ Sodium diacetate see page 1282

di-Sodium hydrogen phosphate

Sodium monohydrogen phosphate · Sodium phosphate, dibasic · di-Sodium orthophosphate · *sec*-Sodium phosphate

Na_2HPO_4 · mp 450 °C
CAS No. 7558-79-4
WGK 1

di-Sodium hydrogen phosphate
≥99 %, p.a., ACS, anhydrous

Molecular biology ; Reagent for the detection of Mg, Li, Pb and uric acid.

Guarantee analysis
Assay (acidim.) ..... ≥99,0 %
pH value (5 % in water) 8,7-9,3
In H_2O insoluble matter ..... ≤0,01 %
Loss on drying (105 °C) ..... ≤0,2 %
Total nitrogen (as N) ..... ≤0,002 %
Chloride (Cl) ..... ≤0,002 %
Pyrophosphate (P_2O_7) ..... ≤0,2 %
Sulphate (SO_4) ..... ≤0,005 %
Arsenic (As) ..... ≤0,00005 %
Lead (Pb) ..... ≤0,001 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,001 %
Cobalt (Co) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,01 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,001 %
Manganese (Mn) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,001 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
P030.1	500 g	plastic	67,65
Original pack 6 x 500 g			64,27/500 g
P030.2	1 kg	plastic	117,20
Original pack 6 x 1 kg			111,34/1 kg
P030.3	2.5 kg	plastic	246,20

di-Sodium hydrogen phosphate
≥98 %, Ph. Eur., USP, anhydrous

Guarantee analysis
Assay (acidim., dry substance) ..... 98,0-100,5 %
Identity ..... complies
pH value (5 % in H_2O) 8,7-9,4
Appearance of solution ..... complies
In H_2O insoluble matter ..... ≤0,025 %
Loss on drying (105 °C) ..... ≤1,0 %
Total nitrogen (as N) ..... ≤0,003 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,03 %
Arsenic (As) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,002 %
Sodium dihydrogen phosphate ..... complies
$KMnO_4$ reducing substances (as O) ..... complies

Art. No.	Pack Qty.	Pack.	€
T876.1	500 g	plastic	38,60
Original pack 6 x 500 g			36,67/500 g
T876.2	1 kg	plastic	64,40
Original pack 6 x 1 kg			61,18/1 kg
T876.3	5 kg	plastic	267,70

di-Sodium hydrogen phosphate dihydrate

Sodium monohydrogen phosphate · Sodium phosphate, dibasic · di-Sodium orthophosphate · *sec*-Sodium phosphate

$Na_2HPO_4 \cdot 2\ H_2O$ · D 2,1 g/cm³ · mp 92 to 95 °C
CAS No. 10028-24-7 · EC no. 231-448-7
WGK 1

di-Sodium hydrogen phosphate dihydrate
≥99,0 %, p.a.

Reagent for the preparation of phosphate buffers.

Guarantee analysis
Assay (acidim.) ..... ≥99,0 %
pH-value (5 % solution) 9,0-9,2
In H_2O insoluble matter ..... ≤0,2 %
Chloride (Cl) ..... ≤0,01 %
Total nitrogen (as N) ..... ≤0,001 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,0001 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,001 %
Chromium (Cr) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,006 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0003 %
Magnesium (Mg) ..... ≤0,001 %
Manganese (Mn) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4984.2	500 g	plastic	32,15
Original pack 6 x 500 g			30,54/500 g
4984.1	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg
4984.3	2.5 kg	plastic	107,40
4984.4	5 kg	plastic	170,95
4984.5	10 kg	plastic	299,95
4984.7	25 kg	plastic	564,40

di-Sodium hydrogen phosphate dihydrate
≥98 %, Ph. Eur., USP

Guarantee analysis
Appearance ..... colourless crystals
Assay (acidim., dry substance) ..... 98,0-101,0 %
Identity ..... complies
Appearance of solution ..... complies
In H_2O insoluble matter ..... ≤0,4 %
Loss on drying (130 °C) ..... 19,5-21,0 %
Sulphate (SO_4) ..... ≤0,1 %
Chloride (Cl) ..... ≤0,04 %
Arsenic (As) ..... ≤0,0004 %
Iron (Fe) ..... ≤0,004 %
Heavy metals (as Pb) ..... ≤0,002 %
Sodium dihydrogen phosphate ..... ≤0,025
Reducing substances ..... complies

Art. No.	Pack Qty.	Pack.	€
T877.2	500 g	plastic	30,00
Original pack 6 x 500 g			28,50/500 g
T877.1	1 kg	plastic	50,45
Original pack 6 x 1 kg			47,93/1 kg
T877.3	5 kg	plastic	209,65

di-Sodium hydrogen phosphate heptahydrate

Sodium monohydrogen phosphate · Sodium phosphate, dibasic · di-Sodium orthophosphate · *sec*-Sodium phosphate

$Na_2HPO_4 \cdot 7\ H_2O$ · D 1,68 g/cm³ · mp 48 °C
CAS No. 7782-85-6 · EC no. 231-448-7
WGK 1

di-Sodium hydrogen phosphate heptahydrate
≥98 %, p.a., ACS

Guarantee analysis
Assay (acidim.) ..... 98,0-102,0 %
In H_2O insoluble matter ..... ≤0,005 %
pH value (5 % in H_2O) 8,7-9,3
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
X987.1	500 g	plastic	27,85
Original pack 6 x 500 g			26,46/500 g
X987.2	1 kg	plastic	44,65
Original pack 6 x 1 kg			42,42/1 kg
X987.3	2.5 kg	plastic	92,35

di-Sodium hydrogen phosphate dodecahydrate

Sodium monohydrogen phosphate · Sodium phosphate, dibasic · di-Sodium orthophosphate · *sec*-Sodium phosphate

$Na_2HPO_4 \cdot 12\ H_2O$ · D 1,52 g/cm³ · bp 30 to 40 °C
CAS No. 10039-32-4 · EC no. 600-088-6
WGK 1

di-Sodium hydrogen phosphate dodecahydrate
≥99 %, p.a., ISO

Buffer substance

Guarantee analysis

Assay (acidim.) ..... 99,0-102,0 %
In H_2O insoluble matter ..... ≤0,005 %
Nitrogen compounds (as N) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,005 %
Arsenic (As) ..... ≤0,00005 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,01 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,001 %
Manganese (Mn) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
T106.1	500 g	plastic	52,60
Original pack 6 x 500 g			49,97/500 g
T106.2	1 kg	plastic	92,35
Original pack 6 x 1 kg			87,73/1 kg
T106.3	2.5 kg	plastic	198,90

di-Sodium hydrogen phosphate dodecahydrate
≥98,5 %, Ph. Eur.

Type analysis

Appearance ..... colourless crystals
Assay (acidim.) ..... 98,5-102,5 %
Identity ..... complies
Appearance of solution ..... clear, colorless
Loss on drying (130 °C) ..... 57-61 %
Sodium dihydrogen phosphate ..... ≤2,5 %
Sulphate (SO_4) ..... ≤0,05 %
Chloride (Cl) ..... ≤0,02 %
Iron (Fe) ..... ≤0,002 %
$KMnO_4$ red. matter ..... complies

Art. No.	Pack Qty.	Pack.	€
N350.1	1 kg	plastic	40,35
Original pack 6 x 1 kg			38,33/1 kg
N350.2	5 kg	plastic	158,60
N350.5	25 kg	plastic	564,40

Sodium hydrogen sulphate

Sodium bisulphate

$NaHSO_4$ · D 2,44 g/cm³ · mp 179 °C
CAS No. 7681-38-1 · EC no. 231-665-7
WGK 1

Danger H318

Sodium hydrogen sulphate
≥93 %, pearls

Type analysis

Appearance ..... white to light yellow pearls
Assay (titr.) ..... ≥93 %
Water ..... ≤0,2 %
Iron (Fe) ..... ≤0,015 %

Art. No.	Pack Qty.	Pack.	€
2373.1	1 kg	plastic	21,00
Original pack 6 x 1 kg			19,95/1 kg
2373.2	5 kg	plastic	53,65

Sodium hydrogen sulphite solution

▸ Sodium bisulphite solution see page 1278

Sodium hydrosulphide

Sodium sulfhydrate

$NaHS \cdot x\ H_2O$ · D 1,55 g/cm³ · mp ≥44 to ≤48 °C
CAS No. 207683-19-0 · EC no. 683-666-0
UN no. 2949 · ADR 8 II · WGK 3

Danger H290-H301-H314-H400-EUH031 EUH071

Sodium hydrosulphide
≥70 %, pure, flakes

Type analysis

Assay ..... 70,0-73,0 %
Sodium carbonate (Na_2CO_3) ..... ≤1,0 %
Sodium sulfide (Na_2S) ..... ≤2,5 %
Fe (Iron) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
1KPK.1	100 g	plastic	22,05
1KPK.2	500 g	plastic	45,05
Original pack 6 x 500 g			42,80/500 g
1KPK.3	1 kg	plastic	74,10
Original pack 6 x 1 kg			70,40/1 kg
1KPK.4	2.5 kg	plastic	146,75

Sodium hydroxide

NaOH · D 2,13 g/cm³ · mp 319 to 323 °C · bp 1390 °C
CAS No. 1310-73-2 · EC no. 215-185-5
UN no. 1823 · ADR 8 II · WGK 1

Danger H290-H314

Sodium hydroxide
≥98 %, p.a., ISO, in pellets

Reagent for the preparation of sodium hydroxide solution.

Guarantee analysis

Assay (acidim.) ..... ≥98 %
Carbonate (as Na_2CO_3) ..... ≤1 %
Total nitrogen (as N) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,005 %
Phosphate (PO_4) ..... ≤0,001 %
Silicate (SiO_2) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,0005 %
Aluminium (Al) ..... ≤0,002 %
Calcium (Ca) ..... ≤0,002 %
Iron (Fe) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,0005 %
Potassium (K) ..... ≤0,05 %
Nickel (Ni) ..... ≤0,001 %
Lead (Pb) ..... ≤0,001 %
Arsenic (As) ..... ≤0,0001 %
Zinc (Zn) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
6771.3	500 g	plastic	25,70
Original pack 6 x 500 g			24,42/500 g
6771.1	1 kg	plastic	42,90
Original pack 6 x 1 kg			40,76/1 kg
6771.4	2.5 kg	plastic	85,90
6771.2	5 kg	plastic	160,20
6771.6	10 kg	plastic	299,95
6771.5	25 kg	plastic	639,65

Sodium hydroxide
≥97 %, p.a., ACS

Guarantee analysis

Assay ..... ≥97,0 %
Carbonate (as Na_2CO_3) ..... ≤1,0 %
Total nitrogen (as N) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,005 %
Phosphate (PO_4) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,003 %
Heavy metals (as Ag) ..... ≤0,002 %
Ca (Calcium) ..... ≤0,005 %
Fe (Iron) ..... ≤0,001 %
Hg (Mercury) ..... ≤0,00001 %
K (Potassium) ..... ≤0,02 %
Mg (Magnesium) ..... ≤0,002 %
Ni (Nickel) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
1CCX.1	500 g	plastic	19,25
Original pack 6 x 500 g			18,29/500 g
1CCX.2	1 kg	plastic	30,65
Original pack 6 x 1 kg			29,12/1 kg
1CCX.3	2.5 kg	plastic	60,75
1CCX.4	5 kg	plastic	112,90
1CCX.5	10 kg	plastic	198,90
1CCX.6	25 kg	plastic	418,20

Sodium hydroxide
≥98 %, Ph. Eur., USP, BP, in pellets

Guarantee analysis

Assay (acidim.) ..... 98,0-100,5 %
Identity ..... complies
Appearance of solution ..... complies
Insoluble matter ..... complies
Carbonate (as Na_2CO_3) ..... ≤1,0 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,5
Sodium (Na) ..... 54-59,8 %

Art. No.	Pack Qty.	Pack.	€
P031.1	500 g	plastic	24,65
Original pack 6 x 500 g			23,42/500 g
P031.2	1 kg	plastic	40,75
Original pack 6 x 1 kg			38,71/1 kg
P031.4	2.5 kg	plastic	81,60
P031.3	5 kg	plastic	149,45
P031.5	10 kg	plastic	289,20
P031.7	25 kg	plastic	622,45

Sodium hydroxide
≥99 %, beads

Reagent for neutralization.

Type analysis
Assay ..... ≥99,0 %
Aluminium (Al) ..... ≤0,0001 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,00005 %
Cadmium (Cd) ..... ≤0,00005 %
Calcium (Ca) ..... ≤0,001 %
Chromium (Cr) ..... ≤0,0002 %
Iron (Fe) ..... ≤0,001 %
Copper (Cu) ..... ≤0,00005 %
Nickel (Ni) ..... ≤0,001 %
Mercury (Hg) ..... ≤0,000001 %
Sodium carbonate (Na_2CO_3) ..... ≤0,4 %
Sodium chloride (NaCl) ..... ≤0,02 %
Sodium sulphate (Na_2SO_4) ..... ≤0,02 %
Silicate (SiO_2) ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
9356.1	1 kg	plastic	23,55
Original pack 6 x 1 kg			22,37/1 kg
9356.4	2.5 kg	plastic	48,30
9356.3	5 kg	plastic	81,60
9356.2	10 kg	plastic	149,45
9356.5	25 kg	plastic	267,70

Sodium hydroxide solution

CAS No. 1310-73-2 · EC no. 215-185-5

Sodium hydroxide solution 50 %

Sodium hydroxide solution
50 %, extra pure

NaOH · D 1,53 g/cm³ · mp 12 °C · bp 142 °C

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Assay (NaOH) ..... 49,0-51,0 %
Density (20 °C) ..... ≥1,5160 g/cm³
Sodium carbonate ..... ≤0,2 %
Sodium chloride ..... ≤0,01 %
Iron (Fe) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
8655.1	1 l	plastic	26,80
Original pack 6 x 1 l			25,46/1 l
8655.3	2.5 l	plastic	41,85
Original pack 4 x 2.5 l			39,76/2.5 l
8655.4	5 l	plastic	70,45
Original pack 2 x 5 l			66,93/5 l
8655.2	10 l	plastic	105,25
8655.5	25 l	plastic	209,65

Sodium hydroxide solution 45 %

Sodium hydroxide solution
45 %, extra pure

Neutralization of acids, water treatment.

NaOH · D 1,48 g/cm³ · mp 9 °C · bp 135 °C

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Assay (NaOH) ..... 44,0-46,0 %
Density (20 °C) ..... 1,468-1,488 g/cm³
Sodium carbonate ..... ≤0,2 %
Sodium chloride ..... ≤0,01 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
0993.1	1 l	plastic	25,70
Original pack 6 x 1 l			24,42/1 l
0993.2	2.5 l	plastic	39,70
Original pack 4 x 2.5 l			37,72/2.5 l
0993.5	5 l	plastic	66,15
Original pack 2 x 5 l			62,84/5 l
0993.3	10 l	plastic	100,55
0993.4	25 l	plastic	201,60

Sodium hydroxide solution 40 %

Sodium hydroxide solution
40 %, extra pure

NaOH · D 1,43 g/cm³ · mp 7 °C · bp 126 °C

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Assay ..... 39,0-41,0 %
Density (20 °C) ..... 1,4201-1,4397 g/cm³
Sodium carbonate ..... ≤0,5 %
Sodium chloride ..... ≤0,02 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
4347.1	1 l	plastic	24,65
Original pack 6 x 1 l			23,42/1 l
4347.2	2.5 l	plastic	38,20
Original pack 4 x 2.5 l			36,29/2.5 l
4347.5	5 l	plastic	62,90
Original pack 2 x 5 l			59,76/5 l
4347.3	10 l	plastic	97,30
4347.4	25 l	plastic	193,00

Sodium hydroxide solution 32 %

Sodium hydroxide solution
ROTIPURAN® ≥32 %, p.a.

For determination of nitrogen acc. to Kjeldahl; absorption of CO_2.

NaOH · D 1,35 g/cm³ · mp 9 °C · bp 120 °C

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Guarantee analysis
Assay (acidim.) ..... ≥32 %
Heavy metals (as Pb) ..... ≤0,0005 %
Total nitrogen (as N) ..... ≤0,0001 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,005 %
Phosphate (PO_4) ..... ≤0,0005 %
Silicate (SiO_2) ..... ≤0,001 %
Aluminium (Al) ..... ≤0,0005 %
Carbonate (as Na_2CO_3) ..... ≤0,5 %
Iron (Fe) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
T196.1	1 l	plastic	37,55
Original pack 6 x 1 l			35,67/1 l
T196.2	2.5 l	plastic	72,60
Original pack 4 x 2.5 l			68,97/2.5 l
T196.3	5 l	plastic	116,65
Original pack 2 x 5 l			110,82/5 l
T196.7	25 l	plastic	439,70

Sodium hydroxide solution
≥32 %, extra pure

Neutralizing and disintegrating agent

NaOH · D 1,35 g/cm³ · mp 9 °C · bp 120 °C

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Assay (NaOH) ..... ≥32 %
Density (20 °C) ..... 1,339-1,366 g/cm³
Sodium carbonate ..... ≤0,5 %
Sodium chloride ..... ≤0,01 %
Iron (Fe) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
T197.1	1 l	plastic	23,15
Original pack 6 x 1 l			21,99/1 l
T197.2	2.5 l	plastic	36,05
Original pack 4 x 2.5 l			34,25/2.5 l
T197.4	5 l	plastic	58,60
Original pack 2 x 5 l			55,67/5 l
T197.3	10 l	plastic	91,30
T197.5	30 l	plastic	186,55

Sodium hydroxide solution 25 %

Sodium hydroxide solution
25 %, extra pure

NaOH · D 1,27 g/cm³ · bp 100 °C

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Assay ..... 24,0-26,0 %
Density (20 °C) 1,2629-1,2848
Sodium carbonate (Na_2CO_3) ..... ≤0,2 %
Sodium chloride (NaCl) ..... ≤0,01 %
Iron (Fe) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4351.1	1 l	plastic	22,05
Original pack 6 x 1 l			20,95/1 l
4351.2	2.5 l	plastic	33,90
Original pack 4 x 2.5 l			32,21/2.5 l
4351.5	5 l	plastic	54,75
Original pack 2 x 5 l			52,01/5 l
4351.3	10 l	plastic	85,50
4351.4	25 l	plastic	174,70

Sodium hydroxide solution 20 %

Sodium hydroxide solution
20 %, extra pure

NaOH · D 1,22 g/cm³ · bp 100 °C

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Assay ..... 19,0-21,0 %
Density (20 °C) ..... 1,208-1,231 g/cm³
Sodium carbonate (Na_2CO_3) ..... ≤0,1 %
Sodium chloride (NaCl) ..... ≤0,01 %
Iron (Fe) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4357.1	1 l	plastic	21,40
Original pack 6 x 1 l			20,33/1 l
4357.2	2.5 l	plastic	32,80
Original pack 4 x 2.5 l			31,16/2.5 l
4357.5	5 l	plastic	53,25
Original pack 2 x 5 l			50,59/5 l
4357.3	10 l	plastic	83,35
4357.4	25 l	plastic	169,35

Sodium hydroxide solution 10 %

Sodium hydroxide solution
10 %, extra pure

NaOH · D 1,11 g/cm³ · bp >100 °C

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Assay ..... 9,0-11,0 %
Density (20 °C) ..... 1,0979-1,1199 g/cm³
Sodium carbonate ..... ≤0,1 %
Sodium chloride ..... ≤0,01 %
Iron (Fe) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4358.1	1 l	plastic	18,85
Original pack 6 x 1 l			17,91/1 l
4358.2	2.5 l	plastic	27,85
Original pack 4 x 2.5 l			26,46/2.5 l
4358.5	5 l	plastic	45,70
Original pack 2 x 5 l			43,42/5 l
4358.3	10 l	plastic	69,35
4358.4	25 l	plastic	139,25

Sodium hydroxide solution 5 %

Sodium hydroxide solution
5 %, extra pure

NaOH · D 1,05 g/cm³ · bp >100 °C

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Assay ..... 4,5-5,5 %
Density (20 °C) 1,0483-1,0593
Carbonate (CO_3) ..... ≤0,1 %
Chloride (Cl) ..... ≤0,01 %
Iron (Fe) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4359.1	1 l	plastic	18,20
Original pack 6 x 1 l			17,29/1 l
4359.2	2.5 l	plastic	26,80
Original pack 4 x 2.5 l			25,46/2.5 l
4359.5	5 l	plastic	41,85
Original pack 2 x 5 l			39,76/5 l
4359.3	10 l	plastic	64,40
4359.4	25 l	plastic	127,40

Sodium hydroxide solution 0.5 %

Sodium hydroxide solution
0,5 %, extra pure

NaOH · D 1 g/cm³ · bp 100 °C

UN no. 1824 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
Assay ..... 0,5-0,6 %
Sodium carbonate (Na_2CO_3) ..... ≤0,1 %
Sodium chloride (NaCl) ..... ≤0,01 %
Iron (Fe) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
2864.1	1 l	plastic	15,60
Original pack 6 x 1 l			14,82/1 l
2864.2	2.5 l	plastic	23,15
Original pack 4 x 2.5 l			21,99/2.5 l
2864.3	5 l	plastic	36,05
Original pack 2 x 5 l			34,25/5 l
2864.4	10 l	plastic	54,75
2864.5	25 l	plastic	96,25

Sodium hydroxide solution (0.01 N)

Sodium hydroxide solution
0,01 mol/l – 0,01 N, volumetric standard solution

NaOH · D 1 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,01 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
N073.1	1 l	plastic	24,20
Original pack 6 x 1 l			22,99/1 l

Sodium hydroxide solution (0.02 N)

Sodium hydroxide solution
0,02 mol/l – 0,02 N, volumetric standard solution

NaOH · D 1 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis
Titer 0,998-1,002
Amount-of-substance conc. (20 °C) ..... 0,02 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
0763.1	1 l	plastic	32,80
Original pack 6 x 1 l			31,16/1 l

Sodium hydroxide solution (0.05 N)

Sodium hydroxide solution
0,05 mol/l – 0,05 N, volumetric standard solution

NaOH · D 1,01 g/cm³ · bp 100 °C

UN no. 1824 · ADR 8 III · WGK 1

Warning H290

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,05 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
0224.1	1 l	plastic	26,80
Original pack 6 x 1 l			25,46/1 l

Sodium hydroxide solution (0.1 N)

Sodium hydroxide solution
0,1 mol/l – 0,1 N, volumetric standard solution

NaOH · D 1,01 g/cm³ · bp 100 °C

UN no. 1824 · ADR 8 III · WGK 1

Warning H290

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
K020.1	1 l	plastic	23,55
Original pack 6 x 1 l			22,37/1 l
K020.2	5 l	plastic	76,90
Original pack 2 x 5 l			73,06/5 l
K020.3	5 l	ROTI®CUBE	81,60
Original pack 2 x 5 l			77,52/5 l
K020.4	10 l	ROTI®CUBE	117,20

Sodium hydroxide solution
0,1 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.

NaOH · D 1,01 g/cm³ · bp 100 °C

UN no. 1824 · ADR 8 III · WGK 1

Warning H290

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l
Measurement uncertainty ..... ±0,1 %

Art. No.	Pack Qty.	Pack.	€
6783.1	1 l	plastic	28,95
Original pack 6 x 1 l			27,50/1 l

Sodium hydroxide solution
ROTI®Volum 0,1 mol/l – 0,1 N

Ampoule for preparation of 1000 ml volumetric solution.

NaOH · D 1,11 g/cm³ · bp >100 °C

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
CN56.1	1 unit(s)	plastic ampoule	27,45

Sodium hydroxide solution (0.2 N)

Sodium hydroxide solution
0,2 mol/l – 0,2 N, volumetric standard solution

NaOH · D 1 g/cm³ · bp 100 °C

UN no. 1824 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,2 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
N074.1	1 l	plastic	25,70
Original pack 6 x 1 l			24,42/1 l
N074.2	5 l	ROTI®CUBE	103,75
Original pack 2 x 5 l			98,56/5 l
N074.3	10 l	ROTI®CUBE	163,95

Sodium hydroxide solution (0.25 N)

Sodium hydroxide solution
0,25 mol/l – 0,25 N, volumetric standard solution

NaOH · D 1 g/cm³ · bp 100 °C

UN no. 1824 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis

Amount-of-substance conc. (20 °C) ..... 0,25 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
P711.1	1 l	plastic	25,30
Original pack 6 x 1 l			24,04/1 l
P711.2	5 l	ROTI®CUBE	79,05
Original pack 2 x 5 l			75,10/5 l
P711.3	10 l	ROTI®CUBE	131,70

Sodium hydroxide solution (0.33 N)

Sodium hydroxide solution
0,33 mol/l – 0,33 N, volumetric standard solution

NaOH · D 1 g/cm³ · bp 100 °C

UN no. 1824 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
Amount-of-substance conc. (20 °C) .. 0,33 mol/l ± 0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
0755.1	1 l	plastic	42,50
Original pack 6 x 1 l			40,38/1 l

Sodium hydroxide solution (0.5 N)

Sodium hydroxide solution
0,5 mol/l – 0,5 N, volumetric standard solution

NaOH · D 1 g/cm³ · bp 100 °C

UN no. 1824 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,5 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
P710.1	1 l	plastic	25,30
Original pack 6 x 1 l			24,04/1 l
P710.2	5 l	plastic	74,10
Original pack 2 x 5 l			70,40/5 l
P710.3	5 l	ROTI®CUBE	79,05
Original pack 2 x 5 l			75,10/5 l
P710.4	10 l	ROTI®CUBE	131,70

Sodium hydroxide solution
ROTI®Volum 0,5 mol/l – 0,5 N

Ampoule for preparation of 1000 ml volumetric solution.

NaOH · D 1,11 g/cm³ · bp >100 °C

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,5 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
CN57.1	1 unit(s)	plastic ampoule	27,45

Sodium hydroxide solution (1 N)

Sodium hydroxide solution
1 mol/l – 1 N, volumetric standard solution

NaOH · D 1,04 g/cm³

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Amount-of-substance conc. (20 °C) ..... 1 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
K021.1	1 l	plastic	23,55
Original pack 6 x 1 l			22,37/1 l
K021.2	5 l	plastic	76,90
Original pack 2 x 5 l			73,06/5 l
K021.3	5 l	ROTI®CUBE	81,60
Original pack 2 x 5 l			77,52/5 l
K021.4	10 l	ROTI®CUBE	117,20

Sodium hydroxide solution
1 mol/l – 1 N, volumetric standard solution, Reag. Ph. Eur.

NaOH · D 1,04 g/cm³

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Amount-of-substance conc. (20 °C) ..... 1 mol/l
Measurement uncertainty ..... ±0,1 %

Art. No.	Pack Qty.	Pack.	€
6785.1	1 l	plastic	28,95
Original pack 6 x 1 l			27,50/1 l

Sodium hydroxide solution
ROTI®Volum 1 mol/l – 1 N

Ampoule for preparation of 1000 ml volumetric solution.

NaOH · D 1,22 g/cm³ · bp 100 °C

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Amount-of-substance conc. (20 °C) ..... 1 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
CN58.1	1 unit(s)	plastic ampoule	28,95

Sodium hydroxide solution (2 N)

Sodium hydroxide solution
2 mol/l – 2 N, volumetric standard solution

NaOH · D 1,11 g/cm³ · bp >100 °C

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Amount-of-substance conc. (20 °C) ..... 2 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
T135.1	1 l	plastic	25,30
Original pack 6 x 1 l			24,04/1 l
T135.2	5 l	plastic	85,90
Original pack 2 x 5 l			81,61/5 l
T135.3	5 l	ROTI®CUBE	91,95
Original pack 2 x 5 l			87,35/5 l

Sodium hydroxide solution (4 N)

Sodium hydroxide solution
4 mol/l – 4 N, volumetric standard solution

NaOH · D 1,15 g/cm³ · bp >100 °C

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Amount-of-substance conc. (20 °C) ..... 4 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
T198.1	1 l	plastic	46,80
Original pack 6 x 1 l			44,46/1 l

Sodium hydroxide solution (5 N)

Sodium hydroxide solution
5 mol/l – 5 N, volumetric standard solution

NaOH · D 1,185 g/cm³ · mp 7 °C · bp 100 °C

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Amount-of-substance conc. (20 °C) ..... 5 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
KK71.1	1 l	plastic	40,75
Original pack 6 x 1 l			38,71/1 l

Sodium hydroxide solution (6 N)

Sodium hydroxide solution
6 mol/l – 6 N, volumetric standard solution

NaOH · D 1,22 g/cm³ · mp 7 °C · bp 100 °C

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Amount-of-substance conc. (20 °C) ..... 6 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
0214.1	1 l	plastic	126,75
Original pack 6 x 1 l			120,41/1 l

Sodium hydroxide solution (10 N)

Sodium hydroxide solution
10 mol/l – 10 N, volumetric standard solution

NaOH · D 1,33 g/cm³ · mp 7 °C · bp 100 °C

UN no. 1824 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Amount-of-substance conc. (20 °C) ..... 10 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
1E2N.1	500 ml	plastic	37,55

Sodium 3-hydroxybutyrate

▸ DL-3-Hydroxybutyric acid sodium salt
see page 999

Sodium hypochlorite solution

NaClO + H_2O · D 1,22 to 1,26 g/cm³ ·
mp -25 °C · bp 98 °C
CAS No. 7681-52-9 · EC no. 231-668-3
UN no. 1791 · ADR 8 II · WGK 2

Danger H290-H314-H410-EUH031

Sodium hypochlorite solution
12 % Cl, technical

Type analysis

Assay (active Cl in g/l)	150-182 g/l
Assay (active Cl in %)	12,3-14,9 %
Free alkali (as NaOH)	≤2,0 %

Daily loss of active chlorine in g/l: 5.6 g at 35 °C; 3.2 g at 30 °C; 2.0 g at 25 °C; 1.1 g at 20 °C.
Note: Possible storage time is limited!

Art. No.	Pack Qty.	Pack.	€
9062.3	1 l	plastic	25,70
Original pack 6 x 1 l			24,42/1 l
9062.4	2.5 l	plastic	40,35
Original pack 4 x 2.5 l			38,33/2.5 l
9062.1	10 l	plastic	68,70
9062.5	25 l	plastic	149,45

Sodium hypochlorite solution
5–10 % Cl, technical

Type analysis

Assay (active Cl)	5-10 %

Note: Possible storage time is limited!

Art. No.	Pack Qty.	Pack.	€
6846.1	1 l	plastic	17,10
Original pack 6 x 1 l			16,25/1 l
6846.2	2.5 l	plastic	25,70
Original pack 4 x 2.5 l			24,42/2.5 l
6846.3	10 l	plastic	49,35
6846.5	25 l	plastic	103,10

Sodium iodate

$NaIO_3$ · D 4,28 g/cm³
CAS No. 7681-55-2 · EC no. 231-672-5
UN no. 1479 · ADR 5.1 II · WGK 1

Danger H272-H302-H317-H334

Sodium iodate
≥99 %, p.a.

Oxidant

Guarantee analysis

Heavy metals (as Pb)	≤0,0005 %
Assay (iodom.)	≥99,0 %
pH value (5 % in H_2O)	5,0-8,0
Chloride, chlorate, bromide, bromate (as Cl)	≤0,02 %
Total nitrogen (N)	≤0,003 %
Iodide (I)	≤ 0,002 %
Sulphate (SO_4)	≤0,005 %
Iron (Fe)	≤0,001 %
Potassium (K)	≤0,02 %

Art. No.	Pack Qty.	Pack.	€
HN17.1	50 g	plastic	72,60
HN17.2	100 g	plastic	125,25

Sodium iodide

NaI · D 3,5 g/cm³ · mp 651 °C · bp 1304 °C
CAS No. 7681-82-5 · EC no. 231-679-3
UN no. 3077 · ADR 9 III · WGK 3

Danger H315-H319-H372-H400

Sodium iodide
≥99,5 %, p.a., ACS

Guarantee analysis

Assay (titr.)	≥99,5 %
pH value (5 % in water)	6,0-9,0
Chloride and bromide (as Cl)	≤0,01 %
In H_2O insoluble matter	≤0,01 %
Phosphate (PO_4)	≤0,001 %
Sulphate (SO_4)	≤0,005 %
Iodate (IO_3)	≤0,0003 %
Barium (Ba)	≤0,002 %
Calcium (Ca)	≤0,002 %
Iron (Fe)	≤0,0005 %
Potassium (K)	≤0,01 %
Magnesium (Mg)	≤0,001 %
Heavy metals (as Pb)	≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
A134.3	100 g	plastic	107,40
A134.1	250 g	plastic	235,45
A134.2	1 kg	plastic	854,65
Original pack 6 x 1 kg			811,92/1 kg

Sodium iodide
≥99 %, Ph. Eur.

Guarantee analysis

Appearance	colourless crystals
Assay	99,0-100,5 %
Identity	complies
Appearance of solution	complies
Loss on drying (105 °C)	≤3,0 %
Alkaline reacting substances	complies
Iodate (IO_3)	complies
Sulphate (SO_4)	≤0,015 %
Thiosulphate	complies
Iron (Fe)	≤0,002 %
Heavy metals	≤0,001 %

Art. No.	Pack Qty.	Pack.	€
8783.1	250 g	plastic	103,10
8783.2	1 kg	plastic	342,95
Original pack 6 x 1 kg			325,80/1 kg
8783.3	2.5 kg	plastic	772,95

Sodium lauryl sulphate
▸ SDS see page 1254

Sodium lignosulphonate
▸ Lignosulphonic acid sodium salt see page 1042

Sodium metabisulphite

Sodium pyrosulphite

$Na_2S_2O_5$ · D 2,36 g/cm³ · mp 150 °C
CAS No. 7681-57-4 · EC no. 231-673-0
WGK 1

Danger H302-H318-EUH031

Sodium metabisulphite
≥97 %, p.a., ACS

Bleaching agent

Guarantee analysis

Assay (iodom.)	≥97,0 %
In H_2O insoluble matter	≤0,005 %
Chloride (Cl)	≤0,005 %
Thiosulphate	≤0,05 %
Arsenic (As)	≤0,0005 %
Lead (Pb)	≤0,001 %
Iron (Fe)	≤0,001 %
Heavy metals (as Pb)	≤0,001 %

Art. No.	Pack Qty.	Pack.	€
P755.1	500 g	plastic	23,55
Original pack 6 x 500 g			22,37/500 g
P755.2	1 kg	plastic	37,10
Original pack 6 x 1 kg			35,25/1 kg
P755.3	2.5 kg	plastic	67,65
P755.4	5 kg	plastic	117,20
P755.5	25 kg	plastic	396,70

Sodium metabisulphite
≥97 %, extra pure

Type analysis

Assay	≥97 %
Sulphur dioxide (SO_2)	≥65 %
pH value (10 % solution)	4,0-4,5
Chloride (Cl)	≤0,005 %
Thiosulfate (S_2O_3)	≤0,05 %
Heavy metals (as Pb)	≤0,001 %
Fe (Iron)	≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
8554.1	1 kg	plastic	27,85
Original pack 6 x 1 kg			26,46/1 kg
8554.2	5 kg	plastic	94,50
8554.5	25 kg	plastic	241,90

Sodium *meta*-periodate
▸ Sodium periodate see page 1292

Sodium metaphosphate

Sodium polyphosphate

$(NaPO_3)_n$ · D 2,5 g/cm³ · mp 550 °C
CAS No. 68915-31-1 · EC no. 272-808-3
WGK 1

Sodium metaphosphate
extra pure, acidic

Type analysis

P_2O_5	67,5-69,0%
pH value (1 % in H_2O)	5,4-6,5
Fluoride (F)	≤0,001 %
Arsenic (As)	≤0,0001 %
Lead (Pb)	≤0,0001 %
Iron (Fe)	≤0,01 %
Cadmium (Cd)	≤0,0001 %
Insoluble in water	≤0,05 %

Art. No.	Pack Qty.	Pack.	€
4356.1	1 kg	plastic	28,95
Original pack 6 x 1 kg			27,50/1 kg
4356.2	5 kg	plastic	105,25
4356.5	25 kg	plastic	407,45

Sodium metasilicate pentahydrate

$Na_2SiO_3 \cdot 5\ H_2O$ · D 2,61 g/cm³ · mp 1089 °C
CAS No. 10213-79-3 · EC no. 600-297-4
UN no. 3253 · ADR 8 III · WGK 1

Danger H314-H335

Sodium metasilicate pentahydrate
pure

Type analysis
pH value (1 % solution) ..... ≥12
Na_2O ..... 28,0-30,0 %
SiO_2 ..... 28,0-29,5 %
Dry substance ..... 56,5-58,5 %

Art. No.	Pack Qty.	Pack.	€
7370.2	1 kg	plastic	32,15
Original pack 6 x 1 kg			30,54/1 kg
7370.1	2.5 kg	plastic	46,15
7370.3	10 kg	plastic	127,95

Sodium metatungstate
▸ Sodium polytungstate hydrate see page 1294

Sodium molybdate dihydrate

Disodium molybdate · Molybdic acid sodium salt

$Na_2MoO_4 \cdot 2\ H_2O$ · mp 100 °C
CAS No. 10102-40-6 · EC no. 231-551-7
WGK 1

Sodium molybdate dihydrate
≥99,5 %, p.a.

Reagent for alkaloids and for biochemical purposes.

Guarantee analysis
Assay (based on Mo) ..... ≥99,5 %
Assay (Mo) ..... ≥39,5 %
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,01 %
Ammonium (NH_4) ..... ≤0,005 %
Al (Aluminium) ..... ≤0,001 %
Ca (Calcium) ..... ≤0,001 %
Cu (Copper) ..... ≤0,001 %
Cr (Chrom) ..... ≤0,001 %
Fe (Iron) ..... ≤0,001 %
Mg (Magnesium) ..... ≤0,001 %
Mn (Manganese) ..... ≤0,001 %
Ni (Nickel) ..... ≤0,001 %
Pb (Lead) ..... ≤0,001 %
Phosphorus (P) ..... ≤0,001 %
Silicon (Si) ..... ≤0,001 %
Ti (Titanium) ..... ≤0,001 %
V (Vanadium) ..... ≤0,001 %
Zn (Zinc) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
0274.1	50 g	plastic	22,50
0274.2	100 g	plastic	34,95
0274.3	250 g	plastic	62,90
0274.4	1 kg	plastic	224,70
Original pack 6 x 1 kg			213,47/1 kg

Sodium molybdate dihydrate
≥99 %, pure

Type analysis
Assay (based on Mo) ..... ≥99,0 %
Assay (Mo) ..... ≥39,3 %
In H_2O insoluble matter ..... ≤0,05 %
Chloride (Cl) ..... ≤0,05 %
Phosphate (PO_4) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,1 %
Fe (Iron) ..... ≤0,01 %
Pb (Lead) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
0845.1	100 g	plastic	24,65
0845.2	250 g	plastic	48,30
0845.3	500 g	plastic	85,90
Original pack 6 x 500 g			81,61/500 g
0845.4	1 kg	plastic	160,20
Original pack 6 x 1 kg			152,19/1 kg

Sodium monohydrogen phosphate
▸ di-Sodium hydrogen phosphate see page 1285
▸ di-Sodium hydrogen phosphate heptahydrate see page 1285
▸ di-Sodium hydrogen phosphate dihydrate see page 1285
▸ di-Sodium hydrogen phosphate dodecahydrate see page 1286

tri-Sodium monovanadate

Sodium orthovanadate · Sodium vanadium oxide · Sodium vanadate(V)

Na_3VO_4 · mp 850 to 866 °C
CAS No. 13721-39-6 · EC no. 237-287-9
WGK 2

Warning H302+H312+H332-H412

tri-Sodium monovanadate
≥99 %, pure

Type analysis
Appearance .... off-white to slightly yellow powder
Assay ..... ≥99,0 %
Chloride (Cl) ..... ≤0,01%
Iron (Fe) ..... ≤0,05 %
Silicon (Si) ..... ≤0,05 %
Heavy metals ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
0735.1	10 g	plastic	39,70
0735.2	50 g	plastic	107,40
0735.3	100 g	plastic	177,40

Sodium nitrate

Chile saltpeter

$NaNO_3$ · D 2,26 g/cm³ · mp 308 °C
CAS No. 7631-99-4 · EC no. 231-554-3
UN no. 1498 · ADR 5.1 III · WGK 1

Warning H272-H319

Sodium nitrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5742.1	25 g	plastic	230,60

Sodium nitrate
≥99 %, p.a., ACS, ISO

Oxidizing dissolving agent.

Guarantee analysis
Assay (acidim.) ..... ≥99,0 %
In H_2O insoluble matter ..... ≤0,005 %
pH value (5 % in water) 5,5-8,0
Iodate (IO_3) ..... ≤0,0005 %
Nitrite (NO_2) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,003 %
Phosphate (PO_4) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,005 %
Potassium (K) ..... ≤0,005 %
Ammonium (NH_4) ..... ≤0,002 %
Heavy metals ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0002 %
Arsenic (As) ..... ≤0,00004 %
Cadmium (Cd) ..... ≤0,0002 %
Cobalt (Co) ..... ≤0,0002 %
Copper (Cu) ..... ≤0,0002 %
Magnesium (Mg) ..... ≤0,001 %
Lead (Pb) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
A136.1	500 g	plastic	34,95
Original pack 6 x 500 g			33,20/500 g
A136.2	1 kg	plastic	55,80
Original pack 6 x 1 kg			53,01/1 kg
A136.3	2.5 kg	plastic	123,65

Sodium nitrate
≥99 %, cryst.

Type analysis
Assay ..... ≥99 %
In H_2O insoluble matter ..... ≤0,005 %
Water ..... ≤0,2 %
Sodium nitrite ($NaNO_2$) ..... ≤0,005 %
Sodium carbonate (Na_2CO_3) ..... ≤0,04 %
Sodium chloride (NaCl) ..... ≤0,025 %
Sodium sulphate (Na_2SO_4) ..... ≤0,03 %

Product with anticaking agent.

Art. No.	Pack Qty.	Pack.	€
8601.3	100 g	plastic	16,05
8601.2	1 kg	plastic	26,35
Original pack 6 x 1 kg			25,03/1 kg
8601.1	2.5 kg	plastic	51,50
8601.5	25 kg	plastic	353,70

Sodium nitrilotriacetate tribasic monohydrate
▸ Nitrilotriacetic acid trisodium salt monohydrate see page 1109

Sodium nitrite

$NaNO_2$ · D 2,17 g/cm³ · mp 271 °C · bp 320 °C
CAS No. 7632-00-0 · EC no. 231-555-9
UN no. 1500 · ADR 5.1 (6.1) III · WGK 3

Danger H272-H301-H319-H400

Sodium nitrite
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L4P.1	10 g	HDPE	87,00
1L4P.2	100 g	HDPE	340,25

Sodium nitrite
≥98 %, p.a., ACS

Reagent for diazotisation

Guarantee analysis

Assay (perm.) ..... ≥98,0 %
In H_2O insoluble matter ..... ≤0,003 %
Chloride (Cl) ..... ≤0,002 %
Sulphate (SO_4) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,001 %
Aluminium (Al) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,00004 %
Barium (Ba) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,0025 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,005 %
Cobalt (Co) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,0025 %
Manganese (Mn) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,001 %
Zinc (Zn) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
4411.1	100 g	plastic	21,40
4411.2	500 g	plastic	61,20
Original pack 6 x 500 g			58,14/500 g
4411.3	1 kg	plastic	107,40
Original pack 6 x 1 kg			102,03/1 kg
4411.4	2.5 kg	plastic	241,90

Sodium nitrite
≥99 %, cryst.

Type analysis

Assay (titr.) ..... ≥99,0 %
Water ..... ≤0,2 %
Sodium carbonate (Na_2CO_3) ..... ≤0,06 %
Sodium chloride (NaCl) ..... ≤0,03 %
Sodium sulphate (Na_2SO_4) ..... ≤0,03 %
Water insoluble residue ..... ≤0,005 %

Product with anticaking agent.

Art. No.	Pack Qty.	Pack.	€
8604.1	1 kg	plastic	17,75
Original pack 6 x 1 kg			16,86/1 kg
8604.2	5 kg	plastic	56,90
8604.5	25 kg	plastic	209,65

Sodium nitroprusside dihydrate

Disodiumpentacyanonitrosylferrate(III) dihydrate · Nitroprusside sodium · Sodiumnitrosopentacyano-ferrate(III)

$Na_2[Fe(CN)_5NO] \cdot 2\ H_2O$ · D 1,71 g/cm³
CAS No. 13755-38-9 · EC no. 238-373-9
UN no. 1588 · ADR 6.1 III · WGK 1

Danger H301

Sodium nitroprusside dihydrate
≥99 %, p.a., ACS

Reagent for Zn, SO_2, aldehydes

Dissolve 0.1 g in 100 ml ethanol or water

Guarantee analysis

Assay (arg.) ..... ≥99,0 %
In H_2O insoluble matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,01 %
Hexacyanoferrate(II) ..... ≤0,02 %
Hexacyanoferrate(III) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
HN34.1	25 g	plastic	36,45
HN34.2	100 g	plastic	95,60
HN34.3	500 g	plastic	364,45
Original pack 6 x 500 g			346,23/500 g

Sodiumnitrosopentacyano-ferrate(III)
- Sodium nitroprusside dihydrate see page 1292

Sodium nucleinate
- Ribonucleic acid sodium salt see page 1207

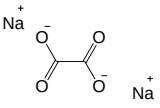
Sodium-1octane sulphonate
- Octane-1-sulphonic acid sodium salt see page 1118

Sodium oleate
- Oleic acid sodium salt see page 1130

di-Sodium orthophosphate
- di-Sodium hydrogen phosphate dihydrate see page 1285
- di-Sodium hydrogen phosphate dodeca-hydrate see page 1286
- di-Sodium hydrogen phosphate heptahydrate see page 1285
- di-Sodium hydrogen phosphate see page 1285

Sodium orthovanadate
- tri-Sodium monovanadate see page 1291

di-Sodium oxalate



Oxalic acid disodium salt

$C_2Na_2O_4$ · D 2,27 g/cm³ · mp 250 to 270 °C
CAS No. 62-76-0 · EC no. 200-550-3
WGK 1

Warning H302+H312

di-Sodium oxalate
≥99,5 %, p.a., ACS

For manganometric and acidimetric analysis.

Guarantee analysis

Assay (perm.) ..... ≥99,5 %
In H_2O insoluble matter ..... ≤0,005 %
Loss on drying (105 °C) ..... ≤0,01 %
Dark coloured substance with H_2SO_4 .... complies
Neutrality ..... complies
Chloride (Cl) ..... ≤0,002 %
Sulphate (SO_4) ..... ≤0,002 %
Ammonium (NH_4) ..... ≤0,002 %
Heavy metals (as Pb) ..... ≤0,002 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
HN39.1	100 g	plastic	35,40
HN39.2	250 g	plastic	75,15
HN39.3	500 g	plastic	138,70
Original pack 6 x 500 g			131,77/500 g

di-Sodium oxalate
≥99 %

Type analysis

Appearance ..... white powder
Assay ..... ≥99,0 %
Identity ..... complies
Chloride (Cl) ..... ≤0,03 %
Sulphate (SO_4) ..... ≤0,01 %
Iron (Fe) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
4267.3	500 g	plastic	31,10
Original pack 6 x 500 g			29,55/500 g
4267.1	1 kg	plastic	48,30
Original pack 6 x 1 kg			45,89/1 kg
4267.4	2.5 kg	plastic	99,90
4267.2	10 kg	plastic	375,20

Sodium-1-pentane sulphonate
- Pentane-1-sulphonic acid sodium salt see page 1142

Sodium peptone buffer solution pH 7,0 (Ph. Eur. 6.0)
- Peptone Water 0.1%, buffered see page 1144
- Peptone Water, buffered see page 1144

Sodium percarbonate

$Na_2CO_3 \cdot 1{,}5\ H_2O_2$
CAS No. 15630-89-4 · EC no. 239-707-6
UN no. 3378 · ADR 5.1 II · WGK 1

Danger H272-H302-H318

Sodium percarbonate
≥12 % O_2

Bleach, oxidising agent

Type analysis

Active oxygen (1 % in H_2O, 25 °C) ..... ≥12 %
pH value 10,0-11,0
Moisture ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
1EL1.1	500 g	plastic	24,65
Original pack 6 x 500 g			23,42/500 g
1EL1.2	1 kg	plastic	50,45
Original pack 6 x 1 kg			47,93/1 kg
1EL1.3	2.5 kg	plastic	75,15
1EL1.4	25 kg	plastic	450,45

Sodium periodate

Sodium *meta*-periodate

$NaIO_4$ · D 3,87 g/cm³ · mp 270 to 300 °C
CAS No. 7790-28-5 · EC no. 232-197-6
UN no. 3085 · ADR 5.1 (8) I · WGK 3

Danger H271-H314-H372-H410

Sodium periodate
≥99,8 %, p.a., ACS

Guarantee analysis
Assay (dry substance) ..... 99,8-100,3 %
pH-value 4,0-5,0
Solubility ..... complies
Other halogens (as Cl) ..... ≤0,02 %
Manganese (Mn) ..... ≤0,0003 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
2603.1	50 g	plastic	55,40
2603.2	250 g	plastic	192,45
2603.3	500 g	plastic	346,70
Original pack 6 x 500 g			329,37/500 g

Sodium periodate
≥99 %, extra pure

Type analysis
Assay ..... ≥99 %
Chloride (Cl) ..... ≤0,05 %
Iodide (I) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,05 %
Lead (Pb) ..... ≤0,005 %
Iron (Fe) ..... ≤0,005 %
pH-value (5 %) 3,0-4,5

Art. No.	Pack Qty.	Pack.	€
0294.1	100 g	plastic	59,05
0294.2	500 g	plastic	177,40
Original pack 6 x 500 g			168,53/500 g
0294.3	1 kg	plastic	299,95
Original pack 6 x 1 kg			284,95/1 kg

Sodium peroxide

Na_2O_2 · D 2,8 g/cm³ · mp 460 °C
CAS No. 1313-60-6 · EC no. 215-209-4
UN no. 1504 · ADR 5.1 I · WGK 1

Danger H271-H314

Sodium peroxide
≥95 %, p.a., ACS, grained

Powerful oxidising agent, decomposition reagent for organic and inorganic samples.

Guarantee analysis
Assay (perm.) ..... ≥95,0 %
Chloride (Cl) ..... ≤0,002 %
Phosphate (PO_4) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,001 %
Total nitrogen (N) ..... ≤0,003 %
Lead (Pb) ..... ≤0,001 %
Cadmium (Cd) ..... ≤0,001 %
Iron (Fe) ..... ≤0,002 %
Cobalt (Co) ..... ≤0,001 %
Zinc (Zn) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
4412.1	100 g	plastic	112,90
4412.2	250 g	plastic	252,65
4412.3	500 g	plastic	461,20
Original pack 6 x 500 g			438,14/500 g

Sodium peroxodisulphate
▸ Sodium persulphate see page 1293

Sodium perrhenate

$NaReO_4$ · D 5,39 g/cm³ · mp 300 °C
CAS No. 13472-33-8 · EC no. 236-742-9
UN no. 1479 · ADR 5.1 II · WGK 1

Danger H272-H315-H319-H335

Sodium perrhenate
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L62.1	250 mg	HDPE	38,60
1L62.2	1 g	HDPE	87,65

Sodium persulphate

Sodium peroxodisulphate

$Na_2S_2O_8$ · D 1,2 g/cm³ · mp 148 °C
CAS No. 7775-27-1 · EC no. 231-892-1
UN no. 1505 · ADR 5.1 III · WGK 1

Danger H272-H302-H315-H317-H319-H334-H335

Sodium persulphate
≥99 %

Type analysis
Appearance ..... white cryst. powder
Assay (persulphate) ..... ≥99,0 %
Active oxygen ..... ≥6,5 %

Art. No.	Pack Qty.	Pack.	€
4365.2	500 g	plastic	26,80
Original pack 6 x 500 g			25,46/500 g
4365.1	1 kg	plastic	41,85
Original pack 6 x 1 kg			39,76/1 kg
4365.3	2.5 kg	plastic	82,70

Sodium phenylpyruvate
▸ Phenylpyruvic acid sodium salt see page 1154

tri-Sodium phosphate

Na_3PO_4 · D 2,54 g/cm³ · mp >449 °C
CAS No. 7601-54-9 · EC no. 231-509-8
WGK 1

Warning H315-H319-H335

tri-Sodium phosphate
≥97 %, pure, anhydrous

Type analysis
Assay ..... ≥97,0 %
Fluoride (F) ..... ≤0,005 %
As (Arsenic) ..... ≤0,0005 %
Pb (Lead) ..... ≤0,001 %
Loss on drying ..... ≤5,0 %
In water insoluble matter ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
1H95.1	100 g	plastic	18,20
1H95.2	500 g	plastic	37,55
Original pack 6 x 500 g			35,67/500 g
1H95.3	1 kg	plastic	64,40
Original pack 6 x 1 kg			61,18/1 kg
1H95.4	2.5 kg	plastic	132,15

sec-Sodium phosphate
▸ di-Sodium hydrogen phosphate see page 1285
▸ di-Sodium hydrogen phosphate heptahydrate see page 1285
▸ di-Sodium hydrogen phosphate dihydrate see page 1285
▸ di-Sodium hydrogen phosphate dodecahydrate see page 1286

Sodium phosphate, monobasic
▸ Sodium dihydrogen phosphate monohydrate see page 1282
▸ Sodium dihydrogen phosphate see page 1282
▸ Sodium dihydrogen phosphate dihydrate see page 1282

tert-Sodium phosphate
▸ tri-Sodium phosphate dodecahydrate see page 1293

Sodium phosphate, dibasic
▸ di-Sodium hydrogen phosphate see page 1285
▸ di-Sodium hydrogen phosphate heptahydrate see page 1285
▸ di-Sodium hydrogen phosphate dihydrate see page 1285
▸ di-Sodium hydrogen phosphate dodecahydrate see page 1286

tri-Sodium phosphate dodecahydrate

Sodium phosphate, tribasic · Trisodium phosphate · *tert*-Sodium phosphate

Na_3PO_4 · 12 H_2O · D 1,62 g/cm³ · mp >450 °C
CAS No. 10101-89-0 · EC no. 231-509-8
WGK 1

Warning H315-H319-H335

tri-Sodium phosphate dodecahydrate
≥98 %, p.a., ACS

Guarantee analysis
Assay (acidim.) ..... 98,0-102,0 %
In H_2O insoluble matter ..... ≤0,01 %
Free alkali (as NaOH) ..... ≤2,5 %
Total nitrogen (as N) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,001 %
Arsenic (As) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,0005 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
T107.2	500 g	plastic	46,15
Original pack 6 x 500 g			43,84/500 g
T107.1	1 kg	plastic	83,35
Original pack 6 x 1 kg			79,18/1 kg
T107.3	2.5 kg	plastic	170,95
T107.7	25 kg	plastic	1.451,25

tri-Sodium phosphate dodecahydrate
pure

Type analysis
Assay (dry substance) ..... ≥95 %
pH-value (1 %) 11,5-12,5
Chloride (Cl) ..... ≤0,01 %
Phosphate (PO_4) ..... ≥18,5 %
Sulphate (SO_4) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
8613.3	1 kg	plastic	26,35
Original pack 6 x 1 kg			25,03/1 kg
8613.1	2.5 kg	plastic	64,40
8613.2	10 kg	plastic	181,70

Sodium phosphate powder (pouch)
▸ ROTI®Fair Na-Phosphate see page 1219

Sodium phosphate, tribasic
▸ tri-Sodium phosphate dodecahydrate see page 1293

Sodium phosphinate monohydrate

Sodium hypophosphite

$NaH_2PO_2 \cdot H_2O$ · D 1,05 g/cm³ · mp >90 °C
CAS No. 10039-56-2 · EC no. 231-669-9
WGK 2

Sodium phosphinate monohydrate
≥99 %, extra pure

Type analysis
Assay ..... 99,0-103,0 %
di-Sodium hydrogen phosphite (Na_2HPO_3)
..... ≤0,5 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,05 %
As (Arsenic) ..... ≤0,0001 %
Ca (Calcium) ..... ≤0,005 %
Fe (Iron) ..... ≤0,0005 %
Pb (Lead) ..... ≤0,0005 %
pH value (5 % in H_2O) 5,5-7,5

Art. No.	Pack Qty.	Pack.	€
1EHA.1	100 g	plastic	18,85
1EHA.2	500 g	plastic	55,40
Original pack 6 x 500 g			52,63/500 g
1EHA.3	1 kg	plastic	99,90
Original pack 6 x 1 kg			94,91/1 kg
1EHA.4	2.5 kg	plastic	220,40

Sodium polyphosphate
▸ Sodium metaphosphate see page 1290

Sodium polytungstate hydrate

Sodium metatungstate

3 $Na_2WO_4 \cdot 9\ WO_3 \cdot H_2O$ · D 5,47 g/cm³
CAS No. 12141-67-2 · EC no. 412-770-9
WGK 2

Danger H302-H318-H412

Sodium polytungstate hydrate
≥99,9 %, p.a.

For the preparation of heavy liquid. Low in nitrogen and carbon. Reagent for density gradient centrifugation.

Type analysis
Assay ..... ≥99,9 %
Assay (WO_3) ..... ≥86,0 %
Carbon (C) ..... ≤0,01 %
Nitrogen (N) ..... ≤0,01 %
Max. attainable density (25 °C) ..... ≤3,06
pH (20 °C) 2-3
Tubidity (density 2,80 g/ml) ..... ≤10 NTU

Art. No.	Pack Qty.	Pack.	€
1K08.1	50 g	plastic	67,65
1K08.2	250 g	plastic	241,90
1K08.3	1 kg	plastic	805,20
Original pack 6 x 1 kg			764,94/1 kg

Sodium polytungstate hydrate
≥99,9 %

For the preparation of heavy liquid. Low in nitrogen and carbon. Reagent for density gradient centrifugation.

Type analysis
Assay ..... ≥99,9 %
Assay (WO_3) ..... ≥85 %
Tubidity (density 2,80 g/ml) ..... <10 NTU
Max. attainable density (25 °C) ..... <3,1 g/ml

Art. No.	Pack Qty.	Pack.	€
8828.1	50 g	plastic	59,05
8828.2	250 g	plastic	213,95
8828.3	1 kg	plastic	747,15
Original pack 6 x 1 kg			709,79/1 kg

Sodium polytungstate solution

D 3 g/cm³
WGK 2

Danger H318-H412

Sodium polytungstate solution
3,00 g/cm³

Heavy liquid for separation of minerals.

Type analysis
Density (20 °C) ..... 3,00 ±0,02 g/cm³
Tubidity (density 3,00 g/ml) ..... <10 NTU
pH-value (density 3,00 g/ml) 2,0-3,0

Art. No.	Pack Qty.	Pack.	€
0741.1	100 ml	plastic	267,70
0741.2	500 ml	plastic	1.037,40

Sodium-1-propane sulphonate
▸ Propane-1-sulphonic acid sodium salt see page 1185

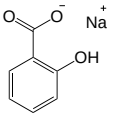
tetra- Sodium pyrophosphate
▸ tetra-Sodium diphosphate decahydrate see page 1283

Sodium pyrosulphite
▸ Sodium metabisulphite see page 1290

Sodium pyruvate
▸ Pyruvic acid sodium salt see page 1193

Sodium rhodanide
▸ Sodium thiocyanate see page 1297

Sodium salicylate



Salicylic acid sodium salt

$C_7H_5NaO_3$ · D 0,556 g/cm³ · mp 208,5 to 213,5 °C · bp 233,3 °C
CAS No. 54-21-7 · EC no. 200-198-0
WGK 1

Warning H302-H319-H361d

Sodium salicylate
≥99 %, p.a.

Preservative; for determination of glucose at urine.

Guarantee analysis
Assay ..... ≥99,0 %
Loss on drying (105 °C) ..... ≤0,5 %
Heavy metals (as Pb) ..... ≤0,002 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,06 %
Calcium (Ca) ..... ≤0,005 %
Copper (Cu) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,005 %
Magnesium (Mg) ..... ≤0,001 %
Manganese (Mn) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,001 %
Lead (Pb) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
CP39.1	250 g	plastic	32,15
CP39.2	1 kg	plastic	101,60
Original pack 6 x 1 kg			96,52/1 kg

Sodium salicylate
≥98 %, extra pure

Type analysis
Assay (dry substance) ..... ≥98 %
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,1 %
Heavy metals ..... ≤0,005 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
0140.1	500 g	plastic	33,25
Original pack 6 x 500 g			31,59/500 g
0140.2	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg
0140.3	2.5 kg	plastic	107,40

Sodium selenate

Selenic acid disodium salt

Na_2SeO_4 · D 3,213 g/cm³
CAS No. 13410-01-0 · EC no. 236-501-8
UN no. 2630 · ADR 6.1 I · WGK 2

Danger H300+H330-H373-H410

Sodium selenate
≥99 %, p.a.

Type analysis
Assay ..... ≥99,0 %
Assay (Se) ..... ≥41,0 %
In H_2O insoluble matter ..... ≤0,05 %
Water ..... ≤0,2 %
As (Arsenic) ..... ≤0,005 %
Cd (Cadmium) ..... ≤0,0001 %
Cr (Chrom) ..... ≤0,0005 %
Cu (Copper) ..... ≤0,001 %
Fe (Iron) ..... ≤0,001 %
Hg (Mercury) ..... ≤0,0001 %
Ni (Nickel) ..... ≤0,001 %
Pb (Lead) ..... ≤0,0005 %
Te (Tellur) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
1EH9.1	50 g	plastic	42,90
1EH9.2	100 g	plastic	67,65
1EH9.3	250 g	plastic	134,40
1EH9.4	500 g	plastic	246,20
Original pack 6 x 500 g			233,89/500 g

Sodium selenite

Na_2SeO_3 · D 3,1 g/cm³
CAS No. 10102-18-8 · EC no. 233-267-9
UN no. 2630 · ADR 6.1 I · WGK 2

Danger H300+H330-H315-H317-H319-H411-EUH031

Sodium selenite
≥99 %, p.a.

Type analysis
Assay (metals basis) ..... ≥99,0 %
Assay (Se) ..... ≥45,3 %
Ag (Silver) ..... ≤0,001 %
As (Arsenic) ..... ≤0,001 %
Cd (Cadmium) ..... ≤0,0005 %
Cr (Chrom) ..... ≤0,0005 %
Fe (Iron) ..... ≤0,001 %
Hg (Mercury) ..... ≤0,00001 %
Ni (Nickel) ..... ≤0,0005 %
Pb (Lead) ..... ≤0,002 %
Te (Tellur) ..... ≤0,01 %
In water insoluble matter ..... ≤0,2 %
Water ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
1E0Y.1	100 g	plastic	37,55
1E0Y.2	250 g	plastic	75,15
1E0Y.3	500 g	plastic	123,65
Original pack 6 x 500 g			117,47/500 g
1E0Y.4	1 kg	plastic	224,70
Original pack 6 x 1 kg			213,47/1 kg

Sodium silicate

Water glass · Liquid glass

D 1,36 g/cm³ · mp 0 °C · bp >100 °C
CAS No. 1344-09-8 · EC no. 215-687-4
WGK 1

Sodium silicate
extra pure, 38/40 °Bé

Type analysis
Na_2O ..... 7,80-8,50 %
SiO_2 ..... 25,80-28,50 %
Density (D) 1,34-1,38
Viscosity ..... 50-260 mPas

Art. No.	Pack Qty.	Pack.	€
7561.1	1 l	plastic	18,85
Original pack 6 x 1 l			17,91/1 l
7561.3	2.5 l	plastic	28,50
Original pack 4 x 2.5 l			27,08/2.5 l
7561.2	5 l	plastic	44,65
Original pack 2 x 5 l			42,42/5 l
7561.4	10 l	plastic	81,60
7561.5	25 l	plastic	162,90

Sodium sodium citrate
▸ ROTI®Fair SSC see page 1221

Sodium sodium phosphate EDTA
▸ ROTI®Fair SSPE see page 1221

Sodium stannate trihydrate

Sodium tin hydroxide

$Na_2Sn(OH)_6$ · D 2,759 g/cm³
CAS No. 12027-70-2 · EC no. 234-724-5
UN no. 1759 · ADR 8 II · WGK 1

Danger H314-H412

Sodium stannate trihydrate
≥94 %, pure

Type analysis
Assay (metals basis) ..... ≥94,0 %
Assay (Sn) ..... ≥42,0 %
Sodium hydroxide (NaOH) ..... ≤2,0 %
Nitrate (NO_3) ..... ≤0,5 %
As (Arsenic) ..... ≤0,01 %
Fe (Iron) ..... ≤0,01 %
Pb (Lead) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
1EH8.1	100 g	glass	32,15
1EH8.2	250 g	plastic	61,20
1EH8.3	500 g	plastic	112,90
Original pack 6 x 500 g			107,26/500 g
1EH8.4	1 kg	plastic	209,65
Original pack 6 x 1 kg			199,17/1 kg

Sodium stearate
▸ Stearic acid sodium salt see page 1339

Sodium succinate
▸ Succinic acid disodium salt hexahydrate see page 1343

Sodium sulfhydrate
▸ Sodium hydrosulphide see page 1286

Sodium sulphate

Na_2SO_4 · D 2,7 g/cm³ · mp 888 °C
CAS No. 7757-82-6 · EC no. 231-820-9
WGK 1

Sodium sulphate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5076.1	10 g	plastic	104,85
5076.2	25 g	plastic	216,65

Sodium sulphate
≥99 %, p.a., ACS, ISO, anhydrous, powdered

Drying agent for solvents.

Guarantee analysis
Assay ..... ≥99,0 %
In H_2O insoluble matter ..... ≤0,01 %
pH-value (5 %, water) 5,2-8,0
Chloride (Cl) ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,001 %
Total nitrogen (as N) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,002 %
Calcium (Ca) ..... ≤0,005 %
Magnesium (Mg) ..... ≤0,001 %
Loss on ignition (800 °C) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8560.3	500 g	plastic	31,75
Original pack 6 x 500 g			30,16/500 g
8560.1	1 kg	plastic	46,15
Original pack 6 x 1 kg			43,84/1 kg
8560.2	5 kg	plastic	170,95
8560.5	25 kg	plastic	697,70

Sodium sulphate
≥99 %, p.a., ACS, anhydrous, grained

For molecular biology, drying agent.

Guarantee analysis
Assay (acidim.) ..... ≥99,0 %
In H_2O insoluble matter ..... ≤0,01 %
pH value (5 % in H_2O) 5,2-8,0
Chloride (Cl) ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,001 %
Total nitrogen (N) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,01 %
Calcium (Ca) ..... ≤0,002 %
Magnesium (Mg) ..... ≤0,0025 %
Loss on ignition (800 °C) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
0966.1	500 g	plastic	25,70
Original pack 6 x 500 g			24,42/500 g
0966.2	1 kg	plastic	38,60
Original pack 6 x 1 kg			36,67/1 kg
0966.3	5 kg	plastic	158,60

Sodium sulphate
≥98,5 %, Ph. Eur., anhydrous

Guarantee analysis
Appearance ..... white crystals powder
Assay (dry substance) ..... 98,5-101,0 %
Identity ..... complies
Appearance of solution ..... complies
Loss on drying (130 °C) ..... ≤0,5 %
Acid or alkaline react. substances ..... complies
Chloride (Cl) ..... ≤0,045 %

Art. No.	Pack Qty.	Pack.	€
P032.1	500 g	plastic	18,20
Original pack 6 x 500 g			17,29/500 g
P032.2	1 kg	plastic	26,80
Original pack 6 x 1 kg			25,46/1 kg
P032.3	5 kg	plastic	117,20
P032.5	25 kg	plastic	467,65

Sodium sulphate
≥99 %, anhydrous

Type analysis
Assay ..... ≥99 %
pH-value (10 % in H_2O) 4,0-6,0
Iron (Fe) ..... ≤0,002 %
Water ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
8631.2	1 kg	plastic	19,25
Original pack 6 x 1 kg			18,29/1 kg
8631.1	2.5 kg	plastic	40,75
8631.5	25 kg	plastic	131,70

Sodium sulphate decahydrate

$Na_2SO_4 \cdot 10\ H_2O$ · D 1,46 g/cm³ · mp 32,4 °C
CAS No. 7727-73-3 · EC no. 231-820-9
WGK 1

Sodium sulphate decahydrate
≥99 %, p.a., ACS

For freezing mixtures.

Guarantee analysis
Assay ..... ≥99,0 %
pH value (5 % in H_2O) 5,2-9,2
In H_2O insoluble matter ..... ≤0,01 %
Chloride (Cl) ..... ≤0,0005 %
Phosphate (PO_4) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,0003 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,005 %
Chromium (Cr) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,005 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Lithium (Li) ..... ≤0,002 %
Magnesium (Mg) ..... ≤0,003 %
Manganese (Mn) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0003 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
T108.2	500 g	plastic	23,15
Original pack 6 x 500 g			21,99/500 g
T108.1	1 kg	plastic	38,20
Original pack 6 x 1 kg			36,29/1 kg
T108.3	2.5 kg	plastic	76,90

Sodium sulphate decahydrate
≥98,5 %, Ph. Eur.

Guarantee analysis
Appearance ..... colourless transparent crystals
Assay (dry substance) ..... 98,5-101,0 %
Identity ..... complies
Appearance of solution ..... complies
Acidity/alkalinity ..... complies
Chloride (Cl) ..... ≤0,02 %
Loss on drying (130 °C) ..... 52,0-57,0 %

Art. No.	Pack Qty.	Pack.	€
X892.1	500 g	plastic	22,50
Original pack 6 x 500 g			21,38/500 g
X892.2	1 kg	plastic	37,10
Original pack 6 x 1 kg			35,25/1 kg
X892.3	2.5 kg	plastic	77,95

Sodium sulphide hydrate

$Na_2S \cdot x\ H_2O$ · D 1,43 g/cm³ · mp 85 to 90 °C
CAS No. 27610-45-3 · EC no. 215-211-5
UN no. 1849 · ADR 8 II · WGK 2
Danger H290-H301+H311-H314-H410-EUH031 EUH071

Sodium sulphide hydrate
60 %, in sheds

Type analysis
Assay ..... >60 %

Art. No.	Pack Qty.	Pack.	€
8634.1	1 kg	plastic	26,80
Original pack 6 x 1 kg			25,46/1 kg
8634.2	5 kg	plastic	80,55

Sodium sulphite

Na_2SO_3 · D 2,63 g/cm³ · mp 911 °C
CAS No. 7757-83-7 · EC no. 231-821-4
WGK 1

Sodium sulphite
≥98 %, p.a., ACS, anhydrous

For removal of chlorine and dissolution of cellulose, reagent for detection of iodate in the presence of chlorate and bromate, for absorption of NO_x in gas analysis.

Guarantee analysis
Assay (iodom.) ..... ≥98,0 %
In H_2O insoluble matter ..... ≤0,005 %
Acidity ..... complies
Alkalinity ..... ≤0,03 meq/g
Thiosulphate ..... complies
Chloride (Cl) ..... ≤0,01 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,013 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,05 %
Copper (Cu) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,013 %
Nickel (Ni) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
P033.1	500 g	plastic	22,50
Original pack 6 x 500 g			21,38/500 g
P033.2	1 kg	plastic	35,40
Original pack 6 x 1 kg			33,63/1 kg
P033.3	2.5 kg	plastic	64,40

Sodium sulphite
≥98 %, anhydrous

Photographic quality

Type analysis
Assay Na_2SO_3 ..... ≥98 %
pH value (50 g/l) 9,0-10,6
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
8637.1	1 kg	plastic	26,80
Original pack 6 x 1 kg			25,46/1 kg
8637.3	5 kg	plastic	82,25
8637.2	10 kg	plastic	147,85
8637.4	25 kg	plastic	284,90

di-Sodium tartrate dihydrate

Tartaric acid disodium salt

$C_4H_4Na_2O_6 \cdot 2\ H_2O$ · D 1,82 g/cm³
CAS No. 6106-24-7 · EC no. 212-773-3
WGK 1

di-Sodium tartrate dihydrate
≥99 %, p.a.

Guarantee analysis
Assay (perchloric acidim) ..... 99,0-101,0 %
pH value (5 % in H_2O) 7,0-9,0
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,0005 %
Phosphate (PO_4) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,002 %
Ammonium (NH_4) ..... ≤0,003 %
Heavy metals (as Pb) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,00005 %
Lead (Pb) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,002 %
Copper (Cu) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
T110.1	500 g	plastic	69,35
Original pack 6 x 500 g			65,88/500 g
T110.2	1 kg	plastic	126,35
Original pack 6 x 1 kg			120,03/1 kg
T110.3	2.5 kg	plastic	267,70
T110.5	25 kg	plastic	2.252,15

di-Sodium tartrate dihydrate
≥98 %, extra pure

Type analysis
Appearance ..... white to almost white crystals
Assay (titr.) ..... ≥98,0 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,01 %
Calcium (Ca) ..... ≤0,1 %
Potassium (K) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
0254.1	500 g	plastic	48,30
Original pack 6 x 500 g			45,89/500 g
0254.2	1 kg	plastic	85,90
Original pack 6 x 1 kg			81,61/1 kg
0254.3	5 kg	plastic	385,95

di-Sodium tetraborate

Borax

$Na_2B_4O_7$ · D 2,354 g/cm³ · mp 742 °C · bp 1575 °C
CAS No. 1330-43-4 · EC no. 215-540-4
WGK 1
Danger H319-H360FD

di-Sodium tetraborate
≥99 %, anhydrous, extra pure

For qualitative analysis, decomposition reagent in organic and inorganic chemistry.

Type analysis
Assay (acidim.) ..... ≥99,0 %
Water content ..... ≤1,0 %
Sulphate (SO_4) ..... ≤0,015 %
Iron (Fe) ..... ≤0,004 %

Art. No.	Pack Qty.	Pack.	€
4403.1	250 g	plastic	17,10
4403.2	500 g	plastic	24,65
Original pack 6 x 500 g			23,42/500 g
4403.3	1 kg	plastic	40,35
Original pack 6 x 1 kg			38,33/1 kg
4403.4	2.5 kg	plastic	78,40

di-Sodium tetraborate decahydrate

Borax

$Na_2B_4O_7 \cdot 10\ H_2O$ · D 1,73 g/cm³ · mp 75 °C
CAS No. 1303-96-4 · EC no. 215-540-4
WGK 1

Danger H319-H360FD

di-Sodium tetraborate decahydrate
≥99,5 %, p.a., ACS, ISO

For qualitative analysis. Decomposition agent.

Guarantee analysis
Assay (acidim.) ..... ≥99,5 %
pH value (0,01 mol/l sol.) 9,15-9,20
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,005 %
Lead (Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
T880.1	500 g	plastic	40,35
Original pack 6 x 500 g			38,33/500 g
T880.2	1 kg	plastic	62,25
Original pack 6 x 1 kg			59,14/1 kg
T880.3	2.5 kg	plastic	123,10

di-Sodium tetraborate decahydrate
≥99 %, Ph. Eur., BP, NF

Guarantee analysis
Assay (acidim.) ..... 99,0-103,0 %
Identity ..... complies
Appearance of solution ..... complies
pH value (4 % in H_2O) 9,0-9,6
Sulphate (SO_4) ..... ≤0,005 %
Ammonium (NH_4) ..... ≤0,001 %
Carbonate, bicarbonate ..... complies
Heavy metals (as Pb) ..... ≤0,002 %
Arsenic (As) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,01 %
Volatile organic impurities ..... complies

Art. No.	Pack Qty.	Pack.	€
CN07.1	500 g	plastic	27,85
Original pack 6 x 500 g			26,46/500 g
CN07.2	1 kg	plastic	47,85
Original pack 6 x 1 kg			45,46/1 kg
CN07.3	2.5 kg	plastic	99,90

di-Sodium tetraborate decahydrate
≥99 %, powdered

Type analysis
Assay ..... ≥99,0 %
Sulphate (SO_4) ..... ≤0,015 %
Chloride (Cl) ..... ≤0,01 %
Iron (Fe) ..... ≤0,0015 %

Art. No.	Pack Qty.	Pack.	€
8643.1	1 kg	plastic	21,40
Original pack 6 x 1 kg			20,33/1 kg
8643.2	5 kg	plastic	75,15
8643.5	25 kg	plastic	310,70

Sodium tetrachloropalladate(II)

Na_2PdCl_4 · D 2,51 g/cm³ · mp 395 °C
CAS No. 13820-53-6 · EC no. 237-502-6
WGK 1

Sodium tetrachloropalladate(II)
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L56.1	1 g	HDPE	254,25

Sodium tetrahydroborate
▸ Sodium borohydride see page 1278

Sodium tetraphenyl borate

Tetraphenylboron sodium

$C_{24}H_{20}BNa$ · mp >300 °C
CAS No. 143-66-8 · EC no. 205-605-5
UN no. 2811 · ADR 6.1 III · WGK 2

Danger H301-H412

Sodium tetraphenyl borate
≥99,5 %, p.a., ACS

Reagent for K, Pb, Cs, NH_4 and Alkaloids.

Guarantee analysis
Assay (dry substance) ..... ≥99,5 %
Clarity of solution (ACS-test) ..... complies
Test of suitability for potassium assay .. complies
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
4385.1	10 g	plastic	50,45
4385.2	25 g	plastic	110,20
4385.3	100 g	plastic	349,40

Sodium thiocyanate

Sodium rhodanide

NaSCN · D 1,76 g/cm³ · mp 308 °C
CAS No. 540-72-7 · EC no. 208-754-4
WGK 1

Warning H302+H312+H332-H412-EUH032

Sodium thiocyanate
≥98 %, p.a., ACS

Analytical reagent

Guarantee analysis
Assay ..... ≥98,0 %
Carbonate (as Na_2CO_3) ..... ≤0,2 %
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,01 %
Sulphide (S) ..... ≤0,001 %
Ammonium (NH_4) ..... ≤0,002 %
Heavy metals (as Pb) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0002 %

Art. No.	Pack Qty.	Pack.	€
2724.1	100 g	plastic	22,50
2724.2	500 g	plastic	54,30
Original pack 6 x 500 g			51,59/500 g
2724.3	1 kg	plastic	90,20
Original pack 6 x 1 kg			85,69/1 kg

Sodium thiosulphate

$Na_2O_3S_2$ · D 1,67 g/cm³
CAS No. 7772-98-7 · EC no. 231-867-5
WGK 1

Sodium thiosulphate
≥99 %, p.a., anhydrous

Fixing salt

Guarantee analysis
Assay (iodom.) ..... ≥99 %
pH value (5 % in H_2O) 6,0-8,4
In H_2O insoluble matter ..... ≤0,01 %
Loss on drying (105 °C) ..... ≤1 %
Chloride (Cl) ..... ≤0,05 %
Sulphate and sulphite (as SO_4) ..... ≤0,5 %
Sulphide (S) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,004 %
Cadmium (Cd) ..... ≤0,001 %
Cobalt (Co) ..... ≤0,001 %
Copper (Cu) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,01 %
Nickel (Ni) ..... ≤0,001 %
Lead (Pb) ..... ≤0,001 %
Zinc (Zn) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
HN25.1	250 g	plastic	37,55
HN25.2	500 g	plastic	62,25
Original pack 6 x 500 g			59,14/500 g
HN25.3	1 kg	plastic	105,25
Original pack 6 x 1 kg			99,99/1 kg
HN25.4	2.5 kg	plastic	209,65

Sodium thiosulphate pentahydrate

$Na_2S_2O_3 \cdot 5\ H_2O$ · D 1,73 g/cm³ · mp 48 °C
CAS No. 10102-17-7 · EC no. 231-867-5
WGK 1

Sodium thiosulphate pentahydrate
≥99,5 %, p.a., ACS

Photographic fixer; for volumetric solutions in iodometry; for detection of hydrocyanic acid, quinine, chlorate hydrate and cobalt.

Guarantee analysis
Assay (iodom.) ..... 99,5-101,0 %
pH value (5 % in water) 6,0-8,4
In H_2O insoluble matter ..... ≤0,005 %
Total nitrogen (as N) ..... ≤0,002 %
Chloride (Cl) ..... ≤0,02 %
Sulphate and sulphite (as SO_4) ..... ≤0,1 %
Sulphide (S) ..... ≤0,0001 %
Heavy metals (as Pb) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,002 %
Cobalt (Co) ..... ≤0,0005 %
Chromium (Cr) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,001 %
Nickel (Ni) ..... ≤0,0005 %
Potassium (K) ..... ≤0,005 %
Cadmium (Cd) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,0005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
P034.1	500 g	plastic	26,35
Original pack 6 x 500 g			25,03/500 g
P034.2	1 kg	plastic	42,90
Original pack 6 x 1 kg			40,76/1 kg
P034.3	2.5 kg	plastic	85,90
P034.5	25 kg	plastic	622,45

Sodium thiosulphate pentahydrate
≥99 %, Ph. Eur., USP, BP

Photographic fixer

Guarantee analysis
Assay (iodom.) ..... 99,0-100,5 %
Identity ..... complies
pH value (10 % solution) 6,0-8,4
Appearance of solution ..... complies
Loss on drying ..... 32,0-37,0 %
Total nitrogen (as N) ..... ≤0,01 %
Sulphate and sulphite (as SO_4) ..... ≤0,2 %
Sulphide (S) ..... complies
Chloride (Cl) ..... ≤0,02 %
Arsenic (As) ..... ≤0,0003 %
Lead (Pb) ..... ≤0,001 %
Copper (Cu) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,01 %
Calcium (Ca) ..... complies
Iron (Fe) ..... ≤0,001 %
Nickel (Ni) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
T109.2	500 g	plastic	34,30
Original pack 6 x 500 g			32,59/500 g
T109.1	1 kg	plastic	60,75
Original pack 6 x 1 kg			57,71/1 kg
T109.3	5 kg	plastic	224,70

Sodium thiosulphate pentahydrate
≥98,5 %, cryst.

Photographic fixer

Type analysis
Appearance ..... white crystals
Assay ..... ≥98,5 %

Art. No.	Pack Qty.	Pack.	€
8649.1	1 kg	plastic	21,40
Original pack 6 x 1 kg			20,33/1 kg
8649.2	10 kg	plastic	117,20

Sodium thiosulphate solution

WGK 1

Sodium thiosulphate solution (0.01 N)

Sodium thiosulphate solution
0,01 mol/l – 0,01 N, volumetric standard solution

$Na_2O_3S_2$ · D 1 to 1,1 g/cm³ · bp 100 °C

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,01 mol/l ±0,5 %
Titer ..... 0,995 - 1,005

Art. No.	Pack Qty.	Pack.	€
X869.1	1 l	plastic	30,65
Original pack 6 x 1 l			29,12/1 l

Sodium thiosulphate solution (0.05 N)

Sodium thiosulphate solution
0,05 mol/l – 0,05 N, volumetric standard solution

$Na_2O_3S_2$ · D 1 to 1,1 g/cm³ · bp 100 °C

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,05 mol/l ±0,4 %
Titer 0,996-1,004

Art. No.	Pack Qty.	Pack.	€
1E2P.1	1 l	plastic	39,70
Original pack 6 x 1 l			37,72/1 l

Sodium thiosulphate solution (0.1 N)

Sodium thiosulphate solution
0,1 mol/l – 0,1 N, volumetric standard solution

$Na_2O_3S_2$ · D 1 to 1,1 g/cm³ · bp 100 °C

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
K022.1	1 l	plastic	23,55
Original pack 6 x 1 l			22,37/1 l
K022.2	5 l	plastic	65,50
Original pack 2 x 5 l			62,23/5 l
K022.3	5 l	ROTI®CUBE	70,45
Original pack 2 x 5 l			66,93/5 l
K022.4	10 l	ROTI®CUBE	108,05

Sodium thiosulphate solution
0,1 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.

$Na_2O_3S_2$ · D 1 to 1,1 g/cm³ · bp 100 °C

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l
Measurement uncertainty ..... ±0,2 %

Art. No.	Pack Qty.	Pack.	€
6782.1	1 l	plastic	40,75
Original pack 6 x 1 l			38,71/1 l

Sodium thiosulphate solution
ROTI®Volum 0,1 mol/l – 0,1 N

Ampoule for preparation of 1000 ml volumetric solution.

$Na_2O_3S_2$ · D 1,2 to 1,3 g/cm³ · bp 100 °C

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
CN55.1	1 unit(s)	plastic ampoule	27,45

Sodium thiosulphate solution (1 N)

Sodium thiosulphate solution
1 mol/l – 1 N, volumetric standard solution

$Na_2O_3S_2$ · D 1 to 1,1 g/cm³ · bp 100 °C

Type analysis
Amount-of-substance conc. (20 °C) ..... 1 mol/l ±0,2 %
Titer 0,9980-1,0020

Art. No.	Pack Qty.	Pack.	€
9900.1	1 l	plastic	55,40
Original pack 6 x 1 l			52,63/1 l

Sodium-2,2,3,3-trimethylsilyl-propionate D4
▸ 3-(Trimethylsilyl)propionic-2,2,3,3 acid sodium salt D4 (TSP-D4) see page 1381

penta-Sodium triphosphate

Sodium tripolyphosphate · STPP

$Na_5P_3O_{10}$ · D 2,52 g/cm³ · mp 622 °C
CAS No. 7758-29-4 · EC no. 231-838-7
WGK 1

penta-Sodium triphosphate
≥94 %, pure

Type analysis
Assay ..... ≥92,0 %
Loss on drying (150 °C) ..... 2,5-4,5 %
pH-value (1 %) 9,5-10,5

Art. No.	Pack Qty.	Pack.	€
1HEH.1	500 g	plastic	23,15
Original pack 6 x 500 g			21,99/500 g
1HEH.2	1 kg	plastic	38,20
Original pack 6 x 1 kg			36,29/1 kg
1HEH.3	2.5 kg	plastic	78,40

Sodium tripolyphosphate
▸ penta-Sodium triphosphate see page 1298

Sodium tungstate dihydrate

Tungstic acid sodium salt dihydrate

Na_2WO_4 · 2 H_2O · D 3,23 g/cm³ · mp 100 °C
CAS No. 10213-10-2 · EC no. 236-743-4
WGK 1

Warning H302

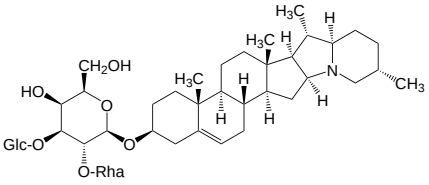
Sodium tungstate dihydrate
≥99 %, p.a., ACS

Guarantee analysis
Assay (gravim.) ..... 99,0-101,0 %
In H_2O insoluble matter ..... ≤0,01 %
Free alkali ..... ≤0,02 meq/g
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,01 %
Heavy metals and iron (as Pb) ..... ≤0,001 %
Arsenic (As) ..... ≤0,0005 %
Molybdenum (Mo) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
2604.1	100 g	plastic	61,20
2604.2	250 g	plastic	120,95
2604.3	500 g	plastic	224,70
Original pack 6 x 500 g			213,47/500 g

Sodium vanadium oxide
▸ tri-Sodium monovanadate see page 1291

α-Solanine



Solatunine

$C_{45}H_{73}NO_{15}$ · mp 285 °C
CAS No. 20562-02-1 · EC no. 243-879-8
WGK 1

Warning H302

α-Solanine
ROTICHROM® HPLC

Reference substance for HPLC.
From *Solanum tuberosum*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
2826.1	10 mg	glass	317,15

α-Solanine
ROTICHROM® TLC

From *Solanum tuberosum*.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
4180.1	10 mg	glass	267,70

Solatunine
▸ α-Solanine see page 1299

Solidofix® Cryo spray

Cryospray · Cold spray

D 0,55 g/cm³
UN no. 1950 · ADR 2 (2.1)

Danger H222-H229

Solidofix® Cryo spray
ready-to-use, for histology

Freezing of histological specimens. Cooling of paraffin blocks. Cooling to –45 °C.

Not a medical device / Not an IVD product

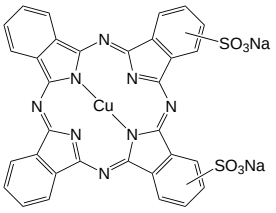
Notes on the product
Appearance ..... colorless
Flash point ..... <-35 °C

Art. No.	Pack Qty.	Pack.	€
T200.1	300 ml	spray bottle	10,25
T200.2	1.5 l	spray bottle	38,60

Solochrome cyanine
▸ Eriochrome cyanine R see page 913

Solution de revivification maximale
▸ Maximum Recovery Solution see page 1070

Solvent blue 38 (C. I. 74180)



Luxol® Fast Blue MBSN

$C_{32}H_{12}CuN_8Na_2O_6S_2$ · D 0,426 g/cm³ · mp 210,3 °C
CAS No. 1328-51-4
WGK 1

Solvent blue 38 (C. I. 74180)
for microscopy

Type analysis
Appearance ..... dark blue powder
Appearance of solution (0,1 % in MeOH) ..... dark blue

Art. No.	Pack Qty.	Pack.	€
7709.1	5 g	glass	18,85
7709.2	25 g	glass	33,25
7709.3	100 g	glass	80,55

Solvent orange 1
▸ Sudan orange G (C. I. 11920) see page 1344

Solvent orange 7
▸ Sudan II (C. I. 12140) see page 1343

Solvent red 27
▸ Oil red O see page 1129

Solvent red 45
▸ Ethyl eosin (C.I. 45386) see page 924

Solvents for Ultra LC-MS

Art. No.	Description	Page
1HP7	Acetic acid ethyl ester, ROTISOLV®, ≥99,9 %, Ultra LC-MS	693
HN40	Acetonitrile, ROTISOLV®, ≥99,98 %, Ultra LC-MS	697
1HP8	Ethanol, ROTISOLV®, ≥99,95 %, Ultra LC-MS	915
HN41	Methanol, ROTISOLV®, ≥99,98 %, Ultra LC-MS	1077
0733	2-Propanol, ROTISOLV®, ≥99,95 %, Ultra LC-MS	1185
0739	Tetrahydrofuran, ROTISOLV®, ≥99,9 %, Ultra LC-MS, unstabilised	1361
HN43	Water, ROTISOLV®, Ultra LC-MS	1400

Solvents for LC-MS

Art. No.	Description	Page
AE69	Acetic acid ethyl ester, ROTISOLV®, ≥99,9 %, LC-MS Grade	693
3153	Acetone, ROTISOLV®, ≥99,9 %, LC-MS Grade	696
AE70	Acetonitrile, ROTISOLV®, ≥99,95 %, LC-MS Grade	697
AE71	Methanol, ROTISOLV®, ≥99,95 %, LC-MS Grade	1077
AE73	2-Propanol, ROTISOLV®, ≥99,95 %, LC-MS Grade	1186
AE72	Water, ROTISOLV®, LC-MS Grade	1400

Solvents for HPLC

Art. No.	Description	Page
7336	Acetic acid ethyl ester, ROTISOLV®, HPLC	693
7328	Acetone, ROTISOLV®, HPLC	696
T195	Acetonitrile, ROTISOLV®, HPLC Ultra Gradient Grade	698
8825	Acetonitrile, ROTISOLV®, HPLC Gradient Grade	698
HN44	Acetonitrile, ROTISOLV®, HPLC Gradient	698
7330	Acetonitrile, ROTISOLV®, HPLC	698
CN20	Acetonitrile, ROTISOLV®, HPLC, isocratic	698
6827	Acetonitrile, ROTISOLV®, ≥99,8 %, for preparative HPLC	698
T178	1-Butanol, ROTISOLV®, HPLC	796
T175	*tert*-Butyl methyl ether, ROTISOLV®, HPLC	799
7333	Cyclohexane, ROTISOLV®, HPLC	857
7334	Dichloromethane, ROTISOLV®, HPLC	875
0702	*N*,*N*-Dimethylformamide (DMF), ROTISOLV®, HPLC	887
0728	Dimethyl sulphoxide (DMSO), ROTISOLV®, HPLC	889
X949	1,4-Dioxane, ROTISOLV®, HPLC, unstabilised	892
P076	Ethanol, ROTISOLV®, HPLC Gradient Grade	915
6828	*n*-Heptane, ROTISOLV®, ≥99 %, HPLC	979
7337	*n*-Heptane, ROTISOLV®, ≥95 %, HPLC	979
7339	*n*-Hexane, ROTISOLV®, HPLC	983
T176	Isohexane, ROTISOLV®, HPLC	1021

Art. No.	Description	Page
7340	Isooctane, ROTISOLV®, HPLC	1022
X948	Methanol, ROTISOLV®, HPLC Ultra Gradient Grade	1077
7342	Methanol, ROTISOLV®, HPLC Gradient Grade	1078
KK39	Methanol, ROTISOLV®, HPLC Gradient	1078
P717	Methanol, ROTISOLV®, HPLC	1078
CN99	*n*-Pentane, ROTISOLV®, HPLC	1141
0731	Petroleum ether 40–60 °C, ROTISOLV®, HPLC	1149
T177	1-Propanol, ROTISOLV®, HPLC	1185
7343	2-Propanol, ROTISOLV®, HPLC	1186
7344	Tetrahydrofuran, ROTISOLV®, HPLC, unstabilised	1361
7346	Toluene, ROTISOLV®, HPLC	1372
7331	Trichloromethane/Chloroform, ROTISOLV®, HPLC	1377
A511	Water, ROTISOLV®, HPLC Gradient Grade	1400
1C5K	Water, ROTISOLV®, HPLC	1401

Solvents for Headspace-GC

Art. No.	Description	Page
HN45	*N*,*N*-Dimethylacetamide (DMA), ROTISOLV®, ≥99,99 %, Headspace Grade	885
HN46	*N*,*N*-Dimethylformamide (DMF), ROTISOLV®, ≥99,99 %, Headspace Grade	888
HN48	1,3-Dimethyl-2-imidazolidinone (DMI), ROTISOLV®, ≥99,5 %, Headspace Grade	889
HN47	Dimethyl sulphoxide (DMSO), ROTISOLV®, ≥99,99 %, Headspace Grade	890

Solvents for GC

Art. No.	Description	Page
KK42	Acetic acid ethyl ester, ROTISOLV®, ≥99,9 %, GC Ultra Grade	693
KK40	Acetone, ROTISOLV®, ≥99,9 %, GC Ultra Grade	696
KK41	Cyclohexane, ROTISOLV®, ≥99,9 %, GC Ultra Grade	857
KK47	Dichloromethane, ROTISOLV®, ≥99,9 %, GC Ultra Grade	875
KK48	*n*-Hexane, ROTISOLV®, ≥95 %, GC Ultra Grade	983
KK44	Methanol, ROTISOLV®, ≥99,9 %, GC Ultra Grade	1078
KK45	*n*-Pentane, ROTISOLV®, ≥99 %, GC Ultra Grade	1141
KK46	Toluene, ROTISOLV®, ≥99,8 %, GC Ultra Grade	1373

Solvents for residue analysis (Pestilyse® plus)

Art. No.	Description	Page
7565	Acetic acid ethyl ester, ROTISOLV® Pestilyse® plus, ≥99,9 %	693
7535	Acetone, ROTISOLV® Pestilyse® plus, ≥99,9 %	696
1HP5	Acetonitrile, ROTISOLV® Pestilyse® plus, ≥99,9 %	698
7542	Cyclohexane, ROTISOLV® Pestilyse® plus, ≥99,9 %	857
7562	Dichloromethane, ROTISOLV® Pestilyse® plus, ≥99,9 %	875
1HP6	Ethanol, ROTISOLV® Pestilyse® plus, ≥99,9 %	916
7566	*n*-Heptane, ROTISOLV® Pestilyse® plus, ≥99 %	979
7573	*n*-Hexane, ROTISOLV® Pestilyse® plus, ≥99 %	983
7567	*n*-Hexane, ROTISOLV® Pestilyse® plus, ≥96 %	983
7576	Isohexane, ROTISOLV® Pestilyse® plus, ≥96 %	1021
7580	Isooctane, ROTISOLV® Pestilyse® plus, ≥99,7 %	1022
7583	Methanol, ROTISOLV® Pestilyse® plus, ≥99,9 %	1078
7587	*n*-Pentane, ROTISOLV® Pestilyse® plus, ≥99 %	1141
7588	Petroleum ether 40–60 °C, ROTISOLV® Pestilyse® plus	1149
7590	2-Propanol, ROTISOLV® Pestilyse® plus, ≥99,9 %	1186
7591	Toluene, ROTISOLV® Pestilyse® plus, ≥99,8 %	1373
7554	Trichloromethane/Chloroform, ROTISOLV® Pestilyse® plus, ≥99,9 %	1377

Solvents for residue analysis (Pestilyse®)

Art. No.	Description	Page
T164	Acetic acid ethyl ester, ROTISOLV® Pestilyse®, ≥99,8 %	694
T161	Acetone, ROTISOLV® Pestilyse®, ≥99,8 %	696
T168	Acetonitrile, ROTISOLV® Pestilyse®, ≥99,9 %	698
T163	Cyclohexane, ROTISOLV® Pestilyse®, ≥99,5 %	857
T162	Dichloromethane, ROTISOLV® Pestilyse®, ≥99,8 %	875
T900	Diethyl ether, ROTISOLV® Pestilyse®, ≥99,8 %, stabilised	878
X878	*n*-Heptane, ROTISOLV® Pestilyse®, ≥99 %	979
T861	*n*-Hexane, ROTISOLV® Pestilyse®, ≥99 %	983
T165	*n*-Hexane, ROTISOLV® Pestilyse®, ≥97,5 %	983
T904	Isohexane, ROTISOLV® Pestilyse®, ≥99 %	1021
T167	Isooctane, ROTISOLV® Pestilyse®, ≥99,5 %	1022
T169	Methanol, ROTISOLV® Pestilyse®, ≥99,9 %	1078
T903	*n*-Pentane, ROTISOLV® Pestilyse®, ≥99 %	1141
T170	Petroleum ether 40–60 °C, ROTISOLV® Pestilyse®	1149
T902	2-Propanol, ROTISOLV® Pestilyse®, ≥99,8 %	1186
T166	Toluene, ROTISOLV® Pestilyse®, ≥99,8 %	1373
T901	Trichloromethane/Chloroform, ROTISOLV® Pestilyse®, ≥99,8 %	1377
T905	Water, ROTISOLV® Pestilyse®	1401

Solvents for UV/IR spectroscopy

Art. No.	Description	Page
4442	Acetic acid ethyl ester, ROTISOLV®, ≥99,8 %, UV/IR Grade	694
T906	Acetone, ROTISOLV®, ≥99,9 %, UV/IR Grade	696
T907	Acetonitrile, ROTISOLV®, ≥99,9 %, UV/IR Grade	699
CP81	Cyclohexane, ROTISOLV®, ≥99,9 %, UV/IR Grade	857
4433	Dichloromethane, ROTISOLV®, ≥99,8 %, UV/IR Grade	875
CP79	*N*,*N*-Dimethylformamide (DMF), ROTISOLV®, ≥99,9 %, UV/IR Grade	888
CP78	*n*-Heptane, ROTISOLV®, ≥99 %, UV/IR Grade	979
T908	*n*-Hexane, ROTISOLV®, ≥99 %, UV/IR Grade	983
CP80	Isooctane, ROTISOLV®, ≥99,8 %, UV/IR Grade	1022
T909	Methanol, ROTISOLV®, ≥99,9 %, UV/IR Grade	1078
4443	*n*-Pentane, ROTISOLV®, ≥99 %, UV/IR Grade	1142
T910	2-Propanol, ROTISOLV®, ≥99,9 %, UV/IR Grade	1186
CP83	Tetrachloroethylene, ROTISOLV®, ≥99,9 %, UV/IR Grade	1360
CP82	Tetrahydrofuran, ROTISOLV®, ≥99,9 %, UV/IR Grade	1361
4445	Toluene, ROTISOLV®, ≥99,8 %, UV/IR Grade	1373
4432	Trichloromethane/Chloroform, ROTISOLV®, ≥99,8 %, UV/IR Grade	1377

Solvents, dried, in a septum bottle

Art. No.	Description	Page
5175	Acetonitrile, ROTIDRY®Sept, ≥99,9 % (≤50 ppm H_2O)	699
5176	Dichloroethane, ROTIDRY®Sept, ≥99,9 % (≤50 ppm H_2O)	875
5177	Diethyl ether, ROTIDRY®Sept, ≥99,5 % (≤50 ppm H_2O), stabilised	879
5179	Dimethyl sulphoxide (DMSO), ROTIDRY®Sept, ≥99,8 % (≤100 ppm H_2O)	890
5180	*n*-Hexane, ROTIDRY®Sept, ≥99 % (≤30 ppm H_2O)	983
5181	Methanol, ROTIDRY®Sept, ≥99,9 % (≤50 ppm H_2O)	1078
5182	Tetrahydrofuran, ROTIDRY®Sept, ≥99,8 % (≤50 ppm H_2O)	1361
5191	Toluene, ROTIDRY®Sept, ≥99,5 % (≤30 ppm H_2O)	1373

Solvents, dried, with molecular sieve

Art. No.	Description	Page
1A9P	Acetic acid ethyl ester, ROTIDRY® plus, ≥99,8 % (≤50 ppm H_2O), with molecular sieve	694
1A9K	Dichloromethane, ROTIDRY® plus, ≥99,9 % (≤30 ppm H_2O), with molecular sieve	875

Art. No.	Description	Page
1A9X	Diethyl ether, ROTIDRY® plus, ≥99,5 % (≤50 ppm H_2O), with molecular sieve, stabilised	879
1A9L	Methanol, ROTIDRY® plus, ≥99,8 % (≤50 ppm H_2O), with molecular sieve	1078
1A9Y	Tetrahydrofuran, ROTIDRY® plus, ≥99,5 % (≤50 ppm H_2O), with molecular sieve, stabilised	1361
1A9T	Toluene, ROTIDRY® plus, ≥99,5 % (≤50 ppm H_2O), with molecular sieve	1373
1A9N	Trichloromethane/Chloroform, ROTIDRY® plus, ≥99,9 % (≤30 ppm H_2O), with molecular sieve, stabilised	1377

Solvents, dried

Art. No.	Description	Page
4424	Acetic acid ethyl ester, ROTIDRY®, ≥99,8 % (≤100 ppm H_2O)	694
AE00	Acetonitrile, ROTIDRY®, ≥99,9 % (≤10 ppm H_2O)	699
AE03	Dichloromethane, ROTIDRY®, ≥99,8 % (≤50 ppm H_2O)	875
AE04	Diethyl ether, ROTIDRY®, ≥99,5 % (≤50 ppm H_2O), stabilised	879
AE02	Dimethyl sulphoxide (DMSO), ROTIDRY®, ≥99,5 % (≤200 ppm H_2O)	890
4429	1,4-Dioxane, ROTIDRY®, ≥99,8 % (≤100 ppm H_2O)	892
AE05	*n*-Hexane, ROTIDRY®, ≥99 % (≤50 ppm H_2O)	983
AE01	Methanol, ROTIDRY®, ≥99,9 % (≤50 ppm H_2O)	1079
AE07	Tetrahydrofuran, ROTIDRY®, ≥99,9 % (≤50 ppm H_2O)	1361
AE06	Toluene, ROTIDRY®, ≥99,5 % (≤50 ppm H_2O)	1373
4423	Trichloromethane/Chloroform, ROTIDRY®, ≥99,8 % (≤50 ppm H_2O)	1377

Solvents for analysis

Art. No.	Description	Page
CP28	Acetic acid anhydride, ROTIPURAN®, ≥99 %, p.a., ACS, ISO	692
P036	Acetic acid *n*-butyl ester, ROTIPURAN®, ≥99,5 %, p.a., ACS	693
6784	Acetic acid ethyl ester, ROTIPURAN®, ≥99,5 %, p.a., ACS, ISO	694
9372	Acetone, ROTIPURAN®, ≥99,8 %, p.a., ACS, ISO	697
4722	Acetonitrile, ROTIPURAN®, ≥99,5 %, p.a., ACS	699
7173	Benzene, ROTIPURAN®, ≥99,5 %, p.a.	767
0336	Benzyl alcohol, ROTIPURAN®, ≥99 %, p.a.	771
7171	1-Butanol, ROTIPURAN®, ≥99,5 %, p.a., ACS	796
AE16	*tert*-Butanol, ROTIPURAN®, ≥99,5 %, p.a., ACS	797
T920	2-Butanone, ROTIPURAN®, ≥99,5 %, p.a., ACS	797
8462	*tert*-Butyl methyl ether, ROTIPURAN®, ≥99,5 %, p.a.	799
6886	Cyclohexane, ROTIPURAN®, ≥99,5 %, p.a., ACS, ISO	857
6837	1,2-Dichloroethane, ROTIPURAN®, ≥99,5 %, p.a.	874
6053	Dichloromethane, ROTIPURAN®, ≥99,5 %, p.a., ACS, ISO	876
0332	Diethanolamine, ROTIPURAN®, ≥99 %, p.a., ACS	877
3495	Diethylamine, ROTIPURAN®, ≥99,5 %, p.a., ACS	877
3942	Diethyl ether, ROTIPURAN®, ≥99,5 %, p.a., stabilised	879
T919	Diisopropyl ether, ROTIPURAN®, ≥99 %, p.a., stabilised	884
T921	*N*,*N*-Dimethylformamide (DMF), ROTIPURAN®, ≥99,8 %, p.a., ACS, ISO	888
4720	Dimethyl sulphoxide (DMSO), ROTIPURAN®, ≥99,8 %, p.a.	890
4626	1,4-Dioxane, ROTIPURAN®, ≥99,5 %, p.a., ACS, ISO, stabilised	892
9065	Ethanol, ROTIPURAN®, ≥99,8 %, p.a.	916
0911	Ethanol, ROTIPURAN®, ≥99,8 %, p.a., denatured	916
T868	Ethanol, ROTIPURAN®, ≥70 %, p.a.	917
0342	Ethanolamine, ROTIPURAN®, ≥99,5 %, p.a.	918
6881	Ethylene glycol, ROTIPURAN®, ≥99,5 %, p.a.	924
6749	Formamide, ≥99,5 %, p.a., ACS	946
T174	*n*-Heptane, ROTIPURAN®, ≥99 %, p.a.	979
4723	*n*-Hexane, ROTIPURAN®, ≥99 %, p.a., ACS	984
T870	Isoamyl alcohol, ROTIPURAN®, ≥98,5 %, p.a., ACS	1019
0338	Isobutyl methylketone, ROTIPURAN®, ≥99 %, p.a., ACS	1020
6889	Isooctane, ROTIPURAN®, ≥99,5 %, p.a., ACS	1022
4627	Methanol, ROTIPURAN®, ≥99,9 %, p.a., ACS, ISO	1079
CP08	2-Methoxyethanol, ROTIPURAN®, ≥99,5 %, p.a., ACS	1081
3926	2-Methylbutane, ROTIPURAN®, ≥99,5 %, p.a.	1083
6772	2-Methyl-1-propanol, ROTIPURAN®, ≥99 %, p.a., ACS	1088
4978	*n*-Pentane, ROTIPURAN®, ≥99 %, p.a.	1142
T173	Petroleum ether 40–60 °C, ROTIPURAN®, p.a., ACS, ISO	1149
6776	1-Propanol, ROTIPURAN®, ≥99,5 %, p.a.	1185
6752	2-Propanol, ROTIPURAN®, ≥99,8 %, p.a., ACS, ISO	1187
9729	Pyridine, ROTIPURAN®, ≥99,5 %, p.a., ACS	1191
6788	Tetrahydrofuran, ROTIPURAN®, ≥99,5 %, p.a., ACS	1362
7115	Toluene, ROTIPURAN®, ≥99,5 %, p.a., ACS, ISO	1373
3313	Trichloromethane/Chloroform, ROTIPURAN®, ≥99 %, p.a.	1377
T172	Water, ROTIPURAN®, p.a., ACS	1401
4436	Xylene (isomers), ROTIPURAN®, ≥99 %, p.a., ACS, ISO	1407

Solvents in Pharmacopoeia Quality

Art. No.	Description	Page
CP42	Acetic acid ethyl ester, ≥99,5 %, Ph. Eur., extra pure	694
CP40	Acetone, ≥99,7 %, Ph. Eur., extra pure	697
8657	Benzyl alcohol, ≥98 %, Ph. Eur.	771
CP45	Dichloromethane, ≥99,5 %, Ph. Eur., extra pure	876
8810	Diethyl ether, ≥99,5 %, Ph. Eur., stabilised	879
5054	Ethanol, ≥99,5 %, Ph. Eur., extra pure	916
6724	Bioethanol, SOLVAGREEN®, 96 %, Ph. Eur.	917
P075	Ethanol, 96 %, Ph. Eur., extra pure	917
7301	Ethanol, 70 %, DAB	918
6967	Glycerol, ≥99 %, anhydrous, Ph. Eur., USP, synthetic	966
7530	Glycerol, SOLVAGREEN®, ≥98 %, anhydrous, Ph. Eur.	966
7533	Glycerol, SOLVAGREEN®, ~86 %, Ph. Eur., extra pure	966
CP43	Methanol, ≥99,5 %, Ph. Eur., extra pure	1079
CP44	Petroleum ether 40–60 °C, extra pure, DAB	1149
1LA5	1,2-Propanediol, ≥99,5 %, Ph. Eur.	1184
CP41	2-Propanol, ≥99,5 %, Ph. Eur., extra pure	1187
3510	2-Propanol, 70 %, USP	1187
6340	Trichloromethane/Chloroform, ≥99 %, DAB, BP, extra pure	1377
2652	Water, Ph. Eur., USP, purified	1401
CN80	Xylene (isomers), ≥98,5 %, extra pure, Ph. Helv.	1407

Solvents for synthesis

Art. No.	Description	Page
4483	Acetic acid anhydride, ≥99 %, for synthesis	692
4600	Acetic acid *n*-butyl ester, ≥99 %, for synthesis	693
7338	Acetic acid ethyl ester, ≥99,5 %, for synthesis	694
4370	Acetic acid isobutyl ester, ≥99 %, for synthesis	694
1A9C	Acetic acid *iso*-propyl ester, SOLVAGREEN®, ≥99 %, for synthesis	695
1A9A	Acetic acid *n*-propyl ester, SOLVAGREEN®, ≥99,5 %, for synthesis	695
5025	Acetone, ≥99,5 %, for synthesis	697
4380	Acetonitrile, ≥99,5 %, for synthesis	699
1A92	*tert*-Amyl methyl ether, SOLVAGREEN®, ≥99 %, for synthesis	743
4417	Anisole, SOLVAGREEN®, ≥99 %, for synthesis	745
4372	Benzaldehyde, ≥99,5 %, for synthesis	767
5785	Benzene, ≥99,5 %, extra pure	767
9498	Benzoic acid benzyl ester, ≥99 %, for synthesis	768
4478	Benzyl alcohol, ≥98 %, for synthesis	771
7473	1,3-Butanediol, ≥99 %, for synthesis	795

Art. No.	Description	Page
4211	1,4-Butanediol, ≥99 %, for synthesis	796
7724	1-Butanol, ≥99,5 %, for synthesis	796
KK02	2-Butanol, ≥98,5 %, for synthesis	796
4323	*tert*-Butanol, ≥99 %, for synthesis	797
8403	2-Butanone, ≥99,5 %, for synthesis	797
6746	*tert*-Butyl methyl ether, ≥99,5 %, for synthesis	799
1E8A	*N*-Butyl-2-pyrrolidone (NBP), SOLVAGREEN®, ≥99,5 %, for synthesis	800
KK01	Chlorobenzene, ≥99,5 %, for synthesis	830
6570	Cyclohexane, ≥99,5 %, for synthesis	857
CP27	Cyclohexanone, ≥99,5 %, extra pure	858
2191	Cyclopentane, ≥95 %, for synthesis	859
7763	Cyclopentyl methyl ether, SOLVAGREEN®, ≥99 %, extra pure	859
3475	*n*-Decane, ≥99 %, for synthesis	864
4374	1,2-Dichlorobenzene, ≥98 %, for synthesis	874
T869	1,2-Dichloroethane, ≥99 %, for synthesis	874
8424	Dichloromethane, ≥99,5 %, for synthesis	876
HN99	Diethanolamine, ≥99 %, for synthesis	877
KK00	Diethylamine, ≥99,5 %, for synthesis	877
0968	Diethylene glycol, ≥99 %, for synthesis	878
5920	Diethyl ether, ≥99,5 %, for synthesis, stabilised	879
0262	Diethylketone, ≥99 %, for synthesis	879
1E89	Dihydrolevoglucosenone, SOLVAGREEN®, ≥98,5 %, for synthesis	881
0660	1,4-Diisocyanatobutane, ≥99 %, for synthesis	883
4369	Diisopropylamine, ≥99,5 %, for synthesis	883
T899	Diisopropyl ether, ≥98 %, for synthesis, stabilised	884
9986	*N*,*N*-Dimethylcyclohexylamine, ≥99 %, for synthesis	887
6251	*N*,*N*-Dimethylformamide (DMF), ≥99,5 %, for synthesis	888
7349	2,2-Dimethyl-1,3-propanediol, ≥99 %, for synthesis	889
0662	*N*,*N*'-Dimethylpropylene urea, SOLVAGREEN®, ≥99 %, for synthesis	889
7029	Dimethyl sulphoxide (DMSO), ≥99,5 %, for synthesis	890
4229	1,4-Dioxane, ≥99,5 %, for synthesis, stabilised	892
0447	1,3-Dioxolane, SOLVAGREEN®, ≥90 %, for synthesis	892
8786	*n*-Dodecane, ≥95 %, for synthesis	899
9853	1-Dodecanol, ≥98 %, for synthesis	899
K928	Ethanol, ≥99,8 %, denatured	916
6726	Bioethanol, SOLVAGREEN®, 96 %, denatured	917
T171	Ethanol, ≥96 %, denatured	917
T913	Ethanol, ≥70 %, denatured	918
4376	Ethanolamine, ≥99 %, for synthesis	918
0272	Ethylbenzene, ≥99 %, for synthesis	920
4218	Ethylenediamine, ≥99,5 %, for synthesis	921
9516	Ethylene glycol, ≥99 %, for synthesis	924
0341	Ethylene glycol monobutyl ether, ≥99 %, for synthesis	924
CN19	*N*-Ethyl-2-pyrrolidone (NEP), ≥98 %, for synthesis	926
8654	*n*-Heptane, ≥99 %, for synthesis	979
CP46	*n*-Heptane, ≥95 %, for synthesis	979
7725	Heptane (isomers), ≥98,5 %, for synthesis	980
CP47	*n*-Hexane, ≥99 %, for synthesis	984
3907	*n*-Hexane, ≥95 %, for synthesis	984
7782	Hexane (isomers), ≥95 % (isomers), for synthesis	984
8930	Isoamyl alcohol, ≥98,5 %, for synthesis	1020
4371	Isobutyl methylketone, ≥99 %, for synthesis	1020
9860	Isooctane, ≥99,5 %, for synthesis	1022
8388	Methanol, ≥99 %, for synthesis	1079
9976	Methanol, 60 %, for synthesis	1079
3927	2-Methylbutane, ≥99 %, for synthesis	1083
4379	2-Methyl-1-butanol, ≥97,5 %, for synthesis	1083
N353	1-Methylimidazole, ≥99 %, for synthesis	1085
9672	*N*-Methylmorpholine, ≥99 %, for synthesis	1086
CN17	2-Methyl-2,4-pentanediol, ≥99 %, for synthesis	1087
CP09	2-Methyl-1-propanol, ≥99 %, for synthesis	1088
4306	*N*-Methyl-2-pyrrolidone (NMP), ≥99,8 %, for synthesis	1088
6845	2-Methyltetrahydrofuran, SOLVAGREEN®, ≥99 %, extra pure	1089
4310	*n*-Nonane, ≥99 %, for synthesis	1115
8753	*n*-Octane, ≥99 %, for synthesis	1118
4439	1-Octanol, ≥99 %, for synthesis	1118
0358	*N*-Octyl-2-pyrrolidone (NOP), SOLVAGREEN®, ≥99 %, for synthesis	1119
8720	*n*-Pentane, ≥99 %, for synthesis	1142
3747	*n*-Pentane, ≥95 %, extra pure	1142
3523	Petroleum benzine 30-50, extra pure	1146
8961	Petroleum benzine 30-75, extra pure	1147
9320	Petroleum benzine 40-60, extra pure	1147
8573	Petroleum benzine 40-65, extra pure	1147
CP48	Petroleum benzine 40-80, extra pure	1147
0969	Petroleum benzine 50-70, extra pure	1147
9735	Petroleum benzine 60-70, extra pure	1147
8575	Petroleum benzine 60-95, extra pure	1147
5649	Petroleum benzine 63-80, extra pure	1147
3259	Petroleum benzine 80-110, extra pure	1148
9675	Petroleum benzine 100-140, extra pure	1148
8576	Petroleum benzine 135-180, extra pure	1148
8577	Petroleum benzine 145-200, extra pure	1148
8579	Petroleum benzine 180-220, extra pure	1148
8580	Petroleum benzine 190-245, extra pure	1148
8590	Petroleum benzine 235-265, extra pure	1148
4348	2-Phenoxyethanol, ≥99 %, for synthesis	1151
4422	2-Phenylethanol, ≥99 %, for synthesis	1152
0976	Piperidine, ≥99 %, for synthesis	1159
0340	1,2-Propanediol, ≥99,5 %, for synthesis	1184
9866	2-Propanol, ≥99,5 %, for synthesis	1187
CN09	2-Propanol, 70 %, pure	1187
3285	Propynol ethoxylate, ≥98 %, for synthesis	1189
CP07	Pyridine, ≥99 %, for synthesis	1191
8779	2-Pyrrolidone, SOLVAGREEN®, ≥99,5 %, for synthesis	1194
2641	Styrene, ≥99,5 %, for synthesis, stabilised	1342
4737	Tetrachloroethylene, ≥99,5 %, for synthesis	1360
4745	Tetrahydrofuran, ≥99,5 %, for synthesis	1362
9558	Toluene, ≥99,5 %, for synthesis	1373
9579	Trichloroethylene, ≥98 %, for synthesis, stabilised	1377
Y015	Trichloromethane/Chloroform, ≥99 %, for synthesis	1377
X875	Triethylamine (TEA), ≥99,5 %, for synthesis	1379
CP29	2,2,2-Trifluoroethanol, >99,8 %, for synthesis	1379
8781	*n*-Undecane, ≥95 %, for synthesis	1390
9713	Xylene (isomers), ≥97 %, pure, for histology	1407
2662	Xylene (isomers), ≥97 %, for synthesis	1407
3791	*m*-Xylene, ≥98,5 %, for synthesis	1407
8749	*o*-Xylene, ≥98 %, for synthesis	1407
8817	*p*-Xylene, ≥99 %, for synthesis	1408

Solvents for peptide synthesis

Art. No.	Description	Page
4380	Acetonitrile, ≥99,5 %, for synthesis	699
P089	Dichloromethane, PEPTIPURE®, ≥99,9 %, for peptide synthesis	876
2474	*N*,*N*-Diisopropylethylamine (DIPEA), PEPTIPURE®, ≥99,5 %, for peptide synthesis	884
3617	*N*,*N*-Dimethylacetamide (DMA), ≥99 %, for synthesis	885
A529	*N*,*N*-Dimethylformamide (DMF), PEPTIPURE®, ≥99,8 %, for peptide synthesis	888
2473	1,1,1,3,3,3-Hexafluoro-2-propanol (HFIP) , PEPTIPURE®, ≥99 %, for peptide synthesis	981
P052	*N*-Methyl-2-pyrrolidone (NMP), PEPTIPURE®, ≥99,8 %, for peptide synthesis	1088
A122	Piperidine, PEPTIPURE®, ≥99,5 %, for peptide synthesis	1159
P088	Trifluoroacetic acid (TFA), PEPTIPURE®, ≥99,9 %, for peptide synthesis	1379

Art. No.	Description	Page
3478	Water, doubly distilled	1401

Solvents for DNA-synthesis

Art. No.	Description	Page
AE00	Acetonitrile, ROTIDRY®, ≥99,9 % (≤10 ppm H_2O)	699
8824	Acetonitrile, ROTISOLV®, ≥99,9 % (≤10 ppm H_2O), for DNA synthesis	699
2216	Acetonitrile, ROTISOLV®, ≥99,9 % (≤30 ppm H_2O), for DNA synthesis	699
3620	Acetonitrile, ROTISOLV®, ≥99,9 % (≤30 ppm H_2O), for DNA synthesis, in a septum bottle	699
A990	Ammonia solution , 30–33 %, for DNA synthesis	731

Solvents, deuterated

Art. No.	Description	Page
1K3E	Acetone D6, 100 Atom%D	697
AE51	Acetone D6, 99,8 Atom%D	697
7909	Acetone D6, 99,5 Atom%D	697
1K3H	Acetonitrile D3, 100 Atom%D	700
7911	Acetonitrile D3, 99,8 Atom%D	700
AE52	Acetonitrile D3, 99,5 Atom%D	700
7912	Benzene D6, 99,8 Atom%D	768
AE53	Benzene D6, 99,5 Atom%D	768
HN93	Bromobenzene D5, 99,5 Atom%D	788
9905	Chlorobenzene D5, 99 Atom%D	830
5200	Cyclohexane D12, 99,5 Atom%D	858
HN81	Deuterium oxide, 100 Atom%D	869
6672	Deuterium oxide, 99,9 Atom%D	869
HN82	1,2-Dichlorobenzene D4, 99 Atom%D	874
7913	Dichloromethane D2, 99,8 Atom%D	876
AE55	Dichloromethane D2, 99,5 Atom%D	876
9907	Diethyl ether D10, 99 Atom%D	879
CP92	*N*,*N*-Dimethylformamide D7, 99,5 Atom%D	888
1K3K	Dimethyl sulphoxide D6, 100 Atom%D	890
7915	Dimethyl sulphoxide D6, 99,9 Atom%D	890
AE56	Dimethyl sulphoxide D6, 99,8 Atom%D	890
7916	Dimethyl sulphoxide D6 with TMS (0.03 vol.%), 99,9 Atom%D	890
AE60	Dimethyl sulphoxide D6 with TMS (0.03 vol.%), 99,8 Atom%D	890
HN84	Ethanol D1, 99,5 Atom%D	918
CP93	Ethanol D6, 99 Atom%D	918
9909	1,1,1,3,3,3-Hexafluoro-2-propanol D2 (HFIP-D2), 99 Atom%D	982
HN86	Methanol D1, 99,5 Atom%D	1080
9910	Methanol D3, 99,5 Atom%D	1080
7918	Methanol D4, 100 Atom%D	1080
AE57	Methanol D4, 99,8 Atom%D	1080
7919	Methanol D4 with TMS (0.03 vol.%), 99,8 Atom%D	1080
9913	Methylcyclohexane D14, 99,5 Atom%D	1084
9914	Nitrobenzene D5, 99,5 Atom%D	1110
HN91	Nitromethane D3, 99 Atom%D	1111
9917	2-Propanol D1, 98 Atom%D	1187
9919	2-Propanol D8, 99,5 Atom%D	1187
7922	Pyridine D5, 99,8 Atom%D	1192
CP94	Pyridine D5, 99,5 Atom%D	1192
9921	Styrene D8, 99 Atom%D, stabilised with 4-*tert*-butylcatechol	1342
CP96	1,1,2,2-Tetrachloroethane D2, 99,5 Atom%D	1360
AE58	Tetrahydrofuran D8, 99,5 Atom%D	1362
7924	Toluene D8, 99,8 Atom%D	1373
CP95	Toluene D8, 99,5 Atom%D	1374
CP91	Trichloromethane/Chloroform D1, 100 Atom%D	1378
7903	Trichloromethane/Chloroform D1, 99,8 Atom%D	1378
AE54	Trichloromethane/Chloroform D1, 99,8 Atom%D, stabilised with Ag	1378
7905	Trichloromethane/Chloroform D1 with TMS (0.03 vol.%), 99,8 Atom%D	1378
AE59	Trichloromethane/Chloroform D1 with TMS (0.03 vol.%), 99,8 Atom%D, stabilised with Ag	1378

Solvents with eluent additives

Art. No.	Description	Page
CP00	Acetonitrile with 0.1 % formic acid, ROTISOLV®, ≥99,9 %, LC-MS Grade	699
CP01	Acetonitrile with 0.1 % acetic acid, ROTISOLV®, ≥99,9 %, LC-MS Grade	699
CP02	Acetonitrile with 0.1 % trifluoro-acetic acid, ROTISOLV®, ≥99,9 %, LC-MS Grade	700
CP06	Methanol with 0.1 % trifluoro-acetic acid, ROTISOLV®, ≥99,9 %, LC-MS Grade	1080
CP03	Water with 0.1 % formic acid, ROTISOLV®, LC-MS Grade	1402
CP05	Water with 0.1 % trifluoro-acetic acid, ROTISOLV®, LC-MS Grade	1402

Solvent yellow 2

- Dimethyl yellow indicator solution see page 891
- Dimethyl yellow (C.I. 11020) see page 891

Solvent yellow 14

- Sudan I see page 1343

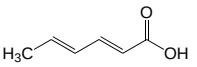
Sophoretin

- Quercetin see page 1196
- Quercetin dihydrate see page 1196

Sophorin

- Rutin trihydrate see page 1245

Sorbic acid



2,4-Hexadienoic acid

CAS No. 110-44-1 · EC no. 203-768-7

Sorbic acid
≥99 %, Ph. Eur.

$C_6H_8O_2$ · D 1,201 to 1,203 g/cm³ · mp >120 to <150 °C · bp >160 to <260 °C

WGK 1

Warning H315-H319-H335

Guarantee analysis

Assay (acidim., dry substance) ..... 99,0-101,0 %
Identity ..... complies
Water ..... ≤1,0 %
Appearance of solution ..... complies
Aldehydes ..... ≤0,15 %
Heavy metals (as Pb) ..... ≤0,001 %
Ash content (as SO_4) ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
7158.1	250 g	plastic	55,80
7158.2	500 g	plastic	105,25
Original pack 6 x 500 g			99,99/500 g
7158.3	1 kg	plastic	198,90
Original pack 6 x 1 kg			188,96/1 kg

Sorbic acid
ROTI®Star Primary Standard

$C_6H_8O_2$ · D 1,201 to 1,203 g/cm³ · mp >120 to <150 °C · bp >160 to <260 °C

WGK 1

Warning H315-H319-H335

Type analysis

Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤1,0 %
Water (KF) ..... ≤1,0 %
Assay (titr.) ..... ≥95,0 %

Proof of identity by ^1H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE15.1	100 mg	glass	869,70

Sorbic acid
ROTICHROM® Working Standard

$C_6H_8O_2$ · D 1,201 to 1,203 g/cm³ · mp >120 to <150 °C · bp >160 to <260 °C

WGK 1

Warning H315-H319-H335

Type analysis

Assay (HPLC) ..... ≥95,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC15.1	100 mg	glass	310,70

Sorbic acid potassium salt

- Potassium sorbate see page 1181

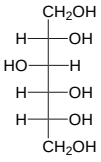
D-Sorbit

▸ D-Sorbitol see page 1304

Sorbitan monooleate

▸ Span® 80 see page 1304

D-Sorbitol



D-Sorbit

$C_6H_{14}O_6$ · D 1,49 g/cm³ · mp 94 to 96 °C · flp >100 °C
CAS No. 50-70-4 · EC no. 200-061-5
WGK 1

D-Sorbitol
≥98 %, for biochemistry

Microbiology

Type analysis
Assay (HPLC, dry substance) ..... ≥98 %
Water (KF) ..... ≤0,4 %
Reducing sugar ..... ≤0,2 %
Lead (Pb) ..... ≤0,00005 %
Nickel (Ni) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
6213.1	1 kg	plastic	33,25
Original pack 6 x 1 kg			31,59/1 kg
6213.2	5 kg	plastic	96,65
6213.3	10 kg	plastic	177,40
6213.7	25 kg	plastic	353,70

Sorbitol MacConkey Agar

MacConkey Agar with sorbitol · SMAC-Agar

WGK 1

Sorbitol MacConkey Agar
ISO 11133, ISO 16654, for microbiology

Selective and differential medium for detection of sorbitol-fermenting *E. coli* O157:H7.

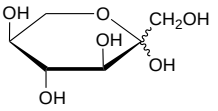
Application: Use 51.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Casein peptone ..... 17 g/l
Gelatine peptone ..... 3 g/l
Sorbitol ..... 10 g/l
Sodium chloride ..... 5 g/l
Bile salts No. 3 ..... 1,5 g/l
Neutral red ..... 0,03 g/l
Crystal Violet ..... 0,001 g/l
Agar ..... 15 g/l
pH value ..... 7,1 ±0,2

Art. No.	Pack Qty.	Pack.	€
5778.1	500 g	plastic	134,40
Original pack 6 x 500 g			127,68/500 g

L(–)-Sorbose



$C_6H_{12}O_6$ · mp 163 to 165 °C
CAS No. 87-79-6 · EC no. 201-771-8
WGK 1

L(–)-Sorbose
≥98 %, for biochemistry

Type analysis
Appearance ..... white to cream coloured powder
Assay (HPLC) ..... ≥98,0 %
Specific rotation $[\alpha]_D^{20}$ (c=5 in H_2O) ..... -45° to -41°

Art. No.	Pack Qty.	Pack.	€
4028.2	25 g	plastic	60,75
4028.3	50 g	plastic	105,25
4028.1	100 g	plastic	160,20

Soybean oil

Oleum Sojae

D 0,91 to 0,93 g/cm³ · bp >200 °C · flp >250 °C
WGK awg

Soybean oil
extra pure, refined

Type analysis
Appearance ..... clear, slightly yellow liquid
Refractive index n_D^{20} 1,466-1,476
Density (20 °C) 0,91-0,93
Free fatty acid ..... ≤0,1 %
Peroxide value ..... ≤10,0
Water ..... ≤0,05 %
C 16:0 Palmitic acid ..... 8,0-13,5 %
C 18:0 Stearic acid ..... 2,0-5,4 %
C 18:1 Oleic acid ..... 17-30 %
C 18:2 Linoleic acid ..... 48-59 %
C 18:3 Linolenic acid ..... 4,5-11 %
Trans-isomer fatty acids ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
3686.1	1 l	glass	28,95
Original pack 6 x 1 l			27,50/1 l
3686.3	2.5 l	glass	51,10
Original pack 4 x 2.5 l			48,55/2.5 l
3686.4	5 l	plastic	81,60
Original pack 2 x 5 l			77,52/5 l
3686.2	10 l	plastic	149,45

Soy Peptone Agar

▸ CASO Agar see page 820

Soy peptone

▸ Peptone ex soya see page 1144

Soy Peptone Broth

▸ CASO Broth, granulated see page 820
▸ CASO Broth vegetal see page 820
▸ CASO Broth see page 820
▸ CASO Broth see page 820

SPADNS

▸ 1,8-Dihydroxy-2-(4-sulfophenylazo)-naphthalene-3,6-disulfonic acid trisodium salt see page 883

Span® 80

Sorbitan monooleate

D ~1 g/cm³ · bp >100 °C · flp >148,9 °C
CAS No. 1338-43-8 · EC no. 215-665-4
WGK 1

Span® 80
for synthesis

Type analysis
Hydroxyl value ..... 193-210 mg KOH/g
Acid value ..... ≤8,0 mg KOH/g
Saponification value ..... 145-160 mg KOH/g
Water ..... ≤1,5%

Art. No.	Pack Qty.	Pack.	€
9426.1	250 g	glass	32,15
9426.2	1 kg	glass	85,90
Original pack 6 x 1 kg			81,61/1 kg

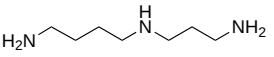
Special Petroleum

▸ Petroleum benzine 50-70 see page 1147

Spermaceti

▸ Cetyl palmitate see page 826

Spermidine



N-(3-Aminopropyl)-1,4-butanediamine

$C_7H_{19}N_3$ · D 0,938 g/cm³ · mp 22 to 25 °C · bp 128 to 130 °C · flp 112 °C
CAS No. 124-20-9 · EC no. 204-689-0
UN no. 3259 · ADR 8 II · WGK 1

Danger H314

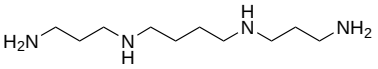
Spermidine
≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... colourless to yellowish liquid or white solid
Purity (GC) ..... ≥99 %
Water (KF) ..... ≤20 %

Art. No.	Pack Qty.	Pack.	€
7161.2	1 g	glass	55,40
7161.1	2.5 g	glass	103,75
7161.3	5 g	glass	180,10

Spermine



Musculamine · Neuridine

$C_{10}H_{26}N_4$ · mp 55 to 60 °C · flp >110 °C
CAS No. 71-44-3 · EC no. 200-754-2
UN no. 3259 · ADR 8 II · WGK 1

Danger H314

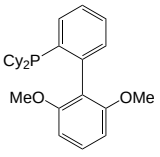
Spermine
≥99 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (GC) ..... ≥99,0 %
Water (KF) ..... ≤3,0 %

Art. No.	Pack Qty.	Pack.	€
7162.2	1 g	glass	46,80
7162.1	2.5 g	glass	100,95
7162.3	5 g	glass	174,70

SPhos



2-Dicyclohexylphosphino-
2',6'-dimethoxybiphenyl

$C_{26}H_{35}O_2P$ · mp 164 to 166 °C
CAS No. 657408-07-6
WGK 1

SPhos
≥98 %

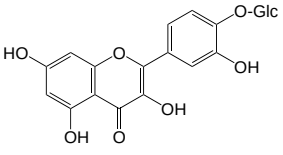
Phosphine ligand

Type analysis
Appearance ..... white, cryst. powder
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1911.1	1 g	glass	32,15
1911.2	5 g	glass	123,65

Spinacene
▸ Squalene see page 1305

Spiraeoside



Quercetin-4'-glucoside

$C_{21}H_{20}O_{12}$ · mp 210 °C
CAS No. 20229-56-5
WGK 1

Warning H302

Spiraeoside
ROTICHROM® HPLC

Reference substance for HPLC.
From *Filipendula ulmaria*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... >98 %

Art. No.	Pack Qty.	Pack.	€
1216.1	20 mg	glass	471,95

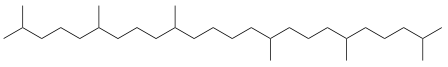
Spiraeoside
ROTICHROM® ~CHR$_{TLC}$

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
4564.1	10 mg	glass	117,75

Spirit
▸ Ethanol see page 916
▸ Ethanol see page 916
▸ Ethanol see page 917
▸ Bioethanol see page 917

Squalane



Alkane C30 · Cosbiol · Perhydrosqualene

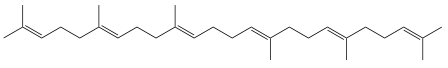
$C_{30}H_{62}$ · D 0,822 g/cm³ · mp -28 to -38 °C · bp 350 °C · flp 215 °C
CAS No. 111-01-3 · EC no. 203-825-6
WGK 1

Squalane
≥98 %

Type analysis
Appearance ..... clear, colourless, viscous liquid
Assay ..... ≥98,0 %

Art. No.	Pack Qty.	Pack.	€
5339.1	100 ml	glass	82,70

Squalene



Spinacene

$C_{30}H_{50}$ · D 0,86 g/cm³ · bp 330 to 340 °C · flp >200 °C
CAS No. 111-02-4 · EC no. 203-826-1
WGK 1

Danger H304

Squalene
>98 %, for synthesis

Type analysis
Assay (GC, area %) ..... >98 %
Density (20 °C) 0,855-0,880
Refractive index (20 °C) 1,490-1,498
Peroxide value ..... ≤5
Acid value ..... ≤0,5 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
5341.1	100 ml	glass	37,55
5341.2	250 ml	glass	88,70
5341.3	500 ml	glass	145,15
5341.4	1 l	glass	244,60
Original pack 6 x 1 l			232,37/1 l

Squalene
ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥98 %

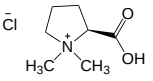
Art. No.	Pack Qty.	Pack.	€
3185.1	1 g	glass	32,15

SSC buffer powder (pouch)
▸ ROTI®Fair SSC see page 1221

20x SSC Ready-to-use solution
▸ ROTI®Stock 20x SSC see page 1242

SSPE buffer (tablets)
▸ ROTI®Fair SSPE see page 1221

Stachydrine hydrochloride



$C_7H_{13}NO_2$ · HCl · mp 212 to 219 °C
CAS No. 4136-37-2 · EC no. 223-957-8
WGK 1

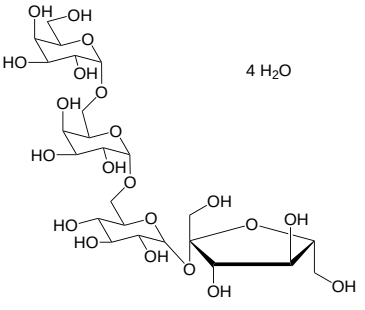
Warning H332

Stachydrine hydrochloride
ROTICHROM® ~CHR$_{TLC}$

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
9457.2	20 mg	glass	317,15

Stachyose Hydrate



Lupeose

$C_{24}H_{42}O_{21}$ · x H_2O · mp 95 to 105 °C
CAS No. 54261-98-2 · EC no. 207-427-3
WGK 1

Stachyose Hydrate
>98 %

Type analysis
Appearance ..... white, cryst. powder
Assay ..... >98,0 %
Water (KF) ..... <11 %

Art. No.	Pack Qty.	Pack.	€
9438.1	100 mg	glass	103,10

Staining Solutions for Histology / Microscopy

Art. No.	Description	Page
1431	Alcian blue 1 % in acetic acid 3 %	716
CN00	Carbol gentian violet solution	816
A130	Carbolic fuchsine solution	816
8275	Elastica van Gieson staining kit	908
X883	Eosin Y solution 0.5 % in water	911
3137	Eosin Y solution 1 % in water	911
3139	Eosin Y solution 1 % in methanol	911
HP46	Ethidium bromide solution 0.5 % in dropper bottle	919
T862	Giemsa stock solution	957
3469	Goldner's staining I	970
3470	Goldner's staining II	970
3473	Goldner's staining III	970
CN02	Gram's decolourising solution	970
HP02	Gram staining kit	970
9194	H&E fast staining kit	976
T865	Hemalum solution acid acc. to Mayer	976
X906	Hematoxylin solution A acc. to Weigert	977
X907	Hematoxylin solution B acc. to Weigert	977
CN03	Hematoxylin solution acc. to Delafield	977
CN04	Hematoxylin solution acid acc. to Ehrlich	977
T864	Hematoxylin solution acc. to Gill II	977
X903	Hematoxylin solution acc. to Harris	977
N052	Iodine-potassium iodide solution acc. to Lugol	1011
3097	Lactophenol blue solution	1033
AE64	LOEFFLER's methylene blue solution	1049
3459	Masson-Goldner's trichrome staining kit	1069
T863	May-Gruenwald's solution	1071
1433	Methylene blue solution 0.1 % aqueous	1084
3463	Neisser's solution I	1101
3464	Neisser's solution II	1101
3466	Neisser's solution III	1101
N069	Nuclear fast red aluminium sulphate solution	1116
6487	Panoptical fast staining kit	1136
T867	Papanicolaou-orange solution 2a (OG 6)	1136
AE62	Papanicolaou solution 2b Orange II solution	1136
AE63	Papanicolaou polychrome solution 3a (EA31)	1137
T866	Papanicolaou polychrome solution 3b (EA 50)	1137
9195	PAP fast staining kit	1137
HP01	PAS staining kit	1138
HP00	Periodic acid solution 1 %	1146
X877	Resorcinol-Fuchsine-solution acc. to Weigert	1202
CN01	Safranin O solution	1248
X900	Schiff's reagent	1253
3925	Van Gieson's Solution	1394
9193	Van Gieson trichrome staining kit	1394
9192	Weigert's iron hematoxylin staining kit	1402
CN05	Wright's eosin methylene blue solution	1404
8276	Ziehl-Neelsen staining kit	1412
6395	Zinc iodine chloride solution	1414

Standard Count Agar

WGK 1

Standard Count Agar
for microbiology

For enumeration of aerobic bacteria in milk, water and wastewaters.

Application: Use 25 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Meat extract ..... 3 g/l
Casein peptone ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar ..... 12 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE91.1	500 g	plastic	139,25
Original pack 6 x 500 g			132,29/500 g

Standard Nutrient Agar I

WGK 1

Standard Nutrient Agar I
for microbiology

For cultivation and enumeration of fastidious bacteria. Also high-base for preparing special culture agars.

Application: Use 37 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Peptone ..... 15 g/l
Yeast extract ..... 3 g/l
Sodium chloride (NaCl) ..... 6 g/l
Glucose ..... 1 g/l
Agar ..... 12 g/l
pH value ..... 7,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE93.1	500 g	plastic	107,40
Original pack 6 x 500 g			102,03/500 g
AE93.2	1 kg	plastic	185,45
Original pack 6 x 1 kg			176,18/1 kg

Standard Nutrient Agar I, granulated
granulated, for microbiology

For cultivation and enumeration of fastidious bacteria. Also base for preparing special culture agars.

Application: Use 37 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Peptone ..... 15 g/l
Yeast extract ..... 3 g/l
Sodium chloride (NaCl) ..... 6 g/l
Glucose ..... 1 g/l
Agar ..... 12 g/l
pH value ..... 7,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
1524.1	500 g	plastic	256,95
Original pack 6 x 500 g			244,10/500 g

Standard Nutrient Broth I

WGK 1

Standard Nutrient Broth I
for microbiology

For cultivation and enumeration of fastidious bacteria. Also high-base for preparing special culture media.

Application: Use 25 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Peptone ..... 15 g/l
Yeast extract ..... 3 g/l
Sodium chloride (NaCl) ..... 6 g/l
Glucose ..... 1 g/l
pH value ..... 7,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE92.1	500 g	plastic	102,70
Original pack 6 x 500 g			97,57/500 g
AE92.2	1 kg	plastic	183,30
Original pack 6 x 1 kg			174,14/1 kg

Standard Nutrient Broth I, granulated
granulated, for microbiology

For cultivation and enumeration of fastidious bacteria. Also base for preparing special culture media.

Application: Use 25 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Peptone ..... 15 g/l
Yeast extract ..... 3 g/l
Sodium chloride (NaCl) ..... 6 g/l
Glucose ..... 1 g/l
pH value ..... 7,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
1533.1	500 g	plastic	249,95
Original pack 6 x 500 g			237,45/500 g

Colour Standards ASTM

Colour Standard
ROTI®Calipure ASTM <0,5

D 0,753 g/cm³ · mp -10 °C · bp ≥205,5 °C · flp 71 °C

WGK 1

Danger H304-EUH066

Guarantee analysis
Colour number (ASTM) ..... <0,5

Art. No.	Pack Qty.	Pack.	€
1H62.1	100 ml	glass	153,20

Colour Standard
ROTI®Calipure ASTM A1

D ~0,757 g/cm³ · mp -10 °C · bp ≥205,5 °C · flp 71 °C

WGK 1

Danger H304-EUH066

Guarantee analysis
Colour number (ASTM) 0,5-1,5

Art. No.	Pack Qty.	Pack.	€
1H63.1	100 ml	glass	117,20

Colour Standard
ROTI®Calipure ASTM A3

D ~0,757 g/cm³ · mp -10 °C · bp ≥205,5 °C · flp 71 °C

WGK 2

Danger H304-EUH066

Guarantee analysis
Colour number (ASTM) 2,5-3,5

Art. No.	Pack Qty.	Pack.	€
1H64.1	100 ml	glass	117,20

Colour Standard
ROTI®Calipure ASTM A5

D ~0,792 g/cm³ · mp >-40 °C · bp ≥205,5 °C · flp 71 °C

WGK 2

Danger H304-H373-EUH066

Guarantee analysis
Colour number (ASTM) 4,5-5,5

Art. No.	Pack Qty.	Pack.	€
1H65.1	100 ml	glass	160,20

Colour Standard
ROTI®Calipure ASTM A7

D ~0,792 g/cm³ · mp >-40 °C · bp ≥205,5 °C · flp 71 °C

WGK 2

Danger H304-H373-EUH066

Guarantee analysis
Colour number (ASTM) 6,5-7,5

Art. No.	Pack Qty.	Pack.	€
1H66.1	100 ml	glass	160,20

Colour Standards according to Gardner

Colour Standard
ROTI®Calipure Gardner 1

D 1,006 g/cm³ · bp 100 °C

UN no. 1789 · ADR 8 III · WGK 1

Warning H290

Guarantee analysis
Colour number (Gardner) 1

Art. No.	Pack Qty.	Pack.	€
1HT7.1	100 ml	glass	338,65

Colour Standard
ROTI®Calipure Gardner 2

D 1,006 g/cm³ · bp 100 °C

UN no. 1789 · ADR 8 III · WGK 1

Warning H290

Guarantee analysis
Colour number (Gardner) 2

Art. No.	Pack Qty.	Pack.	€
1HT8.1	100 ml	glass	231,15

Colour Standard
ROTI®Calipure Gardner 3

D 1,007 g/cm³ · bp 100 °C

UN no. 1789 · ADR 8 III · WGK 1

Warning H290-EUH208

Guarantee analysis
Colour number (Gardner) 3

Art. No.	Pack Qty.	Pack.	€
1HT9.1	100 ml	glass	182,25

Colour Standard
ROTI®Calipure Gardner 4

D 1,009 g/cm³ · bp 100 °C

UN no. 1789 · ADR 8 III · WGK 1

Warning H290-EUH208

Guarantee analysis
Colour (Gardner) 4

Art. No.	Pack Qty.	Pack.	€
1HTA.1	100 ml	glass	231,15

Colour Standard
ROTI®Calipure Gardner 5

D 1,012 g/cm³ · bp 100 °C

UN no. 1789 · ADR 8 III · WGK 1

Warning H290-EUH208

Guarantee analysis
Colour (Gardner) 5

Art. No.	Pack Qty.	Pack.	€
1HTC.1	100 ml	glass	182,25

Colour Standard
ROTI®Calipure Gardner 6

D 1,015 g/cm³ · bp 100 °C

UN no. 1789 · ADR 8 III · WGK 1

Warning H290-EUH208

Guarantee analysis
Colour number (Gardner) 6

Art. No.	Pack Qty.	Pack.	€
1HTE.1	100 ml	glass	231,15

Colour Standard
ROTI®Calipure Gardner 7

D 1,02 g/cm³ · bp 100 °C

UN no. 1789 · ADR 8 III · WGK 1

Warning H290-EUH208

Guarantee analysis
Colour number (Gardner) 7

Art. No.	Pack Qty.	Pack.	€
1HTH.1	100 ml	glass	182,25

Colour Standard
ROTI®Calipure Gardner 8

D 1,024 g/cm³ · bp 100 °C

UN no. 1789 · ADR 8 III · WGK 1

Warning H290-EUH208

Type analysis
Colour number (Gardner) 8

Art. No.	Pack Qty.	Pack.	€
1HTK.1	100 ml	glass	231,15

Colour Standard
ROTI®Calipure Gardner 9

D 1,128 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 II · WGK 3

Danger H290-H315-H317-H318-H350-H360F-H411

Guarantee analysis
Colour number (Gardner) 9

Art. No.	Pack Qty.	Pack.	€
1HTL.1	100 ml	glass	182,25

Colour Standard
ROTI®Calipure Gardner 10

D 1,151 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 II · WGK 3

Danger H290-H315-H317-H318-H350-H360F-H411

Guarantee analysis
Colour number (Gardner) 10

Art. No.	Pack Qty.	Pack.	€
1HTN.1	100 ml	glass	182,25

Colour Standard
ROTI®Calipure Gardner 11

D 1,196 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 II · WGK 3

Danger H290-H315-H317-H318-H350-H360F-H411

Guarantee analysis
Colour number (Gardner) 11

Art. No.	Pack Qty.	Pack.	€
1HTP.1	100 ml	glass	182,25

Colour Standard
ROTI®Calipure Gardner 12

D 1,258 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 II · WGK 3

Danger H290-H315-H317-H318-H350-H360F-H411

Guarantee analysis
Colour number (Gardner) 12

Art. No.	Pack Qty.	Pack.	€
1HTT.1	100 ml	glass	231,15

Colour Standard
ROTI®Calipure Gardner 13

D 1,358 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 II · WGK 3

Danger H290-H315-H317-H318-H334-H341-H350-H360F-H410

Guarantee analysis
Colour number (Gardner) 13

Art. No.	Pack Qty.	Pack.	€
1HTX.1	100 ml	glass	335,95

Colour Standard
ROTI®Calipure Gardner 14

D 1,461 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 II · WGK 3

Danger H290-H315-H317-H318-H334-H341-H350-H360F-H410

Guarantee analysis
Colour number (Gardner) 14

Art. No.	Pack Qty.	Pack.	€
1HTY.1	100 ml	glass	231,15

Colour Standard
ROTI®Calipure Gardner 15

D 2,084 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 3

Danger H290-H302-H315-H317-H318-H334-H341-H350-H360F-H410

Guarantee analysis
Colour number (Gardner) 15

Art. No.	Pack Qty.	Pack.	€
1HX0.1	100 ml	glass	182,25

Colour Standard
ROTI®Calipure Gardner 16

D 1,747 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 II · WGK 3

Danger H290-H302-H315-H317-H318-H334-H341-H350-H360F-H410

Guarantee analysis
Colour number (Gardner) 16

Art. No.	Pack Qty.	Pack.	€
1HX1.1	100 ml	glass	231,15

Colour Standard
ROTI®Calipure Gardner 17

D 1,964 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 II · WGK 3

Danger H290-H302-H315-H317-H318-H334-H341-H350-H360F-H410

Guarantee analysis
Colour number (Gardner) 17

Art. No.	Pack Qty.	Pack.	€
1HX2.1	100 ml	glass	182,25

Colour Standard
ROTI®Calipure Gardner 18

D 2,541 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H302-H315-H317-H318

Guarantee analysis
Colour number (Gardner) 18

Art. No.	Pack Qty.	Pack.	€
1HX3.1	100 ml	glass	182,25

Colour Standards according to Ph. Eur.

Colour Standard diluting solution
ROTI®Calipure 10 g/l HCl

Diluting solution for colour standards according to Ph. Eur.

D ~1 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 1

Warning H290

Type analysis
Concentration ..... 9,9-10,1 g/l

Art. No.	Pack Qty.	Pack.	€
1HC3.1	1 l	plastic	160,20
Original pack 6 x 1 l			152,19/1 l

Colour Standard
ROTI®Calipure Reag. Ph. Eur., Primary solution, blue

D ~1,166 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 3

Warning H290-H411

Contains Copper(II) sulphate pentahydrate., Manufactured according to Ph.Eur. chapter 2.2.2.

Art. No.	Pack Qty.	Pack.	€
1HAN.1	100 ml	glass	153,20

Colour Standard
ROTI®Calipure Reag. Ph. Eur., Primary solution, red

D ~1,144 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 3

Danger H290-H317-H334-H341-H350-H360F-H410

Contains Cobalt(II) chloride hexahydrate., Manufactured according to Ph.Eur. chapter 2.2.2.

Art. No.	Pack Qty.	Pack.	€
1HAT.1	100 ml	glass	223,10

Colour Standard
ROTI®Calipure Reag. Ph. Eur., Primary solution, yellow

D ~1,091 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 1

Danger H290-H317-H318

Contains Iron(III) chloride hexahydrate., Manufactured according to Ph.Eur. chapter 2.2.2.

Art. No.	Pack Qty.	Pack.	€
1HAP.1	100 ml	glass	153,20

Colour Standard
ROTI®Calipure Reag. Ph. Eur., standard solution brown

D ~1,114 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 3

Danger H290-H317-H319-H350-H360F-H411

Composition: Colour Standard Primary Solution blue, yellow, red, diluting solution, Manufactured according to Ph.Eur. chapter 2.2.2.

Art. No.	Pack Qty.	Pack.	€
1HAX.1	100 ml	glass	223,10

Colour Standard
ROTI®Calipure Reag. Ph. Eur., standard solution brownish-yellow

D ~1,114 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 3

Danger H290-H317-H319-H350-H411

Composition: Colour Standard Primary Solution blue, yellow, red, diluting solution, Manufactured according to Ph.Eur. chapter 2.2.2.

Art. No.	Pack Qty.	Pack.	€
1HAY.1	100 ml	glass	188,15

Colour Standard
ROTI®Calipure Reag. Ph. Eur., standard solution greenish-yellow

D ~1,09 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 2

Danger H290-H317-H318-H350-H412

Composition: Colour Standard Primary Solution blue, yellow, red., Manufactured according to Ph.Eur. chapter 2.2.2.

Art. No.	Pack Qty.	Pack.	€
1HC1.1	100 ml	glass	188,15

Colour Standard
ROTI®Calipure Reag. Ph. Eur., standard solution red

D ~1,031 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 3

Danger H290-H350-H360F-H411-EUH208

Composition: Colour Standard Primary Solution yellow, red, diluting solution., Manufactured according to Ph.Eur. chapter 2.2.2.

Art. No.	Pack Qty.	Pack.	€
1HC2.1	100 ml	glass	223,10

Colour Standard
ROTI®Calipure Reag. Ph. Eur., standard solution yellow

D ~1,031 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 3

Danger H290-H317-H319-H350-H411

Composition: Colour Standard Primary Solution yellow, red, diluting solution., Manufactured according to Ph.Eur. chapter 2.2.2.

Art. No.	Pack Qty.	Pack.	€
1HC0.1	100 ml	glass	188,15

Colour Standards Pt/Co (Hazen)

Colour Standard Pt/Co
ROTI®Calipure 0 Hazen

D ~1 g/cm³ · bp 100 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1EE5.1	100 ml	plastic	103,10

Colour Standard Pt/Co
ROTI®Calipure 5 Hazen

D ~1 g/cm³ · bp 100 °C

WGK 1

Type analysis
Colour number (Hazen) 4,9-5,1

Art. No.	Pack Qty.	Pack.	€
1EE6.1	100 ml	plastic	78,40

Colour Standard Pt/Co
ROTI®Calipure 10 Hazen

D ~1 g/cm³ · bp 100 °C

WGK 1

Type analysis
Colour number (Hazen) 9,9-10,1

Art. No.	Pack Qty.	Pack.	€
1EE7.1	100 ml	plastic	73,65

Colour Standard Pt/Co
ROTI®Calipure 15 Hazen

D ~1 g/cm³ · bp 100 °C

WGK 1

Type analysis
Colour number (Hazen) 14,9-15,1

Art. No.	Pack Qty.	Pack.	€
1EE8.1	100 ml	plastic	73,65

Colour Standard Pt/Co
ROTI®Calipure 20 Hazen

D ~1 g/cm³ · bp 100 °C

WGK 1

Type analysis
Colour number (Hazen) 19,9-20,1

Art. No.	Pack Qty.	Pack.	€
1EE9.1	100 ml	plastic	73,65

Colour Standard Pt/Co
ROTI®Calipure 25 Hazen

D ~1 g/cm³ · bp 100 °C

WGK 1

Type analysis
Colour number (Hazen) 24,9-25,1

Art. No.	Pack Qty.	Pack.	€
1EEA.1	100 ml	plastic	73,65

Colour Standard Pt/Co
ROTI®Calipure 30 Hazen

D ~1 g/cm³ · bp 100 °C

WGK 1

Type analysis
Colour number (Hazen) 29,9-30,1

Art. No.	Pack Qty.	Pack.	€
1EEC.1	100 ml	plastic	73,65

Colour Standard Pt/Co
ROTI®Calipure 40 Hazen

D ~1 g/cm³ · bp 100 °C

WGK 1

Type analysis
Colour number (Hazen) 39,9-40,1

Art. No.	Pack Qty.	Pack.	€
1EEE.1	100 ml	plastic	128,50

Colour Standard Pt/Co
ROTI®Calipure 50 Hazen

D 1,017 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 2

Warning H290

Type analysis
Colour number (Hazen) 49,9-50,1

Art. No.	Pack Qty.	Pack.	€
1EEH.1	100 ml	plastic	128,50

Colour Standard Pt/Co
ROTI®Calipure 80 Hazen

D 1,001 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 2

Warning H290

Type analysis
Colour number (Hazen) 79,0-81,0

Art. No.	Pack Qty.	Pack.	€
1EEK.1	100 ml	plastic	97,30

Colour Standard Pt/Co
ROTI®Calipure 100 Hazen

D 1,017 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 2

Warning H290

Type analysis
Colour number (Hazen) 99,9-100,1

Art. No.	Pack Qty.	Pack.	€
1EEL.1	100 ml	plastic	103,10

Colour Standard Pt/Co
ROTI®Calipure 150 Hazen

D 1,003 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 2

Danger H290-H350-H412

Type analysis
Colour number (Hazen) 149,9-150,1

Art. No.	Pack Qty.	Pack.	€
1EEN.1	100 ml	plastic	103,10

Colour Standard Pt/Co
ROTI®Calipure 200 Hazen

D ~1 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 2

Danger H290-H350-H412

Type analysis
Colour number (Hazen) 199,9-200,1

Art. No.	Pack Qty.	Pack.	€
1EEP.1	100 ml	plastic	103,10

Colour Standard Pt/Co
ROTI®Calipure 250 Hazen

D 1,017 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 2

Danger H290-H350-H412

Type analysis
Colour number (Hazen) 249,9-250,1

Art. No.	Pack Qty.	Pack.	€
1EET.1	100 ml	plastic	103,10

Colour Standard Pt/Co
ROTI®Calipure 400 Hazen

D 1,003 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 2

Danger H290-H350-H412-EUH208

Type analysis
Colour number (Hazen) 399,9-400,1

Art. No.	Pack Qty.	Pack.	€
1EEX.1	100 ml	plastic	103,10

Colour Standard Pt/Co
ROTI®Calipure 500 Hazen

D 1,017 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 2

Danger H290-H350-H412-EUH208

Type analysis
Colour number (Hazen) 499,9-500,1

Art. No.	Pack Qty.	Pack.	€
1EEY.1	100 ml	plastic	103,10

Colour Standard Pt/Co
ROTI®Calipure 1000 Hazen

D 1,017 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 2

Danger H290-H350-H412-EUH208

Type analysis
Colour number (Hazen) 999,9-1000,1

Art. No.	Pack Qty.	Pack.	€
1EH0.1	100 ml	plastic	385,95

Colour Standards according to Saybolt

Colour Standard
ROTI®Calipure Saybolt +30

D 0,753 g/cm³ · flp 71 °C

WGK 1

Danger H304-EUH066

Guarantee analysis
Colour number (Saybolt) ..... +30

Art. No.	Pack Qty.	Pack.	€
1KNH.1	100 ml	glass	123,65

Colour Standard
ROTI®Calipure Saybolt +25

D 0,753 g/cm³ · flp 71 °C

WGK 1

Danger H304-EUH066

Guarantee analysis
Colour number (Saybolt) ..... +25

Art. No.	Pack Qty.	Pack.	€
1KNK.1	100 ml	glass	231,15

Colour Standard
ROTI®Calipure Saybolt +19

D 0,753 g/cm³ · flp 71 °C

WGK 1

Danger H304-EUH066

Guarantee analysis
Colour number (Saybolt) ..... +19

Art. No.	Pack Qty.	Pack.	€
1KNL.1	100 ml	glass	231,15

Colour Standard
ROTI®Calipure Saybolt +15

D 0,753 g/cm³ · flp 71 °C

WGK 1

Danger H304-EUH066

Guarantee analysis
Colour number (Saybolt) ..... +15

Art. No.	Pack Qty.	Pack.	€
1KNN.1	100 ml	glass	123,65

Colour Standard
ROTI®Calipure Saybolt +12

D 0,753 g/cm³ · flp 71 °C

WGK 1

Danger H304-EUH066

Guarantee analysis
Colour number (Saybolt) ..... +12

Art. No.	Pack Qty.	Pack.	€
1KNP.1	100 ml	glass	231,15

Colour Standard
ROTI®Calipure Saybolt +0

D 0,753 g/cm³ · flp 71 °C

WGK 1

Danger H304-EUH066

Guarantee analysis
Colour number (Saybolt) ..... +0

Art. No.	Pack Qty.	Pack.	€
1KNT.1	100 ml	glass	231,15

Colour Standard
ROTI®Calipure Saybolt -15

D 0,753 g/cm³ · flp 71 °C

WGK 1

Danger H304-EUH066

Guarantee analysis
Colour number (Saybolt) ..... -15

Art. No.	Pack Qty.	Pack.	€
1KNX.1	100 ml	glass	231,15

Standards for Conductivity Measurement

Conductivity standards

Conductivity Standard
ROTI®Calipure 5 µS/cm (25 °C)

D 1 g/cm³ · bp >60 °C

WGK 1

Type analysis
Conductivity (25 °C) ..... 5 µS/cm ±2 %

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2462.1	500 ml	plastic	209,65

Conductivity Standard
ROTI®Calipure 10 µS/cm (25 °C)

D 1 g/cm³ · bp >60 °C

WGK 1

Type analysis
Conductivity (25 °C) ..... 10 µS/cm ±1 %

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
0810.1	250 ml	plastic	147,85
0810.2	500 ml	plastic	256,95

Conductivity Standard
ROTI®Calipure 20 µS/cm (25 °C)

D 1 g/cm³ · bp >60 °C

WGK 1

Type analysis
Conductivity (25 °C) ..... 20 µS/cm ±1 %

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
0811.1	500 ml	plastic	96,25

Conductivity Standard
ROTI®Calipure 50 µS/cm (25 °C)

D 1 g/cm³ · bp >60 °C

WGK 1

Type analysis
Conductivity (25 °C) ..... 50 µS/cm ±1 %

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
0812.1	500 ml	plastic	174,70

Conductivity Standard
ROTI®Calipure 84 µS/cm (25 °C)

D 1 g/cm³ · bp >60 °C

WGK 1

Type analysis
Conductivity (25 °C) ..... 84 µS/cm ±1 %

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2432.1	500 ml	plastic	36,45
2432.2	1 l	plastic	48,95
Original pack 6 x 1 l			46,50/1 l

Conductivity Standard
ROTI®Calipure 100 µS/cm (25 °C)

D 1 g/cm³ · bp >60 °C

WGK 1

Type analysis
Conductivity (25 °C) ..... 100 µS/cm ±1 %

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2463.1	500 ml	plastic	96,25

Conductivity Standard
ROTI®Calipure 147 µS/cm (25 °C)

D 1 g/cm³ · bp >60 °C

WGK 1

Type analysis
Conductivity (25 °C) ..... 147 µS/cm ±1 %

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2433.1	500 ml	plastic	36,45
2433.2	1 l	plastic	48,95
Original pack 6 x 1 l			46,50/1 l

Conductivity Standard
ROTI®Calipure 500 µS/cm (25 °C)

D 1 g/cm³ · bp >60 °C

WGK 1

Type analysis

Conductivity (25 °C) ..... 500 µS/cm ±1 %

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2464.1	500 ml	plastic	96,25

Conductivity Standard
ROTI®Calipure 1000 µS/cm (25 °C)

D 1 g/cm³ · bp >60 °C

WGK 1

Type analysis
Conductivity (25 °C) ..... 1000 µS/cm ±1 %

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2465.1	500 ml	plastic	96,25

Conductivity Standard
ROTI®Calipure 1413 µS/cm (25 °C)

D 1 g/cm³ · bp >60 °C

WGK 1

Type analysis
Conductivity (25 °C) ..... 1413 µS/cm ±1 %

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2434.1	500 ml	plastic	36,45
2434.2	1 l	plastic	48,95
Original pack 6 x 1 l			46,50/1 l

Conductivity Standard
ROTI®Calipure 5000 µS/cm (25 °C)

D 1 g/cm³ · bp >60 °C

WGK 1

Type analysis
Conductivity (25 °C) ..... 5000 µS/cm ±1 %

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
0814.1	500 ml	plastic	96,25

Conductivity Standard
ROTI®Calipure 10 000 µS/cm (25 °C)

D 1 g/cm³ · bp >60 °C

WGK 1

Type analysis
Conductivity (25 °C) ..... 10000 µS/cm ±1 %

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2466.1	500 ml	plastic	133,85

Conductivity Standard
ROTI®Calipure 12 880 µS/cm (25 °C)

D 1 g/cm³ · bp >60 °C

WGK 1

Type analysis
Conductivity (25 °C) ..... 12880 µS/cm ±1 %

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2435.1	500 ml	plastic	36,45
2435.2	1 l	plastic	48,95
Original pack 6 x 1 l			46,50/1 l

Conductivity Standard
ROTI®Calipure 20 000 µS/cm (25 °C)

D 1 g/cm³ · bp >60 °C

WGK 1

Type analysis
Conductivity (25 °C) ..... 20000 µS/cm ±1 %

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
0822.1	500 ml	plastic	133,85

Conductivity Standard
ROTI®Calipure 50 000 µS/cm (25 °C)

D 1 g/cm³ · bp >60 °C

WGK 1

Type analysis
Conductivity (25 °C) ..... 50000 µS/cm ±1 %

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
0831.1	500 ml	plastic	96,25

Conductivity Standard
ROTI®Calipure 100 000 µS/cm (25 °C)

D 1 g/cm³ · bp >60 °C

WGK 1

Type analysis
Conductivity (25 °C) ..... 100000 µS/cm ±1 %

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
0832.1	500 ml	plastic	96,25

Conductivity Standard
ROTI®Calipure 500 000 µS/cm (25 °C)

D 1,069 g/cm³ · mp 0 °C · bp 85 °C

UN no. 1789 · ADR 8 II · WGK 1

Warning H290-H315-H319-H335

Type analysis
Conductivity (25 °C) ..... 500000 µS/cm ±1 %

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2467.1	500 ml	plastic	133,85

Standards for Determination of the Hydrocarbon Index

Oil standards

n-Alkane standard solution (C_{10}–C_{40}, all even)
16 components (each 50 mg/l) in *n*-hexane

For determination of hydrocarbon index according to ISO 9377-2-Mod DIN H53).

D 0,66 g/cm³ · mp -95 °C · bp 67 to 69 °C · flp -22 °C

Storage temperature: +4 °C

UN no. 1208 · ADR 3 II · WGK 2

Danger H225-H304-H315-H336-H361f-H373-H411

Type analysis
n-Decane ..... 50 mg/l
n-Dodecane ..... 50 mg/l
n-Tetradecane ..... 50 mg/l
n-Hexadecane ..... 50 mg/l
n-Octadecane ..... 50 mg/l
n-Eicosane ..... 50 mg/l
n-Docosane ..... 50 mg/l
n-Tetracosane ..... 50 mg/l
n-Hexacosane ..... 50 mg/l
n-Octacosane ..... 50 mg/l
n-Triacontane ..... 50 mg/l
n-Dotriacontane ..... 50 mg/l
n-Tetratriacontane ..... 50 mg/l
n-Hexatriacontane ..... 50 mg/l
n-Octatriacontane ..... 50 mg/l
n-Tetracontane ..... 50 mg/l

Art. No.	Pack Qty.	Pack.	€
1772.1	1 ml	glass ampoule	137,10
1772.2	5 ml	glass ampoule	205,90

n-Alkane standard solution (C_{10}–C_{40}, all even)
16 components (each 100 mg/l) in *n*-hexane/petroleum ether

For determination of hydrocarbon index according to ISO 9377-2-Mod DIN H53).

D 0,66 g/cm³ · bp 69 °C

Storage temperature: +4 °C

UN no. 1208 · ADR 3 II · WGK 3

Danger H225-H304-H315-H336-H340-H350-H361f-H373-H411

Type analysis
n-Decane ..... 100 mg/l
n-Dodecane ..... 100 mg/l
n-Tetradecane ..... 100 mg/l
n-Hexadecane ..... 100 mg/l
n-Octadecane ..... 100 mg/l
n-Eicosane ..... 100 mg/l
n-Docosane ..... 100 mg/l
n-Tetracosane ..... 100 mg/l
n-Hexacosane ..... 100 mg/l
n-Octacosane ..... 100 mg/l
n-Triacontane ..... 100 mg/l
n-Dotriacontane ..... 100 mg/l
n-Tetratriacontane ..... 100 mg/l
n-Hexatriacontane ..... 100 mg/l
n-Octatriacontane ..... 100 mg/l
n-Tetracontane ..... 100 mg/l

Art. No.	Pack Qty.	Pack.	€
9331.1	5 ml	glass ampoule	256,95

n-Alkane standard solution (C_7, C_8, C_9, C_{10}–C_{40}, all even)
19 components (each 50 mg/l) in isooctane

For determination of hydrocarbon index according to ISO 9377-2-Mod DIN H53).

D 0,69 g/cm³ · mp -107 °C · bp 99,2 °C

Storage temperature: +4 °C

UN no. 1262 · ADR 3 II · WGK 2

Danger H225-H304-H315-H336-H410

Type analysis
n-Heptane ..... 50 mg/l
n-Octane ..... 50 mg/l
n-Nonane ..... 50 mg/l
n-Decane ..... 50 mg/l
n-Dodecane ..... 50 mg/l
n-Tetradecane ..... 50 mg/l
n-Hexadecane ..... 50 mg/l
n-Octadecane ..... 50 mg/l
n-Eicosane ..... 50 mg/l
n-Docosane ..... 50 mg/l
n-Tetracosane ..... 50 mg/l
n-Hexacosane ..... 50 mg/l
n-Octacosane ..... 50 mg/l
n-Triacontane ..... 50 mg/l
n-Dotriacontane ..... 50 mg/l
n-Tetratriacontane ..... 50 mg/l
n-Hexatriacontane ..... 50 mg/l
n-Octatriacontane ..... 50 mg/l
n-Tetracontane ..... 50 mg/l

Art. No.	Pack Qty.	Pack.	€
9629.1	5 ml	glass ampoule	1.138,45

Extraction solvent stock solution
20 µl/l *n*-decane and 20 mg/l *n*-tetracontane in *n*-hexane

For determination of hydrocarbon index according to ISO 9377-2-Mod DIN H53).

D 0,66 g/cm³ · mp -95 °C · bp 67 to 69 °C · flp -22 °C

UN no. 1208 · ADR 3 II · WGK 2

Danger H225-H304-H315-H336-H361f-H373-H411

Type analysis
n-Decane ..... 20 µl/l
n-Tetracontane ..... 20 mg/l

Art. No.	Pack Qty.	Pack.	€
1750.2	10 ml	glass ampoule	105,90

Florisil® quality control standard
1 000 mg/l mineral oil and diesel in *n*-hexane

For determination of hydrocarbon index according to ISO 9377-2-Mod DIN H53).

D 0,66 g/cm³ · mp -95 °C · bp 68 °C

UN no. 1208 · ADR 3 II · WGK 3

Danger H225-H304-H315-H336-H350-H361f-H373-H411

Type analysis
Mineral oil ..... 1000 mg/l
Diesel ..... 1000 mg/l

Art. No.	Pack Qty.	Pack.	€
9334.1	5 ml	glass ampoule	79,45

Standard mixture of mineral oils
500 mg/l mineral oil and diesel in acetone

For determination of hydrocarbon index according to ISO 9377-2-Mod DIN H53).

D 0,79 g/cm³ · mp -94,8 °C · bp 56,05 °C · flp -17 °C

UN no. 1090 · ADR 3 II · WGK 1

Danger H225-H319-H336-EUH066

Type analysis
Mineral oil ..... 500 mg/l
Diesel ..... 500 mg/l

Art. No.	Pack Qty.	Pack.	€
1774.2	5 ml	glass ampoule	125,25

Standard mixture of mineral oils
5 000 mg/l mineral oil and diesel in *n*-hexane

For determination of hydrocarbon index according to ISO 9377-2-Mod DIN H53).

D 0,6547 g/cm³ · mp -95,35 °C · bp 67 °C · flp -22 °C

Storage temperature: +4 °C

UN no. 1208 · ADR 3 II · WGK 3

Danger H225-H304-H315-H336-H350-H361f-H373-H411

Type analysis
Mineral oil ..... 5000 mg/l
Diesel ..... 5000 mg/l

Art. No.	Pack Qty.	Pack.	€
1773.2	5 ml	glass ampoule	110,20

Standard mixture of mineral oils
50 000 mg/l mineral oil and diesel in *n*-hexane

For determination of hydrocarbon index according to ISO 9377-2-Mod DIN H53).

D 0,66 g/cm³ · mp -95 °C · bp 69 °C · flp -26 °C

Storage temperature: +4 °C

UN no. 1208 · ADR 3 II · WGK 3

Danger H225-H304-H315-H336-H350-H361f-H373-H411

Type analysis
Mineral oil ..... 50000 mg/l
Diesel ..... 50000 mg/l

Art. No.	Pack Qty.	Pack.	€
1LCE.1	1 ml	glass ampoule	216,65
1LCE.2	5 ml	glass ampoule	815,95

Standard mixture of mineral oils
50/50 mineral oil and diesel, solvent-free

For determination of hydrocarbon index according to ISO 9377-2-Mod DIN H53).

D ~0,7 g/cm³ · mp -40 °C · bp 69 °C · flp -26 °C

UN no. 1993 · ADR 3 II · WGK 3

Danger H225-H350

Type analysis
Mineral oil ..... 500000 mg/kg
Diesel ..... 500000 mg/kg

Art. No.	Pack Qty.	Pack.	€
1LCH.1	1 ml	glass ampoule	134,40
1LCH.2	5 ml	glass ampoule	240,30

Stearyl stearate test solution
2 000 mg/l in *n*-hexane

For determination of hydrocarbon index according to ISO 9377-2-Mod DIN H53).

D 0,66 g/cm³ · mp -95 °C · bp 67 to 69 °C · flp -22 °C

Storage temperature: +4 °C

UN no. 1208 · ADR 3 II · WGK 2

Danger H225-H304-H315-H336-H361f-H373-H411

Type analysis
Stearyl stearate (in *n*-hexane) ..... 2000 mg/l

Art. No.	Pack Qty.	Pack.	€
1760.2	10 ml	glass ampoule	147,85

Single Element Standards Aluminium

Aluminium Standards

Aluminium AAS Standard Solution
ROTI®Star 1 000 mg/l Al

D 1 g/cm³ · mp 0 °C

UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Type analysis
c (Al) as $Al(NO_3)_3$ in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2212.1	100 ml	HDPE	26,35
2212.2	500 ml	HDPE	45,70

Aluminium ICP Standard Solution
ROTI®Star 1 000 mg/l Al

D 1,015 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Al) as $Al(NO_3)_3$ in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2397.1	100 ml	HDPE	68,70
2397.2	500 ml	HDPE	146,75

Aluminium ICP Standard Solution
ROTI®Star 10 000 mg/l Al

D 1 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Al) as $Al(NO_3)_3$ in 2 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2488.1	100 ml	HDPE	122,05
2488.2	500 ml	HDPE	370,90

Single Element Standards Antimony

Antimony Standards

D 1,1 g/cm³
UN no. 1789 · ADR 8 III · WGK 1

Warning H290-H315-H319-H335

Antimony AAS Standard Solution
ROTI®Star 1 000 mg/l Sb

Type analysis
c (Sb) as Sb in 20 % HCl ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2223.1	100 ml	HDPE	26,35
2223.2	500 ml	HDPE	45,70

Antimony ICP Standard Solution
ROTI®Star 1 000 mg/l Sb

Type analysis
c (Sb) as Sb in 20 % HCl ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2398.1	100 ml	HDPE	68,70

Antimony ICP Standard Solution
ROTI®Star 10 000 mg/l Sb

Type analysis
c (Sb) as Sb in 20 % HCl ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2489.1	100 ml	HDPE	122,05

Single Element Standards Arsenic

Arsenic Standards

Arsenic AAS Standard Solution
ROTI®Star 1 000 mg/l As

D 1,013 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 3

Danger H290-H315-H319-H350

Type analysis
c (As) as As_2O_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2224.1	100 ml	HDPE	26,35
2224.2	500 ml	HDPE	45,70

Arsenic ICP Standard Solution
ROTI®Star 1 000 mg/l As

D 1,013 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 3

Danger H290-H315-H319-H350

Type analysis
c (As) as H_3AsO_4 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2399.2	30 ml	HDPE	48,30
2399.1	100 ml	HDPE	68,70

Arsenic ICP Standard Solution
ROTI®Star 10 000 mg/l As

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 3

Danger H290-H315-H319-H350-H412

Type analysis
c (As) as H_3AsO_4 in 2 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2491.1	100 ml	HDPE	122,05

Single Element Standards Barium

Barium Standards

Barium AAS Standard Solution
ROTI®Star 1 000 mg/l Ba

D 1,011 g/cm³

UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Type analysis
c (Ba) as $Ba(NO_3)_2$ in 1 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2225.1	100 ml	HDPE	26,35
2225.2	500 ml	HDPE	45,70

Barium ICP Standard Solution
ROTI®Star 1 000 mg/l Ba

D 1 g/cm³

UN no. 3264 · ADR 8 III · WGK 2

Warning H290-H315-H319

Type analysis
c (Ba) as $Ba(NO_3)_2$ in 1 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2400.1	100 ml	HDPE	68,70
2400.2	500 ml	HDPE	147,85

Barium ICP Standard Solution
ROTI®Star 10 000 mg/l Ba

D 1 g/cm³

UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Type analysis
c (Ba) as $Ba(NO_3)_2$ in 1 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2492.1	100 ml	HDPE	122,05
2492.2	500 ml	HDPE	263,40

Single Element Standards Beryllium

Beryllium Standards

Beryllium AAS Standard Solution
ROTI®Star 1 000 mg/l Be

D 1,022 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 2922 · ADR 8 (6.1) III · WGK 1

Danger H290-H302-H311-H315-H318-H350i-EUH208

Type analysis
c (Be) as $Be_4O(C_2H_3O_2)_6$ in 2 % HNO_3/0,5 % HF . 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2226.1	100 ml	HDPE	109,15
2226.2	500 ml	HDPE	228,45

Beryllium ICP Standard Solution
ROTI®Star 1 000 mg/l Be

D 1,022 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 2922 · ADR 8 (6.1) III · WGK 1

Danger H290-H302-H311-H315-H318-H350i-EUH208

Type analysis
c (Be) as $Be_4O(C_2H_3O_2)_6$ in 2 % HNO_3/0,5 % HF ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2401.2	30 ml	HDPE	
2401.1	100 ml	HDPE	130,65

Beryllium ICP Standard Solution
ROTI®Star 10 000 mg/l Be

D 1 g/cm³

UN no. 2922 · ADR 8 (6.1) II · WGK 1

Danger H290-H302+H332-H311-H314-H317-H350i-H373-EUH071

Type analysis
c (Be) as BeO in 5 % HNO_3/1 % HF ... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2496.1	100 ml	HDPE	569,25

Single Element Standards Bismuth

Bismuth Standards · Bismut Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C
UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H315-H318

Bismuth AAS Standard Solution
ROTI®Star 1 000 mg/l Bi

Type analysis
c (Bi) as Bi in 3 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2227.1	100 ml	HDPE	26,35
2227.2	500 ml	HDPE	45,70

Bismuth ICP Standard Solution
ROTI®Star 1 000 mg/l Bi

Type analysis
c (Bi) as Bi in 3 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2402.1	100 ml	HDPE	68,70

Bismuth ICP Standard Solution
ROTI®Star 10 000 mg/l Bi

Type analysis
c (Bi) as Bi in 3 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2497.1	100 ml	HDPE	122,05

Single Element Standards Boron

Boron Standards

WGK 1

Danger H360FD

Boron AAS Standard Solution
ROTI®Star 1 000 mg/l B

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

Type analysis
c (B) as H_3BO_3 in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2237.1	100 ml	HDPE	26,35
2237.2	500 ml	HDPE	45,70

Boron ICP Standard Solution
ROTI®Star 1 000 mg/l B

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

Type analysis
c (B) as H_3BO_3 in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2404.1	100 ml	HDPE	68,70
2404.2	500 ml	HDPE	147,85

Boron ICP Standard Solution
ROTI®Star 10 000 mg/l B

D 1 g/cm³

Type analysis
c (B) as H_3BO_3 in H_2O ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2500.1	100 ml	HDPE	122,05
2500.2	500 ml	HDPE	224,70

Single Element Standards Cadmium

Cadmium Standards

Cadmium AAS Standard Solution
ROTI®Star 1 000 mg/l Cd

D 1,012 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 3

Danger H290-H315-H319-H340-H350

Type analysis
c (Cd) als Cd in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2238.1	100 ml	HDPE	26,35
2238.2	500 ml	HDPE	45,70

Cadmium ICP Standard Solution
ROTI®Star 10 000 mg/l Cd

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 3

Danger H290-H315-H319-H340-H350-H373-H411

Type analysis
c (Cd) as $Cd(NO_3)_2$ in 2 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2501.1	100 ml	HDPE	122,05

Cadmium ICP Standard Solution
ROTI®Star 1 000 mg/l Cd

D 1,012 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 3

Danger H290-H315-H319-H340-H350

Type analysis
c (Cd) als Cd in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2405.1	100 ml	HDPE	68,70

Single Element Standards Caesiumm

Caesium Standards · Cesium Standards

D 1 g/cm³
UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Caesium AAS Standard Solution
ROTI®Star 1 000 mg/l Cs

Type analysis
c (Cs) as $CsNO_3$ in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2239.1	100 ml	HDPE	32,15
2239.2	500 ml	HDPE	60,75

Caesium ICP Standard Solution
ROTI®Star 1 000 mg/l Cs

Type analysis
c (Cs) as $CsNO_3$ in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2406.1	100 ml	HDPE	72,60

Caesium ICP Standard Solution
ROTI®Star 10 000 mg/l Cs

Type analysis
c (Cs) as $CsNO_3$ in 2 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2502.1	100 ml	HDPE	137,10

Single Element Standards Calcium

Calcium Standards

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Calcium AAS Standard Solution
ROTI®Star 1 000 mg/l Ca

D 1,013 g/cm³

Type analysis
c (Ca) as $CaCO_3$ in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2240.1	100 ml	HDPE	26,35
2240.2	500 ml	HDPE	45,70

Calcium ICP Standard Solution
ROTI®Star 1 000 mg/l Ca

D 1,013 g/cm³

Type analysis
c (Ca) as $CaCO_3$ in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2407.1	100 ml	HDPE	68,70
2407.3	250 ml	HDPE	97,75
2407.2	500 ml	HDPE	147,85

Calcium ICP Standard Solution
ROTI®Star 10 000 mg/l Ca

D 1 g/cm³

Type analysis
c (Ca) as $CaCO_3$ in 2 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2503.1	100 ml	HDPE	122,05
2503.2	500 ml	HDPE	263,40

Single Element Standards Cerium

Cerium Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

Cerium ICP Standard Solution
ROTI®Star 1 000 mg/l Ce

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Ce) as $Ce(NO_3)_3$ in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2408.1	100 ml	HDPE	68,70
2408.2	250 ml	HDPE	114,50

Cerium ICP Standard Solution
ROTI®Star 10 000 mg/l Ce

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H315-H318

Type analysis
c (Ce) as $Ce(NO_3)_3$ in 3 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2504.1	100 ml	HDPE	122,05

Single Element Standards Chromium

Chromium Standards

Chromium AAS Standard Solution
ROTI®Star 1 000 mg/l Cr

D 1,012 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Cr) as $Cr(NO_3)_3$ in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2250.1	100 ml	HDPE	26,35
2250.2	500 ml	HDPE	45,70

Chromium ICP Standard Solution
ROTI®Star 1 000 mg/l Cr

D 1,012 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Cr) as $Cr(NO_3)_3$ in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2409.1	100 ml	HDPE	68,70
2409.3	250 ml	HDPE	100,95
2409.2	500 ml	HDPE	147,85

Chromium ICP Standard Solution
ROTI®Star 10 000 mg/l Cr

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H315-H318

Type analysis
c (Cr) as $Cr(NO_3)_3$ in 3 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2505.1	100 ml	HDPE	122,05
2505.2	500 ml	HDPE	263,40

Single Element Standards Cobalt

Cobalt Standards

Cobalt AAS Standard Solution
ROTI®Star 1 000 mg/l Co

D 1,016 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 3

Danger H290-H315-H319-H350i-EUH208

Type analysis
c (Co) as Co in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2251.1	100 ml	HDPE	26,35
2251.2	500 ml	HDPE	45,70

Cobalt ICP Standard Solution
ROTI®Star 1 000 mg/l Co

D 1,016 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 3

Danger H290-H315-H319-H350i-EUH208

Type analysis
c (Co) as Co in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2410.1	100 ml	HDPE	68,70

Cobalt ICP Standard Solution
ROTI®Star 10 000 mg/l Co

D 1 g/cm³

UN no. 3264 · ADR 8 III · WGK 3

Danger H290-H315-H318-H350i-H360F-H411-EUH208

Type analysis
c (Co) as Co in 3 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2506.1	100 ml	HDPE	122,05

Single Element Standards Copper

Copper Standards

Copper AAS Standard Solution
ROTI®Star 1 000 mg/l Cu

D 1,001 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Cu) as Cu in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2329.1	100 ml	HDPE	26,35
2329.2	500 ml	HDPE	45,70

Copper ICP Standard Solution
ROTI®Star 1 000 mg/l Cu

D 1,001 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Cu) as Cu in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2426.1	100 ml	HDPE	68,70
2426.2	250 ml	HDPE	114,50

Copper ICP Standard Solution
ROTI®Star 10 000 mg/l Cu

D 1 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H315-H318-H411

Type analysis
c (Cu) as Cu in 3 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2520.1	100 ml	HDPE	122,05

Single Element Standards Dysprosium

Dysprosium Standards

Dysprosium ICP Standard Solution
ROTI®Star 1 000 mg/l Dy

D 1,028 g/cm³

UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Type analysis
c (Dy) as Dy_2O_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2411.1	100 ml	HDPE	72,60

Dysprosium ICP Standard Solution
ROTI®Star 10 000 mg/l Dy

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H315-H318

Type analysis
c (Dy) as Dy_2O_3 in 3 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2507.1	100 ml	HDPE	137,10

Single Element Standards Erbium

Erbium Standards

Erbium ICP Standard Solution
ROTI®Star 1 000 mg/l Er

D 1,013 g/cm³

UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Type analysis
c (Er) as Er_2O_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2413.1	100 ml	HDPE	72,60

Erbium ICP Standard Solution
ROTI®Star 10 000 mg/l Er

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H315-H318

Type analysis
c (Er) as Er_2O_3 in 3 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2509.1	100 ml	HDPE	137,10

Single Element Standards Europium

Europium Standards

Europium ICP Standard Solution
ROTI®Star 1 000 mg/l Eu

D 1,012 g/cm³

UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Type analysis
c (Eu) as Eu_2O_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2414.1	100 ml	HDPE	72,60

Europium ICP Standard Solution
ROTI®Star 10 000 mg/l Eu

D 1 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Eu) as Eu_2O_3 in 2 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2510.1	100 ml	HDPE	160,20

Single Element Standards Gadolinium

Gadolinium Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

Gadolinium ICP Standard Solution
ROTI®Star 1 000 mg/l Gd

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Gd) as Gd_2O_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2416.1	100 ml	HDPE	72,60

Gadolinium ICP Standard Solution
ROTI®Star 10 000 mg/l Gd

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H315-H318

Type analysis
c (Gd) as Gd_2O_3 in 3 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2511.1	100 ml	HDPE	160,20

Single Element Standards Gallium

Gallium Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

Gallium ICP Standard Solution
ROTI®Star 1 000 mg/l Ga

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Ga) as Ga in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2418.1	100 ml	HDPE	72,60
2418.2	250 ml	HDPE	131,70

Gallium ICP Standard Solution
ROTI®Star 10 000 mg/l Ga

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H315-H318

Type analysis
c (Ga) as Ga in 3 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2512.1	100 ml	HDPE	137,10

Single Element Standards Germanium

Germanium Standards

D 1 g/cm³
UN no. 2922 · ADR 8 (6.1) III · WGK 1

Danger H290-H302-H311-H315-H319

Germanium ICP Standard Solution
ROTI®Star 1 000 mg/l Ge

Type analysis
c (Ge) as Ge in 2 % HNO_3/0,5 % HF ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2419.1	100 ml	HDPE	72,60

Germanium ICP Standard Solution
ROTI®Star 10 000 mg/l Ge

Type analysis
c (Ge) as Ge in 2 % HNO_3/0,5 % HF .. 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2513.1	100 ml	HDPE	160,20

Single Element Standards Gold

Gold Standards

Gold AAS Standard Solution
ROTI®Star 1 000 mg/l Au

D 1,01 g/cm³

UN no. 1789 · ADR 8 III · WGK 1

Warning H290-EUH208

Type analysis
c (Au) as Au in 2 % HCl ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2258.1	100 ml	glass	105,25
2258.2	500 ml	glass	256,95

Gold ICP Standard Solution
ROTI®Star 1 000 mg/l Au

D 1,01 g/cm³

UN no. 1789 · ADR 8 III · WGK 1

Warning H290-EUH208

Type analysis
c (Au) as Au in 2 % HCl ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2420.1	100 ml	LDPE	201,60
2420.2	250 ml	LDPE	367,15

Gold ICP Standard Solution
ROTI®Star 10 000 mg/l Au

D 1,068 g/cm³

UN no. 3264 · ADR 8 II · WGK 1

Warning H290-H315-H317-H319

Type analysis
c (Au) as Au in 5 % HCl ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2514.1	100 ml	LDPE	697,70

Single Element Standards Hafnium

Hafnium Standards

Hafnium ICP Standard Solution
ROTI®Star 1 000 mg/l Hf

D 1,008 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 2922 · ADR 8 (6.1) III · WGK 1

Danger H290-H302-H311-H319

Type analysis
c (Hf) as HfO_2 in 2 % HCl/0,5 % HF ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2421.1	100 ml	HDPE	216,65

Hafnium ICP Standard Solution
ROTI®Star 10 000 mg/l Hf

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 2922 · ADR 8 (6.1) II · WGK 1

Danger H290-H301+H311-H314-H332-EUH071

Type analysis
c (Hf) as HfO_2 in 5 % HNO_3/2 % HF ... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2515.1	100 ml	HDPE	697,70

Single Element Standards Holmium

Holmium Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

Holmium ICP Standard Solution
ROTI®Star 1 000 mg/l Ho

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Ho) as Ho_2O_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2422.1	100 ml	HDPE	97,75

Holmium ICP Standard Solution
ROTI®Star 10 000 mg/l Ho

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H315-H318

Type analysis
c (Ho) as Ho_2O_3 in 3 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2516.1	100 ml	HDPE	137,10

Single Element Standards Indium

Indium Standards

D 1 g/cm³
UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Indium AAS Standard Solution
ROTI®Star 1 000 mg/l In

Type analysis
c (In) as In in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2284.1	100 ml	HDPE	43,55

Indium ICP Standard Solution
ROTI®Star 10 000 mg/l In

Type analysis
c (In) as In in 2 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2517.1	100 ml	HDPE	137,10

Indium ICP Standard Solution
ROTI®Star 1 000 mg/l In

Type analysis
c (In) as In in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2423.1	100 ml	HDPE	72,60
2423.2	250 ml	HDPE	131,70

Single Element Standards Iridium

Iridium Standards

D 1,05 g/cm³
UN no. 1789 · ADR 8 III · WGK 1

Warning H290-H315-H319-H335

Iridium ICP Standard Solution
ROTI®Star 1 000 mg/l Ir

Type analysis
c (Ir) as $IrCl_3$ in 10 % HCl ..... 1000 mg/l

Art. No.	Pack Qty.	Pack.	€
2424.1	100 ml	LDPE	240,30

Iridium ICP Standard Solution
ROTI®Star 10 000 mg/l Ir

Type analysis
c (Ir) as $IrCl_3$ in 10 % HCl ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2518.1	100 ml	LDPE	998,70

Single Element Standards Iron

Iron AAS Standard Solution
ROTI®Star 1 000 mg/l Fe

Iron Standards

D 1,012 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Fe) as Fe in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2252.1	100 ml	HDPE	26,35
2252.2	500 ml	HDPE	45,70

Iron ICP Standard Solution
ROTI®Star 1 000 mg/l Fe

Iron Standards

D 1,012 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Fe) as Fe $(NO_3)_3$ in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2412.1	100 ml	HDPE	68,70
2412.3	250 ml	HDPE	100,95
2412.2	500 ml	HDPE	147,85

Iron ICP Standard Solution
ROTI®Star 10 000 mg/l Fe

Iron Standards

D ~1 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 II · WGK 1

Danger H290-H314-EUH071

Type analysis
c (Fe) as Fe in 4% HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2508.1	100 ml	HDPE	122,05
2508.2	500 ml	HDPE	263,40

Iron ICP Standard Solution
ROTI®Star 30 000 mg/l Fe

D ~1 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 II · WGK 1

Danger H290-H314-EUH071

Type analysis
c (Fe) as Fe in 4% HNO_3 ..... 30000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1LE6.1	1 l	HDPE	869,70
Original pack 6 x 1 l			826,22/1 l

Single Element Standards Lanthanum

Lanthanum Standards

Lanthanum ICP Standard Solution
ROTI®Star 1 000 mg/l La

D 1 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (La) as La_2O_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2427.1	100 ml	HDPE	68,70
2427.2	250 ml	HDPE	114,50

Lanthanum ICP Standard Solution
ROTI®Star 10 000 mg/l La

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H315-H318

Type analysis
c (La) as La_2O_3 in 3 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2521.1	100 ml	HDPE	122,05

Single Element Standards Lead

Lead Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

Lead AAS Standard Solution
ROTI®Star 1 000 mg/l Pb

UN no. 3264 · ADR 8 III · WGK 2

Warning H290-H315-H319

Type analysis
c (Pb) as Pb in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2228.1	100 ml	HDPE	26,35
2228.2	500 ml	HDPE	45,70

Lead ICP Standard Solution
ROTI®Star 1 000 mg/l Pb

UN no. 3264 · ADR 8 III · WGK 2

Warning H290-H315-H319

Type analysis
c (Pb) as $Pb(NO_3)_2$ in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2403.1	100 ml	HDPE	68,70

Lead ICP Standard Solution
ROTI®Star 10 000 mg/l Pb

UN no. 3264 · ADR 8 III · WGK 3

Danger H290-H315-H318-H360D-H373-H412

Type analysis
c (Pb) as $Pb(NO_3)_2$ in 2 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2499.1	100 ml	HDPE	122,05

Single Element Standards Lithium

Lithium Standards

D 1 g/cm³
UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Lithium AAS Standard Solution
ROTI®Star 1 000 mg/l Li

Type analysis
c (Li) as Li_2CO_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2332.1	100 ml	HDPE	26,35
2332.2	500 ml	HDPE	45,70

Lithium ICP Standard Solution
ROTI®Star 1 000 mg/l Li

Type analysis
c (Li) as Li_2CO_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2428.1	100 ml	HDPE	68,70
2428.2	250 ml	HDPE	114,50

Lithium ICP Standard Solution
ROTI®Star 10 000 mg/l Li

Type analysis
c (Li) as Li in 2 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2522.1	100 ml	HDPE	122,05

Single Element Standards Lutetium

Lutetium Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

Lutetium ICP Standard Solution
ROTI®Star 1 000 mg/l Lu

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Lu) as Lu_2O_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2429.1	100 ml	HDPE	171,50

Lutetium ICP Standard Solution
ROTI®Star 10 000 mg/l Lu

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H315-H318

Type analysis
c (Lu) as Lu_2O_3 in 3 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2523.1	100 ml	HDPE	700,40

Single Element Standards Magnesium

Magnesium Standards

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Magnesium AAS Standard Solution
ROTI®Star 1 000 mg/l Mg

D 1,008 g/cm³

Type analysis
c (Mg) as Mg in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2333.1	100 ml	HDPE	26,35
2333.2	500 ml	HDPE	45,70

Magnesium ICP Standard Solution
ROTI®Star 1 000 mg/l Mg

D 1,008 g/cm³

Type analysis
c (Mg) as Mg in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2430.1	100 ml	HDPE	68,70
2430.2	500 ml	HDPE	147,85

Magnesium ICP Standard Solution
ROTI®Star 10 000 mg/l Mg

D 1 g/cm³

Type analysis
c (Mg) as Mg in 2 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2524.1	100 ml	HDPE	122,05
2524.2	500 ml	HDPE	263,40

Single Element Standards Manganese

Manganese Standards

Manganese AAS Standard Solution
ROTI®Star 1 000 mg/l Mn

D 1,014 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Mn) as Mn in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2334.1	100 ml	HDPE	26,35
2334.2	500 ml	HDPE	45,70

Manganese ICP Standard Solution
ROTI®Star 1 000 mg/l Mn

D 1,014 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Mn) as Mn in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2437.1	100 ml	HDPE	68,70
2437.3	250 ml	HDPE	100,95
2437.2	500 ml	HDPE	147,85

Manganese ICP Standard Solution
ROTI®Star 10 000 mg/l Mn

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H315-H318

Type analysis
c (Mn) as Mn in 3 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2525.1	100 ml	HDPE	122,05
2525.2	500 ml	HDPE	246,20

Single Element Standards Mercury

Mercury standards

Mercury AAS Standard Solution
ROTI®Star 1 000 mg/l Hg

D 1,059 g/cm³

UN no. 2031 · ADR 8 II · WGK 1

Danger H290-H314-H373-EUH071

Type analysis
c (Hg) as Hg in 10 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2346.1	100 ml	glass	26,35
2346.2	500 ml	glass	45,70

Mercury ICP Standard Solution
ROTI®Star 1 000 mg/l Hg

D 1,059 g/cm³

UN no. 2031 · ADR 8 II · WGK 1

Danger H290-H314-H373-EUH071

Type analysis
c (Hg) as HgO in 10 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2453.1	100 ml	LDPE	68,70

Mercury ICP Standard Solution
ROTI®Star 10 000 mg/l Hg

D 1 g/cm³ · bp 83 °C

UN no. 2922 · ADR 8 (6.1) II · WGK 2

Danger H290-H302-H311-H314-H373-EUH071

Type analysis
c (Hg) as HgO in 10 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2537.1	100 ml	LDPE	122,05

Mercury ICP-MS Standard Solution
ROTI®Star 10 mg/l Hg

D ~1 g/cm³

UN no. 2031 · ADR 8 II · WGK 1

Danger H290-H314-EUH071

Type analysis
c (Hg) in 5 % HNO_3 ..... 10 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
5017.1	100 ml	LDPE	72,60

Single Element Standards Molybdenum

Molybdenum Standards

WGK 1

Danger H315-H318-H412

Molybdenum AAS Standard Solution
ROTI®Star 1 000 mg/l Mo

D 1 g/cm³

Type analysis
c (Mo) as $(NH_4)_6Mo_7O_{24}$ in 4 % NH_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2335.1	100 ml	HDPE	26,35
2335.2	500 ml	HDPE	45,70

Molybdenum ICP Standard Solution
ROTI®Star 1 000 mg/l Mo

D 1 g/cm³

Type analysis
c (Mo) as MoO_3 in 4 % NH_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2438.1	100 ml	HDPE	68,70

Molybdenum ICP Standard Solution
ROTI®Star 10 000 mg/l Mo

D 1,019 g/cm³

Type analysis
c (Mo) as MoO_3 in 4 % NH_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2526.1	100 ml	HDPE	122,05

Single Element Standards Neodymium

Neodymium Standards

Neodymium ICP Standard Solution
ROTI®Star 1 000 mg/l Nd

D 1 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Nd) as Nd_2O_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2443.1	100 ml	HDPE	68,70
2443.2	250 ml	HDPE	131,70

Neodymium ICP Standard Solution
ROTI®Star 10 000 mg/l Nd

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H315-H318

Type analysis
c (Nd) as Nd_2O_3 in 3 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2528.1	100 ml	HDPE	137,10

Single Element Standards Nickel

Nickel Standards

D 1 g/cm³ · mp ~0 °C · bp ~100 °C

Nickel AAS Standard Solution
ROTI®Star 1 000 mg/l Ni

UN no. 3264 · ADR 8 III · WGK 2

Danger H290-H315-H317-H319-H350i-H360D-H373-H412

Type analysis
c (Ni) as Ni in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2339.1	100 ml	HDPE	26,35
2339.2	500 ml	HDPE	45,70

Nickel ICP Standard Solution
ROTI®Star 1 000 mg/l Ni

UN no. 3264 · ADR 8 III · WGK 2

Danger H290-H315-H317-H319-H350i-H360D-H373-H412

Type analysis
c (Ni) as Ni in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2444.1	100 ml	HDPE	68,70
2444.2	250 ml	HDPE	114,50

Nickel ICP Standard Solution
ROTI®Star 10 000 mg/l Ni

UN no. 3264 · ADR 8 III · WGK 3

Danger H290-H315-H317-H318-H334-H341-H350i-H360D-H372-H411

Type analysis
c (Ni) as Ni in 2 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2529.1	100 ml	HDPE	122,05

Single Element Standards Niobium

Niobium Standards

Niobium ICP Standard Solution
ROTI®Star 1 000 mg/l Nb

D 1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 2922 · ADR 8 (6.1) III · WGK 1

Danger H290-H302-H311-H315-H318

Type analysis
c (Nb) as Nb in 2 % HNO_3/0,5 % HF ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2445.1	100 ml	HDPE	68,70

Niobium ICP Standard Solution
ROTI®Star 10 000 mg/l Nb

D 1 g/cm³ · bp ~100 °C

UN no. 2922 · ADR 8 (6.1) II · WGK 2

Danger H290-H301+H331-H310-H314-EUH071

Type analysis
c (Nb) as Nb in 5 % HNO_3/5 % HF ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2531.1	100 ml	HDPE	137,10

Single Element Standards Osmium

Osmium Standards

D 1,01 g/cm³
UN no. 1789 · ADR 8 III

Warning H290

Osmium ICP Standard Solution
ROTI®Star 1 000 mg/l Os

Type analysis
c (Os) as $OsCl_3$ in 2 % HCl ..... 1000 mg/l

Art. No.	Pack Qty.	Pack.	€
2446.2	30 ml	glass	205,90
2446.1	100 ml	glass	367,15

Single Element Standards Palladium

Palladium Standards

D 1 g/cm³
UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H315-H318

Palladium AAS Standard Solution
ROTI®Star 1 000 mg/l Pd

Type analysis
c (Pd) as Pd in 3 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2340.1	100 ml	glass	160,20

Palladium ICP Standard Solution
ROTI®Star 1 000 mg/l Pd

Type analysis
c (Pd) as Pd in 3 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2447.3	30 ml	HDPE	
2447.1	100 ml	LDPE	252,65
2447.2	250 ml	LDPE	607,40

Palladium ICP Standard Solution
ROTI®Star 10 000 mg/l Pd

Type analysis
c (Pd) as Pd in 4 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2532.1	100 ml	LDPE	1.284,65

Single Element Standards Phosphorus

Phosphorus Standards

WGK 1

Phosphorus AAS Standard Solution
ROTI®Star 1 000 mg/l P

D 1,003 g/cm³

Type analysis
c (P) as H_3PO_4 in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2599.1	100 ml	HDPE	26,35
2599.2	500 ml	HDPE	45,70

Phosphorus ICP Standard Solution
ROTI®Star 1 000 mg/l P

D 1,003 g/cm³

Type analysis
c (P) as $NH_4H_2PO_4$ in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2451.1	100 ml	HDPE	68,70
2451.2	250 ml	HDPE	114,50

Phosphorus ICP Standard Solution
ROTI®Star 10 000 mg/l P

D 1,03 g/cm³

Type analysis
c (P) as $NH_4H_2PO_4$ in H_2O ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2534.1	100 ml	HDPE	122,05

Single Element Standards Platinum

Platinum AAS Standard Solution
ROTI®Star 1 000 mg/l Pt

Platinum Standards

D 1,018 g/cm³

UN no. 1789 · ADR 8 II · WGK 1

Warning H290-H315-H319-H335-EUH208

Type analysis
c (Pt) as Pt in 10 % HCl ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2341.1	100 ml	glass	188,15
2341.2	500 ml	glass	568,70

Platinum ICP Standard Solution
ROTI®Star 1 000 mg/l Pt

Platinum Standards

D 1,018 g/cm³

UN no. 1789 · ADR 8 II · WGK 1

Warning H290-H315-H319-H335-EUH208

Type analysis
c (Pt) as Pt in 10 % HCl ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2448.3	30 ml	HDPE	
2448.1	100 ml	LDPE	263,40
2448.2	250 ml	LDPE	654,70

Platinum ICP Standard Solution
ROTI®Star 10 000 mg/l Pt

D 1,044 g/cm³

UN no. 1789 · ADR 8 III · WGK 1

Danger H290-H315-H317-H318-H334-H335

Type analysis
c (Pt) as Pt in 10 % HCl ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2533.1	100 ml	LDPE	1.138,45

Single Element Standards Potassium

Potassium Standards

D 1 g/cm³
UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Potassium AAS Standard Solution
ROTI®Star 1 000 mg/l K

Type analysis
c (K) as KNO_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2327.1	100 ml	HDPE	26,35
2327.2	500 ml	HDPE	45,70

Potassium ICP Standard Solution
ROTI®Star 1 000 mg/l K

Type analysis
c (K) as KNO_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2425.1	100 ml	HDPE	68,70
2425.3	250 ml	HDPE	100,95
2425.2	500 ml	HDPE	147,85

Potassium ICP Standard Solution
ROTI®Star 10 000 mg/l K

Type analysis
c (K) as KNO_3 in 2 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2519.1	100 ml	HDPE	122,05
2519.2	500 ml	HDPE	263,40

Single Element Standards Praseodymium

Praseodymium Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

Praseodymium ICP Standard Solution
ROTI®Star 1 000 mg/l Pr

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Pr) as Pr_6O_{11} in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2452.1	100 ml	HDPE	72,60

Praseodymium ICP Standard Solution
ROTI®Star 10 000 mg/l Pr

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H315-H318

Type analysis
c (Pr) as Pr_6O_{11} in 3 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2536.1	100 ml	HDPE	137,10

Single Element Standards Rhenium

Rhenium Standards

D 1 g/cm³
UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Rhenium ICP Standard Solution
ROTI®Star 1 000 mg/l Re

Type analysis
c (Re) as Re in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2454.2	30 ml	HDPE	
2454.1	100 ml	LDPE	170,95

Rhenium ICP Standard Solution
ROTI®Star 10 000 mg/l Re

Type analysis
c (Re) as Re in 2 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2538.1	100 ml	LDPE	514,95

Single Element Standards Rhodium

Rhodium Standards

D 1,01 g/cm³ · bp 100 °C
UN no. 1789 · ADR 8 III · WGK 1

Warning H290

Rhodium ICP Standard Solution
ROTI®Star 1 000 mg/l Rh

Type analysis
c (Rh) as $RhCl_3$ in 5 % HCl ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2455.2	30 ml	LDPE	263,40
2455.1	100 ml	LDPE	525,70

Single Element Standards Rubidium

Rubidium Standards

D 1 g/cm³
UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Rubidium ICP Standard Solution
ROTI®Star 1 000 mg/l Rb

Type analysis
c (Rb) as $RbNO_3$ in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2456.1	100 ml	HDPE	68,70

Rubidium ICP Standard Solution
ROTI®Star 10 000 mg/l Rb

Type analysis
c (Rb) as $RbNO_3$ in 2 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2539.1	100 ml	HDPE	182,25

Single Element Standards Ruthenium

Ruthenium Standards

Ruthenium ICP Standard Solution
ROTI®Star 1 000 mg/l Ru

D 1,012 g/cm³

UN no. 1789 · ADR 8 II · WGK 1

Warning H290

Type analysis
c (Ru) as $RuCl_3$ in 5 % HCl ..... 1000 mg/l

Art. No.	Pack Qty.	Pack.	€
2457.1	100 ml	LDPE	274,15
2457.2	250 ml	LDPE	353,70

Ruthenium ICP Standard Solution
ROTI®Star 10 000 mg/l Ru

D 1 g/cm³

UN no. 1789 · ADR 8 III · WGK 1

Danger H290-H315-H318-H335

Type analysis
c (Ru) as $RuCl_3$ in 10 % HCl ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2540.1	100 ml	LDPE	568,70

Single Element Standards Samarium

Samarium Standards

D 1 g/cm³
UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Samarium ICP Standard Solution
ROTI®Star 1 000 mg/l Sm

Type analysis
c (Sm) as Sm_2O_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2458.1	100 ml	HDPE	72,60

Samarium ICP Standard Solution
ROTI®Star 10 000 mg/l Sm

Type analysis
c (Sm) as Sm_2O_3 in 2 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2541.1	100 ml	HDPE	137,10

Single Element Standards Scandium

Scandium Standards

D 1,02 g/cm³
UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Scandium AAS Standard Solution
ROTI®Star 1 000 mg/l Sc

Type analysis
c (Sc) as Sc_2O_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2347.1	100 ml	HDPE	103,10
2347.2	500 ml	HDPE	284,90

Scandium ICP Standard Solution
ROTI®Star 1 000 mg/l Sc

Type analysis
c (Sc) as Sc_2O_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2459.1	100 ml	HDPE	122,05
2459.2	250 ml	HDPE	205,90

Single Element Standards Selenium

Selenium Standards

Selenium AAS Standard Solution
ROTI®Star 1 000 mg/l Se

D 1,012 g/cm³

UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Type analysis
c (Se) als Se in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2348.1	100 ml	HDPE	26,35
2348.2	500 ml	HDPE	45,70

Selenium ICP Standard Solution
ROTI®Star 1 000 mg/l Se

D 1,012 g/cm³

UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Type analysis
c (Se) als Se in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2461.1	100 ml	HDPE	68,70

Selenium ICP Standard Solution
ROTI®Star 10 000 mg/l Se

D 1 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Se) as Se in 2 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2543.1	100 ml	HDPE	122,05

Single Element Standards Silicon

Silicon Standards

Silicon AAS Standard Solution
ROTI®Star 1 000 mg/l Si in H_2O

D 1,002 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis
c (Si) as $(NH_4)_2SiF_6$ in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2350.1	100 ml	HDPE	26,35
2350.2	500 ml	HDPE	45,70

Silicon AAS Standard Solution
ROTI®Star 1 000 mg/l Si in 0.5 % NaOH

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 1824 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Si) as Si in 0,5 % NaOH ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2351.1	100 ml	HDPE	26,35

Silicon ICP Standard Solution
ROTI®Star 1 000 mg/l Si

D 1,002 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis
c (Si) as $(NH_4)_2SiF_6$ in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2469.1	100 ml	HDPE	68,70

Silicon ICP Standard Solution
ROTI®Star 10 000 mg/l Si

D 1,01 g/cm³

WGK 2

Warning H302

Type analysis
c (Si) as $(NH_4)_2SiF_6$ in H_2O ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2546.1	100 ml	HDPE	122,05

Single Element Standards Silver

Silver Standards

Silver AAS Standard Solution
ROTI®Star 1 000 mg/l Ag

D 1,014 g/cm³

UN no. 3264 · ADR 8 III · WGK 3

Warning H290-H315-H319-H411

Type analysis
c (Ag) as $AgNO_3$ in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2349.1	100 ml	HDPE	26,35
2349.2	500 ml	HDPE	45,70

Silver ICP Standard Solution
ROTI®Star 1 000 mg/l Ag

D 1,014 g/cm³

UN no. 3264 · ADR 8 III · WGK 3

Warning H290-H315-H319-H411

Type analysis
c (Ag) as $AgNO_3$ in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2468.1	100 ml	HDPE	68,70
2468.2	250 ml	HDPE	147,85

Silver ICP Standard Solution
ROTI®Star 10 000 mg/l Ag

D 1 g/cm³

UN no. 3264 · ADR 8 II · WGK 3

Danger H290-H314-H410

Type analysis
c (Ag) as $AgNO_3$ in 4 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2544.1	100 ml	HDPE	122,05

Single Element Standards Sodium

Sodium Standards

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Sodium AAS Standard Solution
ROTI®Star 1 000 mg/l Na

D 1,015 g/cm³

Type analysis
c (Na) in HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2337.1	100 ml	HDPE	26,35
2337.2	500 ml	HDPE	45,70

Sodium ICP Standard Solution
ROTI®Star 1 000 mg/l Na

D 1,015 g/cm³

Type analysis
c (Na) as $NaNO_3$ in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2439.1	100 ml	HDPE	68,70
2439.3	250 ml	HDPE	97,75
2439.2	500 ml	HDPE	147,85

Sodium ICP Standard Solution
ROTI®Star 10 000 mg/l Na

D 1 g/cm³

Type analysis
c (Na) as $NaNO_3$ in 2 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2527.1	100 ml	HDPE	122,05
2527.2	500 ml	HDPE	263,40

Single Element Standards Strontium

Strontium Standards

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Strontium AAS Standard Solution
ROTI®Star 1 000 mg/l Sr

D 1,012 g/cm³

Type analysis
c (Sr) as $Sr(NO_3)_2$ in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2352.1	100 ml	HDPE	26,35
2352.2	500 ml	HDPE	45,70

Strontium ICP Standard Solution
ROTI®Star 1 000 mg/l Sr

D 1,012 g/cm³

Type analysis
c (Sr) as $Sr(NO_3)_2$ in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2470.1	100 ml	HDPE	68,70
2470.2	500 ml	HDPE	147,85

Strontium ICP Standard Solution
ROTI®Star 10 000 mg/l Sr

D 1 g/cm³

Type analysis
c (Sr) as $Sr(NO_3)_2$ in 2 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2547.1	100 ml	HDPE	122,05
2547.2	500 ml	HDPE	224,70

Single Element Standards Sulphur

Sulphur Standards

WGK 1

Sulphur ICP Standard Solution
ROTI®Star 1 000 mg/l S

D 1 g/cm³ · bp 100 °C

Type analysis
c (S) as $(NH_4)_2SO_4$ in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2460.1	100 ml	HDPE	68,70

Sulphur ICP Standard Solution
ROTI®Star 10 000 mg/l S

D 1,03 g/cm³ · bp 100 °C

Type analysis
c (S) as $(NH_4)_2SO_4$ in H_2O ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2542.1	100 ml	HDPE	122,05

Single Element Standards Tantalum

Tantalum Standards

D ~1 g/cm³
UN no. 2922 · ADR 8 (6.1) III · WGK 1

Danger H290-H302-H311-H315-H319

Tantalum ICP Standard Solution
ROTI®Star 1 000 mg/l Ta

Type analysis
c (Ta) as Ta in 1 % HNO_3/0,5 % HF ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2471.1	100 ml	HDPE	72,60

Tantalum ICP Standard Solution
ROTI®Star 10 000 mg/l Ta

Type analysis
c (Ta) as Ta in 1 % HNO_3/0,5 % HF ... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2548.1	100 ml	HDPE	137,10

Single Element Standards Tellurium

Tellurium Standards

Tellurium AAS Standard Solution
ROTI®Star 1 000 mg/l Te

D ~1 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319-EUH208

Type analysis
c (Te) as Te in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2353.1	100 ml	HDPE	33,25
2353.2	500 ml	HDPE	64,40

Tellurium ICP Standard Solution
ROTI®Star 1 000 mg/l Te

D ~1 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319-EUH208

Type analysis
c (Te) as Te in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2472.1	100 ml	HDPE	74,10

Tellurium ICP Standard Solution
ROTI®Star 10 000 mg/l Te

D 1,12 g/cm³

UN no. 2031 · ADR 8 II · WGK 1

Danger H290-H315-H317-H319-H360FD

Type analysis
c (Te) as Te in 20 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2549.1	100 ml	HDPE	137,10

Single Element Standards Terbium

Terbium Standards

Terbium ICP Standard Solution
ROTI®Star 1 000 mg/l Tb

D 1 g/cm³

UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Type analysis
c (Tb) as Tb_4O_7 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2476.1	100 ml	HDPE	119,90

Terbium ICP Standard Solution
ROTI®Star 10 000 mg/l Tb

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H315-H318

Type analysis
c (Tb) as Tb_4O_7 in 3 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2550.1	100 ml	HDPE	263,40

Single Element Standards Thallium

Thallium Standards

Thallium AAS Standard Solution
ROTI®Star 1 000 mg/l Tl

D 1,015 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Tl) as $TlNO_3$ in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2354.1	100 ml	HDPE	33,25
2354.2	500 ml	HDPE	64,40

Thallium ICP Standard Solution
ROTI®Star 1 000 mg/l Tl

D 1,015 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Tl) as $TlNO_3$ in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2477.1	100 ml	HDPE	68,70

Thallium ICP Standard Solution
ROTI®Star 10 000 mg/l Tl

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 II · WGK 1

Danger H290-H302+H332-H314-EUH071

Type analysis
c (Tl) as $TlNO_3$ in 5 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2552.1	100 ml	HDPE	122,05

Single Element Standards Thulium

Thulium Standards

D 1 g/cm³
UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Thulium ICP Standard Solution
ROTI®Star 1 000 mg/l Tm

Type analysis
c (Tm) as Tm_2O_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2478.1	100 ml	HDPE	119,90

Single Element Standards Tin

Tin Standards

Tin AAS Standard Solution
ROTI®Star 1 000 mg/l Sn

D 1,05 g/cm³

UN no. 1789 · ADR 8 II · WGK 1

Warning H290-H315-H319-H335

Type analysis
c (Sn) als Sn in 10 % HCl ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2384.1	100 ml	HDPE	26,35
2384.2	500 ml	HDPE	45,70

Tin ICP Standard Solution
ROTI®Star 1 000 mg/l Sn

D 1,05 g/cm³

UN no. 1789 · ADR 8 II · WGK 1

Warning H290-H315-H319-H335

Type analysis
c (Sn) als Sn in 10 % HCl ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2486.1	100 ml	HDPE	68,70
2486.2	250 ml	HDPE	114,50

Tin ICP Standard Solution
ROTI®Star 10 000 mg/l Sn

D 1,1 g/cm³

UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Type analysis
c (Sn) as Sn in 20 % HCl ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2583.1	100 ml	HDPE	122,05

Single Element Standards Titanium

Titanium Standards

D 1,049 g/cm³
UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Titanium AAS Standard Solution
ROTI®Star 1 000 mg/l Ti

Type analysis
c (Ti) as Ti in 2 % HNO_3/0,1 % HF ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2355.1	100 ml	HDPE	26,35
2355.2	500 ml	HDPE	45,70

Titanium ICP Standard Solution
ROTI®Star 1 000 mg/l Ti

Type analysis
c (Ti) as $(NH_4)_2TiF_6$ in 2 % HNO_3/0,1 % HF ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2479.1	100 ml	HDPE	68,70
2479.2	250 ml	HDPE	114,50

Titanium ICP Standard Solution
ROTI®Star 10 000 mg/l Ti

Type analysis
c (Ti) as $(NH_4)_2TiF_6$ in 2 % HNO_3/0,1 % HF ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2561.1	100 ml	HDPE	122,05

Single Element Standards Tungsten

Tungsten Standards

D 1 g/cm³

Tungsten AAS Standard Solution
ROTI®Star 1 000 mg/l W

WGK 1

Danger H315-H318-H412

Type analysis
c (W) as WO_3 in 4 % NH_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2361.1	100 ml	HDPE	33,25
2361.2	500 ml	HDPE	64,40

Tungsten ICP Standard Solution
ROTI®Star 1 000 mg/l W

WGK 1

Danger H315-H318-H412

Type analysis
c (W) in 4 % NH_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2482.1	100 ml	HDPE	74,10
2482.2	250 ml	HDPE	137,10

Tungsten ICP Standard Solution
ROTI®Star 10 000 mg/l W

WGK 2

Danger H314-H335-H412

Type analysis
c (W) as WO_3 in 10 % NH_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2571.1	100 ml	HDPE	122,05

Single Element Standards Vanadium

Vanadium Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

Vanadium AAS Standard Solution
ROTI®Star 1 000 mg/l V

UN no. 3264 · ADR 8 III · WGK 2

Warning H290-H315-H319

Type analysis
c (V) as NH_4VO_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2360.1	100 ml	HDPE	26,35
2360.2	500 ml	HDPE	45,70

Vanadium ICP Standard Solution
ROTI®Star 1 000 mg/l V

UN no. 3264 · ADR 8 III · WGK 2

Warning H290-H315-H319

Type analysis
c (V) as NH_4VO_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2480.1	100 ml	HDPE	68,70

Vanadium ICP Standard Solution
ROTI®Star 10 000 mg/l V

UN no. 1760 · ADR 8 III · WGK 2

Danger H290-H315-H318-H373-H412

Type analysis
c (V) as NH_4VO_3 in 3 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2567.1	100 ml	HDPE	122,05

Single Element Standards Ytterbium

Ytterbium Standards

Ytterbium ICP Standard Solution
ROTI®Star 1 000 mg/l Yb

D 1 g/cm³

UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Type analysis
c (Yb) as Yb_2O_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2483.1	100 ml	HDPE	74,10

Ytterbium ICP Standard Solution
ROTI®Star 10 000 mg/l Yb

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H315-H318

Type analysis
c (Yb) as Yb_2O_3 in 3 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2572.1	100 ml	HDPE	137,10

Single Element Standards Yttrium

Yttrium Standards

Yttrium AAS Standard Solution
ROTI®Star 1 000 mg/l Y

D 1,013 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Y) as Y_2O_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2371.1	100 ml	HDPE	33,25
2371.2	500 ml	HDPE	64,40

Yttrium ICP Standard Solution
ROTI®Star 1 000 mg/l Y

D 1,013 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Y) as Y_2O_3 in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2484.1	100 ml	HDPE	74,10
2484.2	250 ml	HDPE	137,10

Yttrium ICP Standard Solution
ROTI®Star 10 000 mg/l Y

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H315-H318

Type analysis
c (Y) as Y_2O_3 in 3 % HNO_3 ..... 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2574.1	100 ml	HDPE	160,20

Single Element Standards Zinc

Zinc Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

Zinc AAS Standard Solution
ROTI®Star 1 000 mg/l Zn

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Zn) as Zn in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2383.1	100 ml	HDPE	26,35
2383.2	500 ml	HDPE	45,70

Zinc ICP Standard Solution
ROTI®Star 1 000 mg/l Zn

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
c (Zn) as Zn in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2485.1	100 ml	HDPE	68,70
2485.3	250 ml	HDPE	97,75
2485.2	500 ml	HDPE	147,85

Zinc ICP Standard Solution
ROTI®Star 10 000 mg/l Zn

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H315-H318-H412

Type analysis
c (Zn) as ZnO in 3 % HNO_3 .... 10000 mg/l ±0,2 %

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2576.1	100 ml	HDPE	122,05
2576.2	500 ml	HDPE	263,40

Single Element Standards Zirconium

Zirconium Standards

D 1,02 g/cm³
UN no. 2922 · ADR 8 (6.1) II · WGK 1

Danger H290-H302-H311-H315-H318

Zirconium AAS Standard Solution
ROTI®Star 1 000 mg/l Zr

Type analysis
c (Zr) as $ZrOCl_2$ in 5 % HCl/0,5 % HF .. 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2396.1	100 ml	HDPE	33,25
2396.2	500 ml	HDPE	64,40

Zirconium ICP Standard Solution
ROTI®Star 1 000 mg/l Zr

Type analysis
c (Zr) as $ZrOCl_2$ in 5 % HCl/0,5 % HF .. 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2487.1	100 ml	HDPE	74,10
2487.2	250 ml	HDPE	131,70

Zircon ICP Standard Solution
ROTI®Star 10 000 mg/l Zr

Type analysis
c (Zr) as $ZrOCl_2$ in 5 % HCl/0,5 % HF 10000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2584.1	100 ml	HDPE	160,20

Standards for AAS (Atom Absorption Spectroscopy): Element Standards 1000 mg/l

Art. No.	Description	Page
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2224	Arsenic AAS Standard Solution, ROTI®Star	1313
2225	Barium AAS Standard Solution, ROTI®Star	1313
2226	Beryllium AAS Standard Solution, ROTI®Star	1313
2227	Bismuth AAS Standard Solution, ROTI®Star	1313
2237	Boron AAS Standard Solution, ROTI®Star	1314
2238	Cadmium AAS Standard Solution, ROTI®Star	1314
2239	Caesium AAS Standard Solution, ROTI®Star	1314
2240	Calcium AAS Standard Solution, ROTI®Star	1314
2250	Chromium AAS Standard Solution, ROTI®Star	1315
2251	Cobalt AAS Standard Solution, ROTI®Star	1315
2329	Copper AAS Standard Solution, ROTI®Star	1315
2258	Gold AAS Standard Solution, ROTI®Star	1316
2284	Indium AAS Standard Solution, ROTI®Star	1317
2252	Iron AAS Standard Solution, ROTI®Star	1317
2228	Lead AAS Standard Solution, ROTI®Star	1318
2332	Lithium AAS Standard Solution, ROTI®Star	1318
2333	Magnesium AAS Standard Solution, ROTI®Star	1318
2334	Manganese AAS Standard Solution, ROTI®Star	1318
2346	Mercury AAS Standard Solution, ROTI®Star	1319
2335	Molybdenum AAS Standard Solution, ROTI®Star	1319
2339	Nickel AAS Standard Solution, ROTI®Star	1319
2340	Palladium AAS Standard Solution, ROTI®Star	1320
2599	Phosphorus AAS Standard Solution, ROTI®Star	1320
2341	Platinum AAS Standard Solution, ROTI®Star	1320
2327	Potassium AAS Standard Solution, ROTI®Star	1321
2347	Scandium AAS Standard Solution, ROTI®Star	1322
2348	Selenium AAS Standard Solution, ROTI®Star	1322
2350	Silicon AAS Standard Solution, ROTI®Star	1322
2351	Silicon AAS Standard Solution, ROTI®Star	1322
2349	Silver AAS Standard Solution, ROTI®Star	1322
2337	Sodium AAS Standard Solution, ROTI®Star	1322
2352	Strontium AAS Standard Solution, ROTI®Star	1323
2353	Tellurium AAS Standard Solution, ROTI®Star	1323
2354	Thallium AAS Standard Solution, ROTI®Star	1324
2384	Tin AAS Standard Solution, ROTI®Star	1324
2355	Titanium AAS Standard Solution, ROTI®Star	1324
2361	Tungsten AAS Standard Solution, ROTI®Star	1324
2360	Vanadium AAS Standard Solution, ROTI®Star	1325
2371	Yttrium AAS Standard Solution, ROTI®Star	1325
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Standards for ICP-OES: (Inductively Coupled Spectroscopy) Element Standards 1000 mg/l

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2401	Beryllium ICP Standard Solution, ROTI®Star	1313
2402	Bismuth ICP Standard Solution, ROTI®Star	1313
2404	Boron ICP Standard Solution, ROTI®Star	1314
2405	Cadmium ICP Standard Solution, ROTI®Star	1314
2406	Caesium ICP Standard Solution, ROTI®Star	1314
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2414	Europium ICP Standard Solution, ROTI®Star	1316
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2423	Indium ICP Standard Solution, ROTI®Star	1317
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2412	Iron ICP Standard Solution, ROTI®Star	1317
2427	Lanthanum ICP Standard Solution, ROTI®Star	1317
2428	Lithium ICP Standard Solution, ROTI®Star	1318
2429	Lutetium ICP Standard Solution, ROTI®Star	1318
2430	Magnesium ICP Standard Solution, ROTI®Star	1318
2437	Manganese ICP Standard Solution, ROTI®Star	1319
2453	Mercury ICP Standard Solution, ROTI®Star	1319
2438	Molybdenum ICP Standard Solution, ROTI®Star	1319
2443	Neodymium ICP Standard Solution, ROTI®Star	1319
2444	Nickel ICP Standard Solution, ROTI®Star	1319
2445	Niobium ICP Standard Solution, ROTI®Star	1320
2446	Osmium ICP Standard Solution, ROTI®Star	1320
2447	Palladium ICP Standard Solution, ROTI®Star	1320
2451	Phosphorus ICP Standard Solution, ROTI®Star	1320
2448	Platinum ICP Standard Solution, ROTI®Star	1320
2425	Potassium ICP Standard Solution, ROTI®Star	1321
2452	Praseodymium ICP Standard Solution, ROTI®Star	1321
2454	Rhenium ICP Standard Solution, ROTI®Star	1321
2455	Rhodium ICP Standard Solution, ROTI®Star	1321
2456	Rubidium ICP Standard Solution, ROTI®Star	1321
2457	Ruthenium ICP Standard Solution, ROTI®Star	1321
2458	Samarium ICP Standard Solution, ROTI®Star	1321
2459	Scandium ICP Standard Solution, ROTI®Star	1322
2461	Selenium ICP Standard Solution, ROTI®Star	1322
2469	Silicon ICP Standard Solution, ROTI®Star	1322
2468	Silver ICP Standard Solution, ROTI®Star	1322
2439	Sodium ICP Standard Solution, ROTI®Star	1323
2470	Strontium ICP Standard Solution, ROTI®Star	1323
2460	Sulphur ICP Standard Solution, ROTI®Star	1323
2471	Tantalum ICP Standard Solution, ROTI®Star	1323
2472	Tellurium ICP Standard Solution, ROTI®Star	1323
2476	Terbium ICP Standard Solution, ROTI®Star	1323
2477	Thallium ICP Standard Solution, ROTI®Star	1324
2478	Thulium ICP Standard Solution, ROTI®Star	1324
2486	Tin ICP Standard Solution, ROTI®Star	1324
2479	Titanium ICP Standard Solution, ROTI®Star	1324
2482	Tungsten ICP Standard Solution, ROTI®Star	1324
2480	Vanadium ICP Standard Solution, ROTI®Star	1325
2483	Ytterbium ICP Standard Solution, ROTI®Star	1325
2484	Yttrium ICP Standard Solution, ROTI®Star	1325
2485	Zinc ICP Standard Solution, ROTI®Star	1325
2487	Zirconium ICP Standard Solution, ROTI®Star	1325

Standards for ICP-OES: (Inductively Coupled Spectroscopy) Element Standards 10000 mg/l

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2488	Aluminium ICP Standard Solution, ROTI®Star, 10 000 mg/l Al	1312
2489	Antimony ICP Standard Solution, ROTI®Star, 10 000 mg/l Sb	1313
2491	Arsenic ICP Standard Solution, ROTI®Star, 10 000 mg/l As	1313
2492	Barium ICP Standard Solution, ROTI®Star, 10 000 mg/l Ba	1313
2496	Beryllium ICP Standard Solution, ROTI®Star, 10 000 mg/l Be	1313
2497	Bismuth ICP Standard Solution, ROTI®Star, 10 000 mg/l Bi	1314
2500	Boron ICP Standard Solution, ROTI®Star, 10 000 mg/l B	1314
2501	Cadmium ICP Standard Solution, ROTI®Star, 10 000 mg/l Cd	1314
2502	Caesium ICP Standard Solution, ROTI®Star, 10 000 mg/l Cs	1314
2503	Calcium ICP Standard Solution, ROTI®Star, 10 000 mg/l Ca	1314
2504	Cerium ICP Standard Solution, ROTI®Star, 10 000 mg/l Ce	1315
2505	Chromium ICP Standard Solution, ROTI®Star, 10 000 mg/l Cr	1315
2506	Cobalt ICP Standard Solution, ROTI®Star, 10 000 mg/l Co	1315
2520	Copper ICP Standard Solution, ROTI®Star, 10 000 mg/l Cu	1315
2507	Dysprosium ICP Standard Solution, ROTI®Star, 10 000 mg/l Dy	1315
2509	Erbium ICP Standard Solution, ROTI®Star, 10 000 mg/l Er	1316
2510	Europium ICP Standard Solution, ROTI®Star, 10 000 mg/l Eu	1316
2511	Gadolinium ICP Standard Solution, ROTI®Star, 10 000 mg/l Gd	1316
2512	Gallium ICP Standard Solution, ROTI®Star, 10 000 mg/l Ga	1316
2513	Germanium ICP Standard Solution, ROTI®Star, 10 000 mg/l Ge	1316
2514	Gold ICP Standard Solution, ROTI®Star, 10 000 mg/l Au	1316
2515	Hafnium ICP Standard Solution, ROTI®Star, 10 000 mg/l Hf	1317
2516	Holmium ICP Standard Solution, ROTI®Star, 10 000 mg/l Ho	1317
2517	Indium ICP Standard Solution, ROTI®Star, 10 000 mg/l In	1317
2518	Iridium ICP Standard Solution, ROTI®Star, 10 000 mg/l Ir	1317
2508	Iron ICP Standard Solution, ROTI®Star, 10 000 mg/l Fe	1317
2521	Lanthanum ICP Standard Solution, ROTI®Star, 10 000 mg/l La	1318
2499	Lead ICP Standard Solution, ROTI®Star, 10 000 mg/l Pb	1318
2522	Lithium ICP Standard Solution, ROTI®Star, 10 000 mg/l Li	1318
2523	Lutetium ICP Standard Solution, ROTI®Star, 10 000 mg/l Lu	1318
2524	Magnesium ICP Standard Solution, ROTI®Star, 10 000 mg/l Mg	1318
2525	Manganese ICP Standard Solution, ROTI®Star, 10 000 mg/l Mn	1319
2526	Molybdenum ICP Standard Solution, ROTI®Star, 10 000 mg/l Mo	1319
2528	Neodymium ICP Standard Solution, ROTI®Star, 10 000 mg/l Nd	1319
2529	Nickel ICP Standard Solution, ROTI®Star, 10 000 mg/l Ni	1320
2531	Niobium ICP Standard Solution, ROTI®Star, 10 000 mg/l Nb	1320
2532	Palladium ICP Standard Solution, ROTI®Star, 10 000 mg/l Pd	1320
2534	Phosphorus ICP Standard Solution, ROTI®Star, 10 000 mg/l P	1320
2533	Platinum ICP Standard Solution, ROTI®Star, 10 000 mg/l Pt	1320
2519	Potassium ICP Standard Solution, ROTI®Star, 10 000 mg/l K	1321
2536	Praseodymium ICP Standard Solution, ROTI®Star, 10 000 mg/l Pr	1321
2538	Rhenium ICP Standard Solution, ROTI®Star, 10 000 mg/l Re	1321
2539	Rubidium ICP Standard Solution, ROTI®Star, 10 000 mg/l Rb	1321
2540	Ruthenium ICP Standard Solution, ROTI®Star, 10 000 mg/l Ru	1321
2541	Samarium ICP Standard Solution, ROTI®Star, 10 000 mg/l Sm	1321
2543	Selenium ICP Standard Solution, ROTI®Star, 10 000 mg/l Se	1322
2546	Silicon ICP Standard Solution, ROTI®Star, 10 000 mg/l Si	1322
2544	Silver ICP Standard Solution, ROTI®Star, 10 000 mg/l Ag	1322
2527	Sodium ICP Standard Solution, ROTI®Star, 10 000 mg/l Na	1323
2547	Strontium ICP Standard Solution, ROTI®Star, 10 000 mg/l Sr	1323
2542	Sulphur ICP Standard Solution, ROTI®Star, 10 000 mg/l S	1323
2548	Tantalum ICP Standard Solution, ROTI®Star, 10 000 mg/l Ta	1323
2549	Tellurium ICP Standard Solution, ROTI®Star, 10 000 mg/l Te	1323
2550	Terbium ICP Standard Solution, ROTI®Star, 10 000 mg/l Tb	1323
2552	Thallium ICP Standard Solution, ROTI®Star, 10 000 mg/l Tl	1324
2583	Tin ICP Standard Solution, ROTI®Star, 10 000 mg/l Sn	1324
2561	Titanium ICP Standard Solution, ROTI®Star, 10 000 mg/l Ti	1324
2571	Tungsten ICP Standard Solution, ROTI®Star, 10 000 mg/l W	1324
2567	Vanadium ICP Standard Solution, ROTI®Star, 10 000 mg/l V	1325
2572	Ytterbium ICP Standard Solution, ROTI®Star, 10 000 mg/l Yb	1325
2574	Yttrium ICP Standard Solution, ROTI®Star, 10 000 mg/l Y	1325
2576	Zinc ICP Standard Solution, ROTI®Star, 10 000 mg/l Zn	1325
2584	Zircon ICP Standard Solution, ROTI®Star, 10 000 mg/l Zr	1325

Multi-Element Standards for GF-AAS (Graphite Furnace Atom Absorption Spectroscopy)

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C
UN no. 3264 · ADR 8 II · WGK 1

Danger H290-H314-H317-EUH071

GF AAS Multi-Element Standard Solution XVIII

ROTI®Star 16 elements in 5 % nitric acid

Type analysis

Ag (Silver) ..... 10 mg/l
Al (Aluminium) ..... 100 mg/l
As (Arsenic) ..... 100 mg/l
Ba (Barium) ..... 50 mg/l
Be (Beryllium) ..... 5 mg/l
Cd (Cadmium) ..... 5 mg/l
Co (Cobalt) ..... 50 mg/l
Cr (Chrom) ..... 20 mg/l
Cu (Copper) ..... 50 mg/l
Fe (Iron) ..... 20 mg/l
Mn (Manganese) ..... 20 mg/l
Ni (Nickel) ..... 50 mg/l
Pb (Lead) ..... 100 mg/l
Sb (Antimony) ..... 100 mg/l
Se (Selenium) ..... 100 mg/l
Tl (Thallium) ..... 100 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
9778.1	100 ml	HDPE	228,45

Multi Element Standards for ICP-MS

ICP standards

ICP-MS Multi-Element Standard Solution (3 elements, concentration in mg/l)

ROTI®Star 3 elements in 2 % nitric acid

D >1 g/cm³

UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Type analysis

Chromium (Cr) ..... 4 mg/l
Iron (Fe) ..... 20 mg/l
Strontium (Sr) ..... 4 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
0381.1	100 ml	HDPE	126,35
0381.2	500 ml	HDPE	228,45

ICP-MS Multi-Element Standard Solution (4 elements, 1000 mg/l)

ROTI®Star 4 elements in 2 % nitric acid – 1000 mg/l

D >1 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
Calcium (Ca) ..... 1000 mg/l
Magnesium (Mg) ..... 1000 mg/l
Potassium (K) ..... 1000 mg/l
Sodium (Na) ..... 1000 mg/l

Art. No.	Pack Qty.	Pack.	€
6803.1	100 ml	HDPE	114,50

ICP-MS Multi-Element Standard Solution (4 elements, 10 mg/l)

ROTI®Star 4 elements in 2 % nitric acid and 0,1 % hydrofluoric acid – 10 mg/l

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 1760 · ADR 8 III

Warning H290-H315-H319

Type analysis
Molybdenum (Mo) ..... 10 mg/l
Antimony (Sb) ..... 10 mg/l
Tin (Sn) ..... 10 mg/l
Titanium (Ti) ..... 10 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
6807.1	100 ml	LDPE	114,50
6807.2	500 ml	LDPE	213,95

ICP-MS Calibration Standard Solution (5 elements, 1000 mg/l)

ROTI®Star 5 elements in 2 % nitric acid – 1000 mg/l

D >1 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis
Calcium (Ca) ..... 1000 mg/l
Iron (Fe) ..... 1000 mg/l
Potassium (K) ..... 1000 mg/l
Magnesium (Mg) ..... 1000 mg/l
Sodium (Na) ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
0409.1	100 ml	HDPE	342,95
0409.2	500 ml	HDPE	256,95

ICP-MS Tuning Solution (5 elements, 10 mg/l)

ROTI®Star 5 elements in 2 % nitric acid – 10 mg/l

D >1 g/cm³

UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Type analysis
Cerium (Ce) ..... 10 mg/l
Cobalt (Co) ..... 10 mg/l
Lithium (Li) ..... 10 mg/l
Thallium (Tl) ..... 10 mg/l
Yttrium (Y) ..... 10 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
6819.1	100 ml	LDPE	114,50

ICP-MS Tuning Solution (6 elements, 1 µg/l)

ROTI®Star 6 elements in 2 % nitric acid – 1 µg/l

D >1 g/cm³

UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Type analysis
Cerium (Ce) ..... 1 µg/l
Cobalt (Co) ..... 1 µg/l
Lithium (Li) ..... 1 µg/l
Magnesium (Mg) ..... 1 µg/l
Thallium (Tl) ..... 1 µg/l
Yttrium (Y) ..... 1 µg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
6806.1	100 ml	LDPE	146,75
6806.2	500 ml	LDPE	270,40

ICP-MS Tuning Solution A (6 elements, concentration in µg/l)

ROTI®Star 6 elements in 1 % nitric acid

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Type analysis
Beryllium (Be) ..... 10 µg/l
Indium (In) ..... 2 µg/l
Bismuth (Bi) ..... 2 µg/l
Cerium (Ce) ..... 2 µg/l
Cobalt (Co) ..... 5 µg/l
Manganese (Mn) ..... 5 µg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
0900.2	250 ml	HDPE	327,90

ICP-MS Tuning Solution B (6 elements, concentration in µg/l)

ROTI®Star 6 elements in 1 % nitric acid

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Type analysis
Beryllium (Be) ..... 1000 µg/l
Indium (In) ..... 200 µg/l
Bismuth (Bi) ..... 200 µg/l
Cerium (Ce) ..... 200 µg/l
Cobalt (Co) ..... 500 µg/l
Manganese (Mn) ..... 500 µg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
0902.1	100 ml	HDPE	235,45

ICP-MS Multi-Element Standard Solution (8 elements, concentration in mg/l)

ROTI®Star 8 elements in 2 % nitric acid

D ~1 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319-EUH208

Type analysis
Arsenic (As) ..... 2 mg/l
Cadmium (Cd) ..... 2 mg/l
Chromium (Cr) ..... 3 mg/l
Copper (Cu) ..... 10 mg/l
Iron (Fe) ..... 4 mg/l
Nickel (Ni) ..... 2 mg/l
Lead (Pb) ..... 5 mg/l
Zinc (Zn) ..... 10 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
6814.1	100 ml	LDPE	263,40
6814.2	500 ml	LDPE	271,45

ICP-MS Calibration Standard Solution (8 elements, 10 mg/l)

ROTI®Star 8 elements in 2 % nitric acid and 0,1 % hydrofluoric acid – 10 mg/l

D 1 g/cm³

UN no. 1760 · ADR 8 III

Warning H290-H315-H319

Type analysis
Germanium (Ge) ..... 10 mg/l
Hafnium (Hf) ..... 10 mg/l
Molybdenum (Mo) ..... 10 mg/l
Antimony (Sb) ..... 10 mg/l
Tin (Sn) ..... 10 mg/l
Tellur (Te) ..... 10 mg/l
Tungsten (W) ..... 10 mg/l
Zirconium (Zr) ..... 10 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
6816.1	100 ml	LDPE	137,10
6816.2	500 ml	LDPE	246,20

ICP-MS Multi-Element Standard Solution (10 elements, 10 mg/l)

ROTI®Star 10 elements in 10 % hydrochloric acid and 1 % nitric acid – 10 mg/l

D >1 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319-H335

Type analysis
Gold (Au) ..... 10 mg/l
Hafnium (Hf) ..... 10 mg/l
Iridium (Ir) ..... 10 mg/l
Palladium (Pd) ..... 10 mg/l
Platinum (Pt) ..... 10 mg/l
Rhodium (Rh) ..... 10 mg/l
Ruthenium (Ru) ..... 10 mg/l
Antimony (Sb) ..... 10 mg/l
Tin (Sn) ..... 10 mg/l
Tellur (Te) ..... 10 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
0429.1	100 ml	HDPE	155,90

ICP-MS Multi-Element Standard Solution (10 elements, concentration in mg/l)

ROTI®Star 10 elements in 2 % hydrochloric acid

D >1 g/cm³

UN no. 3264 · ADR 8 III

Warning H290

Type analysis
Molybdenum (Mo) ..... 50 mg/l
Palladium (Pd) ..... 40 mg/l

Platinum (Pt) ..... 40 mg/l
Rhodium (Rh) ..... 40 mg/l
Antimony (Sb) ..... 80 mg/l
Silicon (Si) ..... 40 mg/l
Tin (Sn) ..... 80 mg/l
Tellur (Te) ..... 40 mg/l
Tungsten (W) ..... 40 mg/l
Zirconium (Zr) ..... 40 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
6815.1	100 ml	LDPE	338,65
6815.2	500 ml	LDPE	600,95

ICP-MS Interference Check Solution A – 6020 (12 elements, concentration in µg/l)

ROTI®Star 12 elements in 5 % nitric acid

D >1 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H314-EUH071

Type analysis

Chloride (Cl^-) ..... 20000 µg/ml
Calcium (Ca) ..... 3000 µg/ml
Iron (Fe) ..... 2500 µg/ml
Sodium (Na) ..... 2500 µg/ml
Carbon (C) ..... 2000 µg/ml
Aluminium (Al) ..... 1000 µg/ml
Magnesium (Mg) ..... 1000 µg/ml
Phosphorus (P) ..... 1000 µg/ml
Potassium (K) ..... 1000 µg/ml
Sulphur (S) ..... 1000 µg/ml
Molybdenum (Mo) ..... 20 µg/ml
Titanium (Ti) ..... 20 µg/ml

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
6808.1	100 ml	LDPE	364,45
6808.2	500 ml	LDPE	600,95

ICP-MS Multi-Element Standard Solution (12 elements, concentration in mg/l)

ROTI®Star 12 elements in 2 % nitric acid

D >1 g/cm³

UN no. 3264 · ADR 8 III

Warning H290-H315-H319-EUH208

Type analysis

Arsenic (As) ..... 2,5 mg/l
Barium (Ba) ..... 2,5 mg/l
Cadmium (Cd) ..... 0,5 mg/l
Chromium (Cr) ..... 5 mg/l
Copper (Cu) ..... 5 mg/l
Mercury (Hg) ..... 0,2 mg/l
Molybdenum (Mo) ..... 3 mg/l
Nickel (Ni) ..... 5 mg/l
Lead (Pb) ..... 5 mg/l
Antimony (Sb) ..... 0,5 mg/l
Selenium (Se) ..... 0,7 mg/l
Zinc (Zn) ..... 5 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
6810.1	100 ml	LDPE	407,45
6810.2	500 ml	LDPE	332,20

ICP-MS Multi-Element Standard Solution (16 elements, 10 mg/l)

ROTI®Star 16 elements in 5 % nitric acid – 10 mg/l

D >1 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Danger H290-H314-EUH071 EUH208

Type analysis

Arsenic (As) ..... 10 mg/l
Beryllium (Be) ..... 10 mg/l
Cobalt (Co) ..... 10 mg/l
Chromium (Cr) ..... 10 mg/l
Cesium (Cs) ..... 10 mg/l
Copper (Cu) ..... 10 mg/l
Lithium (Li) ..... 10 mg/l
Manganese (Mn) ..... 10 mg/l
Nickel (Ni) ..... 10 mg/l
Lead (Pb) ..... 10 mg/l
Rubidium (Rb) ..... 10 mg/l
Scandium (Sc) ..... 10 mg/l
Selenium (Se) ..... 10 mg/l
Strontium (Sr) ..... 10 mg/l
Vanadium (V) ..... 10 mg/l
Zinc (Zn) ..... 10 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
0416.1	100 ml	HDPE	489,15
0416.2	500 ml	HDPE	891,20

ICP-MS Multi-Element Standard Solution (21 elements, 100 mg/l)

ROTI®Star 21 elements in 5 % nitric acid – 100 mg/l

D >1 g/cm³

UN no. 3264 · ADR 8 III · WGK 2

Danger H290-H314-H317-H350-EUH071

Type analysis

Aluminium (Al) ..... 100 mg/l
Silver (Ag) ..... 100 mg/l
Arsenic (As) ..... 100 mg/l
Barium (Ba) ..... 100 mg/l
Beryllium (Be) ..... 100 mg/l
Cadmium (Cd) ..... 100 mg/l
Cobalt (Co) ..... 100 mg/l
Chromium (Cr) ..... 100 mg/l
Copper (Cu) ..... 100 mg/l
Iron (Fe) ..... 100 mg/l
Potassium (K) ..... 100 mg/l
Manganese (Mn) ..... 100 mg/l
Molybdenum (Mo) ..... 100 mg/l
Nickel (Ni) ..... 100 mg/l
Lead (Pb) ..... 100 mg/l
Antimony (Sb) ..... 100 mg/l
Selenium (Se) ..... 100 mg/l
Tin (Sn) ..... 100 mg/l
Thallium (Tl) ..... 100 mg/l
Vanadium (V) ..... 100 mg/l
Zinc (Zn) ..... 100 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
6811.1	100 ml	LDPE	327,90

ICP-MS Multi-Element Standard Solution (22 elements, concentration in mg/l)

ROTI®Star 22 elements in 2 % nitric acid

D >1 g/cm³

UN no. 3264 · ADR 8 III

Warning H290-H315-H319-EUH208

Type analysis

Silver (Ag) ..... 5 mg/l
Aluminium (Al) ..... 30 mg/l
Arsenic (As) ..... 10 mg/l
Boron (B) ..... 30 mg/l
Barium (Ba) ..... 10 mg/l
Beryllium (Be) ..... 3 mg/l
Cadmium (Cd) ..... 3 mg/l
Cobalt (Co) ..... 5 mg/l
Chromium (Cr) ..... 10 mg/l
Copper (Cu) ..... 10 mg/l
Manganese (Mn) ..... 5 mg/l
Molybdenum (Mo) ..... 3 mg/l
Nickel (Ni) ..... 10 mg/l
Lead (Pb) ..... 5 mg/l
Selenium (Se) ..... 5 mg/l
Tin (Sn) ..... 10 mg/l
Strontium (Sr) ..... 100 mg/l
Tellur (Te) ..... 10 mg/l
Titanium (Ti) ..... 3 mg/l
Thallium (Tl) ..... 2 mg/l
Vanadium (V) ..... 10 mg/l
Zinc (Zn) ..... 100 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
0383.1	100 ml	HDPE	396,70
0383.2	500 ml	HDPE	719,20

ICP-MS Multi-Element Standard Solution (27 elements, concentration in mg/l)

ROTI®Star 27 elements in 2 % nitric acid

D >1 g/cm³

UN no. 3264 · ADR 8 III

Warning H290-H315-H317-H319

Type analysis

Silver (Ag) ..... 50 mg/l
Aluminium (Al) ..... 80 mg/l
Arsenic (As) ..... 80 mg/l
Boron (B) ..... 40 mg/l
Barium (Ba) ..... 50 mg/l
Beryllium (Be) ..... 40 mg/l
Calcium (Ca) ..... 80 mg/l
Cadmium (Cd) ..... 40 mg/l
Cobalt (Co) ..... 50 mg/l
Chromium (Cr) ..... 50 mg/l
Copper (Cu) ..... 50 mg/l
Iron (Fe) ..... 50 mg/l
Indium (In) ..... 40 mg/l
Potassium (K) ..... 80 mg/l
Lithium (Li) ..... 40 mg/l
Magnesium (Mg) ..... 80 mg/l
Manganese (Mn) ..... 50 mg/l
Sodium (Na) ..... 80 mg/l
Nickel (Ni) ..... 50 mg/l
Phosphorus (P) ..... 200 mg/l
Lead (Pb) ..... 80 mg/l
Selenium (Se) ..... 40 mg/l
Strontium (Sr) ..... 50 mg/l
Titanium (Ti) ..... 40 mg/l
Thallium (Tl) ..... 40 mg/l
Vanadium (V) ..... 50 mg/l
Zinc (Zn) ..... 50 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
6813.1	100 ml	LDPE	467,65
6813.2	500 ml	LDPE	740,70

ICP-MS Multi-Element Standard Solution (27 elements, concentration in mg/l)

ROTI®Star 27 elements in 5 % nitric acid and 5 % hydrochloric acid

D ~1 g/cm³ · bp 83 °C

UN no. 3264 · ADR 8 II · WGK 3

Danger H290-H314-EUH071 EUH208

Type analysis

Aluminium (Al) ..... 50 mg/l
Arsenic (As) ..... 10 mg/l
Beryllium (Be) ..... 10 mg/l
Bismuth (Bi) ..... 10 mg/l
Cadmium (Cd) ..... 10 mg/l
Cerium (Ce) ..... 10 mg/l
Cobalt (Co) ..... 10 mg/l
Chromium (Cr) ..... 10 mg/l
Cesium (Cs) ..... 10 mg/l
Copper (Cu) ..... 10 mg/l
Iron (Fe) ..... 10 mg/l
Gallium (Ga) ..... 10 mg/l
Mercury (Hg) ..... 10 mg/l
Lanthanum (La) ..... 10 mg/l
Manganese (Mn) ..... 10 mg/l
Molybdenum (Mo) ..... 50 mg/l
Nickel (Ni) ..... 10 mg/l
Lead (Pb) ..... 10 mg/l
Ruthenium (Ru) ..... 10 mg/l
Antimony (Sb) ..... 10 mg/l
Selenium (Se) ..... 10 mg/l
Tin (Sn) ..... 10 mg/l
Tellur (Te) ..... 10 mg/l
Titanium (Ti) ..... 10 mg/l
Thallium (Tl) ..... 10 mg/l
Vanadium (V) ..... 10 mg/l
Zinc (Zn) ..... 50 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1LC5.1	100 ml	HDPE	585,90
1LC5.2	250 ml	HDPE	826,70

ICP-MS Multi-Element Standard Solution (28 elements, 10 mg/l)

ROTI®Star 28 elements in 5 % nitric acid – 10 mg/l

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 3264 · ADR 8 II · WGK 2

Danger H290-H314-EUH071 EUH208

Type analysis

Aluminium (Al) ..... 10 mg/l
Arsenic (As) ..... 10 mg/l
Barium (Ba) ..... 10 mg/l
Beryllium (Be) ..... 10 mg/l
Bismuth (Bi) ..... 10 mg/l
Lead (Pb) ..... 10 mg/l
Calcium (Ca) ..... 10 mg/l
Cadmium (Cd) ..... 10 mg/l
Chromium (Cr) ..... 10 mg/l
Cesium (Cs) ..... 10 mg/l
Iron (Fe) ..... 10 mg/l
Gallium (Ga) ..... 10 mg/l
Indium (In) ..... 10 mg/l
Potassium (K) ..... 10 mg/l
Cobalt (Co) ..... 10 mg/l
Copper (Cu) ..... 10 mg/l
Lithium (Li) ..... 10 mg/l
Magnesium (Mg) ..... 10 mg/l
Manganese (Mn) ..... 10 mg/l
Sodium (Na) ..... 10 mg/l
Nickel (Ni) ..... 10 mg/l
Rubidium (Rb) ..... 10 mg/l
Selenium (Se) ..... 10 mg/l
Silver (Ag) ..... 10 mg/l
Strontium (Sr) ..... 10 mg/l
Thallium (Tl) ..... 10 mg/l
Vanadium (V) ..... 10 mg/l
Zinc (Zn) ..... 10 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
6802.1	100 ml	HDPE	607,40

ICP-MS Multi-Element Standard Solution VI (30 elements, concentration in mg/l)

ROTI®Star 30 elements in 2 % nitric acid

D 1 g/cm³

UN no. 1760 · ADR 8 III · WGK 3

Danger H290-H315-H319-H350-EUH208

Type analysis

Ba (Barium) ..... 10 mg/l
Be (Beryllium) ..... 100 mg/l
Bi (Bismuth) ..... 10 mg/l
Ca (Calcium) ..... 1000 mg/l
Cd (Cadmium) ..... 10 mg/l
Co (Cobalt) ..... 10 mg/l
Cr (Chrom) ..... 10 mg/l
Cu (Copper) ..... 10 mg/l
Fe (Iron) ..... 100 mg/l
Ga (Gallium) ..... 10 mg/l
K (Potassium) ..... 10 mg/l
Li (Lithium) ..... 10 mg/l
Mg (Magnesium) ..... 10 mg/l
Mn (Manganese) ..... 10 mg/l
Mo (Molybdenum) ..... 10 mg/l
Na (Sodium) ..... 10 mg/l
Ni (Nickel) ..... 10 mg/l
Pb (Lead) ..... 10 mg/l
Rb (Rubidium) ..... 10 mg/l
Se (Selenium) ..... 100 mg/l
Sr (Strontium) ..... 10 mg/l
Te (Tellur) ..... 10 mg/l
Tl (Thallium) ..... 10 mg/l
Uranium (U) ..... 10 mg/l
Ag (Silver) ..... 10 mg/l
Al (Aluminium) ..... 10 mg/l
V (Vanadium) ..... 10 mg/l
Zn (Zinc) ..... 100 mg/l
As (Arsenic) ..... 100 mg/l
B (Boron) ..... 100 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1L4K.1	100 ml	HDPE	790,15

Multi Element Standards for ICP-OES (Inductively Coupled Plasma Optical Emission Spectroscopy)

ICP standards

ICP Multi-Element Standard Solution I (19 elements, concentration in mg/l)

ROTI®Star 19 elements in 5 % nitric acid

D 1 g/cm³

UN no. 2031 · ADR 8 II · WGK 1

Danger H290-H314-EUH071

Type analysis

Ag (Silver) ..... 50 mg/l
Al (Aluminium) ..... 100 mg/l
B (Boron) ..... 15 mg/l
Ba (Barium) ..... 5 mg/l
Be (Beryllium) ..... 1 mg/l
Bi (Bismuth) ..... 200 mg/l
Cd (Cadmium) ..... 20 mg/l
Co (Cobalt) ..... 20 mg/l
Cr (Chromium) ..... 25 mg/l
Cu (Copper) ..... 20 mg/l
Fe (Iron) ..... 15 mg/l
Ga (Gallium) ..... 150 mg/l
In (Indium) ..... 200 mg/l
Mn (Manganese) ..... 5 mg/l
Ni (Nickel) ..... 50 mg/l
Pb (Lead) ..... 200 mg/l
Sr (Strontium) ..... 1 mg/l
Tl (Thallium) ..... 400 mg/l
Zn (Zinc) ..... 20 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2636.1	100 ml	HDPE	203,20

ICP Multi-Element Standard Solution III (4 elements, 1000 mg/l)

ROTI®Star 4 elements in 2 % nitric acid – 1 000 mg/l

D 1 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis

Ba (Barium) ..... 1000 mg/l
Ca (Calcium) ..... 1000 mg/l
Mg (Magnesium) ..... 1000 mg/l
Sr (Strontium) ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2637.1	100 ml	HDPE	192,45

ICP Multi-Element Standard Solution IV (23 elements, 1000 mg/l)

ROTI®Star 23 elements in 2 % nitric acid – 1 000 mg/l

D 1 g/cm³

UN no. 3264 · ADR 8 III · WGK 3

Danger H290-H315-H317-H319-H350i-H360FD-H373-H411

Type analysis

Ag (Silver) ..... 1000 mg/l
Al (Aluminium) ..... 1000 mg/l
B (Boron) ..... 1000 mg/l
Ba (Barium) ..... 1000 mg/l
Bi (Bismuth) ..... 1000 mg/l
Ca (Calcium) ..... 1000 mg/l
Cd (Cadmium) ..... 1000 mg/l
Co (Cobalt) ..... 1000 mg/l
Cr (Chromium) ..... 1000 mg/l
Cu (Copper) ..... 1000 mg/l
Fe (Iron) ..... 1000 mg/l
Ga (Gallium) ..... 1000 mg/l
In (Indium) ..... 1000 mg/l
K (Potassium) ..... 1000 mg/l
Li (Lithium) ..... 1000 mg/l
Mg (Magnesium) ..... 1000 mg/l
Mn (Manganese) ..... 1000 mg/l
Na (Sodium) ..... 1000 mg/l
Ni (Nickel) ..... 1000 mg/l
Pb (Lead) ..... 1000 mg/l
Sr (Strontium) ..... 1000 mg/l
Tl (Thallium) ..... 1000 mg/l
Zn (Zinc) ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2638.1	100 ml	HDPE	353,70

ICP Multi-Element Standard Solution VIII (24 elements, 100 mg/l)

ROTI®Star 24 elements in 2 % nitric acid – 100 mg/l

D 1 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H317-H319

Type analysis

Al (Aluminium) ..... 100 mg/l
B (Boron) ..... 100 mg/l
Ba (Barium) ..... 100 mg/l
Be (Beryllium) ..... 100 mg/l
Bi (Bismuth) ..... 100 mg/l
Ca (Calcium) ..... 100 mg/l
Cd (Cadmium) ..... 100 mg/l
Co (Cobalt) ..... 100 mg/l
Cr (Chromium) ..... 100 mg/l
Cu (Copper) ..... 100 mg/l
Fe (Iron) ..... 100 mg/l
Ga (Gallium) ..... 100 mg/l
K (Potassium) ..... 100 mg/l
Li (Lithium) ..... 100 mg/l
Mg (Magnesium) ..... 100 mg/l
Mn (Manganese) ..... 100 mg/l
Na (Sodium) ..... 100 mg/l
Ni (Nickel) ..... 100 mg/l
Pb (Lead) ..... 100 mg/l
Se (Selenium) ..... 100 mg/l
Sr (Strontium) ..... 100 mg/l
Te (Tellur) ..... 100 mg/l
Tl (Thallium) ..... 100 mg/l
Zn (Zinc) ..... 100 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2639.1	100 ml	HDPE	338,65

ICP Multi-Element Standard Solution IX (9 elements, 100 mg/l)

ROTI®Star 9 elements in 2 % nitric acid – 100 mg/l

D 1 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H317-H319

Type analysis

As (Arsenic) ..... 100 mg/l
Be (Beryllium) ..... 100 mg/l
Cd (Cadmium) ..... 100 mg/l
Cr (Chromium) ..... 100 mg/l
Hg (Mercury) ..... 100 mg/l
Ni (Nickel) ..... 100 mg/l
Pb (Lead) ..... 100 mg/l
Se (Selenium) ..... 100 mg/l
Tl (Thallium) ..... 100 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2640.1	100 ml	HDPE	203,20

ICP Multi-Element Standard Solution X (23 elements, concentration in µg/l)

ROTI®Star 23 elements in 2 % nitric acid

For surface water testing.

D 1 g/cm³

UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Type analysis

Ca (Calcium) ..... 35000 µg/l
Mg (Magnesium) ..... 15000 µg/l
Na (Sodium) ..... 8000 µg/l
K (Potassium) ..... 3000 µg/l
B (Boron) ..... 100 µg/l
Fe (Iron) ..... 100 µg/l
Mo (Molybdenum) ..... 100 µg/l
Sr (Strontium) ..... 100 µg/l
As (Arsenic) ..... 50 µg/l
Ba (Barium) ..... 50 µg/l
Ni (Nickel) ..... 50 µg/l
V (Vanadium) ..... 50 µg/l
Zn (Zinc) ..... 50 µg/l
Mn (Manganese) ..... 30 µg/l
Co (Cobalt) ..... 25 µg/l
Pb (Lead) ..... 25 µg/l
Be (Beryllium) ..... 20 µg/l
Cd (Cadmium) ..... 20 µg/l
Cr (Chromium) ..... 20 µg/l
Cu (Copper) ..... 20 µg/l
Bi (Bismuth) ..... 10 µg/l
Se (Selenium) ..... 10 µg/l
Tl (Thallium) ..... 10 µg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2642.1	100 ml	HDPE	327,35

ICP Multi-Element Standard Solution XI (7 elements, concentration in mg/l)

ROTI®Star 7 elements in 2 % nitric acid

For sludge testing.

D 1 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H317-H319-H412

Type analysis

Cd (Cadmium) ..... 10 mg/l
Cr (Chromium) ..... 900 mg/l
Cu (Copper) ..... 800 mg/l
Hg (Mercury) ..... 8 mg/l
Ni (Nickel) ..... 200 mg/l
Pb (Lead) ..... 900 mg/l
Zn (Zinc) ..... 2500 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2643.1	100 ml	HDPE	203,20

ICP Multi-Element Standard Solution XIII (15 elements, concentration in mg/l)

ROTI®Star 15 elements in 2 % nitric acid

D 1 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H317-H319

Type analysis

Al (Aluminium) ..... 500 mg/l
As (Arsenic) ..... 100 mg/l
Be (Beryllium) ..... 100 mg/l
Cd (Cadmium) ..... 25,0 mg/l
Co (Cobalt) ..... 100 mg/l
Cr (Chromium) ..... 100 mg/l
Cu (Copper) ..... 100 mg/l
Fe (Iron) ..... 100 mg/l
Hg (Mercury) ..... 5,0 mg/l
Mn (Manganese) ..... 100 mg/l
Ni (Nickel) ..... 100 mg/l
Pb (Lead) ..... 100 mg/l
Se (Selenium) ..... 25,0 mg/l
V (Vanadium) ..... 250 mg/l
Zn (Zinc) ..... 100 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2644.1	100 ml	HDPE	338,65

ICP Multi-Element Standard Solution XVI (21 elements, 100 mg/l)

ROTI®Star 21 elements in 2 % nitric acid – 100 mg/l

D 1 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 3

Danger H290-H315-H317-H319-H350i

Type analysis

As (Arsenic) ..... 100 mg/l
Be (Beryllium) ..... 100 mg/l
Ca (Calcium) ..... 100 mg/l
Cd (Cadmium) ..... 100 mg/l
Co (Cobalt) ..... 100 mg/l
Cr (Chromium) ..... 100 mg/l
Cu (Copper) ..... 100 mg/l
Fe (Iron) ..... 100 mg/l
Li (Lithium) ..... 100 mg/l
Mg (Magnesium) ..... 100 mg/l
Mn (Manganese) ..... 100 mg/l
Mo (Molybdenum) ..... 100 mg/l
Ni (Nickel) ..... 100 mg/l
Pb (Lead) ..... 100 mg/l
Sb (Antimony) ..... 100 mg/l
Se (Selenium) ..... 100 mg/l
Sr (Strontium) ..... 100 mg/l
Ti (Titanium) ..... 100 mg/l
Tl (Thallium) ..... 100 mg/l
V (Vanadium) ..... 100 mg/l
Zn (Zinc) ..... 100 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2645.1	100 ml	HDPE	327,90

ICP Multi-Element Standard Solution XVII (7 elements, 100 mg/l)

ROTI®Star 7 elements in 15 % hydrochloric acid – 100 mg/l

D 1,07 g/cm³

UN no. 1789 · ADR 8 III · WGK 1

Warning H290-H315-H319-H335

Type analysis

Hf (Hafnium) ..... 100 mg/l
Ir (Iridium) ..... 100 mg/l
Sb (Antimony) ..... 100 mg/l
Sn (Tin) ..... 100 mg/l
Ta (Tantal) ..... 100 mg/l
Ti (Titanium) ..... 100 mg/l
Zr (Zirkonium) ..... 100 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2646.1	100 ml	HDPE	203,20

ICP Multi-Element Standard Solution A (24 elements, concentration in mg/l)

ROTI®Star 24 elements in 5 % nitric acid

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 II · WGK 2

Danger H290-H314-H317-H350i-H373-H412-EUH071

Type analysis

Al (Aluminium) ..... 1000 mg/l
As (Arsenic) ..... 100 mg/l
B (Boron) ..... 500 mg/l
Ba (Barium) ..... 500 mg/l
Ca (Calcium) ..... 1000 mg/l
Cd (Cadmium) ..... 100 mg/l
Co (Cobalt) ..... 500 mg/l
Cr (Chrom) ..... 500 mg/l
Cu (Copper) ..... 500 mg/l
Fe (Iron) ..... 1000 mg/l
Hg (Mercury) ..... 10 mg/l
K (Potassium) ..... 1000 mg/l
Li (Lithium) ..... 100 mg/l
Mg (Magnesium) ..... 1000 mg/l
Mn (Manganese) ..... 500 mg/l
Na (Sodium) ..... 1000 mg/l
Ni (Nickel) ..... 500 mg/l
Pb (Lead) ..... 500 mg/l
Rb (Rubidium) ..... 500 mg/l
Sr (Strontium) ..... 500 mg/l
Te (Tellur) ..... 500 mg/l
Ti (Titanium) ..... 500 mg/l
V (Vanadium) ..... 500 mg/l
Zn (Zinc) ..... 500 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
8248.1	100 ml	HDPE	682,65

ICP Multi-Element Standard Solution B (25 elements, concentration in mg/l)

ROTI®Star 25 elements in 5 % nitric acid

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 II · WGK 1

Danger H290-H314-H317-EUH071

Type analysis

Al (Aluminium) ..... 200 mg/l
As (Arsenic) ..... 5 mg/l
B (Boron) ..... 20 mg/l
Ba (Barium) ..... 50 mg/l
Ca (Calcium) ..... 500 mg/l
Cd (Cadmium) ..... 5 mg/l
Co (Cobalt) ..... 20 mg/l
Cr (Chrom) ..... 40 mg/l
Cu (Copper) ..... 20 mg/l
Fe (Iron) ..... 100 mg/l
Hg (Mercury) ..... 0,5 mg/l
K (Potassium) ..... 100 mg/l
Li (Lithium) ..... 10 mg/l
Mg (Magnesium) ..... 500 mg/l
Mn (Manganese) ..... 10 mg/l
Na (Sodium) ..... 100 mg/l
Ni (Nickel) ..... 40 mg/l
P (Phosphorus) ..... 40 mg/l
Pb (Lead) ..... 10 mg/l
Rb (Rubidium) ..... 10 mg/l
Sr (Strontium) ..... 100 mg/l
Te (Tellur) ..... 10 mg/l
Ti (Titanium) ..... 10 mg/l
V (Vanadium) ..... 40 mg/l
Zn (Zinc) ..... 50 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
8249.1	100 ml	HDPE	568,70

ICP Multi-Element Standard Solution (5 elements, 1000 mg/l)

ROTI®Star 5 elements in 2 % nitric acid – 1 000 mg/l

D 1 g/cm³

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319

Type analysis

Na (Sodium) ..... 1000 mg/l
Mg (Magnesium) ..... 1000 mg/l
K (Potassium) ..... 1000 mg/l
Ca (Calcium) ..... 1000 mg/l
P (Phosphorus) ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1HP0.1	100 ml	HDPE	360,15

ICP Multi-Element Standard Solution (9 elements, 1000 mg/l)

ROTI®Star 9 elements in 5 % nitric acid – 1 000 mg/l

D 1,05 g/cm³

UN no. 3264 · ADR 8 II · WGK 3

Danger H290-H314-H317-H340-H350i-H360FD-H373-H412-EUH071

Type analysis

As (Arsenic) ..... 1000 mg/l
Cd (Cadmium) ..... 1000 mg/l
Cr (Chrom) ..... 1000 mg/l
Cu (Copper) ..... 1000 mg/l
Mo (Molybdenum) ..... 1000 mg/l
Ni (Nickel) ..... 1000 mg/l
Sb (Antimony) ..... 1000 mg/l
Se (Selenium) ..... 1000 mg/l
Zn (Zinc) ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
9987.1	100 ml	HDPE	342,95

ICP Multi-Element Standard Solution (22 elements, 1 mg/l)

ROTI®Star 22 elements in 5 % nitric acid – 1 mg/l

D 1 g/cm³

UN no. 2031 · ADR 8 II · WGK 1

Danger H290-H314-EUH071

Type analysis

As (Arsenic) ..... 1 mg/l
Be (Beryllium) ..... 1 mg/l
Bi (Bismuth) ..... 1 mg/l
Ca (Calcium) ..... 1 mg/l
Cd (Cadmium) ..... 1 mg/l
Co (Cobalt) ..... 1 mg/l
Cr (Chrom) ..... 1 mg/l
Cu (Copper) ..... 1 mg/l
Fe (Iron) ..... 1 mg/l
Li (Lithium) ..... 1 mg/l
Mg (Magnesium) ..... 1 mg/l
Mn (Manganese) ..... 1 mg/l
Mo (Molybdenum) ..... 1 mg/l
Ni (Nickel) ..... 1 mg/l
Pb (Lead) ..... 1 mg/l
Sb (Antimony) ..... 1 mg/l
Se (Selenium) ..... 1 mg/l
Sr (Strontium) ..... 1 mg/l
Ti (Titanium) ..... 1 mg/l
Tl (Thallium) ..... 1 mg/l
V (Vanadium) ..... 1 mg/l
Zn (Zinc) ..... 1 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2647.1	100 ml	HDPE	91,95

ICP Multi-Element Standard Solution (22 elements, 100 mg/l)

ROTI®Star 22 elements in 5 % nitric acid – 100 mg/l

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 2031 · ADR 8 II · WGK 3

Danger H290-H314-H317-H350-EUH071

Type analysis

As (Arsenic) ..... 100 mg/l
Be (Beryllium) ..... 100 mg/l
Bi (Bismuth) ..... 100 mg/l
Ca (Calcium) ..... 100 mg/l
Cd (Cadmium) ..... 100 mg/l
Co (Cobalt) ..... 100 mg/l
Cr (Chromium) ..... 100 mg/l
Cu (Copper) ..... 100 mg/l
Fe (Iron) ..... 100 mg/l
Li (Lithium) ..... 100 mg/l
Mg (Magnesium) ..... 100 mg/l
Mn (Manganese) ..... 100 mg/l
Mo (Molybdenum) ..... 100 mg/l
Ni (Nickel) ..... 100 mg/l
Pb (Lead) ..... 100 mg/l
Sb (Antimony) ..... 100 mg/l
Se (Selenium) ..... 100 mg/l
Sr (Strontium) ..... 100 mg/l
Ti (Titanium) ..... 100 mg/l
Tl (Thallium) ..... 100 mg/l
V (Vanadium) ..... 100 mg/l
Zn (Zinc) ..... 100 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2648.1	100 ml	HDPE	377,90

ICP Multi-Element Standard Solution (28 elements, 1 mg/l)

ROTI®Star 28 elements in 2 % nitric acid – 1 mg/l

D 1 g/cm³

UN no. 3264 · ADR 8 III

Warning H290-H315-H319

Type analysis

Al (Aluminium) ..... 1 mg/l
Ag (Silver) ..... 1 mg/l
As (Arsenic) ..... 1 mg/l
B (Boron) ..... 1 mg/l
Ba (Barium) ..... 1 mg/l
Be (Beryllium) ..... 1 mg/l
Bi (Bismuth) ..... 1 mg/l
Ca (Calcium) ..... 1 mg/l
Cd (Cadmium) ..... 1 mg/l
Co (Cobalt) ..... 1 mg/l
Cr (Chrom) ..... 1 mg/l
Cu (Copper) ..... 1 mg/l
Fe (Iron) ..... 1 mg/l
K (Potassium) ..... 1 mg/l
Li (Lithium) ..... 1 mg/l
Mg (Magnesium) ..... 1 mg/l

Mn (Manganese) ..... 1 mg/l
Mo (Molybdenum) ..... 1 mg/l
Na (Sodium) ..... 1 mg/l
Ni (Nickel) ..... 1 mg/l
Pb (Lead) ..... 1 mg/l
Sb (Antimony) ..... 1 mg/l
Se (Selenium) ..... 1 mg/l
Sr (Strontium) ..... 1 mg/l
Ti (Titanium) ..... 1 mg/l
Tl (Thallium) ..... 1 mg/l
V (Vanadium) ..... 1 mg/l
Zn (Zinc) ..... 1 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2649.1	100 ml	HDPE	110,20

ICP Multi-Element Standard Solution (28 elements, 100 mg/l)

ROTI®Star 28 elements in 5 % nitric acid – 100 mg/l

D 1 g/cm³

UN no. 2031 · ADR 8 II · WGK 2

Danger H290-H314-H317-EUH071

Type analysis

Al (Aluminium) ..... 100 mg/l
Ag (Silver) ..... 100 mg/l
As (Arsenic) ..... 100 mg/l
B (Boron) ..... 100 mg/l
Ba (Barium) ..... 100 mg/l
Be (Beryllium) ..... 100 mg/l
Bi (Bismuth) ..... 100 mg/l
Ca (Calcium) ..... 100 mg/l
Cd (Cadmium) ..... 100 mg/l
Co (Cobalt) ..... 100 mg/l
Cr (Chromium) ..... 100 mg/l
Cu (Copper) ..... 100 mg/l
Fe (Iron) ..... 100 mg/l
K (Potassium) ..... 100 mg/l
Li (Lithium) ..... 100 mg/l
Mg (Magnesium) ..... 100 mg/l
Mn (Manganese) ..... 100 mg/l
Mo (Molybdenum) ..... 100 mg/l
Na (Sodium) ..... 100 mg/l
Ni (Nickel) ..... 100 mg/l
Pb (Lead) ..... 100 mg/l
Sb (Antimony) ..... 100 mg/l
Se (Selenium) ..... 100 mg/l
Sr (Strontium) ..... 100 mg/l
Ti (Titanium) ..... 100 mg/l
Tl (Thallium) ..... 100 mg/l
V (Vanadium) ..... 100 mg/l
Zn (Zinc) ..... 100 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2650.1	100 ml	HDPE	375,20

ICP Multi-Element Standard Solution CR-01 (17 elements, concentration in mg/l)

ROTI®Star 17 elements in 5 % nitric acid

D 1 g/cm³

UN no. 2031 · ADR 8 II · WGK 3

Danger H290-H314-H317-EUH071

Type analysis

Ag (Silver) ..... 25 mg/l
Al (Aluminium) ..... 25 mg/l
As (Arsenic) ..... 10 mg/l
Ba (Barium) ..... 25 mg/l
Ca (Calcium) ..... 25 mg/l
Cd (Cadmium) ..... 2 mg/l
Cr (Chrom) ..... 25 mg/l
Cu (Copper) ..... 25 mg/l
Fe (Iron) ..... 25 mg/l
K (Potassium) ..... 25 mg/l
Mg (Magnesium) ..... 25 mg/l
Mn (Manganese) ..... 25 mg/l
Na (Sodium) ..... 25 mg/l
Ni (Nickel) ..... 25 mg/l
Pb (Lead) ..... 25 mg/l
Ti (Titanium) ..... 25 mg/l
Zn (Zinc) ..... 25 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1K38.1	100 ml	HDPE	375,20
1K38.2	250 ml	HDPE	504,20

ICP Multi-Element Standard Solution CR-02 (15 elements, concentration in mg/l)

ROTI®Star 15 elements in 5 % nitric acid

D 1 g/cm³

UN no. 2031 · ADR 8 II · WGK 3

Danger H290-H314-H317-EUH071

Type analysis

Ag (Silver) ..... 250 mg/l
Al (Aluminium) ..... 250 mg/l
As (Arsenic) ..... 75 mg/l
Ba (Barium) ..... 250 mg/l
Ca (Calcium) ..... 250 mg/l
Cd (Cadmium) ..... 20 mg/l
Cr (Chrom) ..... 250 mg/l
Cu (Copper) ..... 250 mg/l
Fe (Iron) ..... 250 mg/l
K (Potassium) ..... 250 mg/l
Na (Sodium) ..... 250 mg/l
Ni (Nickel) ..... 250 mg/l
Pb (Lead) ..... 250 mg/l
Ti (Titanium) ..... 250 mg/l
Zn (Zinc) ..... 250 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1K39.1	100 ml	HDPE	349,40
1K39.2	250 ml	HDPE	499,90

ICP Multi-Element Standard Solution CR-03 (2 elements, concentration in mg/l)

ROTI®Star 2 elements in H_2O

D 1 g/cm³ · bp 100 °C

WGK 1

Type analysis

Sulphur (S) ..... 1000 mg/l
Phosphorus (P) ..... 75 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1K3C.1	100 ml	HDPE	177,40
1K3C.2	250 ml	HDPE	198,90

ICP Multi-Element Standard Solution CR-04 (18 elements, concentration in mg/l)

ROTI®Star 18 elements in 5 % nitric acid

D 1 g/cm³ · bp 83 °C

UN no. 2031 · ADR 8 II · WGK 3

Danger H290-H314-H317-H350i-H412-EUH071

Type analysis

Calcium (Ca) ..... 500 mg/l
Cd (Cadmium) ..... 25 mg/l
Co (Cobalt) ..... 100 mg/l
Cr (Chrom) ..... 100 mg/l
Cu (Copper) ..... 100 mg/l
Mn (Manganese) ..... 100 mg/l
Ni (Nickel) ..... 100 mg/l
Pb (Lead) ..... 100 mg/l
Sr (Strontium) ..... 100 mg/l
Zn (Zinc) ..... 100 mg/l
Mg (Magnesium) ..... 100 mg/l
Sb (Antimony) ..... 20 mg/l
Li (Lithium) ..... 100 mg/l
Se (Selenium) ..... 25 mg/l
As (Arsenic) ..... 100 mg/l
Mo (Molybdenum) ..... 500 mg/l
K (Potassium) ..... 100 mg/l
Na (Sodium) ..... 500 mg/l

Art. No.	Pack Qty.	Pack.	€
1L18.1	100 ml	HDPE	467,65

ICP Multi-Element Standard Solution CR-05 (19 elements, concentration in mg/l)

ROTI®Star 19 elements in 5 % nitric acid

D 1 g/cm³

UN no. 2031 · ADR 8 II · WGK 3

Danger H290-H314-H317-H340-H350i-H373-H411-EUH071

Type analysis

Al (Aluminium) ..... 500 mg/l
As (Arsenic) ..... 500 mg/l
B (Boron) ..... 500 mg/l
Ba (Barium) ..... 500 mg/l
Ca (Calcium) ..... 5000 mg/l
Cd (Cadmium) ..... 500 mg/l
Co (Cobalt) ..... 500 mg/l
Cr (Chrom) ..... 500 mg/l
Cu (Copper) ..... 500 mg/l
Fe (Iron) ..... 500 mg/l
K (Potassium) ..... 5000 mg/l
Li (Lithium) ..... 500 mg/l
Mg (Magnesium) ..... 5000 mg/l
Mn (Manganese) ..... 500 mg/l
Na (Sodium) ..... 5000 mg/l
Ni (Nickel) ..... 500 mg/l
Pb (Lead) ..... 500 mg/l
Sr (Strontium) ..... 500 mg/l
Zn (Zinc) ..... 500 mg/l

Art. No.	Pack Qty.	Pack.	€
1LHP.1	100 ml	HDPE	665,45

Anionic Standards for IC (Ion Chromatography): 1000 mg/l

Acetate IC Standard Solution

ROTI®Star 1 000 mg/l CH_3COO^-

Acetate Standards

D 1 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis

c (CH_3COO^-) in H_2O ..... 1000 mg/l

Traceable to SRM from BAM.

Art. No.	Pack Qty.	Pack.	€
1989.1	100 ml	glass	56,45
1989.2	500 ml	glass	114,50

Benzoate IC Standard Solution
ROTI®Star 1 000 mg/l $C_6H_5COO^-$

Benzoate Standards

D ~1 g/cm³

WGK 1

Type analysis
c ($C_6H_5COO^-$) in H_2O ..... 1000 mg/l

Traceable to SRM from BAM.

Art. No.	Pack Qty.	Pack.	€
8168.1	100 ml	HDPE	56,90
8168.2	500 ml	HDPE	114,50

Bromate IC Standard Solution
ROTI®Star 1 000 mg/l BrO_3^-

Bromate Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

WGK 3

Danger H350

Type analysis
c (BrO_3^-) in H_2O ..... 1000 mg/l

Traceable to SRM from BAM.

Art. No.	Pack Qty.	Pack.	€
8170.1	100 ml	HDPE	56,90
8170.2	500 ml	HDPE	114,50

Bromide IC Standard Solution
ROTI®Star 1 000 mg/l Br^-

Bromide Standards

D ~1 g/cm³

WGK 1

Type analysis
c (Br) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2655.1	100 ml	HDPE	56,90
2655.2	500 ml	HDPE	114,50

Chlorate IC Standard Solution
ROTI®Star 1 000 mg/l ClO_3^-

Chlorate Standards

D 1 g/cm³ · mp 0 °C

WGK 1

Type analysis
c (ClO_3^-) in H_2O ..... 1000 mg/l

Traceable to SRM from BAM.

Art. No.	Pack Qty.	Pack.	€
8171.1	100 ml	HDPE	56,90
8171.2	500 ml	HDPE	114,50

Chloride IC Standard Solution
ROTI®Star 1 000 mg/l Cl^-

Chloride Standards

D ~1 g/cm³

WGK 1

Type analysis
c (Cl^-) as KCl in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2656.1	100 ml	HDPE	56,90
2656.2	500 ml	HDPE	114,50

Chlorite IC Standard Solution
ROTI®Star 1 000 mg/l ClO_2^-

Chlorite Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

WGK 1

Type analysis
c (ClO^{2-}) in 0.1 % NaOH ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
8172.1	100 ml	HDPE	56,90

Chromate IC Standard Solution
ROTI®Star 1 000 mg/l Cr^{6+}

Chromate Standards

D 1 g/cm³ · bp 100 °C

WGK 3

Danger H317-H334-H340-H350

Type analysis
c (Cr^{6+}) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2657.1	100 ml	HDPE	56,90
2657.2	500 ml	HDPE	114,50

Citrate IC Standard Solution
ROTI®Star 1 000 mg/l $C_3H_4(OH)(COO)_3^{3-}$

Citrate Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

WGK 1

Type analysis
c ($C_3H_4(OH)(COO)_3^{3-}$) in H_2O ..... 1000 mg/l

Traceable to SRM from BAM.

Art. No.	Pack Qty.	Pack.	€
8173.1	100 ml	HDPE	56,90
8173.2	500 ml	HDPE	114,50

Cyanide IC Standard Solution
ROTI®Star 1 000 mg/l CN^-

Cyanide Standards

D 0,99 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 2

Warning H290-H412-EUH032

Type analysis
c (CN^-) in 0,1 % KOH ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2658.1	100 ml	HDPE	56,90
2658.2	500 ml	HDPE	114,50

Cyanide IC Standard Solution
ROTI®Star 4 000 mg/l CN^-

Cyanide Standards

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 3

Warning H290-H302+H312-H412-EUH032

Type analysis
c (CN^-) in 0,1 % KOH ..... 4000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1L7A.1	100 ml	HDPE	198,90
1L7A.2	250 ml	HDPE	267,70
1L7A.3	500 ml	HDPE	396,70

Fluoride IC Standard Solution
ROTI®Star 1 000 mg/l F^-

Fluoride-Standards

D 0,99 g/cm³ · bp 100 °C

WGK 1

Type analysis
c (F^-) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2659.1	100 ml	HDPE	56,90
2659.2	500 ml	HDPE	114,50

Formate IC Standard Solution
ROTI®Star 1 000 mg/l $HCOO^-$

Formate Standards

D 1 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis
c ($HCOO^-$) in H_2O ..... 1000 mg/l

Traceable to SRM from BAM.

Art. No.	Pack Qty.	Pack.	€
1999.1	100 ml	HDPE	56,90
1999.2	500 ml	HDPE	114,50

Iodate IC Standard Solution
ROTI®Star 1 000 mg/l IO_3^-

Iodate Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

WGK 1

Type analysis
c (IO_3^-) in H_2O ..... 1000 mg/l

Traceable to SRM from BAM.

Art. No.	Pack Qty.	Pack.	€
8174.1	100 ml	HDPE	56,90
8174.2	500 ml	HDPE	114,50

Iodide IC Standard Solution
ROTI®Star 1 000 mg/l I^-

Iodide Standards

D 0,999 g/cm³ · bp 100 °C

WGK 1

Type analysis
c (I^-) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2660.1	100 ml	HDPE	56,90
2660.2	500 ml	HDPE	114,50

Lactate IC Standard Solution
ROTI®Star 1 000 mg/l $C_2H_4(OH)COO^-$

Lactate Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

WGK 1

Type analysis
c ($C_2H_4(OH)COO^-$) in H_2O ..... 1000 mg/l

Traceable to SRM from BAM.

Art. No.	Pack Qty.	Pack.	€
8176.1	100 ml	HDPE	56,90
8176.2	500 ml	HDPE	114,50

Maleate IC Standard Solution
ROTI®Star 1 000 mg/l $C_2H_2(COO)_2^{2-}$

Maleate Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

WGK 1

Type analysis
c ($C_2H_2(COO)_2^{2-}$) in H_2O ..... 1000 mg/l

Traceable to SRM from BAM.

Art. No.	Pack Qty.	Pack.	€
8181.1	100 ml	HDPE	56,90
8181.2	500 ml	HDPE	114,50

Nitrate IC Standard Solution
ROTI®Star 1 000 mg/l NO_3^-

Nitrate Standards

D ~1 g/cm³

WGK 1

Type analysis
c (NO_3^-) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2661.1	100 ml	HDPE	56,90
2661.2	500 ml	HDPE	114,50

Nitrite IC Standard Solution
ROTI®Star 1 000 mg/l NO_2^-

Nitrite Standards

D 0,998 g/cm³ · bp 100 °C

WGK 1

Type analysis
c (NO_2^-) in H_2O ..... 1000 mg/l

Traceable to SRM from BAM.

Art. No.	Pack Qty.	Pack.	€
2664.1	100 ml	HDPE	56,90
2664.2	500 ml	HDPE	114,50

Oxalate IC Standard Solution
ROTI®Star 1 000 mg/l $C_2O_4^{2-}$

Oxalate Standards

D 0,996 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis
c ($C_2O_4^{2-}$) in H_2O ..... 1000 mg/l

Traceable to SRM from BAM.

Art. No.	Pack Qty.	Pack.	€
2008.1	100 ml	HDPE	56,90
2008.2	500 ml	HDPE	114,50

Perchlorate IC Standard Solution
ROTI®Star 1 000 mg/l ClO_4^-

Perchlorate Standards

D 1 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis
c (ClO_4^-) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
8186.1	100 ml	HDPE	56,90
8186.2	500 ml	HDPE	114,50

Phosphate IC Standard Solution
ROTI®Star 1 000 mg/l PO_4^{3-}

Phosphate Standards

D 1 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis
c (PO_4^{3-}) as $NH_4H_2PO_4$ in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2665.1	100 ml	HDPE	56,90
2665.2	500 ml	HDPE	114,50

Propionate IC Standard Solution
ROTI®Star 1 000 mg/l $C_2H_5COO^-$

Propionate Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

WGK 1

Type analysis
c ($C_2H_5COO^-$) in H_2O ..... 1000 mg/l

Traceable to SRM from BAM.

Art. No.	Pack Qty.	Pack.	€
8183.1	100 ml	HDPE	56,90
8183.2	500 ml	glass	114,50

Succinate IC Standard Solution
ROTI®Star 1 000 mg/l $C_2H_4(COO)_2^{2-}$

Succinate Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

WGK 1

Type analysis
c ($C_2H_4(COO)_2^{2-}$) in H_2O ..... 1000 mg/l

Traceable to SRM from BAM.

Art. No.	Pack Qty.	Pack.	€
8187.1	100 ml	HDPE	56,90
8187.2	500 ml	glass	114,50

Sulphate IC Standard Solution
ROTI®Star 1 000 mg/l SO_4^{2-}

Sulphate Standards

D ~1 g/cm³

WGK 1

Type analysis
c (SO_4^{2-}) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2666.1	100 ml	HDPE	56,90
2666.2	500 ml	HDPE	114,50

Sulphite IC Standard Solution
ROTI®Star 1 000 mg/l S^{4+}

Sulphite Standards

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

Type analysis
c (S^{4+}) in H_2O ..... 1000 mg/l

Traceable to SRM from BAM.

Art. No.	Pack Qty.	Pack.	€
8192.1	100 ml	HDPE	56,90
8192.2	500 ml	HDPE	114,50

Tartrate IC Standard Solution
ROTI®Star 1 000 mg/l $C_2H_4O_2(COO)_2^{2-}$

Tartrate Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

WGK 1

Type analysis
c ($C_2H_4O_2(COO)_2^{2-}$) in H_2O ..... 1000 mg/l

Traceable to SRM from BAM.

Art. No.	Pack Qty.	Pack.	€
8201.1	100 ml	HDPE	53,25
8201.2	500 ml	HDPE	114,50

Thiocyanate IC Standard Solution
ROTI®Star 1 000 mg/l SCN^-

Thiocyanate Standards

D ~1 g/cm³

WGK 1

Type analysis
c (SCN^-) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
8205.1	100 ml	HDPE	56,90
8205.2	500 ml	HDPE	114,50

Thiosulphate IC Standard Solution
ROTI®Star 1 000 mg/l $S_2O_3^{2-}$

Thiosulphate Standards

D 1 g/cm³ · mp 0 °C · bp 100 °C

Type analysis
c ($S_2O_3^{2-}$) in 0,1 % *n*-pentanol ..... 1000 mg/l

Traceable to SRM from BAM.

Art. No.	Pack Qty.	Pack.	€
8207.1	100 ml	glass	56,90
8207.2	500 ml	glass	114,50

Cationic Standards for IC (Ion Chromatography): 1000 mg/l

Ammonium IC Standard Solution
ROTI®Star 1 000 mg/l NH_4^+

Ammonium Standards

D 0,997 g/cm³

WGK 1

Type analysis
c (NH_4^+) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2654.1	100 ml	HDPE	56,45
2654.2	500 ml	HDPE	114,50

Barium IC Standard Solution
ROTI®Star 1 000 mg/l Ba^{2+}

Barium Standards

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

WGK 1

Type analysis
c (Ba^{2+}) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
8167.1	100 ml	HDPE	56,90
8167.2	500 ml	HDPE	114,50

Caesium IC Standard Solution
ROTI®Star 1 000 mg/l Cs^+

Caesium Standards · Cesium Standards

D ~1 g/cm³

WGK 1

Type analysis
c (Cs^+) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
8166.1	100 ml	HDPE	56,90

Calcium IC Standard Solution
ROTI®Star 1 000 mg/l Ca^{2+}

Calcium Standards

D ~1 g/cm³

WGK 1

Type analysis
c (Ca^{2+}) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1986.1	100 ml	HDPE	56,90
1986.2	500 ml	HDPE	114,50

Lithium IC Standard Solution
ROTI®Star 1 000 mg/l Li^+

Lithium Standards

D 1,01 g/cm³ · mp 0 °C · bp 100 °C

Type analysis
c (Li^+) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
8158.1	100 ml	HDPE	56,90
8158.2	500 ml	HDPE	114,50

Magnesium IC Standard Solution
ROTI®Star 1 000 mg/l Mg^{2+}

Magnesium Standards

D ~1 g/cm³

WGK 1

Type analysis
c (Mg^{2+}) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1987.1	100 ml	HDPE	56,90
1987.2	500 ml	HDPE	114,50

Potassium IC Standard Solution
ROTI®Star 1 000 mg/l K^+

Potassium Standards

D ~1 g/cm³

WGK 1

Type analysis
c (K^+) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1985.1	100 ml	HDPE	56,90
1985.2	500 ml	HDPE	114,50

Sodium IC Standard Solution
ROTI®Star 1 000 mg/l Na^+

Sodium Standards

D ~1 g/cm³

WGK 1

Type analysis
c (Na^+) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1984.1	100 ml	HDPE	56,90
1984.2	500 ml	HDPE	114,50

Strontium IC Standard Solution
ROTI®Star 1 000 mg/l Sr^{2+}

Strontium Standards

D ~1 g/cm³

WGK 1

Type analysis
c (Sr^{2+}) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1988.1	100 ml	HDPE	56,90
1988.2	500 ml	HDPE	114,50

Ion Multi-Element Standards for IC (Ion Chromatography)

IC standards

Anion Multi-Element Standard I (IC, 3 anions, 1000 mg/l)
ROTI®Star 3 anions (Cl^-, NO_3^-, SO_4^{2-}), in water

D 1 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis
Chloride (Cl^-) ..... 1000 mg/l
Nitrate (NO_3^-) ..... 1000 mg/l
Sulphate (SO_4^{2-}) ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2026.1	100 ml	HDPE	170,95
2026.2	500 ml	HDPE	332,20

Anion Multi-Element Standard II (IC, 3 anions, 1000 mg/l)
ROTI®Star 3 anions (F^-, Br^-, PO_4^{3-}), in water

D 1 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis
Fluoride (F^-) ..... 1000 mg/l
Bromide (Br^-) ..... 1000 mg/l
Phosphate (PO_4^{3-}) ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2029.1	100 ml	HDPE	181,70
2029.2	500 ml	HDPE	360,15

Anion Multi-Element Standard (IC, 6 anions, 10 mg/l)
ROTI®Star 6 anions (F^-, Cl^-, Br^-, NO_3^-, PO_4^{3-}, SO_4^{2-}), in water

D 1 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis
Fluoride (F^-) ..... 10 mg/l
Chloride (Cl^-) ..... 10 mg/l
Bromide (Br^-) ..... 10 mg/l
Nitrate (NO_3^-) ..... 10 mg/l
Phosphate (PO_4^{3-}) ..... 10 mg/l
Sulphate (SO_4^{2-}) ..... 10 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2030.1	100 ml	HDPE	160,20
2030.2	500 ml	HDPE	282,20

Anion Multi-Element Standard (IC, 7 anions, concentration in mg/l)
ROTI®Star 7 anions (F^-, Cl^-, NO_2^-, Br^-, NO_3^-, PO_4^{3-}, SO_4^{2-}), in water

D 0,997 g/cm³ · mp ~0 °C · bp ~100 °C

WGK 1

Type analysis
Chloride (Cl^-) ..... 10 mg/l
Bromide (Br^-) ..... 25 mg/l
Fluoride (F^-) ..... 5 mg/l
Nitrate (NO_3^-) ..... 25 mg/l
Nitrite (NO_2^-) ..... 15 mg/l
Phosphate (PO_4^{3-}) ..... 40 mg/l
Sulphate (SO_4^{2-}) ..... 30 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2668.1	100 ml	HDPE	106,45
2668.2	500 ml	HDPE	209,65

Cation Multi-Element Standard (IC, 4 cations, 10 mg/l)

ROTI®Star 4 cations (Na^+, K^+, Mg^{2+}, Ca^{2+}), in water

D 1 g/cm³ · mp 0 °C · bp 100 °C

WGK 1

Type analysis

Sodium (Na^+) ..... 10 mg/l
Potassium (K^+) ..... 10 mg/l
Magnesium (Mg^{2+}) ..... 10 mg/l
Calcium (Ca^{2+}) ..... 10 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2032.1	100 ml	HDPE	130,65
2032.2	500 ml	HDPE	240,30

Cation Multi-Element Standard (IC, 6 cations, concentration in mg/l)

ROTI®Star 6 cations (NH_4^+, Ca^{2+}, K^+, Li^+, Mg^{2+}, Na^+), in 0,1 % nitric acid

D 1 g/cm³ · mp 0 °C · bp 100 °C

WGK 3

Type analysis

Ammonium (NH_4^+) ..... 40 mg/l
Calcium (Ca^{2+}) ..... 40 mg/l
Potassium (K^+) ..... 20 mg/l
Lithium (Li^+) ..... 10 mg/l
Magnesium (Mg^{2+}) ..... 20 mg/l
Sodium (Na^+) ..... 20 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
2669.1	100 ml	HDPE	103,10
2669.2	500 ml	HDPE	205,90

Redox Standards

Redox Standard
ROTI®Calipure 124 mV (25 °C)

D 1,07 g/cm³ · bp 100 °C

WGK 2

EUH032

Type analysis

Redox potential (25 °C) ..... 119-129 mV

Art. No.	Pack Qty.	Pack.	€
1C5X.1	500 ml	plastic	102,70

Redox Standard
ROTI®Calipure 200 mV (25 °C)

D 1,07 g/cm³ · bp 100 °C

WGK 2

EUH032

Type analysis

Redox potential (25 °C) ..... 195-205 mV

Art. No.	Pack Qty.	Pack.	€
1C5Y.1	500 ml	plastic	102,70

Redox Standard
ROTI®Calipure 220 mV (25 °C)

D 1,034 g/cm³ · mp 0 °C · bp 100 °C

WGK 2

EUH032

Type analysis

Redox potential (25 °C) ..... 215-225 mV

Art. No.	Pack Qty.	Pack.	€
1C60.1	500 ml	plastic	102,70

Redox Standard
ROTI®Calipure 250 mV (25 °C)

D 1,048 g/cm³ · bp 100 °C

WGK 2

EUH032

Type analysis

Redox potential (25 °C) ..... 245-255 mV

Art. No.	Pack Qty.	Pack.	€
1C61.1	500 ml	plastic	102,70

Redox Standard
ROTI®Calipure 300 mV (25 °C)

D 1,042 g/cm³ · mp 0 °C · bp 100 °C

WGK 2

EUH032

Type analysis

Redox potential (25 °C) ..... 295-305 mV

Art. No.	Pack Qty.	Pack.	€
1C62.1	500 ml	plastic	102,70

Redox Standard
ROTI®Calipure 358 mV (25 °C)

D 1,029 g/cm³ · mp 0 °C · bp 100 °C

WGK 2

EUH032

Type analysis

Redox potential (25 °C) ..... 353-363 mV

Art. No.	Pack Qty.	Pack.	€
1C63.1	500 ml	plastic	102,70

Redox Standard
ROTI®Calipure 400 mV (25 °C)

D 1,113 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 II · WGK 1

Danger H290-H315-H317-H318

Type analysis

Redox potential (25 °C) ..... 395-405 mV

Art. No.	Pack Qty.	Pack.	€
1C64.1	500 ml	plastic	102,70

Redox Standard
ROTI®Calipure 440 mV (25 °C)

D 1,134 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 II · WGK 1

Danger H290-H315-H317-H318

Type analysis

Redox potential (25 °C) ..... 435-445 mV

Art. No.	Pack Qty.	Pack.	€
1C65.1	500 ml	plastic	102,70

Redox Standard
ROTI®Calipure 465 mV (25 °C)

D 1,134 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 II · WGK 1

Danger H290-H315-H317-H318

Type analysis

Redox potential (25 °C) ..... 460-470 mV

Art. No.	Pack Qty.	Pack.	€
1C66.1	500 ml	plastic	102,70

Redox Standard
ROTI®Calipure 468 mV (25 °C)

D 1,134 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 II · WGK 1

Danger H290-H315-H317-H318

Type analysis

Redox potential (25 °C) ..... 463-473 mV

Art. No.	Pack Qty.	Pack.	€
1C67.1	500 ml	plastic	142,45

Redox Standard
ROTI®Calipure 475 mV (25 °C)

D 1,134 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 II · WGK 1

Danger H290-H315-H317-H318

Type analysis

Redox potential (25 °C) ..... 470-480 mV

Art. No.	Pack Qty.	Pack.	€
1C68.1	500 ml	plastic	102,70

Redox Standard
ROTI®Calipure 600 mV (25 °C)

D 1,157 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 II · WGK 1

Danger H290-H315-H317-H318

Type analysis

Redox potential (25 °C) ..... 595-605 mV

Art. No.	Pack Qty.	Pack.	€
1C69.1	500 ml	plastic	102,70

Redox Standard
ROTI®Calipure 650 mV (25 °C)

D 1,157 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 II · WGK 1

Danger H290-H315-H317-H318

Type analysis

Redox potential (25 °C) ..... 645-655 mV

Art. No.	Pack Qty.	Pack.	€
1C6A.1	500 ml	plastic	102,70

Standards for Viscosimetry

Standard for Viscosity S3
ROTI®Calipure 4,5 cSt (20 °C)

D 0,798 to 0,813 g/cm³ · bp 200 °C

WGK 1

Danger H304-EUH066

Type analysis
Kinematic viscosity (20 °C) ..... 4,0-5,0 cSt
Dynamic viscosity (20 °C) ..... 3,24-3,96 cP
Density (20 °C) ..... 0,738-0,902 g/ml

Art. No.	Pack Qty.	Pack.	€
3385.1	500 ml	glass	182,25

Standard for Viscosity S6
ROTI®Calipure 10 cSt (20 °C)

D 0,81 to 0,83 g/cm³ · mp -15 °C · bp 240 °C

WGK 1

Danger H304-EUH066

Type analysis
Kinematic viscosity (20 °C) ..... 9-11 cSt
Dynamic viscosity (20 °C) ..... 7,8-9,6 cP
Density (20 °C) ..... 0,756-0,924 g/ml

Art. No.	Pack Qty.	Pack.	€
3387.1	500 ml	glass	182,25

Standard for Viscosity N10
ROTI®Calipure 22 cSt (20 °C)

D 0,81 to 0,894 g/cm³ · mp ≥-60 to ≤-9 °C · flp >112 °C

WGK 1

Type analysis
Kinematic viscosity (20 °C) ..... 19,8-24,2 cSt
Dynamic viscosity (20 °C) ..... 16,2-19,8 cP
Density (20 °C) ..... 0,756-0,924 g/ml

Art. No.	Pack Qty.	Pack.	€
3342.1	500 ml	glass	182,25

Standard for Viscosity S20
ROTI®Calipure 43 cSt (20 °C)

D 0,81 to 0,894 g/cm³ · mp ≥-60 to ≤-9 °C · flp >112 °C

WGK 1

Type analysis
Kinematic viscosity (20 °C) ..... 38,7-47,3 cSt
Dynamic viscosity (20 °C) ..... 32,4-39,6 cP
Density (20 °C) ..... 0,765-0,935 g/ml

Art. No.	Pack Qty.	Pack.	€
3360.1	500 ml	glass	182,25

Standard for Viscosity N35
ROTI®Calipure 88 cSt (20 °C)

D 0,81 to 0,894 g/cm³ · mp ≥-60 to ≤-9 °C · flp >112 °C

WGK 1

Type analysis
Kinematic viscosity (20 °C) ..... 80-96 cSt
Dynamic viscosity (20 °C) ..... 68,4-83,6 cP
Density (20 °C) ..... 0,783-0,957 g/ml

Art. No.	Pack Qty.	Pack.	€
3349.1	500 ml	glass	182,25

Standard for Viscosity S60
ROTI®Calipure 160 cSt (20 °C)

D 0,81 to 0,894 g/cm³ · mp ≥-60 to ≤-9 °C · flp >112 °C

WGK 1

Type analysis
Kinematic viscosity (20 °C) ..... 144-176 cSt
Dynamic viscosity (20 °C) ..... 126-156 cP
Density (20 °C) ..... 0,792-0,968 g/ml

Art. No.	Pack Qty.	Pack.	€
3388.1	500 ml	glass	182,25

Standard for Viscosity N75
ROTI®Calipure 210 cSt (20 °C)

D 0,82 to 0,83 g/cm³ · mp <-57 °C · bp 217 to 419 °C · flp 219 to 257 °C

WGK 1

Type analysis
Kinematic viscosity (20 °C) ..... 189-231 cSt
Dynamic viscosity (20 °C) ..... 153-187 cP
Density (20 °C) ..... 0,756-0,924 g/ml

Art. No.	Pack Qty.	Pack.	€
3356.1	500 ml	glass	182,25

Standard for Viscosity N100
ROTI®Calipure 320 cSt (20 °C)

D 0,8 to 0,85 g/cm³ · bp 202 °C

WGK 1

Warning H315

Type analysis
Kinematic viscosity (20 °C) ..... 288-352 cSt
Dynamic viscosity (20 °C) ..... 243-297 cP
Density (20 °C) ..... 0,792-0,968 g/ml

Art. No.	Pack Qty.	Pack.	€
3344.1	500 ml	glass	182,25

Standard for Viscosity S200
ROTI®Calipure 540 cSt (20 °C)

D 0,82 to 0,83 g/cm³ · mp <-57 °C · bp 217 to 419 °C · flp 219 to 257 °C

WGK 1

Type analysis
Kinematic viscosity (20 °C) ..... 486-594 cSt
Dynamic viscosity (20 °C) ..... 414-506 cP
Density (20 °C) ..... 0,756-0,924 g/ml

Art. No.	Pack Qty.	Pack.	€
3366.1	500 ml	glass	182,25

Standard for Viscosity N250
ROTI®Calipure 790 cSt (20 °C)

D 0,82 to 0,83 g/cm³ · mp <-57 °C · bp 217 to 419 °C · flp 219 to 257 °C

WGK 1

Type analysis
Kinematic viscosity (20 °C) ..... 710-870 cSt
Dynamic viscosity (20 °C) ..... 620-760 cP
Density (20 °C) ..... 0,756-0,924 g/ml

Art. No.	Pack Qty.	Pack.	€
3345.1	500 ml	glass	182,25

Stannic oxide
▸ Tin(IV) oxide see page 1370

Stannous chloride
▸ Tin(II) chloride dihydrate see page 1369

Starch from potatoes, soluble

Potato starch

$(C_6H_{10}O_5)_n$ · mp 256 to 258 °C
CAS No. 9005-84-9 · EC no. 232-686-4
WGK 1

Starch from potatoes, soluble
p.a., ACS

Guarantee analysis
Appearance ..... white powder
pH (2 % in H_2O, 25 °C) 5,0-7,0
Ash content ..... ≤0,4 %
Solubility ..... complies
Sensitivity ..... complies

Art. No.	Pack Qty.	Pack.	€
2045.1	100 g	plastic	28,95
2045.2	250 g	plastic	49,35
2045.3	1 kg	plastic	163,95
Original pack 6 x 1 kg			155,75/1 kg

Starch, soluble

$(C_6H_{10}O_5)_n$
CAS No. 65996-62-5 · EC no. 232-679-6
WGK 1

Starch
soluble

Oxidized corn starch

Type analysis
Appearance ..... white to yellowish powder
pH-value 5,5-7,5
Sulphated ash ..... ≤0,6 %
Moisture ..... ≤14 %
Sulphur dioxide (SO_2) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
4701.1	1 kg	plastic	30,65
Original pack 6 x 1 kg			29,12/1 kg
4701.2	5 kg	plastic	106,45

Starch

$(C_6H_{10}O_5)_n$ · mp 200 °C
CAS No. 9005-25-8 · EC no. 232-679-6
WGK 1

Starch from potatoes
extra pure

Potato starch

Type analysis
Appearance ..... white powder
pH-value 5,0-8,0
Moisture ..... ≤20 %
Sulphur dioxide (SO_2) ..... ≤0,002 %
Protein ..... ≤0,1 %
Ash ..... ≤0,4 %

Art. No.	Pack Qty.	Pack.	€
9441.1	1 kg	plastic	23,55
Original pack 6 x 1 kg			22,37/1 kg
9441.2	5 kg	plastic	81,60

Starch from corn
extra pure

Corn starch

Type analysis
Appearance ..... white, fine powder
pH-value 4,0-7,0
Loss on drying ..... ≤15 %
Sulphur dioxide (SO_2) ..... ≤0,005 %
Sulphated ash ..... ≤0,6 %
Oxidizing substances ..... ≤0,002 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
9444.1	1 kg	plastic	32,15
Original pack 6 x 1 kg			30,54/1 kg
9444.2	5 kg	plastic	118,15

Starch from rice
extra pure

Type analysis
Appearance ..... white powder
pH value 5,0-8,0
Loss on drying ..... ≤10,0 %
Sulphur dioxide (SO_2) ..... ≤0,005 %
Sulphated ash ..... ≤1,0 %
Oxidizing substances ..... ≤0,002 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
9368.1	1 kg	plastic	31,10
Original pack 6 x 1 kg			29,55/1 kg
9368.2	5 kg	plastic	113,45

Starch from wheat
extra pure

Wheat starch

Type analysis
Appearance ..... white to yellowish powder
pH-value 6,0-7,0
Moisture ..... ≤13 %
Sulphur dioxide (SO_2) ..... ≤0,001 %
Protein ..... ≤0,35 %
Fat ..... ≤0,1 %
Ash ..... ≤0,25 %

Art. No.	Pack Qty.	Pack.	€
9447.1	1 kg	plastic	32,15
Original pack 6 x 1 kg			30,54/1 kg
9447.2	5 kg	plastic	118,15

Starch 1 % indicator solution

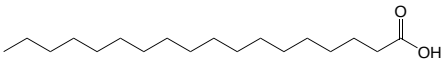
$(C_6H_{10}O_5)_n$ · D 1 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

Starch indicator solution
1 % in water, stabilised

Art. No.	Pack Qty.	Pack.	€
T133.1	500 ml	plastic	31,75
T133.2	1 l	plastic	51,50
Original pack 6 x 1 l			48,93/1 l

Starch gum
▸ Dextrin see page 870

Stearic acid



Carboxylic acid C18 · Octadecanoic acid

$C_{18}H_{36}O_2$ · D 0,87 g/cm³ · mp 66 to 69 °C · bp 370 °C · flp 196 °C
CAS No. 57-11-4 · EC no. 200-313-4

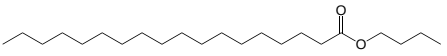
Stearic acid
≥98 %

Storage temperature: +15 to +25 °C

Type analysis
Assay (GC) ..... ≥98 %
Acid value ..... 194-199 mg KOH/g
Melting point ..... 66-69 °C

Art. No.	Pack Qty.	Pack.	€
9459.1	1 kg	plastic	34,30
Original pack 6 x 1 kg			32,59/1 kg
9459.2	5 kg	plastic	138,70

Stearic acid butyl ester



Butyl stearate · Butyl octadecanoate

$C_{22}H_{44}O_2$ · D 0,86 g/cm³
CAS No. 123-95-5 · EC no. 204-666-5
WGK 1

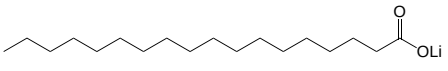
Stearic acid butyl ester
for synthesis

Mixture of butyl stearate and butyl palmitate.

Type analysis
Assay (GC) ..... ≥50 %
Density (d 20 °C/4 °C) 0,850-0,865
Refractive index (20 °C) 1,432-1,442

Art. No.	Pack Qty.	Pack.	€
8150.2	100 ml	glass	17,10
8150.1	1 l	glass	52,15
Original pack 6 x 1 l			49,54/1 l
8150.3	2.5 l	glass	100,55
Original pack 4 x 2.5 l			95,52/2.5 l

Stearic acid lithium salt



Lithium stearate · Lithium octadecanoate

$C_{18}H_{35}LiO_2$ · mp 200 to 216 °C
CAS No. 68783-37-9 · EC no. 272-195-2
WGK 1

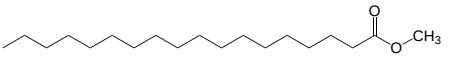
Stearic acid lithium salt
for biochemistry

Mélange de sels de lithium d'acide palmitique, margarique et stéarique.

Type analysis
Appearance ..... white powder
Melting range ..... 190-210 °C
Moisture ..... ≤0,5 %
Metal content ..... 2,2-2,5 %
Free fatty acid ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
8238.1	500 g	plastic	34,30
Original pack 6 x 500 g			32,59/500 g

Stearic acid methyl ester



Methyl stearate · Methyl octadecanoate

$C_{19}H_{38}O_2$
CAS No. 112-61-8 · EC no. 203-990-4
WGK 1

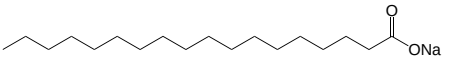
Stearic acid methyl ester
for synthesis

Type analysis
Saponification value (mg KOH/g) ..... 190-195 mg KOH/g
Acid value (mg KOH/g) ..... ≤1 mg KOH/g
Iodine value (g I_2/ 100 g) ..... ≤0,5

Mixture of methyl stearate, methyl palmitate and methyl myristate.

Art. No.	Pack Qty.	Pack.	€
4704.1	5 g	glass	42,90
4704.2	25 g	glass	91,30
4704.3	50 g	glass	127,95

Stearic acid sodium salt



Sodium stearate · Sodium octadecanoate

$C_{18}H_{35}NaO_2$ · mp >200 °C
CAS No. 822-16-2 · EC no. 212-490-5
WGK 1

Stearic acid sodium salt
≥88 %, for biochemistry

Type analysis
Appearance ..... white to light yellowish powder
Assay (GC) ..... ≥88 %
Humidity ..... ≤2,5 %
Free NaOH ..... 0,05-0,2 %

Art. No.	Pack Qty.	Pack.	€
8628.1	1 kg	plastic	51,50
Original pack 6 x 1 kg			48,93/1 kg

Stearic acid zinc salt
▸ Zinc stearate see page 1415

Stearic oil

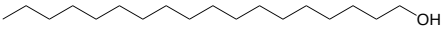
D 0,91 g/cm³ · bp >230 °C · flp >180 °C
WGK 1

Stearic oil
technical

Type analysis
Appearance ..... pale yellow oil
Acid value (mg KOH/g) 196-204
Iodine value (g I_2/ 100 g) 110-120
Oleic acid ..... 56-66 %
Linoleic acid ..... 18-25 %
Linolenic acid ..... 6-10 %

Art. No.	Pack Qty.	Pack.	€
9460.1	1 l	glass	37,55
Original pack 6 x 1 l			35,67/1 l

Stearyl alcohol



1-Octadecanol

$C_{18}H_{38}O$ · D 0,805 to 0,815 g/cm³ · mp 56 to 58 °C · bp 335 °C · flp 195 °C
CAS No. 112-92-5 · EC no. 204-017-6

Stearyl alcohol
≥95 %

Type analysis

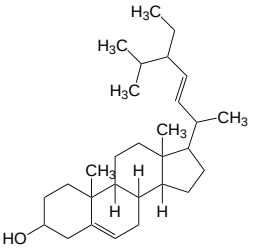
Assay	≥95 %
Acid value	≤0,1
Saponification value	≤1
Iodine value	≤0,7
Hydroxyl value	200-210
Solidification range	55-59 °C
C-16	0-4 %
C-20	0-3 %

Art. No.	Pack Qty.	Pack.	€
8663.2	500 g	plastic	32,15
Original pack 6 x 500 g			30,54/500 g
8663.1	1 kg	plastic	53,65
Original pack 6 x 1 kg			50,97/1 kg

Steel wool

▸ Iron wool see page 1016

Stigmasterol



$C_{29}H_{48}O$ · mp 165 to 167 °C
CAS No. 83-48-7 · EC no. 201-482-7
WGK 1

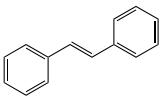
Stigmasterol
≥90 %

Type analysis

Appearance	white powder
Assay	≥90 %

Art. No.	Pack Qty.	Pack.	€
9468.1	1 g	glass	32,15

trans-Stilbene



trans-1,2-Diphenylethylene

$C_{14}H_{12}$ · D 1,14 g/cm³ · mp 121 to 124 °C · bp 306 to 307 °C · flp >110 °C
CAS No. 103-30-0 · EC no. 203-098-5
UN no. 3077 · ADR 9 III · WGK 3

Warning H302-H319-H410

trans-Stilbene
≥97 %

Type analysis

Assay (HPLC)	≥97,0 %
Solution (1 % in acetone)	colourless
Water (KF)	≤0,5 %
Melting point	123-125 °C

Art. No.	Pack Qty.	Pack.	€
5246.1	50 g	plastic	82,25
5246.2	100 g	plastic	149,45

Storage solution for pH-electrodes

▸ Potassium chloride solution see page 1170
▸ Potassium chloride solution (3 N) with AgCl see page 1170

STPP

▸ penta-Sodium triphosphate see page 1298

Streptavidin

bp >999 °C
CAS No. 9013-20-1
WGK 1

Streptavidin
≥15 U/mg, lyophilized

Recombinant from *Streptomyces avidinii*, expressed in *E. coli*

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis

Activity	≥15 U/mg

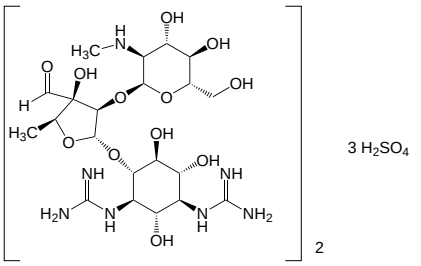
Activity: one unit (U) is defined as the amount of streptavidin that binds one microgram of D-biotin at pH 7.0.

Art. No.	Pack Qty.	Pack.	€
6073.1	1 mg	plastic	96,65
6073.2	5 mg	plastic	241,90
6073.3	10 mg	plastic	424,65

Streptavidin Agarose-Beads

▸ ROTI®Garose-Streptavidin Beads see page 1225

Streptomycin sulphate



Streptomycin sulphate

$C_{42}H_{84}N_{14}O_{36}S_3$
CAS No. 3810-74-0 · EC no. 223-286-0
WGK 1

Warning H302-H361d

Streptomycin sulphate
CELLPURE® ≥720 I.U./mg

Bacteriostatic antibiotic. For cell culture and biochemistry.

Stock solution: 10–50 mg/ml in H_2O
Storage of stock solution: –20 °C
Working concentration: 10–100 µg/ml

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis

Assay	≥720 I.E./mg
pH value (25 % in H_2O)	4,5-7,0
Sulphate (SO_4)	18,0-21,5 %
Sulphated ash	≤1,0 %
Loss on drying	≤7,0 %
Streptomycin B	≤3,0 %
Colorimetric test	≥90 %
Endotoxins	≤0,25 I.E./mg

Art. No.	Pack Qty.	Pack.	€
HP66.1	10 g	glass	34,30
HP66.2	25 g	glass	53,65
HP66.3	50 g	glass	85,90

Streptomycin sulphate
>720 I.U./mg, for biochemistry

Bacteriostatic antibiotic

Stock solution: 10–50 mg/ml in H_2O.
Storage of stock solution: –20 °C.
Working concentration: 10–100 µg/ml.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis

Assay	>720 I.U./mg
pH value (25 % in H_2O)	4,5-7,0
Sulphate (SO_4)	18,0-21,5 %
Sulphated ash	<1,0 %
Loss on drying	<7,0 %

Art. No.	Pack Qty.	Pack.	€
0236.1	10 g	glass	24,65
0236.2	25 g	glass	40,75
0236.3	50 g	glass	65,50

Streptothricine

▸ Nourseothricin see page 1115

Stripping Buffer

▸ ROTI®Free Stripping Buffer see page 1223

Strontium Standards

- Strontium ICP Standard Solution see page 1323
- Strontium IC Standard Solution see page 1336
- Strontium AAS Standard Solution see page 1323
- Strontium ICP Standard Solution see page 1323

Strontium acetate hemihydrate

$C_4H_6O_4Sr \cdot ½\ H_2O$ · D 2,099 g/cm³ · mp 310,3 to 313,6 °C
CAS No. 543-94-2 · EC no. 208-854-8
WGK 1

Strontium acetate hemihydrate
≥98 %, extra pure

Type analysis
Assay ..... ≥98,0 %
pH value (5 % in H_2O) 7,0-9,0
Chloride (Cl) ..... ≤0,05 %
Lead (Pb) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,5 %
Iron (Fe) ..... ≤0,005 %
Loss on drying (105 °C, 2 h) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
9513.1	100 g	plastic	28,50
9513.2	500 g	plastic	78,40
Original pack 6 x 500 g			74,48/500 g
9513.3	1 kg	plastic	127,95
Original pack 6 x 1 kg			121,55/1 kg

Strontium acetate hydrate

$C_4H_6SrO_4 + x\ H_2O$ · D 2,099 g/cm³ · mp 310,3 to 313,6 °C
CAS No. 543-94-2 · EC no. 208-854-8
WGK 1

Strontium acetate hydrate
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L69.1	1 g	HDPE	45,05
1L69.2	10 g	HDPE	169,35

Strontium carbonate

$SrCO_3$ · D 3,7 g/cm³ · mp 1200 °C
CAS No. 1633-05-2 · EC no. 216-643-7

Strontium carbonate
ROTI®METIC 99,998 % (4N8)

Type analysis
Assay (metals basis) ..... 99,998 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5376.1	5 g	plastic	68,30
5376.2	25 g	plastic	176,85

Strontium carbonate
technical

Type analysis
Assay ($SrCO_3$/$BaCO_3$) ..... ≥98,0 %
Barium oxide(BaO) ..... ≤2,0 %
Total sulphur (as SO_3) ..... ≤0,5 %
Water ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
1HH8.1	500 g	plastic	23,55
Original pack 6 x 500 g			22,37/500 g
1HH8.2	1 kg	plastic	40,75
Original pack 6 x 1 kg			38,71/1 kg
1HH8.3	2.5 kg	plastic	75,15

Strontium chloride hexahydrate

$SrCl_2 \cdot 6\ H_2O$ · D 1,93 g/cm³ · mp 61 °C · bp 1250 °C
CAS No. 10025-70-4 · EC no. 233-971-6
WGK 1

Danger H318

Strontium chloride hexahydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L5H.1	5 g	HDPE	103,75
1L5H.2	25 g	HDPE	340,25

Strontium chloride hexahydrate
≥99 %, p.a.

For the preparation of further strontium compounds.

Guarantee analysis
Assay ..... ≥99 %
pH-value (5 %, 20 °C) 5-7
Heavy metals (as Pb) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,01 %
Barium (Ba) ..... ≤0,02 %
Calcium (Ca) ..... ≤0,05 %
Iron (Fe) ..... ≤0,001 %
Sodium (Na) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
4473.1	100 g	plastic	29,60
4473.2	500 g	plastic	79,45
Original pack 6 x 500 g			75,48/500 g
4473.3	1 kg	plastic	140,30
Original pack 6 x 1 kg			133,29/1 kg

Strontium nitrate

$Sr(NO_3)_2$ · D 2,986 g/cm³ · mp 570 °C · bp 645 °C
CAS No. 10042-76-9 · EC no. 233-131-9
UN no. 1507 · ADR 5.1 III · WGK 1

Danger H271-H318

Strontium nitrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5078.1	25 g	plastic	205,90

Strontium nitrate
≥99 %, p.a., ACS

Pyrotechnics, signal lights, manufacturing of matches

Guarantee analysis
Assay (compl.) ..... ≥99 %
pH (5 % in H_2O) 5,0-7,0
In H_2O insoluble matter ..... ≤0,01 %
Loss on drying (105 °C) ..... ≤0,1 %
Chloride (Cl) ..... ≤0,002 %
Sulphate (SO_4) ..... ≤0,005 %
Barium (Ba) ..... ≤0,05 %
Calcium (Ca) ..... ≤0,05 %
Iron (Fe) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,1 %
Magnesium (Mg) ..... ≤0,1 %
Heavy metals (as Pb) ..... ≤0,0005 %

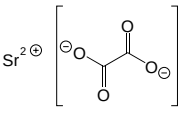
Art. No.	Pack Qty.	Pack.	€
4413.1	100 g	plastic	33,25
4413.2	250 g	plastic	64,40
4413.3	500 g	plastic	117,20
Original pack 6 x 500 g			111,34/500 g

Strontium nitrate
≥98 %, extra pure

Type analysis
Assay (compl.) ..... ≥98 %
Loss on drying (105 °C) ..... ≤0,5 %
Iron (Fe) ..... ≤0,001 %
Sodium (Na) ..... ≤0,1 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
2732.1	100 g	plastic	30,00
2732.2	500 g	plastic	53,65
Original pack 6 x 500 g			50,97/500 g
2732.3	1 kg	plastic	96,65
Original pack 6 x 1 kg			91,82/1 kg

Strontium oxalate monohydrate



Oxalic acid strontium salt

$SrC_2O_4 \cdot H_2O$
CAS No. 814-95-9 · EC no. 212-415-6
WGK 1

Warning H302+H312

Strontium oxalate monohydrate
≥95 %, pure

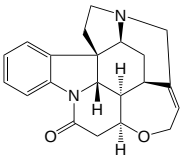
Type analysis
Assay ..... ≥95,0 %
Fe (Iron) ..... ≤0,1 %
Loss on drying (200 °C) ..... ≤10,0 %

Art. No.	Pack Qty.	Pack.	€
1EHX.1	100 g	plastic	23,55
1EHX.2	500 g	plastic	46,15
Original pack 6 x 500 g			43,84/500 g
1EHX.3	1 kg	plastic	78,40
Original pack 6 x 1 kg			74,48/1 kg
1EHX.4	2.5 kg	plastic	181,70

Strychnidin-10-one

▸ Strychnine see page 1342

Strychnine



Strychnidin-10-one

$C_{21}H_{22}N_2O_2$ · D 1,36 g/cm³ · mp 286 to 288 °C
CAS No. 57-24-9 · EC no. 200-319-7
UN no. 1692 · ADR 6.1 I · WGK 3

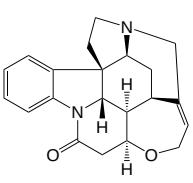
Danger H300+H310-H410

Strychnine
ROTICHROM® CHR ≥95 %, for biochemistry

Type analysis
Assay (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
4843.1	10 g	plastic	21,40

Strychnine hydrochloride



$C_{21}H_{22}N_2O_2$ · HCl
CAS No. 1421-86-9 · EC no. 215-826-9
UN no. 1692 · ADR 6.1 I · WGK 3

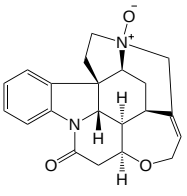
Danger H300+H310+H330-H410

Strychnine hydrochloride
for biochemistry

Type analysis
Appearance ..... white to off-white powder

Art. No.	Pack Qty.	Pack.	€
4845.1	10 g	plastic	24,65

Strychnine *N*-oxide



Aminoxystrychnine

$C_{21}H_{22}N_2O_3$ · mp 207 to 208 °C
CAS No. 7248-28-4 · EC no. 230-656-5
UN no. 1692 · ADR 6.1 I · WGK 3

Danger H300+H330-H410

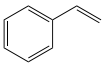
Strychnine *N*-oxide
ROTICHROM® ~CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
4277.1	500 mg	glass	59,05

Stylophorin

▸ Chelidonine see page 828

Styrene



Phenylethylene · Styrol · Vinyl benzene

C_8H_8 · D 0,9 g/cm³ · mp -31 °C · bp 145 °C · flp 31 °C
CAS No. 100-42-5 · EC no. 202-851-5
UN no. 2055 · ADR 3 III · WGK 2

Danger H226-H304-H315-H319-H332-H361d-H372-H412

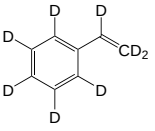
Styrene
≥99,5 %, for synthesis, stabilised

Type analysis
Assay (GC) ..... ≥99,5 %
Polymer content ..... ≤0,001 %
Refractive index (20 °C) 1,543-1,548

stabilised with max. 10–15 ppm 4-*tert*-Butylcatechol (TBC).

Art. No.	Pack Qty.	Pack.	€
2641.7	100 ml	glass	13,45
2641.1	500 ml	glass	25,70
2641.2	1 l	glass	38,60
Original pack 6 x 1 l			36,67/1 l
2641.3	2.5 l	glass	72,60
Original pack 4 x 2.5 l			68,97/2.5 l

Styrene D8



C_8D_8 · D 0,98 g/cm³ · mp -31 °C · bp 145 °C · flp 31 °C
CAS No. 19361-62-7 · EC no. 242-995-6
UN no. 2055 · ADR 3 III · WGK 3

Danger H226-H304-H315-H319-H332-H361d-H372-H412

Styrene D8
99 Atom%D, stabilised with 4-*tert*-butylcatechol

For nuclear magnetic resonance spectroscopy.

Storage temperature: +4 °C

Type analysis
Deuterising degree ..... ≥99 %
Water (KF, H_2O+D_2O) ..... ≤0,05 %
4-tert. Butylcatechol (mass %) ..... 0,5 %

Art. No.	Pack Qty.	Pack.	€
9921.1	1 g	glass ampoule	157,50

Styrene D8 in methanol

D 0,8 g/cm³ · mp -98 °C · bp 65 °C
UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H370

Styrene D8
100 µg/ml in methanol

Storage temperature: +4 °C

Assay ..... 100 µg/ml

Art. No.	Pack Qty.	Pack.	€
1LKY.1	1 ml	glass ampoule	114,50

Styrol

▸ Styrene see page 1342

Substrates

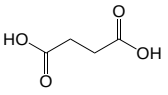
Art. No.	Description	Page
4001	Acetylthiocholine iodide	703
A155	5-Bromo-4-chloro-3-indolyl phosphate disodium salt	788
6368	5-Bromo-4-chloro-3-indolyl phosphate *p*-toluidine salt	788
4149	5-Bromo-4-chloro-3-indoxyl-*N*-acetyl-β-D-glucosaminide	788
4152	5-Bromo-4-chloro-3-indoxyl-β-D-cellobioside	788
8434	5-Bromo-4-chloro-3-indoxyl-α-D-glucopyranoside	788
8452	2-Butyrylthiocholine iodide	801
4148	L-Carnosine	818
4251	6-Chloro-3-indoxyl-β-D-galactopyranoside	832
4057	6-Chloro-3-indoxyl-β-D-glucuronic acid cyclohexylammonium salt	832
4247	6-Chloro-3-indoxyl phosphate *p*-toluidine salt	833
4104	4-Chloro-1-naphthol	833
4094	Coelenterazine	843
8459	Creatine phosphate disodium salt tetrahydrate	853
CN75	3,3'-Diaminobenzidine tetrahydrochloride	871
8432	8-Hydroxyquinoline-β-D-glucuronic acid, sodium salt	1001
4243	3-Indoxyl-β-D-glucopyranoside	1009
CN24	D-Luciferin	1050
4096	D-Luciferin sodium salt	1050
4203	Luminol	1050
7708	Luminol sodium salt hemihydrate	1051
4083	4-Methylumbelliferyl-*N*-acetyl-β-D-galactosaminide	1090
4084	4-Methylumbelliferyl-β-D-galactopyranoside	1090
4086	4-Methylumbelliferyl-α-D-glucopyranoside	1090
4093	4-Methylumbelliferyl-β-D-glucopyranoside	1090
6394	4-Methylumbelliferyl-β-D-glucuronide dihydrate	1091
4103	4-Methylumbelliferyl phosphate	1091
4058	4-Nitrophenyl-*N*-acetyl-β-D-galactosaminide	1112
4062	4-Nitrophenyl-*N*-acetyl-β-D-glucosaminide	1112
4018	4-Nitrophenyl-α-L-fucopyranoside	1112
CN22	2-Nitrophenyl-β-D-galactopyranoside	1112

Art. No.	Description	Page
4063	4-Nitrophenyl-α-D-galacto-pyranoside	1112
4081	4-Nitrophenyl-β-D-galacto-pyranoside	1113
4077	2-Nitrophenyl-β-D-gluco-pyranoside	1113
4082	4-Nitrophenyl-β-D-gluco-pyranoside	1113
4165	4-Nitrophenyl phosphate disodium salt hexahydrate	1113
4079	4-Nitrophenyl-β-D-xyloside	1114
4421	*p*-Nitrotetrazolium blue chloride	1114
8397	Phosphoenolpyruvic acid, trisodium salt heptahydrate	1155
9202	ROTI®DAB Kit	1215
1117	ROTI®Fair pNPP 5mg	1221
1128	ROTI®Fair pNPP 20mg	1221
P078	ROTI®Lumin	1230
6350	3,3',5,5'-Tetramethylbenzidine	1362
4107	3,3',5,5'-Tetramethylbenzidine dihydrochloride	1363
HN36	X-α-Gal	1405
2315	X-β-Gal	1406
4041	X-Glu	1406
0018	X-Gluc	1406

Succinate Standards

▸ Succinate IC Standard Solution see page 1335

Succinic acid



Butanedioic acid · Amber acid

$C_4H_6O_4$ · D 1,564 g/cm³ · mp 185 to 191 °C · bp 235 °C · flp 206 °C
CAS No. 110-15-6 · EC no. 203-740-4
WGK 1

Danger H318

Succinic acid
≥99 %, p.a., ACS

Guarantee analysis
Assay ..... ≥99,0 %
In H_2O insoluble matter ..... ≤0,01 %
Melting point ..... 185-191 °C
Ash content ..... ≤0,02 %
Solubility (10 g in 150 ml H_2O) ..... clear and complete
Chloride (Cl) ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,003 %
Total nitrogen (as N) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %

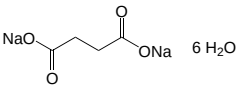
Art. No.	Pack Qty.	Pack.	€
2725.1	250 g	plastic	36,05
2725.2	500 g	plastic	51,50
Original pack 6 x 500 g			48,93/500 g
2725.3	1 kg	plastic	93,45
Original pack 6 x 1 kg			88,78/1 kg

Succinic acid
≥99 %, extra pure

Type analysis
Appearance .. white to almost white cryst. powder
Assay ..... ≥99,0 %
Melting point ..... 185-191 °C
Sulphate (SO_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,01 %
Iron (Fe) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
8268.1	250 g	plastic	28,95
8268.2	1 kg	plastic	69,80
Original pack 6 x 1 kg			66,31/1 kg

Succinic acid disodium salt hexahydrate



Sodium succinate

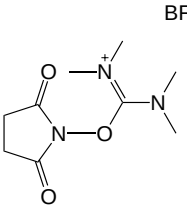
$C_4H_4O_4Na_2$ · 6 H_2O · mp 120 °C
CAS No. 6106-21-4 · EC no. 205-778-7
WGK 1

Succinic acid disodium salt hexahydrate
≥98 %, for biochemistry

Type analysis
Assay (dry substance) ..... ≥98,0 %
Loss on drying (130 °C, 2h) ..... 37,0 - 41,0 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,1 %
Iron (Fe) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
3195.1	100 g	plastic	24,65
3195.2	500 g	plastic	56,45
Original pack 6 x 500 g			53,63/500 g
3195.3	1 kg	plastic	101,60
Original pack 6 x 1 kg			96,52/1 kg
3195.4	2.5 kg	plastic	198,90
3195.5	10 kg	plastic	633,20

O-(*N*-Succinimidyl)-*N*,*N*,*N*',*N*'-tetramethyluronium tetrafluoroborate (TSTU)



TSTU

$C_9H_{16}BF_4N_3O_3$ · mp 196 to 200 °C
CAS No. 105832-38-0
WGK 1

Warning H315-H319-H335

O-(*N*-Succinimidyl)-*N*,*N*,*N*',*N*'-tetramethyluronium tetrafluoroborate (TSTU)
PEPTIPURE® ≥99 %

Coupling reagent for peptide synthesis

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥99,0 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
2130.1	5 g	glass	81,60
2130.2	25 g	glass	342,95

D-Sucrose

▸ D(+)-Saccharose see page 1248

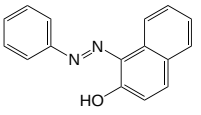
Sucrose epichlorhydrin copolymer

▸ Polysucrose 400 see page 1165

Sucrose polymer

▸ Polysucrose 400 see page 1165

Sudan I



Solvent yellow 14 · 1-Phenylazo-2-naphthol

$C_{16}H_{12}N_2O$ · D 0,319 g/cm³ · mp 157,1 to 162,3 °C · bp >265 °C · flp >290 °C
CAS No. 842-07-9 · EC no. 212-668-2
WGK 2

Warning H317-H341-H351-H413

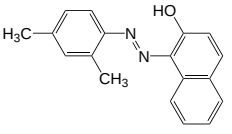
Sudan I (C. I. 12055)
extra pure

Fat-soluble azo dye

Type analysis
Appearance ..... orange red to brown powder
1. Absorption max. (C_2H_5OH) ..... 410-425 nm
2. Absorption max. (C_2H_5OH) ..... 470-485 nm

Art. No.	Pack Qty.	Pack.	€
1H5Y.1	25 g	glass	23,15
1H5Y.2	100 g	glass	52,15

Sudan II (C. I. 12140)



Solvent orange 7

$C_{18}H_{16}N_2O$ · D 0,47 g/cm³ · mp 156 to 158 °C · bp 300 °C · flp 213,6 °C
CAS No. 3118-97-6
WGK 1

Warning H315-H319-H335

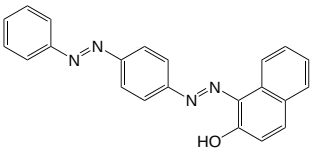
Sudan II (C. I. 12140)
for microscopy

Orange, lipo-soluble azo dye, used for detection of lipids in tissue sections.

Type analysis
Appearance ..... orange red powder
Appearance of solution (1 % in $CHCl_3$) . orange to red

Art. No.	Pack Qty.	Pack.	€
7732.1	5 g	glass	18,85
7732.2	25 g	glass	33,25
7732.3	100 g	glass	80,55

Sudan III (C. I. 26100)



Solvent red 23 · Sudan red B

$C_{22}H_{16}N_4O$ · mp 195 to 199 °C
CAS No. 85-86-9 · EC no. 201-638-4
WGK 1

Sudan III (C. I. 26100)
for microscopy

Type analysis
Appearance ..... dark-red, brownish powder
Dye content ..... ≥75,0 %

Art. No.	Pack Qty.	Pack.	€
4711.2	50 g	glass	31,75
4711.1	100 g	plastic	59,70

Sudan III solution

D 0,8 g/cm³ · bp 56,05 °C · flp >12 °C
UN no. 1993 · ADR 3 II · WGK 1

Danger H225-H319-H336-EUH066

Sudan III solution
saturated, in acetone and ethanol

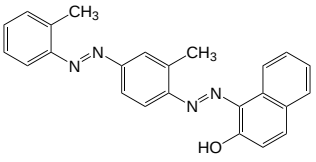
Fat-soluble azo dye

ready-to-use

Type analysis
Appearance ..... clear, red solution
Absorption max. (C_2H_5OH) ..... 506-513 nm

Art. No.	Pack Qty.	Pack.	€
1EE3.1	250 ml	glass	37,10

Sudan IV (C. I. 26105)



Solvent red 24 · Fatty ponceau · Scarlet red

$C_{24}H_{20}N_4O$ · D 1,331 g/cm³ · mp 183,5 °C · bp >238 °C · flp >289 °C
CAS No. 85-83-6 · EC no. 201-635-8
WGK 1

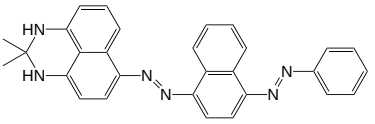
Warning H317

Sudan IV (C. I. 26105)
for microscopy

Type analysis
Appearance ..... dark-red powder
Maximum absorption ..... 519-523 nm

Art. No.	Pack Qty.	Pack.	€
0327.1	25 g	glass	28,95
0327.2	50 g	glass	43,55

Sudan black B (C. I. 26150)



Bold black · Neptune black

$C_{29}H_{24}N_6$ · mp 120 to 124 °C
CAS No. 4197-25-5 · EC no. 224-087-1
WGK 1

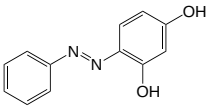
Warning H341

Sudan black B (C.I. 26150)
for microscopy

Type analysis
Absorption max. (C_2H_5OH) ..... 590-610 nm
Loss on drying (110 °C) ..... ≤5 %
Suitability for microscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
0292.1	10 g	glass	29,60
0292.2	25 g	glass	46,80
0292.3	50 g	glass	71,50

Sudan orange G (C. I. 11920)



Solvent orange 1

$C_{12}H_{10}N_2O_2$ · D 1,24 g/cm³ · mp 143 to 146 °C · bp 407,5 °C
CAS No. 2051-85-6
WGK 1

Warning H315-H319-H335

Sudan orange G (C. I. 11920)
for microscopy

Type analysis
Appearance ..... orange red powder

Art. No.	Pack Qty.	Pack.	€
7733.1	5 g	glass	18,85
7733.2	25 g	glass	33,25
7733.3	100 g	glass	80,55

Sudan red B
▸ Sudan III (C. I. 26100) see page 1344

Sudan red 5B
▸ Oil red O see page 1129

Sugar Determination

Art. No.	Description	Page
HN35	Adenosin-5'-triphosphate disodium salt (ATP)	708
2673	Anthrone	746
0010	Benedict's reagent	766
9944	Carrez solution I	818
9950	Carrez solution II	818
3958	Citric acid monohydrate	840
N055	Fehling's solution I	934
N056	Fehling's solution II	934
K024	Hydrochloric acid	992
2559	Lead(II) acetate, basic	1038
X874	Luff-Schoorl's solution	1050
P027	Magnesium sulphate heptahydrate	1060
AE13	NADP disodium salt	1098
K034	Phenolphthalein indicator solution	1150
P745	Potassium hexacyanoferrate(II) trihydrate	1173
6750	Potassium iodide	1178
8087	Potassium sodium tartrate tetrahydrate	1181
4088	tri-Sodium citrate dihydrate	1281
6885	Sodium hydrogen carbonate	1284
K020	Sodium hydroxide solution	1288
T135	Sodium hydroxide solution	1289
K022	Sodium thiosulphate solution	1298
T133	Starch indicator solution	1339
4804	Triethanolamine hydrochloride	1378
T172	Water, ROTIPURAN®	1401
K301	Zinc sulphate heptahydrate	1415

Sugar of lead
▸ Lead(II) acetate trihydrate see page 1038

Sulfan blue
▸ Patent blue VF see page 1138

Sulfobetaine-8
▸ *N*-Octyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate see page 1119

Sulfobetaine-10
▸ *N*-Decyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate see page 865

Sulfobetaine-12
▸ *N*-Dodecyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate see page 899

Sulfobetaine-14
▸ *N*-Tetradecyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate see page 1360

Sulfobetaine-16
▸ *N*-Hexadecyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate see page 981

Sulfur
▸ Sulphur see page 1346

Sulfurous acid

▸ Sulphurous acid see page 1350

Sulphamic acid



Amido sulphuric acid · Amido sulphonic acid · Amino sulfonic acid

H_3NO_3S · D 2,126 g/cm³ · mp 205 °C
CAS No. 5329-14-6 · EC no. 226-218-8
UN no. 2967 · ADR 8 III · WGK 1

Warning H315-H319-H412

Sulphamic acid
≥99,3 %, p.a., ACS

Standard titrimetric substance

Guarantee analysis

Assay (acidimetric, dry substance) ..... ≥99,3 %
In H_2O insoluble matter ..... ≤0,01 %
Ash content ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,05 %
Lead (Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,001 %
Nickel (Ni) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
P725.1	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
P725.2	1 kg	plastic	69,80
Original pack 6 x 1 kg			66,31/1 kg
P725.3	2.5 kg	plastic	123,65

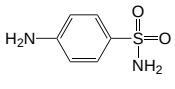
Sulphamic acid
≥99 %, cryst.

Type analysis

Assay ..... ≥99,0 %
Water ..... ≤0,1 %
Sulphate (SO_4) ..... ≤0,1 %
Iron (Fe) ..... ≤0,005 %
Heavy metals ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
4714.3	250 g	plastic	18,20
4714.1	1 kg	plastic	32,15
Original pack 6 x 1 kg			30,54/1 kg
4714.2	5 kg	plastic	138,70
4714.7	25 kg	plastic	467,65

Sulphanilamide



4-Aminobenzenesulphonamide · Sulphanilic acid amide

$C_6H_8N_2O_2S$ · D 1,08 g/cm³ · mp 163 to 167 °C
CAS No. 63-74-1 · EC no. 200-563-4
WGK 1

Sulphanilamide
≥99 %, for biochemistry

Type analysis

Assay ..... ≥99,0 %
Sulphated ash ..... ≤0,1 %
Heavy metals (as Pb) ..... ≤0,002 %
Loss on drying (105 °C) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
4716.1	100 g	plastic	39,25

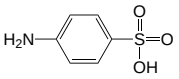
Sulphanilamide
ROTI®Calipure melting point standard 164–166 °C

Type analysis

Meniscus formation ..... 164-166 °C
Complete liquefaction ..... 164-166 °C
Measurement uncertainty ..... ±0,3 °C

Art. No.	Pack Qty.	Pack.	€
9734.1	1 g	glass	40,75

Sulphanilic acid



4-Aminobenzenesulphonic acid · *p*-Aniline-sulphonic acid

$C_6H_7NO_3S$ · D 1,48 to 1,49 g/cm³ · mp 285 to 290 °C
CAS No. 121-57-3 · EC no. 204-482-5
WGK 1

Warning H315-H317-H319

Sulphanilic acid
≥98 %, p.a., ACS

Guarantee analysis

Assay (acidim.) ..... 98,0-102,0 %
In Na_2CO_3 insoluble matter ..... ≤0,02 %
Ash content ..... ≤0,01 %
Chloride (Cl) ..... ≤0,002 %
Nitrite (NO_2) ..... ≤0,00005 %
Sulphate (SO_4) ..... ≤0,01 %
Lead (Pb) ..... ≤0,0005 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,001 %
Chromium (Cr) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,005 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,0005 %
Manganese (Mn) ..... ≤0,0005 %
Nickel (Ni) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,005 %
Zinc (Zn) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4496.1	100 g	plastic	41,40
4496.2	500 g	plastic	155,90
Original pack 6 x 500 g			148,11/500 g

Sulphanilic acid amide

▸ Sulphanilamide see page 1345

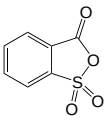
Sulphate Standards

▸ Sulphate IC Standard Solution see page 1335

Sulphite Standards

▸ Sulphite IC Standard Solution see page 1335

2-Sulphobenzoic acid anhydride



$C_7H_4O_4S$ · mp 116 to 122 °C · bp 184 °C
CAS No. 81-08-3 · EC no. 201-322-6
WGK 1

Warning H315-H319-H335

2-Sulphobenzoic acid anhydride
≥85 %, for biochemistry

Type analysis

Appearance ..... off-white to light brown cryst. powder
Assay (titr.) ..... 85,0-105,0 %
Appearance of solution (1 % in EtOH) colourless to light brown
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
8399.1	25 g	glass	56,45
8399.2	100 g	glass	160,20

o-Sulphobenzoic acid imide sodium salt

▸ *o*-Benzoic sulphimide sodium salt see page 769

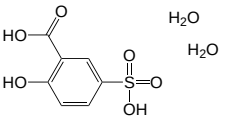
Sulphonic alizarin violet

▸ Pyrogallol red see page 1193

3,3'-Sulphonyldianiline

▸ 3,3'-Diaminodiphenyl sulphone see page 872

5-Sulphosalicylic acid dihydrate



5-Salicylsulphonic acid

$C_7H_6O_6S$ · 2 H_2O · mp 109 to 117 °C
CAS No. 5965-83-3 · EC no. 641-618-6
UN no. 2585 · ADR 8 III · WGK 1

Danger H302-H314

5-Sulphosalicylic acid dihydrate
≥99 %, for biochemistry

Dissolve 1.0–5.0 g in 100 ml water

Type analysis

Assay (acidim.) ..... ≥99,0 %
Loss on drying ..... ≤22,0 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤5,5 %

Art. No.	Pack Qty.	Pack.	€
4119.1	100 g	plastic	23,55
4119.2	500 g	plastic	66,55
Original pack 6 x 500 g			63,22/500 g
4119.7	1 kg	plastic	113,45
Original pack 6 x 1 kg			107,78/1 kg

Sulphur

Sulphur flowers · Flower of sulphur · Sulfur

S · D 2 to 2,1 g/cm³ · mp 112 to 119 °C · bp 440 to 450 °C · flp 218 °C
CAS No. 7704-34-9 · EC no. 231-722-6
UN no. 1350 · ADR 4.1 III · WGK 1

Warning H315

Sulphur
≥99,999 %

Type analysis
Appearance ..... yellow tablets
Assay ..... ≥99,999 %

Art. No.	Pack Qty.	Pack.	€
4669.1	10 g	plastic	80,10

Sulphur
≥99,5 %, ground

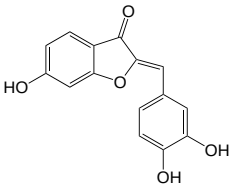
Type analysis
Assay ..... ≥99,5 %
CS_2-insoluble ..... ≤0,03 %
Ash ..... ≤0,01 %
Water ..... ≤0,01 %
Acid content (as H_2SO_4) ..... ≤0,01 %
Iron (Fe) ..... ≤0,001 %
Melting range ..... 114,5-119,3 °C

Art. No.	Pack Qty.	Pack.	€
9304.1	1 kg	plastic	22,50
Original pack 6 x 1 kg			21,38/1 kg
9304.2	5 kg	cardboard	70,85
9304.5	25 kg	plastic	203,20

Sulphur Standards

- Sulphur ICP Standard Solution see page 1323
- Sulphur ICP Standard Solution see page 1323

Sulphuretin



$C_{15}H_{10}O_5$ · mp 295 °C
CAS No. 120-05-8 · EC no. 204-366-4
WGK 1

Sulphuretin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7569.1	5 mg	glass	353,70

Sulphur flowers

- Sulphur see page 1346

Sulphuric acid

CAS No. 7664-93-9 · EC no. 231-639-5

Sulphuric acid Ultra-quality

Sulphuric acid
ROTIPURAN®Ultra 95 %

Extra highpure acid (ppt quality) for sample preparation in ultra trace analysis.

H_2SO_4 · D 1,84 g/cm³ · mp -15 °C · bp 295 to 315 °C

UN no. 1830 · ADR 8 II · WGK 1

Danger H290-H314

Guarantee analysis
Assay (w/w) ..... 93-98 %
Aluminium (Al) ..... ≤50 ppt
Antimony (Sb) ..... ≤50 ppt
Arsenic (As) ..... ≤500 ppt
Barium (Ba) ..... ≤10 ppt
Beryllium (Be) ..... ≤10 ppt
Lead (Pb) ..... ≤10 ppt
Cadmium (Cd) ..... ≤10 ppt
Cesium (Cs) ..... ≤10 ppt
Calcium (Ca) ..... ≤50 ppt
Cerium (Ce) ..... ≤10 ppt
Chromium (Cr) ..... ≤10 ppt
Dysprosium (Dy) ..... ≤10 ppt
Iron (Fe) ..... ≤50 ppt
Erbium (Er) ..... ≤10 ppt
Europium (Eu) ..... ≤10 ppt
Gadolinium (Gd) ..... ≤10 ppt
Gallium (Ga) ..... ≤10 ppt
Germanium (Ge) ..... ≤100 ppt
Hafnium (Hf) ..... ≤10 ppt
Holmium (Ho) ..... ≤10 ppt
Indium (In) ..... ≤10 ppt
Potassium (K) ..... ≤50 ppt
Cobalt (Co) ..... ≤10 ppt
Copper (Cu) ..... ≤10 ppt
Lanthanum (La) ..... ≤10 ppt
Lithium (Li) ..... ≤10 ppt
Lutetium (Lu) ..... ≤10 ppt
Magnesium (Mg) ..... ≤50 ppt
Manganese (Mn) ..... ≤10 ppt
Molybdenum (Mo) ..... ≤10 ppt
Sodium (Na) ..... ≤50 ppt
Neodymium (Nd) ..... ≤10 ppt
Nickel (Ni) ..... ≤50 ppt
Niobium (Nb) ..... ≤10 ppt
Praseodymium (Pr) ..... ≤10 ppt
Mercury (Hg) ..... ≤100 ppt
Rhodium (Rh) ..... ≤50 ppt
Rubidium (Rb) ..... ≤10 ppt
Samarium (Sm) ..... ≤10 ppt
Scandium (Sc) ..... ≤10 ppt
Selenium (Se) ..... ≤500 ppt
Silver (Ag) ..... ≤50 ppt
Strontium (Sr) ..... ≤10 ppt
Tellur (Te) ..... ≤50 ppt
Terbium (Tb) ..... ≤10 ppt
Thallium (Tl) ..... ≤10 ppt
Thorium (Th) ..... ≤10 ppt
Thulium (Tm) ..... ≤10 ppt
Titanium (Ti) ..... ≤50 ppt
Uranium (U) ..... ≤10 ppt
Vanadium (V) ..... ≤10 ppt
Bismuth (Bi) ..... ≤10 ppt
Tungsten (W) ..... ≤10 ppt
Ytterbium (Yb) ..... ≤10 ppt
Yttrium (Y) ..... ≤10 ppt
Zinc (Zn) ..... ≤50 ppt
Tin (Sn) ..... ≤50 ppt
Zirconium (Zr) ..... ≤10 ppt

Art. No.	Pack Qty.	Pack.	€
HN62.1	250 ml	plastic (FEP)	514,95
HN62.2	500 ml	plastic (FEP)	751,45
HN62.3	1 l	plastic (FEP)	1.245,95
Original pack 6 x 1 l			1.183,65/1 l
HN62.4	2 l	plastic (FEP)	2.133,90

Sulphuric acid Supra-quality

Sulphuric acid
ROTIPURAN®Supra 95 %

Highpure acid (ppb quality) for sample preparation in trace analysis (e.g. using ICP, AAS, Ion chromatography etc.).

H_2SO_4 · D 1,84 g/cm³ · mp -15 °C · bp 295 to 315 °C

UN no. 1830 · ADR 8 II · WGK 1

Danger H290-H314

Guarantee analysis
Assay (w/w) ..... 93-98 %
Colour (APHA) ..... ≤10
Chloride (Cl) ..... ≤0,00007 %
Total Phosphorous (P) ..... ≤0,000005 %
Nitrate (NO_3) ..... ≤0,00002 %
Aluminium (Al) ..... ≤1 ppb
Antimony (Sb) ..... ≤1 ppb
Arsenic (As) ..... ≤0,5 ppb
Barium (Ba) ..... ≤0,1 ppb
Beryllium (Be) ..... ≤0,1 ppb
Lead (Pb) ..... ≤0,1 ppb
Cadmium (Cd) ..... ≤0,5 ppb
Cesium (Cs) ..... ≤0,1 ppb
Calcium (Ca) ..... ≤1 ppb
Cerium (Ce) ..... ≤0,1 ppb
Chromium (Cr) ..... ≤0,5 ppb
Dysprosium (Dy) ..... ≤0,1 ppb
Iron (Fe) ..... ≤1 ppb
Erbium (Er) ..... ≤0,1 ppb
Europium (Eu) ..... ≤0,1 ppb
Gadolinium (Gd) ..... ≤0,1 ppb
Gallium (Ga) ..... ≤0,1 ppb
Germanium (Ge) ..... ≤1 ppb
Gold (Au) ..... ≤0,5 ppb
Hafnium (Hf) ..... ≤0,1 ppb
Holmium (Ho) ..... ≤0,1 ppb
Indium (In) ..... ≤0,1 ppb
Potassium (K) ..... ≤1 ppb
Cobalt (Co) ..... ≤0,5 ppb
Copper (Cu) ..... ≤0,5 ppb
Lanthanum (La) ..... ≤0,1 ppb
Lithium (Li) ..... ≤0,5 ppb
Lutetium (Lu) ..... ≤0,1 ppb
Magnesium (Mg) ..... ≤1 ppb
Manganese (Mn) ..... ≤0,5 ppb
Molybdenum (Mo) ..... ≤0,5 ppb
Sodium (Na) ..... ≤1 ppb
Neodymium (Nd) ..... ≤0,1 ppb
Nickel (Ni) ..... ≤0,5 ppb
Niobium (Nb) ..... ≤0,1 ppb
Praseodymium (Pr) ..... ≤0,1 ppb
Mercury (Hg) ..... ≤0,1 ppb
Rhodium (Rh) ..... ≤0,5 ppb
Rubidium (Rb) ..... ≤0,5 ppb
Samarium (Sm) ..... ≤0,1 ppb
Scandium (Sc) ..... ≤0,1 ppb
Selenium (Se) ..... ≤10 ppb
Silver (Ag) ..... ≤1 ppb
Strontium (Sr) ..... ≤0,5 ppb
Tellur (Te) ..... ≤0,1 ppb
Terbium (Tb) ..... ≤0,1 ppb
Thallium (Tl) ..... ≤0,1 ppb
Thorium (Th) ..... ≤0,1 ppb
Thulium (Tm) ..... ≤0,1 ppb
Titanium (Ti) ..... ≤1 ppb
Uranium (U) ..... ≤0,1 ppb
Vanadium (V) ..... ≤0,5 ppb

Bismuth (Bi) ..... ≤0,1 ppb
Tungsten (W) ..... ≤0,5 ppb
Ytterbium (Yb) ..... ≤0,1 ppb
Yttrium (Y) ..... ≤0,1 ppb
Zinc (Zn) ..... ≤1 ppb
Tin (Sn) ..... ≤1 ppb
Zirconium (Zr) ..... ≤0,5 ppb
$KMnO_4$ reducing substances ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
HN52.1	500 ml	HDPE	103,75
HN52.2	1 l	HDPE	166,65
Original pack 6 x 1 l			158,32/1 l
HN52.5	2.5 l	HDPE	213,95
Original pack 4 x 2.5 l			203,25/2.5 l

Sulphuric acid 98 %

Sulphuric acid
ROTIPURAN® 98 %, for nitrogen determination

For determination of nitrogen acc. to Kjehldahl.

H_2SO_4 · D 1,84 g/cm³ · mp -15 °C · bp 295 to 315 °C

UN no. 1830 · ADR 8 II · WGK 1

Danger H290-H314

Guarantee analysis
Assay (titr.) ..... 97 - 99 %
Ash content ..... ≤0,0005 %
Total nitrogen (N) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
X945.1	1 l	glass	40,35
Original pack 6 x 1 l			38,33/1 l
X945.2	2.5 l	glass	82,25
Original pack 4 x 2.5 l			78,14/2.5 l

Sulphuric acid 95-98 %

Sulphuric acid
ROTIPURAN® 95–98 %, p.a., ISO, max. 0,005 ppm Hg

Dissolving agent for organic and anorganic samples. For determination of mercury.

H_2SO_4 · D 1,84 g/cm³ · mp -15 °C · bp 295 to 315 °C

UN no. 1830 · ADR 8 II · WGK 1

Danger H290-H314

Guarantee analysis
Assay (acidim.) ..... 95,0-98,0 %
Colour (Hazen) ..... ≤10
Chloride (Cl) ..... ≤0,00001 %
Nitrate (NO_3) ..... ≤0,00002 %
Phosphate (PO_4) ..... ≤0,0005 %
Ammonium (NH_4) ..... ≤0,0002 %
Mercury (Hg) ..... ≤0,0000005 %
Silver (Ag) ..... ≤0,000002 %
Aluminium (Al) ..... ≤0,000005 %
Arsenic (As) ..... ≤0,000001 %
Calcium (Ca) ..... ≤0,00002 %
Cadmium (Cd) ..... ≤0,000002 %
Cobalt (Co) ..... ≤0,000002 %
Chromium (Cr) ..... ≤0,000005 %
Copper (Cu) ..... ≤0,000001 %
Iron (Fe) ..... ≤0,00001 %
Potassium (K) ..... ≤0,00001 %
Lithium (Li) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,000005 %
Manganese (Mn) ..... ≤0,000001 %
Sodium (Na) ..... ≤0,00005 %
Nickel (Ni) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,000002 %
Strontium (Sr) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,000005 %
Ash content ..... ≤0,0005 %
$KMNO_4$ reducing matter (as SO_2) ..... ≤0,0002 %

Art. No.	Pack Qty.	Pack.	€
X944.1	1 l	glass	46,15
Original pack 6 x 1 l			43,84/1 l
X944.2	2.5 l	glass	85,90
Original pack 4 x 2.5 l			81,61/2.5 l
X944.3	10 l	plastic	218,80
X944.4	25 l	plastic	424,65

Sulphuric acid 96 %

Sulphuric acid
96 %, VLSI Grade

Semiconductor grade

H_2SO_4 · D 1,84 g/cm³ · mp -15 °C · bp 295 to 315 °C

UN no. 1830 · ADR 8 II · WGK 1

Danger H290-H314

Guarantee analysis
Assay ..... 95-97 %
Bead number (≥0,5 µm) ..... ≤250 p/ml
Colour (APHA) ..... ≤10
Ammonium (NH_4) ..... ≤0,0002 %
Chloride (Cl) ..... ≤0,00001 %
Nitrate (NO_3) ..... ≤0,00002 %
Phosphate (PO_4) ..... ≤0,00005 %
$KMnO_4$ reducing substances ..... ≤0,0001 %
Ash content (as SO_4) ..... ≤0,0003 %
Aluminium (Al) ..... ≤50 ppb
Antimony (Sb) ..... ≤10 ppb
Arsenic (As) ..... ≤10 ppb
Barium (Ba) ..... ≤10 ppb
Beryllium (Be) ..... ≤10 ppb
Bismuth (Bi) ..... ≤20 ppb
Lead (Pb) ..... ≤10 ppb
Boron (B) ..... ≤20 ppb
Cadmium (Cd) ..... ≤10 ppb
Calcium (Ca) ..... ≤50 ppb
Chromium (Cr) ..... ≤10 ppb
Iron (Fe) ..... ≤50 ppb
Gallium (Ga) ..... ≤10 ppb
Gold (Au) ..... ≤10 ppb
Potassium (K) ..... ≤50 ppb
Cobalt (Co) ..... ≤10 ppb
Copper (Cu) ..... ≤10 ppb
Lithium (Li) ..... ≤10 ppb
Magnesium (Mg) ..... ≤20 ppb
Manganese (Mn) ..... ≤10 ppb
Molybdenum (Mo) ..... ≤10 ppb
Sodium (Na) ..... ≤50 ppb
Nickel (Ni) ..... ≤10 ppb
Silver (Ag) ..... ≤10 ppb
Strontium (Sr) ..... ≤20 ppb
Titanium (Ti) ..... ≤20 ppb
Vanadium (V) ..... ≤10 ppb
Zinc (Zn) ..... ≤20 ppb
Tin (Sn) ..... ≤20 ppb
Zirconium (Zr) ..... ≤10 ppb

Art. No.	Pack Qty.	Pack.	€
9789.1	2.5 l	plastic	101,60
Original pack 4 x 2.5 l			96,52/2.5 l

Sulphuric acid
ROTIPURAN® 96 %, p.a., ISO

H_2SO_4 · D 1,84 g/cm³ · mp -15 °C · bp 295 to 315 °C

UN no. 1830 · ADR 8 II · WGK 1

Danger H290-H314

Guarantee analysis
Assay (acidim.) ..... ≥95 %
Colour (APHA) ..... ≤10
Chloride (Cl) ..... ≤0,00002 %
Nitrate (NO_3) ..... ≤0,00002 %
Phosphate (PO_4) ..... ≤0,00005 %
Ammonium (NH_4) ..... ≤0,0002 %
Silver (Ag) ..... ≤0,000002 %
Aluminium (Al) ..... ≤0,000005 %
Arsenic (As) ..... ≤0,000001 %
Beryllium (Be) ..... ≤0,000002 %
Calcium (Ca) ..... ≤0,00002 %
Cadmium (Cd) ..... ≤0,000002 %
Cobalt (Co) ..... ≤0,000002 %
Chromium (Cr) ..... ≤0,000005 %
Copper (Cu) ..... ≤0,000001 %
Iron (Fe) ..... ≤0,00001 %
Potassium (K) ..... ≤0,00001 %
Lithium (Li) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,000005 %
Manganese (Mn) ..... ≤0,000001 %
Sodium (Na) ..... ≤0,00005 %
Nickel (Ni) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,000002 %
Strontium (Sr) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,000005 %
Ash content ..... ≤0,0005 %
$KMnO_4$ reducing substances ..... ≤0,0002 %

Art. No.	Pack Qty.	Pack.	€
4623.3	250 ml	glass	24,20
4623.1	1 l	glass	40,75
Original pack 6 x 1 l			38,71/1 l
4623.4	1 l	plastic	38,60
Original pack 6 x 1 l			36,67/1 l
4623.2	2.5 l	glass	83,75
Original pack 4 x 2.5 l			79,56/2.5 l
4623.5	2.5 l	plastic	85,90
Original pack 4 x 2.5 l			81,61/2.5 l
4623.6	10 l	plastic	163,95

Sulphuric acid
95–98 %, Ph. Eur.

H_2SO_4 · D 1,84 g/cm³ · mp -15 °C · bp 295 to 315 °C

UN no. 1830 · ADR 8 II · WGK 1

Danger H290-H314

Guarantee analysis
Assay (acidim.) ..... 95,0-98,0 %
Identity ..... complies
Appearance of solution ..... complies
Chloride (Cl) ..... ≤0,005 %
Nitrate (NO_3) ..... complies
Ammonium (NH_4) ..... ≤0,001 %
Ash content ..... ≤0,002 %
Arsenic (As) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,0025 %

Art. No.	Pack Qty.	Pack.	€
2609.1	1 l	glass	37,10
Original pack 6 x 1 l			35,25/1 l
2609.2	2.5 l	glass	63,45
Original pack 4 x 2.5 l			60,28/2.5 l
2609.3	10 l	plastic	150,00
2609.4	25 l	plastic	306,40

Sulphuric acid
96 %, pure

H_2SO_4 · D 1,84 g/cm³ · mp -15 °C · bp 295 to 315 °C

UN no. 1830 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Assay ..... 95,0-97,0 %
Density (20 °C) 1,834-1,836
Iron (Fe) ..... ≤0,01 %
Lead (Pb) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
9316.1	1 l	glass	32,80
Original pack 6 x 1 l			31,16/1 l
9316.2	2.5 l	glass	53,25
Original pack 4 x 2.5 l			50,59/2.5 l
9316.3	10 l	plastic	94,50
9316.4	25 l	plastic	177,40

Sulphuric acid
96 %, technical

H_2SO_4 · D 1,84 g/cm³ · mp -15 °C · bp 295 to 315 °C

UN no. 1830 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Assay ..... 95,0-97,0 %
Density (20 °C) 1,834-1,836

Remark: Product may contain particles.

Art. No.	Pack Qty.	Pack.	€
0971.1	1 l	plastic	21,40
Original pack 6 x 1 l			20,33/1 l
0971.2	2.5 l	plastic	35,40
Original pack 4 x 2.5 l			33,63/2.5 l
0971.3	10 l	plastic	71,95
0971.4	25 l	plastic	149,45

Sulphuric acid for determination of viscosity

Sulphuric acid
96 %, for viscosity determination according to DIN EN ISO 307

H_2SO_4 · D 1,84 g/cm³ · mp -15 °C · bp 295 to 315 °C

UN no. 1830 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Assay (titr.) ..... 95,85-96,15 %

Art. No.	Pack Qty.	Pack.	€
4363.5	500 ml	glass	34,95
4363.1	1 l	glass	58,60
Original pack 6 x 1 l			55,67/1 l
4363.2	2.5 l	glass	116,65
Original pack 4 x 2.5 l			110,82/2.5 l

Sulphuric acid 90-91 %

Sulphuric acid
ROTIPURAN® 90–91 %, for fat determination

For determination of fat acc. to Gerber and determination of nitrates in milk.

H_2SO_4 · D 1,81 g/cm³ · mp -15 °C · bp 295 to 315 °C

UN no. 1830 · ADR 8 II · WGK 1

Danger H290-H314

Guarantee analysis
Assay ..... 90,15-91,35 %
Nitrate (NO_3) ..... ≤0,0002 %
Density ..... 1,8150-1,8210 g/ml

Art. No.	Pack Qty.	Pack.	€
X946.1	1 l	plastic	28,95
Original pack 6 x 1 l			27,50/1 l
X946.2	2.5 l	plastic	54,30
Original pack 4 x 2.5 l			51,59/2.5 l

Sulphuric acid 75 %

Sulphuric acid
75 %, pure

H_2SO_4 · D 1,68 g/cm³ · mp -15 °C · bp 295 to 315 °C

UN no. 1830 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Assay ..... 74,0-76,0 %
Density (20 °C) 1,657-1,681
Iron (Fe) ..... ≤0,01 %
Lead (Pb) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4319.1	1 l	plastic	22,50
Original pack 6 x 1 l			21,38/1 l
4319.2	2.5 l	plastic	34,30
Original pack 4 x 2.5 l			32,59/2.5 l
4319.3	5 l	plastic	58,60
Original pack 2 x 5 l			55,67/5 l
4319.4	10 l	plastic	81,20
4319.5	25 l	plastic	155,90

Sulphuric acid 62 %

Sulphuric acid
ROTIPURAN® 62 %, p.a., for fat determination in cheese (d 1,52) according to van Gulik

H_2SO_4 · D 1,52 g/cm³ · mp -15 °C · bp 295 to 315 °C

UN no. 1830 · ADR 8 II · WGK 1

Danger H290-H314

Guarantee analysis
Assay ..... 61,5-62,5 %
Chloride (Cl) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %
Ash content ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
CN89.1	1 l	plastic	33,25
Original pack 6 x 1 l			31,59/1 l
CN89.2	2.5 l	plastic	55,40
Original pack 4 x 2.5 l			52,63/2.5 l
CN89.3	5 l	plastic	89,15
Original pack 2 x 5 l			84,69/5 l
CN89.4	10 l	plastic	148,90
CN89.5	25 l	plastic	319,85

Sulphuric acid 50 %

Sulphuric acid
50 %, pure

H_2SO_4 · D ~1,4 g/cm³

UN no. 2796 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Assay ..... 49,0-51,0 %
Density (20 °C) 1,3854-1,4049
Iron (Fe) ..... ≤0,01 %
Lead (Pb) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
4318.1	1 l	plastic	21,40
Original pack 6 x 1 l			20,33/1 l
4318.2	2.5 l	plastic	33,25
Original pack 4 x 2.5 l			31,59/2.5 l
4318.3	5 l	plastic	56,45
Original pack 2 x 5 l			53,63/5 l
4318.4	10 l	plastic	76,90

Sulphuric acid 40 %

Sulphuric acid
40 %, pure

H_2SO_4 · D ~1,3 g/cm³

UN no. 2796 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Assay ..... 39,0-41,0 %
Density (20 °C) 1,2941-1,3116
Iron (Fe) ..... ≤0,005 %
Lead (Pb) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
4316.1	1 l	plastic	21,00
Original pack 6 x 1 l			19,95/1 l
4316.2	2.5 l	plastic	31,75
Original pack 4 x 2.5 l			30,16/2.5 l
4316.5	5 l	plastic	50,45
Original pack 2 x 5 l			47,93/5 l
4316.3	10 l	plastic	71,95
4316.4	25 l	plastic	145,15

Sulphuric acid 37 %

Sulphuric acid
37 %, technical, battery acid, accumulator acid

H_2SO_4 · D ~1,28 g/cm³

UN no. 2796 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Assay ..... 36,0-39,1 %
Density (20 °C) 1,2650-1,2950

Art. No.	Pack Qty.	Pack.	€
4312.1	1 l	plastic	19,90
Original pack 6 x 1 l			18,91/1 l
4312.2	2.5 l	plastic	29,60
Original pack 4 x 2.5 l			28,12/2.5 l
4312.5	5 l	plastic	47,20
Original pack 2 x 5 l			44,84/5 l
4312.3	10 l	plastic	65,05
4312.4	25 l	plastic	128,90

Sulphuric acid 30 %

Sulphuric acid
30 %, pure

H_2SO_4 · D ~1,22 g/cm³

UN no. 2796 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Assay ..... 29,0-31,0 %
Density (20 °C) 1,210-1,227
Iron (Fe) ..... ≤0,002 %
Lead (Pb) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
X876.1	1 l	plastic	19,25
Original pack 6 x 1 l			18,29/1 l
X876.2	2.5 l	plastic	28,95
Original pack 4 x 2.5 l			27,50/2.5 l
X876.4	5 l	plastic	49,35
Original pack 2 x 5 l			46,88/5 l
X876.3	10 l	plastic	65,50
X876.5	25 l	plastic	117,75

Sulphuric acid 25 %

Sulphuric acid
25 %, extra pure

H_2SO_4 · D ~1,18 g/cm³

UN no. 2796 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis

Assay (H_2SO_4) ..... 24,0-26,0 %
Density (20 °C) 1,1704-1,1862
Calcium (Ca) ..... ≤0,0001 %
Iron (Fe) ..... ≤0,002 %
Lead (Pb) ..... ≤0,0001 %
Mercury (Hg) ..... ≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
0967.1	1 l	plastic	20,35
Original pack 6 x 1 l			19,33/1 l
0967.2	2.5 l	plastic	28,95
Original pack 4 x 2.5 l			27,50/2.5 l
0967.5	5 l	plastic	42,50
Original pack 2 x 5 l			40,38/5 l
0967.3	10 l	plastic	55,40
0967.4	25 l	plastic	96,25

Sulphuric acid 20 %

Sulphuric acid
20 %, pure

H_2SO_4 · D ~1,14 g/cm³

UN no. 2796 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis

Assay ..... 19,0-21,0 %
Density (20 °C) 1,1318-1,1471
Iron (Fe) ..... ≤0,002 %
Lead (Pb) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
4300.4	1 l	plastic	19,25
Original pack 6 x 1 l			18,29/1 l
4300.1	2.5 l	plastic	25,70
Original pack 4 x 2.5 l			24,42/2.5 l
4300.5	5 l	plastic	39,70
Original pack 2 x 5 l			37,72/5 l
4300.2	10 l	plastic	52,70
4300.3	25 l	plastic	94,10

Sulphuric acid 10 %

Sulphuric acid
10 %, pure

H_2SO_4 · D 1,06 g/cm³ · bp 100 °C

UN no. 2796 · ADR 8 II · WGK 1

Warning H290-H315-H319

Type analysis

Assay ..... 9,5-11,0 %
Density (20 °C) 1,062-1,073
Iron (Fe) ..... ≤0,002 %
Lead (Pb) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
3526.1	1 l	plastic	18,85
Original pack 6 x 1 l			17,91/1 l
3526.2	2.5 l	plastic	25,30
Original pack 4 x 2.5 l			24,04/2.5 l
3526.3	5 l	plastic	37,10
Original pack 2 x 5 l			35,25/5 l
3526.4	10 l	plastic	51,50
3526.5	25 l	plastic	89,80

Sulphuric acid 2 %

Sulphuric acid
2 %, pure

H_2SO_4 · D 1,014 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290

Type analysis

Assay ..... 2-2,5 %
Density (20 °C) ..... 1,0118-1,0151 g/cm³
Iron (Fe) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
2800.1	1 l	plastic	16,05
Original pack 6 x 1 l			15,25/1 l
2800.2	2.5 l	plastic	22,05
Original pack 4 x 2.5 l			20,95/2.5 l
2800.3	5 l	plastic	34,95
Original pack 2 x 5 l			33,20/5 l
2800.4	10 l	plastic	47,20
2800.5	25 l	plastic	82,70

Sulphuric acid (0.02 N)

Sulphuric acid
0,01 mol/l – 0,02 N, volumetric standard solution

H_2SO_4 · D 1,006 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290

Type analysis

Amount-of-substance conc. (20 °C) ..... 0,01 mol/l ±0,5 %
Titer ..... 0,995 - 1,005

Art. No.	Pack Qty.	Pack.	€
X872.1	1 l	plastic	39,70
Original pack 6 x 1 l			37,72/1 l

Sulphuric acid (0.1 N)

Sulphuric acid
0,05 mol/l – 0,1 N, volumetric standard solution

H_2SO_4 · D 1,014 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290

Type analysis

Amount-of-substance conc. (20 °C) ..... 0,05 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
K026.1	1 l	plastic	24,65
Original pack 6 x 1 l			23,42/1 l
K026.2	5 l	plastic	76,25
Original pack 2 x 5 l			72,44/5 l
K026.3	5 l	ROTI®CUBE	82,25
Original pack 2 x 5 l			78,14/5 l
K026.4	10 l	ROTI®CUBE	120,95
K026.7	25 l	plastic	198,90

Sulphuric acid
0,05 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.

H_2SO_4 · D 1,014 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290

Type analysis

Amount-of-substance conc. (20 °C) ..... 0,05 mol/l
Measurement uncertainty ..... ±0,1 %

Art. No.	Pack Qty.	Pack.	€
6793.1	1 l	plastic	31,75
Original pack 6 x 1 l			30,16/1 l

Sulphuric acid
ROTI®Volum 0,05 mol/l – 0,1 N, volumetric standard solution

Ampoule for preparation of 1000 ml volumetric solution.

H_2SO_4 · D 1,06 g/cm³ · bp 100 °C

UN no. 2796 · ADR 8 II · WGK 1

Warning H290-H315-H319

Type analysis

Amount-of-substance conc. (20 °C) .. 0,05 mol/l ± 0,2 %

Art. No.	Pack Qty.	Pack.	€
CN64.1	1 unit(s)	plastic ampoule	27,45

Sulphuric acid (0.2 N)

Sulphuric acid
0,1 mol/l – 0,2 N, volumetric standard solution

H_2SO_4 · D 1,014 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290

Type analysis

Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
N072.1	1 l	plastic	24,65
Original pack 6 x 1 l			23,42/1 l
N072.2	5 l	plastic	76,25
Original pack 2 x 5 l			72,44/5 l

Sulphuric acid (0.25 N)

Sulphuric acid
0,125 mol/l – 0,25 N, volumetric standard solution

H_2SO_4 · D 1,006 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290

Type analysis

Amount-of-substance conc. (20 °C) ... 0,125 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
1E2A.1	1 l	plastic	52,15
Original pack 6 x 1 l			49,54/1 l

Sulphuric acid (0.5 N)

Sulphuric acid
0,25 mol/l – 0,5 N, volumetric standard solution

H_2SO_4 · D 1,014 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,25 mol/l ±0,2 %
Titer ..... 0,9980 - 1,0020

Art. No.	Pack Qty.	Pack.	€
P709.1	1 l	plastic	24,65
Original pack 6 x 1 l			23,42/1 l
P709.2	5 l	ROTI®CUBE	82,25
Original pack 2 x 5 l			78,14/5 l
P709.3	10 l	ROTI®CUBE	120,95

Sulphuric acid (1 N)

Sulphuric acid
0,5 mol/l – 1 N, volumetric standard solution

H_2SO_4 · D 1,03 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,5 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
K027.1	1 l	plastic	24,65
Original pack 6 x 1 l			23,42/1 l
K027.2	5 l	plastic	76,25
Original pack 2 x 5 l			72,44/5 l
K027.3	5 l	ROTI®CUBE	82,25
Original pack 2 x 5 l			78,14/5 l
K027.4	10 l	ROTI®CUBE	120,95

Sulphuric acid
0,5 mol/l – 1 N, volumetric standard solution, Reag. Ph. Eur.

H_2SO_4 · D 1,03 g/cm³ · bp 100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,5 mol/l
Measurement uncertainty ..... ±0,1 %

Art. No.	Pack Qty.	Pack.	€
6794.1	1 l	plastic	31,75
Original pack 6 x 1 l			30,16/1 l

Sulphuric acid
ROTI®Volum 0,5 mol/l – 1 N, volumetric standard solution

Ampoule for preparation of 1000 ml volumetric solution.

H_2SO_4 · D 1,15 g/cm³

UN no. 2796 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,5 mol/l ±0,2 %

Art. No.	Pack Qty.	Pack.	€
CN65.1	1 unit(s)	plastic ampoule	28,95

Sulphuric acid (2 N)

Sulphuric acid
1 mol/l – 2 N, volumetric standard solution

H_2SO_4 · D 1,06 g/cm³ · bp 100 °C

UN no. 2796 · ADR 8 II · WGK 1

Warning H290-H315-H319

Type analysis
Amount-of-substance conc. (20 °C) ..... 1 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
X873.1	1 l	plastic	31,10
Original pack 6 x 1 l			29,55/1 l
X873.2	5 l	plastic	97,30
Original pack 2 x 5 l			92,44/5 l

Sulphuric acid (3 N)

Sulphuric acid
1,5 mol/l – 3 N, volumetric standard solution

H_2SO_4 · D 1,09 g/cm³ · bp 100 °C

UN no. 2796 · ADR 8 II · WGK 1

Warning H290-H315-H319

Type analysis
Titer 0,998-1,002
Amount-of-substance conc. (20 °C) .... 1,5 mol/l ± 0,2 %

Art. No.	Pack Qty.	Pack.	€
1E29.1	1 l	plastic	37,55
Original pack 6 x 1 l			35,67/1 l

Sulphuric acid (4 N)

Sulphuric acid
2 mol/l – 4 N, volumetric standard solution

H_2SO_4 · D 1,12 g/cm³

UN no. 2796 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Amount-of-substance conc. (20 °C) ..... 2 mol/l ±0,2 %
Titer 0,9980-1,0020

Art. No.	Pack Qty.	Pack.	€
9896.1	500 ml	plastic	37,10
9896.2	1 l	plastic	55,40
Original pack 6 x 1 l			52,63/1 l

Sulphuric acid (5 N)

Sulphuric acid
2,5 mol/l – 5 N, volumetric standard solution

H_2SO_4 · D 1,15 g/cm³

UN no. 2796 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Amount-of-substance conc. (20 °C) ..... 2,5 mol/l ±0,2 %
Titer ..... 0,998 - 1,002

Art. No.	Pack Qty.	Pack.	€
KK74.1	1 l	plastic	37,10
Original pack 6 x 1 l			35,25/1 l

Sulphuric acid (15 N)

Sulphuric acid
7,5 mol/l – 15 N, volumetric standard solution

H_2SO_4 · D 1,415 g/cm³ · mp -15 °C · bp 295 to 315 °C

UN no. 1830 · ADR 8 II · WGK 1

Danger H290-H314

Type analysis
Titer 0,990-1,010
Amount-of-substance conc. (20 °C) ..... 7,5 mol/l ±1 %

Art. No.	Pack Qty.	Pack.	€
1E28.1	1 l	plastic	124,20
Original pack 6 x 1 l			117,99/1 l

Sulphuric acid D2 98 % solution in D_2O

D_2SO_4 · D 1,84 g/cm³ · bp >335 °C
CAS No. 13813-19-9 · EC no. 237-464-0
UN no. 1830 · ADR 8 II · WGK 1

Danger H290-H314

Sulphuric acid D2 98 % solution in D_2O
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

Type analysis
Deuterising degree ..... ≥99,5 %
Assay (mass %) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
HN87.1	10 ml	glass	73,00
HN87.2	50 ml	glass	295,65

Sulphuric acid, cadmium salt
▸ Cadmium sulphate see page 802

Sulphuric ether
▸ Diethyl ether see page 878

Sulphurous acid

Sulfurous acid

H_2SO_3 · D 1,03 g/cm³
CAS No. 7782-99-2 · EC no. 231-973-1
UN no. 1833 · ADR 8 II · WGK 1

Danger H314-H332

Sulphurous acid
~6 % SO_2 in H_2O

Type analysis
Assay (SO_2) ..... ~6 %

Art. No.	Pack Qty.	Pack.	€
9328.1	1 l	glass	34,30
Original pack 6 x 1 l			32,59/1 l
9328.2	10 l	PE/steel	209,65

Sulphurous acid dichloride
▸ Thionyl chloride see page 1365

Sunflower oil

Helianthi annui oleum

D 0,92 g/cm³ · bp >350 °C · flp >323 °C
CAS No. 8001-21-6
WGK awg

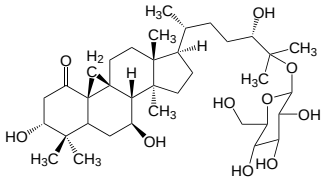
Sunflower oil
extra pure, refined

Type analysis
Peroxide value ..... ≤5,0
Iodine value (g I_2/ 100 g) 115-145
Free fatty acid ..... ≤0,5 %
C 16:0 Palmitic acid ..... 5,0-7,8 %
C 18:0 Stearic acid ..... 2,0-6,5 %
C 18:1 Oleic acid ..... 14,0-40,0 %
C 18:2 Linoleic acid ..... 45,0-74,0 %
C 18:3 Linolenic acid ..... ≤0,3 %

Art. No.	Pack Qty.	Pack.	€
1AAP.1	1 l	glass	25,70
Original pack 6 x 1 l			24,42/1 l
1AAP.2	2.5 l	glass	53,25
Original pack 4 x 2.5 l			50,59/2.5 l
1AAP.3	10 l	plastic	139,25
1AAP.4	25 l	plastic	289,20

Surfactants
▸ Detergents see page 868

Sutherlandioside B



$C_{36}H_{60}O_{10}$ · mp 150 to 155 °C
CAS No. 1055329-47-9
WGK 1

Sutherlandioside B
ROTICHROM® HPLC

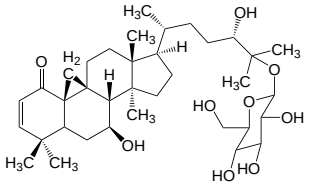
Reference substance for HPLC.
From *Sutherlandia frutescens.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
6695.1	10 mg	glass	375,20

Sutherlandioside D



$C_{36}H_{58}O_9$
CAS No. 1055329-49-1
WGK 1

Sutherlandioside D
ROTICHROM® HPLC

Reference substance for HPLC.
From *Sutherlandia frutescens.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
6696.1	10 mg	glass	392,40

SYBR® Green DNA dye

Ethidium bromide substitutes

D 1 g/cm³ · bp 100 °C
WGK 1

SYBR® Green DNA dye
11x conc., for electrophoresis, ready-to-use

For fluorescent staining of nucleic acids in agarose and polyacrylamide gels.

1.8 ml are sufficient for gel run and staining of approx. 3,600 lanes (5 µl sample + 0.5 µl dye).

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... orange solution

Each batch is functionally tested for its suitability in electrophoresis.

Art. No.	Pack Qty.	Pack.	€
1CN2.1	1.8 ml	plastic	26,80
1CN2.2	9.0 ml	plastic	104,20

Sylvic acid
▸ Abietic acid see page 688

Synergel™

CAS No. 9000-40-2 · EC no. 232-541-5
WGK 1

Synergel™
≥99 %, for gel electrophoresis, up to 30 kb

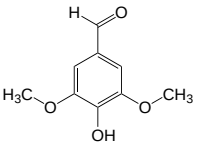
Agarose additive

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Colour ..... white to off-white powder
Odour ..... slightly salty
pH (1 % solution) 9
DNase, RNase ..... none detected

Art. No.	Pack Qty.	Pack.	€
0184.2	10 g	plastic	36,45
0184.1	100 g	plastic	256,95

Syringaldehyde



4-Hydroxy-3,5-dimethoxybenzaldehyde

$C_9H_{10}O_4$ · mp 109 to 112 °C · bp 192 to 193 °C
CAS No. 134-96-3 · EC no. 205-167-5
WGK 1

Warning H302-H315-H319-H335

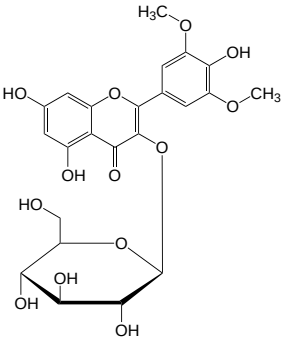
Syringaldehyde
≥98 %

Type analysis
Assay (HPLC) ..... ≥98 %
Melting point ..... 110-113 °C

Art. No.	Pack Qty.	Pack.	€
5359.1	5 g	glass	58,60

Syringaresinol-4',4'-*O*-bis-β-D-glucoside
▸ Eleutheroside E see page 909

Syringetin-3-glucoside



$C_{23}H_{24}O_{13}$ · mp 250 °C
CAS No. 40039-49-4
WGK 1

Syringetin-3-glucoside
ROTICHROM® HPLC

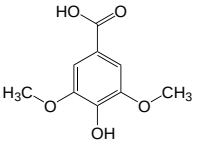
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
9432.1	5 mg	glass	413,90

Syringic acid



$C_9H_{10}O_5$ · mp 204 to 207 °C
CAS No. 530-57-4 · EC no. 208-486-8
WGK 1

Warning H315-H319-H335

Syringic acid
ROTICHROM® CHR ≥97 %

Type analysis
Assay (titr.) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
5361.1	10 g	glass	85,90

Syringin, Syringoside
▸ Eleutheroside B see page 909

Silybin
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤5,0 %
Water (KF) ..... ≤5,0 %
Assay (qNMR) ..... ≥85,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE31.1	50 mg	glass	1.020,20

TAA

▸ Thioacetamide see page 1365

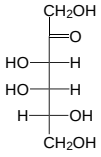
TAE-buffer

▸ ROTIPHORESE®TAE Buffer see page 1234

TAE powder (pouch)

▸ ROTI®Fair TAE see page 1221

D-Tagatose



$C_6H_{12}O_6$ · mp 129 to 133 °C
CAS No. 87-81-0 · EC no. 201-772-3
WGK 1

D-Tagatose
≥98,5 %, for biochemistry

Type analysis
Appearance ..... white, cryst. powder
Assay (HPLC) ..... ≥98,5 %
Specific rotation $[\alpha]_D^{20}$ ..... -5,5° ±1,0°

Art. No.	Pack Qty.	Pack.	€
6161.1	1 g	glass	209,65
6161.2	5 g	glass	891,20

Talcum

Magnesium silicate

CAS No. 14807-96-6 · EC no. 238-877-9

Talcum
Ph. Eur., USP, powdered, ~ 44 µm

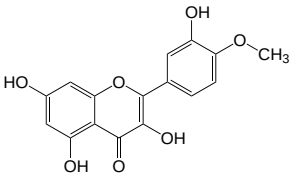
$Mg_3Si_4O_{10}(OH)_2$ · D 2,7 g/cm³ · mp 900 to 1000 °C

M 379,3 g/mol

Guarantee analysis
Appearance ..... fine white powder
Identity ..... complies
Substances soluble in H_2O ..... ≤0,1 %
Acid or alkaline react. substances ..... complies
Aluminium (Al) ..... ≤2,0 %
Calcium (Ca) ..... ≤0,9 %
Lead (Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,25 %
Magnesium (Mg) ..... 17,0-19,5 %
Loss on ignition (1100 °C) ..... ≤7,0 %
Absence of Asbestos ..... complies

Art. No.	Pack Qty.	Pack.	€
1L8K.1	250 g	plastic	14,55
1L8K.2	1 kg	plastic	22,50
Original pack 6 x 1 kg			21,38/1 kg
1L8K.3	2.5 kg	plastic	45,70
1L8K.4	5 kg	plastic	79,45
1L8K.5	10 kg	plastic	134,40

Tamarixetin



Quercetin-4'-methyl ether

$C_{16}H_{12}O_7$ · mp 265 to 268 °C
CAS No. 603-61-2 · EC no. 210-050-7
WGK 1

Tamarixetin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7425.1	10 mg	glass	349,40

5-TAMRA-Azide

▸ 5-Carboxytetramethylrhodamine Azide (5-TAMRA-Azide) see page 817

5-TAMRA-PEG3-Azide

▸ 5-Carboxytetramethylrhodamine-PEG3-Azide (5-TAMRA-PEG3-Azide) see page 817

Tanaceton

▸ α,β-Thujone see page 1367

Tannic acid

$C_{76}H_{52}O_{46}$ · mp 218 to 219 °C
CAS No. 1401-55-4 · EC no. 215-753-2
WGK 2

Warning H319

Tannic acid
≥86 %, p.a., ACS

Guarantee analysis
Assay ..... ≥86 %
Identity ..... complies
Loss on drying ..... ≤12,0 %
Sugars, dextrin ..... complies
Heavy metals (as Pb) ..... ≤0,003 %
Arsenic (As) ..... ≤0,0003 %
Zinc (Zn) ..... ≤0,005 %
Ash content ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
2726.1	100 g	plastic	28,50
2726.2	250 g	plastic	49,35
2726.3	500 g	plastic	83,75
Original pack 6 x 500 g			79,56/500 g

Tannic acid
Ph. Eur., for biochemistry

Guarantee analysis
Appearance ..... yellowish powder
Tannic acid (TA) ..... ≥95 %
Identity ..... complies
Appearance of solution ..... complies
Dextrine, rubber, salts, sugar ..... complies
Resinous substances ..... complies
Loss on drying ..... ≤7,0 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4239.1	250 g	plastic	40,75
4239.2	1 kg	plastic	131,70
Original pack 6 x 1 kg			125,12/1 kg

Tantalum

Ta · D 16,6 g/cm³ · mp 2996 °C · bp 5400 °C
CAS No. 7440-25-7 · EC no. 231-135-5
UN no. 3089 · ADR 4.1 II

Danger H228

Tantalum powder
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L6L.1	5 g	HDPE	n. a.
1L6L.2	25 g	HDPE	n. a.

Tantalum(V) oxide

Ta_2O_5 · D ~8,24 g/cm³ · mp 1872 °C
CAS No. 1314-61-0 · EC no. 215-238-2

Tantalum(V) oxide
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

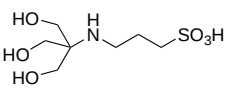
Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L5L.1	5 g	HDPE	51,10
1L5L.2	25 g	HDPE	176,85

Tantalum Standards

▸ Tantalum ICP Standard Solution see page 1323
▸ Tantalum ICP Standard Solution see page 1323

TAPS



N-Tris(hydroxymethyl)-methyl-3-amino-propane sulphonic acid

$C_7H_{17}NO_6S$ · mp 230 to 240 °C
CAS No. 29915-38-6 · EC no. 249-954-1
WGK 1

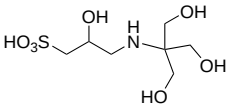
TAPS
PUFFERAN® ≥99 %

Type analysis
Assay (titr.) ..... ≥99 %
Water (KF) ..... ≤1,0 %
pH (5 % in H_2O) 4,5-6,0
Heavy metals ..... ≤0,001 %

Absorbance:
260 nm ..... ≤0,02
280 nm ..... ≤0,01

Art. No.	Pack Qty.	Pack.	€
6982.1	10 g	plastic	17,10
6982.2	100 g	plastic	58,60
6982.3	250 g	plastic	117,20
6982.4	500 g	plastic	213,95
Original pack 6 x 500 g			203,25/500 g

TAPSO



3-*N*-Tris-(hydroxymethyl)-methylamino-2-hydroxypropanesulphonic acid sodium salt

$C_7H_{17}NO_7S$ · mp 220 to 222 °C
CAS No. 68399-81-5 · EC no. 269-993-8
WGK 1

Warning H315-H319-H335

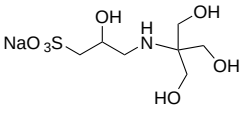
TAPSO
PUFFERAN® ≥99 %

Type analysis
Assay (titr.) ..... ≥99 %
Loss on drying ..... ≤1,0 %
pH value (1 % solution) 4,2-4,7

Absorbance:
260 nm ..... ≤0,04
280 nm ..... ≤0,02

Art. No.	Pack Qty.	Pack.	€
6628.1	25 g	plastic	37,55
6628.2	100 g	plastic	112,90

TAPSO sodium salt



3-*N*-Tris-(hydroxymethyl)-methylamino-2-hydroxypropanesulphonic acid sodium salt

$C_7H_{16}NaNO_7S$ · mp 186 to 192 °C
CAS No. 105140-25-8
WGK 1

TAPSO sodium salt
PUFFERAN® ≥99 %

Guarantee analysis
Appearance ..... white powder
Assay (titr.) ..... ≥99 %
Water (KF) ..... ≤1 %
Heavy metals ..... ≤0,0005 %

Absorbance:
260 nm ..... ≤0,05
280 nm ..... ≤0,03

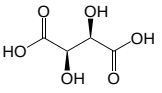
Art. No.	Pack Qty.	Pack.	€
6974.1	25 g	plastic	46,15
6974.2	100 g	plastic	149,45

Taq DNA polymerase, recombinant
- ROTI®Pol TaqHY see page 1237
- ROTI®Pol Hot-TaqHY see page 1238
- ROTI®Pol TaqS see page 1237
- ROTI®Pol Hot-TaqS see page 1237
- ROTI®Pol TaqUltra see page 1238
- ROTI®Pol Hot-TaqUltra see page 1238

Taq-Polymerasen

Art. No.	Description	Page
9223	ROTI®Pol TaqS	1237
9239	ROTI®Pol TaqS Mix (2x)	1237
9241	ROTI®Pol TaqS Red-Mix (2x)	1237
9245	ROTI®Pol Hot-TaqS	1237
9248	ROTI®Pol Hot-TaqS Mix (2x)	1237
9256	ROTI®Pol Hot-TaqS Red-Mix (2x)	1237
9345	ROTI®Pol TaqHY	1238
1K33	ROTI®Pol TaqHY Mix (2x)	1238
1K34	ROTI®Pol TaqHY Red-Mix (2x)	1238
9346	ROTI®Pol Hot-TaqHY	1238
9344	ROTI®Pol ProofRead	1238
9347	ROTI®Pol TaqUltra	1238
9350	ROTI®Pol Hot-TaqUltra	1238

D(–)-Tartaric acid



$C_4H_6O_6$ · D 1,8 g/cm³ · mp 166 to 169 °C · flp 210 °C
CAS No. 147-71-7 · EC no. 205-695-6
WGK 1

Danger H318

D(–)-Tartaric acid
≥99 %, for biochemistry

Type analysis
Appearance ..... white powder
Assay ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
5529.1	25 g	plastic	65,50

DL-Tartaric acid

Racemic acid

$C_4H_6O_6$ · D 1,66 g/cm³ · mp 198 to 204 °C · flp 210 °C
CAS No. 133-37-9 · EC no. 205-105-7
WGK 1

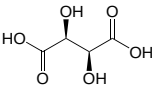
Warning H319

DL-Tartaric acid
≥99,5 %, anhydrous

Type analysis
Appearance white to off-white crystalline powder
Assay (titr.) ..... ≥99,5 %

Art. No.	Pack Qty.	Pack.	€
4891.2	25 g	plastic	19,90
4891.1	100 g	plastic	33,90
4891.3	500 g	plastic	112,35
Original pack 6 x 500 g			106,73/500 g

L(+)-Tartaric acid



$C_4H_6O_6$ · D 1,76 g/cm³ · mp 168 to 170 °C · flp >100 °C
CAS No. 87-69-4 · EC no. 201-766-0
WGK 1

Warning H319

L(+)-Tartaric acid
≥99,5 %, p.a., ACS, ISO

For the preparation of Fehling's solution.

Guarantee analysis
Assay (acidim.) ..... ≥99,5 %
In H_2O insoluble matter ..... ≤0,005 %
Loss on drying (105 °C) ..... ≤0,2 %
Sulphated ash ..... ≤0,01 %
Total sulphur (as SO_4) ..... ≤0,002 %
Chloride (Cl) ..... ≤0,0005 %
Oxalate (C_2O_4) ..... complies
Oxalic acid ($C_2H_2O_4$) ..... ≤0,04 %
Phosphate (PO_4) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,015 %
Heavy metals (as Pb) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,002 %
Iron (Fe) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
K302.1	250 g	plastic	34,30
K302.2	1 kg	plastic	110,65
Original pack 6 x 1 kg			105,12/1 kg
K302.5	25 kg	plastic	1.639,40

L(+)-Tartaric acid
≥99,5 %, Ph. Eur.

Guarantee analysis
Appearance ..... white to off-white cryst. powder
Assay (dry substance) ..... 99,5-101,0 %
Identity ..... complies
Appearance of solution ..... complies
Specific rotation $[\alpha]_D^{20}$ (dry substance) ... +12,0° to +12,8°
Oxalic acid ..... ≤0,036 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,015 %
Calcium (Ca) ..... ≤0,02 %
Loss on drying ..... ≤0,2 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4289.1	500 g	plastic	35,40
Original pack 6 x 500 g			33,63/500 g
4289.2	1 kg	plastic	62,25
Original pack 6 x 1 kg			59,14/1 kg
4289.3	5 kg	plastic	246,20
4289.4	25 kg	plastic	998,70

L(+)-Tartaric acid
≥99 %, for biochemistry

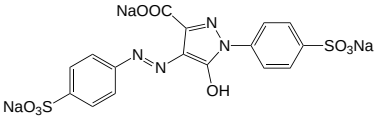
Type analysis
Assay ..... ≥99,0 %
Specific rotation $[\alpha]_D^{20}$ ..... +12,0° to +13,0°
Heavy metals (as Pb) ..... ≤0,01 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,05 %
Calcium (Ca) ..... ≤0,05 %
Sulphated ash ..... ≤0,1 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
4890.3	500 g	plastic	32,15
Original pack 6 x 500 g			30,54/500 g
4890.1	1 kg	plastic	59,05
Original pack 6 x 1 kg			56,10/1 kg
4890.2	5 kg	plastic	213,95
4890.5	25 kg	plastic	854,65

Tartaric acid disodium salt
▸ di-Sodium tartrate dihydrate see page 1296

Tartrate Standards
▸ Tartrate IC Standard Solution see page 1335

Tartrazine (C. I. 19140)



Acid Yellow 23

$C_{16}H_9N_4O_9S_2Na_3$ · D 2,121 g/cm³
CAS No. 1934-21-0 · EC no. 217-699-5
WGK 1

Tartrazine (C. I. 19140)

Type analysis
Appearance ..... orange powder
In H_2O insoluble matter ..... ≤1 %

Art. No.	Pack Qty.	Pack.	€
2982.1	10 g	glass	12,80
2982.2	25 g	glass	24,65
2982.3	100 g	glass	53,65
2982.4	1 kg	glass	274,15
Original pack 6 x 1 kg			260,44/1 kg

Tashiro's indicator solution

D 0,934 g/cm³ · mp -114 °C · flp 27 °C
UN no. 1170 · ADR 3 III · WGK 1

Warning H226

Tashiro's indicator solution
0,75 g/l methyl red sodium salt + 0,375 g/l methylene blue in ethanol 50 % (v/v), denatured

pH indicator, mixed indicator

Formulation: methyl red, methylene blue, ethanol denatured, water.

Art. No.	Pack Qty.	Pack.	€
2624.1	250 ml	plastic	22,05

TAT Broth (Base)

Casein peptone Lecithin Polysorbate Broth · CPLP Broth

WGK 3

TAT Broth (Base)
for microbiology

For proliferation and regeneration of micro-organisms from a variety of matters, e.g. from cosmetics, and matters contaminated with antimicrobial reagents.

Application: Use 25 g for 1 l broth. Before auto-claving add 40 ml Tween® 20 (polysorbate).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Casein peptone ..... 20 g/l
Soya lecithin ..... 5 g/l
pH value ..... 7,1 ±0,2

Art. No.	Pack Qty.	Pack.	€
3935.1	500 g	plastic	143,55
Original pack 6 x 500 g			136,37/500 g
3935.2	1 kg	plastic	246,75
Original pack 6 x 1 kg			234,41/1 kg

Tauber's reagent

D 1,06 g/cm³ · bp 110 °C
UN no. 1805 · ADR 8 III · WGK 2

Warning H290

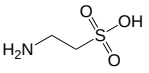
Tauber's reagent
for determination of ascorbic acid

Detection reagent for ascorbic acid in flour

Type analysis
Appearance ..... clear, yellow liquid
Suitability for determination of ascorbic acid ..... complies

Art. No.	Pack Qty.	Pack.	€
1ET1.1	500 ml	glass	107,00

Taurine



2-Aminoethanesulphonic acid

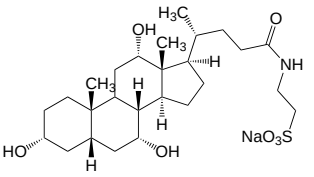
$C_2H_7NO_3S$ · D 1,72 g/cm³ · mp 305 °C
CAS No. 107-35-7 · EC no. 203-483-8
WGK 2

Taurine
≥99 %, for biochemistry

Type analysis
Appearance ..... white cryst. powder
Assay ..... ≥99,0 %
Heavy metals ..... ≤0,001 %
Loss on drying ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
4721.1	100 g	plastic	23,55
4721.2	500 g	plastic	69,35
Original pack 6 x 500 g			65,88/500 g

Taurocholic acid sodium salt



$C_{26}H_{44}NNaO_7S$ · mp 230 °C
CAS No. 145-42-6 · EC no. 205-653-7
WGK 1

Taurocholic acid sodium salt
ROTICHROM® CHR ≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay (HPLC) ..... ≥98,0 %
Water ..... ≤5,0 %
Solubility (10 % in H_2O) ..... clear

Art. No.	Pack Qty.	Pack.	€
8149.1	500 mg	glass	21,00
8149.2	1 g	glass	28,95
8149.3	10 g	glass	145,15
8149.4	50 g	glass	557,95
8149.5	100 g	glass	1.048,15

Taurocholic acid sodium salt
ROTICHROM® TLC

Reference substance for thin layer chromatography.

Storage temperature: +4 °C

Guarantee analysis

Art. No.	Pack Qty.	Pack.	€
5817.1	100 mg	glass	68,30

(+)-Taxifolin
▸ (+)-Dihydroquercetin see page 881

TBA
▸ Tryptone Bile Salts Agar see page 1386

TBAB
▸ Tetrabutylammonium bromide (TBAB) see page 1359

TBAF
▸ Tetrabutylammoniumfluoride (TBAF) see page 1359

TBAH
▸ Tetrabutylammonium hydroxide (TBAH) see page 1359

TBAI
▸ Tetrabutylammonium iodide (TBAI) see page 1359

TBE powder (pouch)
▸ ROTI®Fair TBE see page 1221

TBE-buffer
▸ ROTIPHORESE®TBE Buffer see page 1235

TBME
▸ *tert*-Butyl methyl ether see page 799

TBS powder (pouch)
▸ ROTI®Fair TBS 8.0 see page 1222

10x TBS ready-to-use solution
▸ ROTI®Stock 10x TBS see page 1242

TBS (tablet)
▸ ROTI®Fair TBS 7.6 see page 1222

10x TBST ready-to-use solution
▸ ROTI®Stock 10x TBST see page 1242

TBST (tablet)
▸ ROTI®Fair TBST 7.6 see page 1222

TBTA
▸ Tris[(1-benzyl-1*H*-1,2,3-triazol-4-yl)methyl] amine (TBTA) see page 1383

TBTU
▸ *O*-(Benzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium tetrafluoroborate (TBTU) see page 770

TBX chromogenic Agar

WGK 1

TBX chromogenic Agar
ISO 11133, ISO 16649-2 and -3, for microbiology

Selective agar for detection of *E.coli* in food samples.

Application: Use 36.6 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

Casein peptone	20,0 g/l
Bile salts	1,5 g/l
x-β-D-Glucuronide	0,075 g/l
Agar	15,0 g/l
pH value	7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL47.2	100 g	plastic	120,95
CL47.1	500 g	plastic	446,15
Original pack 6 x 500 g			423,84/500 g

TCA
▸ Trichloroacetic acid see page 1376

TCA solution
▸ Trichloroacetic acid solution see page 1376

TCBS Agar

Cholera Agar · Cholera Medium TCBS · Thiosulphate Citrate Bile Sucrose Agar

WGK 3

TCBS Agar
for microbiology

For selective isolation of *Vibrio*.

Application: Use 88 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

Sucrose	20 g/l
Sodium chloride (NaCl)	10 g/l
Sodium thiosulphate	10 g/l
Sodium citrate	10 g/l
Peptone	10 g/l
Dehydrated ox bile	8 g/l
Yeast extract	5 g/l
Ferric citrate	1 g/l
Bromothymol blue	0,04 g/l
Thymol blue	0,04 g/l
Agar	14 g/l
pH value	8,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
8333.1	500 g	plastic	152,15
Original pack 6 x 500 g			144,54/500 g

TCC
▸ tri-Calcium dicitrate tetrahydrate see page 807

TCE
▸ Trichloroethylene see page 1376

TCE-D2
▸ 1,1,2,2-Tetrachloroethane D2 see page 1359

TCEP · HCl
▸ Tris-(2-carboxyethyl)-phosphine hydrochloride see page 1383

TCTU
▸ *O*-(6-Chlorobenzotriazol-1-yl)-*N*,*N*,*N*',*N*'-tetramethyluronium tetrafluoroborate (TCTU) see page 831

TDPA
▸ Tetradecylphosphonic acid see page 1360

TEA
▸ Triethanolamine see page 1378
▸ Triethylamine (TEA) see page 1378

100x TE ready-to-use solution
▸ ROTI®Stock 100x TE see page 1243

TE buffer powder (pouch)
▸ ROTI®Fair TE see page 1222

Tellurium

Te · D 6,24 g/cm³ · mp 449,5 °C · bp 989,8 °C
CAS No. 13494-80-9 · EC no. 236-813-4
WGK 2

Danger H317-H332-H360FD-H413

Tellurium pices
ROTI®METIC 99,999 % (5N)

Type analysis

Assay (metals basis)	99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L5N.1	10 g	HDPE	54,30
1L5N.2	50 g	HDPE	169,35

Tellurium Standards
▸ Tellurium AAS Standard Solution see page 1323
▸ Tellurium ICP Standard Solution see page 1323
▸ Tellurium ICP Standard Solution see page 1323

Tellurium dioxide
▸ Tellurium(IV) oxide see page 1356

Tellurium(IV) oxide

Tellurium dioxide

TeO_2 · D 5,9 g/cm³ · mp 733 °C · bp 1245 °C
CAS No. 7446-07-3 · EC no. 231-193-1
UN no. 3077 · ADR 9 III · WGK 3

Danger H317-H332-H360D-H411

Tellurium(IV) oxide
ROTI®METIC 99,999 % (5N)

Type analysis

Assay (metals basis)	99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

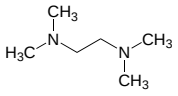
Art. No.	Pack Qty.	Pack.	€
5745.1	5 g	plastic	59,05
5745.2	10 g	plastic	107,00
5745.3	50 g	plastic	360,15

Tellurium(IV) oxide
≥99,9 %, p.a.

Guarantee analysis
Assay ..... ≥99,9 %
Arsenic (As) ..... ≤0,005 %
Bismuth (Bi) ..... ≤0,001 %
Lead (Pb) ..... ≤0,001 %
Cadmium (Cd) ..... ≤0,001 %
Iron (Fe) ..... ≤0,005 %
Copper (Cu) ..... ≤0,001 %
Nickel (Ni) ..... ≤0,001 %
Silver (Ag) ..... ≤0,001 %
Zinc (Zn) ..... ≤0,001 %
Moisture ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
0321.1	10 g	plastic	40,75
0321.2	25 g	plastic	83,75
0321.3	50 g	plastic	153,20

TEMED



1,2-Bis-(dimethylamino)-ethane · *N*,*N*,*N*',*N*'-Tetramethylethylenediamine

$C_6H_{16}N_2$ · D 0,776 g/cm³ · mp -58,7 °C · bp 118,7 °C · flp 21 °C
CAS No. 110-18-9 · EC no. 203-744-6
UN no. 2372 · ADR 3 II · WGK 1

Danger H225-H302+H332-H314

TEMED
≥99 %, p.a., for electrophoresis

Catalyst for acrylamide polymerisation in PAGE

40 µl TEMED per 100 ml gel solution

Type analysis
Appearance ..... clear to slightly turbid solution
Assay ..... ≥99 %

Bottled under argon.

Art. No.	Pack Qty.	Pack.	€
2367.3	25 ml	glass	23,55
2367.4	50 ml	glass	58,60
2367.1	100 ml	glass	50,45
2367.2	250 ml	glass	99,90

TEMED
≥98,5 %, for synthesis

Catalyst for acrylamide polymerisation; bottled under argon.

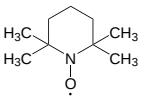
The solution may contain sediment. It can be filtered before use. Lot-specific colour variation may range from slight to considerable yellow.

Type analysis
Assay ..... ≥98,5 %

Bottled under argon.

Art. No.	Pack Qty.	Pack.	€
8142.1	100 ml	glass	35,40
8142.2	500 ml	glass	131,70
8142.3	1 l	glass	231,15
Original pack 6 x 1 l			219,59/1 l

TEMPO



2,2,6,6-Tetramethylpiperidinyloxy (free radical) · 2,2,6,6-Tetramethylpiperidine 1-oxyl · (2,2,6,6-Tetramethylpiperidin-1-yl)oxidanyl

$C_9H_{18}NO$ · D 0,91 g/cm³ · mp 36 to 40 °C · bp 175 °C · flp 67 °C
CAS No. 2564-83-2 · EC no. 219-888-8
UN no. 3263 · ADR 8 II · WGK 1

Danger H290-H314

TEMPO
≥98 %, for synthesis

Storage temperature: +4 °C

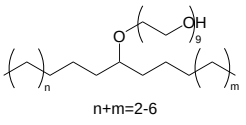
Type analysis
Assay (GC) ..... ≥98 %
Residual solvents (methanol) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6801.1	1 g	glass	18,85
6801.2	5 g	glass	34,95
6801.3	25 g	glass	89,15

Terbium Standards

- Terbium ICP Standard Solution see page 1323
- Terbium ICP Standard Solution see page 1323

Tergitol™ 15-S-9



n+m=2-6

sec- Alcoxy polyethylene glycol · Polyethylene glycol ether · *sec*- Alcohol ethoxylate

D 0,93 g/cm³ · mp <-25 °C · bp 300 °C · flp 176 °C
CAS No. 68131-40-8 · EC no. 614-295-4
WGK 2

Warning H302+H332-H412

Tergitol™ 15-S-9
extra pure

Alternative to Triton® X-100, non-ionic detergent.

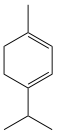
Type analysis
Appearance ..... colourless to yellow liquid
Cloud point (1%, H_2O) ..... 57,5-62,5 °C
pH value (1 % in H_2O) 5,5-7,5
Water ..... ≤0,50 %

Art. No.	Pack Qty.	Pack.	€
9975.1	100 ml	glass	21,00
9975.2	500 ml	glass	46,15
9975.3	1 l	plastic	61,85
Original pack 6 x 1 l			58,76/1 l
9975.4	2.5 l	plastic	112,90
Original pack 4 x 2.5 l			107,26/2.5 l
9975.5	10 l	plastic	332,20

δ-Terpinene

- Terpinolene see page 1358

α-Terpinene



$C_{10}H_{16}$ · D 0,84 g/cm³ · mp <-20 °C · bp 173 °C · flp 47 °C
CAS No. 99-86-5 · EC no. 202-795-1
UN no. 2319 · ADR 3 III · WGK 2

Danger H226-H302-H304-H317-H411

α-Terpinene
ROTICHROM® GC

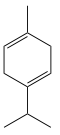
Reference substance for GC.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Purity (GC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
8038.2	100 mg	glass	198,90

γ-Terpinene



$C_{10}H_{16}$ · D 0,85 g/cm³ · bp 180 to 182 °C · flp 52 °C
CAS No. 99-85-4 · EC no. 202-794-6
UN no. 2319 · ADR 3 III · WGK 2

Warning H226-H361fd-H411

γ-Terpinene
ROTICHROM® GC

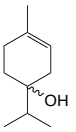
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥97,0 %

Art. No.	Pack Qty.	Pack.	€
8039.2	100 mg	glass	192,45

4-Terpinenol



$C_{10}H_{18}O$ · D 0,933 g/cm³ · bp 211 to 213 °C · flp 79 °C
CAS No. 562-74-3 · EC no. 209-235-5
WGK 2

Warning H302-H315-H319-H335

4-Terpinenol
≥95 %

Type analysis
Purity (GC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
6309.1	1 g	plastic	125,25

Terpineol

$C_{10}H_{18}O$ · D 0,93 g/cm³ · mp -35,9 to -28,2 °C · bp 215 to 220 °C · flp 88 °C
CAS No. 8000-41-7 · EC no. 232-268-1
WGK 2

Warning H315-H319

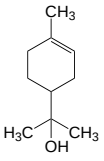
Terpineol
pure

Type analysis
Appearance ..... clear, colourless oil
Density (20 °C) ..... 0,925-0,940 g/cm³
Refractive index (20 °C) 1,480-1,490

Remark: The product may crystallise. Can be redissolved by heating (max. 60 °C).

Art. No.	Pack Qty.	Pack.	€
8672.1	250 ml	glass	24,65
8672.2	1 l	glass	74,75
Original pack 6 x 1 l			71,01/1 l

α-Terpineol



p-Menth-1-en-8-ol

$C_{10}H_{18}O$ · D 0,93 g/cm³ · mp 33 °C · bp 218,9 °C · flp 91 °C
CAS No. 98-55-5 · EC no. 202-680-6
WGK 1

Warning H315-H319

α-Terpineol
ROTICHROM® GC

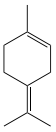
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥96 %

Art. No.	Pack Qty.	Pack.	€
5152.2	100 mg	glass	104,85

Terpinolene



δ-Terpinene

$C_{10}H_{16}$ · D 0,862 g/cm³ · mp <-20 °C · bp 184 °C · flp 62,5 °C
CAS No. 586-62-9 · EC no. 209-578-0
UN no. 2541 · ADR 3 III · WGK 3

Danger H304-H317-H410

Terpinolene
ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
5166.2	100 mg	glass	107,40

Terra infusoria
▸ Diatomaceous earth see page 872

Terrific Broth

WGK 1

Terrific Broth
for molecular biology

Nutricious medium for the culture and proliferation of *E. coli*.

Application: Use 50,8 g for 1 l broth. Before autoclaving add 4 ml glycerol per litre medium.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Casein, enzymatically digested ..... 12 g/l
Yeast extract ..... 24 g/l
K_2HPO_4 ..... 12,54 g/l
KH_2PO_4 ..... 2,31 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
X972.1	500 g	plastic	87,65
Original pack 6 x 500 g			83,27/500 g
X972.2	1 kg	plastic	155,90
Original pack 6 x 1 kg			148,11/1 kg
X972.3	2.5 kg	plastic	327,90
X972.4	5 kg	plastic	600,95

Terrific Broth modified
for molecular biology

Nutricious medium for the culture and proliferation of *E. coli*.

Application: Use 47,6 g for 1 l broth. Before autoclaving add 4 ml glycerol per litre medium. In the formulation of Terrific Broth modified, the phosphate content has been reduced, in order to prevent precipitation of insoluble salts during autoclaving.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Casein, enzymatically digested ..... 12 g/l
Yeast extract ..... 24 g/l
K_2HPO_4 ..... 9,4 g/l
KH_2PO_4 ..... 2,2 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
HP61.1	500 g	plastic	81,20
Original pack 6 x 500 g			77,14/500 g
HP61.2	1 kg	plastic	133,85
Original pack 6 x 1 kg			127,16/1 kg
HP61.3	2.5 kg	plastic	295,10

Terrific Broth vegetal
animal-free, for molecular biology

Nutritious medium made from compounds of pure vegetable origin for culture and proliferation of *E. coli*.

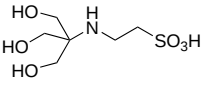
Application: Use 50,8 g for 1 l broth. Before autoclaving add 4 ml glycerol per litre medium.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Vegetable peptone ..... 12 g/l
Yeast extract ..... 24 g/l
K_2HPO_4 ..... 12,5 g/l
KH_2PO_4 ..... 2,3 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
0161.1	500 g	plastic	102,70
Original pack 6 x 500 g			97,57/500 g

TES



N-Tris(hydroxymethyl)methyl-2-aminoethanesulphonic acid

$C_6H_{15}NO_6S$ · mp 223 to 225 °C
CAS No. 7365-44-8 · EC no. 230-906-3
WGK 1

TES
PUFFERAN® ≥99 %

Guarantee analysis
Assay ..... ≥99,0 %
pH value (1 % in H_2O) 3,5-5,0
Loss on drying ..... ≤1,0 %

Absorbance:
260 nm ..... ≤0,02
280 nm ..... ≤0,02

Art. No.	Pack Qty.	Pack.	€
9137.1	10 g	plastic	31,75
9137.2	100 g	plastic	155,90
9137.3	500 g	plastic	461,20
Original pack 6 x 500 g			438,14/500 g

3,3',4,4'-Tetra-aminobiphenyl tetrahydrochloride
▸ 3,3'-Diaminobenzidine tetrahydrochloride see page 871

Tetraammineplatinum(II) nitrate

$Pt(NH_3)_4(NO_3)_2$ · mp 262 °C
CAS No. 20634-12-2 · EC no. 243-929-9
UN no. 1479 · ADR 5.1 II · WGK 1

Danger H272-H315-H317-H319-H335

Tetraammineplatinum(II) nitrate
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5746.1	1 g	plastic	450,45

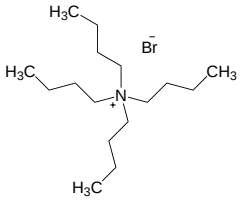
3,3',5,5'-Tetrabrom-*m*-cresolsulfonphthalein
▸ Bromocresol green see page 789

2',4',5',7'-Tetrabromoeosin ethyl ester potassium salt
▸ Ethyl eosin (C.I. 45386) see page 924

3,3',5,5'-Tetrabromophenol-sulphonphthaleine

▸ Bromophenol blue see page 790

Tetrabutylammonium bromide (TBAB)



TBAB

$C_{16}H_{36}BrN$ · D 0,644 g/cm³ · mp 100 to 103 °C · flp >100 °C
CAS No. 1643-19-2 · EC no. 216-699-2
WGK 3

Warning H302-H315-H319-H412

Tetrabutylammonium bromide (TBAB)

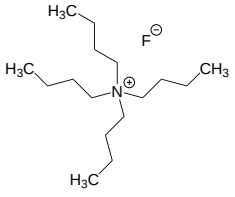
≥99 %, for synthesis

Type analysis

Appearance ..... white to off-white powder
Assay (titr.) ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
6633.1	50 g	plastic	34,95
6633.2	250 g	plastic	99,90
6633.3	500 g	plastic	170,95
Original pack 6 x 500 g			162,40/500 g

Tetrabutylammoniumfluoride (TBAF)



TBAF · Tetra-*n*-butylammonium fluoride

$(C_4H_9)_4NF$ · D 0,9 to 1,1 g/cm³ · bp 65 to 66 °C · flp -17 °C
CAS No. 429-41-4 · EC no. 207-057-2
UN no. 2924 · ADR 3 (8) II · WGK 1

Danger H225-H314-H335-H351-EUH019

Tetrabutylammoniumfluoride (TBAF)

1 mol/l in THF, stabilised

Storage temperature: +4 °C

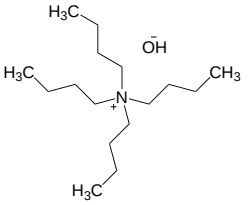
Type analysis

Appearance ..... yellow to red liquid
Assay ..... ≥1,0 mol/l
Water (KF) ..... ≤10,0 %

stabilised with 250 ppm 2,6-di-tert-butyl-4-methylphenol (BHT).
Store under inert gas.

Art. No.	Pack Qty.	Pack.	€
1448.1	25 ml	glass	32,15
1448.2	100 ml	glass	96,25
1448.3	250 ml	glass	181,70

Tetrabutylammonium hydroxide (TBAH)



TBAH

$C_{16}H_{37}NO$ · D 0,995 g/cm³ · bp 100 °C
CAS No. 2052-49-5 · EC no. 218-147-6
UN no. 3267 · ADR 8 II · WGK 1

Danger H290-H314

Tetrabutylammonium hydroxide (TBAH)

40 % in water

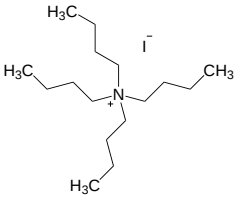
Type analysis

Appearance ..... colorless to yellowish liquid
Assay ..... ~40 % in H_2O
Colour number (APHA) ..... ≤20

Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Pack.	€
5026.1	25 ml	glass	28,95
5026.2	100 ml	glass	63,35
5026.3	250 ml	glass	115,60
5026.4	1 l	glass	396,70
Original pack 6 x 1 l			376,87/1 l

Tetrabutylammonium iodide (TBAI)



TBAI

$C_{16}H_{36}IN$ · mp 144 to 146 °C
CAS No. 311-28-4 · EC no. 206-220-5
WGK 1

Warning H302-H315-H319-H335

Tetrabutylammonium iodide (TBAI)

≥99 %, p.a.

Type analysis

Assay ..... ≥99,0 %
Melting point ..... 144-146 °C

Art. No.	Pack Qty.	Pack.	€
4735.1	25 g	plastic	19,90
4735.2	100 g	plastic	52,70
4735.3	500 g	plastic	220,40
Original pack 6 x 500 g			209,38/500 g

Tetrachloroauric(III) acid trihydrate

Gold(III) chloride trihydrate · Gold trichloride trihydrate · Gold trichloride hydrochloride

$HAuCl_4 \cdot 3\ H_2O$ · D 3,9 g/cm³ · mp 30 °C
CAS No. 16961-25-4 · EC no. 605-557-9
UN no. 3260 · ADR 8 III · WGK 1

Danger H314-H317

Tetrachloroauric(III) acid trihydrate

≥99,9 %, p.a., Ultra Quality

Guarantee analysis

Appearance ..... orange to yellowish-red cryst. powder
Assay ..... ≥99,9 %
Gold (Au) ..... ≥50 %
Aluminium (Al) ..... ≤0,005 %
Calcium (Ca) ..... ≤0,005 %
Chromium (Cr) ..... ≤0,005 %
Iron (Fe) ..... ≤0,005 %
Copper (Cu) ..... ≤0,005 %
Magnesium (Mg) ..... ≤0,005 %
Manganese (Mn) ..... ≤0,005 %
Platinum (Pt) ..... ≤0,005 %
Ruthenium (Ru) ..... ≤0,005 %
Silver (Ag) ..... ≤0,005 %
Silicon (Si) ..... ≤0,005 %
Zinc (Zn) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
0689.1	500 mg	glass	145,15
0689.2	1 g	glass	231,15
0689.3	5 g	glass	897,65

Tetrachloroauric(III) acid trihydrate

≥99,5 %, p.a.

Guarantee analysis

Appearance ..... yellow to reddish-yellow crystals
Assay (based on Au) ..... ≥99,5 %

Art. No.	Pack Qty.	Pack.	€
3867.1	1 g	glass	190,85
3867.2	5 g	glass	779,40

2,3,5,6-Tetrachloro-1,4-benzoquinone

▸ *p*-Chloranil see page 829

1,1,2,2-Tetrachloroethane D2

1,2-Dideutero-1,1,2,2-tetrachloroethane · TCE-D2

$C_2Cl_4D_2$ · D 1,595 g/cm³ · mp -42,5 °C · bp 146 °C
CAS No. 33685-54-0 · EC no. 251-634-1
UN no. 1702 · ADR 6.1 II · WGK 3

Danger H310+H330-H411

1,1,2,2-Tetrachloroethane D2

99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging for CP96.2: 10 x 0,75 ml in ampoules

Guarantee analysis

Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
CP96.2	7.5 ml	glass ampoule	147,85
CP96.1	10 ml	glass	145,15

Tetrachloroethylene



Ethylene tetrachloride · Perchloroethylene

C_2Cl_4 · D 1,61 g/cm³ · mp -22 °C · bp 121,4 °C
CAS No. 127-18-4 · EC no. 204-825-9
UN no. 1897 · ADR 6.1 III · WGK 3

Warning H351-H411

Tetrachloroethylene
ROTISOLV® ≥99,9 %, UV/IR Grade

For chromatography and spectroscopy.

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,05 %
Colour (Hazen) ..... ≤10
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

Fluorescence (as quinine):
365 nm ..... ≤2,0 ppb

Transmission:
305 nm ..... ≥85 %
302 nm ..... ≥80 %
297 nm ..... ≥50 %
290 nm ..... ≥10 %

Art. No.	Pack Qty.	Pack.	€
CP83.1	2.5 l	glass	106,45
Original pack 4 x 2.5 l			101,13/2.5 l

Tetrachloroethylene
≥99,5 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,5 %
Density (20 °C) 1,615-1,625

Art. No.	Pack Qty.	Pack.	€
4737.1	1 l	glass	35,40
Original pack 6 x 1 l			33,63/1 l
4737.3	2.5 l	glass	64,40
Original pack 4 x 2.5 l			61,18/2.5 l
4737.2	10 l	tinplate	209,65

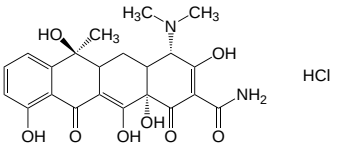
Tetrachlorostannane
▸ Tin(IV) chloride see page 1369

4,5,6,7-Tetrachloro-2',4',5',7'-tetraiodofluorescein disodium salt
▸ Rose Bengale B (C.I. 45440) see page 1208

1-Tetracosanol
▸ Lignoceryl alcohol see page 1042

Tetracycline hydrochloride
▸ Tetracycline see page 1360

Tetracycline



HCl

Achromycin hydrochloride · Tetracycline hydrochloride

$C_{22}H_{25}Cl\,N_2O_8$ · mp 215 to 220 °C
CAS No. 64-75-5 · EC no. 200-593-8
WGK 1

Warning H319-H361d

Tetracycline hydrochloride
CELLPURE® ≥900 µg/mg

Bacteriostatic antibiotic. For cell culture, molecular biology and biochemistry.

Light-sensitive.
Stock solution: 10–20 mg/ml in H_2O
Storage of stock solution: –20 °C
Working concentration: 10–50 µg/ml

Storage temperature: –20 °C
Transport temperature: ambient temp.

Guarantee analysis
Assay ..... ≥900 µg/mg
Heavy metals ..... ≤0,005 %
Loss on drying ..... ≤2,0 %
pH value (1 % in H_2O) ..... 2,3 ±0,5
4-epi-anhydrotetracycline ..... ≤2,0 %
Endotoxins (LAL) ..... ≤0,5 I.E./mg

Art. No.	Pack Qty.	Pack.	€
HP63.1	10 g	glass	59,05
HP63.2	50 g	glass	246,20

Tetracycline hydrochloride
≥900 µg/mg, for biochemistry and molecular biology

Bacteriostatic antibiotic

Stock solution: 10–20 mg/ml in H_2O
Storage of stock solution: –20 °C
Working concentration: 10–50 µg/ml

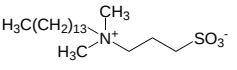
Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay ..... ≥900 µg/mg
Assay (dry substance) ..... ≥95,0 %
pH value (1 % in H_2O) 1,8-2,8
Specific rotation $[\alpha]_D^{20}$ (0,5 % in 0,1 N HCl) .. -255° to -240°
Heavy metals ..... ≤0,005 %
Sulphated ash ..... ≤0,5 %
Loss on drying ..... ≤2,0 %

Art. No.	Pack Qty.	Pack.	€
0237.1	25 g	glass	80,10
0237.2	50 g	glass	149,45
0237.3	100 g	glass	274,15

Tetradecanoic acid
▸ Myristic acid see page 1097

N-Tetradecyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate



SB-14 · Sulfobetaine-14

$C_{19}H_{41}NO_3S$ · mp 246 to 248 °C · flp 110 °C
CAS No. 14933-09-6
WGK 1

Warning H315-H319-H335

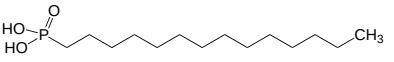
N-Tetradecyl-*N*,*N*-dimethyl-3-ammonio-1-propane sulphonate
≥98 %, for biochemistry

Zwitterionic detergent

Type analysis
Assay (HPLC) ..... ≥98,0 %
Loss on drying ..... ≤2,0 %
Ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
1822.1	5 g	glass	34,30
1822.2	25 g	glass	96,25
1822.3	100 g	glass	317,15

Tetradecylphosphonic acid



TDPA

$C_{14}H_{31}O_3P$ · mp 80 to 85 °C
CAS No. 4671-75-4 · EC no. 225-118-1
WGK 1

Tetradecylphosphonic acid

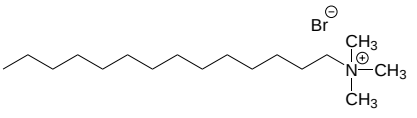
Suitable for the production and modification of nanoparticles.

Storage temperature: +4 °C

Type analysis
Melting point ..... 80-85 °C

Art. No.	Pack Qty.	Pack.	€
8465.1	1 g	glass	45,70
8465.2	5 g	glass	160,20

Tetradecyltrimethylammonium bromide (MTAB)



MTAB · Myristyltrimethylammonium bromide · *N*,*N*,*N*-Trimethyl-1-tetradecanammonium bromide

$C_{17}H_{38}BrN$ · D 0,5 g/cm³ · mp 245 to 250 °C
CAS No. 1119-97-7 · EC no. 214-291-9
UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H315-H318-H335-H373-H400

Tetradecyltrimethylammonium bromide (MTAB)
≥96 %, extra pure

Cationic detergent

Type analysis
Assay (arg., dry substance) ..... ≥96,0 %
Loss on drying ..... ≤2,0 %
Sulphated ash ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
7452.1	100 g	plastic	49,35
7452.2	500 g	plastic	188,15
Original pack 6 x 500 g			178,74/500 g
7452.3	1 kg	plastic	364,45
Original pack 6 x 1 kg			346,23/1 kg
7452.4	2.5 kg	plastic	800,90

1,2,3,4-Tetrahydrobenzene
▸ Cyclohexene see page 858

Tetrahydrofuran



Oxalane · THF

C_4H_8O · D 0,883 g/cm³ · mp -108,5 °C · bp 65 °C · flp -21,2 °C
CAS No. 109-99-9 · EC no. 203-726-8
UN no. 2056 · ADR 3 II · WGK 1

Danger H225-H302-H319-H335-H351-EUH019

Tetrahydrofuran
ROTISOLV® ≥99,9 %, Ultra LC-MS, unstabilised

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,02 %
Acidity (as CH_3COOH) ..... ≤0,002 %
Alkalinity (as NH_3) ..... ≤0,0005 %
Evaporation residue ..... ≤0,0001 %
Aluminium (Al) ..... ≤20 ppb
Calcium (Ca) ..... ≤50 ppb
Iron (Fe) ..... ≤20 ppb
Potassium (K) ..... ≤50 ppb
Magnesium (Mg) ..... ≤20 ppb
Sodium (Na) ..... ≤50 ppb

Fluorescence (as quinine):
254 nm ..... ≤1 ppb
365 nm ..... ≤1 ppb

Gradient test:
254 nm ..... ≤0,01 AU
280 nm ..... ≤0,003 AU

Transmission:
310 nm ..... ≥99 %
280 nm ..... ≥95 %
275 nm ..... ≥90 %
265 nm ..... ≥80 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
0739.1	1 l	glass	155,90
Original pack 6 x 1 l			148,11/1 l

Tetrahydrofuran
ROTISOLV® HPLC, unstabilised

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,01 %
Free acid (as CH_3COOH) ..... ≤0,001 %
Non volatile matter ..... ≤0,0005 %
Peroxides (as H_2O_2) ..... ≤0,01 %

Transmission:
290-400 nm ..... ≥99 %
275 nm ..... ≥90 %
255 nm ..... ≥70 %
235 nm ..... ≥50 %
215 nm ..... ≥10 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
7344.1	1 l	glass	77,95
Original pack 6 x 1 l			74,05/1 l
7344.2	2.5 l	glass	160,20
Original pack 4 x 2.5 l			152,19/2.5 l

Tetrahydrofuran
ROTISOLV® Pestilyse® plus ≥99,9 % unstabilised

For determination of dioxins, furans, PCBs, pesticides, hydrocarbons etc.

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,03 %
Acidity (as CH_3COOH) ..... ≤0,002 %
Evaporation residue ..... ≤0,0002 %
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤10 ng/l
GC/ECD suitability (as heptachloro epoxide) ..... ≤10 ng/l
GC/ECD volatile impurities (as ethylene dibromide) ..... ≤5 ng/ml
GC/ECD pesticides (as lindane) ..... ≤10 ng/l
GC/NPD pesticides (as parathion) ..... ≤10 ng/l
Oil index (any hydrocarbon C_{10}-C_{40}) ..... ≤0,1 mg/l
Peroxides (as H_2O_2) ..... ≤0,01 %
PAH-test (less than 2 ppb, HPLC) ..... complies

Fluorescence (as quinine):
254 nm ..... ≤1 ppb
365 nm ..... ≤1 ppb

Transmission:
230 nm ..... ≥30 %

Unstabilised.

Art. No.	Pack Qty.	Pack.	€
1K09.1	2.5 l	glass	224,70
Original pack 4 x 2.5 l			213,47/2.5 l

Tetrahydrofuran
ROTISOLV® ≥99,9 %, UV/IR Grade

For chromatography and spectroscopy.

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,02 %
Colour (Hazen) ..... ≤10
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

Fluorescence (as quinine):
254 nm ..... ≤1,0 ppb
365 nm ..... ≤1,0 ppb

Transmission:
310 nm ..... ≥98 %
275 nm ..... ≥90 %
265 nm ..... ≥80 %
245 nm ..... ≥55 %
215 nm ..... ≥10 %

Unstabilised.

Art. No.	Pack Qty.	Pack.	€
CP82.1	2.5 l	glass	166,65
Original pack 4 x 2.5 l			158,32/2.5 l

Tetrahydrofuran
ROTIDRY®Sept ≥99,8 % (≤50 ppm H_2O)

Dried; in a septum bottle

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,005 %
Acidity (as CH_3COOH) ..... ≤0,003 %
Evaporation residue ..... ≤0,001 %

stabilised with approx. 250 ppm BHT.

Art. No.	Pack Qty.	Pack.	€
5182.1	250 ml	septum bottle	70,45

Tetrahydrofuran
ROTIDRY® plus ≥99,5 % (≤50 ppm H_2O), with molecular sieve, stabilised

Type analysis
Assay (GC) ..... ≥99,5 %
Water (KF) ..... ≤0,005 %
Density (d 20 °C/4 °C) 0,887-0,889
Acidity ..... ≤0,0003 meg/g
Peroxides (as H_2O_2) ..... ≤0,005 %
Cu (Copper) ..... ≤0,00002 %
Fe (Iron) ..... ≤0,00005 %
Ni (Nickel) ..... ≤0,00002 %
Pb (Lead) ..... ≤0,00002 %

stabilised with 2,6-di-*tert*-butyl-4-methylphenol (BHT).

Art. No.	Pack Qty.	Pack.	€
1A9Y.1	1 l	glass	82,70
Original pack 6 x 1 l			78,57/1 l

Tetrahydrofuran
ROTIDRY® ≥99,9 % (≤50 ppm H_2O)

Dried; for analysis and organic synthesis.

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Colour (Hazen) ..... ≤10
Water (KF) ..... ≤0,005 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,001 %

stabilised with approx. 250 ppm BHT.
Filtered through a membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
AE07.1	1 l	glass	84,85
Original pack 6 x 1 l			80,61/1 l

Tetrahydrofuran
ROTIPURAN® ≥99,5 %, p.a., ACS

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Colour (Hazen) ..... ≤20
Water ..... ≤0,05 %
Acidity ..... ≤0,001 %
Peroxides (as H_2O_2) ..... ≤0,015 %
Evaporation residue ..... ≤0,03 %
Aluminium (Al) ..... ≤0,00005 %
Barium (Ba) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,00001 %
Boron (B) ..... ≤0,000002 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Tin (Sn) ..... ≤0,00001 %
Zinc (Zn) ..... ≤0,00001 %

stabilised with 2,6-di-*tert*-butyl-4-methylphenol (BHT).

Art. No.	Pack Qty.	Pack.	€
6788.1	1 l	glass	62,90
Original pack 6 x 1 l			59,76/1 l
6788.2	2.5 l	glass	131,70
Original pack 4 x 2.5 l			125,12/2.5 l
6788.3	10 l	PE/steel	418,20
6788.5	25 l	tinplate	815,95

Tetrahydrofuran
≥99,5 %, for synthesis

Type analysis
Appearance ..... clear, colourless liquid
Assay ..... ≥99,5 %
Colour (Hazen) ..... ≤10
Water (KF) ..... ≤0,1 %
Refractive index n_D^{20} 1,406-1,408

stabilised with 2,6-di-*tert*-butyl-4-methylphenol (BHT).

Art. No.	Pack Qty.	Pack.	€
4745.1	250 ml	glass	28,95
4745.2	1 l	glass	51,50
Original pack 6 x 1 l			48,93/1 l
4745.3	2.5 l	glass	103,10
Original pack 4 x 2.5 l			97,95/2.5 l
4745.4	10 l	tinplate	311,75
4745.5	25 l	tinplate	547,20

Tetrahydrofuran D8

Octadeutero tetrahydrofurane · THF D8

C_4D_8O · D 0,89 g/cm³ · mp -108 °C · bp 65 °C · flp -20 °C
CAS No. 1693-74-9 · EC no. 216-898-4
UN no. 2056 · ADR 3 II · WGK 1

Danger H225-H302-H319-H335-H351-EUH019

Tetrahydrofuran D8
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging for AE58.5: 10 x 0,75 ml in ampoules

Guarantee analysis
Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
AE58.3	5 ml	glass	145,15
AE58.5	7.5 ml	glass ampoule	268,25
AE58.1	10 ml	glass	263,40
AE58.2	10 ml	septum bottle	266,10
AE58.4	25 ml	glass	611,70

Tetrahydro-1,4-oxazine
▸ Morpholine see page 1094

3',4',5,7-Tetrahydroxyflavanone
▸ Eriodictyol see page 913

2',3,5,7-Tetrahydroxyflavone
▸ Datiscetin see page 863

3,3',4',7-Tetrahydroxyflavone
▸ Fisetin see page 935

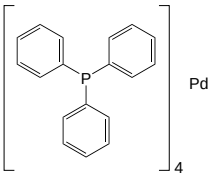
3,4',5,7-Tetrahydroxyflavone
▸ Kaempferol see page 1026

3',4',5,7-Tetrahydroxyflavone
▸ Luteolin see page 1051

3',4',5,7-Tetrahydroxyflavylium chloride
▸ Luteolinidin chloride see page 1052

Tetraiodine fluorescein disodium salt
▸ Erythrosine B (C.I. 45430) see page 914

Tetrakis(triphenylphosphine) palladium(0)



Tetrakis(triphenylphosphine)palladium(0) · $Pd(PPh_3)_4$

$Pd(P(C_6H_5)_3)_4$ · D 1,36 g/cm³ · mp 115 °C
CAS No. 14221-01-3 · EC no. 238-086-9
WGK 1

Tetrakis(triphenylphosphine) palladium(0)
≥98 %

Catalyst

Storage temperature: +4 °C

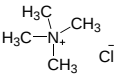
Type analysis
Appearance ... yellow to green crystalline powder
Purity ..... ≥99 %

Store under inert gas.

Art. No.	Pack Qty.	Pack.	€
0920.1	1 g	glass	50,45
0920.2	5 g	glass	174,70
0920.3	10 g	glass	335,95

Tetrakis(triphenylphosphine) palladium(0)
▸ Tetrakis(triphenylphosphine)palladium(0) see page 1362

Tetramethylammonium chloride (TMAC)



TMAC

$C_4H_{12}ClN$ · D 1,19 g/cm³ · mp 268 °C
CAS No. 75-57-0 · EC no. 200-880-8
UN no. 2811 · ADR 6.1 II · WGK 1

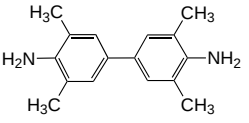
Danger H300-H311-H315-H411

Tetramethylammonium chloride (TMAC)
≥98 %, for synthesis

Type analysis
Appearance ..... white crystals
Assay (arg.) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
4747.1	100 g	plastic	34,30
4747.2	500 g	plastic	134,40
Original pack 6 x 500 g			127,68/500 g

3,3',5,5'-Tetramethylbenzidine



TMB

$C_{16}H_{20}N_2$ · D 0,45 g/cm³ · mp 167 to 170 °C
CAS No. 54827-17-7 · EC no. 259-364-6
WGK 1

3,3',5,5'-Tetramethylbenzidine
≥98 %, p.a.

Substrate for peroxidase

Always prepare a fresh working solution!

Storage temperature: +4 °C

Type analysis
Appearance ..... beige cryst. powder
Assay (GC) ..... ≥99,0 %
Sulphated ash ..... ≤0,2 %
Loss on drying (3 h, 60 °C, vacuum) ..... ≤1,0 %
Melting range ..... 166-171 °C

Can replace carcinogenic benzidine.

Art. No.	Pack Qty.	Pack.	€
6350.1	1 g	glass	62,25
6350.2	5 g	plastic	192,45
6350.3	25 g	plastic	639,65

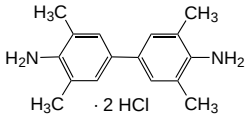
3,3',5,5'-Tetramethylbenzidine
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... almost white to yellow powder
Assay ..... ≥98 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6834.1	1 g	glass	34,30
6834.2	5 g	glass	102,70
6834.3	25 g	glass	446,15

3,3',5,5'-Tetramethylbenzidine dihydrochloride



TMB · 2 HCl · TMB dihydrochloride

$C_{16}H_{20}N_2$ · 2 HCl · mp 300 °C
CAS No. 207738-08-7 · EC no. 264-769-6
WGK 1

3,3',5,5'-Tetramethylbenzidine dihydrochloride
≥99 %, for biochemistry

Water-soluble peroxidase substrate

Stock solution: 0.1 mg/ml in 50 % acetic acid or phosphate citrate buffer (50 mM NaH_2PO_4, 25 mM citric acid, pH 5.0). For solubilisation, heat to 45 °C and sonicate.

Storage of stock sol.: At +4 °C if tightly sealed. Oxidation can be seen by colour-shift to a faint blue.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Guarantee analysis
Assay (titr.) ..... ≥99 %
Solution (1 % in methanol) ..... colourless to yellow-green
Water (KF) ..... ≤5 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
4107.1	500 mg	glass	50,45
4107.2	1 g	glass	84,40

Tetramethylenediamine
▸ Putrescin see page 1190
▸ Putrescine dihydrochloride see page 1190

Tetramethylene diisocyanate
▸ 1,4-Diisocyanatobutane see page 883

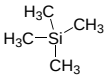
Tetramethylene glycol
▸ 1,4-Butanediol see page 796

N,N,N',N'-Tetramethylethylene-diamine
▸ TEMED see page 1357

2,2,6,6-Tetramethylpiperidine 1-oxyl
▸ TEMPO see page 1357

2,2,6,6-Tetramethylpiperidinyloxy (free radical)
▸ TEMPO see page 1357

Tetramethylsilane



TMS

$C_4H_{12}Si$ · D 0,63 g/cm³ · mp -99,1 °C · bp 26 to 27 °C · flp <-30 °C
CAS No. 75-76-3 · EC no. 200-899-1
UN no. 2749 · ADR 3 I · WGK 2

Danger H224-H411

Tetramethylsilane
≥99,9 %, for NMR spectroscopy

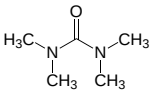
For the calibration of NMR spectra; calibration substance.

Storage temperature: +4 °C

Type analysis
Assay (GC) ..... ≥99,9 %
Aptitude for NMR-spectroscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
CP18.1	25 ml	glass	38,60
CP18.2	100 ml	glass	105,90

Tetramethylurea



TMU · 1,1,3,3-Tetramethylurea · *N,N,N',N'*-Tetramethylurea

$C_5H_{12}N_2O$ · D 0,97 g/cm³ · mp -1 °C · bp 176 °C · flp 75 °C
CAS No. 632-22-4 · EC no. 211-173-9
WGK 2

Danger H302-H360D

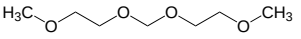
Tetramethylurea
≥99 %, for synthesis

Type analysis
Assay ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
0756.1	100 ml	glass	58,60
0756.2	250 ml	glass	134,40
0756.3	500 ml	glass	241,90
0756.4	1 l	glass	456,90
Original pack 6 x 1 l			434,06/1 l

Tetra-*n*-butylammonium fluoride
▸ Tetrabutylammoniumfluoride (TBAF) see page 1359

Tetraoxaundecane



2,5,7,10-Tetraoxaundecane · Bis(2-methoxyethoxy)methane · TOU

$C_7H_{16}O_4$ · mp <-65 °C · flp 92 °C
CAS No. 4431-83-8 · EC no. 224-631-8
WGK 1

Tetraoxaundecane
SOLVAGREEN® ≥99 %, for synthesis

Alternative for NMP, NEP, glycols, aromatics.

Type analysis
Assay ..... ≥99,0 %
Water ..... ≤0,5 %

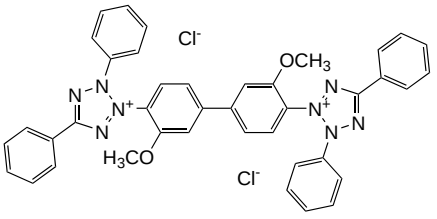
Art. No.	Pack Qty.	Pack.	€
0786.1	100 ml	glass	21,00
0786.2	500 ml	glass	46,15
0786.3	1 l	glass	69,35
Original pack 6 x 1 l			65,88/1 l
0786.4	2.5 l	glass	131,70
Original pack 4 x 2.5 l			125,12/2.5 l

Tetraphenylboron sodium
▸ Sodium tetraphenyl borate see page 1297

Tetrathionate Broth
▸ Mueller Kauffmann Broth (Base) see page 1096

Tetrathionate Enrichment Broth
▸ Mueller Kauffmann Broth (Base) see page 1096

Tetrazolium blue chloride



3,3'-(3,3'-Dimethoxy-[1,1'-biphenyl]-4,4'-diyl)-bis(2,5-diphenyl-2*H*-tetrazolium) dichloride · 3,3'-Dianisole-4,4'-bis(3,5-diphenyltetrazolium chloride) · BTC · Blue tetrazolium chloride

$C_{40}H_{32}Cl_2N_8O_2$ · mp 265 to 270 °C
CAS No. 1871-22-3 · EC no. 217-488-8
WGK 3

Danger H350

Tetrazolium blue chloride
≥95 %, for biochemistry

For vital staining of cells.

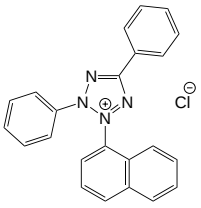
Type analysis
Appearance ..... light yellow to yellow powder
Assay (arg.) ..... ≥95,0 %
Solution (0,5 % in methanol) ..... light yellow to greenish yellow
Water (KF) ..... ≤3 %

Art. No.	Pack Qty.	Pack.	€
4176.1	1 g	glass	70,45
4176.2	5 g	glass	276,85

Tetrazolium red

- 2,3,5-Triphenyltetrazolium chloride see page 1381
- TTC-Supplement see page 1387

Tetrazolium violet



$C_{23}H_{17}ClN_4$ · mp 247 to 249 °C
CAS No. 1719-71-7
WGK 1

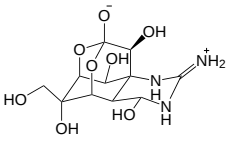
Tetrazolium violet
for microscopy

Redox indicator for detection of living cells.

Type analysis
Appearance ..... off-white to light beige powder
Appearance of solution (50 mg/ml in MeOH)
..... clear, yellow to yellow green

Art. No.	Pack Qty.	Pack.	€
7736.1	1 g	glass	64,40
7736.2	5 g	glass	274,15
7736.3	10 g	glass	525,70

Tetrodotoxin



TTX

$C_{11}H_{17}N_3O_8$ · mp 200 °C
CAS No. 4368-28-9 · EC no. 224-458-8
UN no. 3462 · ADR 6.1 I · WGK 3

Danger H300+H310+H330

Tetrodotoxin
≥99 %, citrate-free

Storage temperature: +4 °C

Type analysis
Appearance ..... white cryst. powder
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
6973.1	1 mg	plastic	413,90

TFA

- Trifluoroacetic acid (TFA) see page 1379

TFAA

- Trifluoroacetic anhydride (TFAA) see page 1379

TFA-D

- Trifluoroacetic acid D see page 1379

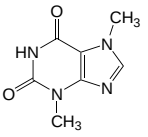
TG buffer powder (pouch)

- ROTI®Fair TG-Western see page 1222

Thallium Standards

- Thallium AAS Standard Solution see page 1324
- Thallium ICP Standard Solution see page 1324
- Thallium ICP Standard Solution see page 1324

Theobromine



3,7-Dimethylxanthine

$C_7H_8N_4O_2$ · D 1,522 g/cm³ · mp 345 to 350 °C
CAS No. 83-67-0 · EC no. 201-494-2
WGK 1

Warning H302

Theobromine
ROTICHROM® CHR ≥99 %, Ph. Eur., for biochemistry

Guarantee analysis
Appearance ..... white powder
Assay (titr., dry substance) ..... 99,0-101,0 %
Identity ..... complies
Acid react. substance (0,01 N NaOH, 400 mg)
..... ≤0,2 ml
Heavy metals ..... ≤0,002 %
Loss on drying (105 °C) ..... ≤0,5 %
Sulphated ash ..... ≤0,1 %
Related substances ..... complies

Art. No.	Pack Qty.	Pack.	€
8963.1	10 g	plastic	23,55
8963.2	100 g	plastic	96,65

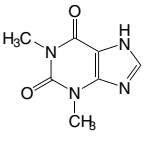
Theobromine
ROTICHROM® HPLC

Storage temperature: +4 °C

Type analysis
Appearance ..... white to beige coloured powder
Purity (HPLC) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
1EX2.1	20 mg	glass	160,75

Theophylline



$C_7H_8N_4O_2$ · D 1,36 g/cm³ · mp 270 to 274 °C
CAS No. 58-55-9 · EC no. 200-385-7
UN no. 2811 · ADR 6.1 III · WGK 1

Danger H301

Theophylline
ROTICHROM® HPLC

Storage temperature: +4 °C

Type analysis
Appearance ..... white to beige coloured powder
Purity (HPLC) ..... ≥95%

Art. No.	Pack Qty.	Pack.	€
1EX3.1	20 mg	glass	160,75

THF

- Tetrahydrofuran see page 1361

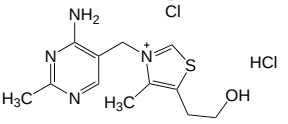
THF D8

- Tetrahydrofuran D8 see page 1362

Thiamine chloride hydrochloride

- Thiamine hydrochloride see page 1364

Thiamine hydrochloride



Aneurine hydrochloride · Thiamine chloride hydrochloride · Vitamin B_1 hydrochloride

$C_{12}H_{17}ClN_4OS$ · HCl · D 0,414 g/cm³ · mp 210 to 250 °C
CAS No. 67-03-8 · EC no. 200-641-8
WGK 1

Warning H319

Thiamine hydrochloride
≥98,5 %, for biochemistry

Storage temperature: +4 °C

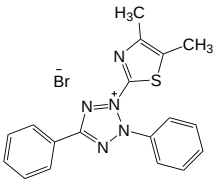
Type analysis
Appearance .. white to almost white cryst. powder
Assay (titr. dry substance) ..... 98,5-101,0 %
pH value (2,5 % in H_2O) 2,7-3,3
Water (KF) ..... ≤5,0 %
Sulphate (SO_4) ..... ≤0,03 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
T911.1	25 g	plastic	27,45
T911.2	100 g	plastic	75,80
T911.3	250 g	plastic	166,65

Thiazole yellow

- Titan yellow (C. I. 19540) see page 1371

Thiazolyl blue



3-(4,5-Dimethylthiazol-2-yl-2,5-diphenyl-2*H*-tetrazolium bromide · MTT

$C_{18}H_{16}BrN_5S$ · mp 190 to 210 °C
CAS No. 298-93-1 · EC no. 206-069-5
WGK 1

Warning H315-H319-H335-H341

Thiazolyl blue
≥98 %, for biochemistry

MTT-reagent, used for detection of apoptosis.

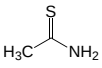
Stock solution: 5 mg/ml in PBS buffer solution, sterile filtrated (pH <5)
Stability of stock solution: approx. 1 month at +4 °C, protected from light
Working concentration: 1 mg/ml

Type analysis
Appearance ..... yellow crystalline powder
Assay (arg. titr.) ..... ≥98,0 %
Absorption max. (in H_2O) ..... 239-247 nm

Art. No.	Pack Qty.	Pack.	€
4022.1	1 g	glass	42,90
4022.3	5 g	glass	166,65
4022.2	10 g	glass	299,95
4022.4	25 g	glass	618,15

Thimerosal
▸ Sodium ethylmercurithiosalicylate see page 1283

Thioacetamide



TAA · Thioacetimidic acid

C_2H_5NS · D 1,37 g/cm³ · mp 111 to 114 °C
CAS No. 62-55-5 · EC no. 200-541-4
WGK 3

Danger H302-H315-H319-H350-H412

Thioacetamide
≥99 %, p.a.

Type analysis
Assay ..... ≥99,0 %
Sulphated ash ..... ≤0,05 %
Iron (Fe) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
8646.1	50 g	plastic	57,55
8646.2	100 g	plastic	102,70
8646.3	250 g	plastic	217,70
8646.4	500 g	plastic	413,90
Original pack 6 x 500 g			393,21/500 g

Thioacetimidic acid
▸ Thioacetamide see page 1365

Thiocarbamide
▸ Thiourea see page 1366

Thiocyanate Standards
▸ Thiocyanate IC Standard Solution see page 1335

Thioethyleneglycol
▸ 2-Mercaptoethanol see page 1073

Thioglycol
▸ 2-Mercaptoethanol see page 1073

Thioglycolate Broth

Thioglycolate Broth
Ph. Eur., USP, for microbiology

For the detection of microorganisms in sterility tests.

Application: Use 29.8 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

WGK 3

Warning H317

Not a medical device / Not an IVD product

Guarantee analysis
Casein peptone (pancreas hydrolysate) ..... 15 g/l
Sodium chloride (NaCl) ..... 2,5 g/l
Yeast extract ..... 5 g/l
L-Cysteine ..... 0,5 g/l
Glucose monohydrate ..... 5,5 g/l
Sodium thioglycolate ..... 0,5 g/l
Sodium resazurin ..... 0,001 g/l
Agar-Agar ..... 0,75 g/l
pH value (25 °C) 6,9-7,3

Art. No.	Pack Qty.	Pack.	€
1E12.1	100 g	plastic	37,10
1E12.2	500 g	plastic	123,65
Original pack 6 x 500 g			117,47/500 g
1E12.3	1 kg	plastic	218,80
Original pack 6 x 1 kg			207,86/1 kg

Thioglycolate Broth
Ph. Eur., USP, ISO 7937, for microbiology

For the detection of microorganisms in sterility tests.

D 1,035 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

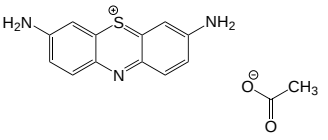
WGK 1

Agar-Agar ..... 0,75 g/l
Casein peptone ..... 15 g/l
Dextrose ..... 5,5 g/l
Yeast extract ..... 5 g/l
Sodium chloride (NaCl) ..... 2,5 g/l
Sodium thioglycolate ..... 0,5 g/l
L-Cysteine ..... 0,5 g/l
Sodium resazurin ..... 0,001 g/l
pH value (25 °C) 6,9-7,3

Art. No.	Pack Qty.	Pack.	€
1L8C.1	180 ml	glass	46,15
1L8C.2	1 l	glass	81,60
Original pack 6 x 1 l			77,52/1 l

Thiomersalate
▸ Sodium ethylmercurithiosalicylate see page 1283

Thionine (acetate) (C. I. 52000)



3,7-Diaminophenothiazin-5-ium acetate · Lauth's violet

$C_{14}H_{13}N_3O_2S$
CAS No. 78338-22-4
WGK 1

Thionine (acetate) (C. I. 52000)
for microscopy

Nuclear dye

Type analysis
Assay (spectrophotometric) ..... ≥85 %
Absorption max. (in H_2O) ..... 598-600 nm
Loss on drying (110 °C) ..... ≤7 %
Suitability for microscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
9937.1	5 g	plastic	112,90
9937.2	10 g	plastic	209,65

Thionyl chloride



Sulphurous acid dichloride · Dichlorosulfoxide

$SOCl_2$ · D 1,64 g/cm³ · mp -104,5 °C · bp 76 °C
CAS No. 7719-09-7 · EC no. 231-748-8
UN no. 1836 · ADR 8 I · WGK 1

Danger H302-H314-H331-H335-EUH014 EUH029

Thionyl chloride
≥98 %, for synthesis

Type analysis
Assay ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
4024.2	100 ml	glass	41,95
4024.1	500 ml	glass	107,40

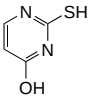
DL-6,8-Thiooctic acid
▸ DL-6,8-Dithiooctanoic acid see page 895

Thiosulphate Standards
▸ Thiosulphate IC Standard Solution see page 1335

Thiosulphate Citrate Bile Sucrose Agar

▸ TCBS Agar see page 1356

2-Thiouracil



4-Hydroxy-2-mercaptopyrimidine

$C_4H_4N_2OS$ · mp >340 °C
CAS No. 141-90-2 · EC no. 205-508-8
WGK 1

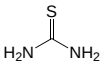
Warning H351

2-Thiouracil
≥98 %, for biochemistry

Type analysis
Assay (HPLC) ..... ≥98,0 %
Solution (5 % in 1 N NaOH) ..... colourless to yellowish
Loss on drying ..... ≤0,5 %
Heavy metals (as Pb) ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
5245.1	50 g	plastic	51,10
5245.2	100 g	plastic	93,00

Thiourea



Thiocarbamide

CH_4N_2S · D 1,405 g/cm³ · mp ≥164 to ≤178 °C
CAS No. 62-56-6 · EC no. 200-543-5
UN no. 3077 · ADR 9 III · WGK 3

Warning H302-H351-H361d-H411

Thiourea
≥99 %, p.a., ACS

Guarantee analysis
Assay ..... ≥99,0 %
Solubility (water) ..... clear, colorless
Loss on drying (105 °C) ..... ≤0,5 %
Melting point ..... 174-177 °C
Ash content (as SO_4) ..... ≤0,1 %
Aluminium (Al) ..... ≤0,005 %
Barium (Ba) ..... ≤0,005 %
Lead (Pb) ..... ≤0,005 %
Calcium (Ca) ..... ≤0,005 %
Chromium (Cr) ..... ≤0,005 %
Iron (Fe) ..... ≤0,005 %
Potassium (K) ..... ≤0,005 %
Copper (Cu) ..... ≤0,005 %
Magnesium (Mg) ..... ≤0,005 %
Manganese (Mn) ..... ≤0,005 %
Sodium (Na) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,005 %
Strontium (Sr) ..... ≤0,005 %
Zinc (Zn) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
HN37.1	100 g	plastic	21,40
HN37.2	250 g	plastic	40,75
HN37.3	1 kg	plastic	131,70
Original pack 6 x 1 kg			125,12/1 kg

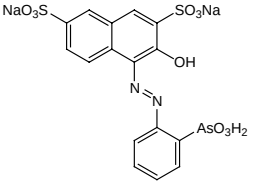
Thiourea
≥99 %, extra pure

For chemical synthesis.

Type analysis
Assay (iodom.) ..... ≥99 %
Water ..... ≤0,5 %
Ash content (as SO_4) ..... ≤0,3 %
Melting range ..... 170-179 °C

Art. No.	Pack Qty.	Pack.	€
9531.3	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
9531.1	1 kg	plastic	75,15
Original pack 6 x 1 kg			71,39/1 kg
9531.2	5 kg	plastic	306,40

Thorin



1-(2-Arsonophenylazo)-2-hydroxy-3,6-naphthalene-disulphonic acid sodium salt · 2-(2-Hydroxy-3,6-disulpho-1-naphthylazo-(1))-benzene-arsonic acid sodium salt

$C_{16}H_{11}AsN_2Na_2O_{10}S_2$ · mp >300 °C
CAS No. 3688-92-4 · EC no. 222-993-1
UN no. 3465 · ADR 6.1 III · WGK 3

Danger H301+H331-H410

Thorin
p.a.

Indicator for metal ions

Dissolve 0.5 g in 100 ml water

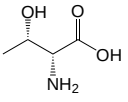
Guarantee analysis
Appearance ..... red to reddish brown powder
Specific Extinction E (1%/1cm) 190-200

Art. No.	Pack Qty.	Pack.	€
KK34.1	5 g	glass	220,40
KK34.2	10 g	glass	410,15

DL-threo-2,3-Dihydroxy-1,4-dithiobutane

▸ 1,4-Dithiothreitol (DTT) see page 895

D-Threonine



2-Amino-3-hydroxybutyric acid · H-D-Thr-OH

$C_4H_9NO_3$
CAS No. 632-20-2 · EC no. 211-171-8
WGK 1

D-Threonine
≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98,5 %
Specific rotation $[\alpha]_D^{20}$ (c= 6 in H_2O) ..... +27,2° to +29,0°
Loss on drying ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
7889.1	5 g	plastic	30,00
7889.2	25 g	plastic	93,45
7889.3	100 g	plastic	295,65

DL-Threonine

2-Amino-3-hydroxybutyric acid

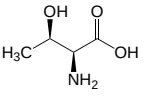
$C_4H_9NO_3$ · mp ~245 °C
CAS No. 80-68-2 · EC no. 201-300-6
WGK 1

DL-Threonine
≥98 %, for biochemistry

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98,0 %
Heavy metals (as Pb) ..... ≤0,001 %
Ash content ..... ≤0,1 %
Loss on drying ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
7532.1	10 g	plastic	26,80
7532.4	50 g	plastic	58,60
7532.2	100 g	plastic	94,10
7532.3	500 g	plastic	403,15
Original pack 6 x 500 g			382,99/500 g

L-Threonine



2-Amino-3-hydroxybutyric acid · H-L-Thr-OH

$C_4H_9NO_3$ · D 1,077 g/cm³ · mp 255 to 257 °C
CAS No. 72-19-5 · EC no. 200-774-1
WGK 1

L-Threonine
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤12 E.U./g
Assay ..... ≥99 %
Loss on drying ..... ≤0,5 %
Specific rotation $[\alpha]_D^{20}$ ..... -29,0° to -27,6°
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,03 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
1738.1	25 g	plastic	24,20
1738.2	100 g	plastic	49,35
1738.3	500 g	plastic	192,45
Original pack 6 x 500 g			182,83/500 g

L-Threonine
≥99 %, Ph. Eur., for biochemistry

Guarantee analysis
Appearance ..... white to off-white cryst. powder
Assay (dry substance) ..... 99,0-101,0 %
Identity ..... complies
Specific rotation $[\alpha]_D^{20}$ ..... -29,0° to -27,6°
Appearance of solution ..... clear, colourless
pH-value 5,0-6,5
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,03 %
Iron (Fe) ..... ≤0,001 %
Foreign amino acids ..... complies

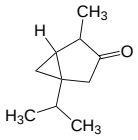
Ammonium (NH_4) ..... ≤0,02 %
Loss on drying ..... ≤0,5 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
T206.1	25 g	plastic	19,25
T206.2	100 g	plastic	38,60
T206.4	250 g	plastic	78,40
T206.3	500 g	plastic	145,15
Original pack 6 x 500 g			137,89/500 g

THPTA

▸ Tris(3-hydroxypropyltriazolylmethyl)amine (THPTA) see page 1384

α,β-Thujone



Absinthon · Tanaceton

$C_{10}H_{16}O$ · D 0,92 to 0,93 g/cm³ · bp 200 to 202 °C · flp 67 °C
CAS No. 76231-76-0
WGK 2

Warning H302-H317-H412

α,β-Thujone (isomers)
pure

Type analysis
Density (d 20 °C/20 °C) 0,9150-0,9300
Refractive index n_D^{20} 1,4520-1,4540

Formulation: α-Thujone ca. 65 %, β-Thujone ca. 10 %.

Art. No.	Pack Qty.	Pack.	€
9540.1	5 g	glass	25,70
9540.2	50 g	glass	181,70

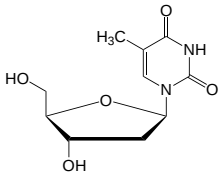
Thulium Standards

▸ Thulium ICP Standard Solution see page 1324

Thyme camphor

▸ Thymol see page 1367

Thymidine



2'-Deoxythymidine · Thymine-2-deoxyriboside

$C_{10}H_{14}N_2O_5$ · D 1,435 g/cm³ · mp 185,3 °C
CAS No. 50-89-5 · EC no. 200-070-4
WGK 1

Thymidine
≥99 %, p.a.

For biochemistry.

Type analysis
Assay (HPLC) ..... ≥98,0 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
3005.2	500 mg	glass	23,55
3005.1	1 g	glass	30,00
3005.3	5 g	glass	64,00
3005.4	25 g	glass	192,45

Thymidine-BCE-phosphoramidite

DMT-T-P(OCH_2CH_2CN)-N($iPr)_2$ · Phosphoramidites · BCE phosphoramidites

$C_{40}H_{49}N_4O_8P$
WGK 1

Thymidine-BCE-phosphoramidite
for DNA synthesis

Thread size 19 mm

Suitable for Polygen®

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
K924.1	1 g	glass	44,65

Thymidine-CPG-Support

dT-lcaa-CPG · CPG support

WGK 1

Thymidine-CPG-Support
500 Å pore size

Support material for DNA-synthesis.

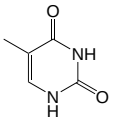
Loading: 30–40 µmol/g

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98,0 %
CPG loading ..... 30-40 µmol/g
Coupling efficiency ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
2321.3	1 g	plastic	74,75

Thymine



5-Methyluracil

$C_5H_6N_2O_2$ · mp 320 °C
CAS No. 65-71-4 · EC no. 200-616-1
WGK 1

Thymine
≥99 %, for biochemistry

Type analysis
Appearance white to off-white crystalline powder
Assay (HPLC) ..... ≥99 %
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
7289.1	5 g	glass	30,65
7289.2	25 g	plastic	50,00
7289.3	100 g	plastic	113,45

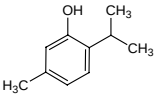
Thymine-2-deoxyriboside

▸ Thymidine see page 1367

Thyminose

▸ 2-Deoxy-D-ribose see page 867

Thymol



2-Isopropyl-5-methylphenol · 3-Hydroxy-*p*-cymene · Thyme camphor

$C_{10}H_{14}O$ · D 0,98 g/cm³ · mp 49,2 to 51,5 °C · bp 231,8 to 233,5 °C · flp 116 °C
CAS No. 89-83-8 · EC no. 201-944-8
UN no. 2430 · ADR 8 III · WGK 2

Danger H302-H314-H411

Thymol
≥99 %

Type analysis
Appearance ..... colourless to white crystals
Assay (GLC) ..... ≥99 %
Evaporation residue ..... ≤0,05 %
Melting point ..... ≥49,5 °C

Art. No.	Pack Qty.	Pack.	€
5391.1	100 g	glass	22,50
5391.2	500 g	glass	77,95
Original pack 6 x 500 g			74,05/500 g

Thymol
ROTICHROM® GC

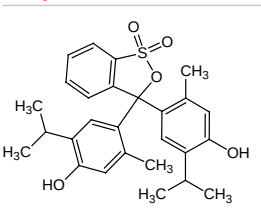
Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥96 %

Art. No.	Pack Qty.	Pack.	€
3209.1	1 g	plastic	102,05

Thymol blue



Thymolsulphonephthaleine

$C_{27}H_{30}O_5S$ · D 0,979 g/cm³ · mp 221 to 224 °C
CAS No. 76-61-9 · EC no. 200-973-3
WGK 1

Thymol blue
p.a., ACS

Indicator pH 1.2-2.8 and pH 8.0-9.2

Dissolve 0.04 g in 100 ml ethanol (20 %) or 0.04 g in 0.86 ml NaOH 0.1 mol/l and make up to 100 ml with water

Guarantee analysis
Appearance of solution (ACS) ..... complies
pH-transition range ..... 1,2 (red)-2,8 (yellow)
Transition range ..... 8,0 (yellow)-9,2 (blue)

Art. No.	Pack Qty.	Pack.	€
KK16.1	5 g	glass	22,50
KK16.2	10 g	glass	33,25
KK16.3	25 g	glass	67,20

Thymol blue indicator solution

D 0,79 g/cm³ · bp 78 °C
UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

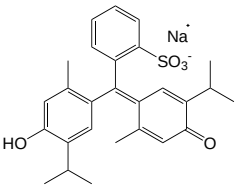
Thymol blue indicator solution
0,1 % in ethanol, denatured

Indicator pH 1.2-2.8 and pH 8.0-9.2

ready-to-use

Art. No.	Pack Qty.	Pack.	€
9954.1	250 ml	plastic	56,45

Thymol blue sodium salt



Thymolsulphonephthaleine sodium salt

$C_{27}H_{29}NaO_5S$ · mp 283 to 285 °C
CAS No. 62625-21-2 · EC no. 263-650-6
WGK 1

Thymol blue sodium salt
p.a., ACS

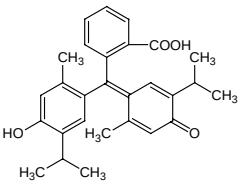
Indicator pH 1.2-2.8 and pH 8.0-9.2

Dissolve 0.1 g in 100 ml of water

Guarantee analysis
Appearance ..... orange brown to brownish-black powder
Appearance of solution ..... complies
Loss on drying ..... ≤8 %
pH-transition range ..... 1,2 (red)-2,8 (yellow)
pH transition range ..... 8,0 (yellow)-9,2 (blue)

Art. No.	Pack Qty.	Pack.	€
2606.1	5 g	glass	26,35
2606.2	25 g	glass	69,80

Thymolphthalein



$C_{28}H_{30}O_4$ · D 1,111 g/cm³ · mp 248 to 253 °C
CAS No. 125-20-2 · EC no. 204-729-7
WGK 1

Thymolphthalein
p.a., ACS

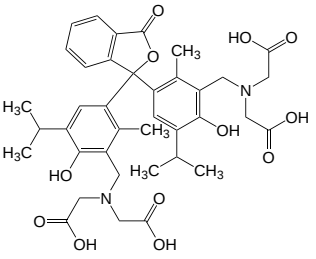
Indicator pH 8.8-10.5

Dissolve 0.1 g in 100 ml of ethanol (50 %)

Guarantee analysis
pH-transition range ..... 8,8 (clear)-10,5 (blue)
Appearance of solution ..... complies

Art. No.	Pack Qty.	Pack.	€
HN97.1	5 g	glass	25,30
HN97.2	10 g	glass	42,90
HN97.3	50 g	glass	155,90

Thymolphthalein complexon



$C_{38}H_{44}N_2O_{12}$ · mp 191 °C
CAS No. 1913-93-5
WGK 1

Thymolphthalein complexon
p.a.

Indicator for metal ions

Dissolve 0.1 g in 100 ml ethanol (96 %)

Type analysis
Appearance ..... white to off-white powder
Solubility (0,1 % in ethanol) ..... clear
Absorption max. (NaOH 0,1 mol/l) .... 600-605 nm
Loss on drying (110 °C) ..... ≤7 %
Suitability as indicator for complexometry .. complies

Art. No.	Pack Qty.	Pack.	€
1H60.1	5 g	glass	23,15
1H60.2	10 g	glass	40,35
1H60.3	25 g	glass	80,55

Thymolphthalein indicator solution

UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

Thymolphthalein indicator solution
0,1 % in ethanol, denatured

Indicator pH 8.8-10.5

ready-to-use

D 0,79 g/cm³ · mp -114 °C · bp 78 °C · flp 13 °C

Art. No.	Pack Qty.	Pack.	€
8152.1	500 ml	glass	58,60

Thymolphthalein indicator solution
1 % in ethanol, denatured

Indicator pH 8.8-10.5

ready-to-use

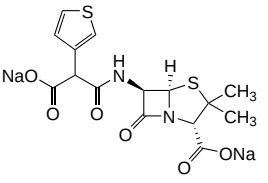
D 0,81 g/cm³ · mp -114 °C · bp 78 °C · flp 13 °C

Art. No.	Pack Qty.	Pack.	€
1E03.1	100 ml	glass	72,60

Thymolsulphonephthaleine
▸ Thymol blue see page 1367

Thymolsulphonephthaleine sodium salt
▸ Thymol blue sodium salt see page 1368

Ticarcillin disodium salt



α-Carboxy-α-3-thienylmethylpenicillin disodium salt · Ticarcillin · 2 Na

$C_{15}H_{14}N_2Na_2O_6S_2$
CAS No. 4697-14-7
WGK 1

Danger H315-H317-H319-H334-H335

Ticarcillin disodium salt
≥85 %, for biochemistry

β-Lactam antibiotic

Stock solution: 100 mg/ml in water
Store stock solution at –20 °C
Working concentration: 25–250 µg/ml
The stock solution should be cooled immediately as its activity decreases quickly and ticarcillin may precipitate.

Storage temperature: +4 °C

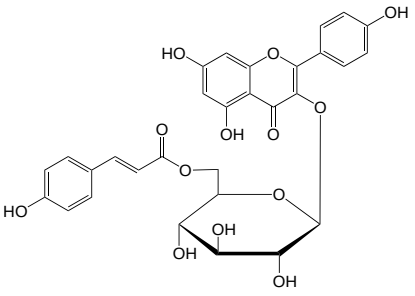
Guarantee analysis
Assay (HPLC) ..... ≥85 %
Solution (5 % in water) ..... colourless to light yellowish
Water (KF) ..... ≤10 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in H_2O) +172° to +187°
pH value (c=1 in H_2O) 5,5-7,5

Art. No.	Pack Qty.	Pack.	€
4161.1	500 mg	glass	50,00
4161.2	1 g	glass	85,50

Ticarcillin · 2 Na

▸ Ticarcillin disodium salt see page 1368

Tiliroside



$C_{30}H_{26}O_{13}$ · mp 250 to 256 °C
CAS No. 20316-62-5
WGK 1

Tiliroside
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
3268.1	10 mg	glass	396,70

Tillman's reagent

▸ 2,6-Dichlorophenol-indophenol sodium salt hydrate see page 876

Tin

Sn · D 7,3 g/cm³ · mp 232 °C · bp 2260 to 2270 °C
CAS No. 7440-31-5 · EC no. 231-141-8

Tin foil
98 % Sn, 2 % Sb, pure

Foil 40 cm wide, 0,008 mm thick and approx. 11 m in length.

Type analysis
Assay (Sn) ..... 97,5-98,5 %
Sb (Antimony) ..... 1,5-2,5 %
Ag (Silver) ..... ≤0,005 %
Al (Aluminium) ..... ≤0,001 %
As (Arsenic) ..... ≤0,0005 %
Bi (Bismuth) ..... ≤0,005 %
Cd (Cadmium) ..... ≤0,0005 %
Co (Cobalt) ..... ≤0,0001 %
Cu (Copper) ..... ≤0,001 %
Fe (Iron) ..... ≤0,005 %
In (Indium) ..... ≤0,005 %
Ni (Nickel) ..... ≤0,001 %
Pb (Lead) ..... ≤0,01 %
Zn (Zinc) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
1L7Y.1	250 g	plastic	85,50

Tin shot
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %
Particle size ..... 3-6 mm

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5097.1	5 g	plastic	98,80
5097.2	10 g	plastic	161,80

Tin granules
≥99,8 %, p.a., ~1-4 mm

Type analysis
Assay ..... ≥99,8 %
Antimony (Sb) ..... ≤0,02 %
Arsenic (As) ..... ≤0,001 %
Lead (Pb) ..... ≤0,005 %
Iron (Fe) ..... ≤0,005 %
Copper (Cu) ..... ≤0,001 %
Bismuth (Bi) ..... ≤0,004 %

Art. No.	Pack Qty.	Pack.	€
4016.2	50 g	plastic	56,90
4016.1	250 g	plastic	209,65

Tin granules
≥99,9 %, p.a., ~5-12 mm

Type analysis
Purity ..... ≥99,9 %
As (Arsenic) ..... ≤0,001 %
Bi (Bismuth) ..... ≤0,001 %
Cu (Copper) ..... ≤0,001 %
Fe (Iron) ..... ≤0,005 %
Pb (Lead) ..... ≤0,005 %
Sb (Antimony) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
1ET2.1	50 g	plastic	58,60
1ET2.2	100 g	plastic	107,00
1ET2.3	250 g	plastic	224,70

Tin beads
≥99,8 %, 8-20 mesh

Type analysis
Assay ..... ≥99,8 %
Particle size ..... 8-20 mesh

Art. No.	Pack Qty.	Pack.	€
2731.1	50 g	plastic	47,85
2731.2	100 g	plastic	87,65

Tin Standards

▸ Tin ICP Standard Solution see page 1324
▸ Tin ICP Standard Solution see page 1324
▸ Tin AAS Standard Solution see page 1324

Tin(II) chloride dihydrate

Stannous chloride · Tin dichloride dihydrate

$SnCl_2 \cdot 2\,H_2O$ · D 2,71 g/cm³ · mp 37 °C · bp 623 °C
CAS No. 10025-69-1 · EC no. 231-868-0
UN no. 3260 · ADR 8 II · WGK 3

Danger H290-H302+H332-H314-H317-H335-H373-H412

Tin(II) chloride dihydrate
≥98 %, p.a., max. 0,05 ppm Hg

For determination of mercury.

Guarantee analysis
Assay (iodom.) ..... 98,0-103,0 %
Sulphate (SO_4) ..... ≤0,002 %
Ammonium (NH_4) ..... ≤0,002 %
Mercury (Hg) ..... ≤0,000005 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,01 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,003 %
Potassium (K) ..... ≤0,005 %
Sodium (Na) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
KK07.1	100 g	glass	64,40
KK07.2	250 g	glass	134,40

Tin(II) chloride dihydrate
≥98 %, p.a., ACS

Reagent in analytical chemistry, e.g. on As, Au, Bi, Hg.

Guarantee analysis
Assay (iodom.) ..... 98,0-103,0 %
In HCl insoluble matter ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,002 %
Ammonium (NH_4) ..... ≤0,002 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,01 %
Cadmium (Cd) ..... ≤0,0005 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,003 %
Potassium (K) ..... ≤0,005 %
Cobalt (Co) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,005 %
Sodium (Na) ..... ≤0,01 %
Nickel (Ni) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4977.3	100 g	glass	48,30
4977.1	250 g	glass	99,90
4977.2	1 kg	glass	342,95
Original pack 6 x 1 kg			325,80/1 kg

Tin(II) chloride dihydrate
≥98 %, extra pure

Type analysis
Assay ..... ≥98,0 %
Sulphate (SO_4) ..... ≤0,1 %
Arsenic (As) ..... ≤0,005 %
Iron (Fe) ..... ≤0,02 %
Heavy metals (as Pb) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
7350.1	100 g	glass	21,40
7350.2	500 g	glass	78,40
Original pack 6 x 500 g			74,48/500 g
7350.3	1 kg	glass	149,45
Original pack 6 x 1 kg			141,98/1 kg
7350.4	2.5 kg	glass	321,45

Tin(IV) chloride

Tetrachlorostannane · Tin tetrachloride

$SnCl_4$ · D 2,234 g/cm³ · mp -33 °C · bp 114,2 °C
CAS No. 7646-78-8 · EC no. 231-588-9
UN no. 1827 · ADR 8 II · WGK 1

Danger H314-H335-H412

Tin(IV) chloride
≥98 %

Type analysis
Assay ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
4305.1	500 g	glass	256,95
Original pack 6 x 500 g			244,10/500 g

Tin dioxide
▸ Tin(IV) oxide see page 1370

Tin monoxide
▸ Tin(II) oxide see page 1370

Tin(II) oxide

Tin monoxide · Stannous oxide

SnO · D 6,3 g/cm³ · mp 1080 °C
CAS No. 21651-19-4 · EC no. 244-499-5
WGK 2

Danger H302-H317-H319-H372

Tin(II) oxide
≥98 %, pure

Type analysis
Assay ..... ≥98 %
Chloride (Cl) ..... ≤0,1 %
Sulphate (SO_4) ..... ≤0,005 %
Fe (Iron) ..... ≤0,005 %
Pb (Lead) ..... ≤0,01 %
Loss on drying ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
3242.1	100 g	plastic	31,75
3242.2	500 g	plastic	106,45
Original pack 6 x 500 g			101,13/500 g
3242.3	1 kg	plastic	192,45
Original pack 6 x 1 kg			182,83/1 kg

Tin(IV) oxide

Stannic oxide · Flowers of tin · Tin dioxide

SnO_2 · D 6,95 g/cm³ · mp 1630 °C · bp 1800 to 1900 °C
CAS No. 18282-10-5 · EC no. 242-159-0

Tin(IV) oxide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L61.1	5 g	HDPE	144,60
1L61.2	25 g	HDPE	585,90

Tin(IV) oxide
≥99,5 %, p.a.

Guarantee analysis
Assay ..... ≥99,5 %
Tin oxide (SnO) ..... ≤0,1 %
Lead (Pb) ..... ≤0,1 %
Iron (Fe) ..... ≤0,1 %
Nickel (Ni) ..... ≤0,01 %
Tin (Sn) ..... ≤0,05 %
Particle size ..... ≤2,5 µm

Art. No.	Pack Qty.	Pack.	€
9929.1	100 g	plastic	31,10
9929.2	500 g	plastic	98,80
Original pack 6 x 500 g			93,86/500 g
9929.3	1 kg	plastic	188,15
Original pack 6 x 1 kg			178,74/1 kg

Tin(II) sulphate

$SnSO_4$ · D 4,15 g/cm³
CAS No. 7488-55-3 · EC no. 231-302-2
WGK 2

Danger H315-H317-H318-H335-H373-H412

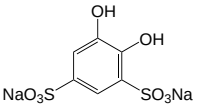
Tin(II) sulphate
≥99 %, p.a.

Guarantee analysis
Assay ..... ≥99,0 %
Arsenic (As) ..... ≤0,01 %
Iron (Fe) ..... ≤0,01 %
Heavy metals (as Pb) ..... ≤0,02 %
Alkali and alkaline earth metals ..... ≤0,15 %
In HCl insoluble matter ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
4382.1	100 g	plastic	40,75
4382.2	250 g	plastic	79,05
4382.3	1 kg	plastic	235,45
Original pack 6 x 1 kg			223,68/1 kg

Tin tetrachloride
▸ Tin(IV) chloride see page 1369

Tiron



Pyrocatechol-3,5-disulfonic acid disodium salt

$C_6H_4Na_2O_8S_2$
CAS No. 149-45-1 · EC no. 205-741-5
UN no. 3077 · ADR 9 III · WGK 2

Warning H319-H410

Tiron
≥99 %, p.a.

Indicator for complexometry

Dissolve 2 g in 100 ml water

Type analysis
Appearance ..... off-white crystalline powder
Assay (HPLC) ..... ≥99 %
Solution (5 % in water) ..... slightly brownish, clear
Water (KF) ..... 4,5-6,0 %

Art. No.	Pack Qty.	Pack.	€
7302.1	10 g	glass	21,40
7302.2	25 g	glass	33,25
7302.3	100 g	glass	85,50

TISAB solutions

Total ionic strength adjustment buffer

TISAB solution I
for fluoride determination

D 1 g/cm³ · bp 100 °C · flp >65 °C

WGK 1

Formulation: Acetic acid, Sodium chloride, tri-Sodium citrate dihydrate, Water.

Art. No.	Pack Qty.	Pack.	€
0252.1	500 ml	plastic	59,70

TISAB solution II
for fluoride determination

D 1,076 g/cm³ · bp 100 °C

WGK 1

Formulation: Sodium chloride, tri-Sodium citrate dihydrate, Acetic acid, Water.

Art. No.	Pack Qty.	Pack.	€
9945.1	1 l	plastic	74,75
Original pack 6 x 1 l			71,01/1 l

TISAB solution III
for fluoride determination

D 1,045 g/cm³ · bp 100 °C · flp 400 °C

WGK 1

Warning H319

Type analysis
pH value (20 °C) ..... 5,0 - 5,5

Formulation: Ammonium chloride, CDTA, Water, Cresol red sodium salt.

Art. No.	Pack Qty.	Pack.	€
0259.1	500 ml	plastic	134,40

TISAB solution IV
for fluoride determination

D 1,184 g/cm³

WGK 1

Warning H315-H319

Formulation: Hydrochloric acid, Tris-(hydroxy-methyl)-aminomethane, Tartaric acid, Sodium hydroxide, Water.

Art. No.	Pack Qty.	Pack.	€
9951.1	1 l	plastic	194,05
Original pack 6 x 1 l			184,35/1 l

Titanium

Ti · D 4,51 g/cm³ · mp 1668 °C · bp 3287 °C
CAS No. 7440-32-6 · EC no. 231-142-3

Titanium pieces
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L66.1	10 g	HDPE	87,65

Titanium Standards

- Titanium ICP Standard Solution see page 1324
- Titanium ICP Standard Solution see page 1324
- Titanium AAS Standard Solution see page 1324

Titanium dioxide

- Titanium(IV) oxide see page 1371
- Titanium(IV) oxide, nano see page 1371

Titanium(IV) oxide

Titanium dioxide

TiO_2 · D 4,26 g/cm³ · mp 1843 °C · bp 3000 °C
CAS No. 13463-67-7 · EC no. 236-675-5

Titanium(IV) oxide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5747.1	5 g	plastic	72,60
5747.2	25 g	plastic	213,95

Titanium(IV) oxide
≥98 %, extra pure

Type analysis
Assay ..... ≥98,0 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,001 %
Mercury (Hg) ..... ≤0,0001 %
Loss on drying (105 °C) ..... ≤0,5 %
Water-soluble content ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
9985.1	100 g	plastic	20,35
9985.2	500 g	plastic	36,45
Original pack 6 x 500 g			34,63/500 g
9985.3	1 kg	plastic	64,40
Original pack 6 x 1 kg			61,18/1 kg
9985.4	2.5 kg	plastic	127,95
9985.7	25 kg	plastic	940,65

Titanium(IV) oxide, nano

Titanium dioxide

TiO_2 · D 3,9 g/cm³ · mp 1825 °C
CAS No. 1317-70-0 · EC no. 215-280-1
UN no. 3260 · ADR 8 II

Danger H314

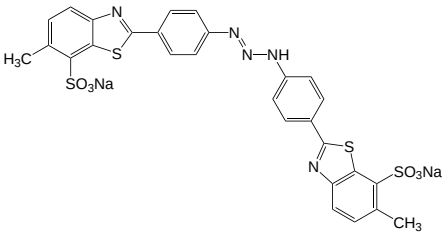
Titanium(IV) oxide, nano
ROTI®nanoMETIC ≥99,9 %, 4–8 nm

Type analysis
Assay (metals basis) ..... ≥99,9 %
Particle size ..... 4-8 nm
Specific surface (BET) ..... ~140 m²/g
Pore volume (N_2) ..... ~0,035 cm³/g
Loss on drying (2 h, 120 °C) ..... ≤1 %
Phase ..... Anatas

stabilised with HNO_3.

Art. No.	Pack Qty.	Pack.	€
8254.1	10 g	glass	73,65
8254.2	50 g	glass	317,15

Titan yellow (C. I. 19540)



Thiazole yellow

$C_{28}H_{19}Na_2N_5O_6S_4$
CAS No. 1829-00-1 · EC no. 217-377-4
WGK 1

Titan yellow (C. I. 19540)
extra pure

Indicator pH 11.0-13.0

Dissolve 0.1 g in 100 ml ethanol (20 %)

Type analysis
Appearance ..... rust colored powder
Solubility ..... clear, complete
pH-transition range ..... 11,0 (yellow)-13,0 (red)
Loss on drying ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
7739.1	5 g	glass	21,00
7739.2	25 g	glass	37,10
7739.3	100 g	glass	91,30

Titration complex I
- Nitrilotriacetic acid see page 1108

Titration complex II
- Ethylenediamine tetraacetic acid see page 921

Titration complex III
- Ethylenediamine tetraacetic acid disodium salt dihydrate see page 922

Titration complex III-solution
- EDTA disodium salt solutions see page 905

Titration complex IV
- *trans*-1,2-Diaminocyclohexane-*N*,*N*,*N*',*N*'-tetracetic acid monohydrate see page 872

Titration complex V
- Diethylene triamine pentaacetic acid see page 878

Titration complex VI
- EGTA see page 908

TLC Spray Solutions

Art. No.	Description	Page
CP35	Aniline phthalate spray solution	744
1H05	Bromocresol green spray solution	789
CP36	2',7'-Dichlorofluorescein spray solution	875
CP38	4-(Dimethylamino) benzaldehyde spray solution	886
CP33	Dragendorff-Munier spray solution	902
CP34	Iron(III) chloride spray solution	1017
CP31	Molybdatophosphoric acid spray solution	1092
CP30	Ninhydrin spray solution	1106
1H06	Potassium hexacyanoferrate(III) spray solution	1173
CP37	Rhodamine B spray solution	1204
CP32	Rubeanic acid spray solution	1245
1H07	Spray solution for xanthine visualisation (caffeine, theophylline, theobromine)	1405

H-L-Tle-OMe · HCl
- L-*tert*-Leucine methylester hydrochloride see page 1041

TMAC
- Tetramethylammonium chloride (TMAC) see page 1362

TMB
- 3,3',5,5'-Tetramethylbenzidine see page 1362

TMB dihydrochloride
- 3,3',5,5'-Tetramethylbenzidine dihydrochloride see page 1363

TMB · 2 HCl
- 3,3',5,5'-Tetramethylbenzidine dihydrochloride see page 1363

TMCS
- Trimethylchlorosilane (TMCS) see page 1380

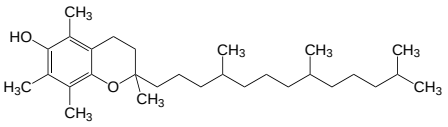
TMS
- Tetramethylsilane see page 1363

TMSDEA
- *N*-(Trimethylsilyl)-diethylamine (TMSDEA) see page 1380

TMSH in methanol
- Trimethylsulfonium hydroxide in methanol see page 1381

TMU
- Tetramethylurea see page 1363

DL-α-Tocopherol



Vitamin E

$C_{29}H_{50}O_2$ · D 0,95 g/cm³ · mp 2,5 to 3,5 °C · bp 200 to 220 °C · flp 113 °C
CAS No. 10191-41-0 · EC no. 233-466-0
WGK 1

DL-α-Tocopherol
≥96 %, Ph. Eur., oily

Storage temperature: +4 °C

Guarantee analysis
Appearance ..... yellow-brown, oily liquid
Assay (GC) ..... 96,0-102,0 %
Identity (IR) ..... complies
Optical rotation (10 % in abs. EtOH) ..... -0,01° to +0,01°
Related substances (GC) ..... complies
Impurity A ..... ≤0,5 %
Impurity B ..... ≤1,5 %
Sum of impurities C and D ..... ≤1,0 %
Any other impurities ..... ≤0,25 %
Total impurities ..... ≤2,5 %
Residual solvents ..... complies
Elemental impurities ..... complies

Art. No.	Pack Qty.	Pack.	€
3806.2	25 g	glass	42,50
3806.1	100 g	glass	120,95
3806.3	250 g	glass	256,95

DL-α-Tocopherol
ROTI®Star Primary Standard

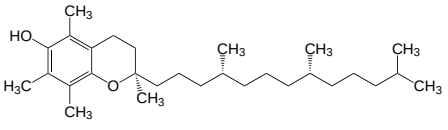
Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Assay (HPLC) ..... ≥92,0 %
Residual solvents (GC) ..... ≤1,0 %
Water (KF) ..... ≤1,0 %
Assay (qNMR) ..... ≥90,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE16.1	250 mg	glass	977,20

RRR-α-Tocopherol



Vitamin E

$C_{29}H_{50}O_2$ · D 0,95 g/cm³ · mp 2,5 to 3,5 °C · flp 110 °C
CAS No. 59-02-9 · EC no. 200-412-2
WGK 1

RRR-α-Tocopherol
ROTI®Star Primary Standard

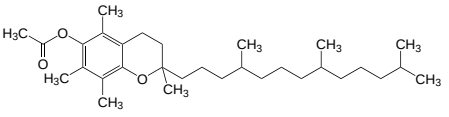
Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Assay (HPLC) ..... ≥92,0 %
Residual solvents (GC) ..... ≤1,0 %
Water (KF) ..... ≤1,0 %
Assay (qNMR) ..... ≥85,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE18.1	250 mg	glass	977,20

DL-α-Tocopherol acetate



Vitamin E acetate

$C_{31}H_{52}O_3$ · D 0,96 g/cm³ · mp -27,5 °C · bp >300 °C · flp 210 °C
CAS No. 7695-91-2 · EC no. 231-710-0
WGK 1

DL-α-Tocopherol acetate
≥96,5 %, Ph. Eur., oily

Storage temperature: +4 °C

Guarantee analysis
Appearance ..... clearly, pale greenish-yellow, oily liquid
Assay (GC) ..... 96,5-102,0 %
Identity ..... complies
Impurities (A, B, C) ..... complies

Art. No.	Pack Qty.	Pack.	€
3805.2	25 g	glass	38,60
3805.1	100 g	glass	107,00
3805.3	250 g	glass	213,95

DL-α-Tocopherol acetate
ROTI®Star Primary Standard

Storage temperature: +4 °C

Type analysis
Assay (GC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤1,0 %
Water (KF) ..... ≤1,0 %
Assay (qNMR) ..... ≥93,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE17.1	250 mg	glass	869,70

DL-α-Tocopherol acetate
ROTICHROM® Working Standard

Storage temperature: +4 °C

Type analysis
Assay (HPLC) ..... ≥90,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC17.1	250 µl	glass	310,70

Todd-Hewitt-Broth

WGK 1

Todd-Hewitt-Broth
for microbiology

For cultivation of β-hemolytic streptococci for serological typing.

Application: Use 30 g for 1 l broth.

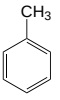
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Heart infusion ..... 3,1 g/l
Peptone ..... 20 g/l
Glucose ..... 2 g/l
Sodium carbonate ..... 2,5 g/l
Sodium chloride (NaCl) ..... 2 g/l
Disodium phosphate ..... 0,4 g/l
pH value ..... 7,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
X936.1	500 g	plastic	115,60
Original pack 6 x 500 g			109,82/500 g

Tolidin-diazo-bis-8-amino-1-naphthol-3,6-disulphonic acid tetrasodium salt
▸ Trypan blue (C.I. 23850) see page 1385

Toluene



Methylbenzene

C_7H_8 · D 0,87 g/cm³ · mp -95 °C · bp 110,6 °C · flp 4,4 °C
CAS No. 108-88-3 · EC no. 203-625-9
UN no. 1294 · ADR 3 II · WGK 2

Danger H225-H304-H315-H336-H361d-H373

Toluene
ROTISOLV® HPLC

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,01 %
Free acid ..... ≤0,001%
Non volatile matter ..... ≤0,0005 %

Transmission:
350 nm ..... ≥99 %
300 nm ..... ≥80 %
290 nm ..... ≥50 %

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
7346.2	1 l	glass	50,00
Original pack 6 x 1 l			47,50/1 l
7346.1	2.5 l	glass	106,45
Original pack 4 x 2.5 l			101,13/2.5 l

Toluene
ROTISOLV® ≥99,8 %, GC Ultra Grade

For gaschromatographic residue analysis.

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,01 %
Free acid (as CH_3COOH) ..... ≤0,003 %
Evaporation residue ..... ≤0,0003 %
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l

GC/ECD pesticides (as lindane) ..... ≤5 ng/l
GC/NPD pesticides (as parathion) ..... ≤5 ng/l
PAH-test (less than 2 ppb, HPLC) ..... complies

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
KK46.1	2.5 l	glass	99,45
Original pack 4 x 2.5 l			94,48/2.5 l

Toluene
ROTISOLV® Pestilyse® plus ≥99,8 %

For determination of dioxins, furans, PCBs, pesticides, hydrocarbons etc.

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,01 %
Free acid (as CH_3COOH) ..... ≤0,003 %
Evaporation residue ..... ≤0,0003 %
GC/FID suitability (as 2-octanol) ..... ≤25 ng/ml
GC/ECD suitability (as heptachloro epoxide) ..... ≤10 ng/l
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD pesticides (as lindane) ..... ≤5 ng/l
GC/NPD pesticides (as parathion) ..... ≤10 ng/l
Oil index (any hydrocarbon C_{10}-C_{40}) ..... ≤0,1 mg/l
PAH-test (less than 2 ppb, HPLC) ..... complies

Fluorescence (as quinine):
254 nm ..... ≤1 ppb
365 nm ..... ≤1 ppb

Art. No.	Pack Qty.	Pack.	€
7591.1	2.5 l	glass	85,90
Original pack 4 x 2.5 l			81,61/2.5 l

Toluene
ROTISOLV® Pestilyse® ≥99,8 %

For residue and environmental analysis.

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,02 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %
GC/ECD (individual signal as lindane) ..... ≤5 ng/l
GC/PND (individual signal as ethylparathion) ..... ≤10 ng/l

Art. No.	Pack Qty.	Pack.	€
T166.2	1 l	glass	42,90
Original pack 6 x 1 l			40,76/1 l
T166.1	2.5 l	glass	77,95
Original pack 4 x 2.5 l			74,05/2.5 l
T166.3	4 l	glass	117,20

Toluene
ROTISOLV® ≥99,8 %, UV/IR Grade

For chromatography and spectroscopy

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,01 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

Transmission:
350 nm ..... ≥98 %
340 nm ..... ≥96 %
330 nm ..... ≥95 %
320 nm ..... ≥90 %

Art. No.	Pack Qty.	Pack.	€
4445.1	2.5 l	glass	75,15
Original pack 4 x 2.5 l			71,39/2.5 l

Toluene
ROTIDRY®Sept ≥99,5 % (≤30 ppm H_2O)

Dried; in a septum bottle

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,003 %
Acidity (as CH_3COOH) ..... ≤0,002 %
Evaporation residue ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
5191.1	250 ml	septum bottle	52,60

Toluene
ROTIDRY® plus ≥99,5 % (≤50 ppm H_2O), with molecular sieve

Type analysis
Assay (GC) ..... ≥99,5 %
Water (KF) ..... ≤0,005 %
Density (d 20 °C/4 °C) 0,863-0,868
Acidity ..... ≤0,0003 meq/g
Alkalinity ..... ≤0,00025 meq/g
Benzene (GC) ..... ≤0,1 %
Ethylbenzene (GC) ..... ≤0,1 %
m-Xylene (GC) ..... ≤0,1 %
o-Xylene (GC) ..... ≤0,05 %
p-Xylene (GC) ..... ≤0,05 %
Thiophene ..... ≤0,0005 %
Cu (Copper) ..... ≤0,00002 %
Fe (Iron) ..... ≤0,00005 %
Ni (Nickel) ..... ≤0,00002 %
Pb (Lead) ..... ≤0,00002 %

Art. No.	Pack Qty.	Pack.	€
1A9T.1	1 l	glass	77,30
Original pack 6 x 1 l			73,44/1 l

Toluene
ROTIDRY® ≥99,5 % (≤50 ppm H_2O)

Dried; for analysis and organic synthesis.

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Colour (Hazen) ..... ≤10
Water (KF) ..... ≤0,005 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

Filtered through a membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
AE06.1	1 l	glass	53,25
Original pack 6 x 1 l			50,59/1 l

Toluene
ROTIPURAN® ≥99,5 %, p.a., ACS, ISO

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Acidity ..... ≤0,001 %
Alkalinity ..... ≤0,001 %
Colour (Hazen) ..... ≤10
Water (KF) ..... ≤0,03 %
Benzene ..... ≤0,05 %
Thiophene ..... ≤0,0002 %
Sulphur compounds (as S) ..... ≤0,003 %
Matter discoloured by H_2SO_4 ..... complies
Evaporation residue ..... ≤0,001%
Lead (Pb) ..... ≤0,00001 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Zinc (Zn) ..... ≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
7115.1	1 l	glass	48,30
Original pack 6 x 1 l			45,89/1 l
7115.2	2.5 l	glass	95,15
Original pack 4 x 2.5 l			90,39/2.5 l
7115.3	5 l	aluminium	138,70
Original pack 2 x 5 l			131,77/5 l
7115.4	25 l	tinplate	424,65

Toluene
≥99,5 %, for synthesis

Type analysis
Assay (GC) ..... ≥99,5 %
Density (15 °C) 0,865-0,873
Water (KF) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
9558.1	1 l	glass	34,30
Original pack 6 x 1 l			32,59/1 l
9558.3	2.5 l	glass	59,70
Original pack 4 x 2.5 l			56,72/2.5 l
9558.2	10 l	tinplate	145,15
9558.4	25 l	tinplate	289,20

Toluene
ROTISOLV® LSC

For liquid scintillation.

Type analysis
Assay (GC) ..... ≥99,5 %

Art. No.	Pack Qty.	Pack.	€
3107.1	1 l	glass	61,20
Original pack 6 x 1 l			58,14/1 l
3107.2	2.5 l	glass	103,10
Original pack 4 x 2.5 l			97,95/2.5 l

Toluene D8

Methylbenzene deuterated

C_7D_8 · D 0,94 g/cm³ · mp -85 °C · bp 109 °C · flp 4 °C
CAS No. 2037-26-5 · EC no. 218-009-5
UN no. 1294 · ADR 3 II · WGK 1

Danger H225-H304-H315-H336-H361d-H373

Toluene D8
99,8 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging for 7924.2: 10 x 0.75 ml in ampoules

Type analysis
Deuterising degree ..... ≥99,8 %
Water (KF, H_2O+D_2O) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
7924.2	7.5 ml	glass ampoule	201,60
7924.1	10 ml	glass	198,90

Toluene D8
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

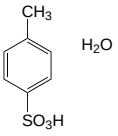
Packaging for CP95.2: 10 x 0.75 ml in ampoules

Type analysis
Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
CP95.2	7.5 ml	glass ampoule	137,10
CP95.1	10 ml	glass	134,40

Toluene-4-sulphone chloramide sodium
▸ Chloramine T trihydrate see page 829

p-Toluenesulphonic acid monohydrate



Paratoluolsulphonic acid

$C_7H_8O_3S \cdot H_2O$ · mp 56 °C · bp 140 °C · flp >150 °C
CAS No. 6192-52-5 · EC no. 203-180-0
UN no. 2585 · ADR 8 III · WGK 1

Warning H315-H319-H335

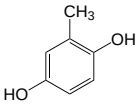
p-Toluenesulphonic acid monohydrate
≥98 %, for synthesis

Type analysis
Appearance ..... colorless to pink crystals
Assay ..... ≥98 %
Iron (Fe) ..... ≤0,001 %
Free sulphuric acid ..... ≤0,3 %

Art. No.	Pack Qty.	Pack.	€
4796.3	500 g	plastic	21,40
Original pack 6 x 500 g			20,33/500 g
4796.1	1 kg	plastic	32,15
Original pack 6 x 1 kg			30,54/1 kg
4796.2	10 kg	plastic	192,45

α-Toluene sulphonyl fluoride
▸ Phenylmethyl sulphonyl fluoride (PMSF) see page 1153

Toluhydroquinone



2,5-Dihydroxytoluene · 2-Methyl hydroquinone

$C_7H_8O_2$ · mp 124 to 127 °C · bp 285 °C · flp 172 °C
CAS No. 95-71-6 · EC no. 202-443-7
UN no. 3077 · ADR 9 III · WGK 2

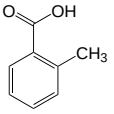
Warning H302+H312-H315-H319-H410

Toluhydroquinone
≥99 %, for synthesis

Type analysis
Assay ..... ≥99,0 %
Ash content ..... ≤0,1 %
Melting point ..... 125-128 °C

Art. No.	Pack Qty.	Pack.	€
4787.1	100 g	plastic	42,50
4787.2	500 g	plastic	128,50
Original pack 6 x 500 g			122,08/500 g

o-Toluic acid



o-Toluic acid · 2-Toluic acid · 2-Methylbenzoic acid

$C_8H_8O_2$ · D 1,062 g/cm³ · mp 102 to 104 °C · bp 258 to 259 °C · flp 148 °C
CAS No. 118-90-1 · EC no. 202-803-3
WGK 1

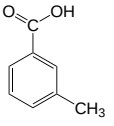
Warning H315-H319-H335

o-Toluic acid
≥98 %, for synthesis

Type analysis
Assay ..... ≥98 %
Melting range ..... 100-106 °C

Art. No.	Pack Qty.	Pack.	€
1AHA.1	250 g	plastic	32,15
1AHA.2	1 kg	plastic	102,70
Original pack 6 x 1 kg			97,57/1 kg
1AHA.3	2.5 kg	plastic	219,85

m-Toluic acid



m-Toluic acid · 3-Toluic acid · 3-Methylbenzoic acid

$C_8H_8O_2$ · D 1,24 g/cm³ · mp 110 °C · bp 264 °C · flp 159 °C
CAS No. 99-04-7 · EC no. 202-723-9
WGK 1

Danger H318

m-Toluic acid
≥98 %, for synthesis

Type analysis
Assay ..... ≥98 %
Melting range ..... 107-112 °C

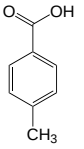
Art. No.	Pack Qty.	Pack.	€
1AH9.1	250 g	plastic	34,30
1AH9.2	1 kg	plastic	107,00
Original pack 6 x 1 kg			101,65/1 kg
1AH9.3	2.5 kg	plastic	235,45

m-Toluic acid
ROTI®Calipure melting point standard 107–113 °C

Type analysis
Meniscus formation ..... 107-113 °C
Complete liquefaction ..... 107-113 °C
Measurement uncertainty ..... ±0,3 °C

Art. No.	Pack Qty.	Pack.	€
2916.1	1 g	glass	40,75

p-Toluic acid



p-Toluic acid · 4-Toluic acid · 4-Methylbenzoic acid

$C_8H_8O_2$ · mp ≥178 to ≤180,5 °C · bp 273,9 °C
CAS No. 99-94-5 · EC no. 202-803-3
WGK 1

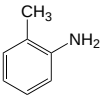
Warning H319

p-Toluic acid
≥98 %, for synthesis

Type analysis
Assay ..... ≥98 %
Melting range ..... 176-181 °C

Art. No.	Pack Qty.	Pack.	€
1AN4.1	250 g	plastic	32,15
1AN4.2	1 kg	plastic	102,70
Original pack 6 x 1 kg			97,57/1 kg
1AN4.3	2.5 kg	plastic	219,85

o-Toluidine



2-Aminotoluene · 2-Methylaniline

C_7H_9N · D 0,998 g/cm³ · mp -24,4 °C · bp 200,2 °C · flp 85 °C
CAS No. 95-53-4 · EC no. 202-429-0
UN no. 1708 · ADR 6.1 II · WGK 3

Danger H301+H331-H319-H350-H410

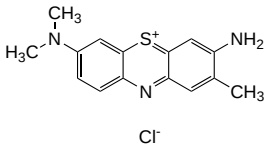
o-Toluidine
≥99,5 %, p.a.

For blood sugar analysis.

Guarantee analysis
Assay (GC) ..... ≥99,5 %
Water ..... ≤0,1 %
Ash content (as SO_4) ..... ≤0,005 %
p-Toluidine and *m*-Toluidine ..... ≤0,4 %
Chloride (Cl) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0001 %
Heavy metals (as Pb) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
4788.1	100 ml	glass	25,70
4788.2	500 ml	glass	94,10

Toluidine blue O (C. I. 52040)



Basic blue 17

$C_{15}H_{16}Cl N_3S$
CAS No. 92-31-9 · EC no. 202-146-2
WGK 1

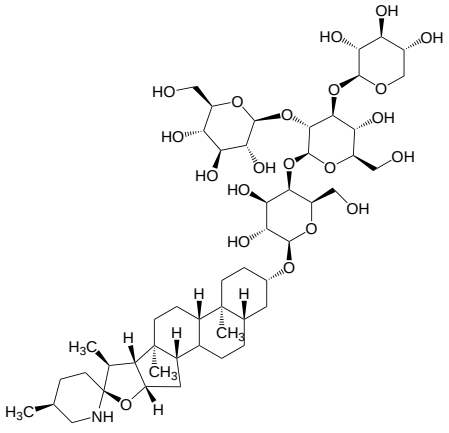
Toluidine blue O (C.I. 52040)
for microscopy

Type analysis
Appearance ..... dark green to black powder
Dye content ..... ≥65 %
Absorption max. (in H_2O) ..... 615-635 nm
Suitability for microscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
0300.1	5 g	glass	24,20
0300.2	10 g	glass	37,10
0300.3	25 g	glass	70,85
0300.4	100 g	glass	203,20

Toluylene red
▸ Neutral red (C.I. 50040) see page 1102

Tomatin



$C_{50}H_{83}NO_{21}$ · mp 263 to 267 °C
CAS No. 17406-45-0 · EC no. 241-429-5
WGK 1

Warning H302

Tomatin
ROTICHROM® HPLC

Reference substance for thin layer chromatography.

Storage temperature: +4 °C

Assay (HPLC) ..... ≥95,0 %

Art. No.	Pack Qty.	Pack.	€
5676.1	25 mg	glass	66,15

Total ionic strength adjustment buffer
▸ TISAB solutions see page 1370

Toxilic acid
▸ Maleic acid see page 1063

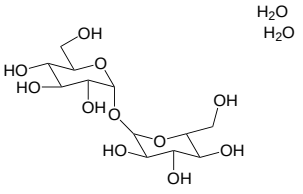
TPA
▸ Phorbol 12-myristate 13-acetate see page 1154

TPTZ
▸ 2,3,5-Triphenyltetrazolium chloride see page 1381

Transfection reagents
▸ ROTI®Fect Plus see page 1223
▸ ROTI®Insectofect see page 1227
▸ ROTI®Fect see page 1223

Transformation kit
▸ ROTI®Transform see page 1244

D(+)-Trehalose dihydrate



Mycose

$C_{12}H_{22}O_{11} \cdot 2\ H_2O$ · mp 95 to 99 °C
CAS No. 6138-23-4 · EC no. 202-739-6
WGK 1

D(+)-Trehalose dihydrate
CELLPURE® ≥98 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤2,4 E.U./g
Appearance ..... white to off-white, cryst. powder
Assay ..... 98,0-101,0 %
pH value (10 % in H_2O) 4,5-6,5
Water (KF) ..... 9,0-11,0 %
Specific rotation $[\alpha]_D^{20}$ (c=10 in H_2O) ..... +197° to +201°
Ash content ..... ≤0,1 %
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,05 %
Total nitrogen (as N) ..... ≤0,005 %
Ethanol ..... ≤0,5 %
Methanol ..... ≤0,5 %
Arsenic (As) ..... ≤0,0001 %
Cadmium (Cd) ..... ≤0,0001 %
Mercury (Hg) ..... ≤0,00001 %

Art. No.	Pack Qty.	Pack.	€
8897.1	10 g	plastic	42,90
8897.2	25 g	plastic	81,60
8897.3	50 g	plastic	138,70
8897.4	100 g	plastic	256,95

D(+)-Trehalose dihydrate
≥98 %, for biochemistry

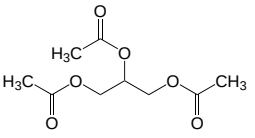
Type analysis
Appearance ..... white crystalline powder
Assay (HPLC) ..... ≥98,0 %
Water ..... ≤11,0 %
Ash content ..... ≤0,05 %
pH-value ..... 5,0 - 6,7

Art. No.	Pack Qty.	Pack.	€
5151.1	5 g	plastic	17,10
5151.2	25 g	plastic	46,15
5151.4	50 g	plastic	78,40
5151.3	250 g	plastic	353,70

Trethylene
▸ Trichloroethylene see page 1376

Tri
▸ Trichloroethylene see page 1376

Triacetin



1,2,3-Triacetoxy-propane · Glyceryl triacetate

$C_9H_{14}O_6$ · D 1,161 g/cm³ · mp -78 °C · bp 258 to 259 °C · flp 148 °C
CAS No. 102-76-1 · EC no. 203-051-9
WGK 1

Triacetin
≥99 %

Type analysis
Appearance ..... clear, colourless liquid
Assay (GC) ..... ≥99,0 %
Density (d 20 °C/4 °C) 1,156-1,160
Refractive index n_D^{20} 1,430-1,432

Art. No.	Pack Qty.	Pack.	€
6317.1	100 ml	glass	34,95

1,2,3-Triacetoxy-propane
▸ Triacetin see page 1375

2,4,6-Triamino-1,3,5-triazine
▸ Melamine see page 1072

sym.-Triaminotriazine
▸ Melamine see page 1072

1,2,4-Triazine-3,5-(2*H*,4*H*)-dione
▸ 6-Azauracil see page 759

1,2,4-Triazole



Pyrrodiazole

$C_2H_3N_3$ · D 1,15 g/cm³ · mp 120 to 121 °C · bp 259 to 261 °C · flp 170 °C
CAS No. 288-88-0 · EC no. 206-022-9
WGK 2

Danger H302-H319-H360FD

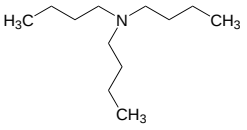
1,2,4-Triazole
≥99 %

Storage temperature: +4 °C

Type analysis
Appearance ..... white to light yellow powder or flakes
Assay (NMR) ..... ≥98 %
Water (KF) ..... ≤0,5 %
Melting point ..... 118-122 °C

Art. No.	Pack Qty.	Pack.	€
5242.1	25 g	plastic	28,95
5242.2	100 g	plastic	82,25

Tributylamine



N,*N*-Dibutyl-1-butanamine

$C_{12}H_{27}N$ · D 0,78 g/cm³ · mp <-90 °C · bp 208 °C · flp 75 °C
CAS No. 102-82-9 · EC no. 203-058-7
UN no. 2542 · ADR 6.1 II · WGK 3

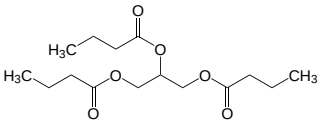
Danger H302-H310+H330-H315

Tributylamine
≥99 %, for synthesis

Type analysis
Assay ..... ≥99,0 %
Water ..... ≤0,2 %
Colour (APHA) ..... ≤20

Art. No.	Pack Qty.	Pack.	€
4089.1	100 ml	glass	19,25
4089.2	500 ml	glass	34,30
4089.3	1 l	glass	46,15
Original pack 6 x 1 l			43,84/1 l
4089.4	2.5 l	glass	83,35
Original pack 4 x 2.5 l			79,18/2.5 l

Tributyrin



Glyceryl tributyrate

$C_{15}H_{26}O_6$ · D 1,032 g/cm³ · mp -75 °C · bp 313 to 316 °C · flp 174 °C
CAS No. 60-01-5 · EC no. 200-451-5
WGK 1

Tributyrin
≥97 %, for biochemistry

Storage temperature: +4 °C

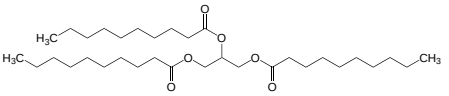
Guarantee analysis
Appearance ..... clear, colourless to yellow liquid
Assay (GC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
4813.1	100 ml	glass	96,65

Tricalcium citrate
▸ tri-Calcium dicitrate tetrahydrate see page 807

Tricalcium phosphate
▸ tri-Calcium phosphate see page 810

Tricaprin



Glyceryl tricaprinate

$C_{33}H_{62}O_6$ · mp 32 to 35 °C · bp 254 °C
CAS No. 621-71-6 · EC no. 210-702-0

Tricaprin
≥98 %

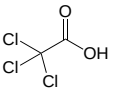
Storage temperature: +4 °C

Type analysis
Assay (GC) ..... ≥98 %
Melting point ..... 31-35 °C

Art. No.	Pack Qty.	Pack.	€
7252.1	10 g	glass	155,90

Trichloroacetaldehyde hydrate
▸ Chloral hydrate see page 828

Trichloroacetic acid



TCA

CCl_3COOH · D 1,62 g/cm³ · mp 54 to 56 °C · bp 197 °C · flp >110 °C
CAS No. 76-03-9 · EC no. 200-927-2
UN no. 1839 · ADR 8 II · WGK 2

Danger H314-H335-H410

Trichloroacetic acid
≥99 %, p.a.

Protein precipitant, fixative for microscopy.

Guarantee analysis
Appearance ..... scales, almost colourless
Assay ..... ≥99,0 %
Nitrate (NO_3) ..... ≤0,002 %
Phosphate (PO_4) ..... ≤0,0005 %
Sulphate (SO_4) ..... ≤0,02 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,002 %
Loss on drying ..... ≤1,0 %
Sulphated ash ..... ≤0,03 %

Art. No.	Pack Qty.	Pack.	€
8789.3	100 g	glass	30,00
8789.4	250 g	glass	56,90
8789.2	500 g	glass	99,90
Original pack 6 x 500 g			94,91/500 g
8789.1	1 kg	glass	188,15
Original pack 6 x 1 kg			178,74/1 kg

Trichloroacetic acid
≥99 %, Ph. Eur., extra pure

For biochemistry.

Guarantee analysis
Assay ..... ≥99,0 %
Identity ..... complies
Appearance of solution ..... complies
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,02 %
Heavy metals (as Pb) ..... ≤0,002 %
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
3744.3	100 g	glass	26,80
3744.4	250 g	glass	52,70
3744.2	500 g	glass	93,45
Original pack 6 x 500 g			88,78/500 g
3744.1	1 kg	glass	174,70
Original pack 6 x 1 kg			165,97/1 kg

3 % Trichloro acetic acid in dichloroethane
▸ DMT Removal DCE see page 896

3 % Trichloro acetic acid in dichloromethane
▸ DMT removal reagent see page 896

Trichloroacetic acid solution

TCA solution

CAS No. 76-03-9 · EC no. 200-927-2
UN no. 2564 · ADR 8 II · WGK 2

Danger H314-H335-H411

Trichloroacetic acid solution
20 % in water, p.a.

For removing protein from biological preparations.

CCl_3COOH · D 1,1 g/cm³ · bp 100 °C · flp >110 °C

Art. No.	Pack Qty.	Pack.	€
7437.1	1 l	glass	50,45
Original pack 6 x 1 l			47,93/1 l

Trichloroacetic acid solution
10 % in water, p.a.

For removing protein from biological preparations

CCl_3COOH · D 1,05 g/cm³ · bp 100 °C · flp >110 °C

Art. No.	Pack Qty.	Pack.	€
9383.2	1 l	glass	37,10
Original pack 6 x 1 l			35,25/1 l
9383.1	10 l	plastic	228,45

Trichloroethene
▸ Trichloroethylene see page 1376

Trichloroethylene



Acetylene trichloride · Trethylene · TCE · Tri · Trichloroethene

C_2HCl_3 · D 1,464 g/cm³ · bp 86,7 °C
CAS No. 79-01-6 · EC no. 201-167-4
UN no. 1710 · ADR 6.1 III · WGK 3

Danger H315-H319-H336-H341-H350-H412

Trichloroethylene
≥98 %, for synthesis, stabilised

Type analysis
Assay (GC) ..... ≥98 %
Ethanol (GC) ..... ≤1,0 %
Density (d 20 °C/20 °C) 1,458-1,468
Water (KF) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
9579.1	1 l	glass	60,10
Original pack 6 x 1 l			57,10/1 l
9579.3	2.5 l	glass	117,20
Original pack 4 x 2.5 l			111,34/2.5 l
9579.2	10 l	tinplate	385,95

Trichloromethane/Chloroform



Chloroform

$CHCl_3$ · D 1,48 g/cm³ · mp -63 °C · bp 61 °C
CAS No. 67-66-3 · EC no. 200-663-8
UN no. 1888 · ADR 6.1 III · WGK 3

Danger H302-H315-H319-H331-H351-H361d-H372

Trichloromethane/Chloroform
ROTISOLV® HPLC

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Water ..... ≤0,005 %
Free acid ..... ≤0,0001 %
Non volatile matter ..... ≤0,0001 %

Transmission:
275 nm ..... ≥99 %
255 nm ..... ≥80 %
250 nm ..... ≥50 %

Filtered through a 0.2 µm membrane and filled under protective gas.
stabilised with 1 % ethanol.

Art. No.	Pack Qty.	Pack.	€
7331.2	1 l	glass	51,50
Original pack 6 x 1 l			48,93/1 l
7331.1	2.5 l	glass	112,90
Original pack 4 x 2.5 l			107,26/2.5 l

Trichloromethane/Chloroform
ROTISOLV® Pestilyse® plus ≥99,9 %

For determination of dioxins, furans, PCBs, pesticides, hydrocarbons etc.

Guarantee analysis
Assay (GC) ..... ≥99,9 %
Colour (APHA) ..... ≤10
Water (KF) ..... ≤0,01 %
Free acid (as HCl) ..... ≤0,0005 %
Evaporation residue ..... ≤0,0003 %
GC/ECD suitability (as heptachloro epoxide) ..... ≤10 ng/l
GC/ECD dioxins, furans and PCBs (as lindane) ..... ≤5 ng/l
GC/ECD pesticides (as lindane) ..... ≤5 ng/l
GC/NPD pesticides (as parathion) ..... ≤10 ng/l
Oil index (any hydrocarbon C_{10}-C_{40}) ..... ≤0,1 mg/l
PAH-test (less than 2 ppb, HPLC) ..... complies

Fluorescence (as quinine):
254 nm ..... ≤1 ppb
365 nm ..... ≤1 ppb

stabilised with 30–60 ppm amylene.

Art. No.	Pack Qty.	Pack.	€
7554.1	2.5 l	glass	101,60
Original pack 4 x 2.5 l			96,52/2.5 l

Trichloromethane/Chloroform
ROTISOLV® Pestilyse® ≥99,8 %

For residue and environmental analysis.

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,01 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %
GC/ECD (individual signal as lindane) ..... ≤5 ng/l
GC/PND (individual signal as ethylparathion) ..... ≤10 ng/l

stabilised with 1 % ethanol.

Art. No.	Pack Qty.	Pack.	€
T901.1	2.5 l	glass	98,80
Original pack 4 x 2.5 l			93,86/2.5 l

Trichloromethane/Chloroform
ROTISOLV® ≥99,8 %, UV/IR Grade

For chromatography and spectroscopy.

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,01 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

Transmission:
280 nm ..... ≥98 %
260 nm ..... ≥90 %
250 nm ..... ≥50 %

stabilised with approx. 1 % ethanol.

Art. No.	Pack Qty.	Pack.	€
4432.1	2.5 l	glass	80,10
Original pack 4 x 2.5 l			76,10/2.5 l

Trichloromethane/Chloroform
ROTIDRY® plus ≥99,9 % (≤30 ppm H_2O), with molecular sieve, stabilised

Type analysis
Assay (GC) ..... ≥99,9 %
Water (KF) ..... ≤0,003 %
Relative density (20/20 °C) 1,490-1,493
Cu (Copper) ..... ≤0,00002 %
Fe (Iron) ..... ≤0,00002 %
Ni (Nickel) ..... ≤0,00002 %
Pb (Lead) ..... ≤0,00002 %

stabilised with approx. 150 ppm amylene.

Art. No.	Pack Qty.	Pack.	€
1A9N.1	1 l	glass	75,15
Original pack 6 x 1 l			71,39/1 l

Trichloromethane/Chloroform
ROTIDRY® ≥99,8 % (≤50 ppm H_2O)

Dried; for analysis and organic synthesis.

Guarantee analysis
Assay (GC) ..... ≥99,8 %
Water (KF) ..... ≤0,005 %
Acidity ..... ≤0,0005 meq/g
Evaporation residue ..... ≤0,0005 %

stabilised with approx. 50 ppm amylene.

Art. No.	Pack Qty.	Pack.	€
4423.1	1 l	glass	34,95
Original pack 6 x 1 l			33,20/1 l

Trichloromethane/Chloroform
ROTIPURAN® ≥99 %, p.a.

Guarantee analysis
Assay (GC) ..... ≥99 %
Water (KF) ..... ≤0,02 %
Aluminium (Al) ..... ≤0,00005 %
Barium (Ba) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,000005 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Cobalt (Co) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00005 %
Copper (Cu) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,00001 %
Zinc (Zn) ..... ≤0,000005 %
Tin (Sn) ..... ≤0,00001 %
Evaporation residue ..... ≤0,0015 %

stabilised with 1–2 % (v/v) Ethanol.

Art. No.	Pack Qty.	Pack.	€
3313.4	100 ml	glass	22,50
3313.1	1 l	glass	66,15
Original pack 6 x 1 l			62,84/1 l
3313.2	2.5 l	glass	131,70
Original pack 4 x 2.5 l			125,12/2.5 l
3313.5	25 l	tinplate	994,40

Trichloromethane/Chloroform
≥99 %, DAB, BP, extra pure

Guarantee analysis
Assay (GC) ..... ≥99,0 %
Identity ..... complies
Density (d 20 °C/20 °C) 1,479-1,484
Boiling range ..... 59-62 °C
Appearance of the substance ..... complies
Acidity/alkalinity ..... complies
Free chlorine (Cl) ..... complies
Non volatile matter ..... ≤0,002 %
Chloride (Cl) ..... complies
Water ..... ≤0,05 %
Aldehydes ..... complies
Other chlorinated compounds ..... complies
Reaction with H_2SO_4 ..... complies
Foreign odour ..... complies

stabilised with 1–2 % (v/v) Ethanol.

Art. No.	Pack Qty.	Pack.	€
6340.4	100 ml	glass	21,40
6340.1	1 l	glass	64,40
Original pack 6 x 1 l			61,18/1 l
6340.2	2.5 l	glass	127,95
Original pack 4 x 2.5 l			121,55/2.5 l
6340.5	25 l	tinplate	983,65

Trichloromethane/Chloroform
≥99 %, for synthesis

Type analysis
Appearance ..... clear, colourless liquid
Assay (GC) ..... ≥99,0 %
Density (20 °C) 1,478-1,492
Water ..... ≤0,01 %

stabilised with 20–55 ppm amylene.

Art. No.	Pack Qty.	Pack.	€
Y015.1	1 l	glass	34,30
Original pack 6 x 1 l			32,59/1 l
Y015.2	2.5 l	glass	67,65
Original pack 4 x 2.5 l			64,27/2.5 l
Y015.3	10 l	tinplate	235,45
Y015.4	25 l	tinplate	471,95

Trichloromethane/Chloroform D1

Chloroform D1 · Deuterochloroform

CCl_3D · D 1,5 g/cm³ · mp -64 °C · bp 60 to 62 °C
CAS No. 865-49-6 · EC no. 212-742-4
UN no. 1888 · ADR 6.1 III · WGK 3

Danger H302-H315-H319-H331-H351-H361d-H372

Trichloromethane/Chloroform D1
100 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging: 10 x 0,75 ml in ampoules

Guarantee analysis
Deuterising degree ..... ≥99,95 %
Water (KF, H_2O+D_2O) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
CP91.1	7.5 ml	glass ampoule	37,55

Trichloromethane/Chloroform D1
99,8 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging: 10 x 0,75 ml in ampoules

Guarantee analysis
Deuterising degree ..... ≥99,8 %
Water (KF, H_2O+D_2O) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
7903.1	7.5 ml	glass ampoule	30,00

Trichloromethane/Chloroform D1
99,8 Atom%D, stabilised with Ag

For nuclear magnetic resonance spectroscopy.

Guarantee analysis
Deuterising degree ..... ≥99,8 %
Water (KF, H_2O+D_2O) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
AE54.4	25 ml	glass	33,90
AE54.1	100 ml	glass	73,00
AE54.3	100 ml	septum bottle	75,15
AE54.2	500 ml	glass	299,95

Trichloromethane/Chloroform D1 with TMS (0.03 vol.%)

Chloroform D1 with TMS

CCl_3D · D 1,5 g/cm³ · mp -64 °C · bp 60 °C
CAS No. 865-49-6 · EC no. 212-742-4
UN no. 1888 · ADR 6.1 III · WGK 2

Danger H302-H315-H319-H331-H351-H361d-H372

Trichloromethane/Chloroform D1 with TMS (0.03 vol.%)
99,8 Atom%D

For nuclear magnetic resonance spectroscopy.

Packaging: 10 x 0,75 ml in ampoules

Guarantee analysis
Deuterising degree ..... ≥99,8 %
Water (KF, H_2O+D_2O) ..... ≤0,02 %
Trimethylsilane (TMS) ..... 0,02-0,04 %

Art. No.	Pack Qty.	Pack.	€
7905.1	7.5 ml	glass ampoule	30,00

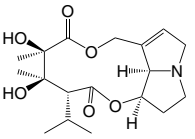
Trichloromethane/Chloroform D1 with TMS (0.03 vol.%)
99,8 Atom%D, stabilised with Ag

For nuclear magnetic resonance spectroscopy.

Guarantee analysis
Deuterising degree ..... ≥99,8 %
Water (KF, H_2O+D_2O) ..... ≤0,02 %
Tetramethylsilane (TMS) ..... 0,02-0,04 %

Art. No.	Pack Qty.	Pack.	€
AE59.1	100 ml	glass	74,75

Trichodesmine



$C_{18}H_{27}NO_6$ · mp 152 to 162 °C
CAS No. 548-90-3
UN no. 2811 · ADR 6.1 II · WGK 1

Danger H300

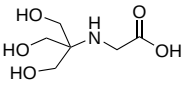
Trichodesmine
ROTICHROM® HPLC

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1H08.1	5 mg	glass	407,45

TRICINE



N-Tris(hydroxymethyl)-methyl-glycine

$C_6H_{13}NO_5$ · mp 187 °C
CAS No. 5704-04-1 · EC no. 227-193-6
WGK 1

TRICINE
PUFFERAN® ≥99 %

Guarantee analysis
Appearance ..... white, fine to crystalline powder
Assay ..... ≥99 %
Loss on drying ..... ≤1,0 %
pH value (1 % in H_2O, 25 °C) 4,0-6,0
Solubility (0,1 M in H_2O) ..... clear, soluble

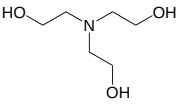
Absorbance:
280 nm ..... ≤0,02
260 nm ..... ≤0,04

Art. No.	Pack Qty.	Pack.	€
6977.1	50 g	plastic	34,30
6977.4	250 g	plastic	134,40
6977.2	500 g	plastic	246,20
Original pack 6 x 500 g			233,89/500 g
6977.3	1 kg	plastic	439,70
Original pack 6 x 1 kg			417,72/1 kg
6977.5	2.5 kg	plastic	858,95

Tricyclo[3.3.1.1^{3,7}]decane

▸ Adamantane see page 707

Triethanolamine



TEA · Tris-(2-hydroxyethyl)-amine

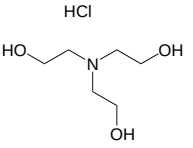
$C_6H_{15}NO_3$ · D 1,12 g/cm³ · mp 18 to 23 °C · bp 360 °C · flp 190 °C
CAS No. 102-71-6 · EC no. 203-049-8
WGK 1

Triethanolamine
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99 %
Water ..... ≤0,1 %
Colour number (APHA) ..... ≤30
Diethanolamine (GC) ..... ≤0,4 %
2-Aminoethanol (GC) ..... ≤0,1 %
Highly boiling matter (GC) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
6300.1	1 l	plastic	33,90
Original pack 6 x 1 l			32,21/1 l
6300.3	2.5 l	plastic	58,60
Original pack 4 x 2.5 l			55,67/2.5 l
6300.2	10 l	plastic	193,50

Triethanolamine hydrochloride



Tris-(2-hydroxyethyl)-ammonium chloride

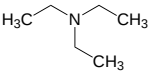
$C_6H_{15}NO_3$ · HCl · D 1,354 g/cm³ · mp 180,2 °C
CAS No. 637-39-8 · EC no. 211-284-2
WGK 1

Triethanolamine hydrochloride
≥99 %, for biochemistry

Type analysis
Appearance ..... white to yellowish cryst. powder
Assay (titr. dry substance) ..... ≥99,0 %
Water (KF) ..... ≤0,5 %
Melting point ..... 174-182 °C

Art. No.	Pack Qty.	Pack.	€
4804.1	100 g	plastic	75,15

Triethylamine (TEA)



N,*N*-Diethylethane amine · TEA

$C_6H_{15}N$ · D 0,73 g/cm³ · mp -115 °C · bp 89 to 90 °C · flp -11 °C
CAS No. 121-44-8 · EC no. 204-469-4
UN no. 1296 · ADR 3 (8) II · WGK 1

Danger H225-H302-H311+H331-H314-H335

Triethylamine (TEA)
≥99,5 %, for synthesis

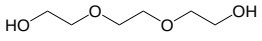
Type analysis
Assay (GC) ..... ≥99,5 %
Colour (APHA) ..... ≤15
Water ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
X875.1	100 ml	glass	14,95
X875.2	500 ml	glass	23,55
X875.3	1 l	glass	38,60
Original pack 6 x 1 l			36,67/1 l
X875.4	2.5 l	glass	73,00
Original pack 4 x 2.5 l			69,35/2.5 l

Triethylendiamine

▸ DABCO® see page 863

Triethylene glycol



Triglycol

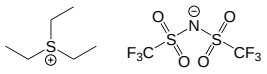
$C_6H_{14}O_4$ · D 1,13 g/cm³ · mp -7 °C · bp 286,5 °C · flp 165 °C
CAS No. 112-27-6 · EC no. 203-953-2
WGK 1

Triethylene glycol
≥98 %, for synthesis

Type analysis
Assay (GC) ..... ≥98 %
Colour (APHA) ..... ≤50
Density (20 °C) ..... 1,122-1,127 g/cm³
Refractive index n_D^{20} 1,453-1,459

Art. No.	Pack Qty.	Pack.	€
4520.1	1 l	glass	31,75
Original pack 6 x 1 l			30,16/1 l
4520.3	2.5 l	glass	64,00
Original pack 4 x 2.5 l			60,80/2.5 l
4520.2	10 l	plastic	193,50

Triethylsulfonium-bis-(trifluoromethylsulphonyl)-imide (S222 BTA)



S222 BTA

$C_8H_{15}F_6NO_4S_3$ · D 1,462 g/cm³ · mp -21 °C
CAS No. 321746-49-0
WGK 1

Warning H315-H319-H335

Triethylsulfonium-bis-(trifluoromethylsulphonyl)-imide (S222 BTA)
≥99 %

Ionic liquid

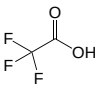
Type analysis
Appearance ..... clear, colourless
Assay ..... ≥99 %
Water (KF) ..... ≤0,01 %
Halogens ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
2096.1	25 g	glass	504,20
2096.2	100 g	glass	951,40

2,2,2-Trifluor-*N*,*O*-bis(trimethylsilyl)-acetamide

▸ *N*,*O*-Bis(trimethylsilyl)-trifluoroacetamide see page 778

Trifluoroacetic acid (TFA)



TFA

$C_2HF_3O_2$ · D 1,479 g/cm³ · mp -15,2 °C · bp 71,78 °C · flp >100 °C
CAS No. 76-05-1 · EC no. 200-929-3
UN no. 2699 · ADR 8 I · WGK 2

Danger H290-H314-H332-H412

Trifluoroacetic acid (TFA)
ROTIPURAN® ≥99,9 %, LC-MS Grade

Type analysis
Assay (acidim.) ..... ≥99,9 %
Appearance ..... clear, colourless, fuming liquid
Chloride (Cl) ..... ≤0,001 %
Fluoride (F) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,001 %
Water (KF) ..... ≤0,05 %

Absorbance:
260 nm ..... ≤1 AU
270 nm ..... ≤0,1 AU
280 nm ..... ≤0,05 AU
300 nm ..... ≤0,03 AU
320 nm ..... ≤0,03 AU

Fill level for technical reasons.

Art. No.	Pack Qty.	Pack.	€
1EHN.1	50 ml	glass	60,75

Trifluoroacetic acid (TFA)
PEPTIPURE® ≥99,9 %, for peptide synthesis

Guarantee analysis
Assay ..... ≥99,9 %
Water ..... ≤0,02 %
Non volatile matter ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
P088.1	100 ml	glass	94,50
P088.2	500 ml	glass	439,70
P088.3	1 l	glass	762,20
Original pack 6 x 1 l			724,09/1 l

Trifluoroacetic acid (TFA)
≥99,9 %

Acid for biochemistry and synthesis.

Type analysis
Appearance ..... clear, colorless liquid
Assay ..... ≥99,9 %
Water (KF) ..... ≤0,1 %
Chloride (Cl) ..... ≤0,001 %
Fluoride (F) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
6957.1	500 ml	glass	138,70
6957.2	1 l	glass	256,95
Original pack 6 x 1 l			244,10/1 l
6957.3	2.5 l	glass	557,95
Original pack 4 x 2.5 l			530,05/2.5 l

Trifluoroacetic acid D

Deuterotrifluoroacetic acid · TFA-D

$C_2DF_3O_2$ · D 1,5 g/cm³ · mp -15 °C · bp 71 to 75 °C
CAS No. 599-00-8 · EC no. 209-961-2
UN no. 2699 · ADR 8 I · WGK 1

Danger H290-H314-H332-H412

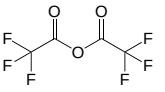
Trifluoroacetic acid D
99,5 Atom%D

For nuclear magnetic resonance spectroscopy.

Guarantee analysis
Deuterising degree ..... ≥99,5 %
Water (KF, H_2O+D_2O) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
CP97.1	10 ml	glass ampoule	73,00

Trifluoroacetic anhydride (TFAA)



TFAA

$C_4F_6O_3$ · D 1,51 g/cm³ · mp -65 °C · bp 39 to 40 °C
CAS No. 407-25-0 · EC no. 206-982-9
UN no. 3265 · ADR 8 I · WGK 2

Danger H314-H332-EUH014

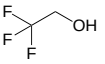
Trifluoroacetic anhydride (TFAA)
≥99 %, for the GC

Acylation reagent

Type analysis
Appearance ..... colourless liquid
Assay (titr.) ..... ≥99 %
Sulphate (SO_4) ..... ≤0,05 %
Chloride (Cl) ..... ≤0,005 %
Fluoride (F) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
0027.1	100 g	glass	117,20

2,2,2-Trifluoroethanol



CF_3CH_2OH · D 1,383 g/cm³ · mp -45 to -43,5 °C · bp 73 to 77 °C · flp 29 °C
CAS No. 75-89-8 · EC no. 268-546-4
UN no. 1992 · ADR 3 (6.1) III · WGK 1

Danger H226-H301+H331-H318-H360F-H373

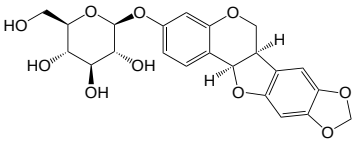
2,2,2-Trifluoroethanol
>99,8 %, for synthesis

Type analysis
Appearance ..... clear liquid
Assay (GC) ..... >99,8 %
Water (KF) ..... <0,1 %
Chloride (Cl) ..... <0,001 %

Art. No.	Pack Qty.	Pack.	€
CP29.1	100 ml	glass	45,05
CP29.2	250 ml	glass	85,90
CP29.3	1 l	glass	263,40
Original pack 6 x 1 l			250,23/1 l

Trifoliin
▸ Isoquercitrin see page 1023

Trifolirhizin



$C_{22}H_{22}O_{10}$ · mp 142 to 144 °C
CAS No. 6807-83-6
WGK 1

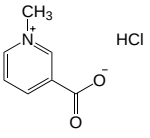
Trifolirhizin
ROTICHROM® ~CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
4738.1	25 mg	glass	203,20

Trifolitin
▸ Kaempferol see page 1026

Triglycol
▸ Triethylene glycol see page 1379

Trigonelline hydrochloride



$C_7H_7NO_2$ · HCl · mp 260 °C
CAS No. 6138-41-6 · EC no. 228-119-5
WGK 1

Trigonelline hydrochloride
≥97,5 %, for biochemistry

Type analysis
Appearance ..... white crystals
Assay (arg. titr.) ..... ≥97,5 %

Art. No.	Pack Qty.	Pack.	€
5413.1	1 g	glass	91,95

1,2,3-Trihydroxybenzene
▸ Pyrogallol see page 1192

1,3,5-Trihydroxybenzene
▸ Phloroglucinol dihydrate see page 1154

3,4,5-Trihydroxy benzoic acid
▸ Gallic acid see page 952
▸ Gallic acid monohydrate see page 952

4',5,7-Trihydroxyflavanone
▸ Naringenin see page 1100

3,5,7-Trihydroxyflavone
▸ Galangin see page 951

4',5,7-Trihydroxyflavone
▸ Apigenin see page 748

5,6,7-Trihydroxyflavone
▸ Baicalein see page 763

4',5,7-Trihydroxyisoflavone
▸ Genistein see page 955

3,5,7-Trihydroxy-4'-methoxyflavonone
▸ Hesperetin see page 980

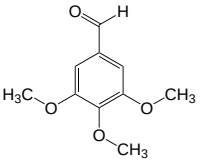
2,6,8-Trihydroxypurine
▸ Uric acid see page 1391

2,4,6-Trihydroxypyrimidine
▸ Barbituric acid see page 763

trans-3,4',5-Trihydroxystilbene
▸ Resveratrol see page 1203

Triiodmethane
▸ Iodoform see page 1012

3,4,5-Trimethoxybenzaldehyde



$C_{10}H_{12}O_4$ · mp 73 to 76 °C · bp 163 to 165 °C
CAS No. 86-81-7 · EC no. 201-701-6
WGK 1

3,4,5-Trimethoxybenzaldehyde
≥98 %

Type analysis
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
4831.1	25 g	glass	75,15

(1R)-7,7,7-Trimethylbicyclo [2.2.1]heptan-2-one
▸ (+)-Camphor see page 811

Trimethyl carbinol
▸ *tert*-Butanol see page 797

Trimethylchlorosilane (TMCS)



Chlorotrimethylsilane · TMCS · Trimethylsilylchloride

C_3H_9ClSi · D 0,86 g/cm³ · mp -58 °C · bp 57 °C · flp -20 °C
CAS No. 75-77-4 · EC no. 200-900-5
UN no. 1298 · ADR 3 (8) II · WGK 1

Danger H225-H301+H331-H312-H314-EUH014 EUH071

Trimethylchlorosilane (TMCS)
PEPTIPURE® ≥99 %, for the GC

Silylation agent

Type analysis
Appearance ..... clear liquid
Assay (GC) ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
2338.1	25 g	glass	61,85

Trimethylene bromochloride
▸ 1-Bromo-3-chloropropane see page 789

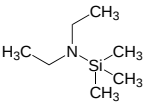
Trimethylene glycol
▸ 1,3-Propanediol see page 1184

(–)-1,3,3-Trimethyl-2-norbornanone
▸ (–)-Fenchone see page 934

2,2,4-Trimethylpentane
▸ Isooctane see page 1022

Trimethylsilylchloride
▸ Trimethylchlorosilane (TMCS) see page 1380

N-(Trimethylsilyl)-diethylamine (TMSDEA)



TMSDEA

$C_7H_{19}NSi$ · D 0,76 g/cm³ · mp -10 °C · bp 124 to 126 °C · flp 10 °C
CAS No. 996-50-9 · EC no. 213-637-6
UN no. 2733 · ADR 3 (8) II · WGK 1

Danger H225-H314

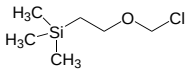
***N*-(Trimethylsilyl)-diethylamine (TMSDEA)**
≥98 %, for the GC

Silylation agent

Type analysis
Assay ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
0013.1	25 g	glass	169,35

2-(Trimethylsilyl)ethoxymethyl chloride



2-(Chloromethoxy)ethyl trimethyl silane · Chloromethyl 2-trimethylsilylethyl ether · SEM-chloride

$SiC_6H_{15}OCl$ · D 0,94 g/cm³ · bp 170 to 172 °C · flp 46 °C
CAS No. 76513-69-4 · EC no. 278-483-4
UN no. 2920 · ADR 8 (3) II · WGK 1

Danger H226-H314

2-(Trimethylsilyl)ethoxymethyl chloride
≥95 %, for synthesis

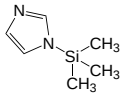
Protective group reagent

Storage temperature: +4 °C

Type analysis
Appearance ..... clear,colourless liquid
Assay (H-NMR) ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
1444.1	1 ml	glass	49,35
1444.2	5 ml	glass	128,50

N-(Trimethylsilyl)-imidazole (TSIM)



TSIM

$C_6H_{12}N_2Si$ · D 0,956 g/cm³ · mp -42 °C · bp 93 to 94 °C · flp 6 °C
CAS No. 18156-74-6 · EC no. 242-040-3
UN no. 2924 · ADR 3 (8) II · WGK 3

Danger H225-H302-H314-H360D-H410-EUH014

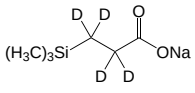
N-(Trimethylsilyl)-imidazole (TSIM)
≥98 %, for the GC

Silylation agent

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
0012.1	10 g	glass	53,25

3-(Trimethylsilyl)-propionic-2,2,3,3 acid sodium salt D4 (TSP-D4)



Sodium-2,2,3,3-trimethylsilylpropionate D4 · TSP-D4

$(CH_3)_3SiCD_2CD_2CO_2Na$ · mp >300 °C
CAS No. 24493-21-8 · EC no. 246-286-2
WGK 1

Warning H315-H319-H335

3-(Trimethylsilyl)-propionic-2,2,3,3 acid sodium salt D4 (TSP-D4)
99 Atom%D

For nuclear magnetic resonance spectroscopy.

Type analysis
Deuterising degree ..... ≥99 %
Appearance ..... white powder

Art. No.	Pack Qty.	Pack.	€
9922.1	1 g	plastic	166,65

Trimethylsulfonium hydroxide in methanol

TMSH in methanol

$C_3H_{10}SO$ · D 0,79 g/cm³ · mp -98 °C · bp 65 °C · flp 11 °C
UN no. 1230 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H370

Trimethylsulfonium hydroxide in methanol
~0,2 M, GC

Methylation reagent

Storage temperature: +4 °C

Type analysis
Appearance ..... clear, colourless liquid
Methylation of Octanoic acid ..... complies

Art. No.	Pack Qty.	Pack.	€
9934.1	10 ml	septum bottle	152,65

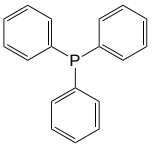
N,N,N-Trimethyl-1-tetradecanammonium bromide
▸ Tetradecyltrimethylammonium bromide (MTAB) see page 1360

N,N,N'-Trimethylthionin
▸ Azure B (C.I. 52010) see page 762

1,3,7-Trimethylxanthine
▸ Caffeine see page 804

Triphenylphosphane
▸ Triphenylphosphine see page 1381

Triphenylphosphine



PPh_3 · Triphenylphosphane

$P(C_6H_5)_3$ · D 1,19 g/cm³ · mp 78 to 82 °C · bp 360 to 380 °C · flp 180 °C
CAS No. 603-35-0 · EC no. 210-036-0
WGK 2

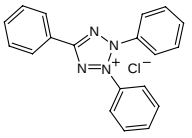
Danger H302-H317-H318-H372

Triphenylphosphine
≥99,5 %, for synthesis

Type analysis
Appearance ..... pastilles
Assay ..... ≥99,5 %

Art. No.	Pack Qty.	Pack.	€
4110.1	10 g	plastic	15,60
4110.2	100 g	plastic	27,85
4110.3	250 g	plastic	53,65
4110.4	1 kg	plastic	170,95
Original pack 6 x 1 kg			162,40/1 kg

2,3,5-Triphenyltetrazolium chloride



TPTZ · TTC · TTZ · Tetrazolium red · Red tetrazolium

$C_{19}H_{15}ClN_4$ · mp 235 to 245 °C
CAS No. 298-96-4 · EC no. 206-071-6
WGK 1

Warning H315-H319-H335

2,3,5-Triphenyltetrazolium chloride
≥98 %, p.a.

For microbiology and histochemistry. For vital staining of cells.

Storage temperature: +4 °C

Guarantee analysis
Assay (arg., dry substance) ..... ≥98,0 %
Loss on drying (120 °C) ..... ≤2,0 %
Sulphated ash ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
KK13.1	10 g	glass	69,80
KK13.2	50 g	glass	284,90

2,3,5-Triphenyl-tetrazolium chloride
▸ TTC-Supplement see page 1387

Triple Sugar Iron Agar

Agar medium M (Ph. Eur. 6.0) · TSI agar

WGK 3

Triple Sugar Iron Agar
for microbiology

For identification and differentiation of enterobacteria and for determination of *Salmonellae*.

Application: Use 64.6 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Beef extract ..... 3 g/l
Yeast extract ..... 3 g/l
Beef- and casein peptone ..... 20 g/l
Sodium chloride (NaCl) ..... 5 g/l
Lactose monohydrate ..... 10 g/l
Saccharose ..... 10 g/l
Glucose monohydrate ..... 1 g/l
Ammonium iron(III) citrate ..... 0,3 g/l
Sodium thiosulphate ..... 0,3 g/l
Phenol red ..... 0,025 g/l
Agar ..... 12 g/l
pH value ..... 7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE49.1	500 g	plastic	104,85
Original pack 6 x 500 g			99,61/500 g

Tripropylene glycol



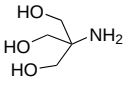
$C_9H_{20}O_4$ · D 1,02 g/cm³ · mp <-20 °C · bp 270 °C · flp 145 °C
CAS No. 24800-44-0 · EC no. 246-466-0
WGK 1

Tripropylene glycol
≥98 %, pure

Type analysis
Assay (GC) ..... ≥98,0 %
Colour (Hazen) ..... ≤20

Art. No.	Pack Qty.	Pack.	€
8698.1	1 l	glass	64,00
Original pack 6 x 1 l			60,80/1 l
8698.2	2.5 l	glass	128,50
Original pack 4 x 2.5 l			122,08/2.5 l

TRIS



Tris-(hydroxymethyl)-amino methane

$C_4H_{11}NO_3$ · D 1,32 g/cm³ · mp 169 °C · bp 288 °C
CAS No. 77-86-1 · EC no. 201-064-4
WGK 1

TRIS
PUFFERAN® ≥99,9 %, p.a.

For sensitive assays in molecular biology and cytology.

Guarantee analysis
Assay (dry substance) ..... ≥99,9 %
In H_2O insoluble matter ..... ≤0,005 %
pH-value (5 % solution) 10,0-11,5
Melting point ..... 168-172 °C
Water ..... ≤0,5 %
Sulphated ash ..... ≤0,1 %
Sulphate (SO_4) ..... ≤0,001 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,00005 %
Cadmium (Cd) ..... ≤0,00005 %
Iron (Fe) ..... ≤0,00005 %
Copper (Cu) ..... ≤0,00005 %
Zinc (Zn) ..... ≤0,00005 %

Absorbance:
260 nm ..... ≤0,03
280 nm ..... ≤0,02
430 nm ..... ≤0,004

Art. No.	Pack Qty.	Pack.	€
4855.6	250 g	plastic	46,15
4855.1	500 g	plastic	78,40
Original pack 6 x 500 g			74,48/500 g
4855.2	1 kg	plastic	147,85
Original pack 6 x 1 kg			140,46/1 kg
4855.5	2.5 kg	plastic	306,40
4855.3	5 kg	plastic	579,45
4855.4	10 kg	plastic	1.116,95
4855.7	25 kg	plastic	2.574,65

TRIS
≥99,9 %, Blotting Grade

For Western blotting and immunodetection

Type analysis
Appearance ..... white cryst. powder
Assay (titr.) ..... ≥99,9 %
Loss on drying ..... ≤0,5 %
pH value (5 % solution) ..... 10,8±0,8
Solubility (40 % w/w in H_2O) ..... complies
In H_2O insoluble matter ..... ≤0,011 %
Sulphated ash ..... ≤0,1 %
Lead (Pb) ..... ≤0,0001 %
Chloride (Cl) ..... ≤0,001 %
Protease ..... none detected

Art. No.	Pack Qty.	Pack.	€
0188.1	250 g	plastic	52,15
0188.2	500 g	plastic	89,15
Original pack 6 x 500 g			84,69/500 g
0188.3	1 kg	plastic	158,60
Original pack 6 x 1 kg			150,67/1 kg
0188.4	2.5 kg	plastic	327,90

TRIS
CELLPURE® ≥99,9 %

For cell culture, tissue culture and biotechnology.

Guarantee analysis
Endotoxins ..... ≤0,03 EU/mg
Assay (dry substance) ..... ≥99,9 %
Identity ..... complies
Water ..... ≤0,5%
Chloride (Cl) ..... ≤0,01%
Arsenic (As) ..... ≤0,0002%
Iron (Fe) ..... ≤0,0005%
Heavy metals (as Pb) ..... ≤0,0001%
Solubility (40 % w/w in H_2O) clear and colourless
DNases, RNases, Protease ..... none detected

Absorbance:
260 nm ..... ≤0,03
280 nm ..... ≤0,02

Art. No.	Pack Qty.	Pack.	€
3170.1	100 g	plastic	36,45
3170.2	500 g	plastic	112,80
Original pack 6 x 500 g			107,16/500 g

TRIS
PUFFERAN® ≥99,9 %, Ultra Quality

For all standard applications.
Suitable for pharmaceutical research.

Guarantee analysis
Assay (dry substance) ..... ≥99,9 %
In H_2O insoluble matter ..... ≤0,005 %
pH-value (5 % solution) 10,0-11,5
Melting point ..... 168-172 °C
Water ..... ≤0,5 %
Heavy metals (as Pb) ..... ≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
5429.1	500 g	plastic	73,00
Original pack 6 x 500 g			69,35/500 g
5429.3	1 kg	plastic	140,30
Original pack 6 x 1 kg			133,29/1 kg
5429.5	2.5 kg	plastic	292,95
5429.2	5 kg	plastic	568,70
5429.4	10 kg	plastic	1.069,65

TRIS
≥99 %, Ph. Eur., USP

Pharmaceutical research and sensitive assays

Guarantee analysis
Appearance ..... white crystals or white crystal powder
Assay (titr.) ..... 99,0-100,5 %
Identity ..... complies
pH value (5 %, hydrous sol.) 10,0-11,5
Appearance of solution ..... clear and colourless
Melting point ..... 168-172 °C
Loss on drying (105 °C) ..... ≤0,5 %
Related substances ..... ≤1,0 %
Sulphated ash ..... ≤0,1 %
Chloride (Cl) ..... ≤0,01 %
Iron (Fe) ..... ≤0,001 %
Heavy metals (as Pb) ..... ≤0,001 %
Endotoxins ..... ≤0,03 EU/mg

Art. No.	Pack Qty.	Pack.	€
A411.1	500 g	plastic	70,45
Original pack 6 x 500 g			66,93/500 g
A411.2	1 kg	plastic	138,70
Original pack 6 x 1 kg			131,77/1 kg
A411.4	2.5 kg	plastic	289,20
A411.3	5 kg	plastic	557,95

TRIS
PUFFERAN® ≥99,3 %, Buffer Grade

For electrophoresis buffer and wash solutions.

Guarantee analysis
Appearance white to off-white crystalline powder
Assay (dry substance) ..... ≥99,3 %
Water ..... ≤0,5 %
pH value (5 % in H_2O) 10,0-11,5
Melting point (dry substance) ..... 168-172 °C

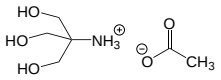
Art. No.	Pack Qty.	Pack.	€
AE15.1	500 g	plastic	68,30
Original pack 6 x 500 g			64,89/500 g
AE15.2	1 kg	plastic	131,70
Original pack 6 x 1 kg			125,12/1 kg
AE15.6	2.5 kg	plastic	281,15
AE15.3	5 kg	plastic	547,20
AE15.4	10 kg	plastic	1.037,40
AE15.5	25 kg	plastic	2.311,25

TRIS
≥99 %, cryst.

Type analysis
Appearance ..... white to off white crist. powder
Assay (dry substance) ..... ≥99,0 %
Water ..... ≤1,0 %
pH value (5 % in H_2O) 10,0-11,5

Art. No.	Pack Qty.	Pack.	€
2449.1	500 g	plastic	64,40
Original pack 6 x 500 g			61,18/500 g
2449.2	1 kg	plastic	123,10
Original pack 6 x 1 kg			116,95/1 kg
2449.3	5 kg	plastic	532,15
2449.4	10 kg	plastic	1.015,90
2449.5	25 kg	plastic	2.230,65

TRIS acetate



Tris-(hydroxymethyl)-aminomethane acetate

$C_6H_{15}NO_5$ · mp 117 to 123 °C
CAS No. 6850-28-8 · EC no. 229-939-6
WGK 1

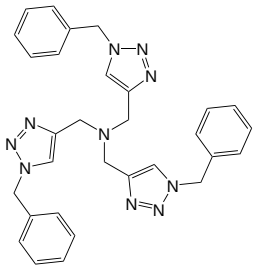
TRIS acetate
PUFFERAN® ≥98 %

Type analysis
Appearance ..... white crystalline powder
Assay ..... ≥98,0 %
Solubility (0.5 M in H_2O) . clear, colorless solution
pH- value (0,5 M, in H_2O) 6,0-7,0
Loss on drying ..... ≤3,0 %
Melting point ..... 117-123 °C
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,005 %
Heavy metals (as Pb) ..... ≤0,0005 %

Absorbance:
260 nm ..... ≤0,06
280 nm ..... ≤0,05

Art. No.	Pack Qty.	Pack.	€
7125.1	25 g	plastic	50,45
7125.2	100 g	plastic	174,70

Tris[(1-benzyl-1*H*-1,2,3-triazol-4-yl)methyl]amine (TBTA)



TBTA

$C_{30}H_{30}N_{10}$ · mp 145 to 147 °C
CAS No. 510758-28-8
WGK 3

Tris[(1-benzyl-1*H*-1,2,3-triazol-4-yl)methyl]amine (TBTA)
≥95 %, ROTI®Click Grade

Ligand for Click Chemistry

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Appearance ..... white to tan powder
Assay (HPLC) ..... ≥95 %
Alkyne- and Azide-free ..... complies

Art. No.	Pack Qty.	Pack.	€
7814.1	5 mg	plastic	42,90
7814.2	10 mg	plastic	59,70
7814.3	50 mg	plastic	94,50
7814.4	100 mg	plastic	178,45

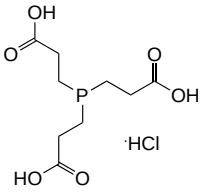
Tris buffered saline

- ROTI®Fair TBS 7.6 see page 1222
- ROTI®Fair TBS 8.0 see page 1222

Tris buffered saline with Tween

- ROTI®Fair TBST 7.6 see page 1222

Tris-(2-carboxyethyl)-phosphine hydrochloride



TCEP · HCl

$C_9H_{15}O_6P$ · HCl · mp 176 to 178 °C
CAS No. 51805-45-9
UN no. 3261 · ADR 8 II · WGK 1

Danger H314

Tris-(2-carboxyethyl)-phosphine hydrochloride
≥98 %, for biochemistry

Reducing reagent

Storage temperature: +4 °C

Guarantee analysis
Assay (titr.) ..... ≥98,0 %
Solution (1 % in H_2O) ..... colourless, clear
Loss on drying (80 °C, Vakuum) ..... ≤ 1,0 %

Art. No.	Pack Qty.	Pack.	€
HN95.1	1 g	glass	64,40
HN95.2	5 g	glass	209,65
HN95.3	10 g	glass	353,70
HN95.4	25 g	glass	751,45

Tris(carboxymethyl)-amine

- Nitrilotriacetic acid see page 1108

2,4,6-Tris(dimethylaminomethyl)-phenol

- Glycidether Accelerator DMP-30 see page 967

TRIS-EDTA-Buffer

- ROTI®Stock 100x TE see page 1243
- ROTI®Fair TE see page 1222

Tris-glycine buffer

- ROTI®Fair TG-Western see page 1222

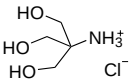
Tris-glycine-SDS buffer

- ROTI®Fair SDS-PAGE see page 1221
- ROTIPHORESE®SDS-PAGE see page 1234

Tris-HCl

- TRIS hydrochloride see page 1383

TRIS hydrochloride



Tris-(hydroxymethyl)-aminomethane hydrochloride · Tris-HCl

$C_4H_{11}NO_3$ · HCl · D 1,28 g/cm³ · mp 150 to 153 °C
CAS No. 1185-53-1 · EC no. 214-684-5
WGK 1

TRIS hydrochloride
PUFFERAN® ≥99 %, p.a.

Ideal for all molecular biological applications.

Guarantee analysis
Appearance ..... white powder
Assay (titr., dry substance) ..... ≥99,0 %
pH-value 3,5-5,0
Solubility (1 M in H_2O) ..... clear, colourless
Loss on drying ..... ≤1,0 %
Iron (Fe) ..... ≤0,0001 %
Heavy metals (as Pb) ..... ≤0,0005 %
Melting point ..... 150-153 °C

Absorbance:
260 nm ..... ≤0,02
280 nm ..... ≤0,02

Art. No.	Pack Qty.	Pack.	€
9090.1	50 g	plastic	18,85
9090.6	250 g	plastic	72,60
9090.2	500 g	plastic	123,65
Original pack 6 x 500 g			117,47/500 g
9090.3	1 kg	plastic	209,65
Original pack 6 x 1 kg			199,17/1 kg
9090.5	2.5 kg	plastic	407,45
9090.4	5 kg	plastic	772,95

Tris-(2-hydroxyethyl)-amine

- Triethanolamine see page 1378

Tris-(2-hydroxyethyl)-ammonium chloride

- Triethanolamine hydrochloride see page 1378

Tris-(hydroxymethyl)-amino methane

- TRIS see page 1382

Tris-(hydroxymethyl)-aminomethane acetate

- TRIS acetate see page 1383

Tris-(hydroxymethyl)-aminomethane hydrochloride

- TRIS hydrochloride see page 1383

Tris-(hydroxymethyl)-aminomethane maleate

- TRIS maleate see page 1384

N-Tris(hydroxymethyl)methyl-2-aminoethanesulphonic acid
▸ TES see page 1358

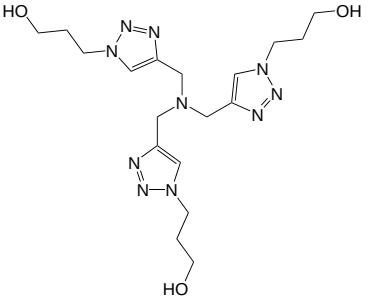
3-*N*-Tris-(hydroxymethyl)-methyl-amino-2-hydroxypropane-sulphonic acid sodium salt
▸ TAPSO see page 1354

3-*N*-Tris-(hydroxymethyl)-methyl-amino-2-hydroxypropane-sulphonic acid sodium salt
▸ TAPSO sodium salt see page 1354

N-Tris(hydroxymethyl)-methyl-3-amino-propane sulphonic acid
▸ TAPS see page 1353

N-Tris(hydroxymethyl)-methyl-glycine
▸ TRICINE see page 1378

Tris(3-hydroxypropyltriazolyl-methyl)amine (THPTA)



THPTA

$C_{18}H_{30}N_{10}O_3$
CAS No. 760952-88-3
WGK 1

Warning H315-H319-H335

Tris(3-hydroxypropyltriazolyl-methyl)amine (THPTA)
≥95 %, ROTI®Click Grade

Ligand for Click Chemistry

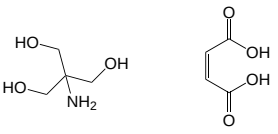
For a 0,1 M solution: add 230 l to 10 mg.

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥95 %
Solubility ..... H_2O, DMSO/t-Butanol Solvent

Art. No.	Pack Qty.	Pack.	€
7822.1	5 mg	plastic	31,75
7822.2	10 mg	plastic	46,80
7822.3	50 mg	plastic	94,10
7822.4	100 mg	plastic	154,30

TRIS maleate



Tris-(hydroxymethyl)-aminomethane maleate

$C_8H_{15}NO_7$ · mp 102 to 108 °C
CAS No. 72200-76-1 · EC no. 276-455-6
WGK 1

TRIS maleate
PUFFERAN® ≥99 %

Type analysis
Appearance ..... White crystalline powder
Assay ..... ≥99,0 %
Solubility (10 % in H_2O) ..... clear, colorless
pH- value (0,5 M, in H_2O) 3,0-4,5
Sulphated ash ..... ≤0,1 %
Heavy metals (as Pb) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
6991.1	100 g	plastic	123,65

Trisodium phosphate
▸ tri-Sodium phosphate dodecahydrate see page 1293

Tris powder (pouch)
▸ ROTI®Fair Tris see page 1222

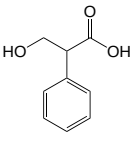
Trochol
▸ Betulin see page 773

Tropaeolin OO
▸ Orange IV sodium salt (C.I. 13080) see page 1131

Tropaeolin O sodium salt
▸ Resorcinol yellow (C.I. 14270) see page 1202

3-α-Tropanol
▸ Tropine see page 1384

DL-Tropic acid



2-Phenylhydracrylic acid · 3-Hydroxy-2-phenyl-propionic acid

$C_9H_{10}O_3$ · mp 116 to 118 °C
CAS No. 529-64-6 · EC no. 208-465-3
WGK 1

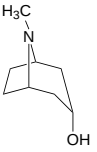
DL-Tropic acid
≥97 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white powder
Assay (acidim.) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
4052.1	25 g	plastic	175,80

Tropine



3-α-Tropanol

$C_8H_{15}NO$ · D 1,045 g/cm³ · mp 62 to 64 °C · bp 232 to 234 °C
CAS No. 120-29-6 · EC no. 204-384-2
WGK 3

Warning H302+H312+H332

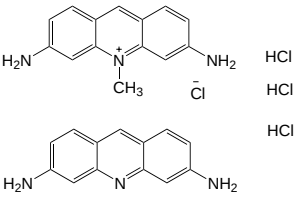
Tropine
≥99 %, pure

Type analysis
Appearance white to off-white crystalline powder
Assay (GC) ..... ≥99,0 %
Identity ..... complies

Art. No.	Pack Qty.	Pack.	€
4049.1	10 g	glass	77,30

H-DL-Trp-OH
▸ DL-Tryptophan see page 1386

Trypaflavine



Acriflavinium hydrochloride · Acriflavinium chloride · Neutral acriflavine

mp 260 °C
CAS No. 8063-24-9
UN no. 3077 · ADR 9 III · WGK 3

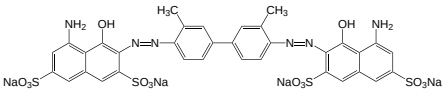
Danger H302-H318-H410

Trypaflavine
≥99 %, for biochemistry

Type analysis
Appearance ..... red-brown, cryst. powder
Assay (dry substance) ..... ≥99,0 %
Sulphated ash ..... ≤1,0 %
Loss on drying ..... ≤6,5 %

Art. No.	Pack Qty.	Pack.	€
9621.1	10 g	glass	31,10
9621.2	50 g	glass	95,70

Trypan blue (C.I. 23850)



Benzamine blue · Tolidin-diazo-bis-8-amino-1-naphthol-3,6-disulphonic acid tetrasodium salt

$C_{34}H_{24}N_6Na_4O_{14}S_4$ · mp 300 °C
CAS No. 72-57-1 · EC no. 200-786-7
WGK 3

Danger H350

Trypan blue (C.I. 23850)
for microscopy

For vital and histological staining.

Stock solution: 0.5 % in PBS or in NaCl solution (0.9 %).
Stabile for several months when sterile filtrated and stored at room temperature.Working concentration: 0.1–0.2 % in PBS
Note: Always keep bottles tightly closed.

Type analysis
Dye content ..... ≥80 %
Loss on drying ..... ≤10 %
Absorption max. (50:50 H_2O:ethanol) ..... 590-610 nm

Art. No.	Pack Qty.	Pack.	€
CN76.1	10 g	glass	31,75
CN76.2	25 g	glass	56,45
CN76.3	50 g	glass	99,90

Trypan blue solution 0.4 %

D 1 g/cm³ · bp 100 °C
WGK 3

Danger H350

Trypan blue solution 0.4 %
0,4 %, for microscopy

For detection of dead cells during vital staining.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Assay ..... 0,4 %
Colour ..... dark blue

Art. No.	Pack Qty.	Pack.	€
1680.1	100 ml	plastic	39,25

Trypsin

CAS No. 9002-07-7 · EC no. 232-650-8
WGK 1

Danger H315-H319-H334-H335

Trypsin
5.000 USP-U/mg

Serine protease isolated from porcine pancreas, lyophilised.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Activity ..... ~5000 USP-U/mg

Art. No.	Pack Qty.	Pack.	€
2193.1	100 mg	glass	45,15
2193.2	500 mg	glass	160,20
2193.3	5 g	glass	1.493,20

Trypsin
≥2500 USP-U/mg, cryst.

Isolated from porcine pancreas, lyophilised.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... beige to light brown hygroscopic powder
Activity ..... ≥2500 USP-U/mg Trypsin
Residue on ignition ..... ≤3,0 %
Loss on drying (60 °C) ..... <5 %

Art. No.	Pack Qty.	Pack.	€
5455.1	100 mg	glass	32,15
5455.2	1 g	glass	134,40

Trypsin inhibitor

CAS No. 9035-81-8 · EC no. 232-906-9
WGK 1

Danger H317-H334

Trypsin inhibitor
≥10 000 BAEE U/mg

Made from soybeans. Highly active inhibitor for trypsin, weakly inhibitory for chymotrypsin, plasmin, kallikrein, thrombin.

Stock solution: 1–10 mg/ml in H_2O, PBS or other phosphate buffer. Storage of stock solution in aliquots at –20 °C

Storage temperature: +4 °C

Type analysis
Colour ..... beige to light yellow
Dry extract ..... >930 mg/g
Proteins ..... >740 mg/g
pH-value (1 % solution) ..... 7,0 ±0,8
Activity ..... ≥10000 BAEE U/mg

Art. No.	Pack Qty.	Pack.	€
2949.1	25 mg	plastic	37,55
2949.2	100 mg	plastic	95,15
2949.3	250 mg	plastic	192,45
2949.4	500 mg	plastic	327,90
2949.5	1 g	plastic	564,40

Trypsin inhibitor
≥7 000 BAEE U/mg, salt-free

Made from soybeans. Inhibition of trypsin, chymotrypsin, plasmin, kallikrein, thrombin and other proteolytic enzymes; free from salt.

Stock solution: 1–10 mg/ml in H_2O, PBS or other phosphate buffer. Storage of stock solution in aliquots at –20 °C

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white to beige powder
Activity ..... ≥7000 BAEE U/mg

Art. No.	Pack Qty.	Pack.	€
5279.1	100 mg	glass	26,80
5279.4	250 mg	glass	54,75
5279.5	500 mg	glass	96,65
5279.2	1 g	glass	177,40
5279.3	5 g	glass	805,20

Trypticasein Soy Agar
▸ CASO Agar see page 820

Trypticase-Soya-Agar
▸ Tryptone Soy Agar see page 1386

Tryptic Soy Broth
▸ CASO Broth vegetal see page 820
▸ CASO Broth, granulated see page 820
▸ CASO Broth see page 820
▸ CASO Broth see page 820

Tryptone/Peptone ex casein

Peptone ex casein, pancreatic digest

CAS No. 91079-40-2 · EC no. 293-428-4
WGK 1

Tryptone/Peptone ex casein
pancreatically digested, for microbiology

Similar to NZamine

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Total nitrogen ..... ≥10 %
Loss on drying ..... ≤6 %
Ash ..... ≤15 %
pH (2 % solution) 6,5-7,5
Amino nitrogen ..... ≥3,9 %

Art. No.	Pack Qty.	Pack.	€
8952.1	250 g	plastic	66,15
8952.3	500 g	plastic	118,15
Original pack 6 x 500 g			112,24/500 g
8952.2	1 kg	plastic	203,20
Original pack 6 x 1 kg			193,04/1 kg
8952.4	2.5 kg	plastic	443,45
8952.5	5 kg	plastic	775,65

Tryptone/Peptone ex casein, granulated
pancreatically digested, granulated, for microbiology

Similar to NZamine

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Total nitrogen ..... ≥10 %
Amino nitrogen ..... ≥3,9 %
Loss on drying ..... ≤6 %
Ash ..... ≤15 %
pH (2 % solution) 6,5-7,5
Granulation ..... complies

Art. No.	Pack Qty.	Pack.	€
6681.1	250 g	plastic	85,90
6681.2	500 g	plastic	149,45
Original pack 6 x 500 g			141,98/500 g
6681.3	1 kg	plastic	256,95
Original pack 6 x 1 kg			244,10/1 kg
6681.4	2.5 kg	plastic	514,95
6681.5	5 kg	plastic	994,40

Tryptone Bile Salts Agar

TBA

WGK 3

Tryptone Bile Salts Agar
DEV, for microbiology

For detection and enumeration of *E. coli* in foods and water samples.

Application: Use 36.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Tryptone ..... 20 g/l
Bile salts ..... 1,5 g/l
Agar ..... 15 g/l
pH value ..... 7,2 ±0,1

Art. No.	Pack Qty.	Pack.	€
CP69.1	500 g	plastic	166,65
Original pack 6 x 500 g			158,32/500 g

Tryptone Soy Agar

TSA · Trypticase-Soya-Agar

WGK 1

Tryptone Soy Agar
DEV, EN ISO 9308-1:2000, for microbiology

For the detection and enumeration of *E. coli* and other coliform bacteria in foods and water samples.

Application: Use 40 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Casein, tryptic digest ..... 15 g/l
Soy peptone ..... 5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Agar ..... 15 g/l
pH value ..... 7,2 ±0,1

Art. No.	Pack Qty.	Pack.	€
CP70.1	500 g	plastic	107,00
Original pack 6 x 500 g			101,65/500 g
CP70.2	1 kg	plastic	185,45
Original pack 6 x 1 kg			176,18/1 kg

Tryptone Soy Agar Letheen

▸ CASO Agar with Lecithin/Polysorbate 80 see page 820

D-Tryptophan

2-Amino-3-(3-indolyl)propionic acid · H-D-Trp-OH

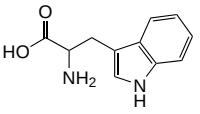
$C_{11}H_{12}N_2O_2$ · mp 290 to 295 °C
CAS No. 153-94-6 · EC no. 205-819-9
WGK 1

D-Tryptophan
≥98,5 %, for biochemistry

Type analysis
Appearance ..... white to whitish powder
Assay ..... 98,5-102,0 %
Ash ..... ≤0,1 %
Specific rotation $[\alpha]_D^{20}$ (1 % in H_2O) ... +30° to +33°
Loss on drying ..... ≤0,2 %
Enantiomeric purity ..... ≤0,3 % L-enantiomer

Art. No.	Pack Qty.	Pack.	€
7700.1	5 g	plastic	61,85
7700.2	25 g	plastic	177,40

DL-Tryptophan



2-Amino-3-(3-indolyl)propionic acid · 3-β-Indolylalanine · H-DL-Trp-OH

$C_{11}H_{12}N_2O_2$ · mp 285 to 295 °C
CAS No. 54-12-6 · EC no. 200-194-9
WGK 1

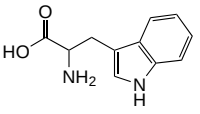
DL-Tryptophan
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay (titr.) ..... ≥98,0 %
Appearance of solution (1 % in 1 M HCl) .. colourless to yellow
Loss on drying (3 h, 105 °C, vacuum) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
5236.1	10 g	plastic	19,90
5236.2	25 g	plastic	38,20
5236.3	100 g	plastic	123,65

L-Tryptophan



2-Amino-3-(3-indolyl)propionic acid · H-L-Trp-OH

$C_{11}H_{12}N_2O_2$ · mp 280 to 290 °C
CAS No. 73-22-3 · EC no. 200-795-6
WGK 1

L-Tryptophan
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤50,0 E.U./g
Assay ..... ≥99 %
Loss on drying ..... ≤0,5 %
Specific rotation $[\alpha]_D^{20}$ ..... -33,0° to -30,0°
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,03 %
Iron (Fe) ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
1739.1	25 g	plastic	36,45
1739.2	100 g	plastic	104,85
1739.3	500 g	plastic	428,95
Original pack 6 x 500 g			407,50/500 g

L-Tryptophan
≥98,5 %, Ph. Eur., for biochemistry

Guarantee analysis
Appearance white to off-white, cryst. or amorphic powder
Assay ..... 98,5-101,0 %
Identity ..... complies
Appearance of solution ..... complies
Specific rotation $[\alpha]_D^{20}$ (dry substance) .... -33,0° to -30,0°
Foreign amino acids ..... complies
Loss on drying ..... ≤0,5 %
Sulphated ash ..... ≤0,1 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,03 %
Ammonium (NH_4) ..... ≤0,02 %
Iron (Fe) ..... ≤0,002 %
Impurity A, related substances ..... complies

Art. No.	Pack Qty.	Pack.	€
4858.1	10 g	glass	18,20
4858.2	100 g	plastic	89,15
4858.4	250 g	plastic	192,45
4858.3	1 kg	plastic	708,45
Original pack 6 x 1 kg			673,03/1 kg

Tryptophane Culture Broth

WGK 1

Tryptophane Culture Broth
DEV, ISO 16654, for microbiology

For the detection of *E. coli* in foods and water samples by indole production.

Application: Use 16 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Casein, tryptic digest ..... 10 g/l
L-Tryptophan ..... 1 g/l
Sodium chloride (NaCl) ..... 5 g/l
pH value ..... 7,5 ±0,1

Art. No.	Pack Qty.	Pack.	€
CP71.1	500 g	plastic	214,50
Original pack 6 x 500 g			203,78/500 g

Tryptose Soy Citrate Agar

▸ TSC Agar (Base) see page 1387

TSA

▸ Tryptone Soy Agar see page 1386
▸ ROTI®ContiPlate TSA see page 1215

TSA Letheen

▸ CASO Agar with Lecithin/Polysorbate 80 see page 820

TSB Agar
- CASO Agar see page 820

TSB Broth
- CASO Broth see page 820
- CASO Broth vegetal see page 820
- CASO Broth, granulated see page 820
- CASO Broth see page 820

TSC Agar (Base)

Tryptose Soy Citrate Agar · Perfringens Agar · Clostridium perfringens-Agar · SFP-Agar

WGK 1

Warning H319

TSC Agar (Base)
DEV, EN ISO 7937:2004, ISO 11133, ISO 14189, for microbiology

For detection and enumeration of *Clostridium perfringens* in foods and animal feed.

Application: Use 42 g for 1 l agar. After autoclaving add 2 vials (2x2 ml) reconstituted *Clostridium perfringens* Supplement (Art. No. CL52.1). Add 50 ml egg yolk emulsion (Art. No. 0402.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis

Tryptose	15 g/l
Soy peptone	5 g/l
Yeast extract	5 g/l
Sodium bisulfite	1 g/l
Ammonium iron(III) citrate	1 g/l
Agar	15,0 g/l
pH value	7,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL51.1	500 g	plastic	149,45
Original pack 6 x 500 g			141,98/500 g

TSI agar
- Triple Sugar Iron Agar see page 1381

TSIM
- *N*-(Trimethylsilyl)-imidazole (TSIM) see page 1381

TSP-D4
- 3-(Trimethylsilyl)propionic-2,2,3,3 acid sodium salt D4 (TSP-D4) see page 1381

TSPP
- tetra-Sodium diphosphate decahydrate see page 1283

TSTU
- *O*-(*N*-Succinimidyl)-*N*,*N*,*N*',*N*'-tetramethyluronium tetrafluoroborate (TSTU) see page 1343

TTC
- 2,3,5-Triphenyltetrazolium chloride see page 1381

TTC Chapman Agar (with sodium heptadecylsulphate) (Base)

Chapman Lactose Agar · Chapman TTC Agar · TTC Tergitol 7 Agar

WGK 1

TTC Chapman Agar (with sodium heptadecylsulphate) (Base)
DEV, ISO 11133, for microbiology

For isolation and enumeration of coliform bacteria from water samples.

Application: Use 56.2 g for 1 l agar. Contains Tergitol. After autoclaving add TTC solution (Art. No. CP72.1) to 0.0025 %.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis

Lactose	20 g/l
Peptone	10 g/l
Yeast extract	6 g/l
Meat extract	5 g/l
Bromothymol blue	0,05 g/l
Sodium heptadecyl sulphate (Tergitol 7)	0,1 g/l
Agar	15 g/l
pH value	7,2 ±0,1

Art. No.	Pack Qty.	Pack.	€
CP65.1	500 g	plastic	107,00
Original pack 6 x 500 g			101,65/500 g

TTC-Supplement

Tetrazolium red · 2,3,5-Triphenyl-tetrazolium chloride

mp 235 to 245 °C
CAS No. 298-96-4 · EC no. 206-071-6
WGK 1

Warning H315-H319-H335

TTC-Supplement
lyophilized

Media supplement for identification of coliform enterobacteria.

Application: One vial TTC-Supplement (50 mg) is reconstituted in 5 ml sterile, distilled water. Store solution at 4 °C for one week in maximum. Long-term storage in aliquots at –20 °C.

One box of 10 x 50 mg TTC-Supplement is sufficient for 20 l TTC Chapman Agar (Art. No. CP65).

Storage temperature: +4 °C

Guarantee analysis
Triphenyltetrazolium chloride (per vial) ..... 50 mg

per vial.

Art. No.	Pack Qty.	Pack.	€
CP72.1	500 mg	glass	100,95

TTC Tergitol 7 Agar
- TTC Chapman Agar (with sodium heptadecylsulphate) (Base) see page 1387

TTX
- Tetrodotoxin see page 1364

TTZ
- 2,3,5-Triphenyltetrazolium chloride see page 1381

Tulipanin
- Delphinidin 3-rutinoside chloride see page 866

Tungsten

W · D 19,3 g/cm³ · mp 3410 °C · bp 5660 °C
CAS No. 7440-33-7 · EC no. 231-143-9
UN no. 3089 · ADR 4.1 II

Danger H228-H315-H319

Tungsten powder
≥99 %, ~325 mesh

Type analysis
Assay ..... ≥99,0 %

Particle size:
325 mesh ..... ≥90 %

Art. No.	Pack Qty.	Pack.	€
9835.1	50 g	plastic	38,20
9835.2	100 g	plastic	66,55
9835.3	500 g	plastic	274,15
Original pack 6 x 500 g			260,44/500 g

Tungsten Standards
- Tungsten ICP Standard Solution see page 1324
- Tungsten AAS Standard Solution see page 1324
- Tungsten ICP Standard Solution see page 1324

Tungsten(VI) oxide

Tungsten trioxide · Tungstic anhydride · Tungstic oxide

WO_3 · D 7,16 g/cm³ · mp 1472 °C · bp 1837 °C
CAS No. 1314-35-8 · EC no. 215-231-4

Tungsten(VI) oxide
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5399.1	50 g	plastic	376,80
5399.2	100 g	plastic	639,65

Tungsten(VI) oxide
≥99,5 %, p.a.

Type analysis
Assay ..... ≥99,5 %
Loss on ignition (2 h, 750 °C) ..... ≤0,5 %
Chloride (Cl) ..... ≤0,0015 %
Fluoride (F) ..... ≤0,0015 %
Aluminium (Al) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,0005 %
Boron (B) ..... ≤0,0005 %
Iron (Fe) ..... ≤0,0005 %
Carbon (C) ..... ≤0,005 %
Molybdenum (Mo) ..... ≤0,001 %
Sodium (Na) ..... ≤0,0005 %
Phosphorus (P) ..... ≤0,001 %
Sulphur (S) ..... ≤0,001 %
Silicon (Si) ..... ≤0,005 %
Vanadium (V) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
0760.1	50 g	plastic	37,10
0760.2	100 g	plastic	55,80
0760.3	500 g	plastic	222,00
Original pack 6 x 500 g			210,90/500 g

Tungsten trioxide
▸ Tungsten(VI) oxide see page 1387

Tungstic acid

Orthotungstic acid

H_2WO_4 · D 5,5 g/cm³
CAS No. 7783-03-1 · EC no. 231-975-2
WGK 1

Tungstic acid
≥99 %, p.a.

Type analysis
Assay (based on WO_3) ..... ≥99,0 %
Assay (WO_3) ..... ≥92,0 %
Loss on ignition (2 h, 750 °C) ..... ≤8,0 %
Aluminium (Al) ..... ≤0,001 %
Arsenic (As) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %
Copper (Cu) ..... ≤0,0005 %
Molybdenum (Mo) ..... ≤0,005 %
Sodium (Na) ..... ≤0,005 %
Silicon (Si) ..... ≤0,005 %
Titanium (Ti) ..... ≤0,001 %

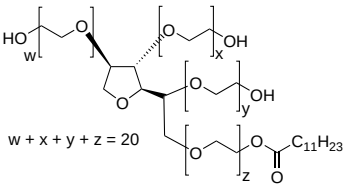
Art. No.	Pack Qty.	Pack.	€
0747.1	25 g	plastic	34,30
0747.2	100 g	plastic	55,80
0747.3	500 g	plastic	193,50
Original pack 6 x 500 g			183,83/500 g

Tungstic acid sodium salt dihydrate
▸ Sodium tungstate dihydrate see page 1298

Tungstophosphoric acid
▸ Phosphotungstic acid hydrate see page 1157

Turbidity Standard
▸ McFarland PMS 0.5 see page 17
▸ McFarland turbidity standards see page 1071

Tween® 20



Polyoxyethylene-20-sorbitan monolaurate · Polysorbate

D 1,095 g/cm³ · mp -64 to 22 °C · bp >100 °C · flp 275 °C
CAS No. 9005-64-5
WGK 1

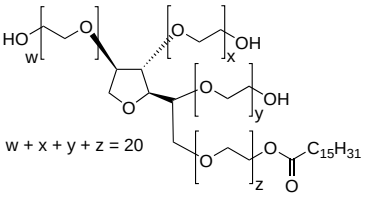
Tween® 20
Ph. Eur.

Non-ionic detergent.

Guarantee analysis
Appearance ..... yellow clear to light turbid liquid
Identity ..... complies
Hydroxyl number (mg KOH/g) 96-108
Acid value (mg KOH/g) ..... ≤2
Peroxide value ..... ≤5
Saponification value (mg KOH/g) 40-50
Water ..... ≤3 %
Total ash ..... ≤0,25 %
Heavy metals ..... ≤0,001 %
Volatile organic impurities ..... complies
1,4-Dioxane ..... ≤0,001 %
Free ethylene oxide ..... ≤0,0001 %
Fatty acid compound ..... complies

Art. No.	Pack Qty.	Pack.	€
9127.1	250 g	plastic	28,95
9127.2	1 kg	plastic	77,30
Original pack 6 x 1 kg			73,44/1 kg
9127.3	2.5 kg	plastic	147,85
9127.4	5 kg	plastic	246,20
9127.8	10 kg	plastic	450,45

Tween® 40



Polyoxyethylene-40-sorbitan monopalmitate · Polysorbate

D 1,08 g/cm³ · flp >113 °C
CAS No. 9005-66-7
WGK 1

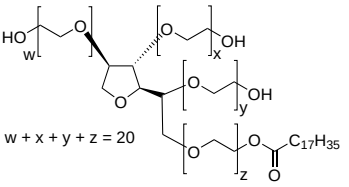
Tween® 40
Ph. Eur.

Non-ionic detergent.

Guarantee analysis
Appearance .... yellowish to brownish-yellow, oily, viscous liquid
Identity ..... complies
Hydroxyl number (mg KOH/g) 89-105
Acid value (mg KOH/g) ..... ≤2,0
Peroxide value ..... ≤10
Saponification value (mg KOH/g) 41-52
Water ..... ≤3,0 %
Sulphated ash ..... ≤0,25 %
Volatile organic impurities ..... complies
1,4-Dioxane ..... ≤0,001 %
Free ethylene oxide ..... ≤0,0001 %
Fatty acid compound ..... complies

Art. No.	Pack Qty.	Pack.	€
8240.1	250 g	plastic	34,95
8240.2	500 g	plastic	61,20
Original pack 6 x 500 g			58,14/500 g
8240.3	1 kg	plastic	105,25
Original pack 6 x 1 kg			99,99/1 kg

Tween® 60



Polyoxyethylene-60-sorbitan monostearate · Polysorbate

D 1,1 g/cm³ · bp 90,4 °C · flp >149 °C
CAS No. 9005-67-8
WGK 1

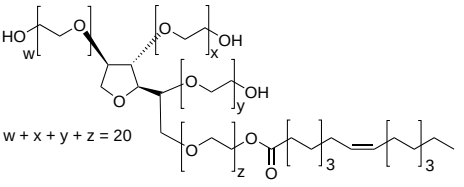
Tween® 60
Ph. Eur.

Non-ionic detergent.

Guarantee analysis
Appearance ..... yellowish-brown gelatinous substance
Identity ..... complies
Hydroxyl number (mg KOH/g) 81-96
Acid value (mg KOH/g) ..... ≤2,0
Peroxide value ..... ≤10
Saponification value (mg KOH/g) 45-55
Water ..... ≤3,0 %
Sulphated ash ..... ≤0,25 %
Volatile organic impurities ..... complies
1,4-Dioxane ..... ≤0,001 %
Free ethylene oxide ..... ≤0,0001 %
Fatty acid compound ..... complies

Art. No.	Pack Qty.	Pack.	€
9694.1	250 g	plastic	34,95
9694.2	500 g	plastic	61,20
Original pack 6 x 500 g			58,14/500 g
9694.3	1 kg	plastic	105,25
Original pack 6 x 1 kg			99,99/1 kg

Tween® 80



Polyoxyethylene-40-sorbitan monooleate · Polysorbate

D 1,06 to 1,09 g/cm³ · bp >100 °C · flp >113 °C
CAS No. 9005-65-6
WGK 1

Tween® 80
Ph. Eur.

Non-ionic detergent.

Guarantee analysis
Appearance ..... yellow, viscous liquid
Identity ..... complies
Hydroxyl number (mg KOH/g) 65-80
Acid value (mg KOH/g) ..... ≤2
Peroxide value ..... ≤5
Saponification value (mg KOH/g) 45-55

Water ..... ≤3,0 %
Total ash ..... ≤0,25 %
Heavy metals ..... ≤0,001 %
Residual solvents ..... complies
1,4-Dioxane ..... ≤0,001 %
Free ethylene oxide ..... ≤0,0001 %
Fatty acid compound ..... complies

Art. No.	Pack Qty.	Pack.	€
9139.1	250 g	plastic	32,15
9139.3	500 g	plastic	57,95
Original pack 6 x 500 g			55,05/500 g
9139.2	1 kg	plastic	100,55
Original pack 6 x 1 kg			95,52/1 kg
9139.4	2.5 kg	plastic	180,10
9139.5	5 kg	plastic	299,95
9139.6	10 kg	plastic	532,15

Tween® 80
extra pure

For bacteriology.

Type analysis
Appearance ..... yellow, viscous liquid
Water ..... ≤3,0 %
Heavy metals ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
4859.1	25 g	glass	21,40

Tylose®
▸ Methylcellulose see page 1083

Tyramine

2-(4-Hydroxyphenyl)-ethylamine

$C_8H_{11}NO$ · D 1,063 g/cm³ · mp 164 °C · bp 325,2 °C
CAS No. 51-67-2 · EC no. 200-115-8
WGK 1

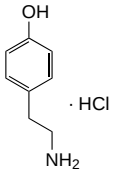
Warning H315-H319-H335

Tyramine
≥98 %, for biochemistry

Type analysis
Appearance ..... beige powder
Assay (titr.) ..... ≥98,0 %
Melting point ..... 159-163 °C
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
4862.2	1 g	glass	19,90
4862.1	5 g	glass	29,60
4862.3	25 g	glass	80,10

Tyramine hydrochloride



4-(2-Aminoethyl)phenol hydrochloride · 4-Hydroxyphenylethylamine hydrochloride · Tyrosamine hydrochloride

$C_8H_{12}ClNO$ · mp 273 to 276 °C
CAS No. 60-19-5 · EC no. 200-462-5
WGK 1

Warning H315-H319-H335

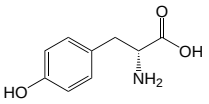
Tyramine hydrochloride
≥98 %, for biochemistry

Type analysis
Assay (NMR) ..... ≥98 %
Water (KF) ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
5234.1	5 g	plastic	22,05
5234.2	25 g	plastic	70,45
5234.3	50 g	plastic	123,65

Tyrosamine hydrochloride
▸ Tyramine hydrochloride see page 1389

D-Tyrosine



2-Amino-3-(4-hydroxyphenyl)-propionic acid · 4-Hydroxyphenylalanine · H-D-Tyr-OH

$C_9H_{11}NO_3$ · D 0,33 g/cm³ · mp 297 to 298 °C
CAS No. 556-02-5 · EC no. 209-112-6
WGK 1

Warning H315-H319-H335

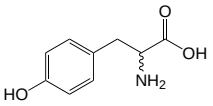
D-Tyrosine
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Assay ..... 98,0-101,0 %
Specific rotation $[\alpha]_D^{20}$ (c=5 in 1 N HCl) .. +10,5° to +12,3°
Loss on drying ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
7890.1	1 g	glass	24,65
7890.2	5 g	plastic	74,75
7890.3	25 g	plastic	220,40

DL-Tyrosine



2-Amino-3-(4-hydroxyphenyl)-propionic acid · 4-Hydroxyphenylalanine

$C_9H_{11}NO_3$ · D 1,46 g/cm³ · mp 325 °C
CAS No. 556-03-6 · EC no. 209-113-1
WGK 1

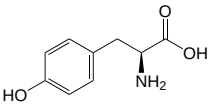
DL-Tyrosine
≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98,5 %
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8608.1	10 g	plastic	30,65
8608.2	50 g	plastic	89,15
8608.3	250 g	plastic	332,20

L-Tyrosine



2-Amino-3-(4-hydroxyphenyl)-propionic acid · 4-Hydroxyphenylalanine · H-L-Tyr-OH

$C_9H_{11}NO_3$ · D 1,46 g/cm³ · mp 296 to 298 °C
CAS No. 60-18-4 · EC no. 200-460-4
WGK 1

L-Tyrosine
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤6,0 E.U./g
Assay ..... ≥99 %
Loss on drying ..... ≤0,5 %
Specific rotation $[\alpha]_D^{20}$ ..... -12,3° to -11,0°
Ammonium (NH_4) ..... ≤0,05 %
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,05 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
1741.1	25 g	plastic	28,95
1741.2	100 g	plastic	78,40
1741.3	500 g	plastic	310,70
Original pack 6 x 500 g			295,17/500 g

L-Tyrosine
≥99 %, Ph. Eur., for biochemistry

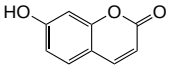
Guarantee analysis
Appearance ..... white to off-white cryst. powder
Assay (dry substance) ..... 99,0-101,0 %
Appearance of solution ..... complies
Identity ..... complies
Specific rotation $[\alpha]_D^{20}$ ..... -12,3° to -11,0°
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,03 %
Iron (Fe) ..... ≤0,001 %
Loss on drying (105 °C) ..... ≤0,5 %
Sulphated ash ..... ≤0,1 %
Ninhydrin-positive substances ..... complies

Art. No.	Pack Qty.	Pack.	€
T207.1	25 g	plastic	20,35
T207.2	100 g	plastic	51,50
T207.3	500 g	plastic	205,90
Original pack 6 x 500 g			195,61/500 g

UBA
▸ Universal Beer Agar (Base) see page 1390

Ubiquinone 50
▸ Coenzyme Q 10 see page 843

Umbelliferone



7-Hydroxycoumarin

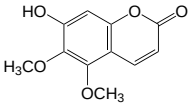
$C_9H_6O_3$ · mp 233 °C
CAS No. 93-35-6 · EC no. 202-240-3
WGK 1

Umbelliferone
ROTICHROM® CHR ≥96 %, for biochemistry

Type analysis
Assay (HPLC) ..... ≥96 %
Loss on drying (3 h, 105 °C) ..... ≤0,3 %

Art. No.	Pack Qty.	Pack.	€
5437.1	10 g	plastic	46,80
5437.2	100 g	plastic	332,20

Umckalin



7-Hydroxy-5,6-dimethoxycoumarin

$C_{11}H_{10}O_5$ · mp 145 °C
CAS No. 43053-62-9
WGK 1

Warning H302-H319

Umckalin
ROTICHROM® HPLC

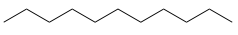
Reference substance for HPLC.
From *Pelargonium sidoides*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
2827.1	5 mg	glass	317,15

n-Undecane



$C_{11}H_{24}$ · D 0,744 g/cm³ · mp -26 °C · bp 185,8 to 200,5 °C · flp 65 °C
CAS No. 1120-21-4 · EC no. 214-300-6
UN no. 2330 · ADR 3 III · WGK 1

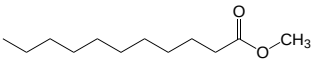
Danger H304-EUH066

n-Undecane
≥95 %, for synthesis

Type analysis
Appearance ..... clear colourless liquid
Assay ..... ≥95,0 %
Density (15 °C) 0,741-0,747
Aromatic compounds ..... ≤0,1 %
Refractive index n_D^{20} 1,414-1,420

Art. No.	Pack Qty.	Pack.	€
8781.1	100 ml	glass	22,50
8781.2	500 ml	glass	99,45
8781.3	1 l	glass	174,70
Original pack 6 x 1 l			165,97/1 l

Undecanoic acid methyl ester



$C_{12}H_{24}O_2$ · D 0,87 g/cm³ · mp -10 °C · bp 247 to 249 °C · flp 109 °C
CAS No. 1731-86-8 · EC no. 217-053-2
WGK 1

Undecanoic acid methyl ester
≥98 %

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
4866.1	10 ml	glass	94,50

Universal Beer Agar (Base)

UBA

WGK 1

Universal Beer Agar (Base)
for microbiology

For cultivation of beer spoiling microorganisms.

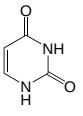
Application: Use 55 g for 1 l agar. Add 250 ml beer.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Peptonised milk ..... 15 g/l
Yeast extract ..... 10 g/l
Dextrose ..... 10 g/l
Tomato juice ..... 7 g/l
Potassium phosphate ..... 0,5 g/l
Dipotassium phosphate ..... 0,5 g/l
Sodium chloride (NaCl) ..... 0,01 g/l
Magnesium sulphate ($MgSO_4$) ..... 0,01 g/l
Manganese sulphate ..... 0,01 g/l
Iron sulphate ..... 0,01 g/l
Agar ..... 12 g/l
pH value ..... 6,3 ±0,2

Art. No.	Pack Qty.	Pack.	€
8337.1	500 g	plastic	142,90
Original pack 6 x 500 g			135,76/500 g

Uracil



$C_4H_4N_2O_2$ · mp >300 °C
CAS No. 66-22-8 · EC no. 200-621-9
WGK 1

Uracil
≥98 %, for biochemistry

Type analysis
Appearance ..... white to off-white powder
Purity (HPLC) ..... ≥98 %
Loss on drying (3 h, 105 °C) ..... ≤0,5 %

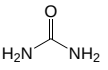
Art. No.	Pack Qty.	Pack.	€
7288.1	5 g	glass	20,35
7288.2	25 g	plastic	35,40
7288.3	100 g	plastic	94,10

Uracil-6-carboxylic acid
▸ Orotic acid see page 1132
▸ Orotic acid Monohydrate see page 1132

Uracil-1-β-D-ribofuranoside
▸ Uridine see page 1391

Uranin
▸ Fluorescein disodium salt see page 938

Urea



Carbamide

CH_4N_2O · D 1,33 g/cm³ · mp 134 °C
CAS No. 57-13-6 · EC no. 200-315-5
WGK 1

Urea
≥99,5 %, p.a., BioScience Grade

For molecular biology and biochemistry.

Guarantee analysis
Appearance ..... crystalline powder
Assay (TLC) ..... ≥99,5 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,001 %
Melting point (TLC) ..... 132-135 °C
Heavy metals (as Pb) ..... ≤0,001 %
UV absorption (8 M solution): 260 nm ..... ≤0,1
280 nm ..... ≤0,1
DNases (exo-and endonucleases) .. not detected
Ribonucleases activity ..... not detected

Art. No.	Pack Qty.	Pack.	€
2317.3	500 g	plastic	38,60
Original pack 6 x 500 g			36,67/500 g
2317.1	1 kg	plastic	68,70
Original pack 6 x 1 kg			65,27/1 kg
2317.4	2.5 kg	plastic	152,15
2317.2	5 kg	plastic	265,00

Urea
≥99,5 %, p.a.

For molecular biology and biochemistry.

Guarantee analysis
Assay (ex N_2) ..... ≥99,5 %
In C_2H_5OH insoluble matter ..... ≤0,01 %
Melting range ..... 132-135 °C
Sulphated ash ..... ≤0,01 %
Chloride (Cl) ..... ≤0,007 %
Sulphate (SO_4) ..... ≤0,01 %
Ammonium (NH_4) ..... ≤0,05 %
Heavy metals (as Pb) ..... ≤0,0003 %
Arsenic (As) ..... ≤0,00005 %
Iron (Fe) ..... ≤0,0001 %

Copper (Cu) ..... ≤0,0001 %
Biuret ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
3941.3	500 g	plastic	19,90
Original pack 6 x 500 g			18,91/500 g
3941.1	1 kg	plastic	36,45
Original pack 6 x 1 kg			34,63/1 kg
3941.2	5 kg	plastic	152,15

Urea
≥99,5 %, Ph. Eur., cryst.

For molecular biology and biochemistry.

Guarantee analysis
Appearance ..... fine, white crystals
Assay ..... ≥99,5 %
Identity ..... complies
Appearance of solution ..... complies
Melting range ..... 132-135 °C
Alkaline reacting substances ..... complies
Loss on drying ..... ≤1,0 %
Sulphated ash ..... ≤0,1 %
Ammonium (NH_4) ..... ≤0,05 %
Heavy metals (as Pb) ..... ≤0,0003 %
Biuret ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
X999.1	500 g	plastic	19,25
Original pack 6 x 500 g			18,29/500 g
X999.2	1 kg	plastic	30,00
Original pack 6 x 1 kg			28,50/1 kg
X999.3	5 kg	plastic	128,50
X999.9	25 kg	plastic	493,45

Urea
≥99,5 %, cryst.

Type analysis
Appearance ..... white crystals
Assay ..... ≥99,5 %
In C_2H_5OH insoluble matter ..... ≤0,01 %
Water (KF) ..... ≤0,2 %
Heavy metals ..... ≤0,0003 %
Iron (Fe) ..... ≤0,0001 %
Biuret ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
7638.1	1 kg	plastic	26,35
Original pack 6 x 1 kg			25,03/1 kg
7638.2	5 kg	plastic	105,90
7638.5	25 kg	cardboard	353,70

Urea for electrophoresis
▸ ROTIPHORESE®NF-Urea see page 1233

Urease

CAS No. 9002-13-5 · EC no. 232-656-0
WGK 1
Danger H315-H319-H334-H335

Urease
≥220 Nessler U/mg material

From jack beans, freeze-dried

Packaging: 0,25 Mega Unit

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white material
Activity ..... ≥220 Nessler U/mg substance

Art. No.	Pack Qty.	Pack.	€
6065.1	1 unit(s)	plastic	246,20

Urease
~1 U/mg, for biochemistry

From jack beans *Canavalia ensiformis*.

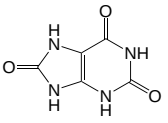
Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... slightly cream-coloured powder
Activity ..... 0,8-1,2 U/mg

Art. No.	Pack Qty.	Pack.	€
7537.1	5 g	plastic	203,20

5-Ureidohydantoin
▸ Allantoin see page 719

Uric acid



2,6,8-Trihydroxypurine

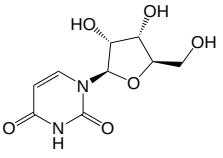
$C_5H_4N_4O_3$ · D 1,89 g/cm³ · mp >300 °C
CAS No. 69-93-2 · EC no. 200-720-7
WGK 2

Uric acid
≥99 %, for biochemistry

Type analysis
Assay (HPLC) ..... ≥99,0 %
Loss on drying (105 °C) ..... ≤0,5 %
Heavy metals (as Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
4999.1	25 g	glass	42,90
4999.2	50 g	glass	70,45
4999.3	100 g	glass	117,20
4999.4	250 g	glass	209,65

Uridine



Uracil-1-β-D-ribofuranoside

$C_9H_{12}N_2O_6$ · mp 165 to 168 °C
CAS No. 58-96-8 · EC no. 200-407-5
WGK 1

Uridine
≥99 %, for biochemistry

Type analysis
Appearance white to off-white crystalline powder
Assay (HPLC) ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
0714.1	5 g	plastic	30,00
0714.2	10 g	plastic	52,15
0714.3	25 g	plastic	93,00
0714.4	100 g	plastic	267,70

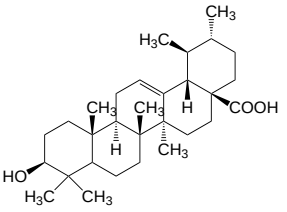
Uridine-5'-triphosphate
▸ UTP see page 1392

Urinary Tract Infection chromogenic Agar
▸ UTI chromogenic Agar see page 1392

Urotropin
▸ Hexamethylene tetramine see page 982

Ursin
▸ *p*-Arbutin see page 751

Ursolic acid



$C_{30}H_{48}O_3$ · mp 285 to 290 °C
CAS No. 77-52-1 · EC no. 201-034-0
WGK 1

Ursolic acid
ROTICHROM® HPLC

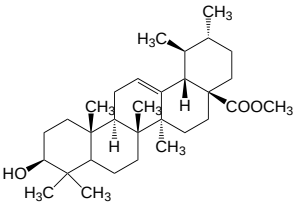
Reference substance for HPLC.
From *Arctostaphylos uva ursi.*

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99,0 %

Art. No.	Pack Qty.	Pack.	€
7429.1	10 mg	glass	188,15

Ursolic acid methyl ester



$C_{31}H_{50}O_3$ · mp 286 °C
CAS No. 32208-45-0 · EC no. 250-953-3
WGK 1

Ursolic acid methyl ester
ROTICHROM® HPLC

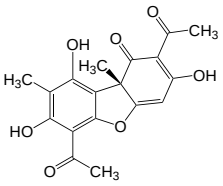
Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
7430.2	10 mg	glass	252,65

(+)-Usnic acid



$C_{18}H_{16}O_7$ · D 1,54 g/cm³ · mp 193 to 205 °C
CAS No. 7562-61-0 · EC no. 231-456-0
WGK 1

Warning H302

(+)-Usnic acid
ROTICHROM® ~CHR$_{TLC}$

Art. No.	Pack Qty.	Pack.	€
4565.1	10 g	plastic	138,70

UTI chromogenic Agar

Urinary Tract Infection chromogenic Agar

WGK 3

UTI chromogenic Agar
for microbiology

For detection and differentiation of microorganisms causing urinary tract infections.

Application: Use 47.5 g for 1 l agar.

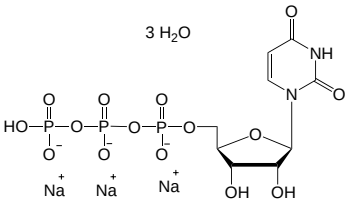
Storage temperature: +4 °C

Composition

Nutrients ..... 13 g/l
Peptone ..... 16 g/l
Tryptophane ..... 2 g/l
Chromogene Mixture ..... 0,5 g/l
Agar ..... 16 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
3089.1	100 g	plastic	192,45

UTP



Uridine-5'-triphosphate

$C_9H_{12}N_2O_{15}P_3Na_3 \cdot 3\,H_2O$
CAS No. 19817-92-6 · EC no. 243-347-5
WGK 1

UTP
≥90 %, lyophilized

for molecular biology and biochemistry

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
K055.1	100 mg	plastic	75,80
K055.3	1 g	plastic	303,70

UTP solution

$C_9H_{12}N_2O_{15}P_3$ · D 1 g/cm³
CAS No. 19817-92-6 · EC no. 243-347-5
WGK 1

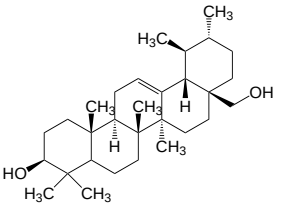
UTP solution
≥99 %, 100 mM solution

for molecular biology

Storage temperature: –20 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.	€
K046.1	250 µl	plastic	52,60

Uvaol



$C_{30}H_{50}O_2$ · mp 223 to 230 °C
CAS No. 545-46-0 · EC no. 208-888-3
WGK 1

Uvaol
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis

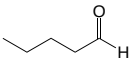
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
7433.2	10 mg	glass	349,40

Valeral

▸ *n*-Valeraldehyde see page 1392

n-Valeraldehyde



1-Pentanal · Valeral

$C_5H_{10}O$ · D 0,81 g/cm³ · mp -92 °C · bp 102 to 103 °C · flp 7 °C
CAS No. 110-62-3 · EC no. 203-784-4
UN no. 2058 · ADR 3 II · WGK 1

Danger H225-H317-H319-H332-H335

n-Valeraldehyde
≥96,5 %

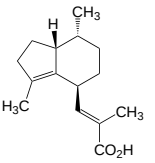
Storage temperature: +4 °C

Type analysis

Appearance ..... colourless to pale yellow liquid
Assay (GC) ..... ≥96,5 %

Art. No.	Pack Qty.	Pack.	€
4873.1	100 ml	glass	75,15

Valerenic acid



$C_{15}H_{22}O_2$ · mp 133 to 139 °C
CAS No. 3569-10-6
WGK 1

Valerenic acid
ROTI®Star Primary Standard

Type analysis

Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤3,0 %
Assay (qNMR) ..... ≥90,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE32.1	25 mg	glass	1.278,20

Valerenic acid
ROTICHROM® Working Standard

Type analysis

Assay (HPLC) ..... ≥90,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC32.1	50 mg	glass	822,40

Valerenic acid
ROTICHROM® with analytical records

From *Valeriana officinalis*.

Storage temperature: +4 °C

Type analysis

Purity (HPLC) ..... ≥99,0 %

Analytical records: HPLC, TLC, ^{1}H NMR, ^{13}C NMR, UV, IR, MS, elementary analysis, melting point.

Art. No.	Pack Qty.	Pack.	€
4712.2	50 mg	glass	639,65
4712.1	100 mg	glass	1.177,15
4712.3	200 mg	glass	2.030,70

Valerenic acid
ROTICHROM® HPLC

Reference substance for HPLC.
From *Valeriana officinalis*.

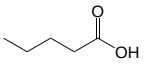
Storage temperature: +4 °C

Type analysis

Purity (HPLC) ..... >99 %

Art. No.	Pack Qty.	Pack.	€
4488.1	25 mg	glass	450,45
4488.2	50 mg	glass	747,15

n-Valeric acid



Pentanoic acid

$C_5H_{10}O_2$ · D 0,939 g/cm³ · mp -35 °C · bp 184 °C · flp 84 °C
CAS No. 109-52-4 · EC no. 203-677-2
UN no. 3265 · ADR 8 II · WGK 1

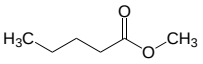
Danger H314-H412

n-Valeric acid
≥98 %

Type analysis
Appearance ..... colourless liquid
Assay (GC, area %) ..... ≥98 %
Density (d 20 °C/4 °C) 0,938-0,940

Art. No.	Pack Qty.	Pack.	€
4874.1	250 ml	glass	40,35

n-Valeric acid methyl ester



Methyl-valerate

$C_6H_{12}O_2$ · D 0,89 g/cm³ · mp -91 °C · bp 127 °C · flp 22 °C
CAS No. 624-24-8 · EC no. 210-838-0
UN no. 3272 · ADR 3 II · WGK 2

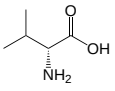
Danger H225-H332

n-Valeric acid methyl ester
≥98 %

Type analysis
Assay (GC) ..... ≥98,0 %
Density (20 °C) 0,8880-0,8920
Refractive index n_D^{20} 1,3960-1,3990

Art. No.	Pack Qty.	Pack.	€
4876.1	100 ml	glass	69,35

D-Valine



α-Aminoisovaleric acid · H-D-Val-OH

$C_5H_{11}NO_2$ · D 0,45 g/cm³ · mp 302 to 303 °C
CAS No. 640-68-6 · EC no. 211-368-9
WGK 1

D-Valine
≥98,5 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥98,5 %
Specific rotation $[\alpha]_D^{20}$ (c= 2 in 6 N HCl) .. -29,0° to -26,0°
Loss on drying ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
7891.1	5 g	plastic	28,95
7891.2	25 g	plastic	89,15
7891.3	100 g	plastic	278,45

DL-Valine

α-Aminoisovaleric acid

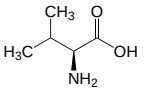
$C_5H_{11}NO_2$ · D 1,31 g/cm³ · mp 295 to 300 °C
CAS No. 516-06-3 · EC no. 208-220-0
WGK 1

DL-Valine
≥99 %, for biochemistry

Type analysis
Assay ..... ≥99,0 %
Heavy metals ..... ≤0,002 %

Art. No.	Pack Qty.	Pack.	€
7540.1	50 g	plastic	73,65
7540.2	100 g	plastic	213,95
7540.3	250 g	plastic	289,20

L-Valine



α-Aminoisovaleric acid · H-L-Val-OH

$C_5H_{11}NO_2$ · D 1,23 g/cm³ · mp 295 to 315 °C
CAS No. 72-18-4 · EC no. 200-773-6
WGK 1

L-Valine
CELLPURE® ≥99 %

For cell culture and biochemistry.

Guarantee analysis
Endotoxins ..... ≤6,0 E.U./g
Assay ..... ≥99 %
Loss on drying ..... ≤0,2 %
Specific rotation $[\alpha]_D^{20}$ ..... +27,6° to +28,7°
Ammonium (NH_4) ..... ≤0,02 %
Chloride (Cl) ..... ≤0,02 %
Sulphate (SO_4) ..... ≤0,02 %
Heavy metals (as Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
1742.1	25 g	plastic	24,65
1742.2	100 g	plastic	51,50
1742.3	500 g	plastic	188,15
Original pack 6 x 500 g			178,74/500 g

L-Valine
≥98,5 %, USP, for biochemistry

Guarantee analysis
Appearance ..... white cryst. powder
Assay (dry substance) ..... 98,5-101,5 %
Identity ..... complies
pH-value (5 %, water) 5,5-7,0
Specific rotation $[\alpha]_D^{25}$ (8 % in HCl 6 N) .. +26,6° to +28,8°
Ash content ..... ≤0,1 %
Loss on drying (105 °C, 3 h) ..... ≤0,3 %
Foreign amino acids ..... complies
Heavy metals (as Pb) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,05 %
Sulphate (SO_4) ..... ≤0,03 %
Ammonium (NH_4) ..... ≤0,02 %
Iron (Fe) ..... ≤0,003 %

Art. No.	Pack Qty.	Pack.	€
4879.1	25 g	plastic	21,00
4879.3	100 g	plastic	48,30
4879.4	250 g	plastic	94,10
4879.5	500 g	plastic	149,45
Original pack 6 x 500 g			141,98/500 g
4879.2	1 kg	plastic	274,15
Original pack 6 x 1 kg			260,44/1 kg

Vanadium

V · D 6,376 g/cm³ · mp 1910 °C · bp 3407 °C
CAS No. 7440-62-2 · EC no. 231-171-1
WGK 3

Vanadium powder
99,5 %

Type analysis
Assay (metals basis) ..... 99,5 %

Art. No.	Pack Qty.	Pack.	€
1HT6.1	5 g	glass	30,00
1HT6.2	25 g	glass	95,60

Vanadium Standards

- Vanadium ICP Standard Solution see page 1325
- Vanadium ICP Standard Solution see page 1325
- Vanadium AAS Standard Solution see page 1325

Vanadium(V) oxide

Vanadium pentoxide

V_2O_5 · D 3,65 g/cm³ · mp 690 °C · bp 1750 °C
CAS No. 1314-62-1 · EC no. 215-239-8
UN no. 2862 · ADR 6.1 III · WGK 3

Danger H302+H332-H318-H335-H341-H361d-H372-H411

Vanadium(V) oxide
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5370.1	5 g	plastic	104,85
5370.2	25 g	plastic	401,55

Vanadium(V) oxide
≥99,5 %, pure

Type analysis
Assay ..... ≥99,5 %
Iron (Fe) ..... ≤0,05 %
Potassium (K) ..... ≤0,05 %
Sodium (Na) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
0308.1	10 g	plastic	19,90
0308.2	100 g	plastic	38,60
0308.3	250 g	plastic	70,85
0308.4	500 g	plastic	123,65
Original pack 6 x 500 g			117,47/500 g

Vanadium pentoxide

▸ Vanadium(V) oxide see page 1393

Vancomycin hydrochloride

Glycopeptide antibiotic

$C_{66}H_{75}Cl_2N_9O_{24} \cdot HCl$
CAS No. 1404-93-9
WGK 1

Warning H317

Vancomycin hydrochloride
CELLPURE® ≥900 U/mg

Bacteriostatic antibiotic. For cell culture and biochemistry.

Endotoxins: ≤0.33 E.U./mg

Stock solution: e.g. 100 mg/ml in H_2O.
Storage of stock solution: –20 °C
Working concentration: variable

Storage temperature: +4 °C

Type analysis
Appearance ..... white to light pink powder
Purity (HPLC) ..... ≥88 %
Activity ..... ≥900 U/mg
Water (KF) ..... ≤5,0 %
Endotoxins ..... ≤0,33 E.U./mg

Art. No.	Pack Qty.	Pack.	€
0242.1	250 mg	glass	43,55
0242.2	500 mg	glass	70,45
0242.3	1 g	glass	117,20
0242.7	5 g	plastic	418,20

Van Gieson's picrofuchsin

▸ Van Gieson's Solution see page 1394

Van Gieson's Solution

Van Gieson's picrofuchsin

D 1 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

Van Gieson's Solution
for microscopy

For visualising connective tissue during van Gieson trichrome staining and Elastica van Gieson staining.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
3925.1	500 ml	glass	67,20
3925.2	1 l	glass	111,70
Original pack 6 x 1 l			106,12/1 l

Van Gieson trichrome staining kit

D 1 g/cm³
UN no. 1219 · ADR 3 II · WGK 1

Danger H225-H290-H318-H336

Van Gieson trichrome staining kit
for microscopy

Staining kit for visualising connective tissue, incl. instructions for use.

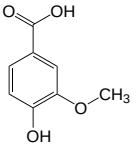
Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Composition
Hematoxylin solution A acc. to Weigert (Art. No. X906) ..... 500 ml
Hematoxylin solution B acc. to Weigert (Art. No. X907) ..... 500 ml
Van Gieson's Solution (Art.-No. 3925) ..... 500 ml

Art. No.	Pack Qty.	Pack.	€
9193.1	1 kit	glass	155,90

Vanillic acid



4-Hydroxy-3-methoxy benzoic acid

$C_8H_8O_4$ · mp 208 to 210 °C
CAS No. 121-34-6 · EC no. 204-466-8
WGK 1

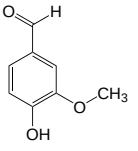
Warning H319

Vanillic acid
≥98 %

Type analysis
Assay (acidim.) ..... ≥98 %
Melting range ..... 208-212 °C

Art. No.	Pack Qty.	Pack.	€
3685.1	10 g	plastic	48,95

Vanillin



4-Hydroxy-3-methoxy-benzaldehyde

$C_8H_8O_3$ · D 1,06 g/cm³ · mp 81 to 83 °C · bp 285 °C · flp 159,8 to 160,8 °C
CAS No. 121-33-5 · EC no. 204-465-2
WGK 1

Warning H319

Vanillin
≥99 %, for biochemistry

Type analysis
Appearance ..... cryst. powder
Assay (HPLC) ..... ≥99 %
Arsenic (As) ..... ≤0,0003 %
Heavy metals (as Pb) ..... ≤0,001 %
Sulphated ash ..... ≤0,05 %
Loss on drying ..... ≤0,06 %

Art. No.	Pack Qty.	Pack.	€
7887.3	5 g	glass	11,75
7887.1	100 g	plastic	22,50
7887.4	250 g	plastic	45,05
7887.2	1 kg	plastic	117,20
Original pack 6 x 1 kg			111,34/1 kg

Vanillin
ROTI®Calipure melting point standard 81–83 °C

Type analysis
Meniscus formation ..... 81-83 °C
Complete liquefaction ..... 81-83 °C
Measurement uncertainty ..... ±0,3 °C

Art. No.	Pack Qty.	Pack.	€
9714.1	1 g	glass	40,75

Vanillin
ROTICHROM® GC

Reference substance for GC.

Storage temperature: +4 °C

Type analysis
Purity (GC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
5108.1	1 g	plastic	105,25

6-Vanilloylcatalpol

▸ Picrosid II see page 1158

Vaseline

D 0,94 g/cm³ · mp 50 to 55 °C · bp >250 °C · flp >150 °C
CAS No. 8009-03-8 · EC no. 232-373-2

Vaseline
Ph. Eur.

Guarantee analysis
Appearance ..... white to off-white
Identity ..... complies
Solidification point ..... 50-55 °C
Viscosity (100 °C) ..... 7,5-10 mm²/s
Aromatic polycyclic hydrocarbons ..... complies
Sulphated ash ..... ≤0,05 %
Consistency ..... 165-185 1/10 mm
Acid or alkaline react. substances ..... complies

Art. No.	Pack Qty.	Pack.	€
5775.2	500 g	plastic	23,55
Original pack 6 x 500 g			22,37/500 g
5775.1	1 kg	plastic	36,05
Original pack 6 x 1 kg			34,25/1 kg
5775.4	10 kg	plastic	198,90

Vaseline oil

Oleum Vaselini album

D 0,86 g/cm³ · bp >200 °C · flp >180 °C
WGK 1

Vaseline oil
technical, white

Type analysis
Viscosity (40 °C) ..... 18-25 mm²/s

Art. No.	Pack Qty.	Pack.	€
9336.1	1 l	plastic	30,65
Original pack 6 x 1 l			29,12/1 l
9336.2	2.5 l	plastic	52,70
Original pack 4 x 2.5 l			50,07/2.5 l
9336.3	5 l	plastic	85,90
Original pack 2 x 5 l			81,61/5 l

Venice turpentine

D 1,025 g/cm³ · flp 59 °C
CAS No. 90046-19-8 · EC no. 304-455-9
UN no. 1272 · ADR 3 III · WGK 2

Warning H226-H315-H317-H319-H335-H410

Venice turpentine
natural

From *Larix decidua*.

Type analysis
Appearance ..... dark viscous, light brownish oil

Art. No.	Pack Qty.	Pack.	€
4485.1	250 g	glass	91,95

Veratric acid
▸ 3,4-Dimethoxybenzoic acid see page 884

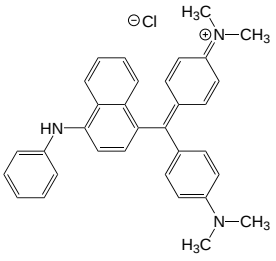
Veratric aldehyde
▸ 3,4-Dimethoxybenzaldehyde see page 884

Verbascoside
▸ Acteoside see page 706

Versene®/DPBS
▸ ROTI®Cell DPBS/EDTA see page 1213

Vesuvin R
▸ Bismarck brown R (C.I. 21010) see page 776

Victoria blue B



Basic blue 26

Victoria blue B (C. I. 44045)
extra pure

blue violet dye

Dissolve 0.1 g in 100 ml ethanol (96 %)

$C_{33}H_{32}ClN_3$ · mp 206 °C

CAS No. 2580-56-5 · EC no. 219-943-6

WGK 3

Danger H302-H319-H341-H350

Type analysis
Appearance ..... red brown powder
Absorption max. (50 % C_2H_5OH) ..... 612-617 nm
Loss on drying ..... ≤10 %

Art. No.	Pack Qty.	Pack.	€
1H61.1	10 g	glass	20,35
1H61.2	25 g	glass	40,35
1H61.3	100 g	glass	114,50

Victoria blue B solution
0,04 %, in ethanol

blue violet dye

ready-to-use

$C_{33}H_{32}ClN_3$ · D 0,8 g/cm³ · bp >75 °C · flp 14 °C

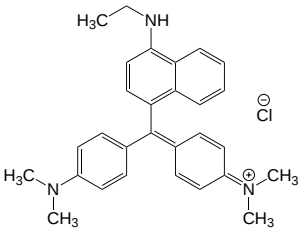
UN no. 1987 · ADR 3 II · WGK 1

Danger H225-H319

Type analysis
Appearance ..... clear, blue solution
Absorption max. (50 % C_2H_5OH) ..... 612-617 nm

Art. No.	Pack Qty.	Pack.	€
1EE4.1	250 ml	glass	37,10

Victoria blue R (C.I. 44040)



Basic blue 11

$C_{29}H_{32}N_3Cl$
CAS No. 2185-86-6 · EC no. 218-572-7
WGK 1

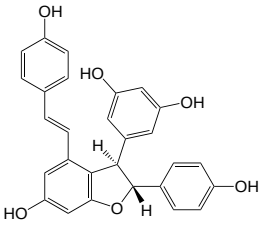
Warning H302

Victoria blue R (C.I. 44040)
extra pure

Type analysis
Appearance ..... dark blue powder

Art. No.	Pack Qty.	Pack.	€
7742.1	5 g	glass	18,85
7742.2	25 g	glass	33,25
7742.3	100 g	glass	80,55

ε-Viniferin



trans-ε-Viniferin

$C_{28}H_{22}O_6$
CAS No. 62218-08-0
WGK 1

ε-Viniferin
ROTICHROM® HPLC

Reference substance for HPLC.
From *Vitis vinifera*.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
6697.1	20 mg	glass	618,15

Vinyl benzene
▸ Styrene see page 1342

Violet Red Bile Agar with Dextrose and Lactose

Agar medium F (Ph. Eur. 6.0)

WGK 1

Violet Red Bile Agar with Dextrose and Lactose
for microbiology

For detection and enumeration of enterobacteria.

Application: Use 51.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Yeast extract ..... 3 g/l
Pancreas hydrolysate made from gelatin ..... 7 g/l
Cholate ..... 1,5 g/l
Lactose monohydrate ..... 10 g/l
Sodium chloride (NaCl) ..... 5 g/l
Glucose monohydrate ..... 10 g/l
Neutral red ..... 0,03 g/l
Crystal Violet ..... 0,002 g/l
Agar ..... 15 g/l
pH value ..... 7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
AE45.1	500 g	plastic	107,00
Original pack 6 x 500 g			101,65/500 g

Violet Red Bile Agar with Glucose

VRBD Agar · Violet Red Bile Glucose Agar (Ph.Eur. 6.3, 7.0, 8.0 and 9.0)

WGK 3

Violet Red Bile Agar with Glucose
Ph. Eur., ISO 11133, ISO 21528, for microbiology

For cultivation and enumeration of enterobacteria in water, foods and other materials.

Application: Use 41.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Yeast extract ..... 3 g/l
Pancreas hydrolysate made from gelatin ..... 7 g/l
Sodium chloride (NaCl) ..... 5 g/l
Bile salts ..... 1,5 g/l
Glucose monohydrate ..... 10 g/l
Neutral red ..... 0,03 g/l
Crystal Violet ..... 0,002 g/l
Agar ..... 15 g/l
pH value ..... 7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
X939.1	500 g	plastic	100,55
Original pack 6 x 500 g			95,52/500 g
X939.2	1 kg	plastic	180,10
Original pack 6 x 1 kg			171,10/1 kg
X939.3	2.5 kg	plastic	375,20

Violet Red Bile Agar with Glucose, granulated

Ph. Eur., granulated, for microbiology

For cultivation and enumeration of enterobacteria in water, foods and other materials.

Application: Use 38.53 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis

Yeast extract ..... 3 g/l
Pancreas hydrolysate made from gelatin ..... 7 g/l
Sodium chloride (NaCl) ..... 5 g/l
Bile salts ..... 1,5 g/l
Glucose monohydrate ..... 10 g/l
Neutral red ..... 0,03 g/l
Crystal Violet ..... 0,002 g/l
Agar ..... 12 g/l
pH value ..... 7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
1525.1	500 g	plastic	224,70
Original pack 6 x 500 g			213,47/500 g

Violet Red Bile Agar with Lactose

VRB Agar

WGK 1

Violet Red Bile Agar with Lactose

ISO 4832, ISO 11133, for microbiology

For detection and enumeration of coliforms in milk, foods and other materials.

Application: Use 41.5 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis

Yeast extract ..... 3 g/l
Gelatine peptone ..... 7 g/l
Sodium chloride (NaCl) ..... 5 g/l
Bile salts ..... 1,5 g/l
Lactose monohydrate ..... 10 g/l
Neutral red ..... 0,03 g/l
Crystal Violet ..... 0,002 g/l
Agar ..... 15 g/l
pH value ..... 7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
X940.1	500 g	plastic	97,30
Original pack 6 x 500 g			92,44/500 g

Violet Red Bile Glucose Agar (Ph.Eur. 6.3, 7.0, 8.0 and 9.0)

▸ Violet Red Bile Agar with Glucose see page 1395

β-Viscol

▸ Lupeol see page 1051

Viscosity Standards

Art. No.	Description	Page
3385	Standard for Viscosity S3, ROTI®Calipure, 4,5 cSt (20 °C)	1338
3387	Standard for Viscosity S6, ROTI®Calipure, 10 cSt (20 °C)	1338
3342	Standard for Viscosity N10, ROTI®Calipure, 22 cSt (20 °C)	1338
3360	Standard for Viscosity S20, ROTI®Calipure, 43 cSt (20 °C)	1338
3349	Standard for Viscosity N35, ROTI®Calipure, 88 cSt (20 °C)	1338
3388	Standard for Viscosity S60, ROTI®Calipure, 160 cSt (20 °C)	1338
3356	Standard for Viscosity N75, ROTI®Calipure, 210 cSt (20 °C)	1338
3344	Standard for Viscosity N100, ROTI®Calipure, 320 cSt (20 °C)	1338
3366	Standard for Viscosity S200, ROTI®Calipure, 540 cSt (20 °C)	1338
3345	Standard for Viscosity N250, ROTI®Calipure, 790 cSt (20 °C)	1338

Vitamins

Art. No.	Description	Page
0979	4-Aminobenzoic acid	726
3525	L(+)-Ascorbic acid	756
6288	L(+)-Ascorbic acid	756
3149	L(+)-Ascorbic acid sodium salt	756
7819	L(+)-Ascorbic acid sodium salt	756
3822	D(+)-Biotin	775
3812	Calcium D(+)-pantothenate	810
T912	Folic acid	945
3815	Nicotinic acid	1105
T914	Pyridoxine hydrochloride	1191
9607	Riboflavine	1205
T911	Thiamine hydrochloride	1364
3806	DL-α-Tocopherol	1372
3805	DL-α-Tocopherol acetate	1372
T915	Vitamin B_{12}	1396
3804	Vitamin K_1	1397

Vitamin B_1 hydrochloride

▸ Thiamine hydrochloride see page 1364

Vitamin B_2

▸ Riboflavine see page 1205

Vitamin B_3

▸ Nicotinic acid see page 1105

Vitamin B_5 calcium salt

▸ Calcium D(+)-pantothenate see page 810

Vitamin B_6 hydrochloride

▸ Pyridoxine hydrochloride see page 1191

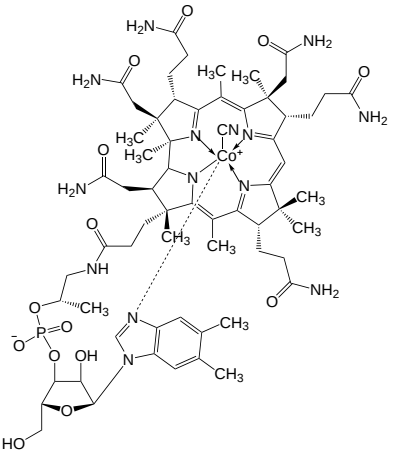
Vitamin B_9

▸ Folic acid see page 945

Vitamin B_{10}

▸ 4-Aminobenzoic acid see page 726

Vitamin B_{12}



Cyanocobalamin

$C_{63}H_{88}CoN_{14}O_{14}P$ · mp >300 °C
CAS No. 68-19-9 · EC no. 200-680-0
WGK 1

Vitamin B_{12}

≥96 %, for biochemistry

Storage temperature: +4 °C

Type analysis

Appearance ..... dark-red cryst. powder
Assay (dry substance) ..... 96,0-102,0 %
Related substances ..... ≤5 %
Loss on drying ..... ≤12,0 %

Art. No.	Pack Qty.	Pack.	€
T915.1	500 mg	glass	53,65
T915.2	1 g	glass	92,35
T915.3	2.5 g	glass	192,45

Vitamin C

▸ L(+)-Ascorbic acid see page 756

Vitamin E

▸ DL-α-Tocopherol see page 1372
▸ RRR-α-Tocopherol see page 1372

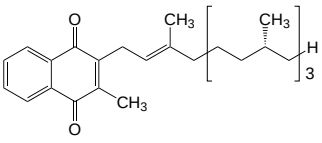
Vitamin E acetate

▸ DL-α-Tocopherol acetate see page 1372

Vitamin H

▸ D(+)-Biotin see page 775

Vitamin K_1



Phylloquinone · Phytomenadione

$C_{31}H_{46}O_2$ · D 0,97 g/cm³ · mp -20 °C · bp >140 °C · flp 273 °C
CAS No. 84-80-0 · EC no. 201-564-2
WGK 1

Vitamin K_1
≥97 %, for biochemistry

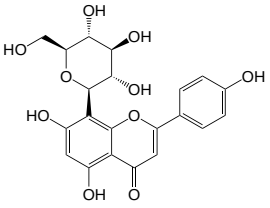
Storage temperature: +4 °C

Type analysis
Appearance ..... gold-yellow, viscous oil
Assay (HPLC) ..... 97,0-103,0 %
Refractive index (20 °C) 1,523-1,526
Sulphated ash ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
3804.1	1 g	glass	35,40
3804.3	5 g	glass	117,20
3804.2	10 g	glass	209,65

Vitexicarpin
▸ Casticin see page 820

Vitexin



Apigenin-8-glucoside · Orientosid

$C_{21}H_{20}O_{10}$ · mp 265 °C
CAS No. 3681-93-4 · EC no. 222-963-8
WGK 1

Vitexin
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤3,0 %
Water (KF) ..... ≤5,0 %
Assay (qNMR) ..... ≥85,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE56.1	10 mg	glass	1.030,95

Vitexin
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥85,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC56.1	25 mg	glass	923,45

Vitexin
ROTICHROM® HPLC

Reference substance for HPLC.

Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
6418.1	5 mg	glass	252,65

Vitexin
ROTICHROM® TLC

Reference substance for thin layer chromatography.

Storage temperature: +4 °C

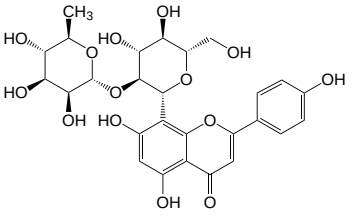
Art. No.	Pack Qty.	Pack.	€
5579.1	10 mg	glass	49,35

Vitexin
ROTICHROM® ~CHR$_{TLC}$

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
4173.1	10 mg	glass	46,15

Vitexin-2''-*O*-rhamnoside



$C_{27}H_{30}O_{14}$ · mp 205 to 210 °C
CAS No. 64820-99-1
WGK 1

Vitexin-2''-*O*-rhamnoside
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤5,0 %
Water (KF) ..... ≤8,0 %
Assay (qNMR) ..... ≥85,0 %

Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE34.1	10 mg	glass	1.073,95

Vitexin-2''-*O*-rhamnoside
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥80,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC34.1	25 mg	glass	639,65

Vitexin-2''-*O*-rhamnoside
ROTICHROM® TLC

Reference substance for thin layer chromatography.

Storage temperature: +4 °C

Art. No.	Pack Qty.	Pack.	€
5819.1	10 mg	glass	102,05

VLSI products

Art. No.	Description	Page
9780	Acetone	696
0051	2-Butanone	797
9787	Hydrochloric acid	990
9790	Hydrogen peroxide	996
0061	Isobutyl methylketone	1020
9785	Methanol	1079
9788	*ortho*-Phosphoric acid	1155
9781	2-Propanol	1186
9789	Sulphuric acid	1347

Volumetric Karl Fischer solutions
▸ Karl Fischer Reagents ROTI®Hydroquant for volumetry see page 1028

Volumetric Solutions in Ampoules

Art. No.	Description	Page
CN51	EDTA disodium salt solution, ROTI®Volum, 0,1 mol/l – 0,1 N	905
CN61	Hydrochloric acid, ROTI®Volum, 0,1 mol/l – 0,1 N, volumetric standard solution	992
CN62	Hydrochloric acid, ROTI®Volum, 0,5 mol/l – 0,5 N, volumetric standard solution	993
CN63	Hydrochloric acid, ROTI®Volum, 1 mol/l – 1 N, volumetric standard solution	993
CN59	Oxalic acid solution, ROTI®Volum, 0,05 mol/l – 0,1 N	1134
CN53	Potassium hydroxide solution, ROTI®Volum, 0,1 mol/l – 0,1 N	1176
CN66	Silver nitrate solution, ROTI®Volum, 0,1 mol/l – 0,1 N	1273
CN67	Sodium chloride solution, ROTI®Volum, 0,1 mol/l – 0,1 N	1281
CN56	Sodium hydroxide solution, ROTI®Volum, 0,1 mol/l – 0,1 N	1288
CN57	Sodium hydroxide solution, ROTI®Volum, 0,5 mol/l – 0,5 N	1289
CN58	Sodium hydroxide solution, ROTI®Volum, 1 mol/l – 1 N	1289
CN55	Sodium thiosulphate solution, ROTI®Volum, 0,1 mol/l – 0,1 N	1298
CN64	Sulphuric acid, ROTI®Volum, 0,05 mol/l – 0,1 N, volumetric standard solution	1349
CN65	Sulphuric acid, ROTI®Volum, 0,5 mol/l – 1 N, volumetric standard solution	1350

Volumetric Solutions ready to use

Art. No.	Description	Page
KK62	Acetic acid, 1 mol/l – 1 N, volumetric standard solution	692
9883	Acetic acid, 2 mol/l – 2 N, volumetric standard solution	692
1E33	Acetic acid, 5 mol/l – 5 N, volumetric standard solution	692
9897	Ammonia solution, 4 mol/l – 4 N, volumetric standard solution	732
KK60	Ammonium iron(II) sulphate solution, 0,12 mol/l – 0,12 N, volumetric standard solution, for COD determination	738
P718	Ammonium thiocyanate solution, 0,1 mol/l – 0,1 N, volumetric standard solution	742
0468	Barium chloride solution, 0,05 mol/l – 0,1 N, volumetric standard solution	764
N054	Barium hydroxide solution, 0,05 mol/l – 0,1 N, volumetric standard solution	765
KK61	Bariumperchlorate solution, 0,005 mol/l – 0,005 N, volumetric standard solution, in 2-propanol/water	765
9217	Benzethonium chloride solution, 0,004 mol/l – 0,004 M, volumetric standard solution	768
1E25	Bromide bromate solution, 0,01 mol Br_2/l – 0,02 N, volumetric standard solution, 1/300 mol $KBrO_3$/l	787
8131	Bromide bromate solution, 0,05 mol Br_2/l – 0,1 N, volumetric standard solution, 1/60 mol $KBrO_3$	787
1E24	Bromide bromate solution, 0,25 mol Br_2/l – 0,5 N, volumetric standard solution, 1/12 mol $KBrO_3$/l	787
0243	CDTA disodium salt solution, 0,1 mol/l – 0,1 N, volumetric standard solution	822
P719	Cerium(IV) sulphate solution, 0,1 mol/l – 0,1 N, volumetric standard solution	826
1E30	Copper(II) sulphate solution, 0,01 mol/l – 0,01 N, volumetric standard solution	851
9948	Copper(II) sulphate solution, 0,1 mol/l – 0,1 N, volumetric standard solution	851
2998	Dibutylamine in xylene, 0,1 mol/l – 0,1 N, volumetric standard solution	873
CN34	EDTA disodium salt solution, 0,01 mol/l – 0,01 N, volumetric standard solution	905
1E23	EDTA disodium salt solution, 0,02 mol/l – 0,02 N, volumetric standard solution	905
KK75	EDTA disodium salt solution, 0,05 mol/l – 0,05 N, volumetric standard solution	905
K714	EDTA disodium salt solution, 0,1 mol/l – 0,1 N, volumetric standard solution	905
8084	EDTA disodium salt solution, 0,2 mol/l – 0,2 N, volumetric standard solution	906
T136	EDTA disodium salt solution A, 0,1 mol/l – 0,1 N, volumetric standard solution	906
T137	EDTA disodium salt solution B, 0,01783 mol/l – 0,01783 N, volumetric standard solution	906
KK63	Hanus solution, 0,1 mol IBr/l – 0,2 N, volumetric standard solution	974
N075	Hydrochloric acid, 0,01 mol/l – 0,01 N, volumetric standard solution	992
1E2H	Hydrochloric acid, 0,02 mol/l – 0,02 N, volumetric standard solution	992
8085	Hydrochloric acid, 0,05 mol/l – 0,05 N, volumetric standard solution	992
K024	Hydrochloric acid, 0,1 mol/l – 0,1 N, volumetric standard solution	992
4120	Hydrochloric acid, 0,2 mol/l – 0,2 N, volumetric standard solution	992
P708	Hydrochloric acid, 0,5 mol/l – 0,5 N, volumetric standard solution	993
K025	Hydrochloric acid, 1 mol/l – 1 N, volumetric standard solution	993
T134	Hydrochloric acid, 2 mol/l – 2 N, volumetric standard solution	993
1E2E	Hydrochloric acid, 3 mol/l – 3 N, volumetric standard solution	993
N076	Hydrochloric acid, 4 mol/l – 4 N, volumetric standard solution	993
1E2C	Hydrochloric acid, 5 mol/l – 5 N, volumetric standard solution	993
0281	Hydrochloric acid, 6 mol/l – 6 N, volumetric standard solution	993
0226	Hydrochloric acid, 10 mol/l – 10 N, volumetric standard solution	993
3080	Hydrochloric acid in ethanol, 0,1 mol/l – 0,1 N, volumetric standard solution	994
3091	Hydrochloric acid in ethanol, 0,5 mol/l – 0,5 N, volumetric standard solution	994
2988	Hydrochloric acid in ethanol, 1 mol/l – 1 N, volumetric standard solution	994
2943	Hydrochloric acid in 2-propanol, 0,1 mol/l – 0,1 N, volumetric standard solution	994
2980	Hydrochloric acid in 2-propanol, 0,5 mol/l – 0,5 N, volumetric standard solution	994
KK65	Iodid-iodate solution, 1/128 mol I_2/l – 1/64 N, volumetric standard solution	1011
0228	Iodid-iodate solution, 0,05 mol I_2/l – 0,1 N, volumetric standard solution	1011
1K3T	Iodine solution, 0,005 mol I_2/l – 0,01 N, volumetric standard solution	1012
K016	Iodine solution, 0,05 mol I_2/l – 0,1 N, volumetric standard solution	1012
X868	Iodine solution, 0,5 mol I_2/l – 1 N, volumetric standard solution	1012
1E2Y	Magnesium chloride solution, 0,1 mol/l – 0,1 M, volumetric standard solution	1057
1E2X	Magnesium sulphate solution, 0,1 mol/l – 0,1 M, volumetric standard solution	1060
KK72	Mercury(II) nitrate solution, 0,05 mol/l – 0,1 N, volumetric standard solution	1075
X871	Mercury(II) sulphate solution 80 g/l, 0,02 mol $K_2Cr_2O_7$/l, volumetric standard solution, potassium dichromate in sulphuric acid, for COD determination	1075
KK73	Nitric acid, 0,1 mol/l – 0,1 N, volumetric standard solution	1108
N070	Nitric acid, 1 mol/l – 1 N, volumetric standard solution	1108
9887	Nitric acid, 2 mol/l – 2 N, volumetric standard solution	1108
CN35	Oxalic acid solution, 0,05 mol/l – 0,1 N, volumetric standard solution	1134
0764	Oxalic acid solution, 0,1 mol/l – 0,2 N, volumetric standard solution	1134
1E2L	Oxalic acid solution, 0,25 mol/l – 0,5 N, volumetric standard solution	1134
K023	Perchloric acid, 0,1 mol/l – 0,1 N, volumetric standard solution, in anhydrous acetic acid	1145
1E2K	Perchloric acid, 1 mol/l – 1 N, volumetric standard solution, in water	1145
8089	*ortho*-Phosphoric acid, 0,1 mol/l – 0,3 N, volumetric standard solution	1156
8091	*ortho*-Phosphoric acid, 1/6 mol/l – 0,5 N, volumetric standard solution	1157
8141	*ortho*-Phosphoric acid, 1 mol/l – 3 N, volumetric standard solution	1157
8130	Potassium bromide solution, 0,1 mol/l – 0,1 N, volumetric standard solution	1168
4117	Potassium chloride solution, 0,2 mol/l – 0,2 N, volumetric standard solution	1170
T138	Potassium chloride solution, 3 mol/l – 3 N, volumetric standard solution	1170
9880	Potassium chloride solution, 3 mol/l – 3 N, volumetric standard solution, saturated with AgCl	1170
P722	Potassium dichromate solution, 1/60 mol/l – 0,1 N, volumetric standard solution	1171
P720	Potassium dichromate solution, 0,02 mol/l – 0,12 N, volumetric standard solution, for COD determination	1171
P721	Potassium dichromate solution, 1/24 mol/l – 0,25 N, volumetric standard solution, for COD determination	1171
1E31	Potassium hydroxide solution, 0,01 mol/l – 0,01 N, volumetric standard solution	1176
K018	Potassium hydroxide solution, 0,1 mol/l – 0,1 N, volumetric standard solution	1176
N071	Potassium hydroxide solution, 0,5 mol/l – 0,5 N, volumetric standard solution	1176
K017	Potassium hydroxide solution, 1 mol/l – 1 N, volumetric standard solution	1176
1E32	Potassium hydroxide solution, 3 mol/l – 3 N, volumetric standard solution	1176
0765	Potassium hydroxide solution in ethanol, 0,05 mol/l – 0,05 N, volumetric standard solution	1177
P706	Potassium hydroxide solution in ethanol, 0,1 mol/l – 0,1 N, volumetric standard solution	1177

Art. No.	Description	Page
P707	Potassium hydroxide solution in ethanol, 0,5 mol/l – 0,5 N, volumetric standard solution	1177
KK66	Potassium hydroxide solution in methanol, 0,1 mol/l – 0,1 N, volumetric standard solution	1177
KK67	Potassium hydroxide solution in methanol, 0,5 mol/l – 0,5 N, volumetric standard solution	1177
KK68	Potassium hydroxide solution in isopropanol, 0,1 mol/l – 0,1 N, volumetric standard solution	1177
9898	Potassium nitrate solution, 1 mol/l – 1 N, volumetric standard solution	1178
K019	Potassium permanganate solution, 0,02 mol/l – 0,1 N, volumetric standard solution	1179
KK69	Potassium permanganate solution, 0,1 mol/l – 0,5 N, volumetric standard solution	1179
9899	Potassium thiocyanate solution, 1 mol/l – 1 N, volumetric standard solution	1182
6838	Silver nitrate solution, 0,01 mol/l – 0,01 N, volumetric standard solution	1273
6835	Silver nitrate solution, 0,05 mol/l – 0,05 N, volumetric standard solution	1273
K713	Silver nitrate solution, 0,1 mol/l – 0,1 N, volumetric standard solution	1273
6839	Silver nitrate solution, 0,5 mol/l – 0,5 N, volumetric standard solution	1273
6841	Silver nitrate solution, 1 mol/l – 1 N, volumetric standard solution	1273
0151	Sodium acetate solution, 0,1 mol/l – 0,1 N, volumetric standard solution, in acetic acid	1277
0187	Sodium carbonate solution, 0,05 mol/l – 0,1 N, volumetric standard solution	1279
0211	Sodium carbonate solution, 0,5 mol/l – 1 N, volumetric standard solution	1279
1E2T	Sodium chloride solution, 0,1 mol/l – 0,1 N, volumetric standard solution	1281
8115	Sodium chloride solution, 1 mol/l – 1 N, volumetric standard solution	1281
N073	Sodium hydroxide solution, 0,01 mol/l – 0,01 N, volumetric standard solution	1288
0763	Sodium hydroxide solution, 0,02 mol/l – 0,02 N, volumetric standard solution	1288
0224	Sodium hydroxide solution, 0,05 mol/l – 0,05 N, volumetric standard solution	1288
K020	Sodium hydroxide solution, 0,1 mol/l – 0,1 N, volumetric standard solution	1288
N074	Sodium hydroxide solution, 0,2 mol/l – 0,2 N, volumetric standard solution	1288
P711	Sodium hydroxide solution, 0,25 mol/l – 0,25 N, volumetric standard solution	1289
0755	Sodium hydroxide solution, 0,33 mol/l – 0,33 N, volumetric standard solution	1289
P710	Sodium hydroxide solution, 0,5 mol/l – 0,5 N, volumetric standard solution	1289
K021	Sodium hydroxide solution, 1 mol/l – 1 N, volumetric standard solution	1289
T135	Sodium hydroxide solution, 2 mol/l – 2 N, volumetric standard solution	1289
T198	Sodium hydroxide solution, 4 mol/l – 4 N, volumetric standard solution	1289
KK71	Sodium hydroxide solution, 5 mol/l – 5 N, volumetric standard solution	1289
0214	Sodium hydroxide solution, 6 mol/l – 6 N, volumetric standard solution	1289
1E2N	Sodium hydroxide solution, 10 mol/l – 10 N, volumetric standard solution	1289
X869	Sodium thiosulphate solution, 0,01 mol/l – 0,01 N, volumetric standard solution	1298
1E2P	Sodium thiosulphate solution, 0,05 mol/l – 0,05 N, volumetric standard solution	1298
K022	Sodium thiosulphate solution, 0,1 mol/l – 0,1 N, volumetric standard solution	1298
9900	Sodium thiosulphate solution, 1 mol/l – 1 N, volumetric standard solution	1298
X872	Sulphuric acid, 0,01 mol/l – 0,02 N, volumetric standard solution	1349
K026	Sulphuric acid, 0,05 mol/l – 0,1 N, volumetric standard solution	1349
N072	Sulphuric acid, 0,1 mol/l – 0,2 N, volumetric standard solution	1349
1E2A	Sulphuric acid, 0,125 mol/l – 0,25 N, volumetric standard solution	1349
P709	Sulphuric acid, 0,25 mol/l – 0,5 N, volumetric standard solution	1350
K027	Sulphuric acid, 0,5 mol/l – 1 N, volumetric standard solution	1350
X873	Sulphuric acid, 1 mol/l – 2 N, volumetric standard solution	1350
1E29	Sulphuric acid, 1,5 mol/l – 3 N, volumetric standard solution	1350
9896	Sulphuric acid, 2 mol/l – 4 N, volumetric standard solution	1350
KK74	Sulphuric acid, 2,5 mol/l – 5 N, volumetric standard solution	1350
1E28	Sulphuric acid, 7,5 mol/l – 15 N, volumetric standard solution	1350
CN36	Wijs-solution, 0,1 mol ICl/l – 0,2 N	1403
9901	Zinc chloride solution, 0,1 mol/l – 0,1 N, volumetric standard solution	1413
1E27	Zinc sulphate solution, 0,01 mol/l – 0,01 N, volumetric standard solution	1415
1E26	Zinc sulphate solution, 0,05 mol/l – 0,05 N, volumetric standard solution	1415
P723	Zinc sulphate solution, 0,1 mol/l – 0,1 N, volumetric standard solution	1416

Volumetric Solutions Reag. Ph. Eur.

Art. No.	Description	Page
6764	EDTA disodium salt solution, 0,1 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.	905
6789	Hydrochloric acid, 0,1 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.	992
6792	Hydrochloric acid, 1 mol/l – 1 N, volumetric standard solution, Reag. Ph. Eur.	993
6765	Iodine solution, 0,05 mol I_2/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.	1012
9525	Perchloric acid, 0,1 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur., in anhydrous acetic acid	1145
9522	Potassium hydroxide solution, 1 mol/l – 1 N, volumetric standard solution, Reag. Ph. Eur.	1176
9523	Potassium permanganate solution, 0,02 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.	1179
9526	Silver nitrate solution, 0,1 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.	1273
6783	Sodium hydroxide solution, 0,1 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.	1288
6785	Sodium hydroxide solution, 1 mol/l – 1 N, volumetric standard solution, Reag. Ph. Eur.	1289
6782	Sodium thiosulphate solution, 0,1 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.	1298
6793	Sulphuric acid, 0,05 mol/l – 0,1 N, volumetric standard solution, Reag. Ph. Eur.	1349
6794	Sulphuric acid, 0,5 mol/l – 1 N, volumetric standard solution, Reag. Ph. Eur.	1350

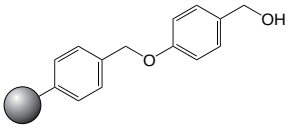
VRB Agar

- ROTI®ContiPlate VRB see page 1215
- Violet Red Bile Agar with Lactose see page 1396

VRBD Agar

- ROTI®ContiPlate VRBD see page 1215
- Violet Red Bile Agar with Glucose see page 1395

Wang resin



4-Benzyloxybenzyl alcohol resin

WGK 1

Wang resin
PEPTIPURE® 100–200 mesh, 1 % DVB

For peptide synthesis

Storage temperature: +4 °C

Type analysis

Appearance ..... colourless to yellow beads
Loading ..... 1,0-1,4 mmol/g
Identity (IR) ..... complies
Swelling ..... 4,0-7,0 ml/g (DMF, 24 h)
Swelling ..... 4,0-8,0 ml/g (CH_2Cl_2, 24 h)
Kaiser test ..... negative
Loss on drying ..... ≤2 %

Art. No.	Pack Qty.	Pack.	€
7506.1	1 g	glass	21,40
7506.2	5 g	plastic	51,50
7506.3	25 g	plastic	213,95

Water

H_2O · D 1 g/cm³ · mp 0 °C · bp 100 °C
CAS No. 7732-18-5 · EC no. 231-791-2

Water
ROTIPURAN®Ultra

Extra highpure water (ppt quality) for sample preparation in ultra trace analysis.

Guarantee analysis

Colour (APHA) ..... ≤10
Chloride (Cl) ..... ≤1 ppb
Phosphate (PO_4) ..... ≤1 ppb
Sulphate (SO_4) ..... ≤1 ppb
Aluminium (Al) ..... ≤20 ppt
Antimony (Sb) ..... ≤10 ppt
Arsenic (As) ..... ≤10 ppt
Barium (Ba) ..... ≤10 ppt
Beryllium (Be) ..... ≤10 ppt
Lead (Pb) ..... ≤10 ppt
Boron (B) ..... ≤20 ppt
Cadmium (Cd) ..... ≤10 ppt
Cesium (Cs) ..... ≤10 ppt
Calcium (Ca) ..... ≤10 ppt
Cerium (Ce) ..... ≤10 ppt
Chromium (Cr) ..... ≤10 ppt
Dysprosium (Dy) ..... ≤1 ppt
Iron (Fe) ..... ≤10 ppt
Erbium (Er) ..... ≤1 ppt
Europium (Eu) ..... ≤1 ppt
Gadolinium (Gd) ..... ≤1 ppt
Gallium (Ga) ..... ≤10 ppt
Germanium (Ge) ..... ≤10 ppt
Gold (Au) ..... ≤10 ppt
Hafnium (Hf) ..... ≤1 ppt
Holmium (Ho) ..... ≤1 ppt
Indium (In) ..... ≤1 ppt
Potassium (K) ..... ≤10 ppt
Cobalt (Co) ..... ≤10 ppt
Copper (Cu) ..... ≤10 ppt
Lanthanum (La) ..... ≤1 ppt
Lithium (Li) ..... ≤10 ppt
Lutetium (Lu) ..... ≤1 ppt
Magnesium (Mg) ..... ≤10 ppt
Manganese (Mn) ..... ≤10 ppt
Molybdenum (Mo) ..... ≤10 ppt
Sodium (Na) ..... ≤10 ppt
Neodymium (Nd) ..... ≤1 ppt
Nickel (Ni) ..... ≤10 ppt
Niobium (Nb) ..... ≤10 ppt
Palladium (Pd) ..... ≤10 ppt
Platinum (Pt) ..... ≤10 ppt
Praseodymium (Pr) ..... ≤10 ppt
Mercury (Hg) ..... ≤20 ppt
Rhenium (Re) ..... ≤10 ppt
Rhodium (Rh) ..... ≤10 ppt
Rubidium (Rb) ..... ≤10 ppt
Ruthenium (Ru) ..... ≤10 ppt
Samarium (Sm) ..... ≤10 ppt
Scandium (Sc) ..... ≤10 ppt
Selenium (Se) ..... ≤50 ppt
Silver (Ag) ..... ≤10 ppt
Strontium (Sr) ..... ≤10 ppt
Tantal (Ta) ..... ≤10 ppt
Tellur (Te) ..... ≤1 ppt
Terbium (Tb) ..... ≤10 ppt
Thallium (Tl) ..... ≤10 ppt
Thorium (Th) ..... ≤1 ppt
Thulium (Tm) ..... ≤10 ppt
Titanium (Ti) ..... ≤10 ppt
Uranium (U) ..... ≤1 ppt
Vanadium (V) ..... ≤10 ppt
Bismuth (Bi) ..... ≤10 ppt
Tungsten (W) ..... ≤10 ppt
Ytterbium (Yb) ..... ≤10 ppt
Yttrium (Y) ..... ≤1 ppt
Zinc (Zn) ..... ≤10 ppt
Tin (Sn) ..... ≤10 ppt
Zirconium (Zr) ..... ≤10 ppt

Art. No.	Pack Qty.	Pack.	€
HN68.1	500 ml	LDPE	69,80
HN68.2	1 l	LDPE	104,85
Original pack 6 x 1 l			99,61/1 l
HN68.3	2 l	LDPE	197,30

Water
ROTIPURAN® Low organic

High-purity water for sample preparation in organic trace analysis and for molecular biology.

Guarantee analysis

TOC (Total Organic Carbon) ..... ≤20 ppb
Spec. electric resistance (at time of preparation) ..... ≥18 MΩ*cm
Colour (APHA) ..... ≤5
Evaporation residue ..... ≤0,0001 %
Fluorescence (as quinine) ..... ≤100 ppt
LC-gradient suitability test ..... complies

Absorbance:
200 nm ..... ≤0,01
254 nm ..... ≤0,005
300 nm ..... ≤0,005
400 nm ..... ≤0,005

Art. No.	Pack Qty.	Pack.	€
HN57.1	1 l	glass	90,20
Original pack 6 x 1 l			85,69/1 l
HN57.2	4 l	glass	147,85

Water
ROTISOLV® Ultra LC-MS

Guarantee analysis

Spec. electric resistance (at time of preparation) ..... ≥18,2 MΩ*cm
Free acid (as CH_3COOH) ..... ≤0,0002 %
Free alkali (as NH_3) ..... ≤0,00005 %
Non volatile matter ..... ≤0,0001 %
TOC (Total Organic Carbon) ..... ≤10 ppb
Aluminium (Al) ..... ≤20 ppb
Calcium (Ca) ..... ≤100 ppb
Iron (Fe) ..... ≤30 ppb
Potassium (K) ..... ≤50 ppb
Magnesium (Mg) ..... ≤20 ppb
Sodium (Na) ..... ≤100 ppb

Fluorescence (as quinine):
254 nm ..... ≤0,3 ppb
365 nm ..... ≤0,3 ppb

Gradient test UV absorption of the greatest eluated peak:
210 nm ..... ≤0,003 AU
254 nm ..... ≤0,0003 AU

Filtered through 0.1 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
HN43.1	1 l	glass	51,10
Original pack 6 x 1 l			48,55/1 l
HN43.2	2.5 l	glass	106,45
Original pack 4 x 2.5 l			101,13/2.5 l

Water
ROTISOLV® LC-MS Grade

Guarantee analysis

Spec. electric resistance (at time of preparation) ..... ≥18,2 MΩ*cm
Free acid (as CH_3COOH) ..... ≤0,001 %
Free alkali (as NH_3) ..... ≤0,0005 %
Non volatile matter ..... ≤0,0001 %
230 nm ..... ≥99 %
200 nm ..... ≥95 %
Aluminium (Al) ..... ≤0,05 ppm
Calcium (Ca) ..... ≤0,05 ppm
Iron (Fe) ..... ≤0,05 ppm
Potassium (K) ..... ≤0,05 ppm
Magnesium (Mg) ..... ≤0,05 ppm
Sodium (Na) ..... ≤0,05 ppm
LC-MS suitability test ..... complies

Fluorescence (as quinine):
254 nm ..... ≤0,5 ppb
365 nm ..... ≤0,5 ppb

Gradient test UV absorption of the greatest eluated peak:
210 nm ..... ≤3,0 mAU
365 nm ..... ≤1,0 mAU

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
AE72.1	1 l	plastic	38,60
Original pack 6 x 1 l			36,67/1 l
AE72.3	2.5 l	glass	94,10
Original pack 4 x 2.5 l			89,40/2.5 l
AE72.2	5 l	plastic	181,70
Original pack 2 x 5 l			172,62/5 l

Water
ROTISOLV® HPLC Gradient Grade

Guarantee analysis

Spec. electric resistance (at time of preparation) ..... ≥18 MΩ*cm
Evaporation residue ..... ≤0,0003 %
Free acid (as CH_3COOH) ..... ≤0,0002 %
Free alkali (as NH_3) ..... ≤0,0002 %

Fluorescence (as quinine):
254 nm ..... ≤1,0 ppb
365 nm ..... ≤0,5 ppb

Gradient test UV absorption of the greatest eluated peak:
210 nm ..... ≤5,0 mAU
254 nm ..... ≤0,5 mAU

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
A511.1	1 l	glass	23,55
Original pack 6 x 1 l			22,37/1 l
A511.2	2.5 l	glass	44,00
Original pack 4 x 2.5 l			41,80/2.5 l
A511.3	5 l	plastic	80,10
Original pack 2 x 5 l			76,10/5 l
A511.7	20 l	plastic	278,45

Water
ROTISOLV® HPLC

Type analysis
Conductivity ..... ≤1 µS/cm
Chlorine (Cl) ..... ≤0,00002 %
Nitrate (NO_3) ..... ≤0,00001 %
Sulphate (SO_4) ..... ≤0,00001 %
Evaporation residue ..... ≤0,0001 %
Pb (Lead) ..... ≤0,00001 %

Absorbance:
210 nm ..... ≤1 mAU
254 nm ..... ≤2 mAU

Filtered through a 0.2 µm membrane.

Art. No.	Pack Qty.	Pack.	€
1C5K.1	1 l	HDPE	18,20
Original pack 6 x 1 l			17,29/1 l
1C5K.2	2.5 l	HDPE	30,00
Original pack 4 x 2.5 l			28,50/2.5 l

Water
ROTISOLV® Pestilyse®

For residue and environmental analysis.

Guarantee analysis
Spec. electric resistance (at time of preparation) ..... ≥18,2 MΩ*cm
Acidity ..... ≤0,0003 meq/g
Evaporation residue ..... ≤0,0002 %
Heavy metals (as Pb) ..... ≤0,000001 %
TOC (Total Organic Carbon) ..... ≤50 ppb
GC/ECD (individual signal as lindane) ..... ≤5 ng/l
GC/PND (individual signal as ethylparathion) ..... ≤10 ng/l

Art. No.	Pack Qty.	Pack.	€
T905.1	2.5 l	glass	64,40
Original pack 4 x 2.5 l			61,18/2.5 l

Water
ROTIPURAN® p.a., ACS

Water for varied applications in analytical chemistry (e.g. as solvent and diluent).

Water ISO quality 2

Guarantee analysis
pH-value 5,0-8,0
Specific conductivity (25 °C, at the time of preparation) ..... ≤1 µS/cm
$KMnO_4$ reducing substances (as O) ..... complies
Evaporation residue ..... ≤0,0001 %
Ash content ..... ≤0,0002 %
A 254 nm (in H_2O) ..... ≤0,01
Silicates (SiO_2) ..... ≤0,000001 %
Chloride (Cl) ..... ≤0,00001 %
Nitrate (NO_3) ..... ≤0,00002 %
Phosphate (PO_4) ..... ≤0,000005 %
Sulphate (SO_4) ..... ≤0,0001 %
Aluminium (Al) ..... ≤0,000002 %
Ammonium (NH_4) ..... ≤0,000001 %
Barium (Ba) ..... ≤0,000001 %
Beryllium (Be) ..... ≤0,000002 %
Lead (Pb) ..... ≤0,000001 %
Cadmium (Cd) ..... ≤0,000001 %
Calcium (Ca) ..... ≤0,00001 %
Chromium (Cr) ..... ≤0,000001 %
Iron (Fe) ..... ≤0,000001 %
Potassium (K) ..... ≤0,000005 %
Cobalt (Co) ..... ≤0,000001 %
Copper (Cu) ..... ≤0,000001 %
Lithium (Li) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,000005 %
Manganese (Mn) ..... ≤0,000001 %
Sodium (Na) ..... ≤0,00001 %
Nickel (Ni) ..... ≤0,000001 %
Heavy metals (as Pb) ..... ≤0,000001 %
Silver (Ag) ..... ≤0,000001 %
Strontium (Sr) ..... ≤0,000005 %
Zinc (Zn) ..... ≤0,000005 %
ISO 3696: 1987 (Type 2) ..... complies

The water complies to ISO 3696:1987.

Art. No.	Pack Qty.	Pack.	€
T172.1	1 l	plastic	13,90
Original pack 6 x 1 l			13,21/1 l
T172.2	2.5 l	plastic	27,45
Original pack 4 x 2.5 l			26,08/2.5 l
T172.3	5 l	plastic	42,90
Original pack 2 x 5 l			40,76/5 l
T172.5	30 l	plastic	170,95

Water
Ph. Eur., USP, purified

Guarantee analysis
Properties ..... complies
pH-value 5,0-7,0
Chloride (Cl) ..... complies
Sulphate (SO_4) ..... complies
Nitrate (NO_3) ..... ≤0,00002 %
Ammonium (NH_4) ..... ≤0,00002 %
Calcium, Magnesium ..... complies
Total organic carbon ..... ≤0,50 mg/l
Acid or alkaline react. substances ..... complies
Oxidizable matter ..... complies
Evaporation residue ..... ≤0,001 %
Conductivity ..... complies
Microbiological impurities ..... complies

Meets in all aspects the demands of Ph.Eur. for *aqua purificata* (purified water).

Art. No.	Pack Qty.	Pack.	€
2652.1	1 l	plastic	16,05
Original pack 6 x 1 l			15,25/1 l
2652.2	10 l	plastic	96,25
2652.3	20 l	plastic	145,15

Water
sterile, pyrogen-free, hypotonic

Pyrogenity (endotoxins): <0.25 E.U./ml

Guarantee analysis
Pyrogenity (LAL-Test) ..... complies
pH value 4,0-7,0
Heavy metals ..... ≤0,1 ppm
Evaporation residue ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
3255.1	1 l	plastic	12,80
Original pack 6 x 1 l			12,16/1 l

PCR water
for molecular biology, sterile, ready-to-use

Ultrapure water, free of nucleases, DNA and RNA for use in sensitive molecular biological applications.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... clear, colourless liquid
Conductivity ..... ≤ 0,075 µS/cm
Total organic carbon ..... ≤ 2 ppb
DNases, RNases, Protease ..... none detected
DNA (human, bacterial) ..... none detected
RNA (human) ..... none detected

Art. No.	Pack Qty.	Pack.	€
1HPE.1	15 ml	plastic	93,45
1HPE.2	30 ml	plastic	180,10
1HPE.3	75 ml	plastic	418,20

Water
sterile, ready-to-use, nuclease-free, autoclaved, DEPC-treated water

For molecular biology.

Art. No.	Pack Qty.	Pack.	€
T143.4	50 ml	plastic	123,65
T143.6	50 ml	glass ampoule	134,40
T143.5	100 ml	glass	33,90
T143.1	250 ml	glass	32,15
T143.2	500 ml	glass	40,35
T143.3	1 l	glass	55,40
Original pack 6 x 1 l			52,63/1 l

Water
ISO 3696 Type 3, demineralised

Water ISO quality 3

Type analysis
Specific conductivity (25 °C, at the time of preparation) ..... ≤5,0 µS/cm
pH value (25 °C) 5,0-7,5
Oxidizable substances ..... ≤0,4 mg/l
Evaporation residue ..... ≤0,0002 %
Chloride (Cl) ..... ≤0,0005 %
Nitrate (NO_3) ..... ≤0,0001 %
Sulphate (SO_4) ..... ≤0,001 %
Al (Aluminium) ..... ≤0,0001 %
Ca (Calcium) ..... ≤0,0005 %
Cd (Cadmium) ..... ≤0,0001 %
Co (Cobalt) ..... ≤0,0001 %
Cu (Copper) ..... ≤0,0001 %
Mg (Magnesium) ..... ≤0,0001 %
Ni (Nickel) ..... ≤0,0001 %
Pb (Lead) ..... ≤0,0001 %
Zn (Zinc) ..... ≤0,0001 %

The water complies to ISO 3696:1987.

Art. No.	Pack Qty.	Pack.	€
1E04.1	1 l	plastic	10,25
Original pack 6 x 1 l			9,74/1 l
1E04.2	2.5 l	plastic	17,10
Original pack 4 x 2.5 l			16,25/2.5 l
1E04.3	5 l	plastic	31,75
Original pack 2 x 5 l			30,16/5 l
1E04.4	10 l	plastic	51,10
1E04.5	25 l	plastic	96,65

Water
doubly distilled

Type analysis
Appearance ..... clear, colourless
pH-value 5,0-7,0
Conductivity ..... ≤2,0 µS/cm

After demineralisation in a borosilicate apparatus, the water is distilled twice.

Art. No.	Pack Qty.	Pack.	€
3478.1	1 l	plastic	9,15
Original pack 6 x 1 l			8,69/1 l
3478.4	5 l	plastic	25,30
Original pack 2 x 5 l			24,04/5 l
3478.2	10 l	plastic	40,75
3478.3	30 l	plastic	106,45

Water
distilled

Type analysis
Appearance ..... clear, colourless
Conductivity ..... ≤5,0 µS/cm
pH value 4,5-7,5

Art. No.	Pack Qty.	Pack.	€
1CX3.1	1 l	plastic	7,45
Original pack 6 x 1 l			7,08/1 l
1CX3.2	5 l	plastic	22,05
Original pack 2 x 5 l			20,95/5 l
1CX3.3	10 l	plastic	32,80
1CX3.4	25 l	plastic	73,00

Water
demineralised, not sterile

Type analysis
Appearance ..... clear, colourless
pH-value 6,0-7,5
Conductivity ..... <5,0 µS/cm

Art. No.	Pack Qty.	Pack.	€
3175.1	10 l	plastic	23,15
3175.2	30 l	plastic	56,45

Water D2
▸ Deuterium oxide see page 869

Water with 0.1 % formic acid

H_2O · D 1 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

Water with 0.1 % formic acid
ROTISOLV® LC-MS Grade

Eluent mixture for high performance liquid chromatography.

Guarantee analysis
Formic acid (v/v) ..... 0,095-0,105 %
pH value 2,6-2,8
254 nm ..... ≥99 %
230 nm ..... ≥45 %
210 nm ..... ≥5 %
Sodium (Na) ..... ≤0,05 ppm
LC-MS suitability test ..... complies

Gradient test:
210 nm ..... ≤0,05 AU
254 nm ..... ≤0,01 AU

Trace impurities:
Aluminium (Al) ..... ≤0,05 ppm
Calcium (Ca) ..... ≤0,05 ppm
Iron (Fe) ..... ≤0,05 ppm
Potassium (K) ..... ≤0,05 ppm
Magnesium (Mg) ..... ≤0,05 ppm

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
CP03.1	1 l	glass	58,60
Original pack 6 x 1 l			55,67/1 l
CP03.2	2.5 l	glass	112,35
Original pack 4 x 2.5 l			106,73/2.5 l

Water with 0.1 % acetic acid

H_2O · D 1 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

Water with 0.1 % acetic acid
ROTISOLV® LC-MS Grade

Eluent mixture for high performance liquid chromatography.

Guarantee analysis
Acetic acid (v/v) ..... 0,095-0,105 %
pH value 3,2-3,4
254 nm ..... ≥99 %
230 nm ..... ≥75 %
210 nm ..... ≥20 %
LC-MS suitability test ..... complies

Gradient test:
210 nm ..... ≤0,05 AU
254 nm ..... ≤0,01 AU

Trace impurities:
Aluminium (Al) ..... ≤0,05 ppm
Calcium (Ca) ..... ≤0,05 ppm
Iron (Fe) ..... ≤0,05 ppm
Potassium (K) ..... ≤0,05 ppm
Magnesium (Mg) ..... ≤0,05 ppm
Sodium (Na) ..... ≤0,05 ppm

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
CP04.2	2.5 l	glass	102,05
Original pack 4 x 2.5 l			96,95/2.5 l

Water with 0.1 % trifluoroacetic acid

H_2O · D 1,001 g/cm³ · mp 0 °C · bp 100 °C
WGK 1

Water with 0.1 % trifluoroacetic acid
ROTISOLV® LC-MS Grade

Eluent mixture for high performance liquid chromatography.

Guarantee analysis
Trifluoroacetic acid (v/v) ..... 0,095-0,105 %
pH value 1,8-2,0
254 nm ..... ≥98 %
230 nm ..... ≥85 %
210 nm ..... ≥25 %
LC-MS suitability test ..... complies

Gradient test:
210 nm ..... ≤0,05 AU
254 nm ..... ≤0,01 AU

Trace impurities:
Aluminium (Al) ..... ≤0,05 ppm
Calcium (Ca) ..... ≤0,05 ppm
Iron (Fe) ..... ≤0,05 ppm
Potassium (K) ..... ≤0,05 ppm
Magnesium (Mg) ..... ≤0,05 ppm
Sodium (Na) ..... ≤0,05 ppm

Filtered through a 0.2 µm membrane and filled under protective gas.

Art. No.	Pack Qty.	Pack.	€
CP05.2	2.5 l	glass	112,35
Original pack 4 x 2.5 l			106,73/2.5 l

Water determination acc. to Karl Fischer
▸ Karl Fischer Reagents ROTI®Hydroquant for volumetry see page 1028
▸ Karl Fischer Reagents ROTI®Hydroquant Standards see page 1027
▸ Karl Fischer Reagents ROTI®Hydroquant for coulometry see page 1027

Water glass
▸ Potassium silicate see page 1180
▸ Sodium silicate see page 1295

Water Plate Count Agar
▸ Yeast Extract Agar see page 1409

Weigert's Hematoxylin solution
▸ Hematoxylin solution A acc. to Weigert see page 977

Weigert's iron hematoxylin staining kit

D 0,965 g/cm³
UN no. 1219 · ADR 3 II
Danger H225-H290-H318-H336

Weigert's iron hematoxylin staining kit
for microscopy

Staining kit for acid resistant staining of nuclei, incl. instructions for use.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Composition
Hematoxylin solution A acc. to Weigert (Art. No. X906) ..... 500 ml
Hematoxylin solution B acc. to Weigert (Art. No. X907) ..... 500 ml

Art. No.	Pack Qty.	Pack.	€
9192.1	1 kit	glass	106,45

Weigert's Resorcinol-Fuchsine solution
▸ Resorcinol-Fuchsine-solution acc. to Weigert see page 1202

Weise buffer concentrate 100x

D 1 g/cm³
WGK 1

Weise buffer concentrate pH 6.4
100x conc., for 1 000 ml/pouch, for histology

For preparation of buffer solution acc. to Weise.

Working solution: 10 ml concentrate / 1 l dist. water.

Storage temperature: +15 to +25 °C

Type analysis
Appearance ..... clear solution
Colour ..... colourless
pH value (20 °C) ..... 6,4 ±0,05

Art. No.	Pack Qty.	Pack.	€
1665.1	50 ml	bag	23,55
1665.2	100 ml	bag	38,60
1665.3	1,000 ml	bag	310,70

Weise buffer concentrate pH 6.4
100x conc., for 2 000 ml/vial, for histology

For preparation of buffer solution acc. to Weise.

Working solution: 20 ml concentrate / 2 l dist. water.

Storage temperature: +15 to +25 °C

Type analysis
Appearance ..... clear solution
Colour ..... colourless
pH value (20 °C) ..... 6,4 ±0,05

Art. No.	Pack Qty.	Pack.	€
1711.1	100 ml	plastic	38,60
1711.2	200 ml	plastic	69,80
1711.3	2,000 ml	plastic	575,15

Weise buffer concentrate pH 6.4
100x conc., for 25 l, for histology

For preparation of buffer solution acc. to Weise.

Working solution: 10 ml concentrate / 1 l dist. water.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... clear solution
Colour ..... colourless
pH value (20 °C) ..... 6,4 ±0,05

Art. No.	Pack Qty.	Pack.	€
1504.1	250 ml	plastic	42,90

Weise buffer concentrate 100x, pH 6.8

Weise buffer concentrate pH 6.8
100x conc., for 1 000 ml/pouch, for histology

For preparation of buffer solution acc. to Weise.

Working solution: 10 ml concentrate / 1 l dist. water.

Storage temperature: +15 to +25 °C

Type analysis
Appearance ..... clear solution
Colour ..... colourless
pH value (20 °C) ..... 6,8 ±0,05

Art. No.	Pack Qty.	Pack.	€
1673.1	50 ml	bag	23,55
1673.2	100 ml	bag	38,60
1673.3	1,000 ml	bag	310,70

Weise buffer concentrate pH 6.8
100x conc., for 2 000 ml/vial, for histology

For preparation of buffer solution acc. to Weise.

Working solution: 20 ml concentrate / 2 l dist. water.

Storage temperature: +15 to +25 °C

Type analysis
Appearance ..... clear solution
Colour ..... colourless
pH value (20 °C) ..... 6,8 ±0,05

Art. No.	Pack Qty.	Pack.	€
1727.1	100 ml	plastic	38,60
1727.2	200 ml	plastic	69,80
1727.3	2,000 ml	plastic	575,15

Weise buffer concentrate pH 6.8
100x conc., for 25 l, for histology

For preparation of buffer solution acc. to Weise.

Working solution: 10 ml concentrate / 1 l dist. water.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... clear solution
Colour ..... colourless
pH value (20 °C) ..... 6,8 ±0,05

Art. No.	Pack Qty.	Pack.	€
1569.1	250 ml	plastic	42,90

Weise buffer concentrate 100x, pH 7.2

Weise buffer concentrate pH 7,2
100x conc., for 1 000 ml/pouch, for histology

For preparation of buffer solution acc. to Weise.

Working solution: 10 ml concentrate / 1 l dist. water.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... clear solution
Colour ..... colourless
pH value (20 °C) ..... 7,2 ±0,05

Art. No.	Pack Qty.	Pack.	€
1674.1	50 ml	bag	25,70
1674.2	100 ml	bag	41,85
1674.3	1,000 ml	bag	338,65

Weise buffer concentrate pH 7,2
100x conc., for 2 000 ml/vial, for histology

For preparation of buffer solution acc. to Weise.

Working solution: 20 ml concentrate / 2 l dist. water.

Storage temperature: +15 to +25 °C

Type analysis
Appearance ..... clear solution
Colour ..... colourless
pH value (20 °C) ..... 7,2 ±0,05

Art. No.	Pack Qty.	Pack.	€
1740.1	100 ml	plastic	38,60
1740.2	200 ml	plastic	69,80
1740.3	2,000 ml	plastic	575,15

Weise buffer concentrate pH 7,2
100x conc., for 25 l, for histology

For preparation of buffer solution acc. to Weise.

Working solution: 10 ml concentrate / 1 l dist. water.

Storage temperature: +15 to +25 °C

Type analysis
Appearance ..... clear solution
Colour ..... colourless
pH value (20 °C) ..... 7,2 ±0,05

Art. No.	Pack Qty.	Pack.	€
1675.1	250 ml	plastic	42,90

Wheat starch
▸ Starch from wheat see page 1339

White spirit
▸ Petroleum benzine 80-110 see page 1148

White vitriol
▸ Zinc sulphate heptahydrate see page 1415

Wijs-solution (0.2 N)

Iodine solution acc. to Wijs

D 1,062 g/cm³ · mp 17 °C · bp 118 °C · flp 40 °C
EC no. 200-580-7
UN no. 2789 · ADR 8 (3) II · WGK 1

Danger H226-H290-H314

Wijs-solution
0,1 mol ICl/l – 0,2 N

For determination of the iodine number [DIN 53241-1]

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±2 %
Titer 0,98-1,02

Art. No.	Pack Qty.	Pack.	€
CN36.1	1 l	glass	100,95
Original pack 6 x 1 l			95,90/1 l

Woods metal
▸ Alloy acc. to Wood see page 720

Wood sugar
▸ D(+)-Xylose see page 1409

Wool fat
▸ Lanolin see page 1034

Woolgreen S
▸ Lissamine green B (C.I. 44090) see page 1044

Wort Agar (Base)

WGK 1

Wort Agar (Base)
for microbiology

For cultivation and enumeration of yeasts.

Application: Use 48.25 g for 1 l agar. Add 2.35 g (1.9 ml) glycerol.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Malt extract ..... 15 g/l
Maltose ..... 12,75 g/l
Dextrine ..... 2,75 g/l
di-Potassium hydrogen phosphate ..... 1 g/l
Ammonium chloride ..... 1 g/l
Peptone ..... 0,75 g/l
Agar ..... 15 g/l
pH value ..... 4,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL04.1	500 g	plastic	212,35
Original pack 6 x 500 g			201,73/500 g

Wort Broth

WGK 1

Wort Broth
for microbiology

For cultivation and enumeration of fungi, particularly of yeast.

Application: Use 33 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Malt extract ..... 15 g/l
D-Maltose ..... 12,5 g/l
Dextrine ..... 2,5 g/l
Casein peptone ..... 1 g/l
Dipotassium hydrogen phosphate ..... 1 g/l
Ammonium chloride ..... 1 g/l
pH value ..... 4,8 ±0,2

Art. No.	Pack Qty.	Pack.	€
5779.1	500 g	plastic	235,45
Original pack 6 x 500 g			223,68/500 g

WPCA
▸ Yeast Extract Agar see page 1409

Wright’s eosin methylene blue solution

Eosin methylene blue solution · Wrights staining solution

D 0,9 g/cm³ · bp 65 °C · flp 9,7 °C
UN no. 1230 · ADR 3 (6.1) II · WGK 2

 **Danger** H225-H301+H311+H331-H370

Wright’s eosin methylene blue solution
for microscopy

For differential staining of blood and bone marrow smears.

Type analysis
Suitability for microscopy ..... complies

Art. No.	Pack Qty.	Pack.	€
CN05.1	500 ml	glass	38,20
CN05.2	1 l	glass	52,15
Original pack 6 x 1 l			49,54/1 l

Wright's stain

Eosin methylene blue

CAS No. 68988-92-1
WGK 1

Wright's stain
for microscopy

Type analysis
Appearance ..... green cryst. powder
Appearance of solution (0,1 % in MeOH) .... clear, blue

Art. No.	Pack Qty.	Pack.	€
7744.1	5 g	glass	20,35
7744.2	25 g	glass	36,05
7744.3	100 g	glass	84,40

Wrights staining solution
▸ Wright’s eosin methylene blue solution see page 1404

Xanthan

Xanthan gum

CAS No. 11138-66-2 · EC no. 234-394-2
WGK 1

Xanthan
extra pure

Type analysis
Appearance ..... cream-coloured, yellowish/white powder
Moisture ..... ≤15 %
pH value (1 % solution) 6,0-8,0
Viscosity (1 % KCl solution) ..... 1200-1800 mPas
Particle size ..... ~ 80 mesh

Art. No.	Pack Qty.	Pack.	€
3557.2	100 g	plastic	26,35
3557.1	500 g	plastic	81,20
Original pack 6 x 500 g			77,14/500 g

Xanthan gum
▸ Xanthan see page 1405

Xanthine visualization, TLC spray solution (caffeine, theophylline, theobromine)

Spray solution for xanthine visualisation (caffeine, theophylline, theobromine)
for TLC

Ready-to-use spray solution for detection of purine alkaloids (caffeine, theophylline, theobromine). Solution of tartaric acid, iodine and ferric chloride in acetone.

D 0,82 g/cm³ · bp 56 °C · flp -17 °C

Storage temperature: +4 °C

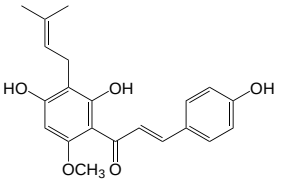
UN no. 2924 · ADR 3 (8) II · WGK 1

Danger H225-H290-H315-H317-H318-H336-H373

Type analysis
TLC-application ..... complies

Art. No.	Pack Qty.	Pack.	€
1H07.1	100 ml	glass	40,10

Xanthohumol



$C_{21}H_{22}O_5$ · mp 172 °C
CAS No. 6754-58-1
WGK 1

Xanthohumol
ROTI®Star Primary Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Residual solvents (GC) ..... ≤2,0 %
Water (KF) ..... ≤2,0 %
Assay (qNMR) ..... ≥95,0 %
Proof of identity by ^{1}H NMR, ^{13}C NMR, MS, UV. The certificate includes all results of analytical tests and validations.

Art. No.	Pack Qty.	Pack.	€
NE35.1	10 mg	glass	1.073,95

Xanthohumol
ROTICHROM® Working Standard

Type analysis
Assay (HPLC) ..... ≥95,0 %
Identity ..... complies

Traceable to a primary reference standard. With proof of identity and batch specific certificate of analysis.

Art. No.	Pack Qty.	Pack.	€
NC35.1	25 mg	glass	585,90

Xanthohumol
ROTICHROM® HPLC

Reference substance for HPLC.
From *Humulus lupulus*.

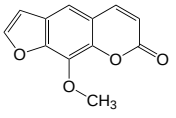
Storage temperature: +4 °C

Type analysis
Purity (HPLC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
2828.1	10 mg	glass	246,20
2828.2	20 mg	glass	424,65

Xanthophyll
▸ Lutein see page 1051

Xanthotoxin



8-Methoxypsoralen · Ammoidin · Methoxsalen

$C_{12}H_8O_4$ · mp 146 to 148 °C
CAS No. 298-81-7 · EC no. 206-066-9
WGK 1

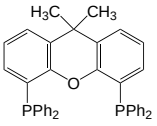
Warning H302-H317

Xanthotoxin
≥98 %

Type analysis
Appearance ..... white to off-white powder
Assay (HPLC) ..... ≥98,0 %
Water (KF) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
5497.1	250 mg	glass	26,35
5497.2	1 g	glass	45,70
5497.3	5 g	glass	160,20

Xantphos



4,5-Bis(diphenylphosphino)-9,9-dimethylxanthene

$C_{39}H_{32}OP_2$ · mp 227 to 232 °C
CAS No. 161265-03-8
WGK 1

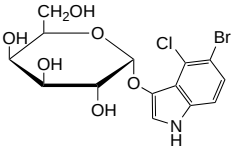
Xantphos
≥98 %

Phosphine ligand

Type analysis
Appearance ..... white to light yellow solid
Assay (HPLC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
2058.1	1 g	glass	40,75
2058.2	5 g	glass	134,40

X-α-Gal



5-Bromo-4-chloro-indolyl-α-D-galactopyranoside

$C_{14}H_{15}BrClNO_6$ · D 1,882 g/cm³
CAS No. 107021-38-5
WGK 1

X-α-Gal
≥98 %, for biochemistry

Colorimetric substrate of α-galactosidase.

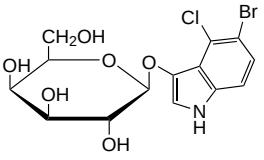
Stock solution: 2–20 mg/ml in DMF

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay ..... ≥98 %
Water (KF) ..... ≤1,0 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in DMF/water 1:1) ..... +140° to +150°

Art. No.	Pack Qty.	Pack.	€
HN36.1	25 mg	glass	85,50
HN36.2	100 mg	glass	256,95
HN36.3	250 mg	glass	600,95

X-β-Gal



5-Bromo-4-chloro-3-indoxyl-β-D-galactoside

$C_{14}H_{15}BrClNO_6$ · mp 225 to 230 °C
CAS No. 7240-90-6 · EC no. 230-640-8
WGK 1

X-β-Gal
≥99 %, BioScience Grade

Colorimetric substrate of β-galactosidase. For biochemistry and molecular biology.

Stock solution: 100 mg/ml (240 mM) in DMF, store at –20 °C in the dark

Storage temperature: –20 °C
Transport temperature: ambient temp.

Guarantee analysis
Appearance ..... white to off-white powder
Assay (HPLC) ..... ≥99 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in DMF/H_2O 1:1) .. -62° ±2°
Water (KF) ..... ≤0,2 %
DNases, RNases, Protease ..... none detected

Art. No.	Pack Qty.	Pack.	€
2315.1	100 mg	glass	24,65
2315.2	500 mg	glass	73,00
2315.3	1 g	glass	134,40
2315.5	2.5 g	glass	252,65
2315.4	5 g	glass	461,20

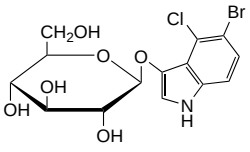
X-Glc
▸ X-Glu see page 1406

X-GlcA
▸ X-Gluc see page 1406

X-β-D-Glc
▸ X-Glu see page 1406

X-β-D-GlcNAc
▸ 5-Bromo-4-chloro-3-indoxyl-*N*-acetyl-β-D-glucosaminide see page 788

X-Glu



5-Bromo-4-chloro-3-indoxyl-β-D-glucopyranoside · X-β-D-Glc · X-β-D-Glucoside · X-Glc

$C_{14}H_{15}BrClNO_6$ · mp 249 to 251 °C · bp 673,9 °C · flp 361,3 °C
CAS No. 15548-60-4 · EC no. 239-603-0
WGK 1

X-Glu
≥98 %, for biochemistry

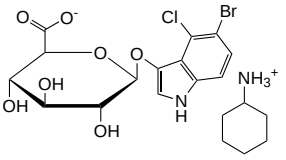
Glycosidase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Assay (HPLC) ..... ≥98,0 %
Solution (5 % in DMF) ..... colourless
Water (KF) ..... ≤0,5 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in DMF) ..... -81,0° ±2°

Art. No.	Pack Qty.	Pack.	€
4041.1	50 mg	glass	50,45
4041.2	100 mg	glass	85,50

X-Gluc



5-Bromo-4-chloro-3-indolyl-β-D-glucuronide monohexyl ammonium salt · X-GlcA

$C_{20}H_{26}N_2O_7ClBr \cdot H_2O$ · mp 230 °C
CAS No. 114162-64-0
WGK 1

X-Gluc
≥99 %, for microbiology

Glucuronidase substrate

Storage temperature: –20 °C
Transport temperature: ambient temp.

Guarantee analysis
Appearance ..... white to off-white powder
Purity (HPLC) ..... ≥99,0 %
Solution (1% in DMF/Wasser 1:1) clear, colorless
Water (KF) ..... ≤5,0 %
Specific rotation $[\alpha]_D^{20}$ (c=1 in DMF/water 1:1) ..... -91,0° to -87,0°

Art. No.	Pack Qty.	Pack.	€
0018.1	100 mg	glass	131,70
0018.2	500 mg	glass	499,90
0018.3	1 g	glass	833,15

XLD-Agar

Agarmedium K (Ph. Eur. 6.0) · Xylose Lysine Desoxycholate Agar · Agarmedium with Xylose, Lysin and Desoxycholat (Ph.Eur. 6.3, 7.0, 8.0 and 9.0)

WGK 1

XLD-Agar
Ph. Eur., for microbiology

For isolation of enteropathogenic bacteria, especially from the genera *Shigella* and *Salmonella*.

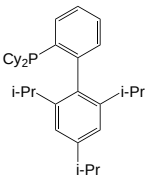
Application: Use 55.2 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Xylose ..... 3,5 g/l
Lactose monohydrate ..... 7,5 g/l
L-Lysin ..... 5 g/l
Saccharose ..... 7,5 g/l
Sodium chloride (NaCl) ..... 5 g/l
Yeast extract ..... 3 g/l
Phenol red ..... 0,08 g/l
Ammonium iron(III) citrate ..... 0,8 g/l
Sodium deoxycholate ..... 2,5 g/l
Sodium thiosulphate ..... 6,8 g/l
Agar ..... 13,5 g/l
pH value ..... 7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
X941.1	500 g	plastic	147,85
Original pack 6 x 500 g			140,46/500 g
X941.2	1 kg	plastic	263,40
Original pack 6 x 1 kg			250,23/1 kg

XPhos



2-Dicyclohexylphosphino-2',4',6'-triisopropylbiphenyl

$C_{33}H_{49}P$ · mp 187 to 190 °C
CAS No. 564483-18-7
WGK 1

XPhos
≥97 %

Phosphine ligand

Type analysis
Appearance ..... white powder
Assay (HPLC) ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
1445.1	1 g	glass	34,30
1445.2	5 g	glass	123,65
1445.3	10 g	glass	209,65

X-Phos
▸ 5-Bromo-4-chloro-3-indolyl phosphate *p*-toluidine salt see page 788

X-Phos disodium salt
▸ 5-Bromo-4-chloro-3-indolyl phosphate disodium salt see page 788

X-Phosphate disodium salt
▸ 5-Bromo-4-chloro-3-indolyl phosphate disodium salt see page 788

Xylan

$(C_5H_8O_4)_n$ · mp >300 °C
CAS No. 9014-63-5 · EC no. 232-760-6
WGK 1

Xylan
from beechwood

Type analysis
Appearance ..... light beige to brown powder
Specific rotation $[\alpha]_D^{20}$ (c=1, NaOH 5 %) ..... -60° to -79°
Sulphated ash ..... ≤10,0 %
Loss on drying (3 h, 110 °C) ..... ≤10,0 %

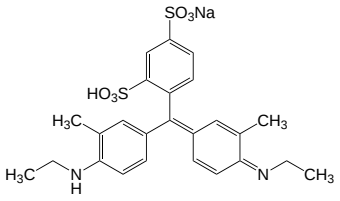
Art. No.	Pack Qty.	Pack.	€
4414.2	10 g	plastic	35,40
4414.1	50 g	plastic	78,40
4414.3	100 g	plastic	134,40
4414.4	250 g	plastic	278,45

Xylan
≥95 % xylooligosaccharides, from corncob

Type analysis
Appearance ..... white to almost white powder
Assay (HPLC) ..... ≥95 %
pH value (50 % in water) 3,5-6,5
Water ..... ≤5,0 %
Loss on ignition ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
8659.2	10 g	plastic	16,05
8659.1	50 g	plastic	45,70
8659.3	250 g	plastic	181,70

Xylene cyanole (C.I. 42135)



$C_{25}H_{27}N_2NaO_6S_2$
CAS No. 2650-17-1 · EC no. 220-167-5
WGK 1

Warning H319

Xylene cyanole (C.I. 42135)
for electrophoresis

Staining agent for visualisation of running distance in gel electrophoresis.

Dissolve 0.2 g in 100 ml of water

Type analysis
Maximum absorption ..... 600-620 nm
Loss on drying (110 °C) ..... ≤10,0 %

Art. No.	Pack Qty.	Pack.	€
A513.2	5 g	glass	31,75
A513.1	10 g	glass	53,65
A513.3	25 g	glass	106,45
A513.4	50 g	glass	188,15

Xylene (isomers)

Dimethyl benzene

C_8H_{10} · D 0,86 g/cm³ · mp -47,8 °C ·
bp 139,1 °C · flp 27 °C
CAS No. 1330-20-7 · EC no. 215-535-7
UN no. 1307 · ADR 3 III · WGK 2

Danger H226-H304-H312+H332-H315-H319-H335-H373

Xylene (isomers)
ROTIPURAN® ≥99 %, p.a., ACS, ISO

Guarantee analysis
Total content of C_8H_{10}-isomeres (GC) ..... ≥99,0 %
Colour (Hazen) ..... ≤10
Water ..... ≤0,03 %
Acidity ..... ≤0,00025 meq/g
Alkalinity ..... ≤0,00025 meq/g
Density (d 20 °C/4 °C) 0,862-0,870
Evaporation residue ..... ≤0,001 %
Benzene (GC) ..... ≤0,1 %
Toluene (GC) ..... ≤0,1 %
Ethylbenzene (GC) ..... ≤25 %
Aluminium (Al) ..... ≤0,00005 %
Barium (Ba) ..... ≤0,00001 %
Lead (Pb) ..... ≤0,00001 %
Boron (B) ..... ≤0,000002 %
Cadmium (Cd) ..... ≤0,000005 %
Calcium (Ca) ..... ≤0,00005 %
Chromium (Cr) ..... ≤0,000002 %
Iron (Fe) ..... ≤0,00001 %
Cobalt (Co) ..... ≤0,000002 %
Copper (Cu) ..... ≤0,000002 %
Magnesium (Mg) ..... ≤0,00001 %
Manganese (Mn) ..... ≤0,000002 %
Nickel (Ni) ..... ≤0,000002 %
Tin (Sn) ..... ≤0,00001 %
Zinc (Zn) ..... ≤0,00001 %
Thiophene ..... complies
Sulphur compounds (as S) ..... ≤0,003 %
Matter discoloured by H_2SO_4 (Hazen) ... complies

Art. No.	Pack Qty.	Pack.	€
4436.1	1 l	glass	55,40
Original pack 6 x 1 l			52,63/1 l
4436.2	2.5 l	glass	123,65
Original pack 4 x 2.5 l			117,47/2.5 l
4436.3	5 l	aluminium	198,90
Original pack 2 x 5 l			188,96/5 l
4436.7	25 l	tinplate	557,95

Xylene (isomers)
≥98,5 %, extra pure, Ph. Helv.

Guarantee analysis
Assay (GC, isomers) ..... ≥98,5 %
Identity (IR) ..... complies
Boiling range ..... 137-143 °C
Density (20 °C) ..... 0,85-0,87 g/cm³
Water ..... ≤0,05 %
Evaporation residue ..... ≤0,01 %
Acid or alkaline react. substances ..... complies
Sulphuric acid assay ..... complies
Foreign odour ..... complies

Art. No.	Pack Qty.	Pack.	€
CN80.1	1 l	glass	35,40
Original pack 6 x 1 l			33,63/1 l
CN80.2	2.5 l	glass	69,35
Original pack 4 x 2.5 l			65,88/2.5 l
CN80.5	5 l	aluminium	104,85
Original pack 2 x 5 l			99,61/5 l
CN80.3	10 l	tinplate	181,70
CN80.4	25 l	tinplate	353,70

Xylene (isomers)
≥97 %, pure, for histology

Ideal for dewaxing of microtome sections.

Type analysis
Appearance ..... clear, colourless, liquid
Assay (GC) ..... ≥97,0 %
Colour (Hazen) ..... ≤20
Water ..... ≤0,5 %
Benzene ..... ≤0,05 %
Density (15 °C) ..... 0,855-0,880 g/cm³
Refractive index n_D^{20} 1,493-1,500
Mixture of isomers *o*-Xylene, *m*-Xylene, *p*-Xylene and benzene ..... complies

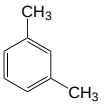
Art. No.	Pack Qty.	Pack.	€
9713.1	1 l	glass	35,40
Original pack 6 x 1 l			33,63/1 l
9713.3	2.5 l	glass	67,65
Original pack 4 x 2.5 l			64,27/2.5 l
9713.5	5 l	aluminium	102,70
Original pack 2 x 5 l			97,57/5 l
9713.2	10 l	tinplate	177,40
9713.4	25 l	tinplate	349,40

Xylene (isomers)
≥97 %, for synthesis

Type analysis
Assay ..... ≥97,0 %
Water ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
2662.1	1 l	glass	26,35
Original pack 6 x 1 l			25,03/1 l
2662.2	2.5 l	glass	41,95
Original pack 4 x 2.5 l			39,85/2.5 l
2662.5	5 l	aluminium	74,20
Original pack 2 x 5 l			70,49/5 l
2662.3	10 l	tinplate	117,20
2662.4	25 l	tinplate	241,90

m-Xylene



1,3-Dimethylbenzene

C_8H_{10} · D 0,86 g/cm³ · mp -47,8 °C ·
bp 139,1 °C · flp 27 °C
CAS No. 108-38-3 · EC no. 203-576-3
UN no. 1307 · ADR 3 III · WGK 2

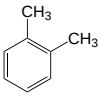
Danger H226-H304-H312+H332-H315-H319-H335-H373

m-Xylene
≥98,5 %, for synthesis

Type analysis
Appearance ..... clear, colourless liquid
Assay ..... ≥98,5 %
Colour number (Hazen) ..... ≤10
Ethylbenzene (GC) ..... ≤0,2 %
Refractive index n_D^{20} 1,496-1,498

Art. No.	Pack Qty.	Pack.	€
3791.3	100 ml	glass	20,35
3791.4	500 ml	glass	39,70
3791.1	1 l	glass	62,25
Original pack 6 x 1 l			59,14/1 l
3791.2	2.5 l	glass	123,65
Original pack 4 x 2.5 l			117,47/2.5 l

o-Xylene



1,2-Dimethylbenzene

C_8H_{10} · D 0,88 g/cm³ · mp -25,2 °C ·
bp 139,1 °C · flp 27 °C
CAS No. 95-47-6 · EC no. 202-422-2
UN no. 1307 · ADR 3 III · WGK 2

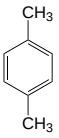
Danger H226-H304-H312+H332-H315-H319-H335-H373

o-Xylene
≥98 %, for synthesis

Type analysis
Appearance ..... clear colourless liquid
Assay ..... ≥98,0 %
Density (d 20 °C/4 °C) 0,878-0,881
Refractive index n_D^{20} ..... ~1,505

Art. No.	Pack Qty.	Pack.	€
8749.1	100 ml	glass	18,20
8749.2	500 ml	glass	34,30
8749.3	1 l	glass	52,15
Original pack 6 x 1 l			49,54/1 l
8749.4	2.5 l	glass	95,60
Original pack 4 x 2.5 l			90,82/2.5 l

p-Xylene



1,4-Dimethylbenzene

C_8H_{10} · D 0,86 g/cm³ · mp 13,25 °C · bp 138,2 °C · flp 27 °C
CAS No. 106-42-3 · EC no. 203-396-5
UN no. 1307 · ADR 3 III · WGK 2

Danger H226-H304-H312+H332-H315-H319-H335

p-Xylene
≥99 %, for synthesis

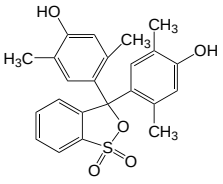
Type analysis
Appearance clear colourless to light yellow liquid
Assay ..... ≥99,0 %
Density (d 20 °C/4 °C) 0,860-0,862
Refractive index n_D^{20} ..... ~1,495

Art. No.	Pack Qty.	Pack.	€
8817.1	100 ml	glass	19,25
8817.2	500 ml	glass	39,25
8817.3	1 l	glass	62,25
Original pack 6 x 1 l			59,14/1 l
8817.4	2.5 l	glass	125,25
Original pack 4 x 2.5 l			118,99/2.5 l

Xylene substitutes

- ROTI®Histol see page 1227
- ROTICLEAR® see page 1214

Xylenolblue



$C_{23}H_{22}O_5S$ · mp 212 °C
CAS No. 125-31-5 · EC no. 204-736-5
WGK 1

Xylenolblue
p.a.

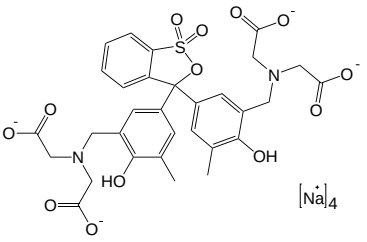
Indicator pH 1.2-2.8 and pH 8.0-9.8

Dissolve 0.1 g in 100 ml of ethanol (50 %)

Type analysis
Appearance ..... dark brown to purple powder
pH-transition range ..... 1,2 (red)-2,8 (yellow)
pH-transition range ..... 8,0 (yellow)-9,8 (violet)

Art. No.	Pack Qty.	Pack.	€
7746.1	1 g	glass	21,40
7746.2	5 g	glass	52,60
7746.3	10 g	glass	96,25

Xylenol orange tetrasodium salt



3,3'-Bis[*N*,*N*-bis(carboxymethyl)aminomethyl]-o-cresolsulfonephthalein tetrasodium salt

$C_{31}H_{28}N_2Na_4O_{13}S$ · mp 195 to 200 °C
CAS No. 3618-43-7 · EC no. 222-805-8
WGK 1

Xylenol orange tetrasodium salt
p.a., ACS

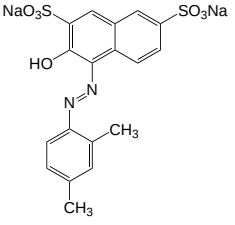
Indicator for metal titration.

Dissolve 0.1 g in 100 ml water

Guarantee analysis
Appearance of solution ..... complies
Loss on drying (110 °C) ..... ≤10 %
Suitability for zinc titration ..... complies

Art. No.	Pack Qty.	Pack.	€
2727.1	1 g	glass	37,10
2727.2	5 g	glass	85,50
2727.3	10 g	glass	137,10
2727.4	50 g	glass	471,95

Xylidine Ponceau 2R (C.I. 16150)



Ponceau de Xylidine · Xylidine red

$C_{18}H_{14}N_2Na_2O_7S_2$
CAS No. 3761-53-3
WGK 1

Warning H351

Xylidine Ponceau 2R (C.I. 16150)
for microscopy

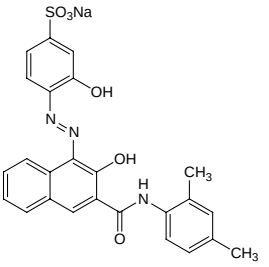
Type analysis
Appearance ..... red powder
Appearance of solution (0,1 % in H_2O) .. clear, red
Loss on drying (1 h, 110 °C) ..... ≤5 %

Art. No.	Pack Qty.	Pack.	€
7747.1	5 g	glass	18,85
7747.2	25 g	glass	33,25
7747.3	100 g	glass	80,55

Xylidine red

- Xylidine Ponceau 2R (C.I. 16150) see page 1408

Xylidyl blue sodium salt



Magnesium reagent acc. to Mann and Yoe

$C_{25}H_{20}N_3NaO_6S$
CAS No. 14936-97-1 · EC no. 239-012-8
WGK 1

Xylidyl blue sodium salt
≥88 %, p.a.

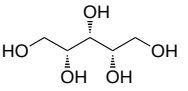
Indicator for metal ions

Dissolve 0.1 g in 100 ml water

Type analysis
Appearance ... purple to brown crystalline powder
Assay ..... ≥88,0 %
Absorption max. (in H_2O) ..... 520,0-530,0 nm

Art. No.	Pack Qty.	Pack.	€
KK35.1	1 g	glass	50,45
KK35.2	5 g	glass	209,65

Xylitol



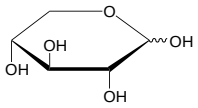
$C_5H_{12}O_5$ · D 0,77 g/cm³ · mp 92 to 96 °C · bp ≥365 to ≤395 °C
CAS No. 87-99-0 · EC no. 201-788-0
WGK 1

Xylitol
≥98,5 %, Ph. Eur., for biochemistry

Guarantee analysis
Appearance .. white to almost white cryst. powder
Assay (dry substance) ..... 98,5-101,0 %
Identity ..... complies
Appearance of solution ..... complies
Water ..... ≤1,0 %
Melting temperature ..... 92-96 °C
Related substances ..... complies
Conductivity ..... ≤20 µS/cm
Lead (Pb) ..... ≤0,00005 %
Nickel (Ni) ..... ≤0,0001 %
Reducing sugar ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
9711.1	250 g	plastic	28,50
9711.3	500 g	plastic	53,25
Original pack 6 x 500 g			50,59/500 g
9711.2	1 kg	plastic	103,10
Original pack 6 x 1 kg			97,95/1 kg
9711.4	2.5 kg	plastic	198,90

D(+)-Xylose



Wood sugar

$C_5H_{10}O_5$ · D 1,53 g/cm³ · mp 142,4 °C
CAS No. 58-86-6 · EC no. 200-400-7
WGK 1

D(+)-Xylose
≥99 %, for biochemistry

Type analysis
Appearance white to off-white crystalline powder
Assay (HPLC) ..... ≥99,0 %
Solubility (10 % in H_2O) ..... colorless
Specific rotation $[\alpha]_D^{20}$ (10 % in H_2O, 24 h) .. +18,0° to +20,0 °
Loss on drying (60 °C, vacuum) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
5537.1	100 g	plastic	29,60
5537.2	500 g	plastic	95,70
Original pack 6 x 500 g			90,92/500 g
5537.3	1 kg	plastic	145,15
Original pack 6 x 1 kg			137,89/1 kg

L-Xylose

$C_5H_{10}O_5$ · mp 150 °C · bp 415,5 °C · flp 219,2 °C
CAS No. 609-06-3 · EC no. 210-174-1
WGK 1

L-Xylose
≥99 %, for biochemistry

For microbiology.

Type analysis
Assay (HPLC) ..... ≥99 %
Loss on drying (3 h, 60 °C, vacuum) ..... ≤1,0 %
Ash content ..... ≤0,2 %
Heavy metals ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
4061.3	1 g	glass	36,45
4061.1	5 g	glass	134,40
4061.2	10 g	glass	217,70

Xylose Lysine Desoxycholate Agar
▸ XLD-Agar see page 1406

Yeast Extract

CAS No. 8013-01-2 · EC no. 232-387-9
WGK 1

Yeast Extract, micro-granulated
micro-granulated, for bacteriology

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Type analysis
Total nitrogen ..... ≥10 %
Amino nitrogen ..... ≥4,5 %
Dry substance ..... ≥94 %
Ash ..... ≤16 %
pH (2 % solution) 6,8-7,2

Art. No.	Pack Qty.	Pack.	€
2904.1	250 g	plastic	58,60
2904.2	500 g	plastic	106,45
Original pack 6 x 500 g			101,13/500 g
2904.3	1 kg	plastic	198,90
Original pack 6 x 1 kg			188,96/1 kg
2904.4	2.5 kg	plastic	385,95
2904.5	5 kg	plastic	740,70

Yeast Extract
powdered, for bacteriology

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Total nitrogen ..... ≥8 %
Amino nitrogen ..... 4,8-6,3 %
Ratio AN/TN 41-60
Loss on drying ..... ≤6 %
Ash ..... ≤18 %
pH (5 % in H_2O) 6,4-7,4
Solubility (5 % in H_2O) ..... clear

Art. No.	Pack Qty.	Pack.	€
2363.1	250 g	plastic	53,65
2363.3	500 g	plastic	98,80
Original pack 6 x 500 g			93,86/500 g
2363.2	1 kg	plastic	188,15
Original pack 6 x 1 kg			178,74/1 kg
2363.4	2.5 kg	plastic	349,40
2363.5	5 kg	plastic	628,90
2363.7	10 kg	plastic	1.009,45

Yeast Extract Agar

WPCA · Water Plate Count Agar

WGK 1

Yeast Extract Agar
DEV, EN ISO 6222, ISO 11133, for microbiology

For the isolation and enumeration of micro-organisms in general, e.g. bacteria, moulds, or yeast. Particularly for count of microorganisms isolated from water samples.

Application: Use 24 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis
Tryptone ..... 6 g/l
Yeast extract ..... 3 g/l
Agar ..... 15 g/l
pH value ..... 7,2 ±0,2

Art. No.	Pack Qty.	Pack.	€
CP63.1	500 g	plastic	117,75
Original pack 6 x 500 g			111,86/500 g
CP63.2	1 kg	plastic	201,60
Original pack 6 x 1 kg			191,52/1 kg

Yeast Glucose Agar (with chloroamphenicol)

YGC Agar

WGK 1

Yeast Glucose Agar (with chloroamphenicol)
for microbiology

Selective medium for enumeration of yeasts and mould in milk and dairy products.

Application: Use 40.2 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Yeast extract ..... 5 g/l
Glucose ..... 20 g/l
Chloroamphenicol ..... 0,2 g/l
Agar ..... 15 g/l
pH value ..... 6,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
CL00.1	500 g	plastic	117,20
Original pack 6 x 500 g			111,34/500 g
CL00.2	1 kg	plastic	201,60
Original pack 6 x 1 kg			191,52/1 kg

Yeast Glucose Agar (with chloroamphenicol), granulated
granulated, for microbiology

Selective medium for enumeration of yeasts and mould in milk and dairy products.

Application: Use 40.1 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Yeast extract ..... 5 g/l
Glucose ..... 20 g/l
Chloroamphenicol ..... 0,1 g/l
Agar ..... 15 g/l
pH value ..... 6,6 ±0,2

Art. No.	Pack Qty.	Pack.	€
1526.1	500 g	plastic	286,50
Original pack 6 x 500 g			272,18/500 g

Yeast-Nitrogen-Base (without Amino Acids)

YNB

D 1891 g/cm³ · mp 230 °C
WGK 1

Yeast-Nitrogen-Base (without Amino Acids)
for molecular biology

For yeast classification based on amino acid and carbohydrate requirements.

Application: Add 6,7 g for 100 ml broth for 10x stock solution. Use selected sugar/amino acid.
Do not boil, do not autoclave! Sterilise by sterile filtration!

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

Ammonium sulphate	5,0 g/l
Potassium phosphate	1,0 g/l
Magnesium sulphate	0,5 g/l
Calcium chloride	0,1 g/l
Sodium chloride (NaCl)	0,1 g/l
Inositol	2,0 mg/l
Boric acid	0,5 mg/l
Niacin	0,4 mg/l
Thiamine hydrochloride	0,4 mg/l
Pyridoxin hydrochloride	0,4 mg/l
Calcium pantothenate	0,4 mg/l
Manganese sulphate	0,4 mg/l
Zinc sulphate	0,4 mg/l
p-Aminobenzoic acid	0,2 mg/l
Iron chloride	0,2 mg/l
Riboflavine	0,2 mg/l
Sodium molybdate	0,2 mg/l
Potassium iodide	0,1 mg/l
Copper sulphate	0,04 mg/l
Biotin	0,002 mg/l
Folic acid	0,002 mg/l
pH value	5,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
HP26.1	500 g	plastic	183,30
Original pack 6 x 500 g			174,14/500 g
HP26.2	1 kg	plastic	295,65
Original pack 6 x 1 kg			280,87/1 kg

Yellow prussiate of potash

▸ Potassium hexacyanoferrate(II) trihydrate see page 1172

Yersinia Agar acc. to Schiemann

▸ Yersinia Selective Agar (Base) see page 1410

Yersinia Selective Agar (Base)

CIN-Agar · Yersinia Agar acc. to Schiemann

WGK 2

Yersinia Selective Agar (Base)

ISO 10273, ISO 11133, for microbiology

Selective medium for isolation of *Yersinia*, particularly *Y. enterocolitica*.

Application: Use 57 g for 1 l agar. After cooling add 2 vials (2 x 5 ml) reconstituted Yersinia Supplement (Art. No. 4880.1).

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Guarantee analysis

D-Mannitol	20 g/l
Gelatine peptone	17 g/l
Peptone mixture	3 g/l
Yeast extract	2 g/l
Sodium pyruvate	2 g/l
Sodium chloride	1 g/l
Sodium deoxycholate	0,5 g/l
Neutral red	0,03 g/l
Magnesium sulphate anhydrous	0,01 g/l
Crystal Violet	0,001 g/l
Agar	12,5 g/l
pH value	7,4 ±0,2

Art. No.	Pack Qty.	Pack.	€
5780.1	500 g	plastic	209,65
Original pack 6 x 500 g			199,17/500 g

Yersinia Supplement

CIN Supplement

UN no. 3077 · ADR 9 III · WGK 2

Danger H315-H317-H319-H334-H410

Yersinia Supplement

lyophilized

Media supplement for selective isolation of *Yersinia enterocolitica*

Application: One vial Yersinia Supplement is reconstituted in 5 ml sterile distilled water, and is subsequently added to 500 ml autoclaved Yersinia Selective Agar (Base) (Art. No. 5780).

One box of 10 vials Yersinia Supplement is sufficient for 10 x 500 ml Yersinia Selective Agar (Art. No. 5780).

Storage temperature: +4 °C

Composition

Cefsulodin	7,5 mg
Novobiocin	1,25 mg
Irgasan	2 mg

per vial.

Art. No.	Pack Qty.	Pack.	€
4880.1	10 unit(s)	glass	146,75

YGC Agar

▸ Yeast Glucose Agar (with chloroamphenicol) see page 1409

YNB

▸ Yeast-Nitrogen-Base (without Amino Acids) see page 1410

δ-Yohimbine

▸ Ajmalicine see page 712

α-Yohimbine hydrochloride

▸ Rauwolscine hydrochloride see page 1199

YPD Agar

WGK 1

YPD Agar

for molecular biology

For the cultivation and propagation of yeasts.

Application: Use 65 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

Peptone	20 g/l
Yeast extract	10 g/l
Glucose	20 g/l
Agar-Agar	15 g/l
pH value	6,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
X971.1	500 g	plastic	101,60
Original pack 6 x 500 g			96,52/500 g
X971.2	1 kg	plastic	176,85
Original pack 6 x 1 kg			168,01/1 kg
X971.3	2.5 kg	plastic	401,55

YPD Broth

WGK 1

YPD Broth

for molecular biology

For maintenance and propagation of *S. cerevisiae*.

Application: Use 50 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

Peptone	20 g/l
Yeast extract	10 g/l
Glucose	20 g/l
pH value	6,5 ±0,2

Art. No.	Pack Qty.	Pack.	€
X970.1	500 g	plastic	79,45
Original pack 6 x 500 g			75,48/500 g
X970.2	1 kg	plastic	137,10
Original pack 6 x 1 kg			130,25/1 kg
X970.3	2.5 kg	plastic	302,65

2xYT Agar

WGK 3

2xYT Agar

for molecular biology

Nutritious liquid medium formulated to promote the growth of host cells (*E. coli*).

Application: Use 46 g for 1 l agar.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

Tryptone	16 g/l
Yeast extract	10 g/l
Sodium chloride (NaCl)	5 g/l
Agar	15 g/l
pH value	7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X967.1	500 g	plastic	103,75
Original pack 6 x 500 g			98,56/500 g

2xYT Broth

WGK 1

2xYT Broth

for molecular biology

Nutritious medium for proliferation of *E. coli*.

Application: Use 31 g for 1 l broth.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition

Tryptone	16 g/l
Yeast extract	10 g/l
Sodium chloride (NaCl)	5 g/l
pH value	7,0 ±0,2

Art. No.	Pack Qty.	Pack.	€
X966.1	500 g	plastic	84,85
Original pack 6 x 500 g			80,61/500 g
X966.2	1 kg	plastic	151,05
Original pack 6 x 1 kg			143,50/1 kg
X966.3	2.5 kg	plastic	341,35

2x YT Broth, granulated
granulated, for molecular biology

Nutritious medium for proliferation of *E. coli*.

Application: Use 31 g for 1 l broth.

Composition
Tryptone ..... 16 g/l
Yeast extract ..... 10 g/l
Sodium chloride (NaCl) ..... 5 g/l
pH value ..... 7,0 ±0,2
Granulation ..... complies

Art. No.	Pack Qty.	Pack.	€
6676.1	500 g	plastic	127,95
Original pack 6 x 500 g			121,55/500 g
6676.2	1 kg	plastic	218,80
Original pack 6 x 1 kg			207,86/1 kg
6676.3	2.5 kg	plastic	499,90

Ytterbium Standards
- Ytterbium ICP Standard Solution see page 1325
- Ytterbium ICP Standard Solution see page 1325

Ytterbium(III) chloride hexahydrate

$YbCl_3 \cdot 6\,H_2O$ · D 2,57 g/cm³ · mp 180 °C
CAS No. 10035-01-5 · EC no. 237-632-3
WGK 1

Warning H315-H319-H335

Ytterbium(III) chloride hexahydrate
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5749.1	10 g	plastic	238,15

Ytterbium(III) oxide

Diytterbium trioxide

Yb_2O_3 · D 9,17 g/cm³ · mp 2346 °C
CAS No. 1314-37-0 · EC no. 215-234-0
WGK 2

Ytterbium(III) oxide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5303.1	5 g	plastic	104,20
5303.2	25 g	plastic	352,10

Ytterbium(III) oxide
ROTI®REMETIC 99,99 %

Type analysis
Assay (TREO*) ..... 99,99 %

*Total rare earth oxide.
Chemical analysis (ICP, AAS): specified trace impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
7353.1	10 g	plastic	112,90
7353.2	25 g	plastic	198,90
7353.3	50 g	plastic	349,40

Yttrium Standards
- Yttrium ICP Standard Solution see page 1325
- Yttrium AAS Standard Solution see page 1325
- Yttrium ICP Standard Solution see page 1325

Yttrium(III) oxide

Diyttrium trioxide

Y_2O_3 · D 5,01 g/cm³ · mp >400 °C · bp >400 °C
CAS No. 1314-36-9 · EC no. 215-233-5
WGK 1

Yttrium(III) oxide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5751.1	10 g	plastic	91,30
5751.2	50 g	plastic	265,00

Yttrium(III) oxide
ROTI®REMETIC 99,99 %

Type analysis
Assay (TREO*) ..... 99,99 %

*Total rare earth oxide.
Chemical analysis (ICP, AAS): specified trace impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
7352.1	25 g	plastic	75,15
7352.2	100 g	plastic	193,50

Z-L-Arginine

Cbz-L-Arginine · N_α-Benzyloxycarbonyl-L-arginine · N_α-Carbobenzyloxy-L-arginine · Z-L-Arg-OH

$C_{14}H_{20}N_4O_4$ · mp 167 to 177 °C
CAS No. 1234-35-1 · EC no. 214-973-6
WGK 1

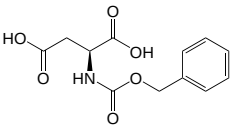
Z-L-Arginine
PEPTIPURE® ≥98,5 %, for biochemistry

Type analysis
Appearance ..... white to off-white powder
Purity (HPLC) ..... ≥98,5 %
Specific rotation $[\alpha]_D^{20}$ (4 % in 1 N HCl) ... -11,0 ° to -7,0 °
Water (KF) ..... ≤2,0 %
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
1914.1	5 g	plastic	20,35
1914.2	25 g	plastic	50,45
1914.3	100 g	plastic	138,70

Z-L-Asp-OH
- Z-L-Aspartic acid see page 1411

Z-L-Aspartic acid



Cbz-L-Aspartic acid · N_α-Benzyloxycarbonyl-L-aspartic acid · N_α-Carbobenzyloxy-L-aspartic acid · Z-L-Asp-OH

$C_{12}H_{13}NO_6$ · mp 115 to 120 °C
CAS No. 1152-61-0 · EC no. 214-568-4
WGK 1

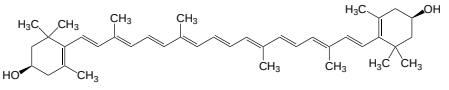
Warning H315-H319-H335

Z-L-Aspartic acid
PEPTIPURE® ≥98,5 %, for biochemistry

Type analysis
Appearance ..... white to off-white powder
Purity (HPLC) ..... ≥98,5 %
Specific rotation $[\alpha]_D^{20}$ (2 % in AcOH) ..... +8,0 ° to +10,0 °
Water (KF) ..... ≤2,0 %
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
1894.1	5 g	plastic	23,55
1894.2	25 g	plastic	66,55
1894.3	100 g	plastic	177,40

Zeaxanthin



$C_{40}H_{56}O_2$ · mp 203 to 207 °C
CAS No. 144-68-3 · EC no. 205-636-4
WGK 1

Zeaxanthin
ROTICHROM® CHR$_{TLC}$

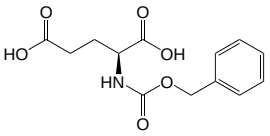
Reference substance for thin layer chromatography.

Storage temperature: –20 °C
Transport temperature: ambient temp.

Art. No.	Pack Qty.	Pack.	€
5672.2	5 mg	glass	482,70

Zephiran chloride
- Benzalkonium chloride see page 767

Z-L-Glutamic acid



Cbz-L-Glutamic acid · N_{α}-Benzyloxycarbonyl-L-glutamic acid · N_{α}-Carbobenzyloxy-L-glutamic acid · Z-L-Glu-OH

$C_{13}H_{15}NO_6$ · mp 116 to 122 °C
CAS No. 1155-62-0 · EC no. 214-584-1
WGK 1

Z-L-Glutamic acid
PEPTIPURE® ≥98,5 %, for biochemistry

Type analysis
Appearance ..... white to off-white powder
Purity (HPLC) ..... ≥98,5 %
Specific rotation $[\alpha]_D^{20}$ (4 % in AcOH) -8,5 to -6,5 °
Water (KF) ..... ≤2,0 %
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
1885.1	5 g	plastic	22,50
1885.2	25 g	plastic	55,80
1885.3	100 g	plastic	170,95

Ziehl-Neelsen staining kit

UN no. 1760 · ADR 8 II · WGK 2

Danger H314-H341

Ziehl-Neelsen staining kit
for microscopy

Staining kit for visualising acid-fast bacteria (e.g. pathogen of TB *Mycobacterium tuberculosis*), incl. instructions for use.

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Composition
Löffler's methylene blue solution (Art. No. AE64) ..... 500 ml
Carbol fuchsine solution (Art. No. A130) ... 500 ml

Art. No.	Pack Qty.	Pack.	€
8276.1	1 kit	glass	59,70

Zinc

CAS No. 7440-66-6 · EC no. 231-175-3

Zinc shot
ROTI®METIC 99,999 % (5N)

Zn · D 7,14 g/cm³ · mp 416 to 421 °C

Type analysis
Assay (metals basis) ..... 99,999 %
Particle size ..... ~3-6 mm

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5345.1	25 g	plastic	61,85
5345.2	100 g	plastic	194,05

Zinc granules
≥99,99 %, p.a., 0,3–1,5 mm

Reducing agent, Arsenic detection

Zn · D 7,14 g/cm³ · mp 416 to 421 °C

Type analysis
Purity ..... ≥99,99 %
Al (Aluminium) ..... ≤0,002 %
Cd (Cadmium) ..... ≤0,003 %
Cu (Copper) ..... ≤0,002 %
Fe (Iron) ..... ≤0,003 %
Pb (Lead) ..... ≤0,005 %
Tin (Sn) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
3093.1	100 g	plastic	41,85
3093.2	250 g	plastic	96,25
3093.3	500 g	plastic	177,40
Original pack 6 x 500 g			168,53/500 g

Zinc granules
≥99,99 %, p.a., 5–15 mm

Reducing agent, Arsenic detection

Zn · D 7,14 g/cm³ · mp 416 to 421 °C

Type analysis
Assay (Zinc) ..... ≥99,99 %
Aluminium (Al) ..... ≤0,001 %
Lead (Pb) ..... ≤0,003 %
Cadmium (Cd) ..... ≤0,003 %
Iron (Fe) ..... ≤0,002 %
Copper (Cu) ..... ≤0,001 %
Tin (Sn) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
AE99.1	250 g	plastic	45,05
AE99.2	500 g	plastic	78,40
Original pack 6 x 500 g			74,48/500 g
AE99.3	1 kg	plastic	134,40
Original pack 6 x 1 kg			127,68/1 kg

Zinc dust
≥98 %, <63 µm, stabilised

Zn · D 7,14 g/cm³ · mp 417 to 421 °C · bp 906 to 908 °C

UN no. 3077 · ADR 9 III · WGK 2

Warning H410

Type analysis
Assay (metals basis) ..... ≥98 %
Lead (Pb) ..... ≤0,003 %
Iron (Fe) ..... ≤0,002 %
Cadmium (Cd) ..... ≤0,003 %

Art. No.	Pack Qty.	Pack.	€
9524.2	500 g	glass	37,55
Original pack 6 x 500 g			35,67/500 g
9524.3	1 kg	glass	55,80
Original pack 6 x 1 kg			53,01/1 kg
9524.1	2.5 kg	glass	101,60

Zinc Standards

- Zinc ICP Standard Solution see page 1325
- Zinc AAS Standard Solution see page 1325
- Zinc ICP Standard Solution see page 1325

Zinc acetate

$C_4H_6O_4Zn$ · D 1,84 g/cm³ · mp 237 °C · bp 257,5 to 258,9 °C
CAS No. 557-34-6 · EC no. 209-170-2
UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H318-H411

Zinc acetate
≥95 %, anhydrous, pure

Type analysis
Assay ..... ≥95,0 %
pH value (5 % in H_2O) ..... ~7
Lead (Pb) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
9625.1	100 g	plastic	21,40
9625.2	500 g	plastic	42,90
Original pack 6 x 500 g			40,76/500 g
9625.3	1 kg	plastic	64,40
Original pack 6 x 1 kg			61,18/1 kg

Zinc acetate and acetic acid solution

- Carrez solution I see page 818

Zinc acetate dihydrate

$Zn(CH_3COO)_2 \cdot 2\ H_2O$ · D 1,74 g/cm³ · mp 237 °C
CAS No. 5970-45-6 · EC no. 209-170-2
UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H318-H411

Zinc acetate dihydrate
≥99,5 %, p.a., ACS

Guarantee analysis
Assay (compl.) ..... ≥99,5 %
pH-value (5 %, water) 6,0-7,0
In H_2O insoluble matter ..... ≤0,005 %
Chloride (Cl) ..... ≤0,0005 %
Total nitrogen (as N) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,002 %
Nitrate (NO_3) ..... ≤0,005 %
Arsenic (As) ..... ≤0,00005 %
Calcium (Ca) ..... ≤0,005 %
Cadmium (Cd) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,005 %
Sodium (Na) ..... ≤0,01 %
Copper (Cu) ..... ≤0,001 %
Potassium (K) ..... ≤0,01 %
Manganese (Mn) ..... ≤0,001 %
Lead (Pb) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
P035.1	500 g	plastic	56,90
Original pack 6 x 500 g			54,06/500 g
P035.2	1 kg	plastic	92,35
Original pack 6 x 1 kg			87,73/1 kg

Zinc acetate dihydrate
≥99 %, Ph. Eur.

Guarantee analysis
Appearance ..... white crystalline powder
Assay (compl.) ..... 99,0 -101,0 %
Identity ..... complies
pH value (5 % in H_2O) 5,8-7,0
Appearance of solution ..... complies
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,01 %
Aluminium (Al) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,0002 %
Lead (Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,005 %
Copper (Cu) ..... ≤0,005 %
Cadmium (Cd) ..... ≤0,0002 %
Reducing substances ..... complies

Art. No.	Pack Qty.	Pack.	€
X893.1	500 g	plastic	32,15
Original pack 6 x 500 g			30,54/500 g
X893.2	1 kg	plastic	59,05
Original pack 6 x 1 kg			56,10/1 kg
X893.3	5 kg	plastic	231,15

Zinc bromide

$ZnBr_2$ · D 4,2 g/cm³ · mp 394 °C · bp 697 °C
CAS No. 7699-45-8 · EC no. 231-718-4
UN no. 3260 · ADR 8 III · WGK 3

Danger H302-H314-H317-H410

Zinc bromide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L55.1	10 g	HDPE	140,30
1L55.2	50 g	HDPE	418,20

Zinc bromide
≥98 %

Type analysis
Assay ..... ≥98 %
Sulphate (SO_4) ..... ≤0,01 %
Barium (Ba) ..... ≤0,001 %
Lead (Pb) ..... ≤0,005 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,001 %
Potassium (K) ..... ≤0,01 %
Magnesium (Mg) ..... ≤0,01 %
Sodium (Na) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
9743.1	250 g	glass	134,40

Zinc carbonate

Carbonic acid zinc salt

$ZnCO_3$ · D 4,4 g/cm³
CAS No. 3486-35-9 · EC no. 222-477-6
UN no. 3077 · ADR 9 III · WGK 2

Warning H410

Zinc carbonate
≥68 % ZnO, extra pure

Type analysis
Zinc oxide (ZnO) ..... ≥68,0 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,05 %
Total nitrogen (as N) ..... ≤0,1 %
As (Arsenic) ..... ≤0,0005 %
Fe (Iron) ..... ≤0,01 %
Alkali and alkaline earth metals ..... ≤1,0 %
Heavy metals ..... ≤0,01 %
In H_2SO_4 insoluble matter ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
1EKY.1	100 g	plastic	24,65
1EKY.2	500 g	plastic	52,60
Original pack 6 x 500 g			49,97/500 g
1EKY.3	1 kg	plastic	95,70
Original pack 6 x 1 kg			90,92/1 kg
1EKY.4	2.5 kg	plastic	198,90

Zinc chloride

$ZnCl_2$ · D 2,91 g/cm³ · mp 287 to 304 °C · bp 732 °C
CAS No. 7646-85-7 · EC no. 231-592-0
UN no. 2331 · ADR 8 III · WGK 3

Danger H302-H314-H335-H410

Zinc chloride
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
1L5T.1	5 g	HDPE	87,65
1L5T.2	25 g	HDPE	254,25

Zinc chloride
≥97 %, p.a.

Analytical reagent; starting material for the preparation of zinc iodine chloride solution.

Guarantee analysis
Assay (arg.) ..... ≥97,0 %
In HCl insoluble matter ..... ≤0,005 %
Ammonium (NH_4) ..... ≤0,01 %
Nitrate (NO_3) ..... ≤0,003 %
Sulphate (SO_4) ..... ≤0,01 %
Lead (Pb) ..... ≤0,005 %
Calcium (Ca) ..... ≤0,06 %
Iron (Fe) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,01 %
Sodium (Na) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
T887.1	500 g	plastic	64,40
Original pack 6 x 500 g			61,18/500 g
T887.2	1 kg	plastic	107,40
Original pack 6 x 1 kg			102,03/1 kg

Zinc chloride
≥97 %, cryst.

Type analysis
Assay ..... ≥97 %
Lead (Pb) ..... ≤0,002 %
Cadmium (Cd) ..... ≤0,002 %
Iron (Fe) ..... ≤0,002 %
Copper (Cu) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
3533.1	1 kg	plastic	29,60
Original pack 6 x 1 kg			28,12/1 kg
3533.3	2.5 kg	plastic	62,25
3533.2	10 kg	plastic	220,40

Zinc chloride solution

D 1,01 g/cm³ · bp 100 °C
WGK 2

Warning H315-H319-H412

Zinc chloride solution
0,1 mol/l – 0,1 N, volumetric standard solution

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,4 %
Titer 0,9960-1,0040

Art. No.	Pack Qty.	Pack.	€
9901.1	500 ml	plastic	119,90

Zinc EDTA disodium salt dihydrate

▸ Ethylenediamine tetraacetic acid zinc disodium salt dihydrate see page 923

Zinc iodide

ZnI_2 · D 4,74 g/cm³ · mp 446 °C · bp 625 °C
CAS No. 10139-47-6 · EC no. 233-396-0
UN no. 3077 · ADR 9 III · WGK 2

Warning H315-H319-H335-H410

Zinc iodide
≥99 %, p.a.

Guarantee analysis
Assay ..... ≥99,0 %
Iodate (IO_3) ..... ≤0,1 %
Sulphate (SO_4) ..... ≤0,01 %
Lead (Pb) ..... ≤0,005 %
Cadmium (Cd) ..... ≤0,005 %
Calcium (Ca) ..... ≤0,01 %
Iron (Fe) ..... ≤0,005 %
Potassium (K) ..... ≤0,01 %
Cobalt (Co) ..... ≤0,005 %
Copper (Cu) ..... ≤0,005 %
Sodium (Na) ..... ≤0,01 %
Nickel (Ni) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
9839.1	50 g	glass	53,25
9839.2	100 g	glass	99,45
9839.3	250 g	glass	181,70

Zinc iodide
≥98 %, powdered

Type analysis
Appearance ..... white powder
Assay ..... ≥98,0 %
Lead (Pb) ..... ≤0,01 %
Iron (Fe) ..... ≤0,01 %
Copper (Cu) ..... ≤0,01 %
Sodium (Na) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
2730.1	25 g	glass	34,30
2730.2	100 g	glass	83,75
2730.3	250 g	glass	170,95

Zinc iodide starch solution

D 1,02 g/cm³ · bp 100 °C
WGK 2

Warning H315-H319-H412

Zinc iodide starch solution
Reag. Ph. Eur.

Art. No.	Pack Qty.	Pack.	€
3007.1	500 ml	plastic	79,05

Zinc iodine chloride solution

D 1,46 to 1,54 g/cm³
UN no. 1840 · ADR 8 III · WGK 3

Danger H314-H335-H373-H410

Zinc iodine chloride solution
according to Behrens, for microscopy

Reagent for cellulose.

Type analysis
Appearance ..... yellowish-brown solution

Art. No.	Pack Qty.	Pack.	€
6395.1	100 ml	glass	34,30

Zinc molybdate

Zinc molybdenum oxide

$ZnMoO_4$ · D 4,3 g/cm³ · mp >700 °C
WGK 1

Zinc molybdate
≥99 %, pure

Type analysis
Assay (based on Mo) ..... ≥99,0 %
Assay (Mo) ..... ≥43,0 %
Oxides ..... ≤1,0 %
Water-soluble content ..... ≤2,0 %
Water ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
0874.1	25 g	plastic	37,55
0874.2	50 g	plastic	63,45
0874.3	100 g	plastic	117,20
0874.4	250 g	plastic	231,15

Zinc nitrate hexahydrate

$Zn(NO_3)_2$ · 6 H_2O · D 2,065 g/cm³ · mp 36 °C
CAS No. 10196-18-6 · EC no. 231-943-8
UN no. 1514 · ADR 5.1 II · WGK 3

Danger H272-H302-H315-H319-H335-H410

Zinc nitrate hexahydrate
≥98 %, p.a.

Guarantee analysis
Appearance ..... white cryst. powder
Assay (compl.) ..... ≥98 %
Insoluble matter ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,01 %
Lead (Pb) ..... ≤0,005 %
Iron (Fe) ..... ≤0,001 %
Copper (Cu) ..... ≤0,0005 %
Chloride (Cl) ..... ≤0,002 %
Calcium (Ca) ..... ≤0,001 %
Magnesium (Mg) ..... ≤0,002 %
Nickel (Ni) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
6634.1	100 g	plastic	23,55
6634.2	500 g	plastic	51,50
Original pack 6 x 500 g			48,93/500 g
6634.3	1 kg	plastic	80,10
Original pack 6 x 1 kg			76,10/1 kg

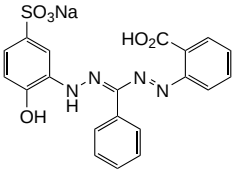
Zinc nitrate hexahydrate
≥96 %, pure

Type analysis
Assay (based on Zn) ..... 96-103 %
pH value (10 % in H_2O) 3-6
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,01 %
Iron (Fe) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
2581.1	250 g	plastic	25,30
2581.2	500 g	plastic	39,25
Original pack 6 x 500 g			37,29/500 g
2581.3	1 kg	plastic	60,75
Original pack 6 x 1 kg			57,71/1 kg
2581.4	2.5 kg	plastic	117,20

Zinc octadecanoate
▸ Zinc stearate see page 1415

Zincon



2-[5-(2-Hydroxy-5-sulfophenyl)-3-phenyl-1-formazyl]-benzoic acid-monosodium salt · 2-Carboxy-2'-hydroxy-5'-sulfoformazyl-benzene-monosodium salt

$C_{20}H_{15}N_4NaO_6S$ · mp 255 °C
CAS No. 62625-22-3 · EC no. 263-651-1
WGK 1

Zincon
≥95 %, p.a.

For determination of Cu and Zn.

Dissolve 0.1 g in 100 ml ethanol (96 %)

Storage temperature: +4 °C

Guarantee analysis
Appearance ..... brown to brownish red to blue crystalline powder
Assay (titr.) ..... ≥95,0 %
Loss on drying ..... ≤10,0 %

Art. No.	Pack Qty.	Pack.	€
5563.1	1 g	glass	50,45
5563.2	5 g	plastic	198,90

Zinc oxide

ZnO · D 5,68 g/cm³ · mp 1975 °C
CAS No. 1314-13-2 · EC no. 215-222-5
UN no. 3077 · ADR 9 III · WGK 2

Warning H410

Zinc oxide
ROTI®METIC 99,999 % (5N)

Type analysis
Assay (metals basis) ..... 99,999 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5421.1	25 g	plastic	161,80
5421.2	100 g	plastic	532,15

Zinc oxide
≥99 %, p.a., ACS

Guarantee analysis
Assay (compl.) ..... ≥99,0 %
In H_2SO_4 insoluble matter ..... ≤0,01 %
Alkalinity ..... complies
Sulphur compounds (as SO_4) ..... ≤0,01 %
Chloride (Cl) ..... ≤0,001 %
Nitrate (NO_3) ..... ≤0,002 %
Arsenic (As) ..... ≤0,0001 %
Lead (Pb) ..... ≤0,005 %
Cadmium (Cd) ..... ≤0,002 %
Calcium (Ca) ..... ≤0,005 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,005 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,005 %
Manganese (Mn) ..... ≤0,0005 %
Sodium (Na) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
T114.1	500 g	plastic	83,75
Original pack 6 x 500 g			79,56/500 g
T114.2	1 kg	plastic	127,95
Original pack 6 x 1 kg			121,55/1 kg

Zinc oxide
≥99 %, Ph. Eur., USP

Type analysis
Appearance ..... white to slightly yellowish powder
Assay ..... 99-100,5 %
Identity ..... complies
Solubility ..... complies
Alkaline reacting substances ..... complies
Carbonate and acid insoluble matters ... complies
Loss on ignition ..... ≤1,0 %
Arsenic (As) ..... ≤0,0005 %
Lead (Pb) ..... ≤0,005 %
Cadmium (Cd) ..... ≤0,001 %
Iron (Fe) ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
5297.1	250 g	plastic	24,65
5297.2	500 g	plastic	40,75
Original pack 6 x 500 g			38,71/500 g
5297.3	1 kg	plastic	61,85
Original pack 6 x 1 kg			58,76/1 kg
5297.4	2.5 kg	plastic	126,35

Zinc oxide
≥99 %, extra pure

Type analysis
Assay ..... ≥99 %
Lead (Pb) ..... ≤0,002 %
Cadmium (Cd) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
9348.2	500 g	plastic	24,65
Original pack 6 x 500 g			23,42/500 g
9348.1	1 kg	plastic	42,90
Original pack 6 x 1 kg			40,76/1 kg
9348.3	2.5 kg	plastic	85,90

Zinc oxide, nano
ROTI®nanoMETIC ≥99 %, 25 nm

Type analysis
Assay (metals basis) ..... ≥99 %
Particle size ..... ~25 nm

Art. No.	Pack Qty.	Pack.	€
8278.1	10 g	glass	62,25
8278.2	50 g	glass	241,90
8278.3	100 g	glass	446,15

Zinc selenite

$ZnSeO_3$ · mp 621 °C
CAS No. 13597-46-1 · EC no. 237-048-9
UN no. 2630 · ADR 6.1 I · WGK 2

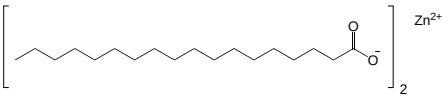
Danger H301+H331-H373-H410

Zinc selenite
≥98,5 %, extra pure

Type analysis
Assay ..... ≥98,5 %
Assay (Zinc) ..... ≥33,5 %
Cr (Chrom) ..... ≤0,005 %
Cu (Copper) ..... ≤0,005 %
Fe (Iron) ..... ≤0,005 %
Ni (Nickel) ..... ≤0,001 %
Pb (Lead) ..... ≤0,005 %
Water ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
3224.1	100 g	plastic	25,30
3224.2	500 g	plastic	82,25
Original pack 6 x 500 g			78,14/500 g
3224.3	1 kg	plastic	153,20
Original pack 6 x 1 kg			145,54/1 kg

Zinc stearate



Stearic acid zinc salt · Zinc octadecanoate

$C_{36}H_{70}O_4Zn$ · D 1,1 g/cm³ · mp 115 °C · bp 135 °C · flp 180 °C
CAS No. 557-05-1 · EC no. 209-151-9
WGK 1

Zinc stearate
for biochemistry

Type analysis
Appearance ..... powder
Ash ..... 13,2-14,0 %
Free fatty acid ..... ≤1,0 %
Melting point ..... 120-122 °C
Particle size ..... ≥99 % <71 µm

Art. No.	Pack Qty.	Pack.	€
9295.1	1 kg	plastic	73,00
Original pack 6 x 1 kg			69,35/1 kg
9295.5	25 kg	plastic	891,20

Zinc sulphate monohydrate

Goslarite

$ZnSO_4 \cdot H_2O$ · D 3,2 g/cm³ · mp 740 °C
CAS No. 7446-19-7 · EC no. 231-793-3
UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H318-H410

Zinc sulphate monohydrate
≥99 %, Ph. Eur., USP, BP

Guarantee analysis
Appearance ..... white to off-white cryst. powder
Assay ..... 99,0-100,5 %
Identity ..... complies
Appearance of solution ..... complies
pH value (5 % in H_2O) 4,0-5,6
Acidity ..... complies
Alkali and alkaline earth metals ..... ≤0,9 %
Chloride (Cl) ..... ≤0,03 %
As (Arsenic) ..... ≤0,0014 %
Fe (Iron) ..... ≤0,01 %
Pb (Lead) ..... ≤0,002 %
Residual solvents ..... complies

Art. No.	Pack Qty.	Pack.	€
2293.1	100 g	plastic	23,15
2293.2	500 g	plastic	40,75
Original pack 6 x 500 g			38,71/500 g
2293.3	1 kg	plastic	69,80
Original pack 6 x 1 kg			66,31/1 kg
2293.4	2.5 kg	plastic	147,85

Zinc sulphate monohydrate
≥97 %, pure

Type analysis
Assay ..... ≥97,0 %
pH value (5 % in H_2O) 3,0-6,5
Chloride (Cl) ..... ≤0,05 %
Iron (Fe) ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
9466.1	250 g	plastic	25,70
9466.2	500 g	plastic	42,50
Original pack 6 x 500 g			40,38/500 g
9466.3	1 kg	plastic	70,45
Original pack 6 x 1 kg			66,93/1 kg

Zinc sulphate heptahydrate

White vitriol · Goslarite

$ZnSO_4 \cdot 7\ H_2O$ · D 1,97 g/cm³ · mp >39 °C
CAS No. 7446-20-0 · EC no. 231-793-3
UN no. 3077 · ADR 9 III · WGK 3

Danger H302-H318-H410

Zinc sulphate heptahydrate
≥99,5 %, p.a., ACS

For removing protein from blood and urine.

Guarantee analysis
Assay (compl.) ..... ≥99,5 %
pH value (5 % in H_2O) 4,4-6,0
In H_2O insoluble matter ..... ≤0,005 %
Total nitrogen (as N) ..... ≤0,0005 %
Chloride (Cl) ..... ≤0,0005 %
Arsenic (As) ..... ≤0,00005 %
Lead (Pb) ..... ≤0,002 %
Cadmium (Cd) ..... ≤0,001 %
Calcium (Ca) ..... ≤0,001 %
Iron (Fe) ..... ≤0,0005 %
Potassium (K) ..... ≤0,005 %
Cobalt (Co) ..... ≤0,0005 %
Copper (Cu) ..... ≤0,0005 %
Magnesium (Mg) ..... ≤0,001 %
Manganese (Mn) ..... ≤0,0003 %
Sodium (Na) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
K301.1	500 g	plastic	32,15
Original pack 6 x 500 g			30,54/500 g
K301.2	1 kg	plastic	56,90
Original pack 6 x 1 kg			54,06/1 kg
K301.3	2.5 kg	plastic	106,45
K301.5	25 kg	plastic	876,15

Zinc sulphate heptahydrate
≥99 %, Ph. Eur., USP, BP

Guarantee analysis
Assay (compl.) ..... 99,0-104,0 %
Identity ..... complies
pH value (5 % solution) 4,4-5,6
Appearance of solution ..... complies
Free acid ..... complies
Chloride (Cl) ..... ≤0,03 %
Alkali and alkaline earth metals ..... ≤0,9 %
Arsenic (As) ..... ≤0,0014 %
Lead (Pb) ..... ≤0,002 %
Iron (Fe) ..... ≤0,01 %
Residual solvents ..... complies

Art. No.	Pack Qty.	Pack.	€
T884.1	500 g	plastic	47,20
Original pack 6 x 500 g			44,84/500 g
T884.2	1 kg	plastic	83,75
Original pack 6 x 1 kg			79,56/1 kg
T884.3	5 kg	plastic	360,15

Zinc sulphate heptahydrate
≥97 %, extra pure

Type analysis
Assay ..... ≥97,0 %
Chloride (Cl) ..... ≤0,5 %
Lead (Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,005 %
Nickel (Ni) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
7316.1	500 g	plastic	21,40
Original pack 6 x 500 g			20,33/500 g
7316.2	1 kg	plastic	34,95
Original pack 6 x 1 kg			33,20/1 kg
7316.3	2.5 kg	plastic	73,00

Zinc sulphate solution

Zinc sulphate solution (0,01 N)

Zinc sulphate solution
0,01 mol/l – 0,01 N, volumetric standard solution

D 1 g/cm³ · bp 100 °C

WGK 2

H412

Type analysis
Titer 0,995-1,005
Amount-of-substance conc. (20 °C) .. 0,01 mol/l ± 0,5 %

Art. No.	Pack Qty.	Pack.	€
1E27.1	1 l	plastic	47,85
Original pack 6 x 1 l			45,46/1 l

Zinc sulphate solution (0,05 N)

Zinc sulphate solution
0,05 mol/l – 0,05 N, volumetric standard solution

D 1,006 g/cm³ · bp 100 °C

WGK 2

Warning H319-H412

Type analysis
Titer 0,996-1,004
Amount-of-substance conc. (20 °C) .. 0,05 mol/l ± 0,4 %

Art. No.	Pack Qty.	Pack.	€
1E26.1	1 l	plastic	38,20
Original pack 6 x 1 l			36,29/1 l

Zinc sulphate solution (0,1 N)

Zinc sulphate solution
0,1 mol/l – 0,1 N, volumetric standard solution

D 1,015 g/cm³ · bp 100 °C

UN no. 3082 · ADR 9 III · WGK 2

Warning H319-H411

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,1 mol/l ±0,4 %
Titer 0,996-1,004

Art. No.	Pack Qty.	Pack.	€
P723.1	1 l	plastic	34,95
Original pack 6 x 1 l			33,20/1 l

Zinc sulphide

ZnS · D 4,16 g/cm³ · mp >800 °C
CAS No. 1314-98-3 · EC no. 215-251-3
EUH031

Zinc sulphide
technical

Type analysis
Volatile parts ..... ≤0,5 %
Sieve residue (45 µm) ..... ≤0,004 %

Art. No.	Pack Qty.	Pack.	€
1CE4.1	100 g	plastic	24,65
1CE4.2	500 g	plastic	55,40
Original pack 6 x 500 g			52,63/500 g
1CE4.3	1 kg	plastic	96,25
Original pack 6 x 1 kg			91,44/1 kg
1CE4.4	2.5 kg	plastic	188,15

Zirconium Standards

- Zirconium AAS Standard Solution see page 1325
- Zircon ICP Standard Solution see page 1325
- Zirconium ICP Standard Solution see page 1325

Zirconium nitrate pentahydrate

Zirconium tetranitrate

$Zr(NO_3)_4 \cdot 5\,H_2O$
CAS No. 13986-27-1 · EC no. 237-324-9
UN no. 2728 · ADR 5.1 III · WGK 1

Danger H272-H318

Zirconium nitrate pentahydrate
≥98 %, pure

Type analysis
Assay ..... ≥98,0 %
Chloride (Cl) ..... ≤0,01 %
Sulphate (SO_4) ..... ≤0,005 %
Fe (Iron) ..... ≤0,001 %
Na (Sodium) ..... ≤0,001 %
Silicon (Si) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
1HPN.1	100 g	plastic	26,80
1HPN.2	500 g	plastic	85,90
Original pack 6 x 500 g			81,61/500 g
1HPN.3	1 kg	plastic	155,90
Original pack 6 x 1 kg			148,11/1 kg

Zirconium(IV) oxide

CAS No. 1314-23-4 · EC no. 215-227-2

Zirconium(IV) oxide
≥99 %

ZrO_2 · D 5,77 g/cm³ · mp 2700 °C · bp 4300 °C

Type analysis
Appearance ..... white powder
Assay ..... ≥99 %
Iron (Fe) ..... ≤0,1 %
Titanium (Ti) ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
9303.2	100 g	plastic	53,65
9303.1	500 g	plastic	209,65
Original pack 6 x 500 g			199,17/500 g

Zirconium(IV) oxide, nano
ROTI®nanoMETIC 3 nm, hydrophobic

ZrO_2 · D 5,77 to 5,9 g/cm³ · mp 2700 °C · bp 5000 °C

Danger H315-H318-H372

Type analysis
Purity (Zr) ..... ≥99,0 %
Particle size ..... ~3 nm
Refractive index (585 nm) ..... ~1,8
Forms colloidal solution in ... 2-Butanol, Epoxides
Phase ..... monoclinic
Stabilized with ..... Benzoic acid

Art. No.	Pack Qty.	Pack.	€
1776.1	1 g	glass	60,75
1776.2	5 g	glass	246,20

Zirconium(IV) oxide, nano
ROTI®nanoMETIC 3 nm, hydrophilic

ZrO_2 · D 5,77 to 5,9 g/cm³ · mp 2700 °C · bp 5000 °C

UN no. 3260 · ADR 8 II

Danger H314

Type analysis
Purity (Zr) ..... ≥99,0 %
Particle size ..... ~3 nm
Refractive index (585 nm) ..... ~2,03
Forms colloidal solution in ..... H_2O (<500 mg/ml)
Phase ..... monoclinic
Stabilized with ..... HNO_3

Art. No.	Pack Qty.	Pack.	€
2097.1	1 g	glass	50,45
2097.2	5 g	glass	209,65

Zirconium oxynitrate

- Zirconyl nitrate hydrate see page 1416

Zirconyl chloride octahydrate

$ZrOCl_2 \cdot 8\,H_2O$ · D 1,91 g/cm³ · mp 150 °C
CAS No. 13520-92-8
UN no. 3260 · ADR 8 II · WGK 1

Danger H314

Zirconyl chloride octahydrate
ROTI®METIC 99,995 % (4N5)

Type analysis
Assay (metals basis) ..... 99,995 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
4502.1	10 g	plastic	82,70

Zirconyl nitrate hydrate

Zirconium oxynitrate

$ZrO(NO_3)_2 \cdot x\,H_2O$
CAS No. 14985-18-3 · EC no. 237-529-3
UN no. 3085 · ADR 5.1 (8) II · WGK 1

Danger H272-H314

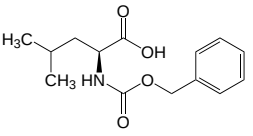
Zirconyl nitrate hydrate
ROTI®METIC 99,99 % (4N)

Type analysis
Assay (metals basis) ..... 99,99 %

Chemical analysis (ICP, AAS): up to 60 specified trace metal impurities in ppm range.

Art. No.	Pack Qty.	Pack.	€
5415.1	25 g	plastic	327,90
5415.2	100 g	plastic	1.009,45

Z-L-Leucine



Cbz-L-Leucine · N_a-Benzyloxycarbonyl-L-leucine · N_a-Carbobenzyloxy-L-leucine · Z-L-Leu-OH

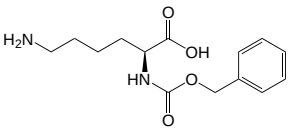
$C_{14}H_{19}NO_4$
CAS No. 2018-66-8 · EC no. 217-960-3
WGK 1

Z-L-Leucine
PEPTIPURE® ≥94 %, for biochemistry

Type analysis
Appearance ..... colourless-yellowish liquid
Assay (acidim.) ..... ≥94,0 %
Purity (HPLC) ..... ≥97,5 %
Spec. rotation $[\alpha]_D^{20}$ (2 % in Ethanol) ..... -18,5 ° to -16,5 °
Free amino acids ..... ≤0,2 %
Water (KF) ..... ≤1,0 %
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
1859.1	5 g	glass	20,35
1859.2	25 g	glass	51,10
1859.3	100 g	glass	160,20

Z-L-Lysine



Cbz-L-Lysine · N_{α}-Benzyloxycarbonyl-L-lysine · N_{α}-Carbobenzyloxy-L-lysine

$C_{14}H_{20}N_2O_4$ · mp 210 to 230 °C
CAS No. 2212-75-1 · EC no. 218-662-6
WGK 1

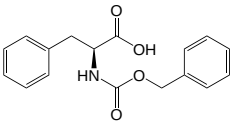
Z-L-Lysine
PEPTIPURE® ≥98 %, for biochemistry

Type analysis
Appearance ..... white to off-white powder
Purity (HPLC) ..... ≥98,0 %
Specific rotation $[\alpha]_D^{20}$ (2 % in 0,2 N HCl) -15,0 ° to -11,0 °
Water (KF) ..... ≤2,0 %
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
1907.1	1 g	glass	27,85
1907.2	5 g	plastic	83,75
1907.3	10 g	plastic	149,45

Z-L-Phe-OH
▸ Z-L-Phenylalanine see page 1417

Z-L-Phenylalanine



Cbz-(L)-Phenylalanine · N_{α}-Benzyloxy-carbonyl-L-phenylalanine · N_{α}-Carbobenzyl-oxy-L-phenylalanine · Z-L-Phe-OH

$C_{17}H_{17}NO_4$ · mp 80 to 90 °C
CAS No. 1161-13-3 · EC no. 214-599-3
WGK 1

Z-L-Phenylalanine
PEPTIPURE® ≥98 %, for biochemistry

Type analysis
Appearance ..... white to off-white powder
Purity (HPLC) ..... ≥98,0 %
Specific rotation $[\alpha]_D^{20}$ (2 % in AcOH) ..... +3,5 ° to 6,5 °
Water (KF) ..... ≤2,0 %
Enantiomeric purity ..... ≤0,5 % D-enantiomer

Art. No.	Pack Qty.	Pack.	€
1865.1	5 g	plastic	27,85
1865.2	25 g	plastic	75,15
1865.3	100 g	plastic	209,65

Zymolyase®

β-1,3-glucan laminaripentaohydrolase · Lyticase

CAS No. 37340-57-1
WGK 1

Zymolyase® 100T
≥100 U/mg, for biochemistry and molecular biology

For lysis of yeast cells. Isolated from *Arthrobacter luteus*.

Please note: Zymolyase® does not dissolve completely in higher concentrations.

Storage temperature: +4 °C
Transport temperature: cooled

Type analysis
Appearance ..... lyophilised powder
Activity ..... ≥100 000 U/g

Art. No.	Pack Qty.	Pack.	€
9329.1	100 mg	glass	352,10
9329.2	500 mg	glass	1.112,65

Zymolyase® 20T
≥20 U/mg, for biochemistry and molecular biology

For lysis of yeast cells. Isolated from *Arthrobacter luteus*.

Please note: Zymolyase® does not dissolve completely in higher concentrations.

Storage temperature: +4 °C
Transport temperature: cooled

Type analysis
Appearance ..... lyophilised powder
Activity ..... ≥20 000 U/g

Art. No.	Pack Qty.	Pack.	€
9324.1	100 mg	glass	99,45
9324.2	500 mg	glass	281,15
9324.3	1 g	glass	489,15

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Information on brands, purities and applications

▷	see
>	more than
<	less than
min	minimum
max	maximum
µm	0,001 mm
~	approximate
$[\alpha]_D^{20}$	specific rotation
+4 °C	storage in refrigerating room/refrigerator
-20 °C	storage in deep-freeze room/freezer
®	registered symbol, registered trade mark
	GHS01 exploding bomb
	GHS02 flame
	GHS03 flame over circle
	GHS04 gas cylinder
	GHS05 corrosion
	GHS06 skull and crossbones
	GHS07 exclamation mark
	GHS08 health hazard
	GHS09 environment
Å	Ångström = 10^{-10} m
abs	absolute
ACS	American Chemical Society
ADR	European agreement on international road transport of hazardous goods
Amp.	ampoule
aq	water
art.	artificial
asym.	asymmetrical
awg	hazardous to water in general (see WGK)
BP	British Pharmacopoeia
bp	boiling point, boiling range
c	amount-of-substance concentration
CAS	Chemical Abstract Service
CAS No	unique numeric identifier for chemicals
CELLPURE®	suitable for cell culture
C.I. No	colour index number
conc.	concentrated
cP	centipoise
cryst.	crystallised
cSt	centistokes
D	density
DAB	Deutsches Arzneibuch (German Pharmacopoeia)
DAC	Deutscher Arzneimittel-Codex (German Drugs Codex)
dec.	decomposition
dist.	distilled
DIN	German Industrial Standards
EN	European Norm or European Standard
EC no	the official number of a chemical substance that is commercially available within the EC
ERD	empfohlenes Retestdatum (recommended retest date)
extra pure	suitable for laboratory use
FCC	Food chemical codex
FIP	Fédération Internationale Pharmaceutique
flp	flash point
g	gram or gramme
GC	gas chromatography
(GC)	content defined by gas chromatography
H	Hazard statement acc. to regulation (EC) No 1272/2008 (CLP, GHS)
HPLC	high performance liquid chromatography
IE	Internationale Einheit (international unit)
ISO	International Organization for Standardization
IU	international unit
IVD	*In-vitro* diagnostics
JP	Japanese Pharmacopoeia
kg	kilogram or kilogramme
KU	Kilo unit
l, ltr	litre
Lit.	literature
LSC	liquid scintillation counting
lyophil.	lyophilised (readily soluble form)
M or mol/l	molarity, amount-of-substance concentration
M	molecular weight or molar mass
m%	percentage by mass
mg	milligram or milligramme
ml	millilitre
Mol.%	molar percent
MP	Medical product
mp	melting point, melting range
MU	Mega unit
nat.	natural
n_D	refractive index
nwg	non-hazardous to water (see WGK)

Abbreviations and Symbols

P	Precautionary statement acc. to regulation (EC) No 1272/2008 (CLP, GHS)
Pa s	Pascal second
p.a.	pro analysi = for analytical purposes
PEPTIPURE®	suitable for peptide synthesis
Pestilyse®	solvent, suitable for residue analysis (environmental, water and food analysis)
pH	pH value
pK_a	pK_a value
pharma.	pharmaceutical quality, for pharmaceutical purposes
Ph.Eur.	European Pharmacopoeia
ppb	parts per billion = 1 µg per kg
ppm	parts per million = 0,0001 %, 1 mg per kg
ppt	parts per trillion = 1 ng per kg
prim.	primary
PUFFERAN®	can be used as buffer
pulv.	pulverised
pure	suitable for synthesis and laboratory use
rect.	rectification
redist.	redistilled
resubl.	resublimated
ROTICHROM®	suitable as reference substance in chromatography
ROTICHROM® CHR	chromatographically pure reference substances that are chromatographically (HPLC, GC, etc.) tested for their purity and are supplied without a chromatogram
ROTICHROM® CHR_{TLC}	compound in this catalogue is designated asbeing thin-layer chromatographically pure (CHR_{TLC}) if no impurities can be detected under experimental conditions with 20 µg sample
ROTICHROM® ~CHR_{TLC}	for products with impurities which under our conditions, (see CHR_{TLC}), allow the main compound to be designated; such products can be identified as being „approximately thin-layer chromatographically pure“ (~CHR_{TLC})
ROTICHROM® GC	reference substance for gas chromatography, delivered with GC chromatogram
ROTICHROM® HPLC	reference substance for HPLC, delivered with HPLC chromatogram
ROTICHROM® TLC	reference substance for thin-layer chromatography, delivered with thin-layer chromatogram
ROTICUBE®	combi-box of 5 litre or 10 litre, consisting of a stable outer card box with inner bag made of PE; comes with stopcock
ROTIDRY®	dried solvents, filled under protective gas
ROTIPHORESE®	product is suitable for electrophoresis
ROTIPURAN®	highly pure product, suitable for analysis
ROTISOLV®	solvent tested for specific applications (e.g. HPLC, LC-MS, GC, Head-Space)
ROTITAINER®	stackable containers that are convenient to handle. Matching safety pumps are available
sec.	secondary
SOLVAGREEN®	solvents and products that comply with the principles of green chemistry and are either obtained from renewable resources or are considered to be less environmentally hazardous than traditional solvents
stab.	stabilised
subl.	sublimated
sym.	symmetrical
synth.	synthetic
techn.	technical quality. Products with the purity designation *„technicum“* feature a different content. They are generally mass produced and may have a slightly foreign odour and colour. They are used for general technical purposes.
tert.	tertiary; standard for thin-layer chromatograhy (TLC)
TLC	thin layer chromatography
U	unit
USP	United States Pharmacopoeia
WGK	Wassergefährdungsklasse, German Water Hazard Class (on the basis of the Ordinance on facilities for handling substances that are hazardous to water, AwSV)
WGK 1	generally hazardous to waters
WGK 2	clearly hazardous to waters
WGK 3	severe hazardous to waters
wt.% or wt%	percentage by weight

Chemical resistance of plastics

Chemicals at 20 °C	MF	ETFE	PA	PC	HDPE	LDPE	PMMA	POM	PP	PS	PTFE/ FEP	PVC	SAN	PMP	PVDF
Acetaldehyde		❍	❍	–	❍	❍	–	❍	–	–	●	–	–	❍	–
Acetic Acid, glacial	❍	❍	–	–	❍	❍	–	–	❍		●			❍	❍
Acetone	●	❍	●	–	●	❍	–	●	●	–	●	–	–	❍	–
Acetonitrile		●	●	–	●	●	–	❍	–	–	●	–		–	❍
Acetylene (Ethine)		●	●	●	●	●		●	●		●		–		●
Aluminum Chloride, saturated			–	❍	●	●	●	–	●		●	❍	●		●
Ammonia, pure		●		–	●	●	❍		●	❍	●		❍	❍	–
Ammonium Chloride, solid	●		●	●	●	●	●	❍	●		●				●
Aqua Regia	–	●	–	–	–	–		–	–	–	●	–	–	❍	–
Ascorbic Acid, water solution		●	❍	❍	●	●		❍	●		●				●
Benzaldehyde		❍	–	–	❍	❍	–	●	❍	–	●	–	❍	●	❍
Benzine	●	●	●	❍	❍	–	❍	●	–	–	●	❍	–	❍	●
Benzoic Acid, saturated		●	–	–	●	●	●	❍	❍	❍	●	●	●	●	●
Benzol	●	●	❍	–	–	–	–	❍	–	–	●	–	–	❍	●
Calcium Chloride, water solution		●	●	●	●	●	●	❍	●	●	●	●	●	●	●
Carbon Tetrachloride (TETRA)	●	●	–	–	–	–		❍	–	–	●	–	–	–	❍
Chlorine 97 %			–	–	–	–	❍	–	–	–	●	–	–	–	●
Chlorine, water solution		●	–	–	❍	–	❍	–	–	–	●	❍	❍	–	●
Chlorobenzene		●	–	–	–	–	–	●	–	–	●	–	–	–	●
Chloroform (Trichloromethane)	●	❍	–	–	–	–	–	–	–	–	●	–	–	–	❍
Copper(II) Chloride, saturated			–	●	❍	●		❍	❍		●	●		●	❍
Cyclohexane	●	●	●	❍	–	–	❍	●	–	–	●	❍	❍	–	●
Decahydronaphtalene		●	●	–	❍	–	–	●	–	–	●	❍	–	–	❍
Dichloromethane (Methylene Chloride)		❍	–	–	–	–		❍	–	–	●	–	–	–	❍
Diethyl Ether		●	●	–	–	–	–	●	–	–	●	–	–	–	❍
Dimethyl Formamide (DMF)		❍	●	–	●	❍		●	●	–	●	–	–	●	–
Dimethyl Phtalate (DMP)			❍	–	–	❍		❍	❍	–	●	–	–		❍
Dimethylsulfoxide (DMSO)		●	❍	–	●	●		●	●	●	●	–		●	–
1,4-Dioxane		●	●	–	❍	❍	–	●	❍	–	●	–	–	❍	–
Ethanol 96 %	●	●	●	❍	●	●	–	●	●	–	●	❍	❍	●	●
Ethyl Acetate	●	●	●	–	❍	–		●	❍	–	●	–	–	–	–
Ethylene Chloride		●	–	–	❍	❍		●	–	–	●	–	–	–	●
Ethylene Glycol	●	●	❍	❍	●	●	❍	●	●	●	●	❍	●	●	●
Ethylenediaminetetraacetic Acid (EDTA)		●	❍	❍	●	●		●	●		●				●
Fluorinated Alcanes (FKW)		●	❍	❍		–		❍	❍	–	●				–
Fluorine		❍	–	–	–	–		–	–	–	❍	❍	–	–	❍
Formaldehyde 40 %		●	❍	●	●	❍	●	●	●	–	●	❍	–	●	●
Formic Acid 98 %	●	●	–	–	●	●	–	–	❍	–	●	❍	–	❍	❍
Glycerine	●	●	●	❍	●	●	●	●	●	●	●	❍	●	●	●
Haloalkanes (FCKW)			❍	❍				●	❍	–	●				❍
n-Heptane		●	●	●	❍	–	●	●	❍	–	●		●	❍	●
n-Hexane		●	●	❍	❍	–		●	❍	–	●		●	–	●
Hydrobromic Acid 50 %		●	–	–	●	●		–	●	–	●	❍		–	❍
Hydrochloric Acid, concentrated	–	●	–	–	●	●		–	●	❍	●	❍	❍	●	●
Hydrofluoric Acid, concentrated	–		–	–				–	❍		●				●
Hydrogen Chloride, gasious			–	–	●			–	●		●	❍			●
Hydrogen Peroxide 90 %	–	●	–	●	●	●	–	–	●	●	●	❍		●	–
Mercury		●	●	●	●	●		●	●	●	●	❍	●	●	●
Methanol		●	❍	–	●	●	–	●	●	–	●	❍	–	●	●
Methyl Ethyl Ketone (MEK)		❍	●	–	❍	–	–	●	❍	–	●	–	–	–	–
Methyl Methacrylate			❍	–				❍	❍	–	●	–		–	❍
Oleum (fuming Sulfuric Acid)			–	–	–	–	–	–	–	–	●	–		–	–
Oxalic Acid		●	–	●	●	●	●	–	●	●	●	●	●	●	❍
Oxygen			❍	●	❍	❍		●	❍	●	●	●			●
Perchloric Acid 70 %		●	–	–	❍	–		–	–	❍	●	–		❍	❍
Petroleum Ether			●	–	❍	❍		●	❍	–	●	❍	❍	●	❍
Phenol		●	–	–	❍	❍	–	–	●	–	●	–	–	●	●
Phosphoric Acid 85 %	–	●	–	●	●	●	❍	–	●	●	●	●	●	●	●
Phosphoryl Chloride			–	–	❍	❍		–	❍		●	–			–
Potassium Hydroxide, concentrated	–	●	●	–	●	●	●	❍	●	❍	●	●	❍	●	–
Potassium Permanganate		●	–	●	❍	●	❍	●	●	❍	●	❍	❍	●	●
Pyridine		●	●	–	❍	❍		●	❍	–	●	–	–	❍	–
Salicylic Acid, saturated		●	●	●	●	●		–	●	●	●	❍	●	●	●
Silver Nitrate, water solution			●	●	●			●	●		●				●
Sodium Hydroxide, concentrated	–		❍	–	●	●	●		●		●				–
Sodium Thiosulfate		●	●		●	●		●	●		●		●		●
Sulfuric Acid 95 %		●	–	–	–	–	–	–	–	–	●	❍	–	❍	●
Tetrahydrofuran (THF)	●	❍	●	–	–	–	–	●	–	–	●	–	–	–	–
Thionyl Chloride		●	–	–	–	–		❍	–	–	●	–	–	–	–
Tincture of Iodine		●	–	–	❍	❍	–	●	●	❍	●	–	❍	●	●
Toluene		●	●	–	❍	❍	–	–	❍	–	●	–	–	❍	●
Trichloroacetic Acid (TCA)			–	–	❍	–		–	●	–	●	–			❍
Trichloroethylene (TRI)		●	–	–	–	–		–	–	–	●	–	–	–	●
Urea	●	●	●	●	●	●	●	●	●	●	●	❍	●	●	●
Xylene		●	●	–	–	–	–	●	–	–	●	–	–	–	●

● resistent
❍ conditionally resistent
– not resistent

All values given in this table refer to plastic raw material and can only be regarded as guidelines. As the chemical resistance may vary with different conditions of manufacturing or environmental influences, suitability tests by the user are highly recommanded.
No legal claims can be derived from this information; nor do we accept any liability for it.

Classification & Labelling acc. to (EC) 1272/2008

Hazard Pictograms

The hazard pictogram on the designation label indicates the main hazard arising from a substance. If there are several hazardous qualitiies, several symbols are necessary.

Each pictogram is allocated a hazard designation and coding that do **not** appear on the designation label.



GHS01
exploding bomb



GHS02
flame



GHS03
flame over circle



GHS04
gas cylinder



GHS05
corrosion



GHS06
skull and crossbones



GHS07
exclamation mark



GHS08
health hazard



GHS09
environment

Hazard Statements H Codes

Hazard statements for physical hazards

H200	Unstable explosives.
H201	Explosive; mass explosion hazard.
H202	Explosive, severe projection hazard.
H203	Explosive; fire, blast or projection hazard.
H204	Fire or projection hazard.
H205	May mass explode in fire.
H206	Fire, blast or projection hazard; increased risk of explosion if desensitising agent is reduced.
H207	Fire or projection hazard; increased risk of explosion if desensitising agent is reduced.
H208	Fire hazard; increased risk of explosion if desensitising agent is reduced.
H220	Extremely flammable gas.
H221	Flammable gas.
H222	Extremely flammable aerosol.
H223	Flammable aerosol.
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H229	Pressurised container: May burst if heated.
H230	May react explosively even in the absence of air.
H231	May react explosively even in the absence of air at elevated pressure and/or temperature.
H232	May ignite spontaneously if exposed to air.
H240	Heating may cause an explosion.
H241	Heating may cause a fire or explosion.
H242	Heating may cause a fire.
H250	Catches fire spontaneously if exposed to air.
H251	Self-heating; may catch fire.
H252	Self-heating in large quantities; may catch fire.
H260	In contact with water releases flammable gases which may ignite spontaneously.
H261	In contact with water releases flammable gases.
H270	May cause or intensify fire; oxidiser.
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H280	Contains gas under pressure; may explode if heated.
H281	Contains refrigerated gas; may cause cryogenic burns or injury.
H290	May be corrosive to metals.

Hazard statements for health hazards

H300	Fatal if swallowed.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.

H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H350i	May cause cancer by inhalation.
H351	Suspected of causing cancer.
H360	May damage fertility or the unborn child.
H360F	May damage fertility.
H360D	May damage the unborn child.
H360FD	May damage fertility. May damage the unborn child.
H360Fd	May damage fertility. Suspected of damaging the unborn child.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H361	Suspected of damaging fertility or the unborn child.
H361f	Suspected of damaging fertility.
H361d	Suspected of damaging the unborn child.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H362	May cause harm to breast-fed children.
H370	Causes damage to organs.
H371	May cause damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H300+H310	Fatal if swallowed or in contact with skin.
H300+H330	Fatal if swallowed or if inhaled.
H310+H330	Fatal in contact with skin or if inhaled.
H300+H310 +H330	Fatal if swallowed, in contact with skin or if inhaled.
H301+H311	Toxic if swallowed or in contact with skin.
H301+H331	Toxic if swallowed or if inhaled.
H311+H331	Toxic in contact with skin or if inhaled.
H301+H311 +H331	Toxic if swallowed, in contact with skin or if inhaled.
H302+H312	Harmful if swallowed or in contact with skin.
H302+H332	Harmful if swallowed or if inhaled.
H312+H332	Harmful in contact with skin or if inhaled.
H302+H312+ H332	Harmful if swallowed, in contact with skin or if inhaled.

Hazard statements for environmental hazards

H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
H420	Harms public health and the environment by destroying ozone in the upper atmosphere.

Supplemental Hazard Information H Codes

EUH014	Reacts violently with water.
EUH018	In use may form flammable/explosive vapour-air mixture.
EUH019	May form explosive peroxides.
EUH029	Contact with water liberates toxic gas.
EUH031	Contact with acids liberates toxic gas.
EUH032	Contact with acids liberates very toxic gas.
EUH044	Risk of explosion if heated under confinement.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH070	Toxic by eye contact.
EUH071	Corrosive to the respiratory tract.
EUH201	Contains lead. Should not be used on surfaces liable to be chewed or sucked by children.
EUH201A	Warning! Contains lead.
EUH202	Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.
EUH203	Contains chromium (VI). May produce an allergic reaction.
EUH204	Contains isocyanates. May produce an allergic reaction.
EUH205	Contains epoxy constituents. May produce an allergic reaction.
EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine).
EUH207	Warning! Contains cadmium. Dangerous fumes are formed during use. See information supplied by the manufacturer. Comply with the safety instructions.
EUH208	Contains (name of sensitising substance). May produce an allergic reaction.
EUH209	Can become highly flammable in use.
EUH209A	Can become flammable in use.
EUH210	Safety data sheet available on request.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Hazard classes and categories

Classification				Labelling		
Hazard class	**Category codes**		**Pictogram, code**	**Signal word**	**Hazard statements**	
Explosive	Unstable explosives	Unst. Expl.	 GHS01	Danger	H200	Unstable explosives.
	Divisions 1.1	Expl. 1.1			H201	Explosive; mass explosion hazard.
	Divisions 1.2	Expl. 1.2			H202	Explosive, severe projection hazard.
	Divisions 1.3	Expl. 1.3			H203	Explosive; fire, blast or projection hazard.
	Divisions 1.4	Expl. 1.4		Warning	H204	Fire or projection hazard.
	Divisions 1.5	Expl. 1.5	No pictogram	Danger	H205	May mass explode in fire.
	Divisions 1.6	Expl. 1.6	No pictogram, no signal word, no hazard statement			
Flammable gas	Category 1	Flam. gas 1	 GHS02	Danger	H220	Extremely flammable gas.
	Category 2	Flam. gas 2	No pictogram	Warning	H221	Flammable gas.
Flammable aerosol	Category 1	Flam. aerosol 1	 GHS02	Danger	H222	Extremely flammable aerosol.
	Category 2	Flam. aerosol 2		Warning	H223	Flammable aerosol.
Oxidising gas	Category 1	Ox. gas 1	 GHS03	Danger	H270	May cause or intensify fire; oxidiser
Gas under pressure	Compressed gas	Press. gas	 GHS04	Warning	H280	Contains gas under pressure; may explode if heated.
	Dissolved gas					
	Liquefied gas				H281	Contains refrigerated gas; may cause cryogenic burns or injury.
	Refrigerated liquefied gas					
Flammable liquid	Category 1	Flam. Liq. 1	 GHS02	Danger	H224	Extremely flammable liquid and vapour.
	Category 2	Flam. Liq. 2			H225	Highly flammable liquid and vapour.
	Category 3	Flam. Liq. 3		Warning	H226	Flammable liquid and vapour.
Flammable solid	Category 1	Flam. Sol. 1		Danger	H228	Flammable solid.
	Category 2	Flam. Sol. 2		Warning		

Classification				Labelling		
Hazard class	**Category codes**		**Pictogram, code**	**Signal word**	**Hazard statements**	
Self-reactive substance or mixture **Organic peroxide**	Type A	Self-react. A Org. Perox. A	 GHS01	Danger	H240	Heating may cause an explosion.
	Type B	Self-react. B Org. Perox. B	 GHS01 + GHS02		H241	Heating may cause a fire or explosion.
	Type C and D	Self-react. CD Org. Perox. CD	 GHS02	Danger	H242	Heating may cause a fire.
	Type E and F	Self-react. EF Org. Perox. EF		Warning		
	Type G	Self-react. G Org. Perox. G	No pictogram, no signal word, no hazard statement			
Pyrophoric liquid	Category 1	Pyr. Liq. 1	 GHS02	Danger	H250	Catches fire spontaneously if exposed to air.
Pyrophoric solid	Category 1	Pyr. Sol. 1				
Self-heating substance or mixture	Category 1	Self-heat. 1		Danger	H251	Self-heating; may catch fire.
	Category 2	Self-heat. 2		Warning	H252	Self-heating in large quantities; may catch fire.
Substance or mixture which in contact with water emits flammable gas	Category 1	Water-react. 1		Danger	H260	In contact with water releases flammable gases which may ignite spontaneously.
	Category 2	Water-react. 2		Danger	H261	In contact with water releases flammable gases.
	Category 3	Water-react. 3		Warning		
Oxidising liquid **Oxidising solid**	Category 1	Ox. Liq. 1 Ox. Sol. 1	 GHS03	Danger	H271	May cause fire or explosion; strong oxidiser.
	Category 2	Ox. Liq. 2 Ox. Sol. 2		Danger	H272	May intensify fire; oxidiser.
	Category 3	Ox. Liq. 3 Ox. Sol. 3		Warning		
Substance or mixture corrosive to metals	Category 1	Met. Corr. 1	 GHS05	Warning	H290	May be corrosive to metals.
Desensitised explosive substances/ mixtures	Category 1	Desen. Expl. 1	 GHS02	Danger	H206	Fire, blast or projection hazard; increased risk of explosion if desensitising agent is reduced.
	Category 2	Desen. Expl. 2		Danger	H207	Fire or projection hazard; increased risk of explosion if desensitising agent is reduced.
	Category 3	Desen. Expl. 3		Warning		
	Category 4	Desen. Expl. 4		Warning	H208	Fire hazard; increased risk of explosion if desensitising agent is reduced.
Acute toxicity	Category 1	Acute Tox. 1	 GHS06	Danger	H300 H310 H330	Fatal if swallowed. Fatal in contact with skin. Fatal if inhaled.
	Category 2	Acute Tox. 2				
	Category 3	Acute Tox. 3			H301 H311 H331	Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.
	Category 4	Acute Tox. 4	 GHS07	Warning	H302 H312 H332	Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.

Classification & Labelling acc. to (EC) 1272/2008

Classification			Labelling			
Hazard class	**Category codes**		**Pictogram, code**	**Signal word**	**Hazard statements**	
Skin corrosion/ irritation	Category 1A	Skin Corr. 1A	 GHS05	Danger	H314	Causes severe skin burns and eye damage.
	Category 1B	Skin Corr. 1B				
	Category 1C	Skin Corr. 1C				
	Category 2	Skin Irrit. 2	 GHS07	Warning	H315	Causes skin irritation.
Serious eye damage/eye irritation	Category 1	Eye Dam. 1	 GHS05	Danger	H318	Causes serious eye damage.
	Category 2	Eye Irrit. 2	 GHS07	Warning	H319	Causes serious eye irritation.
Respiratory sensitization	Category 1 Category 1A Category 1B	Resp. Sens. 1 Resp. Sens. 1A Resp. Sens. 1B	 GHS05	Danger	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization	Category 1 Category 1A Category 1B	Skin Sens. 1 Skin Sens. 1A Skin Sens. 1B	 GHS07	Warning	H317	May cause an allergic skin reaction.
Germ cell mutagenicity	Category 1A	Muta. 1A	 GHS08	Danger	H340	May cause genetic defects. (*)
	Category 1B	Muta. 1B				
	Category 2	Muta. 2		Warning	H341	Suspected of causing genetic defects. (*)
Carcinogenicity	Category 1A	Carc. 1A		Danger	H350 H350i	May cause cancer. (*) May cause cancer by inhalation.
	Category 1B	Carc. 1B				
	Category 2	Carc. 2		Warning	H351	Suspected of causing cancer. (*)
	(*) state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard					
Reproductive toxicity	Category 1A	Repr. 1A	 GHS08	Danger	H360 H360F H360D H360FD	May damage fertility or the unborn child. (*) May damage fertility. (*) May damage the unborn child. (*) May damage fertility. May damage the unborn child. (*)
	Category 1B	Repr. 1B				
	Category 2	Repr. 2		Warning	H361 H361f H361d H361fd	Suspected of damaging fertility or the unborn child. (*) Suspected of damaging fertility. (*) Suspected of damaging the unborn child. (*) Suspected of damaging fertility. Suspected of damaging the unborn child. (*)
	Additional category for effects on or via lactation	Lact.	No pictogram	No signal word	H362	May cause harm to breast-fed children.
	(*) state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard					

Classification				Labelling		
Hazard class	**Category codes**		**Pictogram, code**	**Signal word**	**Hazard statements**	
Specific target organ toxicity – single exposure	Category 1	STOT SE 1	 GHS08	Danger	H370	Causes damage to organs. (*)
	Category 2	STOT SE 2		Warning	H371	May cause damage to organs. (*)
	Category 3	STOT SE 3	 GHS07	Warning	H335	May cause respiratory irritation.
					H336	May cause drowsiness or dizziness.
Specific target organ toxicity – repeated exposure	Category 1	STOT RE 1	 GHS08	Danger	H372	Causes damage to organs through prolonged or repeated exposure. (*)
	Category 2	STOT RE 2		Warning	H373	May cause damage to organs through prolonged or repeated exposure. (*)
	(*) state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard					
Aspiration hazard	Category 1	Asp. Tox. 1	 GHS08	Danger	H304	May be fatal if swallowed and enters airways.
Acute aquatic hazard	Acute 1	Aquatic Acute 1	 GHS09	Warning	H400	Very toxic to aquatic life.
Long-term aquatic hazard	Chronic 1	Aquatic Chronic 1		Warning	H410	Very toxic to aquatic life with long lasting effects.
	Chronic 2	Aquatic Chronic 2		No signal word	H411	Toxic to aquatic life with long lasting effects.
	Chronic 3	Aquatic Chronic 3	No pictogram	No signal word	H412	Harmful to aquatic life with long lasting effects.
	Chronic 4	Aquatic Chronic 3			H413	May cause long lasting harmful effects to aquatic life.
Hazardous for the ozone layer	Category 1	Ozone 1	 GHS07	Warning	H420	Harms public health and the environment by destroying ozone in the upper atmosphere.



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Terms and Conditions of Sale and Delivery

These Terms and Conditions of Sale and Delivery also apply for all future deliveries.

1. Validity for future business transactions – Validity of contrary General Terms and Conditions – Validity for companies only

1.1. Our Terms and Conditions of Sale and Delivery apply exclusively. They shall also apply to all future deliveries, even when no special reference is made thereto. We do not accept any contrary terms and conditions or those terms and conditions of the customer which differ from our Terms and Conditions of Delivery, even if the contract is performed unconditionally, unless we have expressly agreed to the validity thereof in writing or in text form.
1.2. Our Terms and Conditions of Sale shall only apply to entrepreneurs (Section 14 German Civil Code [BGB]), legal persons governed by public law or a separate legal entity under public law.

2. Quotes, formation of contract, delivery item

2.1. Our quotes are subject to change and are non-binding unless they have been explicitly declared binding or include a specific period of acceptance.
2.2. The ordering of goods by the customer shall be deemed to be a binding contractual offer. Orders are only binding for us if we confirm them in writing or in text form within two weeks, or if we fulfil them within two weeks through shipment of the ordered goods.
2.3. The legal relationship between the customer and us shall be governed exclusively by the contract, which has been entered into in writing or in text form, including these general Terms and Conditions of Sale and Delivery. Verbal agreements made by us before the contract is formed are not legally binding and verbal understandings between the parties are superseded by the contract that is formed in writing or in text form, unless it is expressly stated therein that such agreements will continue to apply.
2.4. Amendments and modifications to the agreements made, including these general Terms and Conditions of Sale and Delivery, must be made in writing or in text form in order to be valid. With the exception of managing directors and holders of commercial powers of attorney, our employees are not authorised to make verbal agreements which are contrary to the cited provisions.
2.5. The information we provide on the item to be supplied (e.g. weights, dimensions, quantities and functional values), as well as our representations of the item to be supplied, are only approximations, unless use for the purpose intended by the contract requires full conformity and specific characteristics have been agreed. Unless identified as such, these are not guaranteed physical characteristics, rather descriptions or characterisations of the product. Deviations that are customary in the trade and deviations that are the result of legal provisions are permissible provided that they do not impair usability for the contractually agreed purpose. Refer below to Item 10 of these Terms and Conditions.

3. Prices, price adjustments, electronic invoicing

3.1. Our prices are quoted "ex works" from Karlsruhe plus packaging, tariffs where export shipments are concerned, statutory VAT, fees and other public duties.
3.2. We reserve the right to amend our listed prices upon which the contract is based accordingly if cost reductions or increases arise as a result of tariff agreements, or if the price of materials increases after the contract is concluded. These shall be verified to the customer upon request. A price adjustment shall not be effected in cases where delivery is made as contractually stipulated within four months of conclusion of the contract.
3.3. We provide an electronic invoice in compliance with data protection legislation. This presumes the formation of a separate agreement.

4. Payment terms and conditions, payment arrears

4.1. To avoid accounting errors and the resulting erroneous issue of dunning notices, we rely on receiving the correct invoice number, invoice date and individual invoiced amounts with incoming payments. This data can be found on all of our invoices. If the payer is not the same as the invoice recipient, the name stated on the relevant invoice must also be given when the payment is made. If we receive payments without this information, we cannot guarantee that payments will be assigned correctly.
4.2. The invoiced amounts become payable upon receipt of the goods. Unless otherwise specified in writing or in text form, they are payable within thirty days without any deduction. In the event that the date on which the invoice or an equivalent payment schedule was received is disputed, the customer is considered to be in default 30 days after receipt of the goods at the latest, according to Section 286(4) German Civil Code [BGB]. The date of receipt of payment is decisive. Otherwise, the statutory regulations on defaults of payment apply.
4.3. For payment within eight days from date of invoice, a 2% discount shall be granted. The precondition for any discount shall be the settlement of all other customer payables arising from the business relationship with us that are older than 30 days.
4.4. For new customers, we reserve the right to require that payment be made prior to delivery or by cash on delivery.

5. Off-setting, retention

The off-setting of counter-demands by the customer or the retention of payment due to such demands shall only be permissible if such demands are indisputable, or if their validity has been legally established.

6. Shipping, packaging, transfer of risk

6.1. The shipping method and the packaging shall be subject to our due discretion in compliance with the statutory provisions if no other agreement has been made.
6.2. The risk of accidental loss or incidental deterioration of the delivered goods is, at the latest, transferred to the customer upon handover of the goods to the forwarding agent, the carrier, or any other third party charged with the task of performing shipment (applicable from commencement of loading). This also applies in the case of partial deliveries, and with respect to each partial delivery.
6.3. The shipment is only insured against theft, breakage, transport, fire and water damage or other insurable risks at the express request of the customer and at the customer's expense.

7. Delivery time

7.1. The promised delivery periods and dates are only binding for us if we have confirmed them in writing or in text form. The delivery dates indicated on our website during the ordering process or in our catalogue do not constitute such confirmation. Compliance with our delivery obligation requires the timely and proper fulfilment of the customer's obligations. The delivery dates and deadlines refer to the time at which the goods are made available for handover upon collection by the forwarding agent, carrier, or other third party assigned to transport the goods.
7.2. We cannot be held liable should a delivery prove impossible or in the case of delays in delivery due to force majeure or other events that were unforeseeable on signing of the contract (e.g. fire, explosion, strikes, lawful lockout, complications in procuring materials or energy, war, unrest, epidemics or pandemics where a risk level of "moderate" or above has been defined by the Robert Koch Institute, government rejection or renunciation of import and export licences, shortage of raw materials and/or other products and/or constituent parts), and for which we are not accountable. We reserve the right to withdraw from the contract if such occurrences substantially complicate delivery or make delivery impossible, and if the disruption is not merely of a temporary nature. If the disruption is of a temporary nature, delivery times shall be extended to take account of the period of disruption and a reasonable start-up period. We shall notify the customer of the start and end of such circumstances as promptly as possible. If such a delay makes acceptance of delivery unreasonable for the customer, the customer shall be entitled to withdraw from the contract by issuing immediate notice in writing or in text form.
7.3. If we are in default of delivery or performance, or are unable to carry out delivery or performance, for any reason whatsoever, our liability is limited to the extent set out in Item 13 of these Terms and Conditions of Sale and Delivery.
7.4. We cannot be held liable for the impossibility of, or delay in, performance of delivery obligations if, and to the extent that, such an impossibility or delay arises from circumstances caused by the customer, in particular if the customer fails to comply with public law obligations in connection with the European Regulations on Chemical Substances (REACH) or with other mandatory provisions.

8. Partial deliveries

8.1. In the absence of any special agreement, we may provide partial deliveries if
– the partial delivery can be used by the customer in the context of the contractually agreed intended use,
– delivery of the remaining goods is ensured and
– this causes no extensive additional effort or additional costs to the customer.
8.2. A partial delivery made under these conditions is considered a complete delivery with regard to the agreed delivery date.

9. Default of acceptance

Should the customer be in default of acceptance or culpably in breach of other duties to cooperate, we shall be entitled to charge for the resulting damages, including any additional costs incurred. In this case, the risk of accidental loss or incidental deterioration of the purchased goods also passes over to the customer at such time as the customer falls into default of acceptance, provided that our delivery obligation has already been met with regard to the goods to be delivered.

10. Intended use of the goods, obligations of the customer, liability

10.1. If we have made a pledge for certain products to effect delivery contingent upon their intended use, the customer shall be liable for any and all disadvantages which we may suffer as a result of incorrect statements made. In the case of toxins and other substances which may only be used within the scope of legal or official provisions, the customer's order shall also serve as a statement that these substances shall be used for a purpose permissible under the foregoing terms and conditions. The customer shall observe all the applicable statutory provisions when handling or using the substances, mixtures and products supplied by us. Private persons cannot be supplied with chemicals.
10.2. Information given concerning the usability of goods does not constitute any assurance or guarantee of suitability for such use. Relevant identified uses according to Regulation (EC) No. 1907/2006 (REACH Regulation) in the applicable version do not represent a contractual guarantee of any characteristic nor a use stipulated in the contract.
10.3. Our products shall be checked by the user with respect to their specific suitability, particularly prior to use for medical purposes, food and beverage processing, plant cultivation and similar applications. This applies in particular to natural substances, which are always subject to slight variation in content. We therefore cannot assume any liability for any such use.
10.4. Where a product comes with specific conditions for use provided by us or the manufacturer, e.g. as per the product datasheet, these must be complied with. We expressly accept no liability for any use to the contrary. Product datasheets are available via our homepage or can be requested from us directly.
10.5. Insofar as we provide the customer with advice – be this verbally, in writing or as a result of tests – such advice is provided to the best of our knowledge but without liability on our part, and does not release the customer from the obligation to check the delivered goods with respect to their suitability for the intended processes and purposes. The application, use and processing of goods is carried out beyond the scope of our control and is therefore the sole responsibility of the customer.

11. REACH clause

If the customer notifies us of a use according to Article 37.2 of the Regulation (EC) No.1907/2006 dated 5th August 2021 (Regulation (EC) No. 2021/1297) of the European Parliament and the Council for the Registration, Evaluation, Approval and Control of chemical substances (REACH Regulation) which requires updating of the registration or the chemical safety report or results in another obligation according to the REACH Regulation, the customer shall reimburse us all expenses for which evidence is provided. Art. 53 of the REACH Regulation remains unaffected. We shall not be liable for delays in delivery caused by the notification of this form of use and performance of the applicable obligations as stipulated by the REACH Regulation. If, for reasons of health and safety or environmental protection, or due to other mandatory provisions, we are unable to consider this use an identified use and should the customer, against our advice, intend to use the goods in the manner which we have advised against, we shall be entitled to withdraw from the contract.

12. Claims for defects, compensation

12.1. Claims for defects are subject to the prerequisite that the customer has properly performed their duties to examine and give notice of defects according to Section 377 German Commercial Code [HGB].
12.2. Rejected goods must no longer be used without our explicit prior written consent. Where notification of defects is justified, we undertake to bear the costs of all expenses required for rectification of the defects, in particular transportation, travel, labour and material costs. This shall not apply insofar as the expenses increase as a result of the delivery item being subsequently delivered to a location that differs from the one specified in the contract. The buyer's rights according to Section 439(3) German Civil Code [BGB] shall not be restricted as a result.
12.3. Insofar as we are liable for a defect in goods purchased from us, we are entitled to correct the defect or replace the relevant product at our discretion and within a reasonable period of time. The place of subsequent performance is our registered office (Karlsruhe, Germany). If this subsequent performance or replacement delivery fails, i.e. if it is impossible, unreasonable, rejected or unreasonably delayed, the customer shall be entitled to withdraw from the contract or to reduce the purchase price by a reasonable amount, where statutory requirements are present.
12.4. If a defect is attributable to us, the customer is entitled to claim for compensation exclusively according to the following provisions.
12.5. In the case that an essential contractual obligation is culpably breached (a material obligation), where statutory requirements are present, we shall be liable for compensation, but only limited to the foreseeable damages typically incurred, unless otherwise specified below. Material obligations are those which must be fulfilled as part of the proper execution of the contract in the first instance, the fulfilment of which the buyer may rely on and which if breached would jeopardise the achievement of the purpose of the contract.
12.6. The customer is entitled to assert claims for compensation against us, without restriction, according to the statutory provisions and at the statutory rate, if these are attributable to us, one of our legal representatives or vicarious agents and are based on
– a culpable loss of life, physical injury or damage to health, or
– an intentional or grossly negligent breach of duty, or
– the German Product Liability Act [Produkthaftungsgesetz], or
– a breach of a duty arising from an assumption of procurement risk or warranty.
12.7. Any further claims to compensation against us, our legal representatives or vicarious agents are excluded, regardless of their legal basis.
12.8. Section 478 German Civil Code [BGB] remains unaffected by the above provisions.
12.9. The bases of claims relating to data protection law are not covered by this limitations of liability clause.

13. Limitation period

13.1. Claims on the part of the buyer concerning material defects shall become time-barred after one year, unless
a) the goods supplied by us include an item which has been used for a building in accordance with its normal use and has caused a defect in the latter, or
b) the defect was maliciously concealed or is based on an intentional breach of duty by us or our legal representatives or vicarious agents, or
c) they relate to a culpable loss of life, physical injury or damage to health, or
d) they relate to claims based on a warranty or procurement risk assumed by us, or
e) they relate to claims to compensation (with the limitation of Item 13.2.).
The statutory limitation period applies in the cases above.
13.2. Claims to compensation which are based on refused subsequent performance are subject to a shortened limitation period of one year if subsequent performance has not been requested within the period shortened to a year for claims concerning material defects.
13.3. The statutory limitation periods also apply in the event of claims according to Section 445a German Civil Code [BGB] if the last contract in the supply chain is a consumer goods contract in the meaning of Section 474 German Civil Code [BGB].

14. Withdrawal by the customer

If the purchased item is defective, the legal right of the purchaser to withdraw from the contract shall not be subject to our culpability. In all other cases, the customer shall only be entitled to withdraw in the event that we are in breach of obligations for which we are accountable.

15. Return of defect-free goods

Insofar as we accept the return of defect-free goods, this shall only apply to new goods in original packaging. We are entitled to charge the customer any third-party costs which we incur as a result of the return up to 25% of the list price of the goods.

16. Consequences of deterioration in the financial circumstances of the customer

16.1. In the case of payment arrears and justified doubts concerning the solvency or creditworthiness of the customer, we are – irrespective of our other rights – authorised to request guarantees or advance payments for outstanding deliveries and set all claims arising from the business relationship to payable immediately.
16.2. We may withdraw from the contract in the event that we become aware of the suspension of payments, the opening of insolvency or judicial settlement proceedings, the refusal of insolvency due to lack of assets, bill protests or cheque protests or any other tangible indications that the financial circumstances of the customer have deteriorated.

17. Retention of title

17.1. The retention of title agreed to hereinafter serves to safeguard all existing and future claims that we may have against the customer as a result of the supply relationship between the two parties.
17.2. We, the seller, shall retain the right to ownership of the goods delivered to the customer until full payment has been made for all secured receivables. The goods and any goods taking their place and subject to retention of title under the following provisions shall hereinafter be referred to as "Reserved Goods".
17.3. The customer shall ensure the safekeeping of the Reserved Goods on our behalf at no charge.
17.4. The customer shall be entitled to process and resell the Reserved Goods in normal business transactions until such time as a claim is made against them. It is not permitted to pledge Reserved Goods or to use Reserved Goods as collateral.
17.5. If the Reserved Goods are processed by the customer, it is agreed that they will be processed in our name and for our account and that we will acquire direct title to them or – if they are processed together with items from more than one owner or the value of the processed item is greater than the value of the Reserved Goods – we will acquire (partial) joint ownership of the newly-created item. In the event that we do not acquire such title to goods, the customer shall herewith transfer future ownership or, to the extent specified above, joint ownership of the newly-created item to us as a security. If the Reserved Goods are compounded or inseparably combined with other items to form a single item and if one of the other items is considered the main item, then, insofar as the main item belongs to us, we shall transfer the co-ownership of the single item proportionally to the customer in the ratio stated in sentence 1.
17.6. In the event of the resale of Reserved Goods, the customer shall, by way of a security, herewith transfer to us the resulting accounts receivable from the buyer or our pro rata share in the case of joint ownership. The same shall apply to any other claims that take the place of Reserved Goods or otherwise accrue with respect to Reserved Goods, such as insurance claims or claims arising from unauthorised actions in case of loss or irreparable damage. We hereby authorise the customer on a revocable basis to collect receivables assigned to us on its own behalf. We shall only be entitled to revoke this authorisation for collection in the event that a claim is made.
17.7. In the event that third parties lay claim to the Reserved Goods, particularly through seizure, the customer shall without delay inform them of our ownership and notify us in writing, so that we can take action to enable assertion of our ownership rights. Unless the third party is in a position to reimburse us for legal expenses and out-of-court settlement costs, the customer shall be liable for our loss.
17.8. We undertake to release the Reserved Goods as well as any goods or claims superseding the Reserved Goods should their value exceed the amount of the secured receivables by more than 50%. The selection of the securities subsequently to be released shall be incumbent upon us.
17.9. Should we withdraw from a contract due to a breach of contract on behalf of the customer, particularly with regard to delayed payment (enforcement event), then we shall be entitled to demand that the Reserved Goods be returned.

18. Export control clause

18.1. When transferring our goods or services performed by us to third parties, the customer undertakes to observe and comply with the relevant applicable national and international legal regulations with regard to export control. This includes, but is not limited to, compliance with legal regulations governing export control in the European Union, the United States of America and the Federal Republic of Germany.
18.2. Prior to transferring our goods or services performed by us to third parties, the customer undertakes to ensure by means of suitable checks and measures that such transfer or provision does not constitute a violation of embargo regulations, including but not limited to those applicable in the European Union and the United States of America, also taking into account any anti-circumvention provisions.
18.3. The customer also undertakes to observe the provisions of European and US sanctions lists with regards to any business activities with organisations, individuals and companies listed therein. The customer also undertakes to guarantee that the use or transfer of our goods and services does not serve any military or arms-related purposes that are prohibited or require authorisation, unless the necessary authorisations have been granted.
18.4. If deemed necessary as a result of any checks, the customer is obligated, upon request and without delay, to provide us with all information regarding the end use, end recipient and intended use of our supplied goods and services.
18.5. The customer shall fully indemnify us against all claims asserted by the recipient as a result of the failure to comply with the above legal obligations regarding export control and undertakes to compensate us for the losses and expenses arising from such claims.

19. Information on brands and other industrial property rights

The goods we supply may be subject to intellectual property rights such as brands, utility models or other industrial property rights. Please contact the relevant manufacturer or owner for information on brands and other industrial property rights. We are happy to help you in this process.

20. Use of customer data, data protection

On this subject, we refer to our following data protection notice and to our Privacy Policy Statement, which you can access on our website at
https://www.carlroth.com/en/en/Datenschutzerklaerung

21. Place of performance, place of jurisdiction, choice of law

21.1. Unless specified otherwise in the order confirmation, the place of performance for all obligations arising from the contractual relationship is Karlsruhe, Germany.
21.2. The exclusive place of jurisdiction for all disputes arising from the contract is, if the customer is a merchant, a legal person governed by public law or a separate legal entity under public law, the competent court for our head office. However, we are also entitled to bring action against the customer in their domicile court. Peremptory legal provisions concerning the exclusive place of jurisdiction for disputes shall not be affected by this provision.
21.3. The laws of the Federal Republic of Germany exclusively govern the relationship between us and our customer. The United Nations Convention of 11th April 1980 on the International Sale of Goods (CISG) does not apply.

Carl Roth GmbH + Co. KG

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General Catalogue ROTH
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Labware | Life Science | Chemicals

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Vertriebsges. m.b.H. + Co. KG
Puchstr. 85, A-8020 Graz
Phone +43 316 323692-0
info@lactan.at
www.lactan.at



ROTH SOCHIEL E.U.R.L.
3, rue de la Chapelle
F-67630 Lauterbourg
Phone +33 3 88948242
info@carlroth.fr
www.carlroth.fr



ROTH AG
Fabrikmattenweg 12
CH-4144 Arlesheim
Phone +41 61 7121160
info@carlroth.ch · www.carlroth.ch



CARL ROTH GmbH + Co. KG
Phone +31 180 516704
Fax +49 721 5606-260
info@carlroth.nl
www.carlroth.nl



CARL ROTH GmbH + Co. KG
Vlaanderen: Phone +32 52 374121
Wallonie: Phone +32 80 447958
info@carlroth.be
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LINEGAL CHEMICALS Sp.z o.o.
Ul. Kasprzaka 44/52
01-224 Warszawa, Polska
Phone +48 22 6317281
info@linegal.pl
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Laboratory Instruments
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Phone +420 271 730800
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www.p-lab.cz



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Old Wolverton
UK-MK12 5QL Milton Keynes
Phone +44 1908 322222
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www.techmate.co.uk



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P-2745-051 Queluz
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GR-17342 Athens
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Calle Balmes 245, 6-4 Planta
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Köszál u. 6., H-1163 Budapest
Phone +36 1 4020721
rktech@rktech.hu
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Ata Is Merkezi 228
Sokak No. 14 Kat. 3
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info@introgen.com.tr
www.introgen.com.tr



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Ignaca Gesaja 36
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Phone +421 905 605 891
oasis@oasis-lab.sk
www.oasis-lab.sk



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Molétu g. 16, Didzioji Riesé
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Phone +370 5 2469435
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Koncept media d.o.o.
Ante Mike Tripala 1, 3rd floor
HR-10090 Zagreb
Phone +385 1 6547954
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www.konceptmedia.hr



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Keskuojankatu 13
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asiakaspalvelu@penli.fi
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1000 Skopje
Phone +389 (0) 2 3063 158
info@interhem.com.mk
www.interhem.com.mk



Frisenette ApS
Energivej 134, 8420 Knebel,
Denmark
Phone +45 86 34 22 44
Denmark: roth@frisenette.dk
www.frisenette.dk



Sweden: roth@frisenette.dk
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CHIRON AS
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N-7041 Trondheim
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salg@chiron.no
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BIH - 71320 Vogosca-Sarajevo
Phone +387 33 722900
info@semikem.ba
www.semikem.com.ba



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Vaja-Pshavela Ave,
Block VII, 13, 30
GE-0186 Tbilisi
Phone +995 323 00866
info@geolab.ge
www.geolab.ge



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Vee 2, Märja,
EE-61406, Tartumaa
Phone +372 5520624
a-inf@akrom.ee
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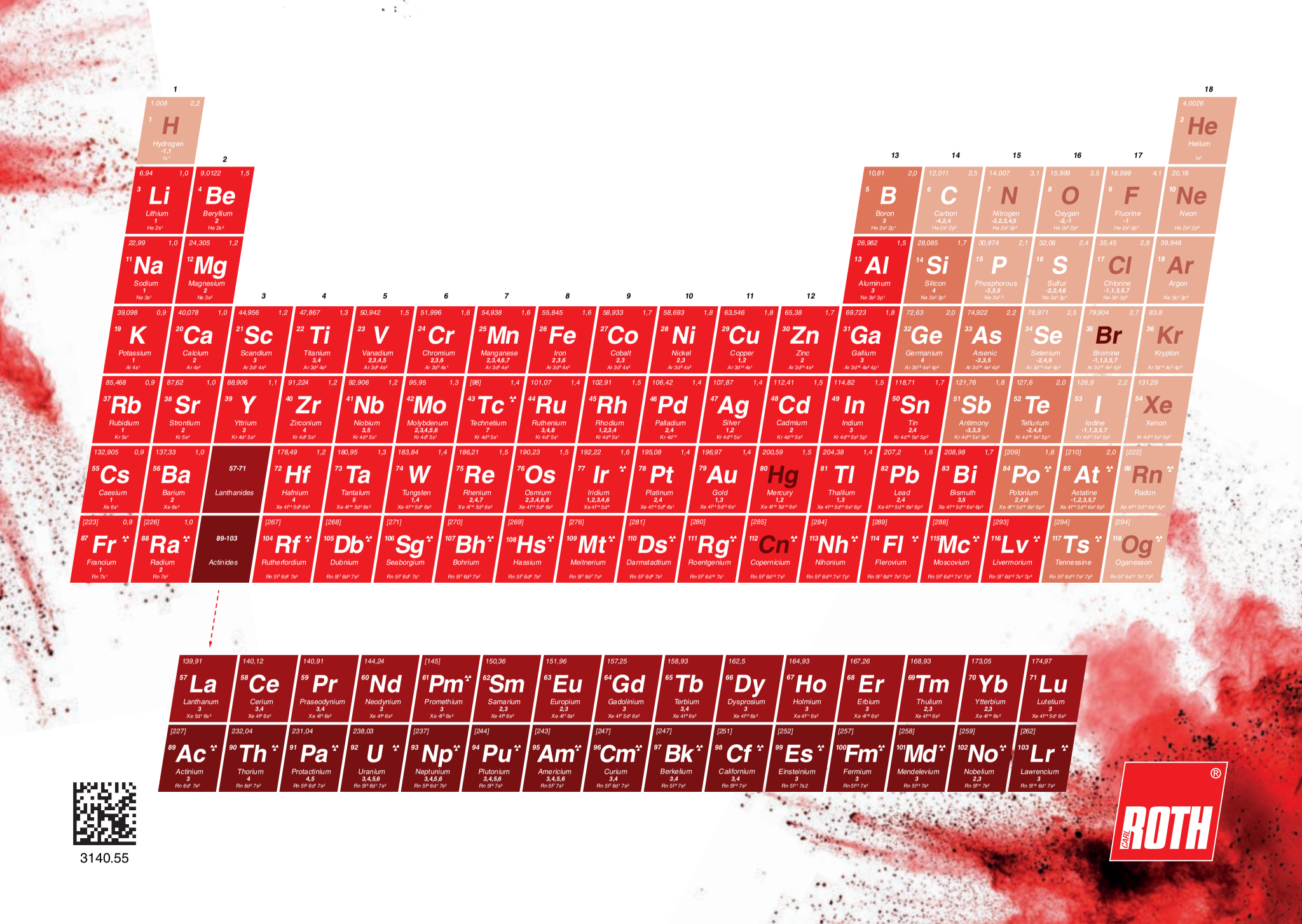


Astech Ireland Ltd.
Unit 47, Southern Cross
Bus. Park, Bray, Co. Wicklow
Phone +353 0404 25070
info@astechireland.ie
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Chemlaborreaktiv LLC
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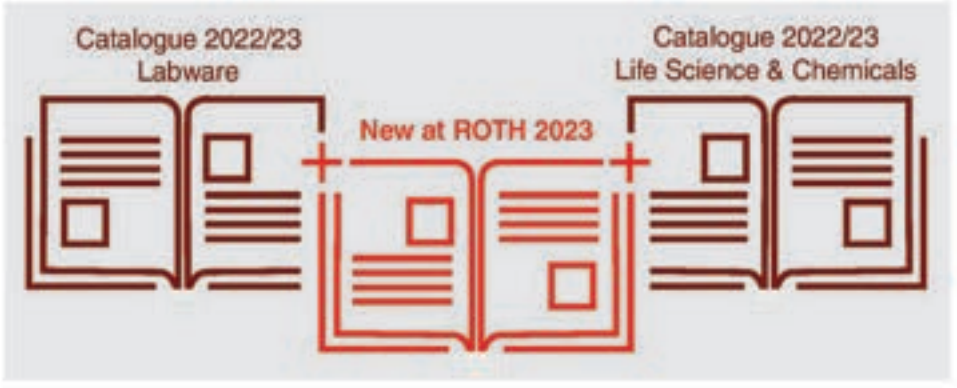
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Carl ROTH is synonymous with customer proximity, sustainability and innovative products.

This product catalogue provides you with an overview of all of our new products as a supplement to our full 2022/23 catalogue. You will find everything in the areas of laboratory equipment, life sciences and chemicals here.

By once again not printing a new edition of the full catalogue, we – together with you – can save tonnes of paper and CO_2. With your help, Carl ROTH is making the world just a little bit greener. We would like to take the opportunity to thank you for your support in this.

And our online store is open around the clock for you, making your purchasing more effective and also making it easier to find information. It offers a wealth of information, documents, images and videos on many of our products. Likewise, given that we are not immune to price changes in these turbulent times, you can also always see the latest prices online.



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We are proud to be able to improve the information and resources available to you, while also making a valuable contribution to protecting our environment. With this in mind, we hope you will join us in looking forward to a bright future and to the difference we can make together.

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1879

CARL ROTH is established as a “material goods, colonial goods and dyes merchant and chemists” in Karlsruhe.

1891

CARL ROTH is appointed as an “official purveyor to the Grand Duke of Baden“.

1899

ROTH publishes its first sales and mailorder catalogue.

1907

CARL ROTH operates the first delivery van in Karlsruhe.

1928

The laboratory chemicals department opens.



Quality, Environment, Safety

We take responsibility

Our QM system celebrated its 25th birthday in 2020. Over this time, we have continuously adapted our QM system to the growing market demands in order to meet quality requirements and to continue to deliver a high standard of quality.



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Production and distribution of
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ISO 14001:2015

are fulfilled.

The certificate is valid from 2022-07-06 until 2025-07-05.
Certificate Registration No.: 12 100/104 20247 TMS.

Head of Certification Body
Munich, 2022-06-23

The guiding principle for an environmentally conscious corporate management has always been a fundamental part of our business conduct. In addition to fulfilling our statutory environmental commitments, therefore, we always strive to define environmental protection targets and to optimise our operating procedures taking into account environmental aspects.

Our certified environmental management system helps us to systematically pursue this aim.

By participating in the *Responsible Care*® programme of the chemical industry, we have undertaken a commitment to meet the goals set by the programme.

These goals are to promote sustainability, to show product responsibility, to ensure safety, to improve health protection in the workplace and to better protect the environment.

Innovative use of combined heat and power technology when printing this product reduced CO_2 emissions by up to 52% in comparison to conventional methods in Germany.

minus 52% CO_2

SOLVAGREEN® - Green Solvents
Our brand for alternative solvents

Green Solvents serve as an alternative for environmentally hazardous and harmful reagents, and thus contribute to risk minimisation.

1945

The highly efficient manufacturing and bottling department enters service.

1958

ROTH unveils its proprietary high-pressure laboratory autoclaves at the ACHEMA Fair.

1971

ROTH is awarded a patent on its Mercurisorb-ROTH® high-speed mercury absorber.

1989

The „Association of Independent Businesses“ presents its award to ROTH in recognition of its environmentally friendly business practices.

1990

CARL ROTH publishes its first general product catalogue for its Labware, Life Science and Chemicals product lines.

Plastics – Technical data / Key to symbols

What about the packaging material?

We are making our contribution to the environment:

- By trying to use as little packaging material as possible. Unfortunately we cannot do without packaging completely as it has the important function of not only protecting the product, but also man and environment from any harm.

- By using environmentally friendly and recyclable packaging material as far as possible. As early as the beginning of the 80s, we stopped using polystyrene inserts for packing solvents, acids and alkaline aolution. We now use special boxes for hazardous goods made of 100 % recyclable corrugated cardboard. Paper is used as stuffing material.

Please also help by putting the **packaging in the recycling container after use**. Our boxes are labelled with the recy-symbol; they can be easily stored when cut open and pressed together without taking up much space, prior to being put out for recycling.

Our **plastic containers made of polyethylene (PE)** can also be turned in for recycling after they have been completely emptied and cleaned of all harmful substances.

The same applies to **tin flasks and canisters** once emptied and pollutent-free.

Sterilizing plastics – Autoclaving

Recommended autoclave cycle:
20 minutes at 121 °C, 1 bar

1. Clean autoclave goods thoroughly prior to sterilizing.
2. Rinse off used detergent with distilled water.
3. Unscrew caps to enable pressure compensation.
4. Only autoclave containers with stop-cock when empty, screw off stop-cocks.

   Following plastics can be autoclaved repeatedly: ETFE, PFA, PTFE, FEP, E-CTFE, PMP/TPX®, PP, SI, PVDF; PES, PSU

Note:
Polycarbonate PC and Polysulfone PSU are also autoclavable, however this reduces the mechanical stability. This can result in material failure particularly when under high mechanical strain, e.g. during centrifuging.

Please contact us should you have any further questions regarding packaging.



1993

Construction of a modern high-bay warehouse.

1995

First certification of the quality management system to DIN EN ISO 9001.

2005

The chemicals department moves into modern premises on the Karlsruhe-Rheinhafen industrial estate.

2013

An extension with an automated small parts warehouse is added to the Chemicals and Life Science building, enlarging its area to approx. 8,000 m². CARL ROTH now stocks over 21,000 products in its warehouse.



Abbreviations / temperature resistance of plastics

DIN-Abbrev.	Description	Application temperature (°C)		
		from	to	
ABS	acrylonitrile butadiene styrene	-40	+85	(+100)
EPDM	ethylene propylene diene monomer rubber	-45	+150	
ETFE	ethylene tetrafluoroethylene copolymer	-100	+150	(+180)
FEP	fluorinated ethylene propylene	-100	+205	
FKM	fluorocarbon rubber	-20	+200	
HDPE	high-density polyethylene	-40	+80	(+120)
LDPE	low-density polyethylene	-40	+75	(+90)
MF	melamine	-60	+80	(+120)
NR	natural rubber	-40	+80	
PA	polyamide (PA6)	0	+80	
PBT	polybutylene terephthalate	-45	+140	(+150)
PC	polycarbonate	-40	+115	
PE	polyethylene	-40	+80	(+90)
PES	polyethersulfone	-100	+150	
PET	polyethylene terephthalate	0	+60	
PETG	polyethylene terephthalate modified with glycol	0	+65	
PFA	perfluoroalkoxy alkane	-200	+260	
PMMA	polymethyl methacrylate	-40	+85	(+90)
PMP (TPX®)	polymethylpentene	0	+150	(+180)
POM	polyoxymethylene	-40	+90	
PP	polypropylene	-10	+110	(+140)
PS	polystyrene	-20	+70	(+80)
PSU	polysulfone	-50	+150	(+180)
PTFE	polytetrafluoroethylene	-200	+260	
PU	polyurethane	-30	+60	(+70)
PVC	polyvinyl chloride	-20	+80	
PVDF	polyvinylidene fluoride	-40	+105	
SAN	styrene acrylonitrile	-20	+85	(+95)
SI	silicone rubber	-50	+180	
TPE	thermoplastic elastomer	-50	+121	

Temperature in ( ) short-term

All data in this table are approximate data and refer exclusively to raw plastic products; they can therefore only be regarded as indicative recommendations. As the temperature resistance may vary with different conditions of manufacturing or chemical influences, suitability tests by the user are highly recommanded.

No legal claims can be derived from this information; nor do we accept any liability for it.

Key to symbols

NEW / + — News and programme extensions

A 121 °C — Autoclavable products. Please also note any additional instructions when autoclaving.

Temperature resistance:
Safe to freeze (approx. -10/-20 °C)

Suitable for low temperatures (approx. -70/-80 °C)

Suitable for liquid nitrogen (gaseous phase / -196 °C)

See catalogue text for detailed information.

ready-to-use — Ready-to-use products and reagents

S — Sterile products

All products identified as being particularly temperaturesensitive are shipped **in special ice boxes with freezer packs or in dry ice.**

ROTH for Future — Products, with optimised manufacturing process in terms of sustainability.

2014
Succsesfull participation in the ECOfit programme sponsored by the state of Baden-Württemberg.

2014
Participation in the Responsible Care® programme.

2015
Relaunch of the new ROTH Online Shop.

2016
Certification of the corporate environmental management system according to ISO 14001 for the sustainable environmental protection.

2019
140th anniversary of CARL ROTH.

2020
Opening of the third plant with new logistics centre and automatic small parts warehouse and approx. 7,000 m² of additional storage space.

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Reaction vials BIO-CERT® 1.5 ml

BRAND. Material: PP. Non-sterile. Autoclavable: yes.

- BIO-CERT® PCR quality: free of DNA, RNase/DNase, pyrogens and PCR inhibitors
- Frosted labelling space on the side
- Graduation every 100 µl
- Tightly sealed snap-on lid
- Easy to open and close the lid with just one hand

Not a medical device / Not an IVD product

A 121 °C ❄❄

Vol. (ml)	Colour	Ø ext. (mm)	Height (mm)	Centrifugability fixed angle rotor in g	Centrifugability swing-out rotor in g	Temp. stability (°C)	Sterility	Art. No.	Pack Qty.	€
1.5	colourless	10.7	39.4	20,000	20,000	-80 to +121	Non-sterile	**1N43.1**	500 unit(s)	29,55
1.5	yellow	10.7	39.4	20,000	20,000	-80 to +121	Non-sterile	**1N44.1**	500 unit(s)	37,05
1.5	blue	10.7	39.4	20,000	20,000	-80 to +121	Non-sterile	**1N45.1**	500 unit(s)	37,05
1.5	green	10.7	39.4	20,000	20,000	-80 to +121	Non-sterile	**1N46.1**	500 unit(s)	37,05
1.5	orange	10.7	39.4	20,000	20,000	-80 to +121	Non-sterile	**1N47.1**	500 unit(s)	37,05
1.5	brown	10.7	39.4	20,000	20,000	-80 to +121	Non-sterile	**1N48.1**	500 unit(s)	37,05



Centrifuge tube Snap Cap

Semadeni. Material: PP. Autoclavable: yes.

Non-sterile centrifuge tubes with snap-lock mechanism enable one-handed opening and closing. With graduation and labelling area. DNase/RNase-free, pyrogen-free and not cytotoxic. Suitable for incubation, centrifugation and storage of samples. **Note:** the recommended fill quantity when centrifuging is 80% of the max. fill volume.

Not a medical device / Not an IVD product

A 121 °C

Vol. (ml)	Ø (mm)	Height (mm)	Centrifugability in g (max.)	Art. No.	Pack Qty.	€
15	16	120	5,500	**1P13.1**	50 unit(s)	22,25
50	28	116	9,000	**1P14.1**	25 unit(s)	11,30

Vessels and bottles





Beaker organic plastic

Semadeni. Material: PLA (polylactic acid).

Transparent disposable cup with fill line.
Temperature stable up to max. +50 °C. Suitable for food.
Note on material: PLA (polylactide) is a material made of renewable, plant-based raw materials, and is suitable for processing in industrial composting plants according to EN 13432.

Not a medical device / Not an IVD product

Vol. (ml)	Height (mm)	Art. No.	Pack Qty.	€
200	97	**1NXL.1**	100 unit(s)	19,30
250	110	**1NXN.1**	70 unit(s)	18,85
300	110	**1NXP.1**	70 unit(s)	22,60
400	132	**1NXT.1**	70 unit(s)	23,30
500	162	**1NXX.1**	60 unit(s)	25,10



Dispenser pump bottle

Semadeni. Material: PP.

Lid with flap closure and with a plate on the pump stem for dosing small quantities of liquid such as alcohol. Suitable for moistening cotton pads and wipes.

Not a medical device / Not an IVD product

Vol. (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
150	57	103	**1P15.1**	1 unit(s)	7,35

Made in Germany

Wide mouth bottle CircularLine with GL thread

Semadeni. Material: LDPE with a recycling ratio of renewable raw materials of over 30 %. Transparent. Screw-cap closure made of PP.

Universally applicable laboratory flask with GL thread. Compatible with diverse laboratory equipment such as bottle-top dispensers or burettes.
Temperature stable from -100 to +80 °C.
Note on material: made from sustainable LDPE with a recycling ratio of renewable raw materials of over 30 %. These 30 % renewable hydrocarbons come above all from the chemical recycling of waste products such as plant-based cooking oil waste or residues from plant oil production. The raw material has the same chemical and thermal properties as the traditional LDPE based purely on crude oil.
The bottles can be reused, and disposed of at the end of their service life like traditional LDPE bottles, via the standard recycling process.

Delivery incl. screw-cap closure made of polypropylene (PP).

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
125	51	98	GL 32	**1NTY.1**	1 unit(s)	2,75
250	62	123	GL 32	**1NX0.1**	1 unit(s)	3,30
500	73	164	GL 45	**1NX1.1**	1 unit(s)	5,30
1,000	93	196	GL 45	**1NX2.1**	1 unit(s)	6,45



Wide mouth bottle

Bürkle. Material: PP, transparent. Autoclavable: no.

Stable bottle with screw-cap closure.
Ideal for viscous media, powders, granulates and pastes.

- Wide neck for easy filling
- Impervious to fluids

Delivery incl. screw-cap closure.

Vol. (ml)	Ø (mm)	Height (mm)	Ø Inner neck (mm)	Thread	Art. No.	Pack Qty.	€
100	48	95	24	32 mm	**1PP8.1**	1 unit(s)	2,20
250	64	127	31	40 mm	**1PP9.1**	1 unit(s)	3,10
500	77	158	39	50 mm	**1PPA.1**	1 unit(s)	5,00
1,000	94	207	50	65 mm	**1PPC.1**	1 unit(s)	8,35



Safety application bottle

Semadeni. Material: HDPE, pump cap: stainless steel.

Graduated safety application bottle with pump flap closure. Suitable for one-handed moistening of cotton pads and wipes, for example.

Not a medical device / Not an IVD product

Vol. (ml)	Length (mm)	Width (mm)	Height (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
120	54	54	80	33	**1P1E.1**	1 unit(s)	63,00
180	54	54	105	33	**1P1H.1**	1 unit(s)	51,00



ROTH for Future

Made in Germany

Wash bottle CircularLine

Semadeni. Material: LDPE with a recycling ratio of renewable raw materials of over 30 %. Transparent.

Wash bottles with GL threads and large neck for convenient filling of the medium. The length of the stem (supplied original height 30 cm) can be tailored to the individually desired dimension with shears.
Note on material: made from sustainable LDPE with a recycling ratio of renewable raw materials of over 30 %. These 30 % renewable hydrocarbons come above all from the chemical recycling of waste products such as plant-based cooking oil waste or residues from plant oil production. The raw material has the same chemical and thermal properties as the traditional LDPE based purely on crude oil. The bottles can be reused, and disposed of at the end of their service life like traditional LDPE bottles, via the standard recycling process.

Delivery incl. screw-cap closure and stem.

Vol. (ml)	Ø (mm)	Height (mm)	Thread	Art. No.	Pack Qty.	€
125	51	98	GL 32	**1NX3.1**	1 unit(s)	6,35
250	62	124	GL 32	**1NX4.1**	1 unit(s)	6,95
500	73	164	GL 45	**1NX5.1**	1 unit(s)	8,45
1,000	93	196	GL 45	**1NX6.1**	1 unit(s)	9,95

Vessels and bottles



Made in Germany

Wash bottle with venting valve, wide neck

Bürkle. Material: LDPE, transparent yellow with light protection.

The leak-proof venting valve in the screw cap enables overpressure to be released and substantially prevents leakage, dripping or escape of the liquid from the stem, e.g. in the case of temperature fluctuations. Wide neck opening enables safe filling.
Optionally available with printed text according to GHS with substance name in German, English, French and Spanish, hazard and safety information (H statements/P statements) according to GHS, GHS pictograms and CAS number, or with no printed text.
Note: the chemical resistance of the spray bottles is limited when aggressive filling media are used. The bottles should therefore be replaced regularly and not used for analytical or critical applications.

Version	Vol. (ml)	Colour	Ø (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
Acetone	500	red	75	39	**1P5P.1**	1 unit(s)	12,85
Ethanol	500	orange	75	39	**1P5L.1**	1 unit(s)	12,85
Methanol	500	green	75	39	**1P5K.1**	1 unit(s)	12,85
Isopropanol	500	blue	75	39	**1P5N.1**	1 unit(s)	12,85
Distilled water	500	trans-lucent	75	39	**1P5H.1**	1 unit(s)	12,85
Neutral, no printed text	500	yellow	75	39	**1P5E.1**	1 unit(s)	12,85



Made in Germany

Wash bottle wide neck

Bürkle. Material: LDPE, transparent yellow with light protection.

Wide neck opening enables safe filling. Optionally available with permanent printed text according to GHS (substance name in German, English, French and Spanish, hazard and safety information (H statements/P statements) according to GHS, GHS pictograms and CAS number), or with no printed text.
Note: the chemical resistance of the spray bottles is limited when aggressive filling media are used. The bottles should therefore be replaced regularly and not used for analytical or critical applications.

Version	Vol. (ml)	Colour	Ø (mm)	Ø Inner neck (mm)	Art. No.	Pack Qty.	€
Acetone	500	red	75	39	**1P6X.1**	1 unit(s)	11,80
Ethanol	500	orange	75	39	**1P6P.1**	1 unit(s)	11,80
Methanol	500	green	75	39	**1P6N.1**	1 unit(s)	11,80
Isopropanol	500	blue	75	39	**1P6T.1**	1 unit(s)	11,80
Distilled water	500	trans-lucent	75	39	**1P6L.1**	1 unit(s)	11,80
Neutral, no printed text	500	yellow	75	39	**1P6K.1**	1 unit(s)	10,55

Funnels

Disposable fluid funnel



Bürkle.

Fluid funnel with hanger eyelet. For the safe filling and decanting of liquid samples using bottles and containers with narrow filling openings. Suitable for filtering when used with filter paper. For use in the laboratory, clean room or when collecting samples in the cosmetics, pharmaceutical, food or feed industries and in any other areas where a high degree of cleanliness is crucial.

- Compliant with the EU food directives and FDA guidelines
- Manufactured in a clean room (Class 7)
- Individually packed and optionally sterilised
- For single use

LaboPlast® Bio
Non-sterile. Made of BIO-PE.

- Product made of renewable raw materials

Sterility	Colour	Ø outer upper (mm)	Ø Outlet (mm)	Pack.	Art. No.	Pack Qty.	€
Non-sterile	white	100	10	individually packed in bag	**1N4E.1**	10 unit(s)	20,00

SteriPlast® Bio
Sterile. Made of BIO-PE.

- Product made of renewable raw materials

Sterility	Colour	Ø outer upper (mm)	Ø Outlet (mm)	Pack.	Art. No.	Pack Qty.	€
Sterile	white	100	10	individually packed in bag	**1N4H.1**	10 unit(s)	30,50

LaboPlast®
Non-sterile. Made of PS.

Sterility	Colour	Ø outer upper (mm)	Ø Outlet (mm)	Pack.	Art. No.	Pack Qty.	€
Non-sterile	white	100	10	individually packed in bag	**1N4K.1**	10 unit(s)	17,55

SteriPlast®
Sterile. Made of PS.

- Blue colour variant: can be used under HACCP/IFS/BRC Foreign Body Management Guideline

Sterility	Colour	Ø outer upper (mm)	Ø Outlet (mm)	Pack.	Art. No.	Pack Qty.	€
Sterile	white	100	10	individually packed in bag	**1N4L.1**	10 unit(s)	26,75
Sterile	blue	100	10	individually packed in bag	**1N4N.1**	10 unit(s)	26,75

SteriPlast®
Sterile. Made of PS, **detectable, blue.**
A special additive makes the funnel visible in metal detectors or with X-rays. The colour blue also enables parts of this disposable fluid funnel to be detected by a colour scanner.

- Individually packed and gamma ray sterilised
- Can be used under HACCP/IFS/BRC Foreign Body Management Guideline
- Suitable for the cosmetics, pharmaceuticals, food and feed industries

Sterility	Colour	Ø outer upper (mm)	Ø Outlet (mm)	Pack.	Art. No.	Pack Qty.	€
Sterile	blue	100	10	individually packed in bag	**1N4P.1**	10 unit(s)	35,10

Funnels

Disposable powder funnel



Bürkle.

Powder funnel with short, wide outlet and hanger eyelet. For the safe filling and decanting of powdered samples, granulates, suspensions and liquids. For use in the laboratory, clean room or when collecting samples in the food, feed, cosmetics or pharmaceutical industries and in any other areas where a high degree of cleanliness is crucial.

- Compliant with the EU food directives and FDA guidelines
- Manufactured in a clean room (class 7)
- Individually packed and optionally sterilised
- For single use

LaboPlast® Bio

Non-sterile. Made of BIO-PE.

- Product made of renewable raw materials

Sterility	Colour	Ø outer upper (mm)	Ø Outlet (mm)	Pack.	Art. No.	Pack Qty.	€
Non-sterile	white	100	25	individually packed in bag	**1N4T.1**	10 unit(s)	20,00

SteriPlast® Bio

Sterile. Made of BIO-PE.

- Product made of renewable raw materials

Sterility	Colour	Ø outer upper (mm)	Ø Outlet (mm)	Pack.	Art. No.	Pack Qty.	€
Sterile	white	100	25	individually packed in bag	**1N4X.1**	10 unit(s)	30,50

LaboPlast®

Non-sterile. Made of PS.

Sterility	Colour	Ø outer upper (mm)	Ø Outlet (mm)	Pack.	Art. No.	Pack Qty.	€
Non-sterile	white	100	25	individually packed in bag	**1N4Y.1**	10 unit(s)	17,55

SteriPlast®

Sterile. Made of PS.

- Blue colour variant: can be used under HACCP/IFS/BRC Foreign Body Management Guideline

Sterility	Colour	Ø outer upper (mm)	Ø Outlet (mm)	Pack.	Art. No.	Pack Qty.	€
Sterile	white	100	25	individually packed in bag	**1N50.1**	10 unit(s)	26,75
Sterile	blue	100	25	individually packed in bag	**1N51.1**	10 unit(s)	26,75

SteriPlast®

Sterile. Made of PS, **detectable, blue.**
A special additive makes the funnel visible in metal detectors or with X-rays. The colour blue also enables parts of this disposable fluid funnel to be detected by a colour scanner.

- Individually packed and gamma ray sterilised
- Can be used under HACCP/IFS/BRC Foreign Body Management Guideline
- Suitable for the cosmetics, pharmaceuticals, food and feed industries

Sterility	Colour	Ø outer upper (mm)	Ø Outlet (mm)	Pack.	Art. No.	Pack Qty.	€
Sterile	blue	100	25	individually packed in bag	**1N52.1**	10 unit(s)	35,10

Weighing accessories



121 °C

Spoon spatula

Hammacher. Material: stainless steel Wironit (1.4301). Autoclavable: yes.

Stainless and anti-magnetic.

Technical specifications:

Art. No.	1NTT.1	1NTX.1	1NTN.1	1NTP.1	1NTL.1
Sheet width	9 mm	8 mm	9 mm		9.5 mm
Sheet length	43 mm	37 mm	44 mm	45 mm	

Pointed
Pointed end suitable for fine dosing, applying paste-like media, preparation work, etc.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
10	33	180	**1NTL.1**	1 unit(s)	16,70

Conical
Conical end for fine dosing of powders.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
10	33	180	**1NTN.1**	1 unit(s)	16,70

U-shaped, straight
U-shaped spatula end for stirring in round vessels.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
10	33	180	**1NTP.1**	1 unit(s)	16,70

Square
Square spatula suitable for applying, drawing, mixing or removing substances.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
9	33	180	**1NTT.1**	1 unit(s)	16,70

V-shaped, straight
V-shaped spatula for weighing, dosing and mixing substances.

Spoon width (mm)	Spoon length (mm)	Total length (mm)	Art. No.	Pack Qty.	€
10	33	180	**1NTX.1**	1 unit(s)	16,70



121 °C

Stainless steel scraper

Bürkle. Material: stainless steel V4A (1.4404). Autoclavable: yes.

Robust and corrosion-resistant. Suitable for scraping, smoothing, cleaning and filling, as well as removing firmly adhered sticky substances or dried-on media. Also ideal for mixing or portioning viscous media.

Total length (mm)	Sheet length (mm)	Sheet width (mm)	Art. No.	Pack Qty.	€
230	131	75	**1LYX.1**	1 unit(s)	67,25
270	149	100	**1LYY.1**	1 unit(s)	78,40



Weighing pan SMARTPANS™

ROTH SELECTION. Material: aluminium (grease-free).

Suitable for organisational micro-elemental and thermal analysis. Suitable for most standard analysis devices and micro balances.

Ø ext. (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	3.6	**1L9L.1**	20 unit(s)	124,00



Weighing pan compostable

ROTH SELECTION. Material: PLA (polylactic acid). Non-sterile.

- Anti-static
- Temperature stable in the range -10 to +40 °C

Sustainability information:
Manufactured using 100% renewable resources. Disposal by incineration or commercial composting. Recyclable wherever this type of plastic is accepted. No release of methane if disposed of at a waste disposal site.

Vol. (ml)	Ø Internal (mm)	Length (mm)	Width (mm)	Height (mm)	Sterility	Art. No.	Pack Qty.	€
100	55	91.4	91.4	26	Non-sterile	**1N75.1**	500 unit(s)	168,80

Stands, boxes



121 °C

Multi-tube rack ONERACK® for tube Ø 10–30 mm

ROTH SELECTION. Material: PP. Autoclavable: yes.

Flexible rack for the use of many different sample vessels. Test stand can optionally be combined with two inserts.

Six inserts are included:

- Two inserts with 20 slots for tube Ø 10–13 mm (5/7.5/10 ml)
- Two inserts with 20 slots for tube Ø 13–17 mm (5/15 ml)
- Two inserts with 6 slots for tube Ø 25–30 mm (25/50 ml)

Inserts can be swivelled into a lower or upper position, and are therefore suitable for high and low tubes. Numbered slots, drop-shaped for better hold.

Delivery incl. 6 inserts.

L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
309 x 107 x 77	blue	**1LN3.1**	1 unit(s)	43,20
309 x 107 x 77	violet	**1LN4.1**	1 unit(s)	43,20



121 °C

Storage box recycled

ROTH SELECTION. Material: plastic, recycled (colour variations possible). Autoclavable: yes.

With hinged lid, alphanumerically labelled, removable.

- Suitable for 0.5–2 ml reaction vials
- Taller than standard boxes, for tubes up to max. height of 53.5 mm
- Stackable
- Temperature stability -80 to +135 °C

Version	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
Hinged lid	140	140	62	**EEC4.2**	1 unit(s)	7,00



121 °C

Sample stands ONERACK®

ROTH SELECTION. Material: POM. Autoclavable: yes.

- Drop-shaped slots for better hold
- Flat labelling surface on the sides
- Alphanumerical coding for clear classification of tubes
- Good chemical resistance
- Tough
- Suitable for use in water baths
- Temperature stability: -40 to +121 °C

For tube Ø 16 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
72	6 x 12	127 x 250 x 70	white	**1LL0.1**	8 unit(s)	157,70
72	6 x 12	127 x 250 x 70	blue	**1LL1.1**	8 unit(s)	157,70
72	6 x 12	127 x 250 x 70	green	**1LL2.1**	8 unit(s)	157,70
72	6 x 12	127 x 250 x 70	magenta	**1LL3.1**	8 unit(s)	157,70

For tube Ø 20 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
40	4 x 10	100 x 252 x 83	white	**1LL4.1**	8 unit(s)	157,70
40	4 x 10	100 x 252 x 83	blue	**1LL5.1**	8 unit(s)	157,70
40	4 x 10	100 x 252 x 83	green	**1LL6.1**	8 unit(s)	157,70
40	4 x 10	100 x 252 x 83	magenta	**1LL7.1**	8 unit(s)	157,70

For tube Ø 30 mm

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
24	3 x 8	110 x 282 x 85	white	**1LL8.1**	8 unit(s)	157,70
24	3 x 8	110 x 282 x 85	blue	**1LL9.1**	8 unit(s)	157,70
24	3 x 8	110 x 282 x 85	green	**1LLA.1**	8 unit(s)	157,70
24	3 x 8	110 x 282 x 85	magenta	**1LLC.1**	8 unit(s)	157,70



Cryogenic box ROTILABO® cardboard 133 x 133 mm

ROTH SELECTION. Material: cardboard (resistant to low temperatures).

Flexible storage of cryogenic vials and other sample containers through variable configurations using different divider inserts.
Also suitable for larger vessels without grid dividers.

Delivery without divider inserts, please order separately.

❄❄

With water-repellant standard coating

Version	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	133	133	50	white	**1NX7.1**	10 unit(s)	32,90
Slip lid	133	133	50	blue	**1NX8.1**	10 unit(s)	42,15
Slip lid	133	133	50	red	**1NX9.1**	10 unit(s)	42,15
Slip lid	133	133	50	green	**1NXA.1**	10 unit(s)	42,15

With waterproof plastic coating

Version	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	133	133	50	white	**1NXC.1**	10 unit(s)	32,90
Slip lid	133	133	50	blue	**1NXE.1**	10 unit(s)	42,15
Slip lid	133	133	50	red	**1NXH.1**	10 unit(s)	42,15
Slip lid	133	133	50	green	**1NXK.1**	10 unit(s)	42,15



Accessories divider inserts cardboard for 133 x 133 mm cryogenic box

ROTH SELECTION. Material: cardboard.

For dividing the cryogenic boxes. Water-repellant.

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Compartment size (mm)	Slots	Height (mm)	Art. No.	Pack Qty.	€
10 x 10	144 (12 x 12)	30	**1NY9.1**	10 unit(s)	22,70
15 x 15	64 (8 x 8)	30	**1NY6.1**	10 unit(s)	17,00
12,5 x 12,5	100 (10 x 10)	30	**1NY8.1**	10 unit(s)	17,00
13,5 x 13,5	81 (9 x 9)	30	**1NY7.1**	10 unit(s)	17,00



Cryogenic box 2-in-1

ROTH SELECTION. Material: PP. Autoclavable: yes.

Height-adjustable, turning the lid through 90° changes the height from 50 mm to 75 mm. With alphanumeric coding.

A 121 °C ❄❄

For tube Ø 11.5 mm

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	11,5 x 11,5	100 (10 x 10)	133	133	50	natural	**1NH1.1**	5 unit(s)	30,45
Slip lid	11,5 x 11,5	100 (10 x 10)	133	133	50	assorted colours	**1NH2.1**	5 unit(s)	30,45

For tube Ø 13 mm

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	12,9 x 12,9	81 (9 x 9)	133	133	50	natural	**1NH3.1**	5 unit(s)	30,45
Slip lid	12,9 x 12,9	81 (9 x 9)	133	133	50	assorted colours	**1NH4.1**	5 unit(s)	30,45

For tube Ø 15 mm

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	14,7 x 14,7	64 (8 x 8)	133	133	50	natural	**1NH5.1**	5 unit(s)	30,45
Slip lid	14,7 x 14,7	64 (8 x 8)	133	133	50	assorted colours	**1NH6.1**	5 unit(s)	30,45

For tube Ø 17 mm

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	16,9 x 16,9	49 (7 x 7)	133	133	50	natural	**1NH7.1**	5 unit(s)	30,45
Slip lid	16,9 x 16,9	49 (7 x 7)	133	133	50	assorted colours	**1NH8.1**	5 unit(s)	30,45

For tube Ø 19 mm

Version	Compartment size (mm)	Slots	Length (mm)	Width (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
Slip lid	20,4 x 20,4	36 (6 x 6)	133	133	50	natural	**1NH9.1**	5 unit(s)	30,45
Slip lid	20,4 x 20,4	36 (6 x 6)	133	133	50	assorted colours	**1NHA.1**	5 unit(s)	30,45



Klickbox

Semadeni. Material: PP, translucent.

Universally applicable box with snap-lock mechanism, resealable and suitable for multiple use. For packaging, transporting and storing. Dishwasher-safe and microwave-safe. Suitable for foodstuffs.

Not a medical device / Not an IVD product

Width (mm)	Length (mm)	Height (mm)	Art. No.	Pack Qty.	€
105	155	55	**1NY0.1**	4 unit(s)	14,15
120	120	120	**1NXY.1**	4 unit(s)	15,95
130	180	65	**1NY1.1**	4 unit(s)	18,05
130	200	40	**1NY2.1**	4 unit(s)	15,95
200	300	75	**1NY3.1**	1 unit(s)	15,55



Sample stands for 15/50 ml centrifuge tubes

ROTH SELECTION. Material: ABS.

With alphanumeric coding. For self-assembly (can be connected together easily). Suitable for use in water baths.

No. of slots	Arrangement of slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
50	30 x Ø 17 mm / 20 x Ø 28 mm	171 x 170 x 61	orange	**1LKP.1**	1 unit(s)	31,55



Cooling box Xtreme™

ROTH SELECTION. Material: HDPE, full PU foam insulation.

With lid attached. Leak-proof and corrosion resistant drainage. Base is completely flat. Very robust, can even be used as a seat. Max. load: 113 kg.

Technical specifications:

Art. No.	1NKP.1	1NKX.1	1NKT.1
Cooling capacity	96 h	120 h	
Inner length	490 mm	600 mm	690 mm
Inner width	260 mm	250 mm	290 mm
Inner height	340 mm		360 mm
Weight	6,1 kg	8,9 kg	10,6 kg

With wheels
Very easy to transport with its two wheels.

Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
47	650	490	430	**1NKP.1**	1 unit(s)	170,95
94	920	450	460	**1NKT.1**	1 unit(s)	285,95

Without wheels

Vol. (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
66	790	410	440	**1NKX.1**	1 unit(s)	188,15



Sample holder cryogenic dipper

ROTH SELECTION. Material: PVC.

For storing and cooling cryogenic vials in cryogenic vessels or dewar containers. Removable weight plates prevent floating. Suitable for 33 cryogenic vials with external thread (0.5 to 2 ml). Hole Ø: 12.5 mm.

No. of slots	Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
33	80	178	**1NA1.1**	1 unit(s)	162,35



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Cryogenic vessels

ROTH SELECTION. Material: PS (foamed).

Sturdy, thick-walled design provides ideal cooling and prevents condensation. Suitable for freezing samples in liquid nitrogen. Temperature stable up to -196 °C.

Technical specifications:

Art. No.	1NA0.1
Ø Internal	139 mm
Ø Inner neck	89 mm
Wall thickness	51 mm

Delivery incl. lid.

Vol. (ml)	Ø ext. (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
750	190	280	**1NA0.1**	1 unit(s)	87,20



A 121 °C

Glass beads thermal beads

ROTH SELECTION. Material: soda-lime glass. Autoclavable: yes.

Heat-conducting glass balls for effective heating and cooling of samples. Good chemical resistance and easy cleaning.
For use in water baths, incubators and ice containers.

Ø Ball (mm)	Art. No.	Pack Qty.	€
2,4–2,9	**1NPE.1**	1.6 kg	80,60

XL
Lower static charge, reduced risk of adhesion to sample vessels. Well suited to larger containers.

Ø Ball (mm)	Art. No.	Pack Qty.	€
3,8–4,4	**1NPH.1**	1.6 kg	80,60

Standard ground flasks, stand material



Finger plunger

Kummer. Material: borosilicate glass 3.3.

With NS 29/32 and blue graduations to 2 ml, 0.1 ml increments.

Not a medical device / Not an IVD product

Vol. (ml)	Standard ground glass joint sleeve	Ø Outer flask (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	29/32	65	180	**1N3T.1**	1 unit(s)	65,50



Stand clamp strap clamp type RH 3

IKA. Material: aluminium, plastic hook-and-loop strap, rubber backing.

For securing vessels against walls or synchronised rotation during stirring or dispersing.

Version	Suitable for	Art. No.	Pack Qty.	€
Belt clamp	Vessel Ø 40-300 mm, stand rod Ø 8-16 mm	**1PE1.1**	1 unit(s)	330,00



Clamps

IKA. Material: aluminium (cast).

R 270

Suitable for stand type R 2722, R 2723.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	Stand rods Ø 25-36 mm, extension arms Ø 5-21 mm	**CC18.1**	1 unit(s)	130,00

R 182

Suitable for stand type R 1825, R 1826, R 1827.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(2)	Stand rods Ø 6-16 mm, extension arms Ø 6-16 mm	**CY92.1**	1 unit(s)	99,00

R 271

With clamping openings that fit stand types R 2722, R 2723.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(3)	Stand rods Ø 34 mm, extension arms Ø 16 mm	**1PE0.1**	1 unit(s)	210,00

Tweezers, scalpels

Precision tweezers set ROTILABO® stainless steel SA



ROTH SELECTION. Material: stainless steel SA (1.4435), case made of plastic, foam insert. Autoclavable: no.

Tweezers autoclavable, case not autoclavable.

Contents:
1 pair of tweezers, straight, type 1
Length 120 mm, thickness of tip 0.10 mm
1 pair of tweezers, straight, type 2A (flat tips)
Length 120 mm, tip thickness 0.1 mm, tip width 1.90 mm
1 pair of tweezers, straight, type 3C
Length 110 mm, thickness of tip 0.12 mm
1 pair of tweezers, straight, type 5
Length 110 mm, thickness of tip 0.07 mm
1 pair of tweezers, bent, type 7
Length 118 mm, thickness of tip 0.09 mm

Not a medical device / Not an IVD product

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
185	105	12	**1P3T.1**	1 set	127,95

Precision tweezers ROTILABO®

ROTH SELECTION.

Handmade for perfect tip symmetry and balance. Polished edges,scratchproof and glare-free, satin-finished surface.

Application examples

Microscopy preparation, sample handling, precision manufacturing, electronics industry, watch production, general laboratory applications.

Not a medical device / Not an IVD product

Straight DX high-alloy stainless steel

Material: stainless steel DX (high-alloy, 1.4539). Autoclavable: yes. Extra-fine tips, ideal for handling extremely small, sensitive materials and grids. Perfectly suited to use under the stereo microscope.

- 95% anti-magnetic
- Temperature stability up to +450 °C
- Very good resistance to corrosion

Type	Tip thickness (mm)	Tip width (mm)	Length (mm)	Width (mm)	Opening width (mm)	Art. No.	Pack Qty.	€
3	0.05	0.10	120	10	11	**1P2N.1**	1 unit(s)	29,55
5	0.05	0.10	110	10	11	**1P2P.1**	1 unit(s)	33,25

Straight NC stainless steel alloy

Autoclavable: yes.

- 100% anti-magnetic
- Temperature stability up to +800 °C
- Great corrosion resistance against most chemicals, salts and acids

Type	Tip thickness (mm)	Tip width (mm)	Length (mm)	Width (mm)	Opening width (mm)	Art. No.	Pack Qty.	€
5	0.07	0.12	110	10	11	**1P31.1**	1 unit(s)	46,80

Straight S steel

Material: steel S (1.4034). Autoclavable: no.

- Very hard tips
- Magnetisable

Type	Tip thickness (mm)	Tip width (mm)	Length (mm)	Width (mm)	Opening width (mm)	Art. No.	Pack Qty.	€
1	0.10	0.15	120	10	11	**1P37.1**	1 unit(s)	27,45
3	0.12	0.18	120	10	11	**1P35.1**	1 unit(s)	27,45
5	0.07	0.12	110	10	11	**1P36.1**	1 unit(s)	27,45
3C	0.12	0.18	110	9	11	**1P34.1**	1 unit(s)	27,45

Tweezers, scalpels

Straight SA stainless steel
Material: stainless steel SA (1.4435). Autoclavable: yes. Anti-magnetic, acid-resistant stainless steel.

- Not magnetisable (80%)
- Good resistance to corrosion

Type	Tip thickness (mm)	Tip width (mm)	Length (mm)	Width (mm)	Opening width (mm)	Art. No.	Pack Qty.	€
2	0.10	0.15	120	10	11	**1P2X.1**	1 unit(s)	24,50
4	0.08	0.12	110	10	11	**1P2T.1**	1 unit(s)	25,65

Straight SA-ESD stainless steel
Material: stainless steel SA (1.4435) with conductive polyester epoxy coating. Autoclavable: no. Tweezers with ESD properties, which are suitable for handling electronic components and for use in clean-rooms.

Type	Tip width (mm)	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
5	0.30	110	10	**1P2Y.1**	1 unit(s)	26,55

Straight Titanium
Material: titanium. Autoclavable: yes.

- 100% anti-magnetic
- Temperature stability up to +850 °C
- Good resistance to corrosion

Type	Tip thickness (mm)	Tip width (mm)	Length (mm)	Width (mm)	Opening width (mm)	Art. No.	Pack Qty.	€
5	0.15	0.18	110	10	11	**1P2K.1**	1 unit(s)	39,20

Curved DX high-alloy stainless steel
Material: stainless steel DX (high-alloy, 1.4539). Autoclavable: yes. Extra-fine tips, ideal for handling extremely small, sensitive materials and grids. Perfectly suited to use under the stereo microscope.

- 95% anti-magnetic
- Temperature stability up to +450 °C
- Very good resistance to corrosion

Type	Tip thickness (mm)	Tip width (mm)	Length (mm)	Width (mm)	Opening width (mm)	Art. No.	Pack Qty.	€
7	0.05	0.10	118	10	11	**1P38.1**	1 unit(s)	37,55

Curved S steel
Material: steel S (1.4034). Autoclavable: no.

- Very hard tips
- Magnetisable

Type	Tip thickness (mm)	Tip width (mm)	Length (mm)	Width (mm)	Opening width (mm)	Art. No.	Pack Qty.	€
7	0.09	0.16	118	10	11	**1P33.1**	1 unit(s)	28,95

Angled SA stainless steel
Material: stainless steel SA (1.4435). Autoclavable: yes. Anti-magnetic, acid-resistant stainless steel.

- Not magnetisable (80%)
- Good corrosion resistance against most chemicals, salts and acids

Type	Tip thickness (mm)	Tip width (mm)	Length (mm)	Width (mm)	Opening width (mm)	Art. No.	Pack Qty.	€
5B	0.08	0.13	110	10	11	**1P30.1**	1 unit(s)	28,30

Straight SA stainless steel, self-closing
Material: stainless steel SA (1.4435). Autoclavable: yes. Anti-magnetic, acid-resistant stainless steel. Self-closing tweezers are ideally suited to holding samples for a longer period without expending energy in doing so.

- Not magnetisable (80%)
- Good resistance to corrosion

Type	Tip thickness (mm)	Tip width (mm)	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
5X	0.10	0.10	110	10	**1P2L.1**	1 unit(s)	31,10

Curved SA stainless steel, self-closing
Material: stainless steel SA (1.4435). Autoclavable: yes. Anti-magnetic, acid-resistant stainless steel. Self-closing tweezers are ideally suited to holding samples for a longer period without expending energy in doing so.

- Not magnetisable (80%)
- Good resistance to corrosion

Type	Tip thickness (mm)	Tip width (mm)	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
7X	0.22	0.25	115	13	**1P32.1**	1 unit(s)	31,10





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Scalpel disposable sterile

ROTH SELECTION. Material: stainless steel (blade), ABS handle, PP protective cap. **Sterile**.

Medical device class IIa MDD

ID: 2460

Type	Pack.	Art. No.	Pack Qty.	€
10	individual	**1PYP.1**	10 unit(s)	10,70
11	individual	**1PYT.1**	10 unit(s)	10,70
12	individual	**1PYX.1**	10 unit(s)	10,70
15	individual	**1PYY.1**	10 unit(s)	10,70
18	individual	**1T00.1**	10 unit(s)	10,70
19	individual	**1T01.1**	10 unit(s)	10,70
20	individual	**1T02.1**	10 unit(s)	10,70
21	individual	**1T03.1**	10 unit(s)	10,70
22	individual	**1T04.1**	10 unit(s)	10,70
23	individual	**1T05.1**	10 unit(s)	10,70
24	individual	**1T06.1**	10 unit(s)	10,70



Scalpel handle

ROTH SELECTION. Material: chrome steel.

Medical device class I

No. 3
Suitable for blade types 10–15.

Type	Length (mm)	Art. No.	Pack Qty.	€
No. 3	126	**1PYL.1**	10 unit(s)	32,25

No. 4
Suitable for blade types 18–25.

Type	Length (mm)	Art. No.	Pack Qty.	€
No. 4	138	**1PYN.1**	10 unit(s)	32,25

Scalpel blades

ROTH SELECTION. Material: carbon steel. **Sterile**.

Medical device class IIa MDD

ID: 2460

For handle no. 3
Suitable for scalpels 1PYL.1, CE16.1/CE17.1, HCY7.1 and 3607.1.

Type	Art. No.	Pack Qty.	€
10	**1PY2.1**	100 unit(s)	14,55
11	**1PY3.1**	100 unit(s)	14,55
12	**1PY4.1**	100 unit(s)	14,55
13	**1PY5.1**	100 unit(s)	14,55
15	**1PY6.1**	100 unit(s)	14,55

For handle no. 4
Suitable for scalpels. 1PYN.1 and CE18.1/CE19.1.

Type	Art. No.	Pack Qty.	€
18	**1PY7.1**	100 unit(s)	14,55
19	**1PY8.1**	100 unit(s)	14,55
20	**1PY9.1**	100 unit(s)	14,55
21	**1PYA.1**	100 unit(s)	14,55
22	**1PYC.1**	100 unit(s)	14,55
23	**1PYE.1**	100 unit(s)	14,55
24	**1PYH.1**	100 unit(s)	14,55
25	**1PYK.1**	100 unit(s)	14,55

Microscope slides, coverslips





DURAN WHEATON KIMBLE

Microscope slides

DWK Life Sciences. Material: soda-lime glass.

- Ideal for microscopy, planarity and thickness distribution remain within very tight tolerance ranges
- Glass features high visual homogeneity, making it virtually free from surface defects, inclusions, streaks and bubbles
- The edges of the glass slides are uniform and crystal clear, reducing the risk of breakage along the edges
- Excellent wettability
- According to ISO 8037-1

Technical specifications:

Art. No.	1PE9.1	1PEA.1	1PEC.1	1PEE.1	1PEH.1	1PEK.1	1PEL.1
Length	76 mm						
Width	26 mm						
Thickn.	1,1 mm						
Standards	DIN ISO 8037-1						

Not a medical device / Not an IVD product

Corners cut

Version	Art. No.	Pack Qty.	€
With frosted edge	**1PEA.1**	50 unit(s)	7,45
Without frosted edge	**1PE9.1**	50 unit(s)	5,55

Corner ground 90°

Version	Colour	Art. No.	Pack Qty.	€
With frosted edge	white	**1PEC.1**	50 unit(s)	12,00
With frosted edge	blue	**1PEE.1**	50 unit(s)	12,00
With frosted edge	yellow	**1PEH.1**	50 unit(s)	12,00

Corner ground 45°

Version	Art. No.	Pack Qty.	€
With frosted edge	**1PEL.1**	50 unit(s)	13,70
Without frosted edge	**1PEK.1**	50 unit(s)	11,35

DURAN WHEATON KIMBLE

Coverslips thickness 1

DWK Life Sciences. Material: borosilicate glass.

- Thickness no. 1 (0.13 to 0.16 mm)
- Virtually free from surface defects, inclusions, streaks and bubbles and unwanted striations thanks to high optical homogeneity
- Highly transparent and colourless, preventing colour distortions
- Absorption-free within the visible spectrum
- Very consistent wettability
- High planarity

Not a medical device / Not an IVD product

L x W (mm)	Pack.	Art. No.	Pack Qty.	€
18 x 18	5 x 200	**1P6Y.1**	1,000 unit(s)	19,55
22 x 22	5 x 200	**1P70.1**	1,000 unit(s)	48,65
24 x 40	10 x 100	**1P71.1**	1,000 unit(s)	57,20
24 x 50	10 x 100	**1P72.1**	1,000 unit(s)	62,60
24 x 60	10 x 100	**1P73.1**	1,000 unit(s)	72,45

Coverslips thickness 1.5

DWK Life Sciences. Material: borosilicate glass.

- Thickness no. 1.5 (0.16 to 0.19 mm)
- Virtually free from surface defects, inclusions, streaks and bubbles and unwanted striations thanks to high optical homogeneity
- Highly transparent and colourless, preventing colour distortions
- Absorption-free within the visible spectrum
- Very consistent wettability
- High planarity

Not a medical device / Not an IVD product

L x W (mm)	Pack.	Art. No.	Pack Qty.	€
24 x 50	10 x 100	**1P74.1**	1,000 unit(s)	70,30
24 x 60	10 x 100	**1P75.1**	1,000 unit(s)	74,20

Microscope slides, coverslips





Coverslips thickness 1

Marienfeld. Material: borosilicate glass from hydrolytic class I.

Applications: examinations using light and fluorescence microscopy, especially in medicine and biology.

- Thickness no. 1 (0,13–0,16 mm)
- Absolutely colourless, completely clear, suitable for fluorescence microscopy
- High light transmission
- Refractive index tailored to microscopes
- Low inherent fluorescence
- Low flatness deviation, exact compliance with thicknesses
- Good wettability on both glass surfaces
- Low alkali content encourages cell growth
- Ready-to-use
- Suitable for use in coverslippers
- Acc. to DIN ISO 8255

Purpose: coverslips are accessories for in vitro diagnostic examinations in optical microscopy and are used to cover specimens for archiving purposes.

In vitro diagnostic medical device class A

L x W (mm)	Pack.	Art. No.	Pack Qty.	€
12 x 12	10 x 100	**KHX2.1**	1,000 unit(s)	23,30
15 x 15	10 x 100	**KHX3.1**	1,000 unit(s)	22,45
16 x 16	10 x 100	**HKE4.1**	1,000 unit(s)	22,45
18 x 18	10 x 100	**HKE5.1**	1,000 unit(s)	20,95
20 x 20	10 x 100	**HKE6.1**	1,000 unit(s)	27,45
22 x 22	10 x 100	**HKE7.1**	1,000 unit(s)	27,95
22 x 40	10 x 100	**HKE9.1**	1,000 unit(s)	58,05
22 x 50	10 x 100	**HKH0.1**	1,000 unit(s)	65,50
24 x 24	10 x 100	**HKE8.1**	1,000 unit(s)	39,05
24 x 32	10 x 100	**HKH1.1**	1,000 unit(s)	49,25
24 x 40	10 x 100	**HKH2.1**	1,000 unit(s)	60,20
24 x 50	10 x 100	**HKH3.1**	1,000 unit(s)	67,10
24 x 60	10 x 100	**HKH4.1**	1,000 unit(s)	76,90

Round

Ø (mm)	Pack.	Art. No.	Pack Qty.	€
5	10 x 100	**1NPT.1**	1,000 unit(s)	395,60
10	10 x 100	**KHX4.1**	1,000 unit(s)	71,30
12	10 x 100	**HKH5.1**	1,000 unit(s)	73,10
15	10 x 100	**HKH6.1**	1,000 unit(s)	79,55
16	10 x 100	**KHX5.1**	1,000 unit(s)	82,80
18	10 x 100	**HKH7.1**	1,000 unit(s)	82,80
20	10 x 100	**KHX6.1**	1,000 unit(s)	95,70
22	10 x 100	**KHX7.1**	1,000 unit(s)	104,15
24	10 x 100	**KHX8.1**	1,000 unit(s)	115,50
25	10 x 100	**KHX9.1**	1,000 unit(s)	115,05
30	10 x 100	**KHY0.1**	1,000 unit(s)	166,65

Coverslips thickness 1.5

Marienfeld. Material: borosilicate glass from hydrolytic class I.

Applications: examinations using light and fluorescence microscopy, especially in medicine and biology.

- Thickness 1.5 (0,16–0,19 mm)
- Absolutely colourless, completely clear, suitable for fluorescence microscopy
- High light transmission
- Refractive index tailored to microscopes
- Low inherent fluorescence
- Low flatness deviation, exact compliance with thicknesses
- Good wettability on both glass surfaces
- Low alkali content encourages cell growth
- Ready-to-use
- Suitable for use in coverslippers
- Meets the requirements of DIN ISO 8255

Purpose: coverslips are accessories for in vitro diagnostic examinations in optical microscopy and are used to cover specimens for archiving purposes.

In vitro diagnostic medical device class A

L x W (mm)	Pack.	Art. No.	Pack Qty.	€
18 x 18	10 x 200	**KCY0.1**	2,000 unit(s)	51,60
22 x 22	10 x 200	**KCY1.1**	2,000 unit(s)	71,30
24 x 24	10 x 200	**KCY2.1**	2,000 unit(s)	83,85
24 x 40	10 x 100	**KCY3.1**	1,000 unit(s)	61,30
24 x 50	10 x 100	**KCY4.1**	1,000 unit(s)	71,50
24 x 60	10 x 100	**KCY5.1**	1,000 unit(s)	88,05

Round

Ø (mm)	Pack.	Art. No.	Pack Qty.	€
5	10 x 100	**1NPY.1**	1,000 unit(s)	416,05
10	10 x 100	**1NT0.1**	1,000 unit(s)	77,30
12	10 x 100	**1NT1.1**	1,000 unit(s)	77,30
13	10 x 100	**1NT2.1**	1,000 unit(s)	84,40
14	10 x 100	**1NT3.1**	1,000 unit(s)	88,70
15	10 x 100	**1NT4.1**	1,000 unit(s)	88,70
16	10 x 100	**1NT5.1**	1,000 unit(s)	94,60
18	10 x 100	**1NT6.1**	1,000 unit(s)	97,85
20	10 x 100	**1NT7.1**	1,000 unit(s)	112,90
22	10 x 100	**1NT8.1**	1,000 unit(s)	127,95
24	10 x 100	**1NT9.1**	1,000 unit(s)	145,15
25	10 x 100	**1NTA.1**	1,000 unit(s)	158,00
30	10 x 100	**1NTC.1**	1,000 unit(s)	256,95

Microscope slides, coverslips



Coverslips thickness 1.5H

Marienfeld. Material: borosilicate glass from hydrolytic class I.

- 1.5H thickness (0.17 ±0.005 mm), specially for high-resolution precision instruments
- Absolutely colourless, completely clear, suitable for fluorescence microscopy
- Refractive index 1.524 to 1.527 at 546.07 nm

Ideal for lenses with a high numeric aperture and high resolving power, e.g.:

- Dry lenses (air immersion): N.A. >0.7
- Water immersion lenses: N.A. >1.0
- Glycerine immersion lenses: N.A. >1.2
- Oil immersion lenses: N.A. >1.3

Purpose: coverslips are accessories for in vitro diagnostic examinations in optical microscopy and are used to cover specimens for archiving purposes.

In vitro diagnostic medical device class A

L x W (mm)	Pack.	Art. No.	Pack Qty.	€
18 x 18	10 x 200	**LH22.2**	2,000 unit(s)	174,15
22 x 22	10 x 200	**LH24.2**	2,000 unit(s)	239,75
24 x 32	10 x 100	**1NPL.1**	1,000 unit(s)	146,05
24 x 50	10 x 100	**LH25.2**	1,000 unit(s)	260,15
24 x 60	10 x 100	**LH26.2**	1,000 unit(s)	319,30

Round

Ø (mm)	Pack.	Art. No.	Pack Qty.	€
10	10 x 100	**YX02.2**	1,000 unit(s)	203,20
12	10 x 100	**YX03.2**	1,000 unit(s)	226,85
15	10 x 100	**1NPN.1**	1,000 unit(s)	239,75
18	10 x 100	**LH23.2**	1,000 unit(s)	338,65
24	10 x 100	**PK26.2**	1,000 unit(s)	573,00
25	10 x 100	**YX04.2**	1,000 unit(s)	671,90
30	10 x 100	**1NPP.1**	1,000 unit(s)	951,40



A 121 °C

Inoculation loop

Hammacher. Material: stainless steel Wironit. Autoclavable: yes.

Not a medical device / Not an IVD product

Ø Internal (mm)	Ø ext. (mm)	Length (mm)	Art. No.	Pack Qty.	€
4	6.4	180	**1N3Y.1**	1 unit(s)	27,35



A 121 °C

Coverslip rack Wash-N-Dry™

ROTH SELECTION. Material: PP. Autoclavable: yes.

For square or round coverslips with dimensions of 18 to 25 mm. With notches on the underside for fixing the coverslips, e.g. with elastic bands.

Colour	Slots	L x W x H (mm)	Art. No.	Pack Qty.	€
white	10	39 x 31 x 24	**TH51.1**	1 unit(s)	52,15
blue	30	73 x 30 x 23	**1N49.1**	1 unit(s)	97,90
yellow	30	73 x 30 x 23	**1N4A.1**	1 unit(s)	97,90



Bowie-Dick single use test pack stericlin®

ROTH SELECTION.

Indicator for autoclave monitoring

Steam penetration test for daily function monitoring and quality assurance of the steam steriliser according to DIN EN ISO 11140-4. Free from heavy metals and toxic substances.

Application:

- Place the test pack in the steriliser
- Carry out the Bowie-Dick test procedure
- Remove the test sheet
- Review the result: in the event of complete steam penetration, the indicator will evenly change colour from blue to pink. In the event of a malfunction, however, no even colour conversion will occur. Following a successful colour conversion, the colour hue of the indicator will no longer change. This ensures complete reliability of documentation

L x W (mm)	Art. No.	Pack Qty.	€
99 x 74	**1T85.1**	40 unit(s)	209,65



A 121 °C

Screw caps SILICOSEN®

Hirschmann. Material: silicone. Autoclavable: yes.

Screw caps can be easily put on and removed. Seated securely due to sealing lip, very good air permeability due to regular pores. Ideal for preparing and sterilising culture media and for cultivating aerobic micro-organisms.

- Low water evaporation rate
- Specially suitable for shaken cultures
- Washable and reusable
- Can be dry sterilised up to 180 °C

Type	Suitable for	Length (mm)	Art. No.	Pack Qty.	€
C-20	Ø 12–20 mm	28	**1P2A.1**	10 unit(s)	104,45
C-30	Ø 18–30 mm	28	**1P2C.1**	10 unit(s)	128,75
C-40	Ø 27–40 mm	28	**1P2E.1**	10 unit(s)	196,75
C-55	Ø 34–55 mm	28	**1P2H.1**	10 unit(s)	275,20



A 121 °C

Culture plug BIO-SILICO®

Hirschmann. Material: silicone. Autoclavable: yes.

For preparing and sterilising culture media and for cultivating aerobic micro-organisms, especially in shaken cultures. Open-pored structure and uniform pore size for optimal air permeability, as well as easy cleaning and perfect fit. Liquid-resistant and reusable. Cleaning with hot water and neutral cleaning agents. Can be dry sterilised up to 180 °C.

Ø lower (mm)	Ø upper (mm)	Length (mm)	Art. No.	Pack Qty.	€
9	13	30	**1P39.1**	10 unit(s)	54,05
11	16	36	**1P3A.1**	10 unit(s)	58,45
13	19	40	**1P3C.1**	10 unit(s)	63,95
15	21	44	**1P3E.1**	10 unit(s)	68,55
18	24	48	**1P3H.1**	10 unit(s)	82,40
20	25	52	**1P3K.1**	10 unit(s)	100,75
22	34	60	**1P3L.1**	10 unit(s)	156,80
30	44	78	**1P3N.1**	10 unit(s)	371,95
40	54	86	**1P3P.1**	10 unit(s)	428,95



A 121 °C

Culture plug SILICOSEN®

Hirschmann. Material: silicone. Autoclavable: yes.

With regularly spaced pores, ideal for preparing and sterilising culture media and for cultivating aerobic micro-organisms.

- Good air permeability with low evaporation
- Ideal for cultures in long-term tests
- Washable and reusable
- Can be dry sterilised up to 180 °C

Ø lower (mm)	Ø upper (mm)	Length (mm)	Art. No.	Pack Qty.	€
6	10	30	**1P25.1**	10 unit(s)	35,40
9	12	30	**NN15.1**	10 unit(s)	41,05
11	15	20	**NN16.1**	10 unit(s)	48,95
13	17	40	**0599.2**	10 unit(s)	58,95
15	19	42	**0606.2**	10 unit(s)	64,05
18	22	45	**0607.2**	10 unit(s)	72,60
20	24	55	**1P26.1**	10 unit(s)	83,25
22	32	60	**0615.2**	10 unit(s)	112,25
30	42	90	**NN17.1**	10 unit(s)	282,75
40	52	100	**0616.2**	10 unit(s)	420,35

Long

Ø lower (mm)	Ø upper (mm)	Length (mm)	Art. No.	Pack Qty.	€
9	12	50	**1P27.1**	10 unit(s)	63,50
13	17	50	**1P28.1**	10 unit(s)	68,85
18	22	60	**1P29.1**	10 unit(s)	116,55



Liquid Handling

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Microlitre pipettes

Single-channel microlitre pipette set Pipetman® G

Gilson.

Not a medical device / Not an IVD product



4-pipette kit

Delivery incl. four microlitre pipettes (P2G, P20G, P200G, P1000G), three boxes filled with pipette tips, four single pipette holders and four comfort grips.

Type	Version	Volume range (µl)	Capacity	Art. No.	Pack Qty.	€
Starter kit G, kit of four	Starter kit	0.2-2 / 2-20 / 50-200 / 100-1000	P2G,P20G,P200G,P1000G	**1P53.1**	1 unit(s)	1.094,35

Large volume kit

Delivery incl. two microlitre pipettes (P5000G, P10mlG) and two pouches with ten PE filters each.

Type	Version	Volume range (µl)	Capacity	Art. No.	Pack Qty.	€
G large volume starter kit	Starter kit	500-5000 µl / 1000-10000	P5000G, P10mlG	**1P54.1**	1 unit(s)	548,25

Single-channel microlitre pipette set Pipetman® L

Gilson.

Not a medical device / Not an IVD product



4-pipette kit

Delivery incl. four Pipetman® L microlitre pipettes, three boxes filled with pipette tips and four pipette holders.

Version	Volume range (µl)	Capacity	Art. No.	Pack Qty.	€
Starter kit	0.2-2 / 2-20 / 50-200 / 100-1000	P2L, P20L, P200L, P1000L	**1P52.1**	1 unit(s)	1.228,75

Microlitre pipettes

Multi-channel microlitre pipette Pipetman® G



Gilson.

Adjustable air-cushion plunger pipette offering one of the lowest pipetting forces on the market. These pipette models are noted for their robustness, accuracy, ease of maintenance and long life.

- Easy dismantling and maintenance
- Despite the low pipetting force, the initial pressure point is easy to feel during pipetting
- Conformity certified according to DIN EN ISO 8655 with test protocol

Technical specifications:

Art. No.	1N31.1	1N35.1	1N32.1	1N36.1	1N33.1	1N37.1	1N34.1	1N38.1
Volume	1 to 10 µl		2 to 20 µl		20 to 200 µl		30 to 300 µl	
Nominal volume	10 µl		20 µl		200 µl		300 µl	
Correctness	±2.0 %				±1.0 %			
Variation coefficient	±1.0 %				±0.25 %		±0.33 %	

Not a medical device / Not an IVD product

8-channel

Type	Version	Volume (µl)	Graduation	Tip type (µl)	Art. No.	Pack Qty.	€
P8x10G	Multi-channel	1 to 10	0.02 µl	10	**1N31.1**	1 unit(s)	810,55
P8x20G	Multi-channel	2 to 20	0.02 µl	200	**1N32.1**	1 unit(s)	810,55
P8x200G	Multi-channel	20 to 200	0.2 µl	200	**1N33.1**	1 unit(s)	810,55
P8x300G	Multi-channel	30 to 300	0.2 µl	300	**1N34.1**	1 unit(s)	810,55

12-channel

Type	Version	Volume (µl)	Graduation	Tip type (µl)	Art. No.	Pack Qty.	€
P12x10G	Multi-channel	1 to 10	0,02 µl	10	**1N35.1**	1 unit(s)	954,60
P12x20G	Multi-channel	2 to 20	0,02 µl	200	**1N36.1**	1 unit(s)	954,60
P12x200G	Multi-channel	20 to 200	0,2 µl	200	**1N37.1**	1 unit(s)	954,60
P12x300G	Multi-channel	30 to 300	0,2 µl	300	**1N38.1**	1 unit(s)	954,60

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Microlitre pipettes



Multi-channel microlitre pipette Pipetman® L

Gilson. Autoclavable: yes.

Lightweight and safe yet robust quality pipette. Pipette with improved pipetting strength, increases the performance without sacrificing on comfort.

- Patented Lock/Unlock System for safe pipetting
- The set volume is locked during the first pipetting operation
- Easy release of the volume adjustment lock
- Ergonomic handle
- Adjustable tip ejector for left- and right-handed users
- 2D identification code
- Fully autoclavable

Not a medical device / Not an IVD product

A 121 °C

8-channel

Technical specifications:

Art. No.	1NCC.1	1NCE.1	1NCH.1	1NCK.1	1NCL.1
Volume	0.5 to 10 µl	2 to 20 µl	20 to 200 µl	20 to 300 µl	100 to 1200 µl
Nominal volume	10 µl	20 µl	200 µl	300 µl	1,200 µl
Correctness	±2.0 %		±1.0 %		±0.83 %
Variation coefficient	±1,0 %	±0.75 %	±0.25 %	±0,33 %	±0.13 %

Type	Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
P8x10L	Multi-channel	0.5 to 10	0.02	10	**1NCC.1**	1 unit(s)	953,55
P8x20L	Multi-channel	2 to 20	0.02	200	**1NCE.1**	1 unit(s)	953,55
P8x200L	Multi-channel	20 to 200	0.2	200	**1NCH.1**	1 unit(s)	953,55
P8x300L	Multi-channel	20 to 300	0.2	300	**1NCK.1**	1 unit(s)	953,55
P8x1200L	Multi-channel	100 to 1200	2	1200	**1NCL.1**	1 unit(s)	1.001,90

12-channel

Technical specifications:

Art. No.	1NCN.1	1NCP.1	1NCT.1	1NCX.1	1NCY.1
Volume	0.5 to 10 µl	2 to 20 µl	20 to 200 µl	20 to 300 µl	100 to 1200 µl
Nominal volume	10 µl	20 µl	200 µl	300 µl	1,200 µl
Correctness	±2.0 %		±1.0 %		±0.83 %
Variation coefficient	±1.0 %	±0.75 %	±0.25 %	±0.33 %	±0.13 %

Type	Version	Volume (µl)	Graduation (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
P12x10L	Multi-channel	0.5 to 10	0.02	10	**1NCN.1**	1 unit(s)	1.096,50
P12x20L	Multi-channel	2 to 20	0.02	200	**1NCP.1**	1 unit(s)	1.096,50
P12x200L	Multi-channel	20 to 200	0,2	200	**1NCT.1**	1 unit(s)	1.096,50
P12x300L	Multi-channel	20 to 300	0.2	300	**1NCX.1**	1 unit(s)	1.096,50
P12x1200L	Multi-channel	100 to 1200	2	1200	**1NCY.1**	1 unit(s)	1.151,35

Pipette tips and accessories



Pipette tips Sapphire

Greiner Bio-One. Material: PP. Non-sterile. Autoclavable: yes.

Suitable for ROTH, BRAND, Eppendorf, Gilson, Sartorius, Socorex, Starlab.

- Smooth surface minimises liquid residues and prevents the loss of samples
- Thin tip shape reduces risk of contamination
- Excellent sample visibility thanks to ultra-transparent polypropylene
- Flexible tip sleeve for minimal insertion and ejection force
- With visible graduations
- Free of RNase/DNase, human DNA and PCR inhibitors
- Pyrogen-free and non-cytotoxic

Not a medical device / Not an IVD product

ROTH for Future

A 121 °C

Sustainability information:
The sustainability-focussed product design reduces consumption of raw materials.
Boxes are autoclavable at least 50 times. Box inserts are made of recycled raw material.
Cardboard packages are made of recycled material.

10 µl

Volume (µl)	Version	Colour	Length (mm)	Sterility	Suitable for	Packaging type	Lid design	Pack.	Art. No.	Pack Qty.	€
0.2 to 10	Standard	colourless	31	Non-sterile	ROTH, BRAND, Eppendorf, Gilson, Sartorius, Socorex, Starlab	Bag		1 x 1000	**1LPT.1**	1,000 unit(s)	24,10
0.2 to 10	Standard	colourless	31	Non-sterile	ROTH, BRAND, Eppendorf, Gilson, Sartorius, Socorex, Starlab	Box	Hinged lid	10 x 96	**1LPX.1**	960 unit(s)	62,70
0.2 to 10	Standard	colourless	31	Non-sterile	ROTH, BRAND, Eppendorf, Gilson, Sartorius, Socorex, Starlab	Refill		10 x 96	**1LPY.1**	960 unit(s)	60,35

10 µl XL

Volume (µl)	Version	Colour	Length (mm)	Sterility	Suitable for	Packaging type	Lid design	Pack.	Art. No.	Pack Qty.	€
0.5 to 10	Standard	colourless	46	Non-sterile	ROTH, BRAND, Eppendorf, Gilson, Sartorius, Socorex, Starlab	Bag		1 x 1000	**1LT0.1**	1,000 unit(s)	24,10
0.5 to 10	Standard	colourless	46	Non-sterile	ROTH, BRAND, Eppendorf, Gilson, Sartorius, Socorex, Starlab	Box	Hinged lid	10 x 96	**1LT1.1**	960 unit(s)	62,70
0.5 to 10	Standard	colourless	46	Non-sterile	ROTH, BRAND, Eppendorf, Gilson, Sartorius, Socorex, Starlab	Refill		10 x 96	**1LT2.1**	960 unit(s)	60,35

200 µl

Volume (µl)	Version	Colour	Length (mm)	Sterility	Suitable for	Packaging type	Lid design	Pack.	Art. No.	Pack Qty.	€
5 to 200	Standard	colourless	51	Non-sterile	ROTH, BRAND, Eppendorf, Gilson, Sartorius, Socorex, Starlab	Bag		1 x 1000	**1LT3.1**	1,000 unit(s)	17,20
5 to 200	Standard	colourless	51	Non-sterile	ROTH, BRAND, Eppendorf, Gilson, Sartorius, Socorex, Starlab	Box	Hinged lid	10 x 96	**1LT4.1**	960 unit(s)	55,40
5 to 200	Standard	colourless	51	Non-sterile	ROTH, BRAND, Eppendorf, Gilson, Sartorius, Socorex, Starlab	Refill		10 x 96	**1LT5.1**	960 unit(s)	50,45

1000 µl

Volume (µl)	Version	Colour	Length (mm)	Sterility	Suitable for	Packaging type	Lid design	Pack.	Art. No.	Pack Qty.	€
50 to 1000	Standard	colourless	82	Non-sterile	ROTH, BRAND, Eppendorf, Gilson, Sartorius, Socorex, Starlab	Bag		1 x 1000	**1LT6.1**	1,000 unit(s)	18,45
50 to 1000	Standard	colourless	82	Non-sterile	ROTH, BRAND, Eppendorf, Gilson, Sartorius, Socorex, Starlab	Box	Hinged lid	10 x 96	**1LT7.1**	960 unit(s)	55,05
50 to 1000	Standard	colourless	82	Non-sterile	ROTH, BRAND, Eppendorf, Gilson, Sartorius, Socorex, Starlab	Refill		10 x 96	**1LT8.1**	960 unit(s)	52,75

Pipette tips and accessories



Pipette tips box Sapphire

Greiner Bio-One. Material: PP. Non-sterile. Autoclavable: yes.

- Colour-coded inserts for 96 pipette tips for quickly identifying volume
- Stable and ultra-transparent box, good visibility of pipette tips
- Space-saving and stackable
- Compatible with multi-channel pipettes

Delivery without pipette tips.

Not a medical device / Not an IVD product

ROTH for Future

A 121 °C

Sustainability information:
The sustainability-focussed product design reduces consumption of raw materials.
Boxes are autoclavable at least 50 times. Box inserts are made of recycled raw material.
Cardboard packages are made of recycled material.

For 10 µl pipette tips

Colour	Sterility	Art. No.	Pack Qty.	€
red	Non-sterile	**1N1N.1**	10 unit(s)	82,65

For 200 µl pipette tips

Colour	Sterility	Art. No.	Pack Qty.	€
yellow	Non-sterile	**1N1T.1**	10 unit(s)	82,65

For 1000–1250 µl pipette tips

Colour	Sterility	Art. No.	Pack Qty.	€
blue	Non-sterile	**1N1P.1**	10 unit(s)	82,65



Pipette tips

ROTH SELECTION. Material: PP. Autoclavable: yes.

UNIVERSAL 5–200 µl graduated
Suitable for Eppendorf, Gilson, Sartorius, Socorex.

Not a medical device / Not an IVD product

A 121 °C

Volume (µl)	Version	Colour	Length (mm)	Sterility	Suitable for	Packaging type	Lid design	Pack.	Art. No.	Pack Qty.	€
5 to 200	Standard	colourless	51	Non-sterile	Eppendorf, Gilson, Sartorius, Socorex	Bag		loose	**B002.1**	1,000 unit(s)	21,00
5 to 200	Standard	colourless	51	Non-sterile	Eppendorf, Gilson, Sartorius, Socorex	Bag		loose	**B002.2**	25,000 unit(s)	396,70
5 to 200	Standard	colourless	51	Non-sterile	Eppendorf, Gilson, Sartorius, Socorex	Box	Slip lid	10 x 96	**CPX3.1**	960 unit(s)	70,85



Pipette tips

ROTH SELECTION. Material: PP. Autoclavable: yes.

MAKRO 1-10 ml
Suitable for ROTH, BRAND, Socorex, Gilson, Eppendorf
Non-sterile.

Not a medical device / Not an IVD product

A 121 °C

Volume (µl)	Version	Colour	Ø Inner upper (mm)	Length (mm)	Sterility	Suitable for	Packaging type	Pack.	Art. No.	Pack Qty.	€
1000 to 10000	Standard	colourless	15	154	Non-sterile	ROTH, BRAND, Socorex, Gilson, Eppendorf	Bag	loose	**1T7L.1**	100 unit(s)	26,80

Disposable syringes and Pasteur pipettes

Disposable syringe SOL-M™ with catheter fitting



B. Braun. Material: PP. **Sterile**.

According to DIN EN ISO 7886-1. 3-piece syringe, individually packed. With aspiration handle and double sealing ring. Reliable piston stopper prevents accidental removal of piston rod. Black, smudge-proof graduation. Centric catheter fitting Ø 7-10 mm. Latex- and PVC-free.

Purpose: wound irrigation syringe and blister syringe

Delivery incl. Luer adapter.

Medical device class Is

S

ID: 2797

Volume (ml)	Graduation (ml)	Art. No.	Pack Qty.	€
100	2.0	**1NL1.1**	1 unit(s)	5,85

Pasteur pipettes graduated



ROTH SELECTION. Material: LDPE.

Precision-formed, unbreakable, non toxic and with controlled, reproducible drop size.

Not a medical device / Not an IVD product

Filling volume 3.2 ml

Vol. (ml)	Filling capacity (ml)	Graduation range (ml)	Total length (mm)	Drop size (µl)	Drops per ml	Sterility	Pack.	Art. No.	Pack Qty.	€
3	3.2	0,5-3	155	50	20	Non-sterile	1 x 500	**EA65.1**	500 unit(s)	24,65
3	3.2	0,5-3	155	50	20	Non-sterile	10 x 500	**EA65.2**	5,000 unit(s)	234,35
3	3.2	0,5-3	155	50	20	**Sterile**	individually	**EA66.1**	500 unit(s)	105,30
3	3.2	0,5-3	155	50	20	**Sterile**	25 x 20	**EA67.1**	500 unit(s)	56,20

CP tips for positive displacement pipettes

Accessories CP tips for positive displacement pipettes MICROMAN® E

Gilson. Material: PP, polyester, type CP100/CP100ST and CP250/CP250ST made of PP and PE.

Capillary piston tips, suitable for Gilson MICROMAN® and MICROMAN® E.





Not a medical device / Not an IVD product

Standard
Non-sterile.

Type	Volume (µl)	Suitable for	Pack.	Art. No.	Pack Qty.	€
CP10	1 to 10	M10E	Rack (2 x 96)	**CTT7.1**	192 unit(s)	88,15
CP10	1 to 10	M10E	Rack (10 x 96)	**CTT7.2**	960 unit(s)	360,15
CP25	3 to 25	M25E	Bag	**CTT9.1**	200 unit(s)	80,65
CP25	3 to 25	M25E	Rack (10 x 96)	**CTX0.1**	960 unit(s)	413,90
CP100	10 to 100	M100E	Rack (2 x 96)	**CTX5.1**	192 unit(s)	88,15
CP100	10 to 100	M100E	Rack (10 x 96)	**CTX5.2**	960 unit(s)	360,15
CP50	20 to 50	M50E	Bag	**CTX2.1**	200 unit(s)	80,65
CP50	20 to 50	M50E	Rack (10 x 96)	**CTX3.1**	960 unit(s)	413,90
CP250	50 to 250	M250E	Bag	**CTX7.1**	200 unit(s)	80,65
CP250	50 to 250	M250E	Rack (10 x 96)	**CTX8.1**	960 unit(s)	413,90
CP1000	100 to 1000	M1000E	Rack (2 x 91)	**CTY0.1**	182 unit(s)	88,15

Sterile
Sterile. Free of detectable DNA, RNA, DNase, RNase, ATP and pyrogens.

Type	Volume (µl)	Suitable for	Pack.	Art. No.	Pack Qty.	€
CP10ST	1 to 10	M10E	Rack (2 x 96)	**CTT8.1**	192 unit(s)	105,35
CP25ST	3 to 25	M25E	Rack (6 x 96)	**CTX1.1**	576 unit(s)	308,55
CP100ST	10 to 100	M100E	Rack (2 x 96)	**CTX6.1**	192 unit(s)	105,35
CP50ST	20 to 50	M50E	Rack (6 x 96)	**CTX4.1**	576 unit(s)	308,55
CP250ST	50 to 250	M250E	Rack (6 x 96)	**CTX9.1**	576 unit(s)	308,55
CP1000ST	100 to 1000	M1000E	Rack (2 x 91)	**CTY1.1**	182 unit(s)	105,35

Bulb pipettes

Bulb pipettes 1 mark class AS



Hirschmann. Material: AR-GLAS®. Autoclavable: yes.
Ring marking and brown marking (resistant silver-diffusion colour).

- Calibrated to EX
- Conformity certified
- With dated batch code

A 121 °C

Total length ±10 mm.

Vol. (ml)	Limit of error (ml)	Total length (mm)	Standards	Version	Art. No.	Pack Qty.	€
0.5	±0.005	325	DIN EN ISO 648	brown graduation	**AC84.1**	12 unit(s)	76,80
1	±0.008	325	DIN EN ISO 648	brown graduation	**AC85.1**	12 unit(s)	76,80
1.5	±0.01	350	DIN EN ISO 648	brown graduation	**1P7C.1**	12 unit(s)	111,55
2	±0.01	350	DIN EN ISO 648	brown graduation	**AC86.1**	12 unit(s)	76,25
2.5	±0.01	350	DIN EN ISO 648	brown graduation	**1P77.1**	6 unit(s)	55,50
3	±0.01	350	in addition	brown graduation	**AC87.1**	6 unit(s)	43,70
4	±0.015	410	in addition	brown graduation	**AC88.1**	6 unit(s)	49,90
5	±0.015	410	DIN EN ISO 648	brown graduation	**AC89.1**	6 unit(s)	48,35
6	±0.015	410	DIN EN ISO 648	brown graduation	**1P7A.1**	6 unit(s)	68,70
7	±0.015	410	DIN EN ISO 648	brown graduation	**1P79.1**	6 unit(s)	68,70
8	±0.02	450	DIN EN ISO 648	brown graduation	**1P78.1**	6 unit(s)	68,70
9	±0.02	450	DIN EN ISO 648	brown graduation	**1P76.1**	6 unit(s)	68,70
10	±0.02	450	DIN EN ISO 648	brown graduation	**AC90.1**	6 unit(s)	53,90
15	±0.03	520	in addition	brown graduation	**AC91.1**	6 unit(s)	56,60
20	±0.03	520	DIN EN ISO 648	brown graduation	**AC92.1**	6 unit(s)	67,90
25	±0.03	530	DIN EN ISO 648	brown graduation	**AC93.1**	6 unit(s)	68,00
30	±0.03	530	in addition	brown graduation	**AC94.1**	6 unit(s)	71,45
40	±0.05	550	in addition	brown graduation	**AH33.1**	6 unit(s)	87,40
50	±0.05	550	DIN EN ISO 648	brown graduation	**AH34.1**	6 unit(s)	86,70
100	±0.08	600	DIN EN ISO 648	brown graduation	**AH35.1**	6 unit(s)	121,70



Tube ROTILABO® PVC

ROTH SELECTION. Material: PVC DEHP-free.
Flexible.

Technical specifications:

Temperature stability	-20 to +60 °C
Colour	translucent
Hardness	75 Shore A

Ø Internal (mm)	Ø ext. (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1	1,8	0,4	**9724.1**	100 m	45,75
2	4,0	1,0	**9725.1**	100 m	35,95
3	5,0	1,0	**9726.1**	100 m	37,80
4	7,0	1,5	**9727.1**	100 m	76,65
5	8,0	1,5	**9730.1**	100 m	87,40
6	10,0	2,0	**9732.2**	100 m	130,20
7	11,0	2,0	**9733.2**	100 m	153,35
8	12,0	2,0	**9736.2**	100 m	159,60
12	16,0	2,0	**XX05.1**	50 m	104,90



Our ROTH-Service

Personal expert advice

More under **Service** at www.carlroth.com

- We are there and available for you!
- Our product specialists advise you on technical and application questions
- Our field service team is on site for you



Filtration

Glass/quartz fibre filters 42
Water treatment 42



Glass fibre round filters

Macherey-Nagel.

For fast filtration with simultaneously high retention.
Very good resistance to most organic and inorganic solvents (not resistant to hydrofluoric acid).

- Filtration speed, air: 15 s
- Surface weight: 70 g/m²
- Retention range: ≥0,6 µm
- Thickness: 0.35 mm

Type: MN 85/70
Material: borosilicate glass fibres, organic binding agent.

Most commonly used glass fibre filter with high mechanical stability for general use. Temperature stable up to 200 °C.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 85/70	25	**EN17.1**	100 unit(s)	14,80
MN 85/70	37	**EN18.1**	100 unit(s)	18,40
MN 85/70	40	**EN19.1**	100 unit(s)	19,80
MN 85/70	45	**EN20.1**	100 unit(s)	19,80
MN 85/70	47	**1P1X.1**	100 unit(s)	19,80
MN 85/70	55	**EN21.1**	100 unit(s)	21,00
MN 85/70	70	**EN22.1**	100 unit(s)	26,10
MN 85/70	90	**EN23.1**	100 unit(s)	34,50
MN 85/70	110	**EN24.1**	100 unit(s)	43,70
MN 85/70	125	**EN25.1**	100 unit(s)	54,30
MN 85/70	150	**EN26.1**	100 unit(s)	71,50
MN 85/70	185	**EN27.1**	100 unit(s)	99,70
MN 85/70	200	**EN28.1**	100 unit(s)	151,00
MN 85/70	240	**EN29.1**	100 unit(s)	151,00
MN 85/70	270	**EN30.1**	100 unit(s)	177,00
MN 85/70	320	**EN31.1**	100 unit(s)	240,00

MN 85/70 BF
Material: borosilicate glass fibres, free from binding agent.

Use, for example, as an upstream filter in the membrane filtration of particle-laden media. Temperature stable up to 500 °C.

Type	Ø (mm)	Art. No.	Pack Qty.	€
MN 85/70 BF	25	**HK45.1**	100 unit(s)	25,90
MN 85/70 BF	37	**HK46.1**	100 unit(s)	32,80
MN 85/70 BF	45	**HK47.1**	100 unit(s)	35,10
MN 85/70 BF	47	**1P1Y.1**	100 unit(s)	37,30
MN 85/70 BF	55	**HK48.1**	100 unit(s)	38,40
MN 85/70 BF	70	**HK49.1**	100 unit(s)	47,00
MN 85/70 BF	90	**HK50.1**	100 unit(s)	62,60
MN 85/70 BF	110	**HK51.1**	100 unit(s)	78,90
MN 85/70 BF	125	**HK52.1**	100 unit(s)	98,80
MN 85/70 BF	150	**HK53.1**	100 unit(s)	134,00
MN 85/70 BF	185	**HK54.1**	100 unit(s)	189,00
MN 85/70 BF	240	**HK55.1**	100 unit(s)	267,00
MN 85/70 BF	270	**HK56.1**	100 unit(s)	321,00



Water still Puridest made of stainless steel

Lauda.

Fully automatic device for creating ultra-pure distilled water.
Tubular heating element and still made of stainless steel.
Housing made of galvanized sheet steel, powder-coated.

- Energy saving thanks to distilling heated cooling water
- CO_2 degassing opening on the condenser
- Still easily accessible for cleaning purposes

Please pay attention to supply voltages!

PD series
Mono-still with no reservoir for tabletop use.

- Tubular heating element, still and condenser made of stainless steel
- Distillate drawing via drain pipe on the condenser
- Thermostatic low-water safety device
- Manual cooling water regulation via outlet temperature

Technical specifications:

Art. No.	**1P82.1**	**1P83.1**
Type	PD 2	PD 4
Production output	2 l/h	4 l/h
Heating output	2000 W	3000 W
Conductivity mono destillate at 25 °C	2.3 µS/cm	
Width	280 mm	
Depth	250 mm	
Height	490 mm	
Max. operating pressure	2 bar	
Connection	water cooling intake: ½″, water cooling drain: ¾″	water cooling intake: ½″, water cooling drain: ½″
Water consumption	0.33 l/min	0.67 l/min
Intake power	2,000 W	3,000 W
Mains connection	230 V, 50/60 Hz	
Power cord	with angled safety plug (CEE7/7)	

Type	Art. No.	Pack Qty.	€
PD 2	**1P82.1**	1 unit(s)	1.320,00
PD 4	**1P83.1**	1 unit(s)	1.430,00

PD R series
Mono-still with reservoir, suitable for wall mounting and tabletop use.

- Tubular heating element, still, reservoir and condenser made of stainless steel
- Reservoir for distillate holds double the hourly output of the device
- Distillate tap with permanent and tilt drain positions
- Condenser (cooling coil) in the reservoir, easily replaceable
- Solenoid valve for controlling the water supply
- Water saving thanks to automatic switch-off function preventing unnecessary water consumption
- Electronic contamination monitoring of the still with distillation stop and visual cleaning indicator
- Automatically refills the reservoir after distillate drawing, controlled via electronic level detection
- Thermostatic low-water safety device
- Double-wall housing design

Technical specifications:

Art. No.	**1P84.1**	**1P85.1**	**1P86.1**	**1P87.1**
Type	PD 2 R	PD 4 R	PD 8 R	PD 12 R
Production output	2 l/h	4 l/h	8 l/h	12 l/h
Heating output	1500 W	3000 W	6000 W	9000 W
Vol.	4 l	8 l	16 l	24 l
Conductivity mono destillate at 25 °C	2.3 µS/cm			
Width	540 mm	620 mm	780 mm	
Depth	290 mm	330 mm	410 mm	
Height	420 mm	460 mm	540 mm	670 mm
Max. operating pressure	7 bar			
Connection	water cooling intake: ½″, water cooling drain: ¾″			
Water consumption	0.5 l/min	0.8 l/min	1.2 l/min	3.3 l/min
Intake power	1,500 W	3,000 W	6,000 W	9,000 W
Mains connection	230 V, 50/60 Hz		400 V, 3/N/PE, 50/60 Hz	
Power cord	with angled safety plug (CEE7/7)		with plug (IEC 60309, 5-pin, CEE, red, 16 A)	

Type	Art. No.	Pack Qty.	€
PD 2 R	**1P84.1**	1 unit(s)	1.700,00
PD 4 R	**1P85.1**	1 unit(s)	2.000,00
PD 8 R	**1P86.1**	1 unit(s)	2.510,00
PD 12 R	**1P87.1**	1 unit(s)	3.350,00

PD D series
Bi-still without reservoir, suitable for wall mounting and tabletop use.

- Tubular heating element and still made of stainless steel
- Condenser (cooling coil) 1st stage made of stainless steel, 2nd stage including spray prevention made of DURAN® borosilicate glass 3.3
- Mono-distillate tap stopcock made of borosilicate glass 3.3 with plugs made of PTFE, bi-distillate free-flow tap with dust protection cover made of borosilicate glass 3.3
- Solenoid valve for controlling the water supply
- Water saving thanks to automatic switch-off function preventing unnecessary water consumption
- Electronic contamination monitoring of the still with distillation stop and visual cleaning indicator
- Electronic level monitoring throughout the entire distillation process
- Double low-water safety function with float switch and thermostatic overtemperature protection switch
- Master switch and indicator lights for monitoring both distillation stages
- Double-wall housing design

Technical specifications:

Art. No.	**1P88.1**	**1P89.1**	**1P8A.1**
Type	PD 2 D	PD 4 D	PD 8 D
Production output	2 l/h	4 l/h	8 l/h
Heating output	3500 W	7000 W	11500 W
Conductivity mono destillate at 25 °C	2.2 µS/cm		
Conductivity bi destillate at 25 °C	1.6 µS/cm		
Width	500 mm	550 mm	700 mm
Depth	260 mm	280 mm	390 mm
Height	470 mm	570 mm	700 mm
Max. operating pressure	7 bar		
Connection	water cooling intake: ½″		
Water consumption	1.2 l/min	2 l/min	3.3 l/min
Intake power	3,500 W	7,000 W	11,500 W
Mains connection	230 V, 50/60 Hz	400 V, 3/N/PE, 50/60 Hz	
Power cord	with angled safety plug (CEE7/7)	with plug (IEC 60309, 5-pin, CEE, red, 16 A)	

Type	Art. No.	Pack Qty.	€
PD 2 D	**1P88.1**	1 unit(s)	5.090,00
PD 4 D	**1P89.1**	1 unit(s)	5.760,00
PD 8 D	**1P8A.1**	1 unit(s)	6.700,00



Water still Puridest made of glass

Lauda.

Fully automatic device for creating ultra-pure distilled water.
Still, condensers and overflow made of DURAN® / borosilicate glass 3.3, heating elements with quartz glass casing, housing made of galvanised sheet steel, powder-coated.

- Energy saving thanks to distilling heated cooling water
- Water saving thanks to automatic switch-off function preventing unnecessary water consumption
- Solenoid valve for controlling the water supply
- Electronic level monitoring throughout the entire distillation process
- Water level check in the evaporator with automatic power disconnection if the water level is too low
- Electronic contamination monitoring system triggers an automatic water change for rinsing and cleaning the evaporator
- Condensers with droplet-repellent steam flow
- Condenser sterilisation via steaming
- Visible working process thanks to anti-fogging, shatterproof and easily removable front panel
- Distillate drawing on the right-hand side of the device via hose connection
- CO_2 degassing opening on the condenser
- Suitable for wall mounting and tabletop use

Please pay attention to supply voltages!

Technical specifications:

Art. No.	1PA1.1	1PA2.1	1PA3.1	1PA4.1	1PA5.1
Type	PD 2 G	PD 4 G	PD 8 G	PD 2 DG	PD 4 DG
Production output	2 l/h	4 l/h	8 l/h	2 l/h	4 l/h
Heating output	1500 W	3000 W	6000 W	2900 W	5800 W
Conductivity mono destillate at 25 °C	2.2 µS/cm				
Conductivity bi destillate at 25 °C				1.6 µS/cm	
Width	650 mm				
Depth	200 mm		365 mm		
Height	390 mm				
Max. operating pressure	7 bar				
Connection	water cooling intake: ½″, water cooling drain: ½″				
Water consumption	0.8 l/min	1.2 l/min	2.4 l/min	1.2 l/min	2.4 l/min
Intake power	1,500 W	3,000 W	6,000 W	2,900 W	5,800 W
Mains connection	230 V, 50/60 Hz		400 V, 3/N/PE, 50/60 Hz	230 V, 50/60 Hz	400 V, 3/N/PE, 50/60 Hz
Power cord	with angled safety plug (CEE7/7)		with plug (IEC 60309, 5-pin, CEE, red, 16 A)	with angled safety plug (CEE7/7)	with plug (IEC 60309, 5-pin, CEE, red, 16 A)

PD G series
Mono-still with no reservoir.

Type	Art. No.	Pack Qty.	€
PD 2 G	**1PA1.1**	1 unit(s)	3.540,00
PD 4 G	**1PA2.1**	1 unit(s)	3.960,00
PD 8 G	**1PA3.1**	1 unit(s)	6.100,00

PD DG series
Bi-still with no reservoir.

Type	Art. No.	Pack Qty.	€
PD 2 DG	**1PA4.1**	1 unit(s)	5.760,00
PD 4 DG	**1PA5.1**	1 unit(s)	6.660,00



Accessories for Puridest water still

Lauda.

Hose set for PD series
Hose set consisting of hoses for water intake and drain (1.5 m each) as well as hose securing devices.

Designation	Suitable for	Art. No.	Pack Qty.	€
Hose set for PD series	PD 2, PD 4	**1PAL.1**	1 unit(s)	48,40

Hose set for PD R and PD D series
Hose set consisting of hoses for water intake and drain (1.5 m each) as well as hose securing devices.

Designation	Suitable for	Art. No.	Pack Qty.	€
Hose set for PD R and PD D series	PD 2 R to PD 12 R and PD 2 D to PD 8 D	**1PAN.1**	1 unit(s)	72,80

Hose set for PD G series
Hose set consisting of hoses for water intake and drain (1.5 / 1 m each), distillate tap (0.5 m) as well as hose securing devices.

Designation	Suitable for	Art. No.	Pack Qty.	€
Hose set for PD G series	PD 2 G to PD 8 G	**1PAP.1**	1 unit(s)	56,20

Hose set for PD DG series
Hose set consisting of hoses for water intake and drain (1.5 / 1 m each), distillate tap (0.5 m) as well as hose securing devices.

Designation	Suitable for	Art. No.	Pack Qty.	€
Hose set for PD DG series	PD 2 DG, PD 4 DG	**1PAT.1**	1 unit(s)	65,70

Accessories for Puridest water still

Lauda.

Dechlorinating filter with first filling

For removing chlorine from tap water.

Delivery incl. connections for pressure hose ½″ (inside Ø 12.7 mm).

Designation	Art. No.	Pack Qty.	€
Dechlorinating filter with first filling	**1PA7.1**	1 unit(s)	509,00

Replacement filling for dechlorinating filter

Filling should be replaced approx. every 6 months.

Designation	Art. No.	Pack Qty.	€
Replacement filling for dechlorinating filter	**1PA8.1**	1 unit(s)	120,00

Phosphate sluice with first filling

Prevents hardness minerals crystallising in the condenser due to phosphating of tap water. Usable between 4-15 dGH.

Delivery incl. connections for pressure hose ½″ (inside Ø 12.7 mm).

Designation	Art. No.	Pack Qty.	€
Phosphate sluice with first filling	**1PA9.1**	1 unit(s)	551,00

Replacement filling for phosphate sluice

Filling should be supplemented depending on use.

Designation	Art. No.	Pack Qty.	€
Replacement filling for phosphate sluice	**1PAA.1**	1 unit(s)	80,40

1 µm pre-filter with fine filter cartridge

For pre-cleaning untreated water and protecting the device against premature contamination.

Suitable for use with foodstuffs according to FDA requirements.

Delivery incl. connections for pressure hose ½″ (inside Ø 12.7 mm).

Designation	Art. No.	Pack Qty.	€
1 µm pre-filter with fine filter cartridge	**1PAC.1**	1 unit(s)	442,00

Replacement cartridge for pre-filter

Cartridge should be replaced approx. every 6 months.

Designation	Art. No.	Pack Qty.	€
Replacement cartridge for pre-filter	**1PAE.1**	1 unit(s)	39,50

Filter system 3-set with wall mount

Delivery incl. dechlorinating filter, phosphate sluice and pre-filter (each incl. first filling).

Designation	Art. No.	Pack Qty.	€
Filter system 3-set with wall mount	**1PAH.1**	1 unit(s)	1.790,00

Wall mount for a filter

For mounting any filter; incl. screws for attaching the filter to the wall mount.

Delivery without filter cartridge.

Designation	Art. No.	Pack Qty.	€
Wall mount for a filter	**1PAK.1**	1 unit(s)	29,60



Water treatment



Made in Germany

Ultrapure water system OmniaPure xs[touch] Blueline series

stakpure.

The OmniaPure xs[touch] Blueline device series supplies ASTM type I ultrapure water with the highest quality for analytical and life sciences applications, with a compact design optimised for resource conservation. The OptiFill[touch] control and monitoring unit, supplied as standard, enables convenient and precise filling of laboratory vessels. The recirculation function prevents biofilm formation.

- Compact design
- Space-saving mounting on a laboratory bench or optionally on a wall
- Usable with fully demineralised water
- Digital OptiFill[touch] control and monitoring unit with colour-touch display
- Three language settings available: DE, EN, FR
- Dispenser has a swivel range of up to 170°
- Sampling volume individually adjustable
- Can be operated with laboratory gloves
- With real-time TOC monitoring
- Adjustable limit values for conductivity and TOC
- Password access and error memory
- Integrated pressure reducers
- Leak sensor
- Permanent data storage for all quality parameters
- Innovative monitoring and display of the cartridge capacity
- RS 232 port and USB port
- Automatic voltage adjustment
- Ready to use, ready to connect, incl. filter cartridges

Technical specifications:

Art. No.	1TEC.1	1TET.1	1TEE.1	1TEH.1
Type	OmniaPure xs[touch] UV-TOC	OmniaPure xs[touch] UV-TOC/UF	OmniaPure xs[touch] UV-TOC	OmniaPure xs[touch] UV-TOC/UF
Conductivity of high-purity water, type I	0.055 µS/cm			
Resistance of high-purity water, type I	18.2 MΩ*cm			
Withdrawal capacity of high-purity water, type I	≤2 l/min			
Bacteria content of high-purity water, type I	<0,01 KbE/ml			
Endotoxin content of high-purity water, type I		<0.001 EU/ml		<0.001 EU/ml
Protease content of high-purity water, type I		<0.15 µg/l		<0.15 µg/l
TOC value of high-purity water, type I	<2 ppb	<5 ppb	<2 ppb	<5 ppb
DNase content of high-purity water, type I		<5 pg/ml		<5 pg/ml
RNase content of high-purity water, type I		<1 pg/ml		<1 pg/ml
Particle content of high-purity water, type I	<1/ml			
Port	RS 232, USB-A			
Width	240 mm			
Depth	435 mm			
Height	530 mm			
Weight	14 kg			
Min. operating pressure	0.5 bar			
Max. operating pressure	6 bar			
Ambient temperature	2-35 °C			
Connection	R ¾″			
Mains connection	90–240 V, 50/60 Hz			

Feed water requirements: water treated through ion exchange, reverse osmosis, deionisation or distillation	
Feed water temperature (°C)	+2–35
Feed water pressure (bar)	0.5–6
Inlet conductivity (µS/cm)	<100
TOC value (ppb)	<50

Note: the specified TOC and endotoxin values may vary depending on the quality of the feed water. A 0.2 µm sterile filter capsule or bio end filter (available as an option) is needed to meet the requirements for particle and bacteria content. The RNase, DNase and protease content specifications can only be achieved with the OmniaPure xs[touch] UV-TOC/UF in combination with the bio end filter, which is available as an option.

OmniaPure xs[touch] UV-TOC
Typical applications: ultratrace analysis, ICP-MS, HPLC, TOC analysis.

Delivery incl. OmniaPure xs[touch] Blueline ultrapure water system, pretreatment cartridge, ultrapure water cartridge, UV lamp and sterile filter capsule (0.2 µm). Bio end filter available as an option.

Type	Art. No.	Pack Qty.	€
OmniaPure xs[touch] UV-TOC	**1TEC.1**	1 unit(s)	7.342,25

OmniaPure xs[touch] UV-TOC/UF
Typical applications: molecular biology and microbiology as well as cell culture media.

Delivery incl. OmniaPure xs[touch] Blueline ultrapure water system, pretreatment cartridge, ultrapure water cartridge, UV lamp, ultrafiltration module (UF) and sterile filter capsule (0.2 µm). Bio end filter available as an option.

Type	Art. No.	Pack Qty.	€
OmniaPure xs[touch] UV-TOC/UF	**1TET.1**	1 unit(s)	7.976,50

Water treatment



Made in Germany

Pure and ultrapure water system OmniaTap xs^{touch} Blueline series

stakpure.

The OmniaTap xs^{touch} Blueline device series represents the ideal system for providing small quantities of pure and ultrapure water for analytical and life sciences laboratory applications, with a compact design optimised for resource conservation. These devices can be connected directly to the drinking water supply. The OptiFill^{touch} control and monitoring unit, supplied as standard, provides a supply of type I ultrapure water and enables convenient and precise filling of laboratory vessels. The integrated 7 l tank with recirculation maintains a consistent type II water quality level. Downstream end devices can be supplied with type II pure water via an optional pressure outlet.

- Compact design
- Space-saving mounting on a laboratory bench or optionally on a wall
- Usable with water from a drinking water supply
- Digital OptiFill^{touch} control and monitoring unit with colour-touch display
- Three language settings available: DE, EN, FR
- Dispenser has a swivel range of up to 170°
- Sampling volume individually adjustable
- Can be operated with laboratory gloves
- With real-time TOC monitoring
- Adjustable limit values for conductivity and TOC
- Password access and error memory
- Integrated pressure reducers
- Leak sensor
- Permanent data storage for all quality parameters
- Innovative monitoring and display of the cartridge capacity
- RS 232 port and USB port
- Automatic voltage adjustment
- Ready to use, ready to connect, incl. filter cartridges

Technical specifications:

Art. No.	**1TEP.1**	**1TEN.1**	**1TEK.1**	**1TEL.1**
Type	OmniaTap xs^{touch} 8 UV-TOC	OmniaTap xs^{touch} 8 UV-TOC/UF	OmniaTap xs^{touch} 8 UV-TOC	OmniaTap xs^{touch} 8 UV-TOC/UF
Vol.	7 l			
Conductivity of high-purity water, type I	0.055 µS/cm			
Conductivity of pure water, type II	0.067 - 0.1 µS/cm			
Resistance of high-purity water, type I	18.2 MΩ·m			
Resistance of pure water, type II	15-10 MΩ·m			
Withdrawal capacity of high-purity water, type I	≤2 l/min			
Withdrawal capacity of pure water, type II	8 l/h			
Bacteria content of high-purity water, type I	<0.01 KbE/ml			
Endotoxin content of high-purity water, type I		<0.001 EU/ml		<0.001 EU/ml
Protease content of high-purity water, type I		<0.15 µg/l		<0.15 µg/l
TOC value of high-purity water, type I	<2 ppb	<5 ppb	<2 ppb	<5 ppb
DNase content of high-purity water, type I		<5 pg/ml		<5 pg/ml
RNase content of high-purity water, type I		<1 pg/ml		<1 pg/ml
Particle content of high-purity water, type I	<1/ml			
Port	RS 232, USB-A			
Width	253 mm			
Depth	520 mm			
Height	530 mm			
Weight	19 kg			
Min. operating pressure	0.5 bar			
Max. operating pressure	6 bar			
Ambient temperature	2-35 °C			
Connection	R ¾″			
Mains connection	90–240 V, 50/60 Hz			

Feed water requirements: drinking water acc. to DIN 2000

Feed water temperature (°C)	+2–35
Feed water pressure (bar)	0.5–6
Inlet conductivity (µS/cm)	<2000
Silt density index (SDI)	<10
Dissolved CO2 (ppm)	<30
Free chlorine (ppm)	<3

TOC (ppm)	<1
Hardness (as CaCO3)*	<300
Silica (ppm)	<30
pH range	4–10
Note*: for higher values, pretreatment must occur first.	

Note: the specified TOC and endotoxin values may vary depending on the quality of the feed water. A 0.2 µm sterile filter capsule or bio end filter (available as an option) is needed to meet the requirements for particle and bacteria content. The RNase, DNase and protease content specifications can only be achieved with the OmniaTap xs^{touch} UV-TOC/UF in combination with the bio end filter, which is available as an option.

OmniaTap xs^{touch} 8 UV-TOC
Typical applications: ultratrace analysis, ICP-MS, HPLC, TOC analysis.

Delivery incl. OmniaTap xs^{touch} Blueline ultrapure water system, RO cartridge, ultrapure water cartridge, sterile filter capsule (0.2 µm), sterile overflow, sterile breather filter and UV lamp. The bio end filter is available as an option.

Type	Art. No.	Pack Qty.	€
OmniaTap xs^{touch} 8 UV-TOC	**1TEP.1**	1 unit(s)	6.192,00

OmniaTap xs^{touch} 8 UV-TOC/UF
Typical applications: molecular biology and microbiology as well as cell culture media.

Delivery incl. OmniaTap xs^{touch} Blueline ultrapure water system, RO cartridge, ultrapure water cartridge, sterile filter capsule (0.2 µm), sterile overflow, sterile breather filter, UV lamp and ultrafiltration module (UF). The bio end filter is available as an option.

Type	Art. No.	Pack Qty.	€
OmniaTap xs^{touch} 8 UV-TOC/UF	**1TEN.1**	1 unit(s)	6.976,75

Accessories replacement pretreatment cartridge

stakpure.

For OmniaPure xs^{touch} pure water systems

Designation	Suitable for	Art. No.	Pack Qty.	€
OmniaPure xs replacement pretreatment cartridge	OmniaPure xs^{touch}	**1TEX.1**	1 unit(s)	236,50

Accessories

stakpure.

Replacement OmniaTap xs 8 RO cartridge for OmniaTap xs^{touch} ultrapure water systems

Designation	Suitable for	Art. No.	Pack Qty.	€
Replacement OmniaTap xs 8 RO cartridge	OmniaTap xs^{touch}	**1Y12.1**	1 unit(s)	311,75

Replacement Omnia 055 ultrapure water cartridge for OmniaTap xs^{touch} and OmniaPure xs^{touch} ultrapure water systems

Designation	Suitable for	Art. No.	Pack Qty.	€
Replacement Omnia 055 ultrapure water cartridge	OmniaTap xs^{touch} and OmniaPure xs^{touch}	**1XXT.1**	1 unit(s)	419,25

Replacement UV lamp Omnia xs 185 for OmniaTap xs^{touch} and OmniaPure xs^{touch} ultrapure water systems

Designation	Suitable for	Art. No.	Pack Qty.	€
Replacement UV lamp Omnia xs 185 nm	OmniaTap xs^{touch} and OmniaPure xs^{touch}	**1XXX.1**	1 unit(s)	306,40

Replacement UF ultrafiltration module for OmniaTap/OmniaPure and OmniaTap xs^{touch}/OmniaPure xs^{touch} ultrapure water systems

Designation	Suitable for	Art. No.	Pack Qty.	€
Replacement UF ultrafiltration module	OmniaTap/OmniaPure and OmniaTap xs^{touch}/ OmniaPure xs^{touch}	**KCC1.1**	1 unit(s)	913,75

Replacement sterile filter capsule for OmniaTap/OmniaPure and OmniaTap xs^{touch}/OmniaPure xs^{touch} ultrapure water systems

Designation	Suitable for	Art. No.	Pack Qty.	€
Replacement sterile filter capsule (0.2 µm)	OmniaTap/OmniaPure and OmniaTap xs^{touch}/ OmniaPure xs^{touch}	**KCC2.1**	1 unit(s)	182,75

Replacement tank breather filter for OmniaTap and OmniaTap xs^{touch} ultrapure water systems

Designation	Suitable for	Art. No.	Pack Qty.	€
Replacement tank breather filter	OmniaTap and OmniaTap xs^{touch}	**KCC3.1**	1 unit(s)	110,75

Pretreatment unit for OmniaTap and OmniaTap xs^{touch} ultrapure water systems

Designation	Suitable for	Art. No.	Pack Qty.	€
Optional OmniaTap 10 pretreatment unit″ incl. connection hose. For pretreating the feed water if it does not meet the feed requirements.	OmniaTap and OmniaTap xs^{touch}	**KCC4.1**	1 unit(s)	319,30

Pump station for OmniaTap and OmniaTap xs^{touch} ultrapure water systems

Delivery without tank tap set, please order separately.

Designation	Suitable for	Art. No.	Pack Qty.	€
Optional Omnia pump station	OmniaTap and OmniaTap xs^{touch}	**KCC5.1**	1 unit(s)	1.005,15

Tank tap set for OmniaTap and OmniaTap xs^{touch} ultrapure water system

Designation	Suitable for	Art. No.	Pack Qty.	€
Optional tank tap set, required in combination with the pump station (KCC5.1).	OmniaTap and OmniaTap xs^{touch}	**1XY6.1**	1 unit(s)	32,25

Wall mount for OmniaTap xs^{touch} and OmniaPure xs^{touch} ultrapure water systems

Delivery incl. mounting material.

Designation	Suitable for	Art. No.	Pack Qty.	€
Optional wall mount	OmniaTap xs^{touch} and OmniaPure xs^{touch}	**1XY3.1**	1 unit(s)	182,75

Bio end filter for OmniaTap xs^{touch} and OmniaPure xs^{touch} ultrapure water systems

Designation	Suitable for	Art. No.	Pack Qty.	€
Optional bio end filter (0.1 µm)	OmniaTap xs^{touch} and OmniaPure xs^{touch}	**1XY4.1**	1 unit(s)	283,80



Occupational safety, personal protection

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Safety glasses

Safety glasses Solus™ 1000



3M. Autoclavable: yes.

Acc. to **EN 166, EN 170**.

- Sporty design with a thin frame
- Strong polycarbonate lenses provide a high impact resistance
- Anti-fog and anti-scratch properties thanks to the 3M™ Scotchgard™ anti-fog coating
- Soft and adjustable nose pads and soft tips on the arms for greater comfort and a better fit

Sterilisation by autoclaving has been tested on sample items of the model. The samples were cleaned automatically and sterilised by autoclaving at +121 °C up to 40 times.

A 121 °C

Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
blue/black	clear, UV protection, anti-scratch, anti-fog	S1101SGAF	**1NK5.1**	1 unit(s)	21,10
green/black	clear, UV protection, anti-scratch, anti-fog	S1201SGAF	**1NK6.1**	1 unit(s)	21,10

Safety glasses Solus™ 2000



3M.

Acc. to **EN 166, EN 170.**
Robust and practical safety glasses. Tilt-adjustable ratcheted arms to adapt to any face shape.
Lens and arms made of PC.

- Strong polycarbonate lenses provide a high impact resistance
- Anti-fog and anti-scratch properties thanks to the 3M™ Scotchgard™ anti-fog coating
- Soft padding on the bridge and tips of the arms for greater comfort
- Inner padding in the temporal region ensures a high level of comfort and secure fit

Pic.	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(1)	grey/red	clear, UV protection, anti-scratch, anti-fog	S2001SGAF-RED	**1NK7.1**	1 unit(s)	21,05
(2)	grey/blue	clear, UV protection, anti-scratch, anti-fog	S2001AF-BLU	**1NK8.1**	1 unit(s)	17,45

With reading strength

The bottom part of the lens provides magnification for reading or precision work.

Pic.	Frame colour	Lens design	Dioptres (dpt)	Manufacturer no.	Art. No.	Pack Qty.	€
(3)	grey/blue	clear, UV protection, anti-scratch, anti-fog	+1,5	S2015AF-BLU	**1NK9.1**	1 unit(s)	22,25
(3)	grey/blue	clear, UV protection, anti-scratch, anti-fog	+2,0	S2020AF-BLU	**1NKA.1**	1 unit(s)	22,25
(3)	grey/blue	clear, UV protection, anti-scratch, anti-fog	+2,5	S2025AF-BLU	**1NKC.1**	1 unit(s)	22,25

Safety glasses Solus™ CCS



3M.

Acc. to **EN 166, EN 170.** Rimless safety glasses, very discreet and barely noticeable.

- Lens and arms made of PC
- The vinyl cord on ear plugs can be attached to the tips of the arms. This ensures that eye and ear protection is always attached and ready for use, without tangling.
- The ear protection cord doubles as a spectacle cord
- For users who put on and take off their glasses frequently during the day
- Very lightweight, weight 22 g

Pic.	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(1)	green	clear, UV protection, anti-scratch, anti-fog	SCCS01SGAF-GRN	**1NKE.1**	1 unit(s)	13,80
(2)	green	tinted, UV protection, anti-scratch, anti-fog	SCCS07SGAF-GRN	**1NKH.1**	1 unit(s)	14,45

With foam frame

The foam frame increases protection and wear comfort. Small ventilation openings in the foam frame minimise fogging.

Pic.	Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
(3)	green	clear, UV protection, anti-scratch, anti-fog	SCCS01SGAF-GRN-F	**1NKK.1**	1 unit(s)	19,80

Safety glasses



Wide-vision goggles GoogleGear™ 500

3M.

Acc. to **EN 166, EN 170**.

- Small profile, flat design – cannot be worn over corrective lenses
- With indirect ventilation against fogging
- The first-class spherically bent lens offers an optimal horizontal and vertical field of vision
- The polycarbonate lens has anti-fog and anti-scratch properties thanks to the 3M™ Scotchgard™ anti-fog coating
- Weight: 55 g

(1) With nylon headband
Easy-to-adapt textile headband (nylon) for reliable fit and high wearing comfort.

Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
grey/red	clear, UV protection, anti-scratch, anti-fog	GG501	**1NKY.1**	1 unit(s)	32,70

(2) With neoprene headband
Autoclavable: yes. Headband made of neoprene, can be autoclaved for use in the clean-room at 121 °C up to 40 times

Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
grey/blue	clear, UV protection, anti-scratch, anti-fog	GG501NS-GAF-BLU	**1NL0.1**	1 unit(s)	36,30



A 121 °C

Wide-vision goggles GoogleGear™ 6000

3M. Autoclavable: yes.

Acc. to **EN 166, EN 170**.

- Extra-large profile – can be worn over most corrective lenses
- With indirect ventilation against fogging
- The first-class spherically bent lens offers an optimal horizontal and vertical field of vision
- The polycarbonate lens has anti-fog and anti-scratch properties thanks to the 3M™ Scotchgard™ anti-fog coating
- Easy-to-adapt neoprene headband for reliable and high wearing comfort
- The wide, flexible nose area allows a good fit when wearing with respiratory protection half masks
- Can be autoclaved for use in the clean-room at 121 °C up to 40 times
- Weight: 41 g

Frame colour	Lens design	Manufacturer no.	Art. No.	Pack Qty.	€
blue/black	clear, UV protection, anti-scratch, anti-fog	GG6001NS-GAF-BLU	**1NL2.1**	1 unit(s)	41,70



Face shield FC 48

BartelsRieger Atemschutztechnik.

Acc. to **EN 166.** Combined face and forehead protection. For protection against chemical splashes, impacts and flying particles and fragments.

- Adjustable headgear
- Large, unrestricted field of vision
- Distortion-free polycarbonate visor
- Visor size (H x W) 200 x 400 mm, thickness: 1 mm

Lens design	Art. No.	Pack Qty.	€
clear	**1T0A.1**	1 unit(s)	83,70



Lens cleaning cloth Anti-fog

Univet. Material: microfibre.

- High-quality microfibre anti-fog cloth
- Anti-fog effect is applied on both sides of the lens
- Can be used up to 200 times
- Protects the glasses from fogging up for up to 6-8 hours
- The lenses must be cleaned before application
- Store the cloth in the tightly sealable zip bag after every use
- Do not use with laser protection and clean-room safety glasses
- Dimensions: 15 x 18 cm

Colour	L x W (mm)	Art. No.	Pack Qty.	€
grey	180 x 150	**1P55.1**	1 unit(s)	8,30

Protective face masks



Medical face mask SUAVEL® Antifog

Meditrade.

Acc. to EN 14683 type II, (EU) 2017/745 class 1.

- With effective glasses condensation insulation, suitable for glasses wearers
- For standard and long-term applications
- 3-ply skin-friendly material
- Extra long straps for tying together
- Latex-free, lint-free, non-sterile
- For single use

Technical specifications:

Art. No.	**1LX1.1**
Standards	DIN EN 14683
Performance level	Type II
Bacteria filtration efficiency (BFE)	≥98 %
Colour	blue

Medical device class I

Colour	Art. No.	Pack Qty.	€
blue	**1LX1.1**	50 unit(s)	19,00



Medical face mask SUAVEL® Protec type IIR

Meditrade. Non-sterile.

Acc. to EN 14683 type II, (EU) 2017/745 class 1.

- 3-layered mouth and nose protection for single use
- With elasticated ear loops
- Premium-quality materials ensure the masks are well tolerated by the skin
- Ultrasonic sealing: No uncomfortable seams or threads coming loose
- Nose bridge made of aluminium, PP-coated, for optimal adjustment to your face
- Higher resistance against liquids and aerosols

Technical specifications:

Art. No.	**1NY4.1**
Standards	DIN EN 14683
Performance level	Type IIR
Bacteria filtration efficiency (BFE)	>98 %
Colour	blue

Medical device class I

Colour	Art. No.	Pack Qty.	€
blue	**1NY4.1**	50 unit(s)	5,55



Medical face mask SUAVEL® Sensima

Meditrade.

Acc. to EN 14683 type II, (EU) 2017/745 class 1.

- Hypoallergenic, suitable for sensitive users
- Splash and fluid protection for mouth, nose and eyes
- 3-ply skin-friendly material
- For standard and long-term applications
- Extra long straps for tying together
- Latex-free, lint-free, non-sterile
- For single use

Technical specifications:

Art. No.	**1LX2.1**
Standards	DIN EN 14683
Performance level	Type II
Bacteria filtration efficiency (BFE)	≥98 %
Colour	white

Medical device class I

Colour	Art. No.	Pack Qty.	€
white	**1LX2.1**	50 unit(s)	15,45



Medical face mask MEDI-INN

BodyProducts.

Acc. to EN 14683 type II, (EU) 2017/745 class 1.

- 3-ply, non-woven polypropylene
- Secure fit thanks to metal nose bridge
- With ear loops
- Great wearing comfort, skin-friendly elastic straps
- Free of glass fibre and latex
- For single use
- One size fits all

Technical specifications:

Art. No.	**1N15.1**	**1N16.1**
Standards	DIN EN 14683	
Performance level	Type II	
Bacteria filtration efficiency (BFE)	≥98 %	
Colour	blue	white

Medical device class I

Colour	Art. No.	Pack Qty.	€
blue	**1N15.1**	50 unit(s)	4,55
white	**1N16.1**	50 unit(s)	4,55



Medical face mask MaiMed FM Comfort

MaiMed.

Acc. to EN 14683 type II, (EU) 2017/745 class 1.

- 3-ply, non-woven polypropylene (free of glass fibre)
- correct fit thanks to adjustable nose bridge
- With ear loops
- Hypoallergenic and breathable
- Ideal fit enables unobstructed breathing
- For single use
- One size fits all

Technical specifications:

Art. No.	1N1Y.1
Standards	DIN EN 14683
Performance level	Type II
Bacteria filtration efficiency (BFE)	≥98 %
Colour	black

Medical device class I

Colour	Art. No.	Pack Qty.	€
black	**1N1Y.1**	50 unit(s)	5,95



FFP2 pandemic fold-flat mask KF-A F10 black

MaiMed.

Acc. to EN 149:2001+A1:2009.

- Particulate-filtering fold-flat mask without exhalation valve
- High wearing comfort
- High-quality, multi-layer non-woven fabric
- Elastic ear loops made from skin-friendly material (without natural latex)
- Flexible, adjustable nose bracket for a more reliable seal
- Highly compatible with safety spectacles
- Hygienic, as masks are individually packed

Technical specifications:

Art. No.	1Y46.1
Protection level	FFP2 NR
Exhalation valve	no
Standards	EN 149:2001+A1:2009

Protection level	Pack.	Art. No.	Pack Qty.	€
FFP2 NR	individual	**1Y46.1**	6 unit(s)	4,25



Particulate filter mask Moldex Classic

Moldex.

Acc. to EN 149:2001+A1:2009.

Protection against dust, aerosols and fumes:

- Anatomically preformed masks adapt to fit different face sizes
- DuraMesh®: sturdy mask mesh keeps the mask in shape
- ActivForm®: no nose bridge required
- Continuous strap enables precision adjustment of the tension distribution over the head
- Skin-friendly inner fleece layer

Technical specifications:

Art. No.	1LP7.1	1LPA.1	1LP8.1	1LPC.1	1LP9.1
Protection level	FFP1 NR D		FFP2 NR D		FFP3 NR D
Exhalation valve	yes	no	yes	no	yes
Standards	EN 149:2001+A1:2009				

With Klimaventil®

For easy exhalation, the Klimaventil® opens at the lightest exhalation pressure and reduces heat and moisture under the mask.

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP1 NR D	2365	**1LP7.1**	20 unit(s)	81,20
FFP2 NR D	2405	**1LP8.1**	20 unit(s)	101,95
FFP3 NR D	2555	**1LP9.1**	20 unit(s)	162,35

Without Klimaventil®

Protection level	Manufacturer no.	Art. No.	Pack Qty.	€
FFP1 NR D	2360	**1LPA.1**	20 unit(s)	42,90
FFP2 NR D	2400	**1LPC.1**	20 unit(s)	73,00



Storage bag for FFP masks

Moldex.

Sturdy bag with zip, ideally suited to the hygienic storage of reusable Air Plus fine dust masks or to the storage of conventional Moldex FFP masks.

Delivery incl. a carabiner clip and a writeable name plate.

Manufacturer no.	Art. No.	Pack Qty.	€
399401	**1LPL.1**	1 unit(s)	19,90

Respiratory filter with standard thread

BartelsRieger Atemschutztechnik.

Acc. to EN 14387 (gas and combined filters) and EN 143 (particulate-filters). With EN 148-1 standard thread. Filter casing made of aluminium. Can be combined with respiratory half masks and full-face masks with standard thread connection.
Max. storage life of unopened gas and combined filters is six years after production. AX and NO filters are only intended for single use.



Protection level	Colour code	Weight (g)	Art. No.	Pack Qty.	€
A2	brown	180	**1270.1**	1 unit(s)	12,55
B2	grey	200	**1271.1**	1 unit(s)	14,45
E2	yellow	250	**1277.1**	1 unit(s)	13,30
K2	green	225	**1275.1**	1 unit(s)	13,75
P3 R D	white	50	**1225.1**	1 unit(s)	9,20
AX	brown	265	**1550.1**	1 unit(s)	21,70
A2-P3 R D	brown, white	260	**A249.1**	1 unit(s)	20,75
B2-P3 R D	grey, white	270	**0029.1**	1 unit(s)	24,20
AX-P3	brown	290	**KP19.1**	1 unit(s)	22,65
NO-P3	blue, white	370	**1224.1**	1 unit(s)	79,75
A2B2-P3 R D	brown, grey, white	295	**1E20.1**	1 unit(s)	22,35
A2B2E2K1	brown, grey, yellow, green	250	**1E22.1**	1 unit(s)	18,25
A2B2E2K1-P3 R D	brown, grey, yellow, green, white	295	**1E21.1**	1 unit(s)	22,55
A2B2E2K2-P3 R D	brown, grey, yellow, green, white	360	**0635.1**	1 unit(s)	25,80
A2B2E2K1Hg-P3 R D	brown, grey, yellow, green, white, red	295	**1T0C.1**	1 unit(s)	40,65
A2B2E2K2Hg-P3 R D	brown, grey, yellow, green, white, red	360	**KP20.1**	1 unit(s)	27,90

Detailed product information can be found in our webshop!



Always current prices!

- All relevant product information
- Status of product availability
- Specifications and certificates of analysis
- Instructions for use

Ear protection



Earmuffs M series

Moldex.

Acc. to EN 352-1. User-friendly earmuffs, ideal protection from varying levels of noise. Typical Moldex: high-quality materials and excellent production quality ensure a long service life.

- Secure fit: adjustable headband and easy on-head size adjustment
- High degree of wear comfort: cushion-ribbed headband is comfortably soft and allows good ventilation
- Comfortable: large ear cushions made from viscoelastic foam ensure optimal pressure distribution
- Durable: high-gloss finish prevents dirt from sticking and is easy to clean. Ear cushions and foam insert can be replaced

Technical specifications:

Art. No.	1LPE.1	1LPH.1	1LPK.1
H value	34 db	39 db	
M value	27 db	31 db	
L value	20 db	23 db	25 db
SNR value	30 db	34 db	35 db

(1) M4

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
6110	30	**1LPE.1**	1 unit(s)	34,95

(2) M5

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
6120	34	**1LPH.1**	1 unit(s)	38,70

(3) M6

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
6130	35	**1LPK.1**	1 unit(s)	46,20



Earmuffs Z2

Moldex.

Acc. to EN 352-1. Practical earmuffs, ideal protection from varying levels of noise.

- Secure fit: adjustable headband and easy adjustment
- Grip points make it easy to take them on and off
- Ear cushions and foam insert can be replaced
- No metal parts
- Colour: black

Technical specifications:

Art. No.	1LTT.1
H value	31 db
M value	27 db
L value	17 db
SNR value	28 db

Manufacturer no.	SNR value (db)	Art. No.	Pack Qty.	€
6220	28	**1LTT.1**	1 unit(s)	39,60

Hygiene kit for earmuffs

M1 and Z2

Manufacturer no.	Art. No.	Pack Qty.	€
6105	**NH62.1**	1 unit(s)	11,85

M series

2 ear cushions, 2 foam inserts

Suitable for	Manufacturer no.	Art. No.	Pack Qty.	€
M4	6115	**1LPP.1**	1 set	10,65
M5 and M6	6135	**1LPN.1**	1 set	10,00



Skin protection LINDESA® O PROFESSIONAL cream

Physioderm.

Medium-moisturising skin protection cream, O/W emulsion (oil-in-water) with beeswax. Protects against skin damage caused by external stresses. Contains glycerine and hamamelis. Silicone-free, subtly scented. Protects against oil-soluble working materials, particularly suitable for handling oils, non-water-miscible cooling lubricants, cutting oils and other oily substances.

Technical specifications:

Art. No.	1PP7.1
Protection recommendation for	hydrophobic working materials
Formulation	silicone-free

Pack.	Art. No.	Pack Qty.	€
100 ml tube	**1PP7.1**	1 unit(s)	6,15



Skin protection and skin care LINDESA® PROFESSIONAL cream

Physioderm.

Water-in-oil emulsion containing natural beeswax and allantoin for skin care. For use in applications involving low stress on the skin or daily work in high humidity environments. Protects against skin damage and soothes irritated skin areas while smoothing and conditioning the skin. Suitable as an after-work skin care cream or for conditioning stressed skin. Fast-absorbing, low-greasing, silicone-free, beeswax-scented.

Technical specifications:

Art. No.	YY19.1	YY19.2	YY19.3
Protection recommendation for	water-soluble working materials		
Formulation	silicone-free		

Pack.	Art. No.	Pack Qty.	€
50 ml tube	**YY19.1**	1 unit(s)	5,50
100 ml tube	**YY19.2**	1 unit(s)	6,15
1000 ml dispenser bottle	**YY19.3**	1 unit(s)	56,45



Skin protection PROTEXSAN cream

Physioderm.

Protection against water-soluble and water-miscible substances (e.g. water-mixed oils and cooling lubricants, diluted acids and alkalis, alcohol, washing-up liquids and detergents, disinfectants, salts, and cement) and against free radicals.

- Contains luteolin, coenzyme Q10 and vitamin E, as well as skin-related lipids
- Does not contain any aluminium salts, preservatives or emulsifiers
- Free of mineral oil, silicone and unscented
- Fast-absorbing
- HACCP-compliant

Technical specifications:

Art. No.	EEE6.1	EEE6.2
Protection recommendation for	water-soluble working materials, varying working materials	
Formulation	mineral oil-free, paraben-free (does not contain any preservatives), fragrance-free, silicone-free, vegan	

Pack.	Art. No.	Pack Qty.	€
50 ml tube	**EEE6.1**	1 unit(s)	13,05
500 ml pump bottle	**EEE6.2**	1 unit(s)	29,60



Lip protection and care Physioderm® FROST & SUN LIP BALM

Physioderm.

Protects and cares for lips in cold, windy and dry air conditions and protects against natural UV radiation.
Suitable for chapped, cracked and dry lips.

- Protects against UVA and UVB rays
- With sun protection factor 30
- With beeswax, bisabolol, vitamin E and high-quality shea butter
- Easy to apply
- Greasing and colourless after application
- Does not contain mineral oil or silicone

Technical specifications:

Art. No.	1T0H.1
Protection recommendation for	cold and frost, UV radiation
Formulation	mineral oil-free, paraben-free (does not contain any preservatives), silicone-free

Pack.	Art. No.	Pack Qty.	€
Lip balm	**1T0H.1**	25 unit(s)	66,05



Hand disinfectant Sterillium® Protect&Care Gel

Hartmann.

Practical and comprehensively effective hand sanitiser with moisturising components.

- Eliminates 99.9% of germs, incl. norovirus
- Fast acting against bacteria, fungi and enveloped viruses
- Short reaction time
- Very good hypoallergenic properties for skin
- Ideal for on-the-go use

Use biocides with care. Always read the label and the product information before use.

Danger H225-H319

Pack.	Art. No.	Pack Qty.	€
35 ml bottle	**1Y0P.1**	24 unit(s)	n. a.



Hand cleansing Baktolin® foam soap

BODE Chemie.

Mild, skin-caring cleaning foam for use in CleanSafe dispensers. Extremely cost-effective dispensing, and easy to rinse.
Areas of application: with a pH value of 5.5, Baktolin® foam helps to preserve the natural acidic mantle of the skin, making it particularly well-suited to work environments that require frequent hand cleaning, such as the hospital and food sector and industrial and laboratory applications.

- Excellent skin tolerance
- Suitable for sensitive skin
- Good skincare properties with glycerine
- Skin-neutral pH value 5.5
- Free of soap and alkalis
- Fragrance-free and colourant-free

Technical specifications:

Art. No.	1XXP.1
In the event of soiling	low
Ingredients	with glycerine
Formulation	fragrance-free, silicone-free
Suitable for foodstuffs	yes
Suitable for	CleanSafe dispenser

Pack.	Suitable for	Art. No.	Pack Qty.	€
1000 ml CleanSafe dispenser bottle	CleanSafe dispenser	**1XXP.1**	1 unit(s)	12,40



Hand disinfectant Sterillium® Gel pure

Hartmann.

Highly effective rub-in hand disinfectant gel. Contains moisturising complex and does not leave sticky residues.
Active ingredient: 85 g ethanol per 100 g solution.
Efficacy range: bactericidal levurocidal, fungicidal, tuberculocidal, mycobactericidal, limited virucidal (incl. HBV, HIV, HCV), limited virucidal PLUS, virucidal.
Listing: VAH, DVV.

- Wide spectrum of activity against bacteria, fungi and viruses, incl. effectiveness against Norovirus as part of hygienic hand disinfection
- Increases skin moisturisation with regular use
- Excellent hypoallergenic properties, even over long-term use
- Exceptional instant effect
- Colourant- and fragrance-free
- Drip-free

Use biocides with care. Always read the label and the product information before use.

Technical specifications:

Art. No.	1Y84.1	1Y84.2	1Y84.3	1Y85.1
Ingredients	ethanol			
Formulation	fragrance-free			
Suitable for foodstuffs	yes			

Danger H225-H319

Original
Original packaging.

Pack.	Art. No.	Pack Qty.	€
100 ml bottle	**1Y84.1**	1 unit(s)	n. a.
475 ml bottle	**1Y84.2**	1 unit(s)	n. a.
1000 ml bottle	**1Y84.3**	1 unit(s)	n. a.

CleanSafe
Bottle with pre-fitted metering pump for use with CleanSafe dispensers.

Pack.	Art. No.	Pack Qty.	€
1000 ml CleanSafe dispenser bottle	**1Y85.1**	1 unit(s)	n. a.



Hand disinfectant Sterillium® pure

Hartmann.

Comprehensively effective with the proven Sterillium® skincare complex. Free of fragrances and colourants. The first ECARF-certified liquid hand disinfectant.
Rub-in disinfectant, suitable for hygienic and surgical disinfection.
Active ingredients per 100 g: propan-2-ol 45.0 g, propan-1-ol 30.0 g.
Efficacy range: bactericidal levurocidal, tuberculocidal, mycobactericidal, limited virucidal, limited virucidal PLUS, norovirus, adenovirus and rotavirus.
Listing: VAH, IHO.

- Comprehensively effective against bacteria, yeast fungi and enveloped viruses
- Particularly hypoallergenic, making it ideal for sensitive skin
- Increases skin moisturisation with regular use
- Excellent hypoallergenic properties, even over long-term use
- Excellent effectiveness after 15 sec
- Colourant- and fragrance-free
- ECARF-certified - allergy-friendly

Use biocides with care. Always read the label and the product information before use.

Technical specifications:

Art. No.	1Y83.1	1Y82.1	1Y82.2	1Y82.3	1Y82.4
Ingredients	propan-2-ol, propan-1-ol				
Formulation	fragrance-free				
Suitable for foodstuffs	yes				

Warning H226-H319-H336-H412

Original
Original packaging.

Pack.	Art. No.	Pack Qty.	€
100 ml bottle	**1Y82.1**	1 unit(s)	n. a.
500 ml bottle	**1Y82.2**	1 unit(s)	n. a.
1000 ml bottle	**1Y82.3**	1 unit(s)	n. a.
5 l canister	**1Y82.4**	1 unit(s)	n. a.

CleanSafe
Bottle with pre-fitted metering pump for use with CleanSafe dispensers.

Pack.	Art. No.	Pack Qty.	€
1000 ml CleanSafe dispenser bottle	**1Y83.1**	1 unit(s)	n. a.



Soap and disinfectant dispenser CleanSafe

BODE Chemie.

Reliable and user-friendly dispenser system, made of plastic or stainless steel. Available as manual and touchless variant. Suitable for collapsible 1000 ml CleanSafe bottles with pre-fitted pump for single use.
Suitable for use with hand disinfectants and gels.

- Easy and quick installation
- Easy, drip-free bottle replacement
- Ideal and reliable dosing, flexible stroke setting with three levels
- Optimal residue draining
- No time-consuming preparation of reusable pumps

Delivery incl. mounting material, installation and operating instructions, touchless variants including batteries.
No bottle (please order separately).

Extra basic
Material: stainless steel. Can be operated manually via the hand lever.

Suitable for	Art. No.	Pack Qty.	€
1000 ml CleanSafe dispenser bottles	**1XXY.1**	1 unit(s)	131,70

Extra touchless
Material: stainless steel. Touchless dispensing. Reliable infrared sensor technology with sensor display (battery voltage). Battery life 60,000 to 90,000 strokes.

Suitable for	Art. No.	Pack Qty.	€
1000 ml CleanSafe dispenser bottles	**1XY0.1**	1 unit(s)	231,15

Basic
Material: plastic. Can be operated manually via the pushbutton.

Suitable for	Art. No.	Pack Qty.	€
1000 ml CleanSafe dispenser bottles	**1XY1.1**	1 unit(s)	30,65

Touchless
Material: plastic. Touchless dispensing. Reliable infrared sensor technology with sensor display (battery voltage). Battery life 60,000 to 90,000 strokes.

Suitable for	Art. No.	Pack Qty.	€
1000 ml CleanSafe dispenser bottles	**1XY2.1**	1 unit(s)	93,00



Foam soap dispenser COSMOS

JM-Metzger. Material: ABS.

- Elegant and robust design
- User-friendly and thought-out handling
- Flexible thanks to removable wall bracket
- Hygienic due to the pump preassembled on the cartridge, no cleaning necessary
- Extremely cost-effective dosing system (0.4 ml/stroke)
- Lockable
- Colour: white

Manual

Delivery incl. mounting material.

Pic.	Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
(1)	Foam soap cartridge 1000 ml, EYX5.1	105 x 120 x 240	**EYX4.1**	1 unit(s)	50,70

With sensor

Delivery incl. mounting material and batteries.

Pic.	Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
(2)	Foam soap cartridge 1000 ml, 1H3T.1	105 x 120 x 250	**1H3P.1**	1 unit(s)	82,70



Hand cleansing foam soap cartridges

JM-Metzger.

- Mild and very skin-friendly
- Pleasant fruity, fresh fragrance
- Silicone-, paraben- and mineral oil-free
- pH 5.5–6.5
- Very economical in application

Technical specifications:

Art. No.	EYX5.1	1H3T.1
In the event of soiling	low	
Formulation	mineral oil-free, paraben-free (does not contain any preservatives), silicone-free	
Suitable for	COSMOS manual dispenser	COSMOS dispenser with sensor

Pic.	Pack.	Suitable for	Art. No.	Pack Qty.	€
(1)	1000 ml cartridge	COSMOS manual dispenser	**EYX5.1**	1 unit(s)	10,95
(2)	1000 ml cartridge	COSMOS dispenser with sensor	**1H3T.1**	1 unit(s)	9,60



Wall holder Safety Plus Eurodispenser

BODE Chemie. Material: plastic.

Stable and robust with wide arm lever for easy and intuitive use. Integrated trick lock for theft protection, without key. Can be used with 500 or 1000 ml BODE bottles and a metering pump.

- Integrated drip pan
- Smooth surfaces and rounded-off edges for uncomplicated cleaning
- For wall assembly, use as a desktop dispenser possible
- Easy and quick bottle replacement

Delivery incl. mounting material, without bottle and metering pump (please order separately).

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
500 ml BODE bottles	106.5 x 258 x 172.6	**1T7X.1**	1 unit(s)	33,30
1000 ml BODE bottles	125 x 305 x 205	**1T7Y.1**	1 unit(s)	34,95



A 121 °C

Wall holder Eurodispenser 3

BODE Chemie. Material: stainless steel. Autoclavable: yes.

- Robust and autoclavable metal design
- Space-saving and easy to handle
- For fastening to ISO standard rails or bed frames
- Can be used with 500 or 1000 ml BODE bottles and a metering pump
- Long service life and easy preparation
- No mounting material required
- Drip pan can be clicked on - separately available

Delivery without bottle and metering pump (please order separately).

Version	Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
with bent holder	1000 ml BODE bottles	90 x 90 x 140	**1T84.1**	1 unit(s)	16,45
with straight holder	500 ml BODE bottles	73 x 75 x 115	**1T83.1**	1 unit(s)	14,95



Wall holder BODE

BODE Chemie. Material: plastic.

Stable and robust, for hand sanitiser, washing and body lotion bottles or tissue containers. Easy attachment and cleaning. Resistant to hand sanitisers.

Delivery incl. mounting material, without bottle/tin and metering pump (please order separately).

Suitable for	Art. No.	Pack Qty.	€
500 ml Euro bottles	**1T7N.1**	2 unit(s)	15,95
1000 ml Euro bottles and tins	**1T7P.1**	2 unit(s)	17,75



Wall holder BODE Plus

BODE Chemie. Material: plastic.

Space-saving and handy wall holder, stable and robust, fits every wall and ensures easy use directly at the site of operation.
Can be used with 350/500 ml BODE bottles and a metering pump.
Quick and easy assembly thanks to screw or adhesive attachment.

Delivery incl. mounting material, without bottle, metering pump and drip pan (please order separately).

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
350/500 ml BODE bottles	76 x 79 x 165	**1T7T.1**	1 unit(s)	7,85



Accessories for BODE Plus and Eurodispenser 3 wall holder

BODE Chemie. Material: plastic.

Drip pan

Version	Art. No.	Pack Qty.	€
Drip pan	**1T80.1**	1 unit(s)	4,10



A 121 °C

Wall holder Eurodispenser 2

BODE Chemie. Material: stainless steel. Autoclavable: yes.

- Robust and autoclavable metal design
- Space-saving and easy to handle
- Suitable for wall mounting due to rear wall
- Arm lever (200 mm) with flexible hinge for hygienic application
- Can be used with 500 or 1000 ml BODE bottles and a metering pump
- Long service life and easy preparation

Delivery incl. mounting material, without bottle and metering pump (please order separately).

Suitable for	W x D x H (mm)	Art. No.	Pack Qty.	€
500 ml BODE bottles	90 x 240 x 200	**1T81.1**	1 unit(s)	53,65
1000 ml BODE bottles	95 x 250 x 250	**1T82.1**	1 unit(s)	58,00



Drip pan for disinfectant dispensers plus Touchless

BODE Chemie. Material: plastic.

Suitable for	Art. No.	Pack Qty.	€
CTC0.1 and CTC1.1	**1T9P.1**	1 unit(s)	95,50



Replacement pump for disinfectant dispensers plus Touchless

BODE Chemie. Material: stainless steel.

Suitable for	Art. No.	Pack Qty.	€
500 ml bottles	**1T9T.1**	1 unit(s)	45,50
1000 ml bottles	**1T9X.1**	1 unit(s)	45,50

Disposable gloves



Finger stalls PE with cuff

WIROS. Material: PE. Non-sterile.

For single use. Smooth surface, sealed seam.
Moisture-repellent, latex-free, non-sterile. Wall thickness: 25 µm.
One size fits all.
Suitable for handling foodstuffs.

Colour	Pack.	Art. No.	Pack Qty.	€
translucent	10 x 100	**1Y1X.1**	1,000 unit(s)	18,10



S Cat. III

Examination gloves Sempercare® nitrile sterile

Semperit. Material: nitrile rubber. **Sterile**.

Disposable gloves, powder-free
Acc. to 93/42 EEC medical device class Is, EN 420, EN ISO 374-1 type C, EN ISO 374-5, EN 455, AQL 1.5.
Acc. to EC regulation 1935/2004 – suitable for contact with foodstuffs.
Gamma-sterilised acc. to EN 552, EN 556.

- Protection against infection for user and patient
- Textured fingers for secure grip
- High tensile strength (6 N) gives superior protection for use in critical environments
- Synthetic inner coating makes the gloves easy to put on
- Rolled edge
- Can be used on either side
- Free of latex proteins
- Glove thickness: 0.08 mm (palm), 0.10 mm (fingertips)
- Each pair has covered cuffs in foil peel pack for easy handling

Medical device class I MDD

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	S (6–7)	blue	**1XPA.1**	50 pair	70,75
≥240	M (7–8)	blue	**1XPC.1**	50 pair	70,75
≥240	L (8–9)	blue	**1XPE.1**	50 pair	70,75
≥240	XL (9–10)	blue	**1XPH.1**	50 pair	70,75



S

Disposable gloves MaiMed® copolymer sterile

MaiMed. Material: copolymer. **Sterile**.

- Each glove individually packed, stamped on paper
- Wearable on the left and right (ambidextrous)
- Latex-free and non-powdered
- Suitable for contact with foodstuffs.

Applications: hygiene and medical applications, for product protection in the industrial and food sector.

Medical device class I MDD

Length (mm)	Size	Colour	Pack.	Art. No.	Pack Qty.	€
280	S	colourless, translucent	100 x 1	**1Y43.1**	100 unit(s)	10,65
280	M	colourless, translucent	100 x 1	**1Y44.1**	100 unit(s)	10,65
280	L	colourless, translucent	100 x 1	**1Y45.1**	100 unit(s)	10,65



Cat. I

Household gloves MaiMed® easy touch

MaiMed. Material: natural rubber.

Acc. to EN 420. AQL 1.5.

- Anatomic fit
- High wear comfort thanks to cotton flock lining
- Mesh profile on the inside of the hand provides secure grip
- Suitable for contact with foodstuffs
- Surface thickness: approx. 0.33 mm
- Length: 300–310 mm

Applications: ideal for light cleaning work, such as dishwashing or washing surfaces. For food processing areas.

Size	Colour	Pack.	Art. No.	Pack Qty.	€
S	yellow	10 x 1	**1Y36.1**	10 pair	8,85
M	yellow	10 x 1	**1Y37.1**	10 pair	8,85
L	yellow	10 x 1	**1Y38.1**	10 pair	8,85
XL	yellow	10 x 1	**1Y39.1**	10 pair	8,85

Disposable gloves

Cat. III



Examination gloves Gentle Skin sensitive

Meditrade. Material: natural rubber. Non-sterile.

Acc. to EN 420, EN ISO 374-1 type C (K), EN ISO 374-5, EN 455. AQL 1.5.
Acc. to 93/42/EEC medical product class I.
Acc. to 1935/2004 – suitable for contact with foodstuffs.

- **Disposable gloves, non-powdered**
- Micro-rough surface, double-chlorinated
- Excellent tactile sensitivity and flexibility
- Low-protein
- Can be worn on either hand
- With rolled edge
- Surface thickness: approx. 0.11 mm

Applications: suitable as infection protection in clinic, hospital and research environments, for use in the care sector, in laboratories, in the pharmaceutical industry, in food processing, in cleaning and in industrial areas.

10% discount on orders of 10 boxes per size.

Medical device class I MDD

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
≥240	XS	natural	**1N17.1**	100 unit(s)	12,05
≥240	S	natural	**1N18.1**	100 unit(s)	12,05
≥240	M	natural	**1N19.1**	100 unit(s)	12,05
≥240	L	natural	**1N1A.1**	100 unit(s)	12,05
≥240	XL	natural	**1N1C.1**	100 unit(s)	12,05



Cat. III



Disposable gloves Dermatril® LR 742

KCL by Honeywell. Material: nitrile rubber. Non-sterile.

Acc. to EN 420, EN 455, EN ISO 374-1:2016 type B (KPT), EN ISO 374-5:2016 (virus), ASTM-F 1671-97, AQL 0.65.
Acc. to EN ISO 14644-1 suitable for use in clean room ISO class 5 (GMP A and B).

- Snug fitting, very high tactile sensitivity
- Long cuff, rolled edge, textured fingertips
- Reduced perspiration thanks to special nitrile
- Can be worn on either hand
- Good chemical resistance
- Increased tear resistance
- Powder-free and latex-free
- Silicone-free surface
- Length: 270–290 mm
- Thickness: 0.11 mm
- Clean room packaging (packed in pairs in PE bags)

Applications: laboratory and research, chemical industry, medical technology, pharmaceutical manufacturing, handling of cytostatic agents, electronics industry and chip manufacturing

Medical device class I MDD

Size	Colour	Pack.	Art. No.	Pack Qty.	€
7 (S)	light blue	10 x 50 pieces	**1T38.1**	500 unit(s)	449,35
8 (M)	light blue	10 x 50 pieces	**1T39.1**	500 unit(s)	469,80
9 (L)	light blue	10 x 50 pieces	**1T3A.1**	500 unit(s)	469,80
10 (XL)	light blue	10 x 50 pieces	**1T3C.1**	500 unit(s)	449,35
11 (XXL)	light blue	10 x 50 pieces	**1T3E.1**	500 unit(s)	449,35

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Cat. III

Disposable gloves KIMTECH® Purple Nitrile

Kimberly-Clark. Material: nitrile rubber. Non-sterile.

Acc. to EN 420, EN ISO 374-1/type B (JKT) and EN ISO 374-5 (virus). AQL 0.65.
Suitable for contact with foodstuffs.

- High-quality material offers excellent and reliable protection
- Very good fit
- Can be worn on either hand
- Textured fingertips for better grip
- Rolled edge makes them easy to put on
- Free of natural latex, silicone and non-powdered
- Protects against many chemicals and cytotoxic medication
- Thickness: 0.14 mm for increased safety

Applications: ideal for challenging environments with an increased risk in life sciences research and pharmaceutical manufacturing.

10% discount on orders of 10 boxes per size.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
240	XS	purple	**1T0K.1**	100 unit(s)	53,55
240	S	purple	**1T0L.1**	100 unit(s)	53,55
240	M	purple	**1T0N.1**	100 unit(s)	53,55
240	L	purple	**1T0P.1**	100 unit(s)	53,55
240	XL	purple	**1T0T.1**	90 unit(s)	53,55

Purple Nitrile Xtra
Offers additional protection for wrists thanks to the extended shaft.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
300	XS	purple	**1T0X.1**	50 unit(s)	40,75
300	S	purple	**1T0Y.1**	50 unit(s)	40,75
300	M	purple	**1T10.1**	50 unit(s)	40,75
300	L	purple	**1T11.1**	50 unit(s)	40,75
300	XL	purple	**1T12.1**	50 unit(s)	40,75



Cat. III

Protective glove box gloves Honeywell Neoprene

Honeywell Safety. Material: neoprene (polychloroprene), no backing material.

- Effective protection in moderately contaminated chemical environments
- Chemical resistance to most acids, alcohols, oils, lubricants and hydrocarbons
- Enhanced finger mobility for improved handling of objects
- With rolled edge
- Smooth surface
- Port (shaft size) 203 mm
- Both hands or specific hand

Applications: biotechnology, chemical and pharmaceutical research, chemical processing, laboratory work and analyses, particularly where acid resistance is required, processing of chemical and biological products, product protection work.

Thickness: 0.38 mm
Acc. to EN 420, EN ISO 374-1/type A (AKLMOT), EN ISO 374-5 (virus), EN 388 (1101X), EN 421.

Version	Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
specific hand	815	9	black	**1XT6.1**	1 pair	354,75
specific hand	815	10	black	**1XT7.1**	1 pair	354,75
both hands	815	9	black	**1XT8.1**	1 pair	354,75
both hands	815	10	black	**1XT9.1**	1 pair	354,75

Thickness: 0.76 mm
Acc. to EN 420, EN ISO 374-1/type A (AKLMOT), EN ISO 374-5 (virus), EN 388 (3101X), EN 421.

Version	Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
specific hand	815	9	black	**1XTA.1**	1 pair	565,45
specific hand	815	10	black	**1XTC.1**	1 pair	565,45
both hands	815	9	black	**1XTE.1**	1 pair	565,45
both hands	815	10	black	**1XTH.1**	1 pair	565,45



Cat. III



Chemical protection gloves u-chem 3500

UVEX. Material: nitrile rubber, chloroprene rubber.

Acc. to EN 420, EN 388 (3121X), EN ISO 374-1/type A (ACJKLM-NOPST), EN ISO 374-5. EN 407 (X1XXXX). AQL 0.65.

- Anatomic fit
- High wearing comfort, flexibility and enhanced grip
- Good resistance to many chemicals and mixtures
- Inside with cotton jersey, seamless
- Coating thickness 0.4 mm
- Length 320 mm

Size	Colour	Art. No.	Pack Qty.	€
7	orange	**1PHT.1**	1 pair	20,90
8	orange	**1PHX.1**	1 pair	20,90
9	orange	**1PHY.1**	1 pair	20,90
10	orange	**1PK0.1**	1 pair	20,90
11	orange	**1PK1.1**	1 pair	20,90





Heat- and cut-resistant gloves k-basic extra 6658

UVEX. Material: Kevlar®, cotton.

Acc. to EN 420, EN 388:2016 (2442D) and EN 407:2004 (X2XXXX). 100% Kevlar exterior, cotton interior. With knitted cuff, uncoated surface.

- Protects against contact heat up to +250 °C
- Good cut resistance
- Excellent thermal insulation when in direct contact with warm or hot objects
- Good wear comfort thanks to soft cotton interior

Applications: light to moderate metalworking, glass handling, automotive industry.

Size	Colour	Art. No.	Pack Qty.	€
8	yellow	**1P7X.1**	1 pair	42,00
10	yellow	**1P7Y.1**	1 pair	42,00



Cat. II



Multi-purpose gloves phynomic airLite A ESD

UVEX.

Acc. to ISO 21420, EN 388 (3110X) and EN 16350:2014. Protective glove with ESD function – protects workpieces against electrostatic discharge. Outer material made of polyamide, elastane and carbon, aqua polymer coating over the palm and fingertips. With knitted cuff.

- Lightweight and breathable
- Excellent tactile sensitivity
- Ergonomic fit, no fatigue after long periods of wear
- Excellent grip in dry and slightly damp areas
- Very gentle to skin, free from allergenic accelerators
- Suitable for touchscreens – usable with all common screens, tablets and mobile phones

Applications: precision work, fine assembly, sorting work, quality assurance.

Size	Colour	Art. No.	Pack Qty.	€
7	black	**1P7H.1**	10 pair	69,80
8	black	**1P7K.1**	10 pair	69,80
9	black	**1P7L.1**	10 pair	69,80
10	black	**1P7N.1**	10 pair	69,80
11	black	**1P7P.1**	10 pair	69,80





Heat-resistant gloves profatherm XB40

UVEX. Material: cotton.

Acc. to EN 420, EN 388 (2241B) and EN 407 (X2XXXX). Made of cotton loop material, uncoated, with cuff.

- Protects against contact heat up to +250 °C in dry work environments
- Excellent thermal insulation and high wear comfort

Applications: light to moderate metalworking, iron and steel industry, plastic processing industry.

Length (mm)	Size	Colour	Art. No.	Pack Qty.	€
400	11	white	**1P7T.1**	1 pair	11,95



Work coat uvex suXXeed ESD

UVEX.

Meets industrial requirements according to DIN EN 61340. Fitted waist, sporty design and ideal fit. Certified according to OEKO-TEX® Standard 100. Mixed fabric made of 66.5% polyester, 32% cotton and 1.5% anti-static conductive carbon fibre.
Fabric weight 245 g/m².

- Lapel
- Long sleeve
- 1 left breast inside pocket, 2 attached side pockets
- Stretch insert in the sleeve hem
- Concealed snap fastener and cover
- Washable in delicates cycle at 60 °C, industrial cleaning possible (tested acc. to DIN EN ISO 15797).

Applications: microelectronics laboratory environments, conductor technology and semi-conductor production, cable manufacturing, assembly production, unit installation, automotive industry and suppliers.

Model 7463 for women

Colour	Size	Art. No.	Pack Qty.	€
white	XS	**1N00.1**	1 unit(s)	78,75
white	S	**1N01.1**	1 unit(s)	78,75
white	M	**1N02.1**	1 unit(s)	78,75
white	L	**1N03.1**	1 unit(s)	78,75
white	XL	**1N04.1**	1 unit(s)	78,75
white	XXL	**1N05.1**	1 unit(s)	83,50
graphite	XS	**1N06.1**	1 unit(s)	75,15
graphite	S	**1N07.1**	1 unit(s)	75,15
graphite	M	**1N08.1**	1 unit(s)	72,00
graphite	L	**1N09.1**	1 unit(s)	75,15
graphite	XL	**1N0A.1**	1 unit(s)	75,15
graphite	XXL	**1N0C.1**	1 unit(s)	83,50

Model 7464 for men

Colour	Size	Art. No.	Pack Qty.	€
white	S	**1N0E.1**	1 unit(s)	75,60
white	M	**1N0H.1**	1 unit(s)	78,75
white	L	**1N0K.1**	1 unit(s)	78,75
white	XL	**1N0L.1**	1 unit(s)	78,75
white	XXL	**1N0N.1**	1 unit(s)	83,50
white	XXXL	**1N0P.1**	1 unit(s)	83,50
graphite	S	**1N0T.1**	1 unit(s)	78,75
graphite	M	**1N0X.1**	1 unit(s)	78,75
graphite	L	**1N0Y.1**	1 unit(s)	78,75
graphite	XL	**1N10.1**	1 unit(s)	78,75
graphite	XXL	**1N11.1**	1 unit(s)	83,50
graphite	XXXL	**1N12.1**	1 unit(s)	83,50



Cat. I



Disposable overall made of non-woven PP

WIROS. Material: PP non-woven fabric.

- Kind to skin and breathable
- With hood and zip fastener
- Elastic bands on the sleeve and leg cuffs
- Individually hygienically packed
- 30 g/m²

Suitable for laboratory and cleaning work in dirty environments or as hygiene prevention for care staff or in food manufacturing.

Size	Colour	Length (cm)	Pack.	Art. No.	Pack Qty.	€
M	white	167	individual	**1N2N.1**	10 unit(s)	40,35
L	white	171	individual	**1N2P.1**	10 unit(s)	33,35
XL	white	178	individual	**1N2T.1**	10 unit(s)	38,10
XXL	white	183	individual	**1N2X.1**	10 unit(s)	33,35
XXXL	white	188	individual	**1N2Y.1**	10 unit(s)	40,35



Cat. III



Overalls uvex classic light 7687 type 5/6

UVEX. PP spunbound with laminated PE film, 55 g/m².

Type 5 acc. to EN 13982-1, type 6 acc. to EN 13034, particle-tight and limited spray-tightness. Antistatic acc. to EN 1149-1. Protects against infective agents.

- Optimal fit for high wearing comfort
- Made of lightweight and breathable material, skin-friendly inner fleece layer
- Middle finger loops prevent the sleeves from riding up
- Secure seal as they are elasticated at the hood, arms and legs
- Elasticated waist for a better fit
- Self-adhesive zip cover
- For single use

Size	Colour	Art. No.	Pack Qty.	€
S	white	**1PK2.1**	1 unit(s)	6,95
M	white	**1PK3.1**	1 unit(s)	6,95
L	white	**1PK4.1**	1 unit(s)	6,95
XL	white	**1PK5.1**	1 unit(s)	6,95
XXL	white	**1PK6.1**	1 unit(s)	6,95
XXXL	white	**1PK7.1**	1 unit(s)	6,95



Cat. I

Disposable apron Medi-Inn® made of PE

BodyProducts. Material: PE.

Effective hygienic protection against liquids and dirt.
Suitable for contact with foodstuffs according to 1935/2004.

- Hammered surface
- Impervious to fluids
- Excellent tear resistance
- Head strap for wearing around the neck
- Two straps for tying together

Applications: laboratory and research, food industry, kitchens, catering, clinics, hospitals and care environments.

Colour	Thickness (µm)	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
blue	18	75	125	**1N3H.1**	100 unit(s)	11,10
white	18	75	125	**1N3K.1**	100 unit(s)	11,10
blue	18	75	140	**1N3L.1**	50 unit(s)	7,30
white	18	75	140	**1N3N.1**	50 unit(s)	7,30



Disposable apron made of PE detectable

WIROS. Material: PE with metal addition.

- Detectable with metal detector
- Extra strong, durable and tearproof
- Smooth surface
- PE ties at the waist
- Moisture-repellent, robust, tearproof
- Suitable for handling foodstuffs

Colour	Thickness (µm)	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
dark blue	60	75	125	**1Y26.1**	100 unit(s)	14,95



Cat. I

Disposable gowns Medi-Inn® made of CPE

BodyProducts. Material: CPE (cast polyethylene).

Effective hygienic protection against liquids and dirt.
Suitable for contact with foodstuffs according to 1935/2004.

- Hammered surface
- Impervious to fluids
- Highly durable
- Secure fit thanks to thumb loops
- Two straps for tying around the back

Applications: laboratory and research, food industry, kitchens, catering, clinics, hospitals and care environments.

Colour	Thickness (µm)	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
blue	22	110	140	**1N3E.1**	10 unit(s)	11,25



Medical hygiene set for visitors

WIROS.

For single use, latex-free.

- 1 x PP gown with PE coating on the arms and front, blue, size XL, acc. to EN 14126:2003
- 1 x Medical face mask, 3-ply, blue, type II acc. to EN 14683
- 1 x Beret-style cap made of non-woven PP, blue, size L
- 1 x Pair nitrile disposable gloves, blue, size M
- 1 x Pair CPE overshoes, blue, size M

Medical device class I

Version	Art. No.	Pack Qty.	€
Hygiene set, 5-piece	**1Y27.1**	1 set	3,85





Disposable net cover Honeycomb

WIROS. Material: nylon.

Beret-style, honeycomb net, breathable, lightweight and robust. Bordered latex-free elastic band. Comfortable to wear.
Applications: laboratory, pharmaceutical and manufacturing industry, food production, electronics, hygiene and cleaning.

Pic.	Colour	Art. No.	Pack Qty.	€
(1)	white	**1Y21.1**	100 unit(s)	15,95
(2)	blue	**1Y22.1**	100 unit(s)	15,95

Cat. I

Disposable net cover Micromesh

Franz Mensch. Material: nylon.

Beret-style, fine mesh, breathable, lightweight and robust. Bordered latex-free elastic band. Comfortable to wear.
Applications: laboratory, pharmaceutical and manufacturing industry, food production, electronics, hygiene and cleaning.

Colour	Art. No.	Pack Qty.	€
white	**1Y35.1**	100 unit(s)	19,90





Cat. I

Sleeves Medi-Inn® made of polyethylene

BodyProducts. Material: PE.

- For single use
- Impermeable to moisture
- Easy to pull over clothing
- Holds securely thanks to elastic bands at both ends
- Safe for contact with foodstuffs

Applications: light general cleaning work and hygiene applications in hospitals and nursing homes. Handling pharmaceuticals, cosmetics and foodstuffs. Light protection for general maintenance work and spray painting.

Colour	Thickness (µm)	Width (cm)	Length (cm)	Pack.	Art. No.	Pack Qty.	€
white	20	20	40	5 x 100	**1PP5.1**	500 unit(s)	27,85
blue	20	20	40	5 x 100	**1PP4.1**	500 unit(s)	31,10
blue	40	20	40	1 x 100	**1PP6.1**	100 unit(s)	10,65

Sleeves made of non-woven PP

WIROS. Material: PP non-woven fabric.

- For single use
- Breathable
- Latex-free
- Easy to pull over clothing
- Holds securely thanks to elastic bands at both ends
- Safe for contact with foodstuffs

Pic.	Version	Colour	Length (cm)	Tissue weight (g/m²)	Art. No.	Pack Qty.	€
(1)	Standard	white	42	25	**1Y13.1**	100 unit(s)	21,95
(2)	Premium	blue	42	34	**1Y14.1**	100 unit(s)	24,65
(3)	Extra-thick	white	42	65	**1Y15.1**	100 unit(s)	32,15



Single-use socks wiroCOSYFEET

WIROS. Mixed fabric: 80% cotton, 17% nylon, 3% elastane.

- Good fit thanks to elastic cuffs
- Quick and easy to put on
- Comfortable to wear
- Seamless all-round knit, toe ends stitched down
- One size fits all 9 x 44 cm

Colour	Art. No.	Pack Qty.	€
white	**1Y1Y.1**	100 unit(s)	44,65



Overboots made of CPE

WIROS. Material: CPE.

- For single use
- Very robust and moisture-repellent
- Hammered surface
- Reinforced, anti-slip soles
- Bordered elastic band at the entry opening
- Additional PE ties along the shaft
- Wall thickness: 0.16 µm
- One size: L 40 x H 53 cm

Colour	Art. No.	Pack Qty.	€
white	**1Y25.1**	50 unit(s)	34,00



Overshoes CPE premium

WIROS. Material: CPE.

- Liquid repellent and robust
- Hammered surface
- Bordered elastic band at the entry opening
- For single use

Anti-slip

- Surface extra anti-slip laminated

Pic.	Colour	Art. No.	Pack Qty.	€
(1)	blue	**1Y2N.1**	50 unit(s)	29,90
(2)	white	**1Y2P.1**	50 unit(s)	29,90

Extra strong

- Very durable
- Wall thickness: 90 µm

Pic.	Colour	Art. No.	Pack Qty.	€
(3)	blue	**1Y2L.1**	50 unit(s)	14,75

Our ROTH-Service

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- Our product specialists advise you on technical and application questions
- Our field service team is on site for you



Plaster dispenser QuickFix

Plum.

- Dispenser housing made from shock-resistant plastic, protects the contents from dust and dirt
- Very compact, can fit almost any space
- Easy to mount and can be refilled as required
- Additional removable compartments for storing first-aid material in the dispenser
- System can be locked to protect against theft
- Hygienic one-handed dispensing. Plaster is completely unwrapped on one side upon dispensing, and can be applied straight to the wound

Delivery incl. attachment fittings and key.

Water resistant
Contains 2 packs (2 x 45 plasters), water-resistant, very skin-friendly plasters made of perforated, air-permeable, water-repellant textile fabric. Plaster size: 72 x 25 mm.

W x D x H (mm)	Art. No.	Pack Qty.	€
230 x 32 x 135	**HC43.1**	1 unit(s)	35,95

Elastic
Contains 2 packs (2 x 45 plasters) of plasters made of elastic, perforated and air-permeable textile fabric. Very skin-friendly and breathable. Plaster size: 72 x 25 mm.

W x D x H (mm)	Art. No.	Pack Qty.	€
230 x 32 x 135	**LK67.1**	1 unit(s)	40,00

Detectable
Contains 2 packs (2 x 45 plasters) of detectable blue plaster strips with integrated metal strips for detection by metal detectors for use in industries with sensitive hygienic requirements (e.g. the food industry). Plaster size: 72 x 25 mm.

W x D x H (mm)	Art. No.	Pack Qty.	€
230 x 32 x 135	**HC44.1**	1 unit(s)	48,95

QuickFix & Rinse
Contains 45 elastic plasters and 5 eye wash ampoules, each containing 20 ml sterile NaCl solution. The ampoules automatically open when removed from dispenser. The combination of plasters and eye wash ampoules ensures fast and hygienic first aid is available for minor accidents. Plaster size: 72 x 25 mm.

W x D x H (mm)	Art. No.	Pack Qty.	€
230 x 32 x 135	**1T6E.1**	1 unit(s)	43,45

Empty
No contents, can be filled as required. Can be filled with plasters from the QuickFix plaster range selected to suit individual requirements

W x D x H (mm)	Art. No.	Pack Qty.	€
230 x 32 x 135	**1T6H.1**	1 unit(s)	22,80



Plaster dispenser QuickFix UNO

Plum.

- Dispenser housing made from shock-resistant plastic, protects the contents from dust and dirt
- Small and space-saving, can fit almost any space
- Quick aid for smaller cuts
- Each plaster is individually packed in a hygienic way
- Removal with one hand, plasters unpack completely by themselves when pulled out on one side, and can be applied straight to the wound
- Easy to mount and can be refilled as required
- Can be attached to the wall through screws or adhesive strips

Delivery incl. adhesive strips for securing.

Elastic
Contains one pack (45 pieces) of plasters made of elastic, perforated and air-permeable textile fabric. Very skin-friendly and breathable. Plaster size: 72 x 25 mm.

Medical device class I MDD

W x D x H (mm)	Colour	Art. No.	Pack Qty.	€
130 x 35 x 85	white	**1T7C.1**	1 unit(s)	30,00

Empty
No contents, can be filled as required. Can be filled with plasters from the QuickFix plaster range selected to suit individual requirements.

W x D x H (mm)	Colour	Art. No.	Pack Qty.	€
130 x 35 x 85	white	**1T7E.1**	1 unit(s)	17,75
130 x 35 x 85	translucent	**1T7H.1**	1 unit(s)	14,20



Alcohol swabs MaiMed®

MaiMed. Non-sterile.

- Ready-to-use alcohol swabs made of non-woven fabric
- For cleaning uninjured skin
- For single use
- Dipped in 0.4 ml of 70% isopropyl alcohol
- Practical and quick to open
- Very tearproof and durable
- Size: 60 x 30 mm, folded down to 30 x 30 mm

Danger H225-H319-H336

Not a medical device / Not an IVD product

Alcohol swab

Colour	Pack.	Art. No.	Pack Qty.	€
white	100 x 1	**1P56.1**	100 unit(s)	5,30

Eye showers



Eye wash first aid box QuickSafe

Plum.

- First aid ready to hand in one place
- Flexible and clearly organised system
- Includes the most important products for cases of emergency
- High hygiene standard through dust-proof housing
- Robust and stable box made of impact-resistant plastic
- Low space requirement

Delivery incl. mounting material.

(1) QuickSafe Complete
For eye rinsing, wound care, small cuts and burns.
Content:

- 2 x 500 ml NaCl eye wash solution 0.9%, sterile (Y828.1)
- 1 x 200 ml pH neutral eye wash solution, sterile (AA81.1)
- 5 x 20 ml QuickRinse eye wash ampoules, sterile (ALC3.1)
- 18 x QuickCool burn gel (ALC2.1)
- 1 x QuickStop wound dressing set (ANE4.1)
- 20 x QuickClean wound cleansing wipes (ALC1.1)
- 1 x QuickFix Elastic plaster refill set with 45 plasters

Version	W x D x H (mm)	Art. No.	Pack Qty.	€
Complete	253 x 92 x 430	**ALA9.1**	1 unit(s)	160,20

(2) QuickSafe Chemical industry
For eye rinsing in accidents involving acids and alkalis.
Content:

- 1 x 500 ml NaCl eye wash solution 0.9%, sterile, DUO bottle (ALA8.1)
- 1 x 500 ml pH neutral eye wash solution, sterile, DUO bottle (LY45.1)
- 1 x 200 ml pH neutral eye wash solution, sterile (AA81.1)
- 5 x 20 ml QuickRinse eye wash ampoules, sterile (ALC3.1)
- 1 x QuickFix Elastic plaster refill set with 45 plasters

Version	W x D x H (mm)	Art. No.	Pack Qty.	€
Chemical industry	253 x 92 x 430	**ALC0.1**	1 unit(s)	150,70

(3) Empty
No contents, can be filled as required. Custom combination of eye wash bottles and first aid products from the QuickFix range according to requirements.

Version	W x D x H (mm)	Art. No.	Pack Qty.	€
Empty	253 x 92 x 430	**1T7K.1**	1 unit(s)	80,20



Hand-held eye shower for table mounting

B-Safety.

DIN-DVGW tested and approved. According to DIN EN 15154-2:2006 and ANSI Z358.1.

- With non-self-closing valve; the release lever locks by itself and the water is switched off again by simply unlocking the lever
- Made of plastic, media-carrying parts made of brass
- Stainless steel sheathed silicone hose, length 1.5 m
- Automatic flow regulation: Flow rate of 7 l/min per shower head with a minimum operating pressure of 1 bar
- Water connection ½″ internal thread, union nut
- Drinking water protection via integrated backflow preventer

Delivery incl. table duct made of brass, mounting kit, sealing ring and information sign for eye shower according to DIN EN ISO 7010 and ASR A1.3, self-adhesive PVC film, 100 x 100 mm.

(1) Straight, with a spray head

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
7	table	**1LXY.1**	1 unit(s)	260,15

(2) Angled at 45°, with a spray head

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
7	table	**1LY0.1**	1 unit(s)	319,30

(3) Angled at 45°, with two spray heads

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
14	table	**1LY1.1**	1 unit(s)	352,60

Eye showers



Eye shower with collection basin and cover

B-Safety.

DIN-DVGW tested and approved. According to DIN EN 15154-2:2006 and ANSI Z358.1.

- For surface-type wall mounting
- Housing and collection basin made of impact-resistant and UV-resistant ABS plastic
- Integrated folding protective cover to prevent contamination
- Activated by folding down the cover
- Ball valve $^{3}/_{8}$″ made of stainless steel, with lever activation via folding protective cover
- Spray regulator made of brass with an extremely limited spray pattern, chrome plated, with plastic spray plate, limescale-resistant, with rubber protection and tightly closing dust cover with folding mechanism
- With integrated flow regulator valve $^{3}/_{8}$″ for adjusting the desired spray height and flow rate
- Water connection: $^{3}/_{8}$″ external thread
- Operating pressure: 3 to 5 bar
- Drain connection: 1 ½″ external thread
- Temperature resistance: 70 °C (short-term)
- Attachment height (bottom edge): 910 mm (±200 mm)
- Dimensions: H 245 mm x W 355 mm x D 305 mm

Delivery incl. information sign for eye shower according to DIN EN ISO 7010 and ASR A1.3, self-adhesive PVC film, 100 x 100 mm.

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
14-20	wall, surface-mounted	**1LY2.1**	1 unit(s)	814,85



Eye shower Premium for wall installation

B-Safety.

DIN-DVGW tested and approved. According to DIN EN 15154-2:2006 and ANSI Z358.1.

- Safety eye shower in stainless steel housing for flush-type wall mounting
- Housing made of polished stainless steel
- Integrated hinged door made of stainless steel, with simultaneous activation mechanism for the eye shower when the door is folded down
- Wide-spray, high-power spray heads made of stainless steel with plastic spray plate, limescale-resistant, with rubber protection and tightly closing dust cover with folding mechanism, mounted via distributor fork
- Integrated automatic flow regulator 14 l/min
- Operating pressure: 2.5 to 5 bar
- Water connection: ½″ external thread
- Drain connection: $^{3}/_{4}$″ external thread
- Attachment height: 865 mm (±200 mm)
- Hole installation dimensions: H 380 x W 260 mm
- Dimensions: H 425 mm x W 305 mm x D 100 mm

Delivery incl. information sign for eye shower according to DIN EN ISO 7010 and ASR A1.3, self-adhesive PVC film, 100 x 100 mm.

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
14	wall, flush-type	**1LY3.1**	1 unit(s)	1.305,05



Emergency body shower

B-Safety.

DVGW-tested and approved. Acc. to DIN EN 15154-1:2006, DIN EN 15154-5:2019 and ANSI Z 358.1-2014.

- Application through wall flange, surface-mounted supply line
- Stable design due to robust brass body
- Chemical-resistant powder coating
- Large maintenance-free ball valve for high flow rates (50 l/min at 1.5 bar)
- 1.5 to 3 bar water pressure application range
- Triggered through non-self-closing pull rod valve
- Large, easy-to-operate pull rod
- Self-emptying high-power shower head (prevents build-up of bacteria and calcification)
- Length: 700 mm
- Projection: 630 mm
- Attachment height: 2345 mm (±100 mm)
- Pull rod length: 500 mm

Delivery incl. self-adhesive information sign for body shower according to DIN EN ISO 7010 and ASR A1.3, 150 x 150 mm.

Over-door-mounted with pull rod for redirection
Pull rod can be mounted either to right or left of the door.

Type	Art. No.	Pack Qty.	€
Emergency body shower mounted over the door with pull rod for redirection	**1LY4.1**	1 unit(s)	514,95

Body showers



Combined emergency shower with eye shower

B-Safety.

DVGW-tested and approved. Acc. to DIN EN 15154-1:2006, DIN 15154-5:2019 and ANSI Z 358.1-2009.

- Application through wall flange, surface-mounted supply line
- With top and bottom water connection ¾″ internal thread for installation in circulation lines
- Stable design due to robust brass body
- Chemical-resistant powder coating
- Automatic flow regulator
- Large maintenance-free ball valve for high flow rates (50 l/min at 1.5 bar)
- Triggered through non-self-closing pull rod valve
- Large, easy-to-operate pull rod with steel ring handle
- High-performance shower head made of chemical-resistant plastic, with improved spray pattern, resists corrosion, as limescale-resistant and maintenance-free as possible, very tough, self-draining
- Quick installation system ¾″ as plug nipple made of stainless steel, for quick installation on site
- 1.5 to 3 bar water pressure application range
- Water connection ¾″ internal thread
- Total length: 1500 mm
- Projection: 625 mm
- Pull rod length: 700 mm

Delivery incl. information sign for emergency body shower according to DIN EN ISO 7010 and ASR A1.3, self-adhesive PVC film, 150 x 150 mm.

(1) Eye shower with collection basin

- Collection basin made of stainless steel, Ø 275 mm
- With PUSH lever operation
- Lever length 240 mm
- Photoluminescent acc. to DIN 67510
- Drain connection 1 ¼″ external thread
- Wide-spray, high-power spray heads, with plastic spray plate, limescale-resistant, incl. rubber protection and tightly closing dust cover with folding mechanism
- Automatic flow regulator 14 l/min for a standard spray pattern
- Working range of 1 to 3 bar flow pressure
- Attachment height 810 mm (±100 mm)

Mounting	Art. No.	Pack Qty.	€
Wall, surface-mounted	**1T86.1**	1 unit(s)	1.205,10

(2) Eye shower with collection basin and cover

- Housing, cover and collection basin made of impact-resistant and UV-resistant ABS plastic
- Integrated folding protective cover to prevent contamination
- Activated by folding down the cover
- Spray regulator made of brass with an extremely limited spray pattern, chrome plated, with plastic spray plate, limescale-resistant, incl. rubber protection and tightly closing dust cover with folding mechanism
- With integrated flow regulator valve ⅜″ for adjusting the desired spray height and flow rate
- Automatic flow regulator 14 l/min for a standard spray pattern
- Drain connection 1 ½″ external thread
- Attachment height 810 mm (±100 mm)

Mounting	Art. No.	Pack Qty.	€
Wall, surface-mounted	**1T87.1**	1 unit(s)	1.579,20



Combined emergency shower for floor mounting

B-Safety.

DVGW-tested and approved. Acc. to DIN EN 15154-1:2006, DIN EN 15154-2:2006, DIN EN 15154-5:2019 and ANSI Z 358.1.

- Tough stainless steel design with chemical-resistant powder coating in green
- With top and bottom water connection for installation in circulation lines
- 200 x 200 mm base with four attachment holes
- Standpipe: 1 ¼″ made of stainless steel, two-part
- Quick installation system with ¾″ connecting piece
- Activated via pull rod with ring handle
- High-performance shower head made of chemical-resistant plastic, with improved spray pattern, resists corrosion, as limescale-resistant and maintenance-free as possible, very tough, self-draining
- Body shower water connection: 1 ¼″ internal thread
- Automatic flow regulator
- Body shower volume flow: 50 l/min
- Eye shower volume flow: 14 l/min
- Body shower working range: 1.5 to 3 bar
- Total height: 2330 mm
- Pull rod length: 700 mm
- Projection: 625 mm
- Eye shower installation height: 970 mm

Delivery incl. information signs according to DIN EN ISO 7010 and ASR A1.3, self-adhesive PVC film, for emergency body shower 150 x 150 mm and eye shower 100 x 100 mm.

(1) Body shower with eye shower

- Eye shower activation via PUSH lever, length 130 mm
- Eye shower working range: 1.5 to 5 bar
- Two 45° angled high-power spray heads with tightly closing dust cover

Mounting	Art. No.	Pack Qty.	€
Floor	**1N3A.1**	1 unit(s)	1.283,55

(2) Body shower with eye shower, with collection basin

- Eye shower activation via PUSH lever, length 240 mm
- Eye shower working range: 2.5 to 5 bar
- Collection basin, diameter 275 mm
- Two vertical high-power spray heads, with tightly closing dust cover
- Drain connection: 1 1/4 ″ external thread

Mounting	Art. No.	Pack Qty.	€
Floor	**1N3C.1**	1 unit(s)	1.528,65

Body showers



Emergency body shower for floor mounting

B-Safety.

DVGW-tested and approved. Acc. to DIN EN 15154-1:2006, DIN EN 15154-5:2019 and ANSI Z 358.1.

- Tough stainless steel design with chemical-resistant powder coating in green
- With top and bottom water connection for installation in circulation lines
- 200 x 200 mm base with four attachment holes
- Standpipe: 1 ¼″ made of stainless steel, two-part
- Quick installation system with ¾″ connecting piece
- Activated via pull rod with ring handle
- High-performance shower head made of chemical-resistant plastic, with improved spray pattern, resists corrosion, as limescale-resistant and maintenance-free as possible, very tough, self-draining
- Water connection: 1 ¼″ internal thread
- Automatic flow regulator: 50 l/min
- Working range: 1.5 to 3 bar
- Total height: 2330 mm
- Pull rod length: 700 mm
- Projection: 625 mm

Delivery incl. information sign for emergency body shower according to DIN EN ISO 7010 and ASR A1.3, self-adhesive PVC film, 150 x 150 mm.

Flow rate (l/min)	Mounting	Art. No.	Pack Qty.	€
50	Floor	**1N39.1**	1 unit(s)	918,05



Waste disposal containers Multi-Safe vario 2000

Sarstedt. Material: PP.

Complies with the requirements of: TRBA 250, DIN EN ISO 23907. With UN approval number.

- With a label in German and English
- Universal extractor for the disposal of needles, scalpels, disposable syringes, tubing, etc.
- Integrated piston in the lid for easy disconnection of insulin pens
- The size of the opening can be gradually enlarged by breaking out the flaps
- Clear marking for the maximum fill level
- QR enables online access to operating instructions
- Innovative daily and final lock can be operated with just one hand
- Oval 95 x 60 mm opening

Vol. (l)	L x W x H (mm)	Art. No.	Pack Qty.	€
2	240 x 95 x 140	**1LTP.1**	10 unit(s)	39,00

Waste disposal



Waste disposal containers Multi-Safe twin

Sarstedt. Material: PP, yellow container, red lid.

Complies with the requirements of: TRBA 250, DIN EN ISO 23907. With UN approval number.

- Universal extractor for the disposal of needles, scalpels, disposable syringes, tubing, etc.
- All-round sealing rim and double lid
- Lid can always be reopened by closing the lid as far as the first locking position
- A secure final seal is obtained by pushing the lid through to the second locking position
- With a label in German and English
- QR code enables online access to operating instructions
- Clear marking for the maximum fill level
- Filling capacity: Max. 85%
- Oval opening

Plus, round

- Integrated piston in the lid for easy disconnection of insulin pens
- Oval 45 x 25 mm opening

Vol. (ml)	Ø x H (mm)	Ø outer lower (mm)	Art. No.	Pack Qty.	€
500	89 x 162	57	**1LTN.1**	21 unit(s)	26,95

Plus

Vol. (ml)	L x W x H (mm)	Ø outer lower (mm)	Art. No.	Pack Qty.	€
1,500	179 x 176 x 125	112	**1XYA.1**	12 unit(s)	27,75
2,000	179 x 176 x 161	112	**1XYC.1**	10 unit(s)	25,60
2,500	179 x 176 x 197	112	**1XYE.1**	10 unit(s)	35,30
3,000	179 x 176 x 233	112	**1XYH.1**	4 unit(s)	18,40
5,000	179 x 176 x 379	112	**1XYK.1**	1 unit(s)	7,45

Waste collectors



A 121 °C

Autoclavable container with lid

Nalgene. Material: PP. Autoclavable: yes.

Acc. to 21CFR177.1520 and USPVI. Autoclavable at 121 °C.

- Thick-walled, durable and robust
- Resistant to stress cracks
- Increased resistance against many chemicals
- Reduced evaporation and contamination through the lid
- Alternative to stainless steel tanks

Cylindrical

Vol. (l)	Outer Ø x H (mm)	Wall thickness (mm)	Graduations (l)	Art. No.	Pack Qty.	€
19	280 x 380	4,7	2	**1T9Y.1**	1 unit(s)	230,05
28	300 x 460	4,7		**1TA0.1**	1 unit(s)	308,55
38	330 x 510	4,7		**1TA1.1**	1 unit(s)	311,75
57	330 x 690	4,7	4	**1TA2.1**	1 unit(s)	351,55
114	460 x 760	4,7	10	**1TA3.1**	1 unit(s)	517,10
208	560 x 910	6,3	10	**1TA4.1**	1 unit(s)	732,10

Rectangular

Vol. (l)	L x W x H, external (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
8	200 x 200 x 200	4,7	**1TA5.1**	1 unit(s)	193,50
23	360 x 250 x 250	4,7	**1TA6.1**	1 unit(s)	419,25
27	310 x 310 x 310	4,7	**1TA7.1**	1 unit(s)	280,60
42	460 x 310 x 310	4,7	**1TA8.1**	1 unit(s)	350,45
57	610 x 310 x 310	4,7	**1TA9.1**	1 unit(s)	511,70
114	610 x 460 x 460	6,3	**1TAA.1**	1 unit(s)	629,95



Waste paper bin Flame Guard self-extinguishing

Brabantia. Material: stainless steel, chrome-plated.

With removable fire-resistant zinc insert. TÜV certified. The ring of the waste paper bin is shaped such a way that the oxygen supply is stopped by the rising smoke and the fire will therefore go out.
Insertion opening Ø 100 mm.

Vol. (l)	Colour	Ø x H (mm)	Art. No.	Pack Qty.	€
7	chrome	202 x 284	**1T5H.1**	1 unit(s)	46,20
30	chrome	295 x 685	**KAY5.1**	1 unit(s)	123,60



Pedal bin NewIcon

Brabantia. Material: stainless steel (sheet metal).

Made of sheet steel with polyethylene insert or with fire-resistant zinc insert. Silent closing lid, odour-proof.

With polyethylene insert

Vol. (l)	Colour	Ø x H (mm)	Art. No.	Pack Qty.	€
3	white	168 x 264	**1T53.1**	1 unit(s)	32,20
3	chrome	168 x 264	**1T54.1**	1 unit(s)	34,35
5	white	205 x 291	**1T55.1**	1 unit(s)	40,80
5	chrome	205 x 291	**1T56.1**	1 unit(s)	40,80
12	chrome	250 x 411	**N434.1**	1 unit(s)	53,70

With fire-resistant zinc insert

Vol. (l)	Colour	Ø x H (mm)	Art. No.	Pack Qty.	€
12	chrome	250 x 400	**N435.1**	1 unit(s)	75,20
12	white	250 x 400	**N436.1**	1 unit(s)	67,70
20	chrome	290 x 460	**N437.1**	1 unit(s)	96,70
20	white	290 x 460	**1873.1**	1 unit(s)	89,20
30	chrome	300 x 675	**N438.1**	1 unit(s)	123,60
30	white	300 x 675	**N439.1**	1 unit(s)	107,45



Waste disposal bin NewIcon for wall mounting

Brabantia. Material: stainless steel (sheet metal), insert made of PE.

Large handle for easy opening, odour-tight, easy to hang up. Easy-to-clean removable inner bucket. Can easily be removed from the wall mount.

Delivery incl. wall mount, mounting instructions and fittings.

Vol. (l)	Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
3	white	230 x 170 x 260	**1T6K.1**	1 unit(s)	40,80
3	chrome	230 x 170 x 260	**1T6L.1**	1 unit(s)	40,80

Waste collectors





Waste disposal bin "Sort & Go"

Brabantia. Material: plastic.

- Compact and space-saving
- Colour-coded containers ideal for separating waste
- Easy to mount or set up
- The small 3-l and 6-l containers are ideal for disposing of waste directly from the worktop
- Not dishwasher safe
- The lid is not self-closing, ideal for longer work
- Sturdy handle and recessed grip on the base for emptying
- 100% recyclable after use

Without wall mount

Vol. (l)	Colour	W x D x H (mm)	Art. No.	Pack Qty.	€
3	light grey	188 x 139 x 181	**1T57.1**	1 unit(s)	21,45
3	grey	188 x 139 x 181	**1T58.1**	1 unit(s)	21,45

With wall mount
Can be mounted on the wall or positioned free-standing.

Delivery incl. wall mount, fittings and instructions.

Vol. (l)	Colour	W x D x H (mm)	Art. No.	Pack Qty.	€
6	light grey	200 x 245 x 181	**1T59.1**	1 unit(s)	30,05
6	grey	200 x 245 x 181	**HLX9.1**	1 unit(s)	30,05
12	light grey	200 x 249 x 351	**1T5A.1**	1 unit(s)	35,45
12	grey	200 x 249 x 351	**HLY2.1**	1 unit(s)	35,45
16	white	220 x 279 x 401	**HLY4.1**	1 unit(s)	38,20
16	light grey	220 x 279 x 401	**1T5C.1**	1 unit(s)	42,95
16	grey	220 x 279 x 401	**HLY5.1**	1 unit(s)	42,95

Pedal bin StepUp

Brabantia. Material: plastic.

- **Environmentally friendly, made from 91% recycled material**
- Space-saving – fits tight to the wall
- Soft-close lid and simple lid assembly
- Easy to separate and sort waste thanks to fixable label holder
- Easy to carry – large handle on rear side
- Hygienic and easy to load thanks to large opening

Vol. (l)	Colour	W x D x H (mm)	Art. No.	Pack Qty.	€
40	light grey	280 x 352 x 666	**1T6N.1**	1 unit(s)	64,45
40	dark grey	280 x 352 x 666	**1T6P.1**	1 unit(s)	64,45



Chemical and oil binder UNI-SAFE

Öko-Tec Umweltschutzsysteme.

All-in-one binder!

Polymer-based all-purpose chemical and oil binding agent. Suitable for absorbing and containing liquids such as acids, alkalis, oils, fuels, brake fluid, etc., as well as battery acid, coolant, oil-water mixtures, paints and lacquers. Also safe to use with strongly oxidising media, such as fuming nitric acid and peroxides.

- High absorption capacity
- No hazardous reactions
- Dam-forming

Absorption capacity of aqueous media of up to 1:75
Oil binder type III/R (suitable for road surfaces),
1 kg binds 0.56 l of fuel oil.

Applications

Laboratories, chemical and commercial businesses, transportation of hazardous goods, emergency vehicles, etc.

Pack.	Art. No.	Pack Qty.	€
Laboratory pack	**EAA8.1**	500 g	42,90
Tub with handle	**EAA8.3**	1,750 g	80,10
Buckets	**EAA8.2**	5 kg	157,15

UNI-SAFE Plus

Fine granulate with reduced dust formation.

Pack.	Art. No.	Pack Qty.	€
Laboratory pack	**EYY5.1**	450 g	46,15
Tub with handle	**EYY5.3**	1,500 g	83,85
Buckets	**EYY5.2**	5 kg	168,80



Oil binders FLUISORB

Made of cotton (30%) and regenerated cellulose (70%). Fast and effective absorption of diesel, biodiesel, fuel oil, kerosene, transmission oil, lubricants, petrol, emulsions, cooking oils, alkalis, bases, bodily fluids, solvents, paints, hydraulic oil, etc. on solid surfaces. Works into cracks and indentations of road surfaces. Easy to pick back up.
Not suitable for absorbing acids.

- Oil binder type III/R (suitable for road surfaces)
- Based on renewable raw materials
- 1 kg binds approx. 5.6 l of fuel oil or 6.5 l of biodiesel
- Low weight makes it easy to handle
- Bulk weight: approx. 110 g/l
- Dimensions: 80 x 40 x 15 cm

Pack.	Art. No.	Pack Qty.	€
5 kg bag (approx. 45.5 l)	**1T73.1**	1 unit(s)	51,10

The ROTH product portfolio

Everything at www.carlroth.com



Always current prices!

- Quality products for individual requirements
- Special offers and promotions
- Fast & reliable dispatch
- 10-day take-back guarantee



Transport, office organization

Laboratory organization system SmartRack® 78
Transport trolleys 80
Office organization 81

Laboratory organisation system SmartRack®

Made in Germany | A 121 °C | Bitte beachten: Abweichende Konditionen / Please note: Different conditions





Laboratory organisation system SmartRack®

Better Basics Laborbedarf. Material: aluminium powder-coated, aluminium anodized slotted rails, plastic (polyamide 12). Autoclavable: yes.

Modular organisation system for any laboratory accessories and laboratory glassware. The wide array of different modules of the organisation system can be set up in **any arrangement**, **combined** and used flexibly. Can adapt whenever and however the user requires.
Stable and robust metal frame (with feet) for holding multiple slotted rails and the collecting tray in place.
Plastic elements are temperature resistant, can be washed with mild cleaning agents or alcohol-based disinfectants. These are also resistant to chemicals and UV.

Advantages:

- The modular design means users can adapt the system to suit their needs
- All modules can be combined in any quantity and any position
- More efficient thanks to one-handed operation and allows for optimised work processes
- Increases safety when working thanks to tilt protection
- Significant space savings thanks to improved use of workspace at height
- Creates a neater working environment with more free workspace

Delivery incl. frame, feet (1 pair), 3 slotted rails with side handles, collecting tray.

Version	Width (mm)	Height (mm)	Depth (mm)	Art. No.	Pack Qty.	€
SmartRack®	635	615	265	**1PHE.1**	1 unit(s)	751,45

Mini

Version	Width (mm)	Height (mm)	Depth (mm)	Art. No.	Pack Qty.	€
SmartRack® Mini	420	380	265	**1PHH.1**	1 unit(s)	536,45

Module sets for SmartRack®

Better Basics Laborbedarf. Material: aluminium powder-coated, plastic (polyamide 12). Autoclavable: yes.

Compatible with the SmartRack® laboratory organisation system.



Module set basic equipment for SmartRack®
The basic module set is a collection of basic equipment for organising essential accessories for day-to-day laboratory use, and comprises 6 modules.

- 1 x storage box (1PX6.1)
- 1 x storage box insert for small accessories (1PXK.1)
- 1 x holder for disposal bags (1PXL.1)
- 1 x holder for gloves/tissue boxes (1PXC.1)
- 1 x holder for wash bottles (1PXX.1)
- 1 x tripod adapter (1PX3.1)

Delivery incl. 6 modules.
Delivery without SmartRack®, please order separately and without small accessories, waste disposal bags, tissue box, wash bottles.

Designation	Art. No.	Pack Qty.	€
Module set, basic equipment	**1PHL.1**	1 set	428,95

Made in Germany | A 121 °C | Bitte beachten: Abweichende Konditionen / Please note: Different conditions



Module set Biology for SmartRack®
The module set biology has been designed specifically for work in the field of biology, and comprises 8 modules.

- 1 x storage box (1PX6.1)
- 1 x storage box insert for centrifuge tubes, 6x15 ml, 4x50 ml (1PTE.1)
- 2 x holders for laboratory screw top bottles, 100-1000 ml (GL 45) (1PT5.1)
- 1 x holder for 3 pipettes with hooks (1PXT.1)
- 3 x holders for pipette tip boxes (1PX5.1)
- 1 x slotted rail with 2 handles

Delivery incl. 8 modules and one slotted rail with 2 handles.
Delivery without SmartRack®, please order separately and without centrifuge tubes, screw top bottles, pipettes, pipette tip boxes.

Designation	Art. No.	Pack Qty.	€
Module set biology	**1PHN.1**	1 set	482,70



Module set Chemistry for SmartRack®
The Chemistry module set has been designed specifically for work in the field of chemistry, and comprises 9 modules.

- 3 x holders for chromatography columns with Ø 25-35 mm (1PX7.1)
- 3 x holders for glassware with ground glass joint 29 (1PT9.1)
- 1 x holder for glassware with ground glass joint 29, extended (1PT0.1)
- 2 x holders for glassware with ground glass joint 14 (1PT2.1)
- 1 x slotted rail with 2 handles

Delivery incl. 9 modules and one slotted rail with 2 handles.
Delivery without SmartRack®, please order separately and without chromatography columns, glassware.

Designation	Art. No.	Pack Qty.	€
Module set chemistry	**1PHP.1**	1 set	482,70

► You can find the entire product range for the SmartRack® laboratory organisation system and all its individual modules (holders, accessories and add-ons), as well as detailed information about the **new line of products** and current prices, in the online store at www.carlroth.com. Take a look now ...



Accessories slotted rail with handles for SmartRack®

Better Basics Laborbedarf. Material: aluminium anodized, plastic (polyamide 12). Autoclavable: yes.

The slotted rail can be used in many positions on the SmartRack®. A wider range of slotted rails, which are optimally arranged vertically, provides more options for positioning modules and therefore greater scope for customising the rack and adapting the module arrangement to each user's individual requirements.

Suitable for	Length (mm)	Art. No.	Pack Qty.	€
SmartRack®	632	**1PXE.1**	1 unit(s)	80,65
SmartRack® Mini	450	**1PXH.1**	1 unit(s)	59,15



Accessories collecting tray for SmartRack®

Better Basics Laborbedarf. Material: aluminium powder-coated, plastic (polyamide 12). Autoclavable: yes.

The collecting tray prevents the spread of dripping liquids. In case of contamination, the collecting tray can easily be removed from the SmartRack® and cleaned.

Designation	Suitable for	Width (mm)	Art. No.	Pack Qty.	€
Collecting tray	SmartRack®	550	**1PXY.1**	1 unit(s)	107,50
Mini collecting tray	SmartRack® Mni	373	**1PY0.1**	1 unit(s)	96,75



Holder for laboratory screw top bottles for SmartRack®

Transport trolleys



Made in Germany

Shelf trolley steel with tray shelves

ROTH SELECTION. Material: steel powder-coated, galvanised steel wheel housing, TPE rollers.

- Tub depth: Top 150 mm, bottom 40 mm
- Two swivel castors and two fixed castors, lockable swivel castors
- Load-bearing capacity per shelf 200 kg
- With push handle

Technical specifications:

Art. No.	1Y4X.1	1Y4Y.1
Length	1,021 mm	1,171 mm
Width	500 mm	700 mm
Height	880 mm	1,020 mm
Floor clearance	207 mm	248 mm
Roller Ø	160 mm	200 mm
Load capacity	400 kg	
Weight	43 kg	55 kg

Number of bases	Platform (mm)	Art. No.	Pack Qty.	€
2	850 x 500	**1Y4X.1**	1 unit(s)	485,90
2	1000 x 700	**1Y4Y.1**	1 unit(s)	597,70



Transport castors

ROTH SELECTION. Material: ABS, stainless steel wheel housing, TPE rollers.

- Appropriate for boxes and crates of 600 x 400 mm
- With four swivel castors
- Completely rust-free
- With open corners for easy cleaning

Technical specifications:

Art. No.	1T8C.1
Length	610 mm
Width	410 mm
Total height	163 mm
Roller Ø	100 mm
Load capacity	250 kg

Colour	Art. No.	Pack Qty.	€
red	**1T8C.1**	1 unit(s)	91,95



All-purpose transport castors

ROTH SELECTION. Material: PP, polyamide wheel housing, PP rollers.

- Open handle for easy transport
- Transport surface with four rubber anti-slip stick-ons
- With four swivel castors
- Load capacity 200 kg (with even weight distribution)

Technical specifications:

Art. No.	1T8N.1
Length	590 mm
Width	290 mm
Total height	110 mm
Roller Ø	75 mm
Load capacity	200 kg

Colour	Art. No.	Pack Qty.	€
grey	**1T8N.1**	1 unit(s)	42,15



Adhesive mat STICKMAX

IKA. Material: PU.

Universal adhesive mat for shakers.

- Ideal for frequently changing container types and sizes
- Containers can be removed easily via lateral tilting motion
- Self-adhesive
- Can be disinfected
- Max. speed 300 rpm

Length (cm)	Width (cm)	Colour	Art. No.	Pack Qty.	€
20	20	translucent	**1PAX.1**	1 unit(s)	62,00



Drawer insert

ROTH SELECTION. Material: PS.

Longitudinal partitioning. For pipettes, thermometers and other small equipment.

Compartment sizes:

- 1 compartment L 430 x W 110 mm
- 2 compartments L 430 x W 80 mm

Number of compartments	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
3	307	454	63	**1T4A.1**	1 unit(s)	60,05



Storage containers Tubby®

ROTH SELECTION. Material: PP.

Large and spacious container for storing tubes, pipette tips, pipettes, gloves and other small pieces of equipment.

- Removable dividers to make small or large compartments
- Snap-on lid for safe transportation
- Stackable

Number of compartments	L x W x H, external (mm)	Colour	Art. No.	Pack Qty.	€
6	330 x 200 x 115	translucent, blue	**1T47.1**	5 unit(s)	45,05



ROTH for Future

Pencil Castell 9000

Faber-Castell.

Wooden pencil with graphite lead for writing, drawing or sketching. Break-resistant lead thanks to special bonding process. Eco-friendly water-based varnish. Ø core: 2.0 mm (HB, B, 2B) / 2.8 mm (4B).

Sustainability information: wood from certified, sustainable forests (FSC®).

Type	Length (mm)	Art. No.	Pack Qty.	€
HB	174	**1T4T.1**	12 unit(s)	20,20
B	174	**1T4X.1**	12 unit(s)	20,20
2B	174	**1T4Y.1**	12 unit(s)	20,20
4B	174	**1T50.1**	12 unit(s)	20,20



Skin markers 8020

edding.

For non-permanent markings on skin.

- Dermatologically tested
- Abrasion-resistant, fast-drying and odourless
- Easy to remove with ethanol or soap
- Without the addition of xylene/toluene

Type	Colour	Line width (mm)	Art. No.	Pack Qty.	€
8020	blue	1	**1T08.1**	10 unit(s)	34,35
8020	red	1	**1T09.1**	10 unit(s)	34,35



A 121 °C

A4 cryogenic labels

scienova. Material: polyester. Autoclavable: yes.

- Can be inscribed with an A4 laser printer or permanent marker
- A4 sheet format: 29.7 x 21 cm
- For long-term storage in liquid nitrogen or dry ice
- Temperature resistance: -196 to +121 °C
- Good chemical resistance
- Good adhesion even after repeated freezing and thawing

Round

Suitable for	Colour	Label Ø (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5/1.5/2 ml vessels	white	10	247	**1XPP.1**	20 sheet(s)	88,00

Square

Suitable for	Colour	L x W (mm)	Labels/sheet (unit(s))	Art. No.	Pack Qty.	€
0.5 ml vessels	white	28 x 12	90	**1XPT.1**	20 sheet(s)	88,00
0.5/1.5/2 ml vessels	white	33 x 14	85	**1XPX.1**	20 sheet(s)	88,00
1.5/2 ml vessels	white	24 x 20	72	**1XPY.1**	20 sheet(s)	88,00
1.5/2 ml vessels	white	30 x 14	68	**1XT0.1**	20 sheet(s)	88,00
15/50 ml centrifuge tubes	white	67 x 25	22	**1XT1.1**	20 sheet(s)	88,00
Racks, boxes	white	70 x 70	12	**1XT2.1**	20 sheet(s)	88,00



Writing pad support

ROTH SELECTION. Material: stainless steel.

- Suitable for formats up to DIN A4
- Completely rust-free, corrosion-resistant
- Ideal for wet rooms, hospitals, kitchens or outside use
- Easy to clean and disinfect
- Also suitable for wall mounting
- Clamping width max. 2 cm
- Pad width approx. 0.1 cm

Technical specifications:

Art. No.	**1Y0E.1**
Suitable for clean-rooms	yes
Weight	464 g

L x W x H (mm)	Art. No.	Pack Qty.	€
330 x 220 x 35	**1Y0E.1**	1 unit(s)	24,70



Hanging strip

ROTH SELECTION. Material: metal.

With four straight hooks. Robust design. For wall mounting.

Delivery incl. mounting material.

L x W x H (mm)	Art. No.	Pack Qty.	€
300 x 25 x 30	**1Y1K.1**	1 unit(s)	22,50



Power Bank Energy

Varta.

- With four ports (1x micro USB input, 2x USB A output, 1x bidirectional USB type C port)
- Pass-through charging: the Power Bank and a portable device can be charged at the same time
- Up to three devices can be charged at once
- Four white LEDs for charge and discharge indication

Delivery incl. micro USB charging cable.

W x D x H (mm)	System	Voltage (V)	Capacity (mAh)	Art. No.	Pack Qty.	€
72.5 x 10.5 x 137.5	Lithium polymer	3,7	5,000	**1PL3.1**	1 unit(s)	16,10
73 x 15 x 138	Lithium polymer	3,7	10,000	**1PL4.1**	1 unit(s)	24,70
73.5 x 21 x 138	Lithium polymer	3,7	15,000	**1PL5.1**	1 unit(s)	30,05
78.5 x 22 x 157	Lithium polymer	3,7	20,000	**1PL6.1**	1 unit(s)	37,60



Safety knife SECUNORM 300

Martor. Material: plastic (glass fibre reinforced).

- Automatic blade retraction for a high level of occupational safety
- Ergonomic grip, soft grip
- Slider on both sides for left and right-handed users
- Easy and safe blade replacement without the need for tools

Technical specifications:

Art. No.	1A7Y.1	1A7Y.2
Weight	52 g	

Delivery incl. blade (trapezoid blade, fitted).

Total length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
143	16	36	**1A7Y.1**	1 unit(s)	17,20
143	16	36	**1A7Y.2**	10 unit(s)	159,65



Timer with countdown timer DC 2013

Brennenstuhl.

For automatically switching electronic devices on and off. One-time countdown or daily repeating countdown adjustable in 12 increments (15/30/45 min or 1/2/3/4/5/6/7/8/9 h). LEDs indicate the remaining time for the relevant increments. Max. current capacity 13 A.
Dimensions: W 58 x D 85 x H 58 mm. Weight 110 g.
Rated voltage 230 V.

W x D x H (mm)	Type of plug	Art. No.	Pack Qty.	€
58 x 85 x 58	Europlug, Type C (Europe, South America, Asia)	**1N1X.1**	1 unit(s)	20,90



Optical instruments and lamps

Microscopes and accessories 84
Illuminated magnifiers, lamps 92
Refractometers 93

Transmitted light microscope OBE series



Kern.

Educational Line. High-quality, fully equipped transmitted light microscope (bright-field) for training, laboratory and medical use.
For translucent and thin, high-contrast, less challenging specimens (e. g. plant tissues, stained cells/parasites). Particularly suitable for blood analysis and urine sediments.

- The **butterfly tube** allows optimal angular observation to be set
- Thanks to the practical **storage compartment** on the rear of the device, the power cable can be quickly stowed in a space-saving manner
- Power supply e. g. via an external power bank is possible thanks to the **USB connection technology**
- The four-slot lens revolver is fully equipped with four **achromatic standard lenses (4x/10x/40x/100x)**, which are ideally suited for all bright-field analysis applications
- **The 1.25 Abbe condenser with aperture cover, with its height-adjustable focus,** enables ideal light concentration and illumination of the specimen
- The **mechanical cross table** ensures fast working and positioning of the specimen. It features a **coaxial coarse and fine focus drive** fitted on both sides for adjusting the height and focussing on the specimen
- With strong, infinitely dimmable 3 W LED transmitted light illumination
- In comparison with the OBS series, this offers diverse **expansion options**

Optional accessories (please order separately):

- Dark-field use for 4x to 40x lenses; to increase contrast of small, unstained structures
- 100x lens (planachromatic, spring) with water immersion

Technical specifications:

Art. No.	**1L81.1**	**1L82.1**
Type	OBE 132	OBE 134
Tube	binocular	trinocular
Total magnification	40x, 100x, 400x, 1000x	
Magnification type	turret	
Ocular magnification	wide-field 10x	
Lenses	achromatic	
Lens arrangement	4-way, tilted forwards	
Lens magnification	- 4x/N.A. 0.10, W.D. 18.6 mm - 10x/N.A. 0.25, W.D. 6.5 mm - 40x (spring)/N.A. 0.65, W.D. 0.47 mm - 100x (spring, oil)/N.A. 1.25, W.D. 0.07 mm	
Field of view	18 mm	
Dioptre compensation	on one side	
Angular observation	30°	
Head	can be rotated 360°	
Distance between eyepieces	48–75 mm	
Condenser	Abbe N.A. 1.25 with aperture cover	
Köhler illumination	no	
Light source	LED	
Type of lighting	transmitted light	
Image focusing	coaxial coarse and fine focus with scale: 2 µm	
Optics	finite	
Microscope stage	125 x 115 mm area coaxial x/y travel range of 50 x 70 mm	
Power supply	mains-powered	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. eyecups and dust cover.

(1) OBE 132 binocular

Type	Art. No.	Pack Qty.	€
OBE 132	**1L81.1**	1 unit(s)	640,00

(2) OBE 134 trinocular

With trinocular head for mounting a microscope camera on the phototube using a C-mount adapter. Please order the C-mount adapter separately.

Type	Art. No.	Pack Qty.	€
OBE 134	**1L82.1**	1 unit(s)	760,00



Transmitted light microscope OBL series

Kern.

Lab Line. Flexible and versatile transmitted light microscope (bright-field) with infinitely corrected optics. Specially designed for laboratories that work with translucent, low-contrast, challenging specimens (e.g. living mammalian cells, bacteria, tissues).

- The **infinity corrected optics** ensure top-class image quality
- The 4-slot lens revolver is fully equipped with four **high-quality, infinitely corrected E-PLAN lenses (4x/10x/40x/100x)** with improved edge definition
- The 1.25 Abbe condenser with aperture cover, with its height-adjustable focus and fixed precentring, and the field diaphragm enable **easier Köhler illumination** and thereby provide simple and optimal illumination of the specimen, with no negative flare effects
- The mechanical cross table ensures fast working and positioning of the specimen. It features a coaxial coarse and fine focus drive fitted on both sides for adjusting the height and focussing on the specimen
- With strong, infinitely dimmable 3 W LED transmitted light illumination

Optional accessories (please order separately):

- Dark field condenser to increase contrast of small, unstained structures
- 100x lens (planachromatic, spring) with water immersion

Technical specifications:

Art. No.	EYP7.1	EYP8.1	1LC7.1	1LC8.1
Type	OBL 127	OBL 137	OBL 137C825	OBL 137T241
Version	Basic		with ODC 825 camera	with ODC 241 tablet
Tube	binocular	trinocular		
Total magnification	40x, 100x, 400x, 1000x			
Magnification type	turret			
Ocular magnification	super wide angle (HWF) 10x			
Lenses	semi-planachromatic			
Lens arrangement	4-way, tilted backwards			
Lens magnification	- 4x/N.A. 0.10, W.D. 12.1 mm - 10x/N.A. 0.25, W.D. 2.1 mm - 40x (spring)/N.A. 0.65, W.D. 0.58 mm - 100x (spring, oil)/N.A. 1.25, W.D. 0.19 mm			
Field of view	20 mm			
Dioptre compensation	±5 dpt on the left ocular tube			
Angular observation	30°			
Head	can be rotated 360°			
Distance between eyepieces	50–75 mm			
Condenser	Abbe N.A. 1.25 pre-centred with aperture cover			
Köhler illumination	yes			
Light source	LED			
Type of lighting	transmitted light			
Image focusing	coaxial coarse and fine focus with scale: 2 µm			
Optics	finite			
Microscope stage	145 x 130 mm area coaxial x/y travel range 76 x 52 mm holder for two slides			
Power supply	mains-powered			
Mains connection	100–240 V, 50/60 Hz			

OBL 127 binocular

Delivery incl. colour filter (blue, integrated), eyecups and dust cover.

Type	Version	Art. No.	Pack Qty.	€
OBL 127	Basic	**EYP7.1**	1 unit(s)	1.060,00

(1) OBL 137 trinocular

With trinocular head for mounting a microscope camera on the phototube using C-mount adapter. Please order C-mount adapter separately.

Delivery incl. colour filter (blue, integrated), eyecups and dust cover.

Type	Version	Art. No.	Pack Qty.	€
OBL 137	Basic	**EYP8.1**	1 unit(s)	1.200,00

(2) OBL 137 set with camera

The adapted ODC 825 microscope camera with USB 2.0 interface enables data transfer to a PC or laptop.

The free KERN VIS software for operating systems Windows XP to Windows 10 enables the live image of the specimen to be transferred to the computer.

The software includes a wide range of functions such as image and video recording, measuring functions and simple documentation. Connecting to a computer enables images including measurements to be saved and archived directly in the user-specific directory.

Delivery incl. ODC 825 microscope camera, colour filter (blue, integrated), eyecups and dust cover.

Type	Version	Art. No.	Pack Qty.	€
OBL 137C825	with ODC 825 camera	**1LC7.1**	1 unit(s)	1.770,00

(3) OBL 137 set with tablet

A 2-in-1 solution for easy, convenient and direct microscopic analysis of specimens on the large 9.7″ LCD touchscreen.

No PC workstation or software installation required.

Ideal for students undergoing training, or for demonstration purposes in the laboratory.

Delivery incl. ODC 241 tablet camera, colour filter (blue, integrated), eyecups and dust cover.

Type	Version	Art. No.	Pack Qty.	€
OBL 137T241	with ODC 241 tablet	**1LC8.1**	1 unit(s)	2.480,00



Transmitted light microscope OBN series

Kern.

Professional line. Professional, fully equipped transmitted light microscope (bright-field) with ergonomic design and unparalleled quality. For translucent, low-contrast, challenging specimens (e.g. living mammalian cells, bacteria, tissues).

- The **professional Köhler illumination** with adjustable field diaphragm and centerable and height-adjustable 1.25 Abbe condenser with adjustable aperture cover enables perfect illumination of the specimen, with no negative flare effects
- The **infinity corrected optics** ensure top-class image quality
- The 5-slot lens revolver is fully equipped with five **high-quality, infinitely corrected PLAN lenses (4x/10x/20x/40x/100x)** with maximum edge definition
- The mechanical cross table ensures fast working and positioning of the specimen. It features a coaxial coarse and fine focus drive fitted on both sides for adjusting the height and focussing on the specimen
- With strong, infinitely dimmable 3 W LED transmitted light illumination

Optional accessories (please order separately):

- 60x infinity lens (planachromatic, spring)
- 100x infinity lens (planachromatic, spring) with water immersion
- Darkfield condenser to increase contrast of small, unstained structures
- Polarisation unit for imaging polarised light

Technical specifications:

Art. No.	1LLH.1	1LLK.1	1LLL.1
Type	OBN 135	OBN 135C825	OBN 135T241
Version	Basic	with ODC 825 camera	with ODC 241 tablet
Tube	trinocular		
Total magnification	40x, 100x, 200x, 400x, 1000x		
Magnification type	turret		
Ocular magnification	super wide angle (HWF) 10x		
Lenses	planachromatic		
Lens arrangement	5-way, tilted backwards		
Lens magnification	- 4x / N.A. 0.10, W.D. 12.1 mm - 10x / N.A. 0.25, W.D. 4.64 mm - 20x (spring) / N.A. 0.40, W.D. 2.41 mm - 40x (spring) / N.A. 0.66, W.D. 0.65 mm - 100x (spring, oil) / N.A. 1.25, W.D. 0.19 mm		
Field of view	20 mm		
Dioptre compensation	on both sides		
Angular observation	30°		
Head	can be rotated 360°		
Distance between eyepieces	50–75 mm		
Condenser	Abbe N.A. 1.25 centerable with aperture cover		
Köhler illumination	yes		
Light source	LED		
Type of lighting	transmitted light		
Image focusing	coaxial coarse and fine focus with scale: 2 µm		
Optics	infinite		
Microscope stage	175 x 145 mm area coaxial x/y travel range 78 x 55 mm container for two slides		
Power supply	mains-powered		
Mains connection	100–240 V, 50/60 Hz		

(1) OBN 135 trinocular

With trinocular head for mounting a microscope camera on the phototube using C-mount adapter. Please order C-mount adapter separately.

Delivery incl. colour filter (blue, integrated), eyecups and dust cover.

Type	Version	Art. No.	Pack Qty.	€
OBN 135	Basic	**1LLH.1**	1 unit(s)	1.610,00

(2) OBN 135 set with camera

The adapted ODC 825 microscope camera with USB 2.0 interface enables data transfer to a PC or laptop.

The free KERN VIS software for operating systems Windows XP to Windows 10 enables the live image of the specimen to be transferred to the computer.

The software includes a wide range of functions such as image and video recording, measuring functions and simple documentation. Connecting to a computer enables images including measurements to be saved and archived directly in the user-specific directory.

Delivery incl. ODC 825 microscope camera, C-mount adapter, colour filter (blue, integrated), eyecups and dust cover.

Type	Version	Art. No.	Pack Qty.	€
OBN 135C825	with ODC 825 camera	**1LLK.1**	1 unit(s)	2.160,00

(3) OBN 135 set with tablet

A 2-in-1 solution for easy, convenient and direct microscopic analysis of specimens on the large 9.7″ LCD touchscreen.

No PC workstation or software installation required.

Ideal for students undergoing training, or for demonstration purposes in the laboratory.

Delivery incl. ODC 241 tablet camera, C-mount adapter, colour filter (blue, integrated), eyecups and dust cover.

Type	Version	Art. No.	Pack Qty.	€
OBN 135T241	with ODC 241 tablet	**1LLL.1**	1 unit(s)	2.870,00



Fluorescence microscope OBN series

Kern.

Professional line. Professional, fully equipped transmitted fluorescence microscope with ergonomic design and unparalleled quality. For translucent, low-contrast, challenging specimens (e.g. immunofluorescence, FISH, DAPI staining).

- The powerful and dimmable **20 W halogen transmitted light illumination** and the **100 W EPI fluorescence toplight unit** incl. centring lens guarantee perfect illumination and excitation of fluorescence specimens
- The **professional Köhler illumination** with adjustable field diaphragm and centerable and height-adjustable 1.25 Abbe condenser with adjustable aperture cover enables perfect illumination of the specimen, with no negative flare effects
- The **infinity corrected optics** ensure top-class image quality
- The 5-slot lens revolver is fully equipped with **high-quality**, **infinitely corrected PLAN lenses (4x/10x/20x/40x/100x)** with maximum edge definition
- The mechanical cross table ensures fast working and positioning of the specimen. It features a coaxial coarse and fine focus drive fitted on both sides for adjusting the height and focussing on the specimen.

Technical specifications:

Art. No.	1PH5.1	1PH6.1
Type	OBN 147	OBN 148
Version	with B/G filter	with B/G/V/UV filter
Tube	trinocular	
Total magnification	40x, 100x, 200x, 400x, 1000x	
Magnification type	turret	
Ocular magnification	widefield (WF) 10x	super wide angle (HWF) 10x
Lenses	planachromatic	
Lens arrangement	5-way, tilted backwards	
Lens magnification	- 4x / N.A. 0.10, W.D. 12.1 mm - 10x / N.A. 0.25, W.D. 4.64 mm - 20x (spring) / N.A. 0.40, W.D. 2.41 mm - 40x (spring) / N.A. 0.66, W.D. 0.65 mm - 100x (spring, oil) / N.A. 1.25, W.D. 0.19 mm	
Field of view	20 mm	
Dioptre compensation	on both sides	
Angular observation	30°	
Head	can be rotated 360°	
Distance between eyepieces	50–75 mm	
Condenser	Abbe N.A. 1.25 centerable with aperture cover	
Köhler illumination	yes	
Type of lighting	incident light (fluorescence) and transmitted light	
Image focusing	coaxial coarse and fine focus with scale: 2 µm	
Optics	infinite	
Microscope stage	175 x 145 mm area coaxial x/y travel range 78 x 55 mm container for two slides	
Power supply	mains-powered	
Mains connection	100–240 V, 50/60 Hz	

OBN 147 trinocular
The 100 W EPI fluorescence toplight unit is equipped with a 2-filter slider. This slider is equipped with blue and green fluorescence excitation filters.

Delivery incl. B/G fluorescence excitation filter, colour filter (blue, integrated), eyecups and dust cover.

Type	Version	Art. No.	Pack Qty.	€
OBN 147	with B/G filter	**1PH5.1**	1 unit(s)	5.170,00

OBN 148 trinocular
The 100 W EPI fluorescence toplight unit is equipped with a filter wheel and can be loaded with up to 6 excitation filters. This enables users to quickly and conveniently switch filters. The supplied filter wheel is equipped with blue, green, violet and ultraviolet fluorescence excitation filters.

Delivery incl. B/G/V/UV fluorescence excitation filter, colour filter (blue, integrated), eyecups and dust cover.

Type	Version	Art. No.	Pack Qty.	€
OBN 148	with B/G/V/UV filter	**1PH6.1**	1 unit(s)	6.550,00

Accessories for OBN series

Kern.

Suitable for microscopes in the OBN series.

60x lens

Designation	Art. No.	Pack Qty.	€
60x infinity lens, planachromatic (spring) / N.A. 0.80, W.D. 0.33 mm	**1PH7.1**	1 unit(s)	390,00

C-mount adapter
For fitting a microscope camera to the phototube of a trinocular microscope.

Designation	Art. No.	Pack Qty.	€
0.57x C-mount adapter (adjustable focus)	**1PH8.1**	1 unit(s)	175,00

Darkfield condenser
For enhanced contrast with unstained specimens. This causes the background to appear dark, and the object to appear bright in contrast against it.

For use with lenses 4x – 40x.

Designation	Art. No.	Pack Qty.	€
Darkfield condenser / N.A. 0.85 – 0.91 (dry, paraboloid)	**1PH9.1**	1 unit(s)	290,00

Polarisation unit
For imaging polarised light in birefringent structures (e.g. crystals, minerals).

Designation	Art. No.	Pack Qty.	€
Polarisation unit including analyser and polariser	**1PHA.1**	1 unit(s)	290,00

Inverse fluorescence microscope OCM series

Kern.

Lab Line. Due to the inverse design and the very large working distance, specimens in culture vessels like dishes, bottles and microtiter plates can be viewed. Thanks to the 20x phase contrast lens in particular, primarily translucent and thin, low-contrast specimens can be examined. The installed lenses are specially coated, and therefore ideally suited to fluorescence microscopy analyses.



- The powerful and dimmable **5 W LED transmitted light illumination** and the **5 W EPI fluorescence toplight unit** guarantee perfect illumination and excitation of fluorescence specimens
- A special Abbe N.A. 0.3 condenser with an aperture cover and a large working distance guarantees optimal working in bright-field, phase contrast and fluorescence applications
- The **infinitely corrected optics** ensure top-class image quality
- The five-slot lens revolver is equipped with **three high-quality, infinitely corrected PLAN lenses (10x/20x/40x) and one PLAN lens (20x)**, all with maximum edge definition for the best possible image quality
- **Enables quicker and more effective switching between the bright-field and phase contrast method** via a phase contrast slider
- The mechanical cross table ensures fast working and positioning of the specimen. It features a coaxial coarse and fine focus drive fitted on both sides for adjusting the height and focussing on the specimen

Technical specifications:

Art. No.	**1T89.1**	**1T8A.1**
Type	OCM-167	OCM-168
Version	with B/G filter	with B/G/V/UV filter
Tube	trinocular	
Magnification type	turret	
Ocular magnification	super wide angle (HWF) 10x	
Lenses	planachromatic fluorine	
Lens arrangement	5x	
Lens magnification	Bright-field: - 10x/N.A. 0.25, W.D. 10.3 mm - 20x/N.A. 0.40, W.D. 5.8 mm - 40x/N.A. 0.60, W.D. 5.1 mm Phase contrast: - Ph 20x/N.A. 0.45, W.D. 5.8 mm	
Field of view	22 mm	
Dioptre compensation	±5 dpt at both ocular tubes	
Angular observation	45°	
Head	fixed	
Distance between eyepieces	48–76 mm	
Working distance	72 mm	
Condenser	Abbe N.A. 0.3 with aperture cover	
Light source	LED	
Type of lighting	incident light (fluorescence) and transmitted light	
Image focusing	coaxial coarse and fine focus with scale: 2 µm	
Optics	infinite	
Microscope stage	area 210 x 241 mm coaxial x/y travel range 128 x 80 mm holder for culture dish Ø 110 mm	
Power supply	mains-powered	

OCM-167 trinocular

Delivery incl. B/G fluorescence excitation filter, colour filter (blue, integrated), object holder for 54 mm culture dish, eyecups and dust cover.

Type	Version	Art. No.	Pack Qty.	€
OCM-167	with B/G filter	**1T89.1**	1 unit(s)	9.180,00

OCM-168 trinocular

Delivery incl. B/G/V/UV fluorescence excitation filter, colour filter (blue, integrated), object holder for 54 mm culture dish, eyecups and dust cover.

Type	Version	Art. No.	Pack Qty.	€
OCM-168	with B/G/V/UV filter	**1T8A.1**	1 unit(s)	10.790,00



Video microscope OIV series

Kern.

For monitoring, analysis and documentation in the industrial sector. Axial optics enable direct and straightforward display of samples on the screen.

- With dimmable LED ring light for optimum illumination of the sample
- Ideal for recording objects on the screen in conjunction with the large working area
- Excellent optics for consistently sharp image tracking throughout the entire zoom range
- Software-controlled image and video recording with additional measuring functions (particularly diameter, radius, distance and angle)
- Stand with mechanical height adjustment

Technical specifications:

Art. No.	1XY8.1	1XY9.1
Type	OIV 255	OIV 656
Version	complete set	with auto-focus, without monitor
Magnification type	zoom	
Lens magnification	0.75–x	0.7–4.5x
Field of view	29,82–4,18 mm	12,64–2,65 mm
Working distance	105 mm	91 mm
Light source	LED	
Type of lighting	incident light	
Image focusing	coarse focus	
Optics	axial	
Port	1x HDMI and 2x USB	
Sensor type	CMOS	
Sensor format	½″	⅓,₂₈″
Number of pixels	2 (MP)	
Images per second	60 fps @ 1920 x 1080 HD	30 fps
Data memory	external via USB stick (max. 128 GB)	
Power supply	mains-powered	
Mains connection	100–240 V, 50/60 Hz	

(1) OIV 255

Digital complete solution for increased working comfort. Tablet can be tilted backwards (angle of inclination -5° to -15°), but cannot be rotated.

Delivery incl. tablet, USB mouse, USB stick, calibration slides and dust cover.

Type	Version	Art. No.	Pack Qty.	€
OIV 255	complete set	**1XY8.1**	1 unit(s)	3.580,00

(2) OIV 656

The professional video microscope. The integrated auto-focus also enables the sharpness level to be optimised within a defined image section. This is particularly beneficial for analysis of a large number of samples.

Delivery incl. USB mouse, USB stick, calibration slides and dust cover.

Type	Version	Art. No.	Pack Qty.	€
OIV 656	with auto-focus, without monitor	**1XY9.1**	1 unit(s)	5.320,00



Stereo microscope OS series

Kern.

Practical and sterile stereo microscope for training and laboratory. With integrated handle and stable stand.

- Ergonomically designed working surface for high level of comfort
- Interchangeable lens with three pre-defined magnifications for fast and effective work
- Eyepiece fixed securely in the tube
- Reflected light and transmitted light can be controlled separately

Technical specifications:

Art. No.	1T88.1	HHC9.1
Type	OSE-421	OSF-439
Tube	binocular	
Total magnification	20x, 40x	10x, 20x, 40x
Magnification type	turret	
Ocular magnification	widefield 10x	
Lens magnification	2x, 4x	1x, 2x, 4x
Field of view	20 mm	
Dioptre compensation	±5 dpt at both ocular tubes	±5 dpt on the left eyepiece
Angular observation	45°	
Head	fixed	
Distance between eyepieces	55–75 mm	
Working distance	57 mm	
Light source	LED	
Type of lighting	incident light and transmitted light	
Image focusing	coarse focus	
Power supply	mains-powered and battery operation (3x battery Micro/AAA 1.5 V)	mains-powered
Mains connection	100–240 V, 50/60 Hz	

(1) OSE-421

Delivery incl. stage inserts (black/white and matte glass), eyecups and dust cover. Without batteries, please order separately.

Type	Art. No.	Pack Qty.	€
OSE-421	**1T88.1**	1 unit(s)	310,00

(2) OSF-439

Delivery incl. stage inserts (black/white and matte glass), eyecups and dust cover.

Type	Art. No.	Pack Qty.	€
OSF-439	**HHC9.1**	1 unit(s)	410,00



Stereo zoom microscope OZL-46 series

Kern.

All-round stereo microscope with zoom function for schools, training workshops and laboratories.

- With extra-wide field eyepieces for greater vision angle, thereby ideal for people who wear glasses
- Continuously variable magnification via zoom lens
- Reflected light and transmitted light can be controlled separately

Optional accessories (please order separately):

- Widefield eyepieces and attachment lenses for modulating the total magnification

Technical specifications:

Art. No.	HHE7.1	HHE8.1	1XYL.1	1XYN.1
Type	OZL-463	OZL 464	OZL 464C825	OZL 464T241
Version	Basic		with ODC 825 camera	with ODC 241 tablet
Tube	binocular	trinocular		
Total magnification	7x to 45x – can be expanded up to 180x as an option			
Magnification type	zoom			
Ocular magnification	super wide angle (HWF) 10x			
Lens magnification	0.7–4.5x			
Field of view	20 mm			
Dioptre compensation	±5 dpt on both ocular tubes			
Angular observation	45°			
Head	can be rotated 360°			
Distance between eyepieces	55–75 mm			
Working distance	105 mm			
Light source	LED			
Type of lighting	incident light and transmitted light			
Image focusing	coarse focus			
Power supply	mains-powered			
Mains connection	100–240 V, 50/60 Hz			

Total magnification when combining different eyepieces/lenses:

Eyepiece		Lens		
	Magnification	Standard 1x[1]	0.5x ancillary	2.0x ancillary
WF 10x[1]	Total magnification (x-fold)	7–45	3.5–22.5	14–90
	Visual field Ø (mm)	28.6–4.4	57.1–8.9	14.3–2.2
WF 20x	Total magnification (x-fold)	14–90	7–45	28–180
	Visual field Ø (mm)	14.3–2.2	28.6–4.4	7.1–1.1

[1] Included with delivery

OZL 463 binocular

Delivery incl. stage inserts (black/white and matte glass), eyecups and dust cover.

Type	Version	Art. No.	Pack Qty.	€
OZL-463	Basic	**HHE7.1**	1 unit(s)	600,00

(1) OZL 464 trinocular

With trinocular head for mounting a microscope camera on the phototube using a C-mount adapter. Please order the C-mount adapter separately.

Delivery incl. stage inserts (black/white and matte glass), eyecups and dust cover.

Type	Version	Art. No.	Pack Qty.	€
OZL 464	Basic	**HHE8.1**	1 unit(s)	670,00

(2) OZL 464 set with camera

The adapted ODC 825 microscope camera with USB 2.0 interface enables data transfer to a PC or laptop.

The free KERN VIS software for operating systems Windows XP to Windows 10 enables the live image of the specimen to be transferred to the computer.

The software includes a wide range of functions such as image and video recording, measuring functions and simple documentation. Connecting to a computer enables images including measurements to be saved and archived directly in the user-specific directory.

Delivery incl. ODC 825 microscope camera, stage inserts (black/white and matte glass), eyecups and dust cover.

Type	Version	Art. No.	Pack Qty.	€
OZL 464C825	with ODC 825 camera	**1XYL.1**	1 unit(s)	1.060,00

(3) OZL 464 set with tablet

A 2-in-1 solution for easy, convenient and direct microscopic analysis of specimens on the large 9.7″ LCD touchscreen.

No PC workstation or software installation required.

Ideal for students undergoing training, or for demonstration purposes in the laboratory.

Delivery incl. ODC 241 tablet camera, stage inserts (black/white and matte glass), eyecups and dust cover.

Type	Version	Art. No.	Pack Qty.	€
OZL 464T241	with ODC 241 tablet	**1XYN.1**	1 unit(s)	1.750,00



Cleaning set for microscopes

Kern.

For gentle cleaning of microscopes, cameras, binoculars and other optical surfaces.

Delivery incl. silicone hand bellows, dusting brush, 60 ml cleaning fluid, lint-free dusting cloth, optical cleaning cloths, cleaning swabs and storage bag.

Type	Art. No.	Pack Qty.	€
Cleaning set for microscopes	**1LYH.1**	1 set	35,00



Stereo zoom microscope OZL-96 series

Kern.

Ideal for training organisations, workshops and installation and repair workplaces, e. g. in the electronics industry.

- High level of flexibility thanks to universal telescopic arm stand. Particularly suited to large samples and free-hand working under the microscope
- With extra-wide field eyepieces for greater vision angle, thereby ideal for people who wear glasses
- Continuously variable magnification via zoom lens
- Ideal illumination of the sample via dimmable LED ring light (4.5 W, incident light)

Optional accessories (please order separately):

- Widefield eyepieces and ancillary lenses for modulating the total magnification

Technical specifications:

Art. No.	1XYP.1	1XYT.1
Type	OZL 961	OZL 963
Tube	binocular	trinocular
Total magnification	7x to 45x – can be expanded up to 180x as an option	
Magnification type	zoom	
Ocular magnification	super wide angle (HWF) 10x	
Lens magnification	0.7–4.5x	
Field of view	20 mm	
Dioptre compensation	±5 dpt at both ocular tubes	
Angular observation	45°	
Head	can be rotated 360°	
Distance between eyepieces	55–75 mm	
Working distance	105 mm	
Light source	LED	
Type of lighting	incident light	
Image focusing	coarse focus	
Power supply	mains-powered	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. eyecups and dust cover.

OZL 491 binocular

Type	Art. No.	Pack Qty.	€
OZL 961	**1XYP.1**	1 unit(s)	960,00

OZL 493 trinocular

With trinocular head for mounting a microscope camera on the phototube using a C-mount adapter. Please order the C-mount adapter separately.

Type	Art. No.	Pack Qty.	€
OZL 963	**1XYT.1**	1 unit(s)	1.040,00



Tablet camera ODC 241

Kern.

With integrated camera for all trinocular microscopes with C-mount adapter. For simple and direct observation of the sample, including digital documentation. Ideal for students undergoing training, or for demonstration purposes in the laboratory.

- Capable of live transmission as well as creating images and videos
- Can perform simple measurements such as distance, surface and angular measurements, as well as manual counting function
- Efficient operation thanks to automatic white balance and automatic contrast adjustment
- Integrated interfaces enable additional functions such as data storage on a USB stick or SD card, connecting a USB mouse, transmission of the live image to an external screen via HDMI and transmission of saved data to external recipients via WiFi
- Operating system: Android 5.1

Technical specifications:

Art. No.	1LEP.1
Type	ODC 241
Display	yes
Display type	9.7″ LCD touchscreen
Sensor type	CMOS
Sensor format	$^{1}/_{2,5}$″
Number of pixels	5 (MP)
Pixel Size	2.2 x 2.2 µm
Resolution	2048 x 1536 pixels (screen)
Images per second	30 fps @ 1024 x 768
Connection	C-mount
Port	WiFi, USB 2.0, micro SD, micro HDMI
W x D x H	238 x 51 x 206 mm
Power supply	mains-powered
Mains connection	100–240 V, 50/60 Hz

Delivery incl. software (pre-installed) and mains adapter.

Type	Art. No.	Pack Qty.	€
ODC 241	**1LEP.1**	1 unit(s)	1.110,00

Illuminated magnifiers, lamps



Desk lamp Study

ROTH SELECTION. Material: metal.

- Upper and lower arm length, approx. 35 cm each (height-adjustable)
- Movable reflector
- Lamp head-Ø 17 cm
- Turns by 360°

Technical specifications:

Art. No.	1T3P.1	1T3T.1	EP57.1	EP58.1
Type	Study			
Colour	silver	black	silver	black
Version	with base		with clamping base	
Arm length	700 mm			
Cable length	1.80 m		1.75 m	
Mains connection	230 V, 50/60 Hz			

Delivery without bulb, please order separately.

(1) With clamping base
Clamping base width: up to 55 mm.

Colour	Art. No.	Pack Qty.	€
black	**EP58.1**	1 unit(s)	38,70
silver	**EP57.1**	1 unit(s)	38,70

(2) With base
Base Ø 23 cm.

Colour	Art. No.	Pack Qty.	€
black	**1T3T.1**	1 unit(s)	77,95
silver	**1T3P.1**	1 unit(s)	77,95



Work light MAULintro

MAUL. Material: metal, plastic (head).

Ideal for all work environments, e.g. in workshops or laboratories.

- Colour temperature: daylight white
- Freely adjustable lamp head. With switch for convenient switching on and off. Diffusor for minimal shadowing
- Extremely economical thanks to modern LED technology and high energy efficiency
- Robust metal arm
- Arm length: Bottom 400 mm and top 440 mm
- Height in normal working position 400 mm
- Clamp base for clamping widths of up to 63 mm

Technical specifications:

Art. No.	1XT3.1
Colour	white
Version	with clamp base
Light source	LED
Service life	20,000 hours
Energy efficiency class	E
Luminosity	2,920 lx
Luminous flux	1,449 lm
Colour temperature	6500 K
Arm length	840 mm
Cable length	1.70 m
Mains connection	220–240 V, 50 Hz

Delivery incl. bulb.

Colour	Art. No.	Pack Qty.	€
white	**1XT3.1**	1 unit(s)	134,40



Pocket illuminated magnifying glass white-light LED

Eschenbach. Material: PXM®.

- Ergonomically shaped handle
- Large, easy-to-operate light switch
- Aspheric PXM® lightweight lens
- Lenses are hard coated on both sides
- Easy battery replacement

Technical specifications:

Art. No.	1HEN.1	1HEP.1	1HET.1	PT98.1	PT99.1
Magnification	3x	5x	7x	10x	12.5x
Dioptres	12 dpt	20 dpt	28 dpt	38 dpt	50 dpt
Field of view	Ø 58 mm		Ø 35 mm		
Working distance	49 mm	36 mm	29 mm	20 mm	15 mm
Light source	LED				
Weight	97 g	105 g	77 g	78 g	75 g
Power supply	2 x 1.5 V AA batteries				

With attachable filters for different light colours.

Delivery incl. batteries and dust cap (can be folded back).

Magnification	Art. No.	Pack Qty.	€
3x	**1HEN.1**	1 unit(s)	81,35
5x	**1HEP.1**	1 unit(s)	83,85
7x	**1HET.1**	1 unit(s)	74,35
10x	**PT98.1**	1 unit(s)	79,75
12.5x	**PT99.1**	1 unit(s)	82,25

Refractometers

Handheld digital refractometer ORM series

Kern.

Digital refractive index measuring instrument for universal applications.

- Handy design with large, clearly readable display and integrated temperature display
- With automatic temperature compensation (ATC)
- Measuring temperature with ATC: 0 to +40 °C (accuracy ±0.5 °C)
- Better validity of measured values thanks to statistical average calculation of 15 measurements
- Sampling including prismatic diffuser cover for a more precise measuring process; intrusive light is excluded from the measurement process
- Quick and user-friendly calibration with distilled water
- Dust and splash-proof according to protection class IP 65
- Auto-off function after 60 seconds



Technical specifications:

Art. No.	1PCC.1	1PCE.1
Minimum sample volume	approx. 4 droplets	
Service life	battery: approx. 10,000 measurements	
W x D x H	121 x 58 x 25 mm	
Weight	289 g	
Power supply	1 x 1.5 V AAA battery	

Delivery incl. storage box, pipette, screwdriver and battery.

ORM 50BM

Type	Scale/measuring range	Resolution	Accuracy	Temp. compensation	Art. No.	Pack Qty.	€
ORM 50BM	Brix/0–50%, Refractive index/1.3330–1.4200 nD	0.1%, 0.0001 nD	±0.2%, ±0.0003 nD	Yes	**1PCC.1**	1 unit(s)	370,00

ORM 1RS

Type	Scale/measuring range	Resolution	Accuracy	Temp. compensation	Art. No.	Pack Qty.	€
ORM 1RS	Brix/0–90%, Refractive index/1.3330–1.5177 nD	0.1%, 0.0001 nD	±0.2%, ±0.0003 nD	Yes	**1PCE.1**	1 unit(s)	470,00

Tabletop refractometer digital ORL 94BS

Kern.

Digital refractive index measuring instrument for universal applications.

- Extra-wide measuring range with extremely high accuracy
- Large, clearly readable multi-function display with simultaneous display of refraction index, Brix and temperature
- With automatic temperature compensation (ATC)
- Measuring temperature with ATC: 0 to +40 °C (accuracy ±0.3 °C)
- Better validity of measured values thanks to statistical average calculation of 15 measurements
- Sampling including prismatic diffuser cover for a more precise measuring process; intrusive light is excluded from the measurement process
- Quick and user-friendly calibration with distilled water
- Auto-off function after 3 minutes



Technical specifications:

Art. No.	1PAY.1
Minimum sample volume	approx. 0.3–0.4 ml
W x D x H	180 x 100 x 55 mm
Weight	365 g

Delivery incl. storage box, USB cable, mains adapter, screwdriver and pipette.

Type	Scale/measuring range	Resolution	Accuracy	Temp. compensation	Art. No.	Pack Qty.	€
ORL 94BS	Brix/0–94%, Refractive index/1.3330–1.5290 nD	0.1%, 0.0001 nD	±0.1%, ±0.0002 nD	Yes	**1PAY.1**	1 unit(s)	920,00



Measuring instruments

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Benchtop pH meters

Benchtop pH meters SevenDirect™ SD20

Mettler-Toledo.

For determining pH/Redox.



- Large colour touchscreen (7″) for straightforward data input and direct measurements
- Simple and intuitive operation. On-screen instructions provide step-by-step guidance through the programs (e. g. sensor calibration)
- Screen display can be adjusted for specific requirements. Full-screen mode displays all information, while the details screen only shows the most important measurement information with large digits
- Calibration can be performed with predefined and user-specific buffers and buffer groups. Calibration memory with optional sensor lock setting available. Quality of the most recent sensor calibration shown directly via pH sensor symbol. Verification mode enables checking of the current sensor status
- Electrode arm can be operated easily with one hand. Simple and safe electrode handling via specific positions for cleaning and storage. Precise positioning via vertical and horizontal movements
- Traceable documentation. With each measurement, data such as the timestamp or sample and sensor ID is saved and automatically printed or exported
- Two-level user management (administrator, operator) prevents unwanted changes to device settings
- Internal measurement data memory: save by pressing a key or with time-controlled, measuring intervals
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data

Technical specifications:

Art. No.	1XX3.1	1XX5.1	1XX7.1	1XX8.1	1XX2.1	1XX6.1	1XX1.1	1XX4.1
Type	SD20 Basic	SD20 Standard kit	SD20 HA kit	SD20 Organic kit	SD20 Pure H2O kit	SD20 Solids kit	SD20 Viscous kit	SD20 LowVol kit
Sensor	without	InLab® Expert Pro ISM®	InLab® Routine Pro-ISM®	InLab® Science Pro-ISM®	InLab® Pure Pro-ISM®	InLab® Solids Pro-ISM®	InLab® Viscous Pro-ISM®	InLab® Micro Pro-ISM®
Parameters	pH, redox, temperature							
pH measuring range	-2 to +20							
pH resolution	0,001 / 0,01 / 0,1 pH							
pH accuracy	±0.002 pH							
Voltage measuring range	-2000 to +2000 mV							
Voltage resolution	0,1 / 1 mV							
Voltage accuracy	±0,2 mV							
Temperature measuring range	-30 to +130 °C							
Temperature resolution	0.1 °C							
Temperature accuracy	±0.1 °C (0.0 to 100.0 °C), ±0.3 °C (outside)							
Temperature sensor	NTC 30 kΩ, pt 1000							
Calibration points	1/2/3/4/5 (pH)							
Calibration memory	current calibration (incl. date and time)							
Data memory	2000 datasets							
Port	USB-A (USB stick, printer, barcode reader), USB-B (PC)							
ISM Technology	yes							
IP rating	54							
Connection	BNC (pH), Cinch (°C)							
L x W x H	205 x 195 x 65 mm							
Power supply	mains adapter							
Mains connection	100–240 V, 50/60 Hz							

Basic

Delivery incl. electrode holder and protective casing.

Without pH single-rod measuring cell, please order separately.

Type	Art. No.	Pack Qty.	€
SD20 Basic	**1XX3.1**	1 unit(s)	1.040,00

Standard kit

Wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.

InLab® Expert Pro-ISM® pH single-rod measuring cell with integrated temperature gauge. PEEK shaft with excellent chemical and mechanical resistance for extreme strain. The use of a solid polymer as a reference electrolyte means that there is no diaphragm which could become clogged.

Delivery incl. InLab® Expert Pro-ISM® pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00, 2x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
SD20 Standard kit	**1XX5.1**	1 unit(s)	1.375,00

Benchtop pH meters

HA kit
For general aqueous solutions, high ionic strengths, hot samples, TRIS buffer.

InLab® Routine Pro-ISM® pH single-rod measuring cell with integrated temperature sensor, quick and extremely chemical-resistant.
Tough HA-diaphragm glass, specially designed for use at high pH values, reduces alkali errors to a minimum.

Delivery incl. InLab® Routine Pro-ISM® pH single-rod measuring cell, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00, 2x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
SD20 HA kit	**1XX7.1**	1 unit(s)	1.465,00

Organic kit
For difficult applications such as organic solvents, emulsions and samples containing protein.

InLab® Science Pro-ISM® pH single-rod measuring cell with integrated temperature gauge and movable ground-joint diaphragm.
Reinforced electrolyte outflow prevents contaminations that could clog the diaphragm and distort measured values.

Delivery incl. InLab® Science Pro-ISM®, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00, 2 x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
SD20 Organic kit	**1XX8.1**	1 unit(s)	1.590,00

Pure H2O kit
For samples with a low ion concentration such as ultrapure water and deionised water.

InLab® Pure Pro-ISM® pH single-rod measuring cell with integrated temperature gauge and fixed ground-joint diaphragm.
The high electrolyte outflow reduces the potential at the diaphragm and therefore ensures more stable measurements.

Delivery incl. InLab® Pure Pro-ISM®, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00, 2 x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
SD20 Pure H2O kit	**1XX2.1**	1 unit(s)	1.600,00

Solids kit
For semi-solid and solid samples such as creams, yoghurt, butter, dough, cheese, meat, fish, fruit and vegetables.

InLab® Solids Pro-ISM® pH single-rod measuring cell with integrated temperature gauge and robust, spear-shaped glass diaphragm tip for easier insertion into the sample. Non-clogging hole diaphragm eliminates the risk of protein deposits.

Delivery incl. InLab® Solids Pro-ISM®, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00, 2 x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
SD20 Solids kit	**1XX6.1**	1 unit(s)	1.545,00

Viscous kit
For emulsions and viscous samples such as cosmetics, paints and adhesives.

InLab® Viscous Pro-ISM® pH single-rod measuring cell with integrated temperature gauge and pressurised electrolytes (3 bar).
This ensures electrolyte outflow into the sample despite counterpressure and protects the diaphragm against clogging.

Delivery incl. InLab® Viscous Pro-ISM®, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00, 2 x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
SD20 Viscous kit	**1XX1.1**	1 unit(s)	1.680,00

LowVol kit
For measurements in small or narrow vessels (such as test tubes, vials and cells) or for small sample volumes.

InLab® Micro Pro-ISM® pH single-rod measuring cell with integrated temperature gauge and small shaft diameter.
Delivery incl. InLab® Micro Pro-ISM®, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00, 2 x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
SD20 LowVol kit	**1XX4.1**	1 unit(s)	1.635,00

Combi measuring devices

Combi table-top multimeter SevenDirect™ SD23



Mettler-Toledo.

For determining pH/Redox and conductivity/salinity/TDS.

- Single/dual mode: single measurement or simultaneous measurement of pH and conductivity is possible
- Large colour touchscreen (7″) for straightforward data input and direct measurements
- Simple and intuitive operation. On-screen instructions provide step-by-step guidance through the programs (e. g. sensor calibration)
- Screen display can be adjusted for specific requirements. Full-screen mode displays all information, while the details screen only shows the most important measurement information with large digits
- Calibration can be performed with predefined and user-specific buffers and buffer groups. Calibration memory with optional sensor lock setting available. Quality of the most recent sensor calibration shown directly via pH sensor symbol. Verification mode enables checking of the current sensor status
- Electrode arm can be operated easily with one hand. Simple and safe electrode handling via specific positions for cleaning and storage. Precise positioning via vertical and horizontal movements
- Traceable documentation. With each measurement, data such as the timestamp or sample and sensor ID is saved and automatically printed or exported
- Two-level user management (administrator, operator) prevents unwanted changes to device settings
- Internal measurement data memory: save by pressing a key or with time-controlled measuring intervals
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data

Technical specifications:

Art. No.	1XXK.1	1XXL.1	1XXN.1
Type	SD23 Basic	SD23 Standard kit	SD23 Pure H2O kit
Sensor	without	InLab® ExpertPro-ISM®, InLab® 731-ISM®	InLab® PurePro-ISM®, InLab® 741-ISM®
Parameters	pH, redox, conductivity, TDS, salinity, temperature		
pH measuring range	-2 to +20		
pH resolution	0,001 / 0,01 / 0,1 pH		
pH accuracy	±0.002 pH		
Voltage measuring range	-2000 to +2000 mV		
Voltage resolution	0,1 / 1 mV		
Voltage accuracy	±0,2 mV		
Conductivity measuring range	0 µS/cm to 2000 mS/cm		
Conductivity resolution	automatic: 0.1 / 0.01 / 0.001 (µS/cm, mS/cm)		
Conductivity accuracy	±0.5% of the measured value		
TDS measuring range	0 mg/l to 1000 g/l		
TDS resolution	automatic: 0.1 / 0.01 / 0.001 (mg/l, ppm) or 0.1 / 0.01 / 0.001 / 0.0001 (g/l, ppt)		
TDS accuracy	±0.5% of the measured value		
Salinity measuring range	0 to 80 psu		
Salinity resolution	0.01 / 0.1 psu		
Salinity accuracy	±0.5% of the measured value		
Temperature measuring range	-30 to +130 °C		
Temperature resolution	0.1 °C		
Temperature accuracy	±0.1 °C (0.0 to 100.0 °C), ±0.3 °C (outside)		
Calibration points	1/2/3/4/5 (pH), 1/2 (EC)		
Data memory	2000 datasets		
Port	USB-A (USB stick, printer, barcode reader), USB-B (PC)		
Connection	BNC (pH), Mini-DIN (EC), Cinch (°C)		
ISM Technology	yes		
IP rating	54		
Power supply	mains adapter		
Mains connection	100–240 V, 50/60 Hz		

Basic

Delivery incl. electrode holder and protective casing.

Without sensors, please order separately.

Type	Art. No.	Pack Qty.	€
SD23 Basic	**1XXK.1**	1 unit(s)	2.195,00

Standard kit

For a wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.

Delivery incl. InLab® Expert Pro-ISM® pH single-rod measuring cell, InLab® 731-ISM® conductivity sensor, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00 / 1413 µS/cm and 12.88 mS/cm, 2x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
SD23 Standard kit	**1XXL.1**	1 unit(s)	2.760,00

Pure H2O kit

For samples with a low ion concentration such as ultrapure water and deionised water.

Delivery incl. InLab® Pure Pro-ISM® pH single-rod measuring cell, InLab® 741-ISM® conductivity sensor, buffer solutions (pH 4.01, 7.00, 9.21 and 10.00 / 1413 µS/cm , 2x 20 ml of each), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
SD23 Pure H2O kit	**1XXN.1**	1 unit(s)	3.030,00

Conductivity meters



Benchtop conductivity meters SevenDirect™ SD30

Mettler-Toledo.

For determining conductivity/salinity/TDS.

- Large colour touchscreen (7″) for straightforward data input and direct measurements
- Simple and intuitive operation. On-screen instructions provide step-by-step guidance through the programs (e. g. sensor calibration).
- Screen display can be adjusted for specific requirements. Full-screen mode displays all information, while the details screen only shows the most important measurement information with large digits
- Calibration can be performed with predefined and user-specific buffers and buffer groups. Verification mode enables checking of the current sensor status
- Electrode arm can be operated easily with one hand. Simple and safe electrode handling via specific positions for cleaning and storage. Precise positioning via vertical and horizontal movements
- Traceable documentation. With each measurement, data such as the timestamp or sample and sensor ID is saved and automatically printed or exported
- Two-level user management (administrator, operator) prevents unwanted changes to device settings
- Internal measurement data memory: save by pressing a key or with time-controlled, measuring intervals
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data

Technical specifications:

Art. No.	1XXC.1	1XXE.1	1XXH.1
Type	SD30 Basic	SD30 Standard kit	SD30 Pure H2O kit
Sensor	without	InLab® 731-ISM®	InLab® 741-ISM®
Parameters	conductivity, TDS, salinity, temperature		
Conductivity measuring range	0 µS/cm to 2000 mS/cm		
Conductivity resolution	automatic: 0.1 / 0.01 / 0.001 (µS/cm, mS/cm)		
Conductivity accuracy	±0.5% of the measured value		
Calibration points	1/2 (EC)		
TDS measuring range	0 mg/l to 1000 g/l		
TDS resolution	automatic: 0.1 / 0.01 / 0.001 (mg/l, ppm) or 0.1 / 0.01 / 0.001 / 0.0001 (g/l, ppt)		
TDS accuracy	±0.5% of the measured value		
Salinity measuring range	0 to 80 psu		
Salinity resolution	0.01 / 0.1 psu		
Salinity accuracy	±0.5% of the measured value		
Temperature measuring range	-30 to +130 °C		
Temperature resolution	0.1 °C		
Temperature accuracy	±0.1 °C (0.0 to 100.0 °C), ±0.3 °C (outside)		
Data memory	2000 datasets		
Port	USB-A (USB stick, printer, barcode reader), USB-B (PC)		
Connection	Mini-DIN (EC), Cinch (°C)		
ISM Technology	yes		
IP rating	54		
Power supply	mains adapter		
Mains connection	100–240 V, 50/60 Hz		

Basic

Delivery incl. electrode holder and protective casing.

Without conductivity sensor, please order separately.

Type	Art. No.	Pack Qty.	€
SD30 Basic	**1XXC.1**	1 unit(s)	1.465,00

Standard kit

With conductivity sensor for moderate to very high conductivities: InLab® 731-ISM® with integrated temperature sensor, measuring range: 0.01 to 1000 mS/cm, plastic shaft, shaft length/Ø: 120/12 mm, application range 0 to +100 °C.

Delivery incl. InLab® 731-ISM® conductivity sensor, buffer solutions (1413 µS/cm and 12.88 mS/cm, each 2 x 20 ml), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
SD30 Standard kit	**1XXE.1**	1 unit(s)	1.885,00

Pure H2O kit

With conductivity sensor for samples with low conductivity, such as pure and high-purity water.
InLab® 741-ISM® with integrated temperature gauge. Measuring range: 0.001 to 500 µS/cm. Stainless steel shaft, L/Ø: 120/12 mm.
Operating range: 0 to +100 °C.

Delivery incl. InLab® 741-ISM® conductivity sensor, test solutions (1413 µS/cm, 2 x 20 ml), electrode holder and protective cover.

Type	Art. No.	Pack Qty.	€
SD30 Pure H2O kit	**1XXH.1**	1 unit(s)	2.090,00



Conductivity sensor InLab® Trace

Mettler-Toledo.

Digital two-pole conductivity sensor made of titanium with integrated temperature sensor. Ideal for samples with low conductivity such as pure water and ultrapure water.

Thanks to the Intelligent Sensor Management (ISM®) system, all important data is stored in the sensor and automatically sent to ISM®-compatible measuring devices.

Technical specifications:

Art. No.	1LYK.1
Type	InLab® Trace
Conductivity measuring range	0.0001 to 1000 µS/cm
Operating temperature	0 to +100 °C
Cell type	2 titanium poles
Cell constant	0,01 cm^{-1}
Shaft length	67 mm
Ø Shaft	12 mm
Shaft material	titanium
Temperature sensor	Pt1000
ISM Technology	yes
IP rating	67
Connection	Mini LTW (IP67)

Delivery incl. fixed cable (length 1.8 m).

Suitable for	Type	Art. No.	Pack Qty.	€
SevenDirect™, SevenExcellence™	InLab® Trace	**1LYK.1**	1 unit(s)	1.476,00



Accessories Flow cell for InLab® Trace

Mettler-Toledo.

High-quality flow cell, suitable for the InLab® Trace conductivity sensor. For measurements (≤10 µS/cm) with the complete exclusion of CO_2. Flow speeds >100 ml/min, connections for hose inner Ø 5 mm.

Type	Art. No.	Pack Qty.	€
InLab® Trace flow cell	**1LYL.1**	1 unit(s)	1.290,00



Conductivity sensor TetraCon® 325

WTW.

Four electrode conductivity sensors with integrated temperature sensor, for standard measurements in aqueous solutions. Low insertion depth and high measuring range. No measuring errors due to cable interference or electrode contamination.

Technical specifications:

Art. No.	**1HHL.1**
Type	TetraCon® 325
Conductivity measuring range	1 µS/cm to 2000 mS/cm
Operating temperature	-5 to +80 °C
Cell type	four graphite pins
Cell constant	0,475 cm^{-1}
Shaft length	120 mm
Ø Shaft	15.3 mm
Shaft material	epoxid
Temperature sensor	NTC 30 kΩ
IP rating	68
Connection	8-pin connector

Delivery incl. fixed cable (length 1.5 m).

Type	Art. No.	Pack Qty.	€
TetraCon® 325	**1HHL.1**	1 unit(s)	625,65



Test strips QUANTOFIX®

Macherey-Nagel.

For semi-quantitive determination of various substances. The test strips consist of a 0.2 mm-thick plastic strip with testing paper affixed to the lower end. After the test strip has been moistened, the colouration that appears is compared to a colour scale on the side of the can. The concentration value can be read or a concentration range can be estimated. Dimensions: W 6 x L 95 mm.

Arsenic sensitive PP
Test strips with additional reagent

Warning H315-H319-H361d-H410

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Arsenic $AS^{3+/5+}$	0-0,005-0,01-0, 025-0,05-0,1-0,25-0,5	**1Y08.1**	100 unit(s)	174,00

Total sugar
Test strips with additional reagent.

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Fructose/glucose	0-55-100-250-400-600-800	**1Y09.1**	100 unit(s)	183,00

Glucose

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.	€
Glucose	0-50-100-250-500-1000-2000	**1Y0A.1**	100 unit(s)	28,30



Timer with count-down/count-up

Count-down/count-up. Maximum operating time 99 hrs, 59 min or 99 min, 59 s. **Timer memory function for 3 times.** Two different volumes or mute mode can be selected. After the countdown stops, an acoustic signal sounds for 1 min. If the alarm is not acknowledged, two alarm signals continue to sound every 10 seconds. With additional LED warning light. **Pre-alarm function (fully adjustable).** Includes stand, magnet for fixing to metal surfaces and hanging attachment. Dimensions: L 79 x D 21.5 x H 79 mm. Weight 70 g.

Delivery without batteries. Requires 2 x 1.5 V micro batteries.

Type	Colour	Art. No.	Pack Qty.	€
Signal timer 99 HOURS	white	**1T6Y.1**	1 unit(s)	19,30

Temperature measurement



Low temperature indicators irreversible

ROTH SELECTION.

Temperature monitoring and inspection of goods during transport and storage.
Usage: Food, pharmaceutical and cosmetics industries, as well as logistics and intralogistics.

- Activated by hand
- Irreversible colour change, white to blue
- Partial discolouration when the temperature has been reached briefly, then falls below the measured value again
- Full discolouration when the measured value has been reached in the long term or exceeded
- Self-adhesive
- Dimensions: Ø 32 mm x 6 mm
- 100 pieces per box

Temperature (°C)	Temperature accuracy	Art. No.	Pack Qty.	€
-17	±1 °C	**1LN9.1**	100 unit(s)	225,75
-8	±1 °C	**1LNA.1**	100 unit(s)	237,05
-5	±1 °C	**1LNC.1**	100 unit(s)	237,05
-2	±1 °C	**1LNE.1**	100 unit(s)	225,75
+5	±1 °C	**1LNH.1**	100 unit(s)	237,05
+9	±1 °C	**1LNK.1**	100 unit(s)	237,05
+17	±1 °C	**1LNL.1**	100 unit(s)	237,05
+20	±1 °C	**1LNN.1**	100 unit(s)	237,05



Thermal disinfection indicator irreversible

ROTH SELECTION.

Three-field temperature indicator for standard dishwashers (65 °C), thermal/chemical disinfection (71 °C) and thermal disinfection (82 °C).
Usage: Industrial automatic dishwashers, medical and hospital technology, industrial parts cleaning, research and development.

- Irreversible colour change from white to black, as soon as measured value is reached
- Part of the HACCP process (essential component of the national regulations regarding food hygiene (LMHV)) to prove due diligence
- Display in °C and °F
- Self-adhesive
- Dimensions: 35 mm x 25 mm
- 1000 pieces on a roll

Temperature (°C)	Temperature accuracy	Art. No.	Pack Qty.	€
65 / 71 / 82	±1 °C	**1LP0.1**	1,000 unit(s)	395,10



Data loggers disposable TempLOG TS60

Dostmann.

For monitoring cooling chains. Temperature recording during storage and transportation of foodstuffs, medicines, chemicals and other products.
Following completion of recording, the logger is connected to a PC or laptop directly via USB. Saved data is output as PDF file. The output includes graphical depictions of temperature progression and statistical values, as well as a list of all individual values.
No additional hardware or software required.

- Easy to use, one button to start/stop
- Operating status via LED display
- Suitable for foodstuffs according to HACCP
- Compliant with EN 12830 S,T,C,D,1 and GDP

Technical specifications:

Art. No.	**1NEX.1**
Type	TempLOG TS60
Parameters	temperature
Temperature measuring range	-30 to +60 °C
Temperature accuracy	±0.5 °C (-20 to +40 °C), ±1.0 °C (outside)
Resolution	0,1 °C
Display	no
Data memory	10000 measured values
Measuring cycle	10 minutes
Port	USB
IP rating	67
L x W x D	69 x 33 x 5 mm
Weight	10 g
Power supply	CR 2032 button cell battery (3 V)

Delivery incl. ISO calibration certificate and battery.

Type	Art. No.	Pack Qty.	€
TempLOG TS60	**1NEX.1**	1 unit(s)	21,45

Platform balances IFB series

Kern.

Application:

- Item counter, weighing with tolerance range, animal weighing



Features:

- External adjustment
- IP65 dust and splash water protection
- Level indicator and levelling feet for levelling the balance
- Analysis device dimensions W 230 x D 230 x H 360 mm, cable length approx. 3 m
- RS 232 data port

Delivery incl. protective hood, base with wall mount for the analysis device and mains adapter.

Models cannot be calibrated

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
IFB 6K-4	6000	0.2	0,6	0,2	300 x 240	**1P5Y.1**	1 unit(s)	440,00
IFB 10K-4	15000	0.5	1,5	0,5	300 x 240	**1P60.1**	1 unit(s)	445,00
IFB 30K-3	30000	1	4	1	400 x 300	**1P61.1**	1 unit(s)	500,00
IFB 60K-3	60000	2	8	2	400 x 300	**1P62.1**	1 unit(s)	500,00
IFB 100K-3	150000	5	15	5	500 x 400	**1P63.1**	1 unit(s)	695,00

Models calibrated ex works

Type	Weighing range (g)	Readability (g)	Linearity (g)	Reproducibility (g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
IFB 6K1DM	3000/6000	1/2	1/2	1/2	300 x 240	**1P64.1**	1 unit(s)	550,00
IFB 15K2DM	6000/15000	2/5	2/5	2/5	300 x 240	**1P65.1**	1 unit(s)	550,00
IFB 30K5DM	15000/30000	5/10	5/10	5/10	400 x 300	**1P66.1**	1 unit(s)	630,00
IFB 60K10DM	30000/60000	10/20	10/20	10/20	400 x 300	**1P67.1**	1 unit(s)	655,00
IFB 150K20DM	60000/150000	20/50	20/50	20/50	500 x 400	**1P68.1**	1 unit(s)	795,00

Accessories Stand for IFB series platform balances

Kern.

For elevating the evaluation device.



Designation	Art. No.	Pack Qty.	€
Stand, H 330 mm, suitable for IFB series platform balances with 300 x 240 mm or 400 x 300 mm platform	**1P6A.1**	1 unit(s)	68,00
Stand, H 600 mm, suitable for IFB series platform balances with 500 x 400 mm platform	**1P6C.1**	1 unit(s)	81,00



Laboratory equipment

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Refrigerator MediLine type LK series

Liebherr.

General information for all models:

- Cooling temperature adjustable from +3 to +16 °C
- With convection cooling
- Exterior digital temperature display (resolution 0.1 °C)
- Acoustic and optical temperature alarm (adjustable limits) and door-opening alarm
- Saving the min./max. interior temperature that occurs
- Saving the last three temperature alarms and power outage with time, date and duration of the alarm
- With lockable door

Technical specifications:

Art. No.	1PEN.1	1PEP.1	1APP.1	1APT.1
Type	LKUv 1610	LKv 3910	LKUv 1613	LKv 3913
Cooling capacity	133 l	333 l	132 l	332 l
Refrigeration temperature from	+3 °C			
Refrigeration temperature up to	+16 °C			
Number of bases	3	5	3	5
Removable shelves	grate			
Additional data	with steel door		with insulated glass door	
Outer width	601 mm			
Outer depth	618 mm			
Outer height	820 mm	1,840 mm	820 mm	1,840 mm
Inner width	440 mm			
Inner depth	435 mm			
Inner height	670 mm	1,635 mm	670 mm	1,635 mm
Thawing method	automatic			
Energy consumption (24 h)	0.748 kWh	0.847 kWh	1.010 kWh	1.315 kWh
Weight	40 kg	70 kg	46 kg	88 kg
Mains connection	220–240 V, 50 Hz			

Please note: additional transport costs apply for delivery to the place of use. We will be happy to inform you of these on request.

(1) With steel door

Type	Art. No.	Pack Qty.	€
LKUv 1610	**1PEN.1**	1 unit(s)	1.654,45
LKv 3910	**1PEP.1**	1 unit(s)	2.310,20

(2) With insulated glass door

- LED lighting, can be switched separately

Type	Art. No.	Pack Qty.	€
LKUv 1613	**1APP.1**	1 unit(s)	1.804,95
LKv 3913	**1APT.1**	1 unit(s)	2.568,20



MediLine explosion-proof fridge type LKexv series

Liebherr.

Explosion-proof acc. to ATEX Directive 2014/34/EU. With the classification II 3G Ex nA II T6, the devices are suitable for storing explosive and highly flammable substances in closed containers.

- Cooling temperature is continuously adjustable from +1 to +15 °C
- Temperature selection range:
  1 (= lowest cooling capacity) to 5 (= highest cooling capacity)
- Mechanical control unit
- Digital temperature display (resolution 1 °C)
- Dynamic cooling system (with forced air ventilation)
- Steel housing material
- With lockable door and height-adjustable glass shelves
- Automatic condensation drainage into inner catch tank

Technical specifications:

Art. No.	1PE2.1	1PE3.1	1PE4.1	1PE5.1
Type	LKexv 1800	LKexv 2600	LKexv 3600	LKexv 5400
Cooling capacity	160 l	221 l	307 l	520 l
Refrigeration temperature from	+1 °C			
Refrigeration temperature up to	+15 °C			
Number of bases	3	4	5	
Additional data	shelves made of glass			
Outer width	600 mm			750 mm
Outer depth	600 mm	610 mm		729 mm
Outer height	860 mm	1,250 mm	1,641 mm	1,640 mm
Inner width	513 mm	470 mm		600 mm
Inner depth	441 mm	440 mm		560 mm
Inner height	702 mm	1,062 mm	1,452 mm	
Thawing method	automatic			
Energy consumption (24 h)	0.899 kWh	0.786 kWh	0.948 kWh	0.986 kWh
Weight	41 kg	53 kg	64 kg	84 kg
Mains connection	220–240 V, 50 Hz			

Delivery incl. height-adjustable glass shelves.

Type	Art. No.	Pack Qty.	€
LKexv 1800	**1PE2.1**	1 unit(s)	1.450,20
LKexv 2600	**1PE3.1**	1 unit(s)	1.600,70
LKexv 3600	**1PE4.1**	1 unit(s)	1.783,45
LKexv 5400	**1PE5.1**	1 unit(s)	2.041,45

Deep freezer Versafreeze series

Lauda.

For organic substances and valuable samples, which have to be stored safely for long periods at low temperatures.

- 4.3″ touchscreen control panel with digital display for entering and retrieving all safety-relevant values
- Stainless steel interior
- Adjustable limit values for overheating and insufficient temperature alarm
- Preservation of display and alarm functions, even during power outages (battery buffering up to max. 35 hours)
- Integrated data logger incl. 1 GB SD card (sufficient for approx. 2 years) for storing temperature and alarm data. The temperature of the usable space is recorded every 120 s. Data can be transferred via USB stick (not supplied)
- Duct for inserting temperature gauges and pressure compensation opening ID 13 mm available
- With USB, RS 485 and Ethernet interfaces
- Lockable door
- Permissible ambient temperature range of 15 to 28 °C



Technical specifications:

Art. No.	1NL3.1	1T48.1	1T49.1	1NL4.1
Type	VF 15085	VF 60085	VF 70085	VF 15040
Operating temperature	-50 to -86 °C			0 to -40 °C
Cooling capacity	129 l	584 l	731 l	129 l
Outer width	904 mm	980 mm		904 mm
Outer depth	776 mm	956 mm	1,165 mm	776 mm
Outer height	865 mm	1,965 mm		865 mm
Inner width	480 mm	738 mm		480 mm
Inner depth	480 mm	600 mm	750 mm	480 mm
Inner height	560 mm	1,320 mm		560 mm
Energy consumption (24 h)	9.3 kWh	13.5 kWh	15.5 kWh	5 kWh
Weight	150 kg	356 kg	370 kg	128 kg
Mains connection	230 V, 50 Hz			

Shipping costs within Germany: incl. delivery free domicile (inside the first door).

VF 15085 ultra-low temperature freezer

- Cooling temperature is adjustable from -50 to -86 °C
- With additional inner insulated door
- Cooling time from 20 °C to -86 °C in 5 h, thawing time from -85 °C to 0 °C in 18 h

Type	Art. No.	Pack Qty.	€
VF 15085	**1NL3.1**	1 unit(s)	9.050,00

VF 60085 ultra-low temperature freezer

- Cooling temperature is adjustable from -50 to -86 °C
- Cooling time from 20 °C to -86 °C in 6 h, thawing time from -86 °C to 0 °C in 23 h
- With sweven internal compartments each with an insulated door measuring W 738 x D 600 x H 175 mm

Type	Art. No.	Pack Qty.	€
VF 60085	**1T48.1**	1 unit(s)	13.950,00

VF 70085 ultra-low temperature freezer

- Cooling temperature is adjustable from -50 to -86 °C
- Cooling time from 20 °C to -86 °C in 7 h, thawing time from -86 °C to 0 °C in 25 h
- With seven internal compartments each with an insulated door measuring W 738 x D 750 x H 175 mm

Type	Art. No.	Pack Qty.	€
VF 70085	**1T49.1**	1 unit(s)	15.120,00

VF 15040 deep freezer

- Cooling temperature adjustable from 0 to -40 °C
- Cooling time from 20 °C to -40 °C in 5 h, from -40 °C to 0 °C in 12 h

Type	Art. No.	Pack Qty.	€
VF 15040	**1NL4.1**	1 unit(s)	8.350,00

Chest freezer Versafreeze series

Lauda.

For organic substances and valuable samples, which have to be stored safely for long periods at low temperatures.

- 4.3" touchscreen control panel with digital display for entering and retrieving all safety-relevant values
- Stainless steel interior
- Adjustable limit values for overheating and insufficient temperature alarm
- Preservation of display and alarm functions, even during power outages (battery buffering up to max. 35 h)
- Integrated data logger incl. 1 GB SD card (sufficient for approx. 2 years) for storing temperature and alarm data. The temperature of the usable space is recorded every 120 s. Data can be transferred via USB stick (not supplied)
- Duct for inserting temperature gauges and pressure compensation opening ID 13 mm available
- Lockable door
- Four castors
- With USB, RS-485 and Ethernet interfaces
- If Cryo racks are required, please order separately. Racks can hold nine boxes (max. 136 x 136 mm, H 50 mm). Rack dimensions: L 140 x W 140 x H 495 mm



Technical specifications:

Art. No.	1NL5.1	1NL6.1
Type	VF 20085 C	VF 20040 C
Operating temperature	-50 to -85 °C	0 to -40 °C
Cooling capacity	205 l	
Outer width	960 mm	
Outer depth	790 mm	
Outer height	1,130 mm	
Inner width	790 mm	
Inner depth	520 mm	
Inner height	500 mm	
Intake capacity	15 unit(s)	
Suitable for	cryo racks (= storage capacity)	
Energy consumption (24 h)	11.2 kWh	7 kWh
Weight	210 kg	188 kg
Mains connection	230 V, 50 Hz	

Shipping costs within Germany: incl. delivery free domicile (inside the first door).

VF 20085 C ultra-low temperature chest freezer

- Cooling temperature adjustable from -50 to -85 °C
- Cooling time from 20 °C to -85 °C in 3 h, thawing time from -85 °C to 0 °C in 11 h
- Permissible ambient temperature range 15 to 28 °C

Type	Art. No.	Pack Qty.	€
VF 20085 C	**1NL5.1**	1 unit(s)	10.250,00

VF 20040 C chest freezer

- Cooling temperature adjustable from 0 to -40 °C
- Cooling time from 20 °C to -40 °C in 3 h, thawing time from -40 °C to 0 °C in 6 h
- Permissible ambient temperature range 15 to 28 °C

Type	Art. No.	Pack Qty.	€
VF 20040 C	**1NL6.1**	1 unit(s)	8.800,00

Flake ice machines

Flake ice machines AF series SCOTSMAN® with ice storage tank



Scotsman.

Applications: laboratories, research institutes and industry.

- Stainless steel version, air-cooled
- With XSafe - integrated natural hygiene unit (UV light)

The ice flakes have a temperature of 0.5 °C; the irregular, large surface delivers a very good cooling effect.
Each flake is saturated and firm and they do not stick together.

Two versions are available:
Standard version for operation with drinking water. A laboratory version for operation with demineralised water (conductivity ≤30 µS) is also available.

Delivery incl. one scoop, 1 supply hose ¾″ (length 1.5 m), 1 drainage hose (Ø 20 mm, length 1.5 m).

Standard version

Technical specifications:

Art. No.	CK94.1	1TAP.1	1TAT.1	1TAX.1	1TAY.1
Max. output in 24 h	70 kg	130 kg	120 kg	160 kg	200 kg
Type	AF 87 OX	AF 107 OX	AF 124 OX	AF 156 OX	AF 206 OX
Storage capacity	25 kg	30 kg	40 kg	60 kg	
Power consumption	270 W	400 W	510 W	590 W	950 W
Width	535 mm	592 mm	950 mm		
Depth	626 mm	622 mm	605 mm		
Height	890 mm	1,078 mm	872 mm	1,083 mm	
Operating limits	room temperature: min. 10 °C/max. 43 °C water temperature: min. 5 °C/max. 38 °C water pressure: min. 1 bar/max. 5 bar				
Weight	58 kg	74 kg	77 kg	88 kg	90 kg
Mains connection	230 V, 50 Hz				

Type	Storage capacity (kg)	Art. No.	Pack Qty.	€
AF 87 OX	25	**CK94.1**	1 unit(s)	4.189,30
AF 107 OX	30	**1TAP.1**	1 unit(s)	4.748,30
AF 124 OX	40	**1TAT.1**	1 unit(s)	5.072,95
AF 156 OX	60	**1TAX.1**	1 unit(s)	5.574,95
AF 206 OX	60	**1TAY.1**	1 unit(s)	6.309,20

Laboratory version – demineralised water connection

Technical specifications:

Art. No.	1TC0.1	1TC1.1	1TC2.1	1TC3.1	1TC4.1
Max. output in 24 h	70 kg	130 kg	120 kg	160 kg	200 kg
Type	AF 87 OX VE	AF 107 OX VE	AF 124 OX VE	AF 156 OX VE	AF 206 OX VE
Storage capacity	25 kg	30 kg	40 kg	60 kg	
Power consumption	330 W	550 W	510 W	590 W	950 W
Width	535 mm	592 mm	950 mm		
Depth	620 mm	622 mm	605 mm		
Height	890 mm	1,078 mm	872 mm	1,083 mm	
Operating limits	room temperature: min. 10 °C/max. 43 °C water temperature: min. 5 °C/max. 38 °C water pressure: min. 1 bar/max. 5 bar				
Weight	58 kg	74 kg	77 kg	88 kg	90 kg
Mains connection	230 V, 50 Hz				

Type	Storage capacity (kg)	Art. No.	Pack Qty.	€
AF 87 OX VE	25	**1TC0.1**	1 unit(s)	3.987,20
AF 107 OX VE	30	**1TC1.1**	1 unit(s)	4.606,40
AF 124 OX VE	40	**1TC2.1**	1 unit(s)	4.919,20
AF 156 OX VE	60	**1TC3.1**	1 unit(s)	5.402,95
AF 206 OX VE	60	**1TC4.1**	1 unit(s)	6.439,25

Flake ice machines

Flake ice machines EF series SCOTSMAN® with ice storage tank and waste water pump



Scotsman.

Applications: laboratories, research institutes and industry.

- Stainless steel version, air-cooled
- With XSafe – integrated natural hygiene unit (UV light)

The ice flakes have a temperature of 0.5 °C; the irregular, large surface delivers a very good cooling effect.
Each flake is saturated and firm and they do not stick together.

With additional **waste water pump** (waste water can be pumped up to a height of 1.7 m or up to a distance of 15 m).

Two versions are available:
Standard version for operation with drinking water. A laboratory version for operation with demineralised water (conductivity ≤30 µS) is also available.

Delivery incl. 1 scoop, 1 supply hose ¾″ (length 1.5 m), 1 drainage hose (Ø 20 mm, length 1.5 m).

Standard design

Technical specifications:

Art. No.	CK95.1	1TC6.1	1TC7.1	1TC8.1
Max. output in 24 h	130 kg	120 kg	160 kg	200 kg
Type	EF 107 OX	EF 124 OX	EF 156 OX	EF 206 OX
Storage capacity	30 kg	40 kg	60 kg	
Power consumption	400 W	510 W	590 W	950 W
Width	592 mm	950 mm		
Depth	622 mm	605 mm		
Height	1,078 mm	872 mm	1,083 mm	
Operating limits	room temperature: min. 10 °C/max. 43 °C water temperature: min. 5 °C/max. 38 °C water pressure: min. 1 bar/max. 5 bar			
Weight	76 kg	79 kg	90 kg	92 kg
Mains connection	230 V, 50 Hz			

Type	Storage capacity (kg)	Art. No.	Pack Qty.	€
EF 107 OX	30	**CK95.1**	1 unit(s)	4.867,60
EF 124 OX	40	**1TC6.1**	1 unit(s)	4.789,15
EF 156 OX	60	**1TC7.1**	1 unit(s)	5.272,90
EF 206 OX	60	**1TC8.1**	1 unit(s)	6.309,20

Laboratory version – demineralised water connection

Technical specifications:

Art. No.	1TC9.1	1TCA.1	1TCC.1	1TCE.1
Max. output in 24 h	130 kg	120 kg	160 kg	200 kg
Type	EF 107 OX VE	EF 124 OX VE	EF 156 OX VE	EF 206 OX VE
Storage capacity	30 kg	40 kg	60 kg	
Power consumption	400 W	510 W	590 W	950 W
Width	592 mm	950 mm		
Depth	622 mm	605 mm		
Height	1,078 mm	872 mm	1,083 mm	
Operating limits	room temperature: min. 10 °C/max. 43 °C water temperature: min. 5 °C/max. 38 °C water pressure: min. 1 bar/max. 5 bar			
Weight	76 kg	79 kg	90 kg	92 kg
Mains connection	230 V, 50 Hz			

Type	Storage capacity (kg)	Art. No.	Pack Qty.	€
EF 107 OX VE	30	**1TC9.1**	1 unit(s)	4.784,85
EF 124 OX VE	40	**1TCA.1**	1 unit(s)	5.041,75
EF 156 OX VE	60	**1TCC.1**	1 unit(s)	5.525,50
EF 206 OX VE	60	**1TCE.1**	1 unit(s)	6.561,80

Peltier cooling incubator KB ECO series

Binder.



General features:

- **Operating temperature range: 0 to +70 °C (max. 26 °C below ambient temperature)**
- LCD display for displaying temperature, additional information and alarms
- Internal data logger, measured values in open format readable via USB (approx. 110,000 at a save interval of 1 min, interval can be set to between 1 and 60 minutes)
- **Cooling using Peltier technology with heat dissipation (protection against drying out and condensation)**
- Adjustable condensate protection
- With additional inner door of safety glass
- Access port with silicone stopper of Ø 30 mm

Technical specifications:

Art. No.	**1T16.1**	**1T17.1**	**1T18.1**
Type	KB ECO 240	KB ECO 720	KB ECO 1020
Operating temperature	from 0 to +70 °C (max. 26 °C below ambient temperature)		
Vol.	247 l	700 l	1,020 l
Inner width	650 mm	973 mm	
Inner depth	485 mm	576 mm	836 mm
Inner height	785 mm	1,250 mm	
Outer width	925 mm	1,250 mm	
Outer depth	796 mm	885 mm	1,149 mm
Outer height	1,461 mm	1,925 mm	
Max. removable shelves	9	15	
Rated power	900 W	1,300 W	
Temporal temp. variance	±0,1 K		
Spatial temp. deviation	±0,1 K		
Weight	152 kg	272 kg	327 kg
Mains connection	230 V, 50/60 Hz		

Delivery incl. two stainless steel insertable grates.

Type	Vol. (l)	Art. No.	Pack Qty.	€
KB ECO 240	247	**1T16.1**	1 unit(s)	8.819,30
KB ECO 720	700	**1T17.1**	1 unit(s)	13.688,00
KB ECO 1020	1,020	**1T18.1**	1 unit(s)	17.866,50

Accessories stainless steel insertable grate for Peltier KB ECO series cooling incubators

Binder.

Suitable for	Art. No.	Pack Qty.	€
for KB ECO 240	**1T19.1**	1 unit(s)	276,30
for KB ECO 720	**1T1A.1**	1 unit(s)	533,20
for KB ECO 1020	**1T1C.1**	1 unit(s)	595,55

CO_2 incubator ICO series

Memmert.

For cell cultures.



- **Operating temperature range from +5 °C above room temperature to 50 °C (in 0.1 °C increments) and CO_2 concentrations up to 20% (in 0.1% increments)**
- Stainless steel interior (1.4301)
- Heated inner glass door with opening (8 mm Ø) for gas sampling
- Stored sterilisation program: 60 minutes at 180 °C
- To supply the incubator with CO_2, a separate gas cylinder or a central compressed-gas tank is required
- Demineralised/fully desalinated chlorine-free water with a conductivity of 5 to 10 µS/cm and pH value 5-7 is required for humidification
- With factory calibration certificate at +37 °C, 5% CO_2

Other features:

- With fan (non-adjustable)
- German, English, French and Spanish language options
- Digital timer (adjustable from 1 min to 99 d, 23 h) or continuous operation
- Two graphical TFT displays with touchscreen for operation and displaying temperature, program runtime and graphical display of the target and actual values
- Integrated data logger with 10-year memory
- **Display of recorded log data (max. 10,000 values correspond to approx. one week) directly on the device**
- With Ethernet communication port for reading out log data as well as for transmitting and launching programs and online logging
- **USB port for installing programs and reading out the data logger incl. software (to create ramp programs and weekly programs)**
- Definition of individual min./max. values for protection against excessive/insufficient temperatures

Technical specifications:

Art. No.	1XYX.1	1Y02.1	1XYY.1	1Y03.1	1Y00.1	1Y04.1	1Y01.1	1Y05.1
Type	ICO50	ICO50 Plus	ICO105	ICO105 Plus	ICO150	ICO150 Plus	ICO240	ICO240 Plus
Operating temperature	from +5 °C above room temperature to +50 °C							
Vol.	56 l		107 l		156 l		241 l	
Inner width	400 mm		560 mm				600 mm	
Inner depth	295 mm		365 mm				465 mm	
Inner height	425 mm		480 mm		700 mm		810 mm	
Outer width	559 mm		719 mm				759 mm	
Outer depth	577 mm		647 mm				747 mm	
Outer height	795 mm		850 mm		1,070 mm		1,180 mm	
Required input pressure	1.0 to 1.2 bar, purity 99.995 vol%							
Max. removable shelves	5		6		10		12	
Rated power	1,100 W		1,300 W		1,500 W		1,650 W	
Temporal temp. variance	±0,1 °C							
Spatial temp. deviation	±0,3 °C							
CO2 constancy	±0,20 %							
Weight	74 kg		100 kg		116 kg		145 kg	
Mains connection	230 V, 50/60 Hz							

Standard version with water tray

Humidity limiting to 93% rF ±2.5% with filled water tray inserted in the interior.

Delivery incl. stainless steel perforated sheet (Model 50: one grate, Models 105 to 240: two grates) and water tray.
There are additional transport costs for delivery to the point of use. We are happy to provide you with these on request.

Type	Vol. (l)	Art. No.	Pack Qty.	€
ICO50	56	**1XYX.1**	1 unit(s)	4.751,00
ICO105	107	**1XYY.1**	1 unit(s)	5.683,00
ICO150	156	**1Y00.1**	1 unit(s)	7.107,00
ICO240	241	**1Y01.1**	1 unit(s)	8.684,00

Plus version with active humidification and dehumidification control

Active humidification and dehumidification control microprocessor (40 to 97% RH in 0.5% RH increments) with digital display to prevent condensation formation and enable the target humidity to be reached even more quickly with short recovery times. Humidity supply with water (from external 2.5 l container) via self-priming pump.

Delivery incl. stainless steel perforated sheet (Model 50: one grate, Models 105 to 240: two grates) and active humidification and dehumidification control. There are additional transport costs for delivery to the point of use. We are happy to provide you with these on request.

Type	Vol. (l)	Art. No.	Pack Qty.	€
ICO50 Plus	56	**1Y02.1**	1 unit(s)	6.026,00
ICO105 Plus	107	**1Y03.1**	1 unit(s)	6.958,00
ICO150 Plus	156	**1Y04.1**	1 unit(s)	8.382,00
ICO240 Plus	241	**1Y05.1**	1 unit(s)	9.959,00

Constant climate chamber HPPeco series, Peltier-cooled

Memmert.

For stability and durability testing, quality testing and humidity exposure.



General features:

- **Operating temperature range from 5 to 70 °C (at least 20 below room temperature)**
  Set temperature of 5 to 70 °C
  Setting accuracy 0.1 K
- **Humidity adjustment range from 10 to 90% RH**
  Setting accuracy of 0.5% RH
  Humidity supply with distilled water from external container (2.5 l) via self-priming pump. Humidification via hot steam generator
- Peltier heating/cooling system
- Stainless steel interior (1.4301)
- Fully insulated stainless steel door
- **With additional inner glass door**
- Textured stainless steel housing
- **Incl.** factory calibration certificate for +25 °C/60% RH and +40 °C/75% RH

General properties:

- German, English, French and Spanish language options
- Digital timer (adjustable from 1 min to 99 days) or continuous operation
- “SetpointWAIT” function - process time does not start until the target temperature is reached

Other features:

- Two graphical TFT displays with touchscreen for operation and displaying temperature, relative air humidity, program runtime and graphical display of program flow
- Integrated data logger with up to ten-year memory
- **Display of recorded log data (max. 10,000 values correspond to approx. one week) directly on the device**
- With Ethernet communication port for reading out log data as well as for transmitting and launching programs and online logging
- **USB port for installing programs and reading out the data logger incl. software (to create ramp programs and weekly programs)**
- Definition of individual min./max. values for protection against excessive/insufficient temperatures

Technical specifications:

Art. No.	1NE0.1	1NE1.1	1NE2.1
Type	HPP110eco	HPP260eco	HPP750eco
Operating temperature	from +5 to +70 °C and 10 to 90% RH		
Vol.	108 l	256 l	749 l
Inner width	560 mm	640 mm	1,040 mm
Inner depth	368 mm	468 mm	568 mm
Inner height	480 mm	800 mm	1,200 mm
Outer width	745 mm	824 mm	1,224 mm
Outer depth	722 mm	822 mm	922 mm
Outer height	864 mm	1,183 mm	1,720 mm
Peltier elements	1	2	4
Max. removable shelves	5	9	14
Rated power	420 W	700 W	1,400 W
Temporal temp. variance	±0,7 % rF / ±0,2 °C	±0,6 % rF / ±0,2 °C	±0,8 % rF / ±0,2 °C
Spatial temp. deviation	±3,0 % rF / ±1,6 °C	±1,8 % rF / ±1,0 °C	±2,4 % rF / ±1,2 °C
Weight	87 kg	140 kg	279 kg
Mains connection	230 V, 50/60 Hz		

Delivery incl. two stainless steel grids and factory calibration certificate. There are additional transport costs for delivery to the point of use. We will be happy to inform you of these on request.

Type	Vol. (l)	Art. No.	Pack Qty.	€
HPP110eco	108	**1NE0.1**	1 unit(s)	10.405,00
HPP260eco	256	**1NE1.1**	1 unit(s)	12.453,00
HPP750eco	749	**1NE2.1**	1 unit(s)	17.068,00

Water baths



Water bath

Phönix Instrument.

- Stainless steel inner tank
- LCD display for displaying setpoint/actual temperature values
- Integrated digital clock (1 min to 99 h, 59 mins or continuous operation)
- Overheating protection
- Heater exposed on floor
- Internal water drainage tube with integrated quick-release coupling

Technical specifications:

Art. No.	1T1E.1	EEA3.1	EEA4.1	EEA5.1
Type	WB-5	WB-12	WB-22	WB-22-P
Bath volume	5 l	12 l	22 l	
Inner length	270 mm	290 mm	470 mm	
Inner width	120 mm	230 mm	290 mm	
Inner height	150 mm			
Outer length	480 mm		680 mm	
Outer width	215 mm	310 mm	365 mm	
Outer height	335 mm	375 mm	395 mm	
Temperature constancy	±0,5 K			±0,2 K
Heating output	700 W	900 W	1100 W	
Weight	8 kg	12 kg	18 kg	19 kg
Mains connection	230 V, 50 Hz			

Delivery incl. removable bottom and stainless steel cover.

WB series standard model

Operating temperature range from 5 °C above room temperature to 99 °C (temperature adjustment range from 10 to 99 °C).

Type	Bath volume (l)	Art. No.	Pack Qty.	€
WB-5	5	**1T1E.1**	1 unit(s)	494,50
WB-12	12	**EEA3.1**	1 unit(s)	607,40
WB-22	22	**EEA4.1**	1 unit(s)	987,95

WB-22-P model with pump

Operating temperature range from 5 °C above room temperature to 85 °C (temperature adjustment range from 10 to 85 °C).

With built-in circulation pump for faster and more even heat distribution within the bath.

Type	Bath volume (l)	Art. No.	Pack Qty.	€
WB-22-P	22	**EEA5.1**	1 unit(s)	1.091,15

Thermostats



Refrigerating circulating thermostat ECO RE series

Lauda.

For controlling temperature of external loads. Option for simultaneous internal temperature control. With integrated cooling system.

- Monochrome graphical LCD display for simultaneous display of actual and target value
- Plain-text menu navigation
- Pump with six adjustable output levels
- USB port
- Integrated programmer, one program with max. 20 segments
- Bath tank made of stainless steel
- USB port
- Hose connectors for hoses with inner Ø 13 mm
- III (FL) = flammable liquids

Technical specifications:

Art. No.	1NC3.1	1NAL.1	1NAH.1
Type	ECO RE 1225 S	ECO RE 2025 S	ECO RE 1050 S
Temperature constancy	±0,02 K		
Display resolution	0,01 °C		
Setting resolution	0.01 °C		
Heating output	2000 W		
Cooling capacity	20 °C: 300 W, 0 °C: 240 W, -20 °C: 90 W, -25 °C: 40 W	20 °C: 300 W 0 °C: 230 W -20 °C: 60 W -25 °C: 30 W	20 °C: 700 W 0 °C: 600 W -20 °C: 350 W -50 °C: 20 W
Max. pump pressure	600 mbar		
Max. flow	22 l/min		
Bath volume	9,3-12 l	14-20 l	8-10 l
Bath opening	200 x 200 mm	300 x 350 mm	200 x 200 mm
Inner depth	200 mm	160 mm	
Safety class	III (FL)		
Weight	31 kg	38 kg	34 kg
Mains connection	230 V, 50 Hz		

Delivery incl. bath cover, ECO RE 2025 model with two-piece cover.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	ECO RE 1225 S	**1NC3.1**	1 unit(s)	5.720,00
(2)	ECO RE 2025 S	**1NAL.1**	1 unit(s)	6.460,00
	ECO RE 1050 S	**1NAH.1**	1 unit(s)	7.650,00

Lighters



Stick lighter with electrical arc

TFA-Dostmann.

- Without an open flame, electrical with electrical arc
- With movable swan neck
- Charging via micro USB cable - on Notebook, PC or power bank
- Battery LED indicator lamp
- Charge time approx. 1.5 to 2 h
- With safety cover and automatic shutdown after 10 s of operation
- Dimensions L 219 x W 26 x D 18 mm
- Weight 58 g

Delivery incl. Micro USB cable.

Type	Art. No.	Pack Qty.	€
Stick lighter with electrical arc	**1T78.1**	1 unit(s)	18,30



Stick lighter Flex

ROTH SELECTION.

Refillable. Flame height adjustable. With safety device and flexible ignition tube. Piezo ignition. L 280 mm. Weight approx. 63 g.

Type	Art. No.	Pack Qty.	€
Stick lighter	**1TE2.1**	1 unit(s)	13,80

Microwave ovens



Microwave oven with grill

Severin.

- Brushed stainless steel housing
- Interior space approx. 20 l
- With LED display with clock function
- Microwave power approx. 800 W; can be set to 10 power levels
- Separate grill fitting approx. 1000 W
- Removable turntable (Ø 245 mm)
- Microwave and grill can be switched on separately or combined
- Be-silent function: beeping can be activated/deactivated
- Favourite function stores three combinations of power and time parameters
- External dimensions: W 452 x D 380 x H 262 mm
- Interior height approx. 175 mm
- Weight 13.6 kg
- Mains connection 230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
Microwave with grill	**1PA6.1**	1 unit(s)	203,20

Hot plates



Induction hot plate CTS 2000/IN

Rommelsbacher.

- A magnetic coil generates the heat directly at the bottom of the pot. The cooking surface remains almost cold
- Glass ceramic cooking surface
- LED display for adjusting temperature, power levels and operating time setting
- Temperature selection from 40 to 220 °C (adjustable in 1 °C increments)
- Power selection in ten stages (75/150/300/400/500/700/900/1200/1500/1800 W)
- Timer can be set to between 0.01 min and 10 h
- An integrated temperature sensor in the middle of the induction area ensures effective temperature control, i.e. the temperature is measured directly from the bottom of the pot
- Regulation using touch-control sensors
- Pot detector
- Residual heat indicator and keypad lock prevent accidental operation

Technical specifications:

Art. No.	**1PL2.1**
Type	CTS 2000/IN
Heating output	2000 W
Temperature range	+40 to +220 °C
Heated zone	Ø 145–220 mm
Hotplate material	glass ceramic
W x D x H, total	390 x 308 x 45 mm
Weight	2,7 kg
Mains connection	230 V, 50 Hz

Can only be used with pots suitable for induction.

Type	Art. No.	Pack Qty.	€
CTS 2000/IN	**1PL2.1**	1 unit(s)	163,40



Digital hot plate HP-200D L/XL C-series

Stuart/Cole-Parmer.

With large surface for simultaneous heating of multiple samples.

Features:

- Temperature adjustment and display of the target/actual temperature via digital display
- Ceramic hot plate for good chemical resistance and high temperature
- Temperature fluctuations in the worktop area approx. ±10 °C
- Safety warning lamp for temperatures above 50 °C

Technical specifications:

Art. No.	**1Y3Y.1**	**1Y40.1**
Type	HP-200D-L-C	HP-200D-XL-C
Heating output	1200 W	2250 W
Temperature range	+50 to +450 °C	+50 to +375 °C
Display resolution	1 °C	
Heated zone	200 x 200 mm	450 x 250 mm
Hotplate material	glass ceramic	
Footprint	300 x 300 mm	300 x 500 mm
W x D x H, total	320 x 370 x 120 mm	560 x 360 x 130 mm
Mains connection	230 V, 50 Hz	

Pic.	Type	Art. No.	Pack Qty.	€
(1)	HP-200D-L-C	**1Y3Y.1**	1 unit(s)	886,00
(2)	HP-200D-XL-C	**1Y40.1**	1 unit(s)	1.191,00

Magnetic stirrers TWISTER series, can be expanded in a modular design

IKA.

For mixing up to 5 litres. Modular expandable stirring system and additional attachments available.

- By connecting additional TWISTER magnetic stirrers (available as an option), TWISTER can be expanded to become a multi-position magnetic stirrer with up to 30 stirring positions
- The stirring positions can be controlled either separately or simultaneously (leader-follower principle, at least 2 devices required, leader device synchronously controls follower device)
- LED glass display for showing the speed or power required for stirring
- Mixing can be started by pressing a button or by placing a vessel (beaker detection)
- Direction of rotation of the motor can be adjusted by turning to the right or left or using the automatic reverse function
- Protection class IP 66
- In addition, a shaker attachment (vortexer) or multi-position stirring attachment is available for small volumes (please order separately)



Technical specifications:

Art. No.	1T3H.1	1T3K.1	1T3L.1	1T3N.1
Type	TWISTER set 1	TWISTER set 2	TWISTER set 3	TWISTER set 4
Number of stirring points	1	2	3	4
Max. stirring capacity (H_2O)	5 l			
Speed range	100 to 3000 rpm			
Motor power input	10 W			
Motor power output	5 W			
Hotplate material	glass			
Setting accuracy	100 rpm			
Footprint	124 x 124 mm			
Clearance between stirring points		135 mm		
W x D x H, total	135 x 135 x 24 mm			
Operating temperature	5 to 40 °C at 80 % RH			
Weight	600 g			
Mains connection	100–240 V, 50/60 Hz			

TWISTER set 1

Delivery incl. 1 TWISTER magnetic stirrer, 1 magnetic bar and power supply.

Type	Art. No.	Pack Qty.	€
TWISTER set 1	**1T3H.1**	1 unit(s)	399,00

TWISTER set 2

Delivery incl. 2 TWISTER magnetic stirrers, 2 magnetic bars and power supply.

Type	Art. No.	Pack Qty.	€
TWISTER set 2	**1T3K.1**	1 unit(s)	749,00

TWISTER set 3

Delivery incl. 3 TWISTER magnetic stirrers, 3 magnetic bars and power supply.

Type	Art. No.	Pack Qty.	€
TWISTER set 3	**1T3L.1**	1 unit(s)	1.099,00

TWISTER set 4

Delivery incl. 4 TWISTER magnetic stirrers, 4 magnetic bars and power supply.

Type	Art. No.	Pack Qty.	€
TWISTER set 4	**1T3N.1**	1 unit(s)	1.449,00

Heating and magnetic stirrers



Accessories expansion device/attachments for TWISTER magnetic stirrers

IKA.

(1) TWISTER expansion device
Expansion device for existing TWISTER structures.
Please order the TW.PWR.2 power supply for expansion with up to 30 devices separately.

Delivery without power supply and without accessories.

Type	Art. No.	Pack Qty.	€
TWISTER expansion device	**1T3X.1**	1 unit(s)	359,00

(2) TW.IX stirring attachment
Attachment for mixing in small sample vessels with Ø 23 to 28 mm and volumes of 8 to 60 ml. Stirring positions increased from 1 to 9. Each of the nine stirring positions has its own magnetic drive.
To prevent sample vessels from falling over, vessel holders TW.IX.28 and TW.IX.23 are available (please order separately).

Delivery incl. adhesive pad for fastening to the basic device. This can be fitted and removed as often as required.

Type	Art. No.	Pack Qty.	€
TW.IX stirring attachment	**1T3Y.1**	1 unit(s)	279,00

(3) TW.VS shaker attachment
The shaker attachment is fixed to the basic device with an adhesive pad and can be fitted and removed as often as required.

Delivery incl. Vortex attachment for sample vessels up to Ø 50 mm and universal attachment incl. foam insert for one-handed shaking of bottles, etc.

Type	Art. No.	Pack Qty.	€
TW.VS shaker attachment	**1T40.1**	1 unit(s)	223,00

Accessories for TWISTER magnetic stirrer expansion device

IKA.

TW.PWR.2 power supply
Power supply for expansion of the TWISTER sets 1–4 to up to 30 devices.

Delivery incl. connector on the device.

Type	Art. No.	Pack Qty.	€
TW.PWR.2 power supply	**1T41.1**	1 unit(s)	119,00

TW.CABLE connection cable
The connection cable can be used to make an electrical connection between separate clusters of TWISTER devices if connecting the individual TWISTER devices is not required. To do this, the clusters require just one power supply. L 500 mm.

Type	Art. No.	Pack Qty.	€
TW.CABLE connection cable	**1T42.1**	1 unit(s)	35,00



Accessories for TW.IX stirring attachment

IKA.

Holder for nine sample vessels is placed on the TW.IX multi-position attachment in order to simplify sample handling and ensure that the sample vessels do not fall over during mixing.

Vessel holder for sample vessels Ø 28 mm

Suitable for	Art. No.	Pack Qty.	€
Ø 28 mm	**1T43.1**	1 unit(s)	55,00

Vessel holder for sample vessels Ø 23 mm

Suitable for	Art. No.	Pack Qty.	€
Ø 23 mm	**1T44.1**	1 unit(s)	55,00



Heating and magnetic stirrer Hei-PLATE Mix'n'Heat Core

Heidolph.

Features:

- Heating output 800 W
- Stirring capacities up to 20 l
- Hot plate made of silumin with ceramic coating
- Powder-coated die-cast aluminium housing
- Flattened edges carry liquids away from the device
- Visual residual heat warning at temperatures >50 °C
- From mid/end of 2022: EKT Hei-Con is available as an option for precise temperature monitoring and regulation of the medium and as an external display for target/actual indication of the temperature

Technical specifications:

Art. No.	**1NL7.1**
Type	Mix'n'Heat Core
Number of stirring points	1
Max. stirring capacity (H_2O)	20 l
Speed range	100 to 1400 rpm
Speed accuracy	±2 %
Operating temperature	room temperature to +300 °C
Control accuracy	±5 K
Heating output	800 W
Footprint	Ø 145 mm
W x D x H, total	168 x 299 x 101 mm
Weight	3 kg
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
Mix'n'Heat Core	**1NL7.1**	1 unit(s)	739,00

Heating and magnetic stirrers



Heating and magnetic stirrer RCT basic

IKA.

- Temperature and speed adjustment via LED display
- Surface made of hardened, shatterproof glass
- **Can be directly connected to Pt 1000 medium measuring probe** (please order accessories for fastening the sensor separately)
- Integrated contact thermometer with full functionality
- The temperature control function automatically switches off if the externally connected temperature sensor is not immersed in the medium or is defective
- DIN socket 12878 for connection to an electronic contact thermometer, e.g. ETS-D5 for accurate temperature control (please order separately, see contact thermometer). Control accuracy with ETS-D5: ±0.5 K.
- Adjustable safety circuit for the hot plate temperature (50 to 360 °C)
- Warning of hot surface if residual heat on hot plate is >50 °C
- USB and RS 232 interfaces

Technical specifications:

Art. No.	1T4N.1	1XPK.1
Type	RCT basic	Complete RCT basic ready-to-go solution set
Number of stirring points	1	
Max. stirring capacity (H_2O)	20 l	
Speed range	50 to 1500 rpm	
Speed display	digital	
Motor power input	16 W	
Motor power output	9 W	
Hotplate material	aluminium alloy	
Operating temperature	13 °C above ambient temperature up to 310 °C	
Temperature display	digital	
Setting accuracy	±1 K	
Control accuracy without sensor	±5 K	
Control accuracy with sensor	Pt 1000: ±1 K ETS-D5: ±0,5 K	
Heating output	600 W	
Footprint	Ø 135 mm	
W x D x H, total	160 x 270 x 85 mm	
Weight	2.4 kg	4.3 kg
Mains connection	220–230 V, 50/60 Hz	

Standard version

Delivery incl. Pt 1000 temperature sensor and 2 magnetic bars.

Type	Art. No.	Pack Qty.	€
RCT basic	**1T4N.1**	1 unit(s)	927,00

Complete ready-to-go solution set

Delivery incl. Pt 1000 temperature sensor, H 16 V stand rod, H 38 holder rod, H 44 clamp, L 30/40 x Ø 8 mm magnetic stirring rods and BC 1000 silicone beaker cover for 600/1000 ml beakers.

Type	Art. No.	Pack Qty.	€
Complete RCT basic ready-to-go solution set	**1XPK.1**	1 unit(s)	954,00



Accessory silicone protective hood for RCT basic/digital

IKA.

Designation	Art. No.	Pack Qty.	€
H 105 protective hood	**1NP9.1**	1 unit(s)	21,00

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- All relevant product information
- Status of product availability
- Specifications and certificates of analysis
- Instructions for use

Heating and magnetic stirrers



Heating and magnetic stirrer Hei-PLATE Mix'n'Heat Core+

Heidolph.

- Digital display of actual and set values for speed and hot plate temperature
- Heating output 800 W
- Stirring capacities up to 20 l
- Hot plate made of silumin with ceramic coating
- Powder-coated die-cast aluminium housing
- Flattened edges carry liquids away from the device
- Controlled heating output via FAST/PRECISE mode, depending on requirements
- **Direct connection facility for PT 1000 medium temperature sensor** (please order the desired temperature measuring sensor and the accessories for attaching the measuring probe separately)
- Integrated contact thermometer with full functionality
- Visual residual heat warning at temperatures >50 °C

Technical specifications:

Art. No.	1NL8.1	1NL9.1	1NLA.1
Type	Mix'n'Heat Core+	Mix'n'Heat Core+ sensor basic package	Mix'n'Heat Core+ sensor advanced package
Number of stirring points	1		
Max. stirring capacity (H_2O)	20 l		
Speed range	100 to 1400 rpm		
Speed accuracy	±2 %		
Operating temperature	room temperature to +300 °C		
Setting accuracy	±1 °C		
Control accuracy without sensor	±5 K		
Control accuracy with sensor	±1 K		
Heating output	800 W		
Footprint	Ø 145 mm		
W x D x H, total	168 x 299 x 101 mm		
Weight	3 kg		
Mains connection	230 V, 50/60 Hz		

Standard version

Delivery without temperature sensor, sensor holder and silicone cover. If required, please order separately.

Type	Art. No.	Pack Qty.	€
Mix'n'Heat Core+	**1NL8.1**	1 unit(s)	838,00

Core+ sensor basic package

Delivery incl. Core+ heater and magnetic stirrer and Pt 1000 temperature sensor (V4A).

Type	Art. No.	Pack Qty.	€
Mix'n'Heat Core+ sensor basic package	**1NL9.1**	1 unit(s)	909,00

Core+ sensor advanced package

Delivery incl. Core+ heater and magnetic stirrer, Pt 1000 temperature sensor (V4A), holder for Pt 1000 (includes supporting rod and fixture with cable duct) and silicone cover.

Type	Art. No.	Pack Qty.	€
Mix'n'Heat Core+ sensor advanced package	**1NLA.1**	1 unit(s)	1.050,00

Accessories silicone cover for Mix'n'Heat Core and Core+

Heidolph.

Type	Art. No.	Pack Qty.	€
Silicone cover for control panel and device	**1NLC.1**	1 unit(s)	21,00



Heating and magnetic stirrer RET basic safety control

IKA.

- Temperature and speed setting via digital display
- Electronic speed control, speed range 50-1700 rpm
- Safety magnetic stirrer with heater suitable for unsupervised operation
- **Can be directly connected to PT 1000 medium temperature sensor**
- Integrated contact thermometer with full functionality
- DIN socket 12878 for connection to an electronic contact thermometer, e.g. ETS-D5 for accurate temperature control (please order separately, see contact thermometer), control accuracy with ETS-D5: ±0.5 K
- The temperature control function automatically switches off if the externally connected temperature gauge is not immersed in the medium
- With adjustable safety circuit for the hot plate temperature, (50-380 °C)

Technical specifications:

Art. No.	1PK8.1
Type	RET basic safety control
Number of stirring points	1
Max. stirring capacity (H_2O)	20 l
Speed range	50 to 1700 rpm
Speed display	digital
Motor power input	16 W
Motor power output	9 W
Hotplate material	stainless steel
Operating temperature	room temperature to +340 °C
Temperature display	digital
Setting accuracy	±1 K
Control accuracy with sensor	PT 1000: ±1 K ETS-D5: ±0,5 K
Heating output	600 W
Footprint	Ø 135 mm
W x D x H, total	160 x 270 x 95 mm
Weight	2.5 kg
Mains connection	200–230 V, 50/60 Hz

Delivery incl. protective hood and PT 1000 temperature gauge (please order accessories for fastening the measuring probe separately if required).

Type	Art. No.	Pack Qty.	€
RET basic safety control	**1PK8.1**	1 unit(s)	1.397,00



Heating and magnetic stirrer with large hot plate SHP-200D-L-C/S-series

Stuart/Cole-Parmer.

Features:

- Temperature adjustment via digital display with display of the target/actual temperature
- Hot plate is available in chemical-resistant ceramic or robust aluminium
- Safety warning lamp for temperatures above 50 °C

Technical specifications:

Art. No.	1Y41.1	1Y42.1
Type	SHP-200D-L-C	SHP-200D-L-S
Number of stirring points	1	
Max. stirring capacity (H_2O)	15 l	
Speed range	100 to 1500 rpm	
Speed display	LED	
Hotplate material	ceramic	aluminium
Operating temperature	10 °C above room temperature up to +450 °C	10 °C above room temperature up to +300 °C
Heated zone	200 x 200 mm	300 x 300 mm
Heating output	1200 W	600 W
Resolution	1 °C	
Footprint	300 x 200 mm	300 x 300 mm
W x D x H, total	300 x 365 x 105 mm	
Mains connection	230 V, 50 Hz	

Pic.	Type	Art. No.	Pack Qty.	€
(1)	SHP-200D-L-C	**1Y41.1**	1 unit(s)	1.375,00
(2)	SHP-200D-L-S	**1Y42.1**	1 unit(s)	1.038,00



Multi-position magnetic stirrer with heater HOTPLATE series with heatMIXcontrol

2mag.

Wear-free and maintenance-free induction motor. Homogeneous temperature distribution and mixing with synchronised stirring positions.

- Digital display for speed, power and temperature settings
- Separate control unit for protecting electronics from liquids and gases as well as thermal effects, housing made of stainless steel
- **With integrated temperature control plate** made of aluminium alloy with PTFE coating
- Ten-level stirrer power setting for high power when stirring viscous media, and reduced power for heat-free continuous operation, adjustable between 10% and 100%
- Soft start for reliable capture/centring and safe acceleration of the stirring rod
- Over-temperature cut-out

Technical specifications:

Art. No.	1TCH.1	1TCK.1
Type	HOTPLATE 6	HOTPLATE 15
Number of stirring points	6	15
Max. stirring capacity (H_2O)	1,500 ml	1,000 ml
Speed range	100 to 2000 rpm	
Speed display	digital	
Stirring power	40 W	
Operating temperature	40 to 200 °C (setting accuracy ±1 °C)	
Temperature range	to 200 °C	
Temperature display	digital	
Heating output	1200 W	
Footprint	250 x 430 mm	
Clearance between stirring points	130 mm	65 mm
W x D x H, total	250 x 430 x 75 mm	
Permissible ambient conditions	-10 °C to +40 °C at 80 % RH	
Weight	13 kg	
Mains connection	230 V, 50/60 Hz	

Delivery incl. heatMIXcontrol external control unit.

Type	Art. No.	Pack Qty.	€
HOTPLATE 6	**1TCH.1**	1 unit(s)	7.390,65
HOTPLATE 15	**1TCK.1**	1 unit(s)	7.906,65

Dispersion units



Dispersion unit ULTRA-TURRAX® T 18 brushless digital

IKA.

High-speed dispenser. High circumferential speeds, even with small rotor diameters.

- Brushless motor for increased motor service life
- Digital speed display and adjustment
- 99 h 59 min or 99 min 59 s timer function
- USB port

Technical specifications:

Art. No.	1XPL.1
Type	T 18 brushless digital ULTRA-TURRAX®
Motor power input	400 W
Motor power output	300 W
Speed range	3000 to 25000 rpm
Speed display	LED
Speed adjustment	continuously variable
W x D x H	89 x 161 x 270 mm
Weight	3 kg
Mains connection	220–240 V, 50/60 Hz

Delivery incl. ULTRA-TURRAX® T18 brushless digital incl extension arm. Please order dispersion tool, sleeve and stand separately.

Type	Art. No.	Pack Qty.	€
T 18 brushless digital ULTRA-TURRAX®	**1XPL.1**	1 unit(s)	1.764,00



Dispersion tool ULTRA-TURRAX® for dispenser T 18 digital

IKA.

Technical specifications:

Art. No.	T598.1	1XPN.1
Type	S 18 N - 10 G	S 18 N - 19 G
Working range	1 to 100 ml	10 to 1500 ml
Ø Stator	10 mm	19 mm
Ø Rotor	7.5 mm	12.7 mm
Gap width between stator and rotor	0.35 mm	0.25 mm
Immersion depth	25-170 mm	35-170 mm
Materials in contact with product	PTFE, AISI 316L	
Temperature range	to +180 °C	
Ultimate fineness, emulsions	1–10 µm	
Ultimate fineness, suspensions	10–50 µm	

Pic.	Type	Art. No.	Pack Qty.	€
(1)	S 18 N - 10 G	**T598.1**	1 unit(s)	1.193,00
(2)	S 18 N - 19 G	**1XPN.1**	1 unit(s)	1.193,00

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Shaker RS-OS 6

Phönix Instrument.

Suitable for moving five Petri dishes, for gentle mixing of samples in different vessels, e.g. culture bottles, etc.

- Digital LED display of speed and operating time
- Maintenance-free, brushless motor

Technical specifications:

Art. No.	1T74.1
Type	RS-OS 6
Movement type	circular
Speed range	40 to 200 rpm
Shaking amplitude (stroke)	20 mm
Timer	1 min to 19 h, 59 min or continuous operation
Shaking surface area	268 x 268 mm
W x D x H	295 x 350 x 125 mm
Loading capacity	2 kg
Permissible ambient conditions	+4 to +40 °C at 80% RH
Weight	3.1 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. tray top with four fixing bands. If silicon mats for tubes are required, please order separately.

Type	Art. No.	Pack Qty.	€
RS-OS 6	**1T74.1**	1 unit(s)	499,90



Rocker and 3D shakers RS-10 series

Phönix Instrument.

For the colouration, discolouration and washing of gels, DNA extractions, etc.

- Digital speed and timer display
- Illuminated display

Technical specifications:

Art. No.	1N41.1	1N42.1
Type	RS-RR 10	RS-RD 10
Movement type	see-saw	circular 3D rocking motion
Speed range	10 to 70 rpm	
Tilt angle	9 °	
Timer	1 to 1199 min or continuous operation	
Shaking surface area	320 x 320 mm	
W x D x H	420 x 370 x 106 mm	420 x 370 x 200 mm
Loading capacity	10 kg	5 kg
Permissible ambient conditions	5 to 40 °C at 80% rel. humidity	
Weight	12 kg	9 kg
Mains connection	100–240 V, 50/60 Hz	110–240 V, 50/60 Hz

Delivery incl. tray top with six fixing bands.

Pic.	Type	Art. No.	Pack Qty.	€
(1)	RS-RR 10	**1N41.1**	1 unit(s)	1.069,65
(2)	RS-RD 10	**1N42.1**	1 unit(s)	1.069,65



Silicon mat for RS-OS 6 tray top

Phönix Instrument.

Max. two mats can be placed on the tray top of the RS-OS 6 shaker. Dimensions W 190 x D 120 mm.

Pic.	Suitable for	Art. No.	Pack Qty.	€
(1)	10 x 5-15 ml tubes (max. Ø 17 x 120 mm)	**1T75.1**	1 unit(s)	20,45
(2)	centrifuge tube type Falcon 4 x 50 ml (max. Ø 29 x 115 mm)	**1T76.1**	1 unit(s)	20,45



Incubation shaker IS-OS 20

Phönix Instrument.

For shaking, mixing and regulated temperature control of samples.

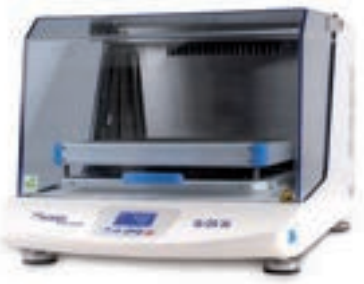
- With inbuilt fan for homogeneous heat distribution
- LCD display for actual/target speed and temperature as well as time setting
- Spring rack attachment for fastening different sizes of bottles, beakers and flasks included
- Loading option of spring rack attachment e.g. 9 x 250 ml Erlenmeyer flasks or 25 centrifuge tubes, 50 ml, type Falcon® (Ø 29 mm) or 2 ROTILABO® combi/cube racks for tubes (see accessories)
- Adjustable safety temperature
- Hood made of acrylic glass, working height in interior 250 mm
- A fixing clip attachment is optionally available for fastening spring clips (if desired, please order separately)

Technical specifications:

Art. No.	**1P1K.1**
Type	IS-OS 20
Movement type	circular
Operating temperature	+5 °C above room temperature up to +60 °C
Resolution	0,1 °C
Accuracy	±0.5 K (at 37 °C)
Speed range	40 to 300 rpm
Shaking amplitude (stroke)	20 mm
Timer	up to 99 h, 59 min or continuous operation
Shaking surface area	320 x 320 mm
W x D x H, external	500 x 610 x 470 mm
Heating output	500 W
Weight	40 kg
Mains connection	230 V, 50 Hz

Delivery incl. spring rack attachment.

Type	Art. No.	Pack Qty.	€
IS-OS 20	**1P1K.1**	1 unit(s)	3.456,15



Incubation shaker IS-OS 30 with cooling function

Phönix Instrument.

For shaking, mixing and regulated **heating and cooling** of samples.

- With inbuilt fan for homogeneous heat distribution
- With active cooling and heating function
- LCD display for actual/target speed and temperature as well as time setting
- Spring rack attachment for fastening different sizes of bottles, beakers and flasks
- Loading option of spring rack attachment e.g. 12 x 250 ml Erlenmeyer flasks or 37 centrifuge tubes, 50 ml, type Falcon® (Ø 29 mm) or 4 ROTILABO® combi/cube racks for tubes (see accessories)
- Adjustable safety temperature
- Hood made of acrylic glass, working height in interior 300 mm
- A fixing clip attachment is optionally available for fastening spring clips (if desired, please order separately)

Technical specifications:

Art. No.	**1P1N.1**
Type	IS-OS 30
Movement type	circular
Operating temperature	+4 to +60 °C
Resolution	0,1 °C
Accuracy	±0.5 K (at 37 °C)
Speed range	40 to 300 rpm
Shaking amplitude (stroke)	20 mm
Timer	up to 99 h, 59 min or continuous operation
Shaking surface area	450 x 450 mm
W x D x H, external	610 x 950 x 540 mm
Heating output	1300 W
Weight	95 kg
Mains connection	230 V, 50 Hz

Delivery incl. spring rack attachment.

Type	Art. No.	Pack Qty.	€
IS-OS 30	**1P1N.1**	1 unit(s)	7.213,25



Accessories ISS-E 205 fixing clip attachment for IS-OS 20 incubation shaker

Phönix Instrument.

For shaking Erlenmeyer flasks.
With a hole gird for fastening clips for Erlenmeyer flasks.

Max. number per board:
23 fixing clips for 100 ml flasks or
13 fixing clips for 250 ml flasks or
8 fixing clips for 500 ml flasks or
4 fixing clips for 1000 ml flasks or
1 fixing clip for 2000 ml flasks

Delivery without spring clips, please order separately.

Type	Art. No.	Pack Qty.	€
Fixing clip attachment for IS-OS 20	**1P1L.1**	1 unit(s)	160,20

Accessories ISS-E 305 fixing clip attachment for IS-OS 30 incubation shaker

Phönix Instrument.

For shaking Erlenmeyer flasks.
With a hole gird for fastening clips for Erlenmeyer flasks.

Max. number per board:
36 fixing clips for 100 ml flasks or
18 fixing clips for 250 ml flasks or
16 fixing clips for 500 ml flasks or
9 fixing clips for 1000 ml flasks or
4 fixing clips for 2000 ml flasks

Delivery without spring clips, please order separately.

Type	Art. No.	Pack Qty.	€
Fixing clip attachment for IS-OS 30	**1P1P.1**	1 unit(s)	299,95



Accessories fixing clips for ISS-E 205/305 fixing clip attachment

Phönix Instrument.

Type	Art. No.	Pack Qty.	€
Fixing clip for 100 ml flasks	**1P20.1**	1 unit(s)	27,95
Fixing clip for 250 ml flasks	**1P21.1**	1 unit(s)	37,65
Fixing clip for 500 ml flasks	**1P22.1**	1 unit(s)	40,85
Fixing clip for 1000 ml flasks	**1P23.1**	1 unit(s)	48,40
Fixing clip for 2000 ml flasks	**1P24.1**	1 unit(s)	69,90

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Test tube shakers Vortex Mixer Multi-TX5 Digital

Velp.

For light or strong mixing of test tubes for applications with high sample throughput. Typical applications: Suspensions, genotyping, DNA and RNA tests.

- Quick and easy changing of test tube attachments
- Up to 44 samples processed at once
- LED display to set the speed and operating time
- With auto-reverse function - direction of rotation is reversed each time the set time interval is reached (5 s to 99 min, 59 s)
- Intermittent mode - for cyclical interruption of the shaking process (5 s to 99 min, 59 s)
- Pulse mode - shake at max speed for 2 s, followed by 1 s pause
- Timer function can be set individually or in combination with other functions
- Brushless motor

Technical specifications:

Art. No.	**1Y2X.1**
Type	Multi-TX5 Digital
Movement type	vircular, vibrating
Speed range	100 to 2500 rpm
Shaking amplitude (stroke)	3,6 mm
Timer	1 to 99 h 59 min in 1 min increments (max. use in continuous operation 2 h)
Shaking surface area	294 x 194 mm
W x D x H	245 x 490 x 380 mm
Weight	19 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. test tube attachment for 44 test tubes Ø 12 mm.

Type	Art. No.	Pack Qty.	€
Multi-TX5 Digital	**1Y2X.1**	1 unit(s)	2.128,50



Accessories test tube attachments for Multi-TX5 Digital Vortex Mixer

Velp.

Suitable for	Art. No.	Pack Qty.	€
44 test tubes Ø 10 mm	**1Y2Y.1**	1 unit(s)	40,75
44 test tubes Ø 12 mm	**1Y30.1**	1 unit(s)	40,75
44 test tubes Ø 13 mm	**1Y31.1**	1 unit(s)	40,75
44 test tubes Ø 16 mm	**1Y32.1**	1 unit(s)	40,75
14 test tubes Ø 25 mm	**1Y33.1**	1 unit(s)	40,75
14 test tubes Ø 29 mm	**1Y34.1**	1 unit(s)	40,75



Ultrasonic disintegrators SONOPULS complete set HD 5000 series

Bandelin.

Applications: cell disruption, homogenising, deagglomerating, emulsifying, suspending, accelerating chemical reactions or disruption of cells, bacteria, fungi or spores are the main areas of application.

- Ultrasonic transducer with 7″ touch display for displaying actual and target values for amplitude, pulsation and time
- Amplitude adjustment in 1-% increments (from 10 to 100%)
- Power control in watts possible via slider or numerical indication
- Selectable time settings: Timer (up to 99 h, 59 mins, 59 s) or continuous operation. Timer operation for displaying the remaining time, continuous operation with display of elapsed time.
- Pulse interval is adjustable in 0.5 s increments. Sonication and pause can be specified independently from 0.5 to 600 s
- Storage for 8 programs for running through one after the other or can be combined in any order
- An optional temperature sensor for monitoring sampletemperature is available (please order separately), depending on the setting, a warning signal appears when the limit temperature is reached or the ultrasound is switched off
- USB A and B as well as Ethernet connection

Technical specifications:

Art. No.	**1T6A.1**	**1T6C.1**
Type	HD 5020 set	HD 5050 set
For max. volume	25 ml	100 ml
Performance	20 W	50 W
Working frequency	40 kHz	20 kHz
Power output control	Amplitude 10 to 100%	
Pulse range	10–100 %	
Mains connection	230 V, 50/60 Hz	

HD 5020 set

Delivery incl. ultrasound generator GM 5000, ultrasonic transducer UW 5020, sonotrode MS 1.5 with Ø 1.5 mm (for volumes of 0.1 to 10 ml). Support frame and temperature gauge if required, please order separately.

Type	Art. No.	Pack Qty.	€
HD 5020 set	**1T6A.1**	1 unit(s)	4.949,30

HD 5050 set

Delivery incl. ultrasound generator GM 5000, ultrasonic transducer UW 5050, sonotrode TS 102 with Ø 2 mm (for volumes of 0.5 to 20 ml). Support frame and temperature gauge if required, please order separately.

Type	Art. No.	Pack Qty.	€
HD 5050 set	**1T6C.1**	1 unit(s)	4.993,40



Sonotrode/microtip for SONOPULS HD 5020 ultrasonic disintegrators

Bandelin.

Technical specifications:

Art. No.	1T5Y.1	1T60.1	1T61.1
Type	MS 1.5	MS 2.0	MS 2.5
Sample quantity	0,1–10 ml	0,25–20 ml	0,5–25 ml
Length	64 mm	59 mm	55 mm
Outer tip Ø	1.5 mm	2 mm	2.5 mm

Pic.	Type	Art. No.	Pack Qty.	€
(1)	MS 1.5	**1T5Y.1**	1 unit(s)	184,90
(2)	MS 2.0	**1T60.1**	1 unit(s)	177,40
(3)	MS 2.5	**1T61.1**	1 unit(s)	170,95



Accessories TM 5000 temperature sensor for SONOPULS HD 5000 series ultrasonic homogenisers

Bandelin.

The ultrasound transducers must be protected from high temperatures (max. 80 °C).

Technical specifications:

Art. No.	1T68.1
Type	TM 5000 temperature sensor
Temperature range	-10 to +125 °C
Length	150 mm
Ø	1.9 mm

Long-term exposure to high temperatures must be avoided.

Type	Art. No.	Pack Qty.	€
TM 5000 temperature sensor	**1T68.1**	1 unit(s)	414,95



Sonotrode for SONOPULS HD 5050 ultrasonic disintegrators

Bandelin.

Technical specifications:

Art. No.	1T62.1	1T63.1	1T64.1	1T65.1	1T66.1
Type	TS 102	TS 103	TS 104	TS 106	TS 109
Sample quantity	0,5–20 ml	1–25 ml	3–50 ml	5–75 ml	10–100 ml
Length	157 mm	147 mm	133 mm	128 mm	126 mm
Outer tip Ø	2 mm	3 mm	4.5 mm	6 mm	9 mm

Pic.	Type	Art. No.	Pack Qty.	€
(1)	TS 102	**1T62.1**	1 unit(s)	267,70
(2)	TS 103	**1T63.1**	1 unit(s)	246,20
(3)	TS 104	**1T64.1**	1 unit(s)	239,75
(4)	TS 106	**1T65.1**	1 unit(s)	202,10
(5)	TS 109	**1T66.1**	1 unit(s)	207,50



Accessories LS 40 noise protection box for SONOPULS HD 5000 ultrasonic disintegrators

Bandelin.

For reducing the noise level during the sonification of liquids.

- Reduction in noise of approx. 30 dB
- LED interior lighting and acrylic glass window for processmonitoring
- Drip pan made of stainless steel, easy to remove
- Closable opening on the rear enables lines to be guided through (W 67 x H 37.5 mm)
- Ventilation system for reducing the process-related formation of moisture
- HG 40 holding rack can be flexibly positioned in the noise protection box (please order separately)

Technical specifications:

Art. No.	1T69.1
Type	LS 40 noise protection box
W x D x H, interior	3100 x 350 x 880 mm
W x D x H, external	515 x 445 x 1000 mm
Mains connection	100–240 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
LS 40 noise protection box	**1T69.1**	1 unit(s)	2.346,75



Benchtop centrifuge CD-0424

Phönix Instrument.

With 4-slot swing-out rotor (90°) for centrifuging of 15 or 50 ml Falcon® centrifuge tube or 5/15 ml tube.

- Displays centrifugation time, in rpm or x g
- Memory capacity for 3 programs
- Background-lit LCD display
- Three acceleration speeds and four braking speeds can be set
- Safety: cover lock and acoustic warnings
- Brushless motor

For use of the following types of vessel:

- 4 x 50 ml centrifuge tubes, Falcon® (Ø 29 x L 115 mm)
- 4 x 15 ml centrifuge tubes, Falcon® (Ø 17 x L 120 mm)
- 4 x 15 ml standard test tubes (Ø 17 x L 100 mm)
- 4 x 4.5-4.9 ml tubes (Ø 13 x L 66/75 mm)

Technical specifications:

Art. No.	1Y86.1
Type	CD-0424
Maximum speed	4,000 rpm
Additional data	speed can be adjusted in increments of 100 rpm
Maximum RCF	2500 x g
Minimum speed	500 rpm
Timer function	1 to 99 mins/continuous operation
W x D x H	370 x 440 x 270 mm
Weight	14,5 kg
Mains connection	100–240 V, 50/60 Hz

Delivery incl. 4-slot swing-out rotor (90°) for 4 x 50 ml Falcon® centrifuge tubes, and adapter set (sleeve inner Ø 17 mm, H 85 mm and sleeve inner Ø 13 mm, H 60 mm).

Not a medical device / Not an IVD product

Type	Art. No.	Pack Qty.	€
CD-0424	**1Y86.1**	1 unit(s)	1.171,75



Accessories fixed angle rotor (45°) type CD-A24-15P for CD-0424 benchtop centrifuge

Phönix Instrument.

- For 24 x 15 ml Falcon® centrifuge tubes (Ø 17 x L 120 mm) or 24 x 4.5/4.9 ml tubes (Ø 13 x L 66/75 mm)
- Max. speed 4000 rpm, max. RCF 1900 x g
- For 15 ml standard test tubes (Ø 17 x L 100 mm), additional optional spacers are required, please order separately if needed

Delivery incl. 24 adapters (inner Ø 17 mm, L 98 mm) and 24 adapters (inner Ø 13 mm, L 60 mm).

Type	Art. No.	Pack Qty.	€
CD-A24-15P fixed angle rotor	**1Y87.1**	1 unit(s)	385,95



Accessories spacers for type CD-A24-15P fixed angle rotor

Phönix Instrument.

For removing 15 ml standard test tubes with round bases (Ø 17 x L 100 mm) from the adapters of the CD-A24-15P fixed angle rotor. Dimensions: Ø 17 mm, H 21 mm).

Type	Art. No.	Pack Qty.	€
Spacers (Ø 17 mm, H 21 mm)	**1Y88.1**	12 unit(s)	20,45

Vacuum pumps



Diaphragm vacuum pump MZ 2C NT

Vacuubrand.

Two-stage diaphragm vacuum pump offering the ideal combination of high delivery rate and good end vacuum. For continuous, oil-free evacuation and conveying of aggressive and corrosive gases and vapours.

- High vapour and condensate resistance thanks to integrated gas ballast valve
- Materials in contact with media made of highly chemical-resistant fluoroplastics for an extremely wide range of possible applications in the chemical and pharmaceutical industries
- Robust design for excellent stability (even for rough chemical applications) and long maintenance intervals
- NT series: Particularly quiet, low-vibration operation, high gas-tightness and improved performance characteristics

Application:
Vacuum generation for rotary evaporators, vacuum concentrators, gel dryers and many other laboratory applications.

Technical specifications:

Art. No.	**1TCN.1**
Type	MZ 2C NT
Cylinder	2
Steps	2
Delivery rate	2 m³/h
End vacuum (abs.)	7 mbar
End vacuum abs. with gas ballast	12 mbar
Media temperature	+10 – +40 °C
Inlet connection	for hose inner Ø 8–10 mm
Outlet connection	for hose inner Ø 8–10 mm
Motor power	180 W
Ambient temperature	+10 – +40 °C
IP rating	40
Noise level	45 db
Materials in contact with media	ETFE pump head, carbon fibre-reinforced, diaphragms: PTFE, valves: FFKM
W x D x H	243 x 243 x 198 mm
Weight	11,1 kg
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
MZ 2C NT	**1TCN.1**	1 unit(s)	2.305,90



Diaphragm vacuum pump MD 4 series

Vacuubrand.

Three-stage, high-power diaphragm vacuum pump with extremely high delivery rate almost up to the end vacuum. Often used as a replacement for rotary pumps due to reaching a very low end vacuum. Ideal for continuous, oil-free evacuation and conveying of gases and vapours to meet eh high vacuum requirements of physics and analytical applications.

- NT series: Particularly quiet, low-vibration operation, high gas-tightness and improved performance characteristics
- Extremely high diaphragm service life

Technical specifications:

Art. No.	**1TCX.1**	**1TCY.1**
Type	MD 4 NT	MD 4C NT
Cylinder	4	
Steps	3	
Delivery rate	3,8 m³/h	3,4 m³/h
End vacuum (abs.)	1 mbar	1,5 mbar
End vacuum abs. with gas ballast		3 mbar
Overpressure	0,1 bar	
Media temperature	+10 – +40 °C	
Inlet connection	KF DN 16 small flange	for hose inner Ø 8 mm
Outlet connection	G¼″ silencer	for hose inner Ø 8 mm
Motor power	250 W	
Ambient temperature	+10 – +40 °C	
IP rating	40	
Materials in contact with media	pump head: aluminium alloy, diaphragms: FPM, valves: FPM	ETFE pump head, carbon fibre-reinforced, diaphragms: PTFE, valves: FFKM
Weight	16,4 kg	14,3 kg
Mains connection	230 V, 50/60 Hz	

(1) MD 4 NT
For non-aggressive gases and vapours.

Application: degassing viscous media and particularly as a booster pump for turbomolecular pumps.

Type	Art. No.	Pack Qty.	€
MD 4 NT	**1TCX.1**	1 unit(s)	3.144,40

(2) MD 4C NT
For aggressive and corrosive gases and vapours.

Application: vacuum generation for rotary evaporators/drying ovens, for pumping out large quantities of vapour from drying ovens/gel dryers and many other laboratory vacuum applications without solvent recovery.

- Excellent chemical resistance
- High vapour and condensate resistance thanks to integrated gas ballast valve - also suitable for high boilers thanks to the very high end vacuum (even with open gas ballast valve)

Type	Art. No.	Pack Qty.	€
MD 4C NT	**1TCY.1**	1 unit(s)	4.477,40



Screw pump

Vacuubrand.

Dry-running screw pump for coarse and fine vacuum applications. It offers three important benefits at once: 100% oil-free, no abrasion, and no wear parts.

- Spindles run contact-free, and are therefore free from abrasion and wear
- Designed specifically for processes up to 10^{-3} mbar
- Evacuation of large systems without needing to change vacuum pumps
- Highly resistant to condensation; designed so that no gas ballast is needed for applications that produce large amounts of vapour
- Quick-drying pump after the end of the process thanks to integrated regeneration mode, thereby substantially increasing sample throughput

Bitte beachten: Abweichende Konditionen / Please note: Different conditions

Technical specifications:

Art. No.	1TE3.1	1TE4.1
Type	VACUU PURE 10	VACUU PURE 10C
Delivery rate	10 m³/h	9 m³/h
End vacuum (abs.)	0,05 mbar = $5x10^{-3}$ mbar	
Media temperature	+10 – +40 °C	
Inlet connection	KF DN 25 small flange	
Outlet connection	KF DN 25 small flange	
Motor power	700 W	
Ambient temperature	+10 – +40 °C	
Noise level	52 db	
Materials in contact with media	spindle: PEEK, stator: aluminium, end shield: aluminium	spindle: PEEK, stator: PEEK, end shield: PEEK
L x W x H	507 x 269 x 413 mm	
Weight	21,1 kg	21,5 kg
Mains connection	100–230 V, 50/60 Hz	

VACUU PURE 10

For air and neutral gases and vapours.

Application: booster pump for turbomolecular pumps, analytics and mass spectrometers.

Type	Art. No.	Pack Qty.	€
VACUU PURE 10	**1TE3.1**	1 unit(s)	8.818,25

VACUU PURE 10C

High chemical resistance for transporting corrosive and aggressive gases and vapours. Ideally suited for clean processes and extracting pure products. Cold traps not required for common solvents.

Application: freeze drying, Schlenk technology, (residual) drying in vacuum drying ovens, fine vacuum distillation.

Type	Art. No.	Pack Qty.	€
VACUU PURE 10C	**1TE4.1**	1 unit(s)	10.497,40

Vacuum systems



Vacuum system MZ 2 series

Vacuubrand.

For evacuating, evaporating and pumping out gases and vapours in chemical, biological and pharmaceutical laboratories.

- Exceptional chemical and condensate resistance
- High delivery rate almost up to the achievable end vacuum
- Good end vacuum, even with open gas ballast valve
- Very quiet and low-vibration operation

Technical specifications:

Art. No.	1TCP.1	1TCT.1
System	MZ 2C NT +2AK	MZ 2C NT +AK+EC
Pump type	MZ 2C NT	
Delivery rate	2 m³/h	
End vacuum (abs.)	7 mbar	
End vacuum abs. with gas ballast	12 mbar	
Overpressure	0,1 bar	
Inlet connection	for hose inner Ø 8–10 mm	
Outlet connection	for hose inner Ø 8–10 mm	
Ambient temperature	+10 – +40 °C	
Materials in contact with media	ETFE pump head, carbon fibre-reinforced, diaphragms: PTFE, valves: FFKM	
Motor power	180 W	
L x W x H	319 x 243 x 309 mm	326 x 243 x 402 mm
Weight	13,6 kg	14,2 kg
Mains connection	230 V, 50/60 Hz	

(1) MZ 2C NT +2AK
For applications where pressure-side condensation of solvent vapours is not required.

Application: Vacuum concentrators, gel dryers and filtration

- Suction-side separator (AK, glass with protective coating) keeps back particles and liquid droplets.
- Pressure-side separator (AK, glass with protective coating) collects condensate, prevents condensate flowing back into the pump, softens exhaust noises and thereby enables pumps to operate extremely quietly.

Delivery incl. suction-side and pressure-side separator.

Type	Art. No.	Pack Qty.	€
MZ 2C NT +2AK	**1TCP.1**	1 unit(s)	3.272,30

(2) MZ 2C NT +AK+EC
Application: Rotary evaporators, vacuum concentrators and vacuum drying cabinets

- Suction-side separator (AK, glass with protective coating) keeps back particles and liquid droplets.
- The pressure-side emission condenser (EC) is particularly effective and compact. It ensures almost complete recovery of solvents, enabling cost-effective re-use and actively contributing to environmental protection.

Delivery incl. suction-side separator and pressure-side emission condenser.

Type	Art. No.	Pack Qty.	€
MZ 2C NT +AK+EC	**1TCT.1**	1 unit(s)	3.564,70



Vacuum system MD 4 series

Vacuubrand.

For evacuating, evaporating and pumping out gases and vapours.

- Exceptional chemical and condensate resistance
- Very high delivery rate almost up to the very low end vacuum
- Particularly low end vacuum, even with open gas ballast valve
- Very quiet and low-vibration operation

Application: vacuum concentrators, rotary evaporators and vacuum drying cabinets

Technical specifications:

Art. No.	1TE0.1	1TE1.1
System	MD 4C NT +2AK	MD 4C NT +AK+EC
Pump type	MD 4C NT	
Delivery rate	3,4 m³/h	
End vacuum (abs.)	1,5 mbar	
End vacuum abs. with gas ballast	3 mbar	
Overpressure	0,1 bar	
Inlet connection	for hose inner Ø 8 mm	
Outlet connection	for hose inner Ø 8 mm	
Ambient temperature	+10 – +40 °C	
Materials in contact with media	ETFE pump head, carbon fibre-reinforced, diaphragms: PTFE, valves: FFKM	
Motor power	250 W	
L x W x H	319 x 243 x 374 mm	326 x 243 x 402 mm
Weight	16,7 kg	17,3 kg
Mains connection	230 V, 50/60 Hz	

(1) MD 4C NT +2AK
For applications where pressure-side condensation of solvent vapours is not required.

- Suction-side separator (AK, glass with protective coating) keeps back particles and liquid droplets.
- Pressure-side separator (AK, glass with protective coating) collects condensate, prevents condensate flowing back into the pump, softens exhaust noises and thereby enables pumps to operate extremely quietly.

Delivery incl. suction-side and pressure-side separator.

Type	Art. No.	Pack Qty.	€
MD 4C NT +2AK	**1TE0.1**	1 unit(s)	5.548,10

(2) MD 4C NT +AK+EC
For applications where pressure-side condensation of solvent vapours is desired.

- Suction-side separator (AK, glass with protective coating) keeps back particles and liquid droplets.
- The pressure-side emission condenser (EC) is particularly effective and compact. It ensures almost complete recovery of solvents, enabling cost-effective re-use and actively contributing to environmental protection.

Delivery incl. suction-side separator and pressure-side emission condenser.

Type	Art. No.	Pack Qty.	€
MD 4C NT +AK+EC	**1TE1.1**	1 unit(s)	5.845,85



Vacuum system LABOPORT®

KNF.

Available in various versions and therefore tailor-made for the individual requirements in the laboratory.
The core of the system is the LABOPORT® diaphragm vacuum pump (N 800 G-series): Compact, chemical-resistant and high-power.
Even more environmentally friendly thanks to newly developed system components such as separator, high-performance condenser and/or innovative vacuum controller.

- Integrated speed control for precise vacuum
- Integrated gas ballast valve for high vapour and condensate resistance
- Inner media-contact area ATEX-compliant according to "II 3/-G Ex h IIB+H2 T3 Gc internal atmosphere only"; for applications involving working with highly flammable solvents in closed systems. Not approved for ATEX zones

Technical specifications:

Art. No.	1TAC.1	1TAE.1	1TAH.1	1TAK.1	1TAL.1	1TAN.1
System	SR 820 G	SR 840 G	SH 820 G	SH 840 G	SC 820 G	SC 840 G
Version	separator		separator, condenser		separator, condenser, controller	
Delivery rate	20 l/min	34 l/min	20 l/min	34 l/min	20 l/min	34 l/min
End vacuum (abs.)	6 mbar					
End vacuum abs. with gas ballast	17 mbar					
Overpressure	0,1 bar					
Connection	for hose inner Ø 8–9.5 mm					
Ambient temperature	+5 – +40 °C					
Materials in contact with media	pump head: PTFE, diaphragms: PTFE-coated, valves: FFPM, hose nozzles: PVDF/FPM					
W x D x H	282 x 260 x 234 mm	299 x 274 x 250 mm	323 x 260 x 416 mm	340 x 274 x 416 mm	347 x 260 x 416 mm	366 x 274 x 416 mm
Weight	10,7 kg	13,1 kg	11,7 kg	14,1 kg	13,35 kg	15,75 kg
Mains connection	100–240 V, 50/60 Hz					

(1) SR series

Equipped with two coated glass separators (suction side and pressure side). For trapping and retaining particles and fluid droplets/condensate out of the flow. Prevents these from reaching the vacuum pump on the suction side and releases them into the ambient air on the pressure side.

Delivery incl. base plate, suction-side and pressure-side separator.

Type	Art. No.	Pack Qty.	€
SR 820 G	**1TAC.1**	1 unit(s)	2.592,90
SR 840 G	**1TAE.1**	1 unit(s)	2.998,20

(2) SH series

Equipped with coated glass separator (suction side) and high-power condenser (pressure-side).

Almost complete recovery of solvents that have very low boiling points possible thanks to cooling of the flow via the high-power condenser.
For active environmental protection and reuse of the recovered solvents.

Delivery incl. base plate, suction-side separator and pressure-side high-power condenser.

Type	Art. No.	Pack Qty.	€
SH 820 G	**1TAH.1**	1 unit(s)	3.004,65
SH 840 G	**1TAK.1**	1 unit(s)	3.394,85

(3) SC series

Equipped with vacuum controller, coated glass separator (suction side) and high-power condenser (pressure-side).

- Automatic, precise boiling point detection and boiling point tracking using integrated ramp function
- No solvent library required
- Radio remote control for safe operation outside of the enclosed vents
- Simple, intuitive operation via touch-screen display and precise rotary button control
- Four operating modes for nearly all common laboratory applications
- High recovery rates even with solvents that have very low boiling points

Delivery incl. base plate, suction-side separator, pressure-side high-power condenser and vacuum controller with control unit.

Type	Art. No.	Pack Qty.	€
SC 820 G	**1TAL.1**	1 unit(s)	5.667,40
SC 840 G	**1TAN.1**	1 unit(s)	6.182,35



Cleaning, auxiliary materials

Disinfectants 132
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Surface disinfectant Bacillol® 30 Sensitive Foam

BODE Chemie.

Ready-to-use, aldehyde-, colourant- and fragrance-free fast-acting alcoholbased disinfectant for sensitive surfaces. Particularly gentle on materials, also suitable for sensitive materials such as Plexiglas®, Makrolon® and Polysulfon. User-friendly application in a handy spray bottle with foam spray head for optimal wetting.
Spectrum of activity: bactericidal, levurocidal, tuberculocidal, mycobactericidal, partially virucidal (incl. HBV, HIV, HCV), partially virucidal PLUS and is effective against polyomaviruses.
Applications: for fast-acting disinfection of sensitive plastic surfaces, medical inventory and surfaces in hospitals, medical practices and laboratories. Also suitable for disinfection of displays, keyboards and control panels of mobile and stationary communication devices.
Listing: VAH, IHO.
Active substances: ethanol, propane-2-ol, propane-1-ol and other additives.
Use disinfectants with care. Always read the labelling and product information before use.

Technical specifications:

Art. No.	1PK9.1	1PK9.2
Delivery form	ready-to-use liquid	
Ingredients	ethanol, propane-1-ol, propane-2-ol, additives	
Bactericide	yes	
Partially virucidal	yes	
CE marking	yes	
Listing	VAH, IHO	

Warning H226-H319

Medical device class IIa

ID: 0482

Type	Packaging type	Art. No.	Pack Qty.	€
Bacillol® 30 Sensitive Foam	foam sprayer bottle	**1PK9.1**	750 ml	n. a.
Bacillol® 30 Sensitive Foam	canister	**1PK9.2**	5 l	n. a.



Disinfection wipes Bacillol® 30 Sensitive

BODE Chemie.

Gentle disinfectant wipes for quick disinfection of sensitive surfaces in the food industry, in sensitive areas with direct product contact, in healthcare establishments and on medical equipment and inventory. Also suitable for disinfection of displays, keyboards and control panels on sensitive equipment.
Spectrum of activity: bactericidal, levurocidal, tuberculocidal, mycobactericidal, partially virucidal (incl. HBV, HIV, HCV), partially virucidal PLUS and is effective against polyomaviruses.
Use disinfectants with care. Always read the labelling and product information before use.

- With **Bacillol® 30 Sensitive Foam** pre-saturated ready-to-use disinfectant wipes
- Rapid and comprehensive action
- Aldehyde-, colourant- and fragrance-free
- Material compatibility tested for PC, PS, Plexiglas®, Latex and artificial leather (examination tables, etc.)
- Safe and easy removal of individual tissues from resealable flow pack thanks to practical tissuefolding system
- High-quality tear-resistant and absorbent PET fleece, wipe size 180 x 200 mm
- Good wetting and fast drying

Technical specifications:

Art. No.	1PL1.1
Delivery form	wiping cloths, pre-soaked
Ingredients	ethanol, propane-1-ol, propane-2-ol, amine, additives
Bactericide	yes
Partially virucidal	yes

Warning H226-H319

Medical device class IIa

ID: 0482

Packaging type	Pack.	Art. No.	Pack Qty.	€
Flowpack	80 wipes	**1PL1.1**	1 unit(s)	n. a.

Reusable wipes WYPALL® X60

Kimberly-Clark. Material: cellulose, plastic.

Made of HYDROKNIT® (cellulose fibres (83%) embedded in spunbond non-woven fabric (17% synthetic fibres)). 1-ply. High absorbency and tear resistance (wet and dry). Suitable for use in spray and wipe cleaning in conjunction with peracetic acid, hydrogen peroxide, bleaching agents (sodium hypochlorite), quaternary ammonium compounds, butanone, isopropanol and acetone.



- Suitable for cleaning, disinfection and general wiping applications
- Lightweight reusable wiping cloth for wet and dry cleaning
- Ideal for wiping down surfaces in industrial manufacturing environments and building cleaning applications
- For removing light oil, soot, adhesives and dirt deposits
- For cleaning glass and gloss surfaces
- Suitable for contact with foodstuffs

Note: always follow manufacturer instructions regarding dilution, use and exposure time for cleaning agents and disinfectants.
Compatibility tests with bleaching agents have been restricted to 24 hours to comply with the recommended usage instructions from the manufacturer.

Wipes folded into quarters in the pouch

Type	Ply	Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
6034	1-ply	white	31.7	30.5	Bag	12 x 76 wipes	**1LYN.1**	912 unit(s)	298,85

Wipes in dispenser box

Type	Ply	Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
8266	1-ply	white	42.6	21.2	Box	1 x 126 wipes	**1LYP.1**	126 unit(s)	33,60

Pre-perforated wipes on a roll

Made of HYDROKNIT® (cellulose fibres (80%) embedded in spunbond non-woven fabric (20% synthetic fibres)).

Type	Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
8349	1-ply	white	38	42	32.3	Roll	1 x 650 wipes	**1LYT.1**	1 unit(s)	308,55

Reusable wipes WYPALL® X80

Kimberly-Clark. Material: cellulose, plastic.

Made of HYDROKNIT® (cellulose fibres (81%) embedded in spunbond non-woven fabric (19% synthetic fibres)). 1-ply. Extremely durable, rapidly absorbent, with excellent absorbing capacity and tear resistance.



- Reusable fleece wipe for wet and dry cleaning
- For demanding wiping and cleaning applications
- Ideal for wiping down rough surfaces in industrial manufacturing environments
- Suitable for contact with foodstuffs

Wipes folded into quarters in the pouch

Type	Ply	Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
8388	1-ply	white	31	32	Bag	4 x 50 wipes	**1LY5.1**	200 unit(s)	95,75

Wipes in dispenser box

Type	Ply	Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
8279	1-ply	white	42.7	28.2	Box	1 x 160 wipes	**1LY6.1**	160 unit(s)	107,15

Pre-perforated wipes on a roll

Made of HYDROKNIT® (cellulose fibres (82%) embedded in spunbond non-woven fabric (18% synthetic fibres)).

Type	Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
8377	1-ply	white	31	31.5	31.4	Roll	1 x 475 wipes	**1LY7.1**	1 unit(s)	221,45

Reusable wipes WYPALL® X80 Plus

Kimberly-Clark. Material: cellulose, plastic.

Made of HYDROKNIT® (cellulose fibres (83%) embedded in spunbond non-woven fabric (17% synthetic fibres)) with Powerpocket print for effective cleaning and dirt absorption. Wipes folded into quarters.



- Highly absorbent, tough and tearproof reusable wipes for wet and dry cleaning
- For demanding cleaning processes in the food industry and the healthcare sector
- Available in four different colours for clear differentiation of areas of activity and preventing cross-contamination
- Suitable for contact with foodstuffs

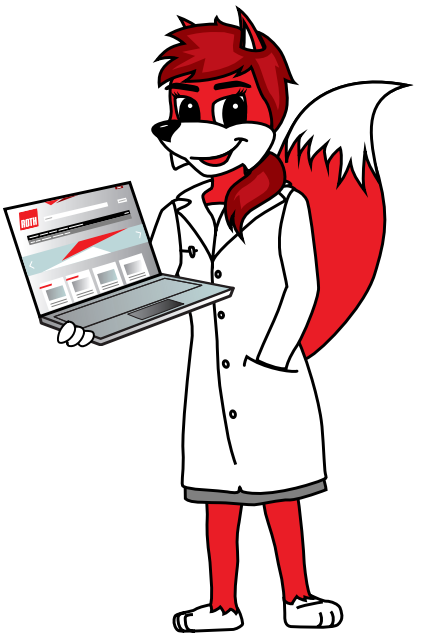
Type	Ply	Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.	€
19127	1-ply	white/red	34.5	33.5	Bag	1 x 30 wipes	**1LYC.1**	30 unit(s)	24,10
19139	1-ply	white/blue	34.5	33.5	Bag	1 x 30 wipes	**1LYA.1**	30 unit(s)	24,10
19154	1-ply	white/green	34.5	33.5	Bag	1 x 30 wipes	**1LY8.1**	30 unit(s)	24,10
19164	1-ply	white/yellow	34.5	33.5	Bag	1 x 30 wipes	**1LY9.1**	30 unit(s)	24,10

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- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Application-specific subject areas and special product compilations



Sprays



Cleaning spray Kontakt WL

CRC.

Solvent mixture for spray cleaning electronics. Dissolves fatty and oily contamination, water-soluble residues and ballpoint and felt-tip pen markings. Fast, residue-free drying. Free from CFCs and HCFCs.

Propellant: CO_2.

Danger H222-H229-H315-H319-H336-H412

Type	Packaging type	Art. No.	Pack Qty.	€
Kontakt WL cleaning spray	aerosol	**1N21.1**	400 ml	n. a.



Antistatic spray 100

CRC.

Anti-static solution in isopropanol for preventing and removing electrostatic charges.
Suitable as temporary anti-static protection for plastic housing, packaging material, eyewear, screens, textiles and carpets.
Water-soluble.

Propellant: hydrocarbons.

Danger H222-H229-H319-H336

Type	Packaging type	Art. No.	Pack Qty.	€
Antistatic 100 spray	aerosol	**1N2L.1**	200 ml	n. a.



Cold spray 75

CRC.

Ultrapure, inert coolant for electronics. Non-flammable according to 2008/47/EC, low global warming potential (GWP = 7), no ozone-depleting effects. Suitable for cooling small components quickly, for performing functional tests on thermal sensors or for locating thermal faults in electronics.

Propellant: hydrofluoroolefin (HFO).

Warning H229

Type	Packaging type	Art. No.	Pack Qty.	€
Cold spray 75	aerosol	**1N20.1**	200 ml	n. a.



Label remover Solvent 50

CRC.

Solvent mixture based on orange terpenes for removing self-adhesive paper labels. Free from CFCs and HCFCs.

Propellant: carbon dioxide.

Danger H222-H229-H315-H317-H336-H410

Type	Packaging type	Art. No.	Pack Qty.	€
Solvent 50 label remover	aerosol	**1N22.1**	200 ml	n. a.



Silicone-free laboratory grease glisseal N

Borer Chemie.

Vacuum-resistant, silicone-free laboratory grease for sealing and lubricating fixed and rotating glass joints and for lubricating plastic and metal connections.

- Vacuum-resistant
- Colour: transparent
- Excellent temperature stability, permanently smooth consistency between -40 and +200 °C, temporarily up to 300 °C (in the absence of air)
- No drop point
- Chemically resistant to most acids, bases and gases
- Insoluble in water and low molecular weight mono- or polyhydric alcohols

Technical specifications:

Art. No.	1L7T.2
Type	glisseal N
Application temperature from	-40 °C
Application temperature up to	+200 °C
Steam pressure	2.7 x 10^{-5} mbar
Density	0.9 g/cm³

Type	Packaging type	Art. No.	Pack Qty.	€
glisseal N	tube	**1L7T.2**	30 g	22,05



Silicone-free laboratory grease glisseal HV

Borer Chemie.

Highly vacuum-resistant, silicone-free laboratory grease for sealing and lubricating fixed and rotating glass joints and for lubricating plastic and metal connections.

- Highly vacuum-resistant
- Colour: dark brown
- Excellent temperature stability, permanently smooth consistency between -40 and +220 °C, temporarily up to 320 °C (in the absence of air)
- No drop point
- Chemically resistant to most acids, bases and gases
- Insoluble in water and low molecular weight mono- or polyhydric alcohols

Technical specifications:

Art. No.	1L7X.2
Type	glisseal HV
Application temperature from	-40 °C
Application temperature up to	+220 °C
Steam pressure	0.27 x 10^{-5} mbar
Density	0.9 g/cm³

Type	Packaging type	Art. No.	Pack Qty.	€
glisseal HV	tube	**1L7X.2**	30 g	22,05



Made in Germany

One-component silicone rubber Scrintec®

For gluing, sealing, and coating. Highly chemical-resistant, UV/ozone-resistant. Polymerises at room temperature due to the air humidity to form a permanently elastic rubber.

650 neutral cross-linking
Paste-like, transparent. Temperature-resistant from -50 to +180 °C.

Spec. weight 1.03 g/cm³, Shore hardness 30°. Particularly suitable for substrates sensitive to corrosion. Odourless.

H412

Packaging type	Pack.	Art. No.	Pack Qty.	€
Tube	85 ml	**1T8P.1**	85 ml	17,10



Magnesia scoops

ROTH SELECTION.

For annealing and incineration of samples, as well as for the production of oxygen melts for the detection of chromium, manganese, etc. and for bead tests.

Dimensions: length 100 mm x width 9 mm.

Type	Art. No.	Pack Qty.	€
Magnesia scoops	**6537.2**	10 unit(s)	12,80
Magnesia scoops	**6537.1**	25 unit(s)	30,00
Magnesia scoops	**6537.3**	100 unit(s)	82,25

Life Science



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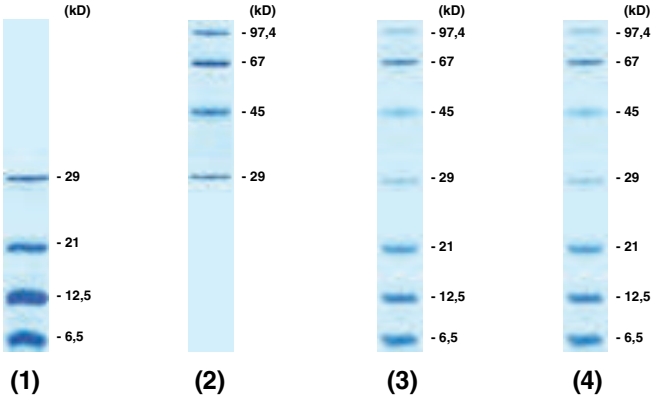
Electrophoresis

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Protein Markers

ROTI®Mark protein markers, not prestained



ROTI®Mark X-SMALL (1)

not pre-dyed

Size range: 6,5-29 kD
Number of protein bands: 4
Number of lanes/ml (1 mg/ml): approx. 200 (mini gels)

Markers (protein gels) · Protein-Markers

ROTI®Mark X-SMALL is a protein marker for the particularly small size range. It consists of 4 natural proteins.

Directions for use

The marker is supplied in lyophilised form. As gel loading buffer we recommend ROTI®Load 1 (Art. No. K929.1).

Fig.: 4-20 % SDS-PAGE (Tris-Glycine)

Storage temperature: +4 °C
Transport temperature: ambient temp.

WGK 1

Danger H317-H334

Art. No.	Pack Qty.	Pack.	€
1LCL.2	5 mg	glass	80,65
1LCL.3	10 mg	glass	127,95

ROTI®Mark SMALL-KOMBI (3)

not pre-dyed

Size range: 6,5-97,4 kD
Number of protein bands: 7
Number of lanes/ml (1 mg/ml): approx. 200 (mini gels)

Markers (protein gels) · Protein-Markers

ROTI®Mark SMALL-KOMBI is a protein marker for the small size range. It consists of 7 natural proteins.

Directions for use

The marker is supplied in lyophilised form. As gel loading buffer we recommend ROTI®Load 1 (Art. No. K929.1).

Fig.: 4-20 % SDS-PAGE (Tris-Glycine)

Storage temperature: +4 °C
Transport temperature: ambient temp.

WGK 1

Danger H334

Art. No.	Pack Qty.	Pack.	€
1LCP.2	5 mg	glass	80,65
1LCP.3	10 mg	glass	127,95

ROTI®Mark SMALL (2)

not pre-dyed

Size range: 29,0-97,4 kD
Number of protein bands: 4
Number of lanes/ml (1 mg/ml): approx. 200 (mini gels)

Markers (protein gels) · Protein-Markers

ROTI®Mark SMALL is a protein marker for the small size range. It consists of 4 natural proteins.

Directions for use

The marker is supplied in lyophilised form. As gel loading buffer we recommend ROTI®Load 1 (Art. No. K929.1).

Fig.: 4-20 % SDS-PAGE (Tris-Glycine)

Storage temperature: +4 °C
Transport temperature: ambient temp.

WGK 1

Danger H334

Art. No.	Pack Qty.	Pack.	€
1LCK.2	5 mg	glass	80,65
1LCK.3	10 mg	glass	127,95

ready-to-use

ROTI®Mark SMALL-KOMBI ready-to-use (4)

ready-to-use, not pre-dyed

Size range: 6,5-97,4 kD
Number of protein bands: 4
Number of lanes/ml (1 mg/ml): approx. 200 (mini gels)

Markers (protein gels) · Protein-Markers

ROTI®Mark SMALL-KOMBI is a protein marker for the small size range. It consists of 7 natural proteins.

Directions for use

The ready-to-use marker is dissolved in a tris-glycine buffer and suitable for direct application onto the gel.

Fig.: 4-20 % SDS-PAGE (Tris-Glycine)

For direct application to the gel.

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H319-EUH208

Art. No.	Pack Qty.	Pack.	€
1LCN.1	500 µl	plastic	85,50



Decontamination system bondEX

For removal of ethidium bromide and other gel dyes from electrophoresis fluids.
The bondEX system works according to the HIC method (Hydrophobic Interaction Chromatography). Ethidium bromide or SYBR®Green residues are removed from buffer solutions by using a detoxification cartridge (bondEX 50) filled with a special resin and an indicator cartridge connected to it.

- High capacity – up to 50 mg EtBr or SYBR™ Green
- Safe handling – used cartridges are lockable
- Effective working – indicator cartridges display saturation
- No interference from other dyes – indicator cartridges interchangeable
- Time-saving process – no additional auxiliaries such as syringes, pumps, etc. required
- Convenient for large volumes – larger containers can be connected easily

Application

The pre-filtered dye solution is run over the bondEX 50 cartridge. This does not require any other auxiliary means such as syringes or pumps. The resin in the cartridge can hold up to 50 mg ethidium bromide or SYBR®Green. An indicator cartridge shows by red colouring or UV fluorescence when the saturation of the bondEX 50 cartridge is reached.

The bondEX system consists of
1LC9.1 bondEX Starter Kit
1LCA.1 bondEX 50 Set (refill set)
1LCC.1 bondEX Folded Filters XL (refill set).

ready-to-use

Decontamination system bondEX 50 set

Macherey-Nagel.

Components

Set for regular use of the bondEX system. For the first application please use the bondEX Starter Kit (1LC9.1).

The kit contains

- 5 bondEX 50 cartridges (with 2 end caps)
- 15 indicator cartridges
- 10 bondEX folded filters XL
- 5 supporting rings
- 5 hazard labels
- 1 protocol

Type	Art. No.	Pack Qty.	€
bondEX 50 set	**1LCA.1**	5 unit(s)	274,15



ready-to-use

Decontamination system bondEX Folded Filters XL

Macherey-Nagel.

Designation	Art. No.	Pack Qty.	€
bondEX Folded Filters XL	**1LCC.1**	50 unit(s)	54,50

ready-to-use

Decontamination system bondEX Starter Kit

Macherey-Nagel.

In addition to the components for decontamination, the Starter Kit also consists of various funnels and adapters with which the dye solution can be fed directly onto the cartridge or – in the case of larger quantities – from a 1–10 l tank, as required.
The funnels and adapters are reusable.

The kit contains

- 2 bondEX 50 cartridges (with 2 end caps)
- 6 indicator cartridges
- 10 bondEX folded filters XL
- 1 tank adaptor
- 1 funnel (1 l) with adaptor
- 1 small funnel for bondEX folded filters
- 2 supporting rings
- 2 hazard labels
- 1 protocol

Designation	Art. No.	Pack Qty.	€
bondEX Starter Kit	**1LC9.1**	1 kit	212,85



Molecular Biology

PCR
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ROTI®Pol TaqHY

For PCR. Recombinant, heat stable DNA polymerases from the thermophilic bacteria *Thermus aquaticus*.

ROTI®Pol, the series of DNA polymerases is the optimal choice for all PCR cycling protocols, as being performed in, for instance, analysis of cloning efficiency, for gene fishing, in routine screening processes, educational assays and much more. In combination with our specially designed buffers, the ROTI®Pol DNA polymerases deliver specific and reproducible PCR amplification with a wide range of PCR templates.



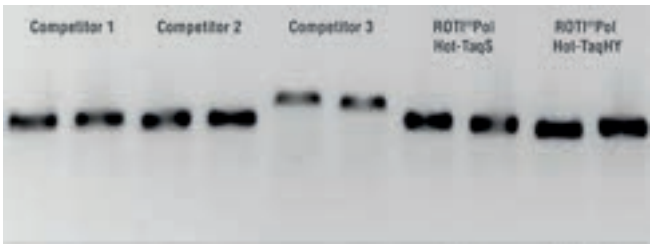


ROTI®Pol TaqHY

5 U/µl

For rapid high yield PCR amplifications.

DNA polymerase (thermostable) · Polymerase (thermostable) · Taq DNA polymerase, recombinant



Modified version of the recombinant heat stable Taq DNA polymerase from the thermophilic bacterium *Thermus aquaticus* in storage buffer, plus additional 10x concentrated PCR reaction buffer and 10x concentrated PCR reaction buffer with red gel loading dye. ROTI®Pol TaqHY is recommended for use in all PCR applications where very short cycle periods or particularly high yields are required.

This polymerase set ROTI®Pol TaqHY is perfectly suitable for all Taq-based cycling protocols with a) high yield, as being performed, for instance, prior to cloning, for amplicon elution, when using low-copy templates, or for educational purposes, or if b) particularly short cycle times are required.
ROTI®Pol TaqHY has been engineered for enhanced polymerase activity as well as for particularly speedy elongation, resulting in enhanced yields as well as in time-saving short elongation times. In combination with our unique buffers, the TaqHY polymerase delivers specific PCR amplification with a wide range of PCR templates. Using shorter cycle times, the amplicon amount resulting from this reaction is significantly higher as known from standard Taq polymerases.
ROTI®Pol TaqHY is able to amplify PCR products up to 3 kb with genomic DNA and is appropriate for use in the amplification of DNA from a wide range of even complex templates. The TaqHY DNA polymerase included in the set possesses a 5' → 3' polymerase- as well as a 5'-flap endonuclease activity, and generates a 3'dA (adenine)-overhang which may well be used for TA-cloning purposes.

Filled in colour coded tubes, the set contains the DNA polymerase and two 10x concentrated reaction buffers with 20 mM $MgCl_2$, one of which has been specially designed for direct gel loading following the PCR reaction. In 1 % agarose gels, the included red dye migrates approx. as fast as a 1 kb DNA fragment. During denaturation in Southern blotting, the dye turns yellow at an acidic pH. The use of the colourless PCR reaction buffer is adequate for all general PCR applications and is particularly recommended when direct fluorescence or absorbance readings are required.

The set contains

TaqHY polymerase (Art. No. 0528) in storage buffer containing 50 % glycerol, PCR buffer (10x) (Art. No. 0511) with 20 mM $MgCl_2$, PCR buffer red (10x) (Art. No. 0527) with 20 mM $MgCl_2$ and 0,1 % cresol red.
Colour coded tubes.
Contents of this set may not be bought separately.

Modified Taq polymerase in storage buffer, PCR buffer (10x), PCR buffer red (10x)

Storage temperature: –20 °C
Transport temperature: cooled
WGK 1

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
9345.1	100 µl	1 x 500 U	plastic	86,55
9345.2	500 µl	5 x 500 U	plastic	396,70



ready-to-use

ROTI®Pol TaqHY Mix (2x)

2x conc., ready-to-use

For rapid high yield PCR amplifications.

Master mix Taq DNA polymerase, recombinant · PCR master mix

Optimized, pre-mixed 2x PCR solution containing the recombinant TaqHY DNA polymerase from the thermophilic bacterium *Thermus aquaticus*, dNTPs, $MgCl_2$ and all other components required for PCR except primers and template DNA. ROTI®Pol TaqHY Mix (2x) is recommended for all PCR applications where very short cycles or high yield are required.

PCR assaying with ROTI®Pol TaqHY Mix (2x) master mix not only reduces contamination risks, but is also time-saving, highly reproducible and very easy to prepare. ROTI®Pol TaqHY Mix (2x) shows both an enhanced polymerase activity and an extremely time-saving, fast elongation rate.

Due to the optimized composition of the master mix, the TaqHY polymerase offers specific PCR amplification with good yield on a wide range of PCR templates. The yield achieved is significantly higher than that of conventional Taq polymerases, with shorter cycle times. ROTI®Pol TaqHY Mix (2x) is able to amplify PCR products up to 3 kb with genomic DNA, and is appropriate for use with pure DNA solutions, cDNA, and bacterial colonies as templates. The use of the colourless PCR Master mix is particularly recommended when direct fluorescence or absorbance readings are required. The TaqHY DNA polymerase included in the mastermix possesses a 5' →3' polymerase as well as a 5'-flap endonuclease activity and generates a 3'dA (adenine) overhang which can be used for TA cloning purposes.

The set contains

2 or 10 vials, respectively, with 1 ml each of ROTI®Pol TaqHY Mix (2x) containing TaqHY polymerase, 0.4 mM each dNTP, and 4 mM $MgCl_2$ in 2x reaction buffer

PCR premix w/o primers and template, optimized for reactions of 25 µl volume.

Storage temperature: –20 °C
Transport temperature: cooled
WGK 1

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
1K33.1	2 ml	2 x 1 ml	plastic	86,55
1K33.2	10 ml	10 x 1 ml	plastic	396,70



ready-to-use

ROTI®Pol TaqHY Red-Mix (2x)

2x conc., ready-to-use

For rapid high yield PCR amplifications followed by direct gel-loading.

Master mix Taq DNA polymerase, recombinant · PCR master mix

Optimised, premixed solution with recombinant TaqHY DNA polymerase from the thermophilic bacterium *Thermus aquaticus*, dNTPs, $MgCl_2$ and all other components required for PCR except primers and template DNA. ROTI®Pol TaqHY Mix (2x) is recommended for all PCR applications where very short cycles or high yield are required.

PCR preparations with ROTI®Pol TaqHY Mix (2x) Mastermix not only reduce the risk of contamination, but are also time-saving, highly reproducible and very easy to prepare. ROTI®Pol TaqHY Mix (2x) shows both an enhanced polymerase activity and an extremely time-saving, fast elongation rate.

Due to the optimally adjusted composition of the master mix, the TaqHY polymerase offers specific PCR amplification with good yield on a wide range of PCR templates. The yield achieved is significantly higher than that of conventional Taq polymerases, with shorter cycle times. With ROTI®Pol TaqHY Red-Mix (2x), PCR products of up to 3 kb can be amplified on genomic DNA as template, and the master mix can process pure DNA solutions, cDNA and bacterial colonies as template. In 1 % agarose gels, the contained red dye migrates approximately at the level of a 1 kb DNA fragment. During denaturation in the Southern blot, the dye turns yellow due to the acidic pH value. The TaqHY DNA polymerase contained in the master mix has a 5' → 3' polymerase as well as a 5'-flap endonuclease activity and generates a 3'dA (adenine) overhang on the PCR products, which can be used for TA cloning.

The set contains

2 or 10 vials, respectively, with 1 ml each of ROTI®Pol TaqHY Red-Mix (2x) containing TaqHY polymerase, 0.4 mM each dNTP, and 4 mM $MgCl_2$ in 2x reaction buffer with 0,02 % cresol red.

Prestained PCR premix w/o primers and template, optimized for reactions of 25 µl volume.

Storage temperature: –20 °C
Transport temperature: cooled
WGK 1

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Packaging	Pack.	€
1K34.1	2 ml	2 x 1 ml	plastic	86,55
1K34.2	10 ml	10 x 1 ml	plastic	396,70

Thermal Cycler Alpha

Compact and easy-to-handle thermal cyclers for PCR

- Android controlled HD touchscreen
- Gradient function
- Fast heating and cooling rates
- High temperature homogeneity
- Automatic protocol optimisation with Program Wizard
- USB interface for secure user login

The compact PCR thermal cyclers are suitable for DNA amplification in high-throughput screening, genotyping or cloning. The thermal cyclers can be intuitively programmed with a touch screen and deliver repeatable results with every run.
Features include a clear, responsive touch screen, secure and user-specific programming, an adjustable heated lid and active sample cooling for stronger and more specific amplification.
A program wizard generates a protocol specific to your sequence in seconds, allowing you to quickly optimise amplification of new samples. The instrument stores up to 1000 reports for later viewing and offers an intuitive HD Android™ tablet user interface. Personal settings can be stored on a USB stick, which can then also be used to log in.

Technical specifications:

Art. No.	1Y24.1	1Y2T.1	1Y1E.1	1Y1C.1
Type	Alpha 1		Alpha 2	Alpha 3
Sample capacity	1 x 96	1 x 384	2 x 96	4 x 96
Block temperature range	4-100 °C			
Block uniformity at 55 °C	±0,3 °C			
Temperature control accuracy at 55 °C	±0,25 °C			
Max. heating rate	3.4 °C/s			
Peltier elements	8			
Lid temperature (can be switched off)	35–115 °C			
Suitable for	PCR			
Max. number of programmes	1,000			
Increment/decrement function	yes (temperature and time)			
Gradient temperature range	1-29 °C			
Oligonucleotide T_m calculation	Yes		Yes	Yes
Display type	HD Android touchscreen			
Auto-Restart function	yes (disengageable)			
Port	USB port			
Safety devices	Personal access via USB		Personal access via USB.	Personal access via USB
L x W x H	43 x 26 x 20 cm		47 x 53.5 x 33.5 cm	70 x 53.5 x 33.5 cm
Weight	11,8 kg		30 kg	47 kg
Mains connection	100–230 V, 50/60 Hz			
Performance	450 W		900 W	1600 W

Not a medical device / Not an IVD product



Thermal Cycler A1 96 Well

Antylia Scientific.

Single block system with a capacity of 96 or 384 wells. The 96 block can be used with 0.2 ml PCR tubes, with 0.2 ml PCR strips or a 96-well plate. The 384 block is suitable for 384-well plates with a capacity of max. 40 µl per well.

Not a medical device / Not an IVD product

Sample capacity	Art. No.	Pack Qty.	€
1 x 96	**1Y24.1**	1 unit(s)	5.059,00
1 x 384	**1Y2T.1**	1 unit(s)	5.059,00



Thermal Cycler A2 2 x 96

Antylia Scientific.

Two blocks with 96 wells each for 96 well PCR plates or 0.2 ml PCR tubes. The compact design allows the running of two independent PCR assays in one unit. The blocks can be controlled individually.

Not a medical device / Not an IVD product

Sample capacity	Art. No.	Pack Qty.	€
2 x 96	**1Y1E.1**	1 unit(s)	9.546,00



Thermal Cycler A2 2 x 96

Antylia Scientific.

Four blocks with 96 wells each for 96 well PCR plates or 0.2 ml PCR tubes. The compact design allows the running of four independent PCR screenings in one unit. The blocks can be controlled individually.

Not a medical device / Not an IVD product

Sample capacity	Art. No.	Pack Qty.	€
4 x 96	**1Y1C.1**	1 unit(s)	18.342,00



Biochemistry

Scintillation 148

Western Blot & ELISA
Antibodies 149

Scintillation Cocktails

Optimised for various standard applications

- NPE free - environmentally safe and non-carcinogenic
- High counting efficiency
- Low photo- and chemoluminescence
- Very good colour- and chemical quench resistance
- Virtually odor- and colourless
- High flash point
- No permeation through plastic vials



ROTISZINT®Filter

ROTISZINT® ready-to-use, NPE free, for scintillation

LSC cocktail, for filter assays

Special scintillation cocktail for measuring samples in filter plates. ROTISZINT®Filter can be used with practically all filter types as well as with dry, moist or wet filter plates; the wetting of the filters by the scintillation cocktail is fast and complete.
Biodegradable.

Application

The addition of an elution buffer is not necessary. Filter plates can be directly wetted with the scintillation cocktail and measured.

We recommend the use of ROTILABO®Dispensers.

Storage temperature: +15 to +25 °C

UN no. 3082 · ADR 9 III · WGK 3

Danger H304-H315-H318-H410

Art. No.	Pack Qty.	Pack.	€
1P18.1	500 ml	plastic	48,30
1P18.2	5 l	plastic	403,15

ROTISZINT®HighCapacity

ROTISZINT® ready-to-use, NPE free, for scintillation

LSC cocktail, for large sample volumes and highly concentrated samples

ROTISZINT®HighCapacity was developed to work with both dilute and more concentrated samples used in general LSC counting. This special scintillation cocktail will accept up to 10 ml of most dilute sample types and lesser volumes of concentrated samples.
ROTISZINT®HighCapacity thus offers the greatest possible flexibility with samples of high diversity.
Biodegradable.

The sample uptake capacity is up to 10 ml / 10 ml cocktail for many common solvents such as 0.5 M HNO_3, 1 M H_3PO_4, 0.1 M NaOH, 0.1 M NaCl, PBS and water. Only for some special and highly concentrated solutions (such as 0.1 M ammonium citrate, 0.1 M EDTA, 4 M H_3PO_4 or 4 M HNO_3) the maximum sample volume is 4 to 6 ml / 10 ml cocktail.

Application

Excellent for measuring solutions. For the measurement of filter samples we recommend the use of ROTISZINT®Filter.

We recommend the use of ROTILABO®Dispensers.

Storage temperature: +15 to +25 °C

UN no. 3082 · ADR 9 III · WGK 3

Danger H304-H315-H318-H410

Art. No.	Pack Qty.	Pack.	€
1P1C.1	500 ml	plastic	53,65
1P1C.2	5 l	plastic	424,65

ROTISZINT®Routine

ROTISZINT® ready-to-use, NPE free, for scintillation

LSC cocktail, for scintillation assays in general

Safe and easy-to-use scintillation cocktail for a wide range of applications. ROTISZINT®Routine has a good sample uptake capacity for all aqueous samples and is suitable for solutions with high ionic strength.
Biodegradable.

For some solvents, such as 0.3 M HNO_3, the sample uptake capacity is up to 5 ml / 10 ml cocktail. For most common as well as for higher concentrated solutions (for example 0.1 M ammonium citrate, 0.1 M EDTA or 2 M HNO_3) the maximum sample volume is 2 to 3.5 ml / 10 ml cocktail.

Application

Excellent for measuring solutions. For the measurement of filter samples we recommend the use of ROTISZINT®Filter.

We recommend the use of ROTILABO®Dispensers.

Storage temperature: +15 to +25 °C

UN no. 3082 · ADR 9 III · WGK 3

Danger H304-H315-H318-H410

Art. No.	Pack Qty.	Pack.	€
1P1A.1	500 ml	plastic	50,45
1P1A.2	5 l	plastic	396,70

ROTISZINT®FlowCount

ROTISZINT® ready-to-use, NPE free, for scintillation

LSC cocktail, for flow count assays

The ROTISZINT®FlowCount cocktail is intended for use in Flow Scintillation Counting and has been formulated using alcohol ethoxylates, containing no NPE at all. It has been developed to work with most commonly encountered eluents, including gradients, used in Flow counting. ROTISZINT®FlowCount does not form gels, providing rapid and easy mixing.
Biodegradable.

Application

Suitable for general eluents and aqueous/organic gradients, e.g. and water/methanol or water/acetonitrile gradients up to 2 : 1 ratio.

We recommend the use of ROTILABO®Dispensers.

Storage temperature: +15 to +25 °C

UN no. 3082 · ADR 9 III · WGK 3

Danger H304-H315-H318-H410

Art. No.	Pack Qty.	Pack.	€
1P19.1	500 ml	plastic	55,80
1P19.2	5 l	plastic	446,15

Antibodies



Antibody, primary

Antibody, Primary antibodies

This antibody portfolio includes a wide range of tissue- & tumor-specific primary antibodies for basic research, product development and analysis of a variety of biological questions. The monoclonal antibodies are perfectly applicable for all cell or tissue biology studies and for the analysis of predictive markers in research.

- High epitope affinity
- Highly specific detection of the target protein
- Unconjugated
- Suitable for e.g. western blot, immunoprecipitation, ELISA & immunofluorescence

Not a medical device / Not an IVD product

anti-Alkaline Phosphatase (intestinal) mouse monoclonal, V17.1

100 µg/ml, monoclonal, affinity purified

PROGEN.

Cell membrane marker

V17.1 react with intestinal alkaline phosphatase, an enzyme widely used in immunodetection tests.

Positive Control: Intestinal alkaline phosphatase.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1 kappa
Clone: V17.1
Immunogen: Intestinal alkaline phosphatase
UniprotID: P19111 (Bovine)
Synonym: Intestinal-type alkaline phosphatase, IAP, Intestinal alkaline phosphatase, EC 3.1.3.1, ALPI
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: ELISA, IHC
Reactivity: Bovine, Human

Application

ELISA: Assay dependent
Immunohistochemistry (IHC) – frozen: 1:50-1:100 (1-2 µg/ml)



Intestine

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer with 0.02 % sodium azide.
Storage at 2–8 °C (+4 °C).

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NLX.1	1 ml	plastic	365,50

anti-alpha-Smooth Muscle Actin mouse monoclonal, 1A4/ASM-1

100 µg/ml, monoclonal, affinity purified

PROGEN.

Cytoskeleton marker

1A4/ASM-1 represents an excellent marker for myogenic soft tissue tumors and smooth muscle differentiation. Polypeptide reacting: specific for alpha-smooth-muscle isoform of actin (43 kDa). Tumors specificallly detected: leiomyosarcoma, leiomyoma, certain stromal cells surrounding infiltrating ductal carcinoma of breast. Tested cultured cell lines: Stress fibers of smooth muscle-derived cells and some smooth muscle subtype fibroblasts.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG2a
Clone: 1A4/ASM-1
Immunogen: Synthetic N-terminus decapeptide of alpha-smooth-muscle isoform of actin
UniprotID: P62739 (Bovine), P08023 (Chicken), P62736 (Human), P62737 (Mouse), P62738 (Rat)
Synonym: Actin, aortic smooth muscle, Alpha-actin-2, Cell growth-inhibiting gene 46 protein [Cleaved into: Actin, aortic smooth muscle, intermediate form], ACTA2, ACTSA, ACTVS, GIG46
Conjugate: Unconjugated
Purification Affinity chromatography
Intended use: Research use only
Application: ICC/IF, IHC, WB
Reactivity: Bovine, Chicken, Horse, Human, Mouse, Rat

Application

Immunocytochemistry (ICC): Assay dependent
Immunohistochemistry (IHC) – frozen: 1:200-1:1,000 (100-500 ng/ml)
Immunohistochemistry (IHC) – paraffin: 1:200-1:1,000 (100-500 ng/ml, protease treatment and/or microwave treatment recommended)
Western Blot (WB): 1:1,000 (100 ng/ml)



IHC analysis of human colon using anti-alpha-Smooth Muscle Actin antibody. IHC was performed on formalin fixed paraffin embedded sections. The samples were deparaffinized with xylol and ethanol followed by heat induced antigen retrieval with 10 mM citrate buffer. After preparation the tissue was blocked with normal serum for 20 min at RT. The primary antibody anti-alpha-Smooth Muscle Actin mouse monoclonal, 1A4/ASM-1 (Cat. No. 690001) was diluted in PBS (antibody concentration 400 ng/ml) and incubated at 4°C over-night. The secondary antibody ImmPRESS HRP anti-mouse IgG was incubated for 20 min at RT. Slides were incubated with DAB solution until a brown staining is visable and with Haemalaun for a few minutes. The 10x picture was acquired using microscopy (courtesy of J.Hess, University Hospital Heidelberg).

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NN1.1	0.2 ml	plastic	84,95
1NN1.2	1 ml	plastic	222,55

► Further information at www.carlroth.com

anti-beta-actin, clone AC-15, mouse monoclonal

100 µg/ml, monoclonal, affinity purified

PROGEN.

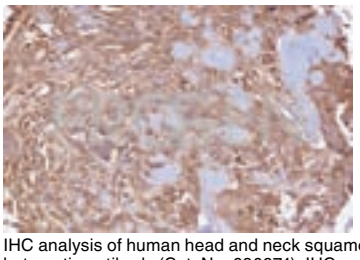
Cytoskeleton and cytoplasmic marker

Beta-Actin (42 kDa) is a highly conserved protein, which is able to polymerize to produce filaments. It is involved in cell motility, structure and integrity. Beta-Actin is a commonly used as a loading control for Western botting or as a housekeeping gene standard in qPCR.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: AC-15
Immunogen: Synthetic b-cytoplasmic actin
UniprotID: P62739 (Bovine), P08023 (Chicken), P62736 (Human), P62737 (Mouse), P62738 (Rat)
Synonym: Actin, aortic smooth muscle, Alpha-actin-2, Cell growth-inhibiting gene 46 protein [Cleaved into: Actin, aortic smooth muscle, intermediate form], ACTA2, ACTSA, ACTVS, GIG46
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: IHC, WB
Reactivity: Human

Application

Immunohistochemistry (IHC) – paraffin: 1:50-1:500 (0.2-2 µg/ml; microwave treatment recommended)
Western Blot (WB): 1:5,000 (20 ng/ml)



IHC analysis of human head and neck squamous cell carcinoma using anti-beta-actin antibody (Cat. No. 690974). IHC was performed on formalin fixed paraffin embedded sections. The samples were deparaffinized with xylol and ethanol followed by heat induced antigen retrieval with 10 mM citrate buffer. After preparation the tissue was blocked with normal serum for 20 min at RT. The primary antibody anti-beta-actin mouse monoclonal, clone AC-15 was diluted in PBS (antibody concentration 500 ng/ml) and incubated at 4°C over-night. The secondary antibody ImmPRESS HRP anti-mouse IgG was incubated for 20 min at RT. Slides were incubated with DAB solution until a brown staining is visable and with Haemalaun for a few minutes. The 20x picture was acquired using microscopy (courtesy of
J. Hess, University Hospital Heidelberg).



Western blot analysis of HeLa lysate with anti-beta-actin antibody. Western blot analysis was performed on 20 µg HeLa lysate. Cells were lysed with RIPA buffer. The PVDF membrane was blocked with 5% dry milk in PBST (PBS + 0.1% Tween 20) for 1 h at RT. The primary antibody anti-beta-actin antibody mouse monoclonal, clone AC-15 (Cat. No. 690974) was diluted in blocking buffer (antibody concentration 0.02 µg/ml) and incubated for 1 h at RT. The secondary antibody anti-mouse IgG goat polyclonal, HRP conjugate was also diluted in blocking buffer (antibody concentration 0.4 µg/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using PierceTM ECL Western Blotting Substrate.

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Storage at 2–8 °C (+4 °C).

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NP6.1	0.2 ml	plastic	84,95
1NP6.2	1 ml	plastic	304,25

anti-Cardiac Actin mouse monoclonal, AC1-20.4.2

50 µg/ml, monoclonal, affinity purified

PROGEN.

Cytoskeleton marker

Ac1 represents an excellent marker for cardiac tissue; it discriminates fetal (cardiac) a-actin from all other actin isoforms. Fetal actin can be localized in regenerating skeletal muscle after injury (in satellite cells) and in veins of the umbelical cord. Mab Ac1-20.4.2 shows no cross reaction with other actin isoforms present in skeletal and smooth muscle, provided that stringent experimental conditions have been applied.

Polypeptide reacting: Specific for fetal (cardiac) isoform of actin.

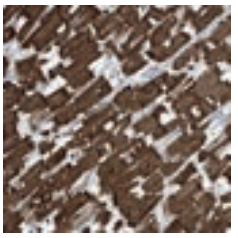
Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: AC1-20.4.2
Immunogen: Synthetic NH2 terminus decapeptide of cardiac isoform of actin
UniprotID: P68034 (Chicken), P68032 (Human), G1STB6 (Rabbit)
Synonym: Actin, alpha cardiac muscle 1, Alpha-cardiac actin [Cleaved into: Actin, alpha cardiac muscle 1, intermediate form], ACTC1, ACTC
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: IHC, WB
Reactivity: Bovine, Chicken, Human, Mouse, Rabbit

Application

Immunohistochemistry (IHC) – frozen: 1:10 (5 µg/ml; include 0.5 M NaCl in all washing buffers to enhance specificity)
Immunohistochemistry (IHC) – paraffin: 1:10 (5 µg/ml; microwave treatment recommended)
Western Blot (WB): 1:1,000 (50 ng/ml; include 1 M NaCl in all washing buffers to enhance specificity)



Western blot analysis of human heart whole tissue lysate and with anti-Cardiac Actin antibody. Western blot analysis was performed on 20 µg human heart lysate. The PVDF membrane was blocked with 5% milk in PBST (PBS + 0.1% Tween 20) for 1 h at RT. The primary antibody anti-Cardiac Actin mouse monoclonal, AC1-20.4.2 (Cat. No. 690075) was diluted in blocking buffer (antibody concentration 0.05 µg/ml) and incubated for 1 h at RT. The secondary antibody anti-mouse IgG, HRP conjugate was also diluted in blocking buffer (antibody concentration 0.2 µg/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using Pierce™ ECL Western Blotting Substrate.



anti-Cardiac Actin mouse monoclonal, AC1-20.4.2, liquid, purified

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NLN.1	0.2 ml	plastic	84,95
1NLN.2	1 ml	plastic	222,55

anti-Cyclin D1 mouse monoclonal, DCS-6

100 µg/ml, monoclonal, affinity purified

PROGEN.

Cell cycle marker

DCS-6 reacts specifically with cyclin D1 protein present predominantly in G1 phase of cell cycle; it does not cross-react with D2 or D3 cyclins (the closest relatives within the cyclin family); DCS-6 is especially useful in tumour diagnosis: it can be used as fast method to identify cases with 11q13 amplifications. Cyclin D1 gene is identical to the BCL-1 and the PRAD-1 oncogene and is part of the chromosome 11q13 amplicon which is amplified in several common tumour types like breast, lung, oesophagus, urinary bladder and head and neck carcinoma.

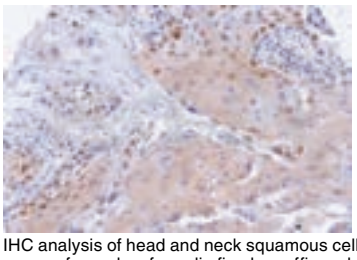
Polypeptide reacting: Mr 36 kDa polypeptide (cyclin D1 polypeptide of human cells).

Reactivity on cultured cell lines: MCF-7, MDA-MB-134 and MDA-MB-231 (breast cancer cell lines), UMSC22 (squamous cell carcinoma cell line), U-2-OS (osteosarcoma cell line), RT-112, A431, HT-29, 3T3-L1, Ins-1. The expression of Cyclin D1 is tissue specific and associated with tumour onset and progression.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG2a
Clone: DCS-6
Immunogen: Human recombinant full-length cyclin D1 protein
UniprotID: Q64HP0 (Dog, Canis familiaris), P24385 (Human), P25322 (Mouse), P39948 (Rat)
Synonym: G1/S-specific cyclin-D1, B-cell lymphoma 1 protein, BCL-1, BCL-1 oncogene, PRAD1 oncogene, CCND1, BCL1, PRAD1
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: ICC/IF, IHC, WB
Reactivity: Dog, Human, Monkey, Mouse, Rat

Application

Immunocytochemistry (ICC): Assay dependent
Immunohistochemistry (IHC) – frozen: 1:20-1:50 (2-5 µg/ml)
Immunohistochemistry (IHC) – paraffin: 1:20-1:50 (2-5 µg/ml, microwave treatment recommended)
Western Blot (WB): 1:50-1:100 (1-2 µg/ml)



IHC analysis of head and neck squamous cell carcinoma using anti-Cyclin D1. IHC was performed on formalin fixed paraffin embedded sections. The samples were deparaffinized with xylol and ethanol followed by heat induced antigen retrieval with 10 mM citrate buffer. After preparation the tissue was blocked with normal serum for 20 min at RT. The primary antibody anti-Cyclin D1 mouse monoclonal, DCS-6 (Cat. No. 690053) was diluted in PBS (antibody concentration 2 µg/ml) and incubated at 4°C over-night. The secondary antibody ImmPRESS HRP anti-mouse IgG was incubated for 20 min at RT. Slides were incubated with DAB solution until a brown staining is visable and with Haemalaun for a few minutes. The 20x picture was acquired using microscopy (courtesy of J. Hess, University Hospital Heidelberg).

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NNX.1	0.2 ml	plastic	84,95
1NNX.2	1 ml	plastic	222,55

anti-Cyclin-Dependent Kinase 4 mouse monoclonal, DCS-156

50 µg/ml, monoclonal, affinity purified

PROGEN.

Cell cycle marker

DCS-156 reacts specifically with cdk4 protein present predominantly in G1 phase of cell cycle; it does not cross-react with cyclins. In immunohistochemical application on frozen sections of head and neck carcinoma (oropharynx and hypopharynx carcinoma) and cervix DCS-156 shows distinct nuclear staining, especially in tumor areas of enhanced proliferation.

Epitope recognized: aa 270-290.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: DCS-156
Immunogen: Human recombinant full-length cdk4 polypeptide
UniprotID: P11802 (Human),P30285 (Mouse),P35426 (Rat)
Synonym: Cyclin-dependent kinase 4, EC 2.7.11.22, Cell division protein kinase 4, PSK-J3,
DK4
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: WB
Reactivity: Human, Mouse, Rat

Application

Western Blot (WB): 1:50-1:500 (0.1-1 µg/ml)



Western blot analysis of human HeLa cell lysate with anti-Cyclin-Dependent Kinase 4 antibody. Western blot analysis was performed on either 5 µg or 10 µg of HeLa lysate. Cells were lysed in PBS by homogenization. The PVDF membrane was blocked with 5% dry milk in PBST for 1 h at RT. The primary antibody anti-Cyclin-Dependent Kinase 4 mouse monoclonal, DCS-156 (Cat. No. 690096) was diluted in blocking buffer (antibody concentration 0.5 µg/ml) and incubated for 1 h at RT. The secondary antibody goat anti-mouse IgG polyclonal, HRP conjugate was also diluted in blocking buffer (antibody concentration 0.2 µg/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using Pierce™ ECL Western Blotting Substrate.

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NNE.1	0.2 ml	plastic	84,95
1NNE.2	1 ml	plastic	177,40

► Further information at www.carlroth.com

anti-Desmocollin 1 mouse monoclonal, Dsc1-U100

50 µg/ml, monoclonal, affinity purified

PROGEN.

Cell to cell contact marker

Mouse monoclonal antibody localizes Dsc1 present in suprabasal layers of interfollicular epidermis, in specific cell layers (e.g. in hair follicle root sheath) and in hassall bodies (spheroidal formations of densely packed reticulum-derived cells in the thymus).

Reacts with 111 kDa (form 'a') and 103 kDa (form 'b') polypeptides (desmocollin 1 splice forms, both at pI 5.2) from human epidermal desmosomes.

Reactivity on cultured cell lines: positive on primary keratinocytes, however, restricted to local piles of differentiated cells. All simple epithelia are negative.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: Dsc1-U100
Immunogen: Synthetic peptide corresponding to sequence present within the intracellular part of human desmocollin 1 (HQTLESVKGVG-QGDTGRYATDWQC)
UniprotID: Q08554 (Human)
Synonym: Desmocollin-1, DSC1, Cadherin family member 1, Desmosomal glycoprotein 2/3, DG2/DG3, CDHF1
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: IHC, WB
Reactivity: Human, Mouse, Rat

Application

Immunohistochemistry (IHC) – frozen. 1:50-1:100 (0.5-1 µg/ml, preincubation (directly after fixation) with 0.05-0.2% Triton X-100, for 5-10 min, depending on tissue type, is recommended; without detergent pretreatment a cytoplasmic component might cross-react)
Immunohistochemistry (IHC) – paraffin. 1:50-1:100 (0.5-1 µg/ml, microwave treatment recommended; a slight crossreactivity with a lymphocyte subpopulation is abolished by mild trypsinization after the microwave step)
Western Blot (WB): Assay dependent



IHC of rat skin with anti-desmocollin 1 (1:50, courtesy of J.Heß, University Hospital Heidelberg)



IHC of mouse skin with anti-desmocollin 1 (1:50, courtesy of J.Heß, University Hospital Heidelberg)

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NN6.1	0.2 ml	plastic	84,95
1NN6.2	1 ml	plastic	222,55

anti-Desmocollin 3 mouse monoclonal, Dsc3-U114

50 µg/ml, monoclonal, affinity purified

PROGEN.

Cell to cell contact marker

The mouse monoclonal antibody localizes Dsc3 present in all living epidermal layers, in glandular duct cells, in basal matrix cells and outer root sheath of hair follicles, in basal and suprabasal cell layers of stratified epithelia (e.g. vagina, tongue, esophagus), in basal layer of bladder urothelium and complex epithelium of trachea, in thymic reticulum cellsAll simple epithelia are negative. Intercalated disks of myocardium are negative.

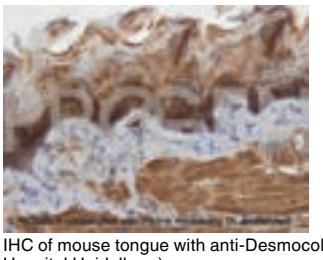
Polypeptide reacting: 109 kDa and 100 kDa polypeptides (desmocollin 3 splice isoforms at pI 5.2) from human epidermal desmosomes.

Reactivity on cultured cell lines: most cultured cell lines derived from stratified squamous epithelia or squamous cell carcinomas are positive (e.g. A-431, HaCaT).

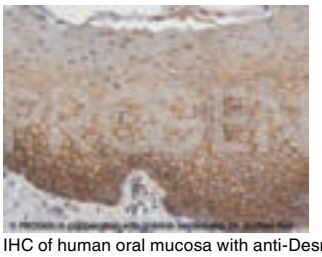
Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: Dsc3-U114
Immunogen: Synthetic peptide corresponding to a sequence present on the extracellular anchor domain of human desmocollin 3 (VHGAPFYFS-LPNTSPEISRLWSLTKVC)
UniprotID: Q14574 (Human), P55292 (Mouse), D3ZZI6 (Rat)
Synonym: Desmocollin-3, Cadherin family member 3, Desmocollin-4, HT-CP, DSC3, CDHF3, DSC4
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: IHC, WB
Reactivity: Human, Mouse, Rat
No reactivity: Bovine

Application

Immunohistochemistry (IHC) – frozen: 1:10-1:100 (0.5-5 µg/ml, for better resolution preincubation (directly after fixation) with 0.05-0.2% Triton X-100, for 5-10 min, depending on tissue type, is recommended)
Immunohistochemistry (IHC) – paraffin: 1:10-1:100 (0.5-5 µg/ml, microwave treatment recommended)
Western Blot (WB): Assay dependent



IHC of mouse tongue with anti-Desmocollin 3 (1:10, courtesy of J.Heß, University Hospital Heidelberg)



IHC of human oral mucosa with anti-Desmocollin 3 (1:10, courtesy of J. Heß, University Hospital Heidelberg)

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NNL.1	0.2 ml	plastic	84,95
1NNL.2	1 ml	plastic	222,55

anti-Desmoglein 1/2 mouse monoclonal, DG 3.10

50 µg/ml, monoclonal, affinity purified

PROGEN.

Cell to cell contact marker

DG 3.10 recognizes desmoglein 1 + 2 (desmosome-specific cadherins) in desmosome-bearing cells; does not react with cells containing plaque-bearing junctions of non-desmosomal type.

Tumors specifically detected: all epithelium-derived tumors, notably carcinomas, and meningiomas.

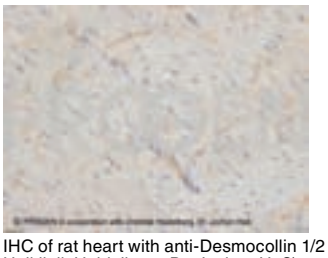
Polypeptide reacting: Mr 165 000 Desmoglein, 'band 3' polypeptide of the desmosomal complex. Epitope recognized has been localized at the repeating unit domain ('RUD') of the cytoplasmic C-terminal part of the polypeptide.

Reactivity on cultured cell lines: A-431, MDBK.

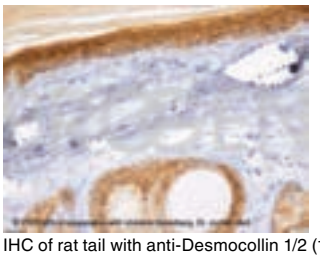
Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: DG 3.10
Immunogen: 'Band 3' polypeptide of isolated desmosomes from bovine muzzle epidermis
UniprotID: Q02413 (Human), D3ZM39 (Rat), Q03763 (Bovine)
Synonym: Desmoglein-1, Cadherin family member 4, Desmosomal glycoprotein 1, DG1, DGI, Pemphigus foliaceus antigen, DSG1, CDHF4
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use. Research use only
Application: ICC/IF, IHC, WB
Reactivity: Bovine, Human, Rat

Application

Immunocytochemistry (ICC): Assay dependent
Immunohistochemistry (IHC) – frozen: 1:10-1:100 (0.5-5 µg/ml)
Immunohistochemistry (IHC) – paraffin: 1:10-1:100 (0.5-5 µg/ml, microwave treatment recommended)
Western Blot (WB): Assay dependent



IHC of rat heart with anti-Desmocollin 1/2 (1:50, © PROGEN in cooperation with Uniklinik Heidelberg, Dr. Jochen Heß)



IHC of rat tail with anti-Desmocollin 1/2 (1:50, © PROGEN in cooperation with Uniklinik Heidelberg, Dr. Jochen Heß)

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NP0.1	0.2 ml	plastic	103,20
1NP0.2	1 ml	plastic	261,25



anti-Desmoglein 2 mouse monoclonal, 10G11

500 µg/ml, monoclonal, affinity purified

PROGEN.

Cell to cell contact marker

Antibody recognizes desmoglein 2 present in low concentrations in all epithelia and in tumors derived therefrom as well as in heart muscle and dendritic reticulum cells of lymphatic follicles. In basal epithelial cells desmoglein 2 expression is generally very low.

Polypeptide reacting: desmoglein 2 (1069aa; calculated mol. wt. 116,760)

Reactivity on cultured cell lines: Many, including CaCo-2, HaCaT, MCF-7

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: 10G11
Immunogen: Recombinant peptide (220aa of 2nd and 3rd extracellular repeat domain)
UniprotID: Q14126 (Human)
Synonym: Desmoglein-2, Cadherin family member 5, HDGC, DSG2, CDHF5
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: IHC, WB
Reactivity: Human
No reactivity: Mouse, Rat

Application

Immunohistochemistry (IHC) – frozen: 1:100 (5 µg/ml, for better resolution preincubation (directly after fixation) with 0.05–0.2 % Triton X-100 for 5–10 min, depending on tissue type, is recommended (Schäfer S. et al., 1996))
Western Blot (WB): Assay dependent

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NLT.1	0.2 ml	plastic	103,20
1NLT.2	1 ml	plastic	261,25

► Further information at www.carlroth.com

anti-Desmoplakin 1/2 mouse monoclonal, DP 1 + 2-2.15

50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium marker

DP1 + 2-2.15 shows distinct punctate membrane staining of different epithelia.

Tumors specifically detected: primary and metastatic carcinoma and meningioma.

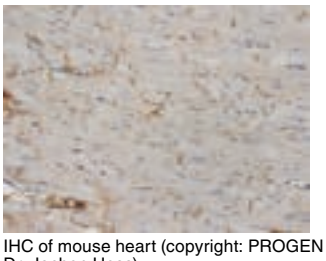
Polypeptides reacting: Desmoplakin 1 and 2 (Mr 250,000 and 215,000). The epitope recognized by clone DP1 + 2-2.15 is mapped to the N-terminus of the rod domain (Bornslaeger, E. A., 1996).

Bornslaeger, E. A. Breaking the connection: displacement of the desmosomal plaque protein desmoplakin from cell-cell interfaces disrupts anchorage of intermediate filament bundles and alters intercellular junction assembly. *J. Cell Biol.* 134, 9851001 (1996).

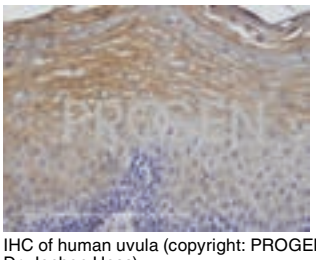
Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: DP1 + 2-2.15
Immunogen: Bovine desmoplakin 1 + 2
UniprotID: A0A3Q1MR22 (Bovine), E1BWI0 (Chicken), P15924 (Human), E9Q557 (Mouse), Q8VBY1 (Rat)
Synonym: Desmoplakin, DP, 250/210 kDa paraneoplastic pemphigus antigen, DSP
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: ICC/IF, IHC, WB
Reactivity: Bovine, Chicken, Human, Mouse, Rat

Application

Immunocytochemistry (ICC): Assay dependent
Immunohistochemistry (IHC) – frozen: 1:10-1:50 (1-5 µg/ml)
Immunohistochemistry (IHC) – paraffin: 1:10-1:50 (1-5 µg/ml, microwave treatment recommended)
Western Blot (WB): Assay dependent



IHC of mouse heart (copyright: PROGEN in cooperation with Uniklinik Heidelberg, Dr. Jochen Hess)



IHC of human uvula (copyright: PROGEN in cooperation with Uniklinik Heidelberg, Dr. Jochen Hess)

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NP7.1	0.2 ml	plastic	103,20
1NP7.2	1 ml	plastic	261,25

anti-DNA mouse monoclonal, AC-30-10

100 µg/ml, monoclonal, chromatographically purified

PROGEN.

Cell core marker (nucleus)

AC-30-10 stains DNA present in the nuclei and the mitochondria of cells and tissues. It is also a reliable positive control in assays for detection of DNA antibodies, especially for the detection of autoantibodies in autoimmune diseases. Due to the high sensitivity it can also be used for the detection of mycoplasma contamination in cell cultures.

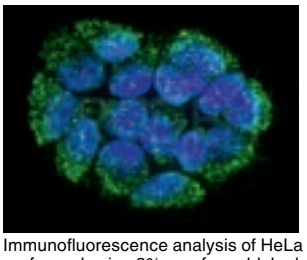
Binding characteristics: reacts with all forms of native and denatured DNA; reactive also with lambda DNA and synthetic DNA.

Tested cultured cell lines: XLKE-A6 (Xenopus), RVF-SMC, PTK-2, HeLa.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgM
Clone: AC-30-10
Immunogen: Double- and single-stranded DNA
Conjugate: Unconjugated
Purification: Size exclusion chromatography
Intended use: Research use only
Application: Dot blot, ICC/IF, IHC
Reactivity: All species

Application

Dot Blot: Assay dependent (on nitrocellulose membrane, after baking at 70°C)
Immunocytochemistry (ICC): 1:200 (0.5 µg/ml)
Immunohistochemistry (IHC) – frozen: 1:10 (10 µg/ml)
Immunohistochemistry (IHC) – paraffin: 1:10 (10 µg/ml, microwave treatment recommended)



Immunofluorescence analysis of HeLa cells with anti-DNA antibody. Fixation was performed using 3% paraformaldehyde for 10 min at RT. Cells were blocked with 5% BSA in PBST (PBS + 0.1% Tween 20) for 1 h at RT and permeabilized with 0.3% Triton-X 100 in PBS for 10 min at RT. The primary antibody anti-DNA mouse monoclonal, AC-30-10 (Cat. No. 690014) was diluted in blocking buffer (antibody concentration 0.5 µg/ml) and incubated over-night at 4°C. The secondary antibody goat anti-mouse IgM Alexa488 was also diluted in blocking buffer (antibody concentration 2.5 µg/ml) and incubated for 30 min at 37°C and 30 min at RT. Nuclear DNA was stained with DAPI in blue.

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Storage at 2–8 °C (+4 °C).

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NN5.1	0.2 ml	plastic	103,20
1NN5.2	1 ml	plastic	261,25

► Further information at www.carlroth.com

anti-EP-CAM mouse monoclonal, HEA125

50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium marker

The Ep-CAM (HEA125) antibody recognizes the epithelial cell adhesion molecule Ep-CAM (also described as 17-1A antigen, EPG34, CD326, and TACSTD1). This antigen is widely expressed on cells of epithelial origin and tumors derived therefrom. HEA125 represents an excellent marker to discriminate epithelial from mesothelial structures. The antigen has been detected in all carcinoma types tested (18 different origins). A subset of squamous cell carcinoma is negative. The antibody can be used as alternative to the anti-EpCAM antibody clone BerEp4.

Polypeptide reacting: Mr 40,000 human epithelium-specific cell surface glycoprotein (Ep-CAM).

Reactivity on cultured cell lines: all carcinoma cell lines tested so far; particularly strong reaction with colon carcinoma cell lines.

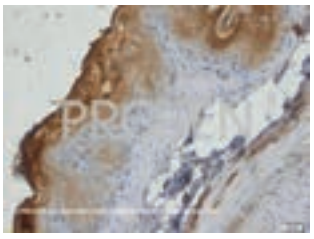
Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: HEA125
Immunogen: HT-29 colon carcinoma cell line
Synonym: Human Epithelium Antigen, HEA, 17-1A, EPG34, CD326, TACSTD1
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: ICC/IF, IHC, WB
Reactivity: Human
No reactivity: Mouse

Application

Immunocytochemistry (ICC): Assay dependent
Immunohistochemistry (IHC) – frozen: 1:10-1:50 (1-5 µg/ml)
Immunohistochemistry (IHC) – paraffin: 1:10-1:50 (1-5 µg/ml; protease treatment recommended)
Western Blot (WB): 1:200-1:3.000 (0.02-0.25 µg/ml)



Human head and neck squamous-cell carcinoma (HNSCC)(courtesy of J. Heß, University Hospital Heidelberg)



Mouse stomach (courtesy of J.Heß, University Hospital Heidelberg)

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NP1.1	0.2 ml	plastic	84,95
1NP1.2	1 ml	plastic	222,55

anti-GAPDH mouse monoclonal, clone 6C5

100 µg/ml, monoclonal, affinity purified

PROGEN.

GAPDH labelling (Western blot)

GAPDH (Glyceraldehyde 3-phosphate dehydrogenase) is a 37 kDa enyzme that catalizes the conversion from glyceraldehyde 3-phosphate (G3P) to 1,3-bisphosphoglycerate. Thereby, NADH is built. GAPDH is a commonly used as a loading control for Western botting or as a housekeeping gene standard in qPCR.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: 6C5
Immunogen: GAPDH purified from rabbit muscle
UniprotID: P62739 (Bovine), P08023 (Chicken), P62736 (Human), P62737 (Mouse), P62738 (Rat)
Synonym: Actin, aortic smooth muscle, Alpha-actin-2, Cell growth-inhibiting gene 46 protein [Cleaved into:Actin, aortic smooth muscle, intermediate form], ACTA2, ACTSA, ACTVS, GIG46
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: WB
Reactivity: Human

Application

Western Blot (WB): 1:5,000 (20 ng/ml)



Western blot analysis of HeLa lysate with anti-GAPDH antibody. Western blot analysis was performed on 20 µg HeLa lysate. Cells were lysed with RIPA buffer. The PVDF membrane was blocked with 5% dry milk in PBST (PBS + 0.1% Tween 20) for 1 h at RT. The primary antibody anti-GAPDH antibody mouse monoclonal, clone 6C5 (Cat. No. 690975) was diluted in blocking buffer (antibody concentration 0.02 µg/ml) and incubated for 1 h at RT. The secondary antibody anti-mouse IgG goat polyclonal, HRP conjugate was also diluted in blocking buffer (antibody concentration 0.4 µg/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using Pierce™ ECL Western Blotting Substrate.

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NLP.1	0.2 ml	plastic	84,95
1NLP.2	1 ml	plastic	290,25

► Further information at www.carlroth.com

anti-Glial Fibrillary Acidic Protein mouse monoclonal, GF 12.24

50 µg/ml, monoclonal, affinity purified

PROGEN.

Glial cell marker

GF 12.24 represents an excellent marker for cell typing. Suitable for prenatal diagnosis of neural tube defects.

Polypeptide reacting: Mr 50,000 glial filament protein GFAP (Glial Fibrillary Acidic Protein, Glial Filament Protein).

Tumors specifically reacting: astrocytomas, gangliomas, medullo-blastomas, mixed gliomas, certain ependymomas, certain teratomas.

Reactivity on cultured cell lines: human U 333CG/343MG

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG2a
Clone: GF 12.24
Immunogen: Intermediate filament cytoskeleton from cultured human glioma cells
UniprotID: Q28115 (Bovine),P14136 (Human),P03995 (Mouse),P47819 (Rat)
Synonym. Glial fibrillary acidic protein, GFAP, Glial Filament Protein, GFP
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: ICC/IF, IHC, WB
Reactivity: Bovine, Human, Mouse, Rat

Application

Immunocytochemistry (ICC): Assay dependent
Immunohistochemistry (IHC) – frozen: 1:100-1:200 (250-500 ng/ml)
Immunohistochemistry (IHC) – paraffin: 1:100-1:200 (250-500 ng/ml; microwave treatment recommended)
Western Blot (WB): Assay dependent



IHC analysis of mous brain using anti-GFAP antibody. IHC was performed on formalin fixed paraffin embedded sections. The samples were deparaffinized with xylol and ethanol followed by heat induced antigen retrieval with 10 mM citrate buffer. After preparation the tissue was blocked with normal serum for 20 min at RT. The primary antibody anti-Glial Fibrillary Acidic Protein mouse monoclonal, GF 12.24 (Cat. No. 690011) was diluted in PBS (antibody concentration 250 ng/ml) and incubated at 4°C over-night. The secondary antibody ImmPRESS HRP anti-mouse IgG was incubated for 20 min at RT. Slides were incubated with DAB solution until a brown staining is visable and with Haemalaun for a few minutes. The 20x picture was acquired using microscopy (courtesy of J. Hess, University Hospital Heidelberg).

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NP8.1	0.2 ml	plastic	84,95
1NP8.2	1 ml	plastic	222,55

anti-Keratin K5/K8 (Pan Epithelial) mouse monoclonal, C22

50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium marker

C22 represents an excellent marker for distinguishing carcinomas from all non-epithelial tumors. The antibody specifically reacts with keratins K5 and K8 present in nearly all epithelia.

Polypeptide reacting: Mr 52,500, Mr 58,000 keratins (type II keratins K5 and K8; formerly also designated cytokeratins 5 and 8) of human epithelial cells. Epitope has been mapped to aa 353-367 on alpha helical rod domain of Keratin K8 (Waseem *et al.*, 2004).

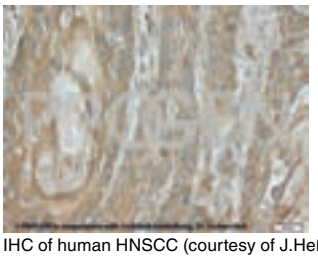
Reactivity on cultured cell lines: MCF-7, RT 112, HT-29, HaCaT, Detroit 562, RPMI 2650, SSC-12, bovine BMGE+H, BMGE-H, MDBK.

Waseem A, Karsten U, Leigh IM, Purkis P, Waseem NH, Lane BE: Conformational changes in the rod domain of human keratin 8 following heterotypic association with keratin 18 and its implication for filament stability. *Biochemistry* 43, 1283-1295 (2004).

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: Ks 5+8.22/C22
Immunogen: Human keratin K8, purified from SDS PAGE gel
UniprotID: Q5XQN5 (Bovine), Q7RTS7 (Human), Q922U2 (Mouse), P05786 (Bovine), P05787 (Human), P11679 (Mouse)
Synonym: Keratin, type II cytoskeletal 74, Cytokeratin-74, CK-74, Keratin-5c, K5C, Keratin-74, K74, Type II inner root sheath-specific keratin-K6irs4, Type-II keratin Kb37, KRT74, K6IRS4, KB37, KRT5C, KRT6IRS4, Keratin, type II cytoskeletal 8, Cytokeratin-8, CK-8, Keratin-8, K8, Type-II keratin Kb8, KRT8, CYK8
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: ICC/IF, IHC, WB
Reactivity: Bovine, Human, Mouse, Rat

Application

Immunocytochemistry (ICC): Assay dependent
Immunohistochemistry (IHC) – frozen: 1:10-1:100 (0.5-5 µg/ml)
Immunohistochemistry (IHC) – paraffin: 1:10-1:100 (0.5-5 µg/ml, protease treatment and/or microwave treatment recommended)
Western Blot (WB): 1:500 (0.1 µg/ml)



IHC of human HNSCC (courtesy of J.Heß, University Hospital Heidelberg)

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NN0.1	0.2 ml	plastic	84,95
1NN0.2	1 ml	plastic	222,55

► Further information at www.carlroth.com

anti-Keratin K6 mouse monoclonal, KA12

50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium marker

Ks6.KA12 represents an excellent marker for non-keratinized squamous epithelia and proliferating cells of epidermis (e.g. within psoriatic lesions).

Polypeptide reacting: Mr 56,000 polypeptide (keratin K6; formerly also designated cytokeratin 6) of human squamous epithelia.

Tissues and tumors specifically detected: the antibody is suitable for discrimination of keratinizing and non-keratinizing squamous cell carcinoma versus e.g. poorly differentiated adenocarcinoma.

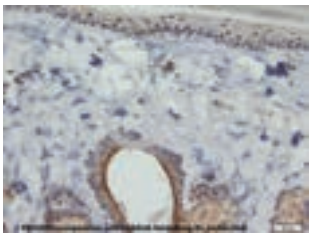
Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: Ks6.KA12
Immunogen: Keratin K6 of human callus cytoskeletal preparation
UniprotID: P02538 (Human), P50446 (Mouse), Q4FZU2 (Rat)
Synonym: Keratin, type II cytoskeletal 6A, Cytokeratin-6A, CK-6A, Cytokeratin-6D, CK-6D, Keratin-6A, K6A, Type-II keratin Kb6, allergen Hom s 5, KRT6A, K6A, KRT6D
Conjugate: Unconjugated
Purificatio:n Affinity chromatography
Intended use: Research use only
Application: IHC, WB
Reactivity: Human, Mouse, Rat

Application

Immunohistochemistry (IHC) – frozen: 1:5-1:50 (1-10 µg/ml)
Immunohistochemistry (IHC) – paraffin: 1:5-1:50 (1-10 µg/ml, microwave treatment recommended)
Western Blot (WB): Assay dependent



IHC on human skin (courtesy of J.Heß, University Hospital Heidelberg)



IHC on rat tail (courtesy of J.Heß, University Hospital Heidelberg)

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NN4.1	0.2 ml	plastic	84,95
1NN4.2	1 ml	plastic	222,55

anti-Keratin K7 mouse monoclonal, Ks7.18

50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium marker

Ks7.18 represents an excellent marker for the discrimination of specific subtypes of adenocarcinoma: e.g. adenocarcinoma of pancreas, bile duct carcinoma and transitional carcinoma of bladder are stained, whereas hepatocellular and prostate carcinomas are negative.

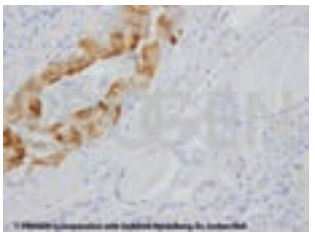
Detects specific subtypes of adenocarcinomas: adenocarcimona of pancreas, gallbladder, lung, cervix; cholangio carcinoma of liver; ductal and lobular carcinoma of breast; carcinomas of ovary ; transitional cell carcinoma of bladder; mesothelioma; negative with most cases of hepatocellular carcinoma. In colorectal carcinoma early stages are reported to be negative but advanced stages of tumor development are positive for keratin K7 expression. Occasionally, staining of blood vessel walls, particularly of endothelial cells may be observed.

Reacts with Mr 54,000 polypeptide (keratin K7; formerly also designated cytokeratin 7) of human glandular epithelia. Reactivity on cultured cell lines: HeLa, RT 112, T24, BT-20, CAMA-1, Detroit 562, (MCF-7 and HT-29 are negative).

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: Ks7.18
Immunogen: Cytoskeletal proteins from cultured HeLa cells
UniprotID: Q29S21 (Bovine), P08729 (Human), A0A287ASI0 (Pig), H0VIA2 (Guinea pig), A0A6P7DW90 (Sheep)
Synonym: Keratin, type II cytoskeletal 7, Cytokeratin-7, CK-7, Keratin-7, K7, Sarcolectin, Type-II keratin Kb7, KRT7, SCL
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: ICC/IF, IHC, WB
Reactivity: Bovine, Human, Pig, Sheep
No reactivity: Dog, Mouse, Rabbit, Rat

Application

Immunocytochemistry (ICC): Assay dependent
Immunohistochemistry (IHC) – frozen: 1:50-1:250 (0.2-1 µg/ml)
Immunohistochemistry (IHC) – paraffin: 1:50-1:250 (0.2-1 µg/ml, protease treatment and/or microwave treatment recommended)
Western Blot (WB): 1:1,000-1:2,000 (25-50 ng/ml)



Human thyroid carcinoma (courtesy of J.Heß, University Hospital Heidelberg)

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NNN.1	0.2 ml	plastic	84,95
1NNN.2	1 ml	plastic	222,55

► Further information at www.carlroth.com

anti-Keratin K17 mouse monoclonal, Ks17.E3

50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium marker

Ks 17.E3 represents an excellent marker to distinguish myoepithelial cells (positive for K17) from luminal epithelium of various glands (mammary, sweat, salivary, bronchial, tracheal, laryngeal, esophageal) and benign from malignant forms of e.g. mammary gland tumors. In the epidermis suprabasal staining is found only in cornifying regions and in the outer root sheath of hair follicles.

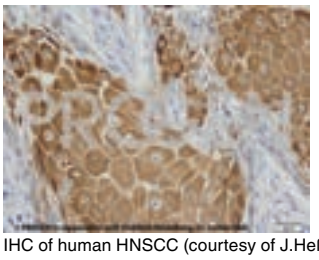
Tested reactivity on cultured cell lines: HeLa, A-431.

Tumors specifically detected: benign tumors of mammary gland; most malignant forms of mammary tumors are negative for keratin K17.

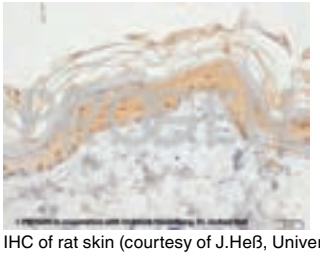
Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG2b
Clone: Ks17.E3
Immunogen: Human keratin K17 of 46 kDa
UniprotID: Q04695 (Human),Q6IFU8 (Rat)
Synonym: Keratin, type I cytoskeletal 17, 39.1, Cytokeratin-17, CK-17, Keratin-17, K17, KRT17
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: IHC, WB
Reactivity: Human, Rat

Application

Immunohistochemistry (IHC) – frozen: 1:10-1:50
Immunohistochemistry (IHC) – paraffin: 1:10-1:50 (microwave treatment recommended)
Western Blot (WB): Assay dependent



IHC of human HNSCC (courtesy of J.Heß, University Hospital Heidelberg)



IHC of rat skin (courtesy of J.Heß, University Hospital Heidelberg)

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NN2.1	0.2 ml	plastic	84,95
1NN2.2	1 ml	plastic	222,55

anti-Keratin K18 mouse monoclonal, Ks18.04

50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium marker

Ks18.04 represents an excellent marker to discriminate simple epithelia from those of different origin.

Tumors specifically detected: all adenocarcinoma; mammary carcinoma, urinary bladder carcinoma, undifferentiated carcinoma, cervix carcinoma, hepatocellular carcinoma.

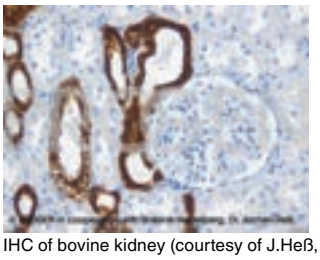
Polypeptide reacting: Mr 45,000 polypeptide (human keratin K18; formerly also designated cytokeratin 18) of all simple type epithelia and basal cells of many squamous, nonepidermal epithelia.

Tested cultured cell lines: MCF-7.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: Ks18.04
Immunogen: Human keratin K18 from HeLa cytoskeletal preparation
UniprotID: A1XEA5 (Bovine),P05783 (Human),P05784 (Mouse),F1SGG1 (Pig),Q5BJY9 (Rat),W5Q5M3 (Sheep),W5Q5M3 (Sheep)
Synonym: Keratin, type I cytoskeletal 18, Cell proliferation-inducing gene 46 protein, Cytokeratin-18, CK-18, Keratin-18, K18, KRT18, CYK18, PIG46
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: ICC/IF, IHC, WB
Reactivity: Bovine, Dog, Hamster, Human, Mouse, Pig, Rat, Sheep, Trout, Zebrafish

Application

Immunocytochemistry (ICC): Assay dependent
Immunohistochemistry (IHC) – frozen: 1:20-1:200
Immunohistochemistry (IHC) – paraffin: 1:20-1:200 (microwave treatment recommended)
Western Blot (WB): 1:100-1:500 (0.5 µg/ml-0.1 µg/ml)



IHC of bovine kidney (courtesy of J.Heß, University Hospital Heidelberg)

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NLY.1	0.2 ml	plastic	84,95
1NLY.2	1 ml	plastic	222,55

► Further information at www.carlroth.com

anti-Keratin K19 mouse monoclonal, Ks19.2 (Z105.6)

50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium marker

Ks 19.2 represents an excellent marker to discriminate glandular epithelial carcinoma from those of different origin. No reaction with hepatocellular carcinoma!

Polypeptide Reacting: Mr 40,000 polypeptide (keratin K19; formerly also designated cytokeratin 19) of human glandular epithelia. The epitope has been localized on aa. 352-368 (VRADSERQNQEYQRLMD) of the alpha-helical fragment.

Tumors specifically detected: all tested adenocarcinoma; cholangio carcinoma of liver; renal cell carcinoma; transitional cell carcinoma of the bladder; ovary carcinoma; squamous cell carcinoma of cervix, bronchus and lung (intermediate type); mesothelioma; carcinoid tumor of bronchus; breast carcinoma; thymoma.

Reactivity on cultured cell lines: MCF-7

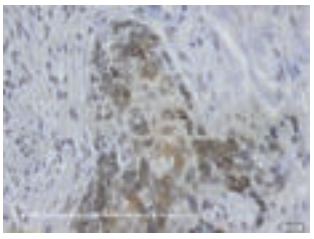
Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG2b
Clone: Ks19.2 (Z105.6)(also published as BM 19.21, MAK 19.21)
Immunogen: Keratin K19 of Mr 40 000; from cultured human MCF-7 cells
UniprotID: P08728 (Bovine), P08727 (Human), Q63279 (Rat)
Synonym: Keratin, type I cytoskeletal 19, Cytokeratin-19, CK-19, Keratin-19, K19, KRT19
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: ELISA, ICC/IF, IHC, WB
Reactivity: Bovine, Human, Rabbit, Rat
No reactivity: Chicken, Mouse, Woodchuck, Xenopus

Application

ELISA: Assay dependent
Immunocytochemistry (ICC): Assay dependent
Immunohistochemistry (IHC) – frozen: 1:10-1:50
Immunohistochemistry (IHC) – paraffin: 1:10-1:50 (microwave treatment recommended)
Western Blot (WB): 1:50-1:500



Human head and neck squamous-cell carcinoma (HNSCC) (courtesy of J. Heß, University)



Human head and neck squamous-cell carcinoma (HNSCC) (courtesy of J. Heß, University)

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NNK.1	0.2 ml	plastic	84,95
1NNK.2	1 ml	plastic	222,55

anti-Keratin K20 mouse monoclonal, IT-Ks20.8

50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelial marker

IT-Ks20.8 represents an excellent marker for certain types of carcinomas such as adenocarcinomas of the colon, transitional cell carcinomas of the bladder and Merkel cell tumors of the skin. Very sensitive detection of intestinal and gastric foveolar epithelium, urothelial umbrella cells, Merkel cells of epidermis as well as tumors originating therefrom (e.g. primary and metastatic colorectal carcinoma). Adenocarcinomas of breast, lung, endometrium and ovary (non-mucinous) as well as neuroendocrine tumors of the lung are essentially negative.

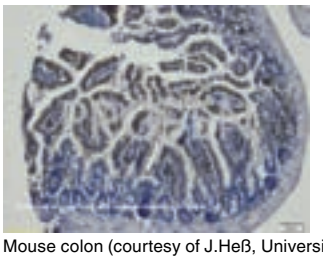
Polypeptide recognized: protein IT (keratin K20; Mr 46,000; formerly also designated cytokeratin 20).

Tested cultured cell lines: RT-4

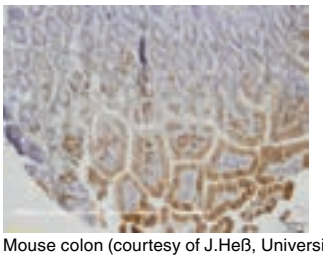
Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG2a
Clone: IT-Ks20.8
Immunogen: Electrophoretically purified keratin K20 from human intestinal mucosa
UniprotID: P35900 (Human), Q9D312 (Mouse)
Synonym: Keratin, type I cytoskeletal 20, Cytokeratin-20, CK-20, Keratin-20, K20, Protein IT, KRT20
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: IHC, WB
Reactivity: Human, Mouse

Application

Immunohistochemistry (IHC) – frozen: 1:10-1:100 (treatment with 0.02 % Triton X-100 recommended)
Immunohistochemistry (IHC) – paraffin: 1:10-1:100 (protease treatment and/or microwave treatment recommended)
Western Blot (WB): 1:1,000-1:5,000



Mouse colon (courtesy of J.Heß, University Hospital Heidelberg)



Mouse colon (courtesy of J.Heß, University Hospital Heidelberg)

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NNP.1	0.2 ml	plastic	84,95
1NNP.2	1 ml	plastic	222,55

► Further information at www.carlroth.com

anti-Keratin Type II mouse monoclonal, Ks pan1-8

50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium marker

Ks pan1-8 represents an excellent marker for distinguishing carcinomas from non-epithelial tumors.

Polypeptides reacting: Mr 52,500-Mr 68,000 keratins (type II keratins K1-K8; formerly also designated cytokeratins 1-8) of human epithelial cells.

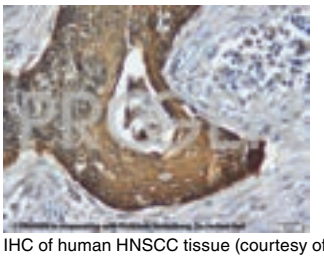
Tumors specifically detected: all epithelium-derived neoplasms.

Reactivity on cultured cell lines MCF-7, RT 112, HT-29, Detroit 562, RPMI 2650, SSC-12.

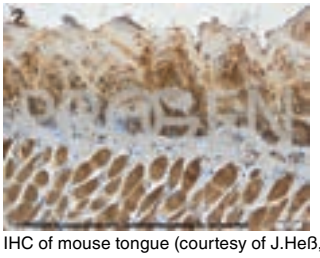
Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG2a
Clone: Ks pan1-8
Immunogen: Cytoskeletal proteins from cultured human MCF-7 cells
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use. Research use only
Application: ICC/IF, IHC, WB
Reactivity: Amphibia, Bovine, Human, Mouse, Rat

Application

Immunocytochemistry (ICC): Assay dependent
Immunohistochemistry (IHC) – frozen: 1:10-1:100 (0.5-5 µg/ml)
Immunohistochemistry (IHC) – paraffin: 1:10-1:100 (0.5-5 µg/ml, microwave treatment recommended)
Western Blot (WB): 1:500 (0.1 µg/ml)



IHC of human HNSCC tissue (courtesy of J.Heß, University Hospital Heidelberg)



IHC of mouse tongue (courtesy of J.Heß, University Hospital Heidelberg)

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NNH.1	0.2 ml	plastic	84,95
1NNH.2	1 ml	plastic	222,55

anti-p16 Protein mouse monoclonal, DCS-50

100 µg/ml, monoclonal, affinity purified

PROGEN.

Cell cycle marker

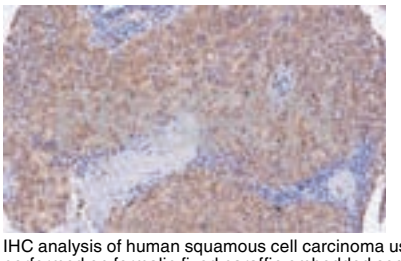
p16 (CDKN2A, p16Ink4A), is key regulator of the cell cycle and involved in cell cycle control and cellular senescence. It is a specific inhibitor for Cdk4 and Cdk6 and binds to the phosphorylated Cdk-cyclin complex. A disruption of this pathway is commonly observed in cancer. p16 is lost in the majority of tumor cell lines and in most primary tumors. It is not expressed in melanoma. In carcinoma driven by an HPV (human papilloma virus) infection, p16 is often overexpressed.

The antibody is especially useful for immunoprecipitation. The epitope was localized within the 15 aa residues of the C-terminus of p16 protein.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: DCS-50
Immunogen: Recombinant human p16 protein
UniprotID: Q9UH64 (Human)
Synonym: Putative protein CDKN2A-DT, CDKN2A antisense RNA 1, CDKN2A antisense gene protein 1, Protein CDKN2A-AS1, Susceptibility protein NSG-x, CDKN2A-DT, C9orf53, CDKN2A-AS1
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: ICC/IF, IHC, WB
Reactivity: Human

Application

Immunocytochemistry (ICC): Assay dependent
Immunohistochemistry (IHC) – paraffin: 1:20-1:100 (1-5 µg/ml; microwave treatment recommended)
Western Blot (WB). 1:100-1:400 (0.25-1 µg/ml)



IHC analysis of human squamous cell carcinoma using anti-p16 antibody. IHC was performed on formalin fixed paraffin embedded sections. The samples were deparaffinized with xylol and ethanol followed by heat induced antigen retrieval with 10 mM citrate buffer. After preparation the tissue was blocked with normal serum for 20 min at RT. The primary antibody anti-p16 mouse monoclonal, DCS-50 (Cat. No. 690074) was diluted in PBS (antibody concentration 2.5 µg/ml) and incubated at 4°C over-night. The secondary antibody ImmPRESS HRP anti-mouse IgG was incubated for 20 min at RT. Slides were incubated with DAB solution until a brown staining is visable and with Haemalaun for a few minutes. The 20x picture was acquired using microscopy (courtesy of J.Hess, University Hospital Heidelberg).

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NN9.1	0.2 ml	plastic	84,95
1NN9.2	1 ml	plastic	204,25

► Further information at www.carlroth.com

anti-p53 Protein mouse monoclonal, Bp53.11

50 µg/ml, monoclonal, affinity purified

PROGEN.

Cell cycle marker

Excellent marker for wild-type and mutant forms of human p53 antigen.

Epitope recognized by Bp53.11: 20-SDLWKLLPENNV-31.

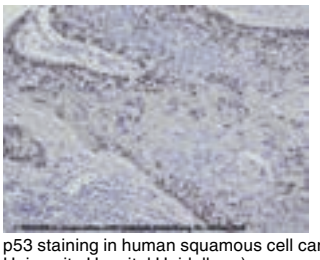
The antibody stains positively approx. 60% of investigated carcinoma of lung, breast, colon, stomach, esophagus, pancreas, urinary bladder and testis, head and neck tumors; T-cell Leukemia, non-Hodgkin-Lymphoma, melanoma, sarcoma.

Reactivity on cultured cell lines: Hela, MCF-7.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG2a
Clone: Bp53.11
Immunogen: Recombinant human p53 (transcription domain within the NH2 terminus)
UniprotID: Q96A56 (Human)
Synonym: Tumor protein p53-inducible nuclear protein 1, Stress-induced protein, p53-dependent damage-inducible nuclear protein 1, p53DINP1, TP53INP1, P53DINP1, SIP
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: ICC/IF, IHC, WB
Reactivity: Human

Application

Immunocytochemistry (ICC): Assay dependent
Immunohistochemistry (IHC) – frozen: 1:1,000-1:3,000 (17-50 ng/ml)
Immunohistochemistry (IHC) – paraffin: 1:1,000-1:3,000 (17-50 ng/ml, microwave treatment recommended)
Western Blot (WB): 1:2,000-1:10,000 (5-25 ng/ml)



p53 staining in human squamous cell carcinoma (image courtesy of J. Heß, University Hospital Heidelberg)



Western blot analysis of HEK lysate with anti-p53 antibody. Western blot analysis was performed on 20 µg HEK lysate. The PVDF membrane was blocked with 5% milk in PBST (PBS + 0.1% Tween 20) for 1 h at RT. The primary antibody anti-p53, mouse monoclonal, Bp53.11 (Cat. No. 690039) was diluted in blocking buffer (antibody concentration 25 ng/ml) and incubated for 1 h at RT. The secondary antibody anti-mouse IgG goat polyclonal, HRP conjugate was also diluted in blocking buffer (antibody concentration 200 ng/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using Pierce™ ECL Western Blotting Substrate.

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NNY.1	0.2 ml	plastic	84,95
1NNY.2	1 ml	plastic	222,55

anti-Perilipin 1 (N-terminus) mouse monoclonal, PERI 112.17

100 µg/ml, monoclonal, affinity purified

PROGEN.

Lipid marker

Perilipins build a family of phosphoproteins. The predominant forms in adipocytes, PLIN1 A and B arise by alternative RNA splicing from a single gene, generating polypeptides of 57 kDa and 46 kDa, respectively. The N-terminus, however, remains unchanged.

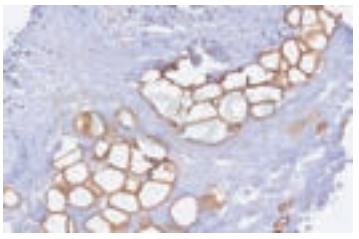
The antibody reacts specifically with all PLIN1 variants located at the surface of intracellular storage lipid droplets present e.g. in the adrenal gland, sebaceous gland, adipocytes of white and brown adipose tissue and cultured cells such as 3T3-L1 adipocytes and cultured steroidogenic adrenal cortical and Leydig cells. It is also a useful pathological marker for steatogenesis e.g. in liver. It does not cross-react with adipophilin (ADRP, also named PLIN2) or TIP47 (also named PLIN3) proteins (or additional members of the PLIN/PAT-family, e.g. MLDP or OXPAT/PAT-1, also named PLIN5 or LSDP5).

Tested reactivity on cultured cell lines: several human carcinoma cell lines; 3T3-L1 adipocytes.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: PERI 112.17
Immunogen: Synthetic peptide of perilipin / PLIN1 (duplicated N-terminus of perilipin; aa 1-20)
UniprotID: O60240 (Human), Q8CGN5 (Mouse)
Synonym: Perilipin-1, Lipid droplet-associated protein, PLIN1, PERI, PLIN
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: ICC/IF, IHC
Reactivity: Human, Mouse

Application

Immunocytochemistry (ICC): Assay dependent
Immunohistochemistry (IHC) – frozen: 1:200 (0.5 µg/ml)
Immunohistochemistry (IHC) – paraffin: 1:200 (0.5 µg/ml, microwave treatment recommended)



IHC analysis of human adipocytes in white adipose tissue of tumor microenvironment using anti-Perilipin 1 (N-terminus) antibody. IHC was performed on formalin fixed paraffin embedded sections. The samples were deparaffinized with xylol and ethanol followed by heat induced antigen retrieval with 10 mM citrate buffer. After preparation the tissue was blocked with normal serum for 20 min at RT. The primary antibody anti-Perilipin 1 (N-terminus), PERI 112.17 (Cat. No. 690156) was diluted in PBS (antibody concentration 500 ng/ml) and incubated at 4 °C overnight. The secondary antibody ImmPRESS HRP anti-mouse IgG was incubated for 20 min at RT. Slides were incubated with DAB solution until a brown staining is visable and with Haemalaun for a few minutes. The 10x picture was acquired using microscopy (courtesy of J. Hess, University Hospital Heidelberg).

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NLH.1	0.2 ml	plastic	103,20
1NLH.2	1 ml	plastic	261,25

► Further information at www.carlroth.com

anti-Perilipin 2 (N-terminus) mouse monoclonal, AP125

50 µg/ml, monoclonal, affinity purified

PROGEN.

Lipid marker

Perilipin 2/Adipophilin/ADRP/PLIN2 is a ubiquitous component of lipid droplets. It has been found in milk fat globule membranes and on the surface of lipid droplets in various cultured cell lines; inducible by etomoxir. Enhanced expression of Perilipin 2/Adipophilin/ADRP/PLIN2 is a useful marker for pathologies characterized by increased lipid droplet accumulation. Such diseases include atheroma, steatosis, obesity and certain cases of liposarcoma. It also seems to be a potent marker for atherosclerosis. ADRP can also be used to study virus entry via lipid droplets.

Polypeptide reacting: Perilipin 2/Adipophilin/ADRP/PLIN2, MW 48,100 (calculated from aa sequence data); apparent Mr 52,000 (after SDS-PAGE); pI 6.72.

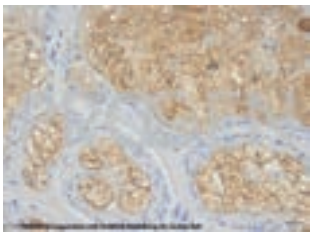
Immunolocalization: Perilipin 2/Adipophilin/ADRP/PLIN2 is positively detected in the glandular cells of lactating mammary gland (ductal cells are negative), zona fasciculata of the adrenal gland, Sertoli cells of the testis, and in fat-accumulating hepatocytes of alcoholic cirrhotic fatty liver; adipocytes are negative. Also positively stained are lipid-storing CD 68-positive macrophages.

Tested cultured cell lines: PLC, MDCK.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: AP125
Immunogen: Synthetic peptide (aa 5-27 from N-terminus of human adipophilin/PLIN2)
UniprotID: A0A5F4CRI5 (Dog, Canis familiaris), Q99541 (Human), Q5U2U5 (Rat)
Synonym: Perilipin-2, Adipophilin, Adipose differentiation-related protein, ADRP, PLIN2, ADFP
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: IHC, WB
Reactivity: Dog, Human, Rat
No reactivity: Bovine

Application

Immunohistochemistry (IHC) – frozen: 1:10-1:100 (0.5-5 µg/ml)
Immunohistochemistry (IHC) – paraffin: 1:10-1:100 (0,5-5 µg/ml; microwave treatment recommended)
Western Blot (WB): 1:50-1:100 (0.5-1 µg/ml)



IHC of human skin (courtesy of J.Heß, University Hospital Heidelberg)

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NP4.1	0.2 ml	plastic	103,20
1NP4.2	1 ml	plastic	321,45

anti-Plakoglobin mouse monoclonal, PG 5.1

50 µg/ml, monoclonal, affinity purified

PROGEN.

Cell to cell contact marker

PG 5.1 represents an excellent marker for all forms of intercellular adhering junctions, such as: desmosomes of epithelial and myocardial cells (incl. cultured cells); zonulae and fasciae adherentes of epithelia, endothelia of blood vessels and myocardial cells; adherens-type junctions (e.g. lens tissue, pigmented retinal cells, Sertoli cells of testis). The PG 5.1 epitope maps within the C-terminus at the extreme end of repeat 13 (aa 632-687) of plakoglobin.

Polypeptide reacting: Mr 83,000 Plakoglobin, 'band 5' polypeptide of intercellular adhering junctions (identical to gamma-catenin).

Reactivity on cultured cell lines: cell cultures forming monolayers.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG2b
Clone: PG 5.1
Immunogen: Plakoglobin, 'band 5' protein from bovine snout epidermis
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: ICC/IF, IHC, WB
Reactivity: Bovine, Dog, Human, Mouse, Rat, Zebrafish

Application

Immunocytochemistry (ICC): 1:5 (10 µg/ml)
Immunohistochemistry (IHC) – frozen: 1:25-1:100 (0.5-2 µg/ml)
Immunohistochemistry (IHC) – paraffin: 1:25-1:100 (0.5-2 µg/ml, microwave treatment recommended)
Western Blot (WB): 1:500-1:2,000 (0.025-0.1 µg/ml)



IHC of human oral mucosa (courtesy of J.Heß, University Hospital Heidelberg)



IHC of rat tongue (courtesy of J.Heß, University Hospital Heidelberg)

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NNC.1	0.2 ml	plastic	84,95
1NNC.2	1 ml	plastic	204,25

► Further information at www.carlroth.com

anti-Synaptophysin mouse monoclonal, SY38

50 µg/ml, monoclonal, affinity purified

PROGEN.

Tumour marker neuronal/adrenal

SY 38 represents an excellent marker for several neuroendocrine, neuronal and adrenal tumors. Neuronal and adrenal tumors such as pheochromocytomas, paragangliomas, neuroblastomas, ganglioneuroblastomas.

Neuroendocrine tumors of epithelial origin: Pancreatic islet cell carcinoma, bronchial and gastrointestinal carcinoids, medullary carcinoma of thyroid.

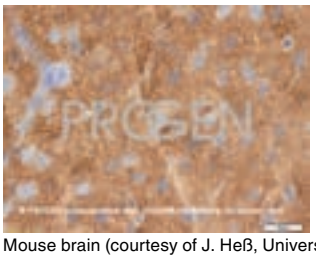
Polypeptide reacting: 38 kDa transmembrane glycoprotein of presynaptic vesicles.

Tested cultured cell lines: rat PC-12 cell line.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: SY38
Immunogen: Synaptophysin from presynaptic vesicles, prepared from bovine brain
UniprotID: P20488 (Bovine), P08247 (Human), Q62277 (Mouse), P07825 (Rat)
Synonym: Synaptophysin, Major synaptic vesicle protein p38, SYP
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: ICC/IF, IHC, WB
Reactivity: Bovine, Human, Mouse, Rat

Application

Immunocytochemistry (ICC): Assay dependent
Immunohistochemistry (IHC) – frozen: 1:50-1:200 (0.25-1 µg/ml, no protease treatment)
Immunohistochemistry (IHC) – paraffin: 1:50-1:200 (0.25-1 µg/ml, microwave treatment recommended, no protease treatment)
Western Blot (WB): 1:500-1:1,000 (0.05-0.1 µg/ml)



Mouse brain (courtesy of J. Heß, University Hospital Heidelberg)



Western blot analysis of mouse brain lysate with anti-Synaptophysin antibody. Western blot analysis was performed on 20 µg mouse brain lysate. The PVDF membrane was blocked with 5% dry milk in PBST (PBS + 0.1% Tween 20) for 1 h at RT. The primary antibody anti-Synaptophysin mouse monoclonal, SY38 (Cat. No. 690012) was diluted in blocking buffer (antibody concentration 0.05 µg/ml) and incubated for 1 h at RT. The secondary antibody anti-mouse, HRP conjugate was also diluted in blocking buffer (antibody concentration 0.2 µg/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using Pierce™ ECL Western Blotting Substrate.

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NN3.1	0.2 ml	plastic	84,95
1NN3.2	1 ml	plastic	222,55

anti-Synaptopodin/SYNPO mouse monoclonal, G1D4

50 µg/ml, monoclonal, affinity purified

PROGEN.

Cytplasma marker podocytes/cerebrum

The antibody recognizes differentiated podocytes (glomerular visceral epithelial cells) in vivo and in vitro (weaker additional reaction with arterial endothelial cells), co-localization with alpha-actinin. Does not react with parietal cells. Reacts with a subset of exclusively telencephalic synapses. Differentiation-dependent expression during postnatal maturation of rat brain. Differentiation-dependent expression in cultured hippocampal neurons.

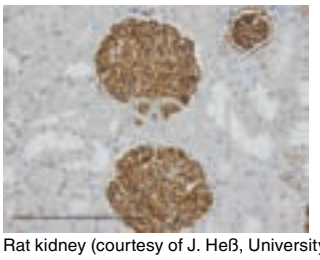
The antibody reacts specifically with synaptopodin, a prolin-rich actin-binding protein with 2 binding sites for actin. Synaptopodin represents a new class of actin-binding proteins which has first been localized in podocytes and a subset of telencephalic postsynaptic densities.

In human tissue synaptopodin has a molecular weight of 73.7 kDa and pI of 9.38 (calculated from sequence data); in mouse the corresponding data are 74 kDa, pI 9.27. In SDS-PAGE the antigen appears as 100 kDa polypeptide in brain and 110 kDa polypeptide in kidney (the difference might be attributed to posttranslational modifications). In Western blot analysis the antibody also reacts with a 44 kDa degradation fragment of synaptopodin.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: G1D4
Immunogen: Isolated rat kidney glomeruli
UniprotID: A4IFK4 (Bovine), A0A286XK19 (Guinea pig), Q8N3V7 (Human), Q91YE8 (Mouse), D4A702 (Rat)
Synonym: Synaptopodin, SYNPO, KIAA1029
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: ICC/IF, IHC, WB
Reactivity: Human, Mouse, Rat
No reactivity: Chicken, Frog, Rabbit

Application

Immunocytochemistry (ICC): Assay dependent
Immunohistochemistry (IHC) – frozen: 1:50-1:200 (0.25-1 µg/ml)
Immunohistochemistry (IHC) – paraffin: 1:50-1:200 (0.25-1 µg/ml, microwave treatment recommended)
Western Blot (WB): Assay dependent



Rat kidney (courtesy of J. Heß, University Hospital Heidelberg)

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NP2.1	0.2 ml	plastic	103,20
1NP2.2	1 ml	plastic	331,10

► Further information at www.carlroth.com

anti-Uroplakin III mouse monoclonal, AU1

100 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium-/cell membrane marker

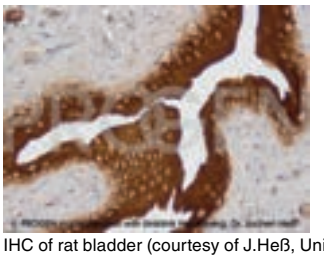
Mab AU1 reacts specifically with uroplakin III present in the superficial cell layer of the urothelium. The binding region has been localized on the extracellular part of the antigen. Together with the uroplakins UP Ia, UP Ib and UP II, uroplakin III contributes in constituting the asymmetrical unit membrane of the plaques of urothelial superficial (umbrella) cells. Uroplakin is a membrane glycoprotein (47 kDa) and has been shown to be a specific marker of terminal urothelial differentia-tion (Wu *et al.* 1993 & 1194).

Antibody AU1 strongly stains the urothelial surface membrane in paraffin sections of human renal pelvis, ureter, bladder, and urethra. About 60% of human transitional cell carcinomas (including metastases) maintain focal (sometimes very limited) expression of uroplakin III. Until now, no uroplakin staining was found in any non-urothelial carcinoma (Moll *et al.* 1995). Uroplakin III may thus serve as a specific urothelial differentiation marker in cases of metastatic carcinomas with unclear primary tumor.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: AU1
Immunogen: Asymmetric unit membrane (AUM) preparation from bovine urinary bladder
UniprotID: P38574 (Bovine), O75631 (Human), A0A4X1W3H8 (Pig), D3ZZ76 (Rat)
Synonym: Uroplakin-3a, UP3a, Uroplakin III, UPIII, UPK3, UPK3A
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: IHC, WB
Reactivity: Bovine, Human, Pig, Rat

Application

Immunohistochemistry (IHC) – paraffin: 1:20-1:60 (1.6-5 µg/ml; microwave treatment recommended)
Western Blot (WB): 1:4,000-1:20,000 (0.005-0.025 µg/ml)



IHC of rat bladder (courtesy of J.Heß, University Hospital Heidelberg)

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NLK.1	0.2 ml	plastic	84,95
1NLK.2	1 ml	plastic	222,55

anti-Vimentin mouse monoclonal, VIM 3B4

50 µg/ml, monoclonal, affinity purified

PROGEN.

Cytoskeleton marker

The antibody is highly specific for the intermediate filament protein vimentin which is present in all cells of mesenchymal origin. VIM 3B4 has turned out to be the most avid mab to vimentin.

Polypeptide reacting: 57 kDa intermediate filament protein (vimentin) of mesenchymal cells.

Tumors specifically detected: sarcoma (including myosarcoma), lymphoma, melanoma.

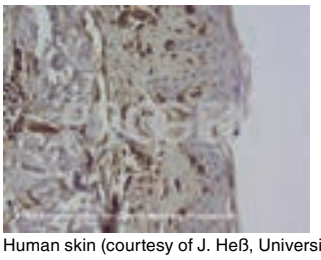
The binding region of monoclonal antibody VIM3B4 has been characterized by Bohn et al.(1992). According to these authors, the epitope has been localized on the alpha-helical part of vimentin (rod domain coil 2). Due to an aa substitution at position of aa 353 in murine vimentin (that could explain for the weak cross-reaction of the antibody with murine vimentin) they were able to narrow down the binding region around position 353. These findings were confirmed by truncation mutagenesis experiments using human vimentin (Rogers et al., 1995).

Tested cultured cell lines: fibroblasts (SV-80).

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG2a kappa
Clone: VIM 3B4
Immunoge: Vimentin purified from bovine lens
UniprotID: P48616 (Bovine), P09654 (Chicken), P08670 (Human)
Synonym: Vimentin, VIM
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: ICC/IF, IHC, WB
Reactivity: Amphibia, Bovine, Chicken, Human, Monkey, Mouse

Application

Immunocytochemistry (ICC): Assay dependent
Immunohistochemistry (IHC) – frozen: 1:100-1:200 (250-500 ng/ml)
Immunohistochemistry (IHC) – paraffin: 1:100-1:200 (250-500 ng/ml, protease treatment and/or microwave treatment recommended)
Western Blot (WB): 1:500-1:5,000 (10-100 ng/ml)



Human skin (courtesy of J. Heß, University Hospital Heidelberg)

Storage temperature: +4 °C
Transport temperature: ambient temp.

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NP3.1	0.2 ml	plastic	84,95
1NP3.2	1 ml	plastic	222,55

► Further information at www.carlroth.com



Antibody, primary, anti-tag

Primary antibodies

Specific primary antibodies that recognise the most commonly used protein tags. The antibodies can be excellently used in cell or tissue biology studies, protein-protein interaction assays, post-translational modifications, expression dynamics or localisation studies, up to the production of analytical kits in laboratory or large scale.

- Available for most commonly used protein tags (His, DDDDK, GST, HA, myc, GFP & Strep)
- High affinity to the respective protein tag
- Robust & highly specific detection of the fusion protein
- Unconjugated
- Suitable for e.g. western blot, immunoprecipitation, ELISA & immunofluorescence

Not a medical device / Not an IVD product

anti-6-His-tag mouse monoclonal, 6His

lyophilized, monoclonal, affinity purified

PROGEN.

Binding of His-tag proteins

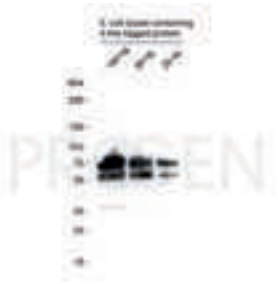
Primary antibodies

The monoclonal 6-His antibody recognizes polyhistidine (6-His). The 6-His tag is commonly added to recombinant proteins and can be used for detection or purification of the tagged protein.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: 6His
Immunogen: Recombinant protein containing the sequence HHHHHH
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: ICC/IF, IP, WB
Reactivity: 6-His

Application

Immunocytochemistry (ICC): Assay dependent
Immunoprecipitation (IP): Assay dependent
Western Blot (WB): 1:2,000-1:5,000 (0.125-0.05 µg/ml)



Western blot analysis of E. coli lysate containing 6-His-tagged protein with anti-6-His-tag antibody. Western blot analysis was performed on 160 ng, 80 ng or 20 ng of E. coli lysate containing 6-His-tagged protein. Cells were lysed with SDS sample buffer. The PVDF membrane was blocked with 5% dry milk in PBST for 1 h at RT. The primary antibody anti-6-His-tag mouse monoclonal, 6His (Cat. No. 910HISL) was diluted in blocking buffer (antibody concentration 0.125 µg/ml) and incubated for 1 h at RT. The secondary antibody goat anti-mouse IgG polyclonal, HRP conjugate was also diluted in blocking buffer (antibody concentration 0.2 µg/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using Pierce™ ECL Western Blotting Substrate.



Western blot analysis of E. coli lysate containing 6-His-tagged protein with anti-6-His-tag antibody. Western blot analysis was performed on 50 ng or 25 ng of E. coli lysate containing 6-His-tagged protein. Cells were lysed with SDS sample buffer. The PVDF membrane was blocked with 5% dry milk in PBST for 1 h at RT. The primary antibody anti-6-His-tag mouse monoclonal, 6His (Cat. No. 910HISL) was diluted in blocking buffer (antibody concentration 0.05 µg/ml) and incubated for 1 h at RT. The secondary antibody goat anti-mouse IgG polyclonal, HRP conjugate was also diluted in blocking buffer (antibody concentration 0.2 µg/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using Pierce™ ECL Western Blotting Substrate.

0.25 mg/ml after reconstitution with 100 µl / 400 µl PBS

Storage temperature: +4 °C
Transport temperature: ambient temp.

Storage before reconstitution at 2–8 °C until indicated expiry date.
Storage after reconstitution at –20 °C (avoid freeze/thaw cycles).
Lyophilized; reconstitute in sterile PBS, pH 7.4.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NNA.1	25 µg	plastic	96,75
1NNA.2	100 µg	plastic	352,60

anti-c-myc-tag mouse monoclonal, 9E10

lyophilized, monoclonal, affinity purified

PROGEN.

Binding of c-myc-tag proteins

Primary antibodies

The monoclonal 9E10 antibody recognizes human c-myc, a 62 kDa transcription factor. A c-myc tag is commonly added to recombinant proteins and can be used for detection or purification of the tagged protein.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: 9E10
Immunogen: C-terminal peptide of human c-myc (aa 408-439)
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: IP, WB
Reactivity: c-myc

Application

Immunoprecipitation (IP): Assay dependent
Western Blot (WB): 1:50,000-1:100,000 (0.005-0.0025 µg/ml)



Western blot analysis of E. coli lysate containing c-myc-tagged protein with anti-c-myc-tag antibody. Western blot analysis was performed on 80 ng, 40 ng, 10 ng or 5 ng of E. coli lysate containing c-myc-tagged protein. Cells were lysed with SDS sample buffer. The PVDF membrane was blocked with 5% dry milk in PBST for 1 h at RT. The primary antibody anti-c-myc-tag mouse monoclonal, 9E10 (Cat. No. 910MYCL) was diluted in blocking buffer (antibody concentration 0.005 µg/ml) and incubated for 1 h at RT. The secondary antibody goat anti-mouse IgG polyclonal, HRP conjugate was also diluted in blocking buffer (antibody concentration 0.2 µg/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using Pierce™ ECL Western Blotting Substrate.

0.25 mg/ml after reconstitution with 100 µl / 400 µl PBS

Storage temperature: +4 °C
Transport temperature: ambient temp.

Storage before reconstitution at 2–8 °C until indicated expiry date.
Storage after reconstitution at –20 °C (avoid freeze/thaw cycles).
Lyophilized; reconstitute in sterile PBS, pH 7.4.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NNT.1	25 µg	plastic	96,75
1NNT.2	100 µg	plastic	267,70

anti-DDDDK-tag mouse monoclonal, AP1501

lyophilized, monoclonal, affinity purified

PROGEN.

Binding of DDDDK-tag proteins

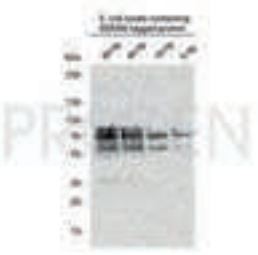
Primary antibodies

The monoclonal AP1501 antibody recognizes the amino acid sequence DDDDK (Flag). The DDDDK-tag is commonly added to recombinant proteins and can be used for detection or purification of the tagged protein.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG2b
Clone: AP1501
Immunogen: Recombinant protein containing the sequence DDDDK
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: ICC/IF, IP, WB
Reactivity: DDDDK

Application

Immunocytochemistry (ICC): Assay dependent
Immunoprecipitation (IP): Assay dependent
Western Blot (WB): 1:50,000-1:100,000 (0.005-0.0025 µg/ml)



Western blot analysis of E. coli lysate containing DDDDK-tagged protein with anti-DDDDK-tag antibody. Western blot analysis was performed on 80 ng, 40 ng or 10 ng of E. coli lysate containing DDDDK-tagged protein. Cells were lysed with SDS sample buffer. The PVDF membrane was blocked with 5 % dry milk in PBST for 1 h at RT. The primary antibody anti-DDDDK-tag mouse monoclonal, AP1501 (Cat. No. 910DDKL) was diluted in blocking buffer (antibody concentration 0.005 µg/ml) and incubated for 1 h at RT. The secondary antibody goat anti-mouse IgG polyclonal, HRP conjugate was also diluted in blocking buffer (antibody concentration 0.2 µg/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using Pierce™ ECL Western Blotting Substrate.

0.25 mg/ml after reconstitution with 100 µl / 400 µl PBS

Storage temperature: +4 °C
Transport temperature: ambient temp.

Storage before reconstitution at 2–8 °C until indicated expiry date.
Storage after reconstitution at –20 °C (avoid freeze/thaw cycles).
Lyophilized; reconstitute in sterile PBS, pH 7.4.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NLE.1	25 µg	plastic	96,75
1NLE.2	100 µg	plastic	352,60

anti-GFP-tag mouse monoclonal, F56-6A1.2.3

lyophilized, monoclonal, affinity purified

PROGEN.

Binding of GFP-tag proteins

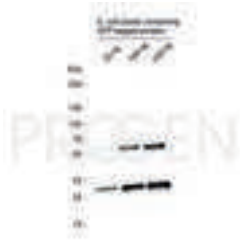
Primary antibodies

The monoclonal F56-6A1.2.3 antibody recognizes the GFP-tag (green fluorescent tag). The GFP-tag is commonly added to recombinant proteins and can be used for detection or purification of the tagged protein.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG2b
Clone: F56-6A1.2.3
Immunogen: Full length enhanced GFP
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: ICC/IF, WB
Reactivity: GFP

Application

Immunocytochemistry (ICC): Assay dependent
Western Blot (WB): 1:500 (0.5 µg/ml)



Western blot analysis of E. coli lysate containing GFP-tagged protein with anti-GFP-tag antibody. Western blot analysis was performed on 250 ng, 100 ng or 25 ng of E. coli lysate containing GFP-tagged protein. Cells were lysed with SDS sample buffer. The PVDF membrane was blocked with 5% dry milk in PBST for 1 h at RT. The primary antibody anti-GFP-tag mouse monoclonal, F56-6A1.2.3 (Cat. No. 910GFPL) was diluted in blocking buffer (antibody concentration 0.5 µg/ml) and incubated for 1 h at RT. The secondary antibody goat anti-mouse IgG polyclonal, HRP conjugate was also diluted in blocking buffer (antibody concentration 0.2 µg/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using Pierce™ ECL Western Blotting Substrate.

0.25 mg/ml after reconstitution with 100 µl / 400 µl PBS

Storage temperature: +4 °C
Transport temperature: ambient temp.

Storage before reconstitution at 2–8 °C until indicated expiry date.
Storage after reconstitution at –20 °C (avoid freeze/thaw cycles).
Lyophilized; reconstitute in sterile PBS, pH 7.4.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NP5.1	25 µg	plastic	96,75
1NP5.2	100 µg	plastic	352,60

anti-GST-tag mouse monoclonal, F50-3D12.2

lyophilized, monoclonal, affinity purified

PROGEN.

Binding of GST-tag proteins

Primary antibodies

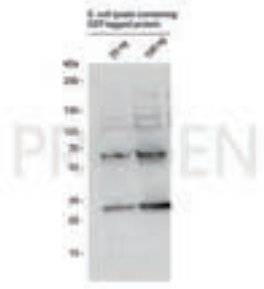
The monoclonal F50-3D12.2 antibody recognizes the GST-tag (Glutathione S-transferase). The GST-tag is commonly added to recombinant proteins and can be used for detection or purification of the tagged protein.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1
Clone: F50-3D12.2

Immunogen: Not available or unknown
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: WB
Reactivity: GST

Application

Western Blot (WB): 1:500 (0.5 µg/ml)



Western blot analysis of E. coli lysate containing GST-tagged protein with anti-GST-tag antibody. Western blot analysis was performed on 100 ng or 25 ng of E. coli lysate containing GST-tagged protein. Cells were lysed with SDS sample buffer. The PVDF membrane was blocked with 5% dry milk in PBST for 1 h at RT. The primary antibody anti-GST-tag mouse monoclonal, F50-3D12.2 (Cat. No. 910GSTL) was diluted in blocking buffer (antibody concentration 0.5 µg/ml) and incubated for 1 h at RT. The secondary antibody goat anti-mouse IgG polyclonal, HRP conjugate was also diluted in blocking buffer (antibody concentration 0.2 µg/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using Pierce™ ECL Western Blotting Substrate.

0.25 mg/ml after reconstitution with 100 µl / 400 µl PBS

Storage temperature: +4 °C
Transport temperature: ambient temp.

Storage before reconstitution at 2–8 °C until indicated expiry date.
Storage after reconstitution at –20 °C (avoid freeze/thaw cycles).
Lyophilized; reconstitute in sterile PBS, pH 7.4.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NN8.1	25 µg	plastic	96,75
1NN8.2	100 µg	plastic	352,60

anti-HA-tag mouse monoclonal, 12CA5

lyophilized, monoclonal, affinity purified

PROGEN.

Binding of HA-tag proteins

Primary antibodies

The monoclonal 12CA5 antibody recognizes the HA-tag (hemagglutinin tag). The HA-tag is commonly added to recombinant proteins and can be used for detection or purification of the tagged protein.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG2b
Clone: 12CA5
Immunogen: 9 amino acids from the human influenza virus hemagglutinin protein
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: WB
Reactivity: HA

Application

Western Blot (WB): 1:50,000-1:100,000 (0.005-0.0025 µg/ml)



Western blot analysis of E. coli lysate containing HA-tagged protein with anti-HA-tag antibody. Western blot analysis was performed on 10 ng or 5 ng of E. coli lysate containing HA-tagged protein. Cells were lysed with SDS sample buffer. The PVDF membrane was blocked with 5 % dry milk in PBST for 1 h at RT. The primary antibody anti-HA-tag mouse monoclonal, 12CA5 (Cat. No. 910HAL) was diluted in blocking buffer (antibody concentration 0.005 µg/ml) and incubated for 1 h at RT. The secondary antibody goat anti-mouse IgG polyclonal, HRP conjugate was also diluted in blocking buffer (antibody concentration 0.2 µg/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using Pierce™ ECL Western Blotting Substrate.

0.25 mg/ml after reconstitution with 100 µl / 400 µl PBS

Storage temperature: +4 °C
Transport temperature: ambient temp.

Storage before reconstitution at 2–8 °C until indicated expiry date.
Storage after reconstitution at –20 °C (avoid freeze/thaw cycles).
Lyophilized; reconstitute in sterile PBS, pH 7.4.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NN7.1	25 µg	plastic	96,75
1NN7.2	100 µg	plastic	321,45

anti-Strep-tag mouse monoclonal, C23.21

lyophilized, monoclonal, affinity purified

PROGEN.

Binding of Strep-tag proteins

Primary antibodies

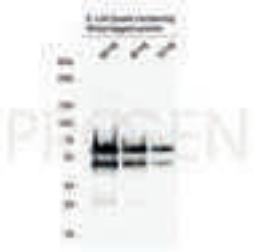
The monoclonal C23.21 antibody recognizes Strep II. A Step-tag is commonly added to recombinant proteins and can be used for detection or purification of the tagged protein.

Host: Mouse
Antibody Type: Monoclonal
Isotype: IgG1

Clone: C23.21
Immunogen: Strep-tag II peptide minimal sequence WSHPQFEK
Synonym: ChR2
Conjugate: Unconjugated
Purification: Affinity chromatography
Intended use: Research use only
Application: WB
Reactivity: Strep

Application

Western Blot (WB): 1:5,000-1:10,000 (0.02-0.01 µg/ml)



Western blot analysis of E. coli lysate containing Strep-tagged protein with anti-Strep-tag antibody. Western blot analysis was performed on 80 ng, 40 ng, or 10 ng of E. coli lysate containing Strep-tagged protein. Cells were lysed with SDS sample buffer. The PVDF membrane was blocked with 5% dry milk in PBST for 1 h at RT. The primary antibody anti-Strep-tag mouse monoclonal, C23.21 (Cat. No. 910STRL) was diluted in blocking buffer (antibody concentration 0.02 µg/ml) and incubated for 1 h at RT. The secondary antibody goat anti-mouse IgG polyclonal, HRP conjugate was also diluted in blocking buffer (antibody concentration 0.2 µg/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using Pierce™ ECL Western Blotting Substrate.

0.1 mg/ml after reconstitution with 250 µl / 1 ml PBS

Storage temperature: +4 °C
Transport temperature: ambient temp.

Storage before reconstitution at 2–8 °C until indicated expiry date.
Storage after reconstitution at –20 °C (avoid freeze/thaw cycles).
Lyophilized; reconstitute in sterile PBS, pH 7.4.

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NLL.1	25 µg	plastic	96,75
1NLL.2	100 µg	plastic	267,70



Cell Biology

Cell Culture Media & Solutions 170



S ready-to-use

ROTI®Cell DMEM : F12

Dulbecco's Modified Eagle Medium, Dulbecco's Modified Eagle Medium + Ham's F12 medium (1:1), Ham's F12 cell culture medium

DMEM : F12 is a widely used basal medium for a variety of mammalian cells. It is a 1:1 mixture of Ham's F12 and DMEM. In this way, the richness of Ham's F12 in vitamins and trace elements has been combined with the high nutrient concentration of DMEM.
DMEM : F12 is now the basis of many serum-free media.

When working without FBS, growth factors, hormones and lipids, which are essential for cell growth, must also be added to the medium.

ROTI®Cell DMEM : F12

CELLPURE® ready-to-use, sterile, w/o glutamine, with pyruvate, with HEPES

Medium for a wide range of mammalian cell culture applications.
Basic medium for serum-free or serum-reduced applications.

This modification of DMEM : F12 contains pyruvate and 15 mM HEPES, but no L-glutamine.

Storage temperature: +4 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
1TE5.1	500 ml	plastic	17,75

S ready-to-use

ROTI®Cell DMEM Low Glucose

DMEM cell culture medium

Dulbecco's Modified Eagle Medium is the most commonly used modification of the Basal Medium acc. to Eagle. DMEM contains higher concentration of amino acids and vitamins, and additionally iron (ferric nitrate). The basic composition of ROTI®Cell DMEM media corresponds to the original formulation according to Dulbecco.
The formulation with low glucose content is well suited for culturing of a variety of mammalian adherent cell lines.
Generally, FBS is added to DMEM basal media.

ROTI®Cell DMEM Low Glucose

CELLPURE® ready-to-use, sterile, with stable glutamine, with pyruvate

Medium for a wide range of mammalian cell culture applications.

Storage temperature: +4 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
1TE7.1	500 ml	plastic	17,10

S ready-to-use

ROTI®Cell DMEM High Glucose

DMEM cell culture medium, Dulbecco's Modified Eagle Medium

Dulbecco's Modified Eagle Medium is the most commonly used modification of the Basal Medium acc. to Eagle. DMEM contains higher concentration of amino acids and vitamins, and additionally iron (ferric nitrate). The basic composition of ROTI®Cell DMEM media corresponds to the original formulation according to Dulbecco.
The formulation with high glucose content is well suited for culturing of a wide range of mammalian cell lines and primary cells.

Generally, FBS is added to DMEM basal media.

ROTI®Cell DMEM High Glucose

CELLPURE® ready-to-use, sterile, w/o glutamine, w/o phenol red

Medium for a wide range of mammalian cell culture applications.

This modification of DMEM does not contain glutamine, pyruvate and phenol red.

Storage temperature: +4 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
1TE8.1	500 ml	plastic	16,05

ROTI®Cell DMEM High Glucose

CELLPURE® ready-to-use, sterile, with stable glutamine, w/o pyruvate, with HEPES

Medium for a wide range of mammalian cell culture applications.

This modification of DMEM contains stable glutamine and 25 mM HEPES, but no pyruvate.

Storage temperature: +4 °C
Transport temperature: ambient temp.
WGK 1

Art. No.	Pack Qty.	Pack.	€
1TE9.1	500 ml	plastic	19,25

Stable Glutamine

Stable glutamine is present as the dipeptide L-alanyl-L-glutamine. Due to its reinforced structure, this form of glutamine is not temperature sensitive, unlike normal L-glutamine, and therefore does not spontaneously decompose to toxic ammonia. Cells are able to break down this dipeptide bond and release L-glutamine as needed. Thus, the low ammonia concentration improves cell viability and growth. In addition, the concentration of L-glutamine is kept constant.
Stable gluatmine has already been added to some cell culture media, but can also be purchased as a separate additive solution, the ROTI®Cell Glutamine Solution.



S ready-to-use

ROTI®Cell Eagle's MEM-Alpha

EMEM cell culture medium, Eagle's MEM, Minimum Essential Medium acc. to Eagle, Alpha modification

Alpha-Eagle's Minimum Essential Medium is based on EMEM, containing the following unique components: Vitamin B_{12}, ascorbic acid, non-essential amino acids, sodium pyruvate, lipoic acid, and D-biotin. MEM-Alpha media can be used with a variety of suspension and adherent mammalian cells, including keratinocytes, primary rat astrocytes, and human melanoma cells.

Generally, FBS is added to MEM-Alpha media.

ROTI®Cell Eagle's MEM-Alpha

CELLPURE® ready-to-use, sterile, w/o glutamine, with pyruvate, with nucleosides

Medium for the cultivation of a variety of suspension and adherent mammalian cells, including keratinocytes, primary rat astrocytes, and human melanoma cells.

This modification of DMEM contains nucleosides, pyruvate and Earle's salts but no glutamine.

Storage temperature: +4 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
1TEA.1	500 ml	plastic	32,15

S ready-to-use

ROTI®Cell Eagle's MEM / Earle's

EMEM cell culture medium, Eagle's MEM, Minimum Essential Medium acc. to Eagle with Earle's salts

Minimum Essential Medium is a commonly used modification of the Basal Medium acc. to Eagle, having been developed in 1959 for culturing of HeLa cells. MEM contains high concentration of amino acids, which conform closely to the protein composition of human cells. Concentration of vitamins, and other essential nutrients, is enhanced, allowing longer cultivation periods between feedings.
MEM is one of the most widely used cell culture media and can be used for a variety of suspension cell cultures and adherent cells.

Generally, FBS is added to MEM basal media.

ROTI®Cell Eagle's MEM / Earle's

CELLPURE® ready-to-use, sterile, with stable glutamine, w/o pyruvate

Medium for a variety of suspension cell cultures and adherent cells.

This modification of MEM contains stable glutamine and Earle's salts, but no pyruvate.

Storage temperature: +4 °C
Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.	€
1TE6.1	500 ml	plastic	17,75

Endotoxins: <1,0 EU/ml
Sterility: complies

Available soon!

ROTI®Cell Trypsin and Accutase Solutions



We are constantly expanding our range. Please visit us at **www.carlroth.com** and discover our new products!



Microbiology

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ROTI®Aquatest Plates

Sterile culture medium plates for the microbiological analysis of liquid samples.



S ready-to-use

ROTI®Aquatest Plates

Sterile culture medium plates for the microbiological analysis of liquid samples.

- Diameter 55 mm
- Surface 24 cm^2
- Easy to use
- Optimal for the membrane filtration method
- Also well applicable for microbiological analysis of samples in general
- Prepared with our proven dehydrated nutrient media mixtures
- With detailed instructions-for-use

ROTI®Aquatest Plates are prepared culture media plates with a diameter of 55 mm. They are thus adapted to the size of membrane filters for assaying of low-germ fluids by membrane filtration method. They are also applicable for the microbiological analysis of samples in general. The germs of expected low-germ liquid samples are concentrated by membrane filtration. Afterwards, the membrane is placed on top of the medium and incubated. Using a membrane with a grid helps counting the resulting colonies.

Samples which are expected to have a higher microbiological burden are prepared in a serial dilution. Afterwards, every dilution step is plated and incubated. The number of grown colonies is noted as result.

Art. No.	Abbreviation	Agar	Application
1N13	BEA	Bile Esculin Azide Agar	enterococci
1N14	TSC	Tryptose Sulfite Cycloserine Agar	*Clostridium perfringens*

ROTI®Aquatest Plate BEA

ISO 7899-2, ISO 11133, ready-to-use, sterile, for microbiology

Selective medium for isolation and identification of enterococci.

Bile Esculin Azide Agar is a modification of Bile Esculin Agar with a reduction of the bile concentration and the addition of sodium azide. This medium is more selective but still provides rapid growth and efficient recovery of enterococci.
The ability to hydrolyze esculin in the presence of bile is characteristic of enterococci.
Ox bile does not inhibit enterococci while other gram-positive bacteria are inhibted. Gram-negative bacteria are inhibited by sodium azide.

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Tryptone	17 g/l
Peptone	3 g/l
Yeast extract	5 g/l
Ox bile, bacteriological	10 g/l
Sodium chloride (NaCl)	5 g/l
Esculin	1 g/l
Ammonium iron(III) citrate	0,5 g/l
Sodium azide	0,15 g/l
Agar-Agar	15 g/l
pH value (25 °C)	7,0-7,2

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1N13.1	30 unit(s)	box	95,70

ROTI®Aquatest Plate TSC

ISO 7937, ISO 11133, ISO 14189, ready-to-use, sterile, for microbiology

Selective medium for isolation and identification of *Clostridium perfringens*.

Ready-made plate *Clostridium perfringens*

This agar is a modification of the classical TSN Agar in which the traditional antibiotics, polymyxin and neomycin have been replaced by cycloserine. Cycloserine has been found more selective for *Clostridium perfringens*, and reduces the production of diffuse blackening.

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Composition

Tryptose	15 g/l
Soy peptone	5 g/l
Yeast extract	5 g/l
Sodium bisulfite	1 g/l
Ammonium iron(III) citrate	1 g/l
D-Cycloserine	0,4 g/l
Agar-Agar	14 g/l
pH value (25 °C)	7,4-7,8

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1N14.1	30 unit(s)	box	127,95

ROTI®Plate90

Our proven dry nutrient media as 90 mm ready-to-use nutrient media plates!



ready-to-use

ROTI®Plate90

Ready-made media

Sterile ready-to-use culture media plates for microbiological analysis.

- Diameter 90 mm
- Surface 63,6 cm^2
- Ready-to-use and sterile
- Easy to use, reliable detection and simple evaluation
- Well applicable for microbiological analysis of samples
- With detailed instructions for use

ROTI®Plate90 are prepared culture media plates with a diameter of 90 mm. They are thus adapted to the size of membrane filters for assaying of low-germ fluids by membrane filtration method. They are also applicable for the microbiological analysis of samples in general. The germs of expected low-germ liquid samples are concentrated by membrane filtration. Afterwards, the membrane is placed on top of the medium and incubated. Using a membrane with a grid helps counting the resulting colonies.
Our products are tested and approved exclusively for research and development.

Samples which are expected to have a higher microbiological burden are prepared in a serial dilution. Afterwards, every dilution step is plated and incubated. The number of grown colonies is noted as result.

Art. No.	Product	Standards	Application
1NA5	BEA	ISO 11133	intestinal enterococci
1NA4	CN	EN 12780, ISO 11133, ISO 16266	*Pseudomonas aeruginosa*
1NA6	ESB	ISO 7899-2, ISO 11133	faecal streptococci *Enterococcus spp.*
1NAA	MacCon	ISO 11133	Enterobacteria *Escherichia coli*
1NAC	R2A	Ph. Eur., USP, JP, ISO 11133	heterotrophic bacteria
1NA8	TSC	ISO 11133	*Clostridium perfringens*
1NA9	XLD	ISO 11133	enteropathogenic bacteria, shigella and salmonella
1NA7	YE	ISO 6222, ISO 11133	bacteria, yeasts and moulds

ROTI®Plate90 BEA

ISO 11133, ready-to-use, sterile, for microbiology

For isolation and identification of intestinal enterococci from water samples.

Bile Esculin Azide Agar is a modification of Bile Esculin Agar with a reduced bile concentration and the addition of sodium azide.
The formulation complies with ISO standard 7899-2 for the second step of confirmation and enumeration of enterococci in water by the membrane filtration method.
Colonies selected on Slanetz-Bartley agar (1NA6.1) must be confirmed by a short incubation on the BEA, by esculin hydrolysis.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Composition

Tryptone	17 g/l
Peptone	3 g/l
Sodium chloride (NaCl)	5 g/l
Yeast extract	5 g/l
Dehydrated ox bile	10 g/l
Esculin	1 g/l
Sodium azide	0,15 g/l
Ammonium iron(III) citrate	0,5 g/l
Agar-Agar	15 g/l
pH value (25 °C)	6,9-7,3

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NA5.1	10 unit(s)	box	23,15

ROTI®Plate90 CN

ISO 11133, ready-to-use, sterile, for microbiology

For the determination and enumeration of *Pseudomonas aeruginosa* from water samples by the membrane filter method.

Pseudomonas CN Agar is a selective medium for the isolation and enumeration of *Pseudomonas aeruginosa* by membrane filtration.
It is recommended by ISO Standard 16266:2008 for testing water samples for the presence of *Pseudomonas aeruginosa*.

Cetrimide is included in the formulation of the medium as a selective agent, nalidixic acid suppresses species such as *Klebsiella*, *Proteus* and *Providencia*. Potassium sulphate and magnesium chloride provide the cations needed to activate pyocyanin production.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 2

Composition

Gelatin Peptone	16 g/l
Casein, enzymatically digested	10 g/l
Potassium sulphate (K_2SO_4)	10 g/l
Glycerol	10 ml
$MgCl_2$	1,4 g/l
Cetrimide	0,2 g/l
Nalidixic acid	0,015 g/l
Agar-Agar	13 g/l
pH value (25 °C)	6,9-7,3

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NA4.1	10 unit(s)	box	22,05

ROTI®Plate90 ESB

ISO 11133, ready-to-use, sterile, for microbiology

For the detection and determination of the number of faecal streptococci by membrane filtration.

Selective medium for the detection and quantitative determination of *Enterococcus spp.*.

The TTC contained in the medium is reduced by *Enterococcus* to the water-insoluble dye formazan. The resulting formazan is taken up by *Enterococcus spp.*, which gives the colonies a red to dark brown colour.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Composition

Casein, tryptic digest	20 g/l
Yeast extract	5 g/l
Glucose	2 g/l
Dikaliumhydrogenphosphat	4 g/l
Sodium azide	0,4 g/l
Tetrazolium chloride (TTC)	0,1 g/l
Agar-Agar	10 g/l
pH value (25 °C)	7,1-7,3

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NA6.1	10 unit(s)	box	21,40

ROTI®Plate90 TSC

ISO 11133 , ready-to-use, sterile, for microbiology

For the detection and enumeration of *Clostridium perfringens*.

TSC agar is a selective medium for the isolation and enumeration of *Clostridium perfringens*.

Tryptose, yeast extract and soy peptone provide the basic nutrients nitrogen, vitamins, minerals and amino acids. Ammonium iron (III) citrate and sodium bisulphite contained are H_2S indicators.
D-cycloserine inhibits the surrounding bacterial flora and causes the colonies that form to remain smaller.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Composition

Tryptose	15 g/l
Soy peptone	5 g/l
Yeast extract	5 g/l
Ammonium iron(III) citrate	1 g/l
Sodium bisulfite	1 g/l
D-Cycloserine	0,4 g/l
Agar-Agar	15 g/l
pH value (25 °C)	7,4-7,8

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NA8.1	10 unit(s)	box	27,45





ROTI®Plate90 R2A

Ph. Eur., USP, JP, ISO 11133, ready-to-use, sterile, for microbiology

For counting heterotrophic bacteria from water samples.

R2A agar is recommended by Ph. Eur. as an alternative medium for testing water samples for the presence of heterotrophic bacteria.

The low nutrient concentration together with the starch and sodium pyruvate content prevent fast-growing bacteria from overgrowing slower-growing or damaged cells. The agar medium is particularly good for counting stressed and damaged bacteria.

Storage temperature: +4 °C
Transport temperature: cooled

Composition

Yeast extract	0,5 g/l
Casein peptone	0,5 g/l
Proteose peptone	0,5 g/l
Starch	0,5 g/l
Glucose	0,5 g/l
Dikaliumhydrogenphosphat	0,3 g/l
Sodium pyruvate	0,3 g/l
Magnesium sulphate ($MgSO_4$)	0,024 g/l
Agar-Agar	15 g/l
pH value (25 °C)	7,0-7,4

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NAC.1	10 unit(s)	box	23,15

ROTI®Plate90 YE

ISO 6222, ISO 11133, ready-to-use, sterile, for microbiology

For isolation and counting of bacteria, yeasts and moulds from water samples.

Yeast extract agar is recommended by the European ISO standard 6222 for testing water samples for the presence of culturable microorganisms and for counting them.

Yeast extract and tryptone are the basic nutrients of this medium. The yeast extract contained is the water-soluble part of the hydrolysed yeast and the source of vitamins, especially of the B group, and growth nutrients that stimulate the development of the microorganisms. Pancreatically digested casein is a major milk protein and a rich source of nitrogen and amino acids, especially tryptophan, which is valuable for detecting indole production.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Composition

Tryptone	6 g/l
Yeast extract	3 g/l
Agar-Agar	15 g/l
pH value (25 °C)	7,0-7,4

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NA7.1	10 unit(s)	box	20,35

ROTI®Plate90 XLD

ISO 11133, ready-to-use, sterile, for microbiology

For the isolation of enteropathogenic bacteria, in particular shigella and salmonella.

ISO 6579 recommends XLD agar for the identification and presumptive identification of Salmonella after pre-enrichment in a non-selective liquid medium.

The degradation of the three fermentable carbohydrates xylose, lactose and sucrose, with the production of acid, is shown by the colour change from red to yellow.
Sodium thiosulphate serves as a reactive substance with ammonium iron(III) citrate as an indicator for the production of H_2S under alkaline conditions. Phenol red serves as a pH indicator.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Composition

Xylose	3,75 g/l
Sucrose	7,5 g/l
Lactose	7,5 g/l
Yeast extract	3 g/l
L-Cysteine hydrochloride	5 g/l
Sodium chloride (NaCl)	5 g/l
Sodium deoxycholate	1 g/l
Sodium thiosulphate	6,8 g/l
Phenol red	0,08 g/l
Ammonium iron(III) citrate	0,8 g/l
Agar-Agar	13,5 g/l
pH value (25 °C)	7,2-7,6

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NA9.1	10 unit(s)	box	23,15



ROTI®Plate90 MacCon

ISO 11133, ready-to-use, sterile, for microbiology

For the selective isolation and identification of enterobacteria.

MacConkey agar is used for the subcultivation of Gram-negative enterobacterial colonies and for the determination of *Escherichia coli*.

Bile salts and crystal violet are the selective agents and inhibit Gram-positive bacteria.
Neutral red is the pH indicator that, when lactose is fermented and the pH drops, shows a colour change from neutral red to pink.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Composition

Casein peptone	17 g/l
Lactose	10 g/l
Sodium chloride (NaCl)	5 g/l
Meat peptone	3 g/l
Bile salts No. 3	1,5 g/l
Neutral red	0,03 g/l
Crystal Violet	0,001 g/l
Agar-Agar	13,5 g/l
pH value (25 °C)	6,9-7,3

Not a medical device / Not an IVD product

Art. No.	Pack Qty.	Pack.	€
1NAA.1	10 unit(s)	box	23,15



► Further ready-made media at www.carlroth.com

Ready-Made Media acc. to Application

Media Specialised for ...

Art. No.	Medium	Ph. Eur.	ISO/DIN	Water	Milk	Drinks	Foods	Feeds	Cosmetics	Clin. microbiology	Veterinary	Mycology	Environment	Special	Mol Biol
4827	CompactDry™ CF														
4826	CompactDry™ EC														
4828	CompactDry™ ETB														
1L17	CompactDry™ PA														
4817	CompactDry™ SL														
4816	CompactDry™ TC														
1070	CompactDry™ X-BC														
1087	CompactDry™ X-SA														
4818	CompactDry™ YM														
1N13	ROTI®Aquatest Plate BEA														
9646	ROTI®Aquatest Plate Cetr														
9640	ROTI®Aquatest Plate PCA														
9644	ROTI®Aquatest Plate R2A														
9643	ROTI®Aquatest Plate Sab4														
9650	ROTI®Aquatest Plate Staph														
1N14	ROTI®Aquatest Plate TSC														
9642	ROTI®Aquatest Plate YE														
2313	ROTI®ContiPlate MacCon														
9630	ROTI®ContiPlate PCA														
9632	ROTI®ContiPlate RBC														
9633	ROTI®ContiPlate Sab4plus														
2312	ROTI®ContiPlate TSA														
9634	ROTI®ContiPlate TSA-Letheen														
2314	ROTI®ContiPlate VRB														
9631	ROTI®ContiPlate VRBD														
3934	ROTI®DipSlide CASO-TTC/RBCenr														
2957	ROTI®DipSlide CLED/MacCon														
8023	ROTI®DipSlide D/Eneutral														
8045	ROTI®DipSlide MacCon/Cetr														
2837	ROTI®DipSlide Nutrient-TTC														
2927	ROTI®DipSlide PCA														
2493	ROTI®DipSlide PCA/Legionella														
2926	ROTI®DipSlide PCA/RBCplus														
8715	ROTI®DipSlide PCA/TSA-Letheen														
2925	ROTI®DipSlide PCA/VRB														
2924	ROTI®DipSlide PCA/VRBD														
2956	ROTI®DipSlide Sab4plus														
2954	ROTI®DipSlide VRBD														
1NA5	ROTI®Plate90 BEA														
1ATX	ROTI®Plate90 CASO														
1NA4	ROTI®Plate90 CN														
1K27	ROTI®Plate90 Columbia														
1K24	ROTI®Plate90 DG18														
1LE1	ROTI®Plate90 Endo														
1NA6	ROTI®Plate90 ESB														

Summaries

Media Specialised for ...

Art. No.	Medium	Ph. Eur.	ISO/DIN	Water	Milk	Drinks	Foods	Feeds	Cosmetics	Clin. microbiology	Veterinary	Mycology	Environment	Special	Mol Biol
1NAA	ROTI®Plate90 MacCon		■	■	■				■	■	■				
1K23	ROTI®Plate90 MEA		■						■	■	■	■	■		
1K26	ROTI®Plate90 MRS		■		■	■			■						
1K22	ROTI®Plate90 Mueller Hinton									■	■		■	■	
1AX1	ROTI®Plate90 PCA		■	■	■	■			■	■	■				
1NAC	ROTI®Plate90 R2A	■	■	■									■		
1K25	ROTI®Plate90 Sab4	■	■		■	■			■	■	■	■			
1AX0	ROTI®Plate90 Sab4Cla		■			■			■	■	■	■			
1LNY	ROTI®Plate90 Sab4Cla	■	■			■			■	■	■	■			
1ATT	ROTI®Plate90 TSA	■	■	■											
1K21	ROTI®Plate90 TSA 4N		■							■				■	
1NA8	ROTI®Plate90 TSC		■	■		■	■	■							
1AX2	ROTI®Plate90 VRBD		■	■		■	■	■					■		
1NA9	ROTI®Plate90 XLD		■				■								
1NA7	ROTI®Plate90 YE		■	■		■						■			
1ATY	ROTI®Plate90 YGC		■		■							■			
1L83	CASO Broth	■	■	■	■				■	■	■				
1L8A	D/E Neutralisation buffer			■	■	■			■	■	■			■	
1L86	Fraser Half Broth		■				■						■		
1L85	Letheen Broth modified								■					■	
1L87	MacConkey Broth	■		■	■								■		
1L84	Maximum Recovery Solution		■			■	■						■	■	
1L8E	Peptone Water 0,1 %, buffered	■					■							■	
1L8H	Peptone Water, buffered		■				■	■						■	
1L88	Ringer solution 1/4		■						■					■	
1L89	Sabouraud 2 % Glucose Broth	■			■			■	■	■	■	■			
1L8C	Thioglycolate Broth	■	■												

Ph.Eur.	Media acc. to European Pharmacopeia
ISO/DIN	Media acc. to ISO, DIN or other norms (exc. Ph. Eur.)
Water	Media for analysis of water and wastewater
Milk	Media for analysis of dairy products
Drinks	Media for analysis of alcoholic and soft drinks (beer, wine, juice etc.)
Foods	Media for analysis of foods in general
Feeds	Media for analysis of feeds
Cosmetics	Media for analysis of cosmetics
Clin. microbiology	Media for clinical microbiology
Veterinary	Media for veterinary analyses
Mycology	Media for analysis of yeasts and moulds
Environment	Media for analysis of environmental microorganisms
Special	Media for special applications
Mol Biol	Media for applications in molecular biology

Ready-Made Media acc. to Usage for Microorganisms

Media Specialised for ...

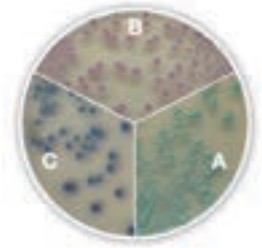
Art. No.	Medium	Ph.Eur.	Water	Whole Germ	Coli	Clo & Bruc & Camp	Entero	Yeast & Mould	Lacto & Bac	Pseudo & Leg & Lis	Sal & Shig	Staph & Strep	Chromo	Special	Mol Biol
4827	CompactDry™ CF														
4826	CompactDry™ EC														
4828	CompactDry™ ETB														
1L17	CompactDry™ PA														
4817	CompactDry™ SL										Sal				
4816	CompactDry™ TC														
1070	CompactDry™ X-BC								Bac						
1087	CompactDry™ X-SA											Staph			
4818	CompactDry™ YM														
1N13	ROTI®Aquatest Plate BEA														
9646	ROTI®Aquatest Plate Cetr														
9640	ROTI®Aquatest Plate PCA														
9644	ROTI®Aquatest Plate R2A														
9643	ROTI®Aquatest Plate Sab4														
9650	ROTI®Aquatest Plate Staph											Staph			
1N14	ROTI®Aquatest Plate TSC					Clo									
9642	ROTI®Aquatest Plate YE														
2313	ROTI®ContiPlate MacCon														
9630	ROTI®ContiPlate PCA														
9632	ROTI®ContiPlate RBC														
9633	ROTI®ContiPlate Sab4plus														
2312	ROTI®ContiPlate TSA														
9634	ROTI®ContiPlate TSA-Letheen														
2314	ROTI®ContiPlate VRB														
9631	ROTI®ContiPlate VRBD														
3934	ROTI®DipSlide CASO-TTC/RBCenr														
2957	ROTI®DipSlide CLED/MacCon														
8023	ROTI®DipSlide D/Eneutral														
8045	ROTI®DipSlide MacCon/Cetr									Pseudo					
2837	ROTI®DipSlide Nutrient-TTC														
2927	ROTI®DipSlide PCA														
2493	ROTI®DipSlide PCA/Legionella									Leg					
2926	ROTI®DipSlide PCA/RBCplus														
8715	ROTI®DipSlide PCA/TSA-Letheen														
2925	ROTI®DipSlide PCA/VRB														
2924	ROTI®DipSlide PCA/VRBD														
2956	ROTI®DipSlide Sab4plus														
2954	ROTI®DipSlide VRBD														
1NA5	ROTI®Plate90 BEA														
1ATX	ROTI®Plate90 CASO														
1NA4	ROTI®Plate90 CN									Pseudo					
1K27	ROTI®Plate90 Columbia														
1K24	ROTI®Plate90 DG18														
1LE1	ROTI®Plate90 Endo														
1NA6	ROTI®Plate90 ESB											Strep			
1NAA	ROTI®Plate90 MacCon														

Summaries

Media Specialised for ...

Art. No.	Medium	Ph.Eur.	Water	Whole Germ	Coli	Clo & Bruc & Camp	Entero	Yeast & Mould	Lacto & Bac	Pseudo & Leg & Lis	Sal & Shig	Staph & Strep	Chromo	Special	Mol Biol
1K23	ROTI®Plate90 MEA														
1K26	ROTI®Plate90 MRS								Lact.						
1K22	ROTI®Plate90 Mueller Hinton											Staph.			
1AX1	ROTI®Plate90 PCA														
1NAC	ROTI®Plate90 R2A														
1K25	ROTI®Plate90 Sab4														
1AX0	ROTI®Plate90 Sab4Cla														
1LNY	ROTI®Plate90 Sab4Cla														
1ATT	ROTI®Plate90 TSA														
1K21	ROTI®Plate90 TSA 4N														
1NA8	ROTI®Plate90 TSC					Clo									
1AX2	ROTI®Plate90 VRBD														
1NA9	ROTI®Plate90 XLD										Sal, Shig				
1NA7	ROTI®Plate90 YE														
1ATY	ROTI®Plate90 YGC														
1L83	CASO Broth														
1L8A	D/E Neutralisation buffer														
1L86	Fraser Half Broth									Lis.					
1L85	Letheen Broth modified														
1L87	MacConkey Broth														
1L84	Maximum Recovery Solution														
1L8E	Peptone Water 0,1 %, buffered														
1L8H	Peptone Water, buffered														
1L88	Ringer solution 1/4														
1L89	Sabouraud 2 % Glucose Broth														
1L8C	Thioglycolate Broth														

Ph.Eur.	Media acc. to European Pharmacopeia
Water	Media for drinking water analysis
Whole Germ	Detection of whole germs or unspecific microorganisms
Coli	Detection of coliforms and *E. coli*
Clo & Bruc & Camp	Detection of *Clostridia, Brucella* or *Campylobacter*
Entero	Detection of enterobacteria
Yeast & Mould	Detection of yeasts or moulds
Lacto & Bac	Detection of lactobacilli or bacilli
Pseudo & Leg & Lis	Detection of pseudomonads, legionells or listeriae
Sal & Shig	Detection of salmonellae or shigellae
Staph & Strep	Detection of staphylococci or streptococci
Chromo	Chromo- and fluorogenic media
Special	Media for special applications
Mol Biol	Media for applications in molecular biology



Candida chromogenic Agar plus

for microbiology

Selective medium for isolation and quick identification of pathogeneous *Candida* species.

Candida chromogenic Agar plus is an alternative chromogenic formulation to the traditional media for the detection and isolation of *Candida spp.*.

Candida spp. are present in clinical specimens due to environmental contamination, colonization, or a disease process. *Candida albicans* is the most common and is usually susceptible to the antigfungal agents' azole group.

This dehydrated nutrient medium allows the detection of *Candida auris*.

Storage temperature: +4 °C
Transport temperature: ambient temp.

WGK 3

Warning H351

Composition

Growth factors ..... 21,2 g/l
Inhibitors ..... 0,5 g/l
Chromogene Mixture ..... 0,2 g/l
Agar ..... 15 g/l
pH value (25 °C) 5,9-6,3

Art. No.	Pack Qty.	Pack.	€
1NC9.1	100 g	plastic	188,15
1NC9.2	500 g	plastic	822,40

► Further anhydrous nutrient media for microbiology at www.carlroth.com

WL broth

for microbiology

For the determination of microbial flora in beer fermentation processes and manufacturing

WL Broth, based on the Green and Grey formulation, is recommended for the control of industrial fermentations, particularly the manufacturing of beer. With a pH of 5,5 true counts of beer yeasts can be made. With a pH of 6,5 the medium is ideal for bakery and distilled spirit yeasts.

Storage temperature: +15 to +25 °C

WGK 3

Composition

Bromcresol green ..... 0,022 g/l
Calcium chloride ..... 0,125 g/l
Dextrose ..... 50 g/l
Iron chloride ..... 0,0025 g/l
Yeast extract ..... 4 g/l
Potassium chloride (KCl) ..... 0,425 g/l
Potassium dihydrogen phosphate ..... 0,55 g/l
Manganese sulphate ..... 0,0025 g/l
$MgSO_4$ ..... 0,125 g/l
pH value (25 °C) 5,3-5,7
Tryptone ..... 5 g/l

Art. No.	Pack Qty.	Pack.	€
1T94.1	500 g	plastic	102,15
1T94.2	1 kg	plastic	192,45

WL Differential Agar

for microbiology

Selective medium used in the control of industrial fermention processes, especially in brewery.

WL Differential Agar is a selective medium for the isolation and enumeration of microbial flora used together with WL Broth (Cat. 1T94) for the control of the manufacture of beer and other fermentation processes by yeasts. Both media are widely used in the industries of vinegar, bread yeasts, grape and wine-growing and distilled spirits.

The medium allows the selective multiplication of yeasts in fermentation liquids, which contain a microflora mix consisting of fungi and bacteria. When the number of yeasts present is relatively small, certain bacteria can also be detected.

Storage temperature: +15 to +25 °C

WGK 1

Agar-Agar ..... 20 g/l
Bromcresol green ..... 0,022 g/l
Calcium chloride ..... 0,125 g/l
Cycloheximide ..... 0,004 g/l
Dextrose ..... 50 g/l
Iron chloride ..... 0,0025 g/l
Yeast extract ..... 4 g/l
Potassium chloride (KCl) ..... 0,425 g/l
Potassium dihydrogen phosphate ..... 0,55 g/l
Manganese sulphate ..... 0,0025 g/l
$MgSO_4$ ..... 0,125 g/l
pH value (25 °C) 5,3-5,7
Tryptone ..... 5 g/l

Art. No.	Pack Qty.	Pack.	€
1T93.1	500 g	plastic	117,20
1T93.2	1 kg	plastic	220,40

Basic Reagents for Nutrient Media

Agar-Agar, Ph.Eur.

Ph. Eur., USP, for microbiology

Agar-Agar, Ph. Eur. is a pharmaceutical quality agar that follows the specifications of the European Pharmacopoeia and American Pharmacopoeia (USP). It is specifically designed for all kind of applications in the pharmaceutical industry.

Storage temperature: +15 to +25 °C

WGK 1

Guarantee analysis

As (Arsenic) ..... ≤0,0003 %
Ash ..... ≤5 %
Appearance ..... White to light cream coloured powder
Cd (Cadmium) ..... ≤0,0001 %
Identity ..... complies
Gelling temperature (1,5 % gel) ..... 32-38 °C
Gel strength (1,5 % Nikan) ..... 750-1000 g/cm²
Hg (Mercury) ..... ≤0,0001 %
Pb (Lead) ..... ≤0,0005 %
pH value (1,5 % sol.) 6,5-7,5
Swelling index ..... ≥10 ml
Melting temperature (1,5 % gel) ..... 80-90 °C
Loss on drying ..... ≤20 %
Turbidity (1,5 % solution) ..... ≤15 NTU
Insoluble matter ..... ≤1 %

Particle size distribution:
d95 ..... 60 mesh

Art. No.	Pack Qty.	Pack.	€
1T8Y.1	250 g	plastic	91,30
1T8Y.2	500 g	plastic	170,95
1T8Y.3	1 kg	plastic	332,20
1T8Y.4	2.5 kg	plastic	740,70



Peptone ex casein

CELLPURE®

Casein peptone with low endotoxin content.

Peptone ex casein is a pancreatic digest of casein. The controlled manufacturing process ensures a low endotoxin content.
This peptone is an excellent source of nutrients that meets the requirements of cell culture.

Storage temperature: +15 to +25 °C

WGK 1

Type analysis

Amino nitrogen ..... ≥3,9 %
Ash ..... ≤15 %
Total nitrogen (N) ..... ≥10 %
pH (2 % solution) 6,5-7,5
Loss on drying ..... ≤6 %
Endotoxins ..... ≤200 E.U./g

Art. No.	Pack Qty.	Pack.	€
1T90.1	500 g	plastic	149,45
1T90.2	1 kg	plastic	278,45
1T90.3	2.5 kg	plastic	568,70



Peptone ex meat

CELLPURE®

Meat peptone with low endotoxin content.

Peptone ex meat is a enzymatic digest of animal tissue. The controlled manufacturing process ensures a low endotoxin content.
This peptone is an excellent source of nutrients that meets the requirements of cell culture.

Storage temperature: +15 to +25 °C

WGK 3

Type analysis

Amino nitrogen ..... ≥3,4 %
Ash ..... ≤15 %
Total nitrogen (N) ..... ≥10 %
pH (2 % solution) 6,5-7,5
Loss on drying ..... ≤6 %
Endotoxins ..... ≤200 E.U./g

Art. No.	Pack Qty.	Pack.	€
1T91.1	250 g	plastic	84,95
1T91.2	500 g	plastic	149,45
1T91.3	1 kg	plastic	278,45
1T91.4	2.5 kg	plastic	568,70

animal-free

Peptone ex soya

CELLPURE® animal-free/GMO-free, for microbiology

Soy peptone with low endotoxin content.

Peptone ex soya is a product obtained from soy protein, whose controlled manufacturing process ensures a low endotoxin content in the final product.
This peptone is an excellent source of peptides, vitamins, and carbohydrates. It is used in cell culture media, providing better cell density and increased protein production.

Storage temperature: +15 to +25 °C

WGK 1

Type analysis

Amino nitrogen ..... ≥2,2 %
Ash ..... ≤15 %
Total nitrogen (N) ..... ≥7 %
pH (2 % solution) 6,5-7,5
Loss on drying ..... ≤6 %
Endotoxins ..... ≤200 E.U./g

Art. No.	Pack Qty.	Pack.	€
1T92.1	250 g	plastic	84,95
1T92.2	500 g	plastic	149,45
1T92.3	1 kg	plastic	278,45
1T92.4	2.5 kg	plastic	568,70

Chemicals



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Organic & Bioorganic Chemicals

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Accessories



Reactors for Peptide Synthesis

ROTH SELECTION.

Volume (ml)		Art. No.	Pack Qty.	€
2	New size	**7926.2**	10 unit(s)	11,30
2		**7926.1**	100 unit(s)	96,25
5	New size	**7927.2**	10 unit(s)	14,55
5		**7927.1**	100 unit(s)	115,60
10	New size	**7944.2**	10 unit(s)	17,10
10		**7944.1**	100 unit(s)	127,95
20	New size	**9261.2**	10 unit(s)	19,25
20		**9261.1**	100 unit(s)	160,20



Luer Stop Caps

ROTH SELECTION.

Suitable for	Designation	Art. No.	Pack Qty.	€
Luer (male)	Luer Stop Caps	**1Y23.1**	10 unit(s)	12,80
Luer (male)	Luer Stop Caps	**1Y23.2**	100 unit(s)	96,65

Oxidising Agents

Calcium peroxide

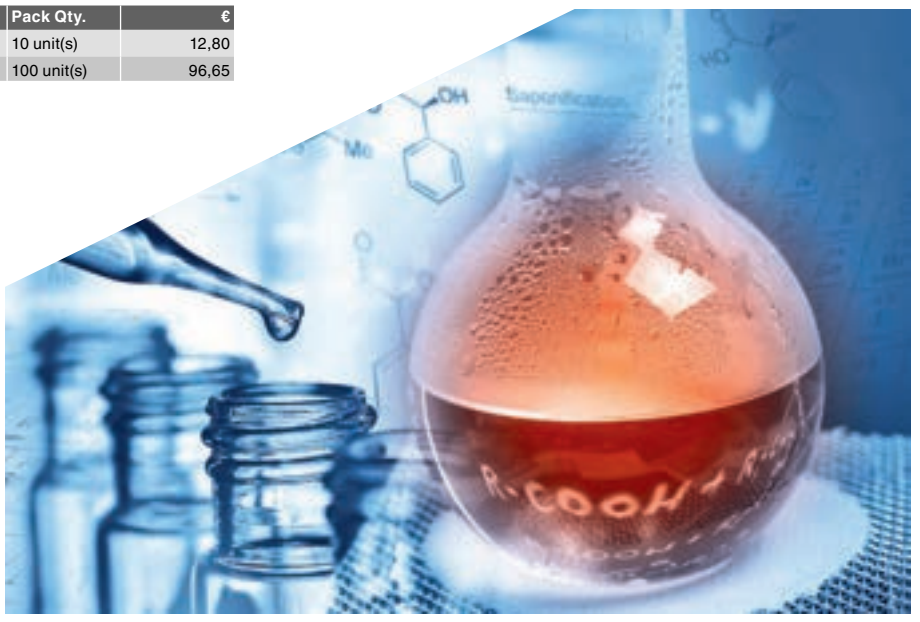
≥65 %, pure

CaO_2 · M 72,08 g/mol

UN no. 1457 · ADR 5.1 II · WGK 1

Danger H272-H315-H319-H335

Art. No.	Pack Qty.	Pack.	€
1P57.1	100 g	glass	34,30
1P57.2	500 g	glass	92,35
1P57.3	1 kg	glass	170,95



Green Chemicals

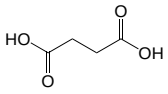


SOLVAGREEN® – Our Brand for Alternative Solvents

Green Solvents

The sustainable solvents listed below – Green Solvents – serve as substitutes for environmentally hazardous and harmful reagents and help minimize risk. Sustainability is also achieved through the use of renewable resources or environmentally compatible manufacturing and recycling processes.

Products from renewable raw materials



Succinic acid

≥99 %, for synthesis, made from renewable raw material

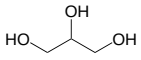
For the production of bio-based polyurethanes, coatings, surface treatment etc.

$C_4H_6O_4$ · M 118,09 g/mol

WGK 1

Danger H318

Art. No.	Pack Qty.	Pack.	€
1N1L.1	250 g	plastic	23,55
1N1L.2	1 kg	plastic	53,25
1N1L.3	2.5 kg	plastic	117,20
1N1L.4	5 kg	plastic	209,65



Glycerol

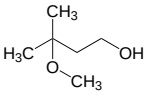
SOLVAGREEN® ~86 %, for synthesis, palm-free

$C_3H_8O_3$ · M 92,09 g/mol

WGK 1

Art. No.	Pack Qty.	Pack.	€
1T4E.1	1 l	plastic	41,95
1T4E.2	2.5 l	plastic	74,20
1T4E.3	5 l	plastic	138,70
1T4E.4	10 l	plastic	246,20
1T4E.5	25 l	plastic	493,45

Alternative products



3-Methoxy-3-methyl-1-butanol

SOLVAGREEN® ≥99 %, for synthesis

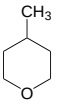
Alternative for glycol ethers, e.g. Ethylene glycol, Propylene glycol, Butylene glycol, Dipropylene glycol methyl ether/DPM

$C_6H_{14}O_2$ · M 118,18 g/mol

WGK 1

Warning H319

Art. No.	Pack Qty.	Pack.	€
1PKN.1	100 ml	glass	21,40
1PKN.2	500 ml	glass	37,55
1PKN.3	1 l	glass	53,65
1PKN.4	2.5 l	glass	106,45



Methyltetrahydropyran

SOLVAGREEN® ≥99 %, for synthesis

Alternative for Diethyl ether, tBME/MTBE, THF

$C_6H_{12}O$ · M 100,16 g/mol

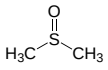
UN no. 2924 · ADR 3 (8) II · WGK 1

Danger H225-H314

stabilised with approx. 25 ppm BHT.

Art. No.	Pack Qty.	Pack.	€
1PKY.1	100 ml	glass	21,40
1PKY.2	500 ml	glass	37,55
1PKY.3	1 l	glass	59,05
1PKY.4	2.5 l	glass	117,20

Recycled materials



Dimethyl sulphoxide (DMSO)

SOLVAGREEN® ≥99,0 %, for synthesis, recycled material

C_2H_6OS · M 78,13 g/mol

WGK 1

Note: Product may crystallise. It can be liquefied by heating in a water bath to max. 40 °C.

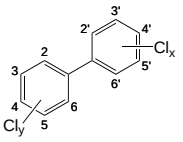
Art. No.	Pack Qty.	Pack.	€
1P1T.1	1 l	glass	53,65
1P1T.2	2.5 l	glass	106,45
1P1T.3	5 l	plastic	203,20



Natural & Reference Materials

Phytochemicals
Reference Substances 190

Vitamins 200



Reference Substances

Environmental analysis

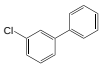
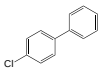
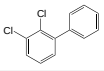
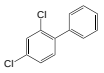
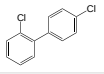
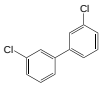
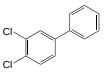
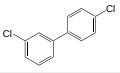
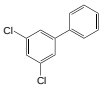
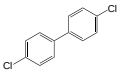
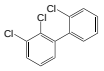
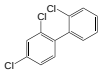
PCB neats

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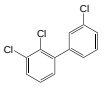
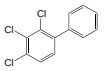
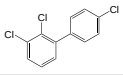
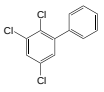
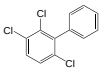
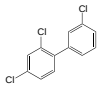
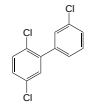
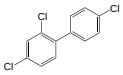
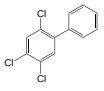
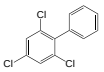
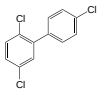
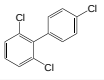
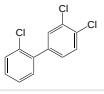
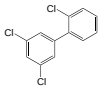
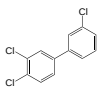
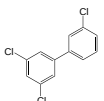
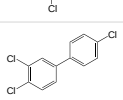
Polychlorinated biphenyls (PCBs) belong to the class of substances known as chlorinated hydrocarbons and are harmful substances with low biodegradability. Carl ROTH offers you various compounds (congeners) for your environmental analysis.

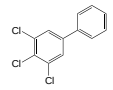
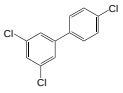
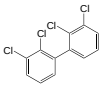
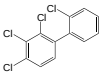
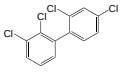
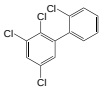
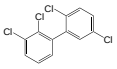
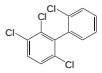
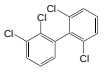
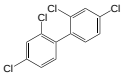
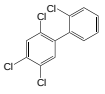
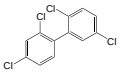
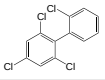
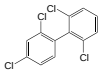
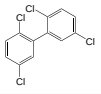
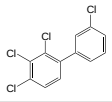
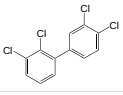
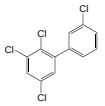
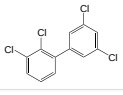
PCB neats are produced according to **ISO 17034** in an accredited environment.
They come with certificates of analysis and an GC chromatogram.

► **PCB standard solutions** in **isooctane** can be found in our webshop.

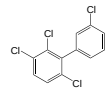
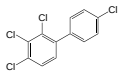
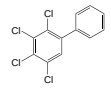
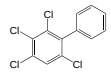
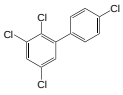
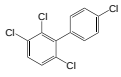
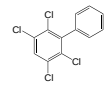
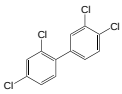
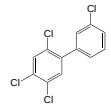
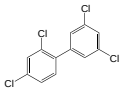
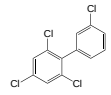
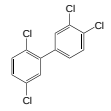
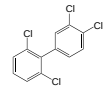
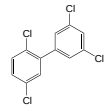
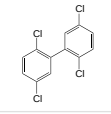
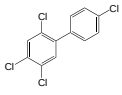
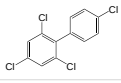
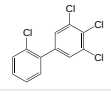
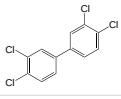
Structural formula	Product name	Synonymous	Art. No.	Pack Qty.	€
	PCB 1	2-PCB , 2-Chlorobiphenyl	**1TPC.1**	50 mg	59,05
	PCB 2	3-PCB, 3-Chlorobiphenyl	**1TP9.1**	10 mg	87,65
			1TP9.2	50 mg	133,85
	PCB 3	4-PCB , 4-Chlorobiphenyl	**1TP8.1**	50 mg	59,05
	PCB 4	2,2'-PCB , 2,2'-Dichlorobiphenyl	**1TP7.1**	25 mg	125,25
	PCB 5	2,3-Dichlorobiphenyl, 2,3-PCB	**1TPA.1**	50 mg	84,40
	PCB 6	2,3'-PCB , 2,3'-Dichlorobiphenyl	**1TP6.1**	10 mg	171,50
	PCB 7	2,4-PCB, 2,4-Dichlorobiphenyl	**1TP5.1**	25 mg	56,45
	PCB 8	2,4'-PCB, 2,4'-Dichlorobiphenyl	**1TP4.1**	25 mg	188,15
	PCB 9	2,5-PCB, 2,5-Dichlorobiphenyl	**1X02.1**	50 mg	90,85
	PCB 10	2,6-PCB, 2,6-Dichlorobiphenyl	**1TP3.1**	25 mg	84,40
	PCB 11	3,3'-PCB, 3,3'-Dichlorobiphenyl	**1X03.1**	10 mg	80,10
	PCB 12	3,4-PCB, 3,4-Dichlorobiphenyl	**1TP2.1**	50 mg	212,35
	PCB 13	3,4'-PCB, 3,4'-Dichlorobiphenyl	**1X04.1**	5 mg	174,70
	PCB 14	3,5-PCB, 3,5-Dichlorobiphenyl	**1TP0.1**	50 mg	126,35
	PCB 15	4,4'-PCB, 4,4'-Dichlorobiphenyl	**1TNY.1**	10 mg	83,75
	PCB 16	2,2',3-PCB, 2,2',3-Trichlorobiphenyl	**1TNX.1**	10 mg	192,45
	PCB 17	2,2',4-PCB, 2,2',4-Trichlorobiphenyl	**1TP1.1**	10 mg	282,20

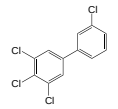
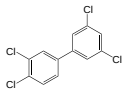
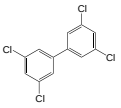
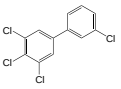
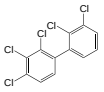
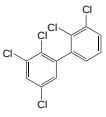
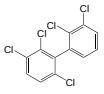
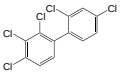
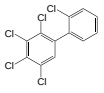
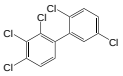
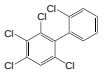
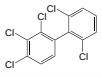
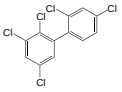
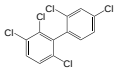
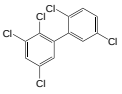
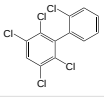
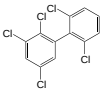
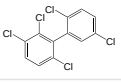
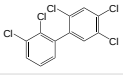
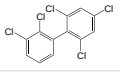
Phytochemicals

Structural formula	Product name	Synonymous	Art. No.	Pack Qty.	€
	PCB 18	2,2',5-PCB, 2,2',5-Trichlorobiphenyl	**1TNT.1**	25 mg	117,20
	PCB 19	2,2',6-PCB, 2,2',6-Trichlorobiphenyl	**1TNN.1**	10 mg	205,90
	PCB 20	2,3,3'-PCB, 2,3,3'-Trichlorobiphenyl	**1TNL.1**	10 mg	114,50
	PCB 21	2,3,4-PCB, 2,3,4-Trichlorobiphenyl	**1TNK.1**	10 mg	83,75
	PCB 22	2,3,4'-PCB, 2,3,4'-Trichlorobiphenyl	**1TNP.1**	10 mg	284,90
	PCB 23	2,3,5-PCB, 2,3,5-Trichlorobiphenyl	**1TNH.1**	10 mg	252,65
	PCB 24	2,3,6-PCB, 2,3,6-Trichlorobiphenyl	**1TNE.1**	10 mg	295,10
	PCB 25	2,3',4-PCB, 2,3',4-Trichlorobiphenyl	**1TNC.1**	10 mg	263,40
	PCB 26	2,3',5-PCB, 2,3',5-Trichlorobiphenyl	**1TNA.1**	25 mg	235,45
	PCB 27	2,3',6-PCB, 2,3',6-Trichlorobiphenyl	**1TN9.1**	10 mg	271,45
	PCB 28	2,4,4'-PCB, 2,4,4'-Trichlorobiphenyl	**1X05.1**	10 mg	134,40
	PCB 29	2,4,5-PCB, 2,4,5-Trichlorobiphenyl	**1TN8.1**	10 mg	68,70
	PCB 30	2,4,6-PCB, 2,4,6-Trichlorobiphenyl	**1TN7.1**	25 mg	232,75
	PCB 31	2,4',5-PCB, 2,4',5-Trichlorobiphenyl	**1TN6.1**	25 mg	142,45
	PCB 32	2,4',6-PCB, 2,4',6-Trichlorobiphenyl	**1TN5.1**	10 mg	201,60
	PCB 33	2,3',4'-PCB, 2,3',4'-Trichlorobiphenyl	**1TN4.1**	10 mg	97,75
	PCB 34	2',3,5-PCB, 2',3,5-Trichlorobiphenyl	**1TN3.1**	5 mg	182,25
	PCB 35	3,3',4-PCB, 3,3',4-Trichlorobiphenyl	**1TN2.1**	5 mg	160,75
	PCB 36	3,3',5-PCB, 3,3',5-Trichlorobiphenyl	**1TN1.1**	10 mg	299,95
	PCB 37	3,4,4'-PCB, 3,4,4'-Trichlorobiphenyl	**1TN0.1**	5 mg	198,35

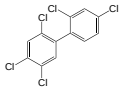
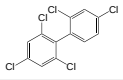
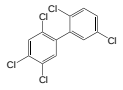
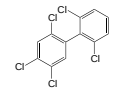
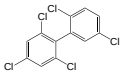
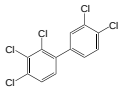
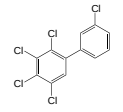
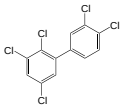
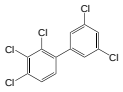
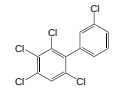
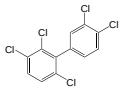
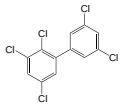
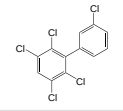
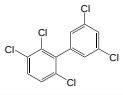
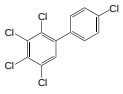
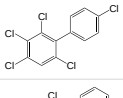
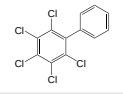
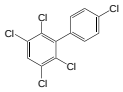
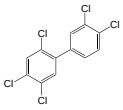
Structural formula	Product name	Synonymous	Art. No.	Pack Qty.	€
	PCB 38	3,4,5-PCB, 3,4,5-Trichlorobiphenyl	**1TLY.1**	10 mg	284,90
	PCB 39	3,4',5-PCB, 3,4',5-Trichlorobiphenyl	**1TLX.1**	10 mg	296,20
	PCB 40	2,2',3,3'-PCB, 2,2',3,3'-Tetrachlorobiphenyl	**1TLT.1**	25 mg	98,80
	PCB 41	2,2',3,4-PCB, 2,2',3,4-Tetrachlorobiphenyl	**1TLP.1**	5 mg	196,20
	PCB 42	2,2',3,4'-PCB, 2,2',3,4'-Tetrachlorobiphenyl	**1TLN.1**	10 mg	338,65
	PCB 43	2,2',3,5-PCB, 2,2',3,5-Tetrachlorobiphenyl	**1TLL.1**	10 mg	295,10
	PCB 44	2,2',3,5'-PCB, 2,2',3,5'-Tetrachlorobiphenyl	**1TLK.1**	25 mg	163,95
	PCB 45	2,2',3,6-PCB, 2,2',3,6-Tetrachlorobiphenyl	**1TLH.1**	5 mg	650,40
	PCB 46	2,2',3,6'-PCB, 2,2',3,6'-Tetrachlorobiphenyl	**1TLE.1**	5 mg	203,20
	PCB 47	2,2',4,4'-PCB, 2,2',4,4'-Tetrachlorobiphenyl	**1TLC.1**	25 mg	119,90
	PCB 48	2,2',4,5-PCB, 2,2',4,5-Tetrachlorobiphenyl	**1TLA.1**	5 mg	284,90
	PCB 49	2,2',4,5'-PCB, 2,2',4,5'-Tetrachlorobiphenyl	**1TL9.1**	20 mg	119,90
	PCB 50	2,2',4,6-PCB, 2,2',4,6-Tetrachlorobiphenyl	**1TL8.1**	5 mg	141,40
	PCB 51	2,2',4,6'-PCB, 2,2',4,6'-Tetrachlorobiphenyl	**1TL7.1**	10 mg	302,65
	PCB 52	2,2',5,5'-PCB, 2,2',5,5'-Tetrachlorobiphenyl	**1TL6.1**	10 mg	72,60
	PCB 53	2,2',5,6'-PCB, 2,2',5,6'-Tetrachlorobiphenyl	**1TL5.1**	25 mg	160,75
	PCB 55	2,3,3',4-PCB, 2,3,3',4-Tetrachlorobiphenyl	**1TL4.1**	10 mg	289,20
	PCB 56	2,3,3',4'-PCB, 2,3,3',4'-Tetrachlorobiphenyl	**1TL3.1**	5 mg	158,60
	PCB 57	2,3,3',5-PCB, 2,3,3',5-Tetrachlorobiphenyl	**1TL2.1**	5 mg	306,40
	PCB 58	2,3,3',5'-PCB, 2,3,3',5'-Tetrachlorobiphenyl	**1TL1.1**	10 mg	278,45

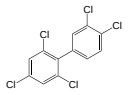
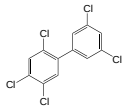
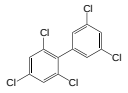
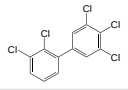
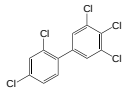
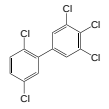
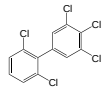
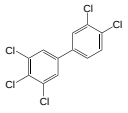
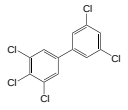
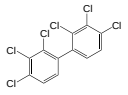
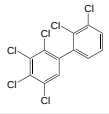
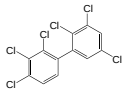
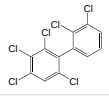
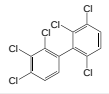
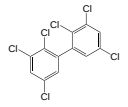
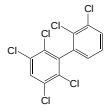
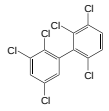
Phytochemicals

Structural formula	Product name	Synonymous	Art. No.	Pack Qty.	€
	PCB 59	2,3,3',6-PCB, 2,3,3',6-Tetrachlorobiphenyl	**1TL0.1**	10 mg	525,70
	PCB 60	2,3,4,4'-PCB, 2,3,4,4'-Tetrachlorobiphenyl	**1TKY.1**	10 mg	209,10
	PCB 61	2,3,4,5-PCB, 2,3,4,5-Tetrachlorobiphenyl	**1TKX.1**	10 mg	98,40
	PCB 62	2,3,4,6-PCB, 2,3,4,6-Tetrachlorobiphenyl	**1TKT.1**	5 mg	295,10
	PCB 63	2,3,4',5-PCB, 2,3,4',5-Tetrachlorobiphenyl	**1TKP.1**	10 mg	319,85
	PCB 64	2,3,4',6-PCB, 2,3,4',6-Tetrachlorobiphenyl	**1TKN.1**	10 mg	467,65
	PCB 65	2,3,5,6-PCB, 2,3,5,6-Tetrachlorobiphenyl	**1TKL.1**	25 mg	223,10
	PCB 66	2,3',4,4'-PCB, 2,3',4,4'-Tetrachlorobiphenyl	**1TKK.1**	20 mg	166,65
	PCB 67	2,3',4,5-PCB, 2,3',4,5-Tetrachlorobiphenyl	**1TKH.1**	10 mg	303,70
	PCB 68	2,3',4,5'-PCB, 2,3',4,5'-Tetrachlorobiphenyl	**1TKE.1**	10 mg	295,10
	PCB 69	2,3',4,6-PCB, 2,3',4,6-Tetrachlorobiphenyl	**1TKC.1**	10 mg	206,95
	PCB 70	2,3',4',5-PCB, 2,3',4',5-Tetrachlorobiphenyl	**1TKA.1**	10 mg	109,15
	PCB 71	2,3',4',6-PCB, 2,3',4',6-Tetrachlorobiphenyl	**1TK9.1**	10 mg	226,30
	PCB 72	2,3',5,5'-PCB, 2,3',5,5'-Tetrachlorobiphenyl	**1TK8.1**	10 mg	141,40
	PCB 73	2,3',5',6-PCB, 2,3',5',6-Tetrachlorobiphenyl	**1TK7.1**	5 mg	303,70
	PCB 74	2,4,4',5-PCB, 2,4,4',5-Tetrachlorobiphenyl	**1TK6.1**	10 mg	325,20
	PCB 75	2,4,4',6-PCB, 2,4,4',6-Tetrachlorobiphenyl	**1TK5.1**	5 mg	123,65
	PCB 76	2,3',4',5'-PCB, 2,3',4',5'-Tetrachlorobiphenyl	**1TK4.1**	10 mg	334,90
	PCB 77	3,3',4,4'-PCB, 3,3',4,4'-Tetrachlorobiphenyl	**1TK3.1**	20 mg	114,50

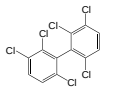
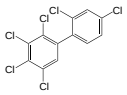
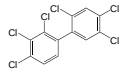
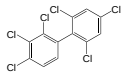
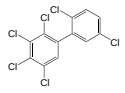
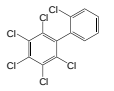
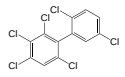
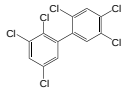
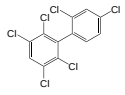
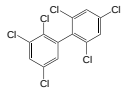
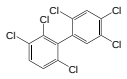
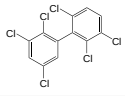
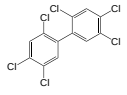
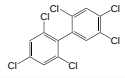
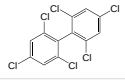
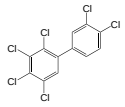
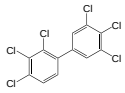
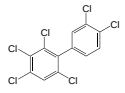
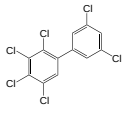
Structural formula	Product name	Synonymous	Art. No.	Pack Qty.	€
	PCB 78	3,3',4,5-PCB, 3,3',4,5-Tetrachlorobiphenyl	**1TK2.1**	10 mg	283,30
	PCB 79	3,3',4,5'-PCB, 3,3',4,5'-Tetrachlorobiphenyl	**1TK1.1**	10 mg	327,35
	PCB 80	3,3',5,5'-PCB, 3,3',5,5'-Tetrachlorobiphenyl	**1TK0.1**	10 mg	224,70
	PCB 81	3,4,4',5-PCB, 3,4,4',5-Tetrachlorobiphenyl	**1THY.1**	10 mg	188,15
	PCB 82	2,2',3,3',4-PCB, 2,2',3,3',4-Pentachlorobiphenyl	**1THX.1**	5 mg	317,15
	PCB 83	2,2',3,3',5-PCB, 2,2',3,3',5-Pentachlorobiphenyl	**1THT.1**	5 mg	203,20
	PCB 84	2,2',3,3',6-PCB, 2,2',3,3',6-Pentachlorobiphenyl	**1THP.1**	10 mg	268,75
	PCB 85	2,2',3,4,4'-PCB, 2,2',3,4,4'-Pentachlorobiphenyl	**1THN.1**	10 mg	175,80
	PCB 86	2,2',3,4,5-PCB, 2,2',3,4,5-Pentachlorobiphenyl	**1THL.1**	10 mg	267,70
	PCB 87	2,2',3,4,5'-PCB, 2,2',3,4,5'-Pentachlorobiphenyl	**1THK.1**	10 mg	192,45
	PCB 88	2,2',3,4,6-PCB, 2,2',3,4,6-Pentachlorobiphenyl	**1THH.1**	5 mg	200,50
	PCB 89	2,2',3,4,6'-PCB, 2,2',3,4,6'-Pentachlorobiphenyl	**1THE.1**	5 mg	192,45
	PCB 90	2,2',3,4',5-PCB, 2,2',3,4',5-Pentachlorobiphenyl	**1THC.1**	10 mg	267,70
	PCB 91	2,2',3,4',6-PCB, 2,2',3,4',6-Pentachlorobiphenyl	**1THA.1**	5 mg	169,35
	PCB 92	2,2',3,5,5'-PCB, 2,2',3,5,5'-Pentachlorobiphenyl	**1TH9.1**	10 mg	211,25
	PCB 93	2,2',3,5,6-PCB, 2,2',3,5,6-Pentachlorobiphenyl	**1TH8.1**	5 mg	252,65
	PCB 94	2,2',3,5,6'-PCB, 2,2',3,5,6'-Pentachlorobiphenyl	**1TH7.1**	5 mg	697,70
	PCB 95	2,2',3,5',6-PCB, 2,2',3,5',6-Pentachlorobiphenyl	**1TH6.1**	5 mg	198,35
	PCB 97	2,2',3,4',5'-PCB, 2,2',3,4',5'-Pentachlorobiphenyl	**1TH5.1**	10 mg	155,90
	PCB 98	2,2',3,4',6'-PCB, 2,2',3,4',6'-Pentachlorobiphenyl	**1TH4.1**	5 mg	400,45

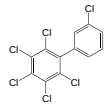
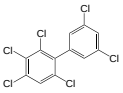
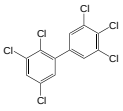
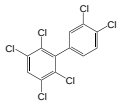
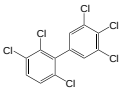
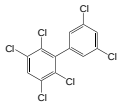
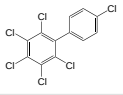
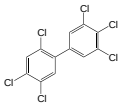
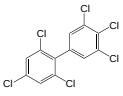
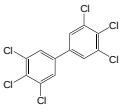
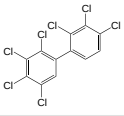
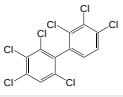
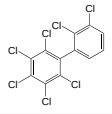
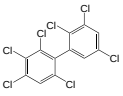
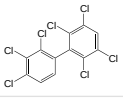
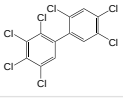
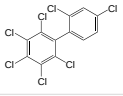
Phytochemicals

Structural formula	Product name	Synonymous	Art. No.	Pack Qty.	€
	PCB 99	2,2',4,4',5-PCB, 2,2',4,4',5-Pentachlorobiphenyl	**1TH3.1**	5 mg	240,30
	PCB 100	2,2',4,4',6-PCB, 2,2',4,4',6-Pentachlorobiphenyl	**1TH2.1**	5 mg	252,65
	PCB 101	2,2',4,5,5'-PCB, 2,2',4,5,5'-Pentachlorobiphenyl	**1TH1.1**	10 mg	91,30
	PCB 102	2,2',4,5,6'-PCB, 2,2',4,5,6'-Pentachlorobiphenyl	**1TH0.1**	5 mg	214,50
	PCB 103	2,2',4,5',6-PCB, 2,2',4,5',6-Pentachlorobiphenyl	**1TEY.1**	10 mg	169,35
	PCB 105	2,3,3',4,4'-PCB, 2,3,3',4,4'-Pentachlorobiphenyl	**1X00.1**	5 mg	155,90
	PCB 106	2,3,3',4,5-PCB, 2,3,3',4,5-Pentachlorobiphenyl	**1X01.1**	5 mg	235,45
	PCB 107	2,3,3',4',5-PCB, 2,3,3',4',5-Pentachlorobiphenyl	**1TYY.1**	10 mg	266,10
	PCB 108	2,3,3',4,5'-PCB, 2,3,3',4,5'-Pentachlorobiphenyl	**1TYT.1**	5 mg	177,40
	PCB 109	2,3,3',4,6-PCB, 2,3,3',4,6-Pentachlorobiphenyl	**1TYP.1**	5 mg	233,85
	PCB 110	2,3,3',4',6-PCB, 2,3,3',4',6-Pentachlorobiphenyl	**1TYN.1**	5 mg	188,15
	PCB 111	2,3,3',5,5'-PCB, 2,3,3',5,5'-Pentachlorobiphenyl	**1TYX.1**	10 mg	403,15
	PCB 112	2,3,3',5,6-PCB, 2,3,3',5,6-Pentachlorobiphenyl	**1TYL.1**	5 mg	192,45
	PCB 113	2,3,3',5',6-PCB, 2,3,3',5',6-Pentachlorobiphenyl	**1TYK.1**	10 mg	375,20
	PCB 114	2,3,4,5,4'-PCB, 2,3,4,5,4'-Pentachlorobiphenyl	**1TYH.1**	5 mg	155,90
	PCB 115	2,3,4,4',6-PCB, 2,3,4,4',6-Pentachlorobiphenyl	**1TYE.1**	5 mg	198,90
	PCB 116	2,3,4,5,6-PCB, 2,3,4,5,6-Pentachlorobiphenyl	**1TYC.1**	10 mg	174,70
	PCB 117	2,3,4',5,6-PCB, 2,3,4',5,6-Pentachlorobiphenyl	**1X06.1**	5 mg	241,90
	PCB 118	2,3',4,4',5-PCB, 2,3',4,4',5-Pentachlorobiphenyl	**1TYA.1**	10 mg	153,20

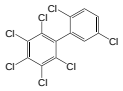
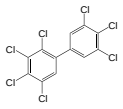
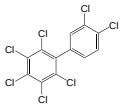
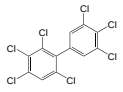
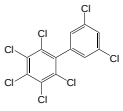
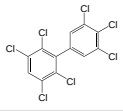
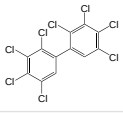
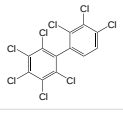
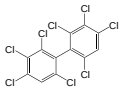
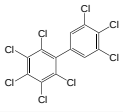
Structural formula	Product name	Synonymous	Art. No.	Pack Qty.	€
	PCB 119	2,3',4,4',6-PCB, 2,3',4,4',6-Pentachlorobiphenyl	**1TY8.1**	10 mg	375,20
	PCB 120	2,3',4,5,5'-PCB, 2,3',4,5,5'-Pentachlorobiphenyl	**1TY7.1**	10 mg	381,65
	PCB 121	2,3',4,5',6-PCB, 2,3',4,5',6-Pentachlorobiphenyl	**1TY6.1**	5 mg	229,55
	PCB 122	2,3,3',4',5'-PCB, 2,3,3',4',5'-Pentachlorobiphenyl	**1TY9.1**	5 mg	292,95
	PCB 123	2,3',4,4',5'-PCB, 2,3',4,4',5'-Pentachlorobiphenyl	**1TY5.1**	5 mg	203,20
	PCB 124	2,3',4',5,5'-PCB, 2,3',4',5,5'-Pentachlorobiphenyl	**1TY3.1**	5 mg	284,90
	PCB 125	2,3',4',5,6-PCB, 2,3',4',5,6-Pentachlorobiphenyl	**1TY2.1**	5 mg	166,65
	PCB 126	3,3',4,4',5-PCB, 3,3',4,4',5-Pentachlorobiphenyl	**1TY1.1**	10 mg	162,90
	PCB 127	3,3',4,5,5'-PCB, 3,3',4,5,5'-Pentachlorobiphenyl	**1TY0.1**	5 mg	197,30
	PCB 128	2,3,4,2',3',4'-PCB, 2,3,4,2',3',4'-Hexachlorobiphenyl	**1TY4.1**	25 mg	162,90
	PCB 129	2,2',3,3',4,5-PCB, 2,2',3,3',4,5-Hexachlorobiphenyl	**1X07.1**	5 mg	306,40
	PCB 130	2,2',3,3',4,5'-PCB, 2,2',3,3',4,5'-Hexachlorobiphenyl	**1TXX.1**	5 mg	306,40
	PCB 131	2,2',3,3',4,6-PCB, 2,2',3,3',4,6-Hexachlorobiphenyl	**1TXT.1**	5 mg	255,35
	PCB 132	2,2',3,3',4,6'-PCB, 2,2',3,3',4,6'-Hexachlorobiphenyl	**1TXP.1**	5 mg	213,95
	PCB 133	2,2',3,3',5,5'-PCB, 2,2',3,3',5,5'-Hexachlorobiphenyl	**1TXY.1**	5 mg	389,70
	PCB 134	2,2',3,3',5,6-PCB, 2,2',3,3',5,6-Hexachlorobiphenyl	**1TXN.1**	5 mg	259,65
	PCB 135	2,2',3,3',5,6'-PCB, 2,2',3,3',5,6'-Hexachlorobiphenyl	**1TXK.1**	5 mg	356,40

Phytochemicals

Structural formula	Product name	Synonymous	Art. No.	Pack Qty.	€
	PCB 136	2,2',3,3',6,6'-PCB, 2,2',3,3',6,6'-Hexachlorobiphenyl	**1TXH.1**	20 mg	184,40
	PCB 137	2,2',3,4,4',5-PCB, 2,2',3,4,4',5-Hexachlorobiphenyl	**1TXE.1**	5 mg	226,30
	PCB 138	2,2',3,4,4',5'-PCB, 2,2',3,4,4',5'-Hexachlorobiphenyl	**1TXC.1**	10 mg	145,15
	PCB 140	2,2',3,4,4',6'-PCB, 2,2',3,4,4',6'-Hexachlorobiphenyl	**1TXL.1**	5 mg	255,35
	PCB 141	2,2',3,4,5,5'-PCB, 2,2',3,4,5,5'-Hexachlorobiphenyl	**1TXA.1**	5 mg	224,70
	PCB 142	2,2',3,4,5,6-PCB, 2,2',3,4,5,6-Hexachlorobiphenyl	**1TX8.1**	5 mg	266,10
	PCB 144	2,2',3,4,5',6-PCB, 2,2',3,4,5',6-Hexachlorobiphenyl	**1TX7.1**	5 mg	271,45
	PCB 146	2,2',3,4',5,5'-PCB, 2,2',3,4',5,5'-Hexachlorobiphenyl	**1TX6.1**	5 mg	424,65
	PCB 147	2,2',3,4',5,6-PCB, 2,2',3,4',5,6-Hexachlorobiphenyl	**1TX5.1**	5 mg	263,40
	PCB 148	2,2',3,4',5,6'-PCB, 2,2',3,4',5,6'-Hexachlorobiphenyl	**1TX9.1**	5 mg	235,45
	PCB 149	2,2',3,4',5',6-PCB, 2,2',3,4',5',6-Hexachlorobiphenyl	**1X08.1**	5 mg	240,30
	PCB 151	2,2',3,5,5',6'-PCB, 2,2',3,5,5',6'-Hexachlorobiphenyl	**1TX3.1**	5 mg	213,95
	PCB 153	2,2',4,4',5,5'-PCB, 2,2',4,4',5,5'-Hexachlorobiphenyl	**1TX2.1**	10 mg	137,10
	PCB 154	2,2',4,4',5',6-PCB, 2,2',4,4',5',6-Hexachlorobiphenyl	**1TX1.1**	5 mg	396,70
	PCB 155	2,2',4,4',6,6'-PCB, 2,2',4,4',6,6'-Hexachlorobiphenyl	**1TX4.1**	10 mg	109,15
	PCB 156	2,3,3',4,4',5-PCB, 2,3,3',4,4',5-Hexachlorobiphenyl	**1TX0.1**	10 mg	162,90
	PCB 157	2,3,3',4,4',5'-PCB, 2,3,3',4,4',5'-Hexachlorobiphenyl	**1TTY.1**	10 mg	173,65
	PCB 158	2,3,3',4,4',6-PCB, 2,3,3',4,4',6-Hexachlorobiphenyl	**1TTX.1**	10 mg	310,70
	PCB 159	2,3,3',4,5,5'-PCB, 2,3,3',4,5,5'-Hexachlorobiphenyl	**1TTT.1**	5 mg	267,70

Structural formula	Product name	Synonymous	Art. No.	Pack Qty.	€
	PCB 160	2,3,3',4,5,6-PCB, 2,3,3',4,5,6-Hexachlorobiphenyl	**1TTP.1**	10 mg	295,10
	PCB 161	2,3,3',4,5',6-PCB, 2,3,3',4,5',6-Hexachlorobiphenyl	**1TTN.1**	5 mg	252,65
	PCB 162	2,3,3',4',5,5'-PCB, 2,3,3',4',5,5'-Hexachlorobiphenyl	**1TTL.1**	10 mg	467,65
	PCB 163	2,3,3',4',5,6-PCB, 2,3,3',4',5,6-Hexachlorobiphenyl	**1TTK.1**	10 mg	317,15
	PCB 164	2,3,3',4',5',6-PCB, 2,3,3',4',5',6-Hexachlorobiphenyl	**1TTH.1**	5 mg	282,20
	PCB 165	2,3,3',5,5',6-PCB, 2,3,3',5,5',6-Hexachlorobiphenyl	**1TTE.1**	5 mg	216,65
	PCB 166	2,3,4,4',5,6,-PCB, 2,3,4,4',5,6,-Hexachlorobiphenyl	**1TTC.1**	5 mg	244,60
	PCB 167	2,3',4,4',5,5'-PCB, 2,3',4,4',5,5'-Hexachlorobiphenyl	**1TTA.1**	10 mg	185,45
	PCB 168	2,3',4,4',5',6-PCB, 2,3',4,4',5',6-Hexachlorobiphenyl	**1TT9.1**	5 mg	166,65
	PCB 169	3,4,5,3',4',5'-PCB, 3,4,5,3',4',5'-Hexachlorobiphenyl	**1TT8.1**	5 mg	140,30
	PCB 170	2,2',3,3',4,4',5-PCB, 2,2',3,3',4,4',5-Heptachlorobiphenyl	**1TT7.1**	5 mg	177,40
	PCB 171	2,2',3,3',4,4',6-PCB, 2,2',3,3',4,4',6-Heptachlorobiphenyl	**1TT6.1**	5 mg	335,95
	PCB 173	2,2',3,3',4,5,6-PCB, 2,2',3,3',4,5,6-Heptachlorobiphenyl	**1TT5.1**	5 mg	256,95
	PCB 175	2,2',3,3',4,5',6-PCB, 2,2',3,3',4,5',6-Heptachlorobiphenyl	**1TT4.1**	5 mg	403,15
	PCB 177	2,2',3,3',4,5',6'-PCB, 2,2',3,3',4,5',6'-Heptachlorobiphenyl	**1TT3.1**	5 mg	227,40
	PCB 180	2,2',3,4,4',5,5'-PCB, 2,2',3,4,4',5,5'-Heptachlorobiphenyl	**1TT2.1**	5 mg	123,65
	PCB 181	2,2',3,4,4',5,6-PCB, 2,2',3,4,4',5,6-Heptachlorobiphenyl	**1TT1.1**	5 mg	272,55

Phytochemicals

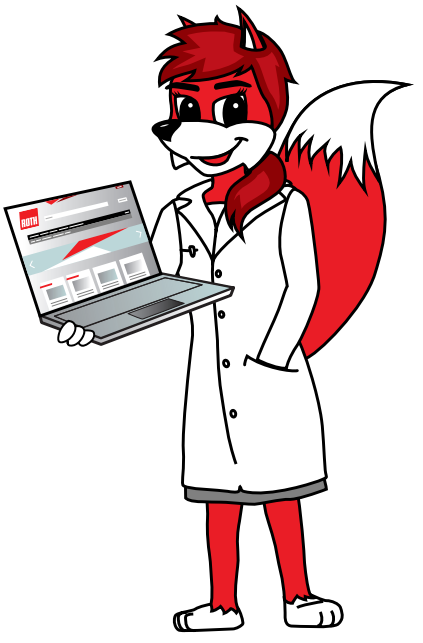
Structural formula	Product name	Synonymous	Art. No.	Pack Qty.	€
	PCB 185	2,2',3,4,5,5',6-PCB, 2,2',3,4,5,5',6-Heptachlorobiphenyl	**1TT0.1**	5 mg	188,15
	PCB 189	2,3,3',4,4',5,5'-PCB, 2,3,3',4,4',5,5'-Heptachlorobiphenyl	**1TPY.1**	5 mg	256,95
	PCB 190	2,3,3',4,4',5,6-PCB, 2,3,3',4,4',5,6-Heptachlorobiphenyl	**1TPX.1**	5 mg	204,80
	PCB 191	2,3,3',4,4',5',6-PCB, 2,3,3',4,4',5',6-Heptachlorobiphenyl	**1TPT.1**	5 mg	227,40
	PCB 192	2,3,3',4,5,5',6-PCB, 2,3,3',4,5,5',6-Heptachlorobiphenyl	**1TPP.1**	5 mg	263,40
	PCB 193	2,3,3',4',5,5',6-PCB, 2,3,3',4',5,5',6-Heptachlorobiphenyl	**1TPN.1**	5 mg	220,40
	PCB 194	2,2',3,3',4,4',5,5'-PCB, 2,2',3,3',4,4',5,5'-Octachlorobiphenyl	**1TPL.1**	5 mg	209,65
	PCB 195	2,2',3,3',4,4',5,6-PCB, 2,2',3,3',4,4',5,6-Octachlorobiphenyl	**1TPK.1**	5 mg	284,90
	PCB 197	2,2',3,3',4,4',6,6'-PCB, 2,2',3,3',4,4',6,6'-Octachlorobiphenyl	**1TPH.1**	5 mg	403,15
	PCB 205	2,3,3',4,4',5,5',6-PCB, 2,3,3',4,4',5,5',6-Octachlorobiphenyl	**1TPE.1**	5 mg	296,20

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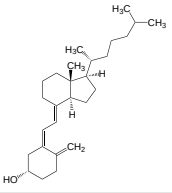
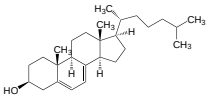
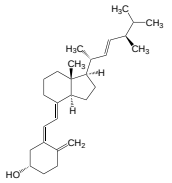
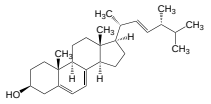
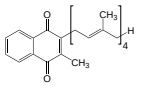
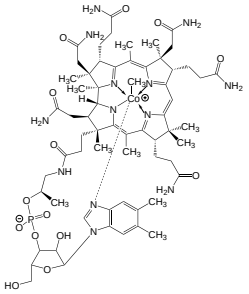
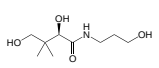
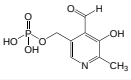
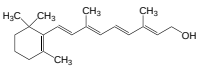
- Constantly innovative new products
- Product range extensions
- Ongoing special offers and bargains
- Proven product classics
- Detailed product and additional information
- Application-specific subject areas and special product compilations



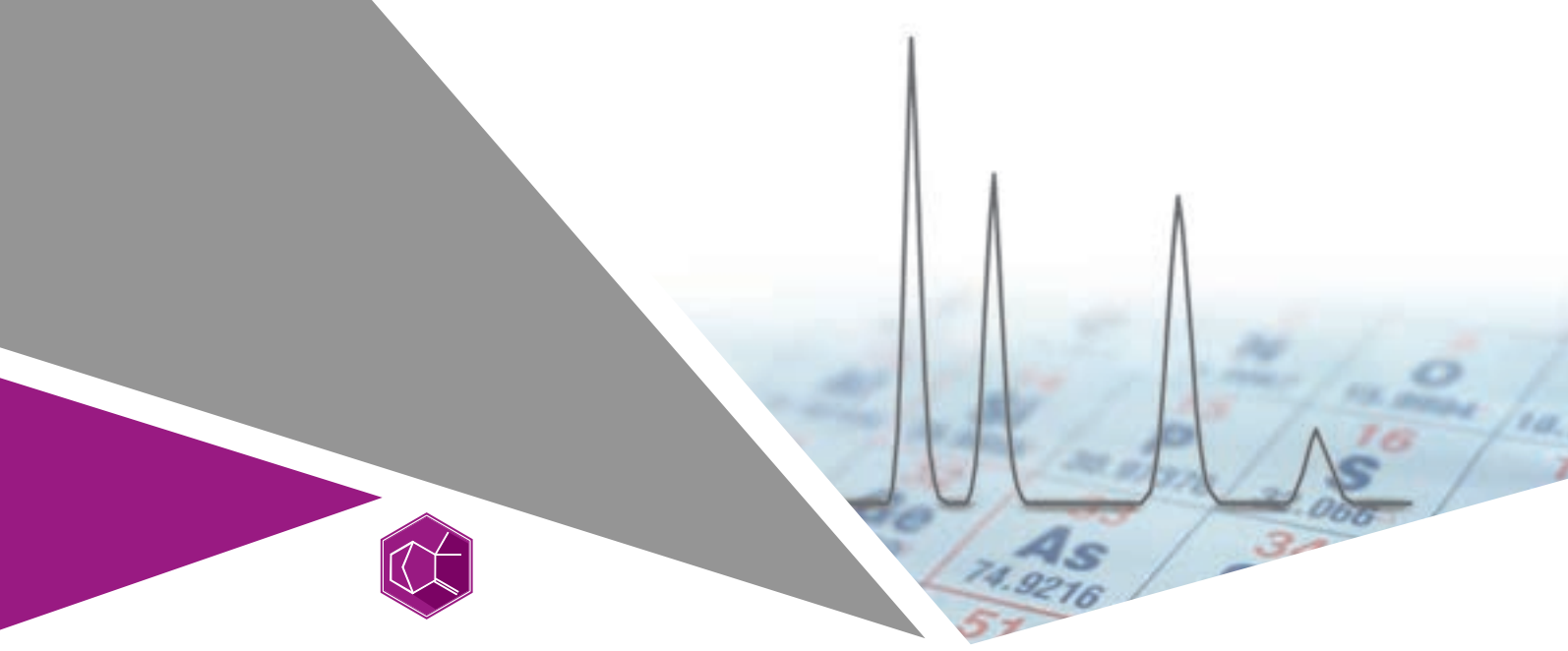
Vitamins



Vitamins are involved in many metabolic reactions. We can supply a range of high-purity substances suitable for biochemical applications in research and development.

Structural formula	Product name	Purity	Synonymous	Art. No.	Pack Qty.	€
	Cholecalciferol	≥98 %, for biochemistry	Vitamin D_3, Colecalciferol	**1T99.1**	500 mg	19,25
				1T99.2	1 g	32,15
				1T99.3	5 g	80,55
	7-Dehydrocholesterol	≥95 %, for biochemistry	Provitamin D_3, Cholesta-5,7-dien-3β-ol	**1T97.1**	1 g	21,40
				1T97.2	10 g	117,20
				1T97.3	25 g	267,70
	Ergocalciferol	≥97,5 %, for biochemistry	Calciferol, Vitamin D_2	**1T9E.1**	500 mg	53,65
				1T9E.2	1 g	96,65
	Ergosterol	≥94 %, for biochemistry	Provitamin D_2, Ergosta-5,7,22-trien-3β-ol	**1T9N.1**	10 g	75,15
				1T9N.2	25 g	161,15
				1T9N.3	50 g	290,15
	Menadione	≥98 %, for biochemistry	Vitamin K_3, 2-Methylnaphthalene-1,4-dione	**1T96.1**	10 g	26,80
				1T96.2	25 g	53,65
				1T96.3	100 g	160,20
	Menaquinone	≥98 %, for biochemistry	Vitamin K_2	**1T9C.1**	25 mg	32,15
				1T9C.2	50 mg	53,65
	Methylcobalamin	≥98,5 %, for biochemistry	Vitamin B_{12}	**1T9A.1**	25 mg	16,05
				1T9A.2	100 mg	59,05
				1T9A.3	250 mg	128,90
	Panthenol	≥98 %, for biochemistry	Pantothenol, Provitamin B_5	**1T95.1**	25 g	21,40
				1T95.2	50 g	37,55
				1T95.3	100 g	64,40
	Pyridoxal phosphate	≥98 %, for biochemistry	Pyridoxal 5-phosphate, PLP, Vitamin B_6 Phosphate	**1T9H.1**	1 g	21,40
				1T9H.2	10 g	85,90
				1T9H.3	25 g	150,40
	Retinol	≥95 %, for biochemistry	Vitamin A_1	**1T98.1**	25 mg	22,50
				1T98.2	100 mg	46,15
				1T98.3	500 mg	160,20

For additional product data and safety information, see chapter Chemicals A–Z.



Chromatography

Gas Chromatography
GC Accessories 202

Ion Chromatography
Ion Standards for IC 203

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Sample Preparation
SPE Adsorbents 208

GC Accessories





Coming soon!

Solvents as GC standards.

We are constantly expanding our range of products.
Please visit our webshop from time to time and discover,
for example, our soon-to-be-available **solvents as GC standards.**



Universal glass connections for FS (fused silica) capillaries (linear)

Macherey-Nagel.

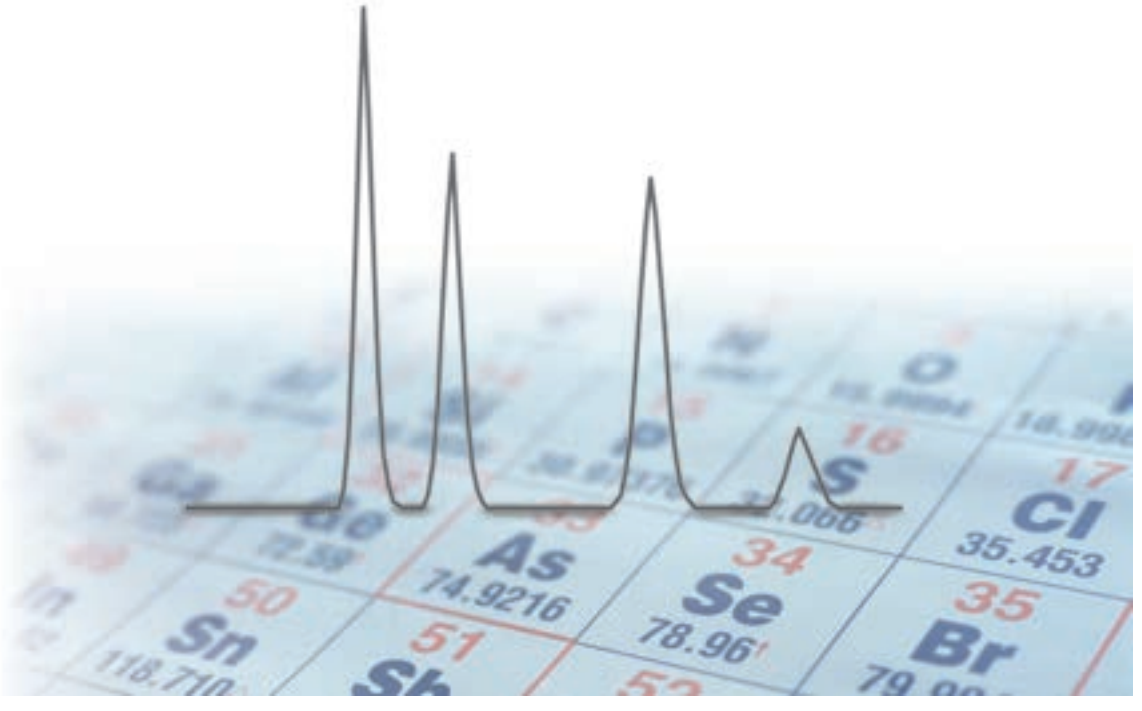
Art. No.	Pack Qty.	€
1T5L.1	1 unit(s)	20,35
1T5L.2	5 unit(s)	71,20
1T5L.3	10 unit(s)	129,00



Universal glass connections for FS (fused silica) capillaries (Y-Splitter)

Macherey-Nagel.

Art. No.	Pack Qty.	€
1T5T.1	1 unit(s)	209,65



Ion Standards for IC

Ion Standards for IC

Each standard solution is made of high-purity starting materials, and its content is determined gravimetrically and by ion chromatography. They come with certificates of analysis and an ion chromatogram.



- Single and multi-element-standards
- Anion and cation multi-element-standards
- Container sizes: 100 ml and 500 ml

Ion Single Element Standards

Product name	Purity Concentration	Purity Concentration Addition	Matrix	Art. No.	Pack Qty.	€
Butyrate as IC Standard Solution	1 000 mg/l	$C_4H_7COO^-$	H_2O	**1T7A.1**	100 ml	59,05
				1T7A.2	250 ml	91,30
				1T7A.3	250 ml	114,50
Nitrate as N IC Standard Solution	1 000 mg/l	NO_3^- (as N)	H_2O	**1PTN.1**	100 ml	56,90
				1PTN.2	250 ml	91,30
				1PTN.3	500 ml	114,50
Nitrite as N IC Standard Solution	1 000 mg/l	NO_2^- (as N)	H_2O	**1T79.1**	100 ml	56,90
				1T79.2	250 ml	91,30
				1T79.3	500 ml	114,50
Phosphate as P IC Standard Solution	1 000 mg/l	PO_4^{3-} (as P)	H_2O	**1T5P.1**	100 ml	56,90
				1T5P.2	250 ml	91,30
				1T5P.3	500 ml	114,50
Ammonium as N IC Standard Solution	1 000 mg/l	NH_4^+ (as N)	H_2O	**1T5N.1**	100 ml	59,05
				1T5N.2	250 ml	88,70
				1T5N.3	500 ml	123,65



Ion Multi-Element Standards

Number of elements	Composition	Concentration info	Matrix	Art. No.	Pack Qty.	€
3	ClO_3^- (10), ClO_2^- (2), BrO_3^- (2)	concentration in mg/l	H_2O	**1T15.1**	100 ml	145,15
				1T15.2	250 ml	188,15
				1T15.3	500 ml	241,90
7	F^-(1000), Cl^-(1000), NO_2^-(1000), Br^-(1000), NO_3^-(1000), PO_4^{3-}(1000), SO_4^{2-}(1000)	concentration in mg/l	H_2O	**1N7P.1**	100 ml	134,40
				1N7P.2	250 ml	203,20
				1N7P.3	500 ml	289,20
				1N7P.4	1,000 ml	489,15
7	F^- (20), Cl^- (80), NO_2^- (10), Br^- (10), NO_3^- (40), PO_4^{3-} (20), SO_4^{2-} (120)	concentration in mg/l	H_2O	**1LYE.1**	100 ml	213,95
				1LYE.2	250 ml	284,90
				1LYE.3	500 ml	364,45
				1LYE.4	1,000 ml	482,70
7	F^- (100), Cl^- (1000), NO_2^- (100), Br^- (100), NO_3^- (1000), PO_4^{3-} (100), SO_4^{2-} (1000)	concentration in mg/l	H_2O	**1T14.1**	100 ml	287,60
				1T14.2	250 ml	381,65
				1T14.3	500 ml	499,90
7	F^- (10), Cl^- (100), NO_2^- (10), Br^- (10), NO_3^- (10), PO_4^{3-} (10), SO_4^{2-} (100)	concentration in mg/l	H_2O	**1T6X.1**	100 ml	240,30
				1T6X.2	250 ml	321,45
				1T6X.3	500 ml	418,20
				1T6X.4	1,000 ml	550,95
7	F^- (1000), Cl^- (1000), Br^- (200), $N(NO_2^-)$ (1000), $N(NO_3^-)$ (200), $P(PO_4^{3-})$ (1000), SO_4^{2-} (1000)	concentration in mg/l	H_2O	**1NPC.1**	100 ml	278,45
				1NPC.2	250 ml	392,40
				1NPC.3	500 ml	532,15

HPLC



HPLC column NUCLEODUR® C_{18} Gravity

Properties:

- Octadecyl phase, multi-endcapped
- Carbon content: 18.0 %
- Pore size: 110 Å
- pH stability: 1–11
- Eluent on column: acetonitrile/water

Applications:
Pharmaceuticals, e.g. analgesics, antiinflammatory drugs, antidepressants, herbicides, immunosuppressants, USP L1, suitable for LC-MS.

Similar phases:
Zorbax® Extend C_{18}, Synergi™ Max RP, Phenomenex Luna® C_{18} (2), Waters Xterra® RP_{18} / MS C_{18}, Inertsil® ODS III, Purospher® RP-18, Star RP-18.

HPLC column NUCLEODUR® C_{18} Gravity 1.8 µm

Macherey-Nagel.

1.8 µm particles for improved separation performance

This high density C_{18} phase based on high purity NUCLEODUR® silica gel with its endcapping suppresses any unwanted polar interactions between the silica surface and the sample, which makes “Gravity” particularly suitable for the separation of basic and other ionizable analytes. Due to the enhanced pH stability, LC/MS suitability and superior base deactivation (BDS) it is a perfect choice for method development and valuable for RP applications.

Particle size (µm)	Column length (mm)	Column inner diameter (mm)	Art. No.	Pack Qty.	€
1.8	50	2	**1XTY.1**	1 unit(s)	677,25



Further HPLC columns from Macherey-Nagel available on request.



HPLC column NUCLEODUR® NH_2/NH_2-RP

This HPLC column is packed with polar aminopropyl modification, based on high purity NUCLEODUR® silica gel. This HPLC phase is able to generate a clearly recognizable different retention behavior compared to purely alkyl-functionalized surface modifications. Besides cyano modifications, amino modifications belong to the most frequently used polar silica phases. Amino phases can be run in the RP mode using aqueous-organic eluent mixtures as well as in the NP mode,
e.g., with hexane as mobile phase. Also anion exchange chromatography of anions and organic acids using common buffers (e.g., acetate or phosphate) in conjunction with organic modifiers (e.g., acetonitrile) is possible. Separation mechanism based on polar interactions, hydrophobic interactions and weak ion exchange interactions.

Applications:
Hydrocarbons under NP conditions, Polar compounds under RP conditions (sugars, DNA bases), USP L8, suitable for LC/MS.

Similar phases:
NUCLEOSIL® NH_2 / NH_2-RP

HPLC column NUCLEODUR® NH_2-RP 3 µm

Macherey-Nagel.

Particle size (µm)	Column length (mm)	Column inner diameter (mm)	Art. No.	Pack Qty.	€
3	150	4.6	**1NE3.1**	1 unit(s)	548,25
3	250	4.6	**1NE4.1**	1 unit(s)	634,25

HPLC column NUCLEODUR® NH_2-RP 5 µm

Macherey-Nagel.

Particle size (µm)	Column length (mm)	Column inner diameter (mm)	Art. No.	Pack Qty.	€
5	125	4	**1NE6.1**	1 unit(s)	361,20
5	125	4.6	**1NE7.1**	1 unit(s)	381,65
5	150	4.6	**1NE8.1**	1 unit(s)	381,65
5	250	4	**1NE9.1**	1 unit(s)	439,70
5	250	4.6	**1NEA.1**	1 unit(s)	464,40

HPLC column NUCLEODUR® NH_2 5 µm

Macherey-Nagel.

Particle size (µm)	Column length (mm)	Column inner diameter (mm)	Art. No.	Pack Qty.	€
5	125	4	**1NEE.1**	1 unit(s)	361,20
5	125	4.6	**1NEH.1**	1 unit(s)	381,65
5	150	4.6	**1NEK.1**	1 unit(s)	381,65
5	250	4	**1NEL.1**	1 unit(s)	439,70
5	250	4.6	**1NEN.1**	1 unit(s)	464,40

Guard Columns Systems



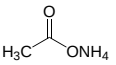
HPLC Guard Columns (analytical)

For protection of your main HPLC column from contamination, it is recommended to use guard columns. These short columns are placed into a guard column holder. The guard column holder in combination with a guard column inside is installed between the injector and the HPLC column. This installation prevents chemical impurities to reach the main column. Because a contamination could form an irreversible bond with the column packing material (stationary phase) and this can result in shorter column life. If you want to prolong the lifetime of your main column, then these short columns can help you.

Designation	Column inner diameter	Art. No.	Pack Qty.	€
NUCLEODUR® C_{18} Gravity	3 mm	**1XX0.1**	3 unit(s)	149,45
NUCLEODUR® NH_2-RP	3 mm	**1NE5.1**	3 unit(s)	149,45
NUCLEODUR® NH_2-RP	3 mm	**1NEC.1**	3 unit(s)	149,45
NUCLEODUR® NH_2	3 mm	**1NEP.1**	3 unit(s)	149,45

Column length = 4 mm
*Column Protection System (Art. No. 6041.1) is required.

Starting Material for Eluent Mixtures

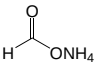


Ammonium acetate

≥98 %, LC-MS Grade

CH_3COONH_4 · M 77,08 g/mol
WGK 1

Art. No.	Pack Qty.	Pack.	€
1NPA.1	50 g	plastic	127,95
1NPA.2	100 g	plastic	185,45
1NPA.3	250 g	plastic	396,70

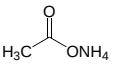


Ammonium formate

≥98 %, LC-MS Grade

$HCOONH_4$ · M 63,06 g/mol
WGK 1
Warning H319

Art. No.	Pack Qty.	Pack.	€
1NTK.1	50 g	plastic	133,85
1NTK.2	100 g	plastic	198,90
1NTK.3	250 g	plastic	418,20



Ammonium acetate

≥99 %, HPLC

CH_3COONH_4 · M 77,08 g/mol
WGK 1

Art. No.	Pack Qty.	Pack.	€
1P12.1	50 g	plastic	32,15
1P12.2	250 g	plastic	64,40

All products for your chromatography lab you can also find in our webshop!



www.carlroth.com/Chromatographie



Flash Chromatography

Flash chromatography is, on account of its superior properties, replacing column chromatography in many laboratories for chemical synthesis, pharmacokinetics and combinatorial chemistry. Flash chromatography can be used to clean samples inexpensively and quickly on a preparative scale up to approximately 100 g. A key factor here is the automation capacity of flash chromatography and the reduced solvent consumption compared to column chromatography.
Thin-layer chromatography is often used for the development of a selective and reproducible method. This way, it is possible to determine the optimal combination of various eluents and sorbents within a short space of time. The quality of the Carl ROTH product range is reflected in the fact that our TLC plates and foils are coated with the same basic silica gel as that used in CHROMABOND® flash columns. This enables the developed method to be perfectly applied to flash chromatography.

CHROMABOND® Flash RS SiOH Cartridges

Macherey-Nagel.

CHROMABOND Flash RS SiOH are known for fast and economical chromatographic purifications in industry.
The ready-to-use Flash columns (cartridges) are packed with highly pure silica (acid washed).



- Female Luer lock inlet and male Luer outlet
- Adsorbent: standard silica, unmodified (SiOH)
- Particle size: 40–63 µm, specific surface 500 m²/g
- pH stability: 2–8

Technical specifications:

Art. No.	1T8H.1	8664.1	8670.1	8674.1	8675.1	8681.1	8708.1	8714.1	1T8K.1	1T8E.1	1T8L.1
Surface chemistry	Unmodified silica gel (SiOH)										
Separation principle	Normal phase (NP)										
Recommended application(s)	Normal phase Flash chromatography applications (efficient liquid column chromatographic method for preparative applications in the gram range)										
Particle type	Fully porous particles (FPP)										
Pore size	60 Å										
Pressure stability	21 bar				14 bar		11 bar		7 bar		
pH stability	2,0–8,0										
Specific surface according to BET	500 m²/g										

Type	Column length (cm)	Column inner diameter (mm)	Filling quantity (g)	Art. No.	Pack Qty.	€
CHROMABOND® Flash RS 4 SiOH	10.6	12.4	4 New size	**1T8H.1**	20 unit(s)	135,45
CHROMABOND® Flash RS 15 SiOH	12.5	21.2	15	**8664.1**	20 unit(s)	202,10
CHROMABOND® Flash RS 25 SiOH	17.3	21.2	25	**8670.1**	15 unit(s)	202,10
CHROMABOND® Flash RS 40 SiOH	17.6	26.7	40	**8674.1**	15 unit(s)	262,30
CHROMABOND® Flash RS 80 SiOH	24.9	30.9	80	**8675.1**	12 unit(s)	335,40
CHROMABOND® Flash RS 120 SiOH	26.2	37.2	120	**8681.1**	10 unit(s)	334,35
CHROMABOND® Flash RS 200 SiOH	21.6	69.4	200	**8708.1**	6 unit(s)	482,70
CHROMABOND® Flash RS 330 SiOH	28.0	59.8	330	**8714.1**	4 unit(s)	559,00
CHROMABOND® Flash RS 800 SiOH	38.3	78.2	800 New size	**1T8K.1**	2 unit(s)	406,35
CHROMABOND® Flash RS 1600 SiOH	43.2	103.8	1600 New size	**1T8E.1**	2 unit(s)	741,75
CHROMABOND® Flash RS 3000 SiOH	41.0	127.5	3000 New size	**1T8L.1**	1 unit(s)	833,15

TLC Plates



TLC Plates with Polyamide-6

Polyamide 6 (PA6, ε-polycaprolactame, Perlon, nylon 6)

Separation mechanism: hydrogen bonds to the amide groups of the polymer matrix as well as ion, dipole and electron donor/acceptor interactions

Technical specifications:

Art. No.	1P3X.1	1P3Y.1	1P40.1	1P41.1
Material	polyester sheet			
Modification	Polyamide 6 (PA6, ε-polycaprolactame, Perlon, nylon 6)			
Layer thickness	0.1 mm			
Fluorescent indicator	no		yes	
Separation principle	Normal phase (NP)			
Phase	Polyamide-6			
pH stability	2,0–8,0			
Temperature stability	< 185 °C			
Recommended application(s)	Amino acids, Aromatic nitro compounds, Carboxylic acids, Natural compounds, Phenols			

TLC Plates POLYGRAM® with Polyamide-6

Macherey-Nagel. Material: polyester sheet with Polyamide-6.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
5 x 20	0.1	**1P3X.1**	50 unit(s)	136,55
20 x 20	0.1	**1P3Y.1**	25 unit(s)	225,75

TLC Plates POLYGRAM® with Polyamide-6 UV_{254}

Macherey-Nagel. Material: polyester sheet with Polyamide-6, with fluorescence indicator.

Plate format (cm)	Layer thickness (mm)	Art. No.	Pack Qty.	€
5 x 20	0.1	**1P40.1**	50 unit(s)	136,55
20 x 20	0.1	**1P41.1**	25 unit(s)	225,75

TLC Spray Solutions

ready-to-use



Ninhydrin in petroleum ether

Used on paper and cardboard trace carriers to colour the amino acids commonly found in latent print residues. The imprint turns from purplish brown to purplish red.

Ninhydrin in petroleum ether

for TLC, for police and forensic technology

Ready-to-use spray solution for detection of amino acids, amines and amino sugars.

UN no. 3295 · ADR 3 II · WGK 2

Danger H225-H304-H336-H411-EUH066

Art. No.	Pack Qty.	Pack.	€
1LTL.1	1 l	aluminium	67,20

Ninhydrin in petroleum ether

spray, for TLC, for police and forensic technology

Ready-to-use spray solution for detection of amino acids, amines and amino sugars.

UN no. 1950 · ADR 2 (2.1) · WGK 2

Danger H222-H229-H336-H411-EUH066

Art. No.	Pack Qty.	Pack.	€
1LX7.1	250 ml	spray can	46,15
1LX7.2	400 ml	spray can	64,40

TLC Adsorbent

for self-coating of glass plates or foils used in thin layer chromatography.

Cellulose

for thin layer chromatography

Particle size 2–20 µm.

WGK 1

Art. No.	Pack Qty.	Pack.	€
1XY7.1	100 g	plastic	95,70
1XY7.2	500 g	plastic	170,95
1XY7.3	1 kg	plastic	310,70

Discover these and more practical tools for thin-layer chromatography at www.carlroth.com



SPE Adsorbents NEW

SPE (Solid Phase Extraction)

A fast, effective and inexpensive system for sample preparation. SPE columns enable samples to be processed for HPLC, GC, TLC, UV/IR spectroscopy, etc.

Applications:

- Food analysis
- Environmental analysis
- Organic chemistry
- Pharmaceutical analysis
- Biochemical analysis

Many common high-quality SPE phases are now also available for self-made packing of flash or SPE cartridges and columns for solid phase extraction as SPE sorbents of Carl ROTH's own brand **ROTI®XBond**.

Designation	Art. No.	Pack Qty.	€
ROTI®XBond	1PCP.1	10 g	33,25
	1PCP.2	25 g	69,80
	1PCP.3	100 g	155,90
ROTI®XBond	1PCX.1	10 g	33,25
	1PCX.2	25 g	69,80
	1PCX.3	100 g	155,90
ROTI®XBond	1PCN.1	10 g	33,25
	1PCN.2	25 g	69,80
	1PCN.3	100 g	155,90
ROTI®XBond C6H5	1P9P.1	10 g	60,10
	1P9P.2	25 g	138,70
	1P9P.3	100 g	317,15
ROTI®XBond C18 ec	1PCA.1	10 g	48,40
	1PCA.2	25 g	106,45
	1PCA.3	100 g	267,70
ROTI®XBond	1PCT.1	10 g	60,10
	1PCT.2	25 g	138,70
	1PCT.3	100 g	317,15
ROTI®XBond C18	1PC4.1	10 g	60,10
	1PC4.2	25 g	138,70
	1PC4.3	100 g	317,15
ROTI®XBond	1PCY.1	10 g	60,10
	1PCY.2	25 g	138,70
	1PCY.3	100 g	317,15
ROTI®XBond	1PCH.1	10 g	60,10
	1PCH.2	25 g	138,70
	1PCH.3	100 g	317,15
ROTI®XBond	1PCK.1	10 g	69,35
	1PCK.2	25 g	160,20
	1PCK.3	100 g	370,90
ROTI®XBond	1P9Y.1	10 g	60,10
	1P9Y.2	25 g	138,70
	1P9Y.3	100 g	317,15
ROTI®XBond C4	1PC0.1	10 g	48,40
	1PC0.2	25 g	106,45
	1PC0.3	100 g	267,70
ROTI®XBond C2	1P9X.1	10 g	60,10
	1P9X.2	25 g	138,70
	1P9X.3	100 g	317,15

Designation	Art. No.	Pack Qty.	€
ROTI®XBond CN	1PC8.1	10 g	74,10
	1PC8.2	25 g	170,95
	1PC8.3	100 g	392,40
ROTI®XBond Diamino (PSA - QuEChERS)	1Y0N.1	10 g	63,45
	1Y0N.2	25 g	145,15
	1Y0N.3	100 g	332,20
ROTI®XBond HILIC	1P9T.1	10 g	91,30
	1P9T.2	25 g	213,95
	1P9T.3	100 g	499,90
ROTI®XBond NAN	1PCL.1	10 g	117,75
	1PCL.2	25 g	278,45
	1PCL.3	100 g	643,95
ROTI®XBond NH_2	1PC1.1	10 g	52,70
	1PC1.2	25 g	117,20
	1PC1.3	100 g	332,20
ROTI®XBond OH	1PC9.1	10 g	74,10
	1PC9.2	25 g	170,95
	1PC9.3	100 g	392,40
ROTI®XBond PCA	1PC5.1	10 g	74,10
	1PC5.2	25 g	170,95
	1PC5.3	100 g	392,40
ROTI®XBond PSA	1PC3.1	10 g	71,95
	1PC3.2	25 g	166,65
	1PC3.3	100 g	375,20
ROTI®XBond SA (SCX)	1PC6.1	10 g	74,10
	1PC6.2	25 g	170,95
	1PC6.3	100 g	392,40
ROTI®XBond SB (SAX)	1PC2.1	10 g	74,10
	1PC2.2	25 g	170,95
	1PC2.3	100 g	392,40
ROTI®XBond XTR	1PC7.1	10 g	13,90
	1PC7.2	25 g	27,45
	1PC7.3	100 g	60,10
	1PC7.4	500 g	203,20



SPE Columns CHROMABOND®

RP Phases

SPE polypropylene column CHROMABOND® C18

Macherey-Nagel. Material: PP columns with PE filter elements.

Octadecyl-silica gel, not endcapped

Please note: Extremely non-polar, hydrophobic interaction with many organic compounds

Similar phases: Strata™ C18-U, AccuBond® C18, Bakerbond™ PolarPlus, Isolute® C18, LiChrolut® RP-18

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
1	100	20 x 5 units	**1LT9.1**	100 unit(s)	204,25
3	200	10 x 5 units	**1LTA.1**	50 unit(s)	156,95
3	500	10 x 5 units	**1LTC.1**	50 unit(s)	174,15
6	500	6 x 5 units	**1LTE.1**	30 unit(s)	117,20
6	500	6 x 5 units	**1LTH.1**	30 unit(s)	151,60

SPE polypropylene column CHROMABOND® C18 f

Macherey-Nagel. Material: PP columns with PE filter elements.

Octadecyl phase on silica gel basis, not endcapped
Similar to C_{18} ec, however possesses more free silanols (SiOH), which allow secondary interactions with polar groups of the analytes. Larger particles for fast flow.

Please note: Extremely non-polar, hydrophobic interaction with many organic compounds

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	200	10 x 5 units	**1P95.1**	50 unit(s)	174,15
3	200	10 x 5 units	**1P98.1**	50 unit(s)	156,95
6	500	6 x 5 units	**1P96.1**	30 unit(s)	117,20
6	1000	6 x 5 units	**1P97.1**	30 unit(s)	151,60

SPE polypropylene column CHROMABOND® C18 ec f

Macherey-Nagel. Material: PP columns with PE filter elements.

Octadecyl-silica gel, endcapped

Please note: This is a classic and widely used nonpolar material for hydrophobic interactions with a variety of organic compounds.

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	200	10 x 5 units	**1P8L.1**	50 unit(s)	156,95
6	500	6 x 5 units	**1P8N.1**	30 unit(s)	117,20
6	1000	6 x 5 units	**1P8P.1**	30 unit(s)	151,60

SPE Columns CHROMABOND® C8

Macherey-Nagel.

Silica gel based octyl phase, not endcapped similar to C_{18}. Secondary interactions with polar compounds are more pronounced due to shorter alkyl chains.

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
1	100	20 x 5 units	**1NHT.1**	100 unit(s)	204,25
3	200	10 x 5 units	**1NHX.1**	50 unit(s)	156,95
3	500	10 x 5 units	**1NHY.1**	50 unit(s)	174,15
6	500	6 x 5 units	**1NK0.1**	30 unit(s)	117,20
6	500	6 x 5 units	**1NK1.1**	30 unit(s)	151,60

SPE Columns CHROMABOND® C4

Macherey-Nagel.

Butyl phase based on silica gel, not endcapped similar to C_8 phase. Secondary interactions with polar compounds are more pronounced due to shorter alkyl chains. For compounds that are too strongly retraded to C_{18} or C_8.

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
1	100	20 x 5 units	**1P8C.1**	100 unit(s)	204,25
3	500	10 x 5 units	**1P8E.1**	50 unit(s)	174,15

SPE Columns CHROMABOND® C2

Macherey-Nagel.

Dimethyl phase based on silica gel, not endcapped, similar to C_4 phase. Secondary interactions with polar compounds are more pronounced due to shorter alkyl chains. For compounds that are too strongly retraded to C_{18} or C_8.

Similar phases: Bond Elut® C2

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	500	10 x 5 units	**1P9K.1**	50 unit(s)	174,15

SPE Columns CHROMABOND® C6H5

Macherey-Nagel.

Phenyl phase, polarity similar to C_8.

In addition to hydrophobic interactions more selective adsorption is possible by π-π interactions due to the electron density of the phenyl ring.

Similar phases: Strata™ PH · Bond Elut® PH · DSC-Ph · CLEAN-UP® Phenyl · AccuBond® Phenyl · Bakerbond™ Phenyl · Isolute PH(EC)

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	500	10 x 5 units	**1P80.1**	50 unit(s)	174,15

SPE Columns CHROMABOND® PFAS

Macherey-Nagel.

Special phase for PFAS analysis.

For SPE enrichment of PFAS from water, textiles and sediments (contaminated soils). Polymeric combination phase with weak anion exchanger, highly porous, spherical particles.

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
6	300	6 x 5 units	**1P9H.1**	30 unit(s)	288,10



Normal Phases

SPE polypropylene column CHROMABOND® HILIC

Macherey-Nagel. Material: PP columns with PE filter elements.

Base material silica gel, zwitterionic polar phase with ammonium-sulfonic acid modification. Polar analytes are bound more strongly than non-polar compounds. This behavior is reversed (orthogonal) to RP materials such as C_{18} or C_8.

Similar phases: ZIC® HILIC

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	500	10 x 5 units	**1P99.1**	50 unit(s)	219,30
6	500	6 x 5 units	**1P9A.1**	30 unit(s)	146,20

SPE polypropylene column CHROMABOND® OH

Macherey-Nagel. Material: PP columns with PE filter elements.

Diol phase, polar. Similar properties to SiOH (unmodified silica gel).

Similar phases: DSC-Diol, LC-Diol · AccuBond® Diol (OH)

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	500	10 x 5 units	**1P9C.1**	50 unit(s)	219,30
6	500	6 x 5 units	**1P9E.1**	30 unit(s)	146,20

SPE polypropylene column CHROMABOND® PA

Macherey-Nagel. Material: PP columns with PE filter elements.

Polyamide 6 as SPE phase for solid phase extraction is a good choice, e.g. for sample preparation of flavonoids.

Similar phases: DPA-6S

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	500	10 x 5 units	**1P92.1**	50 unit(s)	219,30
6	1000	6 x 5 units	**1P93.1**	30 unit(s)	213,95
6	500	6 x 5 units	**1P94.1**	30 unit(s)	146,20

SPE polypropylene column CHROMABOND® Alox A

Macherey-Nagel. Material: PP columns with PE filter elements.

Similar phases: Bond Elut Alumina A · LC-Alumina-A · AccuBond® aluminium oxide A

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
6	500	6 x 5 units	**1NHC.1**	30 unit(s)	119,35
6	1000	6 x 5 units	**1NHE.1**	30 unit(s)	177,40

SPE polypropylene column CHROMABOND® Alox B

Macherey-Nagel. Material: PP columns with PE filter elements.

Similar phases: Bond Elut Alumina B · LC-Alumina-B · AccuBond® aluminium oxide B

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
6	1000	6 x 5 units	**1NHL.1**	30 unit(s)	177,40

SPE polypropylene column CHROMABOND® Alox N

Macherey-Nagel. Material: PP columns with PE filter elements.

Similar phases: Bond Elut Alumina N · LC-Alumina-N · AccuBond® aluminium oxide N

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	500	10 x 5 units	**1NHH.1**	50 unit(s)	178,45
6	1000	6 x 5 units	**1NHK.1**	30 unit(s)	177,40

Ion Exchangers

SPE polypropylene column CHROMABOND® PCA

Macherey-Nagel. Material: PP columns with PE filter elements.

Silica gel modified with propylcarboxylic acid, weakly acidic cation exchanger (WCX).

Similar phases: Strata™ WCX · Bond Elut® CBA · DSC-WCX, LC-WCX · CLEAN-UP® Carboxylic Acid · Bakerbond™ Carboxylic Acid · Isolute® CBA

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	500	10 x 5 units	**1P8T.1**	50 unit(s)	219,30
6	500	6 x 5 units	**1P8X.1**	30 unit(s)	146,20

SPE polypropylene column CHROMABOND® PSA

Macherey-Nagel. Material: PP columns with PE filter elements.

Silica gel modified with propylsulfonic acid, very strong cation exchanger (SCX).

Contrary to the SA phase no π-π interactions.

Similar phases: Isolute® SCX-2 · Bond Elut® PRS

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	500	10 x 5 units	**1NK2.1**	50 unit(s)	219,30
6	1000	6 x 5 units	**1NK3.1**	30 unit(s)	213,95

SPE polypropylene column CHROMABOND® PS-H^+

Macherey-Nagel. Material: PP columns with PE filter elements.

High purity polystyrene-divinylbenzene copolymer (PS/DVB) with strong cation exchanger, H^+ form.

For removal or concentration of cations from water. Decreasing the pH value of basic samples.

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	200	6 x 5 units	**1P8Y.1**	30 unit(s)	126,85
3	500	6 x 5 units	**1P90.1**	30 unit(s)	186,00
6	500	6 x 5 units	**1P91.1**	30 unit(s)	264,45

SPE polypropylene column CHROMABOND® PS-OH^-

Macherey-Nagel. Material: PP columns with PE filter elements.

High purity polystyrene-divinylbenzene copolymer (PS/DVB) with strong anion exchanger, OH^- form.

For removal or concentration of anions from water. Increasing the pH value in acidic samples.

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
6	500	6 x 5 units	**1PA0.1**	30 unit(s)	264,45

SPE polypropylene column CHROMABOND® PS-Mix (PS-H^+ + PS-OH^-)

Macherey-Nagel. Material: PP columns with PE filter elements.

Mixture of high purity polystyrene-divinylbenzene copolymer (PS/DVB) with strong cation exchanger, H^+ form and with strong anion exchanger, OH^- form.

For desalting of water.

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
3	200	6 x 5 units	**1P9L.1**	30 unit(s)	256,95
6	900	6 x 5 units	**1P9N.1**	30 unit(s)	379,50

Special Phases

SPE polypropylene column CHROMABOND® Carbon A

Macherey-Nagel. Material: PP columns with PE filter elements.

Highly porous activated carbon for SPE enrichment of acrylamide from water (DIN 38413-6).

Similar phases: Bakerbond™ Carbon, BEKOlut® Carbon SAC

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
6	500	6 x 5 units	**1NHN.1**	30 unit(s)	146,20
6	1000	6 x 5 units	**1NHP.1**	30 unit(s)	213,95

SPE polypropylene column CHROMABOND® CN

Macherey-Nagel. Material: PP columns with PE filter elements.

Cyanopropyl phase, polar to medium polar. In addition to weak hydrophobic interactions, selective interactions are possible due to the high electron density of the CN group.

Similar phases: Strata™ CN · Sep-Pak® CN · Bond Elu® CN-U · DSC-CN, LC-CN · CLEAN-UP® CN · AccuBond® CN · Bakerbond™ cyano · Isolute® CN · LiChrolut® CN

Column volume (ml)	Filling quantity (mg)	Pack.	Art. No.	Pack Qty.	€
1	100	20 x 5 units	**1P8H.1**	100 unit(s)	255,85
3	500	10 x 5 units	**1P8K.1**	50 unit(s)	219,30

SPE Accessories



SPE Reservoir Columns CHROMABOND®

Macherey-Nagel. Material: PP.

Delivery incl. 1 adaptor.

Version	Art. No.	Pack Qty.	€
30 ml with adaptor for 1, 3, 6 ml CHROMABOND® SPE PP columns	**1LX3.1**	10 unit(s)	111,80
70 ml with adaptor for 1, 3, 6 ml CHROMABOND® SPE PP columns	**1LX4.1**	10 unit(s)	119,35
70 ml with adaptor for 15, 45, 70 ml CHROMABOND® SPE PP columns	**1LX5.1**	10 unit(s)	164,50

Further information can be found at www.carlroth.com

Find suitable SPE vacuum manifolds and other accessories at www.carlroth.com





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Karl Fischer Reagents

Single-component Reagents

Single-component reagents contain all the substances required for the Karl Fischer reaction in a single solution. They are easy to use and provide for a high level of flexibility when choosing a solvent for the sample type. The high reactivity of the components means that the titre for single-component reagents must always be determined before titration is carried out. Reactions with standard reagents containing methanol are not possible for samples that contain aldehydes or ketones, as the methanol will react with them to produce extra water in a secondary reaction.
Carl ROTH offers methanol-free reagents that are suitable for substances containing aldehydes and ketones.



Karl Fischer ROTI®Hydroquant Methanol quick

for KF titration

Solvent component for accelerated KF reaction.
For use with article number T194 or T190.

UN no. 1992 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H314-H360D-H370

Art. No.	Pack Qty.	Pack.	€
1PPH.1	1 l	glass	48,30

Karl Fischer ROTI®Hydroquant C5 plus

5 mg H_2O/ml, pyridine-free

Single-component reagent. For use with article number T193 or 1PPH.

New Formuliation for a higher stability of the titre within the batch and after opening the bottle. Suitable for a wide variety of matrices.

UN no. 1760 · ADR 8 III · WGK 2

Danger H314-H351-H360Df-H373

at the time of manufacture.

Art. No.	Pack Qty.	Pack.	€
1T13.1	1 l	glass	149,45

Determination of the Hydrocarbon Index

NEW/+

The hydrocarbon index is defined as the total of all organic substances that can be extracted with hexane, but cannot be adsorbed in Florisil® (magnesium silicate). On a covalent GC column, these elute between *n*-decane and *n*-tetracontane and have a boiling range of 175–525 °C. These include heating oils, diesel fuels, kerosene, lubricants and transmission fluids. Petrols are not detected using this method. Carl ROTH offers an extensive range of products for the determination of the hydrocarbon index in accordance with **EN ISO 9377-2-Mod. (DIN H53).**



Standards
According to **EN ISO 9377-2-Mod. (DIN H53)**

- Manufactured in accordance with **ISO 17034** in an accredited environment
- Tested in a laboratory accredited to **ISO/IEC 17025**
- Ideal for calibration of GC-FID, GC-TCD, GC-ECD, GC-MS, GC-MS/MS, LC-UV, LC-MS and LC-MS/MS
- With an detailed, batch-related certificate of analysis

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Diesel	≥99 %	glass ampoule	**1PHK.1**	1 ml	107,00
		glass	**1PHK.2**	100 ml	478,40
			1PHK.3	250 ml	682,65
n-Alkane standard solution (C_{10}-C_{40}, all even)	16 components (each 50 mg/l) in *n*-hexane	glass ampoule	**1772.1**	1 ml	137,10
			1772.2	5 ml	205,90
	16 components (each 100 mg/l) in *n*-hexane/petroleum ether	glass ampoule	**9331.1**	5 ml	256,95
n-Alkane standard solution (C_7, C_8, C_9, C_{10}-C_{40}, all even)	19 components (each 50 mg/l) in isooctane	glass ampoule	**9629.1**	5 ml	1.138,45
Extraction solvent stock solution	20 µl/l *n*-decane and 20 mg/l *n*-tetracontane in *n*-hexane	glass ampoule	**1750.2**	10 ml	105,90
Florisil® quality control standard	1 000 mg/l mineral oil and diesel in *n*-hexane	glass ampoule	**9334.1**	5 ml	79,45
Standard mixture of mineral oils	500 mg/l mineral oil and diesel in acetone	glass ampoule	**1774.2**	5 ml	125,25
	5 000 mg/l mineral oil and diesel in *n*-hexane	glass ampoule	**1773.2**	5 ml	110,20
	10 000 mg/l mineral oil and diesel in *n*-hexane	glass ampoule	**1XX9.1**	5 ml	160,20
			1XX9.2	10 ml	263,40
	50 000 mg/l mineral oil and diesel in *n*-hexane	glass ampoule	**1LCE.1**	1 ml	216,65
			1LCE.2	5 ml	815,95
	10 000 mg/l mineral oil and diesel in *n*-heptane	glass ampoule	**1XXA.1**	10 ml	263,40
	50/50 mineral oil and diesel, solvent-free	glass ampoule	**1LCH.1**	1 ml	134,40
			1LCH.2	5 ml	240,30
Stearyl stearate test solution	2 000 mg/l in *n*-hexane	glass ampoule	**1760.2**	10 ml	147,85

For additional product data and safety information, see chapter Chemicals A-Z.

Acids and Bases for Analysis (p.a.)

Carl ROTH provides suitable acids and bases for different requirements!

- High purity
- High batch consistency
- Detailed specifications
- Good price-performance ratio



Hydrochloric acid

37 % fuming, p.a.

Solvent and dissolving agent. For acidifying, neutralisation and regeneration of ion exchangers.

HCl · M 36,46 g/mol

UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Art. No.	Pack Qty.	Pack.	€
1LX0.1	500 ml	glass	19,90
1LX0.2	1 l	glass	25,30
1LX0.3	2.5 l	glass	46,15
1LX0.4	10 l	plastic	120,95
1LX0.5	25 l	plastic	252,65



Nitric acid

100 % fuming, p.a.

HNO_3 · M 63,01 g/mol

UN no. 2032 · ADR 8 (5.1, 6.1) I · WGK 2

Danger H272-H290-H314-H330-EUH071

Art. No.	Pack Qty.	Pack.	€
1NYA.1	1 l	glass	815,95

Products in VLSI quality



Carl ROTH's VLSI (Very Large Scale Integration) product line offers solvents and acids for cleaning and etching wafers for the semi-conductor industry. Both processes are essential for chip manufacture. Carl ROTH offers a selected range of products.

Solvents

Properties:

- High purity
- Trace metal content usually below 100 ppb
- Particle-filtered, maximal 250 particles/ml

Ammonia solution

25 %, VLSI Grade

Semiconductor grade

$NH_3 + H_2O$ · M 17,03 + aq g/mol

UN no. 2672 · ADR 8 III · WGK 2

Danger H290-H314-H335-H410

Art. No.	Pack Qty.	Pack.	€
1N1E.1	2.5 l	glass	134,40

Ammonium fluoride solution

40 %, VLSI Grade

Semiconductor grade

$NH_4F + H_2O$ · M 37,04 + aq g/mol

UN no. 3287 · ADR 6.1 III · WGK 1

Danger H302-H311

Art. No.	Pack Qty.	Pack.	€
1N1H.1	5 l	plastic	134,40

Nitric acid

69 %, VLSI Grade

Semiconductor grade

HNO_3 · M 63,01 g/mol

UN no. 2031 · ADR 8 (5.1) II · WGK 1

Danger H272-H290-H314-H331-EUH071

Art. No.	Pack Qty.	Pack.	€
1N1K.1	2.5 l	plastic	170,95

Salts

Salts for Analysis (p.a.)

Definition:
p.a.: pro analysi (for analysis)
ACS: American Chemical Society
ISO: International Standard Organisation

Product name	Purity	Molecular formula	Art. No.	Pack Qty.	€
Ammonium carbamate	≥98 %, p.a.	$CH_6N_2O_2$	**1NPK.1**	50 g	23,55
			1NPK.2	250 g	84,95
			1NPK.3	500 g	149,45
Barium selenite	≥99 %, p.a.	$BaSeO_3$	**1L0H.1**	100 g	40,35
			1L0H.2	250 g	81,60
			1L0H.3	500 g	149,45
Barium sulphate	≥97,5 %, p.a.	$BaSO_4$	**1PE7.1**	10 g	11,30
			1PE7.2	100 g	20,35
			1PE7.3	500 g	46,15
			1PE7.4	1 kg	69,35
Cadmium nitrate tetrahydrate	≥99 %, p.a.	$Cd(NO_3)_2 \cdot 4\ H_2O$	**1NET.1**	50 g	23,15
			1NET.2	250 g	52,15
			1NET.3	500 g	114,50
Cadmium oxide	≥99 %, p.a., Battery Grade	CdO	**1LH8.1**	100 g	28,95
			1LH8.2	250 g	64,40
			1LH8.3	500 g	117,20
Copper(II) oxide	≥99 %, p.a.	CuO	**1LX9.1**	100 g	27,85
			1LX9.2	500 g	99,90
			1LX9.3	1 kg	181,70
Iron(III) nitrate nonahydrate	≥98 %, p.a., ACS	$Fe(NO_3)_3 \cdot 9\ H_2O$	**1P58.1**	500 g	34,30
			1P58.2	1 kg	55,40
			1P58.3	2.5 kg	114,50

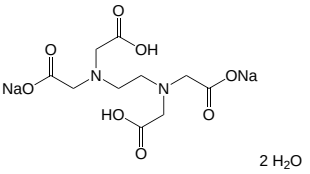


Salts in Pharmacopoeia Quality

Definition:
EP: European Pharmacopoeia
USP-NF: United States Pharmacopeia-National Formulary
BP: British Pharmacopoeia
JP: Japanese Pharmacopoeia
Ph. Helv.: Swiss Pharmacopoeia
DAB: German Pharmacopoeia

Product name	Purity	Molecular formula	Art. No.	Pack Qty.	€
Calcium sulphate	≥98 %, NF, anhydrous	$CaSO_4$	**1T6T.1**	100 g	30,00
			1T6T.2	500 g	75,15
			1T6T.3	1 kg	127,95
Tin(II) chloride dihydrate	≥98 %, Ph. Eur.	$SnCl_2 \cdot 2\ H_2O$	**1T5K.1**	100 g	32,15
			1T5K.2	500 g	115,60
			1T5K.3	1 kg	209,65

Complexing Agents



Ethylenediamine tetraacetic acid disodium salt dihydrate

≥99 %, pure

$C_{10}H_{14}N_2Na_2O_8 \cdot 2\ H_2O \cdot M\ 372{,}24$ g/mol
WGK 2
Warning H332-H373

Art. No.	Pack Qty.	Pack.	€
1PHC.1	500 g	plastic	32,15
1PHC.2	1 kg	plastic	51,50
1PHC.3	5 kg	plastic	203,20
1PHC.4	25 kg	plastic	951,40

Volumetric Standard Solutions



EDTA disodium salt solution

0,5 mol/l – 0,5 N, volumetric standard solution, in sodium hydroxide solution

$C_{10}H_{14}N_2Na_2O_8 \cdot 2\ H_2O \cdot M\ 372{,}24$ g/mol
UN no. 1824 · ADR 8 III · WGK 2
Danger H290-H314-H373

Art. No.	Pack Qty.	Pack.	€
1P16.1	1 l	plastic	117,20

EDTA disodium salt solution

1 mol/l – 1 N, volumetric standard solution, in sodium hydroxide solution

$C_{10}H_{14}N_2Na_2O_8 \cdot 2\ H_2O \cdot M\ 372{,}24$ g/mol
UN no. 1824 · ADR 8 II · WGK 2
Danger H290-H314-H332-H373

Art. No.	Pack Qty.	Pack.	€
1P17.1	1 l	plastic	188,15

Indicators and Dyes



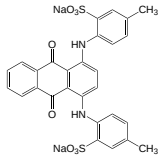
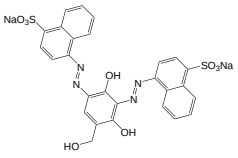
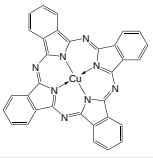
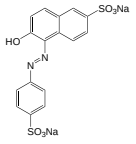
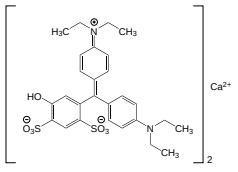
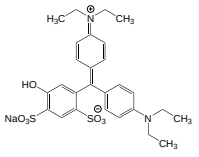
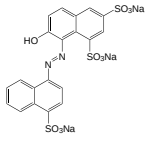
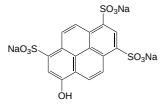
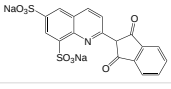
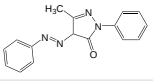
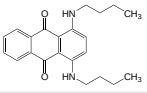
Universal indicator solution

in 50 % ethanol, denatured

Indicator pH 4-10
UN no. 1170 · ADR 3 II · WGK 1
Danger H225-H319

Art. No.	Pack Qty.	Pack.	€
1PET.1	100 ml	plastic	26,80
1PET.2	500 ml	plastic	106,45

Dyes

Structural formula	Product name	Purity	Soluble in	Art. No.	Pack Qty.	€
	Alizarine cyanine green (C. I. 61570)	pure	Water	**1LA8.1**	5 g	23,15
				1LA8.2	25 g	57,55
				1LA8.3	100 g	114,50
	Brown HT (C.I. 20285)	extra pure	Water	**1XTK.1**	10 g	21,40
				1XTK.2	25 g	42,90
				1XTK.3	100 g	96,65
	Copper phthalocyanine	≥98 %	sulphuric acid	**1XP9.1**	5 g	16,05
				1XP9.2	25 g	67,65
	Orange yellow (C.I. 15985)	extra pure	Water	**1XTN.1**	10 g	21,40
				1XTN.2	25 g	42,90
				1XTN.3	100 g	96,65
	Patent blue V calcium salt (C.I. 42051)	extra pure	Water, ethanol	**1XTP.1**	10 g	21,40
				1XTP.2	25 g	42,90
				1XTP.3	100 g	96,65
	Patent blue V sodium salt (C.I. 42051:2)	extra pure	Water, ethanol	**1XTT.1**	10 g	21,40
				1XTT.2	25 g	42,90
				1XTT.3	100 g	96,65
	Ponceau 4R (C.I. 16255)	extra pure	Water	**1XTX.1**	10 g	21,40
				1XTX.2	25 g	42,90
				1XTX.3	100 g	96,65
	Pyranine (C. . 59040)	pure	Water	**1T4H.1**	10 g	23,55
				1T4H.2	25 g	48,30
				1T4H.3	100 g	138,70
	Quinoline yellow (C.I. 47005)	extra pure	Water	**1XTL.1**	10 g	21,40
				1XTL.2	25 g	42,90
				1XTL.3	100 g	96,65
	Sudan Yellow G (C. I. 12700)	pure	Fat, oil, ethanol, xylene, benzyl alcohol	**1T4L.1**	10 g	21,40
				1T4L.2	25 g	42,90
				1T4L.3	100 g	138,70
	Sudan Blue II (C. I. 61554)	pure	Fat, oil, ethanol, xylene, benzyl alcohol	**1T4K.1**	10 g	21,40
				1T4K.2	25 g	42,90
				1T4K.3	100 g	138,70



pH-Buffer Solutions, ROTI®Calipure, ready-to-use



Properties:

- Manufactured from high purity buffer substances
- No need for time-consuming drying and weighing of reagents
- The buffer solutions are adjusted to their respective pH values by comparison with standard buffer solutions (according to DIN 19266 and based on primary reference materials of the NIST)
- Quick and precise calibration of measuring equipment
- Stabilised against algae and bacterial action
- The batch specific Certificates of Analysis are available online

Buffer solution pH 9.00 ±0.02 (20 °C)

ROTI®Calipure buffer solution, ready to use, borate free

Glycine, caustic soda lye, sodium chloride

WGK 1

Art. No.	Pack Qty.	Pack.	€
1LP5.1	500 ml	plastic	48,30
1LP5.2	1 l	plastic	64,40

Buffer solution pH 10.00 ±0.02 (20 °C)

ROTI®Calipure buffer solution, ready to use, borate free

Glycine, caustic soda lye, sodium chloride

WGK 1

Art. No.	Pack Qty.	Pack.	€
1LP6.1	500 ml	plastic	42,90
1LP6.2	1 l	plastic	60,10

ROTI®Calipure standards for your calibration needs

Carl ROTH offers an extensive range of calibration and control standards. These products are manufactured from highly pure starting material and are specially tested for each application.
The corresponding batch-specific certificate of analysis is available online.
Each product series offers excellent value for money.



Refractive index standards BRIX ROTI®Calipure

Our refractive index standards BRIX are gravimetrically manufactured from high-quality materials and achieve a longer shelf life through stabilisation. They can be used with all refractometers.
They are based on sucrose and are supplied in practical dropper bottles.
The batch-specific certificates of analysis are available online.

Properties:

- Calibration and control standard
- Stabilised, non ICUMSA (International Commission for Uniform Methods of Sugar Analysis)
- Usable with all refractometers

Purity	Pack.	Art. No.	Pack Qty.	€
0 % stabilised saccharose, 1,33299 (20 °C)	plastic	**1NYC.1**	15 ml	142,45
5 % stabilised saccharose, 1,34026 (20 °C)	plastic	**1NYL.1**	15 ml	142,45
7 % stabilised saccharose, 1,34325 (20 °C)	plastic	**1NYN.1**	15 ml	142,45
10 % stabilised saccharose, 1,34782 (20 °C)	plastic	**1NYP.1**	15 ml	142,45
11,2 % stabilised saccharose, 1,34968 (20 °C)	plastic	**1NYT.1**	15 ml	260,70
11,5 % stabilised saccharose, 1,35015 (20 °C)	plastic	**1NYX.1**	15 ml	260,70
12 % stabilised saccharose, 1,35093 (20 °C)	plastic	**1NYY.1**	15 ml	142,45
12,5 % stabilised saccharose, 1,35172 (20 °C)	plastic	**1P00.1**	15 ml	142,45
14,9 % stabilised saccharose, 1,35552 (20 °C)	plastic	**1P01.1**	15 ml	260,70
15 % stabilised saccharose, 1,35568 (20 °C)	plastic	**1P02.1**	15 ml	142,45
19,4 % stabilised saccharose, 1,36285 (20 °C)	plastic	**1P03.1**	15 ml	142,45
20 % stabilised saccharose, 1,36384 (20 °C)	plastic	**1P04.1**	15 ml	142,45
23,8 % stabilised saccharose, 1,37026 (20 °C)	plastic	**1P05.1**	15 ml	142,45
25 % stabilised saccharose, 1,37233 (20 °C)	plastic	**1P06.1**	15 ml	142,45
30 % stabilised saccharose, 1,38115 (20 °C)	plastic	**1P07.1**	15 ml	142,45
35 % stabilised saccharose, 1,39032 (20 °C)	plastic	**1P08.1**	15 ml	260,70
40 % stabilised saccharose, 1,39986 (20 °C)	plastic	**1P09.1**	15 ml	142,45
45 % stabilised saccharose, 1,40978 (20 °C)	plastic	**1P0A.1**	15 ml	142,45
50 % stabilised saccharose, 1,42009 (20 °C)	plastic	**1P0C.1**	15 ml	142,45
55 % stabilised saccharose, 1,43080 (20 °C)	plastic	**1P0E.1**	15 ml	142,45
60 % stabilised saccharose, 1,44193 (20 °C)	plastic	**1P0H.1**	15 ml	142,45
67,5 % stabilised saccharose, 1,45941 (20 °C)	plastic	**1P0K.1**	15 ml	142,45

For additional product data and safety information, see chapter Chemicals A-Z.

Standards for Cryoscopy ROTI®Calipure



The concentration of a solute in a liquid, has an influence on some colligative properties of the mixed solution, one of the properties is the freezing point. The freezing point of milk is also based on this phenomenon and is below 0 °C for unaltered milk. If the milk is diluted with water, the freezing point moves closer to that of pure water (0 °C). The increase in freezing point is due to the dilution of lactose and inorganic salts, the other components such as fat, proteins and other ingredients probably have no influence on the freezing point. The freezing point standards are produced gravimetrically (w/w) from high-quality raw materials. The certificates of analysis are available online.

Properties:

- Used to calibrate and control
- Suitable for all cryoscopes
- For the determination of freezing point in milk
- Manufactured according to ISO 5764

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
Standard for cryoscopy	ROTI®Calipure 000 (0,000 °C)	plastic	**1PEX.1**	250 ml	42,50
	ROTI®Calipure 422 m°H (-0,408 °C)	plastic	**1PEY.1**	100 ml	29,60
			1PEY.2	250 ml	42,50
	ROTI®Calipure 530 m°H (-0,512 °C)	plastic	**1PH0.1**	100 ml	29,60
			1PH0.2	250 ml	42,50
	ROTI®Calipure 577 m°H (-0,557 °C)	plastic	**1PH1.1**	250 ml	42,50
	ROTI®Calipure 621 m°H (-0,600 °C)	plastic	**1PH2.1**	100 ml	29,60
			1PH2.2	250 ml	42,50
Standard for cryoscopy – Cooling Bath Liquid	ROTI®Calipure for cryoscopy	plastic	**1PH3.1**	500 ml	46,80
Standard for cryoscopy – Heat Transfer Fluid	ROTI®Calipure for cryoscopy	plastic	**1PH4.1**	250 ml	67,20

Viscosity Standards ROTI®Calipure NEW/+



Our viscosity standards are manufactured from high-quality reagents and tested using Ubbelohde Master Viscometers. All standards are tested for kinematic viscosity (mm²/s, cSt) as well as dynamic viscosity (mPa·s, cP) and density (g/ml) at different temperatures up to 100 °C. They can be used for calibration, control, verification, qualification or method validation of kinematic and dynamic viscosity.
All viscosity standards behave like a Newtonian fluid. The batch specific Certificates of Analysis are available online.

Product name	Purity	Pack.	Art. No.	Pack Qty.	€
Standard for Viscosity N2	2,9 cSt (20 °C)	glass	**1P42.1**	500 ml	370,90
Standard for Viscosity S3	4,5 cSt (20 °C)	glass	**3385.1**	500 ml	182,25
Standard for Viscosity N4	6,7 cSt (20 °C)	glass	**1P43.1**	500 ml	370,90
Standard for Viscosity S6	10 cSt (20 °C)	glass	**3387.1**	500 ml	182,25
Standard for Viscosity N7.5	14 cSt (20 °C)	glass	**1P44.1**	500 ml	233,85
Standard for Viscosity N10	22 cSt (20 °C)	glass	**3342.1**	500 ml	182,25
Standard for Viscosity N14	30 cSt (20 °C)	glass	**1P45.1**	500 ml	370,90
Standard for Viscosity S20	43 cSt (20 °C)	glass	**3360.1**	500 ml	182,25
Standard for Viscosity N26	59 cSt (20 °C)	glass	**1P46.1**	500 ml	370,90
Standard for Viscosity N35	88 cSt (20 °C)	glass	**3349.1**	500 ml	182,25
Standard for Viscosity N44	110 cSt (20 °C)	glass	**1P47.1**	500 ml	233,85
Standard for Viscosity S60	160 cSt (20 °C)	glass	**3388.1**	500 ml	182,25
Standard for Viscosity N75	210 cSt (20 °C)	glass	**3356.1**	500 ml	182,25
Standard for Viscosity N100	320 cSt (20 °C)	glass	**3344.1**	500 ml	182,25
Standard for Viscosity S200	540 cSt (20 °C)	glass	**3366.1**	500 ml	182,25
Standard for Viscosity N140	400 cSt (20 °C)	glass	**1P48.1**	500 ml	370,90
Standard for Viscosity N250	790 cSt (20 °C)	glass	**3345.1**	500 ml	182,25
Standard for Viscosity N350	980 cSt (20 °C)	glass	**1P49.1**	500 ml	370,90
Standard for Viscosity N415	1400 cSt (20 °C)	glass	**1P4A.1**	500 ml	233,85
Standard for Viscosity S600	1800 cSt (20 °C)	glass	**1P4C.1**	500 ml	233,85
Standard for Viscosity N750	2700 cSt (20 °C)	glass	**1P4E.1**	500 ml	233,85
Standard for Viscosity N1000	3300 cSt (20 °C)	glass	**1P4H.1**	500 ml	370,90
Standard for Viscosity N1400	4900 cSt (20 °C)	glass	**1P4K.1**	500 ml	370,90
Standard for Viscosity N2500	8300 cSt (20 °C)	glass	**1P4L.1**	500 ml	370,90
Standard for Viscosity S2000	8400 cSt (20 °C)	glass	**1P4N.1**	500 ml	233,85
Standard for Viscosity N4000	19000 cSt (20 °C)	glass	**1P4P.1**	500 ml	233,85
Standard for Viscosity N5100	28000 cSt (20 °C)	glass	**1P4T.1**	500 ml	233,85
Standard for Viscosity S8000	41000 cSt (20 °C)	glass	**1P4X.1**	500 ml	233,85
Standard for Viscosity N10200	58000 cSt (20 °C)	glass	**1P4Y.1**	500 ml	370,90
Standard for Viscosity N15000	77000 cSt (20 °C)	glass	**1P50.1**	500 ml	370,90
Standard for Viscosity N18000	100000 cSt (20 °C)	glass	**1P51.1**	500 ml	370,90

For additional product data and safety information, see chapter Chemicals A-Z.

Standards for Total Acid Number and Total Base Number



Total Acid Number

The Total Acid Number (TAN), acid number (AN) or neutralisation number (NN) is determined primarily in mineral oils, lubricants and biodiesel and indicates how many mg of potassium hydroxide are required per g of sample to neutralise the acidic components and free acids. It depends, among other things, on the solubility of the sample in the solvent and on the nature of the sample. The total acid number shows changes in the oil or lubricant under oxidising conditions and serves as a quality control.
In this method, the total acid number in the sample is determined potentiometrically by acid/base titration with potassium hydroxide solution in 2-propanol.
Our TAN standards are produced in a synthetic oil matrix and tested according to ASTM D664.

Total Base Number

The Total Base Number (TBN) or base number (BN) is determined in oils or lubricants. It indicates the ability of the oil to neutralise acidic compounds formed during use; the unit of measurement is mg KOH/g. The determination is carried out on both new and used oils.
In the method according to ASTM D2896, the total base number of the sample is determined by dissolving the sample in a mixture of chlorobenzene and acetic acid and then titrating it potentiometrically with perchloric acid in acetic acid.
For the determination according to ASTM D4739, the sample is dissolved in a mixture of toluene, 2-propanol, chloroform with 0.5 % water and titrated with hydrochloric acid in 2-propanol.
Our TBN standards are produced in a synthetic oil matrix and tested according to ASTM D2896.

Standards for Total Acid Number (TAN)

Brand/Purity	Pack.	Art. No.	Pack Qty.	€
ROTI®Calipure 0,05 mg KOH/g	glass	**1T1K.1**	50 g	181,70
ROTI®Calipure 0,1 mg KOH/g	glass	**1T1L.1**	50 g	181,70
ROTI®Calipure 0,2 mg KOH/g	glass	**1T1N.1**	50 g	192,45
ROTI®Calipure 0,5 mg KOH/g	glass	**1T1P.1**	50 g	181,70
ROTI®Calipure 1,0 mg KOH/g	glass	**1T1T.1**	50 g	181,70
ROTI®Calipure 1,5 mg KOH/g	glass	**1T1X.1**	50 g	461,20
ROTI®Calipure 2,0 mg KOH/g	glass	**1T1Y.1**	50 g	332,20
ROTI®Calipure 2,5 mg KOH/g	glass	**1T20.1**	50 g	181,70
ROTI®Calipure 3,0 mg KOH/g	glass	**1T21.1**	50 g	332,20
ROTI®Calipure 4,5 mg KOH/g	glass	**1T22.1**	50 g	332,20

Standards for Total Base Number (TBN)

Brand/Purity	Pack.	Art. No.	Pack Qty.	€
ROTI®Calipure 1,0 mg KOH/g	glass	**1T23.1**	50 g	353,70
ROTI®Calipure 3,0 mg KOH/g	glass	**1T24.1**	50 g	353,70
ROTI®Calipure 6,0 mg KOH/g	glass	**1T25.1**	50 g	353,70
ROTI®Calipure 10 mg KOH/g	glass	**1T26.1**	50 g	353,70
ROTI®Calipure 15 mg KOH/g	glass	**1T27.1**	50 g	353,70
ROTI®Calipure 30 mg KOH/g	glass	**1T28.1**	50 g	353,70
ROTI®Calipure 40 mg KOH/g	glass	**1T29.1**	50 g	353,70
ROTI®Calipure 50 mg KOH/g	glass	**1T2A.1**	50 g	353,70
ROTI®Calipure 70 mg KOH/g	glass	**1T2C.1**	50 g	353,70

Solvents and Titrants for TAN/TBN determination

Product name	Brand/Purity	Pack.	Art. No.	Pack Qty.	€
Hydrochloric acid in 2-propanol	0,1 mol/l – 0,1 N, volumetric standard solution	glass	**2943.1**	1 l	68,30
Perchloric acid	0,1 mol/l – 0,1 N, volumetric standard solution, in anhydrous acetic acid	glass	**K023.1**	1 l	100,95
Potassium hydroxide solution in 2-propanol	0,01 mol/l – 0,01 N, volumetric standard solution	glass	**1T1H.1**	1 l	149,45
	0,1 mol/l – 0,1 N, volumetric standard solution	glass	**KK68.1**	1 l	65,50
Sodium acetate solution	0,1 mol/l – 0,1 N, volumetric standard solution, in acetic acid	plastic	**0151.1**	1 l	55,80
Solvent for Total Acid Number (TAN) acc. to ASTM D664	ROTI®Calipure Toluene, 2-Propanol, Water 50:49.5:0.5	glass	**1T2E.1**	1 l	160,20
			1T2E.2	2.5 l	213,95
Solvent for Total Base Number (TBN) acc. to ASTM D2896	ROTI®Calipure Chlorobenzene, Acetic acid 2:1	glass	**1T2H.1**	1 l	106,45
			1T2H.2	2.5 l	213,95
Solvent for Total Base Number (TBN) acc. to ASTM D4739	ROTI®Calipure 2-Propanol, Chloroform, Toluene 1:1:1	glass	**1T2K.1**	2.5 l	353,70

Electrolytes



Electrolyte Lithium chloride

ROTI®Calipure 1 mol/l in ethanol

Electrolyte and reference electrode filling solution acc. to ASTM D664

UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

Art. No.	Pack Qty.	Pack.	€
1T2L.1	100 ml	dropp. bottle	53,65

Electrolyte sodium perchlorate

ROTI®Calipure saturated in glacial acetic acid

Electrolyte and reference electrode filling solution acc. to ASTM D2896

UN no. 2789 · ADR 8 (3) II · WGK 1

Danger H226-H314

Art. No.	Pack Qty.	Pack.	€
1T2N.1	100 ml	dropp. bottle	75,15

Electrolyte tetraethylammonium bromide

ROTI®Calipure 0,4 mol/l in ethylene glycol

Electrolyte and reference electrode filling solution acc. to ASTM D2896

WGK 3

Warning H302-H373

Art. No.	Pack Qty.	Pack.	€
1T2P.1	1 l	glass	160,20

Single Element Standards for ICP-OES

(Inductively Coupled Plasma – Optical Emission Spectrometry)



Uranium ICP Standard Solution

ROTI®Star 1 000 mg/l U

Titanium Standards

UN no. 1760 · ADR 8 III

Warning H290-H315-H319

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1Y20.1	30 ml	HDPE	67,65
1Y20.2	100 ml	HDPE	103,75
1Y20.3	250 ml	HDPE	155,35
1Y20.4	500 ml	HDPE	220,40



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Multi Element Standards for ICP-OES

(Inductively Coupled Plasma – Optical Emission Spectrometry)



All solutions are certified and can be traced to NIST standard reference solutions. Solutions are produced according to **ISO 17034** in an accredited environment. The solutions are tested in a laboratory accredited to **ISO/IEC 17025** and supplied with a detailed, batch-specific certificate of analysis. A series of mixtures of different element combinations and concentrations for standard environmental analyses.

Properties:

- Quality control standards
- 12 months shelf life for unopened bottle & 6 months after the bottle has been opened

Product name	Number of elements	Composition	Concentration info	Matrix	Art. No.	Pack Qty.	€
Multi-Element ICP Standard Solution CR-06	20	Al (500), As (15), B (25), Ca (4000), Cd (1), Co (5), Cr (5), Cu (100), Fe (1000), K (350), Mg (1000), Mn (100), Mo (1,5), Na (1000), Ni (15), Pb (50), PO_4 (1000), Si (500), V (10), Zn (50)	concentration in mg/l	2 % HNO_3	**1LP4.1**	100 ml	654,70
Multi-Element ICP Standard Solution CR-07	8	Ag, Al, Cd, Cr, Cu, Fe, Mg, Mn	100 mg/l	3 % HNO_3	**1LXN.1**	250 ml	375,20
Multi-Element ICP Standard Solution CR-08	9	Bi, Co, Ga, In, Se, Sn, Te, Ti, Zn	100 mg/l	3 % HNO_3/3 HCl	**1LXL.1**	250 ml	403,15
Multi-Element ICP Standard Solution CR-09	8	As, Ni, Pb, Sb, Si, Tl, W, Zr	100 mg/l	3 % HNO_3/3 HCl	**1LXC.1**	250 ml	381,65
Multi-Element ICP Standard Solution CR-10	6	Au, Ir, Pd, Pt, Rh, Ru	100 mg/l	3 % HNO_3/3 HCl	**1LXT.1**	250 ml	579,45
Multi-Element ICP Standard Solution CR-11	7	Al, Cd, Cr, Cu, Fe, Mg, Mn	100 mg/l	3 % HNO_3	**1LXK.1**	250 ml	321,45
Multi-Element ICP Standard Solution CR-12	5	Ni, Sb, Se, Te, Ti	100 mg/l	3 % HNO_3	**1LXE.1**	250 ml	256,95
Multi-Element ICP Standard Solution CR-13	8	As, Bi, Co, Pb, Pt, Si, Sn, Zn	100 mg/l	3 % HNO_3/3 HCl	**1LXP.1**	250 ml	424,65
Multi-Element ICP Standard Solution CR-14	6	Ga, Ge, Hg, In, Pd, Tl	100 mg/l	3 % HNO_3	**1LXX.1**	250 ml	321,45
Multi-Element ICP Standard Solution CR-15	8	Al, Au, Cr, Fe, Mg, Ni, Pt, Sn	100 mg/l	3 % HNO_3/3 HCl	**1LXH.1**	250 ml	461,20
Multi-Element ICP Standard Solution CR-16	12	Al, Ba, Co, Cr, Cu, Fe, Mn, Mo, Ni, Ti, V, Zn	10 mg/l	2 % HNO_3	**1NY5.1**	250 ml	450,45
Multi-Element ICP Standard Solution CR-17	6	Cu, Cr, Fe, K, Mn, Pb	1 000 mg/l	5 % HNO_3	**1P7E.1**	250 ml	478,40
Multi-Element ICP Standard Solution CR-18	16	Ag, As, Ba, Cd, Co, Cr, Cu, Fe, Li, Mo, Ni, Pb, Se, Tl, V, Zn	100 mg/l	5 % HNO_3	**1T52.1**	100 ml	424,65
Multi-Element ICP Standard Solution CR-19	10	Au, Hg, Ir, Os, Pd, Pt, Rh, Ru, Sb, Sn	100 mg/l	5 % HCl	**1T51.1**	100 ml	499,90
Multi-Element ICP Standard Solution CR-20	15	Ca (1000), K (1000), Mg (1000), P (1000), S (1000), Na (1000), Mn (100), Cu (100), Fe (100), Zn (100), B (100mg)	concentration in mg/l	5 % HNO_3	**1Y11.1**	100 ml	514,95
					1Y11.2	250 ml	751,45
					1Y11.3	500 ml	1.048,15
Multi-Element ICP-OES Standard Solution for wavelength calibration	10	Al (50), As (50), Ba (50), Cd (50), Co (50), Cr (50), Cu (50), Mn (50), Mo (50), Ni (50), Pb (50), Se (50), Sr (50), Zn (50), K (500)	concentration in mg/l	5 % HNO_3	**1X09.1**	100 ml	396,70
					1X09.2	500 ml	736,40

► We would also like to offer you our **ROTI®Star multi-element standard solutions** which are manufactured with your special requirements.

Multi Element Standards for ICP-MS

(Inductively Coupled Plasma – Mass spectrometry)

The standard solutions are manufactured from high-purity starting material (usually ≥99,999 %) under clean room conditions.
Acids (purified by means of sub-boiling distillation) and water of highest quality are used to manufacture the solutions.
The solutions are certified and can be traced to NIST standard reference solutions. Solutions are produced according to **ISO 17034** in an accredited environment. The solutions are tested in a laboratory accredited to **ISO/IEC 17025** and supplied with a detailed, batch-specific certificate of analysis.
The range encompasses different multi-element standards in various compositions for tuning, calibration and interference tests.

Product name	Number of elements	Composition	Concentration info	Matrix	Art. No.	Pack Qty.	€
Multi-Element ICP-MSStandard Solution CR-02	4	Ca (10000), K (1000), Na (1000), Mg (1000)	concentration in mg/l	5 % HNO_3	**1NC8.1**	100 ml	246,20
Multi-Element ICP-MSStandard Solution CR-03	32	Ag (10), Al (10), As (100), B (100), Ba (10), Be (100), Bi (10), Ca (1000), Cd (10), Co (10), Cr (10), Cu (10), Fe (100), Ga (10), Gd (100), K (10), Li (10), Mg (10), Mn (10), Mo (10), Na (10), Ni (10), Pb (10), Rb (10), Sb (100), Se (100), Sr (10), Te (10), Tl (10), U (10), V (10), Zn (100)	concentration in mg/l	5 % HNO_3	**1P5T.1**	100 ml	1.177,15

Metallo-organic single element standards

ROTI®Star

- Certified and traceable to NIST standard reference materials
- Manufactured in accordance with **ISO 17034** in an accredited environment
- Tested in a laboratory accredited to **ISO/IEC 17025**
- Detailed, batch-specific certificate of analysis is available online



Properties:

- Metallo-organic compounds in 75 cSt hydrocarbon oil
- Trace metal concentrations determined by ICP-OES
- Suitable for use with ASTM D4927, D4951, D5185, D5708, D6443, D6481, D6595 and other standard test methods for elemental analysis
- Many of these standards are sulfonate-based and thus contain high levels of sulfur
- Excellent for AAS, ICP, RDE, XRF and other elemental analysis techniques
- 12 months shelf life for unopened bottle

Product name	Purity	Art. No.	Pack Qty.	€
Aluminium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Al	**1PN8.1**	50 g	96,65
Antimony Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Sb	**1PLN.1**	50 g	96,65
Arsenic Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g As	**1PN7.1**	50 g	112,80
Barium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Ba	**1PLP.1**	50 g	102,05
Beryllium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Be	**1PLL.1**	50 g	114,50
Bismuth Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Bi	**1PNC.1**	50 g	99,90
Boron Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g B	**1PN2.1**	50 g	96,65
Cadmium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Cd	**1PP1.1**	50 g	99,90
Calcium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Ca	**1PNK.1**	50 g	98,80
Cerium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Ce	**1PN1.1**	50 g	114,50
Chromium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Cr	**1PNN.1**	50 g	79,45
Cobalt Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Co	**1PNX.1**	50 g	76,25
Copper Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Cu	**1PLC.1**	50 g	78,40
Iron Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Fe	**1PLA.1**	50 g	99,90
Lanthanum Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g La	**1PNP.1**	50 g	98,80
Lead Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Pb	**1PLH.1**	50 g	99,90
Lithium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Li	**1PP3.1**	50 g	98,80
Magnesium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Mg	**1PNA.1**	50 g	107,40
Manganese Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Mn	**1PN0.1**	50 g	132,15
Mercury Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Hg	**1PLK.1**	50 g	114,50
Molybdenum Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Mo	**1PNH.1**	50 g	98,80
Nickel Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Ni	**1PL9.1**	50 g	94,50
Phosphorus Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g P	**1PLX.1**	50 g	94,50
Potassium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g K	**1PNY.1**	50 g	98,80
Scandium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Sc	**1PL8.1**	50 g	155,80
Selenium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Se	**1PN3.1**	50 g	114,50
Silicium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Si	**1PN6.1**	50 g	98,80
Silver Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Ag	**1PL7.1**	50 g	100,95
Sodium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Na	**1PP2.1**	50 g	99,90
Strontium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Sr	**1PLY.1**	50 g	76,25
Sulphur Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g S	**1PNT.1**	50 g	96,65
Thallium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Tl	**1PN4.1**	50 g	116,00
Tin Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Sn	**1PN9.1**	50 g	100,95
Titanium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Ti	**1PN5.1**	50 g	100,95
Tungsten Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g W	**1PNE.1**	50 g	85,90
Vanadium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g V	**1PP0.1**	50 g	98,80
Yttrium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Y	**1PLT.1**	50 g	84,85
Zinc Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Zn	**1PNL.1**	50 g	98,80
Zirconium Standard Solution in 75 cSt Hydrocarbon Oil	1 000 µg/g Zr	**1PLE.1**	50 g	98,80

Elements

Cadmium

Cd

Cadmium powder
p.a., Battery Grade

Cd · M 112,41 g/mol

UN no. 3288 · ADR 6.1 II · WGK 3

Danger
H330-H341-H350-H361fd-H372-H410

Art. No.	Pack Qty.	Pack.	€
1N30.1	100 g	plastic	21,40
1N30.2	500 g	plastic	64,40
1N30.3	1 kg	plastic	117,20

Cobalt powder

Co

Cobalt powder
≥99,8 %, p.a.

Co · M 58,93 g/mol

UN no. 3089 · ADR 4.1 II · WGK 3

Danger
H228-H302-H317-H319-H330-H334-H341-H350-H360F-H410

Art. No.	Pack Qty.	Pack.	€
1N2H.1	50 g	plastic	24,65
1N2H.2	250 g	plastic	102,05
1N2H.3	500 g	plastic	177,40

Calcium

Ca

Calcium granulate
≥98 %, pure, <2 mm

Ca · M 40,08 g/mol

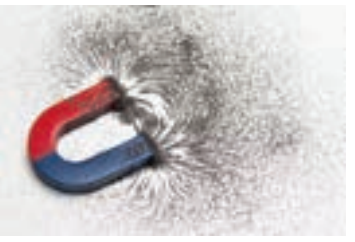
UN no. 1401 · ADR 4.3 II · WGK 1

Danger H261

Art. No.	Pack Qty.	Pack.	€
1P59.1	50 g	glass	34,30
1P59.2	100 g	glass	57,55
1P59.3	500 g	glass	149,45

Iron

Fe



Iron filings
~100 mesh, grease free

For visible magnetic field lines.
Please do not contact the magnet directly.

Fe · M 55,8 g/mol

Art. No.	Pack Qty.	Pack.	€
1P5A.1	100 g	glass	11,30
1P5A.2	500 g	glass	24,20
1P5A.3	1 kg	glass	39,70

Carbon

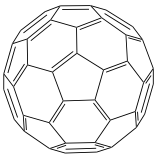
C

Fullerene C60
≥99 %

C_{60} · M 720,64 g/mol

WGK 1

Warning H319-H335



Art. No.	Pack Qty.	Pack.	€
1NPX.1	500 mg	glass	75,15
1NPX.2	1 g	glass	138,70
1NPX.3	5 g	glass	553,65

Iron powder
≥99,5 %, p.a., Electrolytic Grade, 250-300 mesh

Fe · M 55,8 g/mol

UN no. 3089 · ADR 4.1 III

Danger H228

Art. No.	Pack Qty.	Pack.	€
1P5C.1	100 g	glass	22,05
1P5C.2	500 g	glass	63,35
1P5C.3	1 kg	glass	103,75

Lead



Lead powder

≥99,95 %, p.a., ~200 mesh

Pb · M 207,21 g/mol

UN no. 3077 · ADR 9 III · WGK 3

Danger H360FD-H362-H372-H410

Art. No.	Pack Qty.	Pack.	€
1T77.1	100 g	plastic	29,60
1T77.2	500 g	plastic	99,90
1T77.3	1 kg	plastic	177,40

Tin



Tin foil

98 % Sn, 2 % Sb, pure

Foil 40 cm wide, 0.2 mm thick and approx. 10 m in length, ca. 5,8 kg.

Sn · M 118,71 g/mol

Art. No.	Pack Qty.	Pack.	€
1P6E.1	1 unit(s)	plastic	1.353,45

Tin foil

98 % Sn, 2 % Sb, pure

Foil 40 cm wide, 0.1 mm thick and approx. 10 m in length, ca. 2,9 kg.

Sn · M 118,71 g/mol

Art. No.	Pack Qty.	Pack.	€
1P6H.1	1 unit(s)	plastic	729,95

Filtration and extraction agents

Charcoal, activated

Activated charcoals are used in many areas within the chemical and pharmaceutical industry. The charcoal is available in powder or broken coal format and as extruded charcoal, depending on the application.

Charcoal

~4 mm, impregnated with phosphoric acid

For gas cleaning, Extruded charcoal

M 12,01 g/mol

Warning H315-H319

Art. No.	Pack Qty.	Pack.	€
1Y06.1	500 g	plastic	27,85
1Y06.2	1 kg	plastic	49,35
1Y06.3	10 kg	plastic	310,70
1Y06.4	25 kg	plastic	676,20

Charcoal

~4 mm, impregnated with potassium hydroxide

For gas cleaning, Extruded charcoal

M 12,01 g/mol

Danger H318

Art. No.	Pack Qty.	Pack.	€
1Y07.1	500 g	plastic	27,85
1Y07.2	1 kg	plastic	49,35
1Y07.3	10 kg	plastic	310,70
1Y07.4	25 kg	plastic	676,20

Preliminary tests for qualitative determination

Flame Test Kits

Set for the identification of minerals in the Bunsen burner flame through the characteristic flame colouring of the salts in the “flame test”.

Our flame test kits also contain 10 magnesia rods and a wooden clamp for better handling. This provides the materials needed to demonstrate the flame colours of six different metals. During combustion, the metal or semi-metal ion contained in each chemical gives the flame a characteristic colour.

Application:

- Dip the magnesia rod into diluted hydrochloric acid (not included in the scope of delivery)
- Pick up some of the salt with the moistened magnesia rod
- Hold the end of the rod with the salt in the swooshing burner flame

Directions for use

If necessary, burn out the magnesia rods in the burner flame. The flame must be colourless. Otherwise there will still be residues of chemicals from previous experiments.

Flame Test Kit 1

Salts for flame colouration.

The kit contains

- 10 g barium chloride dihydrate Art. No. 4453.7
- 10 g calcium chloride dihydrate Art. No. 5239.5
- 10 g lithium chloride Art. No. 6698.5
- 10 g potassium chloride Art. No. 6781.4
- 10 g sodium chloride Art. No. 3957.6
- 10 g strontium chloride hexahydrate Art. No. 4473.4

The magnesia rods (10 pcs.) and a wooden clip are included in the kit.

UN no. 3316 · ADR 9 · WGK 1

Danger H301-H315-H318-H332

Delivery without platinum wire. Please order separately.

Art. No.	Pack Qty.	Pack.	€
1PE8.1	1 set	glass	53,65



Flame Test Kit 2

Salts for flame colouration.

The kit contains

- 10 g barium sulphate Art. No. 1PE7.1
- 10 g caesium chloride Art. No. 8627.4
- 10 g copper(II) chloride dihydrate Art. No. CN82.4
- 10 g copper(II) nitrate trihydrate Art. No. P754.3
- 5 g indium(III) chloride Art. No. 0307.1
- 5 g rubidium chloride Art. No. 4471.2

The magnesia rods (10 pcs.) and a wooden clip are included in the kit.

UN no. 3316 · ADR 9 · WGK 3

Danger
H272-H290-H302+H312-H314-H361fd-H410

Delivery without platinum wire. Please order separately.

Art. No.	Pack Qty.	Pack.	€
1PE6.1	1 set	glass	85,90

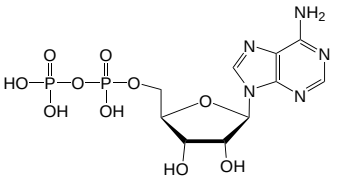




Chemicals & Natural Reagents A–Z

A 228
B 236
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G 243
H 244
I 244
K 244
M 246
N 248
P 249
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S 256
U 256
Z 287

Adenosine diphosphate



ADP · Adenosine 5′-(trihydrogen diphosphate)
$C_{10}H_{15}N_5O_{10}P_2$
M 427,2 g/mol
CAS No. 58-64-0 · EC no. 200-392-5
WGK 1

Adenosine diphosphate
≥97 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Appearance ..... White to off- white powder
Assay ..... ≥97 %
Loss on drying ..... ≤15 %

Art. No.	Pack Qty.	Pack.	€
1T9L.1	100 mg	glass	21,40
1T9L.2	500 mg	glass	64,40
1T9L.3	1 g	glass	134,30

Agar-Agar

CAS No. 9002-18-0 · EC no. 232-658-1
WGK 1

Agar-Agar, Ph.Eur.
Ph. Eur., USP, for microbiology

Storage temperature: +15 to +25 °C

Guarantee analysis
As (Arsenic) ..... ≤0,0003 %
Ash ..... ≤5 %
Appearance ..... White to light cream coloured powder
Cd (Cadmium) ..... ≤0,0001 %
Identity ..... complies
Gelling temperature (1,5 % gel) ..... 32-38 °C
Gel strength (1,5 % Nikan) ..... 750-1000 g/cm²
Hg (Mercury) ..... ≤0,0001 %
Pb (Lead) ..... ≤0,0005 %
pH value (1,5 % sol.) 6,5-7,5
Swelling index ..... ≥10 ml
Melting temperature (1,5 % gel) ..... 80-90 °C
Loss on drying ..... ≤20 %
Turbidity (1,5 % solution) ..... ≤15 NTU
Insoluble matter ..... ≤1 %

Particle size distribution:
d95 ..... 60 mesh

Art. No.	Pack Qty.	Pack.	€
1T8Y.1	250 g	plastic	91,30
1T8Y.2	500 g	plastic	170,95
1T8Y.3	1 kg	plastic	332,20
1T8Y.4	2.5 kg	plastic	740,70

Aluminium oxide

Al_2O_3 · D 3,97 g/cm³ · mp 2050 °C · bp 2980 °C
M 101,94 g/mol
CAS No. 1344-28-1 · EC no. 215-691-6

Aluminium oxide
2–5 mm, beads

Highly porous, spherical aluminium oxide for drying and purifying gases and liquids, as bed support or as a Claus catalyst in sub-dew point applications.

Type analysis
Particle size ..... 2-5 mm
Specific surface ..... ≥280 m²/g
Loss on ignition (550 °C) ..... ≤5 %

Art. No.	Pack Qty.	Pack.	€
1XY5.1	250 g	plastic	21,40
1XY5.2	1 kg	plastic	64,40
1XY5.3	2.5 kg	plastic	134,40

Ammonia solution

Ammonium hydroxide solution · Salmiac solution
M 17,03 + aq g/mol
CAS No. 1336-21-6 · EC no. 215-647-6

Ammonia solution
25 %, VLSI Grade

Semiconductor grade

$NH_3 + H_2O$

UN no. 2672 · ADR 8 III · WGK 2

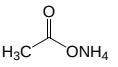
Danger H290-H314-H335-H410

Guarantee analysis
Assay ..... ≥25 %
Bead number (≥0,5 µm) ..... ≤250 p/ml
Carbonate (as CO_2) ..... ≤0,001 %
Chloride (Cl) ..... ≤0,00005 %
$KMnO_4$ reducing substances (as O) ... ≤0,0005 %
Non volatile matters ..... ≤0,001 %
Phosphate (PO_4) ..... ≤0,00002 %
Silicate (SiO_2) ..... ≤0,00005 %
Sulphate (SO_4) ..... ≤0,0002 %

Trace impurities:
Silver (Ag) ..... ≤0,01 ppm
Aluminium (Al) ..... ≤0,05 ppm
Arsenic (As) ..... ≤0,01 ppm
Gold (Au) ..... ≤0,02 ppm
Boron (B) ..... ≤0,01 ppm
Barium (Ba) ..... ≤0,01 ppm
Beryllium (Be) ..... ≤0,01 ppm
Bismuth (Bi) ..... ≤0,02 ppm
Calcium (Ca) ..... ≤0,1 ppm
Cadmium (Cd) ..... ≤0,01 ppm
Cobalt (Co) ..... ≤0,01 ppm
Chromium (Cr) ..... ≤0,01 ppm
Copper (Cu) ..... ≤0,01 ppm
Iron (Fe) ..... ≤0,05 ppm
Gallium (Ga) ..... ≤0,01 ppm
Germanium (Ge) ..... ≤0,05 ppm
Indium (In) ..... ≤0,01 ppm
Potassium (K) ..... ≤0,1 ppm
Lithium (Li) ..... ≤0,01 ppm
Magnesium (Mg) ..... ≤0,05 ppm
Manganese (Mn) ..... ≤0,01 ppm
Molybdenum (Mo) ..... ≤0,01 ppm
Sodium (Na) ..... ≤0,2 ppm
Nickel (Ni) ..... ≤0,01 ppm
Lead (Pb) ..... ≤0,01 ppm
Platinum (Pt) ..... ≤0,02 ppm
Antimony (Sb) ..... ≤0,01 ppm
Tin (Sn) ..... ≤0,02 ppm
Strontium (Sr) ..... ≤0,01 ppm
Titanium (Ti) ..... ≤0,01 ppm
Thallium (Tl) ..... ≤0,02 ppm
Vanadium (V) ..... ≤0,01 ppm
Zinc (Zn) ..... ≤0,05 ppm
Zirconium (Zr) ..... ≤0,01 ppm

Art. No.	Pack Qty.	Pack.	€
1N1E.1	2.5 l	glass	134,40

Ammonium acetate



CH_3COONH_4 · D 1,17 g/cm³ · mp 112 to 114 °C
M 77,08 g/mol
CAS No. 631-61-8 · EC no. 211-162-9
WGK 1

Ammonium acetate
≥98 %, LC-MS Grade

Type analysis
Assay (titr. dry substance) ..... 98,0-101,0 %
Appearance of solution (1 M in H_2O) ..... clear, colourless
LC-MS suitability test ..... complies
pH value (1 M in H_2O) 5,5-7,5
Water (KF) ..... ≤2,0
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,002 %
Al (Aluminium) ..... ≤0,0001 %
Ca (Calcium) ..... ≤0,0005 %
Cu (Copper) ..... ≤0,0001 %
Fe (Iron) ..... ≤0,0001 %
K (Potassium) ..... ≤0,0005 %
Li (Lithium) ..... ≤0,0001 %
Mg (Magnesium) ..... ≤0,0001 %
Na (Sodium) ..... ≤0,0005 %
Ni (Nickel) ..... ≤0,0001 %
Pb (Lead) ..... ≤0,0001 %
Zn (Zinc) ..... ≤0,0001 %
Filter test (1 M in H_2O) ..... complies

Fluorescence (as quinine):
254 nm ..... ≤1,0 ppb
365 nm ..... ≤1,0 ppb

Gradient test:
254 nm ..... ≤0,004 AU

Transmission:
260 nm ..... ≥95 %
280 nm ..... ≥97 %

Art. No.	Pack Qty.	Pack.	€
1NPA.1	50 g	plastic	127,95
1NPA.2	100 g	plastic	185,45
1NPA.3	250 g	plastic	396,70

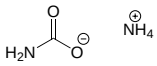
Ammonium acetate
≥99 %, HPLC

Type analysis
Assay ..... ≥99,0 %
pH value (10 % in H_2O) 6,5-7,5
Water ..... ≤1,0 %

Absorbance:
250 nm ..... ≤0,05
260 nm ..... ≤0,04
270 nm ..... ≤0,03
280 nm ..... ≤0,02
500 nm ..... ≤0,02

Art. No.	Pack Qty.	Pack.	€
1P12.1	50 g	plastic	32,15
1P12.2	250 g	plastic	64,40

Ammonium carbamate



Ammonium amidocarbonate
$CH_6N_2O_2$ · D 1,6 g/cm³ · mp 150 to 152 °C
M 78,07 g/mol
CAS No. 1111-78-0 · EC no. 214-185-2
WGK 1

Danger H302-H315-H318

Ammonium carbamate
≥98 %, p.a.

Storage temperature: +4 °C

Type analysis
Assay ..... ≥98,0 %
Chloride (Cl) ..... ≤0,001 %
Sulphate (SO_4) ..... ≤0,01 %
As (Arsenic) ..... ≤0,0005 %
Fe (Iron) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0005 %
Ash content ..... ≤0,01 %

Art. No.	Pack Qty.	Pack.	€
1NPK.1	50 g	plastic	23,55
1NPK.2	250 g	plastic	84,95
1NPK.3	500 g	plastic	149,45

Ammonium fluoride solution

$NH_4F + H_2O$ · D 1,11 g/cm³ · bp 100 °C
M 37,04 + aq g/mol
CAS No. 12125-01-8 · EC no. 235-185-9
UN no. 3287 · ADR 6.1 III · WGK 1

Danger H302-H311

Ammonium fluoride solution
40 %, VLSI Grade

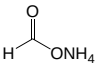
Semiconductor grade

Guarantee analysis
Assay ..... 40-41 %
Bead number (≥0,5 µm) ..... ≤250 p/ml
Chloride (Cl) ..... ≤0,0005 %
Ash content (as SO_4) ..... ≤0,001 %
pH (1 % solution) 6,2-7,0
Phosphate (PO_4) ..... ≤0,00002 %
Sulphate (SO_4) ..... ≤0,0002 %
Ammonium hydrogen difluoride (NH_4HF_2) ..... ≤200 ppm

Trace impurities:
Silver (Ag) ..... ≤0,05 ppm
Aluminium (Al) ..... ≤0,05 ppm
Gold (Au) ..... ≤0,02 ppm
Boron (B) ..... ≤0,05 ppm
Barium (Ba) ..... ≤0,01 ppm
Beryllium (Be) ..... ≤0,01 ppm
Bismuth (Bi) ..... ≤0,02 ppm
Calcium (Ca) ..... ≤0,1 ppm
Cadmium (Cd) ..... ≤0,01 ppm
Cobalt (Co) ..... ≤0,01 ppm
Chromium (Cr) ..... ≤0,01 ppm
Copper (Cu) ..... ≤0,01 ppm
Iron (Fe) ..... ≤0,05 ppm
Gallium (Ga) ..... ≤0,01 ppm
Germanium (Ge) ..... ≤0,05 ppm
Indium (In) ..... ≤0,01 ppm
Potassium (K) ..... ≤0,05 ppm
Lithium (Li) ..... ≤0,01 ppm
Magnesium (Mg) ..... ≤0,05 ppm
Manganese (Mn) ..... ≤0,01 ppm
Molybdenum (Mo) ..... ≤0,01 ppm
Sodium (Na) ..... ≤0,1 ppm
Nickel (Ni) ..... ≤0,01 ppm
Lead (Pb) ..... ≤0,01 ppm
Platinum (Pt) ..... ≤0,05 ppm
Silicon (Si) ..... ≤200 ppm
Tin (Sn) ..... ≤0,02 ppm
Strontium (Sr) ..... ≤0,01 ppm
Titanium (Ti) ..... ≤0,01 ppm
Thallium (Tl) ..... ≤0,02 ppm
Vanadium (V) ..... ≤0,01 ppm
Zinc (Zn) ..... ≤0,05 ppm
Zirconium (Zr) ..... ≤0,01 ppm

Art. No.	Pack Qty.	Pack.	€
1N1H.1	5 l	plastic	134,40

Ammonium formate



$HCOONH_4$ · D 1,28 g/cm³ · mp 116 °C
M 63,06 g/mol
CAS No. 540-69-2 · EC no. 208-753-9
WGK 1

Warning H319

Ammonium formate
≥98 %, LC-MS Grade

Type analysis
Assay (titr. dry substance) ..... 98,0-101,0 %
Appearance of solution (1 M in H_2O) ..... clear, colourless
LC-MS suitability test ..... complies
pH value (1 M in H_2O) 5,5-7,5
Water (KF) ..... ≤3,0 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,005 %
Al (Aluminium) ..... ≤0,0005 %
Ca (Calcium) ..... ≤0,001 %
Fe (Iron) ..... ≤0,0005 %
K (Potassium) ..... ≤0,001 %
Mg (Magnesium) ..... ≤0,0005 %
Na (Sodium) ..... ≤0,001 %
Filter test (1 M in H_2O) ..... complies

Gradient test:
254 nm ..... ≤0,006 AU

Transmission:
260 nm ..... ≥90 %
280 nm ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
1NTK.1	50 g	plastic	133,85
1NTK.2	100 g	plastic	198,90
1NTK.3	250 g	plastic	418,20

Antibody, primary

Antibody · Primary antibodies
Not a medical device / Not an IVD product

anti-Alkaline Phosphatase (intestinal) mouse monoclonal, V17.1
100 µg/ml, monoclonal, affinity purified

PROGEN.

Cell membrane marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Type analysis
Clonality ..... Monoclonal
Concentration ..... 100 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class ..... IgG1 kappa
Clone V17,1
Conjugate ..... Unconjugated
Purification ..... Affinity chromatography
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer with 0.02 % sodium azide.
Storage at 2–8 °C (+4 °C).

Art. No.	Pack Qty.	Pack.	€
1NLX.1	1 ml	plastic	365,50

For further information see www.carlroth.com

anti-alpha-Smooth Muscle Actin mouse monoclonal, 1A4/ASM-1
100 µg/ml, monoclonal, affinity purified

PROGEN.

Cytoskeleton marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Type analysis
Clonality ..... Monoclonal
Concentration ..... 100 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG2a
Clone 1A4/ASM-1
Conjugate ..... Unconjugated
Purification ..... Affinity chromatography
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NN1.1	0.2 ml	plastic	84,95
1NN1.2	1 ml	plastic	222,55

For further information see www.carlroth.com

anti-beta-actin, clone AC-15, mouse monoclonal
100 µg/ml, monoclonal, affinity purified

PROGEN.

Cytoskeleton and cytoplasmic marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Type analysis
Clonality ..... Monoclonal
Concentration ..... 100 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone AC-15
Conjugate ..... Unconjugated
Purification ..... Affinity chromatography
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Storage at 2–8 °C (+4 °C).

Art. No.	Pack Qty.	Pack.	€
1NP6.1	0.2 ml	plastic	84,95
1NP6.2	1 ml	plastic	304,25

For further information see www.carlroth.com

anti-Cardiac Actin mouse monoclonal, AC1-20.4.2
50 µg/ml, monoclonal, affinity purified

PROGEN.

Cytoskeleton marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Type analysis
Clonality ..... Monoclonal
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone AC1-20,4.2
Conjugate ..... Unconjugated
Purification ..... Affinity chromatography
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NLN.1	0.2 ml	plastic	84,95
1NLN.2	1 ml	plastic	222,55

For further information see www.carlroth.com

anti-Cyclin D1 mouse monoclonal, DCS-6
100 µg/ml, monoclonal, affinity purified

PROGEN.

Cell cycle marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Concentration ..... 100 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG2a
Clone DCS-6
Conjugate ..... Unconjugated
Purification ..... Affinity chromatography
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NNX.1	0.2 ml	plastic	84,95
1NNX.2	1 ml	plastic	222,55

For further information see www.carlroth.com

anti-Cyclin-Dependent Kinase 4 mouse monoclonal, DCS-156
50 µg/ml, monoclonal, affinity purified

PROGEN.

Cell cycle marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone DCS-156
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NNE.1	0.2 ml	plastic	84,95
1NNE.2	1 ml	plastic	177,40

For further information see www.carlroth.com

anti-Desmocollin 1 mouse monoclonal, Dsc1-U100
50 µg/ml, monoclonal, affinity purified

PROGEN.

Cell to cell contact marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone Dsc1-U100
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NN6.1	0.2 ml	plastic	84,95
1NN6.2	1 ml	plastic	222,55

For further information see www.carlroth.com

anti-Desmocollin 3 mouse monoclonal, Dsc3-U114
50 µg/ml, monoclonal, affinity purified

PROGEN.

Cell to cell contact marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone Dsc3-U114
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NNL.1	0.2 ml	plastic	84,95
1NNL.2	1 ml	plastic	222,55

For further information see www.carlroth.com

anti-Desmoglein 1/2 mouse monoclonal, DG 3.10
50 µg/ml, monoclonal, affinity purified

PROGEN.

Cell to cell contact marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone ..... DG 3,10
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NP0.1	0.2 ml	plastic	103,20
1NP0.2	1 ml	plastic	261,25

For further information see www.carlroth.com

anti-Desmoglein 2 mouse monoclonal, 10G11
500 µg/ml, monoclonal, affinity purified

PROGEN.

Cell to cell contact marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 500 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone 10G11
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NLT.1	0.2 ml	plastic	103,20
1NLT.2	1 ml	plastic	261,25

For further information see www.carlroth.com

anti-Desmoplakin 1/2 mouse monoclonal, DP 1 + 2-2.15
50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone ..... DP1+2-2,15
Conjugate ..... Unconjugated

Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NP7.1	0.2 ml	plastic	103,20
1NP7.2	1 ml	plastic	261,25

For further information see www.carlroth.com

anti-DNA mouse monoclonal, AC-30-10

100 µg/ml, monoclonal, chromatographically purified

PROGEN.

Cell core marker (nucleus)

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Size exclusion chromatography
Concentration ..... 100 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class ..... IgM
Clone AC-30-10
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Storage at 2–8 °C (+4 °C).

Art. No.	Pack Qty.	Pack.	€
1NN5.1	0.2 ml	plastic	103,20
1NN5.2	1 ml	plastic	261,25

For further information see www.carlroth.com

anti-EP-CAM mouse monoclonal, HEA125

50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone HEA125
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NP1.1	0.2 ml	plastic	84,95
1NP1.2	1 ml	plastic	222,55

For further information see www.carlroth.com

anti-GAPDH mouse monoclonal, clone 6C5

100 µg/ml, monoclonal, affinity purified

PROGEN.

GAPDH labelling (Western blot)

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 100 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone 6C5
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NLP.1	0.2 ml	plastic	84,95
1NLP.2	1 ml	plastic	290,25

For further information see www.carlroth.com

anti-Glial Fibrillary Acidic Protein mouse monoclonal, GF 12.24

50 µg/ml, monoclonal, affinity purified

PROGEN.

Glial cell marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG2a
Clone ..... GF 12,24
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NP8.1	0.2 ml	plastic	84,95
1NP8.2	1 ml	plastic	222,55

For further information see www.carlroth.com

anti-Keratin K5/K8 (Pan Epithelial) mouse monoclonal, C22

50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone ..... Ks 5+8,22/C 22
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NN0.1	0.2 ml	plastic	84,95
1NN0.2	1 ml	plastic	222,55

For further information see www.carlroth.com

anti-Keratin K6 mouse monoclonal, KA12

50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone Ks6.KA12
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NN4.1	0.2 ml	plastic	84,95
1NN4.2	1 ml	plastic	222,55

For further information see www.carlroth.com

anti-Keratin K7 mouse monoclonal, Ks7.18

50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone Ks7,18
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NNN.1	0.2 ml	plastic	84,95
1NNN.2	1 ml	plastic	222,55

For further information see www.carlroth.com

anti-Keratin K17 mouse monoclonal, Ks17.E3
50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG2b
Clone Ks17.E3
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NN2.1	0.2 ml	plastic	84,95
1NN2.2	1 ml	plastic	222,55

For further information see www.carlroth.com

anti-Keratin K18 mouse monoclonal, Ks18.04
50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone Ks18,04
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NLY.1	0.2 ml	plastic	84,95
1NLY.2	1 ml	plastic	222,55

For further information see www.carlroth.com

anti-Keratin K19 mouse monoclonal, Ks19.2 (Z105.6)
50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG2b
Clone Ks19,2 (Z105,6)
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NNK.1	0.2 ml	plastic	84,95
1NNK.2	1 ml	plastic	222,55

For further information see www.carlroth.com

anti-Keratin K20 mouse monoclonal, IT-Ks20.8
50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelial marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Type analysis
Clonality ..... Monoclonal
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG2a
Clone IT-Ks20,8
Conjugate ..... Unconjugated
Purification ..... Affinity chromatography
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NNP.1	0.2 ml	plastic	84,95
1NNP.2	1 ml	plastic	222,55

For further information see www.carlroth.com

anti-Keratin Type II mouse monoclonal, Ks pan1-8
50 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG2a
Clone ..... Ks pan 1-8
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NNH.1	0.2 ml	plastic	84,95
1NNH.2	1 ml	plastic	222,55

For further information see www.carlroth.com

anti-p16 Protein mouse monoclonal, DCS-50
100 µg/ml, monoclonal, affinity purified

PROGEN.

Cell cycle marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 100 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone DCS-50
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NN9.1	0.2 ml	plastic	84,95
1NN9.2	1 ml	plastic	204,25

For further information see www.carlroth.com

anti-p53 Protein mouse monoclonal, Bp53.11
50 µg/ml, monoclonal, affinity purified

PROGEN.

Cell cycle marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG2a
Clone Bp53,11
Conjugate ..... Unconjugated

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NNY.1	0.2 ml	plastic	84,95
1NNY.2	1 ml	plastic	222,55

For further information see www.carlroth.com

anti-Perilipin 1 (N-terminus) mouse monoclonal, PERI 112.17
100 µg/ml, monoclonal, affinity purified

PROGEN.

Lipid marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 100 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone ..... PERI 112,17
Conjugate ..... Unconjugated

Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NLH.1	0.2 ml	plastic	103,20
1NLH.2	1 ml	plastic	261,25

For further information see www.carlroth.com

anti-Perilipin 2 (N-terminus) mouse monoclonal, AP125

50 µg/ml, monoclonal, affinity purified

PROGEN.

Lipid marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone AP125
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NP4.1	0.2 ml	plastic	103,20
1NP4.2	1 ml	plastic	321,45

For further information see www.carlroth.com

anti-Plakoglobin mouse monoclonal, PG 5.1

50 µg/ml, monoclonal, affinity purified

PROGEN.

Cell to cell contact marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG2b
Clone ..... PG 5,1
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NNC.1	0.2 ml	plastic	84,95
1NNC.2	1 ml	plastic	204,25

For further information see www.carlroth.com

anti-Synaptophysin mouse monoclonal, SY38

50 µg/ml, monoclonal, affinity purified

PROGEN.

Tumour marker neuronal/adrenal

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone SY38
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NN3.1	0.2 ml	plastic	84,95
1NN3.2	1 ml	plastic	222,55

For further information see www.carlroth.com

anti-Synaptopodin/SYNPO mouse monoclonal, G1D4

50 µg/ml, monoclonal, affinity purified

PROGEN.

Cytplasma marker podocytes/cerebrum

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone G1D4
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NP2.1	0.2 ml	plastic	103,20
1NP2.2	1 ml	plastic	331,10

For further information see www.carlroth.com

anti-Uroplakin III mouse monoclonal, AU1

100 µg/ml, monoclonal, affinity purified

PROGEN.

Epithelium-/cell membrane marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 100 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone AU1
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NLK.1	0.2 ml	plastic	84,95
1NLK.2	1 ml	plastic	222,55

For further information see www.carlroth.com

anti-Vimentin mouse monoclonal, VIM 3B4

50 µg/ml, monoclonal, affinity purified

PROGEN.

Cytoskeleton marker

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Concentration ..... 50 µg/ml
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class ..... IgG2a kappa
Clone ..... VIM 3B4
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

PBS buffer, pH 7.4 with 0.09 % sodium azide and 0.5 % BSA.
Short term at 2–8 °C (+4 °C); long term storage in aliquots at –20 °C; avoid freeze/thaw cycles.

Art. No.	Pack Qty.	Pack.	€
1NP3.1	0.2 ml	plastic	84,95
1NP3.2	1 ml	plastic	222,55

For further information see www.carlroth.com

Antibody, primary, anti-tag

Not a medical device / Not an IVD product

anti-6-His-tag mouse monoclonal, 6His

lyophilized, monoclonal, affinity purified

PROGEN.

Binding of His-tag proteins

Primary antibodies

0.25 mg/ml after reconstitution with 100 µl / 400 µl PBS

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone 6His
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

Storage before reconstitution at 2–8 °C until indicated expiry date.
Storage after reconstitution at –20 °C (avoid freeze/thaw cycles).
Lyophilized; reconstitute in sterile PBS, pH 7.4.

Art. No.	Pack Qty.	Pack.	€
1NNA.1	25 µg	plastic	96,75
1NNA.2	100 µg	plastic	352,60

For further information see www.carlroth.com

anti-c-myc-tag mouse monoclonal, 9E10

lyophilized, monoclonal, affinity purified

PROGEN.

Binding of c-myc-tag proteins

Primary antibodies

0.25 mg/ml after reconstitution with 100 µl / 400 µl PBS

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone 9E10
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

Storage before reconstitution at 2–8 °C until indicated expiry date.
Storage after reconstitution at –20 °C (avoid freeze/thaw cycles).
Lyophilized; reconstitute in sterile PBS, pH 7.4.

Art. No.	Pack Qty.	Pack.	€
1NNT.1	25 µg	plastic	96,75
1NNT.2	100 µg	plastic	267,70

For further information see www.carlroth.com

anti-DDDDK-tag mouse monoclonal, AP1501

lyophilized, monoclonal, affinity purified

PROGEN.

Binding of DDDDK-tag proteins

Primary antibodies

0.25 mg/ml after reconstitution with 100 µl / 400 µl PBS

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG2b
Clone AP1501
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

Storage before reconstitution at 2–8 °C until indicated expiry date.
Storage after reconstitution at –20 °C (avoid freeze/thaw cycles).
Lyophilized; reconstitute in sterile PBS, pH 7.4.

Art. No.	Pack Qty.	Pack.	€
1NLE.1	25 µg	plastic	96,75
1NLE.2	100 µg	plastic	352,60

For further information see www.carlroth.com

anti-GFP-tag mouse monoclonal, F56-6A1.2.3

lyophilized, monoclonal, affinity purified

PROGEN.

Binding of GFP-tag proteins

Primary antibodies

0.25 mg/ml after reconstitution with 100 µl / 400 µl PBS

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG2b
Clone F56-6A1,2.3
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

Storage before reconstitution at 2–8 °C until indicated expiry date.
Storage after reconstitution at –20 °C (avoid freeze/thaw cycles).
Lyophilized; reconstitute in sterile PBS, pH 7.4.

Art. No.	Pack Qty.	Pack.	€
1NP5.1	25 µg	plastic	96,75
1NP5.2	100 µg	plastic	352,60

For further information see www.carlroth.com

anti-GST-tag mouse monoclonal, F50-3D12.2

lyophilized, monoclonal, affinity purified

PROGEN.

Binding of GST-tag proteins

Primary antibodies

0.25 mg/ml after reconstitution with 100 µl / 400 µl PBS

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone F50-3D12,2
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

Storage before reconstitution at 2–8 °C until indicated expiry date.
Storage after reconstitution at –20 °C (avoid freeze/thaw cycles).
Lyophilized; reconstitute in sterile PBS, pH 7.4.

Art. No.	Pack Qty.	Pack.	€
1NN8.1	25 µg	plastic	96,75
1NN8.2	100 µg	plastic	352,60

For further information see www.carlroth.com

anti-HA-tag mouse monoclonal, 12CA5

lyophilized, monoclonal, affinity purified

PROGEN.

Binding of HA-tag proteins

Primary antibodies

0.25 mg/ml after reconstitution with 100 µl / 400 µl PBS

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG2b
Clone 12CA5
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

Storage before reconstitution at 2–8 °C until indicated expiry date.
Storage after reconstitution at –20 °C (avoid freeze/thaw cycles).
Lyophilized; reconstitute in sterile PBS, pH 7.4.

Art. No.	Pack Qty.	Pack.	€
1NN7.1	25 µg	plastic	96,75
1NN7.2	100 µg	plastic	321,45

For further information see www.carlroth.com

anti-Strep-tag mouse monoclonal, C23.21

lyophilized, monoclonal, affinity purified

PROGEN.

Binding of Strep-tag proteins

Primary antibodies

0.1 mg/ml after reconstitution with 250 µl / 1 ml PBS

Storage temperature: +4 °C
Transport temperature: ambient temp.

Not a medical device / Not an IVD product

Clonality ..... Monoclonal
Purification ..... Affinity chromatography
Raised in ..... Hybridoma cell culture supernatant
Immunglobulin (Ig) class IgG1
Clone C23,21
Conjugate ..... Unconjugated
Purity (SDS-PAGE) ..... ≥95 %

Storage before reconstitution at 2–8 °C until indicated expiry date.
Storage after reconstitution at –20 °C (avoid freeze/thaw cycles).
Lyophilized; reconstitute in sterile PBS, pH 7.4.

Art. No.	Pack Qty.	Pack.	€
1NLL.1	25 µg	plastic	96,75
1NLL.2	100 µg	plastic	267,70

For further information see www.carlroth.com

Barium selenite

$BaSeO_3$ · mp >760 °C
M 264,28 g/mol
CAS No. 13718-59-7 · EC no. 237-280-0
UN no. 2630 · ADR 6.1 I · WGK 2

Danger H301-H330-H373-H410

Barium selenite
≥99 %, p.a.

Type analysis
Assay ..... ≥99,0 %
Chloride (Cl) ..... ≤0,5 %
As (Arsenic) ..... ≤0,005 %
Cd (Cadmium) ..... ≤0,0005 %
Cu (Copper) ..... ≤0,001 %
Fe (Iron) ..... ≤0,001 %
Hg (Mercury) ..... ≤0,0001 %
Ni (Nickel) ..... ≤0,001 %
Pb (Lead) ..... ≤0,005 %
Te (Tellur) ..... ≤0,05 %
Water ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
1L0H.1	100 g	plastic	40,35
1L0H.2	250 g	plastic	81,60
1L0H.3	500 g	plastic	149,45

Barium sulphate

$BaSO_4$ · D 3,97 g/cm³ · mp 1380 °C · bp 1600 °C
M 233,39 g/mol
CAS No. 7727-43-7 · EC no. 231-784-4

Barium sulphate
≥97,5 %, p.a.

Type analysis
Assay ..... ≥97,5 %
Sulphide (S) ..... ≤0,00005 %
As (Arsenic) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,001 %
Loss on ignition ..... ≤2,0 %
pH (10 % solution) 3,5-10,0

Art. No.	Pack Qty.	Pack.	€
1PE7.1	10 g	glass	11,30
1PE7.2	100 g	plastic	20,35
1PE7.3	500 g	plastic	46,15
1PE7.4	1 kg	plastic	69,35

Bolus

D 2,6 g/cm³ · mp >1300 °C
CAS No. 1332-58-7 · EC no. 310-194-1

Bolus alba
Ph. Eur.

Kaolin

Guarantee analysis
Identity ..... complies
Calcium (Ca) ..... ≤0,025 %
Chloride (Cl) ..... ≤0,025 %
Sulphate (SO_4) ..... ≤0,1%
Substances soluble in dilute HCl ..... ≤1 %
Organic impurities ..... complies
Swelling ..... complies
Adsorption power ..... complies
Microbiological Analysis ..... complies
Acid or alkaline react. substances ..... complies

Art. No.	Pack Qty.	Pack.	€
1TCL.1	250 g	plastic	17,10
1TCL.2	500 g	plastic	25,70
1TCL.3	1 kg	plastic	41,85

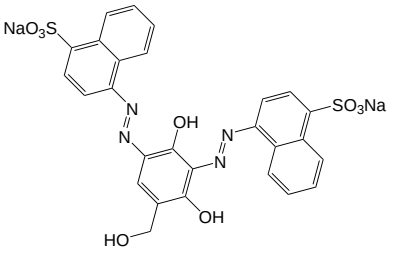
Bolus rubra
fine powdered

Hydrated aluminum silicate

Type analysis
Appearance ..... reddish powder
pH value ..... 5,5 - 8,0
SiO_2 ..... 51,0 - 59,0 %
MgO ..... 0,4-1,2 %
Al_2O_3 ..... 30,0 - 36,0 %
K_2O ..... 4,0 - 7,0 %
Fe_2O_3 ..... 1,5 - 5,0 %
Na_2O ..... 0,05 - 0,15 %
TiO_2 ..... 0,05-0,15 %
CaO ..... 0,02 - 3,50 %
Loss on ignition ..... 6,0 - 9,5 %

Art. No.	Pack Qty.	Pack.	€
1T2T.1	1 kg	plastic	21,40
1T2T.2	2.5 kg	plastic	42,90

Brown HT



$C_{27}H_{18}N_4O_9S_2Na_2$ · D 0,632 g/cm³ · flp 182 °C
M 652,57 g/mol
CAS No. 4553-89-3 · EC no. 224-924-0
WGK 1

Brown HT (C.I. 20285)
extra pure

Temperature and light resistant azo dye

Type analysis
Appearance ..... red to brown powder
Loss on drying (135 °C) ..... ≤30 %

Art. No.	Pack Qty.	Pack.	€
1XTK.1	10 g	glass	21,40
1XTK.2	25 g	glass	42,90
1XTK.3	100 g	glass	96,65

Buffer solutions ROTI®Calipure, ready to use

Buffer solution pH 9.00 ±0.02 (20 °C)
ROTI®Calipure buffer solution, ready to use, borate free

Glycine, caustic soda lye, sodium chloride

D 1,006 g/cm³ · bp 100 °C

WGK 1

Type analysis
pH value (20 °C) ..... 9,00 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1LP5.1	500 ml	plastic	48,30
1LP5.2	1 l	plastic	64,40

Buffer solution pH 10.00 ±0.02 (20 °C)
ROTI®Calipure buffer solution, ready to use, borate free

Glycine, caustic soda lye, sodium chloride

D 1,003 g/cm³ · bp 100 °C

WGK 1

Type analysis
pH value (20 °C) ..... 10,00 ±0,02

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1LP6.1	500 ml	plastic	42,90
1LP6.2	1 l	plastic	60,10

Cadmium

Cd · D 8,64 g/cm³ · mp 309 to 316 °C · bp 767 °C
M 112,41 g/mol
CAS No. 7440-43-9 · EC no. 231-152-8
UN no. 3288 · ADR 6.1 II · WGK 3

Danger H330-H341-H350-H361fd-H372-H410

Cadmium powder
p.a., Battery Grade

Type analysis

Assay (Cd)	≥99,0 %
Assay (CdO)	≤6,0 %
Cu (Copper)	≤0,0005 %
Fe (Iron)	≤0,007 %
Mn (Manganese)	≤0,0005 %
Ni (Nickel)	≤0,001 %
Pb (Lead)	≤0,01 %
Tl (Thallium)	≤0,002 %
Zn (Zinc)	≤0,01 %

Art. No.	Pack Qty.	Pack.	€
1N30.1	100 g	plastic	21,40
1N30.2	500 g	plastic	64,40
1N30.3	1 kg	plastic	117,20

Cadmium nitrate tetrahydrate

$Cd(NO_3)_2 \cdot 4\,H_2O$ · mp 48 to 62 °C
M 308,47 g/mol
CAS No. 10022-68-1 · EC no. 233-710-6
UN no. 2570 · ADR 6.1 II · WGK 3

Danger H301-H312-H330-H340-H350-H372-H410

Cadmium nitrate tetrahydrate
≥99 %, p.a.

Type analysis

Assay	≥99,0 %
In H_2O insoluble matter	≤0,005 %
Chloride (Cl)	≤0,001 %
Sulphate (SO_4)	≤0,005 %
Ca (Calcium)	≤0,005 %
Cu (Copper)	≤0,001 %
Fe (Iron)	≤0,001 %
Na (Sodium)	≤0,005 %
Pb (Lead)	≤0,005 %
Zn (Zinc)	≤0,001 %

Art. No.	Pack Qty.	Pack.	€
1NET.1	50 g	glass	23,15
1NET.2	250 g	glass	52,15
1NET.3	500 g	glass	114,50

Cadmium oxide

Cadmium monoxide · Cadmium(II) oxide
CdO · D 8,26 g/cm³ · mp 870 to 950 °C
M 128,41 g/mol
CAS No. 1306-19-0 · EC no. 215-146-2
UN no. 2570 · ADR 6.1 II · WGK 3

Danger H330-H341-H350-H361fd-H372-H410

Cadmium oxide
≥99 %, p.a., Battery Grade

Type analysis

Assay	≥99,0 %
Assay (metals basis)	≥87,0 %
Fe (Iron)	≤0,005 %
Mn (Manganese)	≤0,001 %
Ni (Nickel)	≤0,001 %
Pb (Lead)	≤0,005 %
Specific surface	2,7-3,1 m²/g

Art. No.	Pack Qty.	Pack.	€
1LH8.1	100 g	plastic	28,95
1LH8.2	250 g	plastic	64,40
1LH8.3	500 g	plastic	117,20

Calcium

Ca · D 1,54 g/cm³ · mp 842 °C · bp 1484 °C
M 40,08 g/mol
CAS No. 7440-70-2 · EC no. 231-179-5
UN no. 1401 · ADR 4.3 II · WGK 1

Danger H261

Calcium granulate
≥98 %, pure, <2 mm

Type analysis

Assay	≥98,0 %
Insoluble matter	≤0,05 %
Chloride (Cl)	≤0,05 %
Fe (Iron)	≤0,1 %
Na (Sodium)	≤0,01 %

Art. No.	Pack Qty.	Pack.	€
1P59.1	50 g	glass	34,30
1P59.2	100 g	glass	57,55
1P59.3	500 g	glass	149,45

Calcium peroxide

Calcium dioxide
CaO_2 · mp >365 °C
M 72,08 g/mol
CAS No. 78403-22-2 · EC no. 215-139-4
UN no. 1457 · ADR 5.1 II · WGK 1

Danger H272-H315-H319-H335

Calcium peroxide
≥65 %, pure

Type analysis

Assay	≥65,0 %

Art. No.	Pack Qty.	Pack.	€
1P57.1	100 g	glass	34,30
1P57.2	500 g	glass	92,35
1P57.3	1 kg	glass	170,95

Calcium sulphate

$CaSO_4$ · D 2,96 g/cm³ · mp 1450 °C
M 136,11 g/mol
CAS No. 7778-18-9 · EC no. 231-900-3
WGK 1

Calcium sulphate
≥98 %, NF, anhydrous

Type analysis

Appearance	white powder
Assay (titr., dry substance)	98,0-101,0 %
Identity	complies
Fe (Iron)	≤0,01 %
Heavy metals	≤0,001 %
Loss on drying (250 °C)	≤1,5 %

Art. No.	Pack Qty.	Pack.	€
1T6T.1	100 g	plastic	30,00
1T6T.2	500 g	plastic	75,15
1T6T.3	1 kg	plastic	127,95

Candida chromogenic Agar

WGK 3

Warning H351

Candida chromogenic Agar plus
for microbiology

Selective medium for isolation and quick identification of pathogeneous *Candida* species.

Storage temperature: +4 °C
Transport temperature: ambient temp.

Composition

Growth factors	21,2 g/l
Inhibitors	0,5 g/l
Chromogene Mixture	0,2 g/l
Agar	15 g/l
pH value (25 °C)	5,9-6,3

Art. No.	Pack Qty.	Pack.	€
1NC9.1	100 g	plastic	188,15
1NC9.2	500 g	plastic	822,40

Cellulose

CAS No. 9004-34-6 · EC no. 232-674-9
WGK 1

Cellulose
for thin layer chromatography

Particle size 2–20 µm.

Guarantee analysis

pH-value	5-8,5
Water	≤10 %

Art. No.	Pack Qty.	Pack.	€
1XY7.1	100 g	plastic	95,70
1XY7.2	500 g	plastic	170,95
1XY7.3	1 kg	plastic	310,70

Charcoal, activated

Filter aids
M 12,01 g/mol
CAS No. 7440-44-0 · EC no. 931-328-0

Charcoal
~4 mm, impregnated with phosphoric acid

Extruded activated charcoal for the removal of ammonia and other alkaline vapours

mp >3500 °C

Warning H315-H319

Type analysis
Moisture ..... ≤15 %
Ball-pan hardness ..... ≥95 %
Bulk density ..... 550-600 kg/m³

Art. No.	Pack Qty.	Pack.	€
1Y06.1	500 g	plastic	27,85
1Y06.2	1 kg	plastic	49,35
1Y06.3	10 kg	plastic	310,70
1Y06.4	25 kg	plastic	676,20

Charcoal
~4 mm, impregnated with potassium hydroxide

Extruded activated charcoal for the removal of sulphides, mercaptans, acids and VOCs

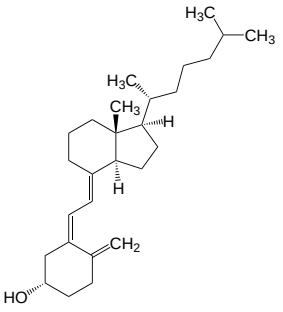
mp >3500 °C

Danger H318

Type analysis
Moisture ..... ≤15 %
Ball-pan hardness ..... ≥95 %
Bulk density ..... 570-630 kg/m³

Art. No.	Pack Qty.	Pack.	€
1Y07.1	500 g	plastic	27,85
1Y07.2	1 kg	plastic	49,35
1Y07.3	10 kg	plastic	310,70
1Y07.4	25 kg	plastic	676,20

Cholecalciferol



Vitamin D_3 · Colecalciferol
$C_{27}H_{44}O$ · mp 83 to 86 °C
M 384,64 g/mol
CAS No. 67-97-0 · EC no. 200-673-2
UN no. 2811 · ADR 6.1 II · WGK 2

Danger H300+H310+H330-H372

Cholecalciferol
≥98 %, for biochemistry

Storage temperature: +4 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white crystals
Assay ..... ≥98 %
Specific rotation $[\alpha]^{20}_{D}$ ..... +105,0 to +112,0 °

Art. No.	Pack Qty.	Pack.	€
1T99.1	500 mg	glass	19,25
1T99.2	1 g	glass	32,15
1T99.3	5 g	glass	80,55

Citric acid monohydrate

M 210,14 g/mol
CAS No. 5949-29-1 · EC no. 611-842-9
WGK 1

Warning H319-H335

Citric acid monohydrate
≥99,0 %, pure

$C_6H_8O_7 \cdot H_2O$ · D 1,54 g/cm³ · mp 135 to 152 °C · bp >170 °C · flp 345 °C

Type analysis
Assay ..... ≥99,0 %
Fe (Iron) ..... ≤0,01 %
Pb (Lead) ..... ≤0,0005 %
Water ..... ≤8,8 %

Art. No.	Pack Qty.	Pack.	€
1T4C.1	500 g	plastic	17,10
1T4C.2	1 kg	plastic	32,15
1T4C.3	2.5 kg	plastic	64,40
1T4C.4	5 kg	plastic	117,20
1T4C.5	10 kg	plastic	213,95
1T4C.6	25 kg	plastic	483,75

Cobalt powder

Co · D 8,86 g/cm³ · mp 1495 °C · bp 2927 °C
M 58,93 g/mol
CAS No. 7440-48-4 · EC no. 231-158-0

Cobalt powder
≥99,8 %, p.a.

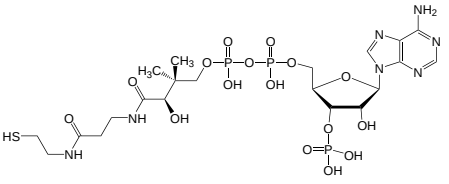
UN no. 3089 · ADR 4.1 II · WGK 3

Danger H228-H302-H317-H319-H330-H334-H341-H350-H360F-H410

Type analysis
Purity ..... ≥99,8 %
Carbon (C) ..... ≤0,05 %
Sulphur (S) ..... ≤0,005 %
Al (Aluminium) ..... ≤0,005 %
Ca (Calcium) ..... ≤0,005 %
Cr (Chrom) ..... ≤0,005 %
Cu (Copper) ..... ≤0,005 %
Fe (Iron) ..... ≤0,005 %
Mg (Magnesium) ..... ≤0,005 %
Mn (Manganese) ..... ≤0,001 %
Na (Sodium) ..... ≤0,005 %
Ni (Nickel) ..... ≤0,005 %
Si (Silicon) ..... ≤0,005 %
Zn (Zinc) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
1N2H.1	50 g	plastic	24,65
1N2H.2	250 g	plastic	102,05
1N2H.3	500 g	plastic	177,40

Coenzyme A hydrate



CoA · CoASH
$C_{21}H_{36}N_7O_{16}P_3S$
M 767,53 g/mol
CAS No. 85-61-0 · EC no. 201-619-0
WGK 1

Coenzyme A hydrate
≥85 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Appearance ..... white to off-white or pale yellow powder
Purity (enzyme) ..... ≥85 %
Water (KF) ..... ≤8 %

Art. No.	Pack Qty.	Pack.	€
1T9K.1	10 mg	glass	42,90
1T9K.2	25 mg	glass	85,90
1T9K.3	100 mg	glass	204,15

Copper(II) oxide

M 79,55 g/mol
CAS No. 1317-38-0 · EC no. 215-269-1
UN no. 3077 · ADR 9 III · WGK 3

Warning H410

Copper(II) oxide
≥99 %, p.a.

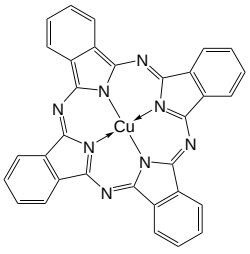
CuO · mp 1326 °C

Type analysis

Assay (CuO)	≥99,0 %
Assay (Cu)	≥79,0 %
Chlorine (Cl)	≤0,005 %
Fe (Iron)	≤0,005 %
Ni (Nickel)	≤0,001 %
Pb (Lead)	≤0,0005 %
Zn (Zinc)	≤0,005 %

Art. No.	Pack Qty.	Pack.	€
1LX9.1	100 g	plastic	27,85
1LX9.2	500 g	plastic	99,90
1LX9.3	1 kg	plastic	181,70

Copper phthalocyanine



CuPc · Phthalocyanine blue
$C_{32}H_{16}CuN_8$ · mp >350 °C
M 576,07 g/mol
CAS No. 147-14-8 · EC no. 205-685-1

Copper phthalocyanine
≥98 %

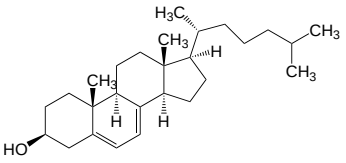
temperature and light resistant blue dye

Type analysis

Appearance	blue solid
Dye content	≥98 %

Art. No.	Pack Qty.	Pack.	€
1XP9.1	5 g	glass	16,05
1XP9.2	25 g	glass	67,65

7-Dehydrocholesterol



Provitamin D_3 · Cholesta-5,7-dien-3β-ol
$C_{27}H_{44}O$ · mp 148 to 152 °C
M 384,64 g/mol
CAS No. 434-16-2 · EC no. 207-100-5
WGK 2

7-Dehydrocholesterol
≥95 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... White, off-white or faint yellow powder or crystals
Assay ..... ≥95 %
Melting point ..... 148,0-152,0 °C
Spec. rotation $[\alpha]^{20}_{D}$ (c=1 in chloroform) .. -106,0 to -122,0 °

Art. No.	Pack Qty.	Pack.	€
1T97.1	1 g	glass	21,40
1T97.2	10 g	glass	117,20
1T97.3	25 g	glass	267,70

Diesel

D 0,8 to 0,91 g/cm³ · mp -40 to 6 °C · bp 141 to 462 °C
CAS No. 68334-30-5 · EC no. 269-822-7
WGK 2

Warning H351

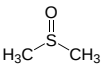
Diesel
≥99 %

Storage temperature: +4 °C

Type analysis
Assay (GC) ..... ≥99 %

Art. No.	Pack Qty.	Pack.	€
1PHK.1	1 ml	glass ampoule	107,00
1PHK.2	100 ml	glass	478,40
1PHK.3	250 ml	glass	682,65

Dimethyl sulphoxide (DMSO)



DMSO
C_2H_6OS · D 1,1 g/cm³ · mp 18,5 °C · bp 189 °C · flp 87 °C
M 78,13 g/mol
CAS No. 67-68-5 · EC no. 200-664-3
WGK 1

Dimethyl sulphoxide (DMSO)
SOLVAGREEN® ≥99,0 %, for synthesis, recycled material

Type analysis
Assay (GC) ..... ≥99,0 %
Water (KF) ..... ≤0,5 %
Melting point ..... ≥18,1 °C

Note: Product may crystallise. It can be liquefied by heating in a water bath to max. 40 °C.

Art. No.	Pack Qty.	Pack.	€
1P1T.1	1 l	glass	53,65
1P1T.2	2.5 l	glass	106,45
1P1T.3	5 l	plastic	203,20

EDTA disodium salt solutions

Ethylenediamine tetraacetic acid disodium salt solution · Sodium EDTA solution · Titration complex III-solution
M 372,24 g/mol
CAS No. 6381-92-6 · EC no. 205-358-3

EDTA disodium salt solution
0,5 mol/l – 0,5 N, volumetric standard solution, in sodium hydroxide solution

$C_{10}H_{14}N_2Na_2O_8 \cdot 2\ H_2O$ · D 1,106 g/cm³ · bp 100 °C

UN no. 1824 · ADR 8 III · WGK 2

Danger H290-H314-H373

Type analysis
Amount-of-substance conc. (20 °C) ..... 0,5 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
1P16.1	1 l	plastic	117,20

EDTA disodium salt solution
1 mol/l – 1 N, volumetric standard solution, in sodium hydroxide solution

$C_{10}H_{14}N_2Na_2O_8 \cdot 2\ H_2O$ · D 1,205 g/cm³ · bp 100 °C

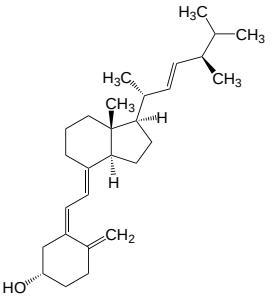
UN no. 1824 · ADR 8 II · WGK 2

Danger H290-H314-H332-H373

Type analysis
Amount-of-substance conc. (20 °C) ..... 1 mol/l ±0,2 %
Titer 0,998-1,002

Art. No.	Pack Qty.	Pack.	€
1P17.1	1 l	plastic	188,15

Ergocalciferol



Calciferol · Vitamin D_2
$C_{28}H_{44}O$ · mp 113 to 119 °C
M 396,65 g/mol
CAS No. 50-14-6 · EC no. 200-014-9
UN no. 2811 · ADR 6.1 II · WGK 2

Danger H301+H311-H330-H372

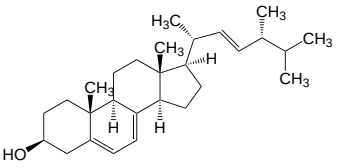
Ergocalciferol
≥97,5 %, for biochemistry

Storage temperature: +4 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... white to pale yellow crystals or powder
Assay ..... ≥97,5 %
Melting point ..... 113,0°C to 119,0 °C

Art. No.	Pack Qty.	Pack.	€
1T9E.1	500 mg	glass	53,65
1T9E.2	1 g	glass	96,65

Ergosterol



Provitamin D_2 · Ergosta-5,7,22-trien-3β-ol
$C_{28}H_{44}O$ · D 1,04 g/cm³ · mp 156 to 158 °C · bp 250 °C
M 396,65 g/mol
CAS No. 57-87-4 · EC no. 200-352-7
WGK 1

Ergosterol
≥94 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... white to off-white powder
Assay ..... ≥94 %

Art. No.	Pack Qty.	Pack.	€
1T9N.1	10 g	glass	75,15
1T9N.2	25 g	glass	161,15
1T9N.3	50 g	glass	290,15

Etchants for metallography

Etchant acc. to Adler

Ethchant for steel, weldings and macro ethcing

UN no. 3264 · ADR 8 II · WGK 1

Danger H290-H314-H335

Type analysis
Appearance ..... yellow to brown solution
Hydrochloric acid ..... 30-32 %
Copper(II) ammonium chloride dihydrate ($(NH_4)_2CuCl_4 \cdot 2\ H_2O$) ..... 4-5 %
Iron(III)-chloride hexahydrate ($FeCl_3 \cdot 6\ H_2O$) ..... 20-22 %

Art. No.	Pack Qty.	Pack.	€
1T8T.1	100 ml	glass (PVC coated)	32,15

Etchant Nital
3 %

Nitric acid in denatured ethanol, etchant for unalloyed and low alloyed steel

D 0,8 g/cm³ · bp >75 °C · flp 14 °C

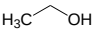
UN no. 2924 · ADR 3 (8) II · WGK 2

Danger H225-H290-H314

Type analysis
Appearance ..... colourless to light yellow
Assay (HNO_3, w/v) ..... 2,64-2,83 %

Art. No.	Pack Qty.	Pack.	€
1T8X.1	250 ml	glass (PVC coated)	32,15

Ethanol



M 46,07 g/mol
CAS No. 64-17-5 · EC no. 200-578-6
UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

Ethanol
≥98 %, technical, denatured

Spirit

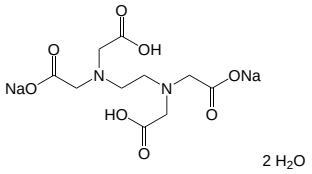
C_2H_6O · mp -114 °C · bp 78 °C · flp 12 °C

Type analysis
Assay (V/V) ..... ≥98 %

Denaturing:
Denatonium benzoate ..... 1 g/100 l
Isopropyl alcohol (IPA) ..... 1 %
Methyl ethyl ketone (MEK) ..... 1 %

Art. No.	Pack Qty.	Pack.	€
1Y81.1	1 l	plastic	13,90
1Y81.2	2.5 l	glass	27,85
1Y81.3	2.5 l	plastic	25,70
1Y81.4	5 l	plastic	42,90
1Y81.5	10 l	plastic	75,15
1Y81.6	10 l	tinplate	85,90
1Y81.7	25 l	plastic	134,95
1Y81.8	25 l	tinplate	149,45
1Y81.9	200 l	plastic	966,45

Ethylenediamine tetraacetic acid disodium salt dihydrate



EDTA-Na_2 · 2 H_2O · EDTA disodium salt dihydrate · Titration complex III
$C_{10}H_{14}N_2Na_2O_8$ · 2 H_2O · mp 110 °C
M 372,24 g/mol
CAS No. 6381-92-6 · EC no. 205-358-3
WGK 2

Warning H332-H373

Ethylenediamine tetraacetic acid disodium salt dihydrate

≥99 %, pure

Type analysis

Assay ..... ≥99,0 %
Solubility (10 % in H_2O) ..... clear, colourless
pH (5 % in H_2O) 4,0-5,0
Loss on drying (200 °C) ..... 8,5-11,0 %

Art. No.	Pack Qty.	Pack.	€
1PHC.1	500 g	plastic	32,15
1PHC.2	1 kg	plastic	51,50
1PHC.3	5 kg	plastic	203,20
1PHC.4	25 kg	plastic	951,40

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FAM test liquids

FAM test liquid A
for polymer materials, acc. to DIN 51604-1

D 0,7838 g/cm³ · bp ~78 °C · flp -12 °C

UN no. 1993 · ADR 3 II · WGK 2

Danger H225-H304-H315-H336-H361d-H373-H410

Type analysis
Density (15 °C) ..... 0,789-0,793 g/ml

Art. No.	Pack Qty.	Pack.	€
1PKE.1	500 ml	glass	263,40

FAM test liquid B
contains methanol, for polymer materials, acc. to DIN 51604-2

D 0,7864 g/cm³ · bp ~64 °C · flp -12 °C

UN no. 1992 · ADR 3 (6.1) II · WGK 2

Danger H225-H302+H312+H332-H304-H315-H336-H361d-H370-H373-H410

Type analysis
Density (15 °C) ..... 0,792-0,796 g/ml

Art. No.	Pack Qty.	Pack.	€
1PKH.1	500 ml	glass	263,40

FAM test liquid C
methanol-containing subphase, for polymer materials, acc. to DIN 51604-3

D 0,8 g/cm³ · bp >35 °C · flp 11 °C

UN no. 1992 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H304-H315-H336-H361d-H370-H373-H411

Type analysis
Density (15 °C) ..... 0,798-0,802 g/ml
Water ..... 2,33-2,67 %

Art. No.	Pack Qty.	Pack.	€
1PKK.1	500 ml	glass	263,40

FAM test liquid normal petrol
acc. to DIN 51635

D 0,7011 g/cm³ · bp 65 °C · flp -26 °C

EC no. 265-151-9

UN no. 3295 · ADR 3 II · WGK 3

Danger H225-H304-H315-H336-H361f-H373-H411

Type analysis
Colour number (APHA) ..... ≤10
Benzene ..... ≤0,0001 %
n-Hexane ..... ≤0,005 %
Evaporation residue ..... ≤0,003 %

Art. No.	Pack Qty.	Pack.	€
1PKL.1	500 ml	glass	77,30

Flame Test Kits

Flame Test Kit 1

Salts for flame colouration.

The magnesia rods (10 pcs.) and a wooden clip are included in the kit.

UN no. 3316 · ADR 9 · WGK 1

Danger H301-H315-H318-H332

Art. No.	Pack Qty.	Pack.	€
1PE8.1	1 set	glass	53,65

Flame Test Kit 2

Salts for flame colouration.

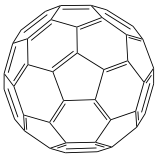
The magnesia rods (10 pcs.) and a wooden clip are included in the kit.

UN no. 3316 · ADR 9 · WGK 3

Danger H272-H290-H302+H312-H314-H361fd-H410

Art. No.	Pack Qty.	Pack.	€
1PE6.1	1 set	glass	85,90

Fullerene



Buckminsterfullerene
C_{60} · D 1,6 g/cm³ · mp >280 °C · flp >94 °C
WGK 1

Warning H319-H335

Fullerene C60
≥99 %

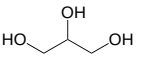
CAS No. 99685-96-8

M 720,64 g/mol

Type analysis
Purity (HPLC) ..... ≥99,0 %
C70 ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
1NPX.1	500 mg	glass	75,15
1NPX.2	1 g	glass	138,70
1NPX.3	5 g	glass	553,65

Glycerol



1,2,3-Propanetriol
M 92,09 g/mol
CAS No. 56-81-5 · EC no. 200-289-5
WGK 1

Glycerol
SOLVAGREEN® ~86 %, for synthesis, palm-free

$C_3H_8O_3$ · D 1,23 to 1,27 g/cm³ · bp 290 °C · flp 180 °C

Type analysis
Assay ..... 83,5-88,5 %
Colour (APHA) ..... ≤10
Refractive index (20 °C) 1,449-1,455
Water (KF) ..... 12,0-16,0 %

Art. No.	Pack Qty.	Pack.	€
1T4E.1	1 l	plastic	41,95
1T4E.2	2.5 l	plastic	74,20
1T4E.3	5 l	plastic	138,70
1T4E.4	10 l	plastic	246,20
1T4E.5	25 l	plastic	493,45

Hydrochloric acid

HCl · Hydrogen chloride · Hydrogen chloride
M 36,46 g/mol
CAS No. 7647-01-0 · EC no. 231-595-7

Hydrochloric acid
37 % fuming, p.a.

Solvent and dissolving agent. For acidifying, neutralisation and regeneration of ion exchangers.

HCl · D 1,19 g/cm³ · mp -28 °C

UN no. 1789 · ADR 8 II · WGK 1

Danger H290-H314-H335

Type analysis

Assay	36,5-38,0 %
Colour (APHA)	≤10
Free chlorine (Cl)	≤0,0005 %
Ammonium (NH_4)	≤0,0005 %
Bromide (Br)	≤0,005 %
Sulphate (SO_4)	≤0,0005 %
Sulphite (SO_3)	≤0,0005 %
Ash content	≤0,0005 %
Heavy metals	≤0,001 %

Trace impurities:

As (Arsenic)	≤0,0001 %
Ba (Barium)	≤0,0001 %
Ca (Calcium)	≤0,0001 %
Cd (Cadmium)	≤0,0001 %
Cu (Copper)	≤0,0001 %
Co (Cobalt)	≤0,0001 %
Cr (Chrom)	≤0,0001 %
Fe (Iron)	≤0,0001 %
K (Potassium)	≤0,0001 %
Na (Sodium)	≤0,0001 %
Ni (Nickel)	≤0,0001 %
Pb (Lead)	≤0,0001 %
Sb (Antimony)	≤0,0001 %
Ti (Titanium)	≤0,0001 %
Zn (Zinc)	≤0,0001 %

Art. No.	Pack Qty.	Pack.	€
1LX0.1	500 ml	glass	19,90
1LX0.2	1 l	glass	25,30
1LX0.3	2.5 l	glass	46,15
1LX0.4	10 l	plastic	120,95
1LX0.5	25 l	plastic	252,65

Hydroxyethyl cellulose

HEC · Hyetellose
D 1,1 to 1,5 g/cm³
WGK 1

Hydroxyethyl cellulose
200-450 mPas, powdered

CAS No. 9004-62-0

Type analysis

Sulphated ash	≤6 %
Viscosity (25 °C)	200-450 mPas
Moisture	≤5 %
pH (1 % solution)	5,5-8,0

Particle size:

<0,180 mm	≥95 %

Art. No.	Pack Qty.	Pack.	€
1T70.1	100 g	plastic	21,40
1T70.2	250 g	plastic	37,55
1T70.3	1 kg	plastic	121,40

Iron

M 55,8 g/mol
CAS No. 7439-89-6 · EC no. 231-096-4

Iron powder
≥99,5 %, p.a., Electrolytic Grade, 250-300 mesh

Fe · D 7,87 g/cm³ · mp 1538 °C · bp 2861 °C

UN no. 3089 · ADR 4.1 III

Danger H228

Type analysis

Assay	≥99,5 %
In HCl insoluble matter	≤0,05 %
Sulphide (S)	≤0,02 %
As (Arsenic)	≤0,0005 %
Cu (Copper)	≤0,005 %
Mn (Manganese)	≤0,05 %
Ni (Nickel)	≤0,05 %
Pb (Lead)	≤0,002 %
Zn (Zinc)	≤0,01 %

Art. No.	Pack Qty.	Pack.	€
1P5C.1	100 g	glass	22,05
1P5C.2	500 g	glass	63,35
1P5C.3	1 kg	glass	103,75

Iron filings
~100 mesh, grease free

For visible magnetic field lines. Please do not contact the magnet directly.

Fe · D 7,87 g/cm³ · mp 1538 °C · bp 2861 °C

Type analysis

Appearance	grayish fine, heavy filings

Art. No.	Pack Qty.	Pack.	€
1P5A.1	100 g	glass	11,30
1P5A.2	500 g	glass	24,20
1P5A.3	1 kg	glass	39,70

Iron(III) nitrate nonahydrate

Ferric nitrate
$Fe(NO_3)_3 \cdot 9\ H_2O$ · D 1,68 g/cm³ · mp 47,2 °C · bp 125 °C
M 404,0 g/mol
CAS No. 7782-61-8 · EC no. 233-899-5
UN no. 3260 · ADR 8 II · WGK 1

Danger H314

Iron(III) nitrate nonahydrate
≥98 %, p.a., ACS

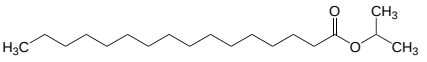
For determination of phosphate

Guarantee analysis

Assay (titr.)	98,0-101,0 %
In NH_4OH not precipitated substances	≤0,1 %
Insoluble matter	≤0,005 %
Chloride (Cl)	≤0,0005 %
Sulphate (SO_4)	≤0,01 %
Ca (Calcium)	≤0,01 %
K (Potassium)	≤0,005 %
Mg (Magnesium)	≤0,005 %
Na (Sodium)	≤0,05 %

Art. No.	Pack Qty.	Pack.	€
1P58.1	500 g	glass	34,30
1P58.2	1 kg	glass	55,40
1P58.3	2.5 kg	glass	114,50

Isopropyl palmitate



Propan-2-yl hexadecanoate · Hexadecanoic acid isopropyl ester
$C_{19}H_{38}O_2$ · D 0,854 g/cm³ · mp 13,5 °C · bp >150 °C · flp 168 to 170 °C
M 298,51 g/mol
CAS No. 142-91-6 · EC no. 205-571-1
WGK awg

Isopropyl palmitate
≥90 %, for synthesis

Type analysis

Assay	≥90 %
Refractive index (20 °C)	1,436-1,440
Density (20 °C)	0,850-0,855
Water	≤0,5 %

Note: Product may crystallise. It can be liquefied by heating in a water bath to max. 40 °C.

Art. No.	Pack Qty.	Pack.	€
1PKA.1	250 ml	plastic	21,40
1PKA.2	500 ml	plastic	37,55
1PKA.3	1 l	plastic	64,40
1PKA.4	2.5 l	plastic	107,40

Karl Fischer Reagents ROTI®Hydroquant for volumetry

Reagents for water analysis · Volumetric Karl Fischer solutions · Water determination acc. to Karl Fischer

Karl Fischer ROTI®Hydroquant C5 plus
5 mg H_2O/ml, pyridine-free

Single-component reagent. For use with article number T193 or 1PPH.

D 1,16 g/cm³ · bp 196 °C · flp 96 °C

UN no. 1760 · ADR 8 III · WGK 2

Danger H314-H351-H360Df-H373

Guarantee analysis

Efficiency ..... 4,5-5,5 mg H_2O/ml

at the time of manufacture.

Art. No.	Pack Qty.	Pack.	€
1T13.1	1 l	glass	149,45

Karl Fischer ROTI®Hydroquant Methanol quick
for KF titration

Solvent component for accelerated KF reaction. For use with article number T194 or T190.

D 0,81 g/cm³ · mp -98 °C · bp 65 °C · flp 11 °C

UN no. 1992 · ADR 3 (6.1) II · WGK 2

Danger H225-H301+H311+H331-H314-H360D-H370

Type analysis

Application test ..... complies

Art. No.	Pack Qty.	Pack.	€
1PPH.1	1 l	glass	48,30

Kerosene

D 0,81 g/cm³ · mp -45 °C · bp 203 to 238 °C · flp 77 °C

EC no. 926-141-6

WGK 1

Danger H304-EUH066

Kerosene
special fraction 190–250 °C

Type analysis

Aromatic compounds ..... ≤0,2 %
Refractive index (20 °C) ..... 1,4320 - 1,4500
Density (15 °C) ..... 0,780 - 0,806 g/ml
Boiling range ..... 190-250 °C

Art. No.	Pack Qty.	Pack.	€
1PKC.1	1 l	glass	83,75

Lead

Pb · D 11,35 g/cm³ · mp 327,5 °C · bp >600 °C
M 207,21 g/mol
CAS No. 7439-92-1 · EC no. 231-100-4

Lead powder
≥99,95 %, p.a., ~200 mesh

UN no. 3077 · ADR 9 III · WGK 3

Danger H360FD-H362-H372-H410

Type analysis

Purity ..... ≥99,95 %
Ag (Silver) ..... ≤0,0005 %
As (Arsenic) ..... ≤0,0005 %
Bi (Bismuth) ..... ≤0,005 %
Cd (Cadmium) ..... ≤0,001 %
Cu (Copper) ..... ≤0,0005 %
Fe (Iron) ..... ≤0,001 %
Ni (Nickel) ..... ≤0,001 %
Sb (Antimony) ..... ≤0,0005 %
Sn (Tin) ..... ≤0,0005 %
Zn (Zinc) ..... ≤0,0005 %
Particle size ..... approx. 200 mesh

Art. No.	Pack Qty.	Pack.	€
1T77.1	100 g	plastic	29,60
1T77.2	500 g	plastic	99,90
1T77.3	1 kg	plastic	177,40

Lead(II) nitrate

$Pb(NO_3)_2$ · D 4,49 g/cm³ · mp 458 to 459 °C · bp >500 °C
M 331,21 g/mol
CAS No. 10099-74-8 · EC no. 233-245-9
UN no. 1469 · ADR 5.1 (6.1) II · WGK 3

Danger H302+H332-H360Df-H372-H410

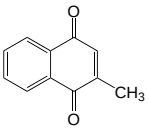
Lead(II) nitrate
≥99 %, pure

Type analysis

Assay ..... ≥99,0 %
Substances not precipitated by H_2S ..... ≤0,5 %
Chloride (Cl) ..... ≤0,005 %
Cu (Copper) ..... ≤0,005 %
Fe (Iron) ..... ≤0,005 %

Art. No.	Pack Qty.	Pack.	€
1P5X.1	100 g	glass	17,10
1P5X.2	500 g	glass	63,35
1P5X.3	1 kg	glass	109,15

Menadione



Vitamin K_3 · 2-Methylnaphthalene-1,4-dione
$C_{11}H_8O_2$ · mp 105 to 107 °C
M 172,18 g/mol
CAS No. 58-27-5 · EC no. 200-372-6
UN no. 3077 · ADR 9 III · WGK 3

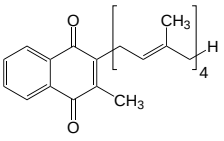
Warning H302-H315-H317-H319-H335-H410

Menadione
≥98 %, for biochemistry

Type analysis
Appearance ..... bright yellow solid
Assay ..... ≥98 %
Melting point ..... 105-107 °C
Loss on drying ..... ≤0,3 %

Art. No.	Pack Qty.	Pack.	€
1T96.1	10 g	glass	26,80
1T96.2	25 g	glass	53,65
1T96.3	100 g	glass	160,20

Menaquinone



Vitamin K_2
$C_{31}H_{40}O_2$ · mp 34 to 38 °C
M 444.65 g/mol
CAS No. 863-61-6 · EC no. 234-264-5
WGK 1

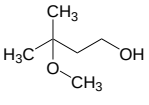
Menaquinone
≥98 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Appearance ..... yellow crystalline powder
Assay (HPLC, dry substance) ..... ≥98 %
Melting point ..... 34-38 °C
Water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
1T9C.1	25 mg	glass	32,15
1T9C.2	50 mg	glass	53,65

3-Methoxy-3-methyl-1-butanol



MMB
$C_6H_{14}O_2$ · D 0,92 g/cm³ · bp 173 °C · flp 71 °C
M 118,18 g/mol
CAS No. 56539-66-3 · EC no. 260-252-4
WGK 1

Warning H319

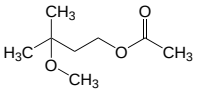
3-Methoxy-3-methyl-1-butanol
SOLVAGREEN® ≥99 %, for synthesis

Alternative for glycol ethers, e.g. Ethylene glycol, Propylene glycol, Butylene glycol, Dipropylene glycol methyl ether/DPM

Type analysis
Assay (GC) ..... ≥99 %
Acidity (as CH_3COOH) ..... ≤0,01 %
Water ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
1PKN.1	100 ml	glass	21,40
1PKN.2	500 ml	glass	37,55
1PKN.3	1 l	glass	53,65
1PKN.4	2.5 l	glass	106,45

3-Methoxy-3-methylbutyl acetate



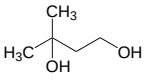
MMB-Ac
$C_8H_{16}O_3$ · D 0,957 g/cm³ · mp -100 to 25 °C · bp 187,3 °C · flp 76 °C
M 160,21 g/mol
CAS No. 103429-90-9 · EC no. 700-408-5
WGK 1

3-Methoxy-3-methylbutyl acetate
≥98 %, for synthesis

Type analysis
Assay (GC) ..... ≥98 %
Acidity (as CH_3COOH) ..... ≤0,01 %
Water ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
1PKX.1	100 ml	glass	21,40
1PKX.2	500 ml	glass	37,55
1PKX.3	1 l	glass	53,65
1PKX.4	2.5 l	glass	106,45

3-Methyl-1,3-butanediol



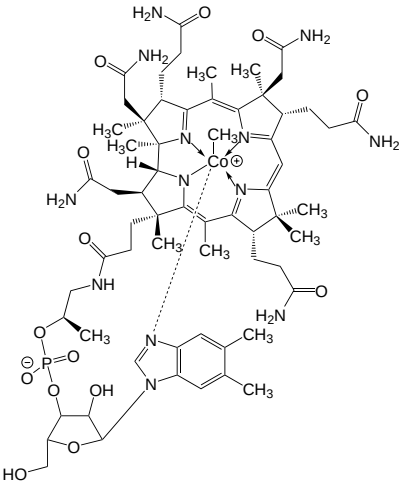
Isopentyldiol · MBD · IPD · Isoprenglycol
$C_5H_{12}O_2$ · D 0,98 g/cm³ · mp -50 °C · bp 203 °C · flp 103 °C
M 104,15 g/mol
CAS No. 2568-33-4 · EC no. 459-270-7
WGK 1

3-Methyl-1,3-butanediol
≥99 %, for synthesis

Type analysis
Assay (GC) ..... ≥99 %
Water ..... ≤2 %

Art. No.	Pack Qty.	Pack.	€
1PKP.1	100 ml	glass	21,40
1PKP.2	500 ml	glass	37,55
1PKP.3	1 l	glass	53,65
1PKP.4	2.5 l	glass	106,45

Methylcobalamin



Vitamin B_{12}
$C_{63}H_{91}CoN_{13}O_{14}P$
M 1344,38 g/mol
CAS No. 13422-55-4 · EC no. 236-535-3
WGK 1

Methylcobalamin
≥98,5 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: ambient temp.

Type analysis
Appearance ..... dark red crystals or crystalline powder
Assay ..... ≥98,5 %
Water ..... ≤11,5 %

Art. No.	Pack Qty.	Pack.	€
1T9A.1	25 mg	glass	16,05
1T9A.2	100 mg	glass	59,05
1T9A.3	250 mg	glass	128,90

Methyl hydroxyethyl cellulose

HMEC · Hydroxyethyl methyl cellulose
D 1,1 to 1,5 g/cm³
WGK 1

Methyl hydroxyethyl cellulose
320-500 mPas, powdered

CAS No. 9032-42-2

Type analysis
Viscosity (20 °C) ..... 320-500 mPas
Moisture ..... ≤7 %
NaCl ..... ≤1,5 %

Particle size:
<0,180 mm ..... ≥90 %
<0,100 mm ..... ≥25 %

Art. No.	Pack Qty.	Pack.	€
1T71.1	250 g	plastic	37,55
1T71.2	1 kg	plastic	121,40

Methyl hydroxypropyl cellulose

Hypromellose · HPMC · Hydroxypropyl methyl cellulose
D 1,1 to 1,5 g/cm³
WGK 1

Methyl hydroxypropyl cellulose
3800-5300 mPas, powdered

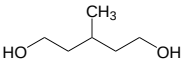
CAS No. 9004-65-3

Type analysis
Viscosity (20 °C) ..... 3800-5300 mPas
Moisture ..... ≤6 %
NaCl ..... ≤1,5 %

Particle size:
<0,100 mm ..... ≥70 %

Art. No.	Pack Qty.	Pack.	€
1T72.1	250 g	plastic	37,55
1T72.2	1 kg	plastic	121,40

3-Methyl-1,5-pentanediol



MPD · 1,5-Dihydroxy-3-methylpentane
$C_6H_{14}O_2$ · D 0,971 g/cm³ · mp -10 °C · bp 249 °C · flp 150 °C
M 118,18 g/mol
CAS No. 4457-71-0 · EC no. 224-709-1
WGK 1

Warning H319

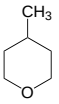
3-Methyl-1,5-pentanediol
≥98 %, for synthesis

Diol for polyurethane production

Type analysis
Assay (GC) ..... ≥98 %
Water ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
1PKT.1	100 ml	glass	21,40
1PKT.2	500 ml	glass	37,55
1PKT.3	1 l	glass	53,65
1PKT.4	2.5 l	glass	106,45

Methyltetrahydropyran



MTHP
$C_6H_{12}O$ · D 0,857 g/cm³ · mp <-50 °C · bp 108 °C · flp 6,5 °C
M 100,16 g/mol
CAS No. 4717-96-8 · EC no. 225-207-5
UN no. 2924 · ADR 3 (8) II · WGK 1

Danger H225-H314

Methyltetrahydropyran
SOLVAGREEN® ≥99 %, for synthesis

Alternative for Diethyl ether, tBME/MTBE, THF

Type analysis
Assay (GC) ..... ≥99 %

stabilised with approx. 25 ppm BHT.

Art. No.	Pack Qty.	Pack.	€
1PKY.1	100 ml	glass	21,40
1PKY.2	500 ml	glass	37,55
1PKY.3	1 l	glass	59,05
1PKY.4	2.5 l	glass	117,20

Nitric acid

M 63,01 g/mol
CAS No. 7697-37-2 · EC no. 231-714-2

Nitric acid
100 % fuming, p.a.

HNO_3 · D 1,51 g/cm³ · mp -42 °C · bp 86 °C

UN no. 2032 · ADR 8 (5.1, 6.1) I · WGK 2

Danger H272-H290-H314-H330-EUH071

Type analysis
Assay (acidim.) ..... ≥99,5 %
Ash content ..... ≤0,002 %
Chloride (Cl) ..... ≤0,0001 %
Sulphate (SO_4) ..... ≤0,0005 %
Heavy metals (as Pb) ..... ≤0,0005 %
As (Arsenic) ..... ≤0,00002 %
Fe (Iron) ..... ≤0,0002 %

Art. No.	Pack Qty.	Pack.	€
1NYA.1	1 l	glass	815,95

Nitric acid
69 %, VLSI Grade

Semiconductor grade

HNO_3 · D 1,39 to 1,41 g/cm³ · bp 120 to 121 °C

UN no. 2031 · ADR 8 (5.1) II · WGK 1

Danger H272-H290-H314-H331-EUH071

Guarantee analysis
Assay ..... 69-70 %
Bead number (≥0,5 µm) ..... ≤250 p/ml
Chloride (Cl) ..... ≤0,00001 %
Colour (APHA) ..... ≤10
Ash content (as SO_4) ..... ≤0,0002 %
Phosphate (PO_4) ..... ≤0,00001 %
Heavy metals (as Pb) ..... ≤0,0001 %
Sulphate (SO_4) ..... ≤0,00005 %

Trace impurities:
Silver (Ag) ..... ≤0,01 ppm
Aluminium (Al) ..... ≤0,05 ppm
Arsenic (As) ..... ≤0,01 ppm
Gold (Au) ..... ≤0,05 ppm
Boron (B) ..... ≤0,01 ppm
Barium (Ba) ..... ≤0,1 ppm
Beryllium (Be) ..... ≤0,02 ppm
Bismuth (Bi) ..... ≤0,02 ppm
Calcium (Ca) ..... ≤0,1 ppm
Cadmium (Cd) ..... ≤0,01 ppm
Cobalt (Co) ..... ≤0,01 ppm
Chromium (Cr) ..... ≤0,01 ppm
Copper (Cu) ..... ≤0,01 ppm
Iron (Fe) ..... ≤0,05 ppm
Gallium (Ga) ..... ≤0,02 ppm
Indium (In) ..... ≤0,02 ppm
Potassium (K) ..... ≤0,05 ppm
Lithium (Li) ..... ≤0,01 ppm
Magnesium (Mg) ..... ≤0,05 ppm
Manganese (Mn) ..... ≤0,01 ppm
Molybdenum (Mo) ..... ≤0,05 ppm
Sodium (Na) ..... ≤0,1 ppm
Nickel (Ni) ..... ≤0,01 ppm
Lead (Pb) ..... ≤0,02 ppm
Platinum (Pt) ..... ≤0,02 ppm
Antimony (Sb) ..... ≤0,01 ppm
Tin (Sn) ..... ≤0,02 ppm
Strontium (Sr) ..... ≤0,02 ppm
Titanium (Ti) ..... ≤0,02 ppm
Thallium (Tl) ..... ≤0,02 ppm
Vanadium (V) ..... ≤0,02 ppm
Zinc (Zn) ..... ≤0,05 ppm
Zirconium (Zr) ..... ≤0,02 ppm

Art. No.	Pack Qty.	Pack.	€
1N1K.1	2.5 l	plastic	170,95

Nitric acid
30 %, pure

HNO_3 · D 1,17 to 1,19 g/cm³ · mp -19 °C · bp >100 °C

UN no. 2031 · ADR 8 II · WGK 1

Danger H290-H314-H331-EUH071

Type analysis
Assay ..... 28,5-31,5 %
Density (20 °C) ..... 1,170-1,190 g/ml

Art. No.	Pack Qty.	Pack.	€
1PPL.1	1 l	plastic	21,40
1PPL.2	2.5 l	plastic	40,75
1PPL.3	5 l	plastic	55,80
1PPL.4	10 l	plastic	75,15
1PPL.5	25 l	plastic	155,90

Nitric acid
10 %, pure

HNO_3 · D 1,052 to 1,057 g/cm³ · bp 83 °C

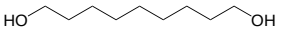
UN no. 2031 · ADR 8 II · WGK 1

Danger H290-H314-EUH071

Type analysis
Assay ..... 9,5-10,5 %
Density ..... 1,052-1,057 g/ml

Art. No.	Pack Qty.	Pack.	€
1PPK.1	1 l	plastic	19,25
1PPK.2	2.5 l	plastic	27,85
1PPK.3	5 l	plastic	42,90
1PPK.4	10 l	plastic	59,05
1PPK.5	25 l	plastic	138,70

1,9-Nonanediol



ND
$C_9H_{20}O_2$ · mp ≥45 to ≤46,8 °C · bp 289,3 °C
CAS No. 3937-56-2 · EC no. 223-517-5
WGK 2

H412

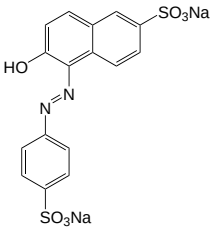
1,9-Nonanediol
≥98 %, for synthesis

Diol for polyurethane production

Type analysis
Assay (GC) ..... ≥98 %
Water ..... ≤0,1 %

Art. No.	Pack Qty.	Pack.	€
1PL0.1	100 g	glass	21,40
1PL0.2	500 g	glass	42,50
1PL0.3	1 kg	glass	75,15
1PL0.4	2.5 kg	glass	149,45

Orange yellow



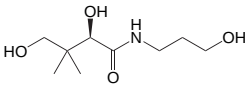
Sunset yellow FCF
$C_{16}H_{10}N_2O_7S_2Na_2$ · D 0,617 g/cm³ · bp 836,6 °C · flp 208,3 °C
M 452,36 g/mol
CAS No. 2783-94-0 · EC no. 220-491-7
WGK 1

Orange yellow (C.I. 15985)
extra pure

Acid and light resistant azo dye

Type analysis
Appearance ..... orange to red powder
Loss on drying (135 °C) ..... ≤30 %

Art. No.	Pack Qty.	Pack.	€
1XTN.1	10 g	glass	21,40
1XTN.2	25 g	glass	42,90
1XTN.3	100 g	glass	96,65



Pantothenol · Provitamin B_5
$C_9H_{19}NO_4$ · D 1,2 g/cm³ · mp -25 °C · bp 235,6 °C · flp 150,5 °C
M 205,25 g/mol
CAS No. 81-13-0 · EC no. 201-327-3
WGK 1

Panthenol
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... colorless or slightly yellowish, viscous hygroscopic liquid
Assay ..... ≥98 %
Optical rotation ..... +29,0 to +31,5 °
Water ..... ≤1,0 %

Art. No.	Pack Qty.	Pack.	€
1T95.1	25 g	glass	21,40
1T95.2	50 g	glass	37,55
1T95.3	100 g	glass	64,40

Patent blue V

WGK 1

Patent blue V calcium salt (C.I. 42051)
extra pure

Acid Blue 3

$(C_{27}H_{31}N_2O_7S_2)_2Ca$ · D 0,51 g/cm³

CAS No. 3536-49-0 · EC no. 222-573-8

M 1159,42 g/mol

Type analysis
Appearance ..... blue to violet powder
Loss on drying (135 °C) ..... ≤15 %

Art. No.	Pack Qty.	Pack.	€
1XTP.1	10 g	glass	21,40
1XTP.2	25 g	glass	42,90
1XTP.3	100 g	glass	96,65

Patent blue V sodium salt (C.I. 42051:2)
extra pure

Indicator pH

Acid Blue 3

$C_{27}H_{31}N_2O_7S_2Na$ · D 0,455 g/cm³ · mp ≥290,1 to ≤292,3 °C · bp >300 °C · flp 168,6 °C

CAS No. 20262-76-4 · EC no. 243-654-4

M 582,66 g/mol

Type analysis
Appearance ..... blue to green powder
Loss on drying (135 °C) ..... ≤15 %

Art. No.	Pack Qty.	Pack.	€
1XTT.1	10 g	glass	21,40
1XTT.2	25 g	glass	42,90
1XTT.3	100 g	glass	96,65

Peptone ex casein

CAS No. 91079-40-2 · EC no. 293-428-4
WGK 1

Peptone ex casein
CELLPURE®

Casein peptone with low endotoxin content.

Storage temperature: +15 to +25 °C

Type analysis
Amino nitrogen ..... ≥3,9 %
Ash ..... ≤15 %
Total nitrogen (N) ..... ≥10 %
pH (2 % solution) 6,5-7,5
Loss on drying ..... ≤6 %
Endotoxins ..... ≤200 E.U./g

Art. No.	Pack Qty.	Pack.	€
1T90.1	500 g	plastic	149,45
1T90.2	1 kg	plastic	278,45
1T90.3	2.5 kg	plastic	568,70

Peptone ex meat

CAS No. 91079-38-8 · EC no. 293-426-3
WGK 3

Peptone ex meat
CELLPURE®

Meat peptone with low endotoxin content.

Storage temperature: +15 to +25 °C

Type analysis
Amino nitrogen ..... ≥3,4 %
Ash ..... ≤15 %
Total nitrogen (N) ..... ≥10 %
pH (2 % solution) 6,5-7,5
Loss on drying ..... ≤6 %
Endotoxins ..... ≤200 E.U./g

Art. No.	Pack Qty.	Pack.	€
1T91.1	250 g	plastic	84,95
1T91.2	500 g	plastic	149,45
1T91.3	1 kg	plastic	278,45
1T91.4	2.5 kg	plastic	568,70

Peptone ex soya

Soy peptone
D 1,41 g/cm³
CAS No. 91079-46-8 · EC no. 293-434-7
WGK 1

Peptone ex soya
CELLPURE® animal-free/GMO-free, for microbiology

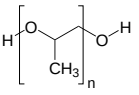
Soy peptone with low endotoxin content.

Storage temperature: +15 to +25 °C

Type analysis
Amino nitrogen ..... ≥2,2 %
Ash ..... ≤15 %
Total nitrogen (N) ..... ≥7 %
pH (2 % solution) 6,5-7,5
Loss on drying ..... ≤6 %
Endotoxins ..... ≤200 E.U./g

Art. No.	Pack Qty.	Pack.	€
1T92.1	250 g	plastic	84,95
1T92.2	500 g	plastic	149,45
1T92.3	1 kg	plastic	278,45
1T92.4	2.5 kg	plastic	568,70

Polypropylene glycol



Polyglycol · Polypropylene oxide · Polyglycol · PPG
CAS No. 25322-69-4
WGK 1

Polypropylene glycol 2000
p.a.

$[C_3H_6O]_n$ · D 1,004 g/cm³ · bp 288 to 310 °C · flp >100 °C

M ~2000 g/mol

Type analysis
Average molar mass ..... 1800-2200 g/mol
Colour number (APHA) ..... ≤50
Hydroxyl number (mg KOH/g) 51-62
Acid value ..... ≤0,5
Water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
1NAE.1	250 ml	glass	42,90
1NAE.2	1 l	plastic	117,20
1NAE.3	2.5 l	plastic	235,45

Polyvinyl alcohol

PVOH · PVAL · PVA
WGK 1

Polyvinyl alcohol
3-98, fully saponified

D ~1,19 g/cm³

CAS No. 9002-89-5 · EC no. 618-340-9

M ~16 000 g/mol

Type analysis
Viscosity (4 %, H_2O, 20 °C) ..... 3,2-3,8 mPas
pH value (4 % in H_2O) 5,0-7,0
Degree of hydrolysis, Mol.-% 98-99
Ash content (as Na_2O) ..... ≤0,7 %
Non volatile matter ..... ≥95,0 %

Art. No.	Pack Qty.	Pack.	€
1T2X.1	100 g	plastic	21,40
1T2X.2	250 g	plastic	42,90
1T2X.3	1 kg	plastic	138,70

Polyvinyl alcohol
6-98, fully saponified

D ~1,19 g/cm³

CAS No. 9002-89-5 · EC no. 618-340-9

M ~47 000 g/mol

Type analysis
Viscosity (4 %, H_2O, 20 °C) ..... 5,0-7,0 mPas
pH value (4 % in H_2O) 4,5-7,0
Degree of hydrolysis, Mol.-% 98,0-98,8
Ash content (as Na_2O) ..... ≤0,5 %
Non volatile matter ..... ≥95,0 %

Art. No.	Pack Qty.	Pack.	€
1T2Y.1	100 g	plastic	21,40
1T2Y.2	250 g	plastic	42,90
1T2Y.3	1 kg	plastic	138,70

Polyvinyl alcohol
10-98, fully saponified

D ~1,19 g/cm³

CAS No. 9002-89-5 · EC no. 618-340-9

M ~47 000 g/mol

Type analysis
Viscosity (4 %, H_2O, 20 °C) ..... 9,0-11,0 mPas
pH value (4 % in H_2O) 4,5-7,0
Degree of hydrolysis, Mol.-% 98,0-98,8
Ash content (as Na_2O) ..... ≤0,5 %
Non volatile matter ..... ≥95,0 %

Art. No.	Pack Qty.	Pack.	€
1T30.1	100 g	plastic	21,40
1T30.2	250 g	plastic	42,90
1T30.3	1 kg	plastic	138,70

Polyvinyl alcohol
28-99, fully saponified

D ~1,19 g/cm³

CAS No. 9002-89-5 · EC no. 618-340-9

M ~61 000 g/mol

Type analysis
Viscosity (4 %, H_2O, 20 °C) ..... 26,0-30,0 mPas
pH value (4 % in H_2O) 4,5-7,0
Degree of hydrolysis, Mol.-% 99,0-99,8
Ash content (as Na_2O) ..... ≤0,5 %
Non volatile matter ..... ≥95,0 %

Art. No.	Pack Qty.	Pack.	€
1T31.1	100 g	plastic	21,40
1T31.2	250 g	plastic	42,90
1T31.3	1 kg	plastic	138,70

Polyvinyl alcohol
6-88, partially saponified

mp 150 to 230 °C

CAS No. 25213-24-5

M ~37 000 g/mol

Type analysis
Viscosity (4 %, H_2O, 20 °C) ..... 5,0-6,0 mPas
pH value (4 % in H_2O) 4,5-7,0
Degree of hydrolysis, Mol.-% 86,7-88,7
Ash content (as Na_2O) ..... ≤0,5 %
Non volatile matter ..... ≥95,0 %

Art. No.	Pack Qty.	Pack.	€
1T32.1	100 g	plastic	21,40
1T32.2	250 g	plastic	42,90
1T32.3	1 kg	plastic	138,70

Polyvinyl alcohol
26-88, partially saponified

mp 150 to 230 °C

CAS No. 25213-24-5

M ~160 000 g/mol

Type analysis
Viscosity (4 %, H_2O, 20 °C) ..... 24,5-27,5 mPas
pH value (4 % in H_2O) 4,5-7,0
Degree of hydrolysis, Mol.-% 86,7-88,7
Ash content (as Na_2O) ..... ≤0,5 %
Non volatile matter ..... ≥95,0 %

Art. No.	Pack Qty.	Pack.	€
1T33.1	100 g	plastic	21,40
1T33.2	250 g	plastic	42,90
1T33.3	1 kg	plastic	138,70

Polyvinyl alcohol
49-88, partially saponified

mp 150 to 230 °C

CAS No. 25213-24-5

M >205 000 g/mol

Type analysis
Viscosity (4 %, H_2O, 20 °C) ..... 45,0-52,0 mPas
pH value (4 % in H_2O) 5,0-7,0
Degree of hydrolysis, Mol.-% 87,0-89,0
Ash content (as Na_2O) ..... ≤0,4 %
Non volatile matter ..... ≥95,0 %

Art. No.	Pack Qty.	Pack.	€
1T34.1	100 g	plastic	21,40
1T34.2	250 g	plastic	42,90
1T34.3	1 kg	plastic	138,70

Polyvinyl butyral

PVB
D ~1,1 g/cm³ · mp 135 to 210 °C
CAS No. 68648-78-2 · EC no. 614-691-7

Polyvinyl butyral
low viscosity

M 10 000 - 20 000 g/mol

Type analysis
Dynamic viscosity (20 °C) ..... 14-20 mPas
Non volatile matter ..... ≥97,5 %
Assay (Polyvinyl alcohol) ..... 18-21 %
Assay (Polyvinyl acetate) ..... 1-4 %

Art. No.	Pack Qty.	Pack.	€
1T35.1	100 g	plastic	26,80
1T35.2	250 g	plastic	48,30
1T35.3	500 g	plastic	80,55

Polyvinyl butyral
medium viscosity

M 28 000 - 38 000 g/mol

Type analysis
Dynamic viscosity (20 °C) ..... 35-60 mPas
Non volatile matter ..... ≥97,5 %
Assay (Polyvinyl alcohol) ..... 18-21 %
Assay (Polyvinyl acetate) ..... 1-4 %

Art. No.	Pack Qty.	Pack.	€
1T36.1	100 g	plastic	26,80
1T36.2	250 g	plastic	48,30
1T36.3	500 g	plastic	80,55

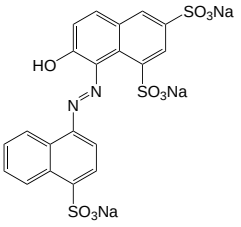
Polyvinyl butyral
high viscosity

M 50 000 - 60 000 g/mol

Type analysis
Dynamic viscosity (20 °C) ..... 160-260 mPas
Non volatile matter ..... ≥97,5 %
Assay (Polyvinyl alcohol) ..... 18-21 %
Assay (Polyvinyl acetate) ..... 1-4 %

Art. No.	Pack Qty.	Pack.	€
1T37.1	100 g	plastic	26,80
1T37.2	250 g	plastic	48,30
1T37.3	500 g	plastic	80,55

Ponceau 4R



Brilliant scarlet 4R · Cochineal Red A · Acid red 18
$C_{20}H_{11}N_2O_{10}S_3Na_3$ · D 1,772 g/cm³
M 604,47 g/mol
CAS No. 2611-82-7 · EC no. 220-036-2
WGK 1

Ponceau 4R (C.I. 16255)
extra pure

Acid-, alkali-, heat- and light-resistant azo dye; alternative for cochineal and carmine

Type analysis
Appearance ..... red to dark red powder
Loss on drying (135 °C) ..... ≤20 %

Art. No.	Pack Qty.	Pack.	€
1XTX.1	10 g	glass	21,40
1XTX.2	25 g	glass	42,90
1XTX.3	100 g	glass	96,65

Potassium hydroxide solution in 2-propanol

Potassium hydroxide solution in 2-propanol
0,01 mol/l – 0,01 N, volumetric standard solution

For determination of Total Acid Number (TAN) acc. to ASTM D664

D 0,8 g/cm³ · bp 82 °C · flp 13 °C

UN no. 1219 · ADR 3 II · WGK 1

Danger H225-H319-H336

Type analysis
Amount-of-substance conc. ..... 0,00995-0,01005 mol/l

Art. No.	Pack Qty.	Pack.	€
1T1H.1	1 l	glass	149,45

Potassium metavanadate

KVO_3 · D 2,88 g/cm³ · mp 520 °C
M 138,04 g/mol
CAS No. 13769-43-2 · EC no. 237-388-8
UN no. 2864 · ADR 6.1 II · WGK 3

Danger H302+H332-H319-H361fd-H372-H411

Potassium metavanadate
≥97,5 %, pure

Type analysis
Assay ..... ≥97,5 %
Fe (Iron) ..... ≤0,05 %
Na (Sodium) ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
1NC2.1	50 g	plastic	26,80
1NC2.2	250 g	plastic	85,90
1NC2.3	1 kg	plastic	267,70

tetra-Potassium pyrophosphate

Potassium diphosphate tetrabasic
$K_4P_2O_7$ · D 2,61 g/cm³ · mp 1090 °C
M 330,34 g/mol
CAS No. 7320-34-5 · EC no. 230-785-7
WGK 1

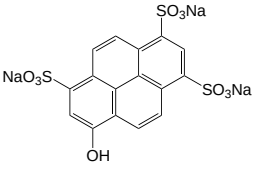
Warning H319

tetra-Potassium pyrophosphate
≥97 %, pure

Type analysis
Assay ..... ≥97,0 %
Fe (Iron) ..... ≤0,005 %
Loss on ignition (800 °C) ..... ≤1,0 %
In H_2O insoluble matter ..... ≤0,5 %
pH value (1 % in H_2O) 10,0-11,0

Art. No.	Pack Qty.	Pack.	€
1NA2.1	500 g	plastic	27,85
1NA2.2	1 kg	plastic	48,30
1NA2.3	2.5 kg	plastic	103,10

Pyranine



Solvent green 7 · Trisodium-8-hydroxypyrene-1,3,6-trisulfonate
$C_{16}H_7Na_3O_{10}S_3$ · D 0,572 g/cm³ · mp 250 °C · bp >300 °C · flp 249,6 °C
M 524,39 g/mol
CAS No. 6358-69-6 · EC no. 228-783-6
WGK 1

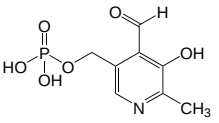
Pyranine (C. . 59040)
pure

Fluorescent pyrene dye

Type analysis
Appearance ..... yellow powder
Insoluble in water ..... ≤1 %

Art. No.	Pack Qty.	Pack.	€
1T4H.1	10 g	glass	23,55
1T4H.2	25 g	glass	48,30
1T4H.3	100 g	glass	138,70

Pyridoxal phosphate



Pyridoxal 5-phosphate · PLP · Vitamin B_6 Phosphate
$C_8H_{10}NO_6P$ · D 1,64 g/cm³ · mp 140 °C · bp 565,8 °C · flp 296 °C
M 247,14 g/mol
CAS No. 54-47-7 · EC no. 200-208-3
WGK 1

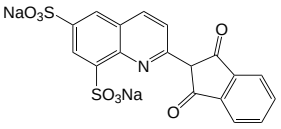
Pyridoxal phosphate
≥98 %, for biochemistry

Storage temperature: +4 °C

Type analysis
Appearance ..... off-white or pale yellow powder
Assay ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1T9H.1	1 g	glass	21,40
1T9H.2	10 g	glass	85,90
1T9H.3	25 g	glass	150,40

Quinoline yellow



Sodium 2-(1,3-dioxoindan-2-yl)quinolinedisulfonate · Acid yellow 3
$C_{18}H_9NO_8S_2Na_2$ · D 0,587 g/cm³
M 477,38 g/mol
CAS No. 8004-92-0 · EC no. 305-897-5
WGK 1

Quinoline yellow (C.I. 47005)
extra pure

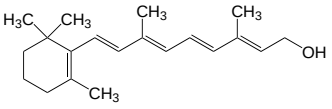
Yellow quinophthalone dye

Dissolve 0.1 g in 100 ml water

Type analysis
Appearance ..... yellow to orange powder
Loss on drying (135 °C) ..... ≤30 %

Art. No.	Pack Qty.	Pack.	€
1XTL.1	10 g	glass	21,40
1XTL.2	25 g	glass	42,90
1XTL.3	100 g	glass	96,65

Retinol



Vitamin A_1
$C_{20}H_{30}O$ · mp 61 to 63 °C
M 286,45 g/mol
CAS No. 68-26-8 · EC no. 200-683-7
WGK 1
Danger H317-H319-H360FD-H413

Retinol
≥95 %, for biochemistry

Storage temperature: –20 °C
Transport temperature: cooled

Type analysis
Appearance ..... light yellow powder
Assay ..... ≥95 %

Art. No.	Pack Qty.	Pack.	€
1T98.1	25 mg	glass	22,50
1T98.2	100 mg	glass	46,15
1T98.3	500 mg	glass	160,20

ROTI®Aquatest Plates

ROTI®Aquatest Plate BEA
ISO 7899-2, ISO 11133, ready-to-use, sterile, for microbiology

Selective medium for isolation and identification of enterococci.

D 1,035 g/cm³

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Composition
Tryptone ..... 17 g/l
Peptone ..... 3 g/l
Yeast extract ..... 5 g/l
Ox bile, bacteriological ..... 10 g/l
Sodium chloride (NaCl) ..... 5 g/l
Esculin ..... 1 g/l
Ammonium iron(III) citrate ..... 0,5 g/l
Sodium azide ..... 0,15 g/l
Agar-Agar ..... 15 g/l
pH value (25 °C) 7,0-7,2

Art. No.	Pack Qty.	Pack.	€
1N13.1	30 unit(s)	box	95,70

For further information see www.carlroth.com

ROTI®Aquatest Plate TSC
ISO 7937, ISO 11133, ISO 14189, ready-to-use, sterile, for microbiology

Selective medium for isolation and identification of *Clostridium perfringens*.

Ready-made plate *Clostridium perfringens*

Storage temperature: +4 to +15 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Composition
Tryptose ..... 15 g/l
Soy peptone ..... 5 g/l
Yeast extract ..... 5 g/l
Sodium bisulfite ..... 1 g/l
Ammonium iron(III) citrate ..... 1 g/l
D-Cycloserine ..... 0,4 g/l
Agar-Agar ..... 14 g/l
pH value (25 °C) 7,4-7,8

Art. No.	Pack Qty.	Pack.	€
1N14.1	30 unit(s)	box	127,95

For further information see www.carlroth.com

ROTI®Cell DMEM : F12

Dulbecco's Modified Eagle Medium · Dulbecco's Modified Eagle Medium + Ham's F12 medium (1:1) · Ham's F12 cell culture medium

ROTI®Cell DMEM : F12
CELLPURE® ready-to-use, sterile, w/o glutamine, with pyruvate, with HEPES

Medium for a wide range of mammalian cell culture applications. Basic medium for serum-free or serum-reduced applications.

Store at +2 °C to +8 °C protected from light. Once opened, use within 6-8 weeks.

D ~1 g/cm³ · bp ~100 °C

Storage temperature: +2 to +8 °C
Transport temperature: ambient temp.

WGK 1

Type analysis
Glucose ..... 3,151 g/l
HEPES ..... 15 mM
pH value 7,0-7,6
Osmolality ..... 285-315 mOsm/kg
Endotoxins ..... ≤1,0 EU/ml
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
1TE5.1	500 ml	plastic	17,75

For further information see www.carlroth.com

ROTI®Cell DMEM High Glucose

DMEM cell culture medium · Dulbecco's Modified Eagle Medium
D ~1 g/cm³ · bp ~100 °C
WGK 1

ROTI®Cell DMEM High Glucose
CELLPURE® ready-to-use, sterile, w/o glutamine, w/o phenol red

Medium for a wide range of mammalian cell culture applications.

Store at +2 °C to +8 °C protected from light. Once opened, use within 6-8 weeks.

Storage temperature: +2 to +8 °C
Transport temperature: ambient temp.

Type analysis
Glucose ..... 4,5 g/l
pH value 7,0-7,6
Osmolality ..... 320-360 mOsm/kg
Endotoxins ..... ≤1,0 EU/ml
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
1TE8.1	500 ml	plastic	16,05

For further information see www.carlroth.com

ROTI®Cell DMEM High Glucose
CELLPURE® ready-to-use, sterile, with stable glutamine, w/o pyruvate, with HEPES

Medium for a wide range of mammalian cell culture applications.

Store at +2 °C to +8 °C protected from light. Once opened, use within 6-8 weeks.

Storage temperature: +2 to +8 °C
Transport temperature: ambient temp.

Type analysis
Glucose ..... 4,5 g/l
L-Glutamine, stable ..... complies
HEPES ..... 25 mM
pH value 6,9-7,7
Osmolality ..... 270-360 mOsm/kg
Endotoxins ..... ≤1,0 EU/ml
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
1TE9.1	500 ml	plastic	19,25

For further information see www.carlroth.com

ROTI®Cell DMEM Low Glucose

DMEM cell culture medium
D ~1 g/cm³ · bp ~100 °C
WGK 1

ROTI®Cell DMEM Low Glucose
CELLPURE® ready-to-use, sterile, with stable glutamine, with pyruvate

Medium for a wide range of mammalian cell culture applications.

Store at +2 °C to +8 °C protected from light. Once opened, use within 6-8 weeks.

Storage temperature: +2 to +8 °C
Transport temperature: ambient temp.

Type analysis
Glucose ..... 1,0 g/l
L-Glutamine, stable ..... complies
pH value 7,0-7,6
Osmolality ..... 280-350 mOsm/kg
Endotoxins ..... ≤1,0 EU/ml
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
1TE7.1	500 ml	plastic	17,10

For further information see www.carlroth.com

ROTI®Cell Eagle's MEM-Alpha

EMEM cell culture medium · Eagle's MEM · Minimum Essential Medium acc. to Eagle, Alpha modification
D ~1 g/cm³ · bp ~100 °C
WGK 1

ROTI®Cell Eagle's MEM-Alpha
CELLPURE® ready-to-use, sterile, w/o glutamine, with pyruvate, with nucleosides

Medium for the cultivation of a variety of suspension and adherent mammalian cells, including keratinocytes, primary rat astrocytes, and human melanoma cells.

Store at +2 °C to +8 °C protected from light. Once opened, use within 6-8 weeks.

Storage temperature: +2 to +8 °C
Transport temperature: ambient temp.

Type analysis
Alpha modification ..... complies
Ribonucleosides ..... complies
Deoxyribonucleosides ..... complies
pH value 7,0-7,6
Osmolality ..... 280-340 mOsm/kg
Endotoxins ..... ≤1,0 EU/ml
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
1TEA.1	500 ml	plastic	32,15

For further information see www.carlroth.com

ROTI®Cell Eagle's MEM / Earle's

EMEM cell culture medium · Eagle's MEM · Minimum Essential Medium acc. to Eagle with Earle's salts
D ~1 g/cm³ · bp ~100 °C
WGK 1

ROTI®Cell Eagle's MEM / Earle's
CELLPURE® ready-to-use, sterile, with stable glutamine, w/o pyruvate

Medium for a variety of suspension cell cultures and adherent cells.

Store at +2 °C to +8 °C protected from light. Once opened, use within 6-8 weeks.

Storage temperature: +2 to +8 °C
Transport temperature: ambient temp.

Type analysis
Salts acc. to Earle ..... complies
Glucose ..... 1,0 g/l
L-Glutamine, stable ..... complies
pH value 7,0-7,6
Osmolality ..... 260-310 mOsm/kg
Endotoxins ..... ≤1,0 EU/ml
Sterility ..... complies

Art. No.	Pack Qty.	Pack.	€
1TE6.1	500 ml	plastic	17,75

For further information see www.carlroth.com

ROTI®Mark protein markers, not prestained

ROTI®Mark X-SMALL
not pre-dyed

Size range: 6,5-29 kD
Number of protein bands: 4
Number of lanes/ml (1 mg/ml): approx. 200 (mini gels)

Markers (protein gels) · Protein-Markers

Storage temperature: +4 °C
Transport temperature: ambient temp.

WGK 1

Danger H317-H334

Composition
Appearance ..... White to beige powder

Art. No.	Pack Qty.	Pack.	€
1LCL.2	5 mg	glass	80,65
1LCL.3	10 mg	glass	127,95

ROTI®Mark SMALL
not pre-dyed

Size range: 29,0-97,4 kD
Number of protein bands: 4
Number of lanes/ml (1 mg/ml): approx. 200 (mini gels)

Markers (protein gels) · Protein-Markers

Storage temperature: +4 °C
Transport temperature: ambient temp.

WGK 1

Danger H334

Composition
Appearance ..... White to beige powder

Art. No.	Pack Qty.	Pack.	€
1LCK.2	5 mg	glass	80,65
1LCK.3	10 mg	glass	127,95

ROTI®Mark SMALL-KOMBI
not pre-dyed

Size range: 6,5-97,4 kD
Number of protein bands: 7
Number of lanes/ml (1 mg/ml): approx. 200 (mini gels)

Markers (protein gels) · Protein-Markers

Storage temperature: +4 °C
Transport temperature: ambient temp.

WGK 1

Danger H334

Appearance ..... White to beige powder

Art. No.	Pack Qty.	Pack.	€
1LCP.2	5 mg	glass	80,65
1LCP.3	10 mg	glass	127,95

For further information see www.carlroth.com

ROTI®Mark SMALL-KOMBI ready-to-use
ready-to-use, not pre-dyed

Size range: 6,5-97,4 kD
Number of protein bands: 4
Number of lanes/ml (1 mg/ml): approx. 200 (mini gels)

Markers (protein gels) · Protein-Markers

For direct application to the gel.

D ~1 g/cm³ · bp 100 °C

Storage temperature: –20 °C
Transport temperature: ambient temp.

WGK 1

Warning H319-EUH208

Composition
Appearance ..... dark blue solution
Composition ..... complies

Art. No.	Pack Qty.	Pack.	€
1LCN.1	500 µl	plastic	85,50

ROTIPHORESE®TBE Buffer

TBE buffer
WGK 1

Danger H360FD

ROTIPHORESE®5x TBE Buffer
ROTIPHORESE® 5x conc.

TBE-buffer for preparing sequencing gels and as running buffer in electrophoresis.

Concentrated TBE tends to precipitate salts during storage. Mix before use!

D 1,031 g/cm³ · bp 100 °C

Storage temperature: +15 to +25 °C
Transport temperature: ambient temp.

Composition
Appearance ..... clear, colorless solution

0.5 M TRIS borate (pH 8.3), 10 mM EDTA.
distilled, deionized water.
Remark: The product may crystallise. Can be redissolved by heating (max. 40 °C).

Art. No.	Pack Qty.	Pack.	€
1L9K.1	1 l	glass	29,60
1L9K.2	2.5 l	glass	64,40
1L9K.3	5 l	plastic	104,20

For further information see www.carlroth.com

ROTI®Plate90

Ready-made media

ROTI®Plate90 BEA
ISO 11133, ready-to-use, sterile, for microbiology

For isolation and identification of intestinal enterococci from water samples.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Composition

Tryptone	17 g/l
Peptone	3 g/l
Sodium chloride (NaCl)	5 g/l
Yeast extract	5 g/l
Dehydrated ox bile	10 g/l
Esculin	1 g/l
Sodium azide	0,15 g/l
Ammonium iron(III) citrate	0,5 g/l
Agar-Agar	15 g/l
pH value (25 °C)	6,9-7,3

Art. No.	Pack Qty.	Pack.	€
1NA5.1	10 unit(s)	box	23,15

For further information see www.carlroth.com

ROTI®Plate90 CN
ISO 11133, ready-to-use, sterile, for microbiology

For the determination and enumeration of *Pseudomonas aeruginosa* from water samples by the membrane filter method.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 2

Not a medical device / Not an IVD product

Composition

Gelatin Peptone	16 g/l
Casein, enzymatically digested	10 g/l
Potassium sulphate (K_2SO_4)	10 g/l
Glycerol	10 ml
$MgCl_2$	1,4 g/l
Cetrimide	0,2 g/l
Nalidixic acid	0,015 g/l
Agar-Agar	13 g/l
pH value (25 °C)	6,9-7,3

Art. No.	Pack Qty.	Pack.	€
1NA4.1	10 unit(s)	box	22,05

For further information see www.carlroth.com

ROTI®Plate90 ESB
ISO 11133, ready-to-use, sterile, for microbiology

For the detection and determination of the number of faecal streptococci by membrane filtration.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Composition

Casein, tryptic digest	20 g/l
Yeast extract	5 g/l
Glucose	2 g/l
Dikaliumhydrogenphosphat	4 g/l
Sodium azide	0,4 g/l
Tetrazolium chloride (TTC)	0,1 g/l
Agar-Agar	10 g/l
pH value (25 °C)	7,1-7,3

Art. No.	Pack Qty.	Pack.	€
1NA6.1	10 unit(s)	box	21,40

For further information see www.carlroth.com

ROTI®Plate90 MacCon
ISO 11133, ready-to-use, sterile, for microbiology

For the selective isolation and identification of enterobacteria.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Composition

Casein peptone	17 g/l
Lactose	10 g/l
Sodium chloride (NaCl)	5 g/l
Meat peptone	3 g/l
Bile salts No. 3	1,5 g/l
Neutral red	0,03 g/l
Crystal Violet	0,001 g/l
Agar-Agar	13,5 g/l
pH value (25 °C)	6,9-7,3

Art. No.	Pack Qty.	Pack.	€
1NAA.1	10 unit(s)	box	23,15

For further information see www.carlroth.com

ROTI®Plate90 R2A
Ph. Eur., USP, JP, ISO 11133, ready-to-use, sterile, for microbiology

For counting heterotrophic bacteria from water samples.

Storage temperature: +4 °C
Transport temperature: cooled

Not a medical device / Not an IVD product

Composition

Yeast extract	0,5 g/l
Casein peptone	0,5 g/l
Proteose peptone	0,5 g/l
Starch	0,5 g/l
Glucose	0,5 g/l
Dikaliumhydrogenphosphat	0,3 g/l
Sodium pyruvate	0,3 g/l
Magnesium sulphate ($MgSO_4$)	0,024 g/l
Agar-Agar	15 g/l
pH value (25 °C)	7,0-7,4

Art. No.	Pack Qty.	Pack.	€
1NAC.1	10 unit(s)	box	23,15

For further information see www.carlroth.com

ROTI®Plate90 TSC
ISO 11133 , ready-to-use, sterile, for microbiology

For the detection and enumeration of *Clostridium perfringens*.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Composition

Tryptose	15 g/l
Soy peptone	5 g/l
Yeast extract	5 g/l
Ammonium iron(III) citrate	1 g/l
Sodium bisulfite	1 g/l
D-Cycloserine	0,4 g/l
Agar-Agar	15 g/l
pH value (25 °C)	7,4-7,8

Art. No.	Pack Qty.	Pack.	€
1NA8.1	10 unit(s)	box	27,45

For further information see www.carlroth.com

ROTI®Plate90 XLD
ISO 11133, ready-to-use, sterile, for microbiology

For the isolation of enteropathogenic bacteria, in particular shigella and salmonella.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Composition

Xylose	3,75 g/l
Sucrose	7,5 g/l
Lactose	7,5 g/l
Yeast extract	3 g/l
L-Cysteine hydrochloride	5 g/l
Sodium chloride (NaCl)	5 g/l
Sodium deoxycholate	1 g/l
Sodium thiosulphate	6,8 g/l
Phenol red	0,08 g/l
Ammonium iron(III) citrate	0,8 g/l
Agar-Agar	13,5 g/l
pH value (25 °C)	7,2-7,6

Art. No.	Pack Qty.	Pack.	€
1NA9.1	10 unit(s)	box	23,15

For further information see www.carlroth.com

ROTI®Plate90 YE
ISO 6222, ISO 11133, ready-to-use, sterile, for microbiology

For isolation and counting of bacteria, yeasts and moulds from water samples.

Storage temperature: +4 °C
Transport temperature: cooled

WGK 1

Not a medical device / Not an IVD product

Composition

Tryptone	6 g/l
Yeast extract	3 g/l
Agar-Agar	15 g/l
pH value (25 °C)	7,0-7,4

Art. No.	Pack Qty.	Pack.	€
1NA7.1	10 unit(s)	box	20,35

For further information see www.carlroth.com

ROTISZINT® scintillation cocktails

Scintillation cocktail
UN no. 3082 · ADR 9 III · WGK 3

 **Danger** H304-H315-H318-H410

ROTISZINT®Filter

ROTISZINT® ready-to-use, NPE free, for scintillation

LSC cocktail, for filter assays

D ~1 g/cm³ · mp <-30 °C · bp >290 °C · flp 149 °C

Storage temperature: +15 to +25 °C

Type analysis

Appearance of solution ..... clear, fluorescent
Odour ..... weak, clearly noticeable
Specific weight ..... 0,97-1,02 g/ml
Background ..... ≤30 cpm
Counting efficiency ..... ≥550 tSIE
Miscible ..... complies

Art. No.	Pack Qty.	Pack.	€
1P18.1	500 ml	plastic	48,30
1P18.2	5 l	plastic	403,15

For further information see www.carlroth.com

ROTISZINT®Routine

ROTISZINT® ready-to-use, NPE free, for scintillation

LSC cocktail, for scintillation assays in general

D ~1 g/cm³ · mp <-30 °C · bp >290 °C · flp 149 °C

Storage temperature: +15 to +25 °C

Type analysis

Appearance of solution ..... clear, fluorescent
Odour ..... weak, clearly noticeable
Specific weight ..... 0,96-1,0 g/ml
Background ..... ≤30 cpm
Counting efficiency ..... ≥610 tSIE
Chemoluminescence ..... ≤30 cpm
Miscible ..... complies

Art. No.	Pack Qty.	Pack.	€
1P1A.1	500 ml	plastic	50,45
1P1A.2	5 l	plastic	396,70

For further information see www.carlroth.com

ROTISZINT®HighCapacity

ROTISZINT® ready-to-use, NPE free, for scintillation

LSC cocktail, for large sample volumes and highly concentrated samples

D ~1 g/cm³ · mp <-30 °C · bp 290 to 305 °C · flp 149 °C

Storage temperature: +15 to +25 °C

Type analysis

Appearance of solution ..... clear, fluorescent
Odour ..... weak, clearly noticeable
Specific weight ..... 0,95-0,99 g/ml
Background ..... ≤30 cpm
Counting efficiency ..... ≥475 tSIE
Chemoluminescence ..... ≤50 cpm
Miscible ..... complies

Art. No.	Pack Qty.	Pack.	€
1P1C.1	500 ml	plastic	53,65
1P1C.2	5 l	plastic	424,65

For further information see www.carlroth.com

ROTISZINT®FlowCount

ROTISZINT® ready-to-use, NPE free, for scintillation

LSC cocktail, for flow count assays

D ~1 g/cm³ · mp <-30 °C · bp >290 °C · flp 149 °C

Storage temperature: +15 to +25 °C

Type analysis

Appearance of solution ..... clear, fluorescent
Odour ..... weak, clearly noticeable
Specific weight ..... 0,98-1,02 g/ml
Background ..... ≤35 cpm
Counting efficiency ..... ≥425 tSIE
Miscible ..... complies

Art. No.	Pack Qty.	Pack.	€
1P19.1	500 ml	plastic	55,80
1P19.2	5 l	plastic	446,15

For further information see www.carlroth.com

Sodium bromate

$NaBrO_3$ · D 3,339 g/cm³ · mp 381 °C
M 150,89 g/mol
CAS No. 7789-38-0 · EC no. 232-160-4
UN no. 1494 · ADR 5.1 II · WGK 3

Danger H272-H302-H315-H319-H335

Sodium bromate
≥99 %, pure

Type analysis
Assay (iodom.) ..... ≥99,0 %
Bromide (Br) ..... ≤0,1 %
As (Arsenic) ..... ≤0,0005 %
Pb (Lead) ..... ≤0,0005 %
Water ..... ≤0,5 %

Art. No.	Pack Qty.	Pack.	€
1LEL.1	100 g	plastic	22,50
1LEL.2	500 g	plastic	49,35
1LEL.3	1 kg	plastic	80,55
1LEL.4	2.5 kg	plastic	166,65

Sodium chloride salt tablets

NaCl · D 2,17 g/cm³ · mp 801 °C · bp >1450 °C
M 58,44 g/mol
CAS No. 7647-14-5 · EC no. 231-598-3
WGK 1

Sodium chloride salt tablets
≥99,8 % , Tablet Ø 25 mm, height: 16 mm, weight: 15 g

Regenit®. For regenerating ion exchangers.

The product complies with the requirements according to EN 973 (A) for regenerating salts for ion exchangers.

Type analysis
Assay ..... ≥99,8 %
Sulphate (SO_4) ..... ≤0,15 %
Calcium, Magnesium ..... ≤0,1 %
Cu (Copper) ..... ≤0,0002 %
Hg (Mercury) ..... ≤0,000005 %
Pb (Lead) ..... ≤0,0001 %
Humidity ..... ≤0,1 %
In H_2O insoluble matter ..... ≤0,02 %

Art. No.	Pack Qty.	Pack.	€
1T4P.1	25 kg	plastic	23,55

Sodium hexametaphosphate

Graham's salt · Metaphosphoric acid, hexasodium salt
$Na_6P_6O_{18}$ · mp >450 °C
M 611,77 g/mol
CAS No. 10124-56-8 · EC no. 233-343-1
WGK 1

Sodium hexametaphosphate
≥68 % P_2O_5, extra pure

Type analysis
Total phosphate (as P_2O_5) ..... ≥68,0 %
Inactive phosphate (as P_2O_5) ..... ≤7,5 %
Fluoride (F) ..... ≤0,001 %
As (Arsenic) ..... ≤0,0001 %
Cd (Cadmium) ..... ≤0,0001 %
Fe (Iron) ..... ≤0,01 %
Hg (Mercury) ..... ≤0,0001 %
Pb (Lead) ..... ≤0,0001 %
Heavy metals (as Pb) ..... ≤0,001 %
In H_2O insoluble matter ..... ≤0,05 %
pH value 5,5-6,5

Art. No.	Pack Qty.	Pack.	€
1NA3.1	500 g	plastic	21,40
1NA3.2	1 kg	plastic	29,60
1NA3.3	2.5 kg	plastic	53,65

Sodium iodide

NaI · D 3,5 g/cm³ · mp 651 °C · bp 1304 °C
M 149,89 g/mol
CAS No. 7681-82-5 · EC no. 231-679-3
UN no. 3077 · ADR 9 III · WGK 3

Danger H315-H319-H372-H400

Sodium iodide
≥99 %, pure

Type analysis
Assay ..... ≥99,0 %
Iodate (IO_3) ..... ≤0,0005 %
Fe (Iron) ..... ≤0,005 %
Pb (Lead) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
1LX8.1	250 g	plastic	70,85
1LX8.2	500 g	plastic	112,35
1LX8.3	1 kg	plastic	196,20
1LX8.4	2.5 kg	plastic	413,90

Sodium lauryl ether sulfate

Sodium laureth sulfate · SLES · Sodium lauryl polyoxyethylene ether sulfate
CAS No. 9004-82-4 · EC no. 933-296-3
WGK 1

Warning H315-H319-H335

Sodium lauryl ether sulfate
≥70 %, technical

Type analysis
Appearance .... colourless to yellowpaste or liquid
Assay ..... ≥70 %

Art. No.	Pack Qty.	Pack.	€
1T5E.1	50 g	plastic	30,00
1T5E.2	100 g	plastic	50,45
1T5E.3	250 g	plastic	105,25

SPE Adsorbents

Silica phase, modified

SPE Adsorbent
ROTI®*X*Bond

D 3,97 g/cm³ · mp 2050 °C · bp 2980 °C

CAS No. 1344-28-1 · EC no. 215-691-6

Type analysis
Particle size d_{50} ..... 60-100 µm
pH-value 3,5-4,5

Art. No.	Pack Qty.	Pack.	€
1PCP.1	10 g	plastic	33,25
1PCP.2	25 g	plastic	69,80
1PCP.3	100 g	plastic	155,90

SPE Adsorbent
ROTI®*X*Bond

D 3,97 g/cm³ · mp 2050 °C · bp 2980 °C

CAS No. 1344-28-1 · EC no. 215-691-6

Type analysis
Particle size d_{50} ..... 60-100 µm
pH-value 9,0-10,0

Art. No.	Pack Qty.	Pack.	€
1PCX.1	10 g	plastic	33,25
1PCX.2	25 g	plastic	69,80
1PCX.3	100 g	plastic	155,90

SPE Adsorbent
ROTI®*X*Bond

D 3,97 g/cm³ · mp 2050 °C · bp 2980 °C

CAS No. 1344-28-1 · EC no. 215-691-6

Type analysis
Particle size d_{50} ..... 80-120 µm
pH-value 6,5-7,5

Art. No.	Pack Qty.	Pack.	€
1PCN.1	10 g	plastic	33,25
1PCN.2	25 g	plastic	69,80
1PCN.3	100 g	plastic	155,90

SPE Adsorbent
ROTI®*X*Bond C18 ec

D 2,1 to 2,2 g/cm³ · mp 1713 °C

CAS No. 7631-86-9 · EC no. 231-545-4

Type analysis
Particle size d_{50} ..... 20-50 µm
Pore diameter ..... 55-75 Å
Specific surface ..... ≥360 m²/g

Art. No.	Pack Qty.	Pack.	€
1PCA.1	10 g	plastic	48,40
1PCA.2	25 g	plastic	106,45
1PCA.3	100 g	plastic	267,70

SPE Adsorbent
ROTI®*X*Bond

D 2,1 to 2,2 g/cm³ · mp 1713 °C

CAS No. 7631-86-9 · EC no. 231-545-4

Type analysis
Particle size d_{50} ..... 75-120 µm
Pore diameter ..... 55-75 Å
Specific surface ..... ≥360 m²/g

Art. No.	Pack Qty.	Pack.	€
1PCT.1	10 g	plastic	60,10
1PCT.2	25 g	plastic	138,70
1PCT.3	100 g	plastic	317,15

SPE Adsorbent
ROTI®*X*Bond C6H5

D 2,1 to 2,2 g/cm³ · mp 1713 °C

CAS No. 7631-86-9 · EC no. 231-545-4

Type analysis
Particle size d_{50} ..... 20-50 µm
Pore diameter ..... 55-75 Å
Specific surface ..... ≥360 m²/g

Art. No.	Pack Qty.	Pack.	€
1P9P.1	10 g	plastic	60,10
1P9P.2	25 g	plastic	138,70
1P9P.3	100 g	plastic	317,15

SPE Adsorbent
ROTI®*X*Bond C18

D 2,1 to 2,2 g/cm³ · mp 1713 °C

CAS No. 7631-86-9 · EC no. 231-545-4

Type analysis
Particle size d_{50} ..... 20-50 µm
Pore diameter ..... 55-75 Å
Specific surface ..... ≥360 m²/g

Art. No.	Pack Qty.	Pack.	€
1PC4.1	10 g	plastic	60,10
1PC4.2	25 g	plastic	138,70
1PC4.3	100 g	plastic	317,15

SPE Adsorbent
ROTI®*X*Bond

D 2,1 to 2,2 g/cm³ · mp 1713 °C

CAS No. 7631-86-9 · EC no. 231-545-4

Type analysis
Particle size d_{50} ..... 75-120 µm
Pore diameter ..... 55-75 Å
Specific surface ..... ≥360 m²/g

Art. No.	Pack Qty.	Pack.	€
1PCY.1	10 g	plastic	60,10
1PCY.2	25 g	plastic	138,70
1PCY.3	100 g	plastic	317,15

SPE Adsorbent
ROTI®*X*Bond

D 2,1 to 2,2 g/cm³ · mp 1713 °C

CAS No. 7631-86-9 · EC no. 231-545-4

Type analysis
Particle size d_{50} ..... 20-50 µm
Pore diameter ..... 55-75 Å
Specific surface ..... ≥360 m²/g

Art. No.	Pack Qty.	Pack.	€
1PCH.1	10 g	plastic	60,10
1PCH.2	25 g	plastic	138,70
1PCH.3	100 g	plastic	317,15

SPE Adsorbent
ROTI®*X*Bond

D 2,1 to 2,2 g/cm³ · mp 1713 °C

CAS No. 7631-86-9 · EC no. 231-545-4

Type analysis
Particle size d_{50} ..... 20-50 µm
Pore diameter ..... 55-75 Å
Specific surface ..... ≥360 m²/g

Art. No.	Pack Qty.	Pack.	€
1PCK.1	10 g	plastic	69,35
1PCK.2	25 g	plastic	160,20
1PCK.3	100 g	plastic	370,90

SPE Adsorbent
ROTI®*X*Bond

D 2,1 to 2,2 g/cm³ · mp 1713 °C

CAS No. 7631-86-9 · EC no. 231-545-4

Type analysis
Particle size d_{50} ..... 20-50 µm
Pore diameter ..... 55-75 Å
Specific surface ..... ≥360 m²/g

Art. No.	Pack Qty.	Pack.	€
1P9Y.1	10 g	plastic	60,10
1P9Y.2	25 g	plastic	138,70
1P9Y.3	100 g	plastic	317,15

SPE Adsorbent
ROTI®*X*Bond C4

D 2,1 to 2,2 g/cm³ · mp 1713 °C

CAS No. 7631-86-9 · EC no. 231-545-4

Type analysis
Particle size d_{50} ..... 20-50 µm
Pore diameter ..... 55-75 Å
Specific surface ..... ≥360 m²/g

Art. No.	Pack Qty.	Pack.	€
1PC0.1	10 g	plastic	48,40
1PC0.2	25 g	plastic	106,45
1PC0.3	100 g	plastic	267,70

SPE Adsorbent
ROTI®*X*Bond C2

D 2,1 to 2,2 g/cm³ · mp 1713 °C

CAS No. 7631-86-9 · EC no. 231-545-4

Type analysis
Particle size d_{50} ..... 20-50 µm
Pore diameter ..... 55-75 Å
Specific surface ..... ≥360 m²/g

Art. No.	Pack Qty.	Pack.	€
1P9X.1	10 g	plastic	60,10
1P9X.2	25 g	plastic	138,70
1P9X.3	100 g	plastic	317,15

SPE Adsorbent
ROTI®*X*Bond CN

D 2,1 to 2,2 g/cm³ · mp 1713 °C

CAS No. 7631-86-9 · EC no. 231-545-4

Type analysis
Particle size d_{50} ..... 20-50 µm
Pore diameter ..... 55-75 Å
Specific surface ..... ≥360 m²/g

Art. No.	Pack Qty.	Pack.	€
1PC8.1	10 g	plastic	74,10
1PC8.2	25 g	plastic	170,95
1PC8.3	100 g	plastic	392,40

SPE Adsorbent
ROTI®*X*Bond Diamino (PSA - QuEChERS)

mp 1713 °C

Type analysis
Particle size d_{50} ..... 20-50 µm
Pore diameter ..... 55-75 Å
Specific surface ..... ≥360 m²/g

Art. No.	Pack Qty.	Pack.	€
1Y0N.1	10 g	plastic	63,45
1Y0N.2	25 g	plastic	145,15
1Y0N.3	100 g	plastic	332,20

SPE Adsorbent
ROTI®*X*Bond HILIC

D 2,1 to 2,2 g/cm³ · mp 1713 °C

CAS No. 7631-86-9 · EC no. 231-545-4

Type analysis
Particle size d_{50} ..... ≤40 µm
Pore diameter ..... 50-75 Å
Specific surface ..... ≤450 m²/g

Art. No.	Pack Qty.	Pack.	€
1P9T.1	10 g	plastic	91,30
1P9T.2	25 g	plastic	213,95
1P9T.3	100 g	plastic	499,90

SPE Adsorbent
ROTI®*X*Bond NAN

UN no. 3260 · ADR 8 II · WGK 3

Danger H290-H314-H411

Type analysis
Pore diameter ..... 50-70 Å

Art. No.	Pack Qty.	Pack.	€
1PCL.1	10 g	plastic	117,75
1PCL.2	25 g	plastic	278,45
1PCL.3	100 g	plastic	643,95

SPE Adsorbent
ROTI®*X*Bond NH_2

D 2,1 to 2,2 g/cm³ · mp 1713 °C

CAS No. 7631-86-9 · EC no. 231-545-4

Type analysis
Particle size d_{50} ..... 20-50 µm
Pore diameter ..... 55-75 Å
Specific surface ..... ≥360 m²/g

Art. No.	Pack Qty.	Pack.	€
1PC1.1	10 g	plastic	52,70
1PC1.2	25 g	plastic	117,20
1PC1.3	100 g	plastic	332,20

SPE Adsorbent
ROTI®*X*Bond OH

D 2,1 to 2,2 g/cm³ · mp 1713 °C

CAS No. 7631-86-9 · EC no. 231-545-4

Type analysis
Particle size d_{50} ..... 20-50 µm
Pore diameter ..... 55-75 Å
Specific surface ..... ≥360 m²/g

Art. No.	Pack Qty.	Pack.	€
1PC9.1	10 g	plastic	74,10
1PC9.2	25 g	plastic	170,95
1PC9.3	100 g	plastic	392,40

SPE Adsorbent
ROTI®*X*Bond PCA

D 2,1 to 2,2 g/cm³ · mp 1713 °C

CAS No. 7631-86-9 · EC no. 231-545-4

Type analysis
Particle size d_{50} ..... 20-50 µm
Pore diameter ..... 55-75 Å
Specific surface ..... ≥360 m²/g

Art. No.	Pack Qty.	Pack.	€
1PC5.1	10 g	plastic	74,10
1PC5.2	25 g	plastic	170,95
1PC5.3	100 g	plastic	392,40

SPE Adsorbent
ROTI®*X*Bond PSA

WGK 3

Warning H315-H319

Type analysis
Particle size d_{50} ..... 20-50 µm
Pore diameter ..... 55-75 Å
Specific surface ..... ≥360 m²/g

Art. No.	Pack Qty.	Pack.	€
1PC3.1	10 g	plastic	71,95
1PC3.2	25 g	plastic	166,65
1PC3.3	100 g	plastic	375,20

Standards

SPE Adsorbent
ROTI®*X*Bond SA (SCX)

WGK 3

Warning H315-H319

Type analysis
Particle size d_{50} ..... 20-50 µm
Pore diameter ..... 55-75 Å
Specific surface ..... ≥360 m²/g

Art. No.	Pack Qty.	Pack.	€
1PC6.1	10 g	plastic	74,10
1PC6.2	25 g	plastic	170,95
1PC6.3	100 g	plastic	392,40

SPE Adsorbent
ROTI®*X*Bond SB (SAX)

WGK 3

Warning H315-H319

Type analysis
Particle size d_{50} ..... 20-50 µm
Pore diameter ..... 55-75 Å
Specific surface ..... ≥360 m²/g

Art. No.	Pack Qty.	Pack.	€
1PC2.1	10 g	plastic	74,10
1PC2.2	25 g	plastic	170,95
1PC2.3	100 g	plastic	392,40

SPE Adsorbent
ROTI®*X*Bond XTR

D 2,33 g/cm³ · mp 1730 °C

CAS No. 14464-46-1 · EC no. 238-455-4

Type analysis

Particle size (µm):
d10 ..... ≤100 µm
d90 ..... ≤500 µm
d5 ..... ≥800 µm

Art. No.	Pack Qty.	Pack.	€
1PC7.1	10 g	plastic	13,90
1PC7.2	25 g	plastic	27,45
1PC7.3	100 g	plastic	60,10
1PC7.4	500 g	plastic	203,20

Standards for cryoscopy

Freezing point standard

Standard for cryoscopy
ROTI®Calipure 000 (0,000 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Guarantee analysis
Freezing point ..... -0,002 to 0,000 °C

Art. No.	Pack Qty.	Pack.	€
1PEX.1	250 ml	plastic	42,50

Standard for cryoscopy
ROTI®Calipure 422 m°H (-0,408 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Guarantee analysis
Freezing point ..... -0,410 to -0,406 °C

Art. No.	Pack Qty.	Pack.	€
1PEY.1	100 ml	plastic	29,60
1PEY.2	250 ml	plastic	42,50

Standard for cryoscopy
ROTI®Calipure 530 m°H (-0,512 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Guarantee analysis
Freezing point ..... -0,514 to -0,510 °C

Art. No.	Pack Qty.	Pack.	€
1PH0.1	100 ml	plastic	29,60
1PH0.2	250 ml	plastic	42,50

Standard for cryoscopy
ROTI®Calipure 577 m°H (-0,557 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Guarantee analysis
Freezing point ..... -0,559 to -0,555 °C

Art. No.	Pack Qty.	Pack.	€
1PH1.1	250 ml	plastic	42,50

Standard for cryoscopy
ROTI®Calipure 621 m°H (-0,600 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Guarantee analysis
Freezing point ..... -0,602 to -0,598 °C

Art. No.	Pack Qty.	Pack.	€
1PH2.1	100 ml	plastic	29,60
1PH2.2	250 ml	plastic	42,50

Standard for cryoscopy – Cooling Bath Liquid
ROTI®Calipure for cryoscopy

Temperature control liquid for cryoscopes

D 1 g/cm³ · mp 0 °C · bp 100 °C · flp 101 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1PH3.1	500 ml	plastic	46,80

Standard for cryoscopy – Heat Transfer Fluid
ROTI®Calipure for cryoscopy

Temperature control liquid pour cryoscopes

D 1 g/cm³ · mp 0 °C · bp 100 °C · flp 101 °C

WGK 1

Art. No.	Pack Qty.	Pack.	€
1PH4.1	250 ml	plastic	67,20

Standards for Determination of the Hydrocarbon Index

Oil standards

Standard mixture of mineral oils
10 000 mg/l mineral oil and diesel in *n*-hexane

For determination of hydrocarbon index according to ISO 9377-2-Mod DIN H53).

D 0,66 g/cm³ · mp -95 °C · bp 69 °C · flp -26 °C

Storage temperature: +4 °C

UN no. 1208 · ADR 3 II · WGK 3

Danger H225-H304-H315-H336-H350-H361f-H373-H411

Type analysis
Mineral oil ..... 10000 mg/l
Diesel ..... 10000 mg/l

Art. No.	Pack Qty.	Pack.	€
1XX9.1	5 ml	glass ampoule	160,20
1XX9.2	10 ml	glass ampoule	263,40

Standard mixture of mineral oils
10 000 mg/l mineral oil and diesel in *n*-heptane

For determination of hydrocarbon index according to ISO 9377-2-Mod DIN H53).

D 0,68 g/cm³ · mp -90,5 °C · bp 98,2 °C · flp -4 °C

Storage temperature: +4 °C

UN no. 1206 · ADR 3 II · WGK 3

Danger H225-H304-H315-H336-H350-H410

Type analysis
Mineral oil ..... 10000 mg/l
Diesel ..... 10000 mg/l

Art. No.	Pack Qty.	Pack.	€
1XXA.1	10 ml	glass ampoule	263,40

Standards for Refractometry BRIX

Refractive Index Standard BRIX
ROTI®Calipure 0 % stabilised saccharose, 1,33299 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 0 °Brix

Art. No.	Pack Qty.	Pack.	€
1NYC.1	15 ml	plastic	142,45

Refractive Index Standard BRIX
ROTI®Calipure 5 % stabilised saccharose, 1,34026 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 4,80-5,20 °Brix

Art. No.	Pack Qty.	Pack.	€
1NYL.1	15 ml	plastic	142,45

Refractive Index Standard BRIX
ROTI®Calipure 7 % stabilised saccharose, 1,34325 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 6,80-7,20 °Brix

Art. No.	Pack Qty.	Pack.	€
1NYN.1	15 ml	plastic	142,45

Refractive Index Standard BRIX
ROTI®Calipure 10 % stabilised saccharose, 1,34782 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 9,80-10,20 °Brix

Art. No.	Pack Qty.	Pack.	€
1NYP.1	15 ml	plastic	142,45

Refractive Index Standard BRIX
ROTI®Calipure 14,9 % stabilised saccharose, 1,35552 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 14,70-15,10 °Brix

Art. No.	Pack Qty.	Pack.	€
1P01.1	15 ml	plastic	260,70

Refractive Index Standard BRIX
ROTI®Calipure 25 % stabilised saccharose, 1,37233 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 24,80-25,20 °Brix

Art. No.	Pack Qty.	Pack.	€
1P06.1	15 ml	plastic	142,45

Refractive Index Standard BRIX
ROTI®Calipure 11,2 % stabilised saccharose, 1,34968 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 11,00-11,40 °Brix

Art. No.	Pack Qty.	Pack.	€
1NYT.1	15 ml	plastic	260,70

Refractive Index Standard BRIX
ROTI®Calipure 15 % stabilised saccharose, 1,35568 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 14,80-15,20 °Brix

Art. No.	Pack Qty.	Pack.	€
1P02.1	15 ml	plastic	142,45

Refractive Index Standard BRIX
ROTI®Calipure 30 % stabilised saccharose, 1,38115 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 29,80-30,20 °Brix

Art. No.	Pack Qty.	Pack.	€
1P07.1	15 ml	plastic	142,45

Refractive Index Standard BRIX
ROTI®Calipure 11,5 % stabilised saccharose, 1,35015 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 11,30-11,70 °Brix

Art. No.	Pack Qty.	Pack.	€
1NYX.1	15 ml	plastic	260,70

Refractive Index Standard BRIX
ROTI®Calipure 19,4 % stabilised saccharose, 1,36285 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 19,20-19,60 °Brix

Art. No.	Pack Qty.	Pack.	€
1P03.1	15 ml	plastic	142,45

Refractive Index Standard BRIX
ROTI®Calipure 35 % stabilised saccharose, 1,39032 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 34,80-35,20 °Brix

Art. No.	Pack Qty.	Pack.	€
1P08.1	15 ml	plastic	260,70

Refractive Index Standard BRIX
ROTI®Calipure 12 % stabilised saccharose, 1,35093 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 11,80-12,20 °Brix

Art. No.	Pack Qty.	Pack.	€
1NYY.1	15 ml	plastic	142,45

Refractive Index Standard BRIX
ROTI®Calipure 20 % stabilised saccharose, 1,36384 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 19,80 -20,20 °Brix

Art. No.	Pack Qty.	Pack.	€
1P04.1	15 ml	plastic	142,45

Refractive Index Standard BRIX
ROTI®Calipure 40 % stabilised saccharose, 1,39986 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 39,80-40,20 °Brix

Art. No.	Pack Qty.	Pack.	€
1P09.1	15 ml	plastic	142,45

Refractive Index Standard BRIX
ROTI®Calipure 12,5 % stabilised saccharose, 1,35172 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 12,30-12,70 °Brix

Art. No.	Pack Qty.	Pack.	€
1P00.1	15 ml	plastic	142,45

Refractive Index Standard BRIX
ROTI®Calipure 23,8 % stabilised saccharose, 1,37026 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 23,60-24,00 °Brix

Art. No.	Pack Qty.	Pack.	€
1P05.1	15 ml	plastic	142,45

Refractive Index Standard BRIX
ROTI®Calipure 45 % stabilised saccharose, 1,40978 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 44,80-45,20 °Brix

Art. No.	Pack Qty.	Pack.	€
1P0A.1	15 ml	plastic	142,45

Refractive Index Standard BRIX
ROTI®Calipure 50 % stabilised saccharose, 1,42009 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 49,80-50,20 °Brix

Art. No.	Pack Qty.	Pack.	€
1P0C.1	15 ml	plastic	142,45

Refractive Index Standard BRIX
ROTI®Calipure 55 % stabilised saccharose, 1,43080 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 54,80-55,20 °Brix

Art. No.	Pack Qty.	Pack.	€
1P0E.1	15 ml	plastic	142,45

Refractive Index Standard BRIX
ROTI®Calipure 60 % stabilised saccharose, 1,44193 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 59,80-60,20 °Brix

Art. No.	Pack Qty.	Pack.	€
1P0H.1	15 ml	plastic	142,45

Refractive Index Standard BRIX
ROTI®Calipure 67,5 % stabilised saccharose, 1,45941 (20 °C)

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Guarantee analysis
Brix value (20 °C) ..... 67,30-67,70 °Brix

Art. No.	Pack Qty.	Pack.	€
1P0K.1	15 ml	plastic	142,45

Single Element Standards in 75 cSt Hydrocarbon Oil

Mineral oil based element standards · Étalons d'éléments à base d'huile
D 0,862 g/cm³ · bp >218 °C · flp 115 °C

Aluminium Standard Solution in 75 cSt Hydrocarbon Oil
ROTI®Star 1 000 µg/g Al, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis
Al (Aluminium) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PN8.1	50 g	plastic	96,65

Antimony Standard Solution in 75 cSt Hydrocarbon Oil
ROTI®Star 1 000 µg/g Sb, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis
Sb (Antimony) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PLN.1	50 g	plastic	96,65

Arsenic Standard Solution in 75 cSt Hydrocarbon Oil
ROTI®Star 1 000 µg/g As, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 2

Danger H304

Type analysis
As (Arsenic) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PN7.1	50 g	plastic	112,80

Barium Standard Solution in 75 cSt Hydrocarbon Oil
ROTI®Star 1 000 µg/g Ba, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis
Ba (Barium) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PLP.1	50 g	plastic	102,05

Beryllium Standard Solution in 75 cSt Hydrocarbon Oil
ROTI®Star 1 000 µg/g Be, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis
Be (Beryllium) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PLL.1	50 g	plastic	114,50

Bismuth Standard Solution in 75 cSt Hydrocarbon Oil
ROTI®Star 1 000 µg/g Bi, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis
Bi (Bismuth) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PNC.1	50 g	plastic	99,90

Boron Standard Solution in 75 cSt Hydrocarbon Oil
ROTI®Star 1 000 µg/g B, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis
B (Boron) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PN2.1	50 g	plastic	96,65

Cadmium Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Cd, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 2

Danger H304-H412

Type analysis

Cd (Cadmium) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PP1.1	50 g	plastic	99,90

Chromium Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Cr, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304-EUH208

Type analysis

Cr (Chromium) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PNN.1	50 g	plastic	79,45

Lanthanum Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g La, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

Lanthanum (La) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PNP.1	50 g	plastic	98,80

Calcium Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Ca, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

Calcium (Ca) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PNK.1	50 g	plastic	98,80

Cobalt Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Co, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 2

Danger H304-H360F-EUH208

Type analysis

Co (Cobalt) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PNX.1	50 g	plastic	76,25

Lead Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Pb, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 2

Danger H304

Type analysis

Pb (Lead) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PLH.1	50 g	plastic	99,90

Cerium Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Ce, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

Cerium (Ce) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PN1.1	50 g	plastic	114,50

Copper Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Cu, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 2

Danger H304-H412

Type analysis

Cu (Copper) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PLC.1	50 g	plastic	78,40

Lithium Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Li, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

Li (Lithium) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PP3.1	50 g	plastic	98,80

Iron Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Fe, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

Fe (Iron) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PLA.1	50 g	plastic	99,90

Magnesium Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Mg, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

Mg (Magnesium) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PNA.1	50 g	plastic	107,40

Nickel Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Ni, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 2

Danger H304-H317-H350i-H373

Type analysis

Ni (Nickel) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PL9.1	50 g	plastic	94,50

Scandium Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Sc, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

Scandium (Sc) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PL8.1	50 g	plastic	155,80

Manganese Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Mn, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

Mn (Manganese) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PN0.1	50 g	plastic	132,15

Phosphorus Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g P, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

P (Phosphorus) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PLX.1	50 g	plastic	94,50

Selenium Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Se, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 2

Danger H304-H412

Type analysis

Se (Selenium) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PN3.1	50 g	plastic	114,50

Mercury Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Hg, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 2

Danger H304-H373

Type analysis

Hg (Mercury) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PLK.1	50 g	plastic	114,50

Potassium Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g K, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

K (Potassium) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PNY.1	50 g	plastic	98,80

Silicium Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Si, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

Si (Silicon) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PN6.1	50 g	plastic	98,80

Molybdenum Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Mo, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

Mo (Molybdenum) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PNH.1	50 g	plastic	98,80

Silver Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Ag, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 2

Danger H304-H412

Type analysis

Ag (Silver) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PL7.1	50 g	plastic	100,95

Sodium Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Na, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

Na (Sodium) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PP2.1	50 g	plastic	99,90

Thallium Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Tl, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 2

Danger H302-H304

Type analysis

Tl (Thallium) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PN4.1	50 g	plastic	116,00

Vanadium Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g V, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

V (Vanadium) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PP0.1	50 g	plastic	98,80

Strontium Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Sr, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

Sr (Strontium) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PLY.1	50 g	plastic	76,25

Tin Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Sn, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 2

Danger H304

Type analysis

Sn (Tin) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PN9.1	50 g	plastic	100,95

Yttrium Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Y, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

Yttrium (Y) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PLT.1	50 g	plastic	84,85

Sulphur Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g S, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

Sulphur (S) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PNT.1	50 g	plastic	96,65

Titanium Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Ti, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

Ti (Titanium) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PN5.1	50 g	plastic	100,95

Zinc Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Zn, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

Zn (Zinc) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PNL.1	50 g	plastic	98,80

Tungsten Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g W, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

Tungsten (W) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PNE.1	50 g	plastic	85,90

Zirconium Standard Solution in 75 cSt Hydrocarbon Oil

ROTI®Star 1 000 µg/g Zr, Metallo-Organic Certified Reference Material

Suitable for ICP, RDE, XRF and other applications for elemental analysis.

Instruction for use can be found on the certificate of analysis.

WGK 1

Danger H304

Type analysis

Zr (Zirkonium) ..... 1000 ± 10 µg/g

Matrix: 75 cSt Hydrocarbon Oil

Art. No.	Pack Qty.	Pack.	€
1PLE.1	50 g	plastic	98,80

Single Element Standards for ICP-OES

Uranium ICP Standard Solution

ROTI®Star 1 000 mg/l U

Uranium Standards

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 1760 · ADR 8 III

Warning H290-H315-H319

Type analysis

c (U) as U in 2 % HNO_3 ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1Y20.1	30 ml	HDPE	67,65
1Y20.2	100 ml	HDPE	103,75
1Y20.3	250 ml	HDPE	155,35
1Y20.4	500 ml	HDPE	220,40

For further information see www.carlroth.com

Multi Element Standards for ICP-MS

ICP standards

Multi-Element ICP-MSStandard Solution CR-02

ROTI®Star 4 elements in 5 % nitric acid, concentration in mg/l

D 1,423 g/cm³ · mp 0 °C · bp 100 °C

UN no. 2031 · ADR 8 II · WGK 1

Danger H290-H314-EUH071

Type analysis

Ca (Calcium) ..... 10000 mg/l
K (Potassium) ..... 1000 mg/l
Mg (Magnesium) ..... 1000 mg/l
Na (Sodium) ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1NC8.1	100 ml	HDPE	246,20

For further information see www.carlroth.com

Multi-Element ICP-MSStandard Solution CR-03

ROTI®Star 32 elements in 5 % nitric acid, concentration in mg/l

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 2031 · ADR 8 II · WGK 1

Danger H290-H314-H350-EUH071 EUH208

Type analysis

Ag (Silver) ..... 10 mg/l
Al (Aluminium) ..... 10 mg/l
As (Arsenic) ..... 100 mg/l
B (Boron) ..... 100 mg/l
Ba (Barium) ..... 10 mg/l
Be (Beryllium) ..... 100 mg/l
Bi (Bismuth) ..... 10 mg/l
Ca (Calcium) ..... 1000 mg/l
Cd (Cadmium) ..... 10 mg/l
Co (Cobalt) ..... 10 mg/l
Cr (Chromium) ..... 10 mg/l
Cu (Copper) ..... 10 mg/l
Fe (Iron) ..... 100 mg/l
Ga (Gallium) ..... 10 mg/l
Gadolinium (Gd) ..... 100 mg/l
K (Potassium) ..... 10 mg/l
Li (Lithium) ..... 10 mg/l
Mg (Magnesium) ..... 10 mg/l
Mn (Manganese) ..... 10 mg/l
Mo (Molybdenum) ..... 10 mg/l
Na (Sodium) ..... 10 mg/l
Ni (Nickel) ..... 10 mg/l
Pb (Lead) ..... 10 mg/l
Rubidium (Rb) ..... 10 mg/l
Sb (Antimony) ..... 100 mg/l
Se (Selenium) ..... 100 mg/l
Sr (Strontium) ..... 10 mg/l
Te (Tellur) ..... 10 mg/l
Tl (Thallium) ..... 10 mg/l
Uranium (U) ..... 10 mg/l
V (Vanadium) ..... 10 mg/l
Zn (Zinc) ..... 100 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1P5T.1	100 ml	HDPE	1.177,15

For further information see www.carlroth.com

Multi Element Standards for ICP-OES

ICP standards

Multi-Element ICP Standard Solution CR-06

ROTI®Star 20 elements in 2 % nitric acid, concentration in mg/l

D 1 g/cm³ · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 3

Danger H290-H315-H318-EUH208

Type analysis

Al (Aluminium) ..... 500 mg/l
Ca (Calcium) ..... 4000 mg/l
Cu (Copper) ..... 100 mg/l
Fe (Iron) ..... 1000 mg/l
K (Potassium) ..... 350 mg/l
Mg (Magnesium) ..... 1000 mg/l
Mn (Manganese) ..... 100 mg/l
Na (Sodium) ..... 1000 mg/l
Phosphate (PO_4^{3-}) ..... 1000 mg/
Silicon (Si) ..... 500 mg/l
As (Arsenic) ..... 15 mg/l
B (Boron) ..... 25 mg/l
Cd (Cadmium) ..... 1 mg/l
Co (Cobalt) ..... 5 mg/l
Cr (Chromium) ..... 5 mg/l
Mo (Molybdenum) ..... 1,5 mg/l
Ni (Nickel) ..... 15 mg/l
Pb (Lead) ..... 50 mg/l
V (Vanadium) ..... 10 mg/l
Zn (Zinc) ..... 50 mg/l

Art. No.	Pack Qty.	Pack.	€
1LP4.1	100 ml	HDPE	654,70

Multi-Element ICP Standard Solution CR-07

ROTI®Star 8 elements in 3 % nitric acid – 100 mg/l

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 3

Danger H290-H315-H318-H350

Type analysis

Ag (Silver) ..... 100 mg/l
Al (Aluminium) ..... 100 mg/l
Cd (Cadmium) ..... 100 mg/l
Cr (Chrom) ..... 100 mg/l
Cu (Copper) ..... 100 mg/l
Fe (Iron) ..... 100 mg/l
Mg (Magnesium) ..... 100 mg/l
Mn (Manganese) ..... 100 mg/l

Art. No.	Pack Qty.	Pack.	€
1LXN.1	250 ml	HDPE	375,20

Multi-Element ICP Standard Solution CR-08

ROTI®Star 9 elements in 3 % aqua regia – 100 mg/l

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 1760 · ADR 8 II · WGK 2

Warning H290

Type analysis

Bi (Bismuth) ..... 100 mg/l
Co (Cobalt) ..... 100 mg/l
Ga (Gallium) ..... 100 mg/l
In (Indium) ..... 100 mg/l
Se (Selenium) ..... 100 mg/l
Te (Tellur) ..... 100 mg/l
Sn (Tin) ..... 100 mg/l
Ti (Titanium) ..... 100 mg/l
Zn (Zinc) ..... 100 mg/l

Art. No.	Pack Qty.	Pack.	€
1LXL.1	250 ml	HDPE	403,15

Multi-Element ICP Standard Solution CR-09

ROTI®Star 8 elements in 3 % nitric acid – 100 mg/l

D 1 g/cm³

UN no. 1760 · ADR 8 III · WGK 1

Danger H290-H315-H317-H318

Type analysis

As (Arsenic) ..... 100 mg/l
Ni (Nickel) ..... 100 mg/l
Pb (Lead) ..... 100 mg/l
Sb (Antimony) ..... 100 mg/l
Si (Silicon) ..... 100 mg/l
Tl (Thallium) ..... 100 mg/l
Tungsten (W) ..... 100 mg/l
Zr (Zirkonium) ..... 100 mg/l

Art. No.	Pack Qty.	Pack.	€
1LXC.1	250 ml	HDPE	381,65

Multi-Element ICP Standard Solution CR-10

ROTI®Star 6 elements in 3 % aqua regia – 100 mg/l

D 1,238 g/cm³ · mp 0 °C · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 1

Warning H290

Type analysis

Gold (Au)	100 mg/l
Iridium (Ir)	100 mg/l
Palladium (Pd)	100 mg/l
Platinum (Pt)	100 mg/l
Rhodium (Rh)	100 mg/l
Ruthenium (Ru)	100 mg/l

Art. No.	Pack Qty.	Pack.	€
1LXT.1	250 ml	HDPE	579,45

Multi-Element ICP Standard Solution CR-11

ROTI®Star 7 elements in 3 % nitric acid – 100 mg/l

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 3

Danger H290-H315-H318-H350

Type analysis

Al (Aluminium)	100 mg/l
Cd (Cadmium)	100 mg/l
Cr (Chrom)	100 mg/l
Cu (Copper)	100 mg/l
Fe (Iron)	100 mg/l
Mg (Magnesium)	100 mg/l
Mn (Manganese)	100 mg/l

Art. No.	Pack Qty.	Pack.	€
1LXK.1	250 ml	HDPE	321,45

Multi-Element ICP Standard Solution CR-12

ROTI®Star 5 elements in 3 % nitric acid – 100 mg/l

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 1

Danger H290-H315-H317-H318

Type analysis

Ni (Nickel)	100 mg/l
Sb (Antimony)	100 mg/l
Se (Selenium)	100 mg/l
Te (Tellur)	100 mg/l
Ti (Titanium)	100 mg/l

Art. No.	Pack Qty.	Pack.	€
1LXE.1	250 ml	HDPE	256,95

Multi-Element ICP Standard Solution CR-13

ROTI®Star 8 elements in 3 % aqua regia – 100 mg/l

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 2

Warning H290

Type analysis

Arsenic (As)	100 mg/l
Bismuth (Bi)	100 mg/l
Cobalt (Co)	100 mg/l
Lead (Pb)	100 mg/l
Platinum (Pt)	100 mg/l
Silicon (Si)	100 mg/l
Tin (Sn)	100 mg/l
Zinc (Zn)	100 mg/l

Art. No.	Pack Qty.	Pack.	€
1LXP.1	250 ml	HDPE	424,65

Multi-Element ICP Standard Solution CR-14

ROTI®Star 6 elements in 3 % nitric acid – 100 mg/l

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 1

Danger H290-H315-H318

Type analysis

Germanium (Ge)	100 mg/l
Gallium (Ga)	100 mg/l
Mercury (Hg)	100 mg/l
Indium (In)	100 mg/l
Palladium (Pd)	100 mg/l
Thallium (Tl)	100 mg/l

Art. No.	Pack Qty.	Pack.	€
1LXX.1	250 ml	HDPE	321,45

Multi-Element ICP Standard Solution CR-15

ROTI®Star 8 elements in 3 % aqua regia – 100 mg/l

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 1760 · ADR 8 III · WGK 1

Warning H290-H317

Type analysis

Aluminium (Al)	100 mg/l
Gold (Au)	100 mg/l
Chromium (Cr)	100 mg/l
Iron (Fe)	100 mg/l
Magnesium (Mg)	100 mg/l
Nickel (Ni)	100 mg/l
Platinum (Pt)	100 mg/l
Tin (Sn)	100 mg/l

Art. No.	Pack Qty.	Pack.	€
1LXH.1	250 ml	HDPE	461,20

Multi-Element ICP Standard Solution CR-16

ROTI®Star 12 elements in 2 % nitric acid – 10 mg/l

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 3264 · ADR 8 III · WGK 1

Warning H290-H315-H319-EUH208

Type analysis

Al (Aluminium)	10 mg/l
Ba (Barium)	10 mg/l
Co (Cobalt)	10 mg/l
Cr (Chromium)	10 mg/l
Cu (Copper)	10 mg/l
Fe (Iron)	10 mg/l
Mn (Manganese)	10 mg/l
Mo (Molybdenum)	10 mg/l
Ni (Nickel)	10 mg/l
Ti (Titanium)	10 mg/l
V (Vanadium)	10 mg/l
Zn (Zinc)	10 mg/l

Art. No.	Pack Qty.	Pack.	€
1NY5.1	250 ml	HDPE	450,45

For further information see www.carlroth.com

Multi-Element ICP Standard Solution CR-17

ROTI®Star 6 elements in 5 % nitric acid – 1000 mg/l

D ~1 g/cm³ · mp ~0 °C · bp ~100 °C

UN no. 2031 · ADR 8 II · WGK 2

Danger H290-H314-EUH071

Type analysis

Cr (Chromium)	1000 mg/l
Cu (Copper)	1000 mg/l
Fe (Iron)	1000 mg/l
K (Potassium)	1000 mg/l
Mn (Manganese)	1000 mg/l
Pb (Lead)	1000 mg/l

Art. No.	Pack Qty.	Pack.	€
1P7E.1	250 ml	HDPE	478,40

For further information see www.carlroth.com

Multi-Element ICP Standard Solution CR-18

ROTI®Star 16 elements in 5 % nitric acid – 100 mg/l

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 2031 · ADR 8 II · WGK 3

Danger H290-H314-H317-H350-H412-EUH071

Type analysis

Ag (Silver)	100 mg/l
As (Arsenic)	100 mg/l
Ba (Barium)	100 mg/l
Cd (Cadmium)	100 mg/l
Co (Cobalt)	100 mg/l
Cr (Chrom)	100 mg/l
Cu (Copper)	100 mg/l
Fe (Iron)	100 mg/l
Li (Lithium)	100 mg/l
Mo (Molybdenum)	100 mg/l
Ni (Nickel)	100 mg/l
Pb (Lead)	100 mg/l
Se (Selenium)	100 mg/l
Tl (Thallium)	100 mg/l
V (Vanadium)	100 mg/l
Zn (Zinc)	100 mg/l

Art. No.	Pack Qty.	Pack.	€
1T52.1	100 ml	HDPE	424,65

For further information see www.carlroth.com

Multi-Element ICP Standard Solution CR-19

ROTI®Star 10 elements in 5 % hydrochloric acid – 100 mg/l

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 1789 · ADR 8 II · WGK 3

Warning H290

Type analysis

Gold (Au)	100 mg/l
Hg (Mercury)	100 mg/l
Ir (Iridium)	100 mg/l
Osmium (Os)	100 mg/l
Pd (Palladium)	100 mg/l
Platinum (Pt)	100 mg/l
Rhodium (Rh)	100 mg/l
Ruthenium (Ru)	100 mg/l
Sb (Antimony)	100 mg/l
Sn (Tin)	100 mg/l

Art. No.	Pack Qty.	Pack.	€
1T51.1	100 ml	HDPE	499,90

For further information see www.carlroth.com

Multi-Element ICP Standard Solution CR-20

ROTI®Star 11 elements in 5 % nitric acid, concentration in mg/l

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 2031 · ADR 8 II · WGK 1

Danger H290-H314-EUH071

Type analysis

Ca (Calcium) ..... 1000 mg/l
K (Potassium) ..... 1000 mg/l
Mg (Magnesium) ..... 1000 mg/l
Sodium (Na) ..... 1000 mg/l
P (Phosphorus) ..... 1000 mg/l
Sulphur (S) ..... 1000 mg/l
Zn (Zinc) ..... 100 mg/l
B (Boron) ..... 100 mg/l
Cu (Copper) ..... 100 mg/l
Fe (Iron) ..... 100 mg/l
Mn (Manganese) ..... 100 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1Y11.1	100 ml	HDPE	514,95
1Y11.2	250 ml	HDPE	751,45
1Y11.3	500 ml	HDPE	1.048,15

Multi-Element ICP-OES Standard Solution for wavelength calibration

ROTI®Star 15 elements in 5 % nitric acid, concentration in mg/l

D 1 g/cm³ · mp 0 °C · bp 100 °C

UN no. 3264 · ADR 8 II · WGK 2

Danger H290-H314-H317-H350-EUH071

Type analysis

Al (Aluminium) ..... 50 mg/l
As (Arsenic) ..... 50 mg/l
Ba (Barium) ..... 50 mg/l
Cd (Cadmium) ..... 50 mg/l
Co (Cobalt) ..... 50 mg/l
Cr (Chromium) ..... 50 mg/l
Cu (Copper) ..... 50 mg/l
Mn (Manganese) ..... 50 mg/l
Mo (Molybdenum) ..... 50 mg/l
Ni (Nickel) ..... 50 mg/l
Pb (Lead) ..... 50 mg/l
Se (Selenium) ..... 50 mg/l
Sr (Strontium) ..... 50 mg/l
Zn (Zinc) ..... 50 mg/l
K (Potassium) ..... 500 mg/l

Art. No.	Pack Qty.	Pack.	€
1X09.1	100 ml	HDPE	396,70
1X09.2	500 ml	HDPE	736,40

For further information see www.carlroth.com

Anionic Standards for IC (Ion Chromatography)

Butyrate IC Standard Solution

ROTI®Star 1 000 mg/l $C_4H_7COO^-$

Benzoate Standards

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

Type analysis

c ($C_4H_7COO^-$) in H_2O ..... 1000 mg/l

Traceable to SRM from BAM.

Art. No.	Pack Qty.	Pack.	€
1T7A.1	100 ml	HDPE	59,05
1T7A.2	250 ml	HDPE	91,30
1T7A.3	250 ml	HDPE	114,50

For further information see www.carlroth.com

Nitrate as N IC Standard Solution

ROTI®Star 1 000 mg/l NO_3^- (as N)

Nitrate Standards

D 1 g/cm³ · mp 0 °C · bp 100 °C

Type analysis

c (NO_3^- (as N)) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1PTN.1	100 ml	HDPE	56,90
1PTN.2	250 ml	HDPE	91,30
1PTN.3	500 ml	HDPE	114,50

For further information see www.carlroth.com

Nitrite as N IC Standard Solution

ROTI®Star 1 000 mg/l NO_2^- (as N)

Nitrite Standards

D 1 g/cm³ · mp 0 °C · bp 100 °C

WGK 2

Type analysis

c (NO_2^- (as N)) in H_2O ..... 1000 mg/l

Traceable to SRM from BAM.

Art. No.	Pack Qty.	Pack.	€
1T79.1	100 ml	HDPE	56,90
1T79.2	250 ml	HDPE	91,30
1T79.3	500 ml	HDPE	114,50

For further information see www.carlroth.com

Phosphate as P IC Standard Solution

ROTI®Star 1 000 mg/l PO_4^{3-} (as P)

Phosphate Standards

D 1 g/cm³ · mp 0 °C · bp 100 °C

Type analysis

c (PO_4^{3-} (as P)) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1T5P.1	100 ml	HDPE	56,90
1T5P.2	250 ml	HDPE	91,30
1T5P.3	500 ml	HDPE	114,50

For further information see www.carlroth.com

Cationic Standards for IC (Ion Chromatography)

Ammonium as N IC Standard Solution

ROTI®Star 1 000 mg/l NH_4^+ (as N)

Ammonium Standards

D 1 g/cm³ · mp 0 °C · bp 100 °C

Type analysis

c (NH_4^+ (as N)) in H_2O ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1T5N.1	100 ml	HDPE	59,05
1T5N.2	250 ml	HDPE	88,70
1T5N.3	500 ml	HDPE	123,65

For further information see www.carlroth.com

Ion Multi-Element Standards for IC (Ion Chromatography)

IC standards

Anion Multi-Element IC Standard Solution

ROTI®Star 3 anions (ClO_3^-, ClO_2^-, BrO_3^-) in water, concentration in mg/l

D 1 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

WGK 1

Type analysis

Chlorate (ClO_3^-) ..... 10 mg/l
Chlorite (ClO_2^-) ..... 2 mg/l
Bromate (BrO_3^-) ..... 2 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1T15.1	100 ml	HDPE	145,15
1T15.2	250 ml	HDPE	188,15
1T15.3	500 ml	HDPE	241,90

For further information see www.carlroth.com

Anion Multi-Element IC Standard Solution

ROTI®Star 7 anions (F^-, Cl^-, Br^-, NO_2^-, NO_3^-, PO_4^{3-}, SO_4^{2-}) in water, 1000 mg/l

D 1,006 g/cm³ · mp 0 °C · bp 100 °C

Type analysis

Chloride (Cl^-) ..... 1000 mg/l
Bromide (Br^-) ..... 1000 mg/l
Fluoride (F^-) ..... 1000 mg/l
Nitrate (NO_3^-) ..... 1000 mg/l
Nitrite (NO_2^-) ..... 1000 mg/l
Phosphate (PO_4^{3-}) ..... 1000 mg/l
Sulphate (SO_4^{2-}) ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1N7P.1	100 ml	HDPE	134,40
1N7P.2	250 ml	HDPE	203,20
1N7P.3	500 ml	HDPE	289,20

For further information see www.carlroth.com

Anion Multi-Element IC Standard Solution

ROTI®Star 7 anions (F^-, Cl^-, Br^-, NO_2^-, NO_3^-, PO_4^{3-}, SO_4^{2-}) in water, concentration in mg/l

D 1 g/cm³ · mp 0 °C · bp 100 °C

Type analysis

Bromide (Br) ..... 10 mg/l
Chloride (Cl^-) ..... 80 mg/l
Fluoride (F^-) ..... 20 mg/l
Nitrate (NO_3^-) ..... 40 mg/l
Nitrite (NO_2^-) ..... 10 mg/l
Phosphate (PO_4^{3-}) ..... 20 mg/l
Sulphate (SO_4^{2-}) ..... 120 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1LYE.1	100 ml	HDPE	213,95
1LYE.2	250 ml	HDPE	284,90
1LYE.3	500 ml	HDPE	364,45
1LYE.4	1,000 ml	HDPE	482,70

For further information see www.carlroth.com

Anion Multi-Element IC Standard Solution

ROTI®Star 7 anions (F^-, Cl^-, Br^-, NO_2^-, NO_3^-, PO_4^{3-}, SO_4^{2-}) in water, concentration in mg/l

D 1,005 g/cm³ · mp 0 °C · bp 100 °C

Storage temperature: +4 °C

Type analysis

Chloride (Cl^-) ..... 1000 mg/l
Bromide (Br) ..... 100 mg/l
Fluoride (F^-) ..... 100 mg/l
Nitrate (NO_3^-) ..... 1000 mg/l
Nitrite (NO_2^-) ..... 100 mg/l
Phosphate (PO_4^{3-}) ..... 100 mg/l
Sulphate (SO_4^{2-}) ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1T14.1	100 ml	HDPE	287,60
1T14.2	250 ml	HDPE	381,65
1T14.3	500 ml	HDPE	499,90

For further information see www.carlroth.com

Anion Multi-Element IC Standard Solution

ROTI®Star 7 anions (F^-, Cl^-, Br^-, NO_2^-, NO_3^-, PO_4^{3-}, SO_4^{2-}) in water, concentration in mg/l

D 1 g/cm³ · mp 0 °C · bp 100 °C

Type analysis

Bromide (Br) ..... 10 mg/l
Chloride (Cl^-) ..... 100 mg/l
Fluoride (F^-) ..... 10 mg/l
Nitrate (NO_3^-) ..... 10 mg/l
Nitrite (NO_2^-) ..... 10 mg/l
Phosphate (PO_4^{3-}) ..... 10 mg/l
Sulphate (SO_4^{2-}) ..... 100 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1T6X.1	100 ml	HDPE	240,30
1T6X.2	250 ml	HDPE	321,45
1T6X.3	500 ml	HDPE	418,20
1T6X.4	1,000 ml	HDPE	550,95

For further information see www.carlroth.com

Anion Multi-Element IC Standard Solution

ROTI®Star 7 anions (F^-, Cl^-, Br^-, NO_2^--N, NO_3^--N, PO_4^{3-}-P, SO_4^{2-}) in water, concentration in mg/l

D 1,001 g/cm³ · mp 0 °C · bp 100 °C

Type analysis

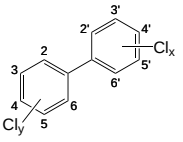
Chloride (Cl^-) ..... 1000 mg/l
Bromide (Br) ..... 200 mg/l
Fluoride (F^-) ..... 1000 mg/l
Nitrate-Nitrogen (NO_3-N) ..... 200 mg/l
Nitrite-Nitrogen (NO_2-N) ..... 1000 mg/l
Phosphate-Phosphorus (PO_4-P) ..... 1000 mg/l
Sulphate (SO_4^{2-}) ..... 1000 mg/l

Traceable to SRM from NIST.

Art. No.	Pack Qty.	Pack.	€
1NPC.1	100 ml	HDPE	278,45
1NPC.2	250 ml	HDPE	392,40
1NPC.3	500 ml	HDPE	532,15

For further information see www.carlroth.com

PCB neats



PCB 1

ROTI®Star

2-Chlorobiphenyl · 2-PCB

$C_{12}H_9Cl$ · bp 274 °C

CAS No. 2051-60-7 · EC no. 218-125-6

M 188.65 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TPC.1	50 mg	glass ampoule	59,05

PCB 2

ROTI®Star

3-PCB · 3-Chlorobiphenyl

$C_{12}H_9Cl$

CAS No. 2051-61-8 · EC no. 218-126-1

M 188.65 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TP9.1	10 mg	glass	87,65
1TP9.2	50 mg	glass	133,85

PCB 3

ROTI®Star

4-Chlorobiphenyl · 4-PCB

$C_{12}H_9Cl$ · bp 282 °C

CAS No. 2051-62-9 · EC no. 218-127-7

M 188.65 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TP8.1	50 mg	glass	59,05

PCB 4

ROTI®Star

2,2'-Dichlorobiphenyl · 2,2'-PCB

$C_{12}H_8Cl_2$

CAS No. 13029-08-8 · EC no. 630-493-3

M 223.10 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TP7.1	25 mg	glass	125,25

PCB 5

ROTI®Star

2,3-Dichlorobiphenyl · 2,3-PCB

$C_{12}H_8Cl_2$

CAS No. 16605-91-7 · EC no. 621-295-8

M 223.10 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TPA.1	50 mg	glass ampoule	84,40

PCB 6

ROTI®Star

2,3'-Dichlorobiphenyl · 2,3'-PCB

$C_{12}H_8Cl_2$

CAS No. 25569-80-6 · EC no. 680-460-2

M 223.10 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TP6.1	10 mg	glass	171,50

Standards

PCB 7
ROTI®Star

2,4-PCB · 2,4-Dichlorobiphenyl

$C_{12}H_8Cl_2$

CAS No. 33284-50-3 · EC no. 663-511-3

M 223.10 g/mol

Storage temperature: +4 °C

UN no. 2315 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TP5.1	25 mg	glass	56,45

PCB 11
ROTI®Star

3,3'-PCB · 3,3'-Dichlorobiphenyl

$C_{12}H_8Cl_2$ · bp 320 °C

CAS No. 2050-67-1 · EC no. 621-287-4

M 223.10 g/mol

Storage temperature: +4 °C

UN no. 2315 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1X03.1	10 mg	glass	80,10

PCB 15
ROTI®Star

4,4'-PCB · 4,4'-Dichlorobiphenyl

$C_{12}H_8Cl_2$ · mp 142 to 145 °C · bp 315 to 319 °C

CAS No. 2050-68-2 · EC no. 218-095-4

M 223.10 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TNY.1	10 mg	glass	83,75

PCB 8
ROTI®Star

2,4'-PCB · 2,4'-Dichlorobiphenyl

$C_{12}H_8Cl_2$

CAS No. 34883-43-7 · EC no. 684-162-3

M 223.10 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TP4.1	25 mg	glass	188,15

PCB 12
ROTI®Star

3,4-PCB · 3,4-Dichlorobiphenyl

$C_{12}H_8Cl_2$

CAS No. 2974-92-7 · EC no. 630-498-0

M 223.10 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TP2.1	50 mg	glass	212,35

PCB 16
ROTI®Star

2,2',3-PCB · 2,2',3-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 38444-78-9 · EC no. 690-169-2

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TNX.1	10 mg	glass	192,45

PCB 9
ROTI®Star

2,5-PCB · 2,5-Dichlorobiphenyl

$C_{12}H_8Cl_2$

CAS No. 34883-39-1 · EC no. 690-131-5

M 223.10 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1X02.1	50 mg	glass	90,85

PCB 13
ROTI®Star

3,4'-PCB · 3,4'-Dichlorobiphenyl

$C_{12}H_8Cl_2$

CAS No. 2974-90-5 · EC no. 690-126-8

M 223.10 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1X04.1	5 mg	glass	174,70

PCB 17
ROTI®Star

2,2',4-PCB · 2,2',4-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 37680-66-3 · EC no. 634-863-5

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TP1.1	10 mg	glass	282,20

PCB 10
ROTI®Star

2,6-PCB · 2,6-Dichlorobiphenyl

$C_{12}H_8Cl_2$

CAS No. 33146-45-1 · EC no. 690-138-3

M 223.10 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TP3.1	25 mg	glass	84,40

PCB 14
ROTI®Star

3,5-PCB · 3,5-Dichlorobiphenyl

$C_{12}H_8Cl_2$

CAS No. 34883-41-5 · EC no. 630-495-4

M 223.10 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TP0.1	50 mg	glass	126,35

PCB 18
ROTI®Star

2,2',5-PCB · 2,2',5-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 37680-65-2 · EC no. 621-394-6

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TNT.1	25 mg	glass	117,20

PCB 19
ROTI®Star

2,2',6-PCB · 2,2',6-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 38444-73-4 · EC no. 690-187-0

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TNN.1	10 mg	glass	205,90

PCB 20
ROTI®Star

2,3,3'-PCB · 2,3,3'-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 38444-84-7 · EC no. 681-935-7

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TNL.1	10 mg	glass	114,50

PCB 21
ROTI®Star

2,3,4-PCB · 2,3,4-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 55702-46-0 · EC no. 690-243-4

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TNK.1	10 mg	glass	83,75

PCB 22
ROTI®Star

2,3,4'-PCB · 2,3,4'-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 38444-85-8 · EC no. 690-170-8

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TNP.1	10 mg	glass	284,90

PCB 23
ROTI®Star

2,3,5-PCB · 2,3,5-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 55720-44-0 · EC no. 690-246-0

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TNH.1	10 mg	glass	252,65

PCB 24
ROTI®Star

2,3,6-PCB · 2,3,6-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 55702-45-9 · EC no. 690-249-7

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TNE.1	10 mg	glass	295,10

PCB 25
ROTI®Star

2,3',4-PCB · 2,3',4-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 55712-37-3 · EC no. 690-245-5

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TNC.1	10 mg	glass	263,40

PCB 26
ROTI®Star

2,3',5-PCB · 2,3',5-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 38444-81-4 · EC no. 690-168-7

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TNA.1	25 mg	glass	235,45

PCB 27
ROTI®Star

2,3',6-PCB · 2,3',6-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 38444-76-7 · EC no. 690-188-6

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TN9.1	10 mg	glass	271,45

PCB 28
ROTI®Star

2,4,4'-PCB · 2,4,4'-Trichlorobiphenyl

$C_{12}H_7Cl_3$ · mp 206 to 207 °C

CAS No. 7012-37-5 · EC no. 230-293-2

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1X05.1	10 mg	glass	134,40

PCB 29
ROTI®Star

2,4,5-PCB · 2,4,5-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 15862-07-4 · EC no. 630-494-9

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TN8.1	10 mg	glass	68,70

PCB 30
ROTI®Star

2,4,6-PCB · 2,4,6-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 35693-92-6 · EC no. 621-526-2

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TN7.1	25 mg	glass	232,75

PCB 31
ROTI®Star

2,4',5-PCB · 2,4',5-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 16606-02-3 · EC no. 621-296-3

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TN6.1	25 mg	glass	142,45

PCB 32
ROTI®Star

2,4',6-PCB · 2,4',6-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 38444-77-8 · EC no. 630-499-6

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TN5.1	10 mg	glass	201,60

PCB 33
ROTI®Star

2,3',4'-PCB · 2,3',4'-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 38444-86-9 · EC no. 684-563-3

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TN4.1	10 mg	glass	97,75

PCB 34
ROTI®Star

2',3,5-PCB · 2',3,5-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 37680-68-5 · EC no. 690-193-3

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TN3.1	5 mg	glass	182,25

PCB 35
ROTI®Star

3,3',4-PCB · 3,3',4-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 37680-69-6 · EC no. 690-192-8

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TN2.1	5 mg	glass	160,75

PCB 36
ROTI®Star

3,3',5-PCB · 3,3',5-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 38444-87-0 · EC no. 690-171-3

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TN1.1	10 mg	glass	299,95

PCB 37
ROTI®Star

3,4,4'-PCB · 3,4,4'-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 38444-90-5 · EC no. 690-173-4

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TN0.1	5 mg	glass	198,35

PCB 38
ROTI®Star

3,4,5-PCB · 3,4,5-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 53555-66-1 · EC no. 690-256-5

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TLY.1	10 mg	glass	284,90

PCB 39
ROTI®Star

3,4',5-PCB · 3,4',5-Trichlorobiphenyl

$C_{12}H_7Cl_3$

CAS No. 38444-88-1

M 257.54 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TLX.1	10 mg	glass	296,20

PCB 40
ROTI®Star

2,2',3,3'-PCB · 2,2',3,3'-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 38444-93-8 · EC no. 690-172-9

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TLT.1	25 mg	glass	98,80

PCB 41
ROTI®Star

2,2',3,4-PCB · 2,2',3,4-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 52663-59-9 · EC no. 690-208-3

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TLP.1	5 mg	glass	196,20

PCB 42
ROTI®Star

2,2',3,4'-PCB · 2,2',3,4'-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 36559-22-5 · EC no. 690-190-7

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TLN.1	10 mg	glass	338,65

PCB 43
ROTI®Star

2,2',3,5-PCB · 2,2',3,5-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 70362-46-8 · EC no. 690-320-2

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TLL.1	10 mg	glass	295,10

PCB 44
ROTI®Star

2,2',3,5'-PCB · 2,2',3,5'-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 41464-39-5 · EC no. 634-846-2

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TLK.1	25 mg	glass	163,95

PCB 45
ROTI®Star

2,2',3,6-PCB · 2,2',3,6-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 70362-45-7 · EC no. 690-317-6

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TLH.1	5 mg	glass	650,40

PCB 46
ROTI®Star

2,2',3,6'-PCB · 2,2',3,6'-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 41464-47-5 · EC no. 690-221-4

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TLE.1	5 mg	glass	203,20

PCB 47
ROTI®Star

2,2',4,4'-PCB · 2,2',4,4'-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 2437-79-8 · EC no. 219-444-3

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TLC.1	25 mg	glass	119,90

PCB 48
ROTI®Star

2,2',4,5-PCB · 2,2',4,5-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 70362-47-9 · EC no. 690-319-7

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TLA.1	5 mg	glass	284,90

PCB 49
ROTI®Star

2,2',4,5'-PCB · 2,2',4,5'-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 41464-40-8 · EC no. 690-225-6

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TL9.1	20 mg	glass	119,90

PCB 50
ROTI®Star

2,2',4,6-PCB · 2,2',4,6-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 62796-65-0 · EC no. 690-283-2

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TL8.1	5 mg	glass	141,40

PCB 51
ROTI®Star

2,2',4,6'-PCB · 2,2',4,6'-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 68194-04-7 · EC no. 690-265-4

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TL7.1	10 mg	glass	302,65

PCB 52
ROTI®Star

2,2',5,5'-PCB · 2,2',5,5'-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$ · mp 86 to 87 °C

CAS No. 35693-99-3 · EC no. 621-615-6

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TL6.1	10 mg	glass	72,60

PCB 53
ROTI®Star

2,2',5,6'-PCB · 2,2',5,6'-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 41464-41-9 · EC no. 690-226-1

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TL5.1	25 mg	glass	160,75

PCB 55
ROTI®Star

2,3,3',4-PCB · 2,3,3',4-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 74338-24-2 · EC no. 690-287-4

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TL4.1	10 mg	glass	289,20

Standards

PCB 56
ROTI®Star

2,3,3',4'-PCB · 2,3,3',4'-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 41464-43-1 · EC no. 690-224-0

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TL3.1	5 mg	glass	158,60

PCB 57
ROTI®Star

2,3,3',5-PCB · 2,3,3',5-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 70424-67-8 · EC no. 690-323-9

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TL2.1	5 mg	glass	306,40

PCB 58
ROTI®Star

2,3,3',5'-PCB · 2,3,3',5'-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 41464-49-7 · EC no. 690-219-3

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TL1.1	10 mg	glass	278,45

PCB 59
ROTI®Star

2,3,3',6-PCB · 2,3,3',6-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 74472-33-6 · EC no. 690-292-1

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TL0.1	10 mg	glass	525,70

PCB 60
ROTI®Star

2,3,4,4'-PCB · 2,3,4,4'-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 33025-41-1 · EC no. 690-148-8

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TKY.1	10 mg	glass	209,10

PCB 61
ROTI®Star

2,3,4,5-PCB · 2,3,4,5-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 33284-53-6 · EC no. 690-134-1

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TKX.1	10 mg	glass	98,40

PCB 62
ROTI®Star

2,3,4,6-PCB · 2,3,4,6-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 54230-22-7 · EC no. 690-252-3

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TKT.1	5 mg	glass	295,10

PCB 63
ROTI®Star

2,3,4',5-PCB · 2,3,4',5-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 74472-34-7 · EC no. 634-767-3

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TKP.1	10 mg	glass	319,85

PCB 64
ROTI®Star

2,3,4',6-PCB · 2,3,4',6-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 52663-58-8 · EC no. 690-213-0

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TKN.1	10 mg	glass	467,65

PCB 65
ROTI®Star

2,3,5,6-PCB · 2,3,5,6-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 33284-54-7 · EC no. 690-133-6

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TKL.1	25 mg	glass	223,10

PCB 66
ROTI®Star

2,3',4,4'-PCB · 2,3',4,4'-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 32598-10-0 · EC no. 690-143-0

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TKK.1	20 mg	glass	166,65

PCB 67
ROTI®Star

2,3',4,5-PCB · 2,3',4,5-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 73575-53-8 · EC no. 690-332-8

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TKH.1	10 mg	glass	303,70

PCB 68
ROTI®Star

2,3',4,5'-PCB · 2,3',4,5'-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 73575-52-7 · EC no. 690-331-2

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TKE.1	10 mg	glass	295,10

PCB 69
ROTI®Star

2,3',4,6-PCB · 2,3',4,6-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 60233-24-1 · EC no. 690-235-0

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TKC.1	10 mg	glass	206,95

PCB 70
ROTI®Star

2,3',4',5-PCB · 2,3',4',5-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 32598-11-1 · EC no. 630-497-5

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TKA.1	10 mg	glass	109,15

PCB 71
ROTI®Star

2,3',4',6-PCB · 2,3',4',6-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 41464-46-4 · EC no. 690-220-9

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TK9.1	10 mg	glass	226,30

PCB 72
ROTI®Star

2,3',5,5'-PCB · 2,3',5,5'-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 41464-42-0 · EC no. 690-223-5

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TK8.1	10 mg	glass	141,40

PCB 73
ROTI®Star

2,3',5',6-PCB · 2,3',5',6-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 74338-23-1 · EC no. 690-289-5

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TK7.1	5 mg	glass	303,70

PCB 74
ROTI®Star

2,4,4',5-PCB · 2,4,4',5-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 32690-93-0 · EC no. 690-149-3

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TK6.1	10 mg	glass	325,20

PCB 75
ROTI®Star

2,4,4',6-PCB · 2,4,4',6-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 32598-12-2 · EC no. 690-150-9

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TK5.1	5 mg	glass	123,65

PCB 76
ROTI®Star

2,3',4',5'-PCB · 2,3',4',5'-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 70362-48-0 · EC no. 690-322-3

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TK4.1	10 mg	glass	334,90

PCB 77
ROTI®Star

3,3',4,4'-PCB · 3,3',4,4'-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 32598-13-3 · EC no. 634-804-3

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TK3.1	20 mg	glass	114,50

PCB 78
ROTI®Star

3,3',4,5-PCB · 3,3',4,5-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 70362-49-1 · EC no. 690-321-8

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TK2.1	10 mg	glass	283,30

PCB 79
ROTI®Star

3,3',4,5'-PCB · 3,3',4,5'-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 41464-48-6 · EC no. 690-218-8

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis

Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TK1.1	10 mg	glass	327,35

PCB 80
ROTI®Star

3,3',5,5'-PCB · 3,3',5,5'-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 33284-52-5

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TK0.1	10 mg	glass	224,70

PCB 81
ROTI®Star

3,4,4',5-PCB · 3,4,4',5-Tetrachlorobiphenyl

$C_{12}H_6Cl_4$

CAS No. 70362-50-4 · EC no. 690-324-4

M 291.99 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1THY.1	10 mg	glass	188,15

PCB 82
ROTI®Star

2,2',3,3',4-PCB · 2,2',3,3',4-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 52663-62-4 · EC no. 690-212-5

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1THX.1	5 mg	glass	317,15

PCB 83
ROTI®Star

2,2',3,3',5-PCB · 2,2',3,3',5-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 60145-20-2 · EC no. 690-231-9

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1THT.1	5 mg	glass	203,20

PCB 84
ROTI®Star

2,2',3,3',6-PCB · 2,2',3,3',6-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 52663-60-2 · EC no. 690-209-9

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1THP.1	10 mg	glass	268,75

PCB 85
ROTI®Star

2,2',3,4,4'-PCB · 2,2',3,4,4'-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 65510-45-4 · EC no. 690-285-3

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1THN.1	10 mg	glass	175,80

PCB 86
ROTI®Star

2,2',3,4,5-PCB · 2,2',3,4,5-Pentachlorobiphenyl

$C_{12}H_5Cl_5$ · bp 274 °C

CAS No. 55312-69-1 · EC no. 690-250-2

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1THL.1	10 mg	glass	267,70

PCB 87
ROTI®Star

2,2',3,4,5'-PCB · 2,2',3,4,5'-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 38380-02-8 · EC no. 690-178-1

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1THK.1	10 mg	glass	192,45

PCB 88
ROTI®Star

2,2',3,4,6-PCB · 2,2',3,4,6-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 55215-17-3 · EC no. 690-254-4

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1THH.1	5 mg	glass	200,50

PCB 89
ROTI®Star

2,2',3,4,6'-PCB · 2,2',3,4,6'-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 73575-57-2 · EC no. 690-337-5

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1THE.1	5 mg	glass	192,45

PCB 90
ROTI®Star

2,2',3,4',5-PCB · 2,2',3,4',5-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 68194-07-0 · EC no. 690-263-3

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1THC.1	10 mg	glass	267,70

PCB 91
ROTI®Star

2,2',3,4',6-PCB · 2,2',3,4',6-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 68194-05-8 · EC no. 621-817-4

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1THA.1	5 mg	glass	169,35

PCB 92
ROTI®Star

2,2',3,5,5'-PCB · 2,2',3,5,5'-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 52663-61-3 · EC no. 690-210-4

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TH9.1	10 mg	glass	211,25

PCB 93
ROTI®Star

2,2',3,5,6-PCB · 2,2',3,5,6-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 73575-56-1 · EC no. 690-335-4

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TH8.1	5 mg	glass	252,65

PCB 94
ROTI®Star

2,2',3,5,6'-PCB · 2,2',3,5,6'-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 73575-55-0 · EC no. 690-334-9

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TH7.1	5 mg	glass	697,70

PCB 95
ROTI®Star

2,2',3,5',6-PCB · 2,2',3,5',6-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 38379-99-6 · EC no. 690-179-7

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TH6.1	5 mg	glass	198,35

PCB 97
ROTI®Star

2,2',3,4',5'-PCB · 2,2',3,4',5'-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 41464-51-1 · EC no. 690-217-2

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TH5.1	10 mg	glass	155,90

PCB 98
ROTI®Star

2,2',3,4',6'-PCB · 2,2',3,4',6'-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 60233-25-2 · EC no. 680-459-7

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TH4.1	5 mg	glass	400,45

PCB 99
ROTI®Star

2,2',4,4',5-PCB · 2,2',4,4',5-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 38380-01-7 · EC no. 690-177-6

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TH3.1	5 mg	glass	240,30

PCB 100
ROTI®Star

2,2',4,4',6-PCB · 2,2',4,4',6-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 39485-83-1 · EC no. 690-176-0

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TH2.1	5 mg	glass	252,65

PCB 101
ROTI®Star

2,2',4,5,5'-PCB · 2,2',4,5,5'-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 37680-73-2 · EC no. 621-393-0

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TH1.1	10 mg	glass	91,30

PCB 102
ROTI®Star

2,2',4,5,6'-PCB · 2,2',4,5,6'-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 68194-06-9 · EC no. 690-264-9

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TH0.1	5 mg	glass	214,50

PCB 103
ROTI®Star

2,2',4,5',6-PCB · 2,2',4,5',6-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 60145-21-3 · EC no. 690-230-3

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TEY.1	10 mg	glass	169,35

PCB 105
ROTI®Star

2,3,3',4,4'-PCB · 2,3,3',4,4'-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 32598-14-4 · EC no. 634-808-5

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1X00.1	5 mg	glass	155,90

PCB 106
ROTI®Star

2,3,3',4,5-PCB · 2,3,3',4,5-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 70424-69-0 · EC no. 690-326-5

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1X01.1	5 mg	glass	235,45

PCB 107
ROTI®Star

2,3,3',4',5-PCB · 2,3,3',4',5-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 70424-68-9 · EC no. 690-327-0

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TYY.1	10 mg	glass	266,10

PCB 108
ROTI®Star

2,3,3',4,5'-PCB · 2,3,3',4,5'-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 70362-41-3 · EC no. 690-318-1

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TYT.1	5 mg	glass	177,40

PCB 109
ROTI®Star

2,3,3',4,6-PCB · 2,3,3',4,6-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 74472-35-8 · EC no. 690-291-6

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TYP.1	5 mg	glass	233,85

PCB 110
ROTI®Star

2,3,3',4',6-PCB · 2,3,3',4',6-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 38380-03-9 · EC no. 630-502-0

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TYN.1	5 mg	glass	188,15

PCB 111
ROTI®Star

2,3,3',5,5'-PCB · 2,3,3',5,5'-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 39635-32-0 · EC no. 690-158-2

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TYX.1	10 mg	glass	403,15

PCB 112
ROTI®Star

2,3,3',5,6-PCB · 2,3,3',5,6-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 74472-36-9 · EC no. 690-290-0

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TYL.1	5 mg	glass	192,45

PCB 113
ROTI®Star

2,3,3',5',6-PCB · 2,3,3',5',6-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 68194-10-5 · EC no. 690-272-2

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TYK.1	10 mg	glass	375,20

PCB 114
ROTI®Star

2,3,4,5,4'-PCB · 2,3,4,5,4'-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 74472-37-0 · EC no. 690-296-3

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TYH.1	5 mg	glass	155,90

PCB 115
ROTI®Star

2,3,4,4',6-PCB · 2,3,4,4',6-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 74472-38-1 · EC no. 690-295-8

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TYE.1	5 mg	glass	198,90

PCB 116
ROTI®Star

2,3,4,5,6-PCB · 2,3,4,5,6-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 18259-05-7 · EC no. 690-377-3

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TYC.1	10 mg	glass	174,70

PCB 117
ROTI®Star

2,3,4',5,6-PCB · 2,3,4',5,6-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 68194-11-6 · EC no. 690-271-7

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1X06.1	5 mg	glass	241,90

PCB 118
ROTI®Star

2,3',4,4',5-PCB · 2,3',4,4',5-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 31508-00-6 · EC no. 621-375-2

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TYA.1	10 mg	glass	153,20

PCB 119
ROTI®Star

2,3',4,4',6-PCB · 2,3',4,4',6-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 56558-17-9 · EC no. 690-240-8

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TY8.1	10 mg	glass	375,20

PCB 120
ROTI®Star

2,3',4,5,5'-PCB · 2,3',4,5,5'-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 68194-12-7 · EC no. 690-270-1

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TY7.1	10 mg	glass	381,65

PCB 121
ROTI®Star

2,3',4,5',6-PCB · 2,3',4,5',6-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 56558-18-0 · EC no. 690-241-3

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TY6.1	5 mg	glass	229,55

PCB 122
ROTI®Star

2,3,3',4',5'-PCB · 2,3,3',4',5'-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 76842-07-4 · EC no. 690-316-0

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TY9.1	5 mg	glass	292,95

PCB 123
ROTI®Star

2,3',4,4',5'-PCB · 2,3',4,4',5'-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 65510-44-3 · EC no. 690-284-8

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TY5.1	5 mg	glass	203,20

PCB 124
ROTI®Star

2,3',4',5,5'-PCB · 2,3',4',5,5'-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 70424-70-3 · EC no. 690-328-6

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TY3.1	5 mg	glass	284,90

PCB 125
ROTI®Star

2,3',4',5',6-PCB · 2,3',4',5',6-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 74472-39-2 · EC no. 690-294-2

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TY2.1	5 mg	glass	166,65

PCB 126
ROTI®Star

3,3',4,4',5-PCB · 3,3',4,4',5-Pentachloro-biphenyl

$C_{12}H_5Cl_5$

CAS No. 57465-28-8 · EC no. 682-346-8

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TY1.1	10 mg	glass	162,90

Standards

PCB 127
ROTI®Star

3,3',4,5,5'-PCB · 3,3',4,5,5'-Pentachlorobiphenyl

$C_{12}H_5Cl_5$

CAS No. 39635-33-1 · EC no. 690-159-8

M 326.43 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TY0.1	5 mg	glass	197,30

PCB 128
ROTI®Star

2,3,4,2',3',4'-PCB · 2,3,4,2',3',4'-Hexachlorobiphenyl

$C_{12}H_4Cl_6$

CAS No. 38380-07-3 · EC no. 690-182-3

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TY4.1	25 mg	glass	162,90

PCB 129
ROTI®Star

2,2',3,3',4,5-PCB · 2,2',3,3',4,5-Hexachlorobiphenyl

$C_{12}H_4Cl_6$

CAS No. 55215-18-4 · EC no. 690-253-9

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1X07.1	5 mg	glass	306,40

PCB 130
ROTI®Star

2,2',3,3',4,5'-PCB · 2,2',3,3',4,5'-Hexachlorobiphenyl

$C_{12}H_4Cl_6$

CAS No. 52663-66-8 · EC no. 690-206-2

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TXX.1	5 mg	glass	306,40

PCB 131
ROTI®Star

2,2',3,3',4,6-PCB · 2,2',3,3',4,6-Hexachlorobiphenyl

$C_{12}H_4Cl_6$

CAS No. 61798-70-7 · EC no. 690-280-6

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TXT.1	5 mg	glass	255,35

PCB 132
ROTI®Star

2,2',3,3',4,6'-PCB · 2,2',3,3',4,6'-Hexachlorobiphenyl

$C_{12}H_4Cl_6$

CAS No. 38380-05-1 · EC no. 690-180-2

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TXP.1	5 mg	glass	213,95

PCB 133
ROTI®Star

2,2',3,3',5,5'-PCB · 2,2',3,3',5,5'-Hexachlorobiphenyl

$C_{12}H_4Cl_6$

CAS No. 35694-04-3 · EC no. 690-189-1

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TXY.1	5 mg	glass	389,70

PCB 134
ROTI®Star

2,2',3,3',5,6-PCB · 2,2',3,3',5,6-Hexachlorobiphenyl

$C_{12}H_4Cl_6$

CAS No. 52704-70-8 · EC no. 690-261-2

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TXN.1	5 mg	glass	259,65

PCB 135
ROTI®Star

2,2',3,3',5,6'-PCB · 2,2',3,3',5,6'-Hexachlorobiphenyl

$C_{12}H_4Cl_6$

CAS No. 52744-13-5 · EC no. 690-262-8

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TXK.1	5 mg	glass	356,40

PCB 136
ROTI®Star

2,2',3,3',6,6'-PCB · 2,2',3,3',6,6'-Hexachlorobiphenyl

$C_{12}H_4Cl_6$

CAS No. 38411-22-2 · EC no. 630-487-0

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TXH.1	20 mg	glass	184,40

PCB 137
ROTI®Star

2,2',3,4,4',5-PCB · 2,2',3,4,4',5-Hexachlorobiphenyl

$C_{12}H_4Cl_6$

CAS No. 35694-06-5 · EC no. 690-191-2

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TXE.1	5 mg	glass	226,30

PCB 138
ROTI®Star

2,2',3,4,4',5'-PCB · 2,2',3,4,4',5'-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 35065-28-2 · EC no. 621-377-3

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TXC.1	10 mg	glass	145,15

PCB 140
ROTI®Star

2,2',3,4,4',6'-PCB · 2,2',3,4,4',6'-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 59291-64-4 · EC no. 690-236-6

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TXL.1	5 mg	glass	255,35

PCB 141
ROTI®Star

2,2',3,4,5,5'-PCB · 2,2',3,4,5,5'-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 52712-04-6 · EC no. 690-258-6

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TXA.1	5 mg	glass	224,70

PCB 142
ROTI®Star

2,2',3,4,5,6-PCB · 2,2',3,4,5,6-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 41411-61-4 · EC no. 690-166-6

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TX8.1	5 mg	glass	266,10

PCB 144
ROTI®Star

2,2',3,4,5',6-PCB · 2,2',3,4,5',6-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 68194-14-9 · EC no. 690-268-0

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TX7.1	5 mg	glass	271,45

PCB 146
ROTI®Star

2,2',3,4',5,5'-PCB · 2,2',3,4',5,5'-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 51908-16-8 · EC no. 690-214-6

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TX6.1	5 mg	glass	424,65

PCB 147
ROTI®Star

2,2',3,4',5,6-PCB · 2,2',3,4',5,6-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 68194-13-8 · EC no. 690-269-6

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TX5.1	5 mg	glass	263,40

PCB 148
ROTI®Star

2,2',3,4',5,6'-PCB · 2,2',3,4',5,6'-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 74472-41-6 · EC no. 690-301-9

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TX9.1	5 mg	glass	235,45

PCB 149
ROTI®Star

2,2',3,4',5',6-PCB · 2,2',3,4',5',6-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 38380-04-0 · EC no. 634-834-7

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1X08.1	5 mg	glass	240,30

PCB 151
ROTI®Star

2,2',3,5,5',6'-PCB · 2,2',3,5,5',6'-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 52663-63-5 · EC no. 630-503-6

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TX3.1	5 mg	glass	213,95

PCB 153
ROTI®Star

2,2',4,4',5,5'-PCB · 2,2',4,4',5,5'-Hexachloro-biphenyl

$C_{12}H_4Cl_6$ · mp 137 to 138 °C

CAS No. 35065-27-1 · EC no. 621-381-5

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TX2.1	10 mg	glass	137,10

Standards

PCB 154
ROTI®Star

2,2',4,4',5,6-PCB · 2,2',4,4',5,6-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 60145-22-4 · EC no. 690-234-5

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TX1.1	5 mg	glass	396,70

PCB 155
ROTI®Star

2,2',4,4',6,6'-PCB · 2,2',4,4',6,6'-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 33979-03-2 · EC no. 251-773-8

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TX4.1	10 mg	glass	109,15

PCB 156
ROTI®Star

2,3,3',4,4',5-PCB · 2,3,3',4,4',5-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 38380-08-4 · EC no. 620-601-7

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TX0.1	10 mg	glass	162,90

PCB 157
ROTI®Star

2,3,3',4,4',5'-PCB · 2,3,3',4,4',5'-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 69782-90-7 · EC no. 690-279-0

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TTY.1	10 mg	glass	173,65

PCB 158
ROTI®Star

2,3,3',4,4',6-PCB · 2,3,3',4,4',6-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 74472-42-7 · EC no. 690-300-3

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TTX.1	10 mg	glass	310,70

PCB 159
ROTI®Star

2,3,3',4,5,5'-PCB · 2,3,3',4,5,5'-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 39635-35-3 · EC no. 690-161-9

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TTT.1	5 mg	glass	267,70

PCB 160
ROTI®Star

2,3,3',4,5,6-PCB · 2,3,3',4,5,6-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 41411-62-5 · EC no. 690-228-2

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TTP.1	10 mg	glass	295,10

PCB 161
ROTI®Star

2,3,3',4,5',6-PCB · 2,3,3',4,5',6-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 74472-43-8 · EC no. 690-298-4

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TTN.1	5 mg	glass	252,65

PCB 162
ROTI®Star

2,3,3',4',5,5'-PCB · 2,3,3',4',5,5'-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 39635-34-2 · EC no. 690-160-3

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TTL.1	10 mg	glass	467,65

PCB 163
ROTI®Star

2,3,3',4',5,6-PCB · 2,3,3',4',5,6-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 74472-44-9 · EC no. 690-297-9

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TTK.1	10 mg	glass	317,15

PCB 164
ROTI®Star

2,3,3',4',5',6-PCB · 2,3,3',4',5',6-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 74472-45-0 · EC no. 690-305-0

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TTH.1	5 mg	glass	282,20

PCB 165
ROTI®Star

2,3,3',5,5',6-PCB · 2,3,3',5,5',6-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 74472-46-1 · EC no. 690-306-6

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TTE.1	5 mg	glass	216,65

PCB 166
ROTI®Star

2,3,4,4',5,6,-PCB · 2,3,4,4',5,6,-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 41411-63-6 · EC no. 690-229-8

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TTC.1	5 mg	glass	244,60

PCB 167
ROTI®Star

2,3',4,4',5,5'-PCB · 2,3',4,4',5,5'-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 52663-72-6 · EC no. 690-199-6

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TTA.1	10 mg	glass	185,45

PCB 168
ROTI®Star

2,3',4,4',5',6-PCB · 2,3',4,4',5',6-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 59291-65-5 · EC no. 690-239-2

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TT9.1	5 mg	glass	166,65

PCB 169
ROTI®Star

3,4,5,3',4',5'-PCB · 3,4,5,3',4',5'-Hexachloro-biphenyl

$C_{12}H_4Cl_6$

CAS No. 32774-16-6 · EC no. 682-345-2

M 360.88 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TT8.1	5 mg	glass	140,30

PCB 170
ROTI®Star

2,2',3,3',4,4',5-PCB · 2,2',3,3',4,4',5-Heptachlorobiphenyl

$C_{12}H_3Cl_7$

CAS No. 35065-30-6 · EC no. 634-856-7

M 395.32 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TT7.1	5 mg	glass	177,40

PCB 171
ROTI®Star

2,2',3,3',4,4',6-PCB · 2,2',3,3',4,4',6-Heptachlorobiphenyl

$C_{12}H_3Cl_7$

CAS No. 52663-71-5 · EC no. 630-489-1

M 395.32 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TT6.1	5 mg	glass	335,95

PCB 173
ROTI®Star

2,2',3,3',4,5,6-PCB · 2,2',3,3',4,5,6-Heptachlorobiphenyl

$C_{12}H_3Cl_7$

CAS No. 68194-16-1 · EC no. 690-276-4

M 395.32 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TT5.1	5 mg	glass	256,95

PCB 175
ROTI®Star

2,2',3,3',4,5,6-PCB · 2,2',3,3',4,5,6-Heptachlorobiphenyl

$C_{12}H_3Cl_7$

CAS No. 40186-70-7 · EC no. 690-162-4

M 395.32 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TT4.1	5 mg	glass	403,15

PCB 177
ROTI®Star

2,2',3,3',4,5,6'-PCB · 2,2',3,3',4,5,6'-Heptachlorobiphenyl

$C_{12}H_3Cl_7$

CAS No. 52663-70-4 · EC no. 690-203-6

M 395.32 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TT3.1	5 mg	glass	227,40

PCB 180
ROTI®Star

2,2',3,4,4',5,5'-PCB · 2,2',3,4,4',5,5'-Heptachlorobiphenyl

$C_{12}H_3Cl_7$

CAS No. 35065-29-3 · EC no. 621-378-9

M 395.32 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TT2.1	5 mg	glass	123,65

PCB 181
ROTI®Star

2,2',3,4,4',5,6-PCB · 2,2',3,4,4',5,6-Heptachlorobiphenyl

$C_{12}H_3Cl_7$

CAS No. 74472-47-2 · EC no. 690-302-4

M 395.32 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TT1.1	5 mg	glass	272,55

PCB 185
ROTI®Star

2,2',3,4,5,5',6-PCB · 2,2',3,4,5,5',6-Heptachlorobiphenyl

$C_{12}H_3Cl_7$

CAS No. 52712-05-7 · EC no. 690-259-1

M 395.32 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TT0.1	5 mg	glass	188,15

PCB 189
ROTI®Star

2,3,3',4,4',5,5'-PCB · 2,3,3',4,4',5,5'-Heptachlorobiphenyl

$C_{12}H_3Cl_7$

CAS No. 39635-31-9 · EC no. 690-157-7

M 395.32 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TPY.1	5 mg	glass	256,95

PCB 190
ROTI®Star

2,3,3',4,4',5,6-PCB · 2,3,3',4,4',5,6-Heptachlorobiphenyl

$C_{12}H_3Cl_7$

CAS No. 41411-64-7 · EC no. 690-227-7

M 395.32 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TPX.1	5 mg	glass	204,80

PCB 191
ROTI®Star

2,3,3',4,4',5,6-PCB · 2,3,3',4,4',5,6-Heptachlorobiphenyl

$C_{12}H_3Cl_7$

CAS No. 74472-50-7 · EC no. 690-309-2

M 395.32 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TPT.1	5 mg	glass	227,40

PCB 192
ROTI®Star

2,3,3',4,5,5',6-PCB · 2,3,3',4,5,5',6-Heptachlorobiphenyl

$C_{12}H_3Cl_7$

CAS No. 74472-51-8 · EC no. 690-310-8

M 395.32 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TPP.1	5 mg	glass	263,40

PCB 193
ROTI®Star

2,3,3',4',5,5',6-PCB · 2,3,3',4',5,5',6-Heptachlorobiphenyl

$C_{12}H_3Cl_7$

CAS No. 69782-91-8 · EC no. 690-278-5

M 395.32 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TPN.1	5 mg	glass	220,40

PCB 194
ROTI®Star

2,2',3,3',4,4',5,5'-PCB · 2,2',3,3',4,4',5,5'-Octachlorobiphenyl

$C_{12}H_2Cl_8$

CAS No. 35694-08-7 · EC no. 621-527-8

M 429.77 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TPL.1	5 mg	glass	209,65

PCB 195
ROTI®Star

2,2',3,3',4,4',5,6-PCB · 2,2',3,3',4,4',5,6-Octachlorobiphenyl

$C_{12}H_2Cl_8$

CAS No. 52663-78-2 · EC no. 690-197-5

M 429.77 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TPK.1	5 mg	glass	284,90

PCB 197
ROTI®Star

2,2',3,3',4,4',6,6'-PCB · 2,2',3,3',4,4',6,6'-Octachlorobiphenyl

$C_{12}H_2Cl_8$

CAS No. 33091-17-7 · EC no. 690-136-2

M 429.77 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TPH.1	5 mg	glass	403,15

PCB 205
ROTI®Star

2,3,3',4,4',5,5',6-PCB · 2,3,3',4,4',5,5',6-Octachlorobiphenyl

$C_{12}H_2Cl_8$

CAS No. 74472-53-0 · EC no. 690-308-7

M 429.77 g/mol

Storage temperature: +4 °C

UN no. 3432 · ADR 9 II · WGK 3

Warning H373-H410

Type analysis
Assay (GC) ..... ≥98 %

Art. No.	Pack Qty.	Pack.	€
1TPE.1	5 mg	glass	296,20

Standards for Total Acid Number (TAN) ans Total Base Number (TBN)

Standard for Total Acid Number (TAN)
ROTI®Calipure 0,05 mg KOH/g

acc. to ASTM D664

D ~1 g/cm³ · bp ~100 °C

WGK 1

Type analysis
Total Acid Number ..... 0,045-0,055 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
1T1K.1	50 g	glass	181,70

Standard for Total Acid Number (TAN)
ROTI®Calipure 0,1 mg KOH/g

acc. to ASTM D664

D ~1 g/cm³ · bp ~100 °C

WGK 1

Type analysis
Total Acid Number ..... 0,090-0,110 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
1T1L.1	50 g	glass	181,70

Standard for Total Acid Number (TAN)
ROTI®Calipure 0,2 mg KOH/g

acc. to ASTM D664

D ~1 g/cm³ · bp ~100 °C

WGK 1

Type analysis
Total Acid Number ..... 0,180-0,220 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
1T1N.1	50 g	glass	192,45

Standard for Total Acid Number (TAN)
ROTI®Calipure 0,5 mg KOH/g

acc. to ASTM D664

D ~1 g/cm³ · bp ~100 °C

WGK 1

Danger H360D

Type analysis
Total Acid Number ..... 0,450-0,550 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
1T1P.1	50 g	glass	181,70

Standard for Total Acid Number (TAN)
ROTI®Calipure 1,0 mg KOH/g

acc. to ASTM D664

D ~1 g/cm³ · bp ~100 °C

WGK 1

Danger H360D

Type analysis
Total Acid Number ..... 0,900-1,100 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
1T1T.1	50 g	glass	181,70

Standard for Total Acid Number (TAN)
ROTI®Calipure 1,5 mg KOH/g

acc. to ASTM D664

D ~1 g/cm³ · bp ~100 °C

WGK 1

Danger H360D

Type analysis
Total Acid Number ..... 1,400-1,600 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
1T1X.1	50 g	glass	461,20

Standard for Total Acid Number (TAN)
ROTI®Calipure 2,0 mg KOH/g

acc. to ASTM D664

D ~1 g/cm³ · bp ~100 °C

WGK 1

Danger H360D

Type analysis
Total Acid Number ..... 1,850-2,150 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
1T1Y.1	50 g	glass	332,20

Standard for Total Acid Number (TAN)
ROTI®Calipure 2,5 mg KOH/g

acc. to ASTM D664

D ~1 g/cm³ · bp ~100 °C

WGK 1

Danger H360D

Type analysis
Total Acid Number ..... 2,300-2,700 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
1T20.1	50 g	glass	181,70

Standard for Total Acid Number (TAN)
ROTI®Calipure 3,0 mg KOH/g

acc. to ASTM D664

D ~1 g/cm³ · bp ~100 °C

WGK 1

Danger H360D

Type analysis
Total Acid Number ..... 2,800-3,200 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
1T21.1	50 g	glass	332,20

Standard for Total Acid Number (TAN)
ROTI®Calipure 4,5 mg KOH/g

acc. to ASTM D664

D ~1 g/cm³ · bp ~100 °C

WGK 1

Danger H360D

Type analysis
Total Acid Number ..... 4,300-4,700 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
1T22.1	50 g	glass	332,20

Standard for Total Base Number (TBN)
ROTI®Calipure 1,0 mg KOH/g

acc. to ASTM D2896

D 1 g/cm³ · bp >260 °C · flp >112 °C

WGK 1

Type analysis
Total Base Number ..... 0,900-1,100 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
1T23.1	50 g	glass	353,70

Standard for Total Base Number (TBN)
ROTI®Calipure 3,0 mg KOH/g

acc. to ASTM D2896

D 1 g/cm³ · bp >260 °C · flp >112 °C

WGK 1

Type analysis
Total Base Number ..... 2,700-3,300 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
1T24.1	50 g	glass	353,70

Standard for Total Base Number (TBN)
ROTI®Calipure 6,0 mg KOH/g

acc. to ASTM D2896

D 1 g/cm³ · bp >260 °C · flp >112 °C

WGK 1

Type analysis
Total Base Number ..... 5,500-6,500 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
1T25.1	50 g	glass	353,70

Standard for Total Base Number (TBN)
ROTI®Calipure 10 mg KOH/g

acc. to ASTM D2896

D 1 g/cm³ · bp >260 °C · flp >112 °C

WGK 1

Type analysis
Total Base Number ..... 9,50-10,50 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
1T26.1	50 g	glass	353,70

Standard for Total Base Number (TBN)
ROTI®Calipure 15 mg KOH/g

acc. to ASTM D2896

D 1 g/cm³ · bp >260 °C · flp >112 °C

WGK 1

Type analysis
Total Base Number ..... 14,00-16,00 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
1T27.1	50 g	glass	353,70

Standard for Total Base Number (TBN)

ROTI®Calipure 30 mg KOH/g

acc. to ASTM D2896

D 1 g/cm³ · bp >260 °C · flp >112 °C

WGK 1

Type analysis

Total Base Number ..... 27,00-33,00 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
1T28.1	50 g	glass	353,70

Standard for Total Base Number (TBN)

ROTI®Calipure 50 mg KOH/g

acc. to ASTM D2896

D 1 g/cm³ · bp >260 °C · flp >112 °C

WGK 1

Type analysis

Total Base Number ..... 45,00-55,00 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
1T2A.1	50 g	glass	353,70

Standard for Total Base Number (TBN)

ROTI®Calipure 70 mg KOH/g

acc. to ASTM D2896

D 1 g/cm³ · bp >260 °C · flp >112 °C

WGK 1

Type analysis

Total Base Number ..... 65,00-75,00 mg KOH/g

Art. No.	Pack Qty.	Pack.	€
1T2C.1	50 g	glass	353,70

Solvent for Total Acid Number (TAN) acc. to ASTM D664

ROTI®Calipure Toluene, 2-Propanol, Water 50:49.5:0.5

D 0,86 to 0,87 g/cm³ · bp 82 °C · flp 13 °C

UN no. 1993 · ADR 3 II · WGK 3

Danger H225-H304-H315-H319-H336-H361d-H373-H412

Type analysis

Application test ..... complies

Art. No.	Pack Qty.	Pack.	€
1T2E.1	1 l	glass	160,20
1T2E.2	2.5 l	glass	213,95

Solvent for Total Base Number (TBN) acc. to ASTM D2896

ROTI®Calipure Chlorobenzene, Acetic acid 2:1

D 1,09 g/cm³ · bp 118 °C · flp 28 °C

UN no. 2924 · ADR 3 (8) III · WGK 2

Danger H226-H314-H332-H411

Type analysis

Application test ..... complies

Art. No.	Pack Qty.	Pack.	€
1T2H.1	1 l	glass	106,45
1T2H.2	2.5 l	glass	213,95

Solvent for Total Base Number (TBN) acc. to ASTM D4739

ROTI®Calipure 2-Propanol, Chloroform, Toluene 1:1:1

D 1,045 g/cm³ · bp 61 °C

UN no. 1992 · ADR 3 (6.1) II · WGK 3

Danger H225-H304-H311+H331-H315-H319-H336-H351-H361d-H372

Art. No.	Pack Qty.	Pack.	€
1T2K.1	2.5 l	glass	353,70

Electrolyte lithium chloride

ROTI®Calipure 1 mol/l in ethanol

Electrolyte and reference electrode filling solution acc. to ASTM D664

D 0,89 g/cm³ · bp 78 °C · flp 13 °C

UN no. 1170 · ADR 3 II · WGK 1

Danger H225-H319

Type analysis

Amount-of-substance conc. ..... 0,9-1,1 mol/l

Art. No.	Pack Qty.	Pack.	€
1T2L.1	100 ml	dropp. bottle	53,65

Electrolyte sodium perchlorate

ROTI®Calipure saturated in glacial acetic acid

Electrolyte and reference electrode filling solution acc. to ASTM D2896

D 1,2 g/cm³ · mp 16,64 °C · bp 117,9 °C · flp 39 °C

UN no. 2789 · ADR 8 (3) II · WGK 1

Danger H226-H314

Art. No.	Pack Qty.	Pack.	€
1T2N.1	100 ml	dropp. bottle	75,15

Electrolyte tetraethylammonium bromide

ROTI®Calipure 0,4 mol/l in ethylene glycol

Electrolyte and reference electrode filling solution acc. to ASTM D2896

D 1,55 g/cm³ · bp 197 °C

WGK 3

Warning H302-H373

Art. No.	Pack Qty.	Pack.	€
1T2P.1	1 l	glass	160,20

Standards for Viscosimetry

Standard for Viscosity N2

ROTI®Calipure 2,9 cSt (20 °C)

D 0,798 to 0,813 g/cm³ · bp 200 °C

WGK 3

Danger H304-EUH066

Type analysis

Density (20 °C) ..... 0,65-0,79 g/ml
Dynamic viscosity (20 °C) ..... 1,9-2,3 cP
Kinematic viscosity (20 °C) ..... 2,6-3,2 cSt

Art. No.	Pack Qty.	Pack.	€
1P42.1	500 ml	glass	370,90

Standard for Viscosity N4

ROTI®Calipure 6,7 cSt (20 °C)

D 0,836 g/cm³ · bp 261 °C · flp 113 °C

WGK 1

Danger H304-EUH066

Type analysis

Density (20 °C) ..... 0,76-0,92 g/ml
Dynamic viscosity (20 °C) ..... 4,9-6,1 cP
Kinematic viscosity (20 °C) ..... 6,0-7,4 cSt

Art. No.	Pack Qty.	Pack.	€
1P43.1	500 ml	glass	370,90

Standard for Viscosity N7.5

ROTI®Calipure 14 cSt (20 °C)

D 0,85 g/cm³ · bp 261 °C · flp 113 °C

WGK 1

Danger H304-EUH066

Type analysis

Density (20 °C) ..... 0,77-0,94 g/ml
Dynamic viscosity (20 °C) ..... 10,8-13,2 cP
Kinematic viscosity (20 °C) ..... 12,6-15,4 cSt

Art. No.	Pack Qty.	Pack.	€
1P44.1	500 ml	glass	233,85

Standard for Viscosity N14

ROTI®Calipure 30 cSt (20 °C)

D 0,82 g/cm³ · mp <-57 °C · bp 217 to 419 °C · flp 160 °C

WGK 3

Type analysis

Density (20 °C) ..... 0,76-0,92 g/ml
Dynamic viscosity (20 °C) ..... 22,5-27,5 cP
Kinematic viscosity (20 °C) ..... 27-33 cSt

Art. No.	Pack Qty.	Pack.	€
1P45.1	500 ml	glass	370,90

Standard for Viscosity N26

ROTI®Calipure 59 cSt (20 °C)

D 0,82 g/cm³ · mp <-57 °C · bp 217 to 419 °C · flp 160 °C

WGK 3

Type analysis

Density (20 °C) ..... 0,76-0,92 g/ml
Dynamic viscosity (20 °C) ..... 41,4-50,6 cP
Kinematic viscosity (20 °C) ..... 53,1-64,9 cSt

Art. No.	Pack Qty.	Pack.	€
1P46.1	500 ml	glass	370,90

Standard for Viscosity N44
ROTI®Calipure 110 cSt (20 °C)

D 0,82 g/cm³ · mp <-57 °C · bp 217 to 419 °C · flp 160 °C

WGK 3

Type analysis
Density (20 °C) ..... 0,76-0,92 g/ml
Dynamic viscosity (20 °C) ..... 76,5-93,5 cP
Kinematic viscosity (20 °C) ..... 99-121 cSt

Art. No.	Pack Qty.	Pack.	€
1P47.1	500 ml	glass	233,85

Standard for Viscosity N750
ROTI®Calipure 2700 cSt (20 °C)

D 0,83 g/cm³ · mp <-57 °C · bp 217 to 419 °C · flp 160 °C

WGK 1

Type analysis
Density (20 °C) ..... 0,77-0,94 g/ml
Dynamic viscosity (20 °C) ..... 2070-2530 cP
Kinematic viscosity (20 °C) ..... 2430-2970 cSt

Art. No.	Pack Qty.	Pack.	€
1P4E.1	500 ml	glass	233,85

Standard for Viscosity N4000
ROTI®Calipure 19000 cSt (20 °C)

D 0,895 g/cm³ · mp <-57 °C · bp 202 °C · flp 71 °C

WGK 1

Type analysis
Density (20 °C) ..... 0,79-0,97 g/ml
Dynamic viscosity (20 °C) ..... 14400-17600 cP
Kinematic viscosity (20 °C) ..... 17100-20900 cSt

Art. No.	Pack Qty.	Pack.	€
1P4P.1	500 ml	glass	233,85

Standard for Viscosity N140
ROTI®Calipure 400 cSt (20 °C)

D 0,83 g/cm³ · mp <-57 °C · bp 217 to 419 °C · flp 160 °C

WGK 1

Type analysis
Density (20 °C) ..... 0,76-0,92 g/ml
Dynamic viscosity (20 °C) ..... 324-396 cP
Kinematic viscosity (20 °C) ..... 360-440 cSt

Art. No.	Pack Qty.	Pack.	€
1P48.1	500 ml	glass	370,90

Standard for Viscosity N1000
ROTI®Calipure 3300 cSt (20 °C)

D 1 g/cm³ · mp <-57 °C · bp 217 to 419 °C · flp 160 °C

WGK 1

Type analysis
Density (20 °C) ..... 0,77-0,95 g/ml
Dynamic viscosity (20 °C) ..... 2520-3080 cP
Kinematic viscosity (20 °C) ..... 2970-3630 cSt

Art. No.	Pack Qty.	Pack.	€
1P4H.1	500 ml	glass	370,90

Standard for Viscosity N5100
ROTI®Calipure 28000 cSt (20 °C)

D 0,895 g/cm³ · mp <-57 °C · bp 202 °C · flp 71 °C

WGK 1

Type analysis
Density (20 °C) ..... 0,80-0,98 g/ml
Dynamic viscosity (20 °C) ..... 21600-26400 cP
Kinematic viscosity (20 °C) ..... 25200-30800 cSt

Art. No.	Pack Qty.	Pack.	€
1P4T.1	500 ml	glass	233,85

Standard for Viscosity N350
ROTI®Calipure 980 cSt (20 °C)

D 0,83 g/cm³ · mp <-57 °C · bp 217 to 419 °C · flp 160 °C

WGK 1

Type analysis
Density (20 °C) ..... 0,76-0,92 g/ml
Dynamic viscosity (20 °C) ..... 750-920 cP
Kinematic viscosity (20 °C) ..... 880-1080 cSt

Art. No.	Pack Qty.	Pack.	€
1P49.1	500 ml	glass	370,90

Standard for Viscosity N1400
ROTI®Calipure 4900 cSt (20 °C)

D 0,83 g/cm³ · mp <-57 °C · bp 217 to 419 °C · flp 160 °C

WGK 1

Type analysis
Density (20 °C) ..... 0,76-0,92 g/ml
Dynamic viscosity (20 °C) ..... 3690-4510 cP
Kinematic viscosity (20 °C) ..... 4410-5390 cSt

Art. No.	Pack Qty.	Pack.	€
1P4K.1	500 ml	glass	370,90

Standard for Viscosity S8000
ROTI®Calipure 41000 cSt (20 °C)

D 0,895 g/cm³ · mp <-57 °C · bp 202 °C · flp 71 °C

WGK 1

Type analysis
Density (20 °C) ..... 0,82-0,99 g/ml
Dynamic viscosity (20 °C) ..... 28800-35200 cP
Kinematic viscosity (20 °C) ..... 36900-45100 cSt

Art. No.	Pack Qty.	Pack.	€
1P4X.1	500 ml	glass	233,85

Standard for Viscosity N415
ROTI®Calipure 1400 cSt (20 °C)

D 0,855 g/cm³ · mp <-57 °C · bp 217 to 419 °C · flp 160 °C

WGK 1

Type analysis
Density (20 °C) ..... 0,77-0,94 g/ml
Dynamic viscosity (20 °C) ..... 1080-1320 cP
Kinematic viscosity (20 °C) ..... 1260-1540 cSt

Art. No.	Pack Qty.	Pack.	€
1P4A.1	500 ml	glass	233,85

Standard for Viscosity N2500
ROTI®Calipure 8300 cSt (20 °C)

D 0,895 g/cm³ · mp <-57 °C · bp 202 °C · flp 71 °C

WGK 1

Type analysis
Density (20 °C) ..... 0,76-0,92 g/ml
Dynamic viscosity (20 °C) ..... 6300-7700 cP
Kinematic viscosity (20 °C) ..... 7470-9130 cSt

Art. No.	Pack Qty.	Pack.	€
1P4L.1	500 ml	glass	370,90

Standard for Viscosity N10200
ROTI®Calipure 58000 cSt (20 °C)

D 0,895 g/cm³ · mp <-57 °C · bp 202 °C · flp 71 °C

WGK 1

Type analysis
Density (20 °C) ..... 0,80-0,98 g/ml
Dynamic viscosity (20 °C) ..... 45900-56100 cP
Kinematic viscosity (20 °C) ..... 52200-63800 cSt

Art. No.	Pack Qty.	Pack.	€
1P4Y.1	500 ml	glass	370,90

Standard for Viscosity S600
ROTI®Calipure 1800 cSt (20 °C)

D 0,83 g/cm³ · mp <-57 °C · bp 217 to 419 °C · flp 160 °C

WGK 1

Type analysis
Density (20 °C) ..... 0,77-0,94 g/ml
Dynamic viscosity (20 °C) ..... 1530-1870 cP
Kinematic viscosity (20 °C) ..... 1620-1980 cSt

Art. No.	Pack Qty.	Pack.	€
1P4C.1	500 ml	glass	233,85

Standard for Viscosity S2000
ROTI®Calipure 8400 cSt (20 °C)

D 0,895 g/cm³ · mp <-57 °C · bp 202 °C · flp 71 °C

WGK 1

Type analysis
Density (20 °C) ..... 0,79-0,97 g/ml
Dynamic viscosity (20 °C) ..... 6570-8030 cP
Kinematic viscosity (20 °C) ..... 7560-9240 cSt

Art. No.	Pack Qty.	Pack.	€
1P4N.1	500 ml	glass	233,85

Standard for Viscosity N15000
ROTI®Calipure 77000 cSt (20 °C)

D 0,895 g/cm³ · mp <-57 °C · bp 202 °C · flp 71 °C

WGK 1

Type analysis
Density (20 °C) ..... 0,80-0,98 g/ml
Dynamic viscosity (20 °C) ..... 57600-70400 cP
Kinematic viscosity (20 °C) ..... 69300-84700 cSt

Art. No.	Pack Qty.	Pack.	€
1P50.1	500 ml	glass	370,90

Standard for Viscosity N18000
ROTI®Calipure 100000 cSt (20 °C)

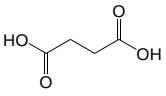
D 0,895 g/cm³ · mp <-57 °C · bp 202 °C · flp 71 °C

WGK 1

Type analysis
Density (20 °C) ..... 0,82-0,99 g/ml
Dynamic viscosity (20 °C) ..... 80100-97900 cP
Kinematic viscosity (20 °C) ..... 90000-110000 cSt

Art. No.	Pack Qty.	Pack.	€
1P51.1	500 ml	glass	370,90

Succinic acid



Butanedioic acid · Amber acid
$C_4H_6O_4$ · D 1,564 g/cm³ · mp 185 to 191 °C · bp 235 °C · flp 206 °C
M 118,09 g/mol
CAS No. 110-15-6 · EC no. 203-740-4
WGK 1

Danger H318

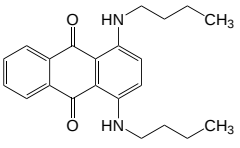
Succinic acid
≥99 %, for synthesis, made from renewable raw material

For the production of bio-based polyurethanes, coatings, surface treatment etc.

Type analysis
Assay ..... ≥99,5 %
Water (KF) ..... ≤0,5 %
Chloride (Cl) ..... ≤0,005 %
Sulphate (SO_4) ..... ≤0,01 %
Ash content ..... ≤0,01 %
Lead (Pb) ..... ≤0,001 %
Iron (Fe) ..... ≤0,001 %

Art. No.	Pack Qty.	Pack.	€
1N1L.1	250 g	plastic	23,55
1N1L.2	1 kg	plastic	53,25
1N1L.3	2.5 kg	plastic	117,20
1N1L.4	5 kg	plastic	209,65

Sudan Blue II



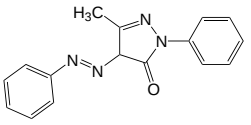
Fat blue B · Solvent blue 35 · 1,4-Bis(butylamino)antraquinone · Oil blue B
$C_{22}H_{26}N_2O_2$ · D 1,213 g/cm³ · mp 121 to 122 °C
M 350,45 g/mol
CAS No. 17354-14-2 · EC no. 241-379-4
WGK 1

Sudan Blue II (C. I. 61554)
pure

Fat-soluble anthraquinone dye

Art. No.	Pack Qty.	Pack.	€
1T4K.1	10 g	glass	21,40
1T4K.2	25 g	glass	42,90
1T4K.3	100 g	glass	138,70

Sudan Yellow G



Solvent yellow 16 · Fat yellow 3 G
$C_{16}H_{14}N_4O$ · D 1,289 g/cm³ · mp 157 °C
M 278,31 g/mol
CAS No. 4314-14-1 · EC no. 224-330-1
WGK 1

Sudan Yellow G (C. I. 12700)
pure

Fat-soluble azo dye

Art. No.	Pack Qty.	Pack.	€
1T4L.1	10 g	glass	21,40
1T4L.2	25 g	glass	42,90
1T4L.3	100 g	glass	138,70

Tin

Sn · D 7,3 g/cm³ · mp 232 °C · bp 2260 to 2270 °C
M 118,71 g/mol
CAS No. 7440-31-5 · EC no. 231-141-8

Tin foil
98 % Sn, 2 % Sb, pure

Foil 40 cm wide, 0.1 mm thick and approx. 10 m in length, ca. 2,9 kg.

Type analysis

Assay (Sn) ..... 97,5-98,5 %
Sb (Antimony) ..... 1,5-2,5 %
Ag (Silver) ..... ≤0,005 %
Al (Aluminium) ..... ≤0,001 %
As (Arsenic) ..... ≤0,0005 %
Bi (Bismuth) ..... ≤0,005 %
Cd (Cadmium) ..... ≤0,0005 %
Co (Cobalt) ..... ≤0,0001 %
Cu (Copper) ..... ≤0,005 %
Fe (Iron) ..... ≤0,005 %
In (Indium) ..... ≤0,005 %
Ni (Nickel) ..... ≤0,001 %
Pb (Lead) ..... ≤0,01 %
Zn (Zinc) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
1P6H.1	1 unit(s)	plastic	729,95

Tin foil
98 % Sn, 2 % Sb, pure

Foil 40 cm wide, 0.2 mm thick and approx. 10 m in length, ca. 5,8 kg.

Type analysis

Assay (Sn) ..... 97,5-98,5 %
Sb (Antimony) ..... 1,5-2,5 %
Ag (Silver) ..... ≤0,005 %
Al (Aluminium) ..... ≤0,001 %
As (Arsenic) ..... ≤0,0005 %
Bi (Bismuth) ..... ≤0,01 %
Cd (Cadmium) ..... ≤0,0005 %
Co (Cobalt) ..... ≤0,0001 %
Cu (Copper) ..... ≤0,001 %
Fe (Iron) ..... ≤0,005 %
In (Indium) ..... ≤0,005 %
Ni (Nickel) ..... ≤0,001 %
Pb (Lead) ..... ≤0,01 %
Zn (Zinc) ..... ≤0,0005 %

Art. No.	Pack Qty.	Pack.	€
1P6E.1	1 unit(s)	plastic	1.353,45

Tin(II) chloride dihydrate

Stannous chloride · Tin dichloride dihydrate
$SnCl_2 \cdot 2\,H_2O$ · D 2,71 g/cm³ · mp 37 °C · bp 623 °C
M 225,63 g/mol
CAS No. 10025-69-1 · EC no. 231-868-0
UN no. 3260 · ADR 8 II · WGK 3

 **Danger** H290-H302+H332-H314-H317-H335-H373-H412

Tin(II) chloride dihydrate
≥98 %, Ph. Eur.

Guarantee analysis

Appearance ..... white, cryst. powder
Assay (iodom.) ..... 98,0-102,0 %
Identity ..... complies
Appearance of solution ..... clear, colourless
Sulphate (SO_4) ..... ≤0,05 %
Fe (Iron) ..... ≤0,01 %
Substances not precipitated by thioacetamide ..... ≤0,2 %

Art. No.	Pack Qty.	Pack.	€
1T5K.1	100 g	glass	32,15
1T5K.2	500 g	glass	115,60
1T5K.3	1 kg	glass	209,65

Universal indicator solution

D 0,8 to 0,9 g/cm³ · bp 78 °C
UN no. 1170 · ADR 3 II · WGK 1
Danger H225-H319

Universal indicator solution
in 50 % ethanol, denatured

Indicator pH 4-10

Type analysis
pH-transition range ..... complies

Art. No.	Pack Qty.	Pack.	€
1PET.1	100 ml	plastic	26,80
1PET.2	500 ml	plastic	106,45

Vanadium(IV) oxide

Vanadium dioxide
VO_2 · D 4,55 g/cm³ · mp 1970 °C
M 82,94 g/mol
CAS No. 12036-21-4 · EC no. 234-841-1
WGK 3

Vanadium(IV) oxide
≥99 %, pure

Type analysis
Assay ..... ≥99,0 %
Assay (metals basis) ..... ≥61 %
Fe (Iron) ..... ≤0,05 %
K (Potassium) ..... ≤0,05 %
Na (Sodium) ..... ≤0,05 %

Art. No.	Pack Qty.	Pack.	€
1NC1.1	50 g	plastic	26,80
1NC1.2	250 g	plastic	85,90
1NC1.3	1 kg	plastic	289,20

WL broth

WGK 3

WL broth
for microbiology

For the determination of microbial flora in beer fermentation processes and manufacturing

Storage temperature: +15 to +25 °C

Composition
Bromcresol green ..... 0,022 g/l
Calcium chloride ..... 0,125 g/l
Dextrose ..... 50 g/l
Iron chloride ..... 0,0025 g/l
Yeast extract ..... 4 g/l
Potassium chloride (KCl) ..... 0,425 g/l
Potassium dihydrogen phosphate ..... 0,55 g/l
Manganese sulphate ..... 0,0025 g/l
$MgSO_4$ ..... 0,125 g/l
pH value (25 °C) 5,3-5,7
Tryptone ..... 5 g/l

Art. No.	Pack Qty.	Pack.	€
1T94.1	500 g	plastic	102,15
1T94.2	1 kg	plastic	192,45

WL Differential Agar

WGK 1

WL Differential Agar
for microbiology

Selective medium used in the control of industrial fermention processes, especially in brewery.

Storage temperature: +15 to +25 °C

Agar-Agar ..... 20 g/l
Bromcresol green ..... 0,022 g/l
Calcium chloride ..... 0,125 g/l
Cycloheximide ..... 0,004 g/l
Dextrose ..... 50 g/l
Iron chloride ..... 0,0025 g/l
Yeast extract ..... 4 g/l
Potassium chloride (KCl) ..... 0,425 g/l
Potassium dihydrogen phosphate ..... 0,55 g/l
Manganese sulphate ..... 0,0025 g/l
$MgSO_4$ ..... 0,125 g/l
pH value (25 °C) 5,3-5,7
Tryptone ..... 5 g/l

Art. No.	Pack Qty.	Pack.	€
1T93.1	500 g	plastic	117,20
1T93.2	1 kg	plastic	220,40

Zirconyl nitrate hydrate

Zirconium oxynitrate
$ZrO(NO_3)_2 \cdot x\ H_2O$ · D 1,536 g/cm³
M 231,23 + x H_2O g/mol
CAS No. 14985-18-3 · EC no. 237-529-3
UN no. 3085 · ADR 5.1 (8) II · WGK 1

Danger H272-H314

Zirconyl nitrate hydrate
≥99,5 %, pure

Type analysis
Assay ..... ≥99,5 %
Zirconium oxide (ZrO_2) + hafnium dioxide (HfO_2)
..... ≥35,0 %

Art. No.	Pack Qty.	Pack.	€
1P69.1	50 g	glass	32,15
1P69.2	100 g	glass	52,15
1P69.3	500 g	glass	195,15

Detailed product information you will find in our webshop!



Always current prices!

- All relevant product information
- Status of product availability
- Specifications and certificates of analysis
- Instructions for use

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50-14-6	240
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57-87-4	240
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64-17-5	240
67-68-5	239
67-97-0	237
68-26-8	251
81-13-0	248
85-61-0	237
110-15-6	285
142-91-6	243
147-14-8	238
434-16-2	239
540-69-2	229
631-61-8	228
863-61-6	245
1111-78-0	229
1306-19-0	236
1317-38-0	238
1332-58-7	235
1336-21-6	228
1344-28-1	228
2568-33-4	245
2611-82-7	249
2783-94-0	248
3937-56-2	247
4314-14-1	285
4457-71-0	246
4553-89-3	235
4717-96-8	246
5949-29-1	237
6358-69-6	250
6381-92-6	240
6381-92-6	241
7320-34-5	250
7439-89-6	243
7439-92-1	244
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7647-01-0	243
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7697-37-2	247
7727-43-7	235
7778-18-9	236
7782-61-8	243
7789-38-0	255
8004-92-0	251
9002-18-0	228
9004-34-6	236
9004-82-4	255
10022-68-1	236
10025-69-1	286
10099-74-8	244
10124-56-8	255
12036-21-4	287
12125-01-8	229
13422-55-4	245
13718-59-7	235
13769-43-2	250
14985-18-3	288
17354-14-2	285
25322-69-4	248
56539-66-3	245
68334-30-5	239
68648-78-2	249
78403-22-2	236
91079-38-8	248
91079-40-2	248
91079-46-8	248
103429-90-9	245

Information on brands, purities and applications

▷	see
>	more than
<	less than
min	minimum
max	maximum
µm	0,001 mm
~	approximate
$[\alpha]_D^{20}$	specific rotation
+4 °C	storage in refrigerating room/refrigerator
-20 °C	storage in deep-freeze room/freezer
®	registered symbol, registered trade mark
	GHS01 exploding bomb
	GHS02 flame
	GHS03 flame over circle
	GHS04 gas cylinder
	GHS05 corrosion
	GHS06 skull and crossbones
	GHS07 exclamation mark
	GHS08 health hazard
	GHS09 environment
Å	Ångström = 10^{-10} m
abs	absolute
ACS	American Chemical Society
ADR	European agreement on international road transport of hazardous goods
Amp.	ampoule
aq	water
art.	artificial
asym.	asymmetrical
awg	hazardous to water in general (see WGK)
BP	British Pharmacopoeia
bp	boiling point, boiling range
c	amount-of-substance concentration
CAS	Chemical Abstract Service
CAS No	unique numeric identifier for chemicals
CELLPURE®	suitable for cell culture
C.I. No	colour index number
conc.	concentrated
cP	centipoise
cryst.	crystallised
cSt	centistokes
D	density
DAB	Deutsches Arzneibuch (German Pharmacopoeia)
DAC	Deutscher Arzneimittel-Codex (German Drugs Codex)
dec.	decomposition
dist.	distilled
DIN	German Industrial Standards
EN	European Norm or European Standard
EC no	the official number of a chemical substance that is commercially available within the EC
ERD	empfohlenes Retestdatum (recommended retest date)
extra pure	suitable for laboratory use
FCC	Food chemical codex
FIP	Fédération Internationale Pharmaceutique
flp	flash point
g	gram or gramme
GC	gas chromatography
(GC)	content defined by gas chromatography
H	Hazard statement acc. to regulation (EC) No 1272/2008 (CLP, GHS)
HPLC	high performance liquid chromatography
IE	Internationale Einheit (international unit)
ISO	International Organization for Standardization
IU	international unit
IVD	*In-vitro* diagnostics
JP	Japanese Pharmacopoeia
kg	kilogram or kilogramme
KU	Kilo unit
l, ltr	litre
Lit.	literature
LSC	liquid scintillation counting
lyophil.	lyophilised (readily soluble form)
M or mol/l	molarity, amount-of-substance concentration
M	molecular weight or molar mass
m%	percentage by mass
mg	milligram or milligramme
ml	mililitre
Mol.%	molar percent
MP	Medical product
mp	melting point, melting range
MU	Mega unit
nat.	natural
n_D	refractive index
nwg	non-hazardous to water (see WGK)

Abbreviations & Symbols

P	Precautionary statement acc. to regulation (EC) No 1272/2008 (CLP, GHS)
Pa s	Pascal second
p.a.	pro analysi = for analytical purposes
PEPTIPURE®	suitable for peptide synthesis
Pestilyse®	solvent, suitable for residue analysis (environmental, water and food analysis)
pH	pH value
pK_a	pK_a value
pharma.	pharmaceutical quality, for pharmaceutical purposes
Ph.Eur.	European Pharmacopoeia
ppb	parts per billion = 1 µg per kg
ppm	parts per million = 0,0001 %, 1 mg per kg
ppt	parts per trillion = 1 ng per kg
prim.	primary
PUFFERAN®	can be used as buffer
pulv.	pulverised
pure	suitable for synthesis and laboratory use
rect.	rectification
redist.	redistilled
resubl.	resublimated
ROTICHROM®	suitable as reference substance in chromatography
ROTICHROM® CHR	chromatographically pure reference substances that are chromatographically (HPLC, GC, etc.) tested for their purity and are supplied without a chromatogram
ROTICHROM® CHR_{TLC}	compound in this catalogue is designated asbeing thin-layer chromatographically pure (CHR_{TLC}) if no impurities can be detected under experimental conditions with 20 µg sample
ROTICHROM® ~CHR_{TLC}	for products with impurities which under our conditions, (see CHR_{TLC}), allow the main compound to be designated; such products can be identified as being „approximately thin-layer chromatographically pure“ (~CHR_{TLC})
ROTICHROM® GC	reference substance for gas chromatography, delivered with GC chromatogram
ROTICHROM® HPLC	reference substance for HPLC, delivered with HPLC chromatogram
ROTICHROM® TLC	reference substance for thin-layer chromatography, delivered with thin-layer chromatogram
ROTICUBE®	combi-box of 5 litre or 10 litre, consisting of a stable outer card box with inner bag made of PE; comes with stopcock
ROTIDRY®	dried solvents, filled under protective gas
ROTIPHORESE®	product is suitable for electrophoresis
ROTIPURAN®	highly pure product, suitable for analysis
ROTISOLV®	solvent tested for specific applications (e.g. HPLC, LC-MS, GC, Head-Space)
ROTITAINER®	stackable containers that are convenient to handle. Matching safety pumps are available
sec.	secondary
SOLVAGREEN®	solvents and products that comply with the principles of green chemistry and are either obtained from renewable resources or are considered to be less environmentally hazardous than traditional solvents
stab.	stabilised
subl.	sublimated
sym.	symmetrical
synth.	synthetic
techn.	technical quality. Products with the purity designation *„technicum“* feature a different content. They are generally mass produced and may have a slightly foreign odour and colour. They are used for general technical purposes.
tert.	tertiary; standard for thin-layer chromatograhy (TLC)
TLC	thin layer chromatography
U	unit
USP	United States Pharmacopoeia
WGK	Wassergefährdungsklasse, German Water Hazard Class (on the basis of the Ordinance on facilities for handling substances that are hazardous to water, AwSV)
WGK 1	generally hazardous to waters
WGK 2	clearly hazardous to waters
WGK 3	severe hazardous to waters
wt.% or wt%	percentage by weight

Hazard Pictograms

The hazard pictogram on the designation label indicates the main hazard arising from a substance. If there are several hazardous qualitiies, several symbols are necessary.

Each pictogram is allocated a hazard designation and coding that do **not** appear on the designation label.



GHS01
exploding bomb



GHS02
flame



GHS03
flame over circle



GHS04
gas cylinder



GHS05
corrosion



GHS06
skull and crossbones



GHS07
exclamation mark



GHS08
health hazard



GHS09
environment

Hazard Statements H Codes

Hazard statements for physical hazards

H200	Unstable explosives.
H201	Explosive; mass explosion hazard.
H202	Explosive, severe projection hazard.
H203	Explosive; fire, blast or projection hazard.
H204	Fire or projection hazard.
H205	May mass explode in fire.
H206	Fire, blast or projection hazard; increased risk of explosion if desensitising agent is reduced.
H207	Fire or projection hazard; increased risk of explosion if desensitising agent is reduced.
H208	Fire hazard; increased risk of explosion if desensitising agent is reduced.
H220	Extremely flammable gas.
H221	Flammable gas.
H222	Extremely flammable aerosol.
H223	Flammable aerosol.
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H229	Pressurised container: May burst if heated.
H230	May react explosively even in the absence of air.
H231	May react explosively even in the absence of air at elevated pressure and/or temperature.
H232	May ignite spontaneously if exposed to air.
H240	Heating may cause an explosion.
H241	Heating may cause a fire or explosion.
H242	Heating may cause a fire.
H250	Catches fire spontaneously if exposed to air.
H251	Self-heating; may catch fire.
H252	Self-heating in large quantities; may catch fire.
H260	In contact with water releases flammable gases which may ignite spontaneously.
H261	In contact with water releases flammable gases.
H270	May cause or intensify fire; oxidiser.
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H280	Contains gas under pressure; may explode if heated.
H281	Contains refrigerated gas; may cause cryogenic burns or injury.
H290	May be corrosive to metals.

Hazard statements for health hazards

H300	Fatal if swallowed.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.

H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H350i	May cause cancer by inhalation.
H351	Suspected of causing cancer.
H360	May damage fertility or the unborn child.
H360F	May damage fertility.
H360D	May damage the unborn child.
H360FD	May damage fertility. May damage the unborn child.
H360Fd	May damage fertility. Suspected of damaging the unborn child.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H361	Suspected of damaging fertility or the unborn child.
H361f	Suspected of damaging fertility.
H361d	Suspected of damaging the unborn child.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H362	May cause harm to breast-fed children.
H370	Causes damage to organs.
H371	May cause damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H300+H310	Fatal if swallowed or in contact with skin.
H300+H330	Fatal if swallowed or if inhaled.
H310+H330	Fatal in contact with skin or if inhaled.
H300+H310 +H330	Fatal if swallowed, in contact with skin or if inhaled.
H301+H311	Toxic if swallowed or in contact with skin.
H301+H331	Toxic if swallowed or if inhaled.
H311+H331	Toxic in contact with skin or if inhaled.
H301+H311 +H331	Toxic if swallowed, in contact with skin or if inhaled.
H302+H312	Harmful if swallowed or in contact with skin.
H302+H332	Harmful if swallowed or if inhaled.
H312+H332	Harmful in contact with skin or if inhaled.
H302+H312+ H332	Harmful if swallowed, in contact with skin or if inhaled.

Hazard statements for environmental hazards

H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
H420	Harms public health and the environment by destroying ozone in the upper atmosphere.

Supplemental Hazard Information EUH Codes

EUH014	Reacts violently with water.
EUH018	In use may form flammable/explosive vapour-air mixture.
EUH019	May form explosive peroxides.
EUH029	Contact with water liberates toxic gas.
EUH031	Contact with acids liberates toxic gas.
EUH032	Contact with acids liberates very toxic gas.
EUH044	Risk of explosion if heated under confinement.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH070	Toxic by eye contact.
EUH071	Corrosive to the respiratory tract.
EUH201	Contains lead. Should not be used on surfaces liable to be chewed or sucked by children.
EUH201A	Warning! Contains lead.
EUH202	Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.
EUH203	Contains chromium (VI). May produce an allergic reaction.
EUH204	Contains isocyanates. May produce an allergic reaction.
EUH205	Contains epoxy constituents. May produce an allergic reaction.
EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine).
EUH207	Warning! Contains cadmium. Dangerous fumes are formed during use. See information supplied by the manufacturer. Comply with the safety instructions.
EUH208	Contains (name of sensitising substance). May produce an allergic reaction.
EUH209	Can become highly flammable in use.
EUH209A	Can become flammable in use.
EUH210	Safety data sheet available on request.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Hazard classes and categories

Classification				Labelling		
Hazard class	**Category codes**		**Pictogram, code**	**Signal word**	**Hazard statements**	
Explosive	Unstable explosives	Unst. Expl.	 GHS01	Danger	H200	Unstable explosives.
	Divisions 1.1	Expl. 1.1			H201	Explosive; mass explosion hazard.
	Divisions 1.2	Expl. 1.2			H202	Explosive, severe projection hazard.
	Divisions 1.3	Expl. 1.3			H203	Explosive; fire, blast or projection hazard.
	Divisions 1.4	Expl. 1.4		Warning	H204	Fire or projection hazard.
	Divisions 1.5	Expl. 1.5	No pictogram	Danger	H205	May mass explode in fire.
	Divisions 1.6	Expl. 1.6	No pictogram, no signal word, no hazard statement			
Flammable gas	Category 1	Flam. gas 1	 GHS02	Danger	H220	Extremely flammable gas.
	Category 2	Flam. gas 2	No pictogram	Warning	H221	Flammable gas.
Flammable aerosol	Category 1	Flam. aerosol 1	 GHS02	Danger	H222	Extremely flammable aerosol.
	Category 2	Flam. aerosol 2		Warning	H223	Flammable aerosol.
Oxidising gas	Category 1	Ox. gas 1	 GHS03	Danger	H270	May cause or intensify fire; oxidiser
Gas under pressure	Compressed gas	Press. gas	 GHS04	Warning	H280	Contains gas under pressure; may explode if heated.
	Dissolved gas					
	Liquefied gas				H281	Contains refrigerated gas; may cause cryogenic burns or injury.
	Refrigerated liquefied gas					
Flammable liquid	Category 1	Flam. Liq. 1	 GHS02	Danger	H224	Extremely flammable liquid and vapour.
	Category 2	Flam. Liq. 2			H225	Highly flammable liquid and vapour.
	Category 3	Flam. Liq. 3		Warning	H226	Flammable liquid and vapour.
Flammable solid	Category 1	Flam. Sol. 1		Danger	H228	Flammable solid.
	Category 2	Flam. Sol. 2		Warning		

Classification & Labelling acc. to (EC) 1272/2008

Classification				Labelling		
Hazard class	**Category codes**		**Pictogram, code**	**Signal word**	**Hazard statements**	
Self-reactive substance or mixture **Organic peroxide**	Type A	Self-react. A Org. Perox. A	 GHS01	Danger	H240	Heating may cause an explosion.
	Type B	Self-react. B Org. Perox. B	 GHS01 + GHS02		H241	Heating may cause a fire or explosion.
	Type C and D	Self-react. CD Org. Perox. CD	 GHS02	Danger	H242	Heating may cause a fire.
	Type E and F	Self-react. EF Org. Perox. EF		Warning		
	Type G	Self-react. G Org. Perox. G	No pictogram, no signal word, no hazard statement			
Pyrophoric liquid	Category 1	Pyr. Liq. 1	 GHS02	Danger	H250	Catches fire spontaneously if exposed to air.
Pyrophoric solid	Category 1	Pyr. Sol. 1				
Self-heating substance or mixture	Category 1	Self-heat. 1		Danger	H251	Self-heating; may catch fire.
	Category 2	Self-heat. 2		Warning	H252	Self-heating in large quantities; may catch fire.
Substance or mixture which in contact with water emits flammable gas	Category 1	Water-react. 1		Danger	H260	In contact with water releases flammable gases which may ignite spontaneously.
	Category 2	Water-react. 2		Danger	H261	In contact with water releases flammable gases.
	Category 3	Water-react. 3		Warning		
Oxidising liquid **Oxidising solid**	Category 1	Ox. Liq. 1 Ox. Sol. 1	 GHS03	Danger	H271	May cause fire or explosion; strong oxidiser.
	Category 2	Ox. Liq. 2 Ox. Sol. 2		Danger	H272	May intensify fire; oxidiser.
	Category 3	Ox. Liq. 3 Ox. Sol. 3		Warning		
Substance or mixture corrosive to metals	Category 1	Met. Corr. 1	 GHS05	Warning	H290	May be corrosive to metals.
Desensitised explosive substances/ mixtures	Category 1	Desen. Expl. 1	 GHS02	Danger	H206	Fire, blast or projection hazard; increased risk of explosion if desensitising agent is reduced.
	Category 2	Desen. Expl. 2		Danger	H207	Fire or projection hazard; increased risk of explosion if desensitising agent is reduced.
	Category 3	Desen. Expl. 3		Warning		
	Category 4	Desen. Expl. 4		Warning	H208	Fire hazard; increased risk of explosion if desensitising agent is reduced.
Acute toxicity	Category 1	Acute Tox. 1	 GHS06	Danger	H300 H310 H330	Fatal if swallowed. Fatal in contact with skin. Fatal if inhaled.
	Category 2	Acute Tox. 2				
	Category 3	Acute Tox. 3			H301 H311 H331	Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.
	Category 4	Acute Tox. 4	 GHS07	Warning	H302 H312 H332	Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.

Classification				Labelling		
Hazard class	**Category codes**		**Pictogram, code**	**Signal word**	**Hazard statements**	
Skin corrosion/ irritation	Category 1A	Skin Corr. 1A	 GHS05	Danger	H314	Causes severe skin burns and eye damage.
	Category 1B	Skin Corr. 1B				
	Category 1C	Skin Corr. 1C				
	Category 2	Skin Irrit. 2	 GHS07	Warning	H315	Causes skin irritation.
Serious eye damage/eye irritation	Category 1	Eye Dam. 1	 GHS05	Danger	H318	Causes serious eye damage.
	Category 2	Eye Irrit. 2	 GHS07	Warning	H319	Causes serious eye irritation.
Respiratory sensitization	Category 1 Category 1A Category 1B	Resp. Sens. 1 Resp. Sens. 1A Resp. Sens. 1B	 GHS05	Danger	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization	Category 1 Category 1A Category 1B	Skin Sens. 1 Skin Sens. 1A Skin Sens. 1B	 GHS07	Warning	H317	May cause an allergic skin reaction.
Germ cell mutagenicity	Category 1A	Muta. 1A	 GHS08	Danger	H340	May cause genetic defects. (*)
	Category 1B	Muta. 1B				
	Category 2	Muta. 2		Warning	H341	Suspected of causing genetic defects. (*)
Carcinogenicity	Category 1A	Carc. 1A		Danger	H350 H350i	May cause cancer. (*) May cause cancer by inhalation.
	Category 1B	Carc. 1B				
	Category 2	Carc. 2		Warning	H351	Suspected of causing cancer. (*)
	(*) state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard					
Reproductive toxicity	Category 1A	Repr. 1A	 GHS08	Danger	H360 H360F H360D H360FD	May damage fertility or the unborn child. (*) May damage fertility. (*) May damage the unborn child. (*) May damage fertility. May damage the unborn child. (*)
	Category 1B	Repr. 1B				
	Category 2	Repr. 2		Warning	H361 H361f H361d H361fd	Suspected of damaging fertility or the unborn child. (*) Suspected of damaging fertility. (*) Suspected of damaging the unborn child. (*) Suspected of damaging fertility. Suspected of damaging the unborn child. (*)
	Additional category for effects on or via lactation	Lact.	No pictogram	No signal word	H362	May cause harm to breast-fed children.
	(*) state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard					

Classification & Labelling acc. to (EC) 1272/2008

Classification			Labelling			
Hazard class	**Category codes**		**Pictogram, code**	**Signal word**	**Hazard statements**	
Specific target organ toxicity – single exposure	Category 1	STOT SE 1	 GHS08	Danger	H370	Causes damage to organs. (*)
	Category 2	STOT SE 2		Warning	H371	May cause damage to organs. (*)
	Category 3	STOT SE 3	 GHS07	Warning	H335	May cause respiratory irritation.
					H336	May cause drowsiness or dizziness.
Specific target organ toxicity – repeated exposure	Category 1	STOT RE 1	 GHS08	Danger	H372	Causes damage to organs through prolonged or repeated exposure. (*)
	Category 2	STOT RE 2		Warning	H373	May cause damage to organs through prolonged or repeated exposure. (*)
	(*) state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard					
Aspiration hazard	Category 1	Asp. Tox. 1	 GHS08	Danger	H304	May be fatal if swallowed and enters airways.
Acute aquatic hazard	Acute 1	Aquatic Acute 1	 GHS09	Warning	H400	Very toxic to aquatic life.
Long-term aquatic hazard	Chronic 1	Aquatic Chronic 1		Warning	H410	Very toxic to aquatic life with long lasting effects.
	Chronic 2	Aquatic Chronic 2		No signal word	H411	Toxic to aquatic life with long lasting effects.
	Chronic 3	Aquatic Chronic 3	No pictogram	No signal word	H412	Harmful to aquatic life with long lasting effects.
	Chronic 4	Aquatic Chronic 3			H413	May cause long lasting harmful effects to aquatic life.
Hazardous for the ozone layer	Category 1	Ozone 1	 GHS07	Warning	H420	Harms public health and the environment by destroying ozone in the upper atmosphere.

Chemical resistance of plastics

Chemicals at 20 °C	MF	ETFE	PA	PC	HDPE	LDPE	PMMA	POM	PP	PS	PTFE/ FEP	PVC	SAN	PMP	PVDF
Acetaldehyde		❍	❍	–	❍	❍	–	❍	–	–	●	–	–	❍	–
Acetic Acid, glacial	❍	❍	–	–	❍	❍	–	–	❍		●			❍	❍
Acetone	●	❍	●	–	●	❍	–	●	●	–	●	–	–	❍	–
Acetonitrile		●	●	–	●	●	–	❍	–	–	●	–		–	❍
Acetylene (Ethine)		●	●	●	●	●		●	●		●		–		●
Aluminum Chloride, saturated			–	❍	●	●	●	–	●		●	❍	●		●
Ammonia, pure		●		–	●	●	❍		●	❍	●		❍	❍	–
Ammonium Chloride, solid	●		●	●	●	●	●	❍	●		●				●
Aqua Regia	–	●	–	–	–	–		–	–	–	●	–	–	❍	–
Ascorbic Acid, water solution		●	❍	❍	●	●		❍	●		●				●
Benzaldehyde		❍	–	–	❍	❍	–	●	❍	–	●	–	❍	●	❍
Benzine	●	●	●	❍	❍	–	❍	●	–	–	●	❍	–	❍	●
Benzoic Acid, saturated		●	–	–	●	●	●	❍	❍	❍	●	●	●	●	●
Benzol	●	●	❍	–	–	–	–	❍	–	–	●	–	–	❍	●
Calcium Chloride, water solution		●	●	●	●	●	●	❍	●	●	●	●	●	●	●
Carbon Tetrachloride (TETRA)	●	●	–	–	–	–		❍	–	–	●	–	–	–	❍
Chlorine 97 %			–	–	–	–	❍	–	–	–	●	–	–	–	●
Chlorine, water solution		●	–	–	❍	–	❍	–	–	–	●	❍	❍	–	●
Chlorobenzene		●	–	–	–	–	–	●	–	–	●	–	–	–	●
Chloroform (Trichloromethane)	●	❍	–	–	–	–	–	–	–	–	●	–	–	–	❍
Copper(II) Chloride, saturated			–	●	❍	●		❍	❍		●	●		●	❍
Cyclohexane	●	●	●	❍	–	–	❍	●	–	–	●	❍	❍	–	●
Decahydronaphtalene		●	●	–	❍	–	–	●	–	–	●	❍	–	–	❍
Dichloromethane (Methylene Chloride)		❍	–	–	–	–		❍	–	–	●	–	–	–	❍
Diethyl Ether		●	●	–	–	–	–	●	–	–	●	–	–	–	❍
Dimethyl Formamide (DMF)		❍	●	–	●	❍		●	●	–	●	–	–	●	–
Dimethyl Phtalate (DMP)			❍	–	–	❍		❍	❍	–	●	–	–		❍
Dimethylsulfoxide (DMSO)		●	❍	–	●	●		●	●	●	●	–		●	–
1,4-Dioxane		●	●	–	❍	❍	–	●	❍	–	●	–	–	❍	–
Ethanol 96 %	●	●	●	❍	●	●	–	●	●	–	●	❍	❍	●	●
Ethyl Acetate	●	●	●	–	❍	–		●	❍	–	●	–	–	–	–
Ethylene Chloride		●	–	–	❍	❍		●	–	–	●	–	–	–	●
Ethylene Glycol	●	●	❍	❍	●	●	❍	●	●	●	●	❍	●	●	●
Ethylenediaminetetraacetic Acid (EDTA)		●	❍	❍	●	●		●	●		●				●
Fluorinated Alcanes (FKW)		●	❍	❍		–		❍	❍	–	●				–
Fluorine		❍	–	–	–	–		–	–	–	❍	❍	–	–	❍
Formaldehyde 40 %		●	❍	●	●	❍	●	●	●	–	●	❍	–	●	●
Formic Acid 98 %	●	●	–	–	●	●	–	–	❍	–	●	❍	–	❍	❍
Glycerine	●	●	●	❍	●	●	●	●	●	●	●	❍	●	●	●
Haloalkanes (FCKW)			❍	❍				●	❍	–	●				❍
n-Heptane		●	●	●	❍	–	●	●	❍	–	●		●	❍	●
n-Hexane		●	●	❍	❍	–		●	❍	–	●		●	–	●
Hydrobromic Acid 50 %		●	–	–	●	●		–	●	–	●	❍		–	❍
Hydrochloric Acid, concentrated	–	●	–	–	●	●		–	●	❍	●	❍	❍	●	●
Hydrofluoric Acid, concentrated	–		–	–				–	❍		●				●
Hydrogen Chloride, gasious			–	–	●			–	●		●	❍			●
Hydrogen Peroxide 90 %	–	●	–	●	●	●	–	–	●	●	●	❍		●	–
Mercury		●	●	●	●	●		●	●	●	●	❍	●	●	●
Methanol		●	❍	–	●	●	–	●	●	–	●	❍	–	●	●
Methyl Ethyl Ketone (MEK)		❍	●	–	❍	–	–	●	❍	–	●	–	–	–	–
Methyl Methacrylate			❍	–				❍	❍	–	●	–		–	❍
Oleum (fuming Sulfuric Acid)			–	–	–	–	–	–	–	–	●	–		–	–
Oxalic Acid		●	–	●	●	●	●	–	●	●	●	●	●	●	❍
Oxygen			❍	●	❍	❍		●	❍	●	●	●			●
Perchloric Acid 70 %		●	–	–	❍	–		–	–	❍	●	–		❍	❍
Petroleum Ether			●	–	❍	❍		●	❍	–	●	❍	❍	●	❍
Phenol		●	–	–	❍	❍	–	–	●	–	●	–	–	●	●
Phosphoric Acid 85 %	–	●	–	●	●	●	❍	–	●	●	●	●	●	●	●
Phosphoryl Chloride			–	–	❍	❍		–	❍		●	–			–
Potassium Hydroxide, concentrated	–	●	●	–	●	●	●	❍	●	❍	●	●	❍	●	–
Potassium Permanganate		●	–	●	❍	●	❍	●	●	❍	●	❍	❍	●	●
Pyridine		●	●	–	❍	❍		●	❍	–	●	–	–	❍	–
Salicylic Acid, saturated		●	●	●	●	●		–	●	●	●	❍	●	●	●
Silver Nitrate, water solution			●	●	●			●	●		●				●
Sodium Hydroxide, concentrated	–		❍	–	●	●	●		●		●				–
Sodium Thiosulfate		●	●		●	●		●	●		●		●		●
Sulfuric Acid 95 %		●	–	–	–	–	–	–	–	–	●	❍	–	❍	●
Tetrahydrofuran (THF)	●	❍	●	–	–	–	–	●	–	–	●	–	–	–	–
Thionyl Chloride		●	–	–	–	–		❍	–	–	●	–	–	–	–
Tincture of Iodine		●	–	–	❍	❍	–	●	●	❍	●	–	❍	●	●
Toluene		●	●	–	❍	❍	–	–	❍	–	●	–	–	❍	●
Trichloroacetic Acid (TCA)			–	–	❍	–		–	●	–	●	–			❍
Trichloroethylene (TRI)		●	–	–	–	–		–	–	–	●	–	–	–	●
Urea	●	●	●	●	●	●	●	●	●	●	●	❍	●	●	●
Xylene		●	●	–	–	–	–	●	–	–	●	–	–	–	●

● resistent
❍ conditionally resistent
– not resistent

All values given in this table refer to plastic raw material and can only be regarded as guidelines. As the chemical resistance may vary with different conditions of manufacturing or environmental influences, suitability tests by the user are highly recommanded.
No legal claims can be derived from this information; nor do we accept any liability for it.



General Information & Index

Sales and delivery terms and conditions 300

Impressum. 302

Terms and Conditions of Sale and Delivery

These Terms and Conditions of Sale and Delivery also apply for all future deliveries.

1. Validity for future business transactions – Validity of contrary General Terms and Conditions – Validity for companies only

1.1. Our Terms and Conditions of Sale and Delivery apply exclusively. They shall also apply to all future deliveries, even when no special reference is made thereto. We do not accept any contrary terms and conditions or those terms and conditions of the customer which differ from our Terms and Conditions of Delivery, even if the contract is performed unconditionally, unless we have expressly agreed to the validity thereof in writing or in text form.
1.2. Our Terms and Conditions of Sale shall only apply to entrepreneurs (Section 14 German Civil Code [BGB]), legal persons governed by public law or a separate legal entity under public law.

2. Quotes, formation of contract, delivery item

2.1. Our quotes are subject to change and are non-binding unless they have been explicitly declared binding or include a specific period of acceptance.
2.2. The ordering of goods by the customer shall be deemed to be a binding contractual offer. Orders are only binding for us if we confirm them in writing or in text form within two weeks, or if we fulfil them within two weeks through shipment of the ordered goods.
2.3. The legal relationship between the customer and us shall be governed exclusively by the contract, which has been entered into in writing or in text form, including these general Terms and Conditions of Sale and Delivery. Verbal agreements made by us before the contract is formed are not legally binding and verbal understandings between the parties are superseded by the contract that is formed in writing or in text form, unless it is expressly stated therein that such agreements will continue to apply.
2.4. Amendments and modifications to the agreements made, including these general Terms and Conditions of Sale and Delivery, must be made in writing or in text form in order to be valid. With the exception of managing directors and holders of commercial powers of attorney, our employees are not authorised to make verbal agreements which are contrary to the cited provisions.
2.5. The information we provide on the item to be supplied (e.g. weights, dimensions, quantities and functional values), as well as our representations of the item to be supplied, are only approximations, unless use for the purpose intended by the contract requires full conformity and specific characteristics have been agreed. Unless identified as such, these are not guaranteed physical characteristics, rather descriptions or characterisations of the product. Deviations that are customary in the trade and deviations that are the result of legal provisions are permissible provided that they do not impair usability for the contractually agreed purpose. Refer below to Item 10 of these Terms and Conditions.

3. Prices, price adjustments, electronic invoicing

3.1. Our prices are quoted "ex works" from Karlsruhe plus packaging, tariffs where export shipments are concerned, statutory VAT, fees and other public duties.
3.2. We reserve the right to amend our listed prices upon which the contract is based accordingly if cost reductions or increases arise as a result of tariff agreements, or if the price of materials increases after the contract is concluded. These shall be verified to the customer upon request. A price adjustment shall not be effected in cases where delivery is made as contractually stipulated within four months of conclusion of the contract.
3.3. We provide an electronic invoice in compliance with data protection legislation. This presumes the formation of a separate agreement.

4. Payment terms and conditions, payment arrears

4.1. To avoid accounting errors and the resulting erroneous issue of dunning notices, we rely on receiving the correct invoice number, invoice date and individual invoiced amounts with incoming payments. This data can be found on all of our invoices. If the payer is not the same as the invoice recipient, the name stated on the relevant invoice must also be given when the payment is made. If we receive payments without this information, we cannot guarantee that payments will be assigned correctly.
4.2. The invoiced amounts become payable upon receipt of the goods. Unless otherwise specified in writing or in text form, they are payable within thirty days without any deduction. In the event that the date on which the invoice or an equivalent payment schedule was received is disputed, the customer is considered to be in default 30 days after receipt of the goods at the latest, according to Section 286(4) German Civil Code [BGB]. The date of receipt of payment is decisive. Otherwise, the statutory regulations on defaults of payment apply.
4.3. For payment within eight days from date of invoice, a 2% discount shall be granted. The precondition for any discount shall be the settlement of all other customer payables arising from the business relationship with us that are older than 30 days.
4.4. For new customers, we reserve the right to require that payment be made prior to delivery or by cash on delivery.

5. Off-setting, retention

The off-setting of counter-demands by the customer or the retention of payment due to such demands shall only be permissible if such demands are indisputable, or if their validity has been legally established.

6. Shipping, packaging, transfer of risk

6.1. The shipping method and the packaging shall be subject to our due discretion in compliance with the statutory provisions if no other agreement has been made.
6.2. The risk of accidental loss or incidental deterioration of the delivered goods is, at the latest, transferred to the customer upon handover of the goods to the forwarding agent, the carrier, or any other third party charged with the task of performing shipment (applicable from commencement of loading). This also applies in the case of partial deliveries, and with respect to each partial delivery.
6.3. The shipment is only insured against theft, breakage, transport, fire and water damage or other insurable risks at the express request of the customer and at the customer's expense.

7. Delivery time

7.1. The promised delivery periods and dates are only binding for us if we have confirmed them in writing or in text form. The delivery dates indicated on our website during the ordering process or in our catalogue do not constitute such confirmation. Compliance with our delivery obligation requires the timely and proper fulfilment of the customer's obligations. The delivery dates and deadlines refer to the time at which the goods are made available for handover upon collection by the forwarding agent, carrier, or other third party assigned to transport the goods.
7.2. We cannot be held liable should a delivery prove impossible or in the case of delays in delivery due to force majeure or other events that were unforeseeable on signing of the contract (e.g. fire, explosion, strikes, lawful lockout, complications in procuring materials or energy, war, unrest, epidemics or pandemics where a risk level of "moderate" or above has been defined by the Robert Koch Institute, government rejection or renunciation of import and export licences, shortage of raw materials and/or other products and/or constituent parts), and for which we are not accountable. We reserve the right to withdraw from the contract if such occurrences substantially complicate delivery or make delivery impossible, and if the disruption is not merely of a temporary nature. If the disruption is of a temporary nature, delivery times shall be extended to take account of the period of disruption and a reasonable start-up period. We shall notify the customer of the start and end of such circumstances as promptly as possible. If such a delay makes acceptance of delivery unreasonable for the customer, the customer shall be entitled to withdraw from the contract by issuing immediate notice in writing or in text form.
7.3. If we are in default of delivery or performance, or are unable to carry out delivery or performance, for any reason whatsoever, our liability is limited to the extent set out in Item 13 of these Terms and Conditions of Sale and Delivery.
7.4. We cannot be held liable for the impossibility of, or delay in, performance of delivery obligations if, and to the extent that, such an impossibility or delay arises from circumstances caused by the customer, in particular if the customer fails to comply with public law obligations in connection with the European Regulations on Chemical Substances (REACH) or with other mandatory provisions.

8. Partial deliveries

8.1. In the absence of any special agreement, we may provide partial deliveries if
– the partial delivery can be used by the customer in the context of the contractually agreed intended use,
– delivery of the remaining goods is ensured and
– this causes no extensive additional effort or additional costs to the customer.
8.2. A partial delivery made under these conditions is considered a complete delivery with regard to the agreed delivery date.

9. Default of acceptance

Should the customer be in default of acceptance or culpably in breach of other duties to cooperate, we shall be entitled to charge for the resulting damages, including any additional costs incurred. In this case, the risk of accidental loss or incidental deterioration of the purchased goods also passes over to the customer at such time as the customer falls into default of acceptance, provided that our delivery obligation has already been met with regard to the goods to be delivered.

10. Intended use of the goods, obligations of the customer, liability

10.1. If we have made a pledge for certain products to effect delivery contingent upon their intended use, the customer shall be liable for any and all disadvantages which we may suffer as a result of incorrect statements made. In the case of toxins and other substances which may only be used within the scope of legal or official provisions, the customer's order shall also serve as a statement that these substances shall be used for a purpose permissible under the foregoing terms and conditions. The customer shall observe all the applicable statutory provisions when handling or using the substances, mixtures and products supplied by us. Private persons cannot be supplied with chemicals.
10.2. Information given concerning the usability of goods does not constitute any assurance or guarantee of suitability for such use. Relevant identified uses according to Regulation (EC) No. 1907/2006 (REACH Regulation) in the applicable version do not represent a contractual guarantee of any characteristic nor a use stipulated in the contract.
10.3. Our products shall be checked by the user with respect to their specific suitability, particularly prior to use for medical purposes, food and beverage processing, plant cultivation and similar applications. This applies in particular to natural substances, which are always subject to slight variation in content. We therefore cannot assume any liability for any such use.
10.4. Where a product comes with specific conditions for use provided by us or the manufacturer, e.g. as per the product datasheet, these must be complied with. We expressly accept no liability for any use to the contrary. Product datasheets are available via our homepage or can be requested from us directly.
10.5. Insofar as we provide the customer with advice – be this verbally, in writing or as a result of tests – such advice is provided to the best of our knowledge but without liability on our part, and does not release the customer from the obligation to check the delivered goods with respect to their suitability for the intended processes and purposes. The application, use and processing of goods is carried out beyond the scope of our control and is therefore the sole responsibility of the customer.

11. REACH clause

If the customer notifies us of a use according to Article 37.2 of the Regulation (EC) No.1907/2006 dated 5th August 2021 (Regulation (EC) No. 2021/1297) of the European Parliament and the Council for the Registration, Evaluation, Approval and Control of chemical substances (REACH Regulation) which requires updating of the registration or the chemical safety report or results in another obligation according to the REACH Regulation, the customer shall reimburse us all expenses for which evidence is provided. Art. 53 of the REACH Regulation remains unaffected. We shall not be liable for delays in delivery caused by the notification of this form of use and performance of the applicable obligations as stipulated by the REACH Regulation. If, for reasons of health and safety or environmental protection, or due to other mandatory provisions, we are unable to consider this use an identified use and should the customer, against our advice, intend to use the goods in the manner which we have advised against, we shall be entitled to withdraw from the contract.

12. Claims for defects, compensation

12.1. Claims for defects are subject to the prerequisite that the customer has properly performed their duties to examine and give notice of defects according to Section 377 German Commercial Code [HGB].
12.2. Rejected goods must no longer be used without our explicit prior written consent. Where notification of defects is justified, we undertake to bear the costs of all expenses required for rectification of the defects, in particular transportation, travel, labour and material costs. This shall not apply insofar as the expenses increase as a result of the delivery item being subsequently delivered to a location that differs from the one specified in the contract. The buyer's rights according to Section 439(3) German Civil Code [BGB] shall not be restricted as a result.
12.3. Insofar as we are liable for a defect in goods purchased from us, we are entitled to correct the defect or replace the relevant product at our discretion and within a reasonable period of time. The place of subsequent performance is our registered office (Karlsruhe, Germany). If this subsequent performance or replacement delivery fails, i.e. if it is impossible, unreasonable, rejected or unreasonably delayed, the customer shall be entitled to withdraw from the contract or to reduce the purchase price by a reasonable amount, where statutory requirements are present.
12.4. If a defect is attributable to us, the customer is entitled to claim for compensation exclusively according to the following provisions.
12.5. In the case that an essential contractual obligation is culpably breached (a material obligation), where statutory requirements are present, we shall be liable for compensation, but only limited to the foreseeable damages typically incurred, unless otherwise specified below. Material obligations are those which must be fulfilled as part of the proper execution of the contract in the first instance, the fulfilment of which the buyer may rely on and which if breached would jeopardise the achievement of the purpose of the contract.
12.6. The customer is entitled to assert claims for compensation against us, without restriction, according to the statutory provisions and at the statutory rate, if these are attributable to us, one of our legal representatives or vicarious agents and are based on
– a culpable loss of life, physical injury or damage to health, or
– an intentional or grossly negligent breach of duty, or
– the German Product Liability Act [Produkthaftungsgesetz], or
– a breach of a duty arising from an assumption of procurement risk or warranty.
12.7. Any further claims to compensation against us, our legal representatives or vicarious agents are excluded, regardless of their legal basis.
12.8. Section 478 German Civil Code [BGB] remains unaffected by the above provisions.
12.9. The bases of claims relating to data protection law are not covered by this limitations of liability clause.

13. Limitation period

13.1. Claims on the part of the buyer concerning material defects shall become time-barred after one year, unless
a) the goods supplied by us include an item which has been used for a building in accordance with its normal use and has caused a defect in the latter, or
b) the defect was maliciously concealed or is based on an intentional breach of duty by us or our legal representatives or vicarious agents, or
c) they relate to a culpable loss of life, physical injury or damage to health, or
d) they relate to claims based on a warranty or procurement risk assumed by us, or
e) they relate to claims to compensation (with the limitation of Item 13.2.).
The statutory limitation period applies in the cases above.
13.2. Claims to compensation which are based on refused subsequent performance are subject to a shortened limitation period of one year if subsequent performance has not been requested within the period shortened to a year for claims concerning material defects.
13.3. The statutory limitation periods also apply in the event of claims according to Section 445a German Civil Code [BGB] if the last contract in the supply chain is a consumer goods contract in the meaning of Section 474 German Civil Code [BGB].

14. Withdrawal by the customer

If the purchased item is defective, the legal right of the purchaser to withdraw from the contract shall not be subject to our culpability. In all other cases, the customer shall only be entitled to withdraw in the event that we are in breach of obligations for which we are accountable.

15. Return of defect-free goods

Insofar as we accept the return of defect-free goods, this shall only apply to new goods in original packaging. We are entitled to charge the customer any third-party costs which we incur as a result of the return up to 25% of the list price of the goods.

16. Consequences of deterioration in the financial circumstances of the customer

16.1. In the case of payment arrears and justified doubts concerning the solvency or creditworthiness of the customer, we are – irrespective of our other rights – authorised to request guarantees or advance payments for outstanding deliveries and set all claims arising from the business relationship to payable immediately.
16.2. We may withdraw from the contract in the event that we become aware of the suspension of payments, the opening of insolvency or judicial settlement proceedings, the refusal of insolvency due to lack of assets, bill protests or cheque protests or any other tangible indications that the financial circumstances of the customer have deteriorated.

17. Retention of title

17.1. The retention of title agreed to hereinafter serves to safeguard all existing and future claims that we may have against the customer as a result of the supply relationship between the two parties.
17.2. We, the seller, shall retain the right to ownership of the goods delivered to the customer until full payment has been made for all secured receivables. The goods and any goods taking their place and subject to retention of title under the following provisions shall hereinafter be referred to as "Reserved Goods".
17.3. The customer shall ensure the safekeeping of the Reserved Goods on our behalf at no charge.
17.4. The customer shall be entitled to process and resell the Reserved Goods in normal business transactions until such time as a claim is made against them. It is not permitted to pledge Reserved Goods or to use Reserved Goods as collateral.
17.5. If the Reserved Goods are processed by the customer, it is agreed that they will be processed in our name and for our account and that we will acquire direct title to them or – if they are processed together with items from more than one owner or the value of the processed item is greater than the value of the Reserved Goods – we will acquire (partial) joint ownership of the newly-created item. In the event that we do not acquire such title to goods, the customer shall herewith transfer future ownership or, to the extent specified above, joint ownership of the newly-created item to us as a security. If the Reserved Goods are compounded or inseparably combined with other items to form a single item and if one of the other items is considered the main item, then, insofar as the main item belongs to us, we shall transfer the co-ownership of the single item proportionally to the customer in the ratio stated in sentence 1.
17.6. In the event of the resale of Reserved Goods, the customer shall, by way of a security, herewith transfer to us the resulting accounts receivable from the buyer or our pro rata share in the case of joint ownership. The same shall apply to any other claims that take the place of Reserved Goods or otherwise accrue with respect to Reserved Goods, such as insurance claims or claims arising from unauthorised actions in case of loss or irreparable damage. We hereby authorise the customer on a revocable basis to collect receivables assigned to us on its own behalf. We shall only be entitled to revoke this authorisation for collection in the event that a claim is made.
17.7. In the event that third parties lay claim to the Reserved Goods, particularly through seizure, the customer shall without delay inform them of our ownership and notify us in writing, so that we can take action to enable assertion of our ownership rights. Unless the third party is in a position to reimburse us for legal expenses and out-of-court settlement costs, the customer shall be liable for our loss.
17.8. We undertake to release the Reserved Goods as well as any goods or claims superseding the Reserved Goods should their value exceed the amount of the secured receivables by more than 50%. The selection of the securities subsequently to be released shall be incumbent upon us.
17.9. Should we withdraw from a contract due to a breach of contract on behalf of the customer, particularly with regard to delayed payment (enforcement event), then we shall be entitled to demand that the Reserved Goods be returned.

18. Export control clause

18.1. When transferring our goods or services performed by us to third parties, the customer undertakes to observe and comply with the relevant applicable national and international legal regulations with regard to export control. This includes, but is not limited to, compliance with legal regulations governing export control in the European Union, the United States of America and the Federal Republic of Germany.
18.2. Prior to transferring our goods or services performed by us to third parties, the customer undertakes to ensure by means of suitable checks and measures that such transfer or provision does not constitute a violation of embargo regulations, including but not limited to those applicable in the European Union and the United States of America, also taking into account any anti-circumvention provisions.
18.3. The customer also undertakes to observe the provisions of European and US sanctions lists with regards to any business activities with organisations, individuals and companies listed therein. The customer also undertakes to guarantee that the use or transfer of our goods and services does not serve any military or arms-related purposes that are prohibited or require authorisation, unless the necessary authorisations have been granted.
18.4. If deemed necessary as a result of any checks, the customer is obligated, upon request and without delay, to provide us with all information regarding the end use, end recipient and intended use of our supplied goods and services.
18.5. The customer shall fully indemnify us against all claims asserted by the recipient as a result of the failure to comply with the above legal obligations regarding export control and undertakes to compensate us for the losses and expenses arising from such claims.

19. Information on brands and other industrial property rights

The goods we supply may be subject to intellectual property rights such as brands, utility models or other industrial property rights. Please contact the relevant manufacturer or owner for information on brands and other industrial property rights. We are happy to help you in this process.

20. Use of customer data, data protection

On this subject, we refer to our following data protection notice and to our Privacy Policy Statement, which you can access on our website at
https://www.carlroth.com/en/en/Datenschutzerklaerung

21. Place of performance, place of jurisdiction, choice of law

21.1. Unless specified otherwise in the order confirmation, the place of performance for all obligations arising from the contractual relationship is Karlsruhe, Germany.
21.2. The exclusive place of jurisdiction for all disputes arising from the contract is, if the customer is a merchant, a legal person governed by public law or a separate legal entity under public law, the competent court for our head office. However, we are also entitled to bring action against the customer in their domicile court. Peremptory legal provisions concerning the exclusive place of jurisdiction for disputes shall not be affected by this provision.
21.3. The laws of the Federal Republic of Germany exclusively govern the relationship between us and our customer. The United Nations Convention of 11th April 1980 on the International Sale of Goods (CISG) does not apply.

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Distributors abroad



CARL ROTH GmbH + Co. KG
Schoemperlenstr. 3-5
76185 Karlsruhe
Phone +49 721 5606-0
info@carlroth.de
www.carlroth.de



CARL ROTH GmbH + Co. KG
Vlaanderen: Phone +32 3 2110831
Wallonie: Phone +32 80 447958
info@carlroth.be
www.carlroth.be



CARL ROTH GmbH + Co. KG
Phone +31 180 516704
Fax +49 721 5606-260
info@carlroth.nl
www.carlroth.nl



ROTH SOCHIEL E.U.R.L.
3, rue de la Chapelle
F-67630 Lauterbourg
Phone +33 3 88948242
info@carlroth.fr
www.carlroth.fr



LACTAN®
Vertriebsges. m.b.H. + Co. KG
Puchstr. 85, A-8020 Graz
Phone +43 316 323692-0
info@lactan.at
www.lactan.at



ROTH AG
Fabrikmattenweg 12
CH-4144 Arlesheim
Phone +41 61 7121160
info@carlroth.ch
www.carlroth.ch



P-LAB A. S.
Laboratory Instruments
U Pekáren 1645/1, 10200 Praha 10
Phone +420 271 730800
info@p-lab.cz
www.p-lab.cz



LINEGAL CHEMICALS Sp.z o.o.
Ul. Warszawska 35E
05-082 Blizne Łaszczyńskiego
Phone +48 22 6317281
info@linegal.pl
www.linegal.pl



SEMIKEM d.o.o.
Omladinska 44
BIH - 71320 Vogosca-Sarajevo
Phone +387 33 722900
info@semikem.ba
www.semikem.com.ba



Frisenette ApS
Energivej 134, 8420 Knebel
Denmark
Phone +45 86 34 22 44

Denmark:
roth@frisenette.dk
www.frisenette.dk



Sweden:
roth@frisenette.dk
www.frisenette.dk



AKROM-EX INC.
Vee 2, Märja, EE-61406, Tartumaa
Phone +372 5520624
a-inf@akrom.ee
www.akrom.ee



QUIMIVITA PRODUCTS, S.L
Calle Balmes 245, 6-4 Planta
E-08006 Barcelona
Phone +34 932 380094
adoblado@quimivita.com
www.quimivita.es



Tampereen PENLI OY
Keskuojankatu 13
33900 Tampere, Finland
Phone +358 3 3486607
asiakaspalvelu@penli.fi
www.penli.fi



Geolabinstruments Ltd.
Vaja-Pshavela Ave, Block VII, 13, 30
GE-0186 Tbilisi
Phone +995 323 00866
info@geolab.ge
www.geolab.ge



Aegis-Advanced Healthcare Solutions
43, Koritsas str./Agios Dimitrios
GR-17342 Athens
Phone +30 211 012 7870
info@aegishealth.gr
www.aegishealth.gr



Koncept media d.o.o.
Ante Mike Tripala 1, 3rd floor
HR-10090 Zagreb
Phone +385 1 6547954
koncept@konceptmedia.hr
www.konceptmedia.hr



RK TECH Kft.
Köszál u. 6., H-1163 Budapest
Phone +36 1 4020721
rktech@rktech.hu
www.rktech.hu



Astech Ireland Ltd.
Unit 47, Southern Cross
Bus. Park, Bray, Co. Wicklow
Phone +353 0404 25070
info@astechireland.ie
www.astechireland.ie



PRODOTTI GIANNI S.r.l.
Via Quintiliano, 30, I-20138 Milano
Phone +39 02 5097200
ricerca.assistenza@
prodottigianni.com
www.ricerca.it



LAR-L SIA
Biekensalas str. 21
LV-1004 Riga
Phone +371 67 622230
info@lar-l.lv
www.lar-l.lv



GRIDA
Molétu g. 16, Didzioji Riesé
LT-14260 Vilnius
Phone +370 5 2469435
labor@grida.lt
www.grida.lt



INTER-HEM DOOEL
Bulevar Partizanski Obredi br. 64
1000 Skopje
Phone +389 (0) 2 3063 158
info@interhem.com.mk
www.interhem.com.mk



CHIRON AS
Stiklestadveien 1
N-7041 Trondheim
Phone +47 73 874490
salg@chiron.no
www.chiron.no



betaLab Lda.
Rua Sérgio Soares, 12-A Pendao
P-2745-051 Queluz
Phone +351 21 4358437
geral@betalab.pt



UNI-CHEM d.o.o. Beograd
Crnotravska 27
11000 Beograd
Phone +381 11 785 72 70
info@uni-chem.rs
www.uni-chem.rs



MIKRO + POLO d.o.o.
Zagrebska cesta 22
SI-2000 Maribor
Phone +386 2 6143300
info@mikro-polo.si
www.mikro-polo.si



Oasis-lab s.r.o.
Ignaca Gesaja 36
SK 90028 Zalesie, Bratislava
Phone +421 905 605 891
oasis@oasis-lab.sk
www.oasis-lab.sk



INTROGEN KIMYA LTD. STI.
Ata Is Merkezi 228
Sokak No. 14 Kat. 3
TR-34524 Yakuplu
Beylikdüzü - ISTANBUL
Phone +90 212 8751112
info@introgen.com.tr
www.introgen.com.tr

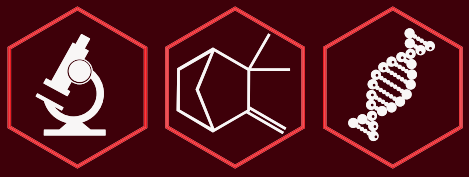


Chemlaborreaktiv LLC
Schelkovskaya 8
Brovary city (Kiev region)
07400 UA
Phone +380 44 494 42 42
mashkara@hlr.ua
www.hlr.com.ua

Techmate Ltd.
10 Bridgeturn Avenue, Old
Wolverton
UK-MK12 5QL Milton Keynes
Phone +44 1908 322222
sales@techmate.co.uk
www.techmate.co.uk

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